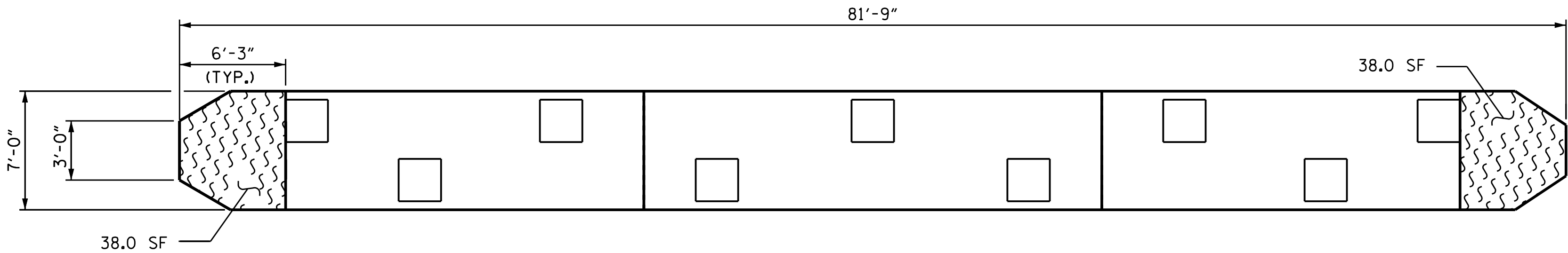
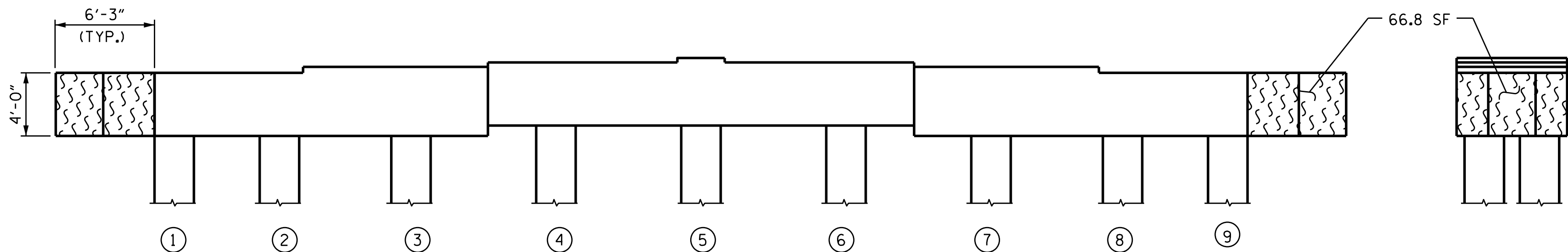


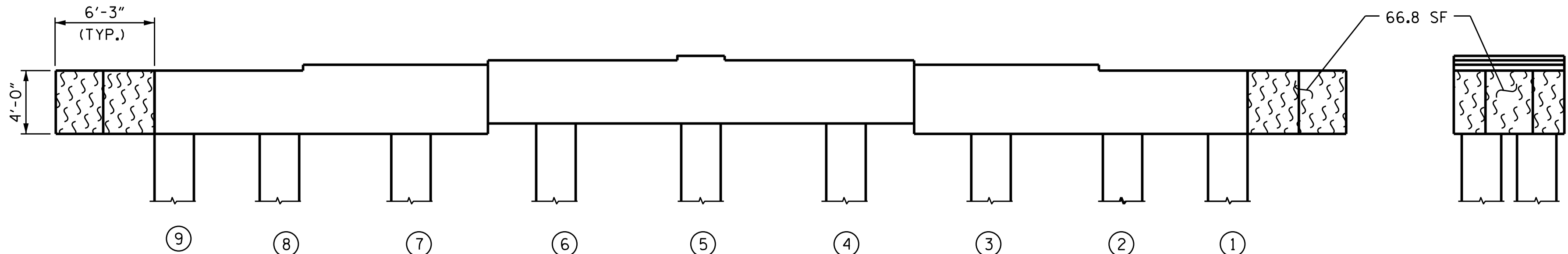
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 45  
SPAN 44

SPAN 44  
SPAN 45

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 44	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

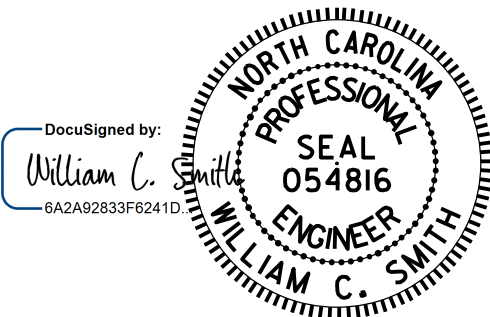
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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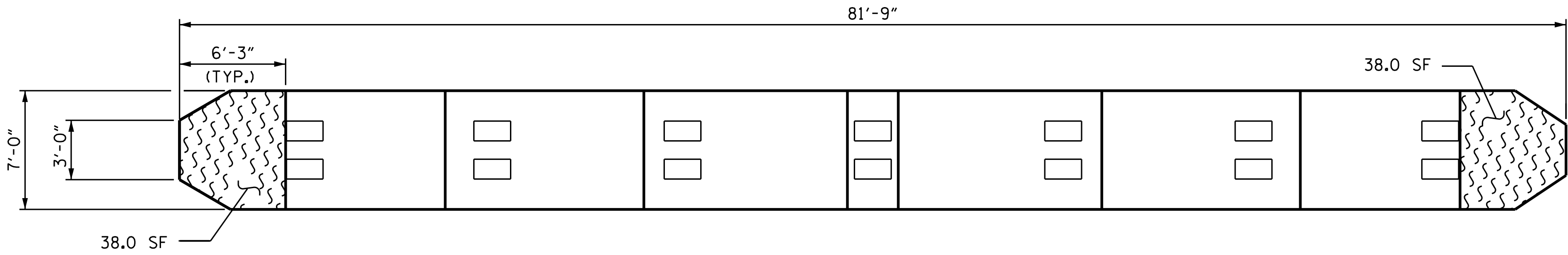


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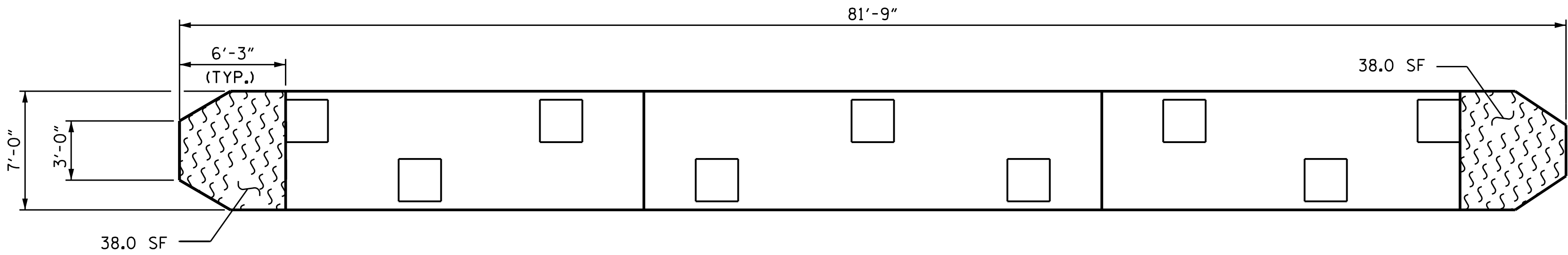
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/09/24

DOCUMENT NOT CONSIDERED  
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SIGNATURES COMPLETED

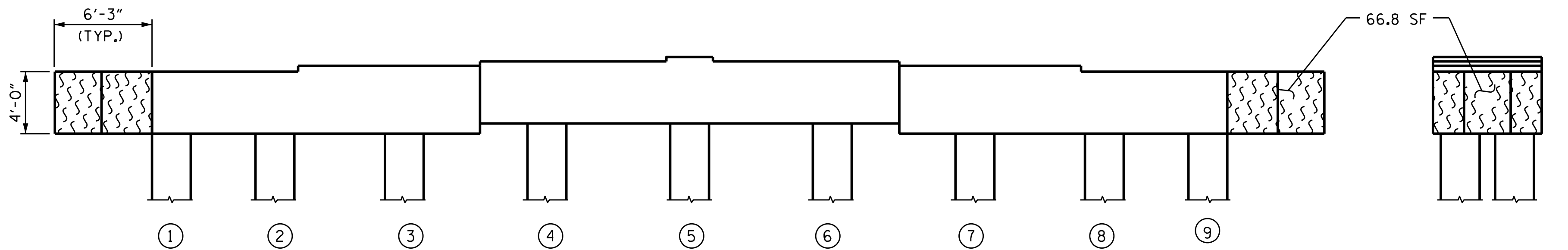
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-112
1			3			TOTAL SHEETS
2			4			217



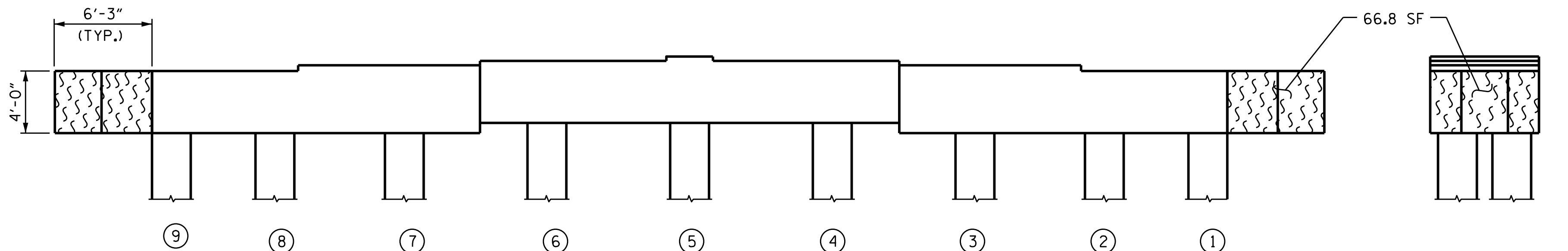
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 46  
SPAN 45

SPAN 45  
SPAN 46

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 45	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

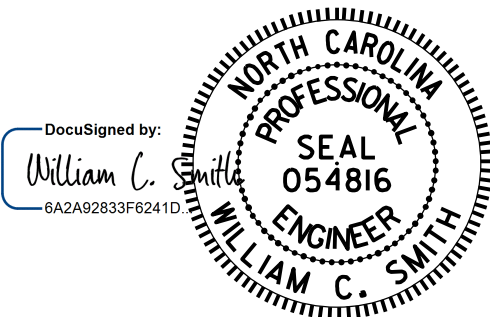
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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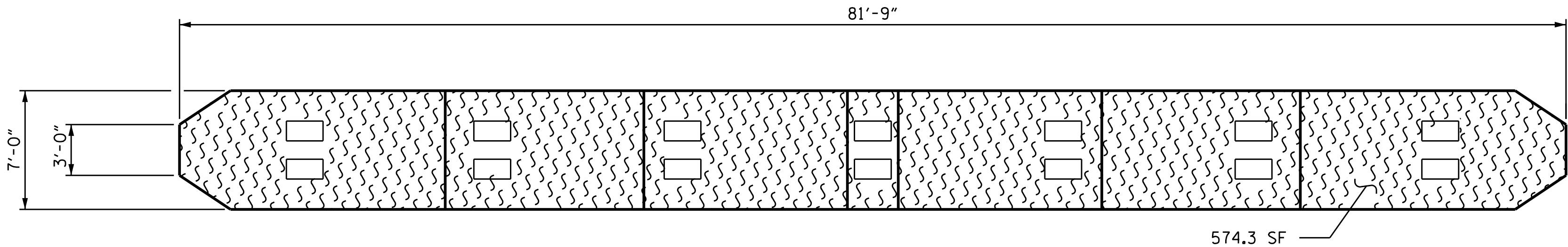
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DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/09/24

11/21/2025

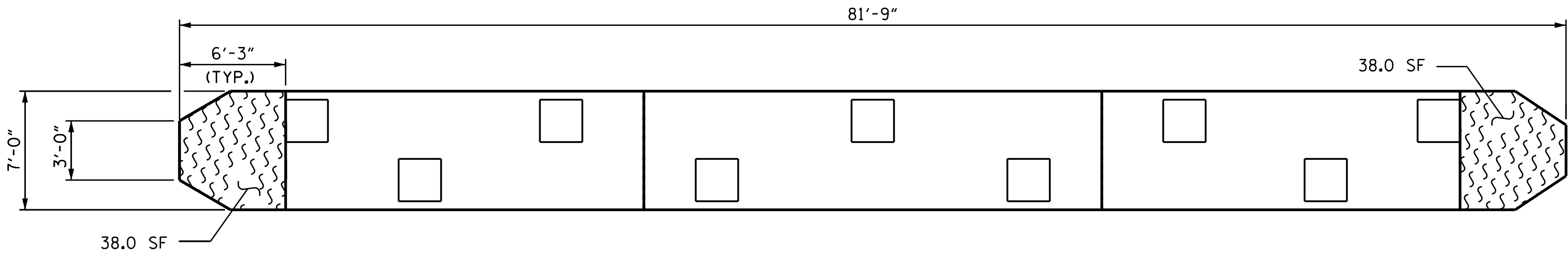
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-113
1			3			TOTAL SHEETS
2			4			217



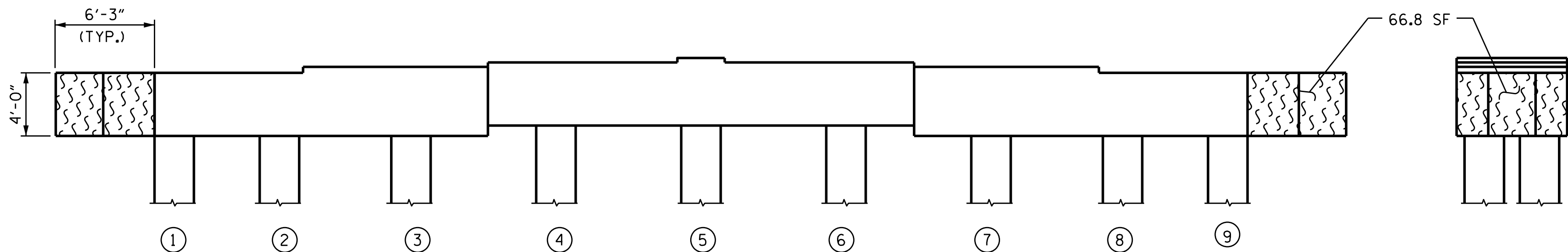
SPAN 47  
SPAN 46

TOP VIEW OF CAP



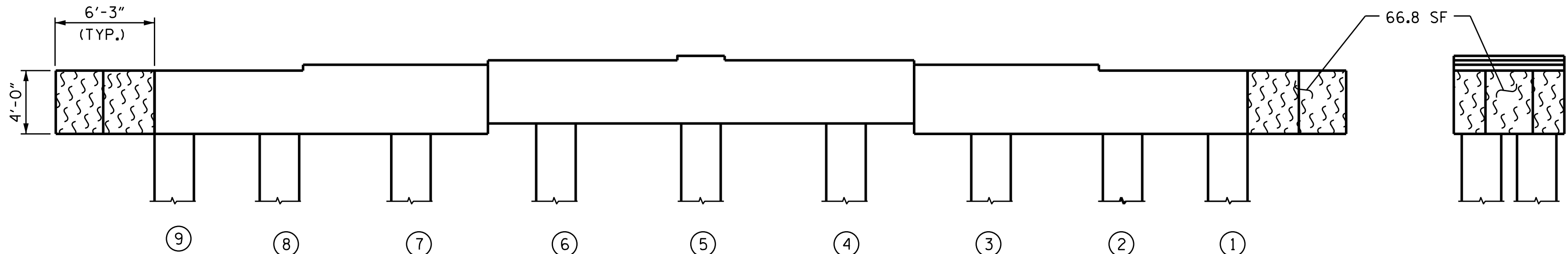
SPAN 46  
SPAN 47

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 46	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

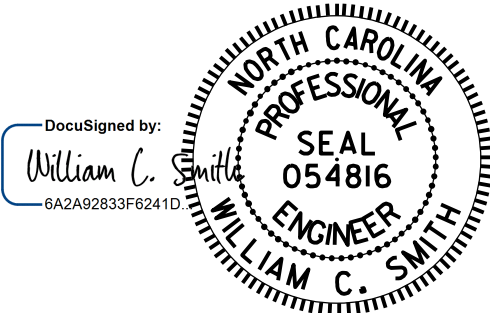
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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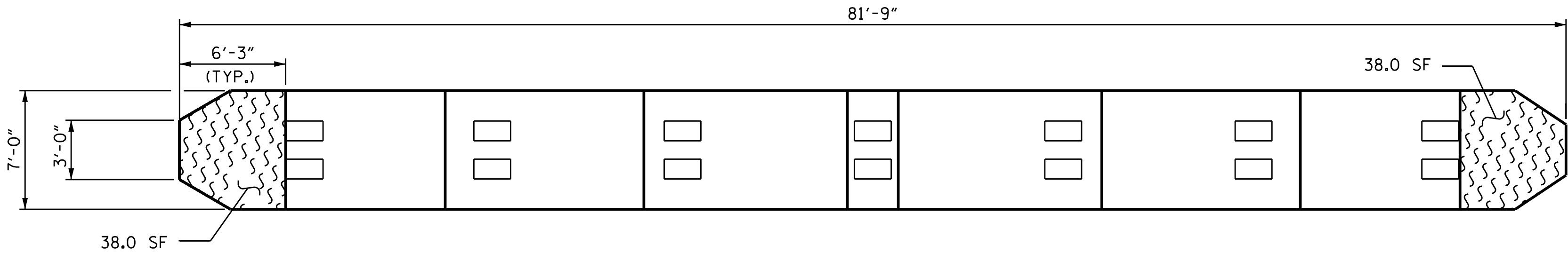
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CHECKED BY : W. C. SMITH DATE : 7/09/24

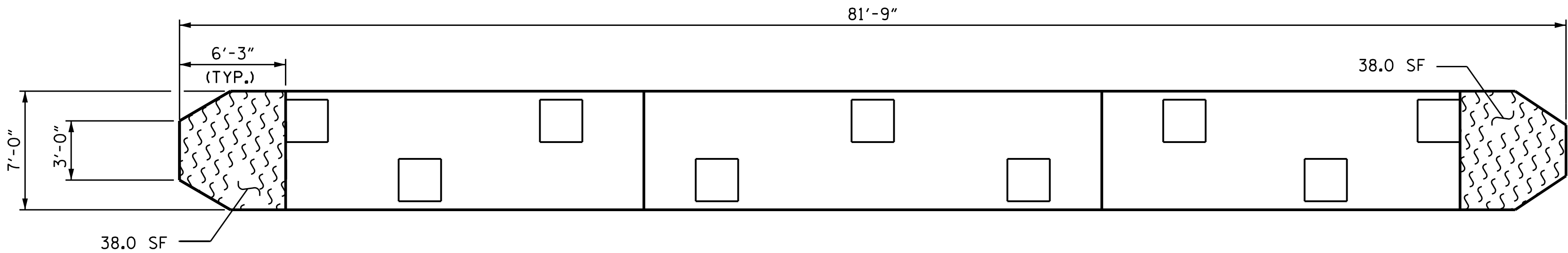
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-114
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2			4			217

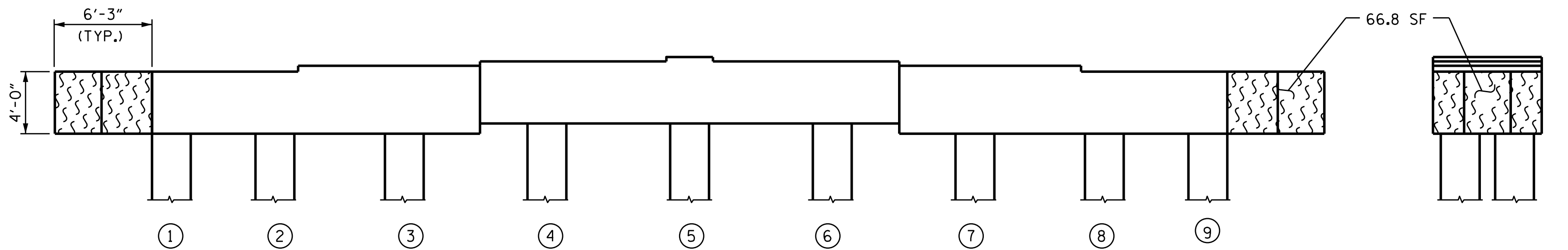




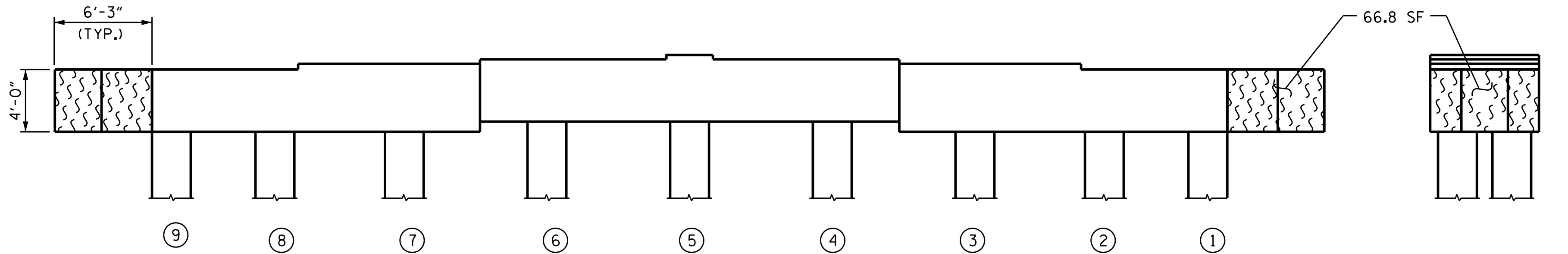
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 48  
SPAN 47

SPAN 47  
SPAN 48

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 47	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

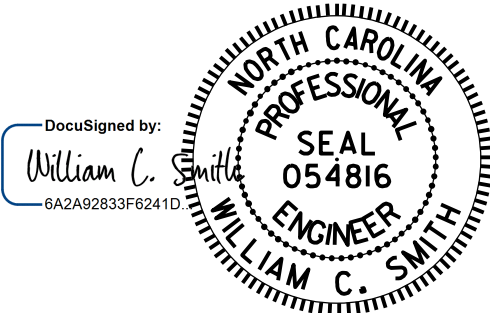
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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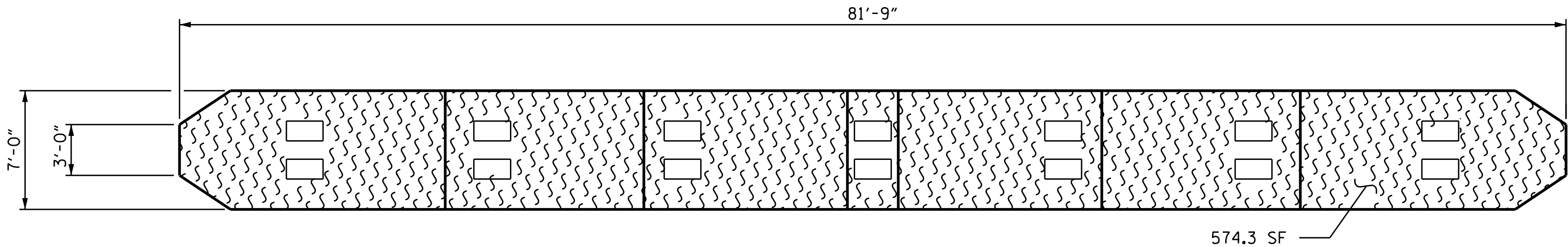
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CHECKED BY : W. C. SMITH DATE : 7/09/24

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FINAL UNLESS ALL  
SIGNATURES COMPLETED

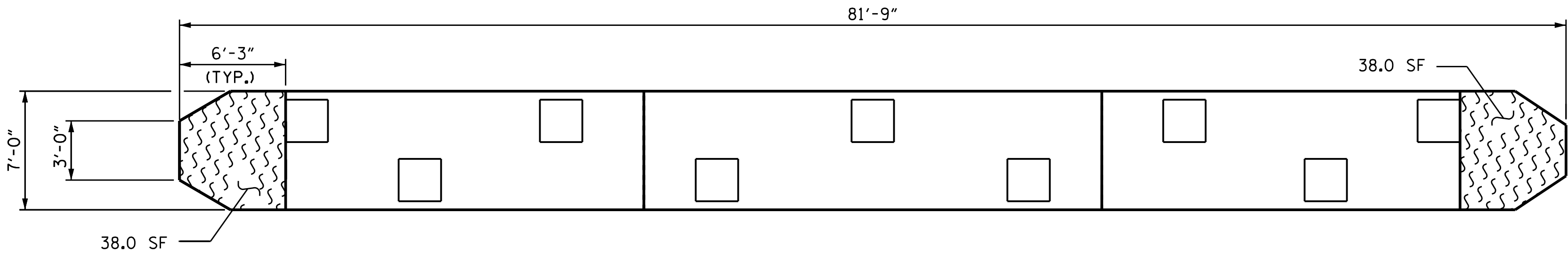
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-115
2			4			TOTAL SHEETS 217





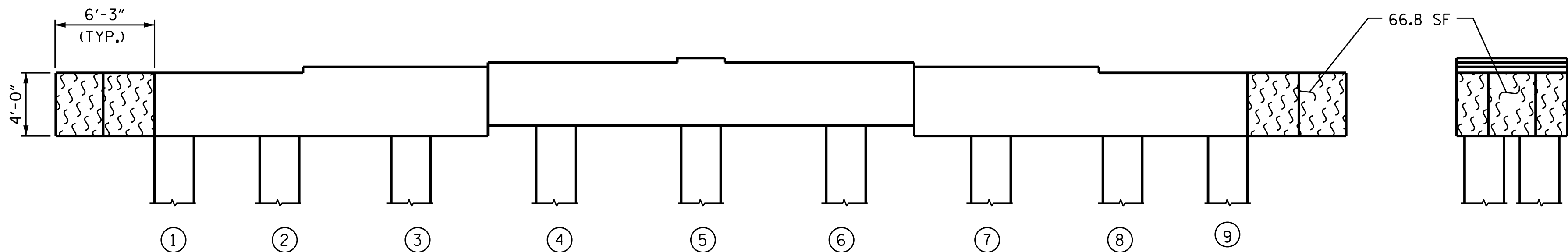
SPAN 49  
SPAN 48

TOP VIEW OF CAP



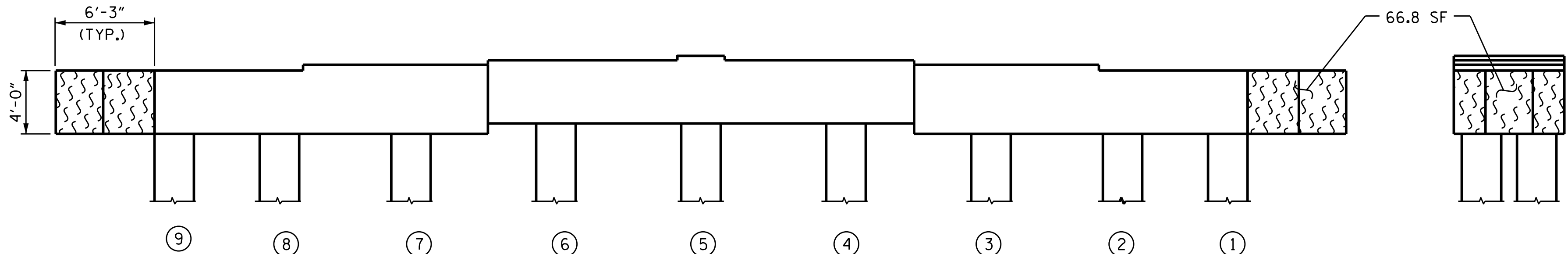
SPAN 48  
SPAN 49

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 48	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

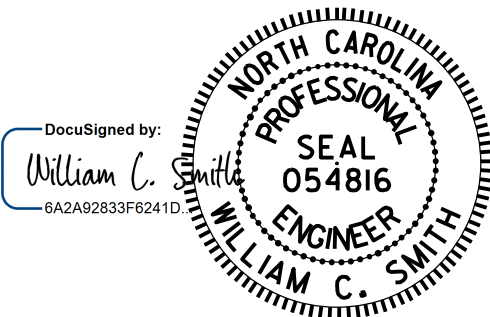
NOTES:

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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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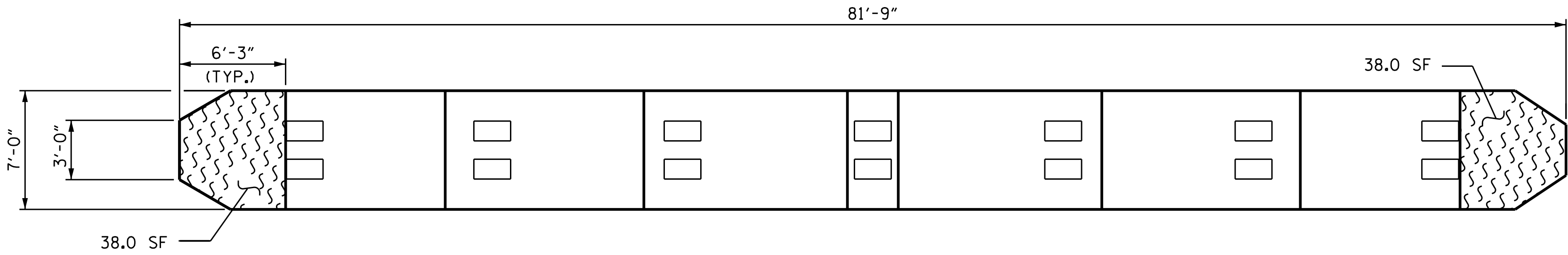


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 48

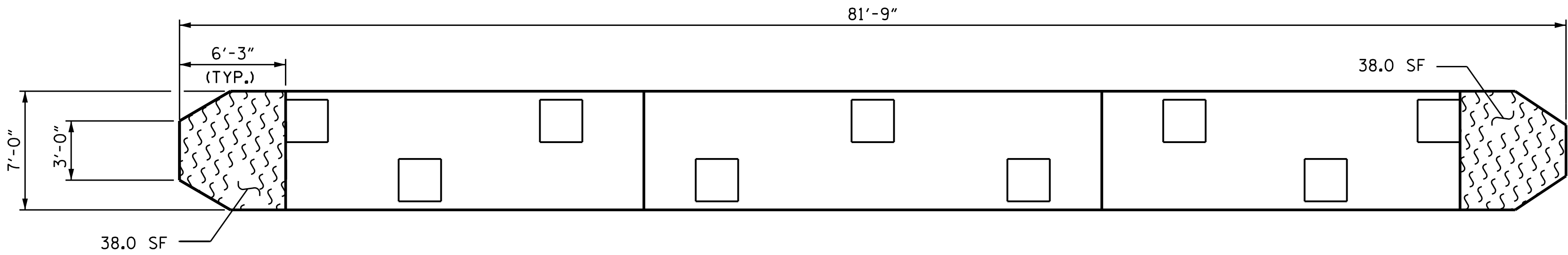
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FINAL UNLESS ALL  
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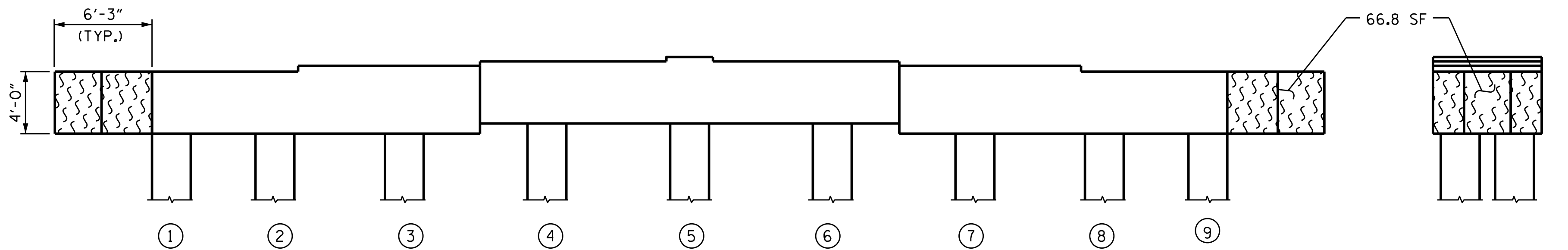
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-116
1			3			TOTAL SHEETS
2			4			217



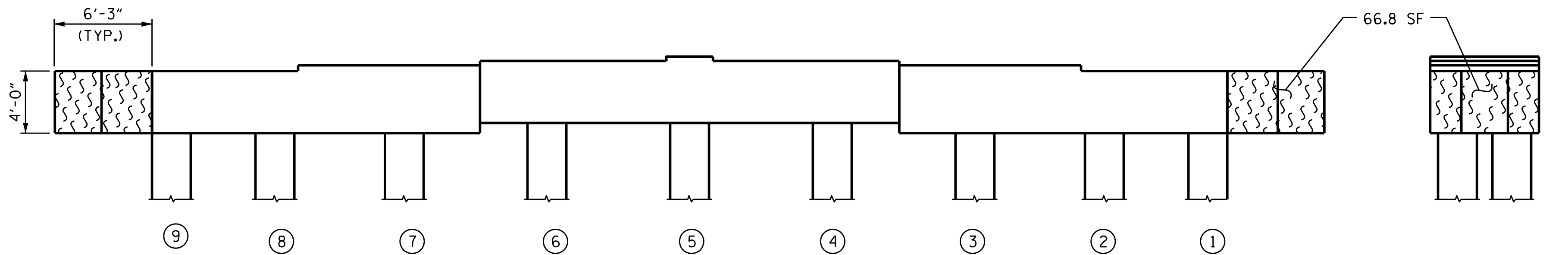
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 50  
SPAN 49

SPAN 49  
SPAN 50

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 49	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

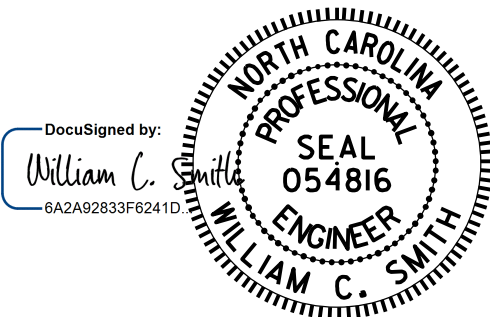
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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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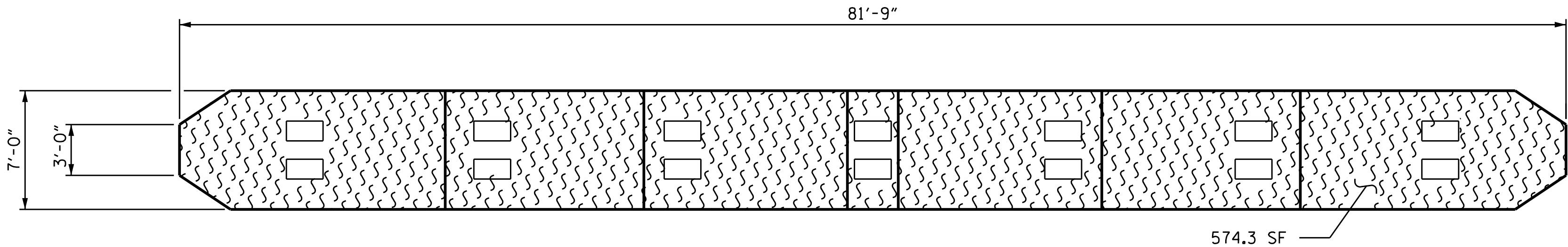
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
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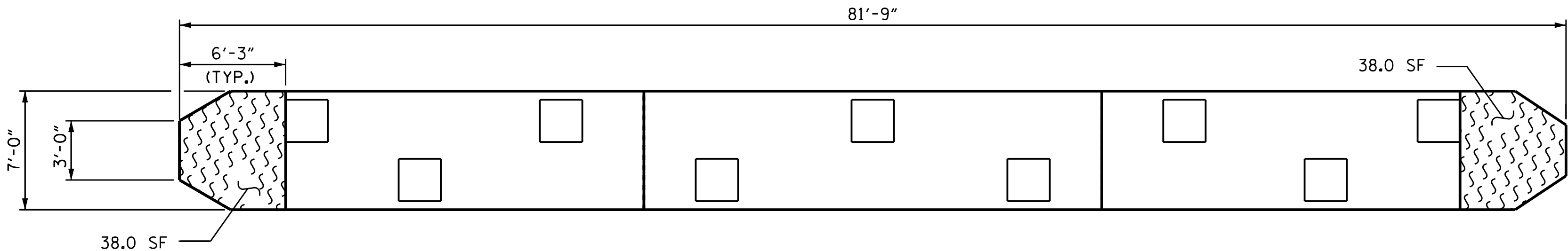
11/21/2025

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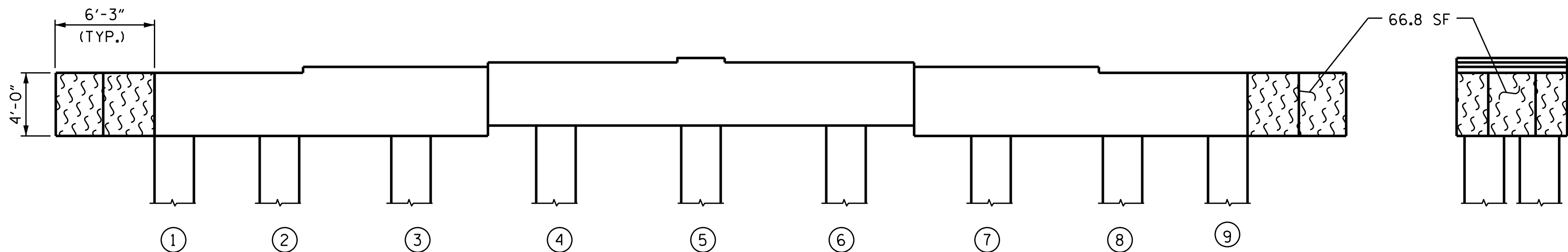
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-117
1			3			TOTAL SHEETS
2			4			217



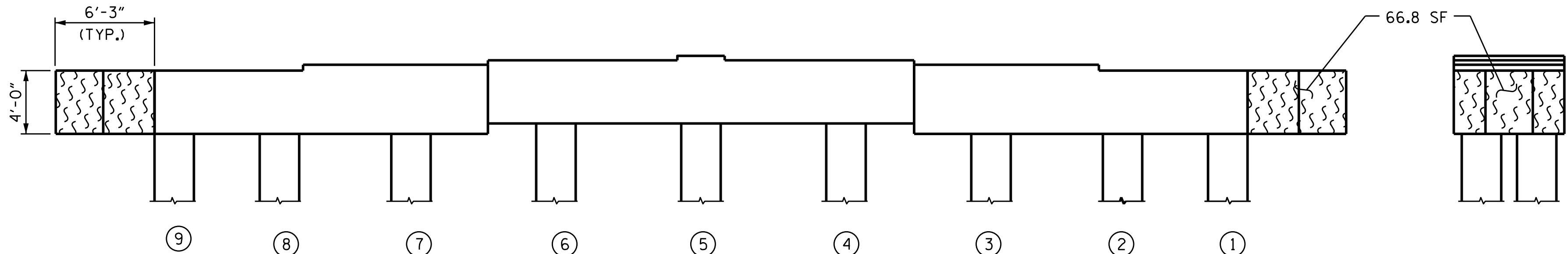
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 51  
SPAN 50

SPAN 50  
SPAN 51

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 50	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

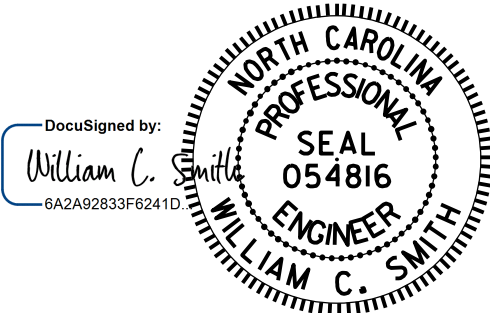
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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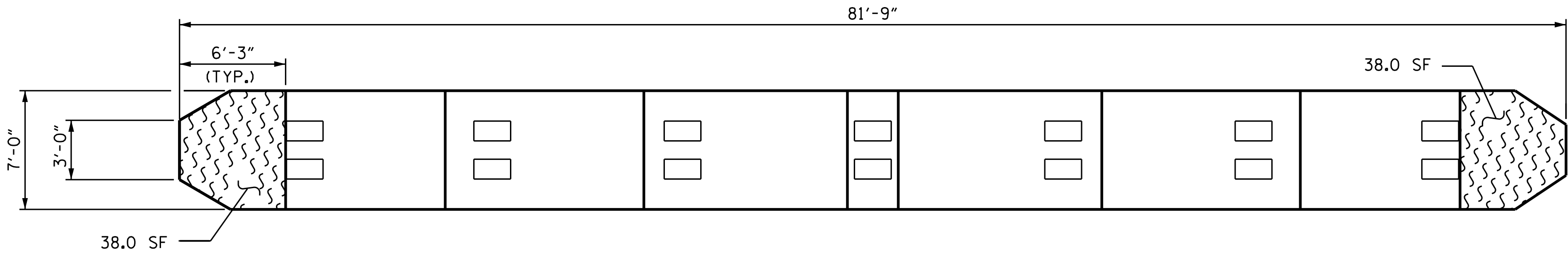
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/09/24

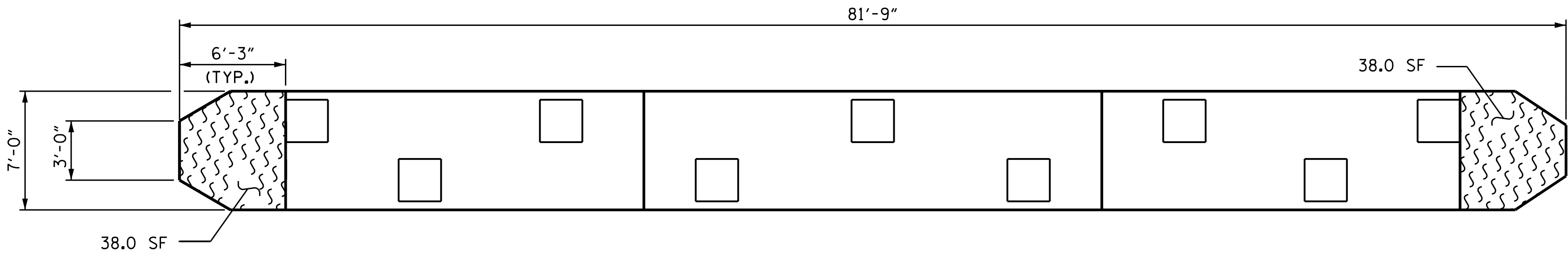
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-118
1			3			TOTAL SHEETS
2			4			217

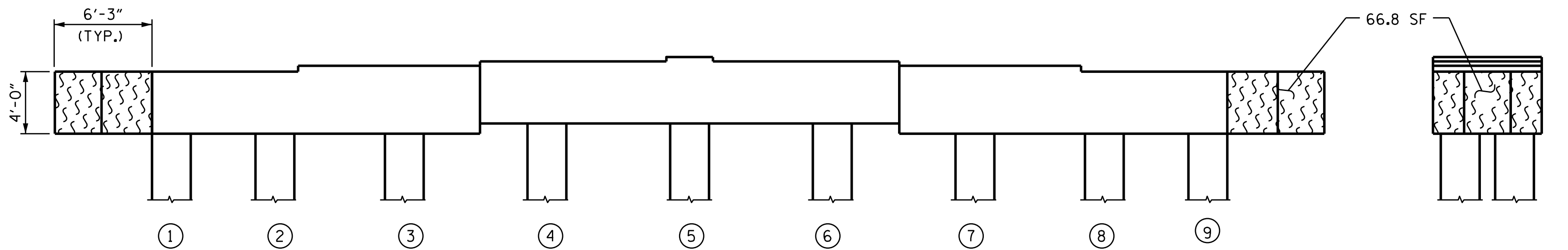




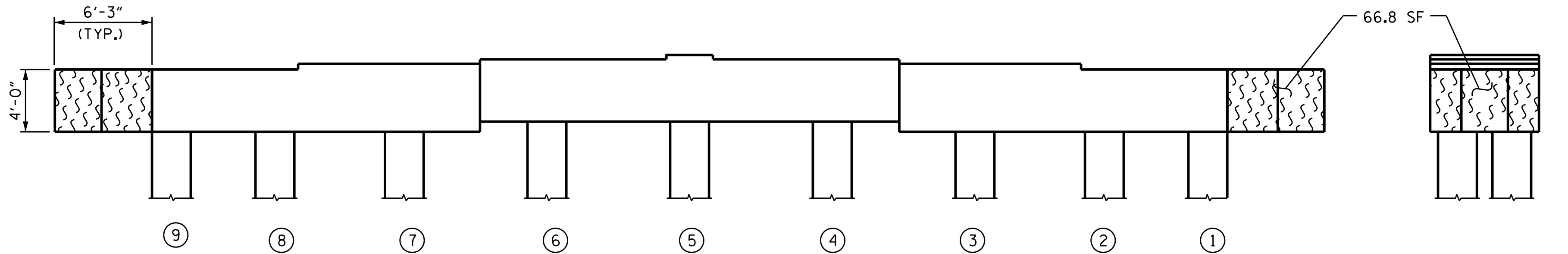
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 52  
SPAN 51

SPAN 51  
SPAN 52

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 51	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

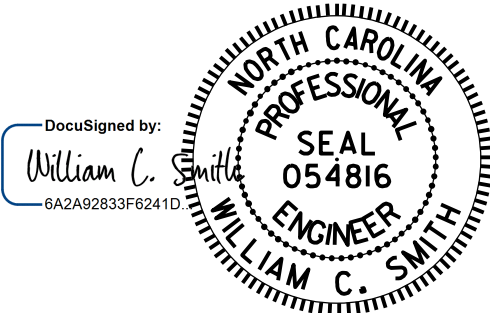
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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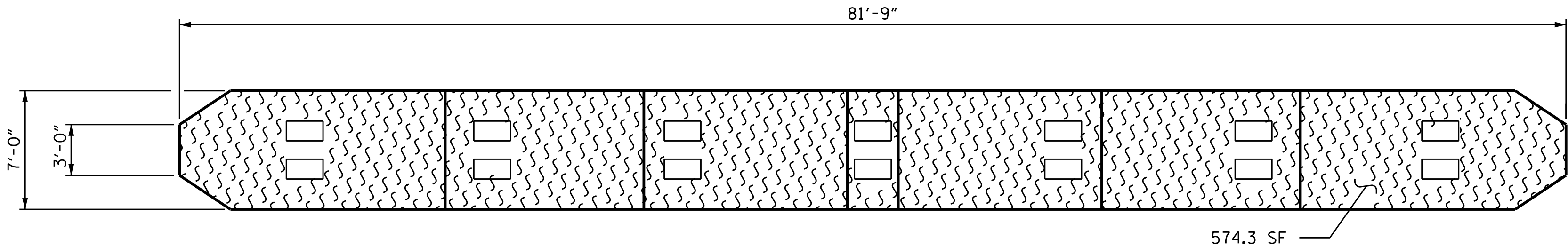
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11/21/2025

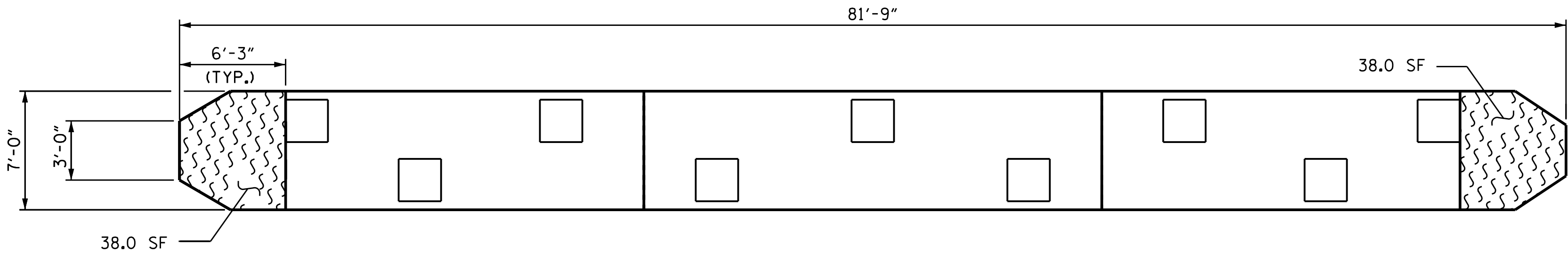
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-119
1			3			TOTAL SHEETS
2			4			217



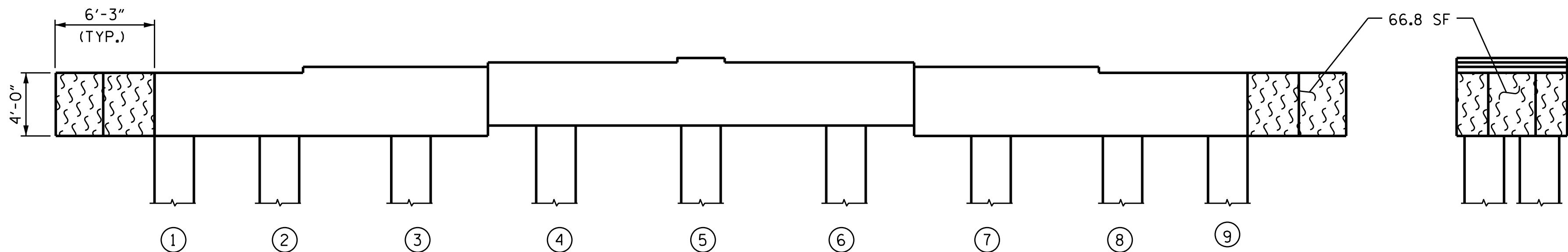
SPAN 53  
SPAN 52

TOP VIEW OF CAP



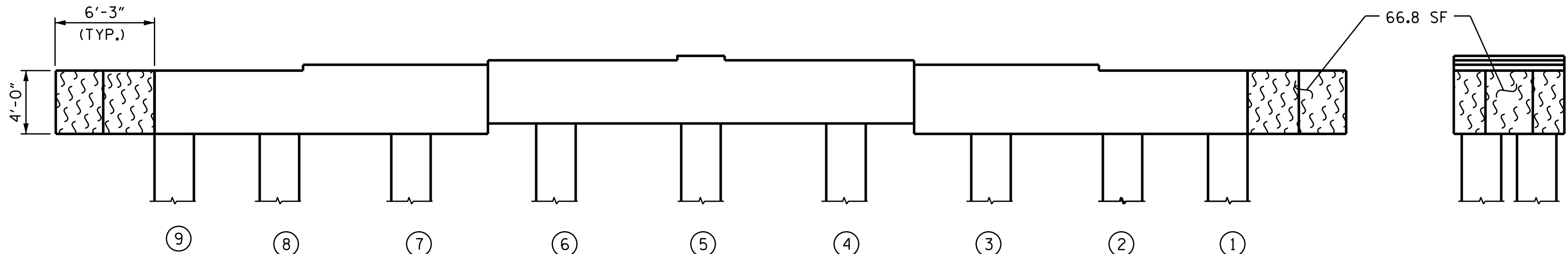
SPAN 52  
SPAN 53

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 52	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

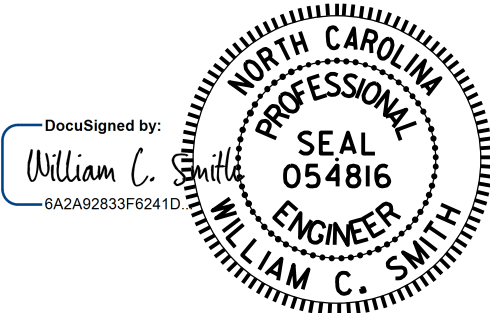
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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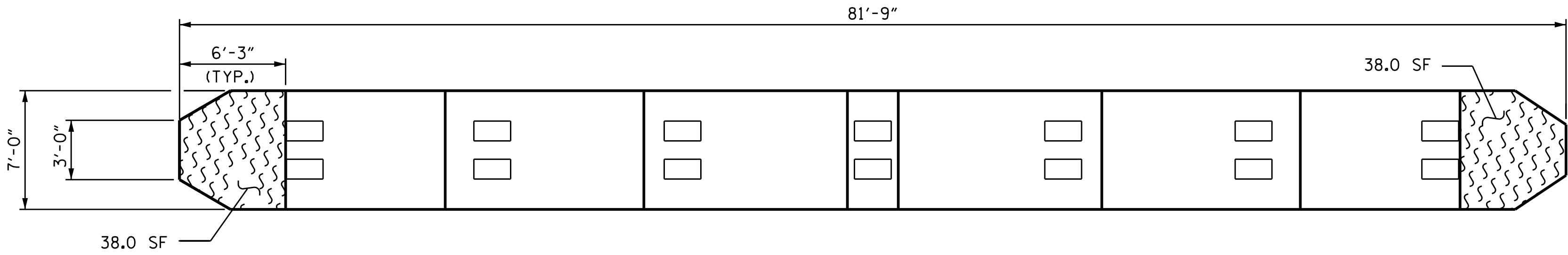


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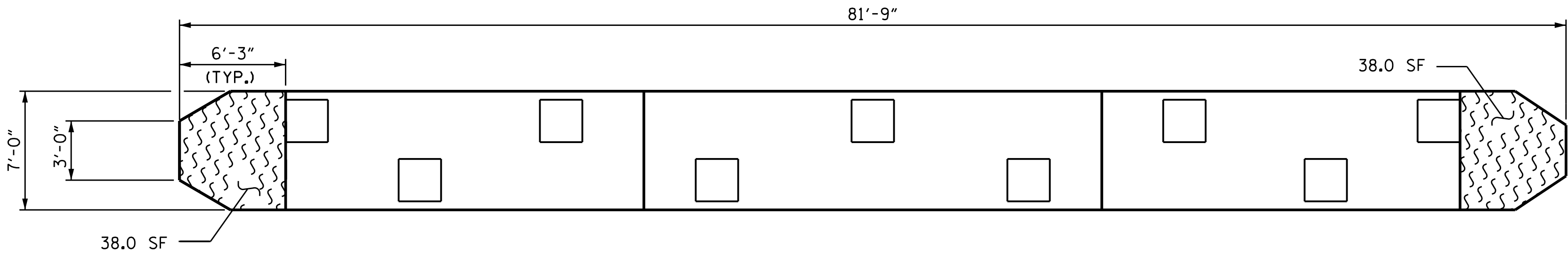
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/09/24

DOCUMENT NOT CONSIDERED  
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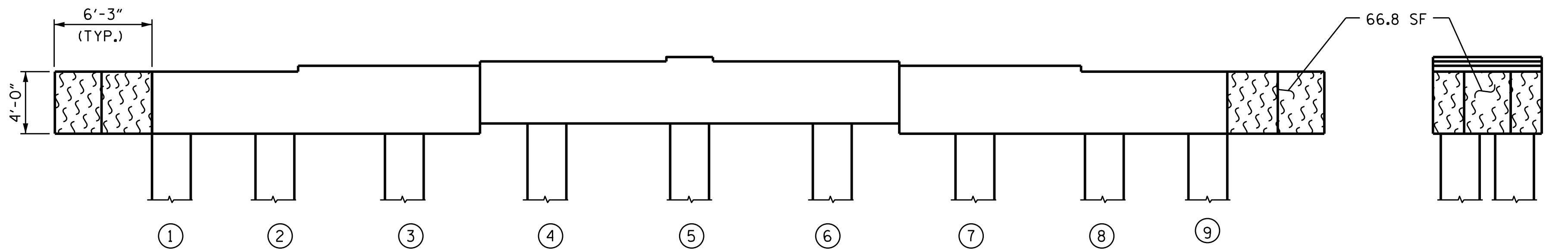
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-120
1			3			TOTAL SHEETS
2			4			217



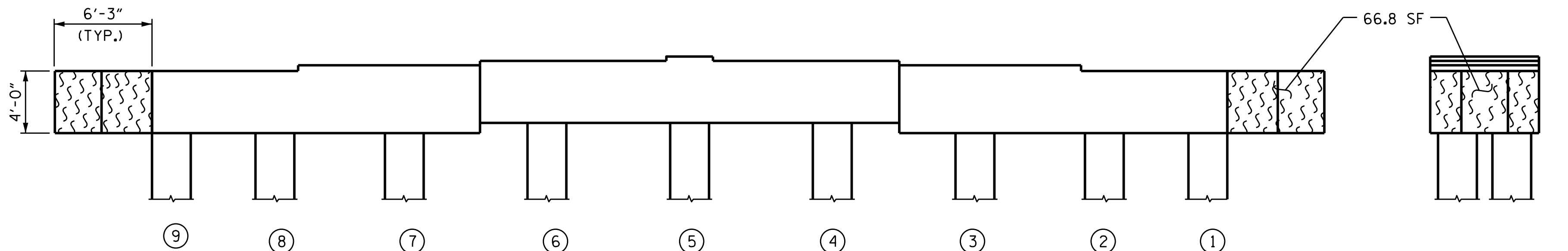
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 54  
SPAN 53

SPAN 53  
SPAN 54

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 53	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

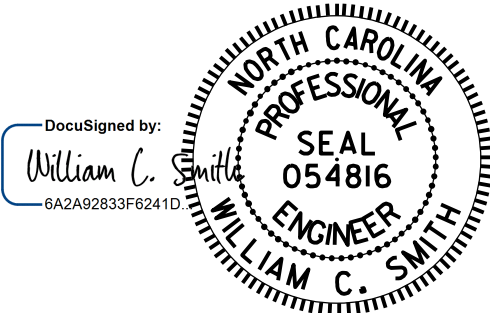
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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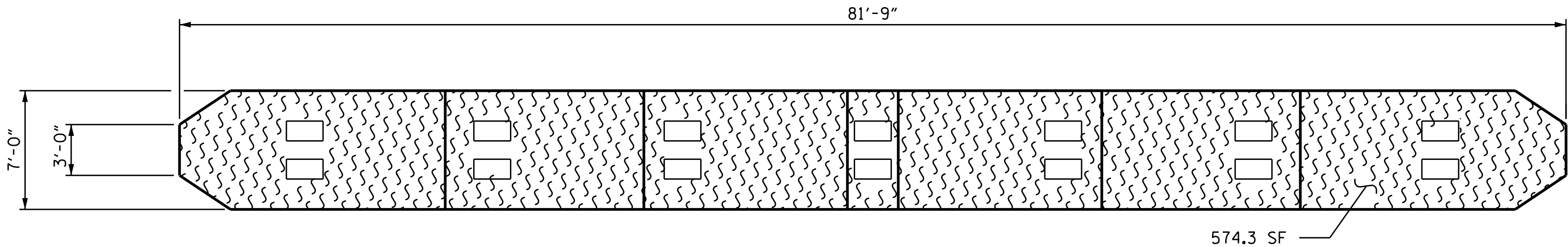
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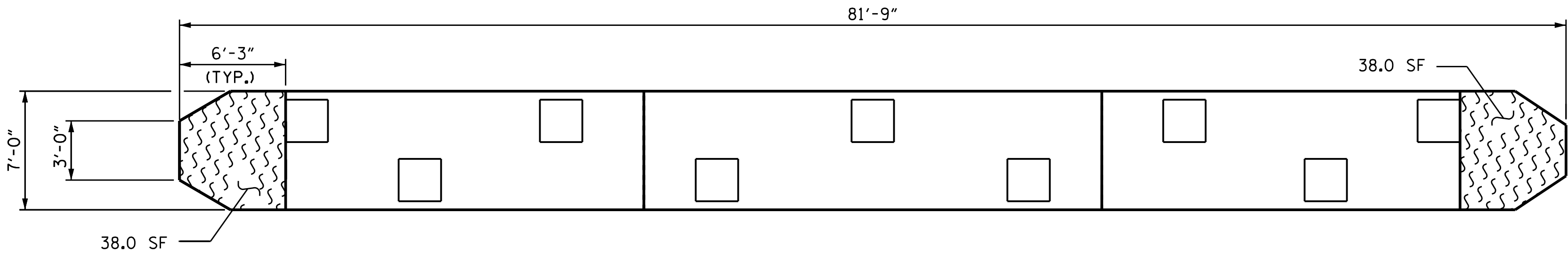
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2			4			217





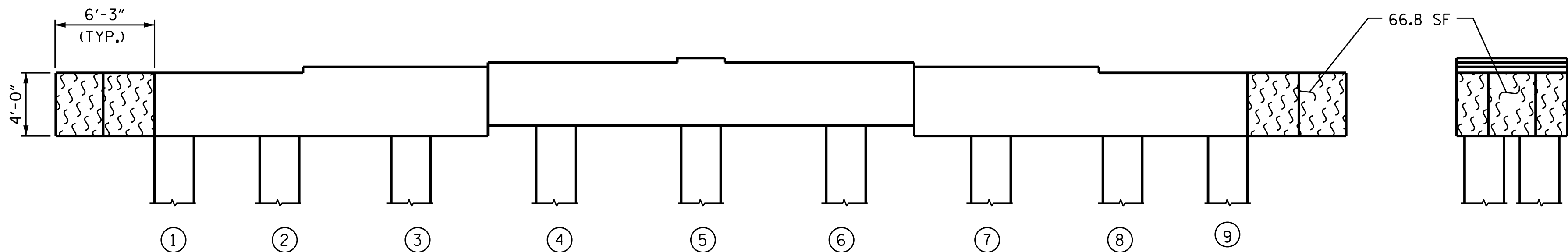
TOP VIEW OF CAP

SPAN 55  
SPAN 54



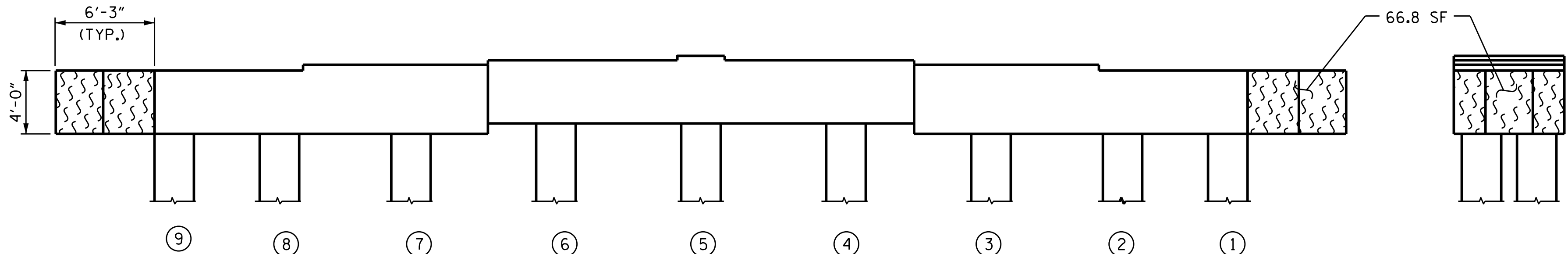
BOTTOM VIEW OF CAP

SPAN 54  
SPAN 55



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 54	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

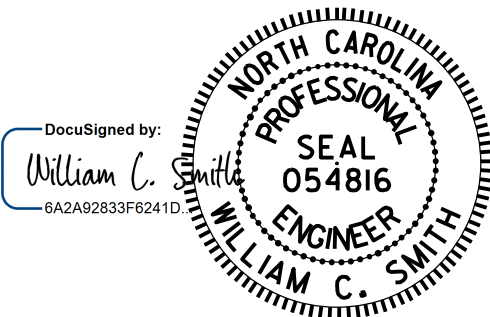
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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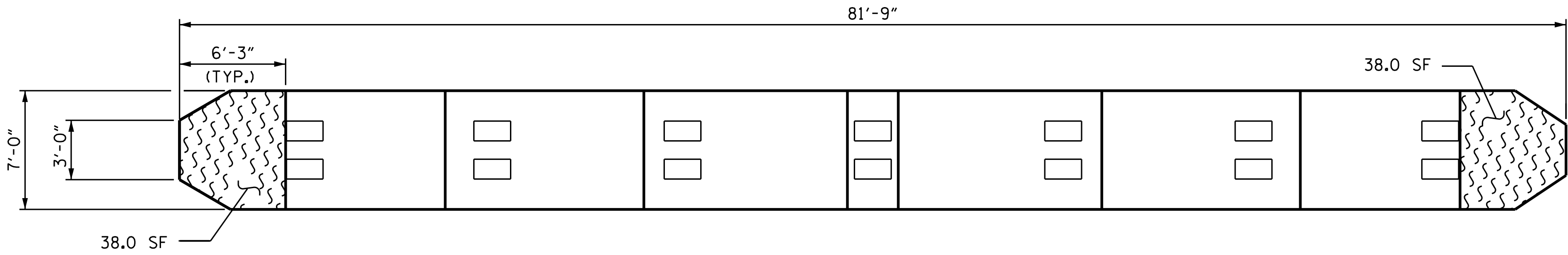


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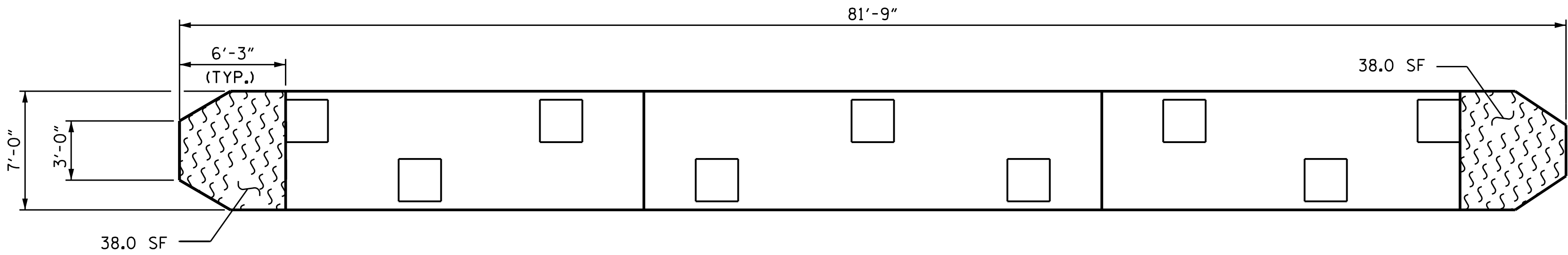
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CHECKED BY : W. C. SMITH DATE : 7/9/24

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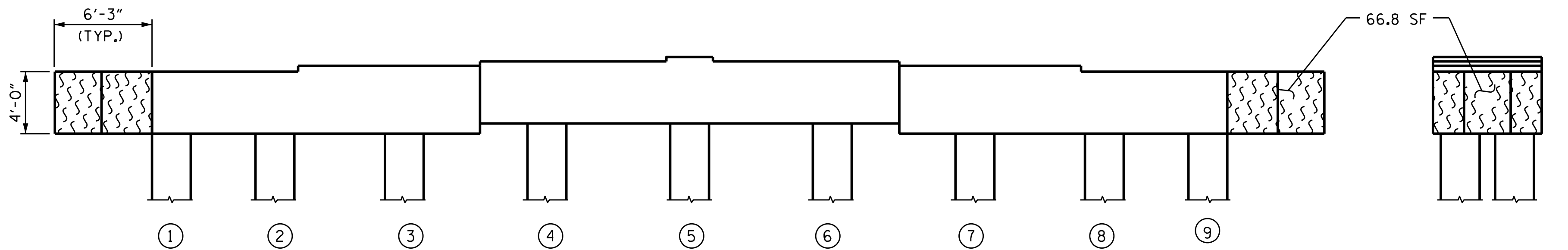
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-122
1			3			TOTAL SHEETS
2			4			217



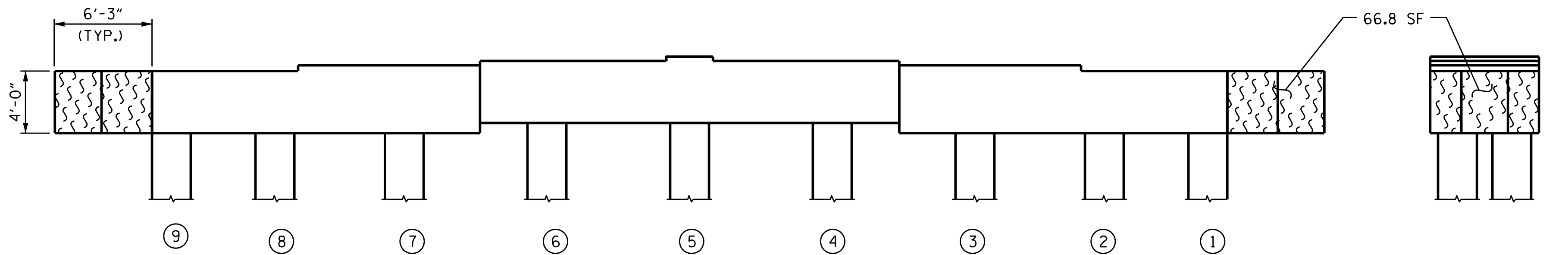
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 56  
SPAN 55

SPAN 55  
SPAN 56

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 55	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

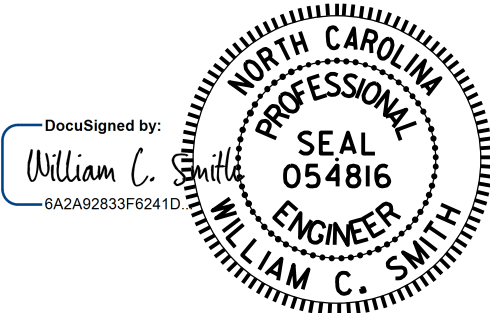
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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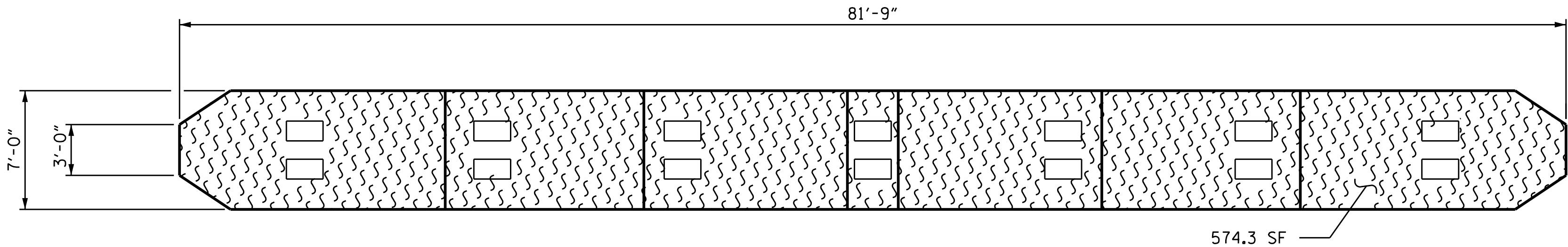
11/21/2025

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11/21/2025

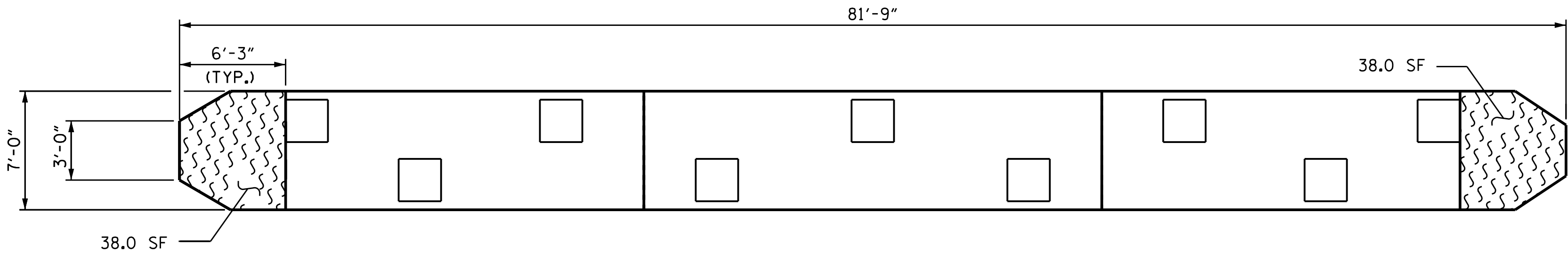
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-123
1			3			TOTAL SHEETS
2			4			217



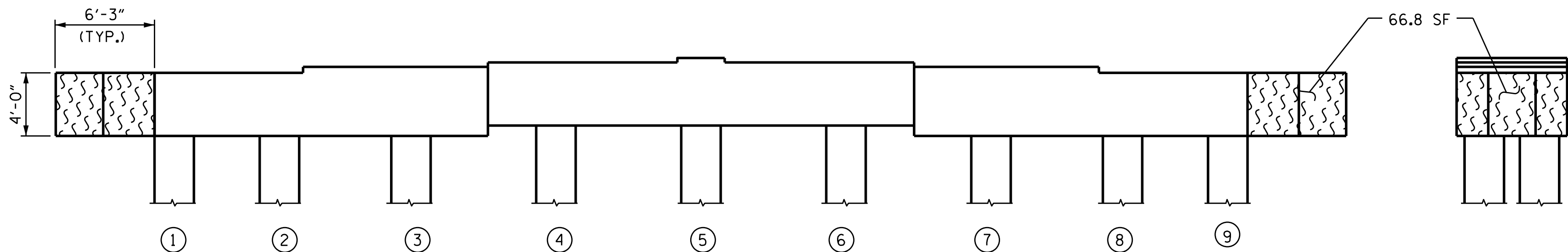
SPAN 57  
SPAN 56

TOP VIEW OF CAP



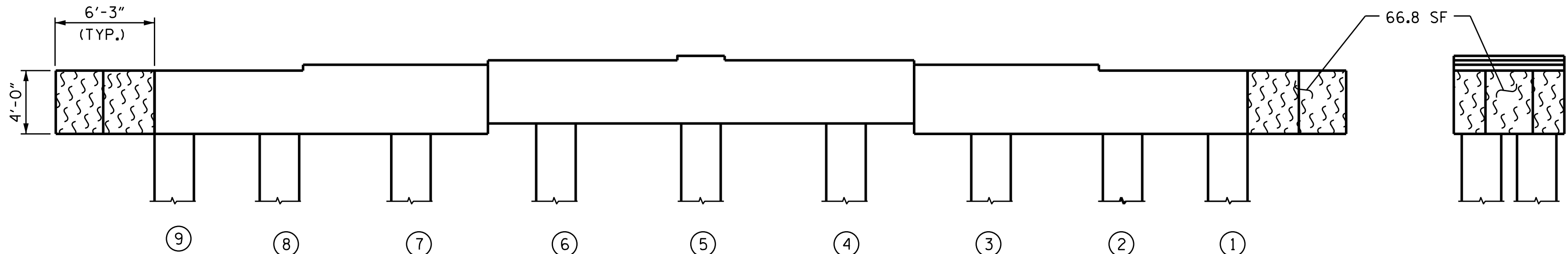
SPAN 56  
SPAN 57

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 56	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

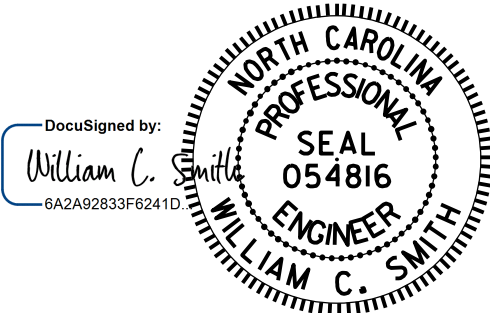
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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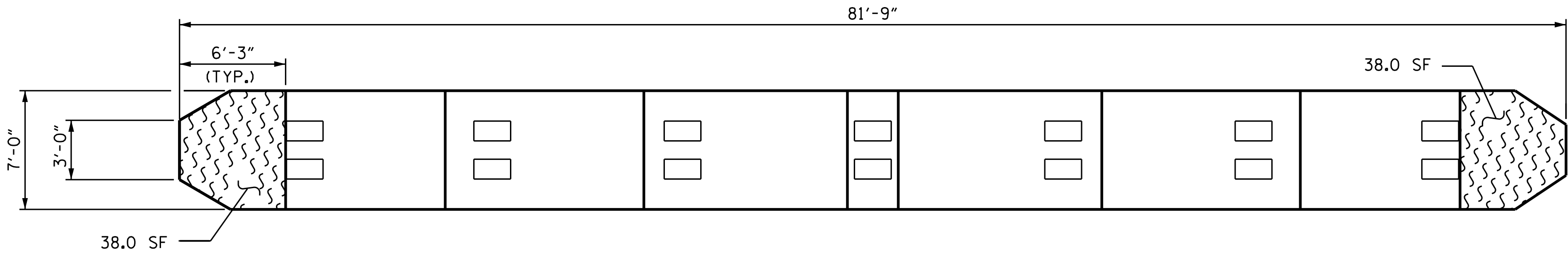
11/21/2025

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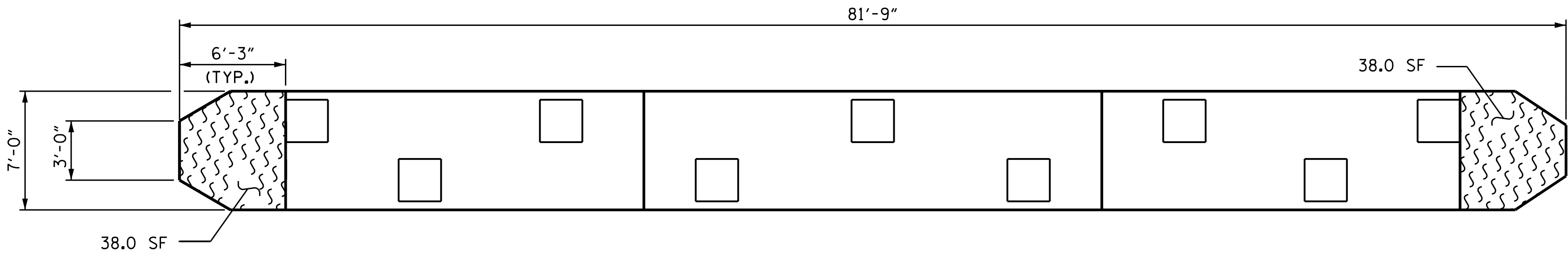
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-124
1			3			TOTAL SHEETS
2			4			217

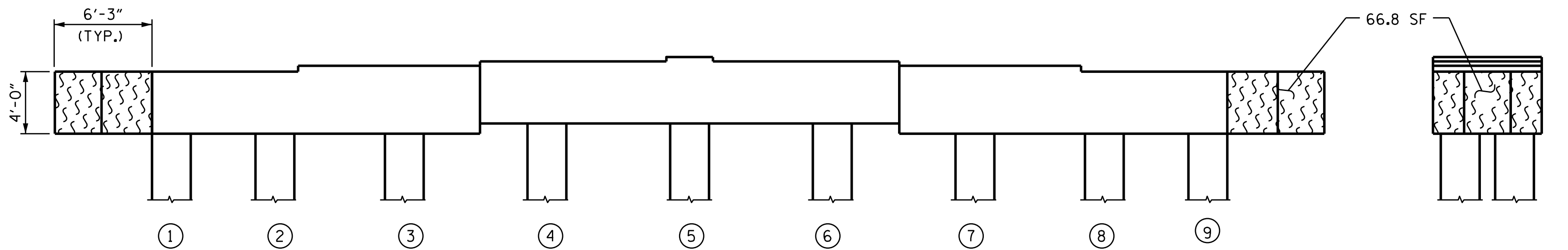




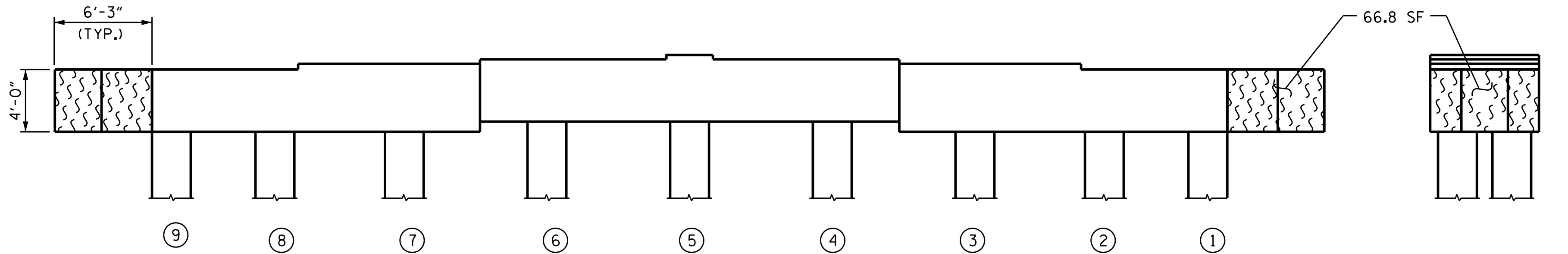
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 58  
SPAN 57

SPAN 57  
SPAN 58

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 57	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

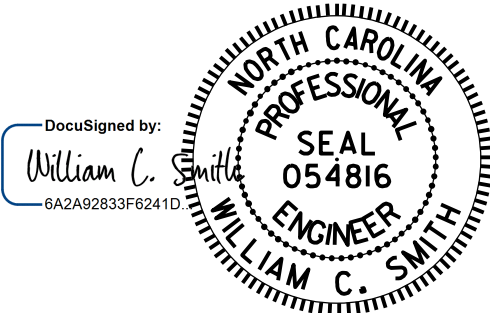
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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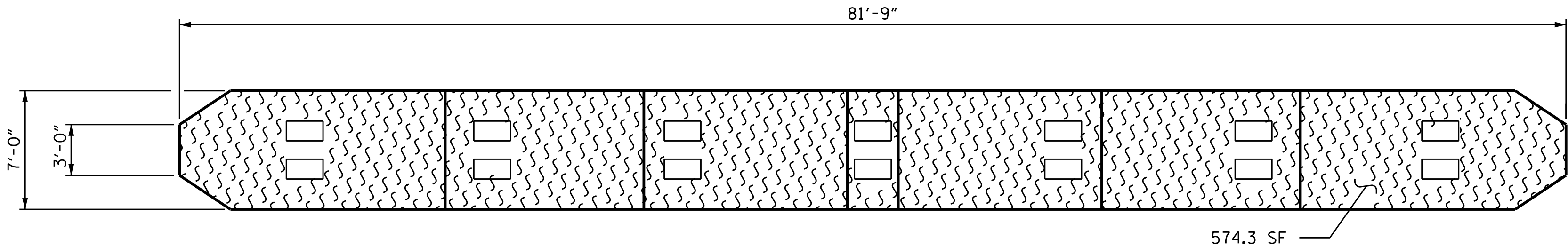
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

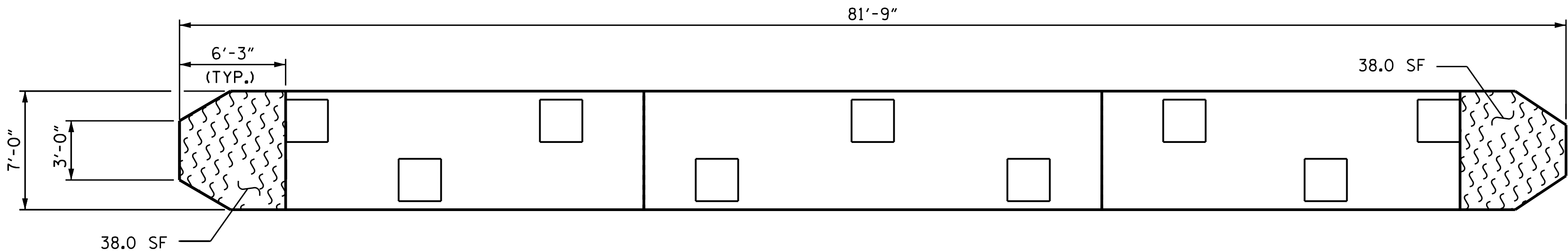
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-125
1			3			TOTAL SHEETS
2			4			217



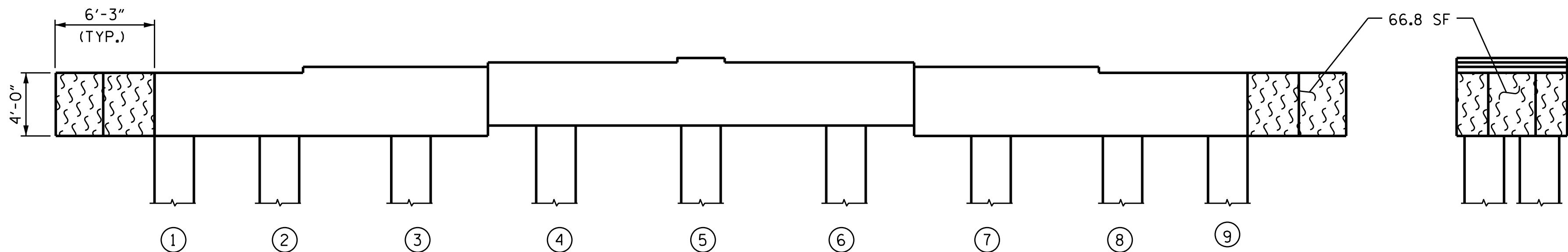
SPAN 59  
SPAN 58

TOP VIEW OF CAP



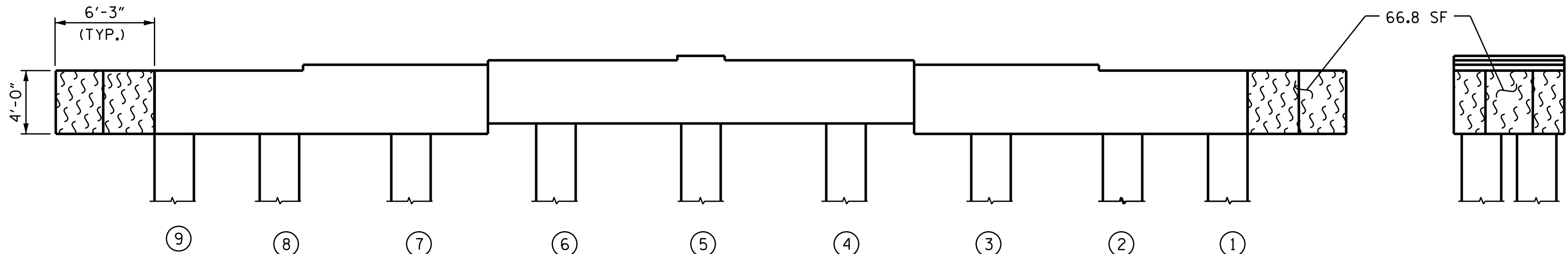
SPAN 58  
SPAN 59

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 58	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

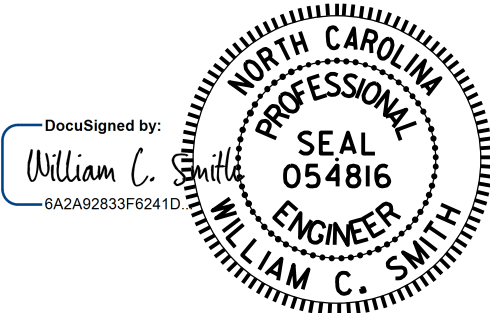
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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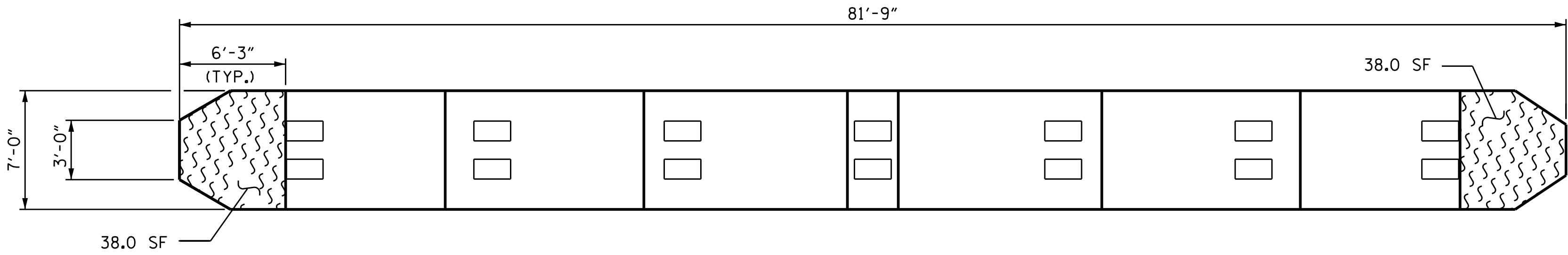


11/21/2025

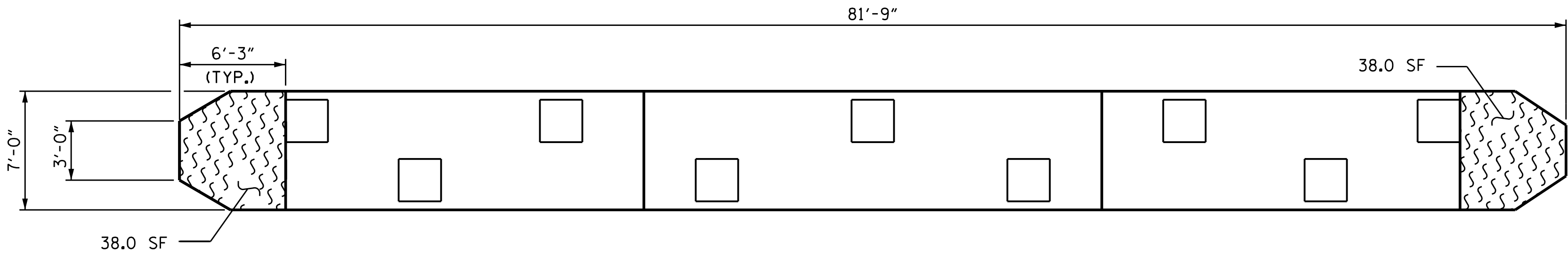
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

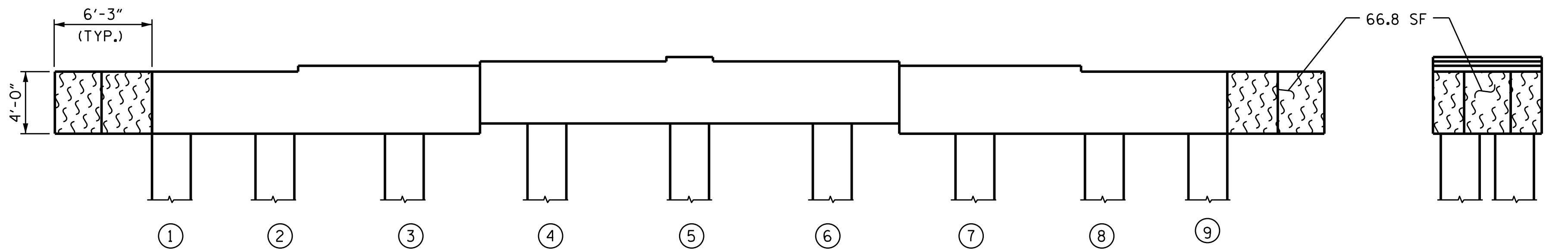
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-126
1			3			TOTAL SHEETS
2			4			217



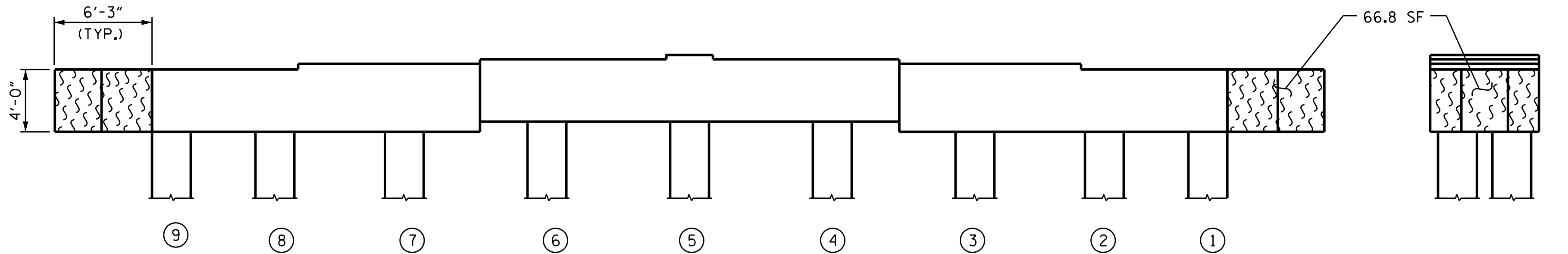
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 60  
SPAN 59

SPAN 59  
SPAN 60

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 59	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

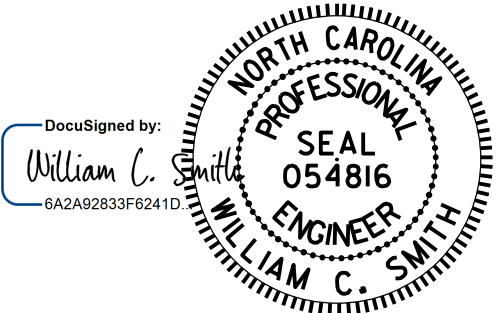
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
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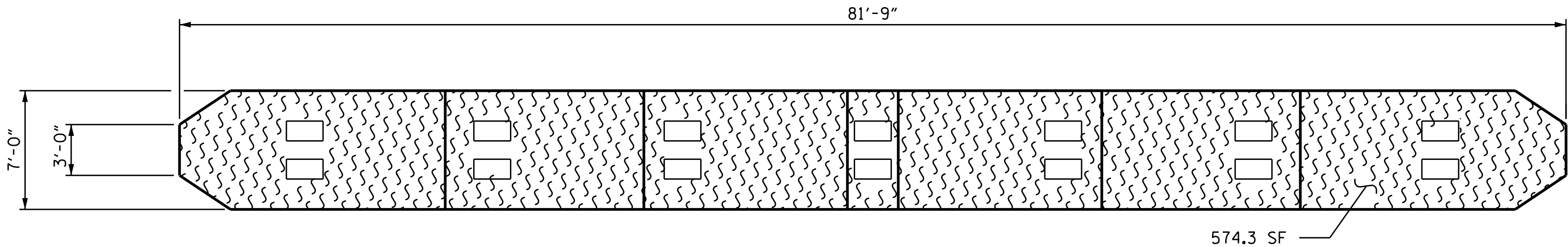
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

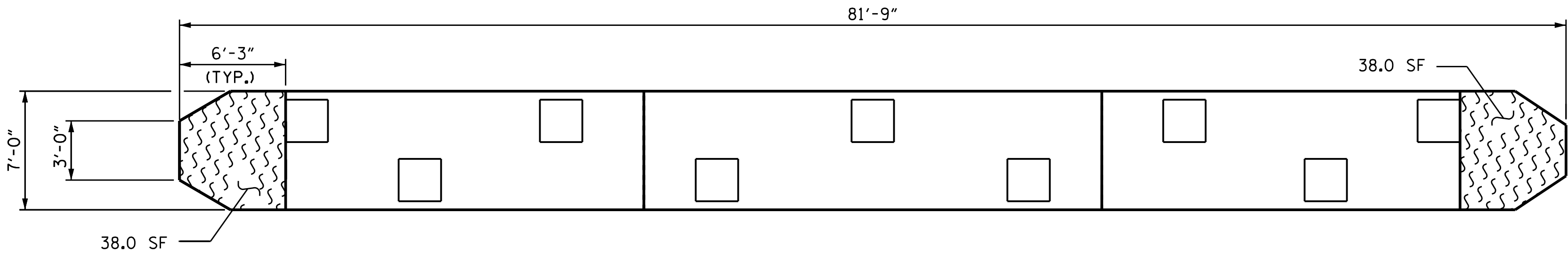
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-127
1			3			TOTAL SHEETS
2			4			217





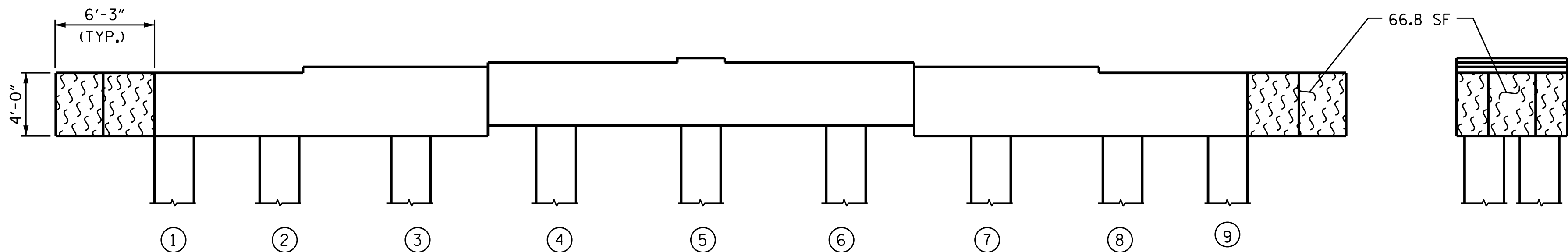
TOP VIEW OF CAP

SPAN 61  
SPAN 60



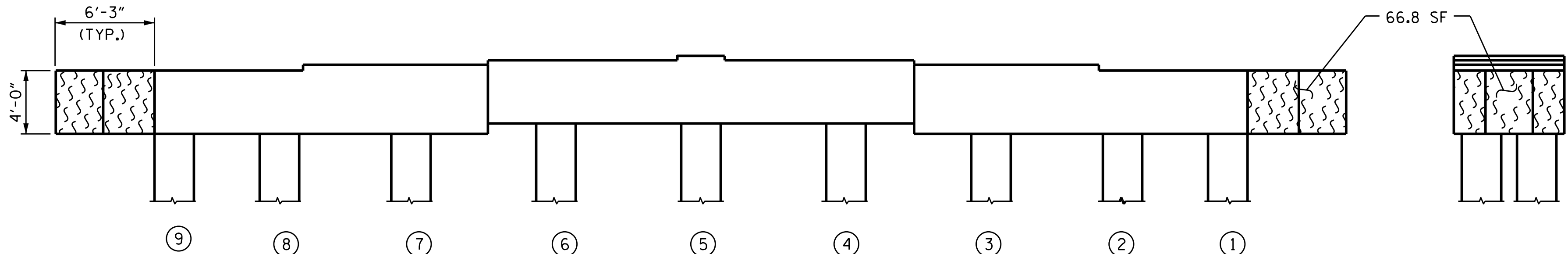
BOTTOM VIEW OF CAP

SPAN 60  
SPAN 61



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 60	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

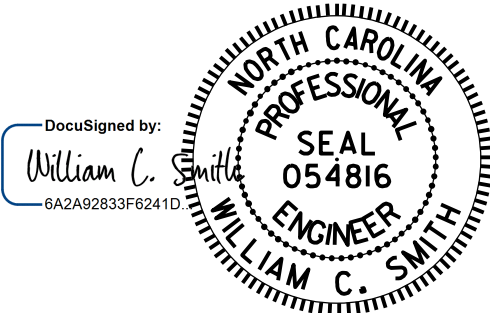
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 60 OF 140

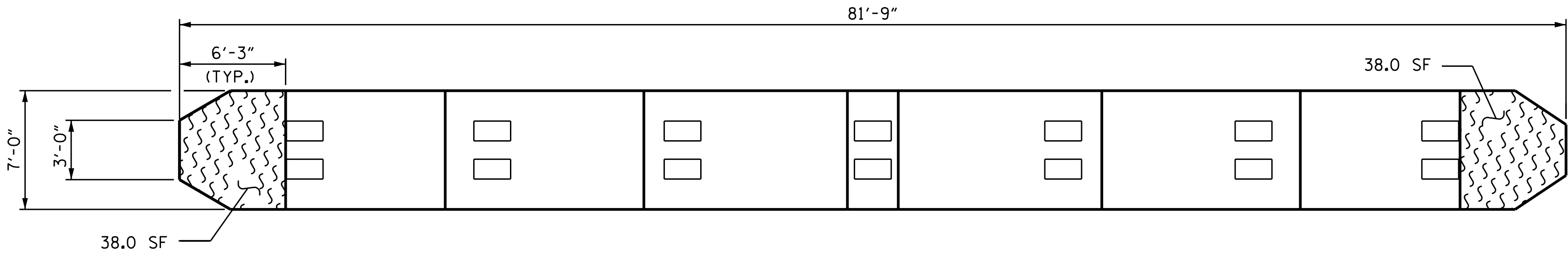


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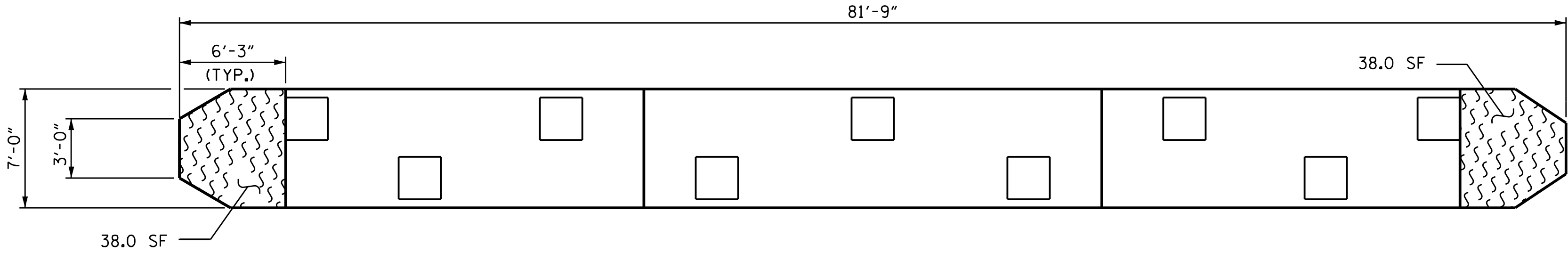
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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SIGNATURES COMPLETED

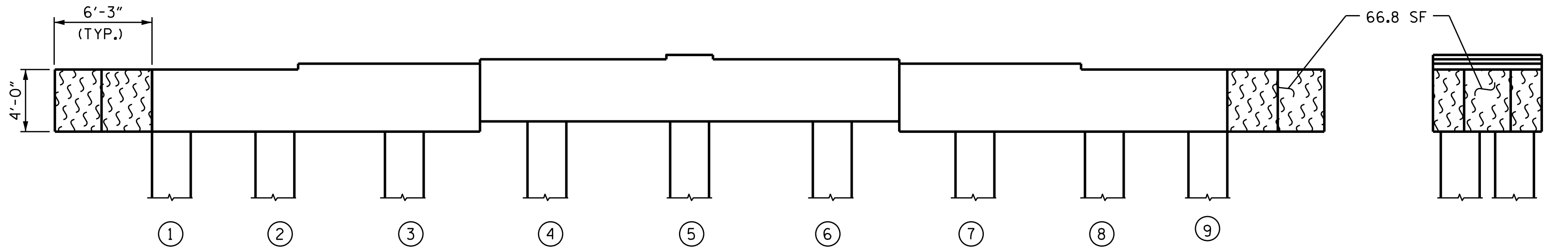
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-128
1			3			TOTAL SHEETS
2			4			217



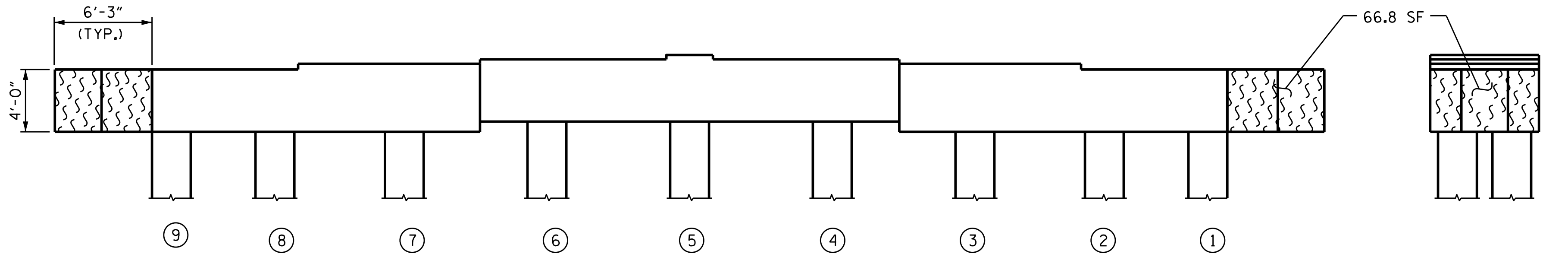
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 62  
SPAN 61

SPAN 61  
SPAN 62

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 61	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

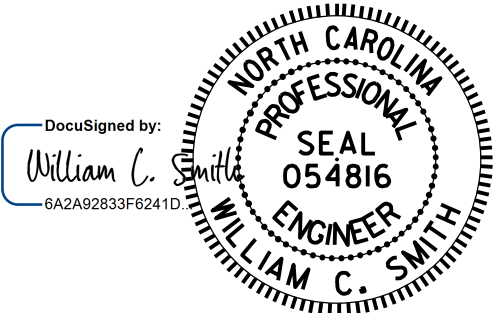
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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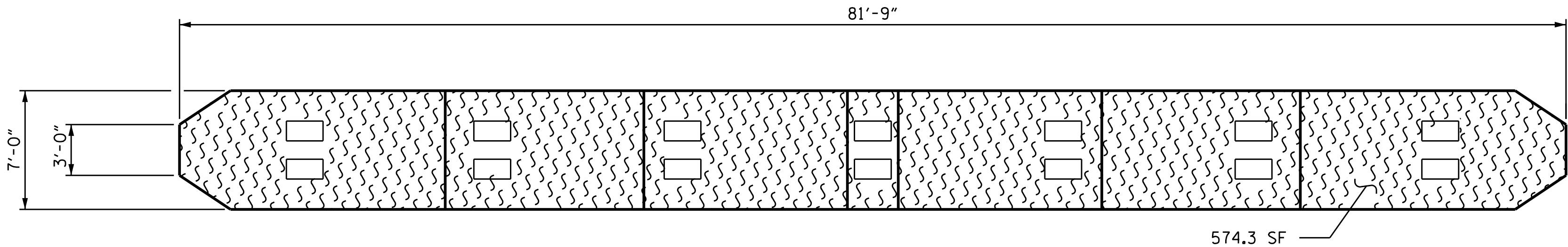
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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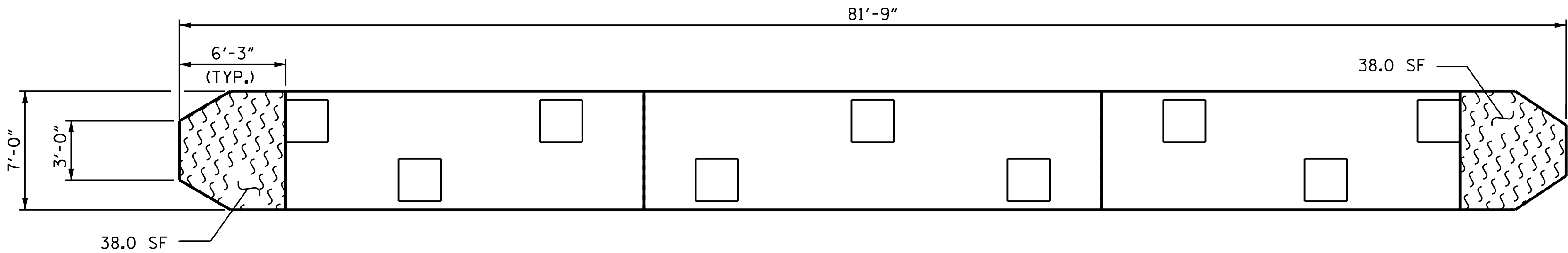
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-129
1			3			TOTAL SHEETS
2			4			217



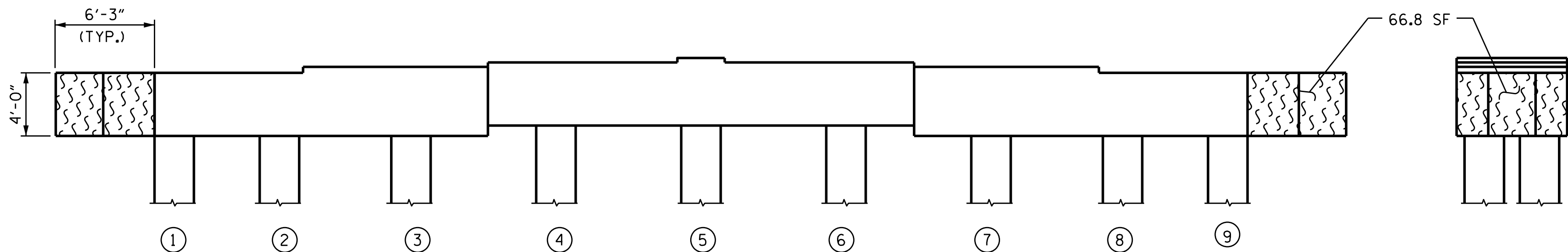
TOP VIEW OF CAP

SPAN 63  
SPAN 62



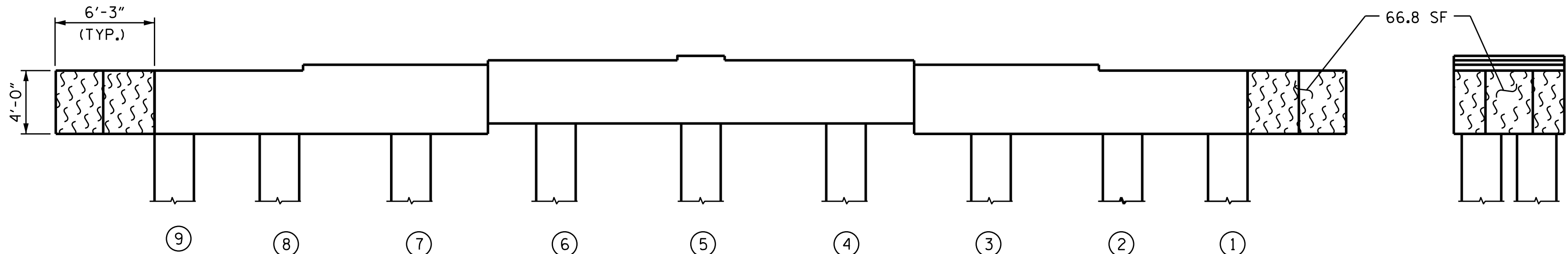
BOTTOM VIEW OF CAP

SPAN 63  
SPAN 62



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 62	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

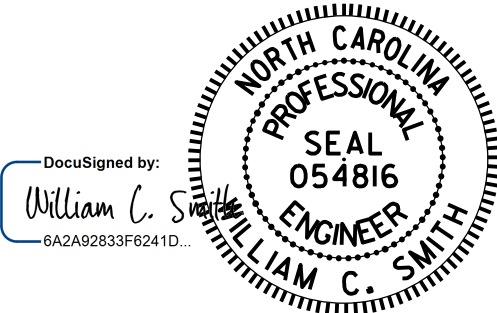
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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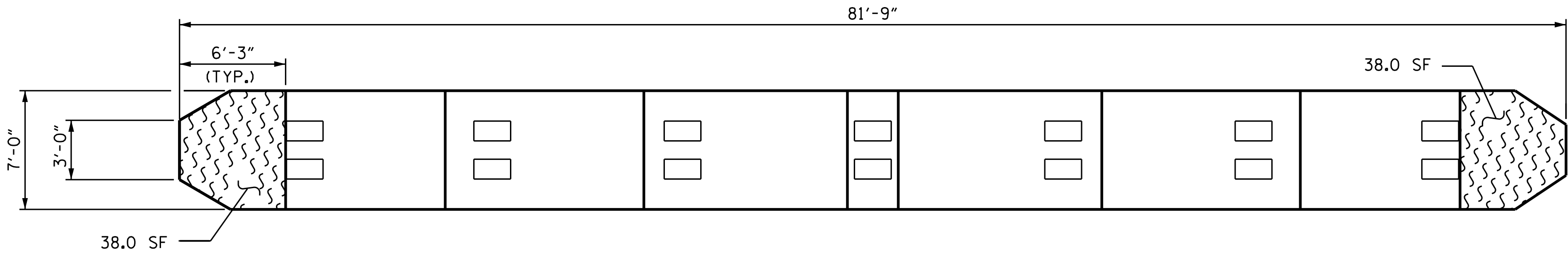
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 62

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

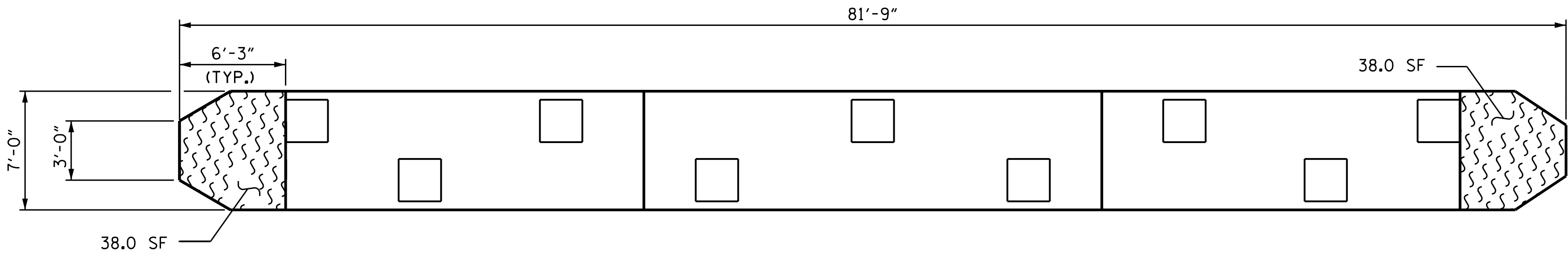
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SIGNATURES COMPLETED

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NO.	BY:	DATE:	NO.	BY:	DATE:	S-130
1			3			TOTAL SHEETS
2			4			217

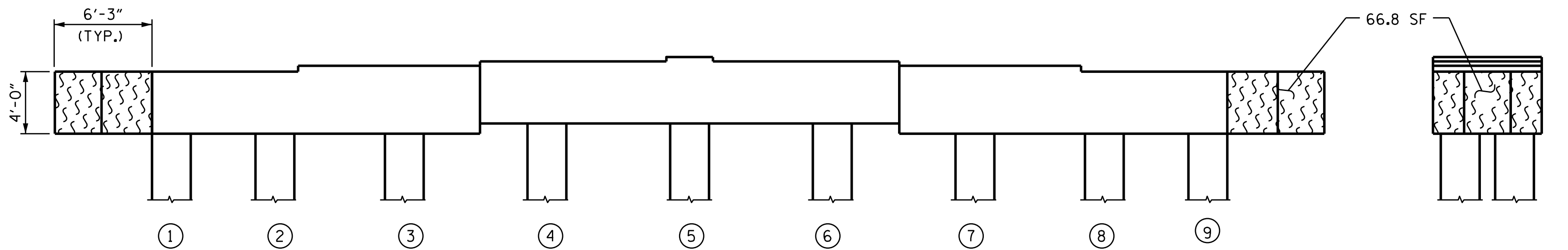




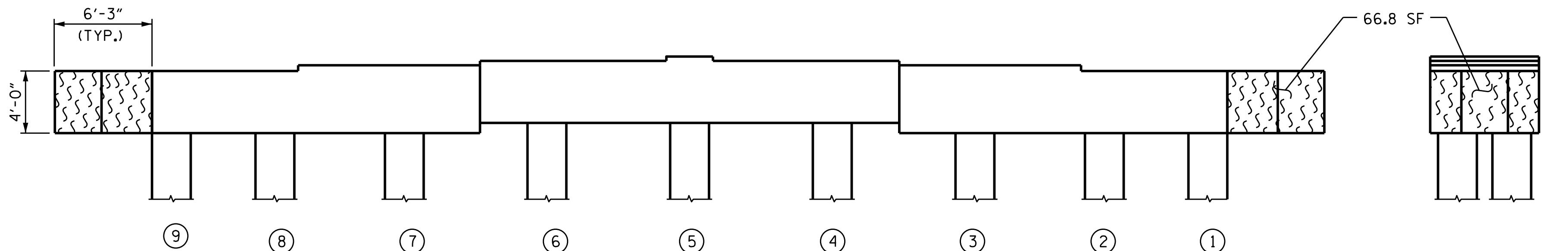
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 64  
SPAN 63

SPAN 63  
SPAN 64

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 63	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

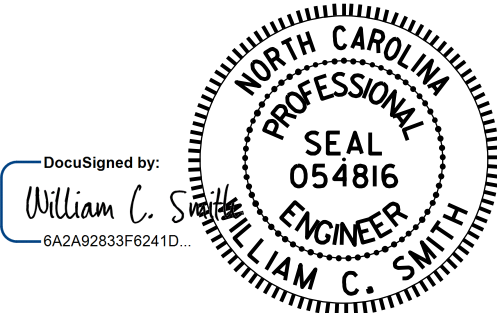
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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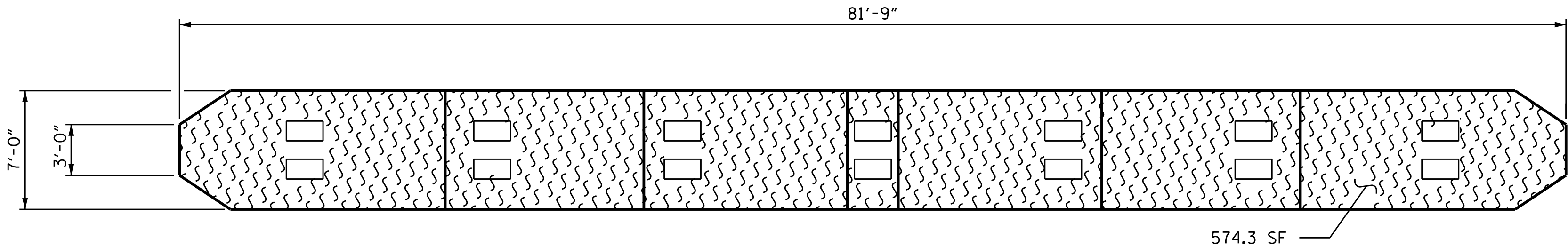
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 63

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

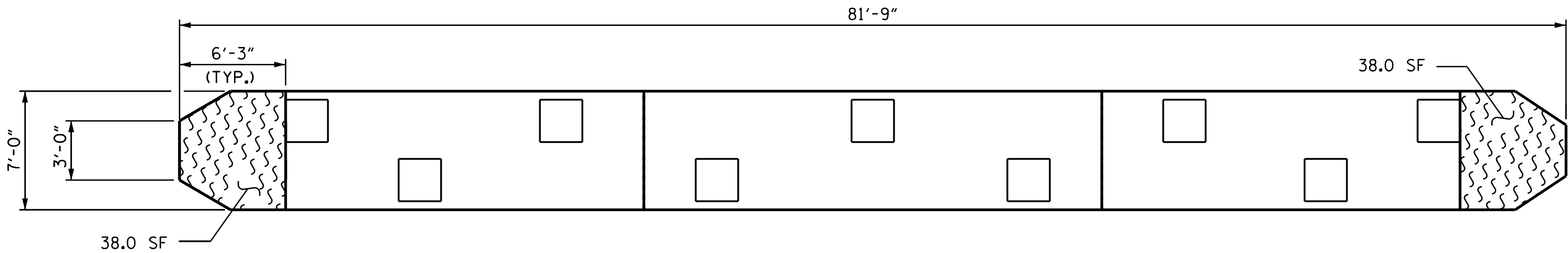
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

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NO.	BY:	DATE:	NO.	BY:	DATE:	S-131
1			3			TOTAL SHEETS
2			4			217



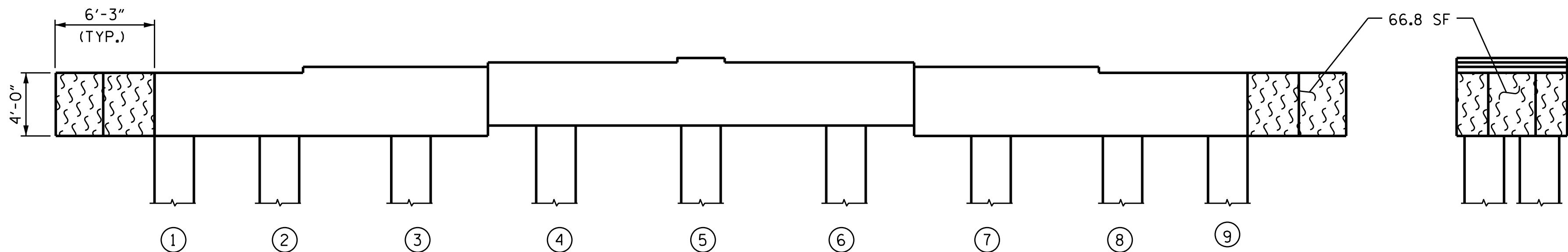
TOP VIEW OF CAP

SPAN 65  
SPAN 64



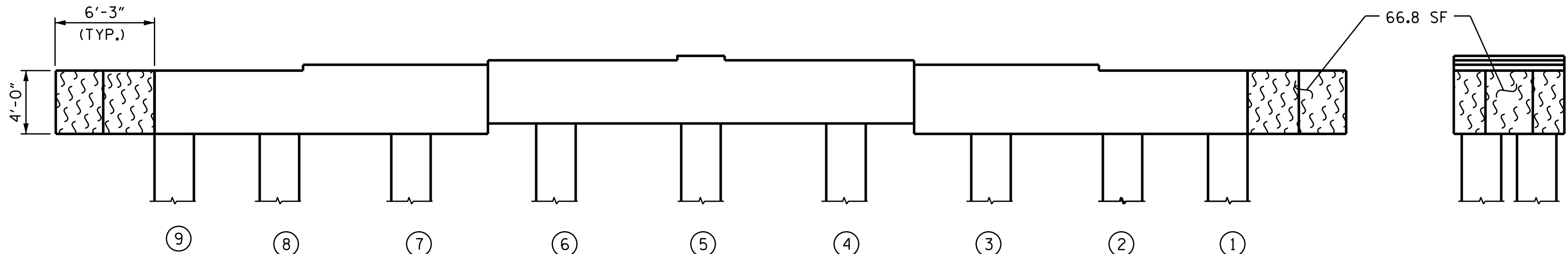
BOTTOM VIEW OF CAP

SPAN 64  
SPAN 65



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 64	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

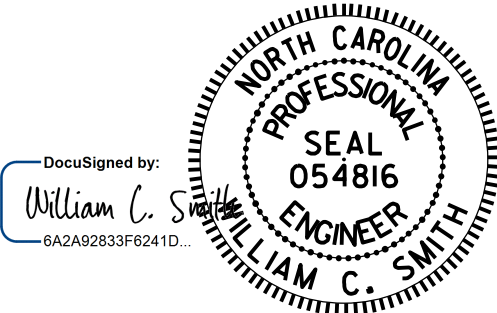
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 64 OF 140

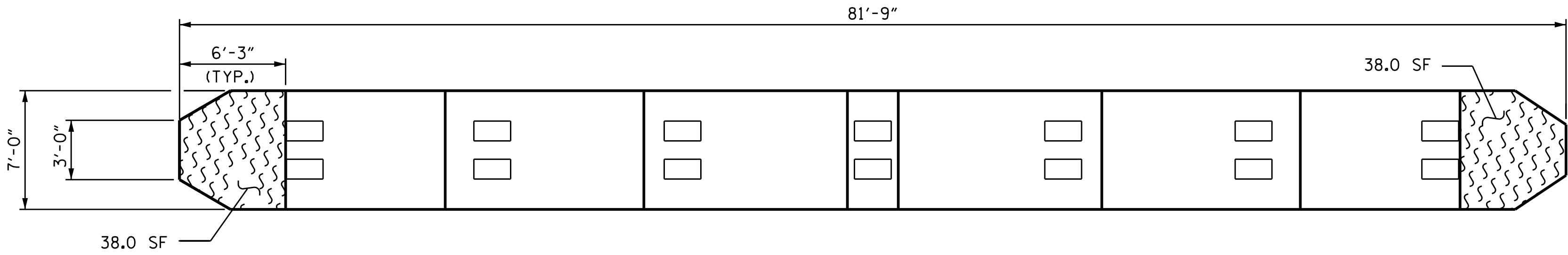


11/21/2025

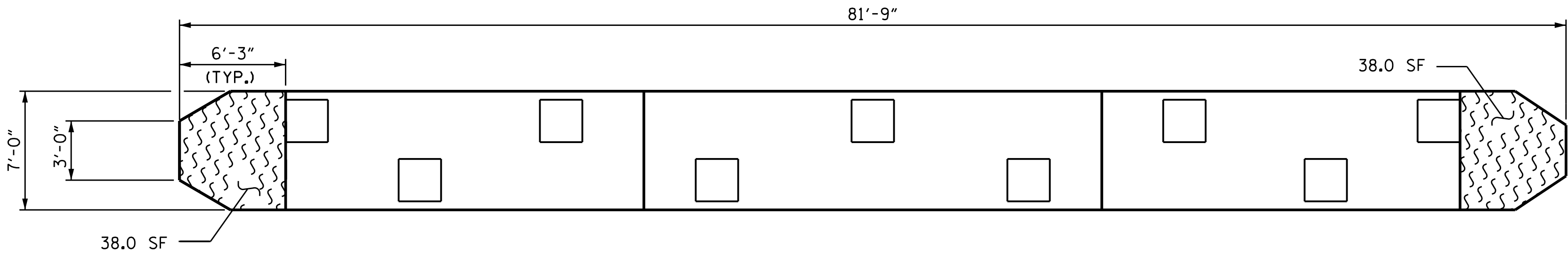
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

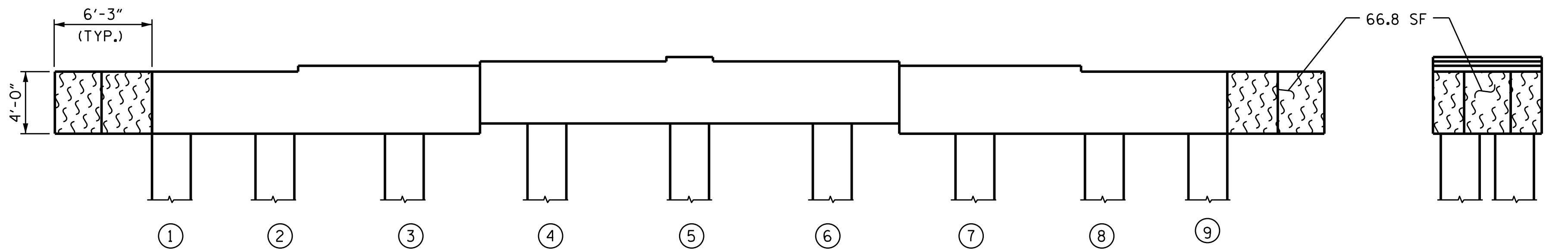
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-132
1			3			TOTAL SHEETS
2			4			217



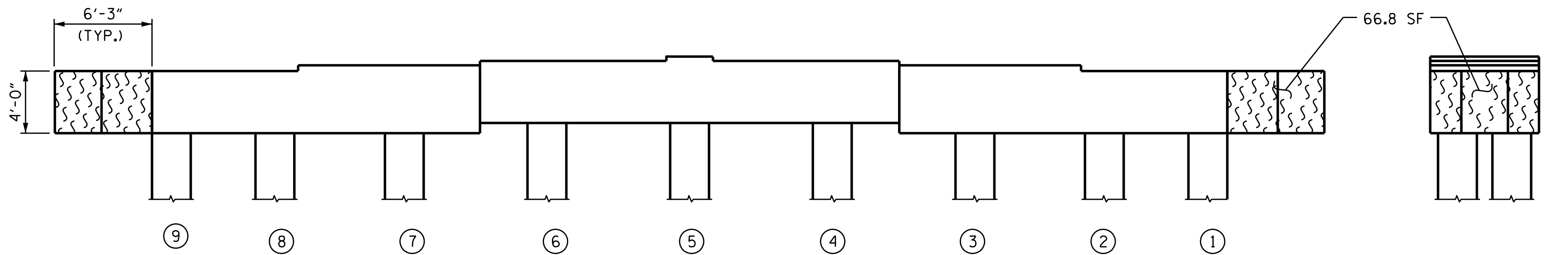
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 66  
SPAN 65

SPAN 65  
SPAN 66

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 65	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

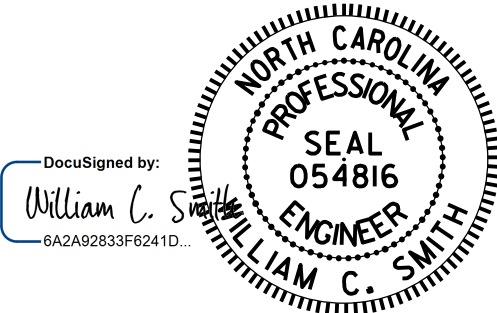
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 65 OF 140



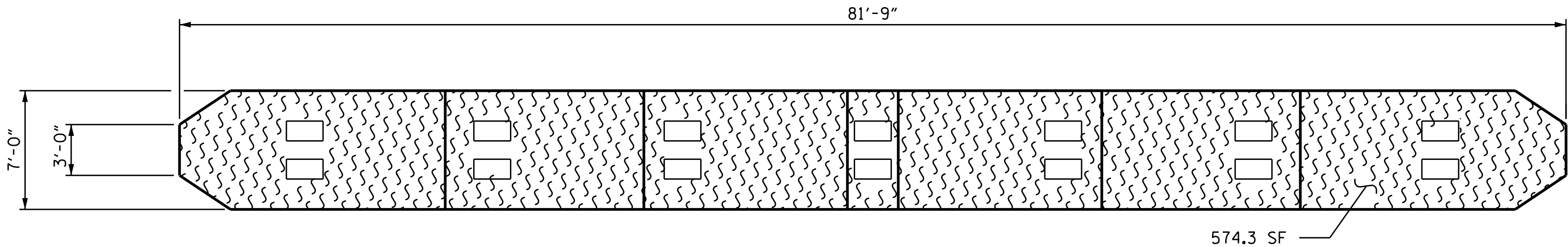
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 65

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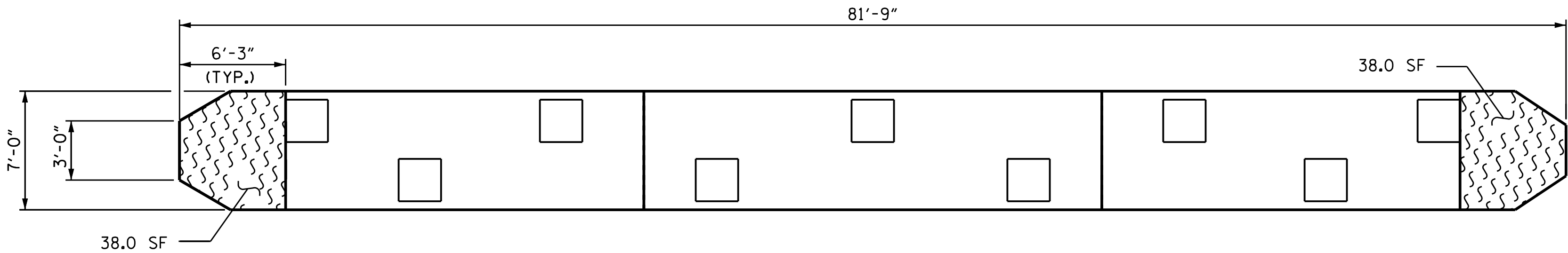
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1			3			S-133
2			4			TOTAL SHEETS 217

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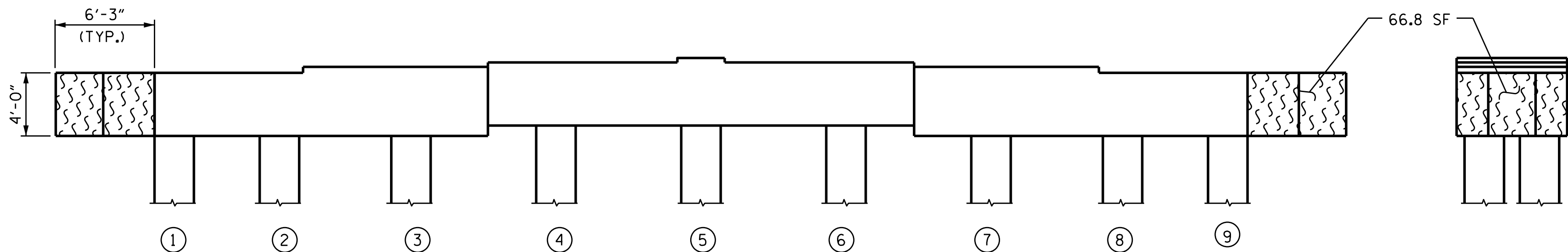




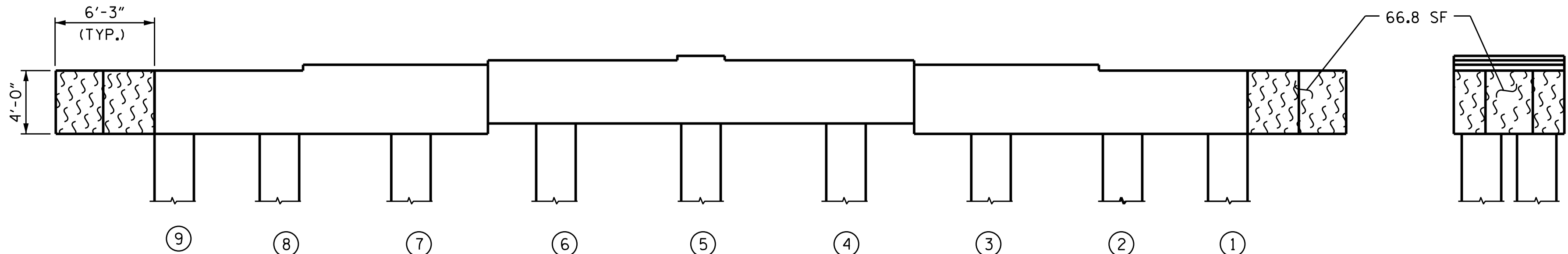
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 67  
SPAN 66

SPAN 66  
SPAN 67

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 66	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

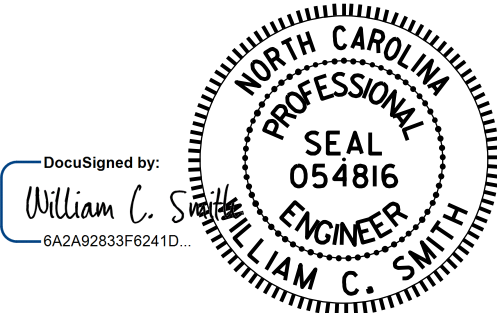
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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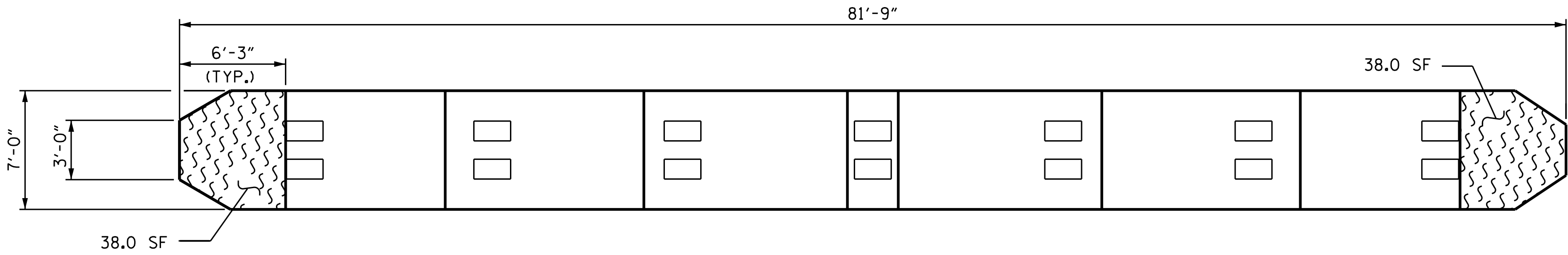


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 66

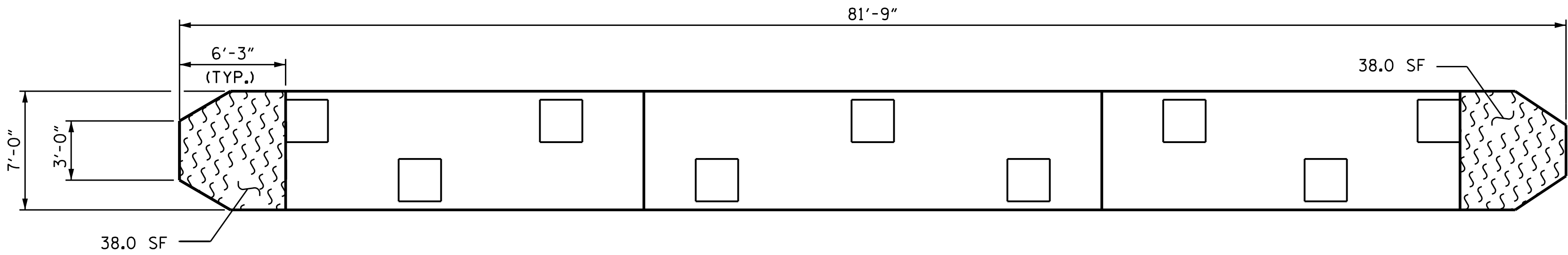
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CHECKED BY : W. C. SMITH DATE : 7/10/24

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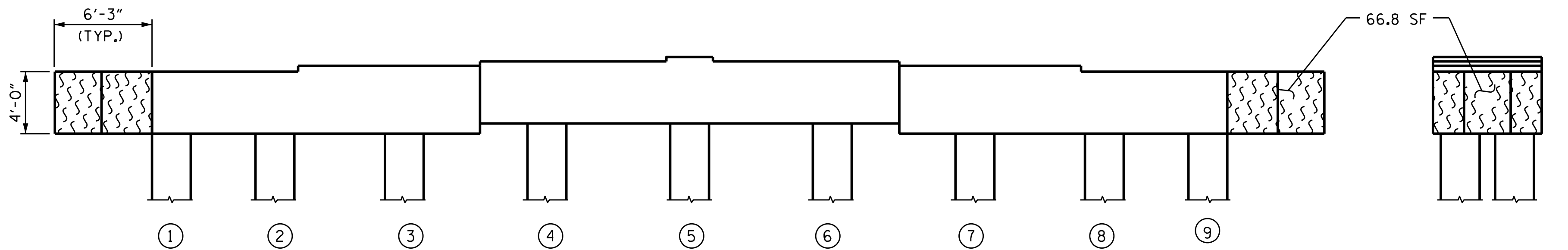
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-134
1			3			TOTAL SHEETS
2			4			217



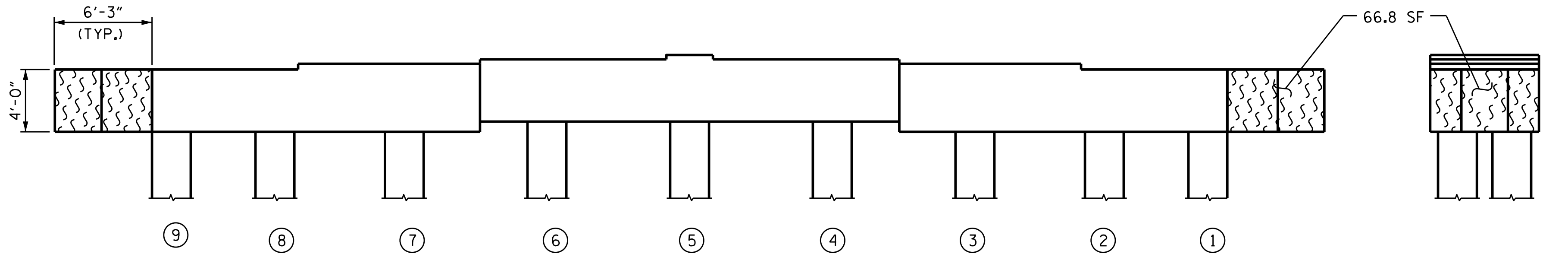
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 68  
SPAN 67

SPAN 67  
SPAN 68

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 67	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

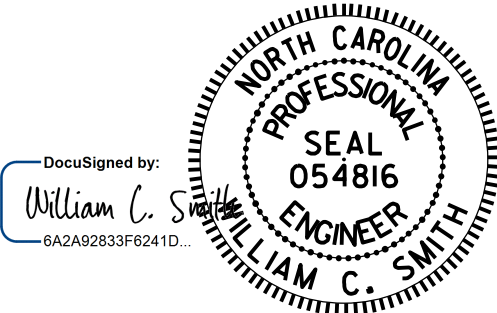
NOTES:

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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
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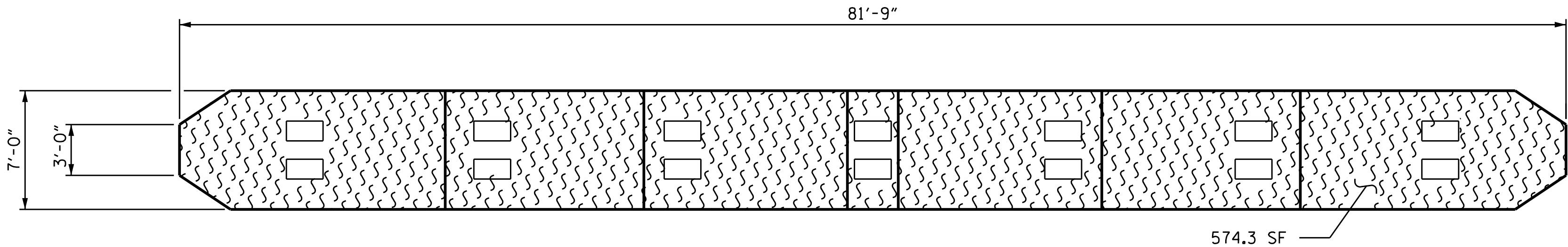


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 67

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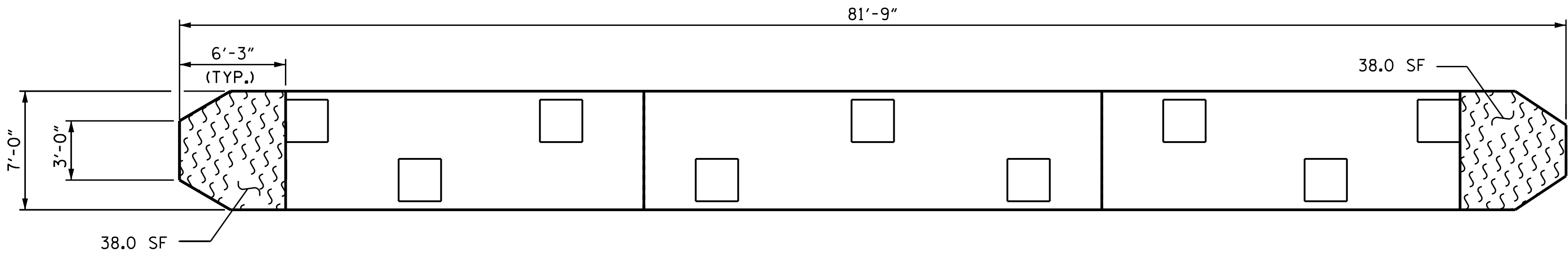
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-135
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2			4			217



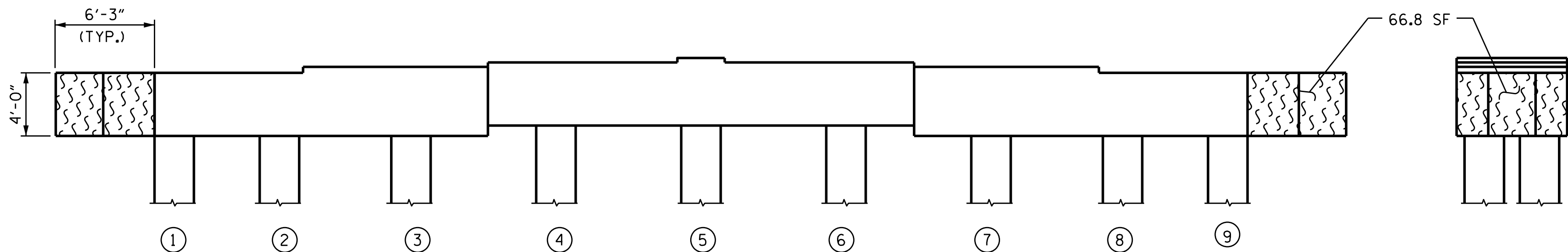
SPAN 69  
SPAN 68

TOP VIEW OF CAP



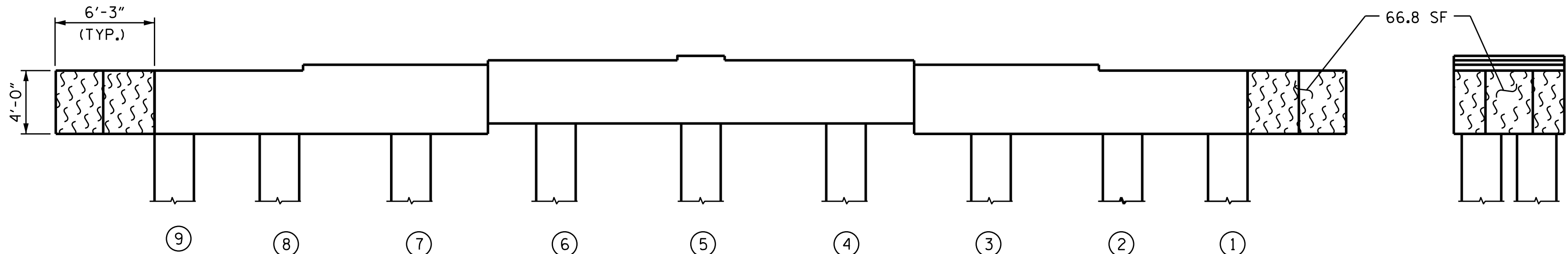
SPAN 68  
SPAN 69

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 68	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

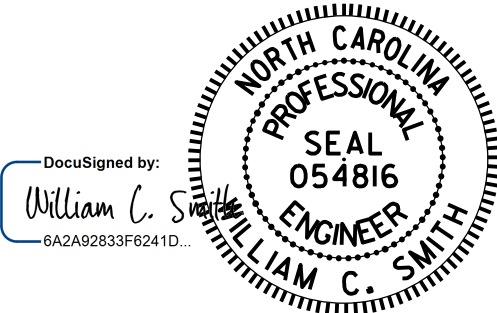
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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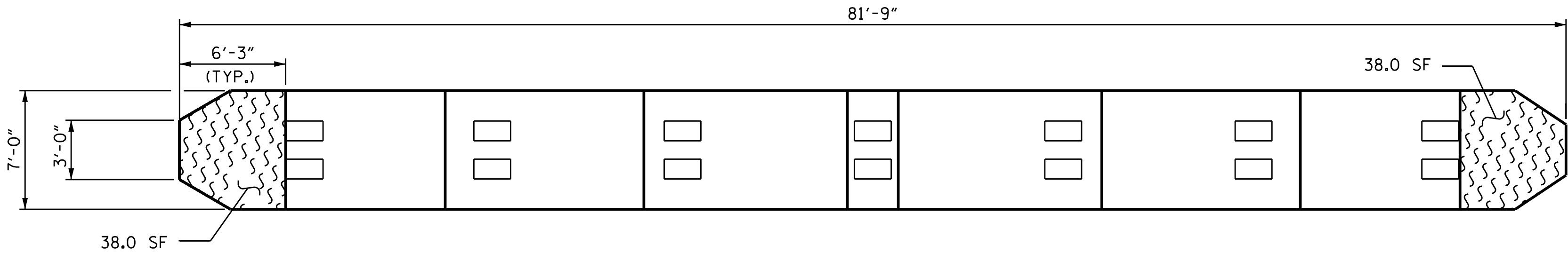
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 68

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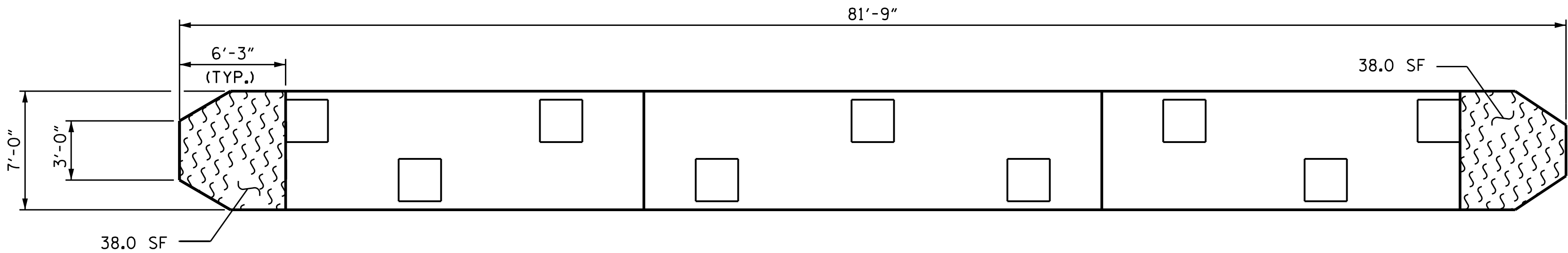
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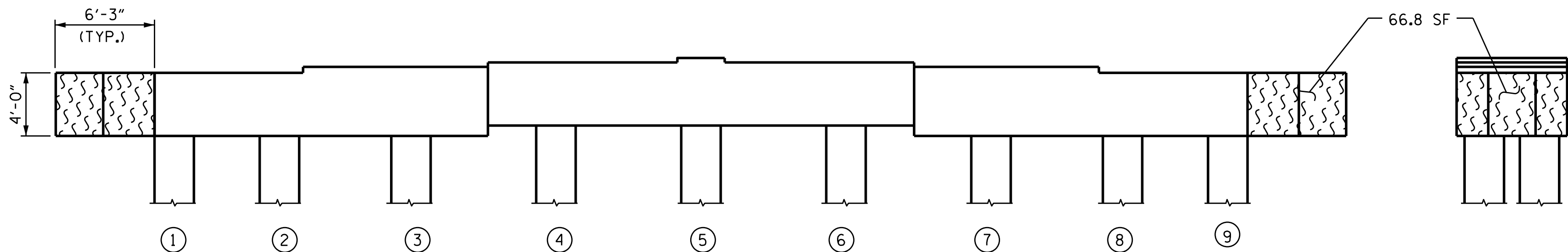




TOP VIEW OF CAP

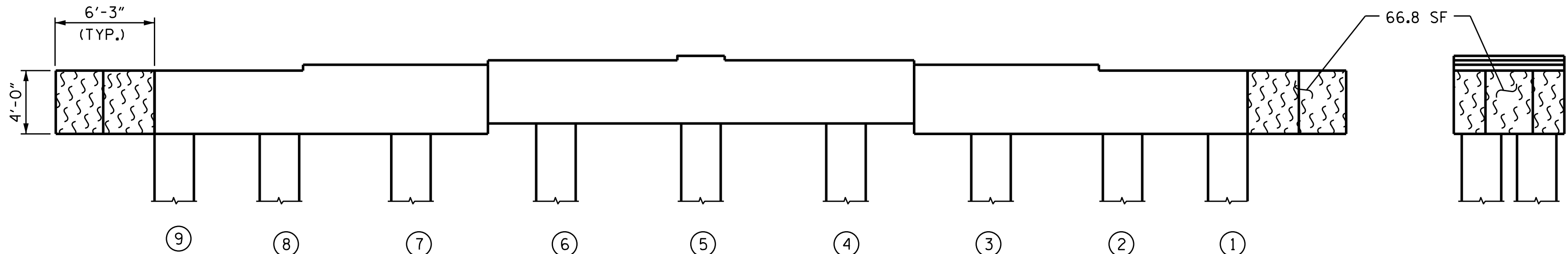


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 69	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

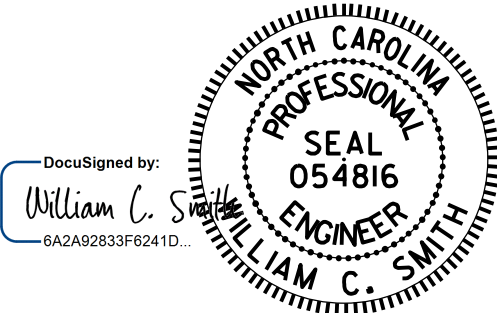
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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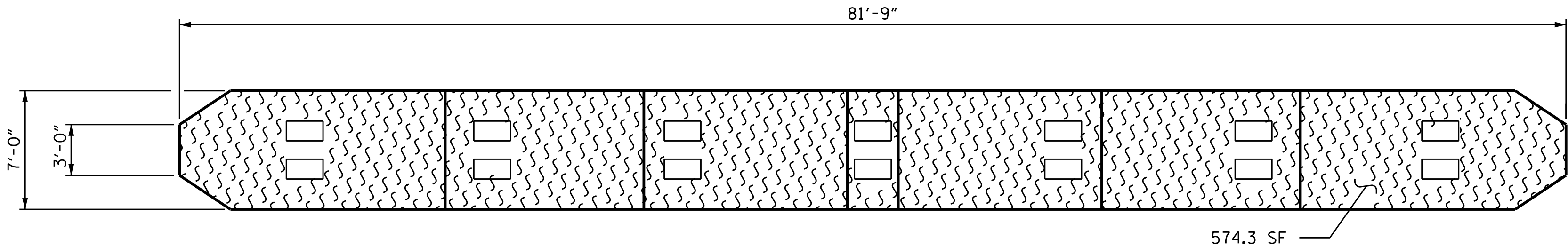


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 69

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
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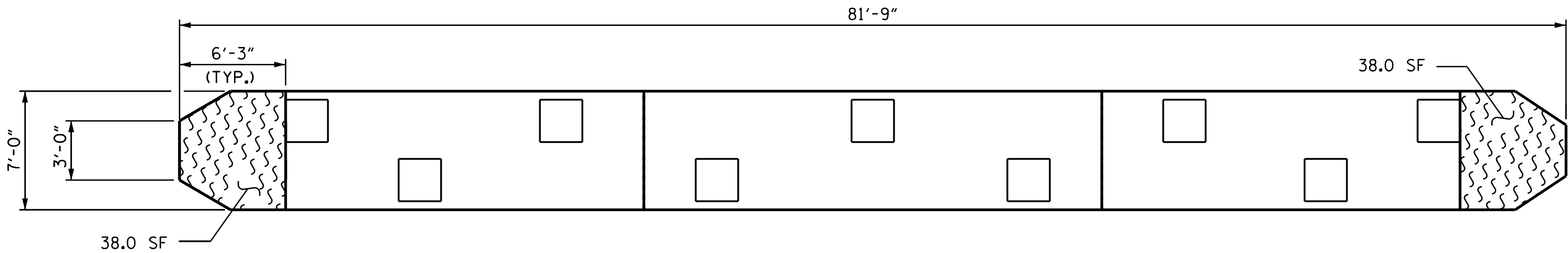
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SIGNATURES COMPLETED

REVISIONS						SHEET NO.
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2			4			217



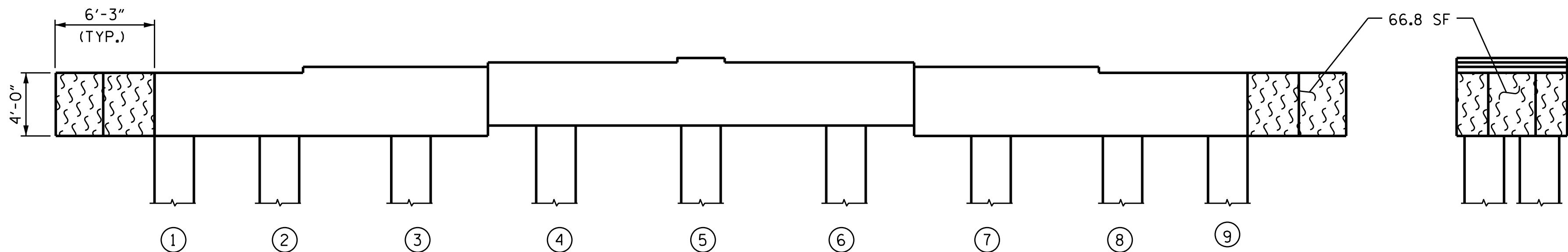
TOP VIEW OF CAP

SPAN 71  
SPAN 70



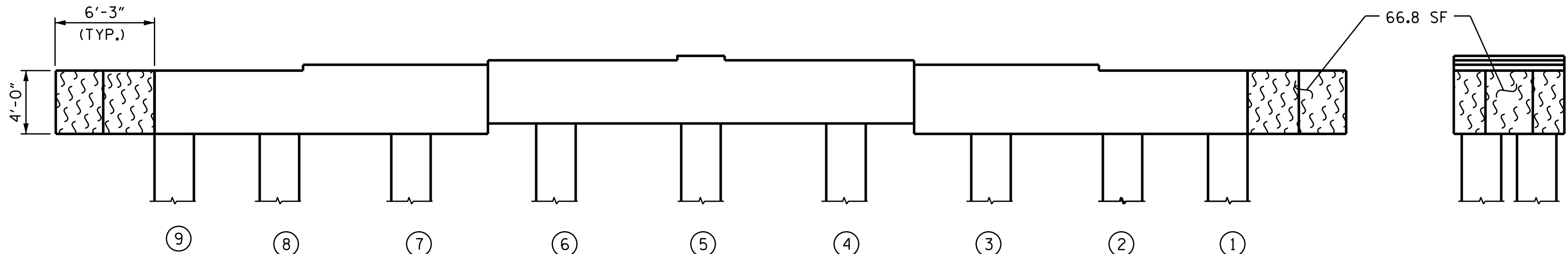
BOTTOM VIEW OF CAP

SPAN 70  
SPAN 71



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 70	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

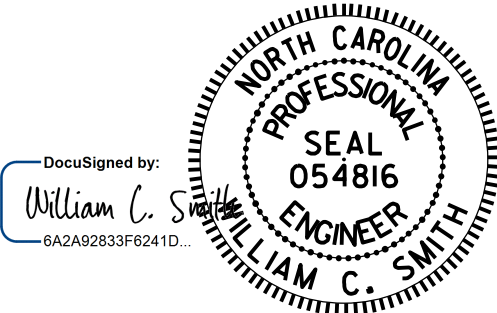
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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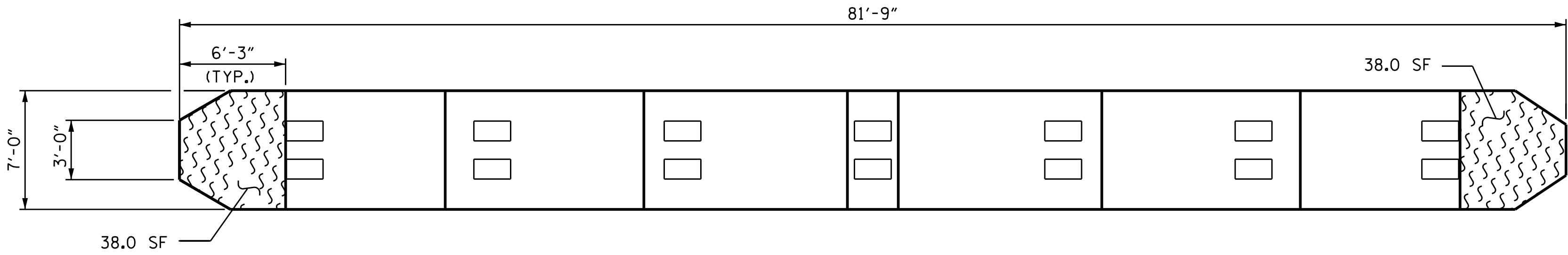


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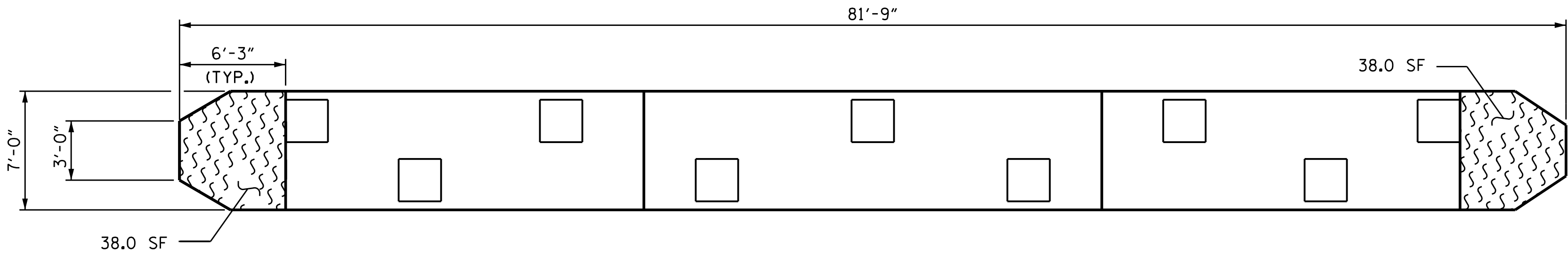
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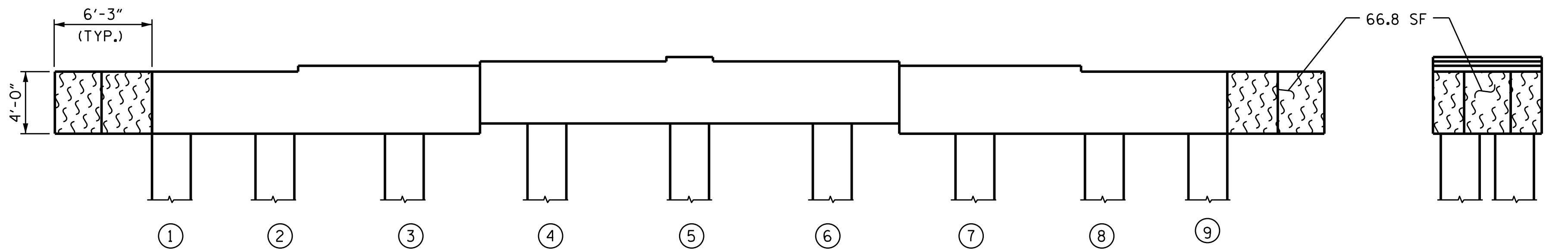
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-138
1			3			TOTAL SHEETS
2			4			217



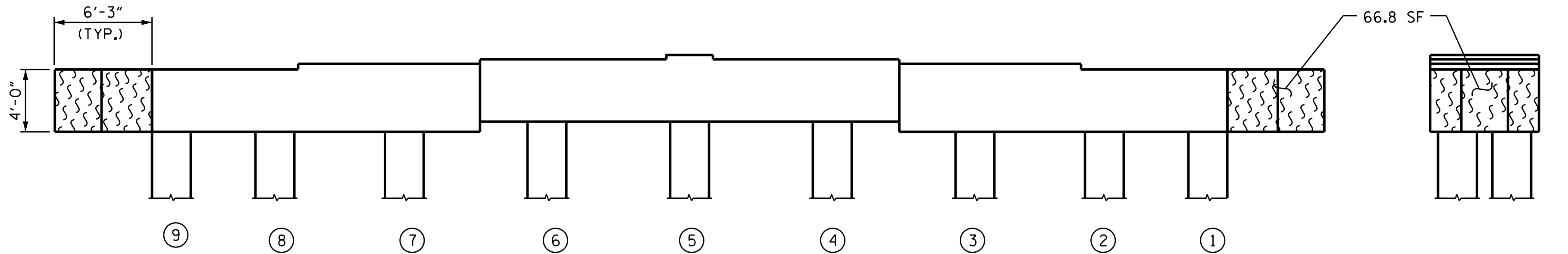
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 72  
SPAN 71

SPAN 71  
SPAN 72

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 71	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

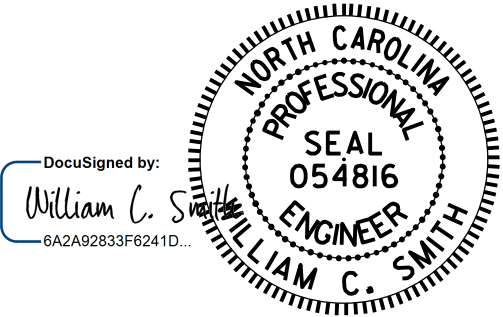
NOTES:

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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 71 OF 140



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 71

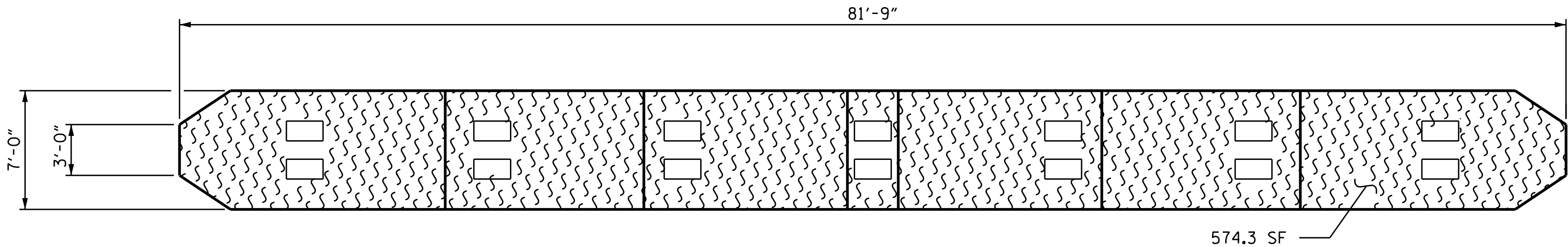
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11/21/2025

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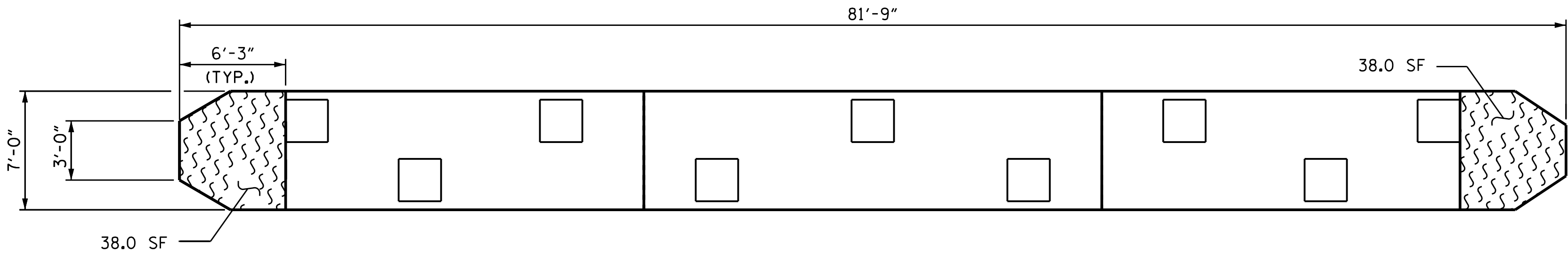
REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			217





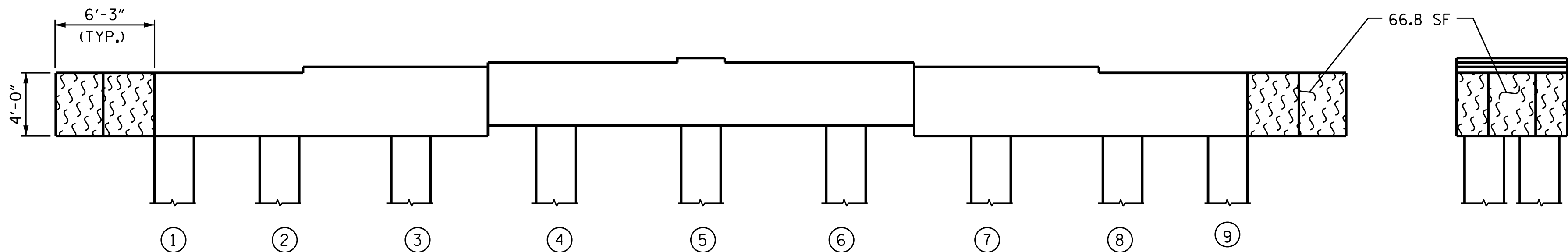
TOP VIEW OF CAP

SPAN 73  
SPAN 72



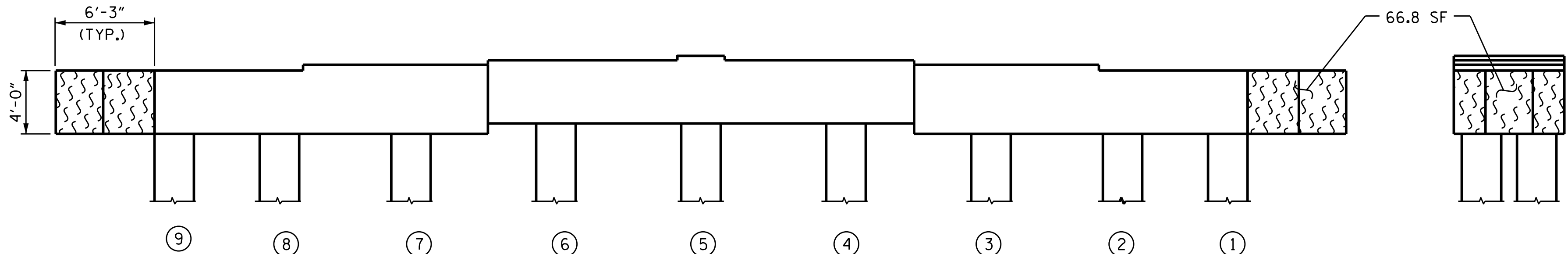
BOTTOM VIEW OF CAP

SPAN 72  
SPAN 73



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 72	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

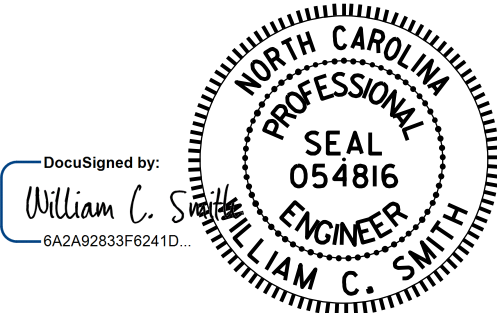
NOTES:

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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 72 OF 140

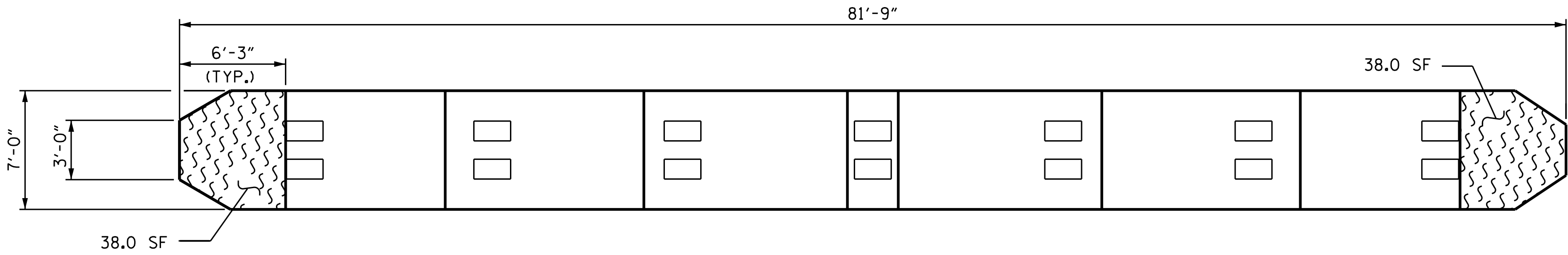


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 72

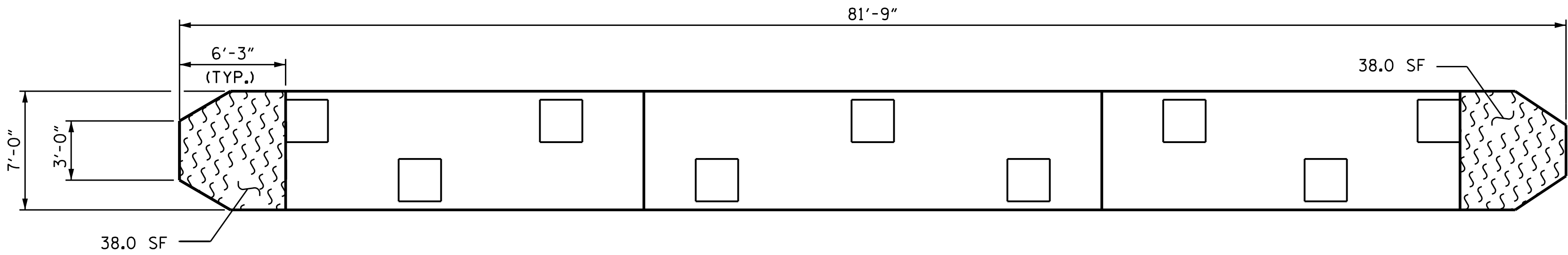
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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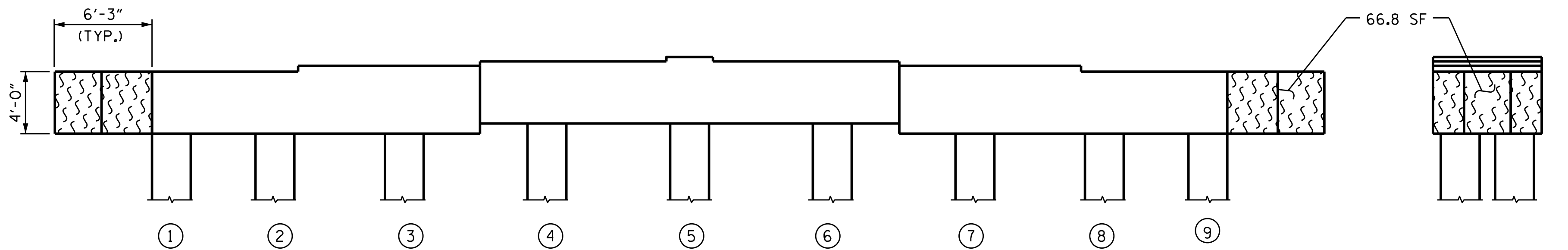
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-140
1			3			TOTAL SHEETS
2			4			217



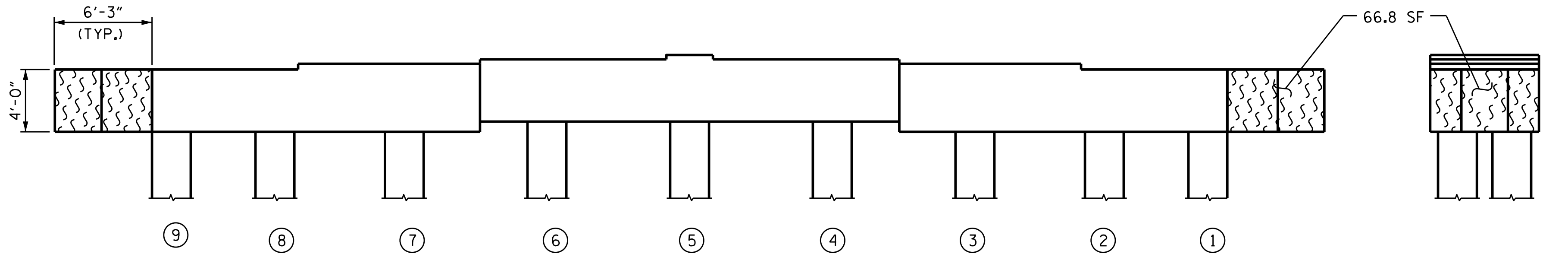
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 74  
SPAN 73

SPAN 73  
SPAN 74

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 73	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

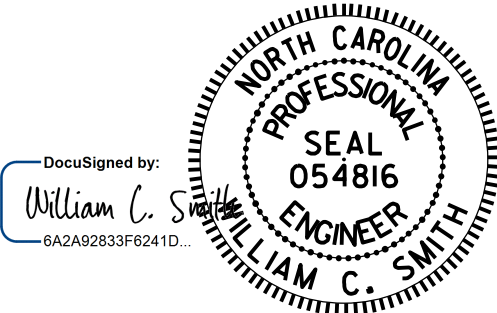
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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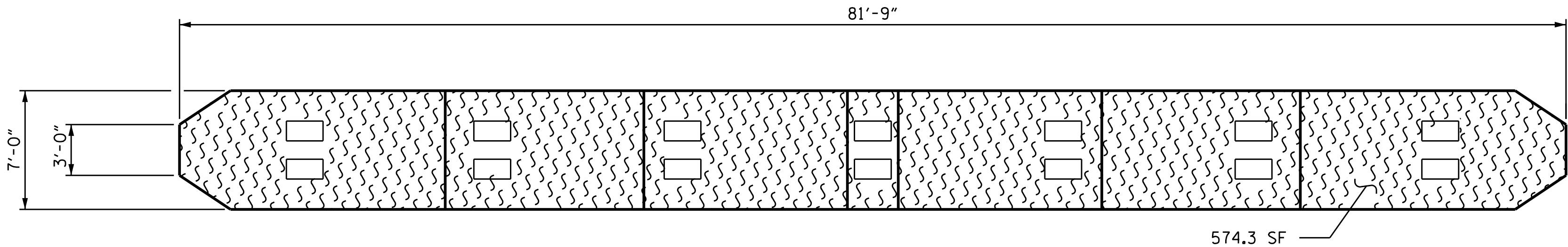
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 73

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

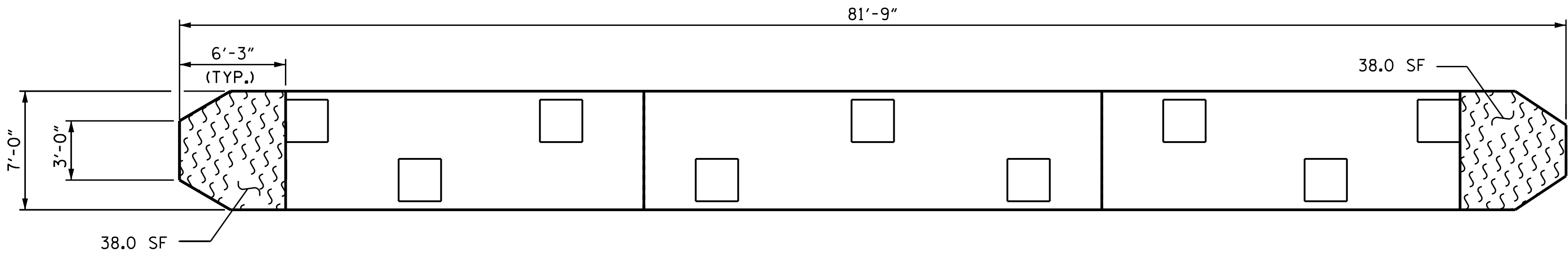
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-141
2			4			TOTAL SHEETS 217



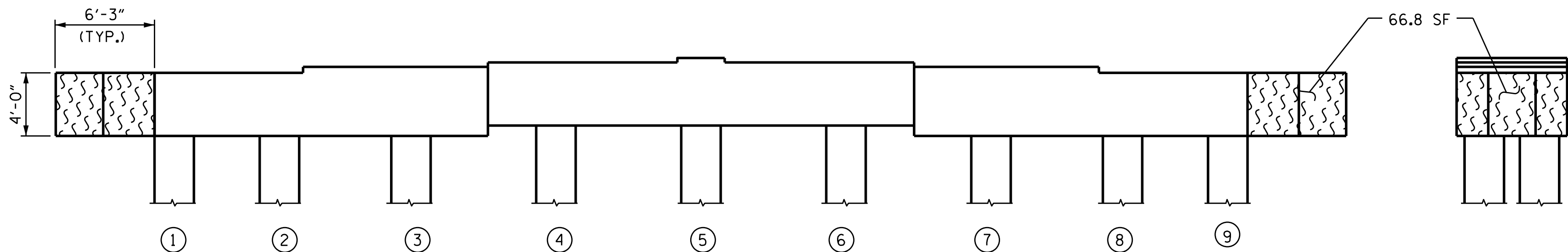
TOP VIEW OF CAP

SPAN 75  
SPAN 74



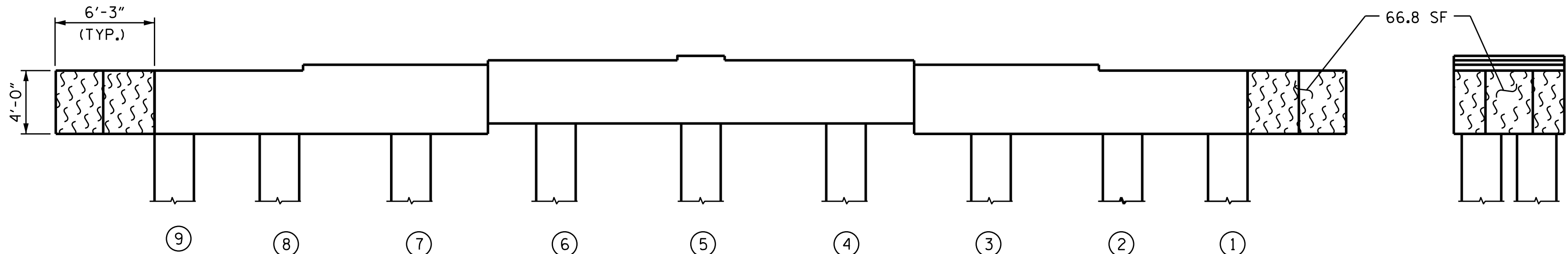
BOTTOM VIEW OF CAP

SPAN 74  
SPAN 75



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 74	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

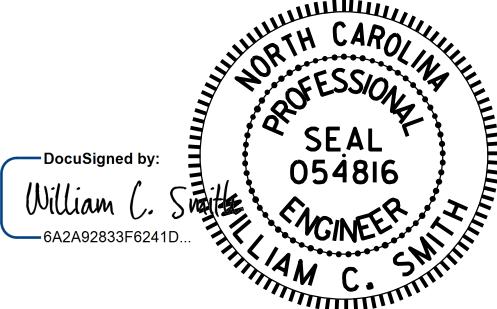
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 74 OF 140



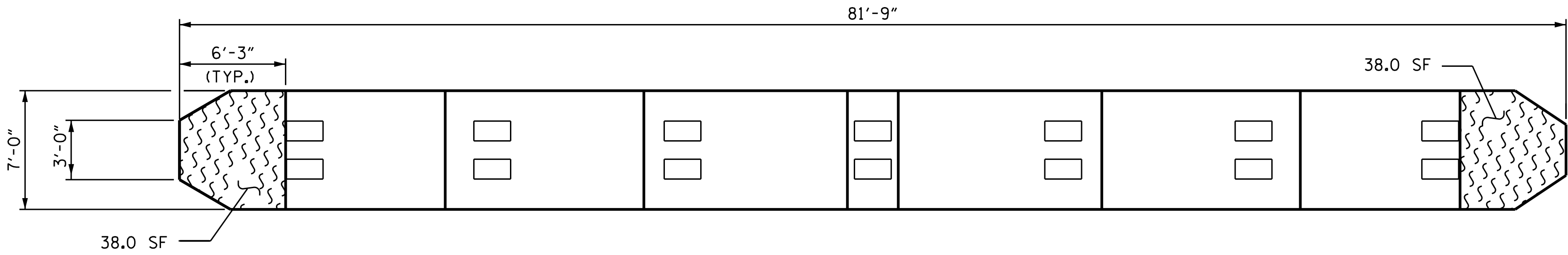
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 74

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

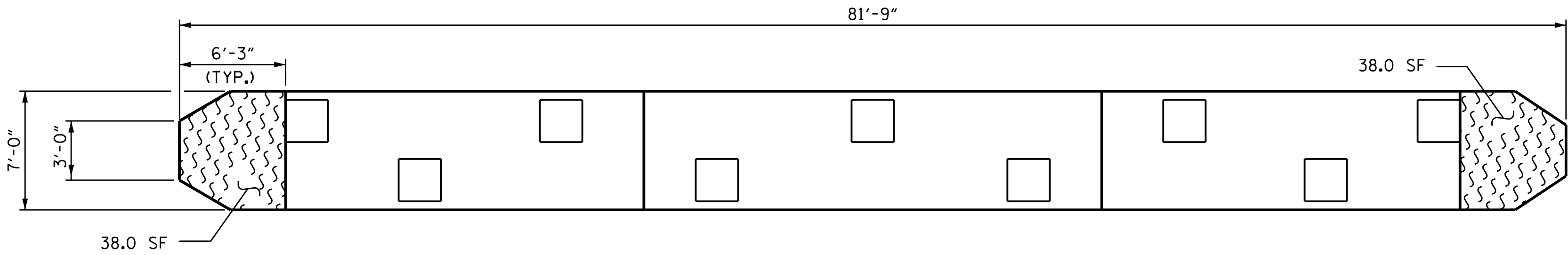
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-142
1			3			TOTAL SHEETS
2			4			217

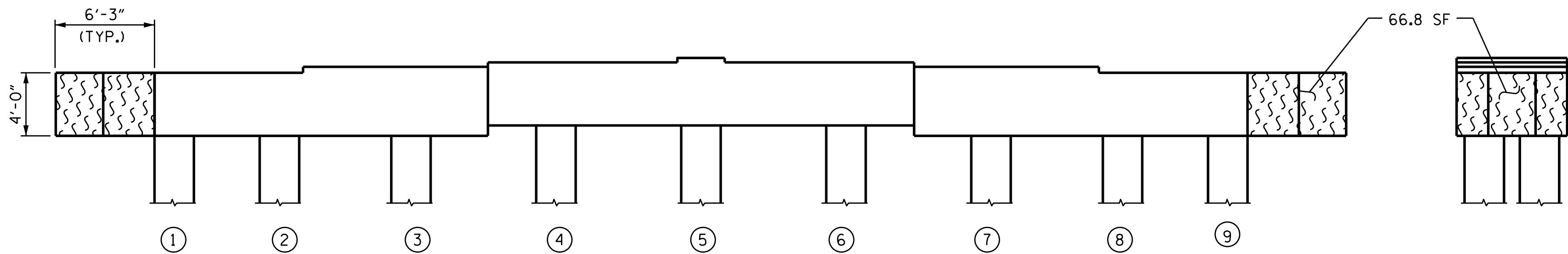




TOP VIEW OF CAP

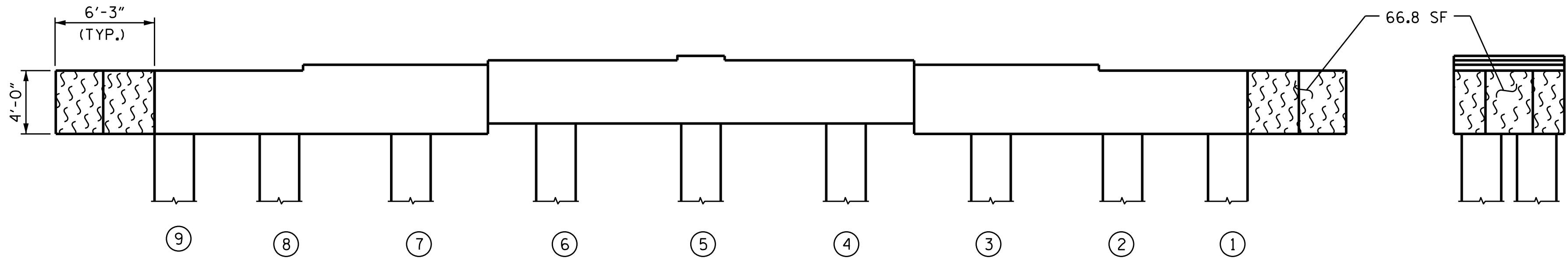


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 75	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

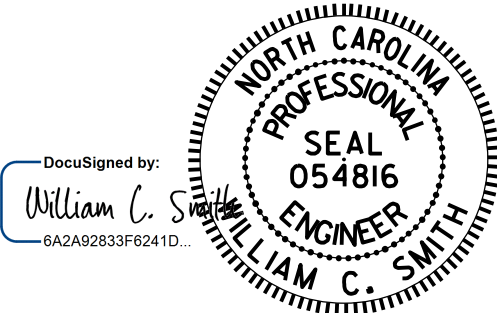
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BRIDGE NO. 060353

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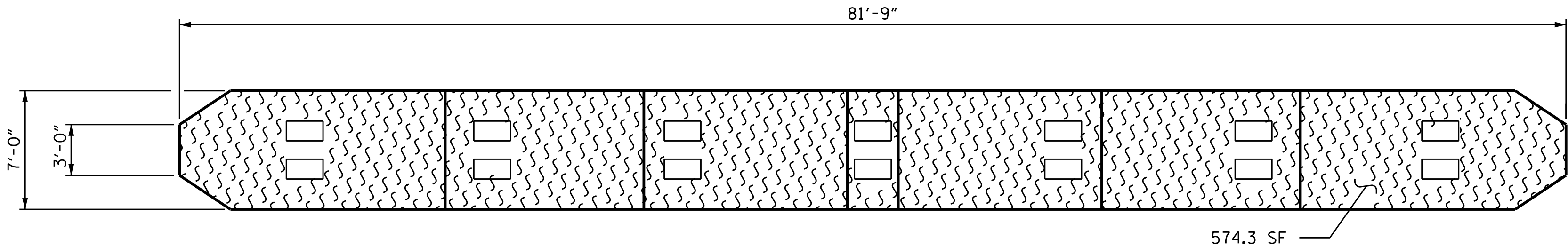


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 75

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

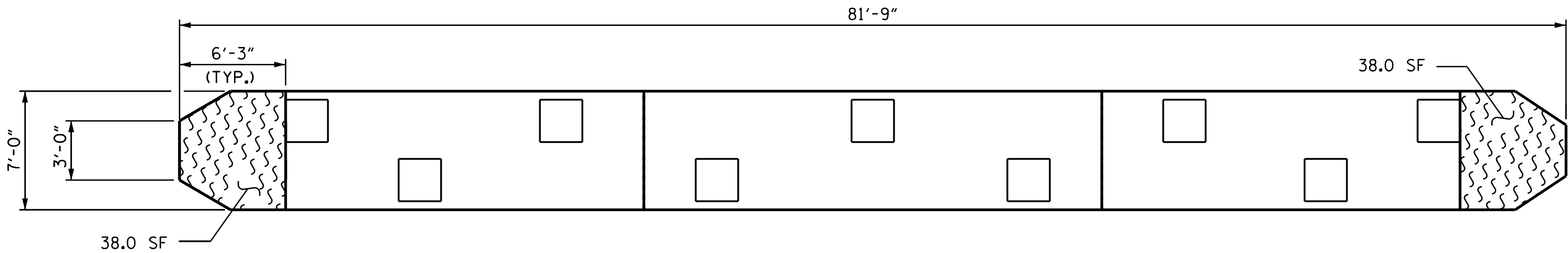
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SIGNATURES COMPLETED

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1			3			TOTAL SHEETS
2			4			217



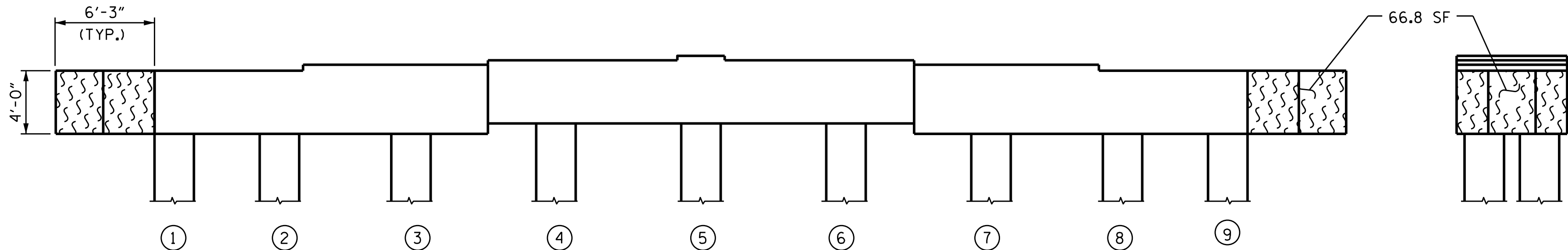
SPAN 77  
SPAN 76

TOP VIEW OF CAP



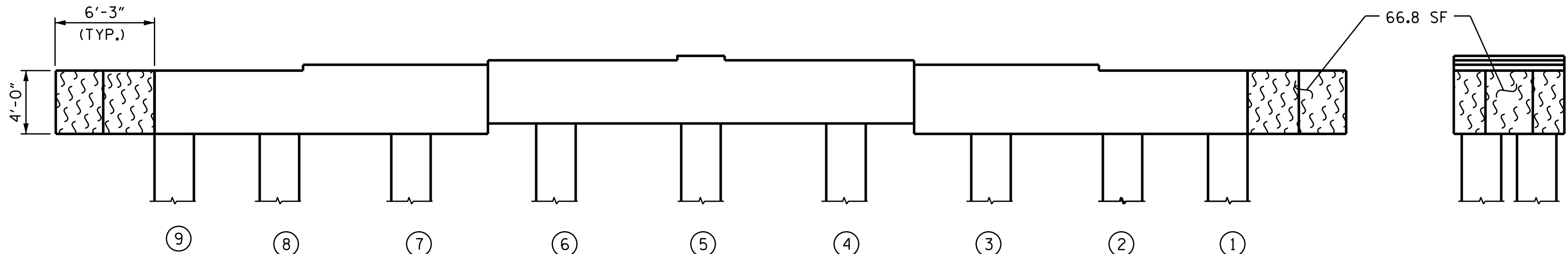
SPAN 76  
SPAN 77

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 76	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

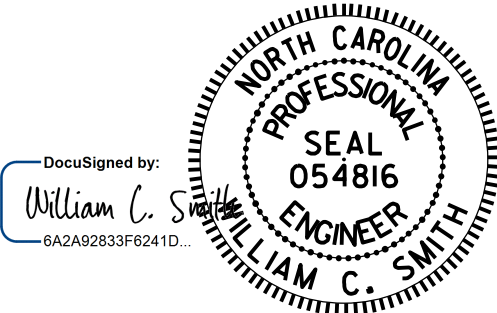
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BRIDGE NO. 060353

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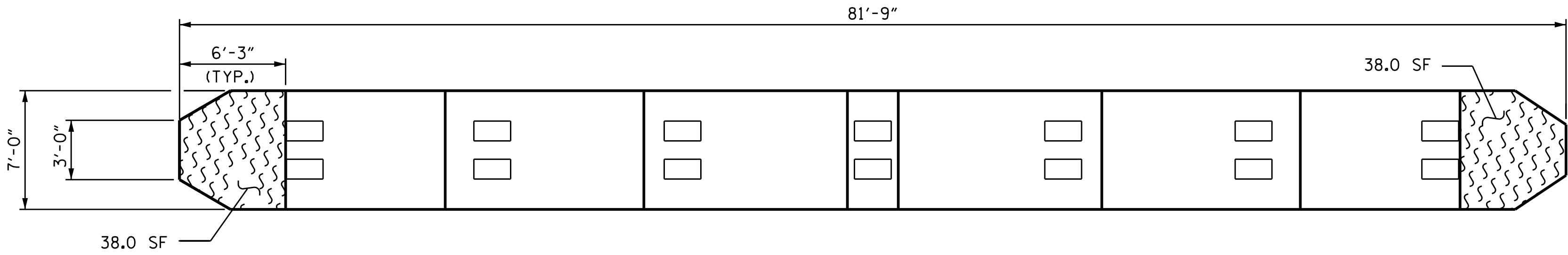


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 76

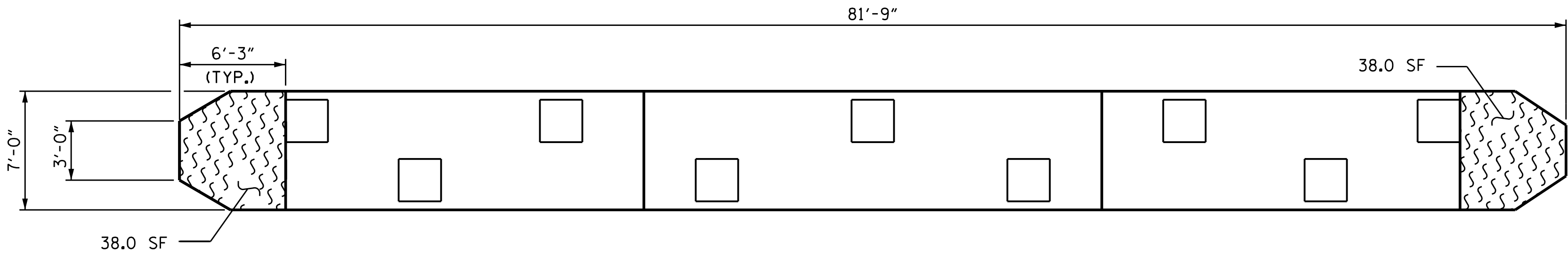
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CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
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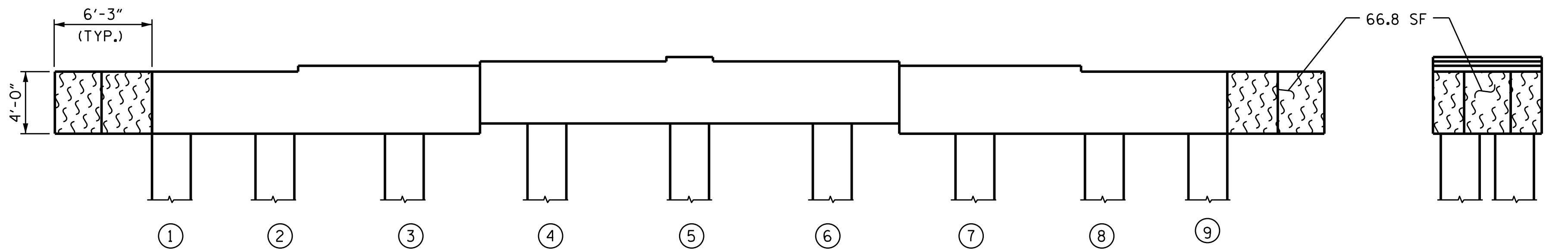
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-144
1			3			TOTAL SHEETS
2			4			217



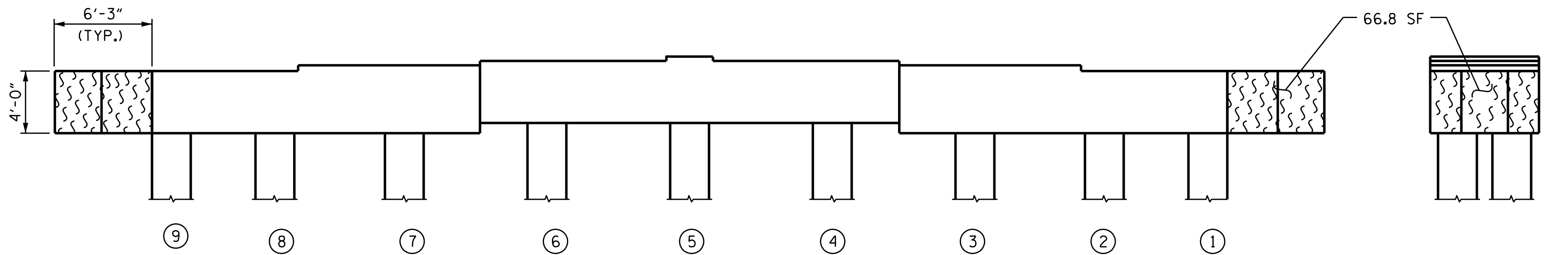
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 78  
SPAN 77

SPAN 77  
SPAN 78

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 77	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

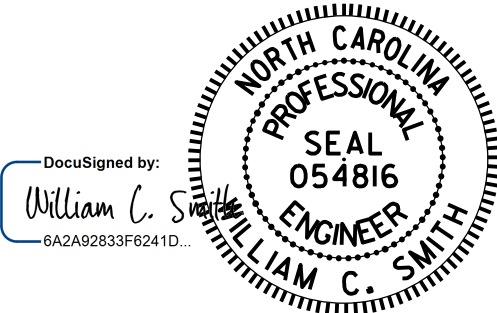
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 77

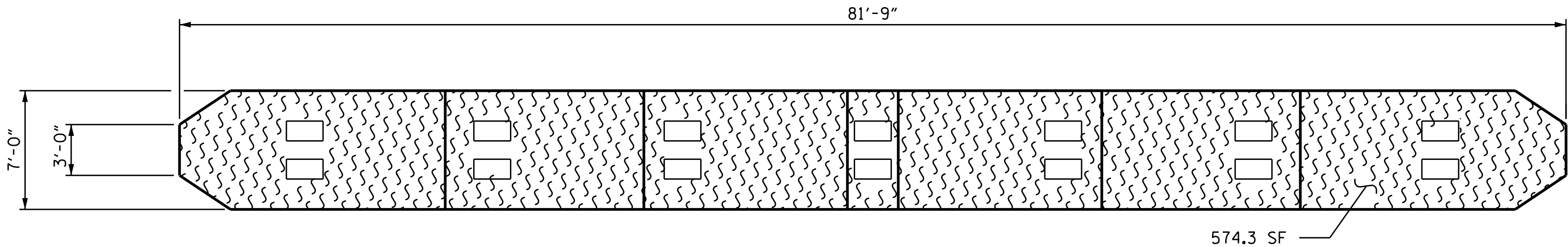
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CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

DOCUMENT NOT CONSIDERED  
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SIGNATURES COMPLETED

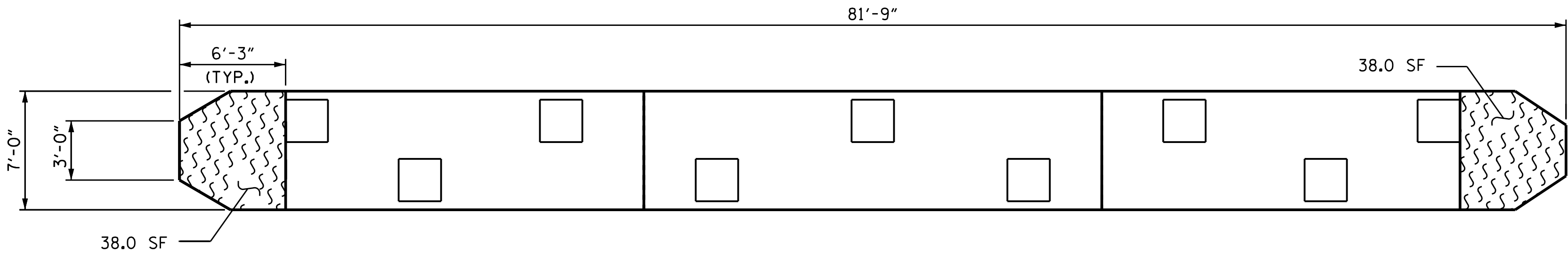
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2			4			217





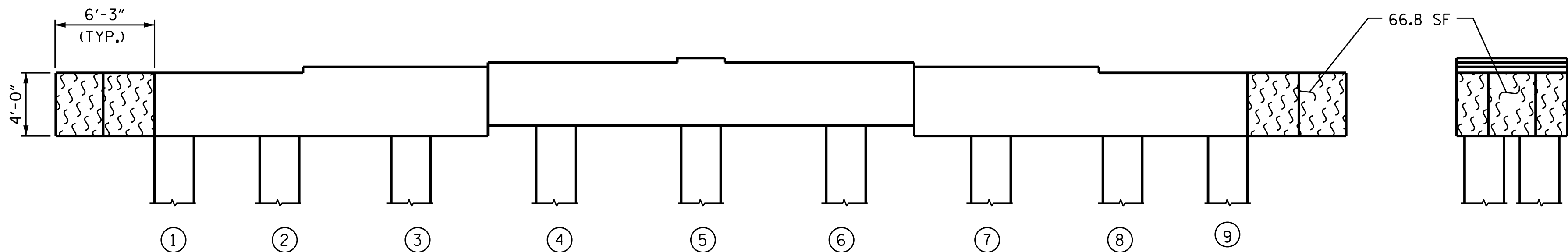
SPAN 79  
SPAN 78

TOP VIEW OF CAP



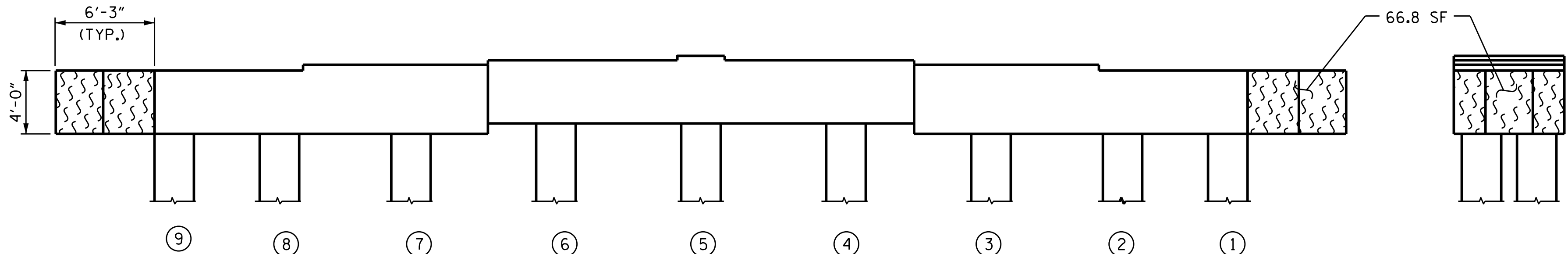
SPAN 78  
SPAN 79

BOTTOM VIEW OF CAP



EAST END

ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



WEST END

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE

BENT 78	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

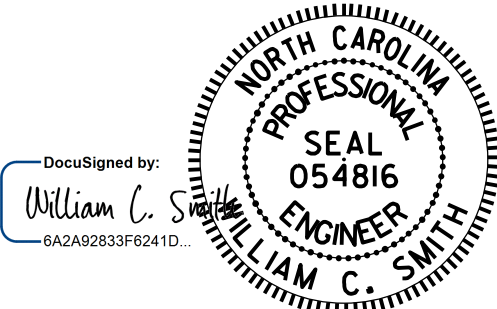
NOTES:

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- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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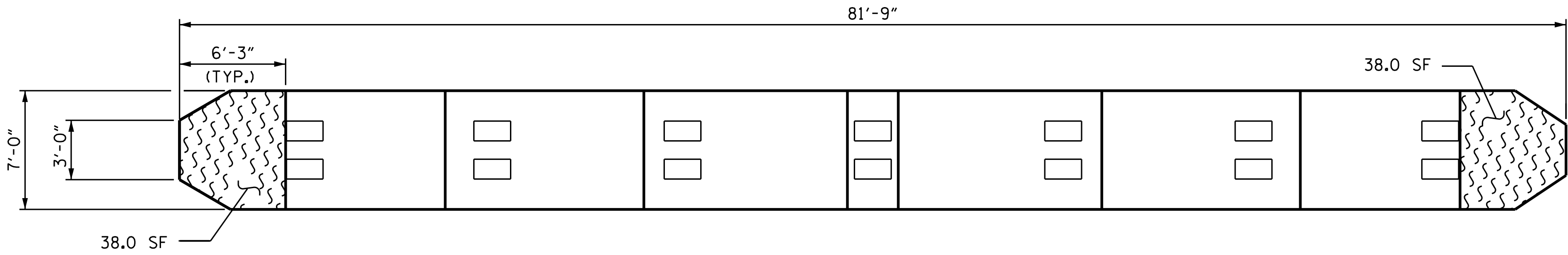


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 78

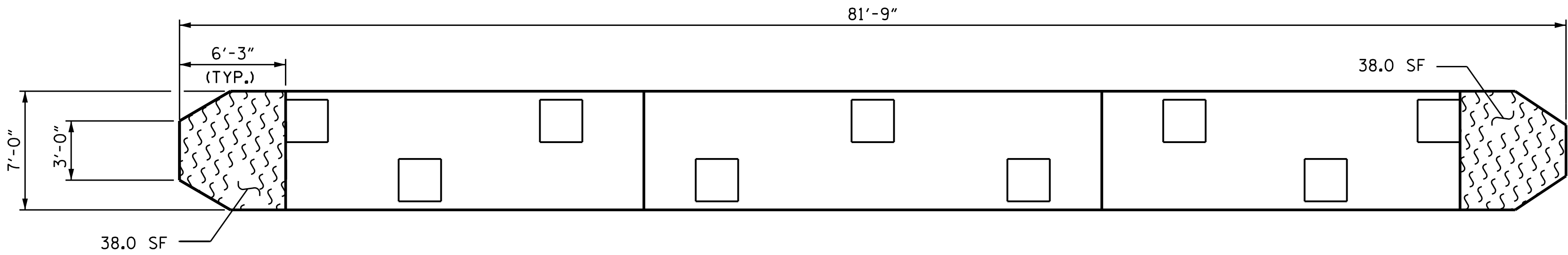
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CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
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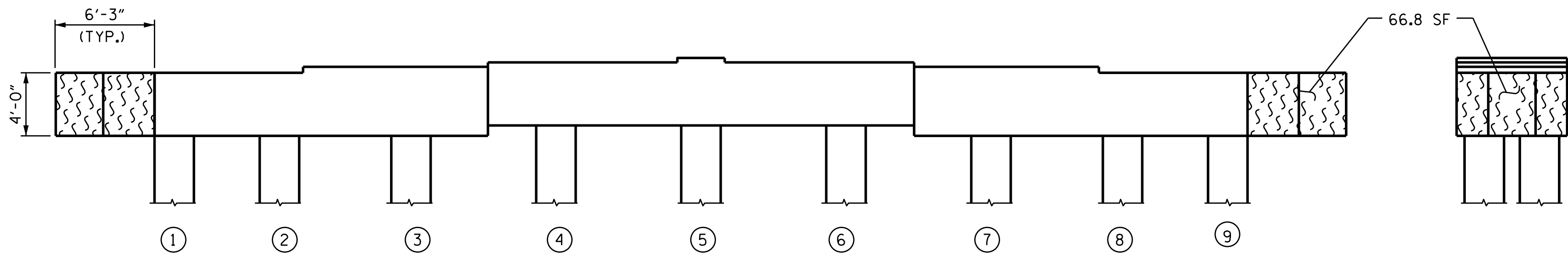
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-146
2			4			TOTAL SHEETS 217



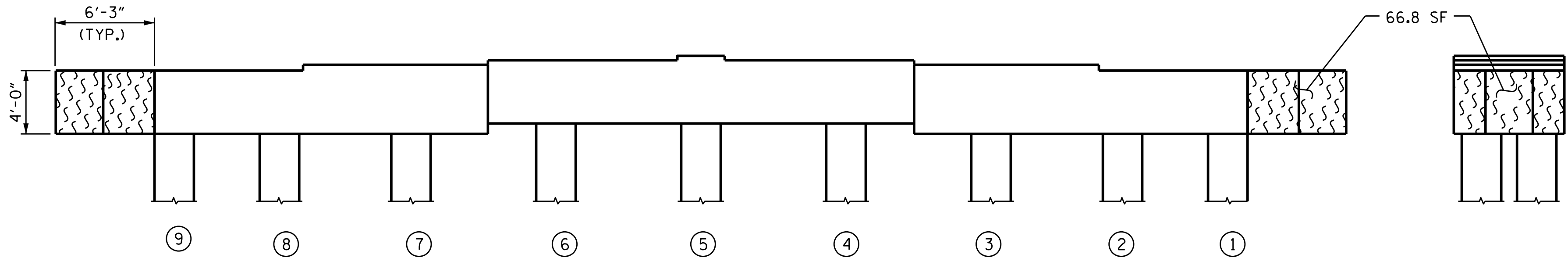
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 80  
SPAN 79

SPAN 79  
SPAN 80

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 79	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

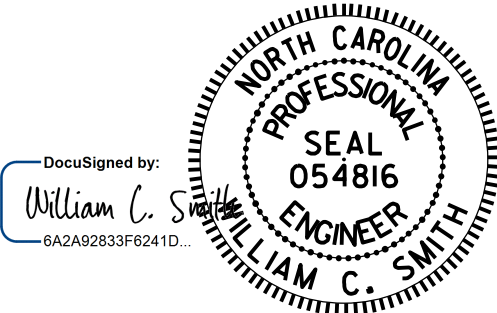
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 79 OF 140



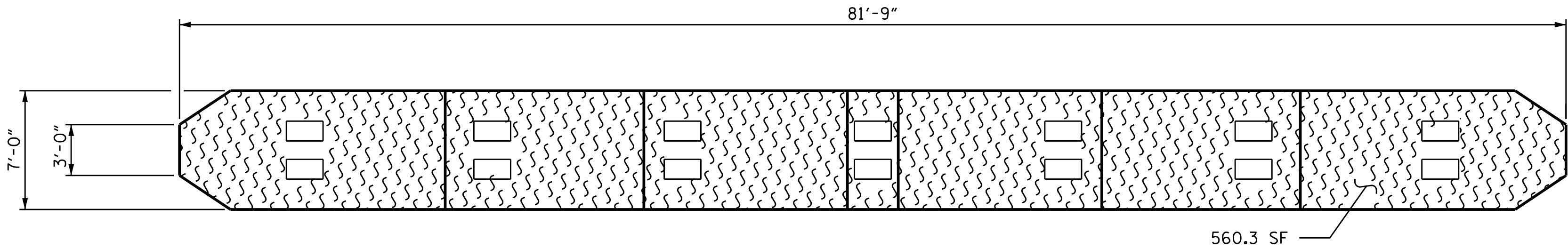
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 79

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025

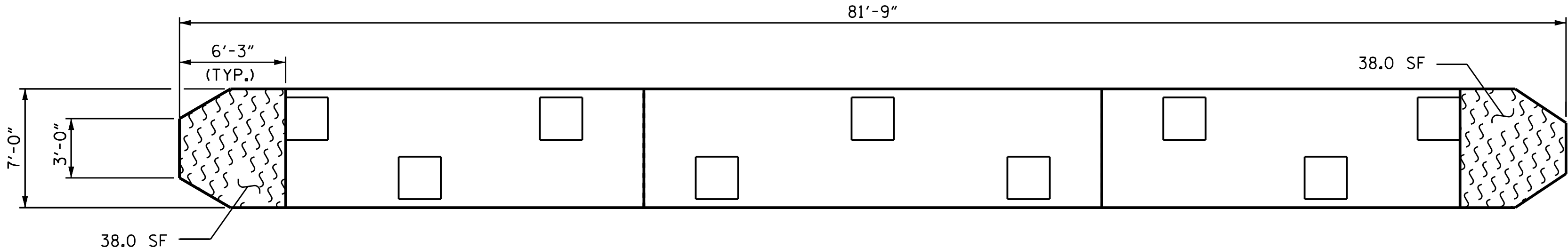
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-147
1			3			TOTAL SHEETS
2			4			217



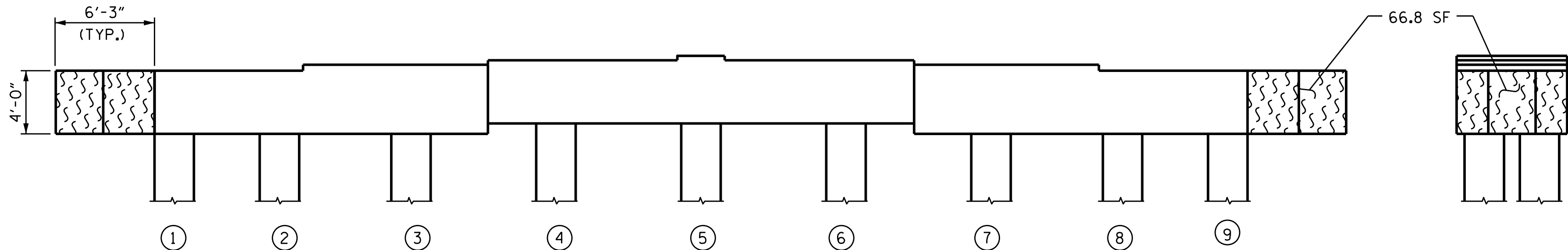
TOP VIEW OF CAP

SPAN 81  
SPAN 80



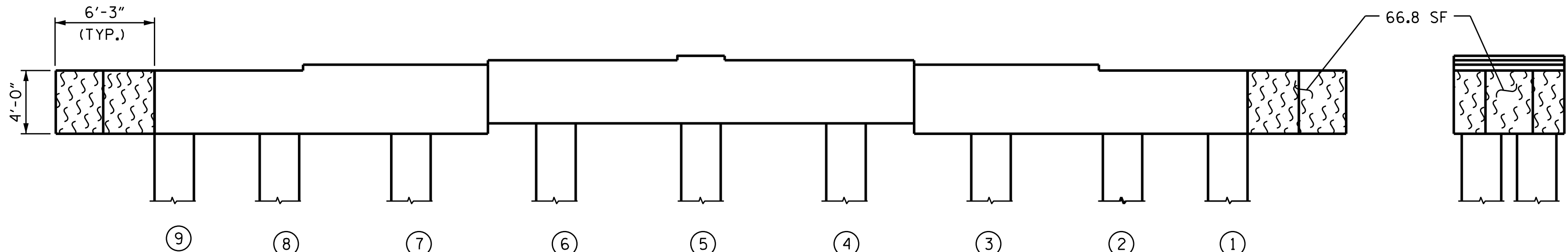
BOTTOM VIEW OF CAP

SPAN 80  
SPAN 81



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 80	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		784.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

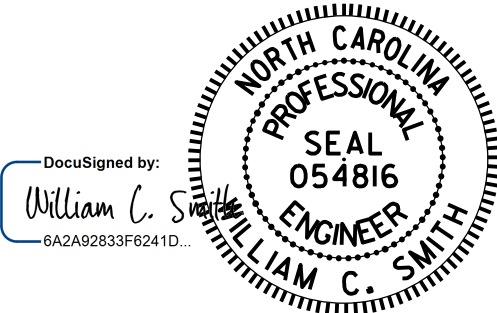
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 80 OF 140



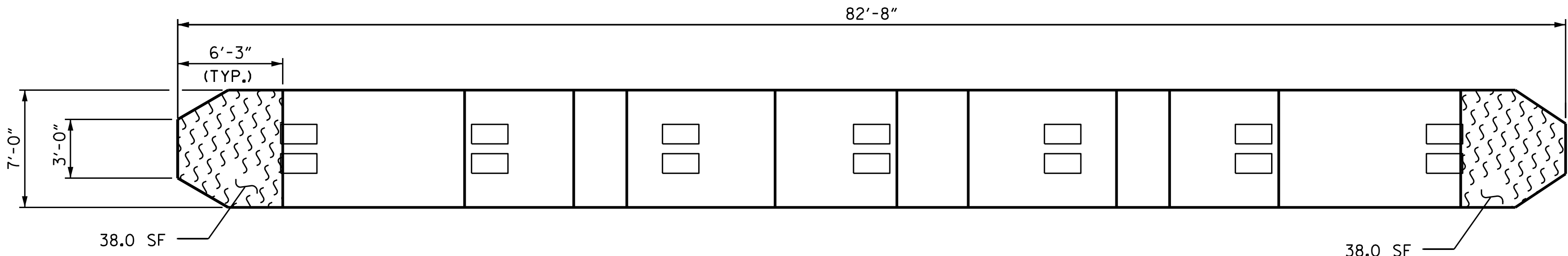
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 80

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

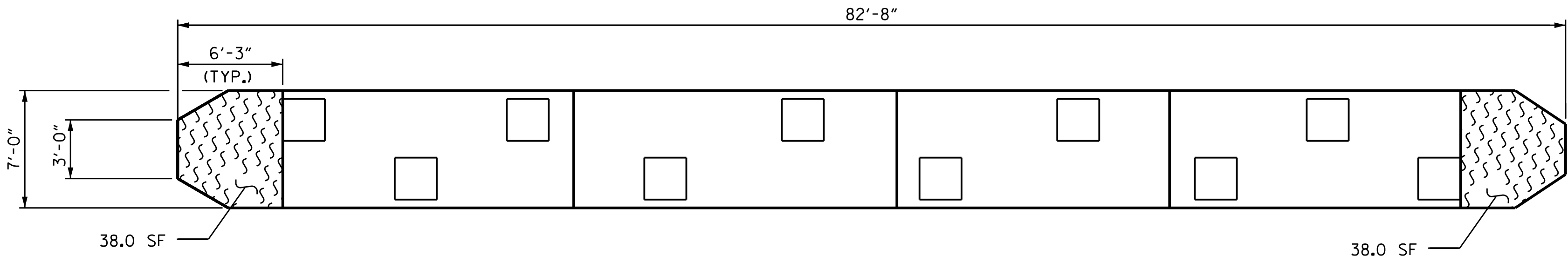
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-148
1			3			TOTAL SHEETS
2			4			217

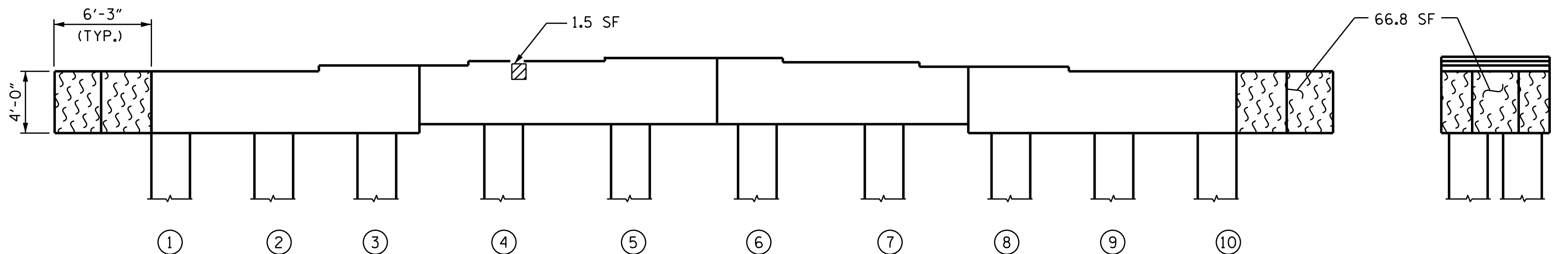




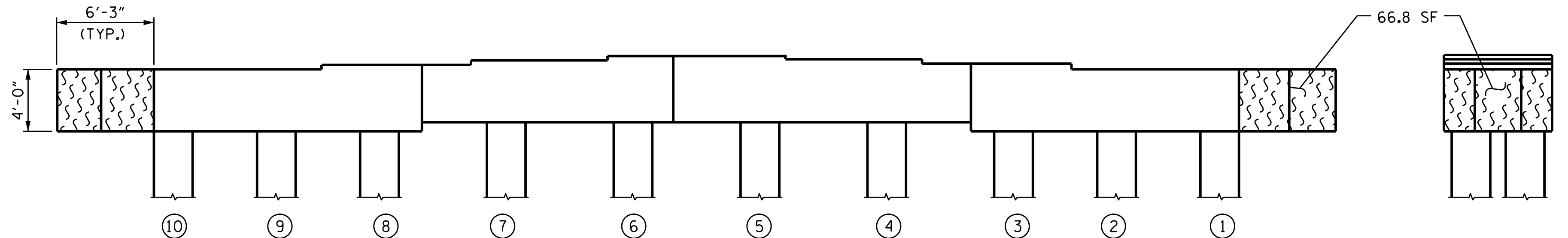
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 82  
SPAN 81

SPAN 81  
SPAN 82

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 81	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	1.5	0.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

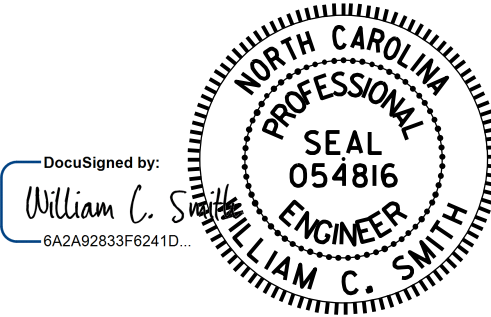
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 81 OF 140

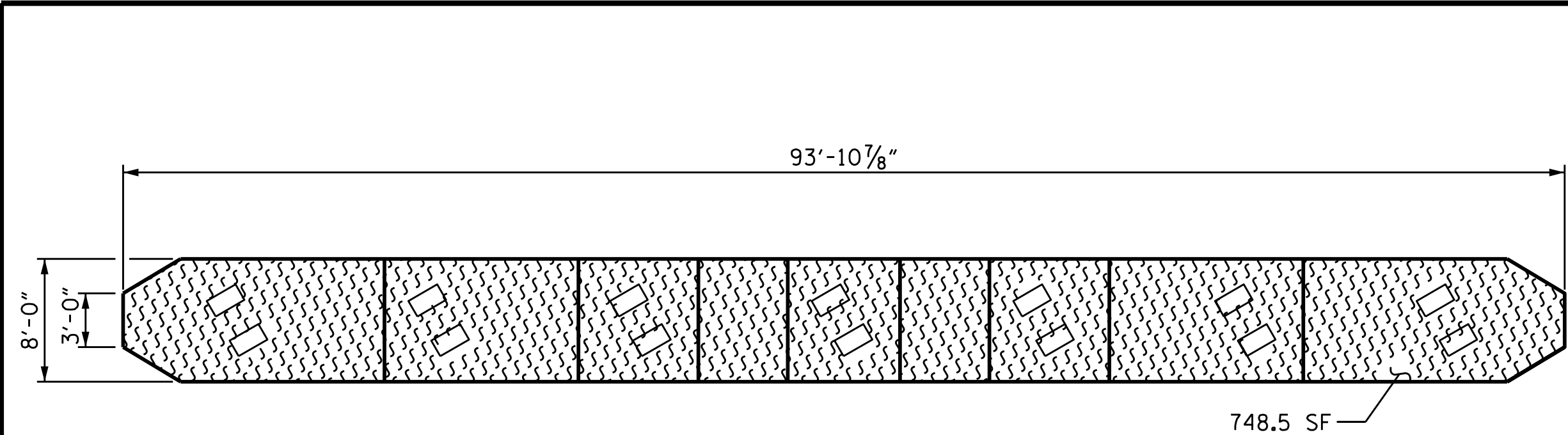


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 81

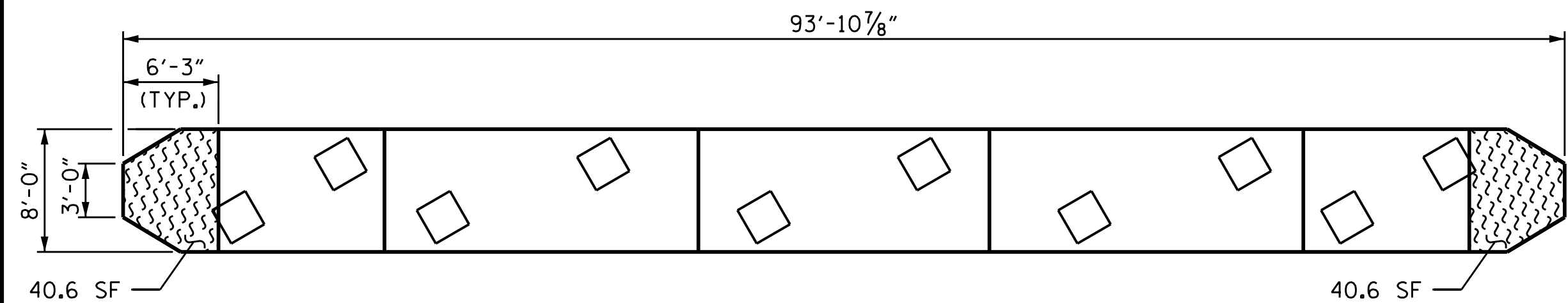
DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

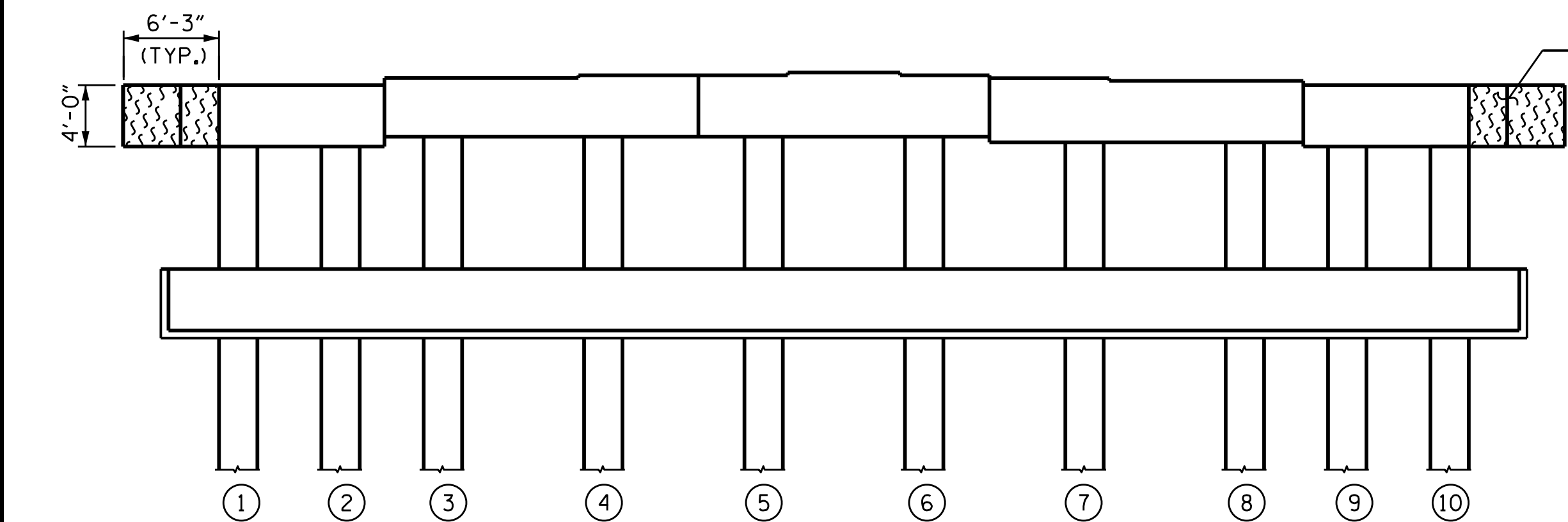
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-149
1			3			TOTAL SHEETS
2			4			217



TOP VIEW OF CAP

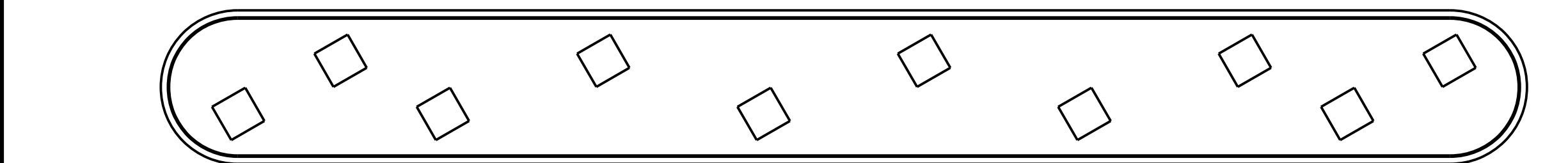


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



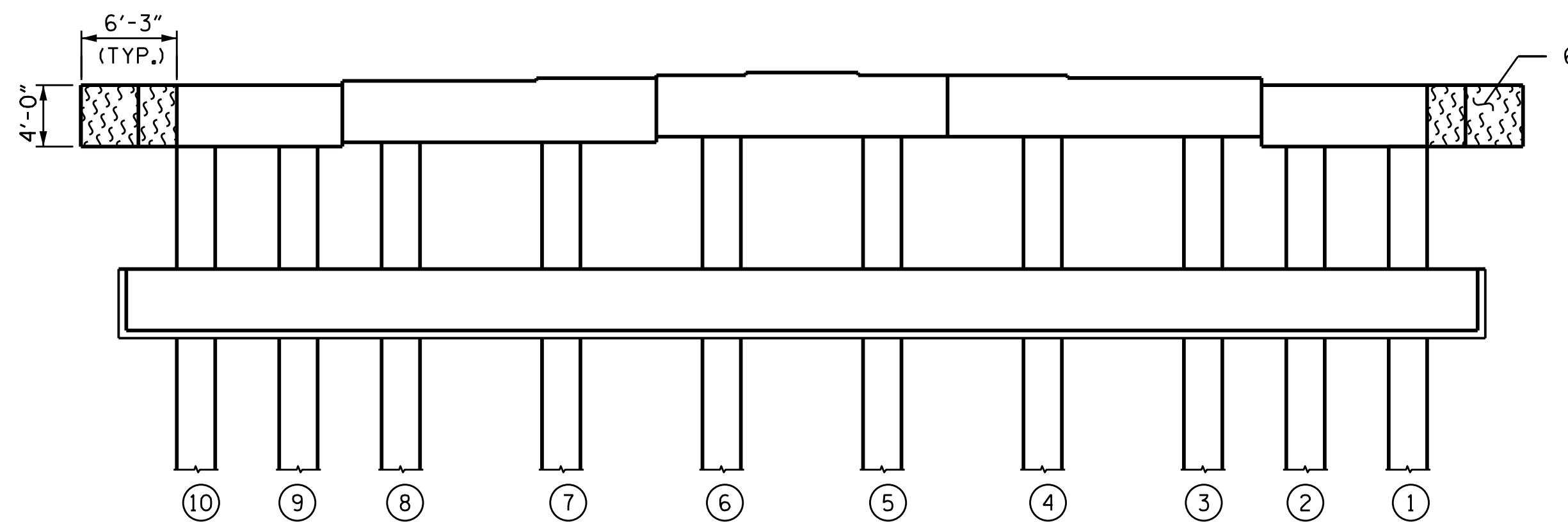
TOP VIEW OF STRUT

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/25

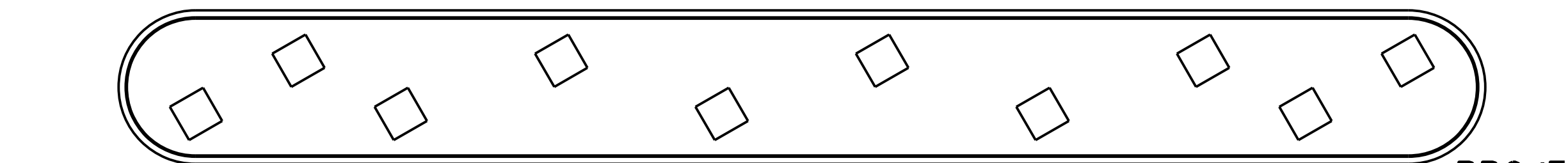
11/21/2025  
R:\Structures\15BPR,137\Plans\401\_299\_15BPR,137\_SMU\_B82\_S-150\_060353.dgn  
Kcode1

SPAN 83  
SPAN 82

SPAN 82  
SPAN 83



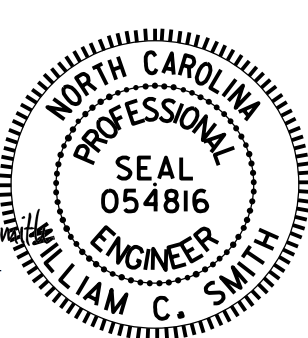
ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

DocuSigned by:  
William C. Smith  
BA2A82833F6241D



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

BENT 82	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		965.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

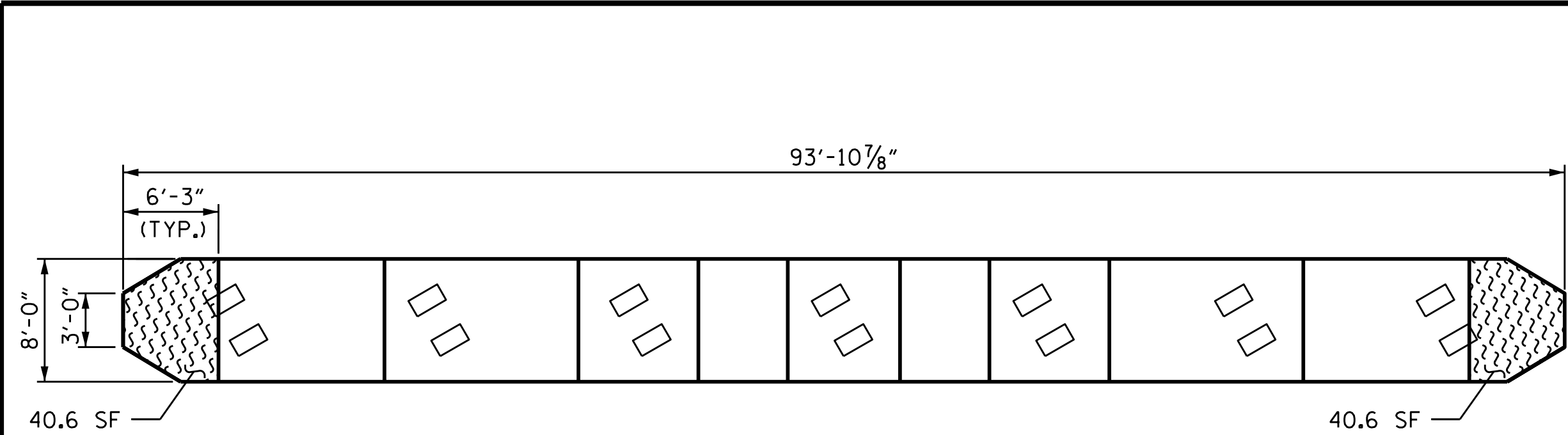
SHEET 82 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

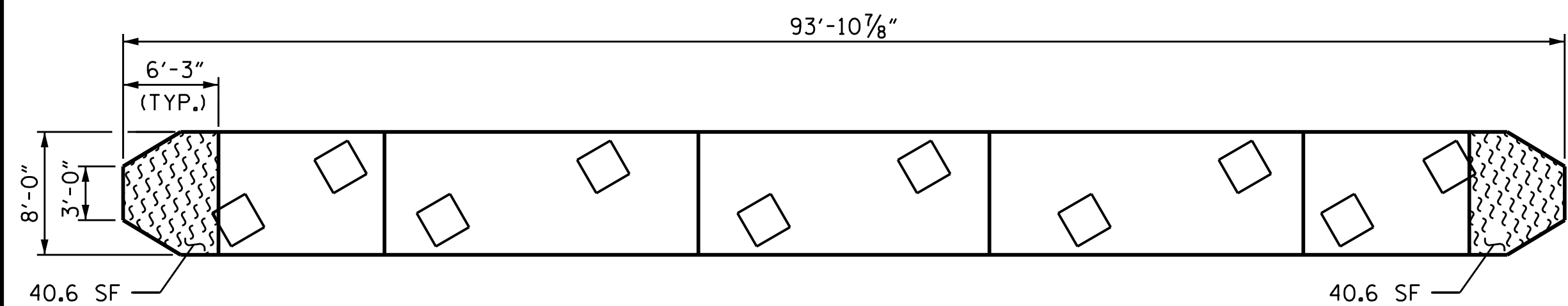
SUBSTRUCTURE

BENT 82

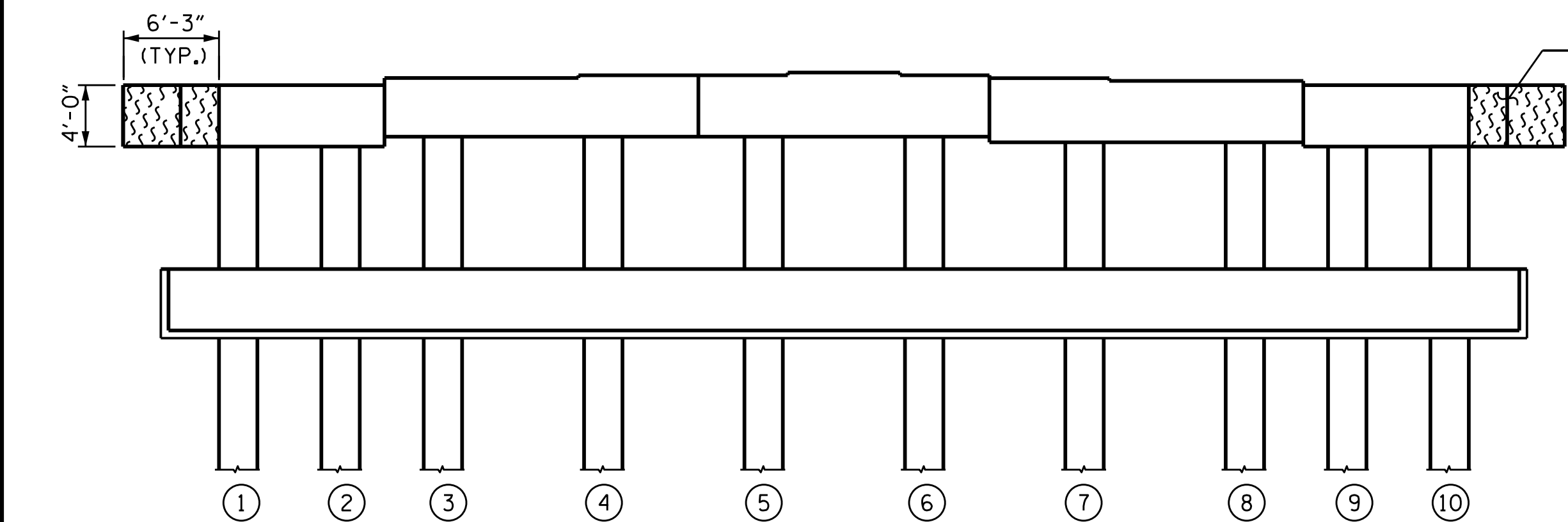
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-150
2			4			TOTAL SHEETS 216



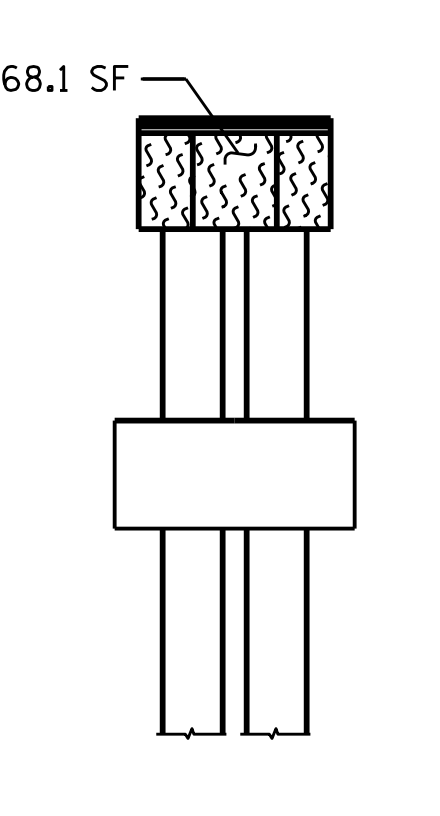
TOP VIEW OF CAP



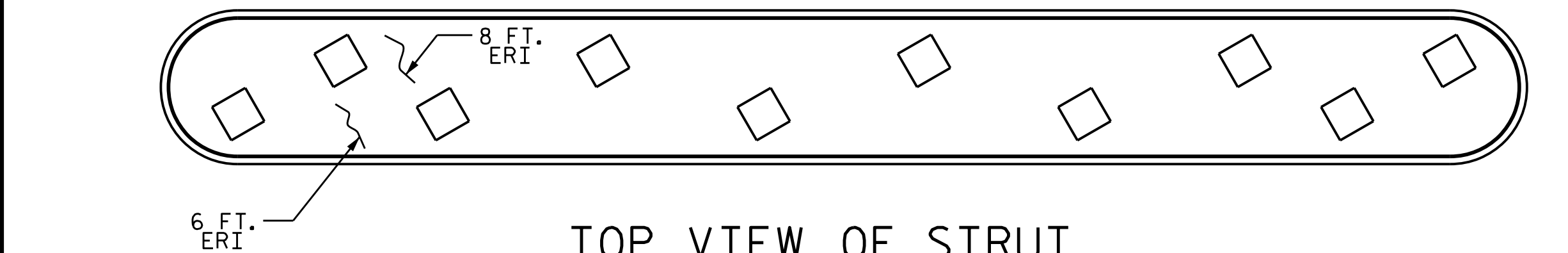
BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



TOP VIEW OF STRUT

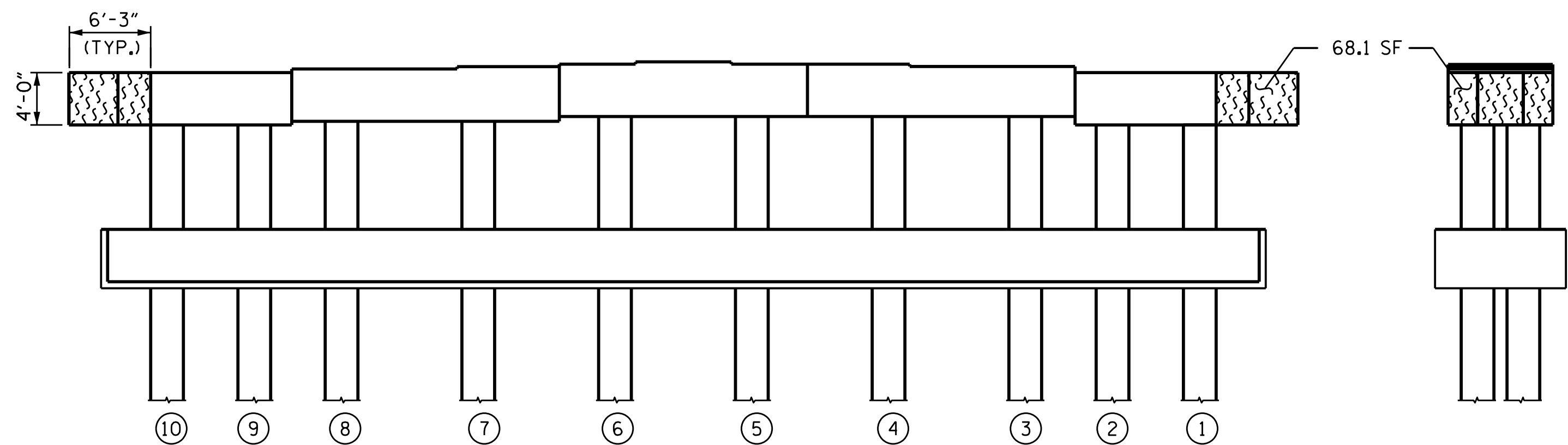
**NOTES:**  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

DRAWN BY : S. T. SANDOR DATE : 6/19/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

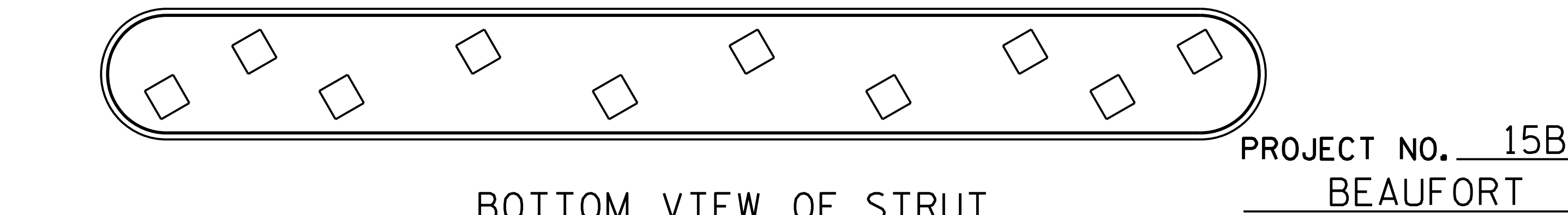
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Kcode1

SPAN 84  
SPAN 83

SPAN 83  
SPAN 84



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

REPAIR QUANTITY TABLE				
BENT 83	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		14.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

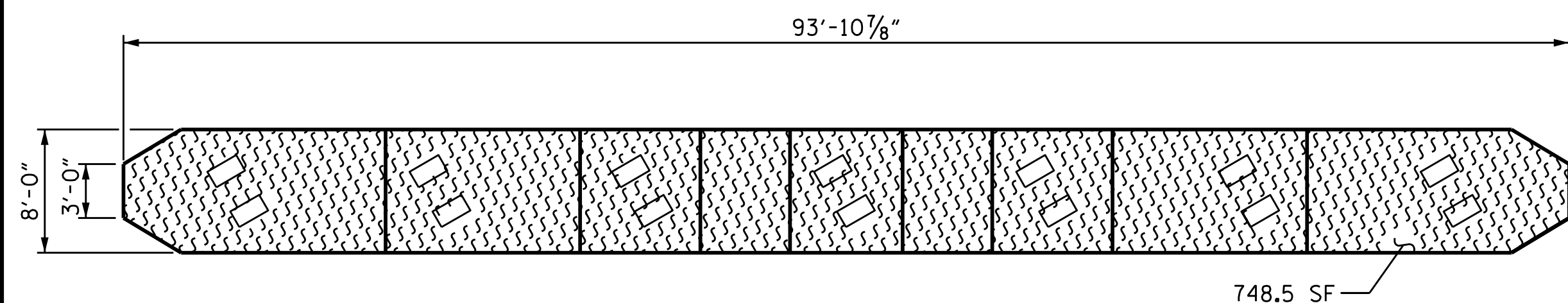
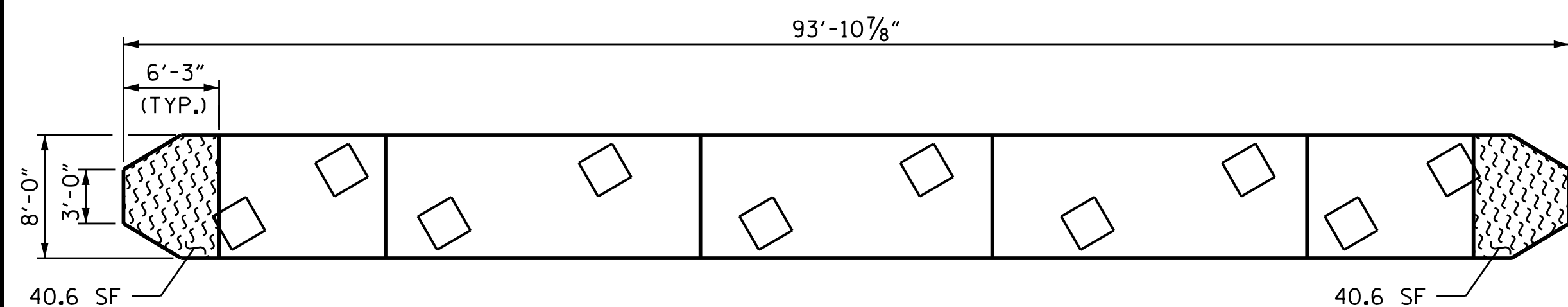
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE BENT 83					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO. S-151					TOTAL SHEETS 217

DocuSigned by:  
William C. Smith  
054816  
11/21/2025

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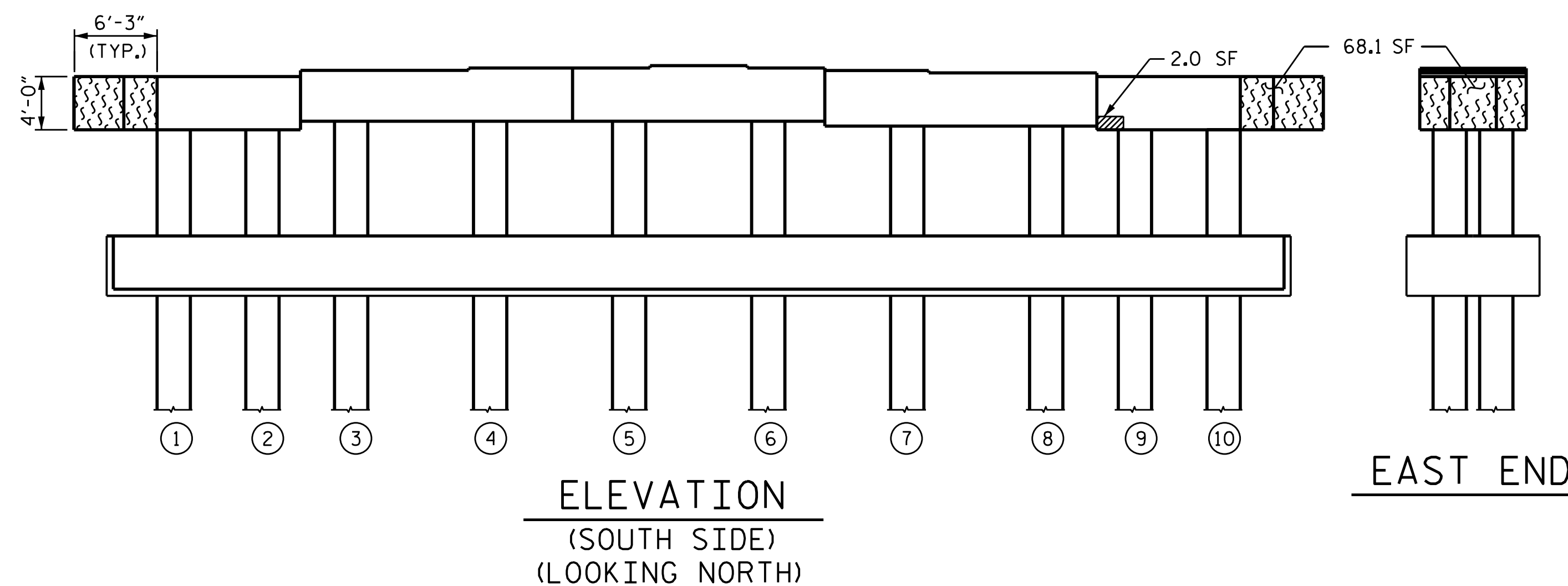



$$\begin{array}{r} \text{SPAN } 85 \\ \hline \text{SPAN } 84 \end{array}$$


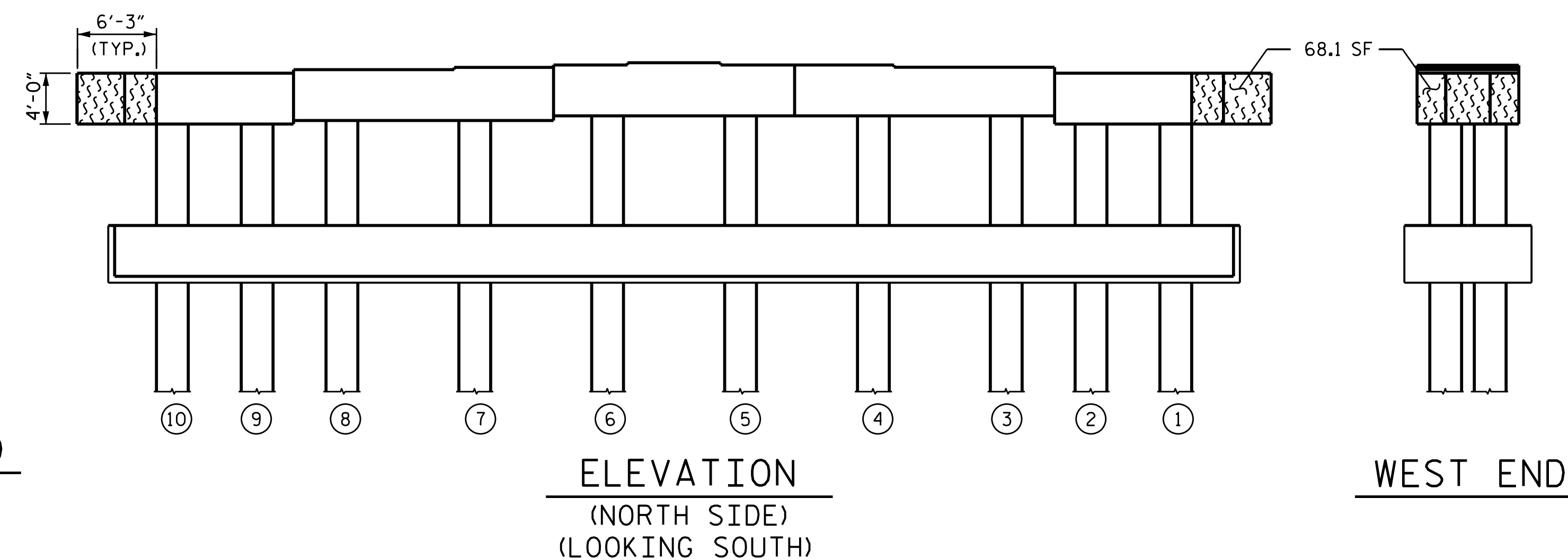
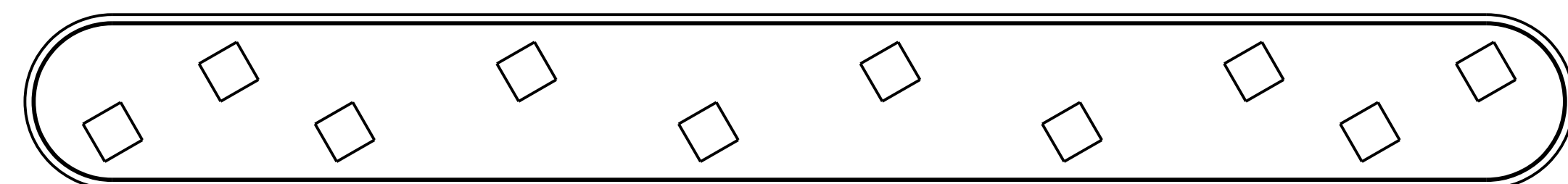
SPAN 84  


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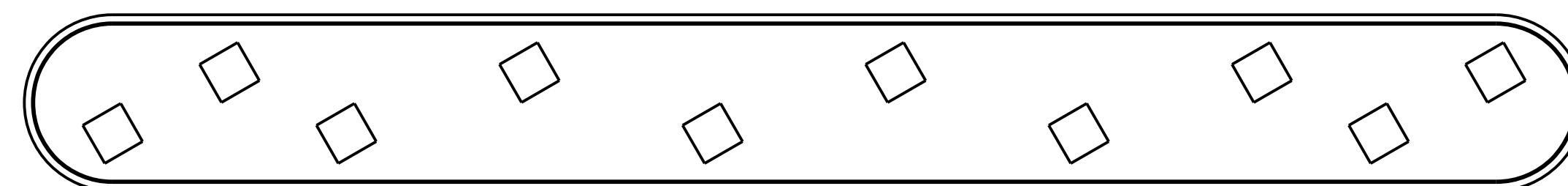
SPAN 85



EAST END



WEST END





REPAIR QUANTITY TABLE				
BENT 84	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	2.0	1.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		965.9		

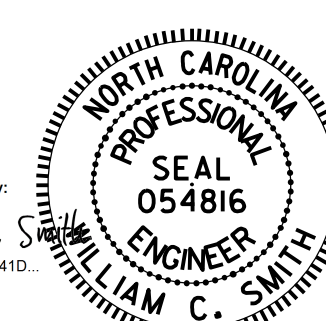
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- |   |                       |
|---|-----------------------|
|  | SHOTCRETE REPAIR      |
|  | CONCRETE REPAIR       |
| ERI   | EPOXY RESIN INJECTION |
|  | PILE                  |
|  | EPOXY COATING         |

DocuSigned by  
William C.  
6A2A92823E2



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/20/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
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kcgdet

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SIGNATURES COMPLETED

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
 BRIDGE NO. 060353

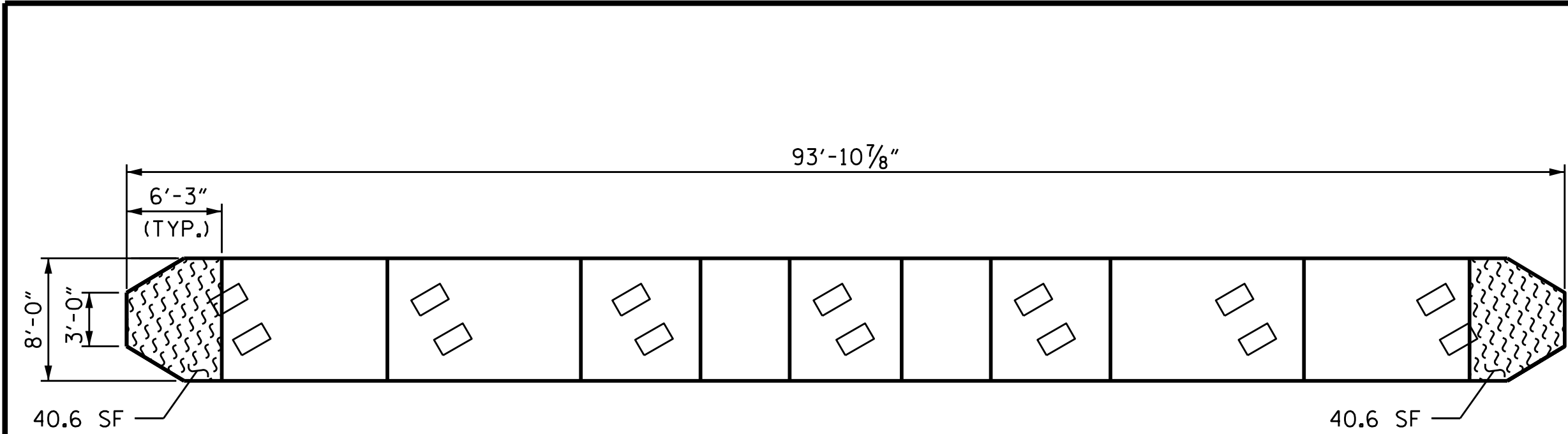
SHEET 84 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

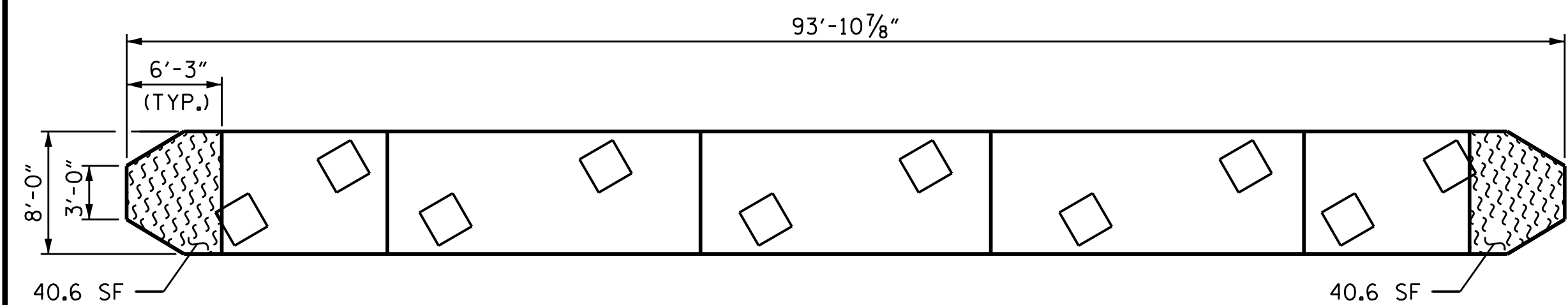
## SUBSTRUCTURE

BENT 84

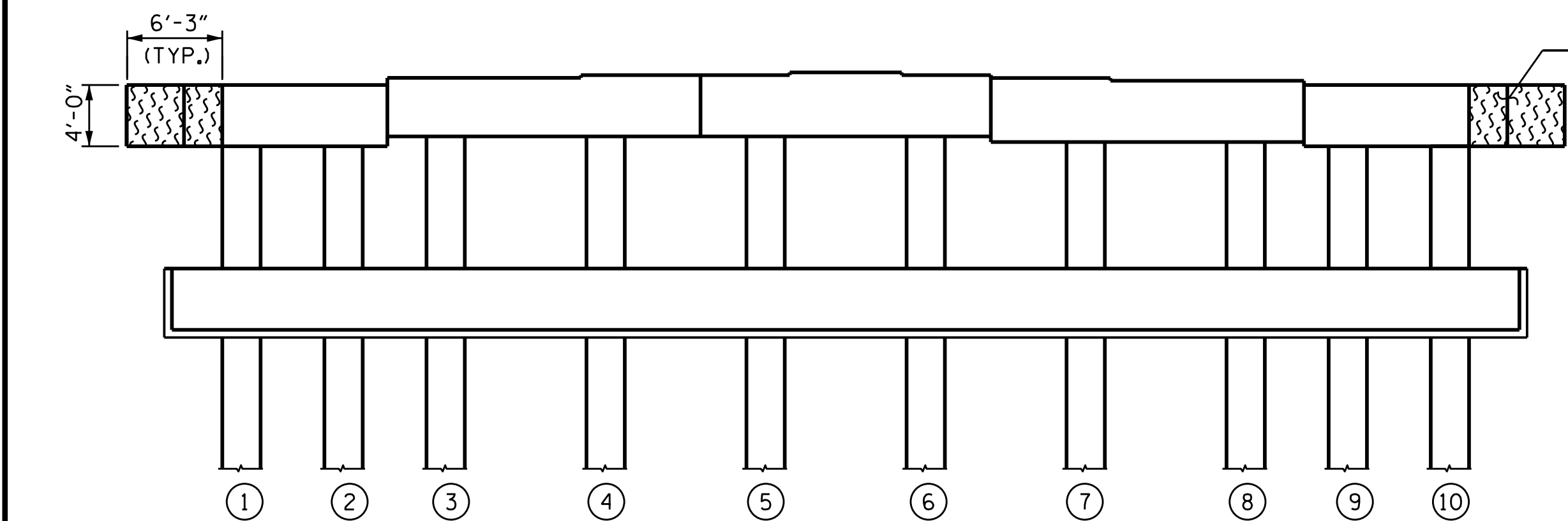
REVISIONS						SHEET NO.  S-152
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 217
2			4			



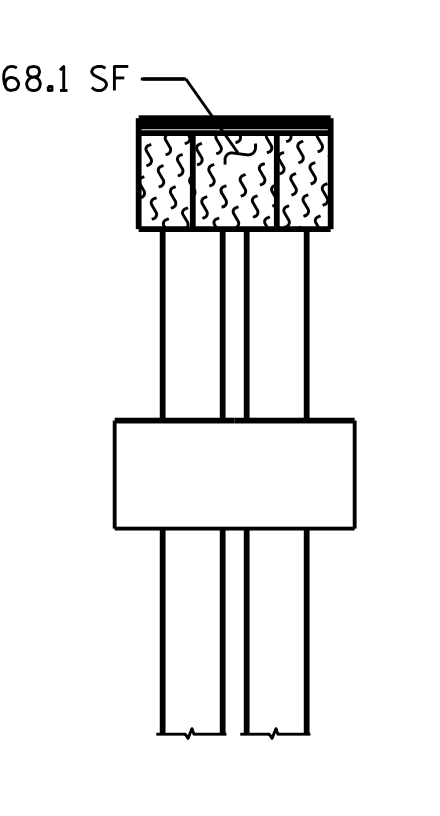
TOP VIEW OF CAP



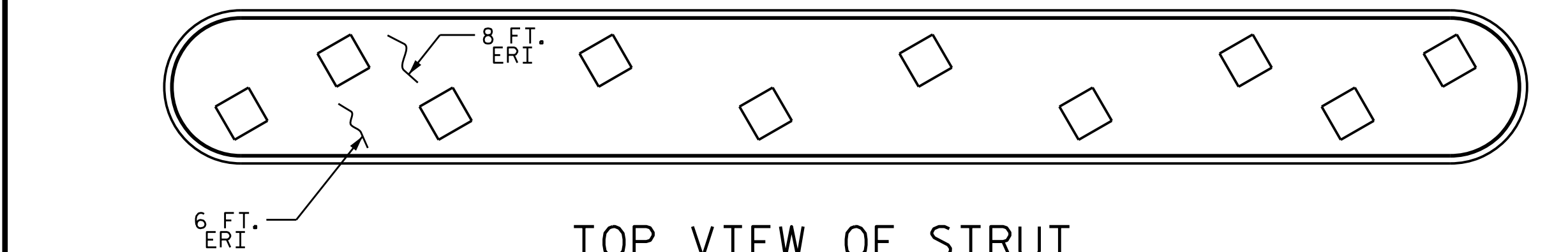
BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



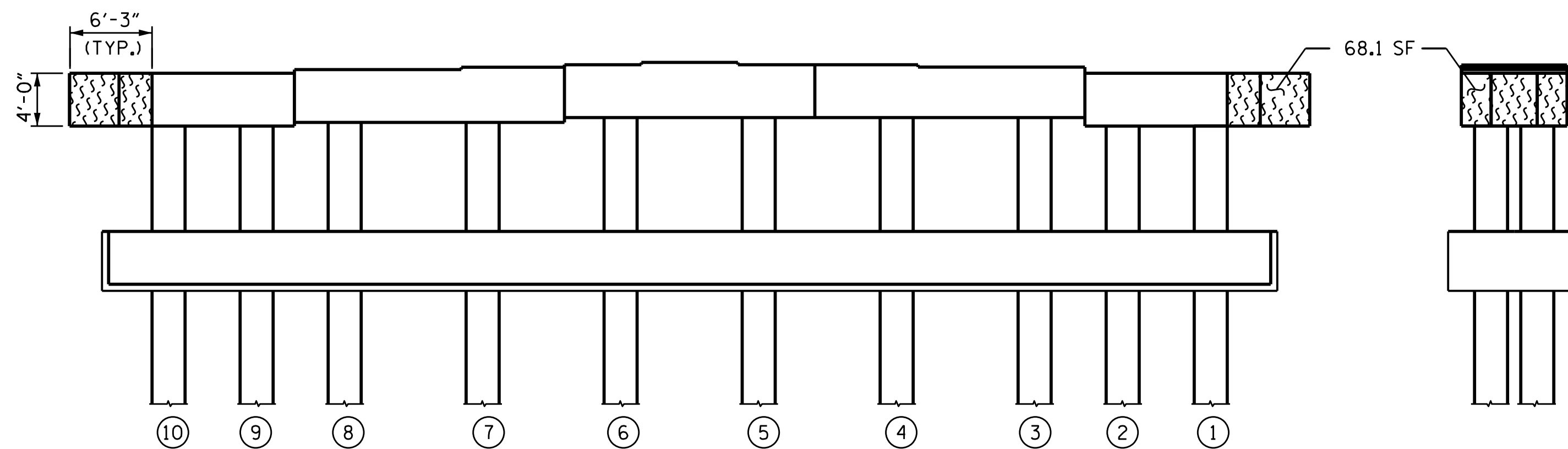
TOP VIEW OF STRUT

DRAWN BY : S. T. SANDOR DATE : 6/20/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

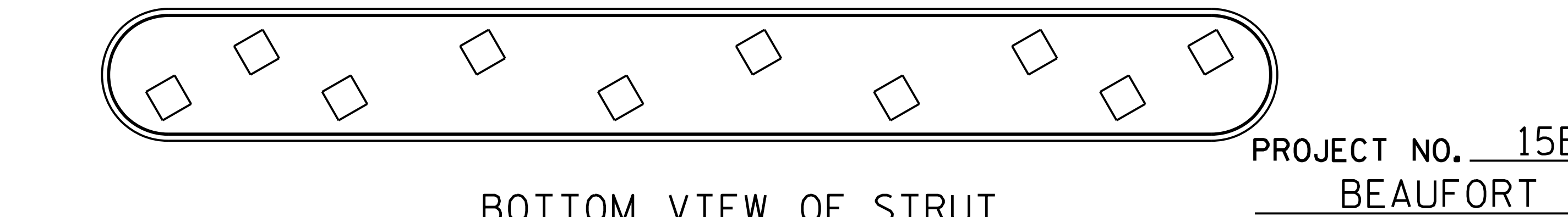
NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

SPAN 86  
SPAN 85

SPAN 85  
SPAN 86

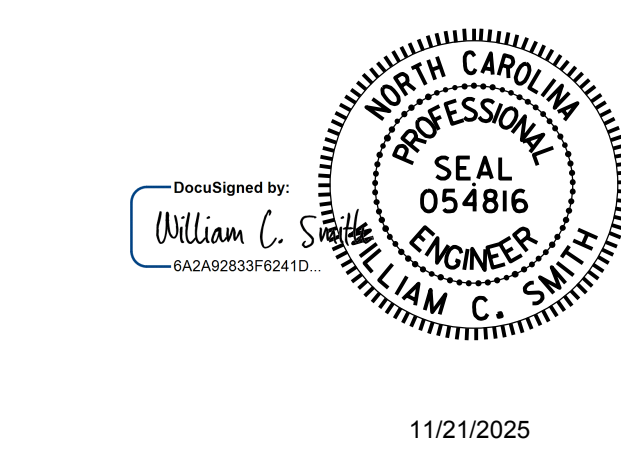


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

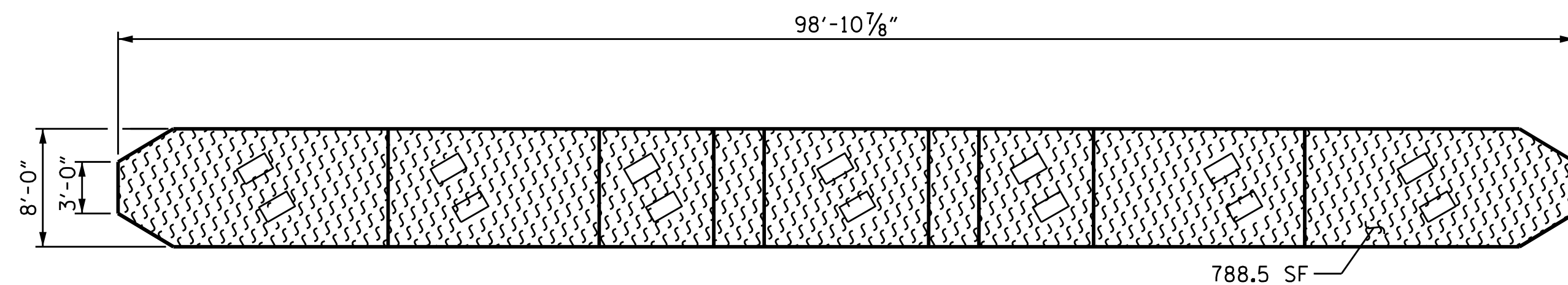
BENT 85	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		14.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

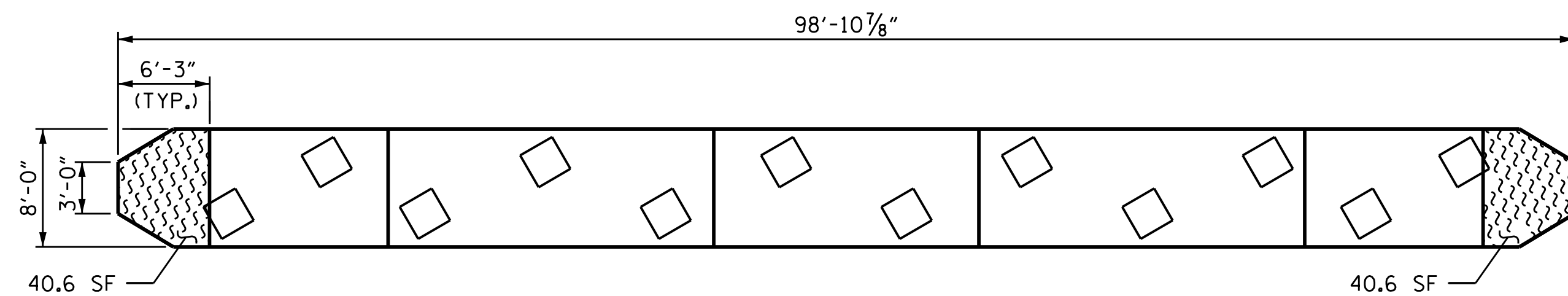
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 85 OF 140

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 85					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					TOTAL SHEETS
S-153					217


$$\frac{\text{SPAN } 87}{\text{SPAN } 86}$$

TOP VIEW OF CAP

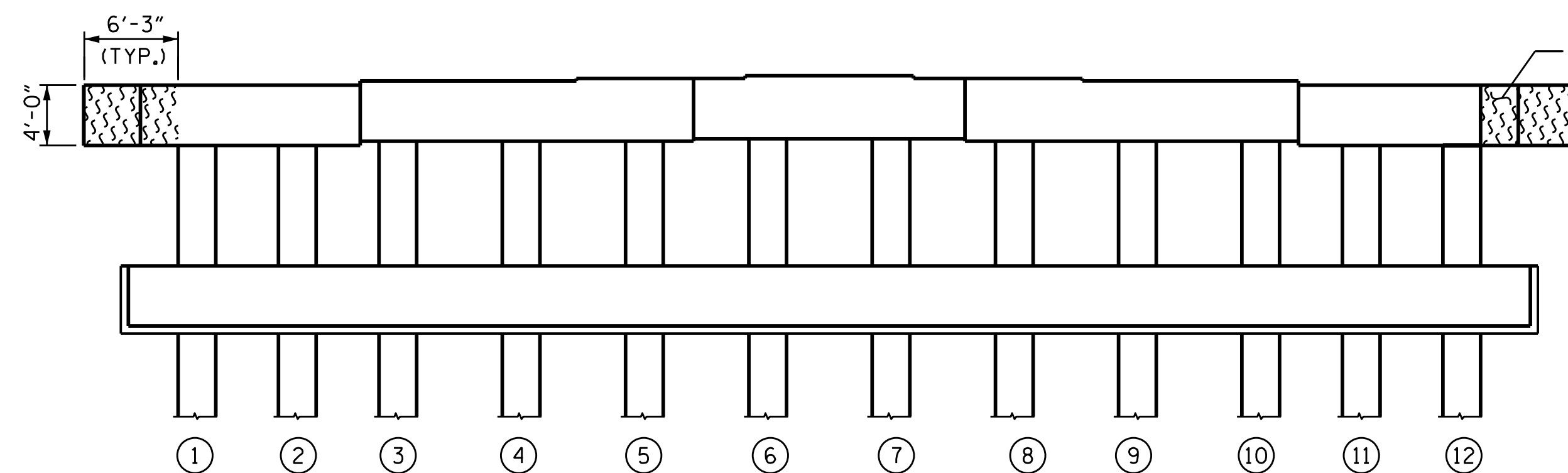


SPAN 86  


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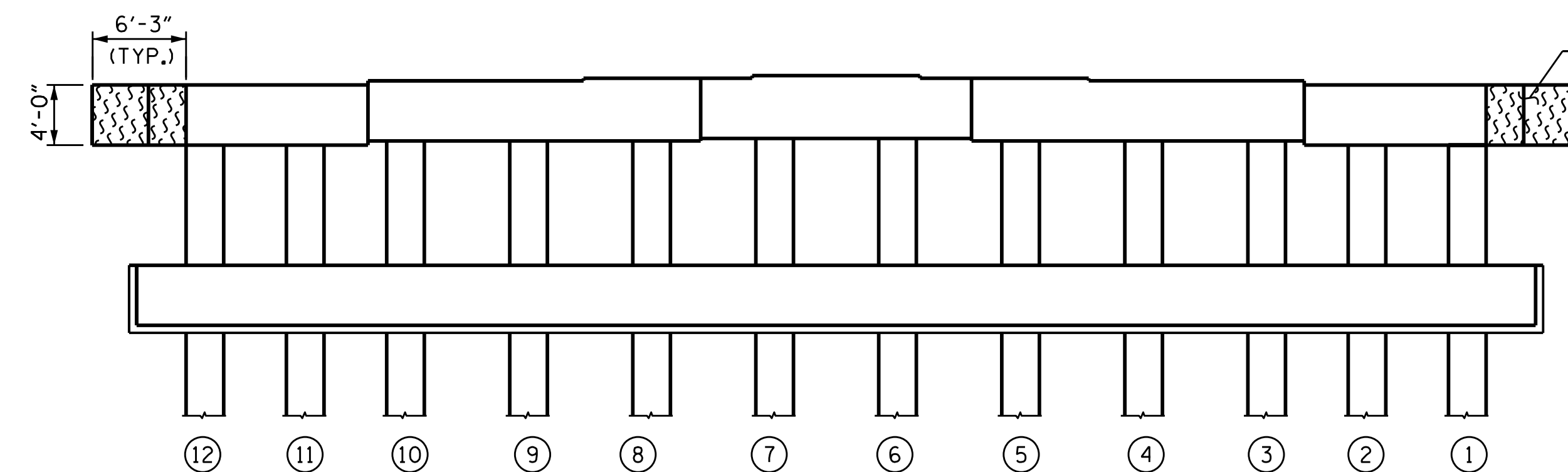
SPAN 87

BOTTOM VIEW OF CAP



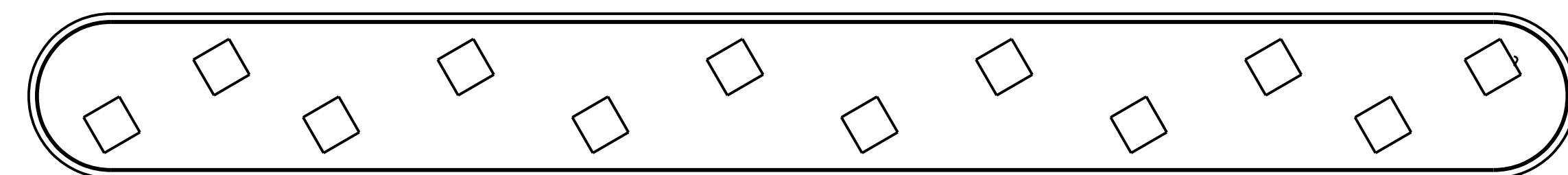
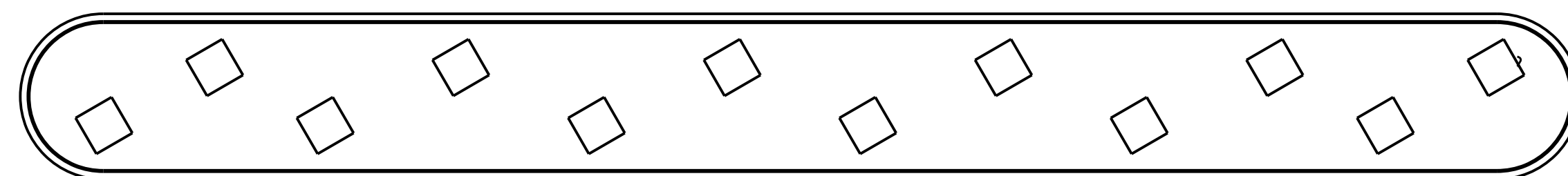
68.1 SF

ELEVATION  
 (SOUTH SIDE)  
 (LOOKING NORTH)



68.1 SF

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



## REPAIR QUANTITY TABLE

BENT 86	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

 SHOTCRETE REPAIR

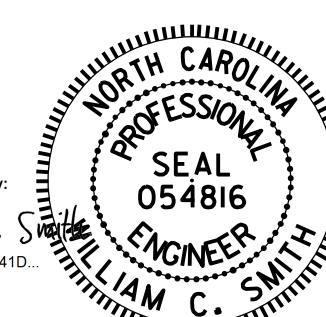
 CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

 EPOXY COATING

DocuSigned by  
William C.  
6A2A92833F624



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/20/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
R:\Structures\15BPR.137\Plans\401\_307\_15BPR.137\_SMU\_B86\_S-154\_060353.dgn  
kcdet

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
 BRIDGE NO. 060353

SHEET 86 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

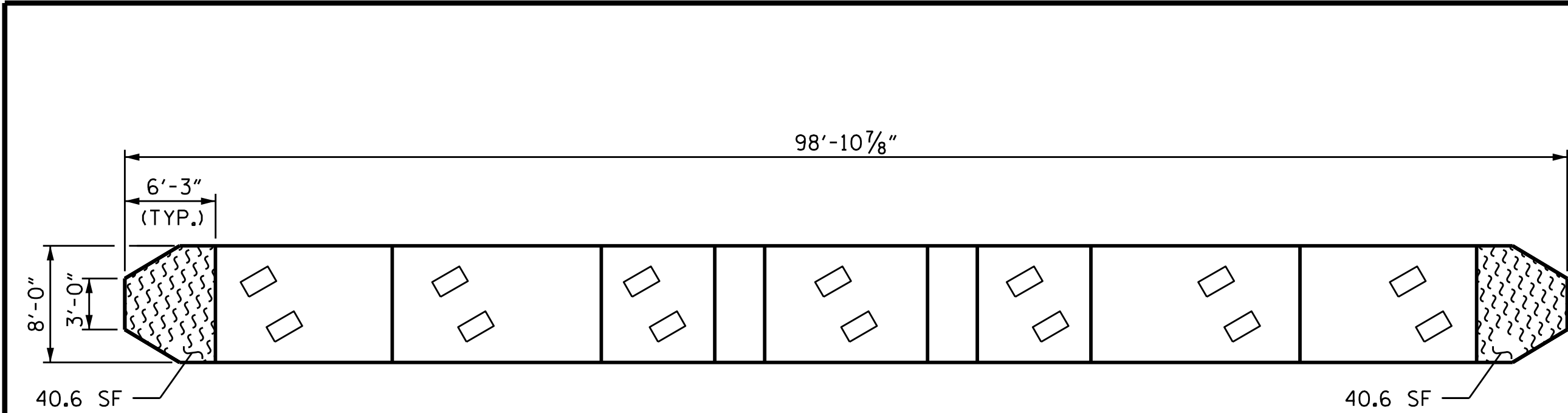
## SUBSTRUCTURE

BENT 86

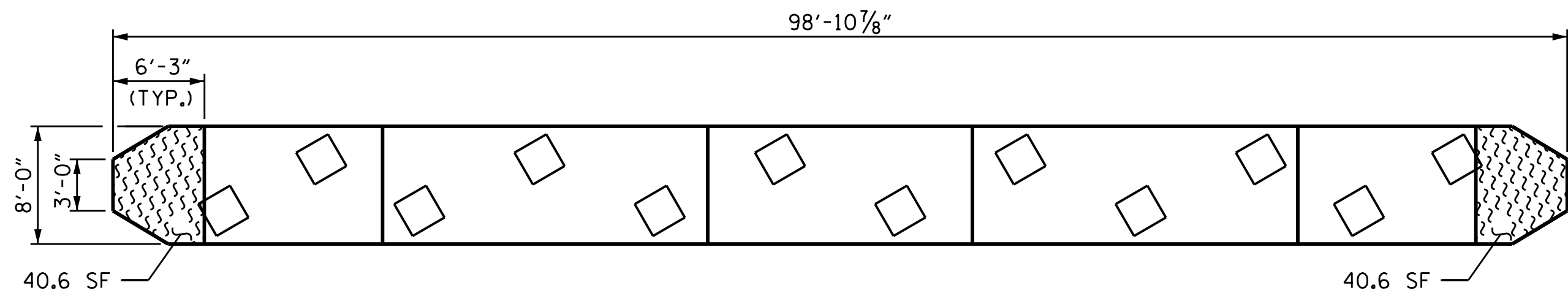
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.
	NO.	BY:	DATE:	NO.	BY:	DATE:	S-154
	1			3			TOTAL SHEETS
	2			4			217

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

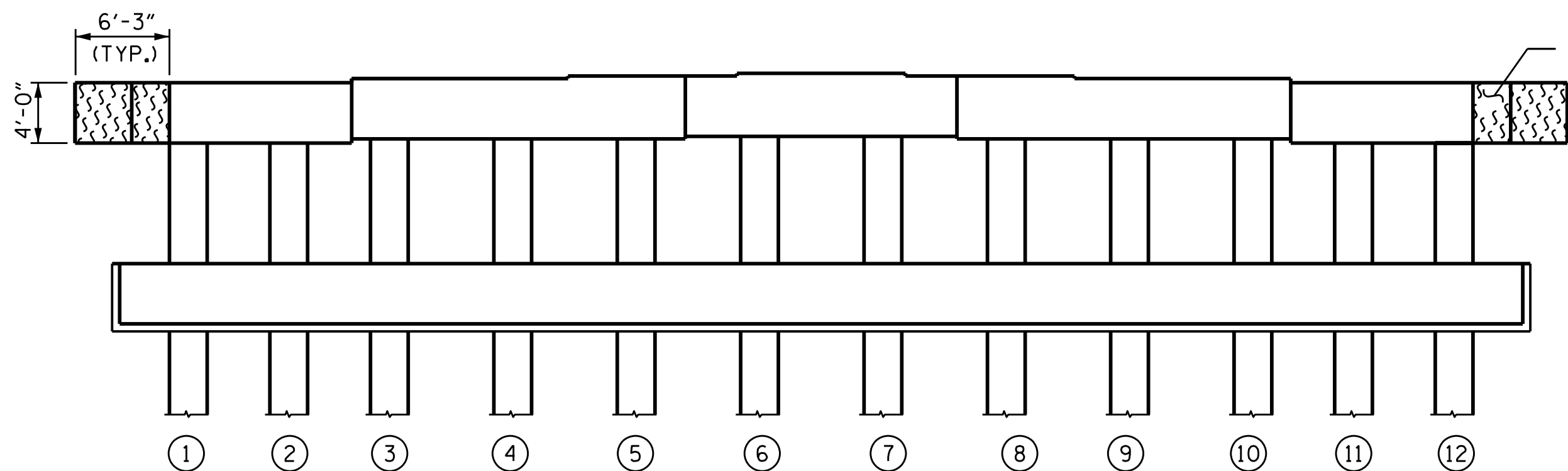




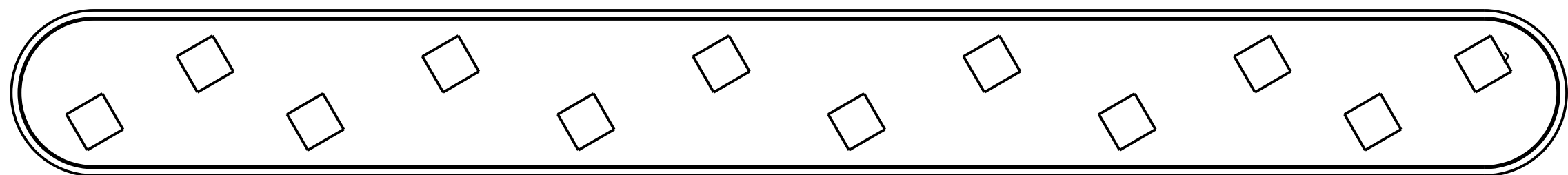
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

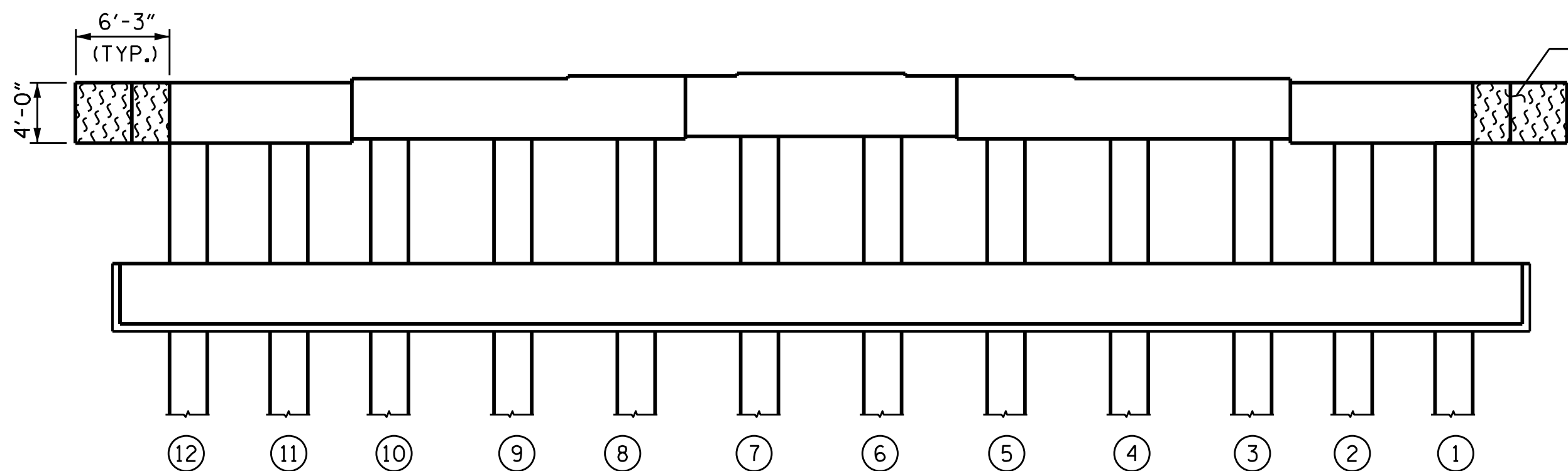


ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

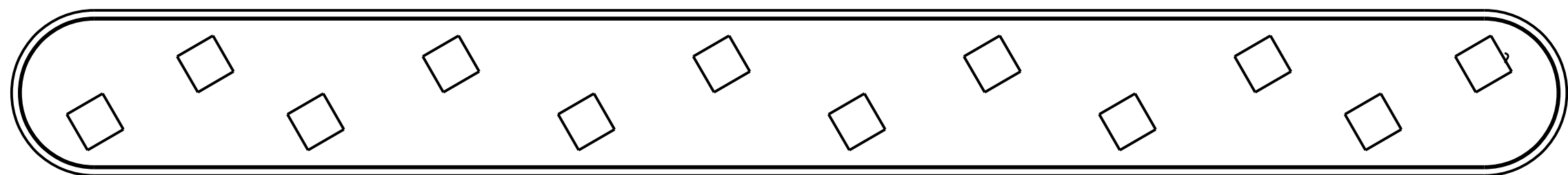


TOP VIEW OF STRUT

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

WEST END

REPAIR QUANTITY TABLE

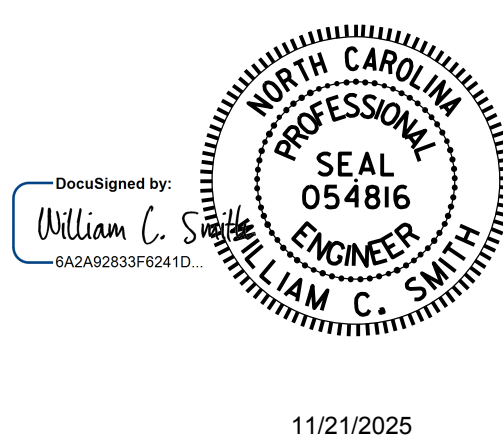
BENT 87	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



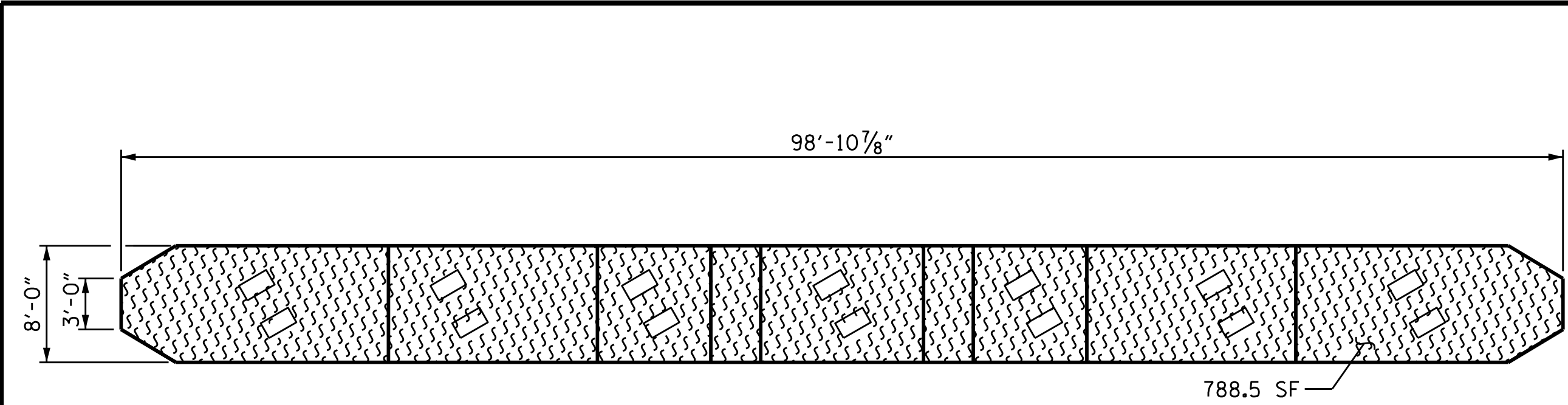
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 87 OF 140

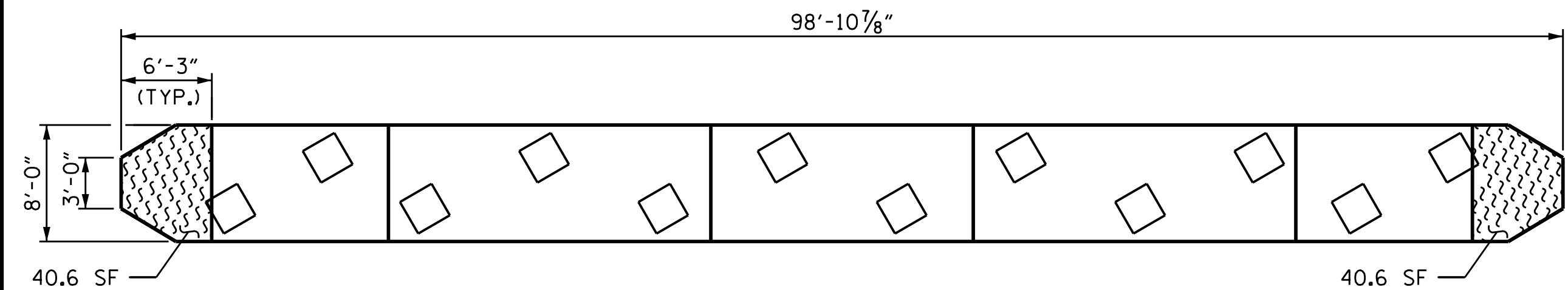
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 87					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					TOTAL SHEETS
S-155					217

DRAWN BY : S. T. SANDOR DATE : 6/20/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

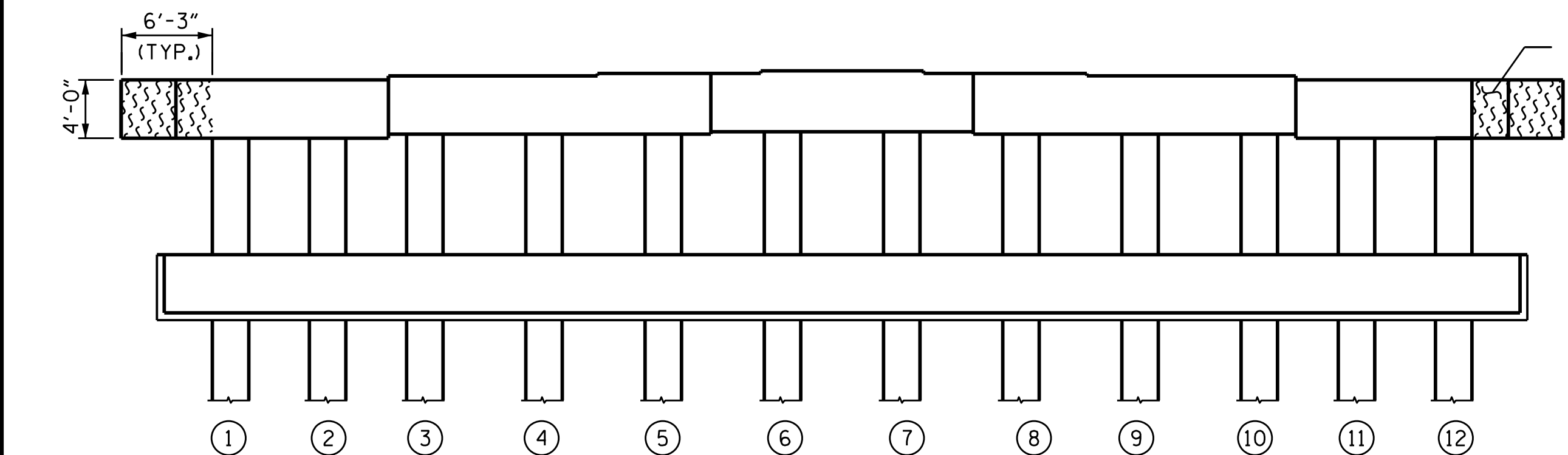
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED



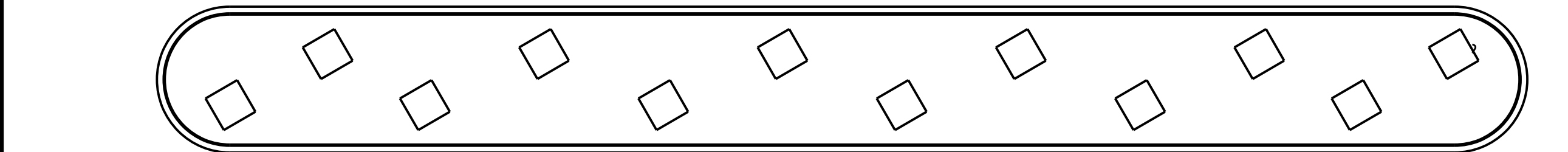
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



TOP VIEW OF STRUT

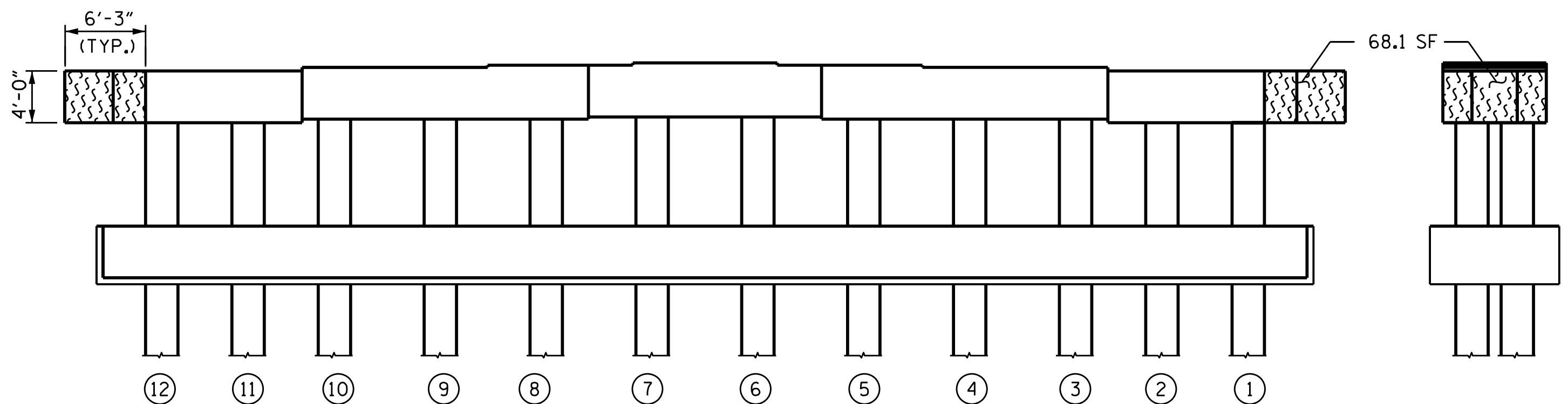
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

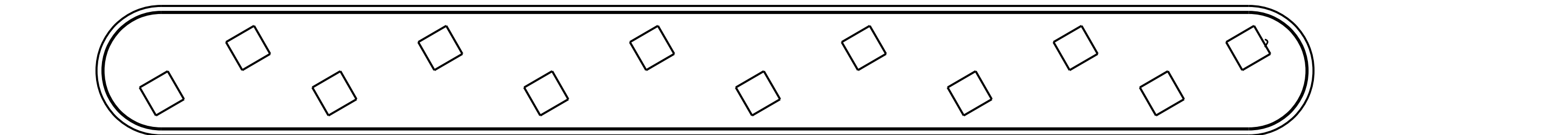
SPAN 89  
SPAN 88

SPAN 88  
SPAN 89

EAST END

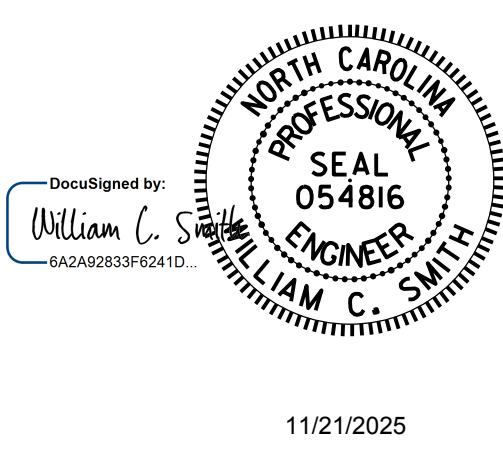


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

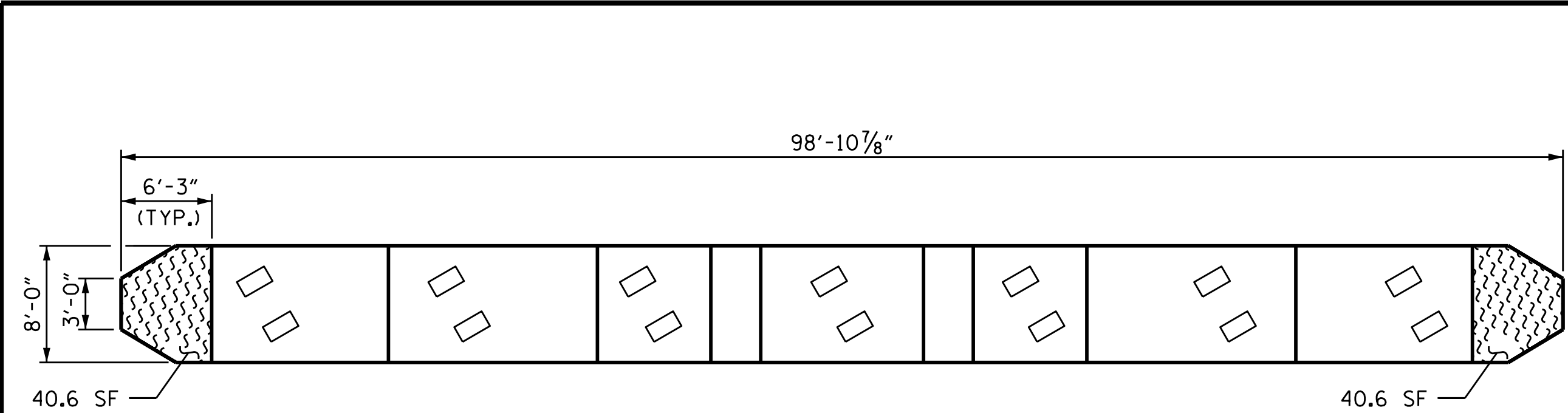
BENT 88	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

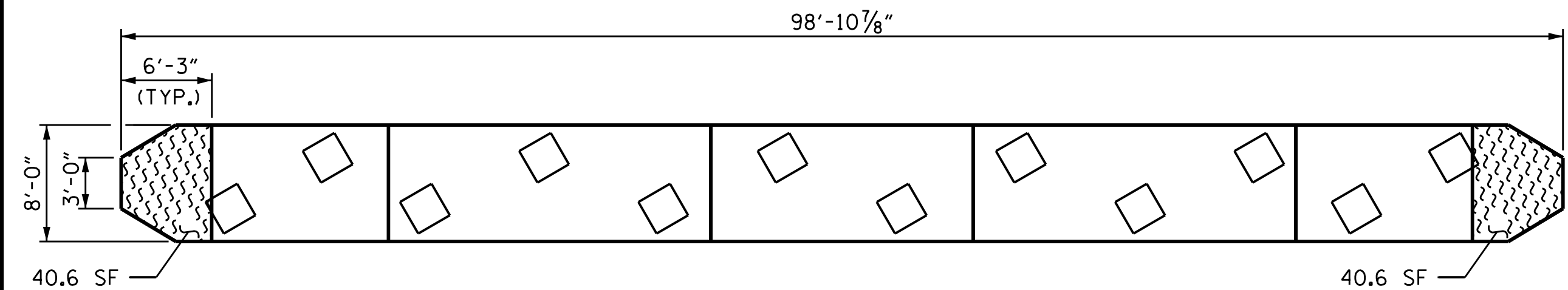
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 88 OF 140

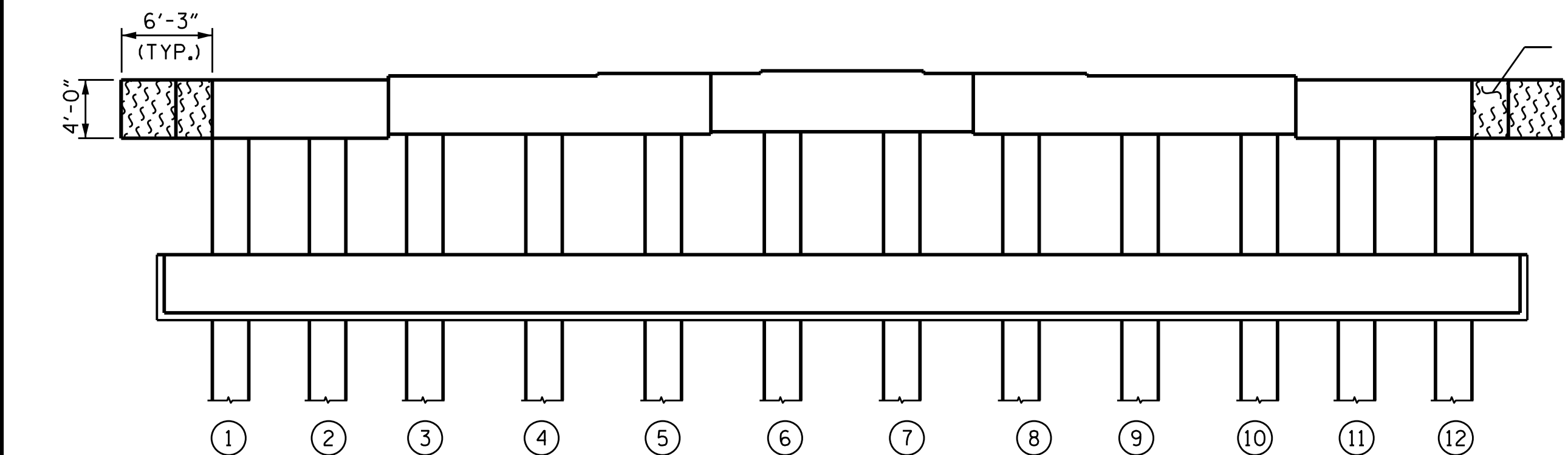
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 88					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-156
					217



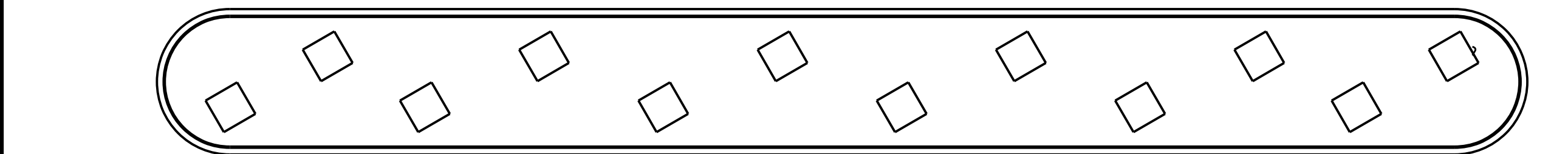
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



TOP VIEW OF STRUT

DRAWN BY : S. T. SANDOR  
CHECKED BY : W. C. SMITH

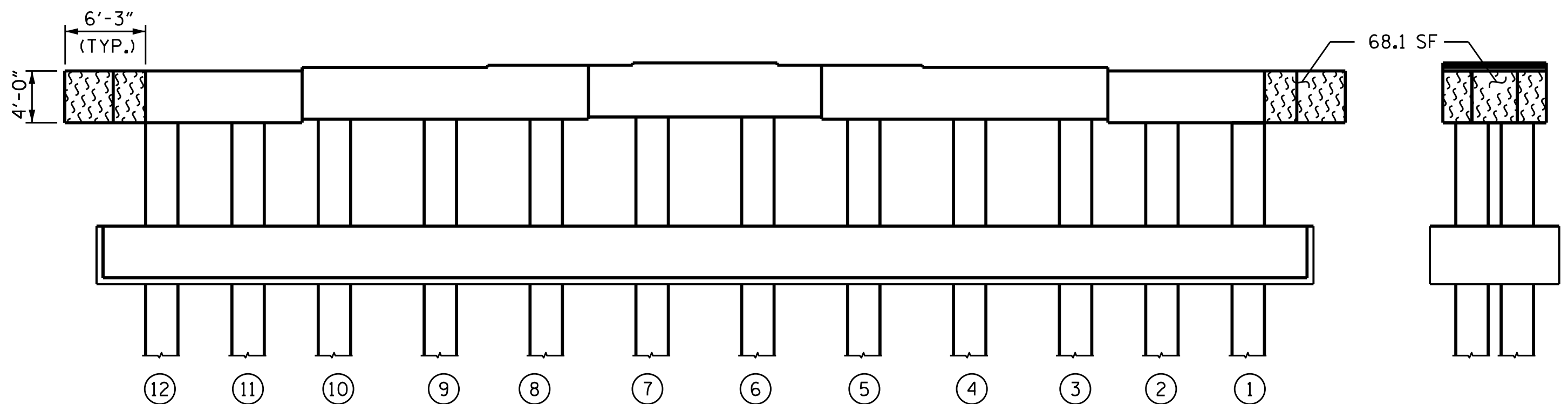
DATE : 6/28/24  
DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

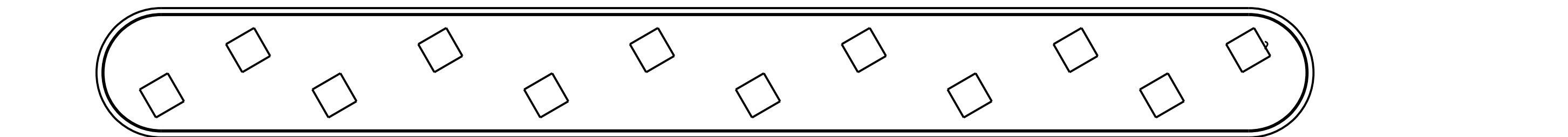
SPAN 90  
SPAN 89

SPAN 89  
SPAN 90

EAST END

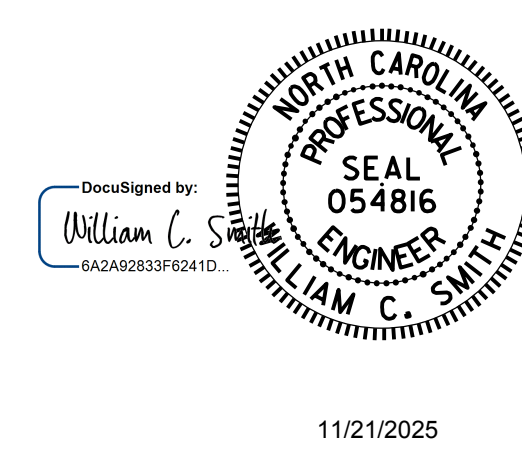


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

BENT 89	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

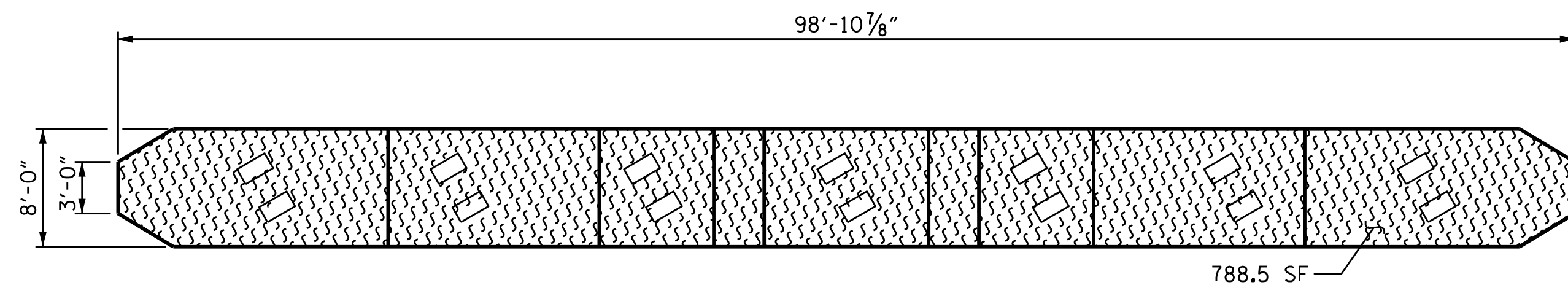
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

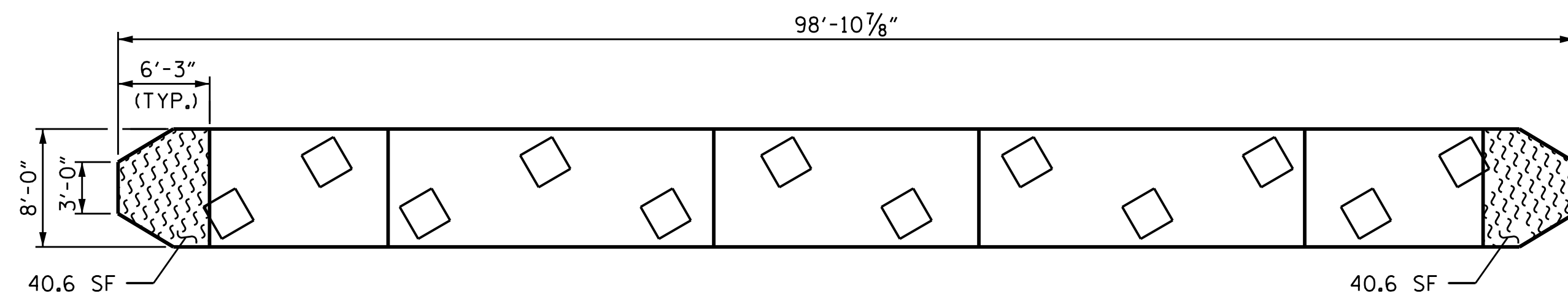
SHEET 89 OF 140

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 89					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-157
					217



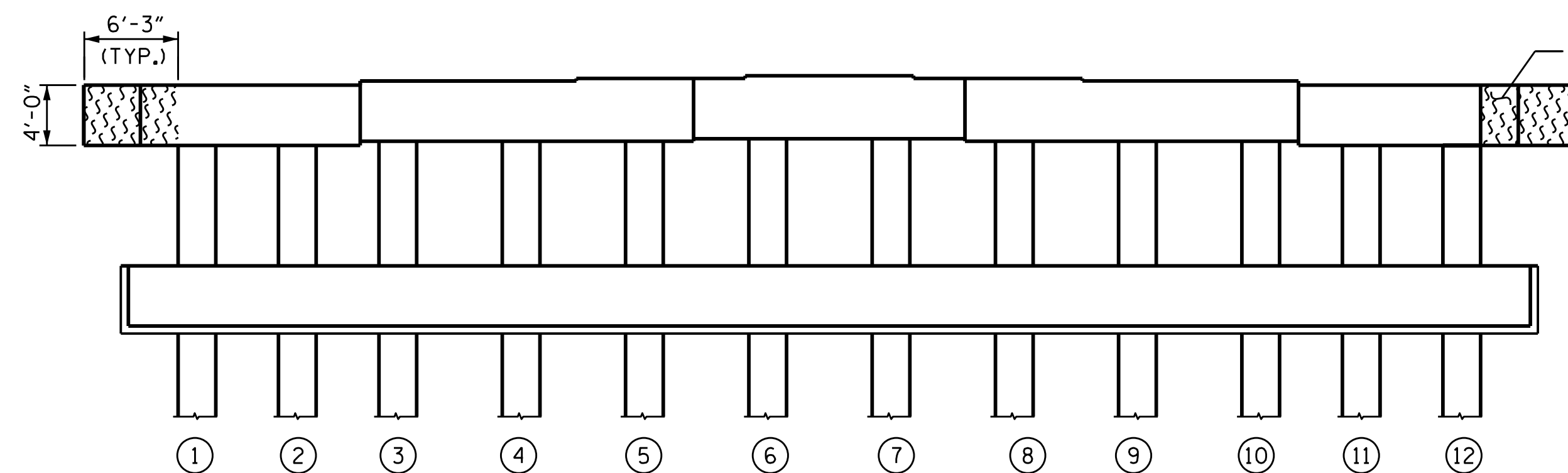

$$\frac{\text{SPAN } 91}{\text{SPAN } 90}$$

TOP VIEW OF CAP



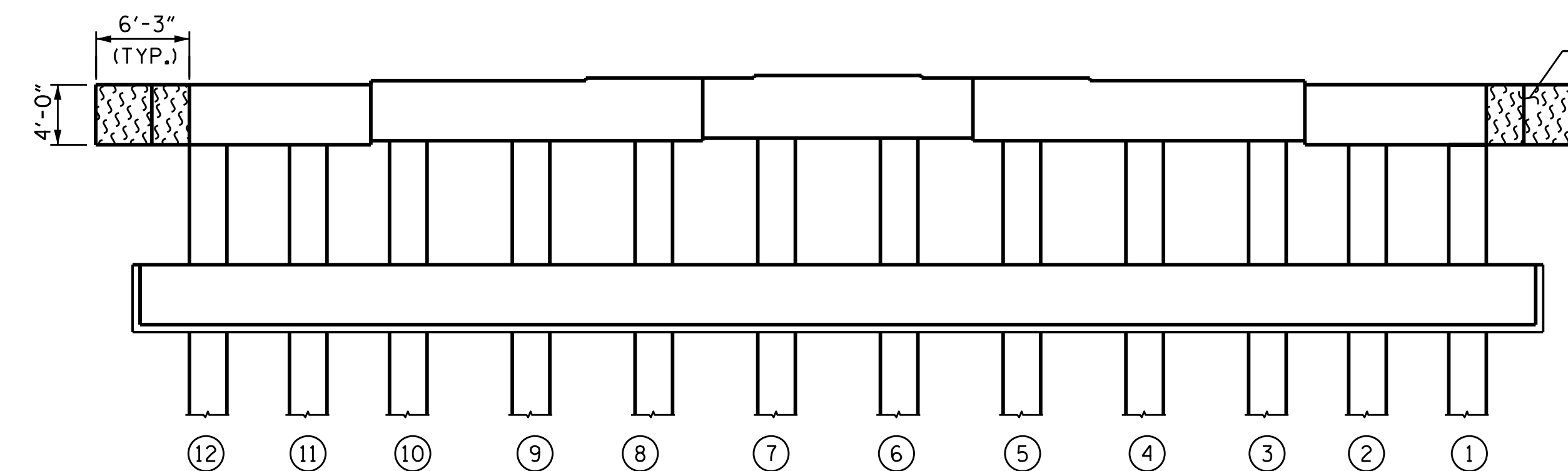
SPAN 90  
SPAN 91

BOTTOM VIEW OF CAP



68.1 SF

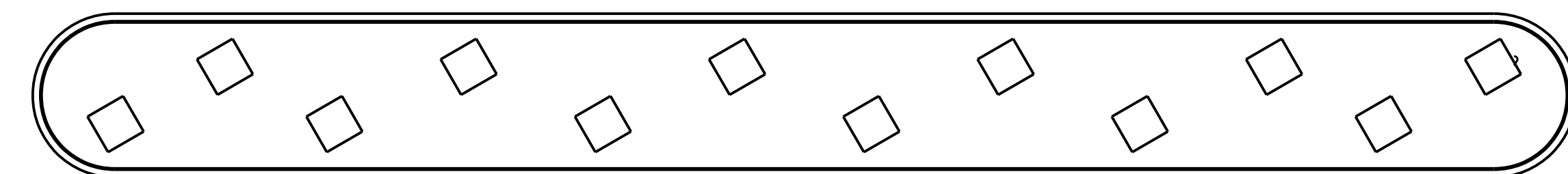
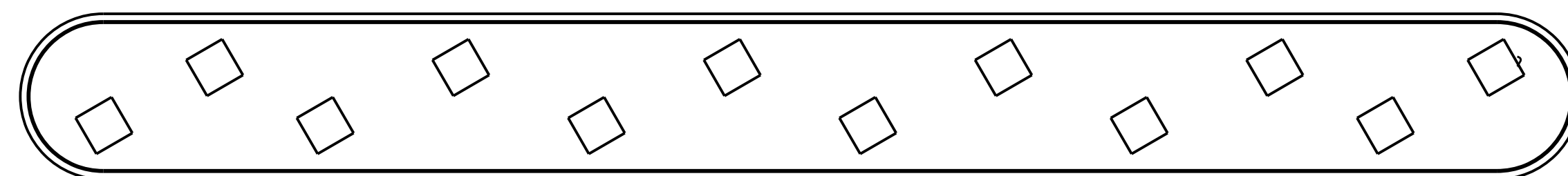
ELEVATION  
 (SOUTH SIDE)  
 (LOOKING NORTH)



68.1 SF

ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



## REPAIR QUANTITY TABLE

BENT 90	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

 SHOTCRETE REPAIR

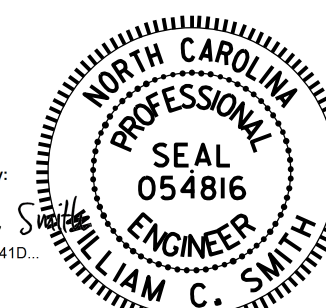
 CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

 EPOXY COATING

DocuSigned by  
William C.  
6A2A92833F624



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
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kcgdet

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

SHEET 90 OF 140

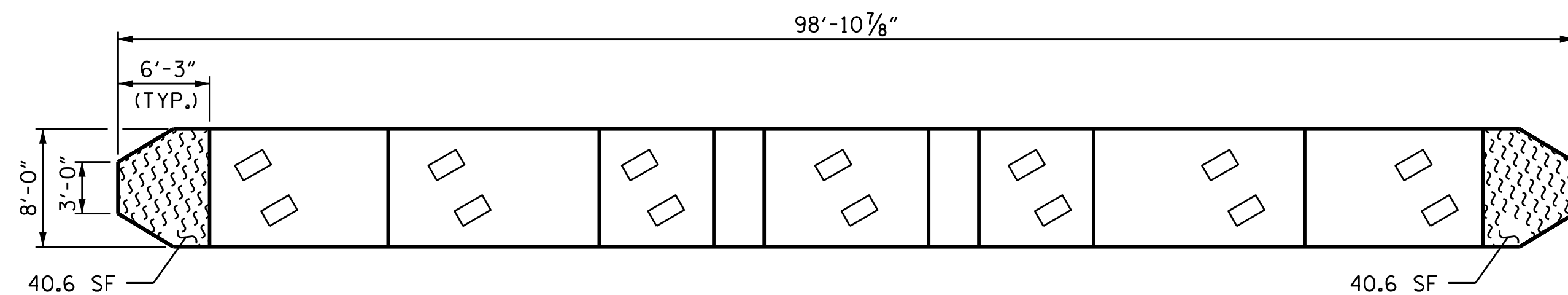
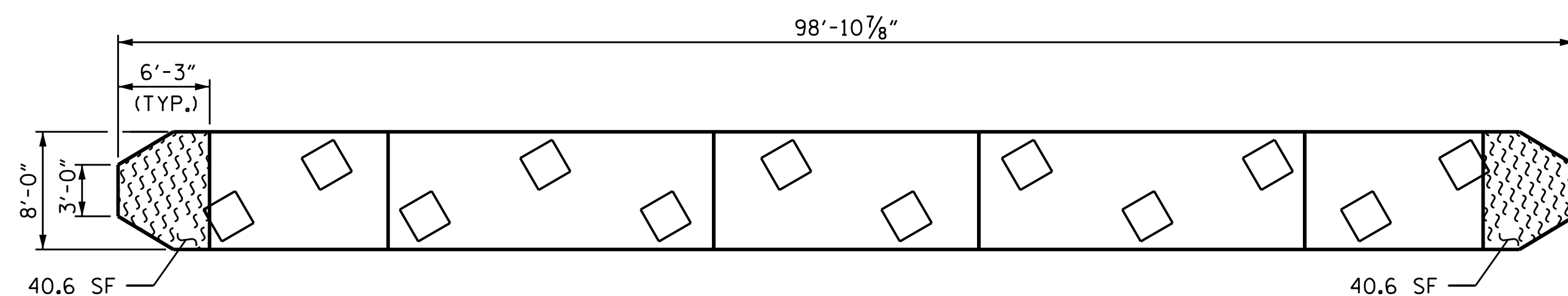
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

## SUBSTRUCTURE

BENT 90

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.
	NO.	BY:	DATE:	NO.	BY:	DATE:	S-158  TOTAL SHEETS 217
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	2			4			

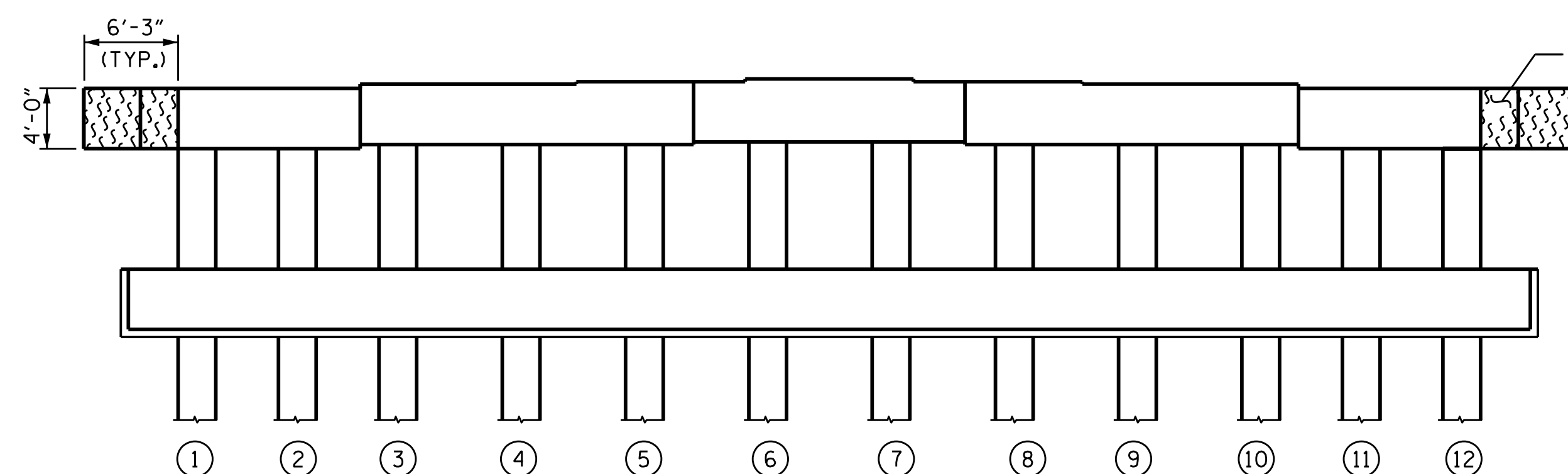
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED


$$\frac{\text{SPAN } 92}{\text{SPAN } 91}$$


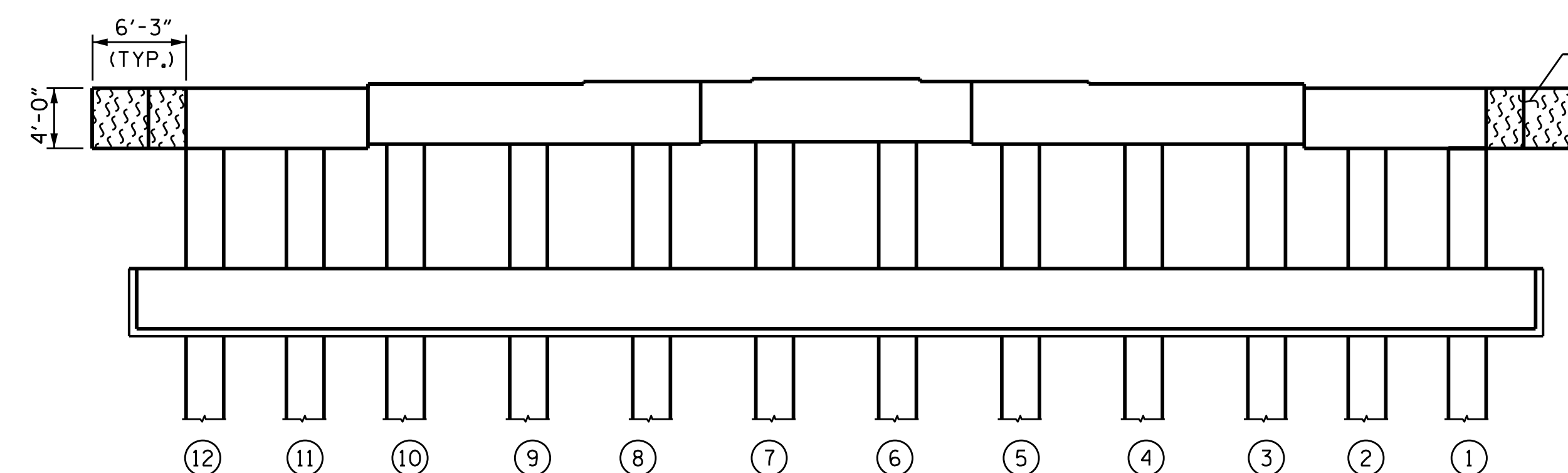
SPAN 91  


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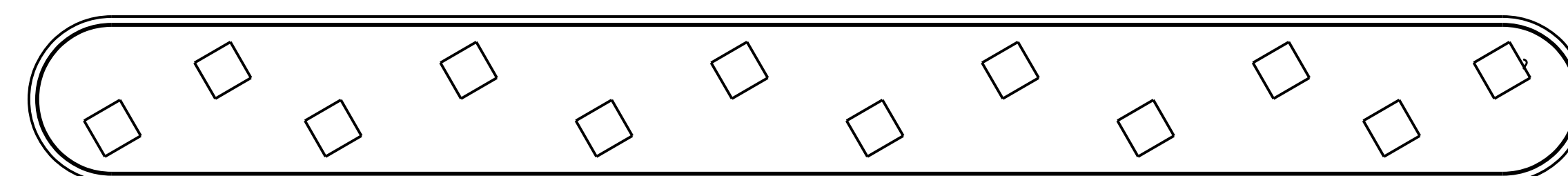
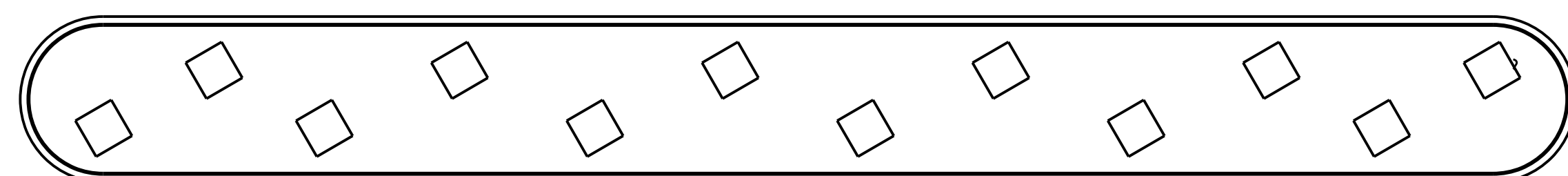
SPAN 92



EAST END



WEST END



REPAIR QUANTITY TABLE				
BENT 91	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

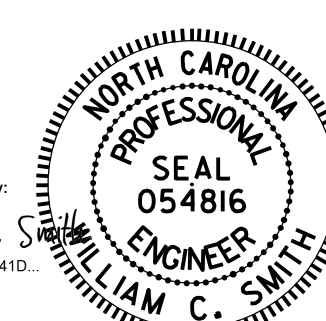
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- |   |                       |
|---|-----------------------|
|  | SHOTCRETE REPAIR      |
|  | CONCRETE REPAIR       |
| ERI   | EPOXY RESIN INJECTION |
|  | PILE                  |
|  | EPOXY COATING         |

DocuSigned by  
William C.  
6A2A92833F624



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
R:\Structures\15BPR.137\Plans\401\_317\_15BPR.137\_SMU\_B91\_S-159\_060353.dgn  
kcdet

PROJECT NO. 15BPR.137

BEAUFORT COUNTY

BRIDGE NO. 060353

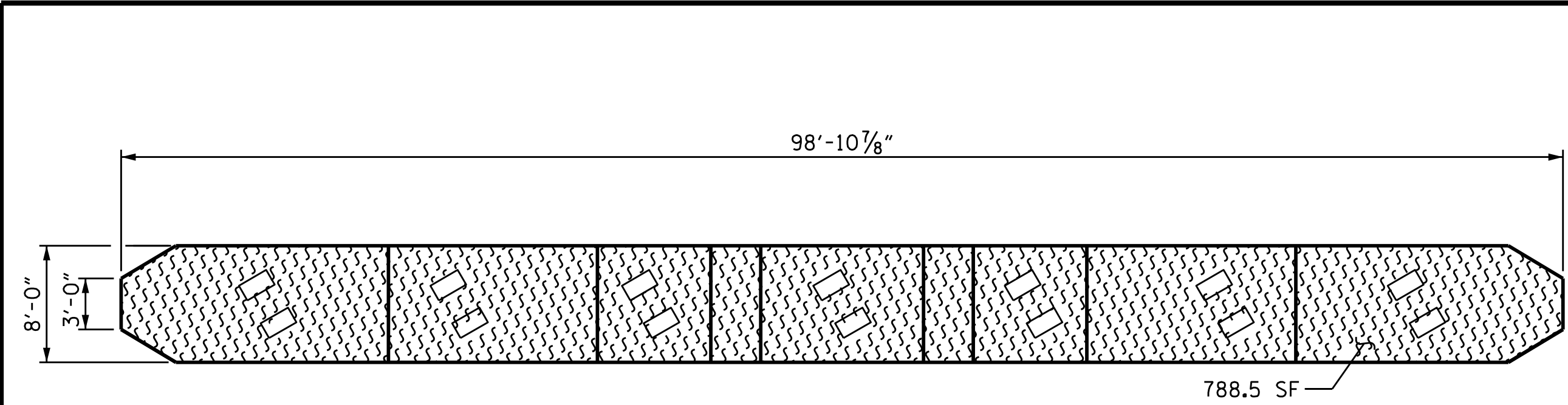
SHEET 91 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

## SUBSTRUCTURE

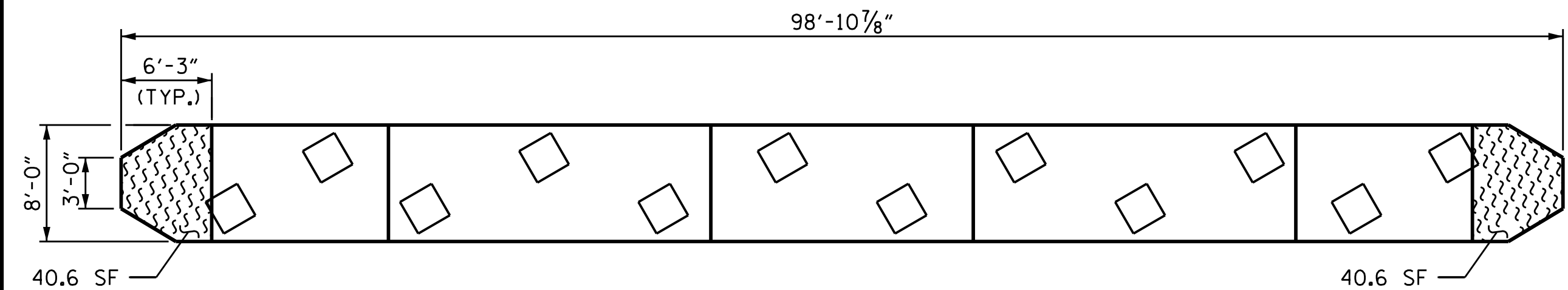
BENT 91

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		REVISIONS						SHEET NO.
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		1			3			TOTAL SHEETS
		2			4			217



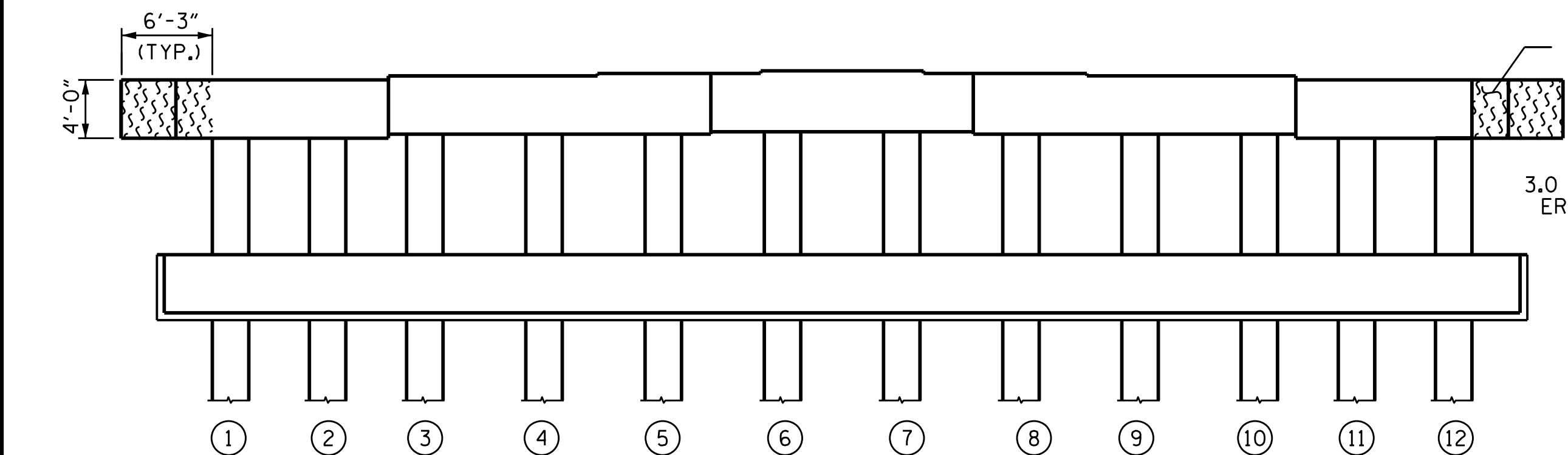
TOP VIEW OF CAP

SPAN 93  
SPAN 92



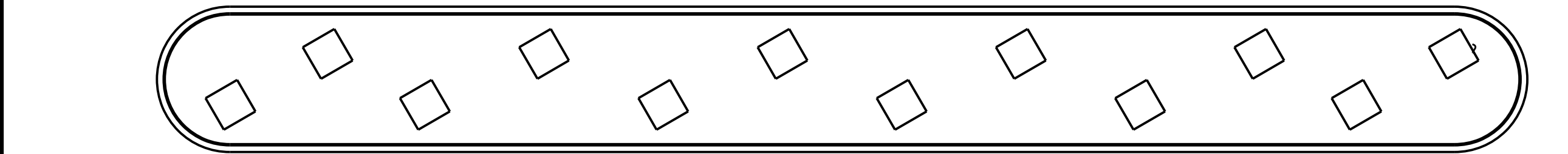
BOTTOM VIEW OF CAP

SPAN 86  
SPAN 92



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END

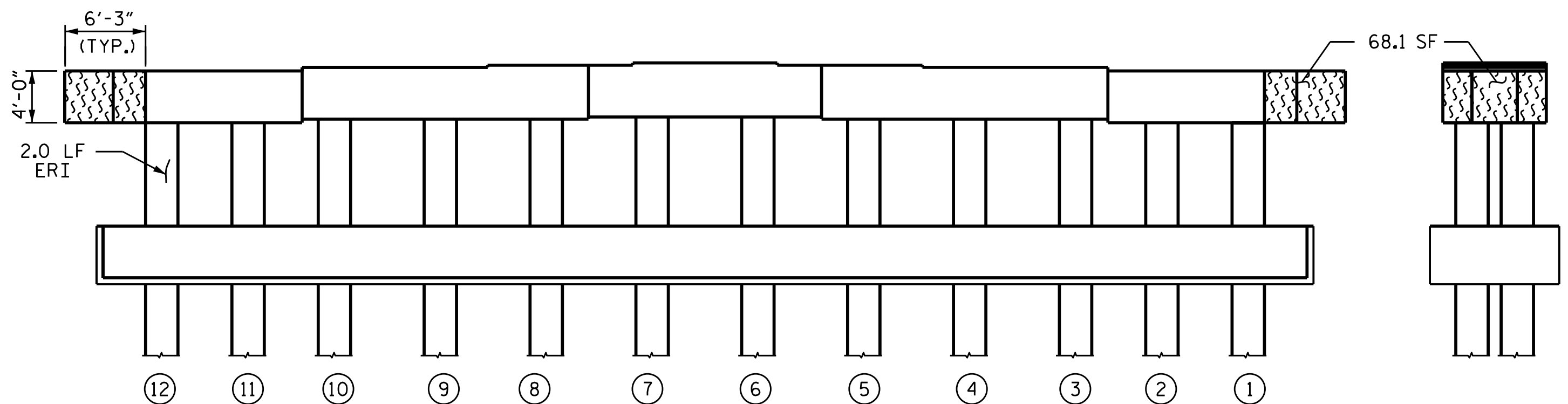


TOP VIEW OF STRUT

DRAWN BY : S. T. SANDOR  
CHECKED BY : W. C. SMITH

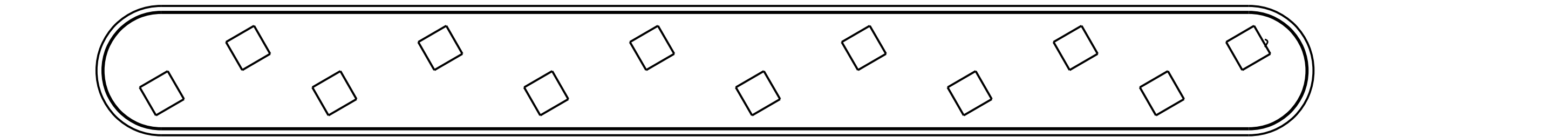
DATE : 6/27/24  
DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



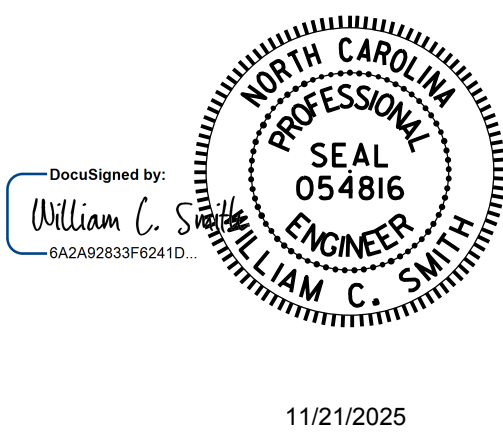
ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE				
BENT 92	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		5.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

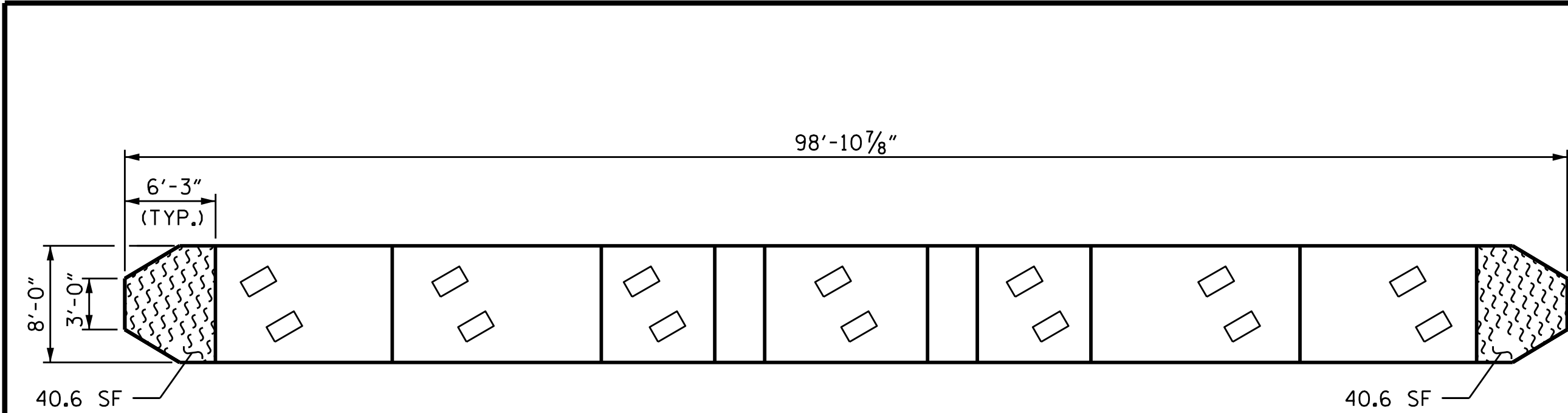
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

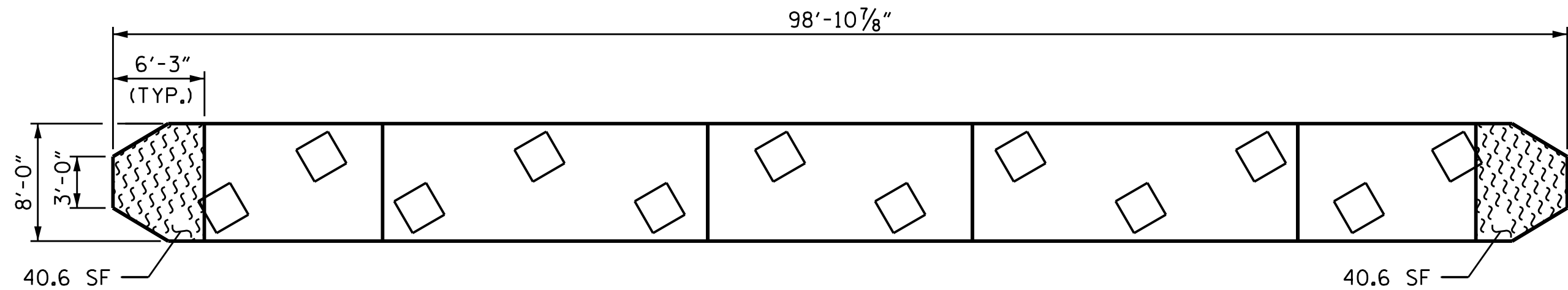
SHEET 92 OF 140

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 92					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-160
					217

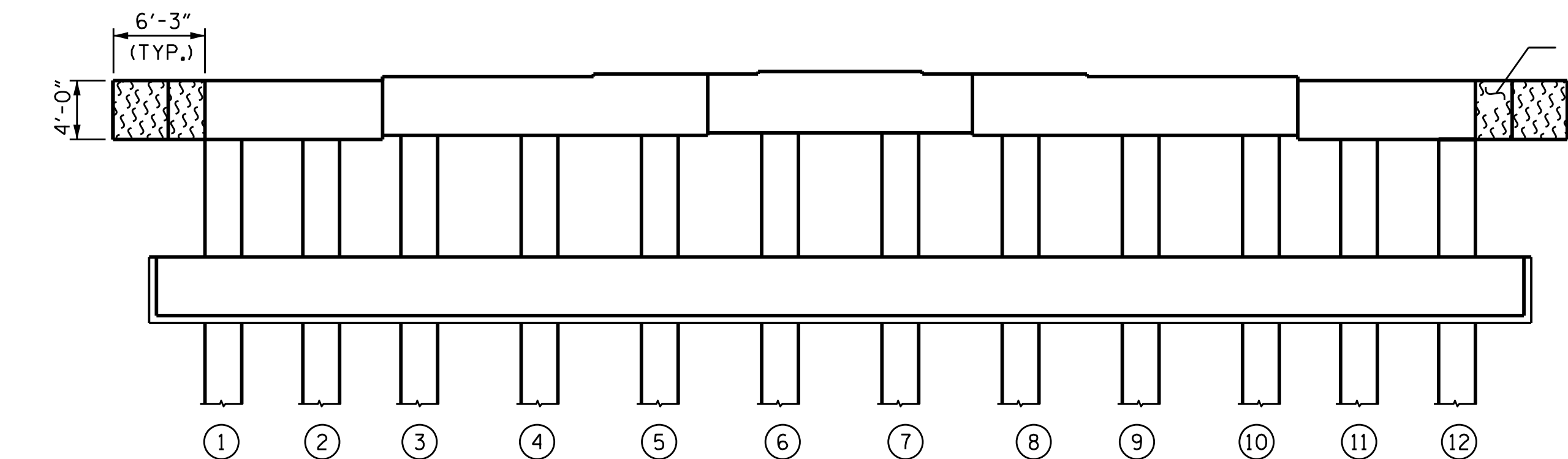




TOP VIEW OF CAP

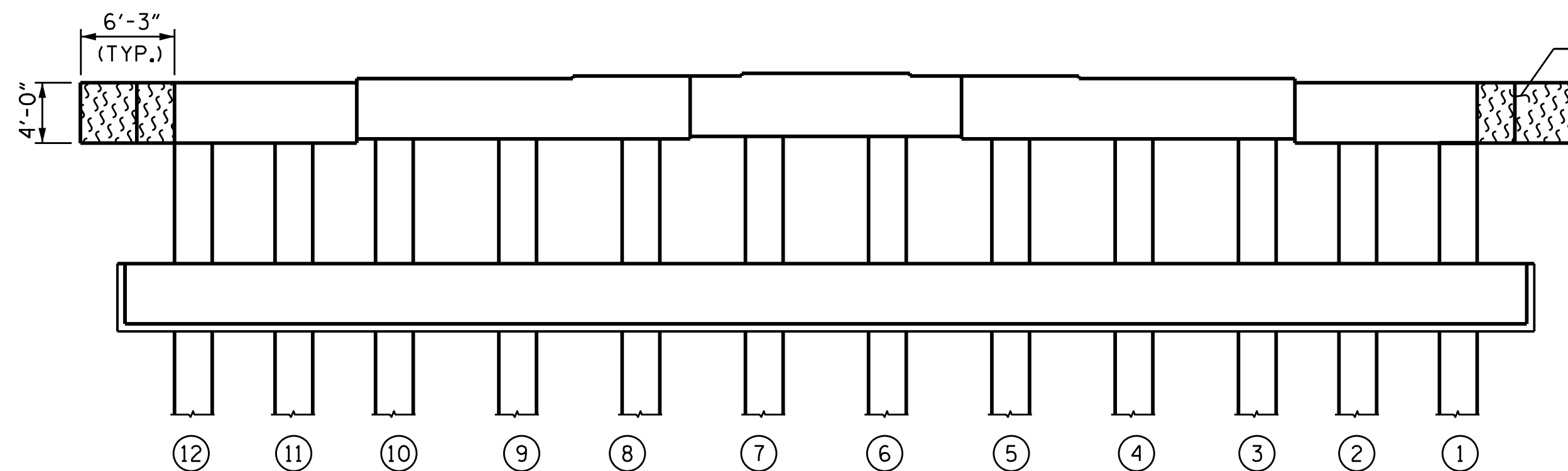


BOTTOM VIEW OF CAP



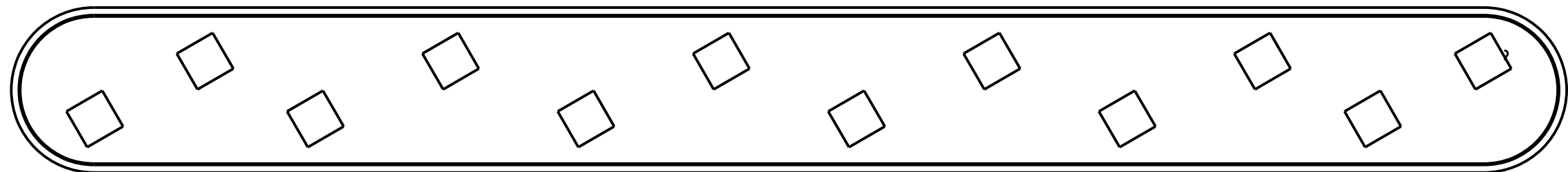
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END

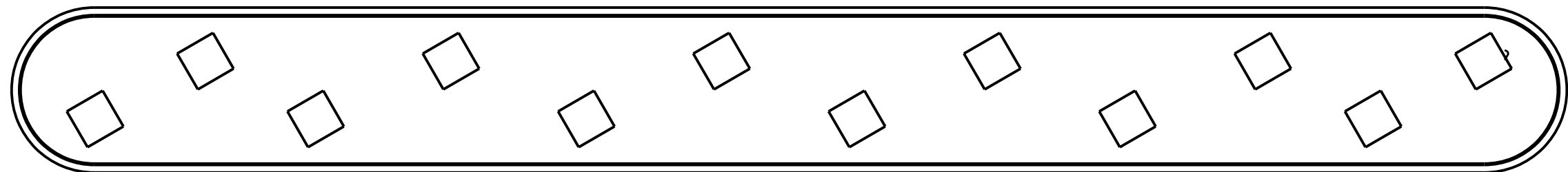


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



TOP VIEW OF STRUT



BOTTOM VIEW OF STRUT

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

SHOTCRETE REPAIR

CONCRETE REPAIR

EPOXY RESIN INJECTION

PILE

EPOXY COATING

DocuSigned by:  
William C. Smith  
BA2A82833F6241D



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
R:\Structures\15BPR.137\Plans\401.321.15BPR.137\_SMU.B93.S-161.060353.dgn  
Kcode1

REPAIR QUANTITY TABLE

BENT 93	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 93 OF 140

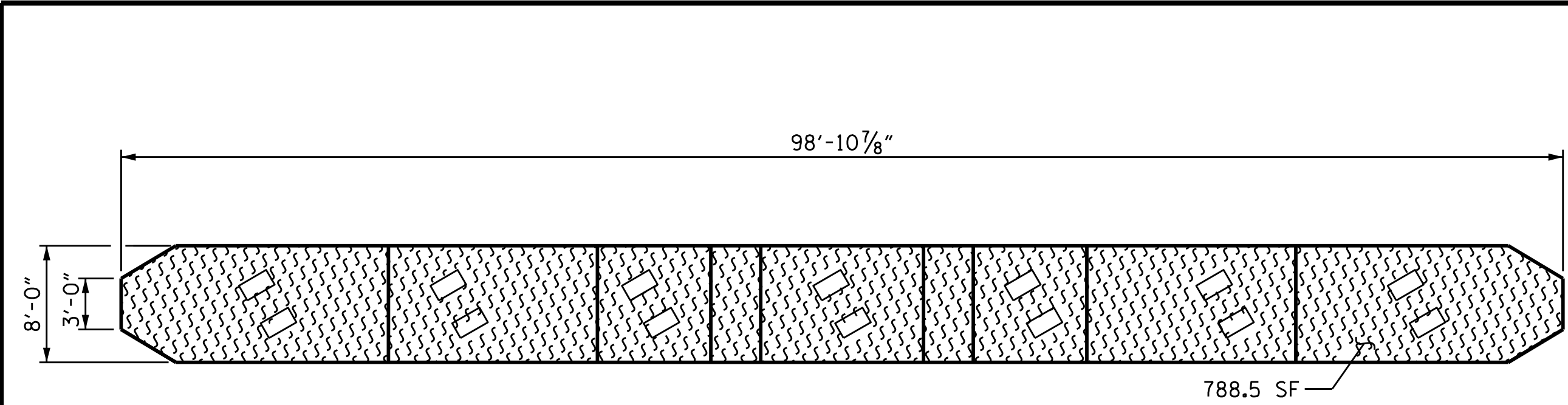
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE

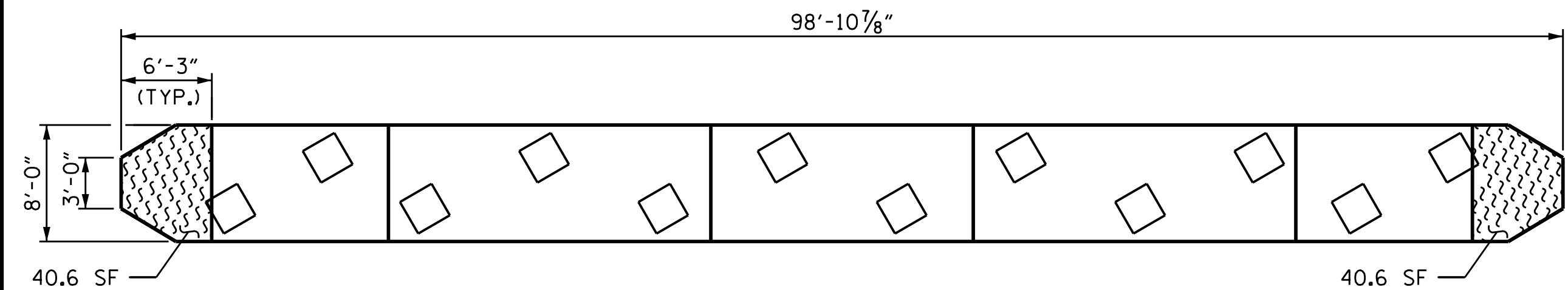
BENT 93

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

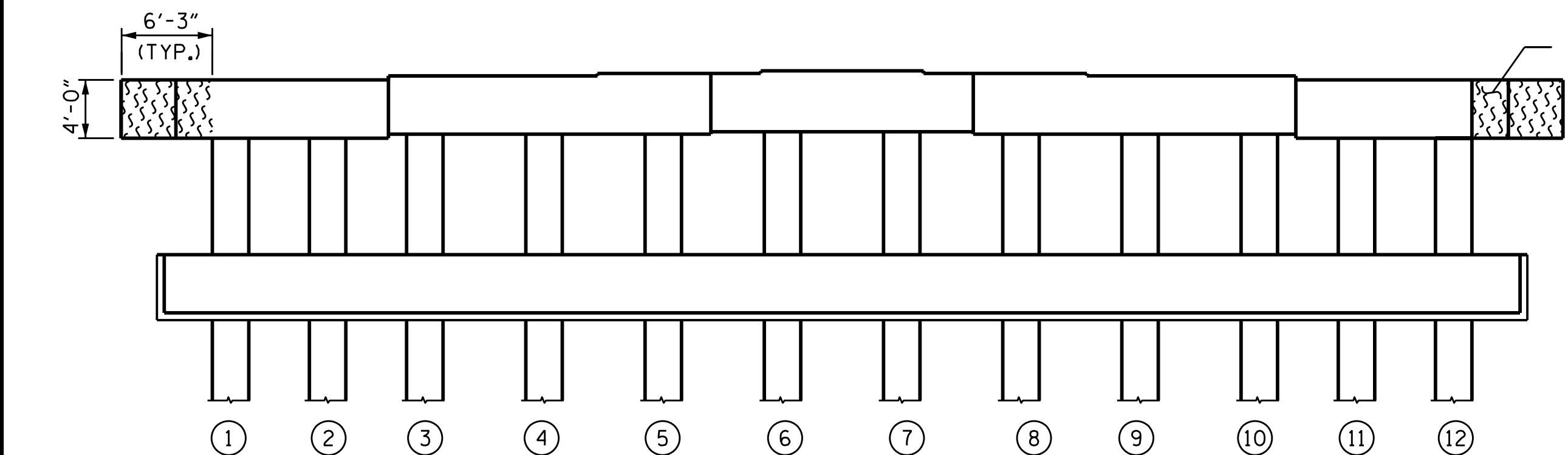
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-161
2			4			TOTAL SHEETS 217



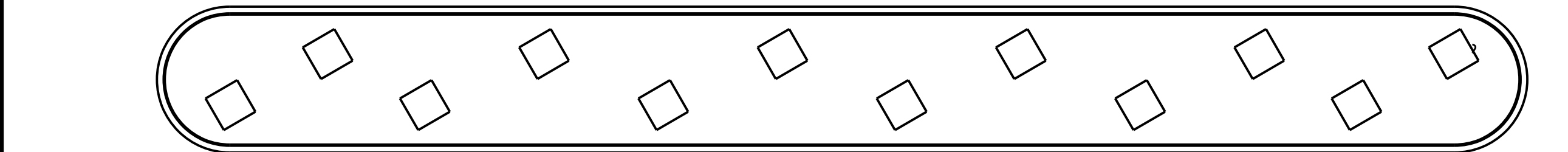
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



TOP VIEW OF STRUT

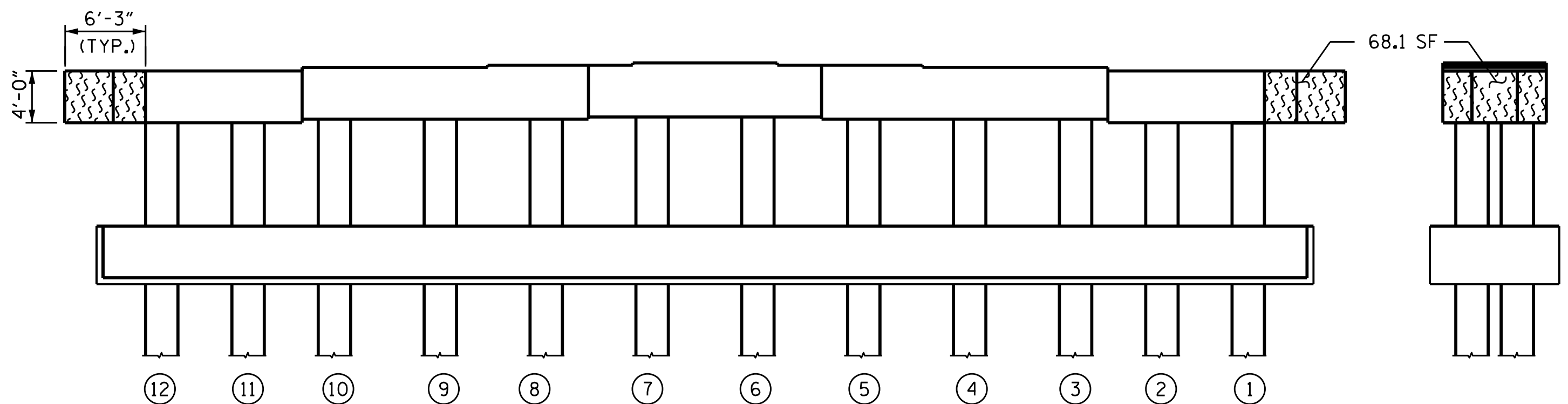
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

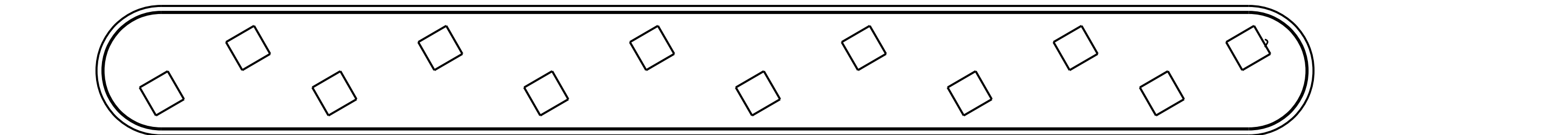
SPAN 95  
SPAN 94

SPAN 94  
SPAN 95

EAST END

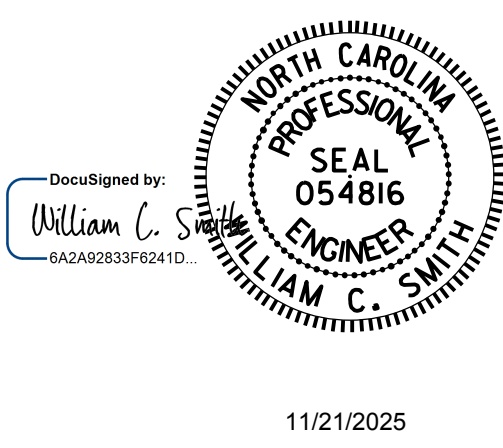


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

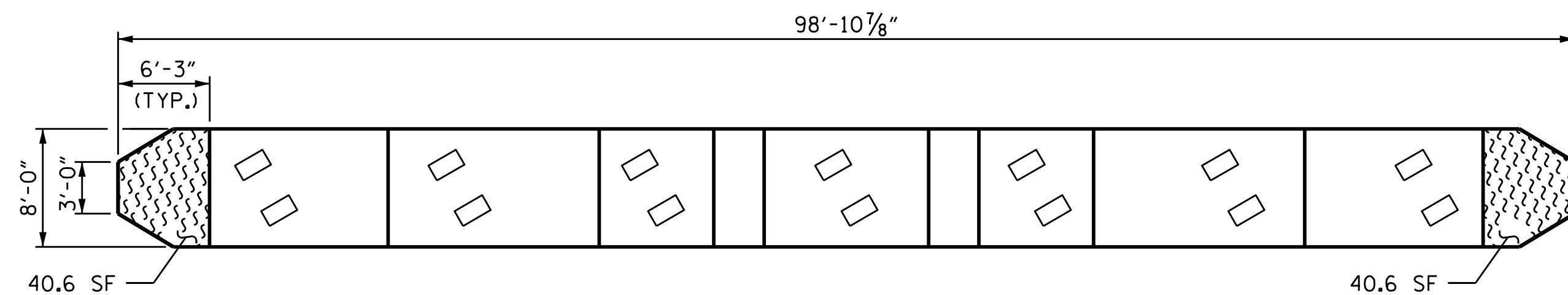
BENT 94	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 94 OF 140

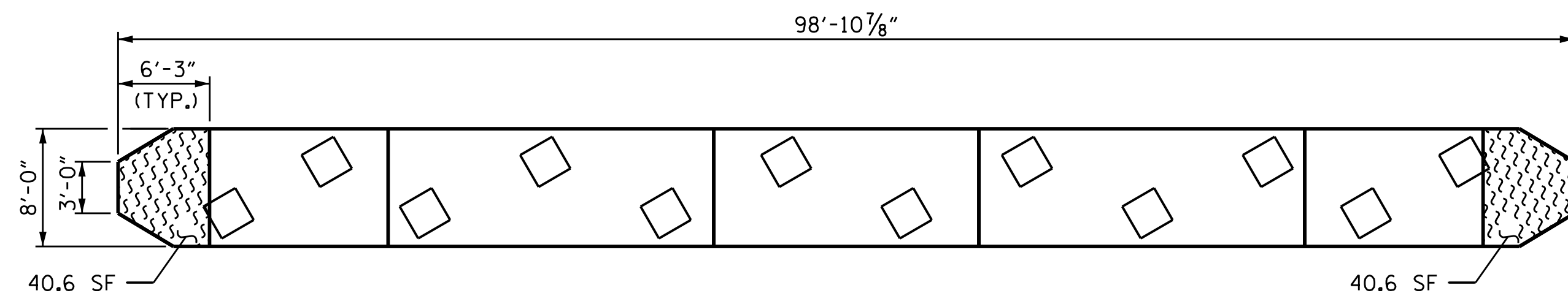
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 94					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-162
					217



SPAN 96  


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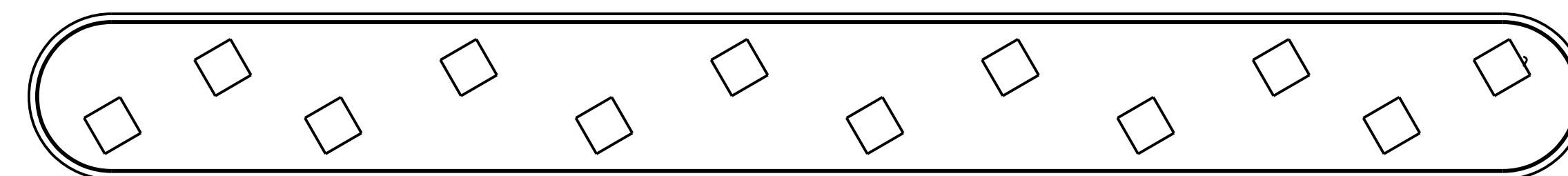
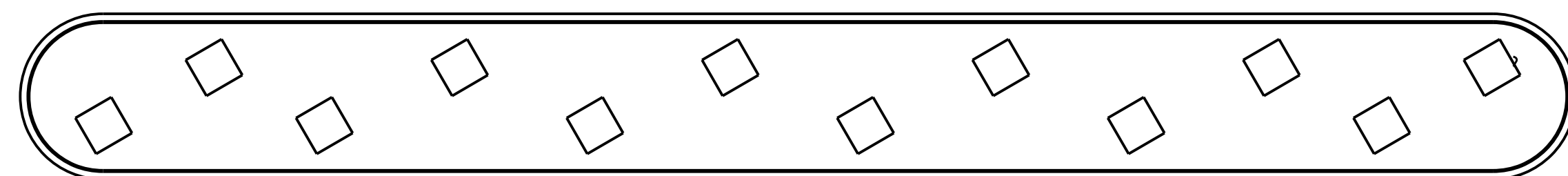
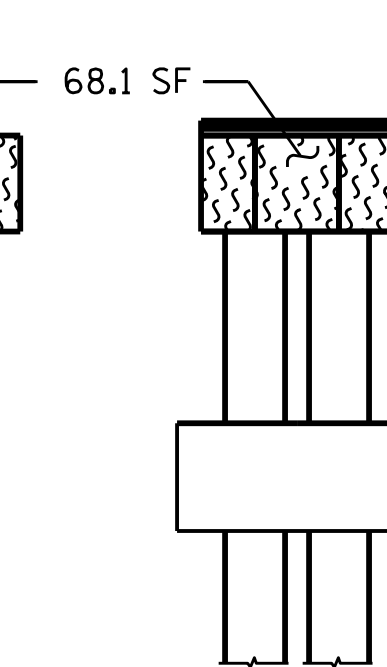
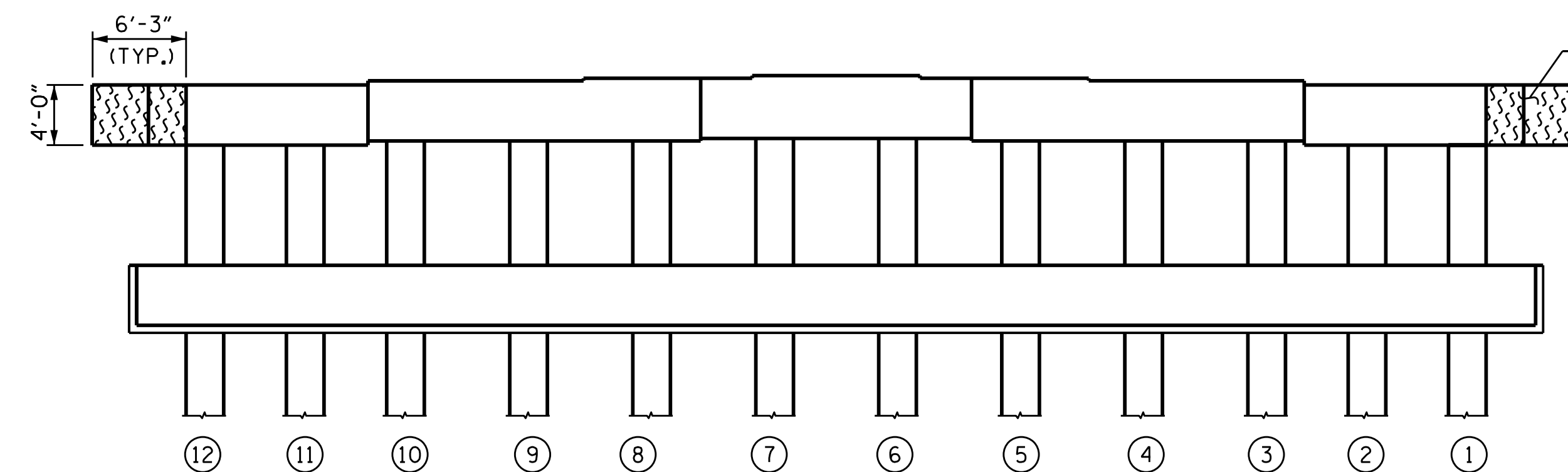
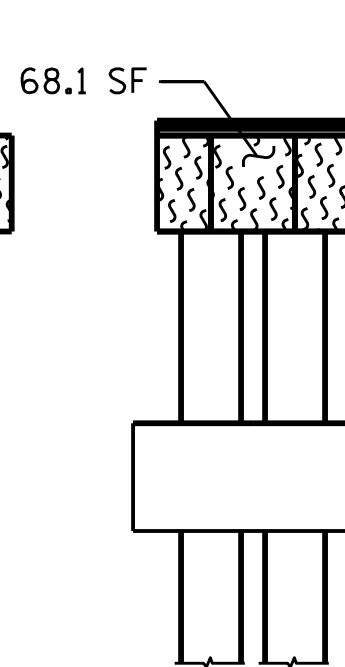
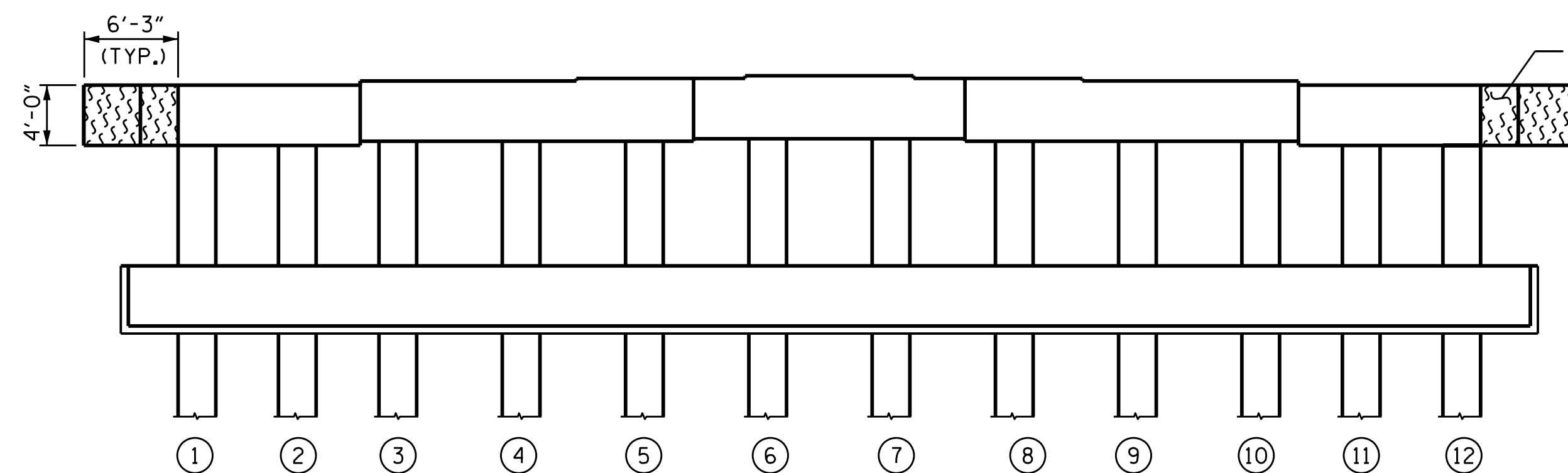
SPAN 95



SPAN 95  


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SPAN 96




REPAIR QUANTITY TABLE				
BENT 95	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

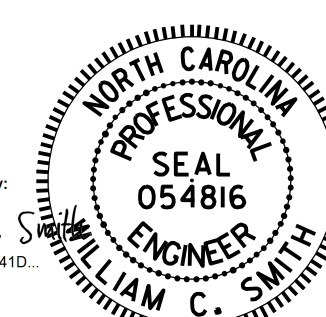
VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- |   |                       |
|---|-----------------------|
|  | SHOTCRETE REPAIR      |
|  | CONCRETE REPAIR       |
| ERI   | EPOXY RESIN INJECTION |
|  | PILE                  |
|  | EPOXY COATING         |

DocuSigned by  
William C.  
6A2A92833F624



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
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PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
 BRIDGE NO. 060353

SHEET 95 OF 140

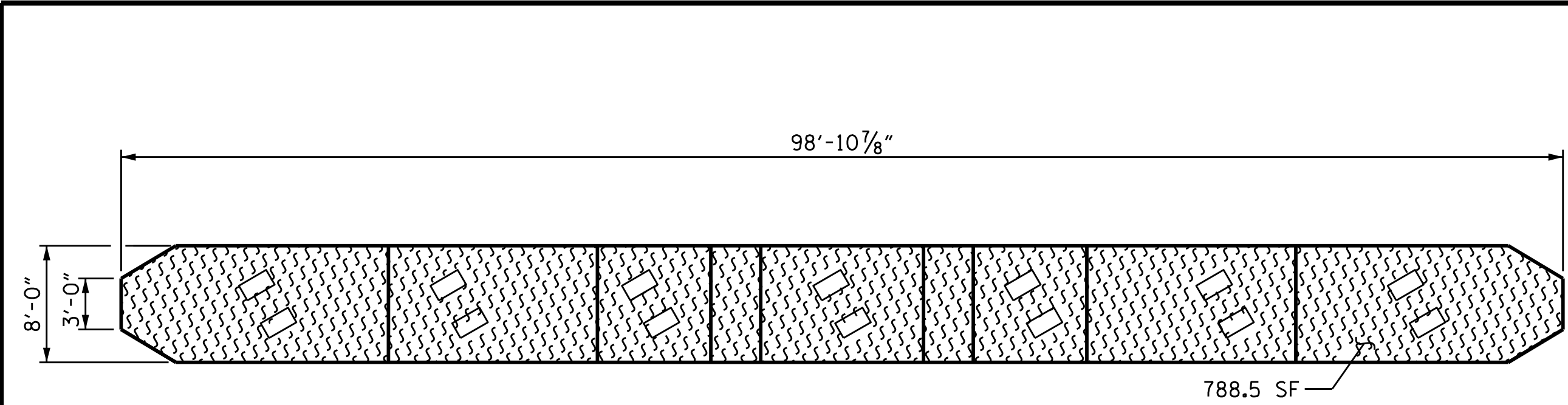
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

## SUBSTRUCTURE

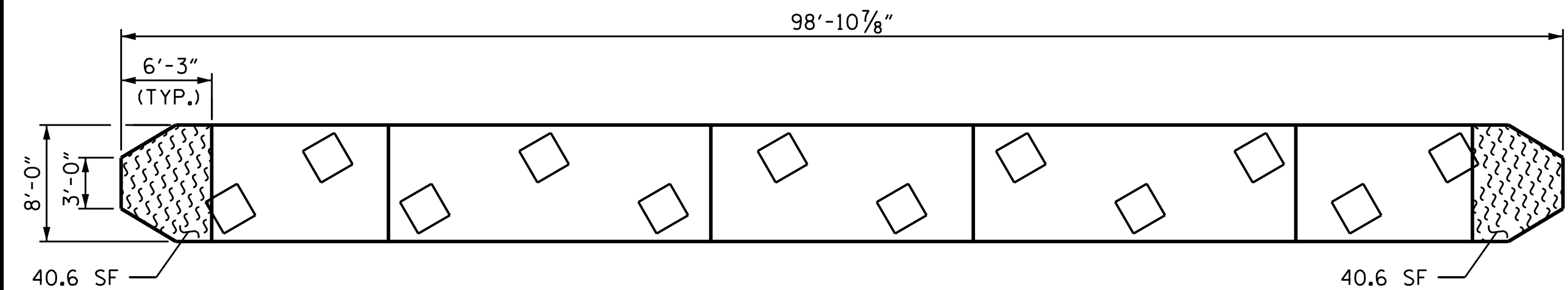
BENT 95

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.  S-163
	NO.	BY:	DATE:	NO.	BY:	DATE:	
	1			3			TOTAL SHEETS
	2			4			217

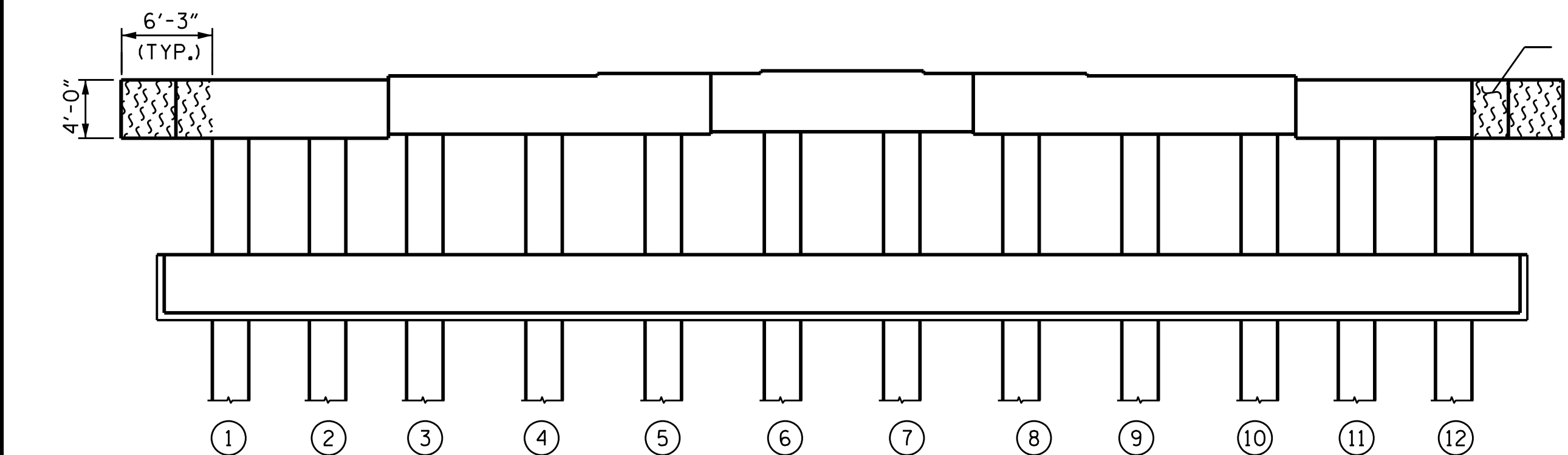




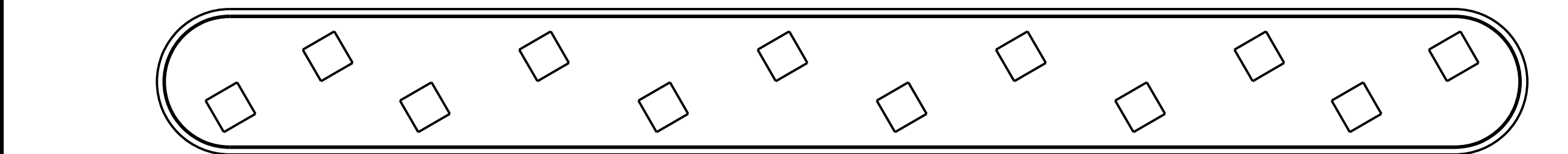
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



TOP VIEW OF STRUT

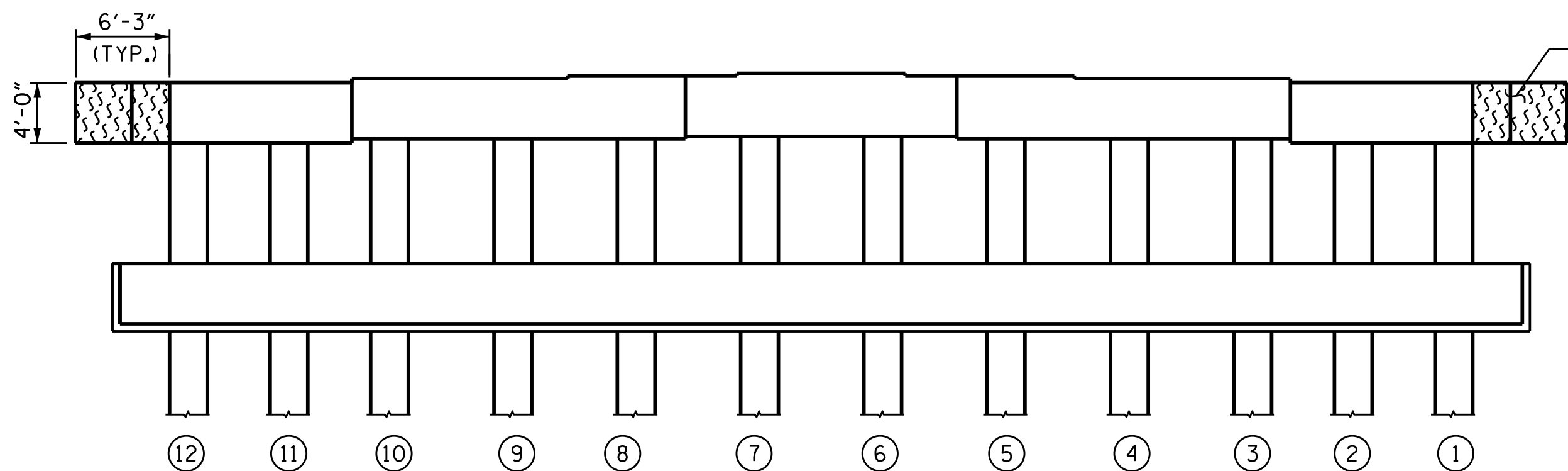
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

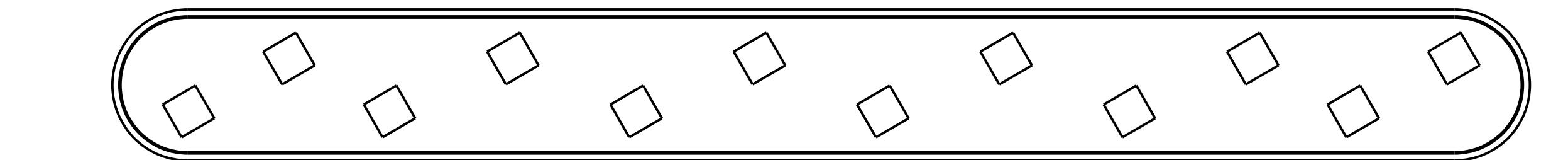
SPAN 97  
SPAN 96

SPAN 96  
SPAN 97

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

DocuSigned by:  
William C. Smith  
BA2A8283F6241D



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

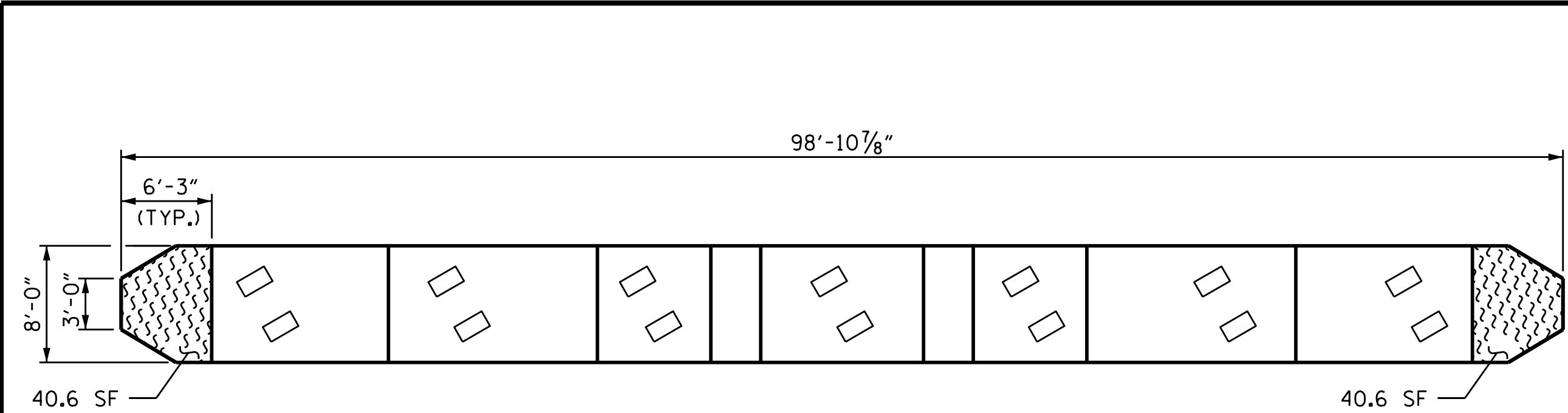
BENT 96	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

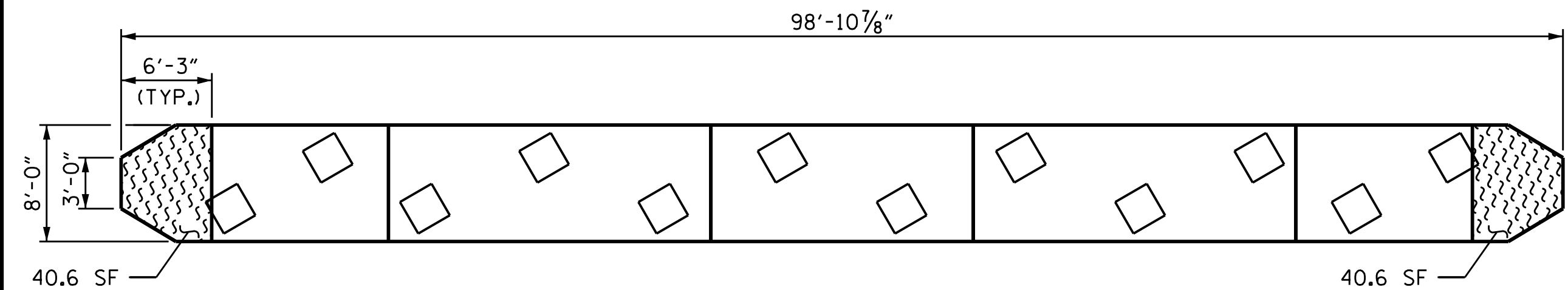
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 96 OF 140

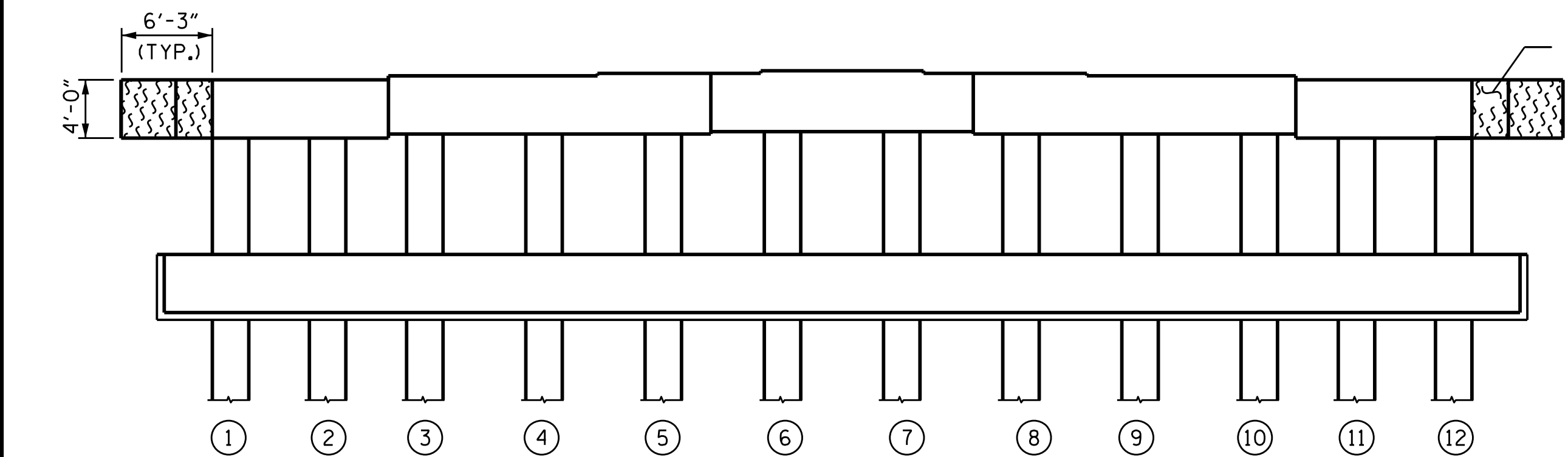
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 96					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-164
					217



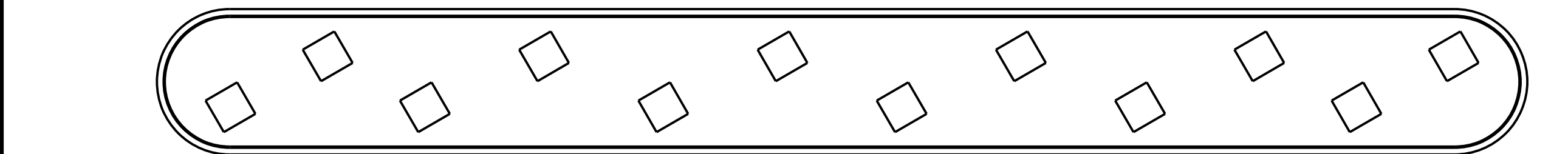
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



TOP VIEW OF STRUT

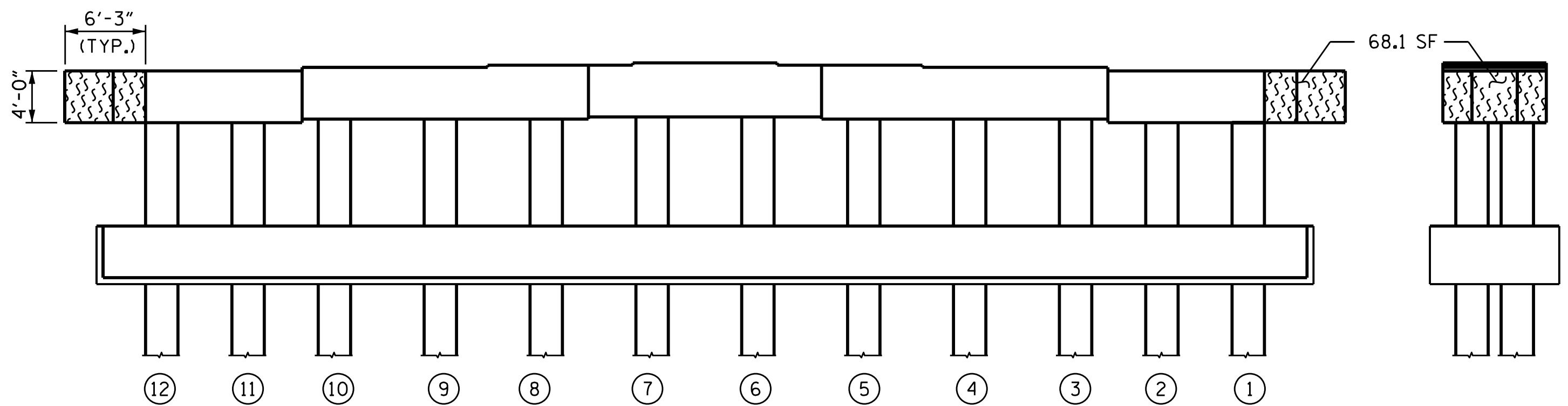
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

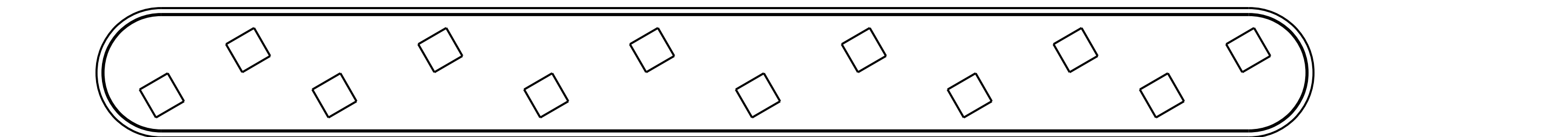
SPAN 98  
SPAN 97

SPAN 97  
SPAN 98

EAST END

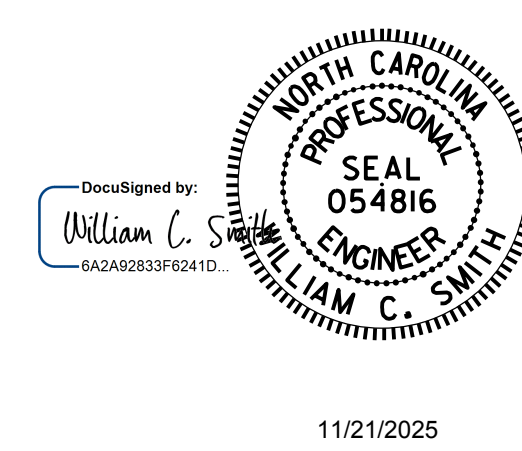


ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REPAIR QUANTITY TABLE

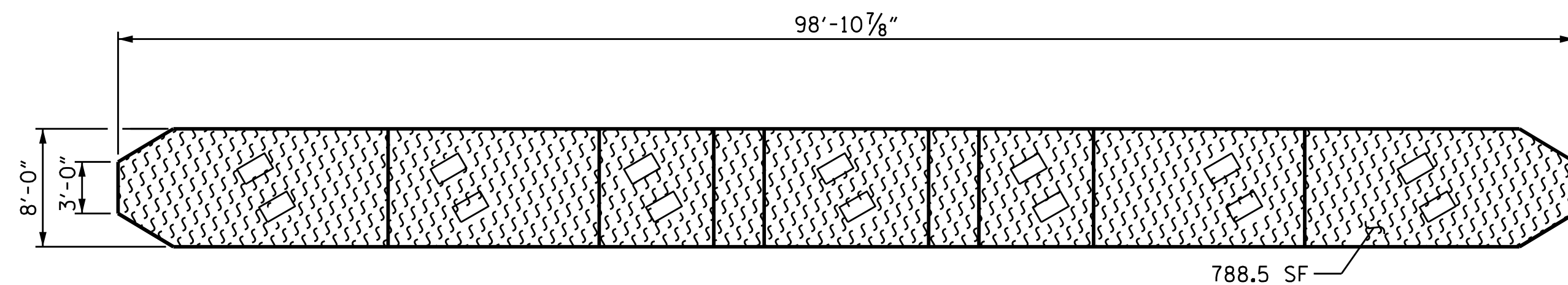
BENT 97	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

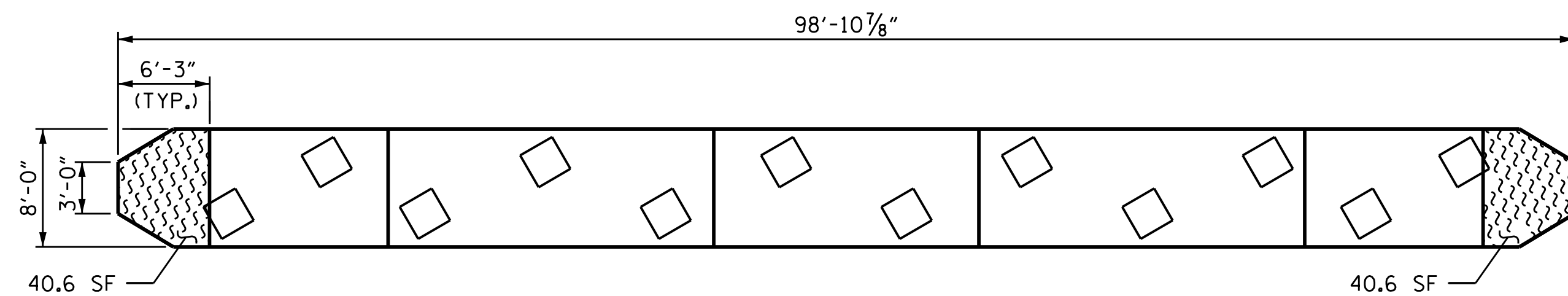
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 97 OF 140

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 97					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-165
					217



TOP VIEW OF CAP

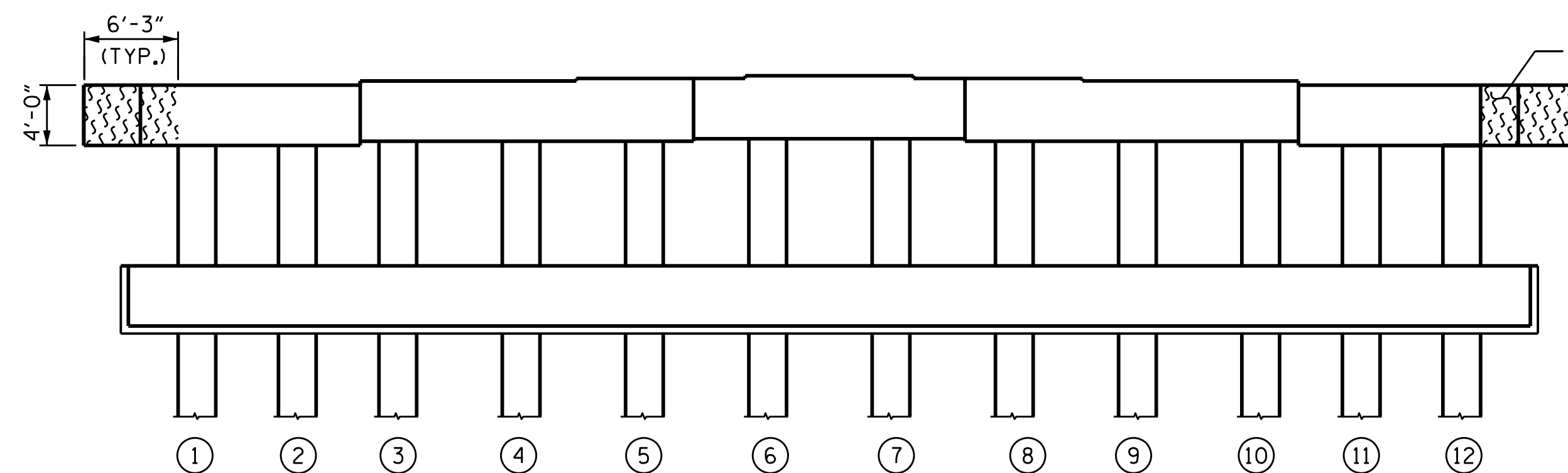
$$\frac{\text{SPAN } 99}{\text{SPAN } 98}$$


BOTTOM VIEW OF CAP

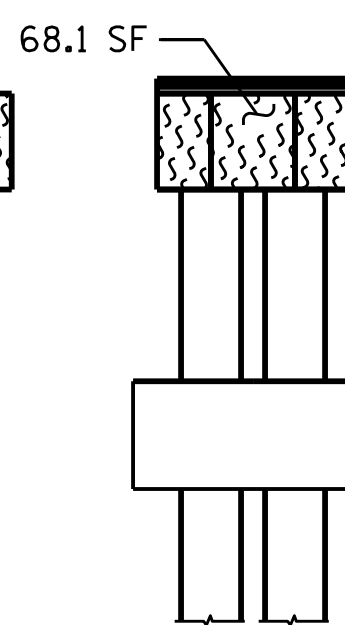
SPAN 98  


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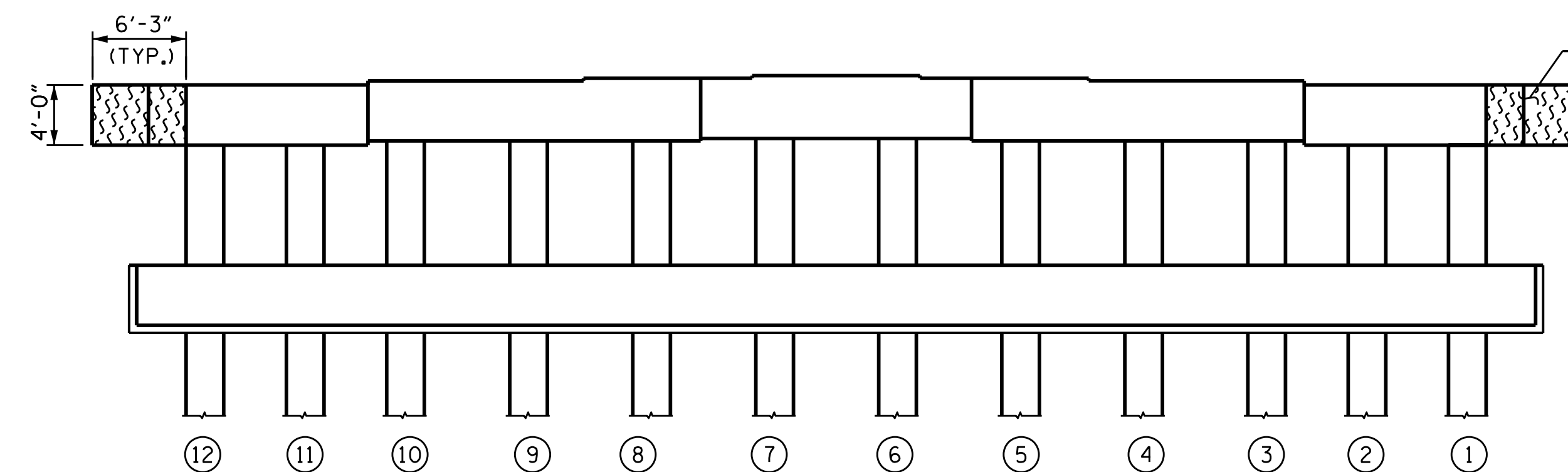
SPAN 99



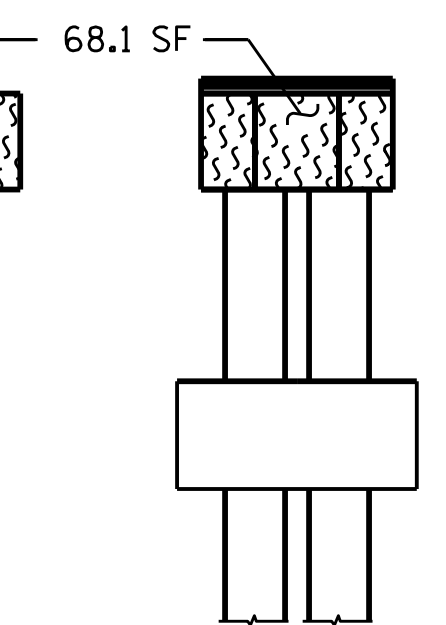
ELEVATION  
 (SOUTH SIDE)  
 (LOOKING NORTH)



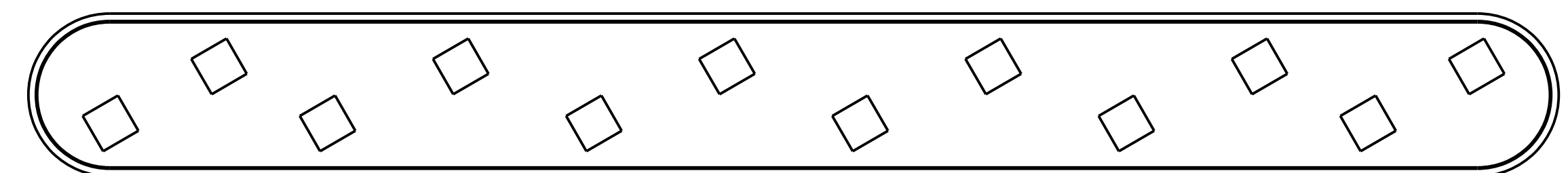
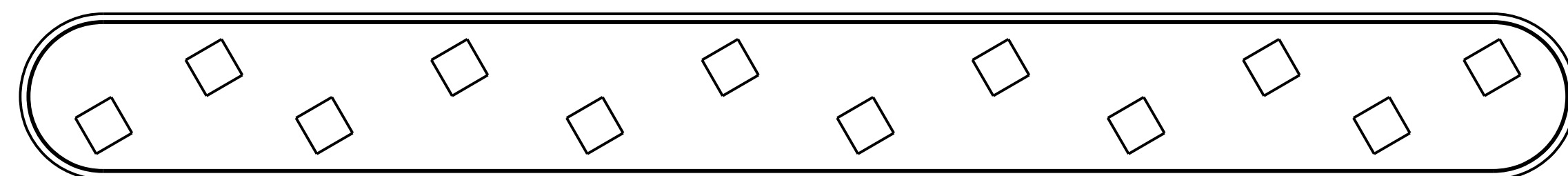
EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END



## REPAIR QUANTITY TABLE

BENT 98	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		1,005.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

 SHOTCRETE REPAIR

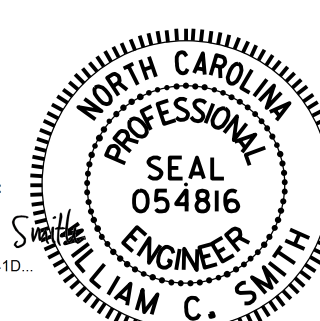
 CONCRETE REPAIR

ERI EPOXY RESIN INJECTION

(P) PILE

 EPOXY COATING

DocuSigned by  
William C.  
6A2A92833F624



11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

11/21/2025  
R:\Structures\15BPR.137\Plans\401\_331\_15BPR.137\_SMU.B98\_S-166\_060353.dgn  
wcsmith

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
 BRIDGE NO. 060353

SHEET 98 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

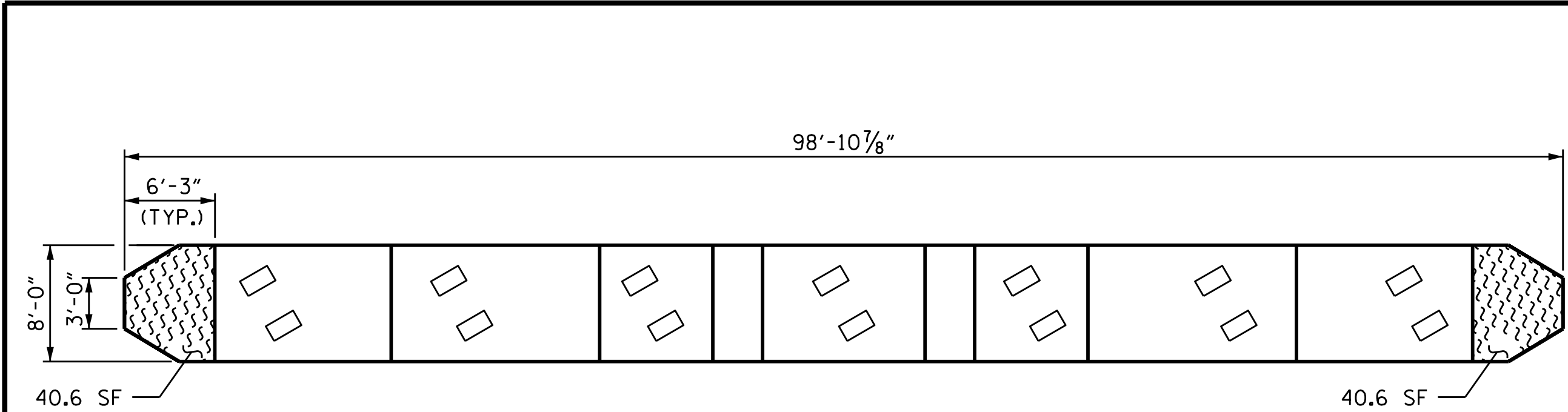
## SUBSTRUCTURE

BENT 98

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.
	NO.	BY:	DATE:	NO.	BY:	DATE:	S-166
	1			3			TOTAL SHEETS
	2			4			217

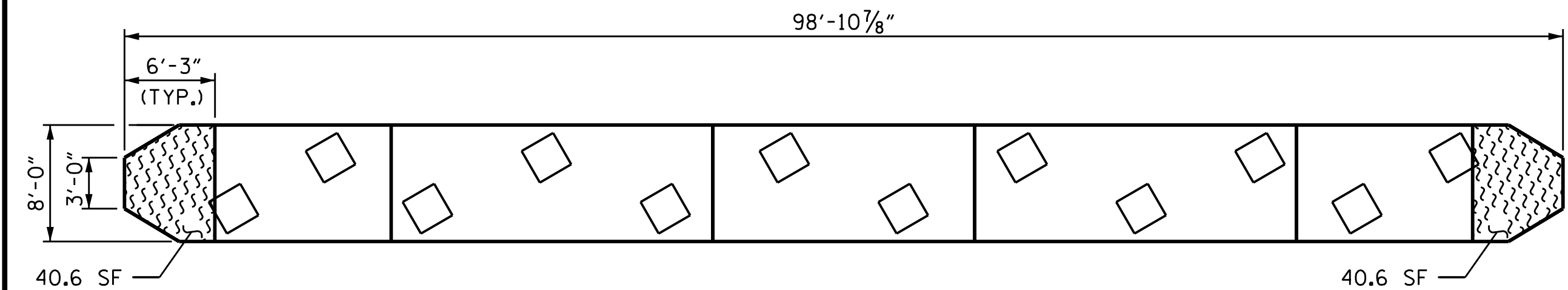
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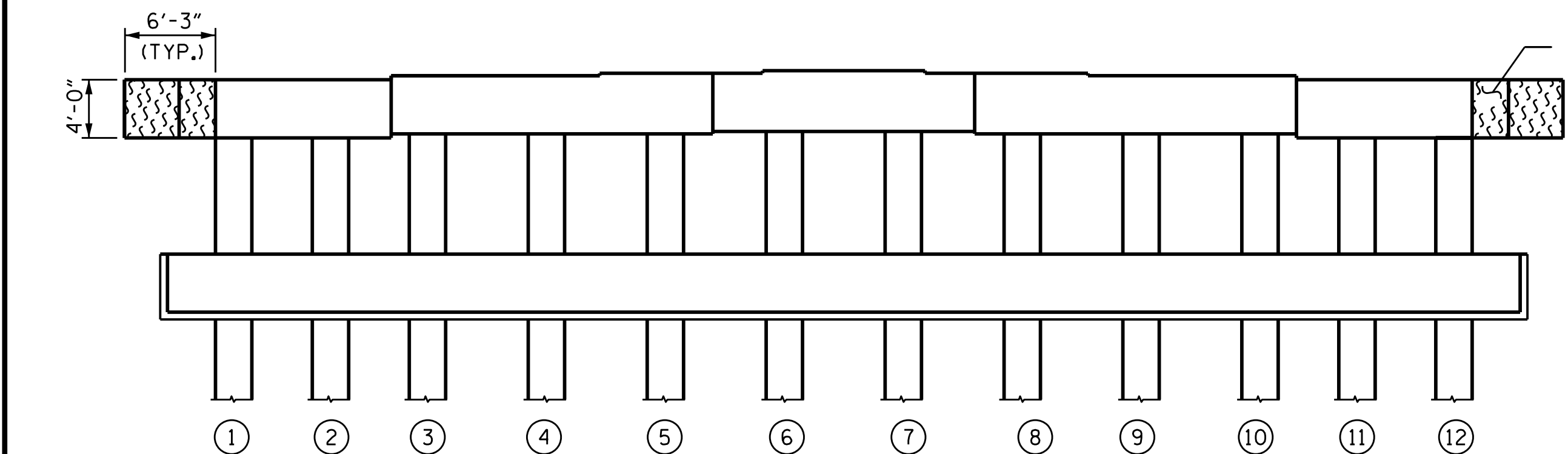
TOP VIEW OF CAP

SPAN 100  
SPAN 99



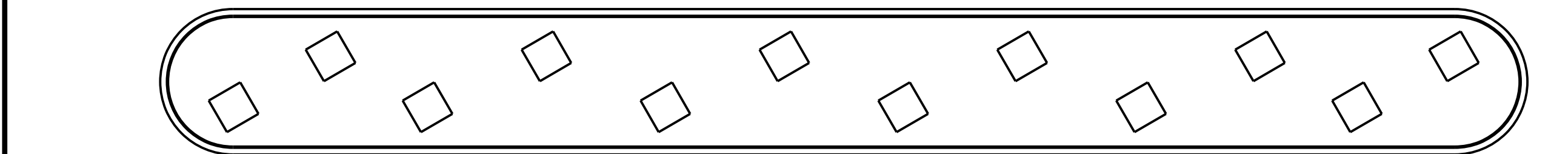
BOTTOM VIEW OF CAP

SPAN 99  
SPAN 100



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

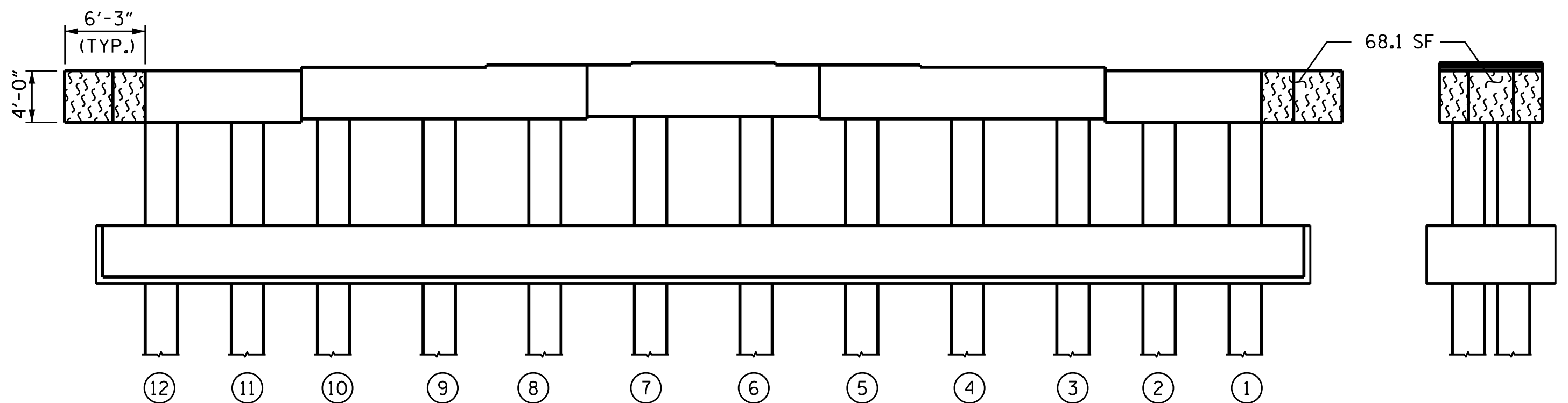
EAST END



TOP VIEW OF STRUT

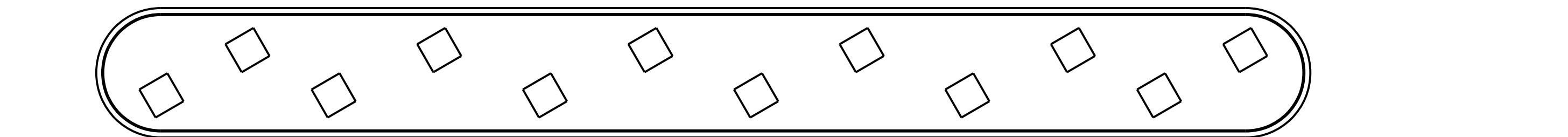
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.



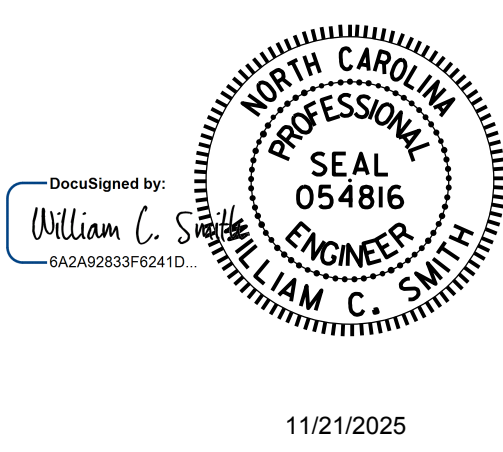
ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



BOTTOM VIEW OF STRUT

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



11/21/2025

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SIGNATURES COMPLETED

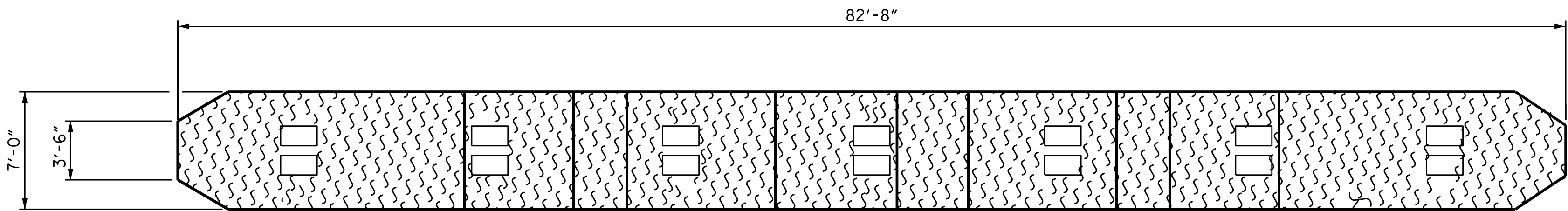
REPAIR QUANTITY TABLE				
BENT 99	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		298.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

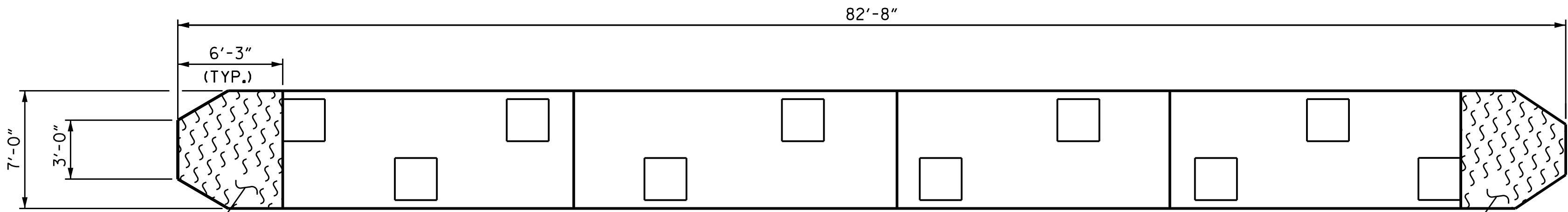
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 99 OF 140

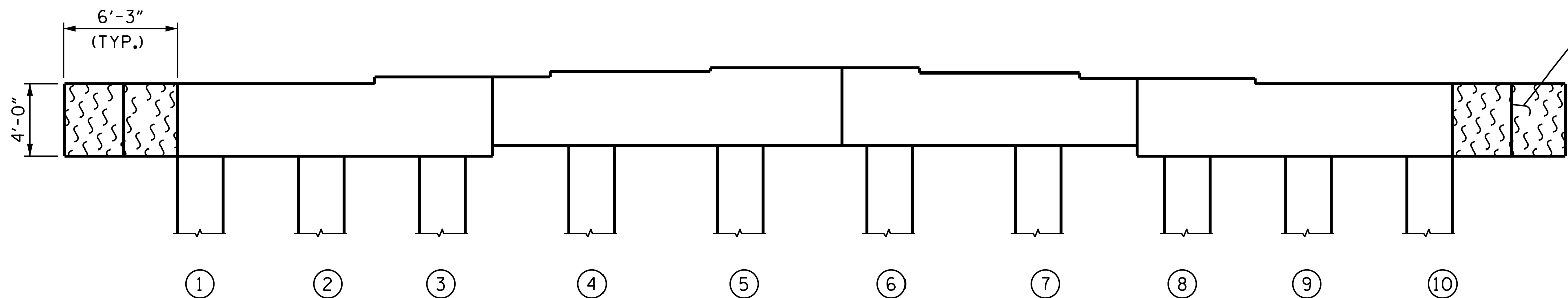
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 99					
REVISIONS					SHEET NO.
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2			4		
TOTAL SHEETS					S-167
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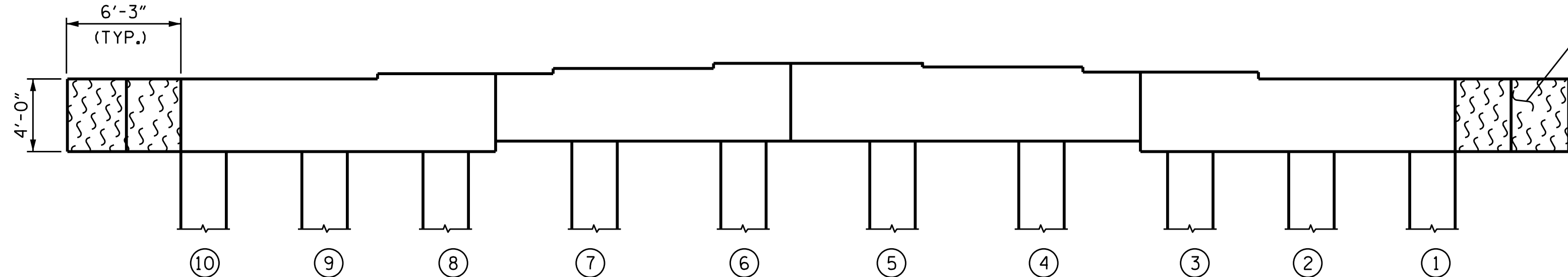
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 101  
SPAN 100

SPAN 100  
SPAN 101

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 100	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		790.3		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

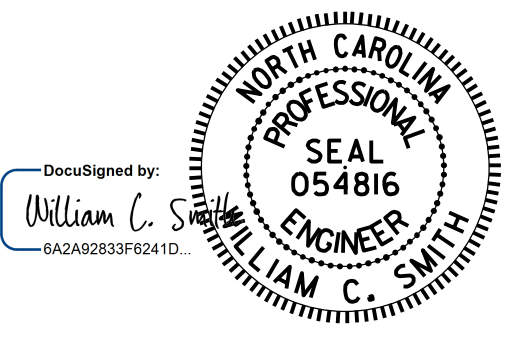
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

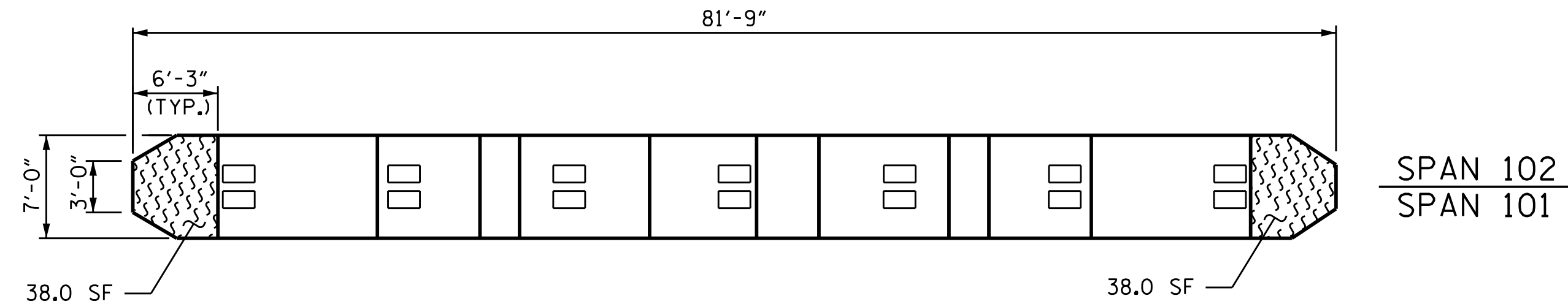
SHEET 100 OF 140

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 100					
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2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS 217

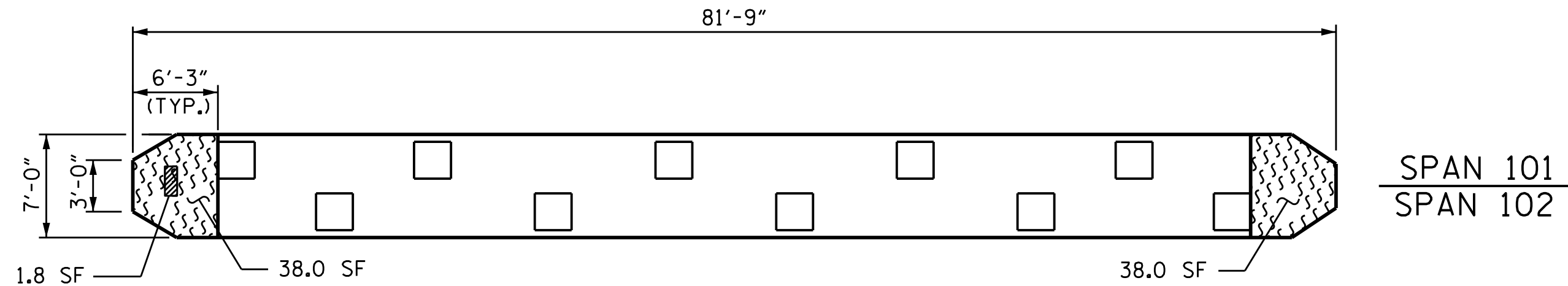


11/21/2025

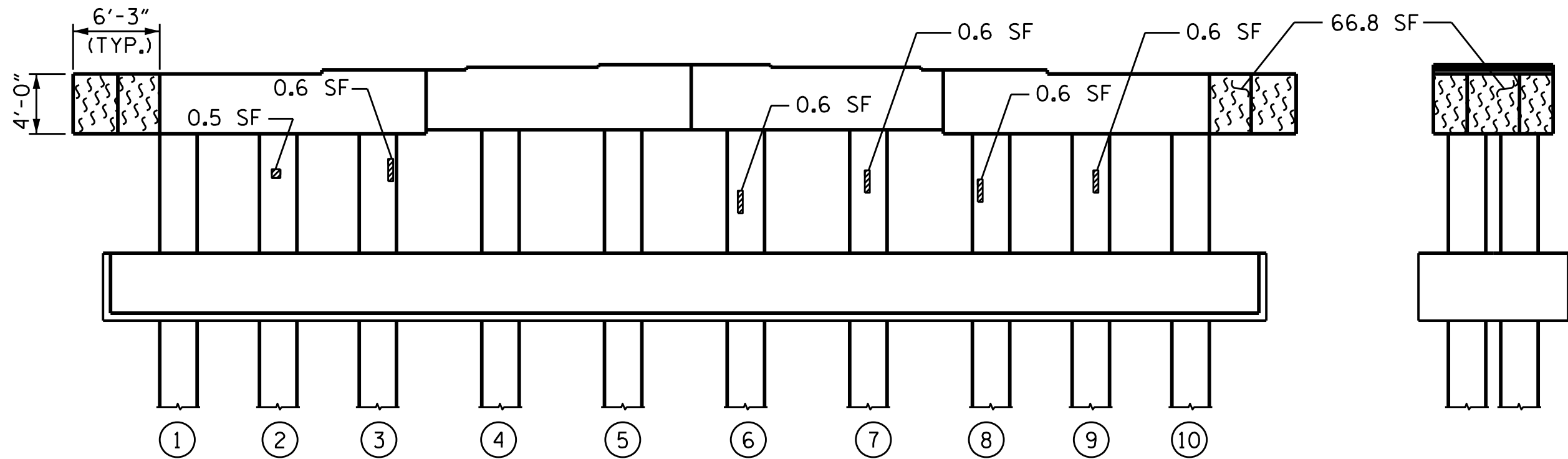
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24



TOP VIEW OF CAP

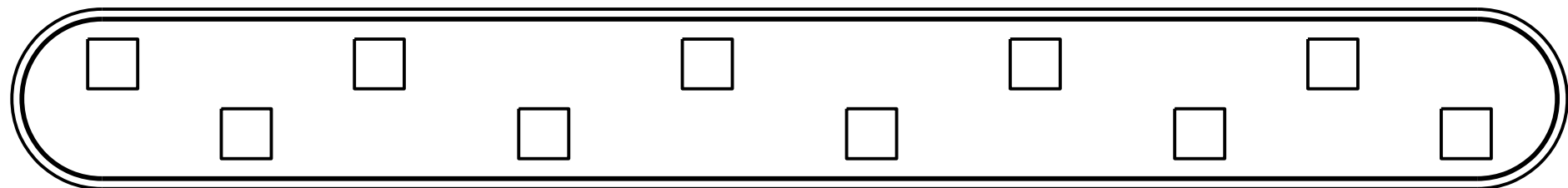


BOTTOM VIEW OF CAP

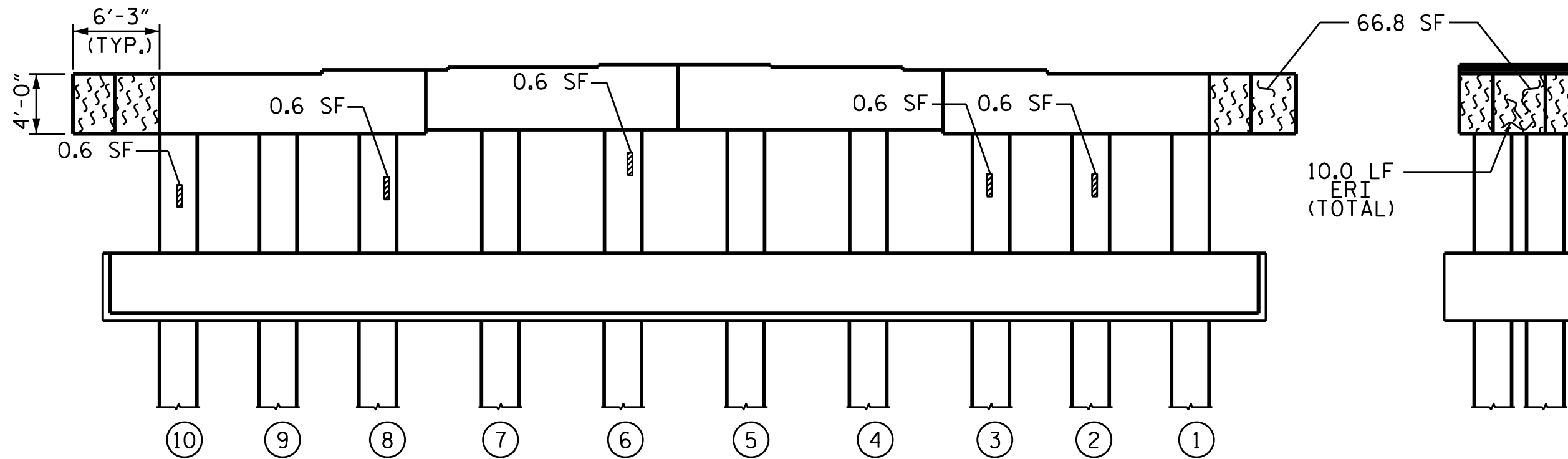


ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END

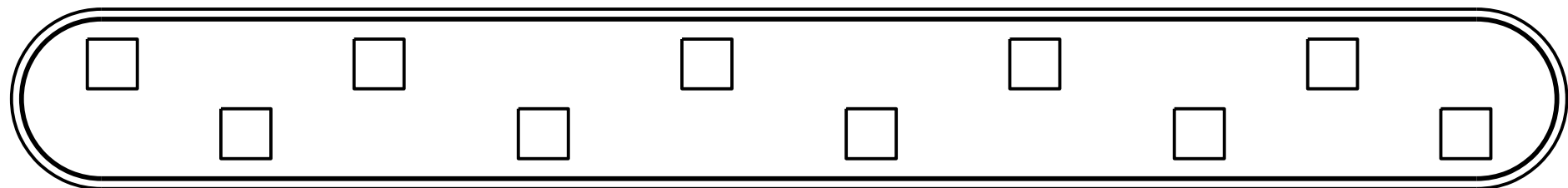


TOP VIEW OF STRUT



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



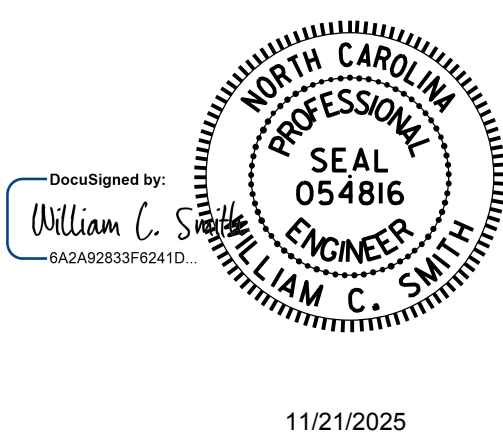
BOTTOM VIEW OF STRUT

REPAIR QUANTITY TABLE				
BENT 101	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	1.8	0.9		
COLUMN	6.5	3.3		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		10.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		285.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:  
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING



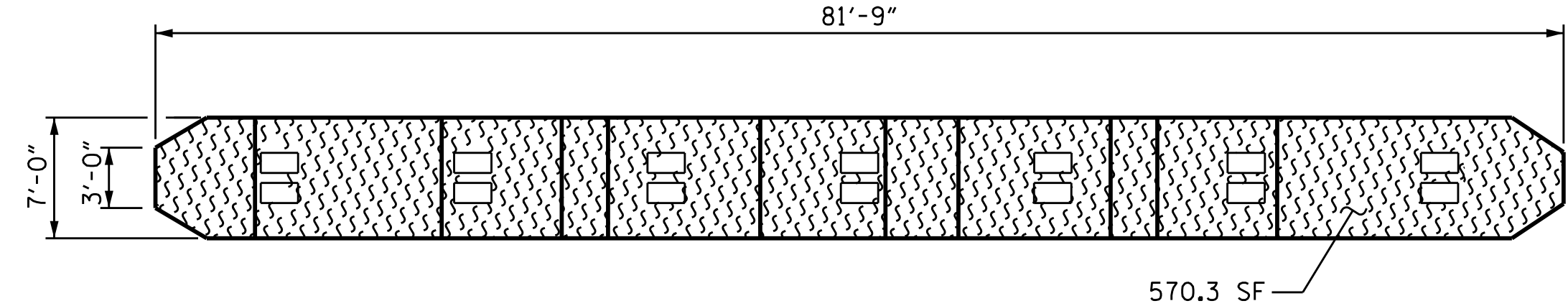
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 101 OF 140

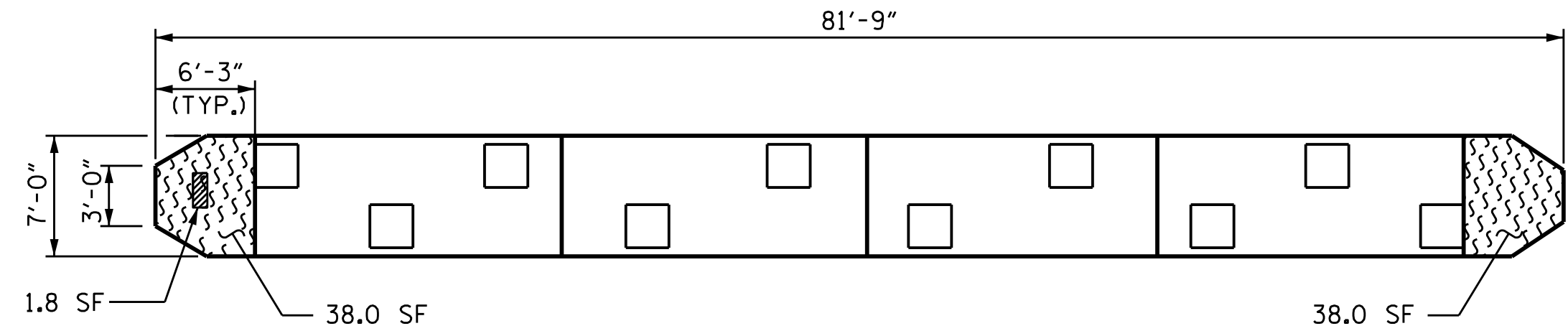
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE BENT 101					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS 217

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

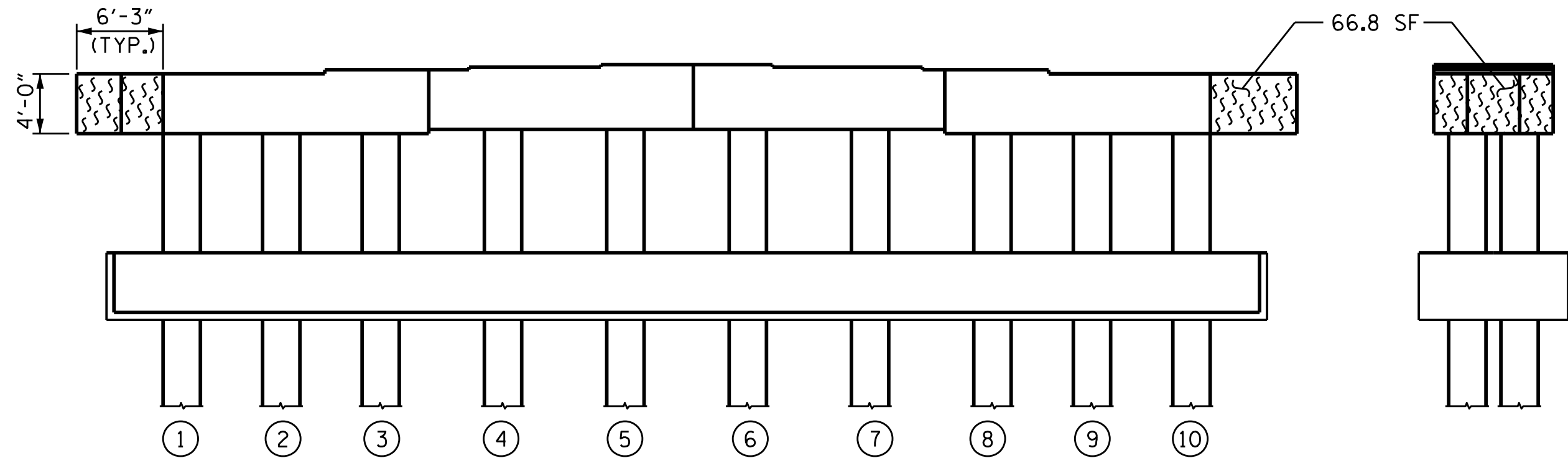




TOP VIEW OF CAP

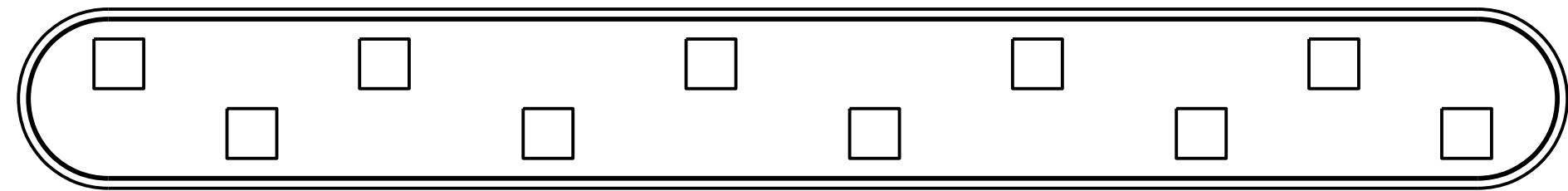


BOTTOM VIEW OF CAP

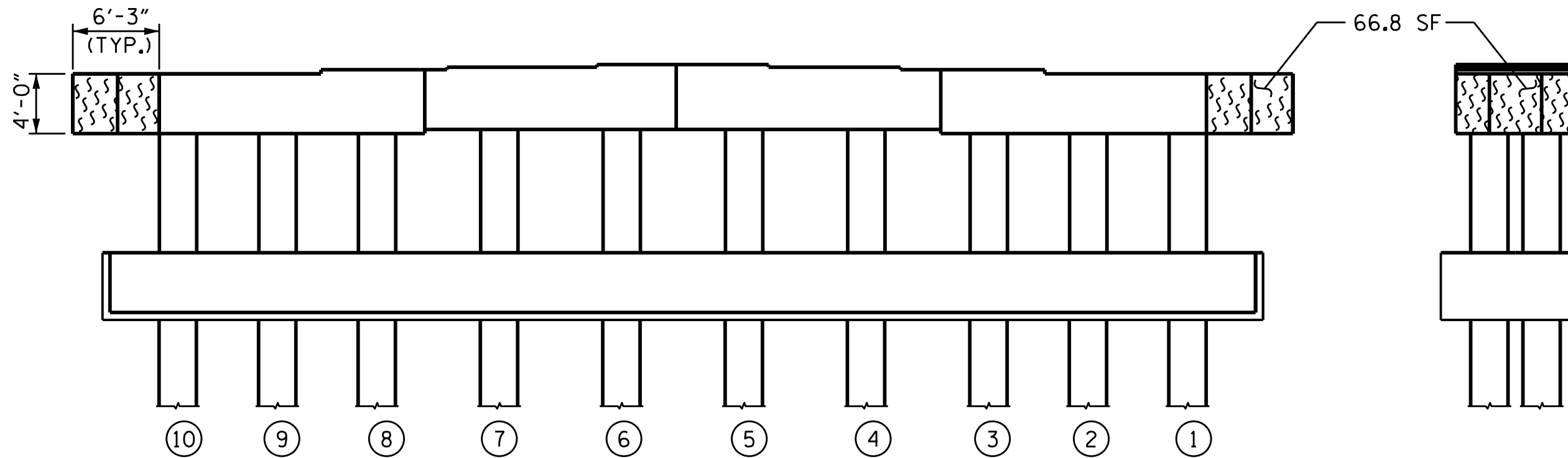


ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END

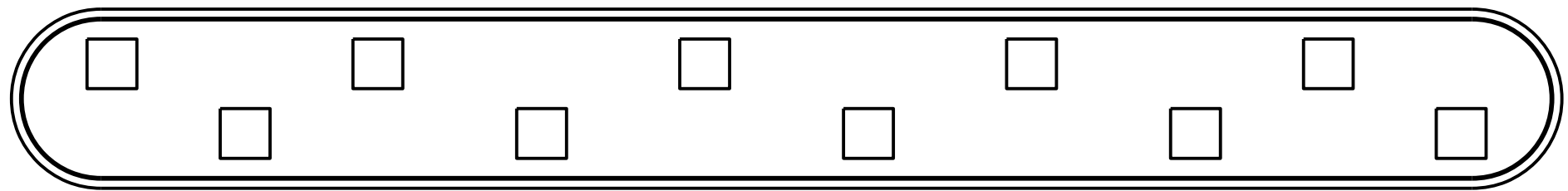


TOP VIEW OF STRUT



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END



BOTTOM VIEW OF STRUT

REPAIR QUANTITY TABLE

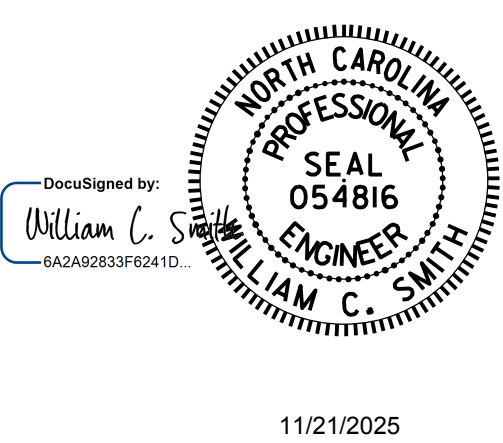
BENT 102	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	1.8	0.9		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		780.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL. TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING



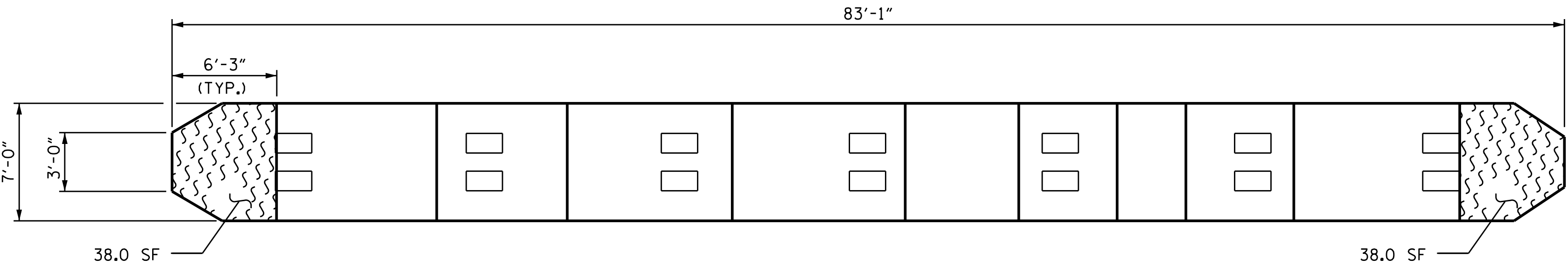
PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 102 OF 140

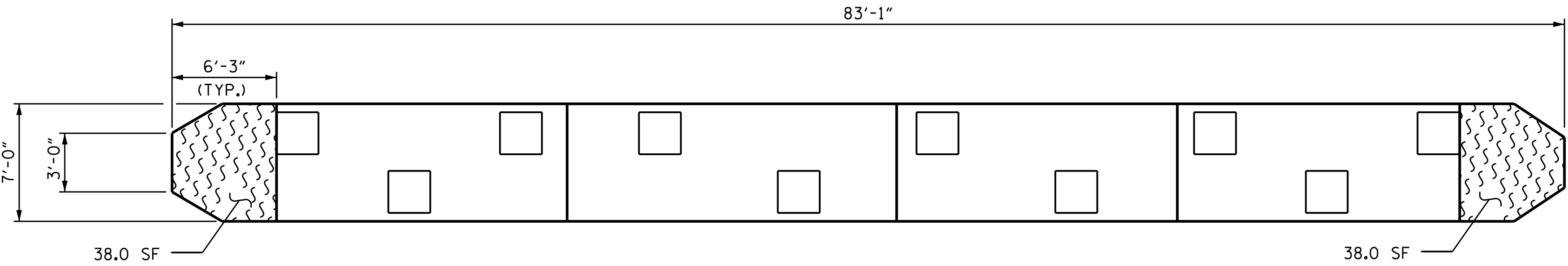
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1			3			TOTAL SHEETS
2			4			217

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CHECKED BY : W. C. SMITH DATE : 7/10/24

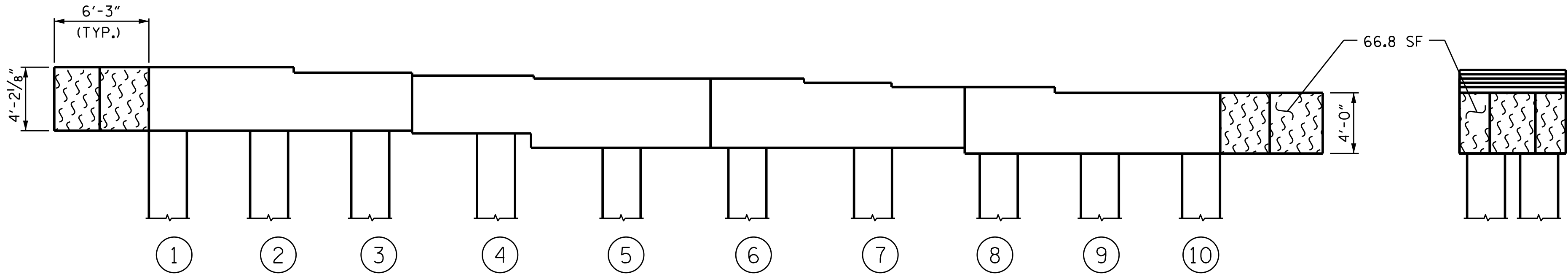
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SIGNATURES COMPLETED



TOP VIEW OF CAP

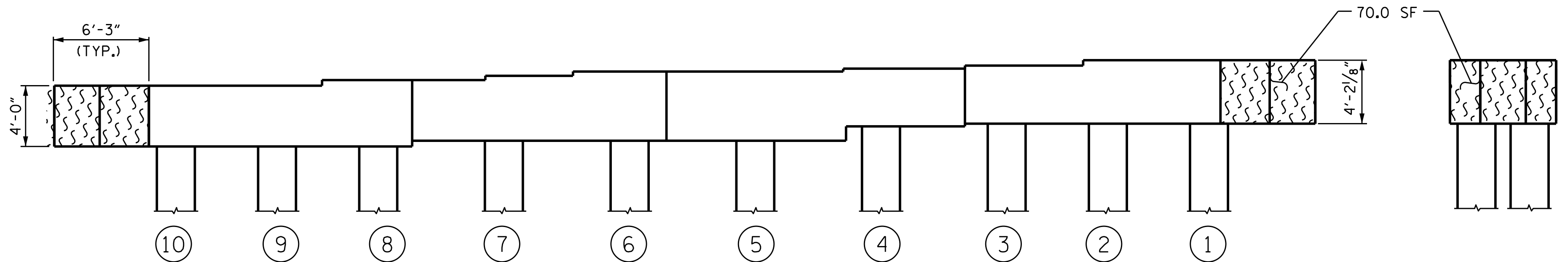


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 103	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		288.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

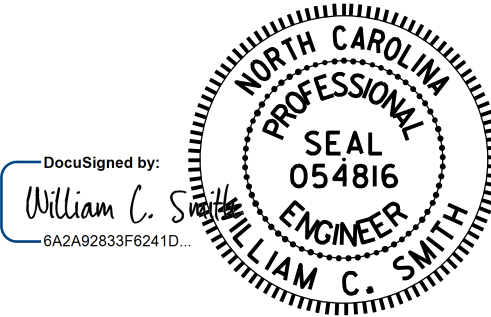
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

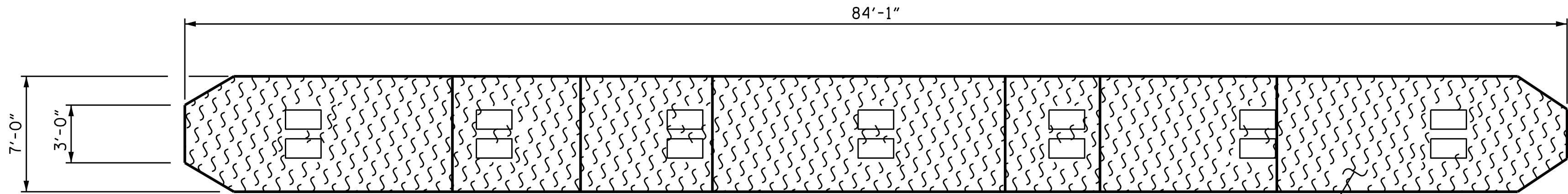
SHEET 103 OF 140



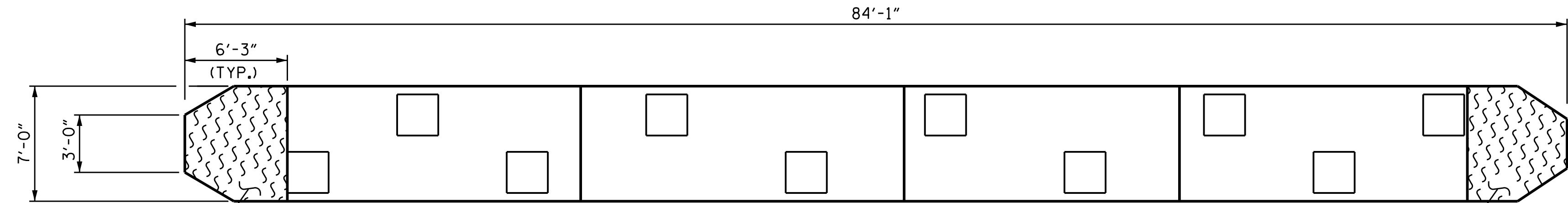
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-171
1			3			TOTAL SHEETS
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DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

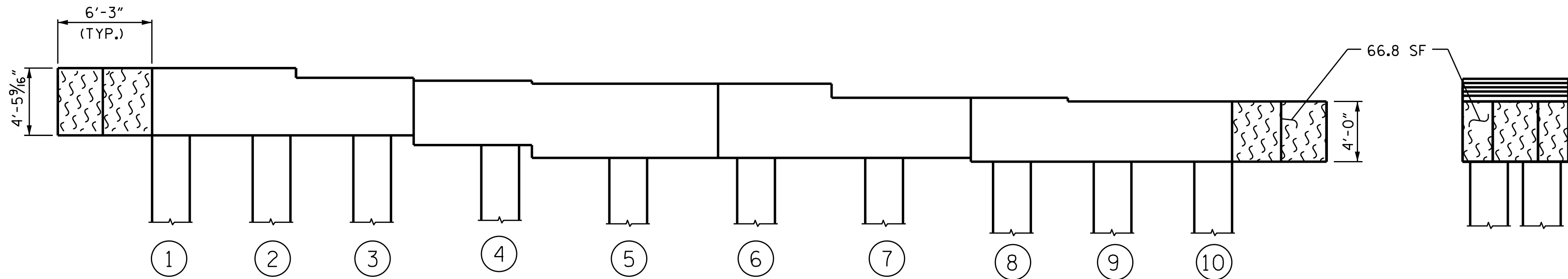
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TOP VIEW OF CAP

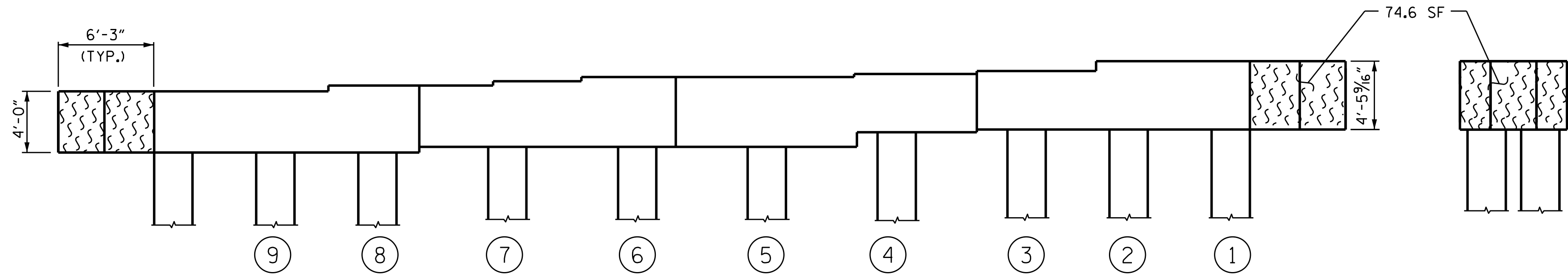


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 104	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		814.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

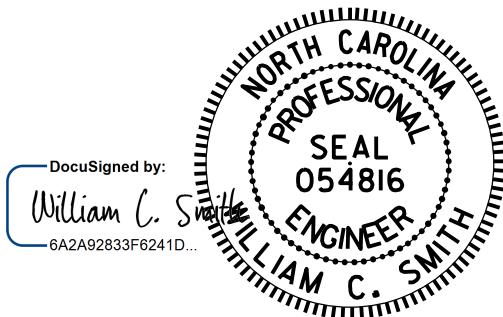
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 104 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR

BENT 104



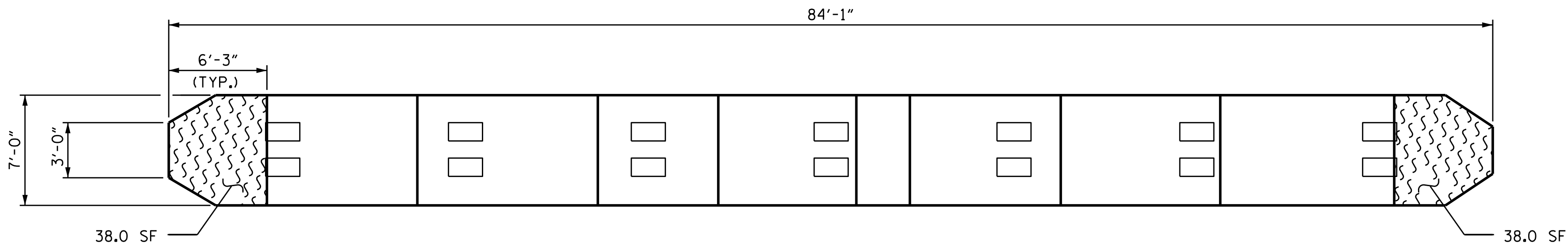
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

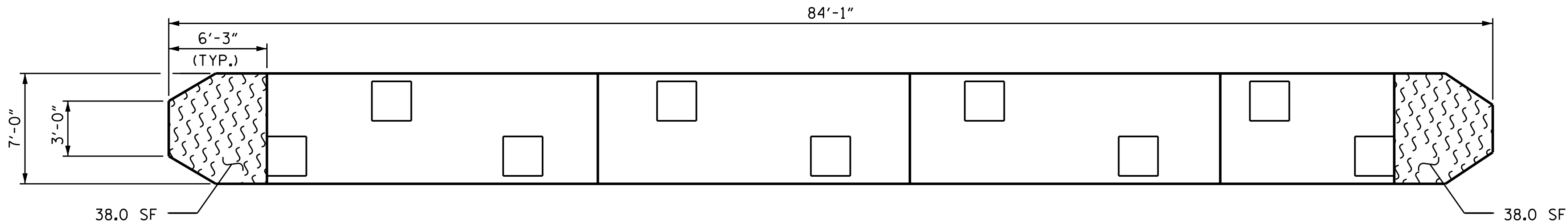
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REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			217

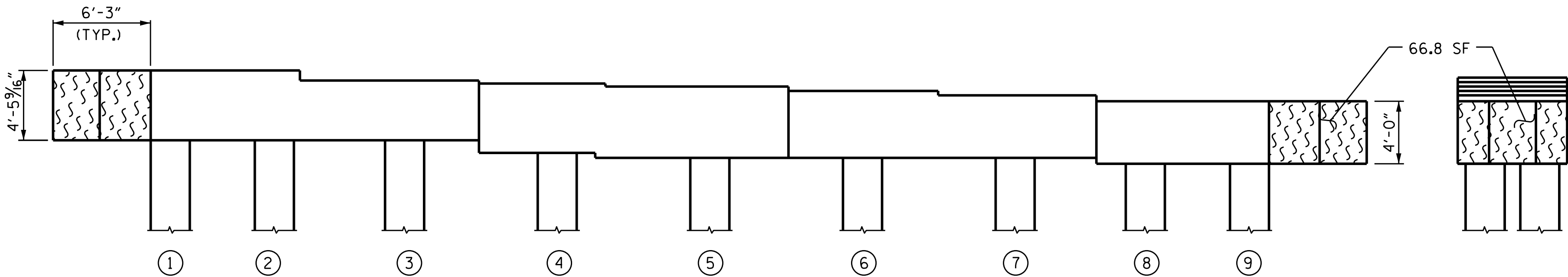




TOP VIEW OF CAP

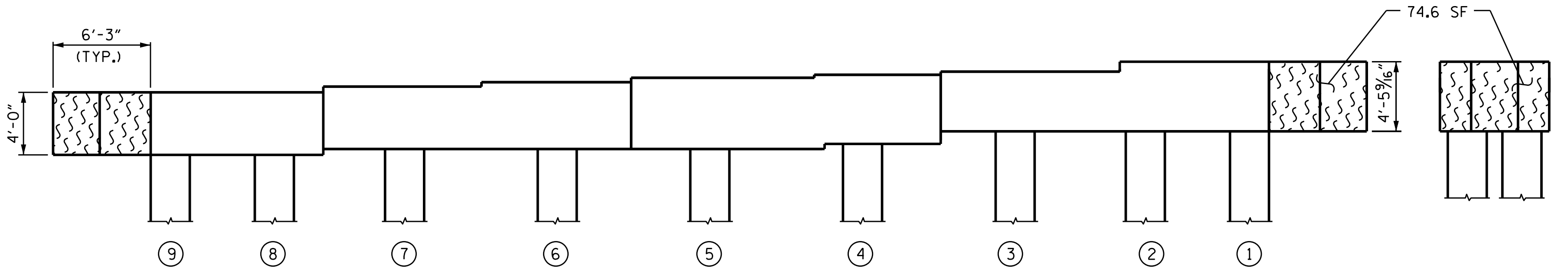


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 105	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

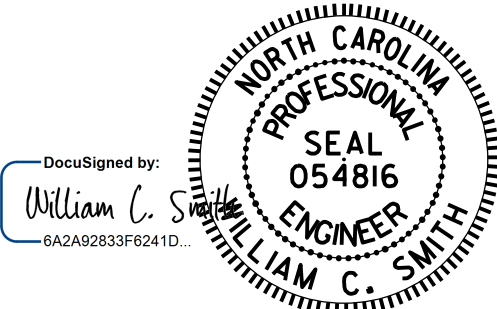
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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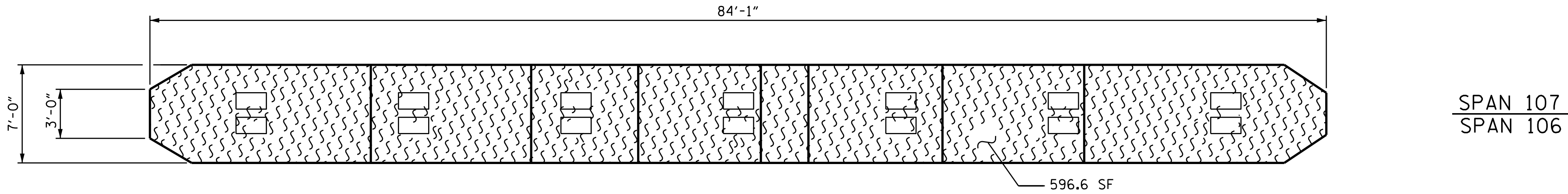


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 105

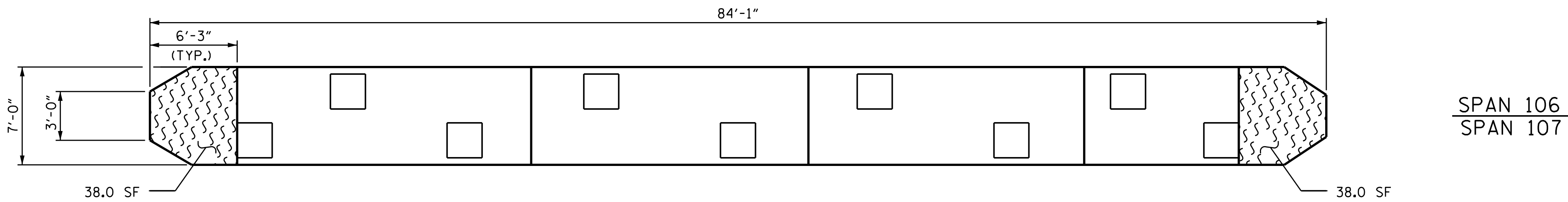
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-173
2			4			TOTAL SHEETS 217

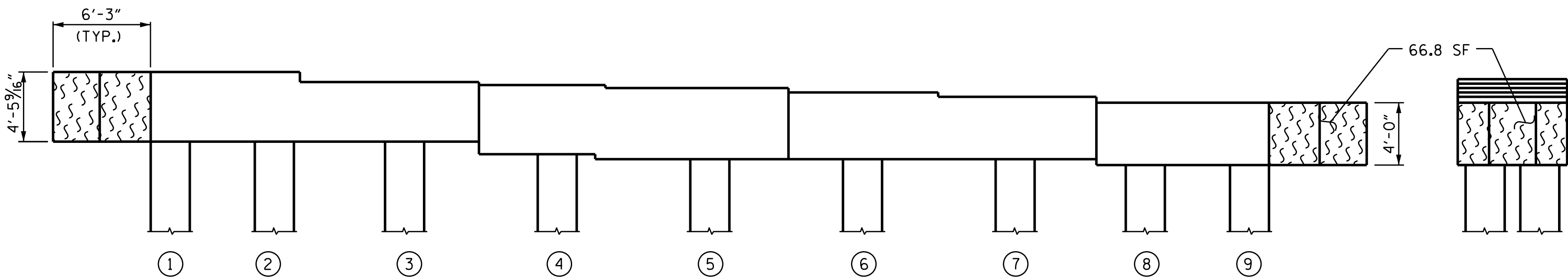
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED



TOP VIEW OF CAP

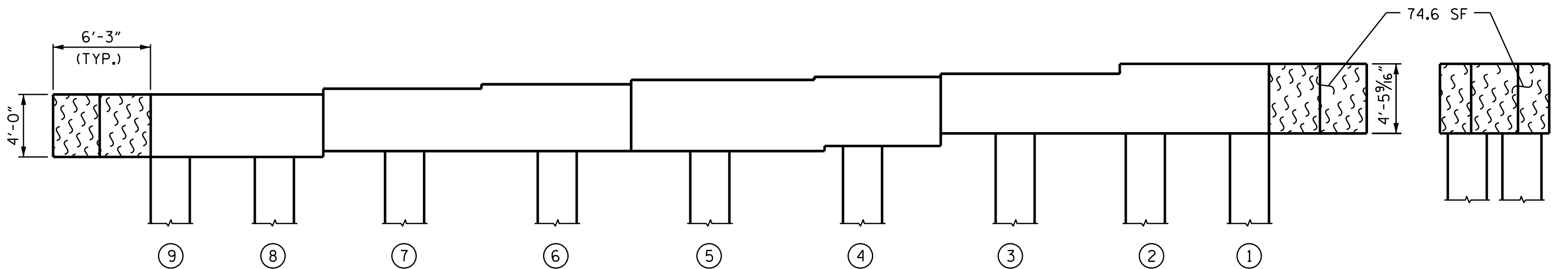


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 106	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		814.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

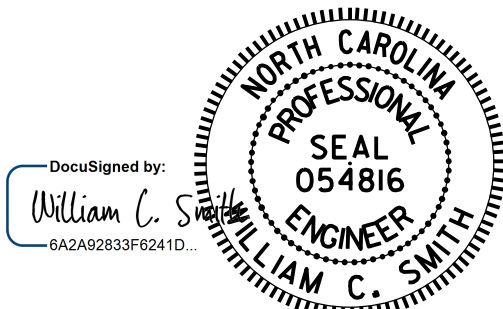
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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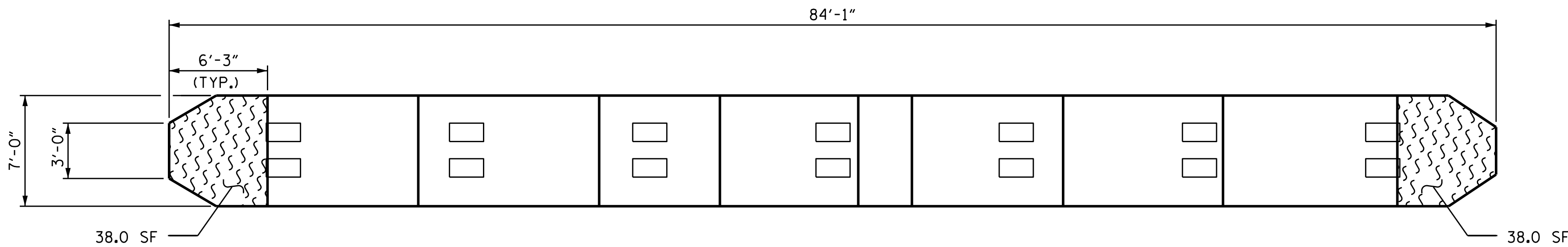


11/21/2025

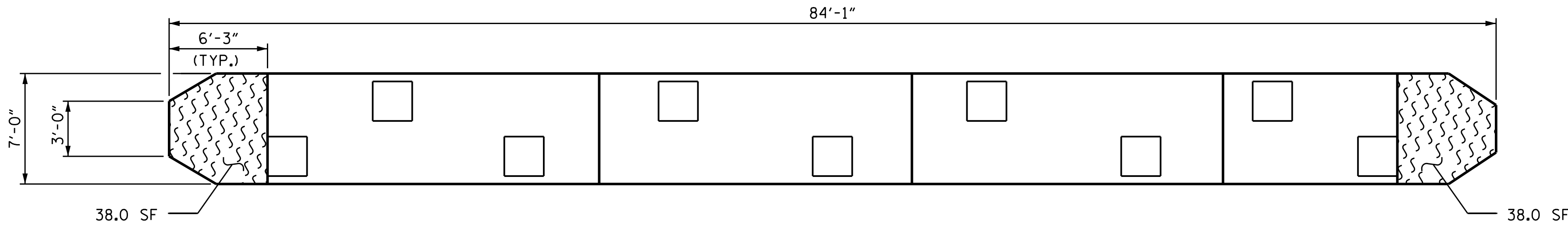
DRAWN BY : S. T. SANDOR DATE : 6/27/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

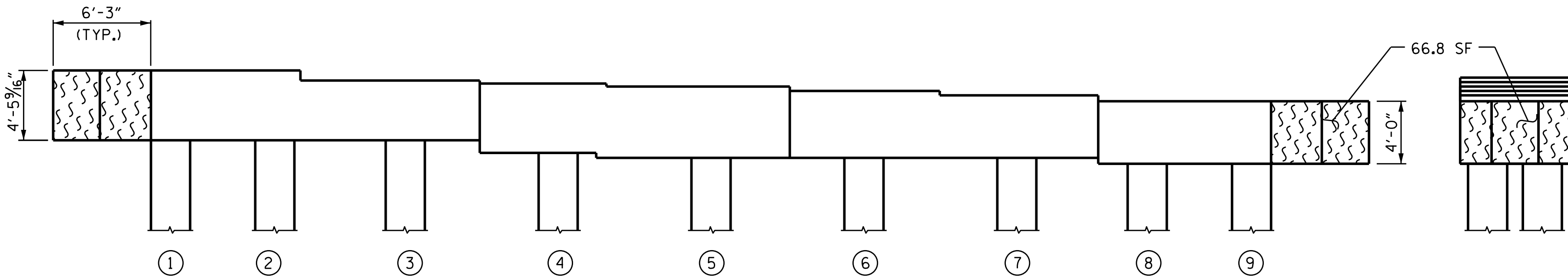
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-174
1			3			TOTAL SHEETS
2			4			217



TOP VIEW OF CAP

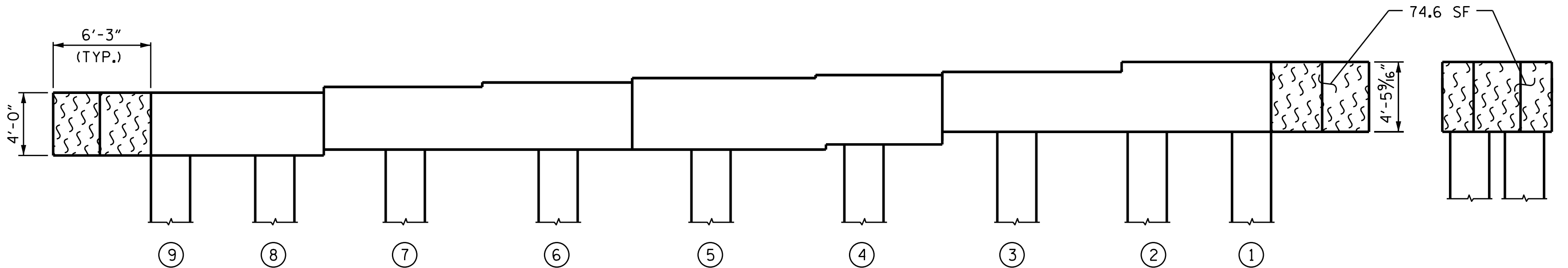


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 107	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

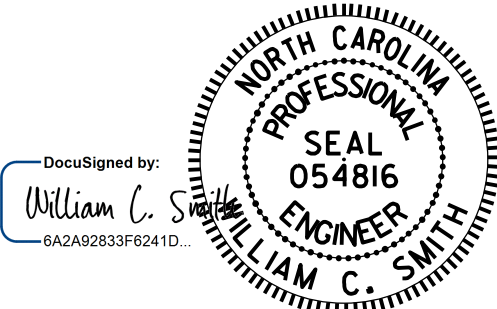
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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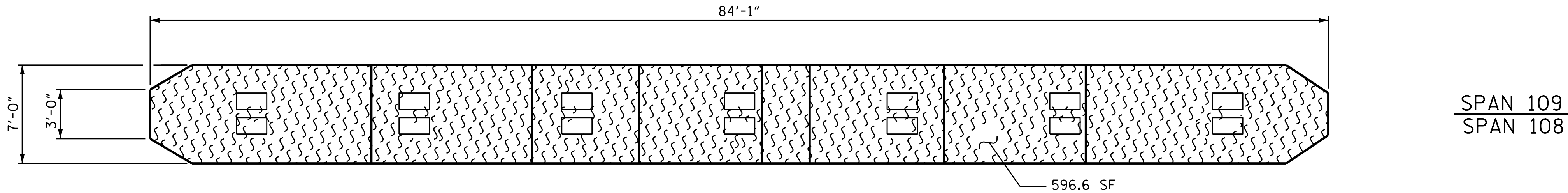
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 107

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

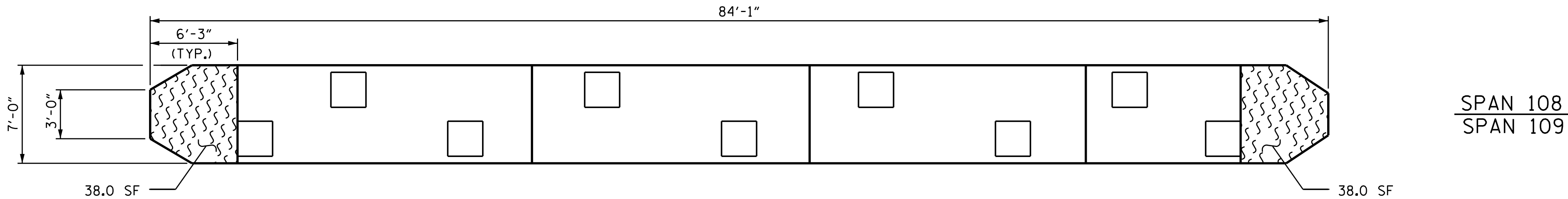
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-175
2			4			TOTAL SHEETS 217

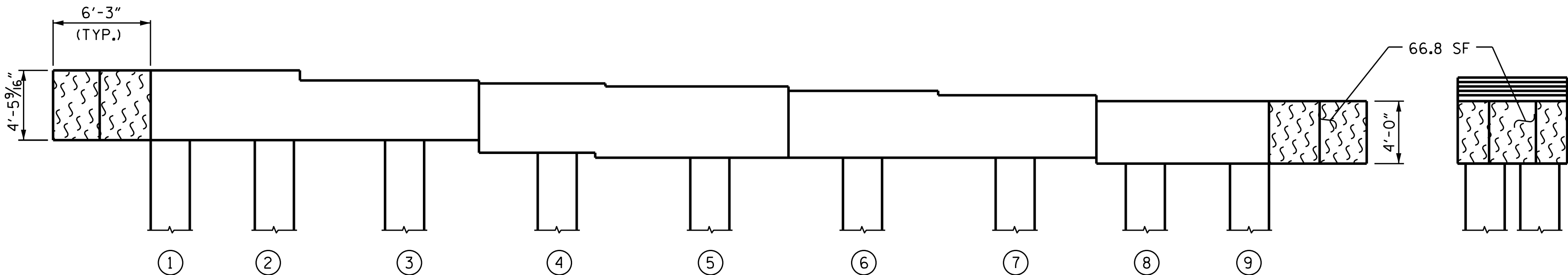




TOP VIEW OF CAP

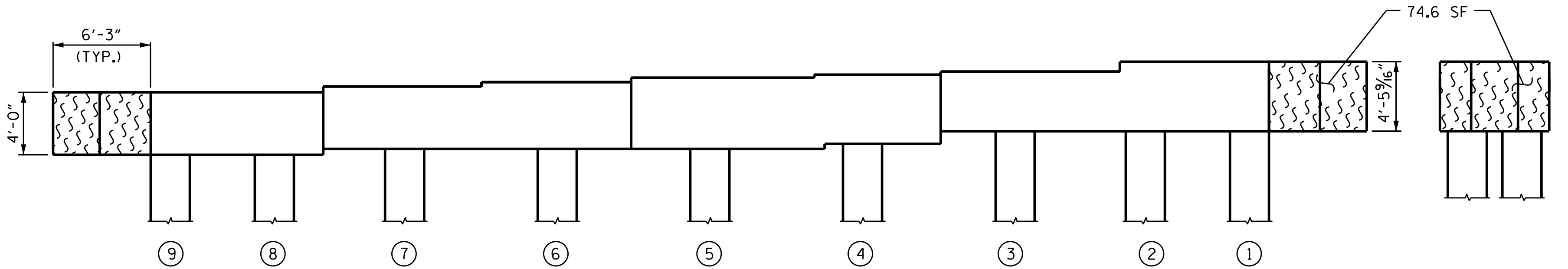


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 108	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		814.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

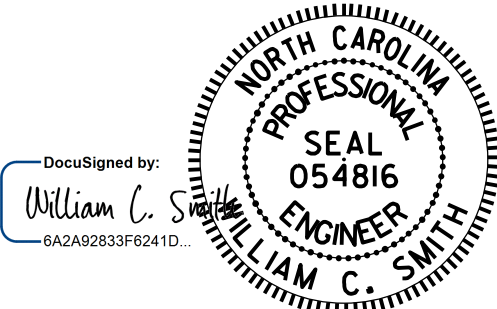
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR

BENT 108

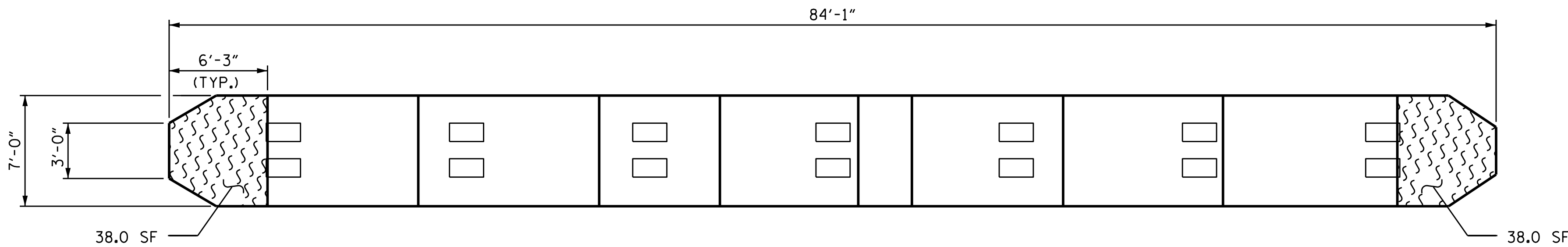


11/21/2025

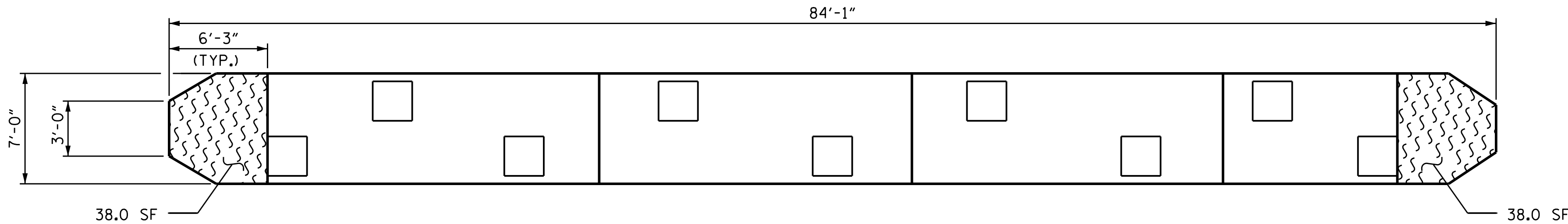
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

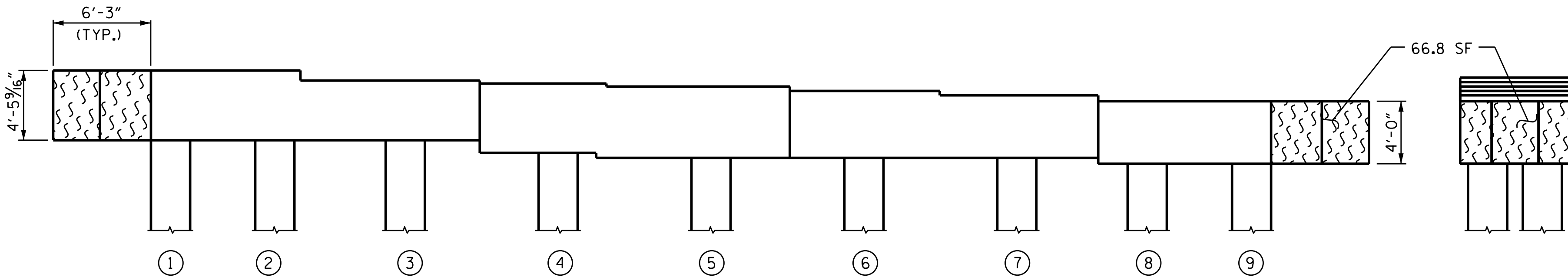
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-176
2			4			TOTAL SHEETS 217



TOP VIEW OF CAP

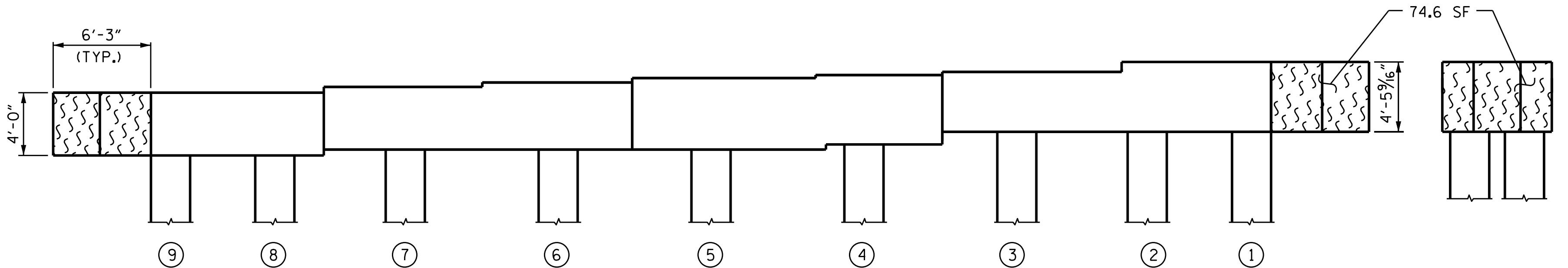


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 109	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

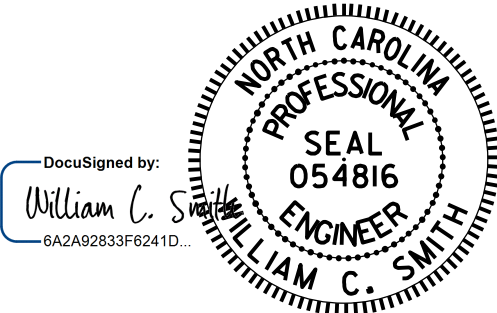
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BRIDGE NO. 060353

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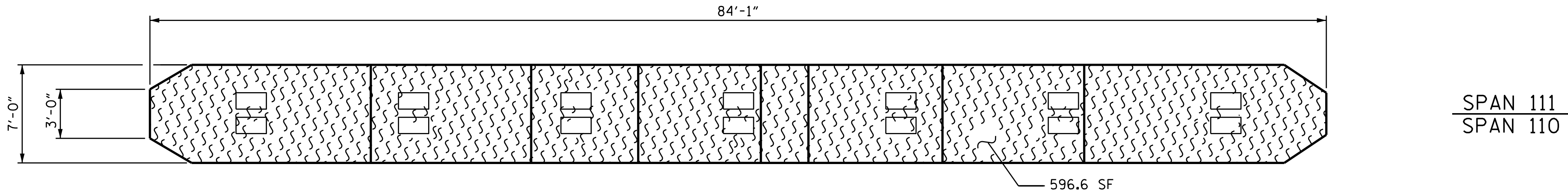


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 109

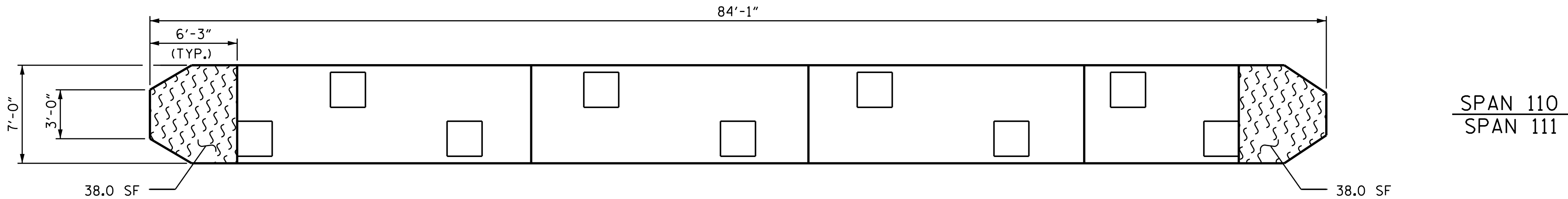
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-177
1			3			TOTAL SHEETS
2			4			217

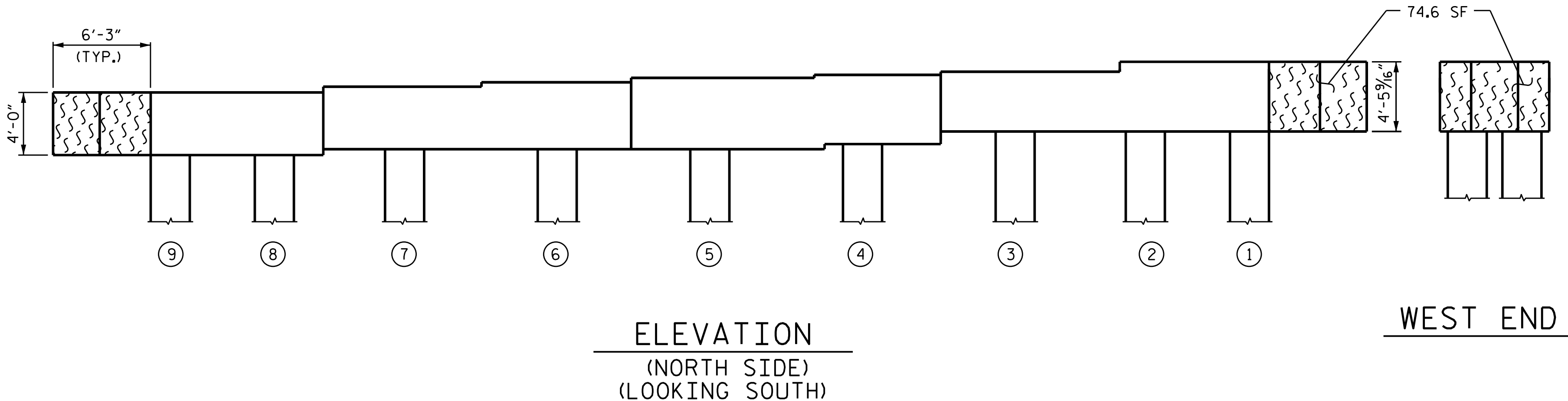
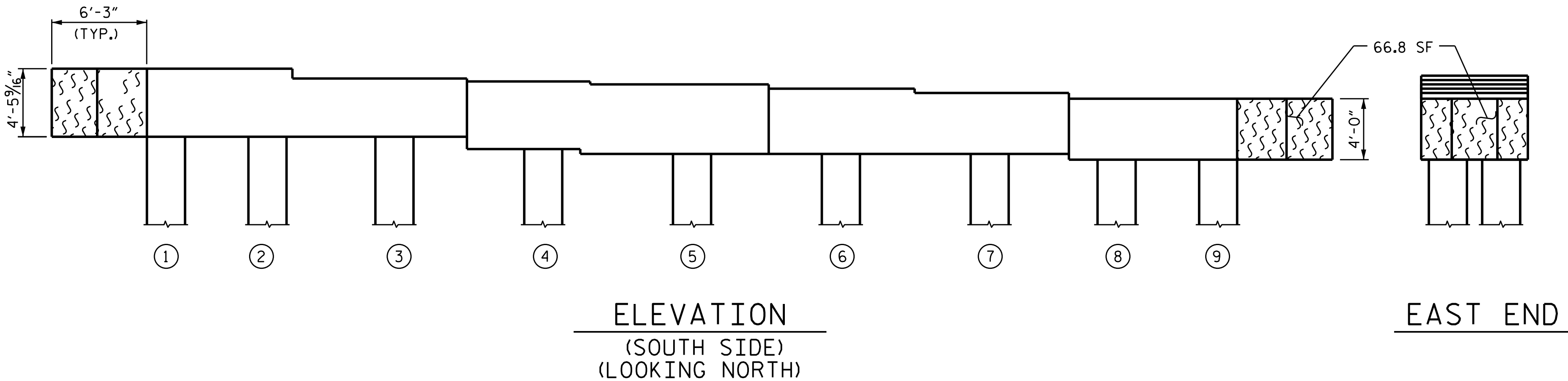
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FINAL UNLESS ALL  
SIGNATURES COMPLETED



TOP VIEW OF CAP



BOTTOM VIEW OF CAP



REPAIR QUANTITY TABLE

BENT 110	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		814.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

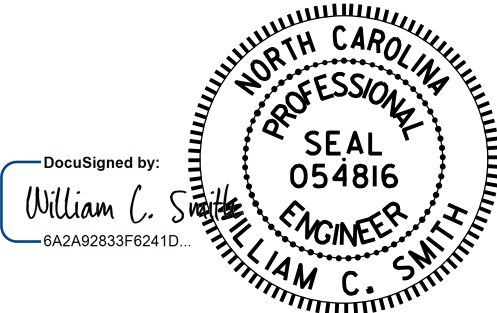
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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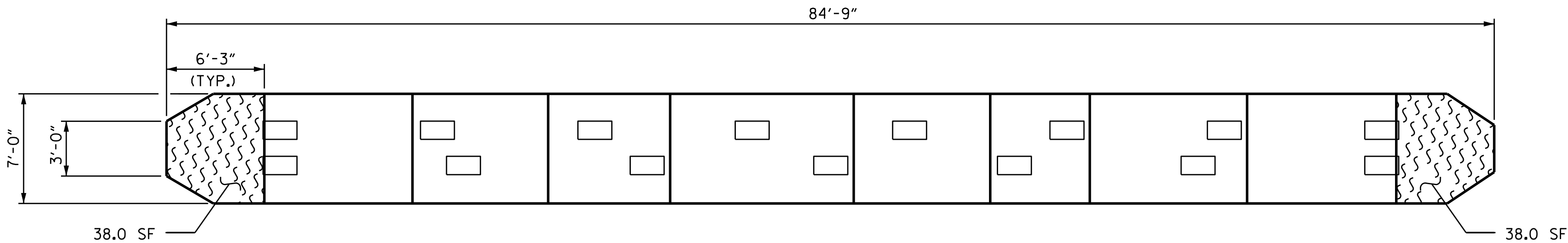
11/21/2025

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

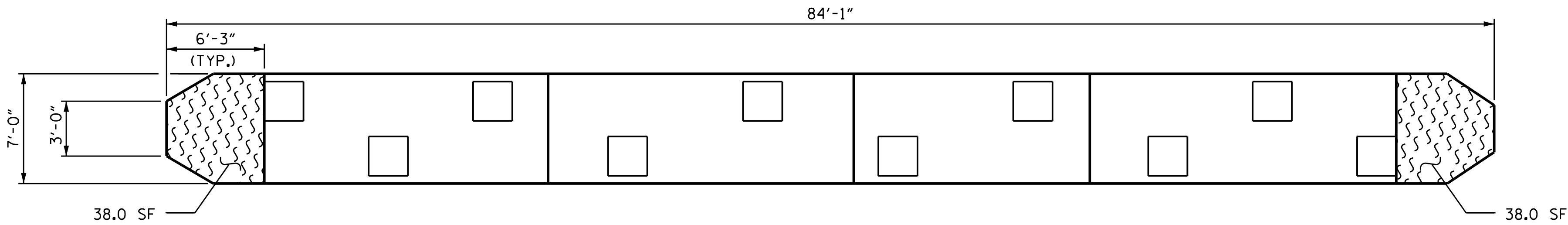
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SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-178
1			3			TOTAL SHEETS
2			4			217

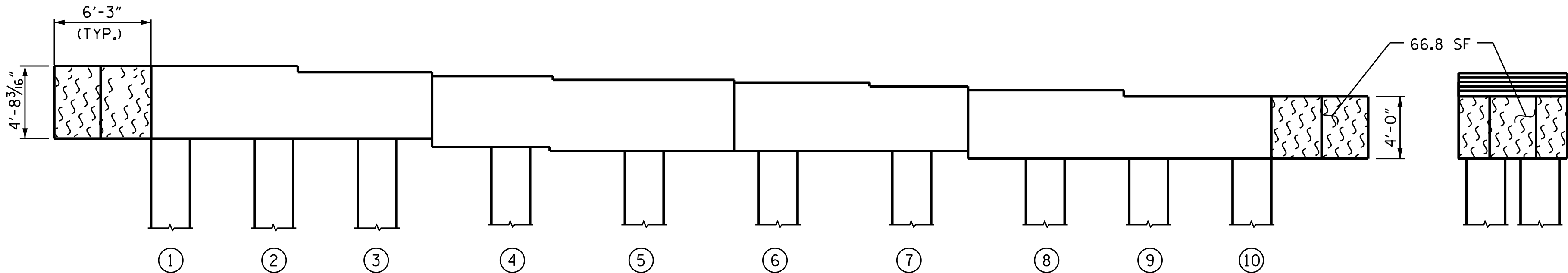




TOP VIEW OF CAP

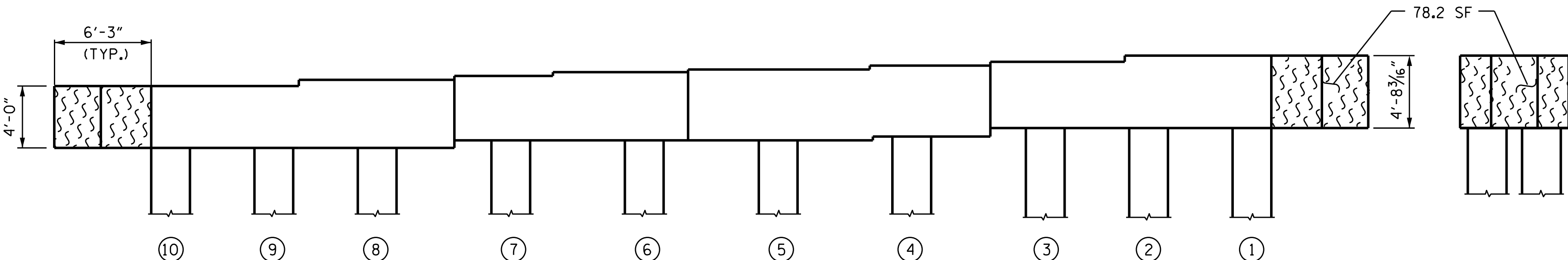


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 111	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		297.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

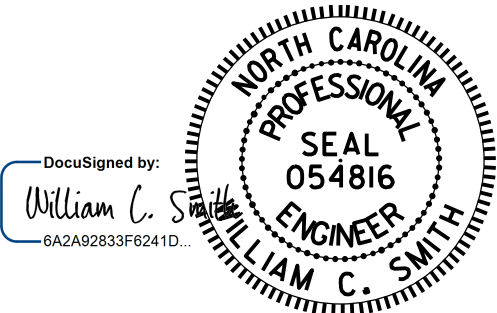
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BRIDGE NO. 060353

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 111

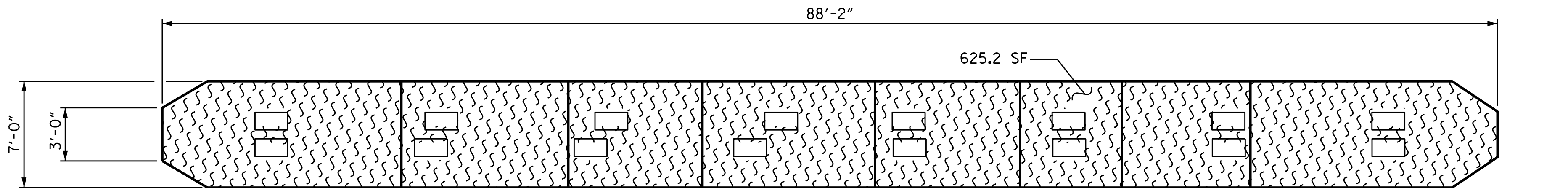


11/21/2025

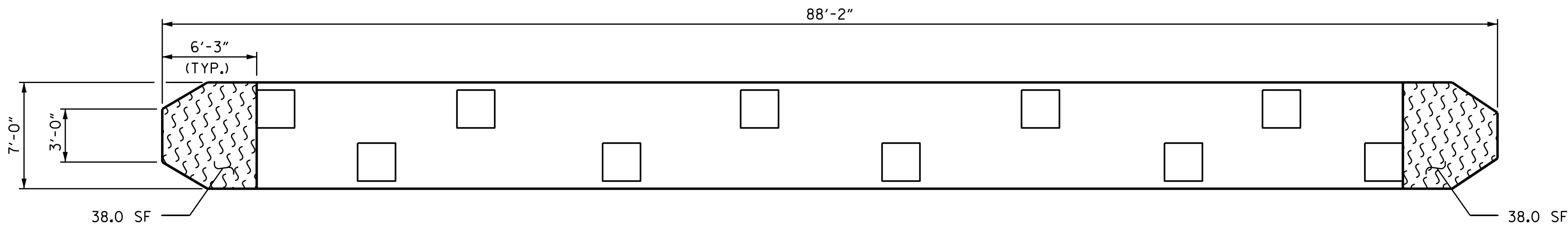
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CHECKED BY : W. C. SMITH DATE : 7/10/24

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FINAL UNLESS ALL  
SIGNATURES COMPLETED

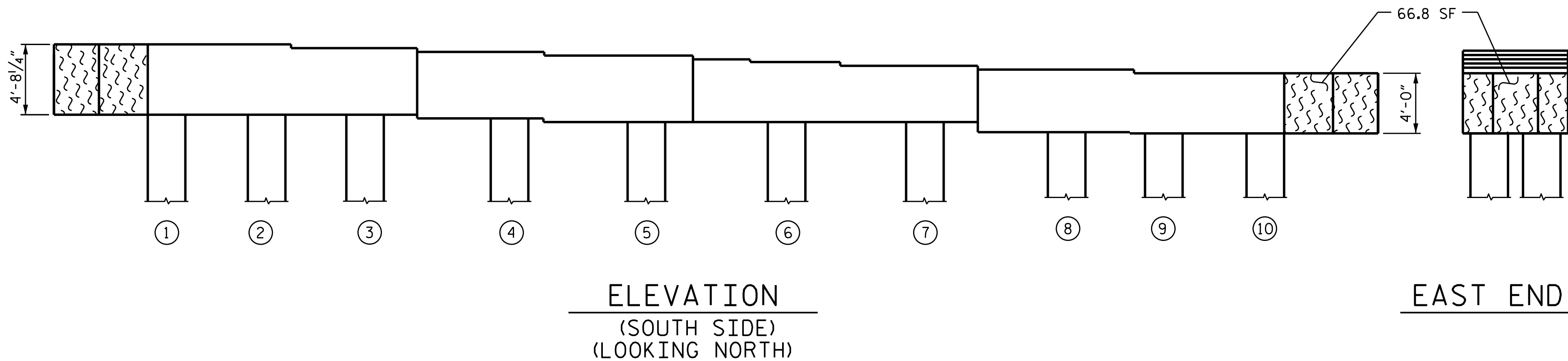
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-179
2			4			TOTAL SHEETS 217



TOP VIEW OF CAP

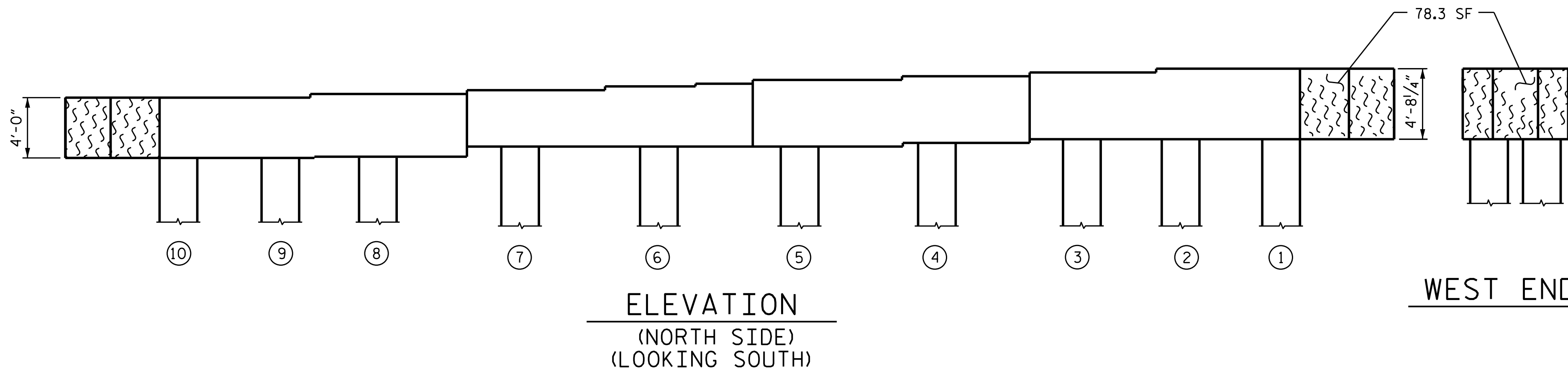


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 112	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		846.3		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

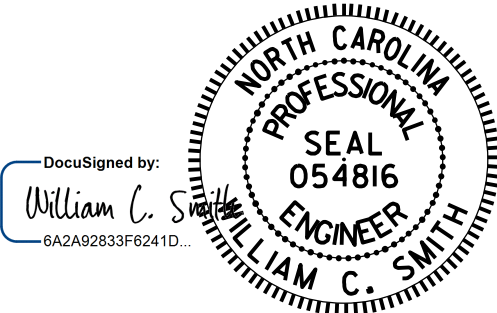
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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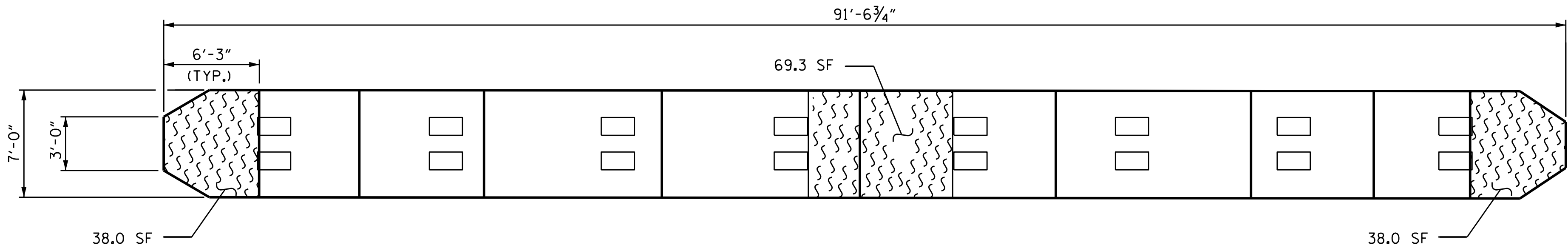


11/21/2025

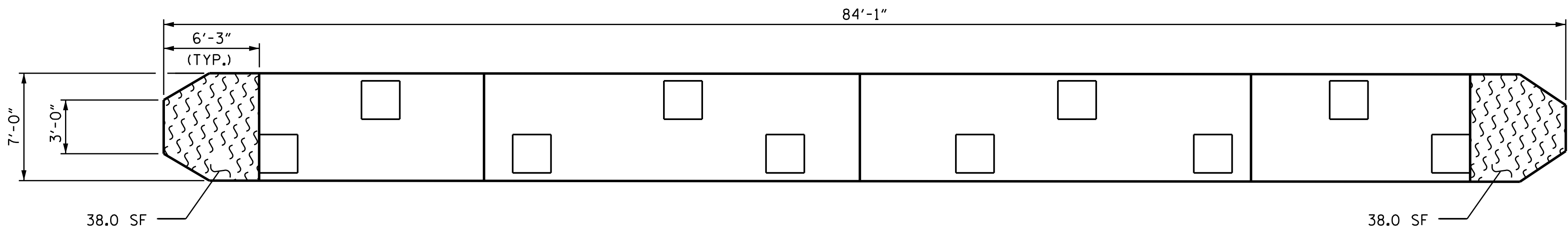
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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NO.	BY:	DATE:	NO.	BY:	DATE:	S-180
1			3			TOTAL SHEETS
2			4			217

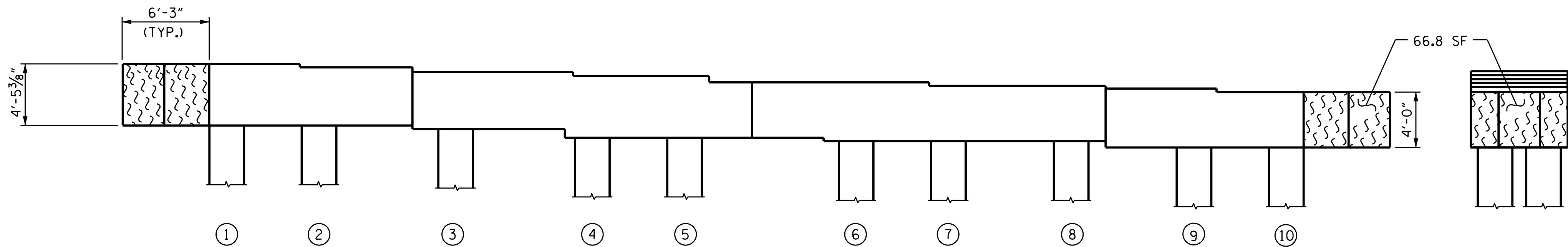
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SIGNATURES COMPLETED



TOP VIEW OF CAP

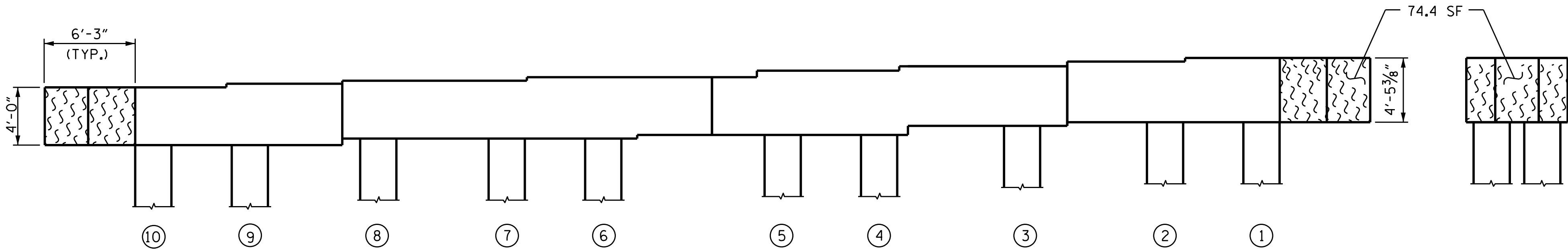


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 113	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		362.5		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

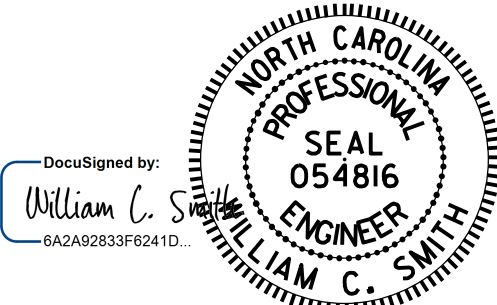
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 113 OF 140



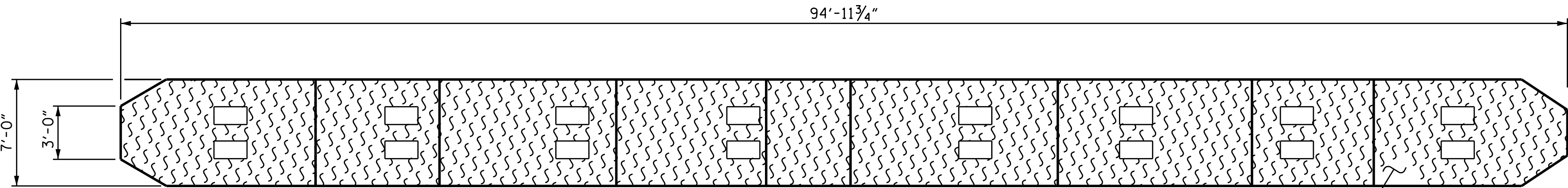
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 113

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

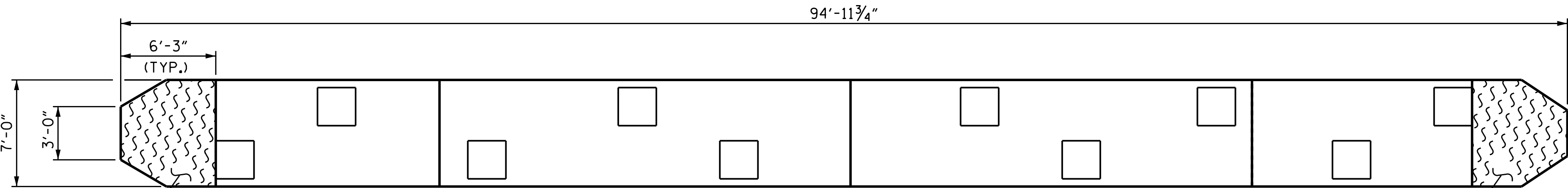
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-181
1			3			TOTAL SHEETS
2			4			217

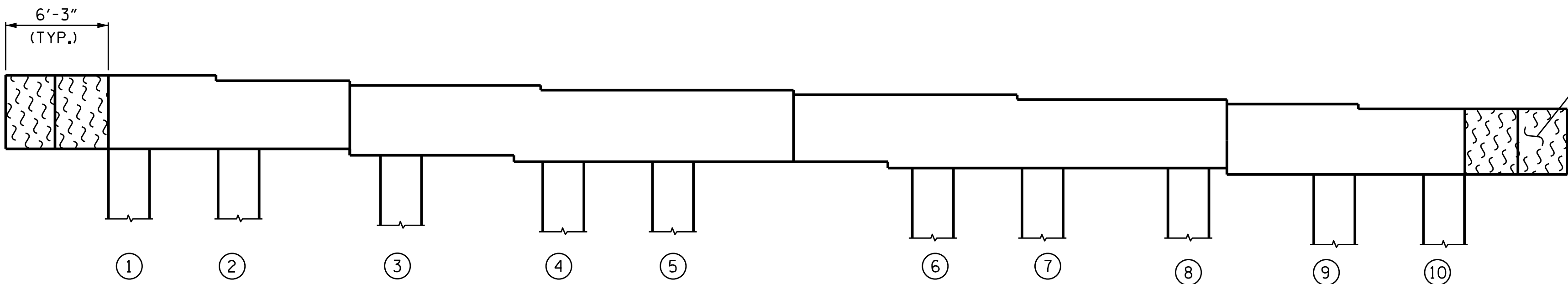




TOP VIEW OF CAP

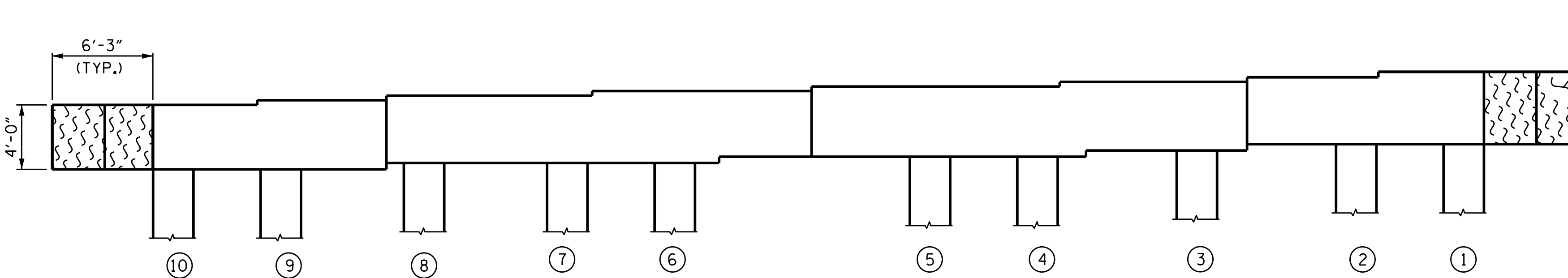


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 114	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		890.1		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

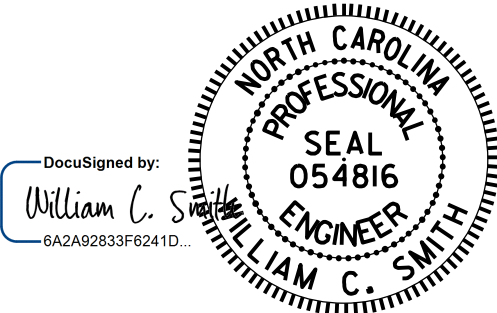
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 114 OF 140

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 114

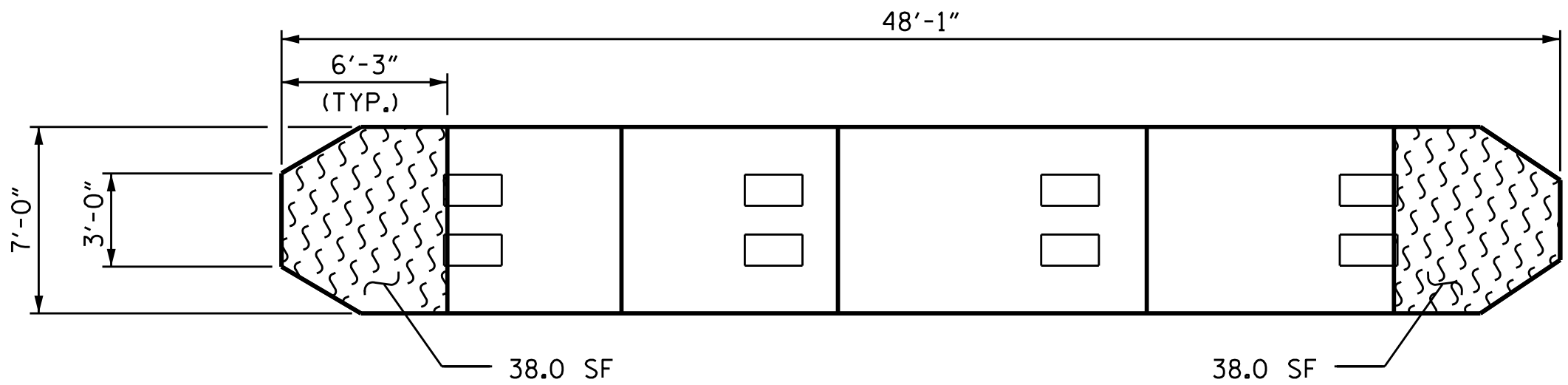


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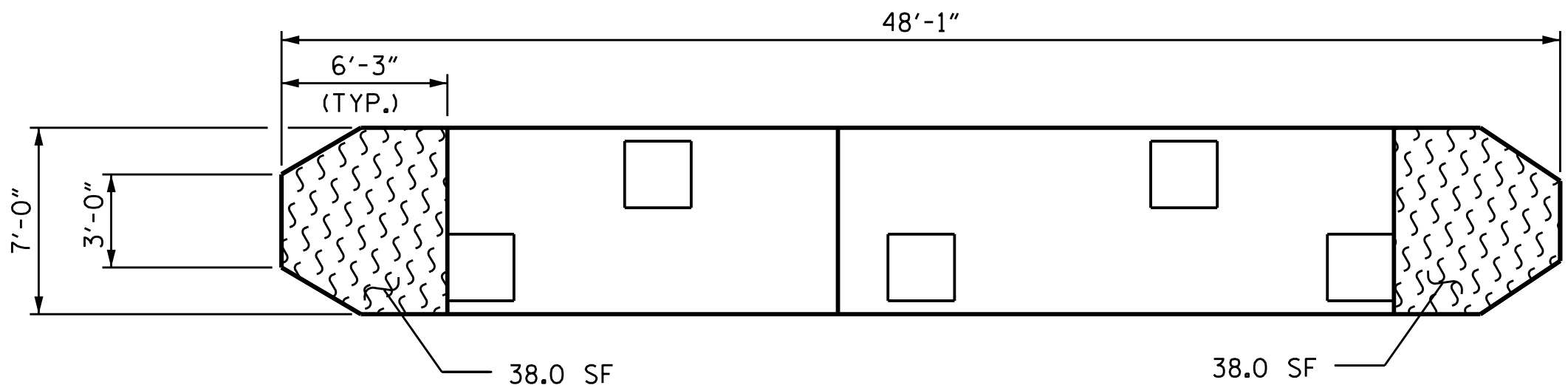
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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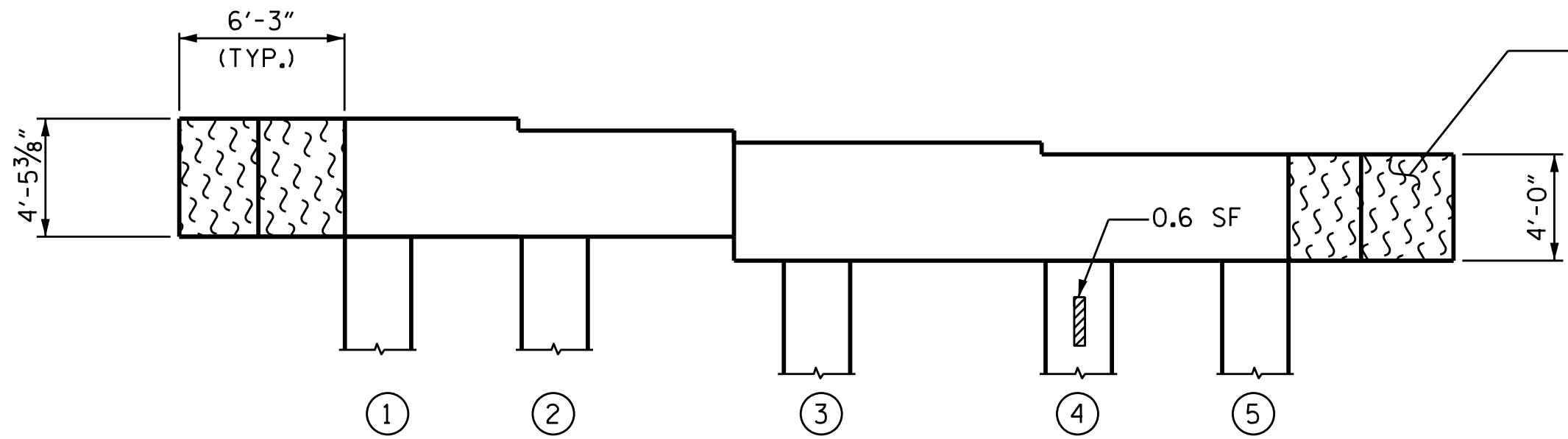
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-182
1			3			TOTAL SHEETS
2			4			217



TOP VIEW OF CAP



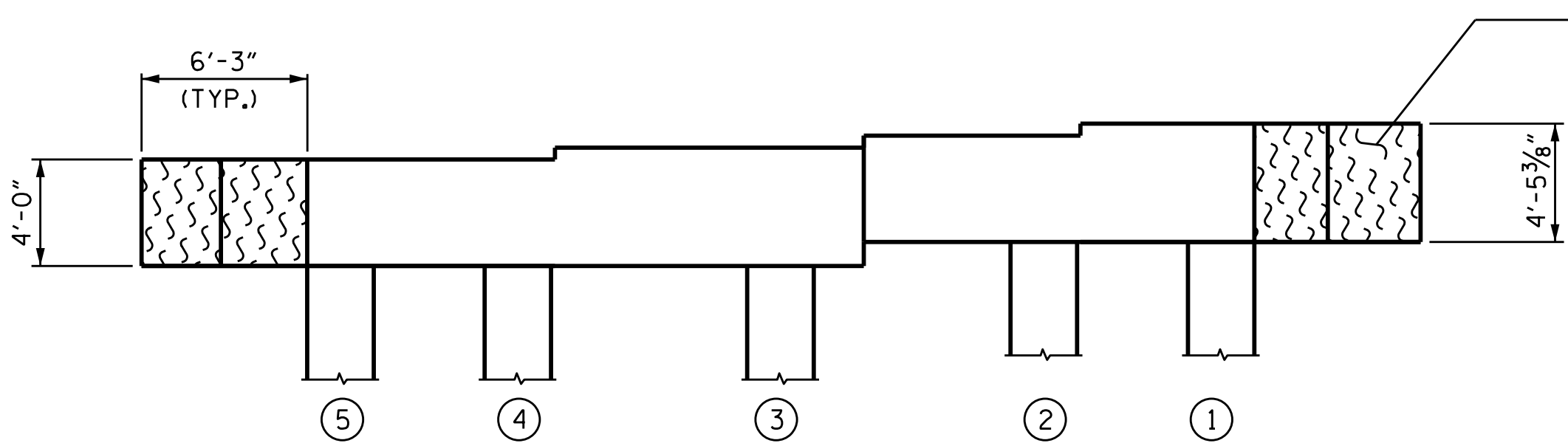
BOTTOM VIEW OF CAP



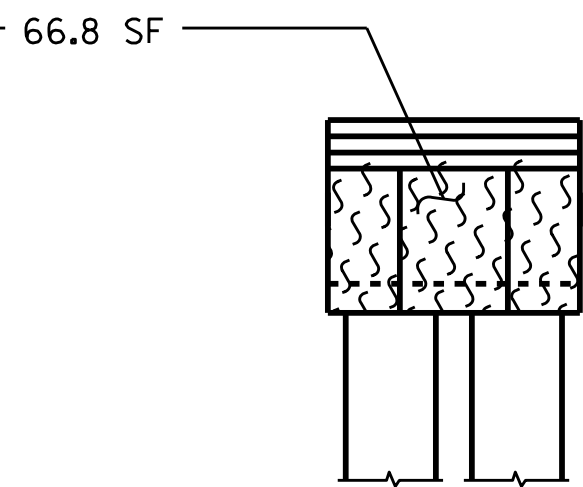
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

SPAN 116  
(SOUTHBOUND)  
SPAN 115  
(SOUTHBOUND)

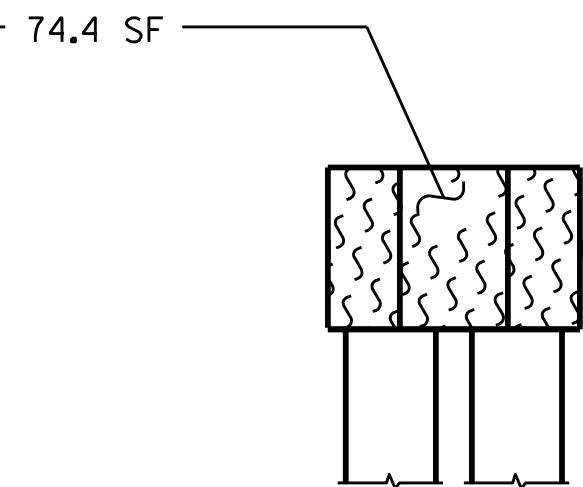
SPAN 115  
(SOUTHBOUND)  
SPAN 116  
(SOUTHBOUND)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



EAST END



WEST END

REPAIR QUANTITY TABLE

BENT 115 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.6	0.3		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.2		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

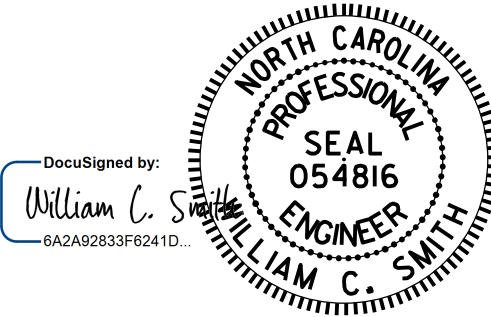
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BRIDGE NO. 060353

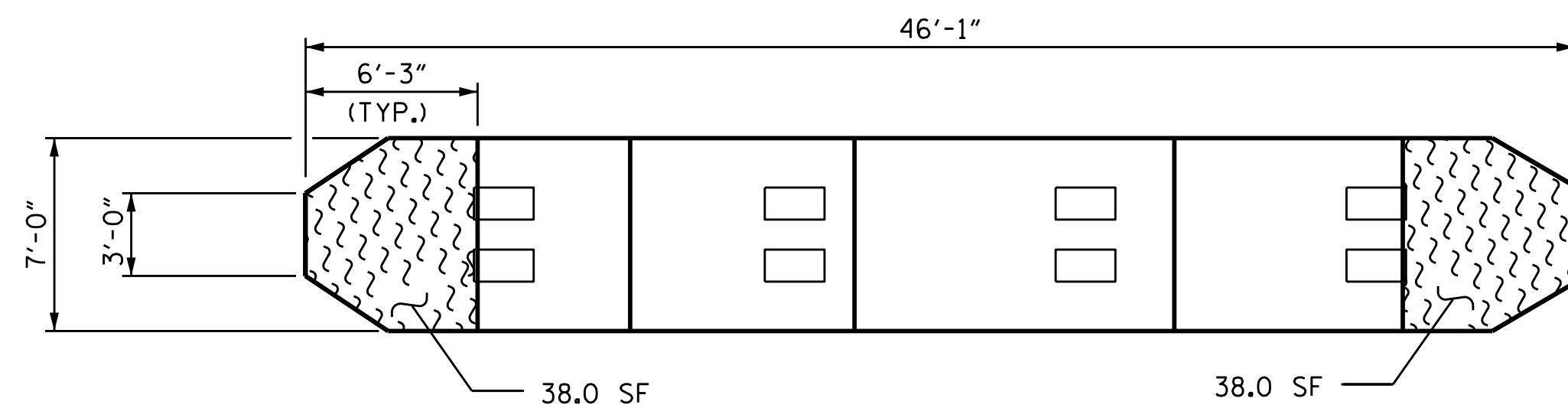
SHEET 115 OF 140



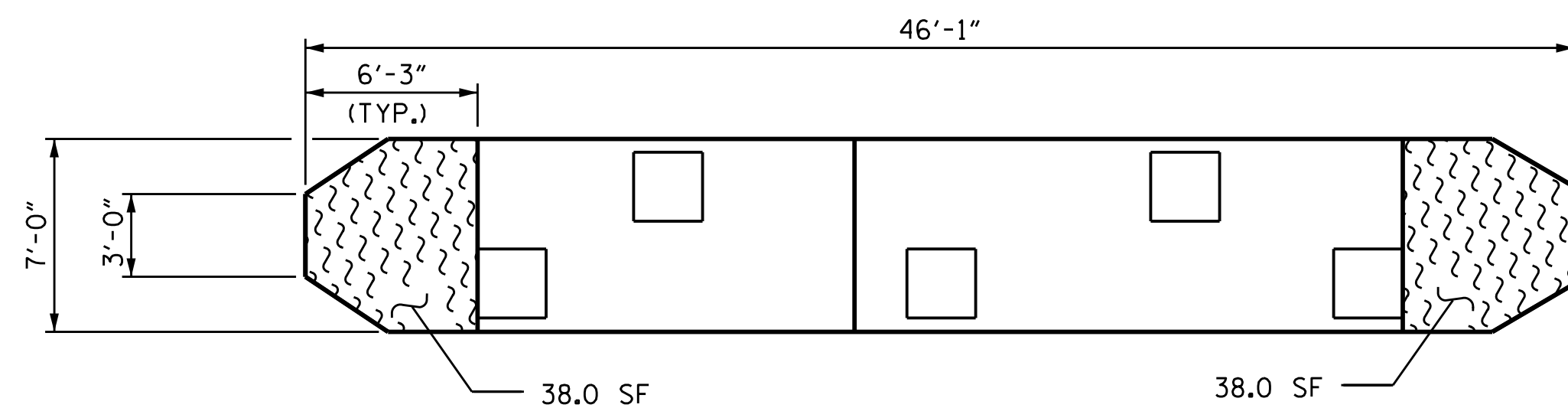
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						
SUBSTRUCTURE						
BENT 115 (SOUTHBOUND)						
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-183
1			3			TOTAL SHEETS
2			4			217

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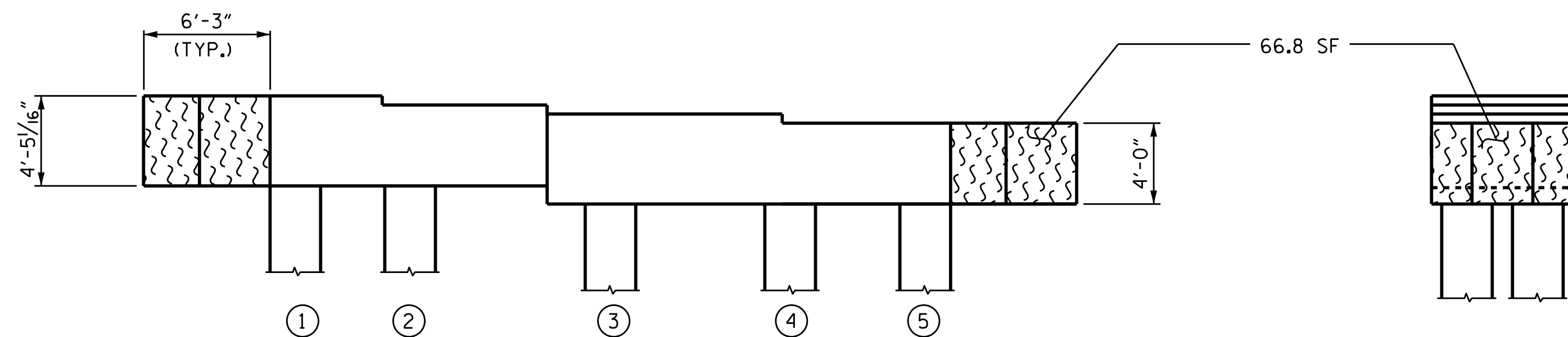
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24



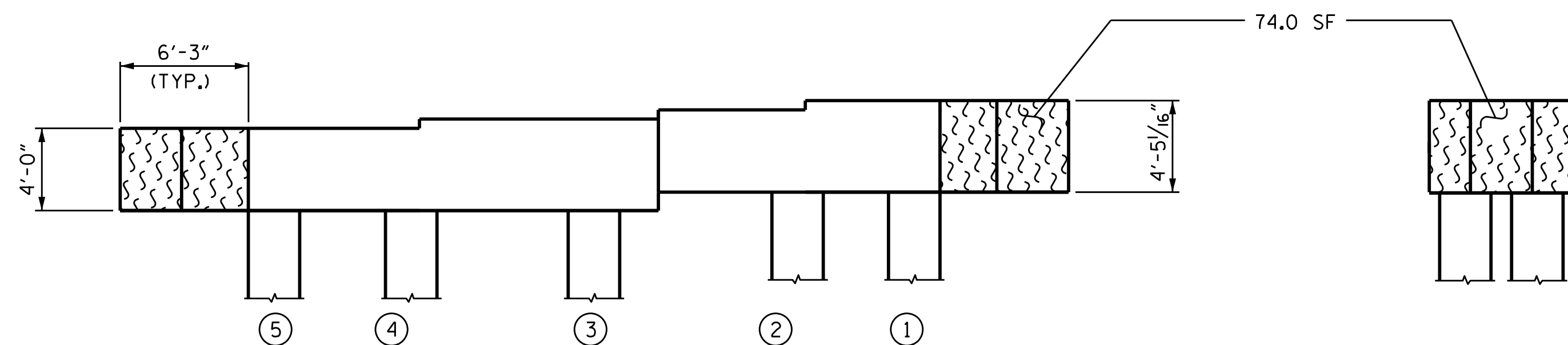
SPAN 116  
(NORTHBOUND)  
SPAN 115  
(NORTHBOUND)



SPAN 115  
(NORTHBOUND)  
SPAN 116  
(NORTHBOUND)



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)




ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

REPAIR QUANTITY TABLE				
BENT 115 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		292.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- |   |                       |
|---|-----------------------|
|  | SHOTCRETE REPAIR      |
|  | CONCRETE REPAIR       |
| ERI   | EPOXY RESIN INJECTION |
|  | PILE                  |
|  | EPOXY COATING         |

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 BRIDGE NO. 060353

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE REPAIR

BENT 115  
(NORTHBOUND)

11/21/2025

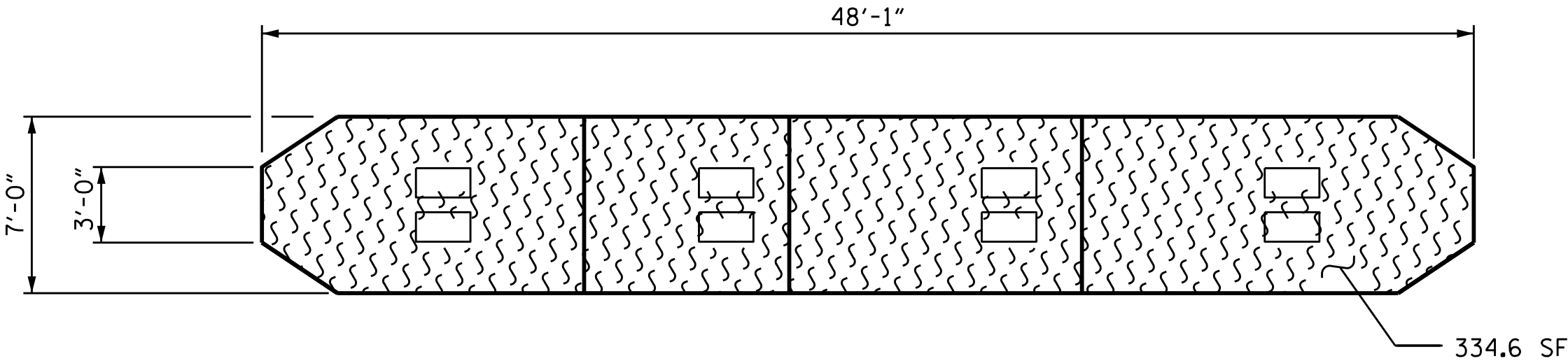
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
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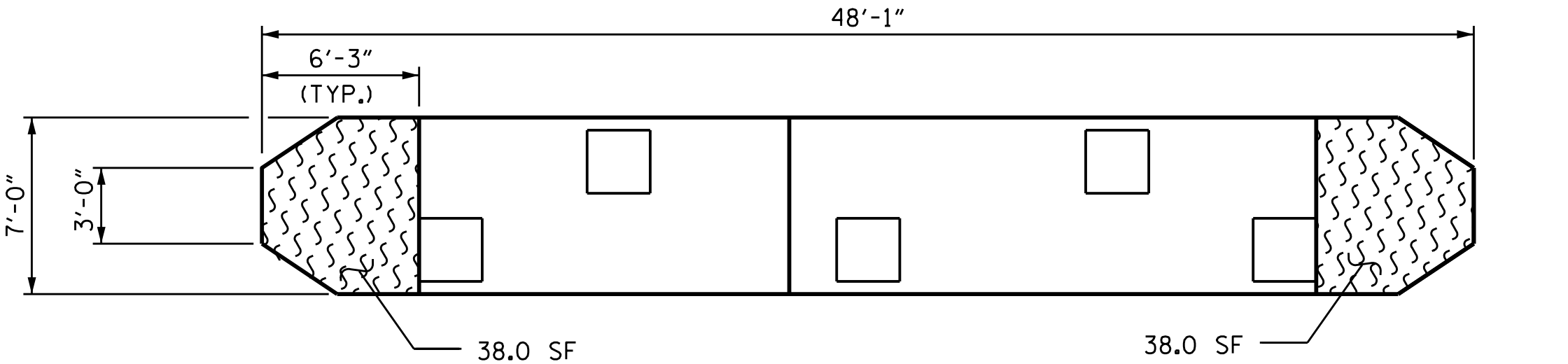
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-184
1			3			TOTAL SHEETS
2			4			217

11/21/2025  
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wsmith





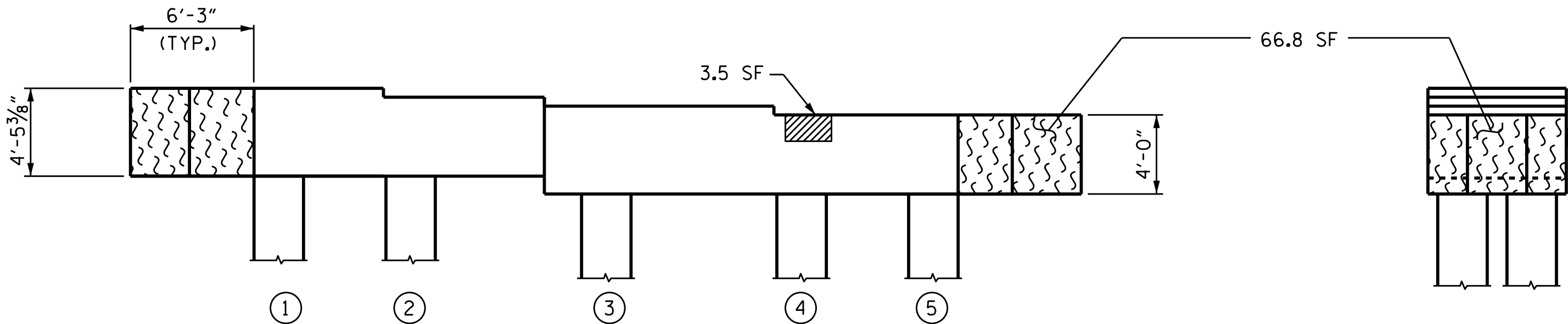
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

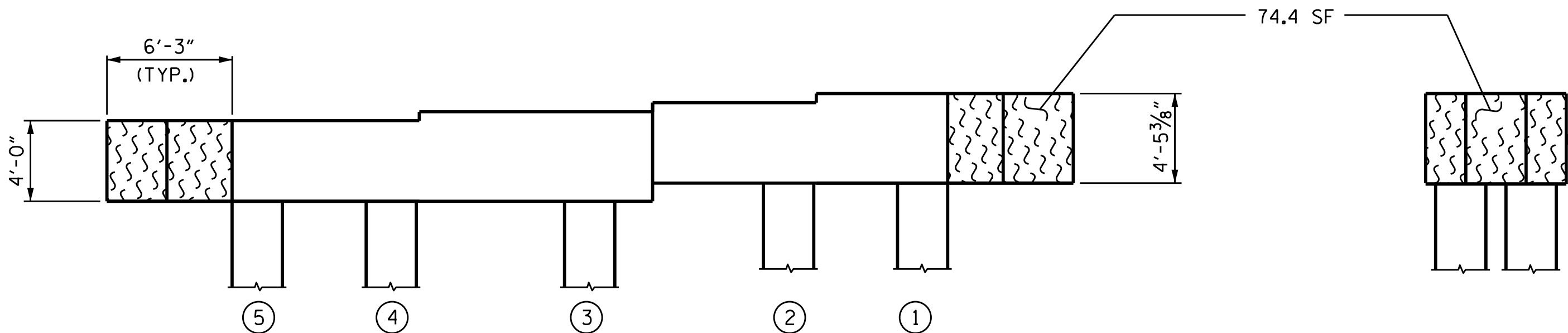
SPAN 117  
(SOUTHBOUND)  
SPAN 116  
(SOUTHBOUND)

SPAN 116  
(SOUTHBOUND)  
SPAN 117  
(SOUTHBOUND)



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 116 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.5	1.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		551.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

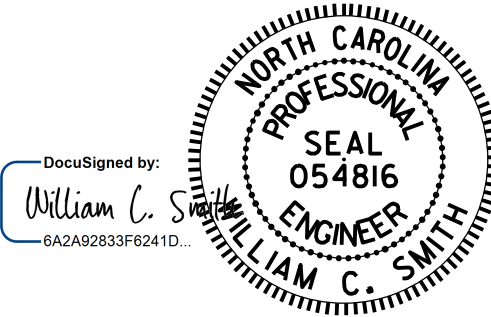
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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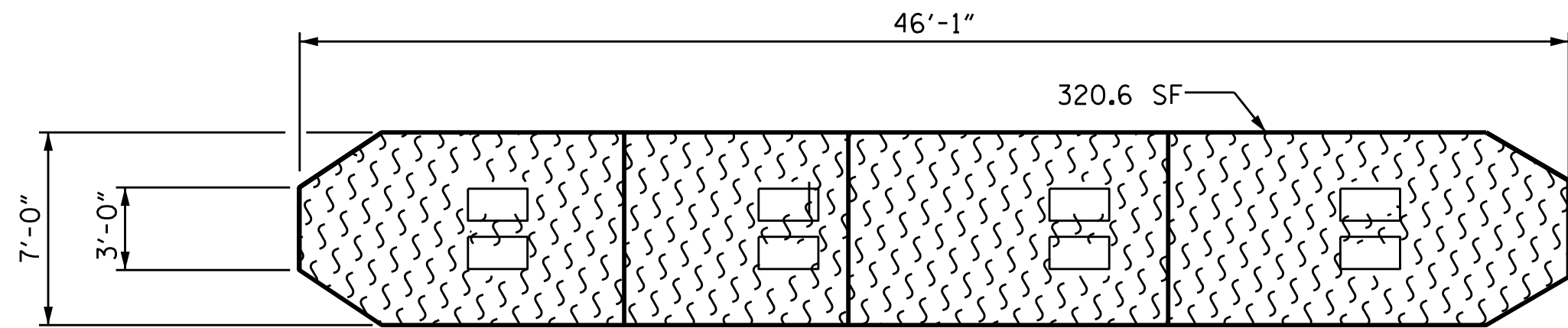


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 116  
(SOUTHBOUND)

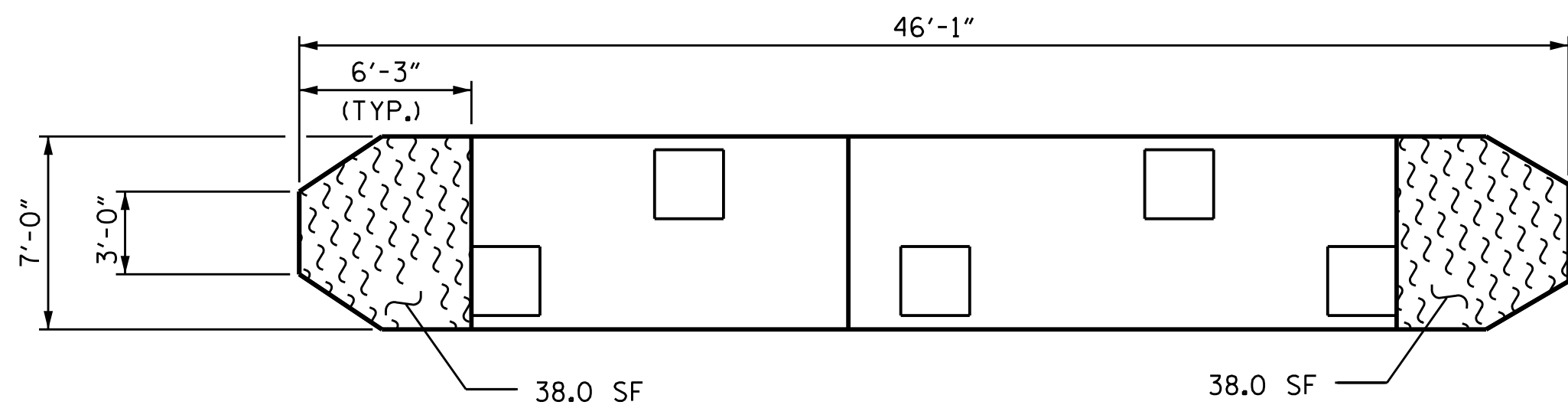
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
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SIGNATURES COMPLETED

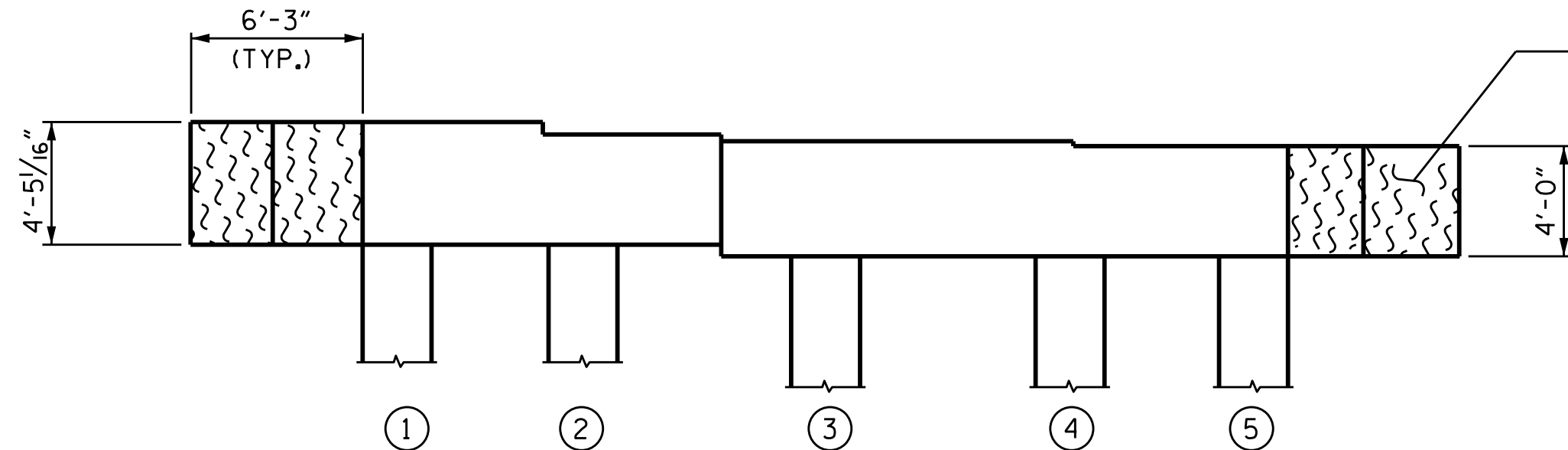
REVISIONS						SHEET NO. S-185 TOTAL SHEETS 217
NO.	BY:	DATE:	NO.	BY:	DATE:	
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2			4			



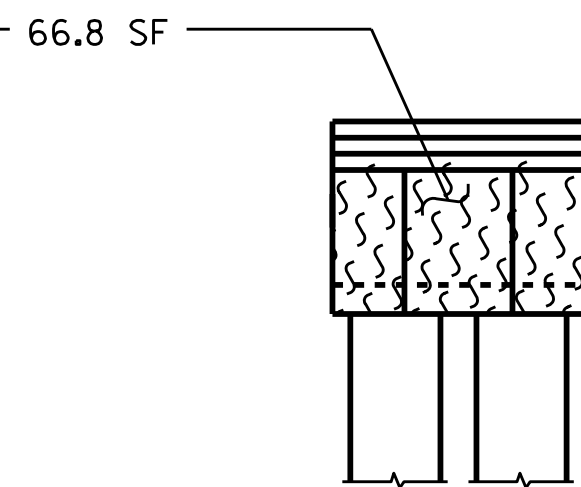
TOP VIEW OF CAP



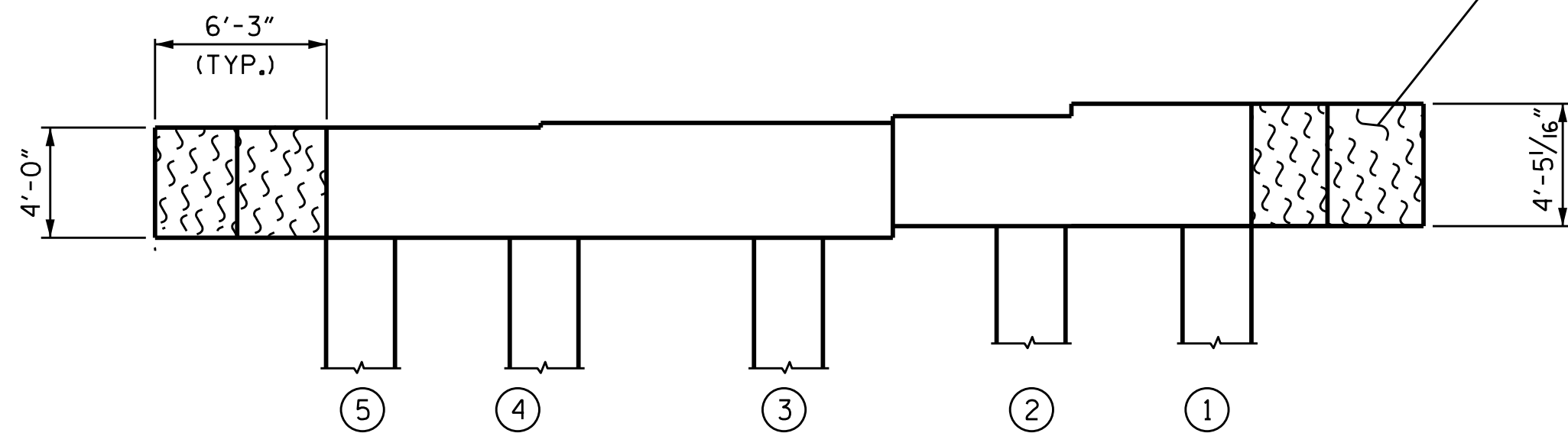
BOTTOM VIEW OF CAP



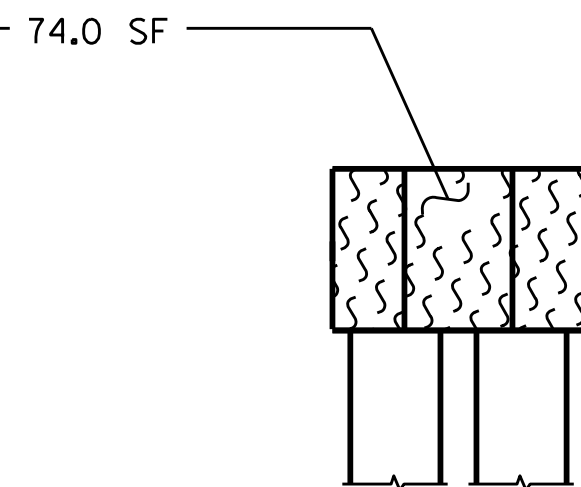
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

SPAN 117  
(NORTHBOUND)  
SPAN 116  
(NORTHBOUND)

SPAN 116  
(NORTHBOUND)  
SPAN 117  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 116 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		537.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

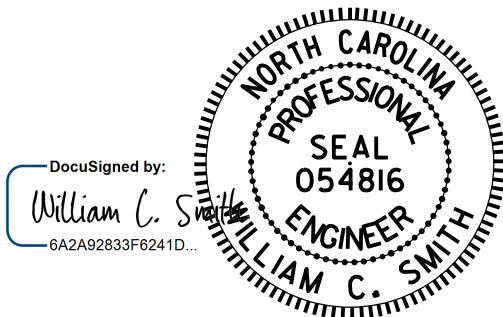
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BRIDGE NO. 060353

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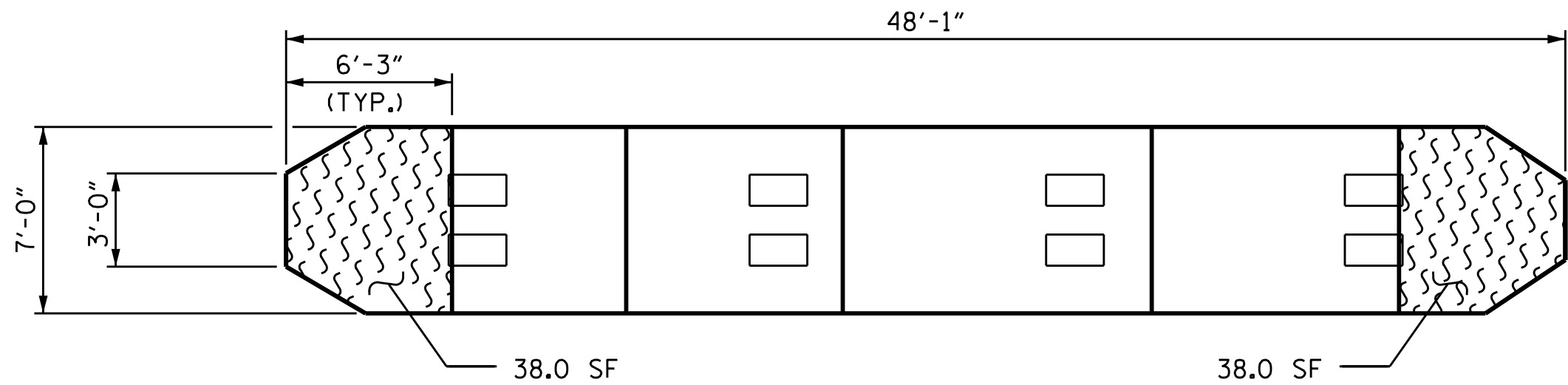


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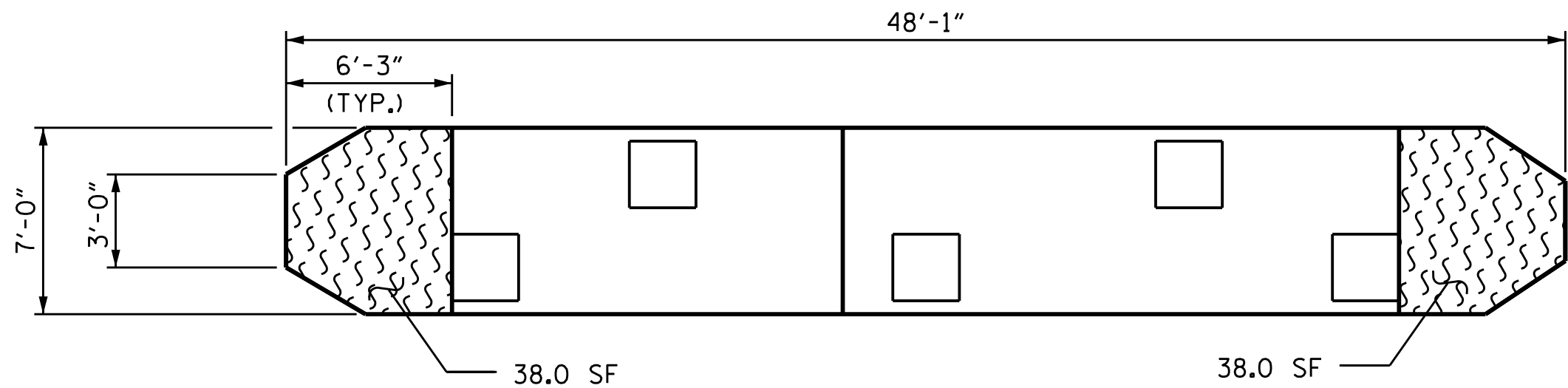
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

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NO.	BY:	DATE:	NO.	BY:	DATE:	S-186
1			3			TOTAL SHEETS
2			4			217



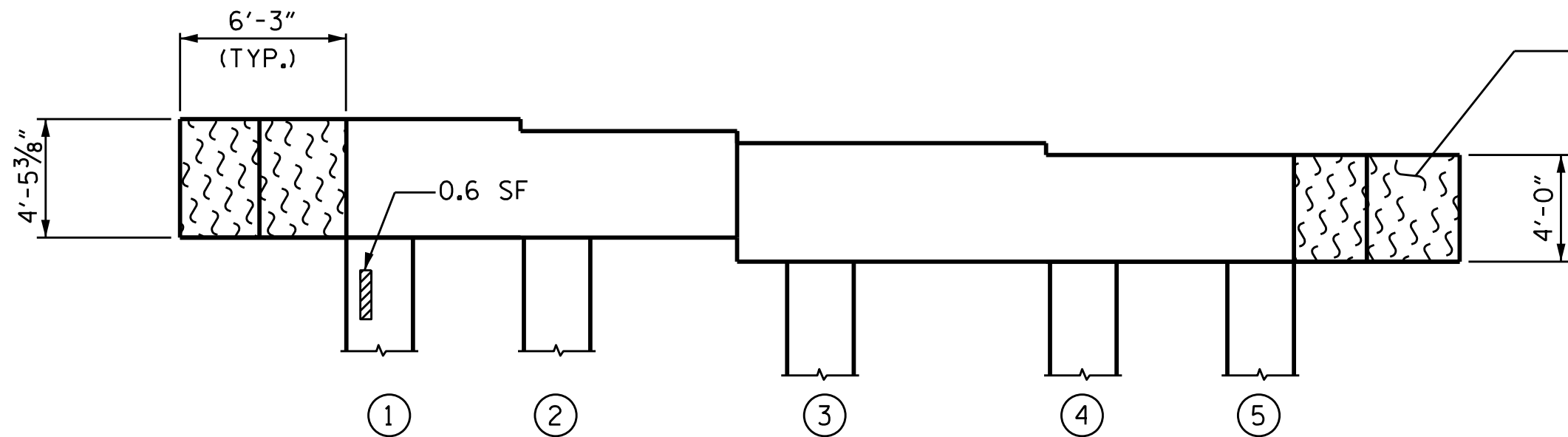
TOP VIEW OF CAP



BOTTOM VIEW OF CAP

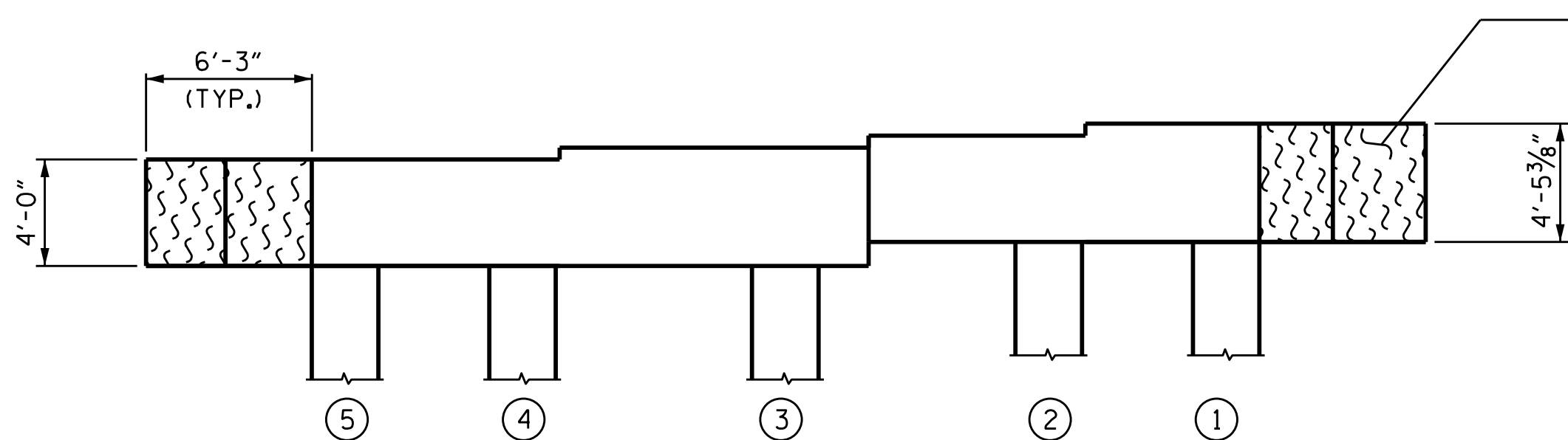
SPAN 118  
(SOUTHBOUND)  
SPAN 117  
(SOUTHBOUND)

SPAN 117  
(SOUTHBOUND)  
SPAN 118  
(SOUTHBOUND)



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE

BENT 117 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.6	0.3		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.2		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

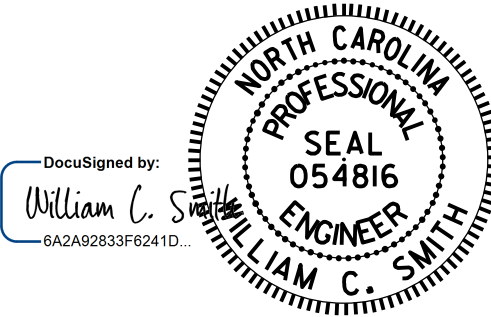
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 119 OF 140



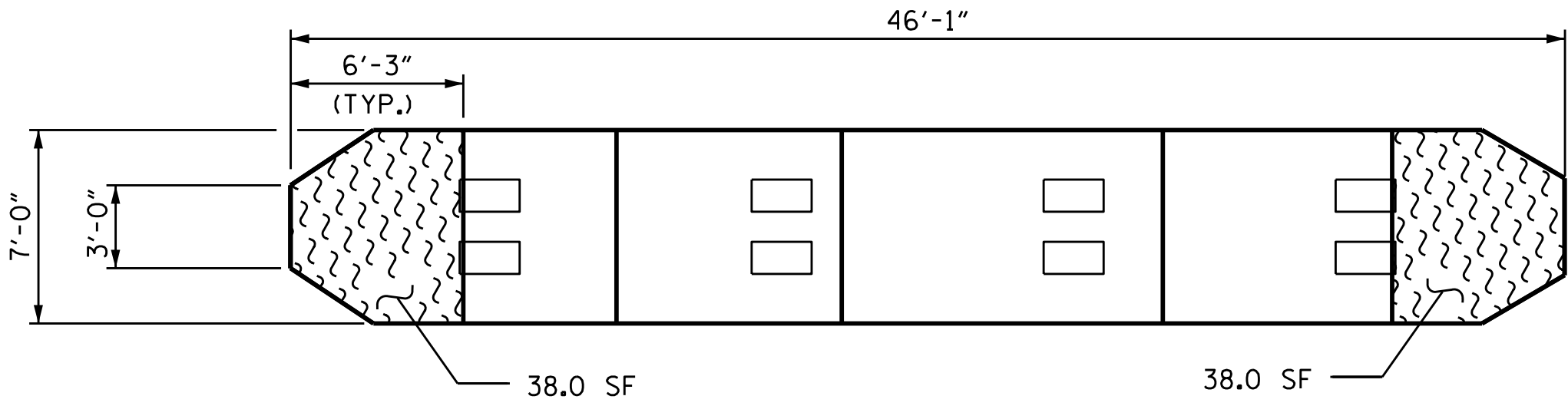
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 117  
(SOUTHBOUND)

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

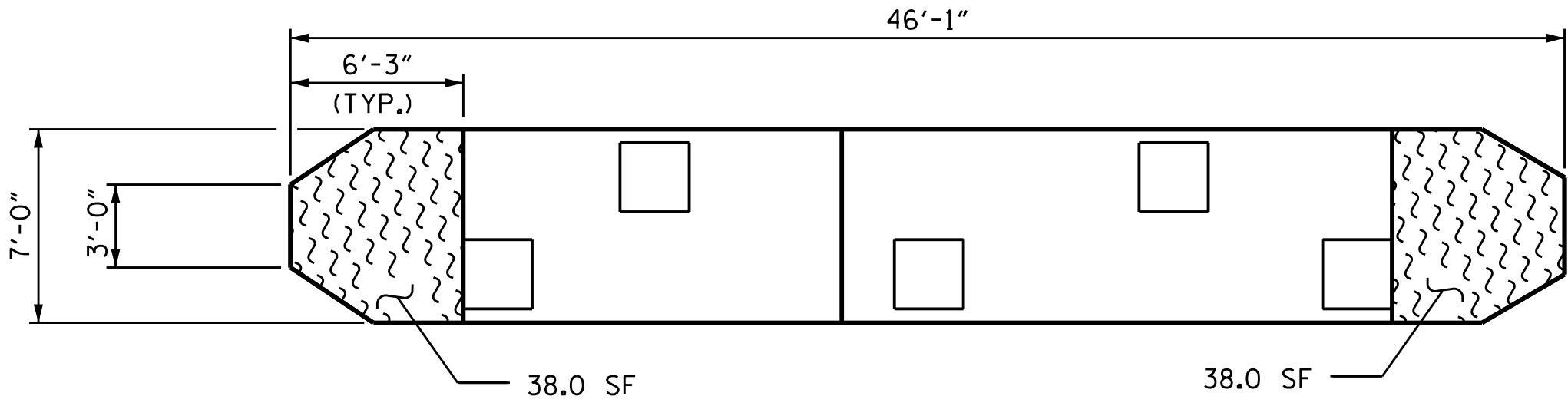
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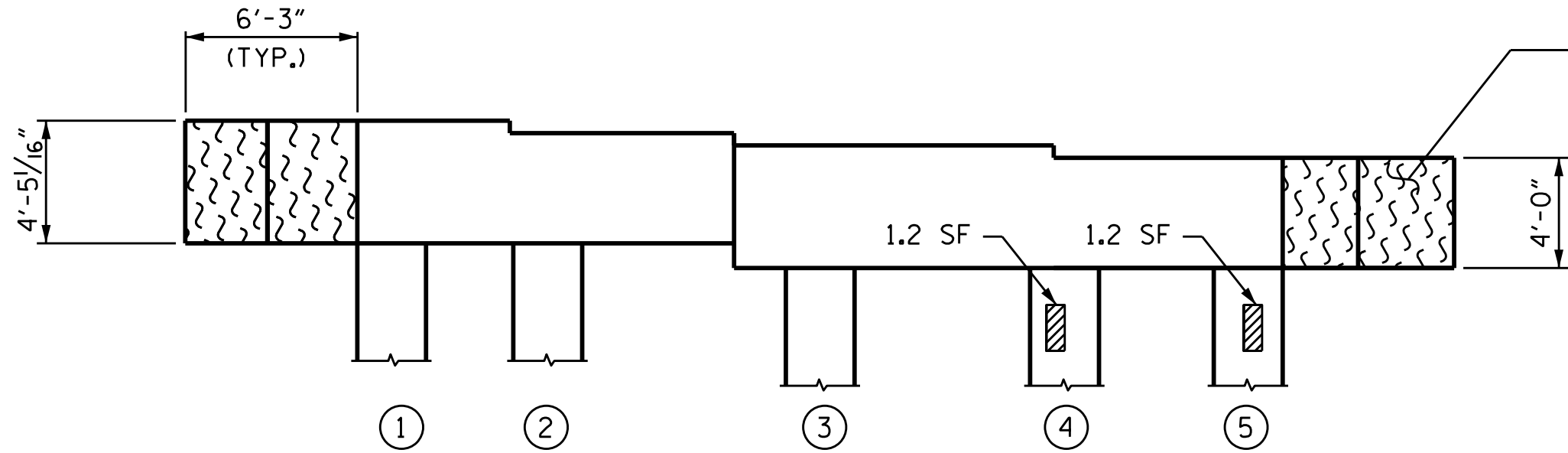




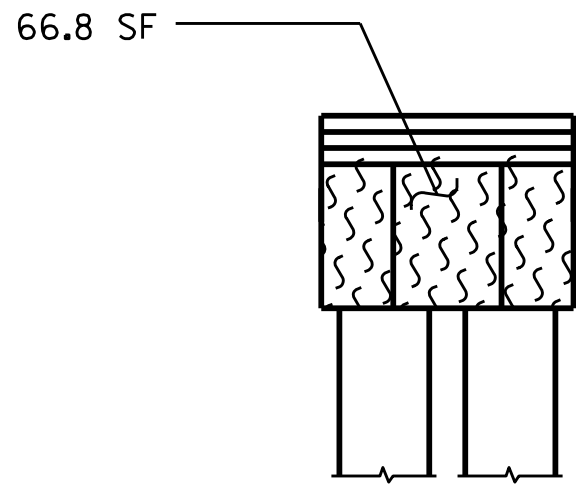
TOP VIEW OF CAP



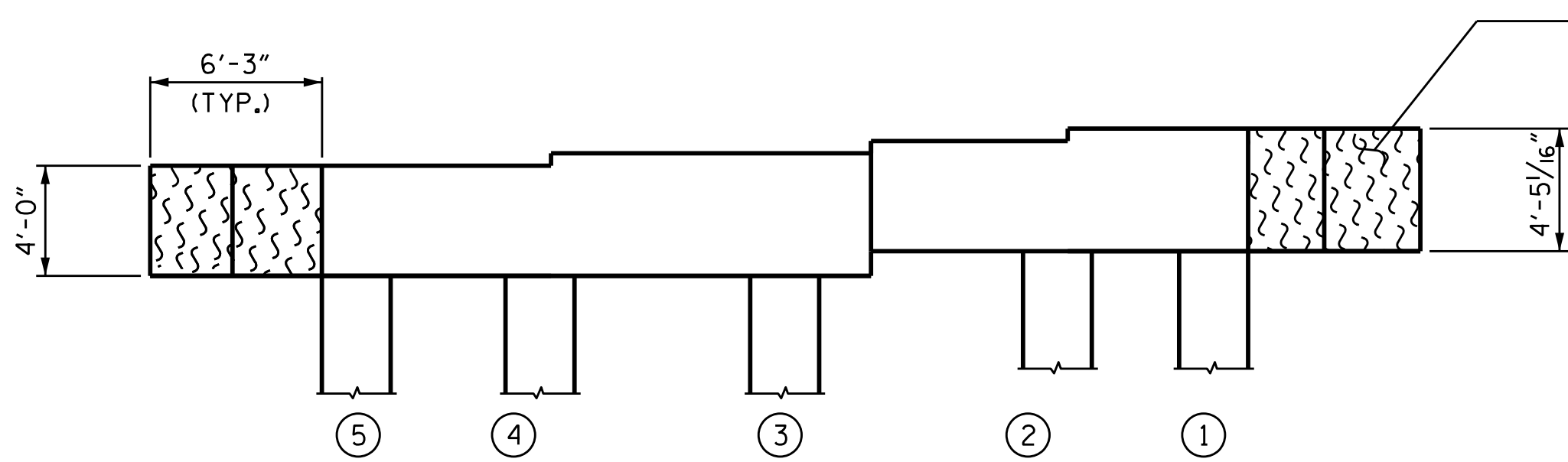
BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 118  
(NORTHBOUND)  
SPAN 117  
(NORTHBOUND)

SPAN 117  
(NORTHBOUND)  
SPAN 118  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 117 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	2.4	1.2		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		292.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

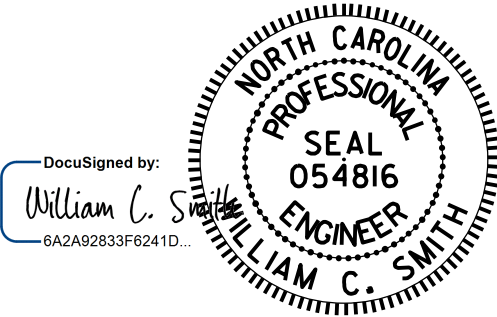
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 120 OF 140

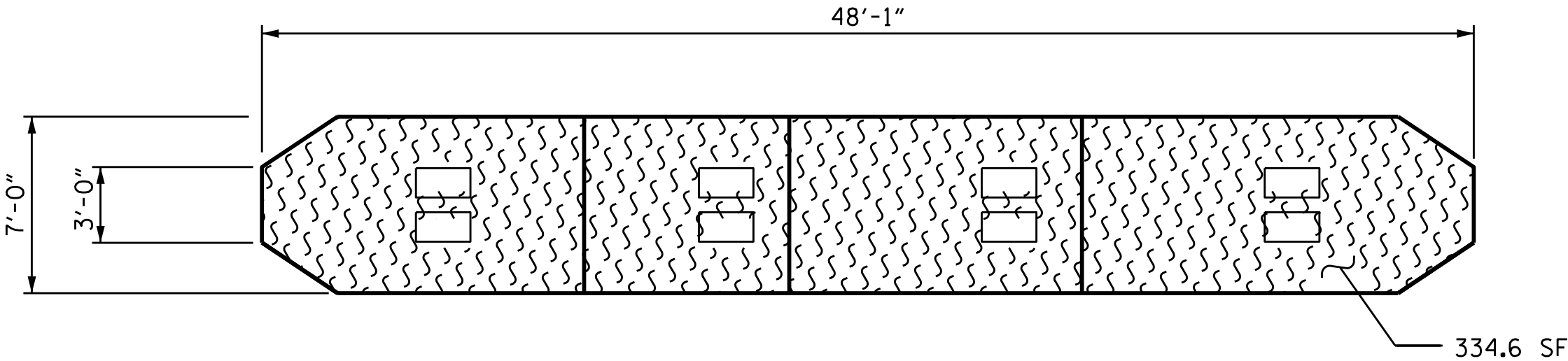


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR  
BENT 117  
(NORTHBOUND)

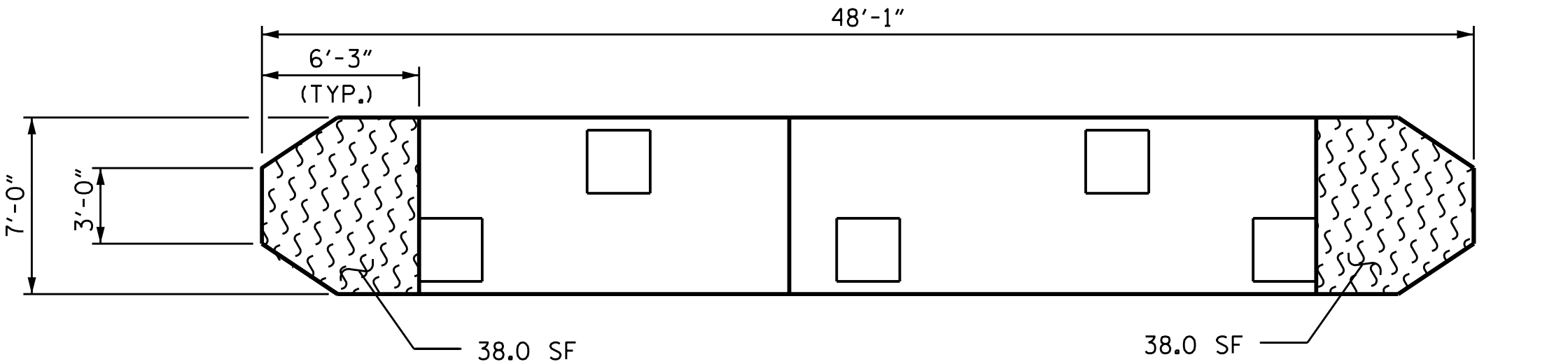
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
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DOCUMENT NOT CONSIDERED  
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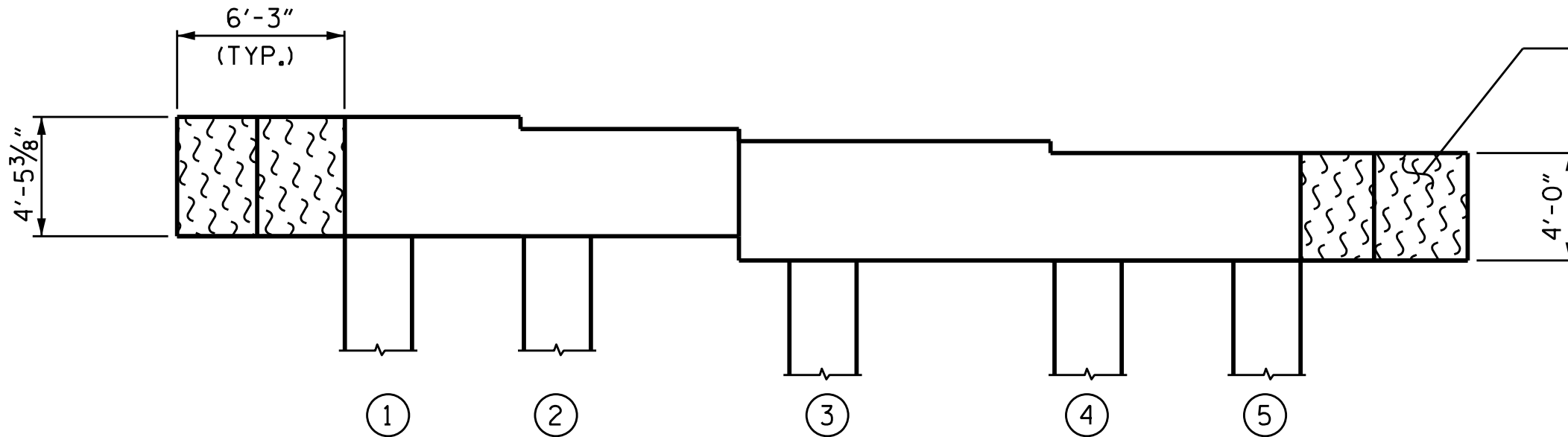
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-188
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2			4			217



TOP VIEW OF CAP



BOTTOM VIEW OF CAP



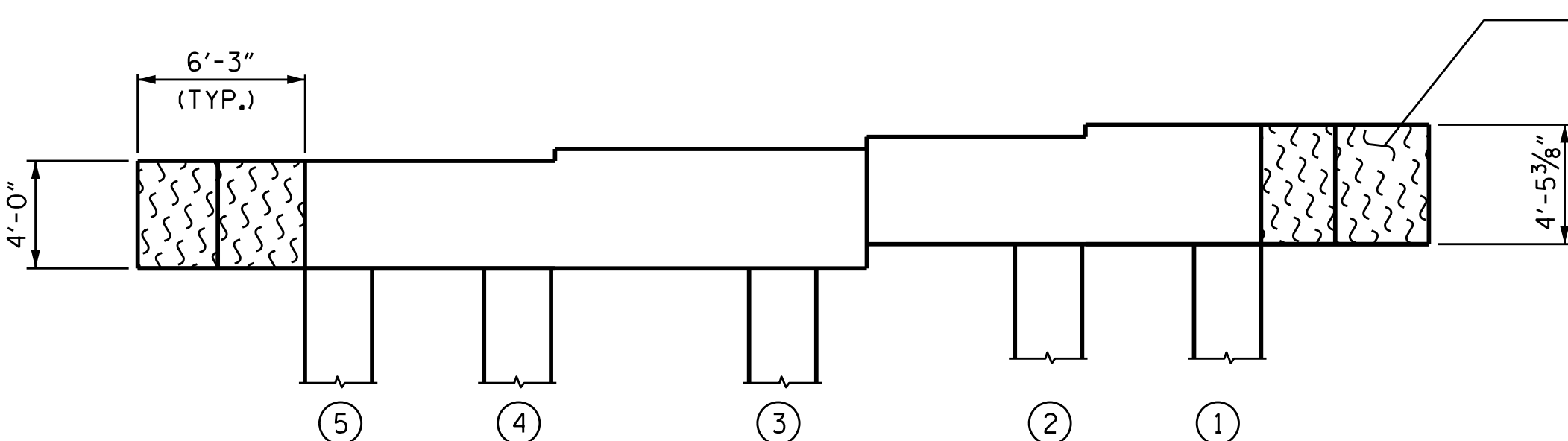
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

SPAN 119  
(SOUTHBOUND)  
SPAN 118  
(SOUTHBOUND)

SPAN 118  
(SOUTHBOUND)  
SPAN 119  
(SOUTHBOUND)

66.8 SF

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

74.4 SF

WEST END

REPAIR QUANTITY TABLE

BENT 118 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		551.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

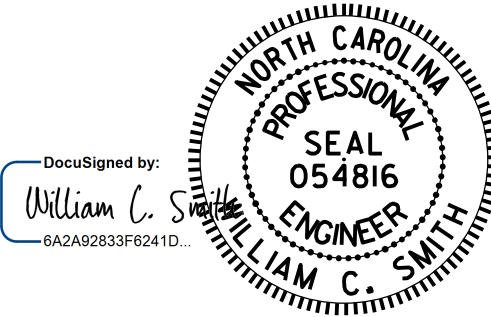
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 121 OF 140

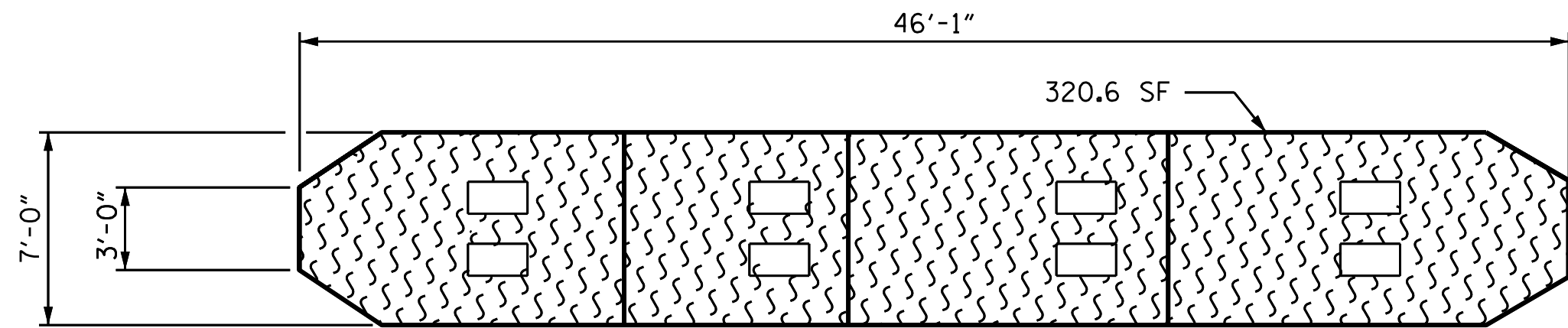


11/21/2025

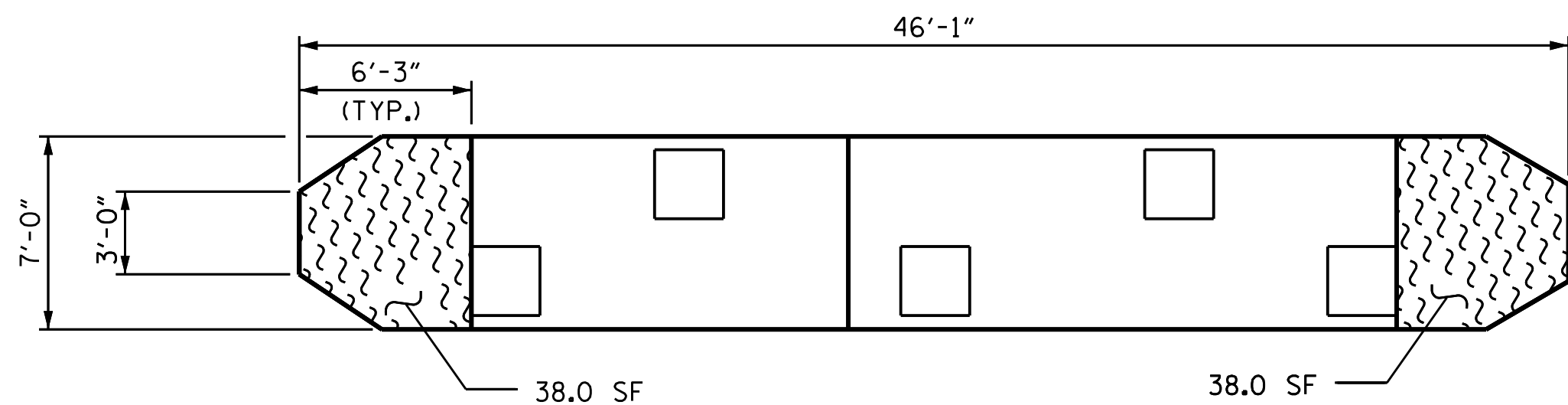
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SIGNATURES COMPLETED

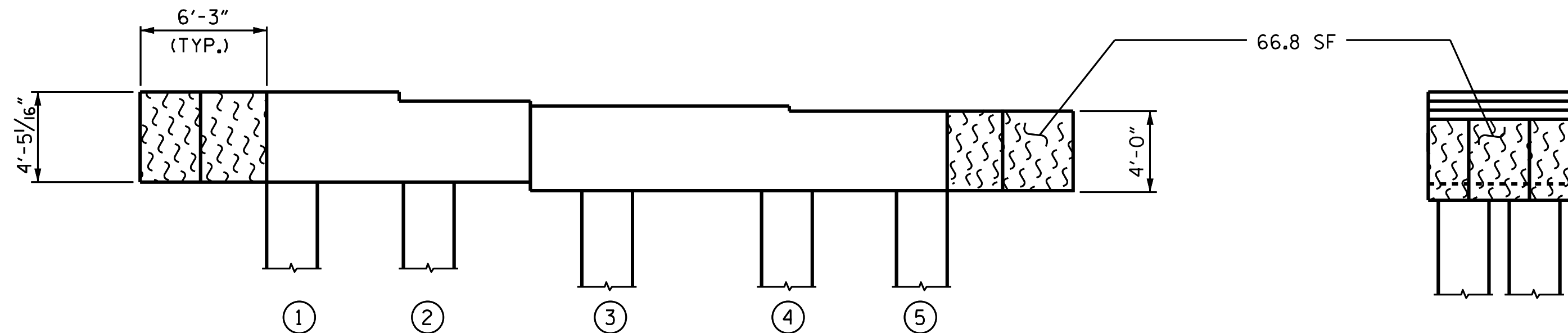
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-189
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2			4			217



TOP VIEW OF CAP

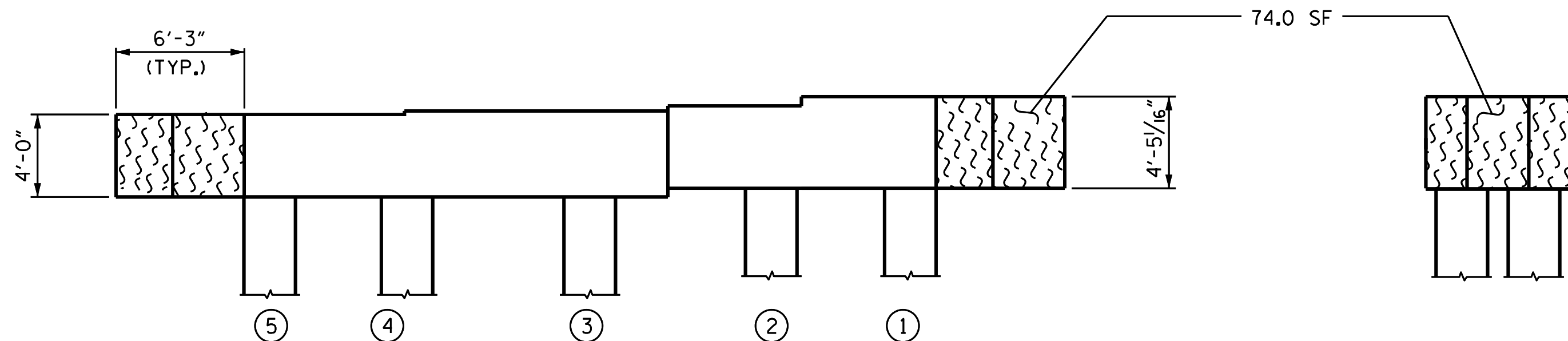


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

SPAN 119  
(NORTHBOUND)  
SPAN 118  
(NORTHBOUND)

SPAN 118  
(NORTHBOUND)  
SPAN 119  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 118 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		537.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

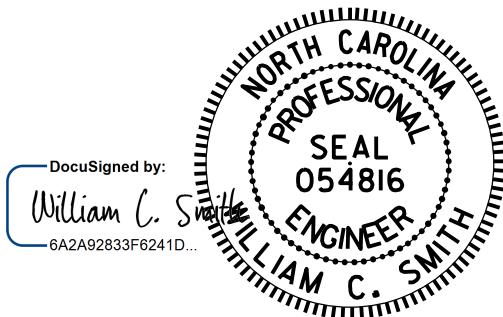
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 122 OF 140



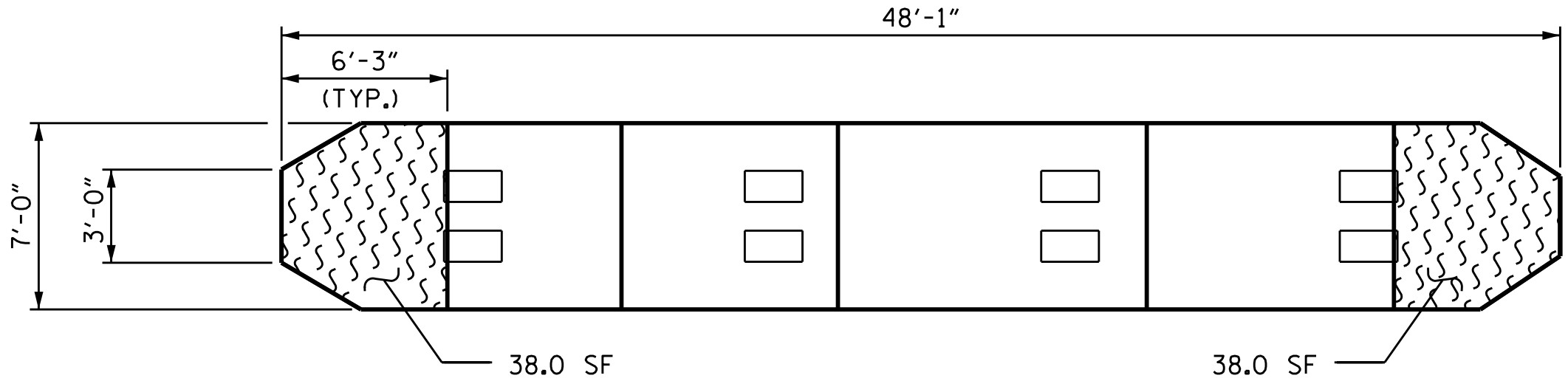
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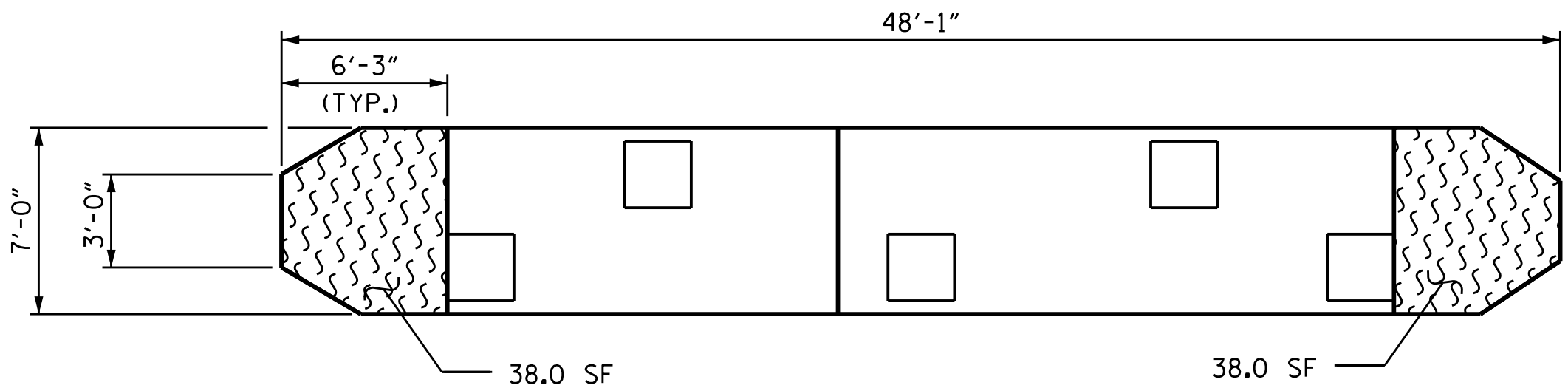
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2			4			217

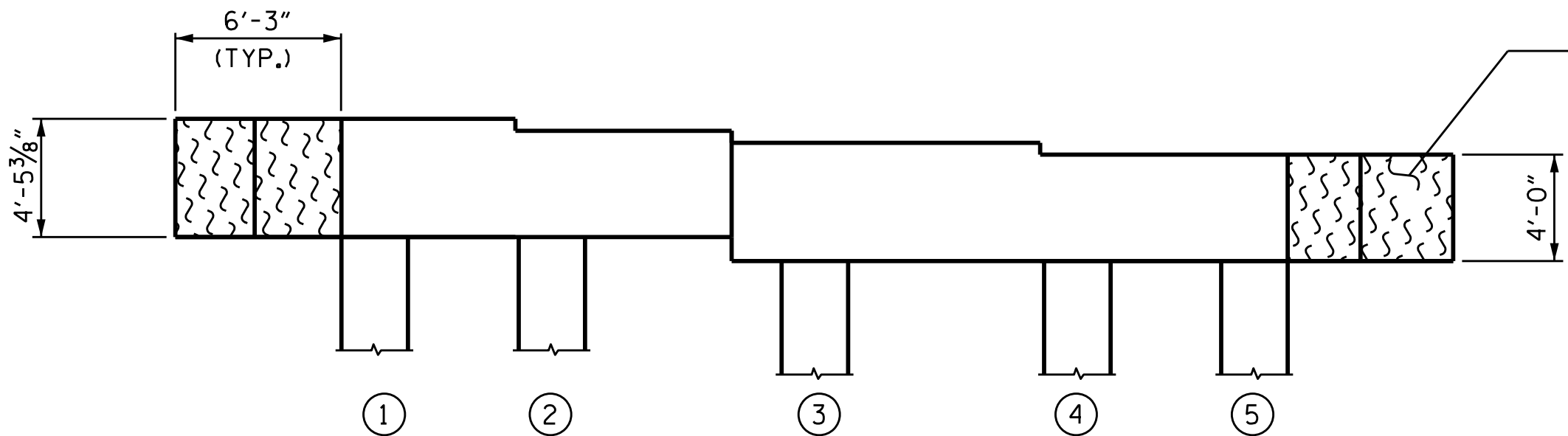




TOP VIEW OF CAP



BOTTOM VIEW OF CAP

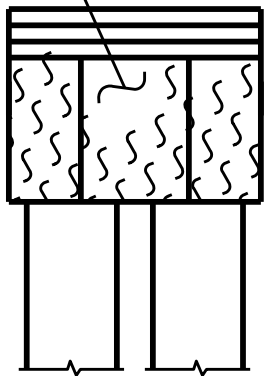


ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

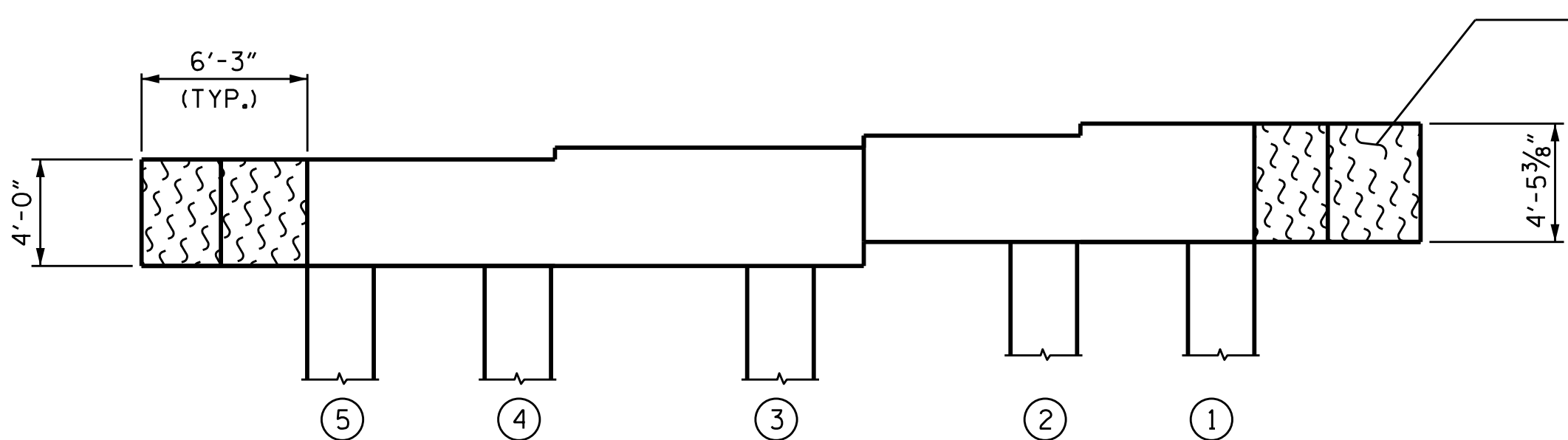
SPAN 120  
(SOUTHBOUND)  
SPAN 119  
(SOUTHBOUND)

SPAN 119  
(SOUTHBOUND)  
SPAN 120  
(SOUTHBOUND)

66.8 SF

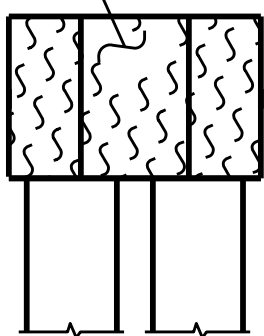


EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

74.4 SF



WEST END

REPAIR QUANTITY TABLE

BENT 115 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.2		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

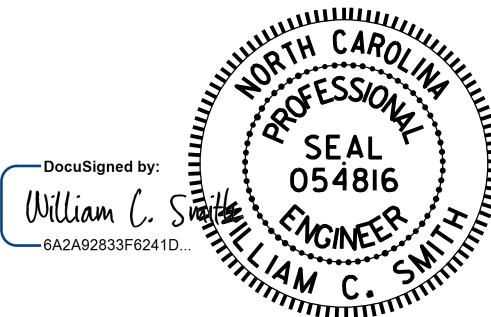
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- (P) PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 123 OF 140

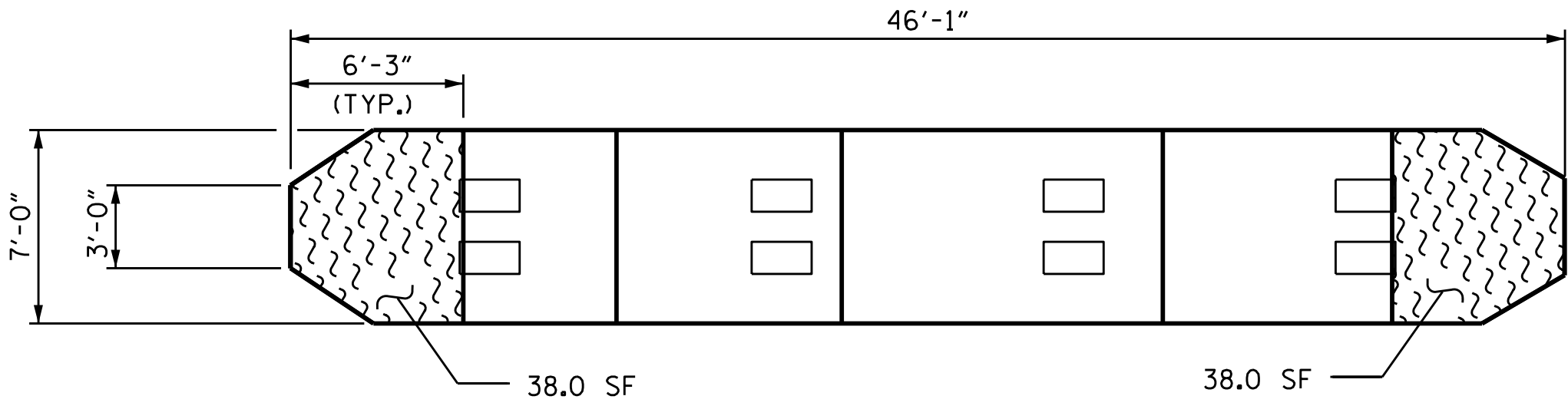


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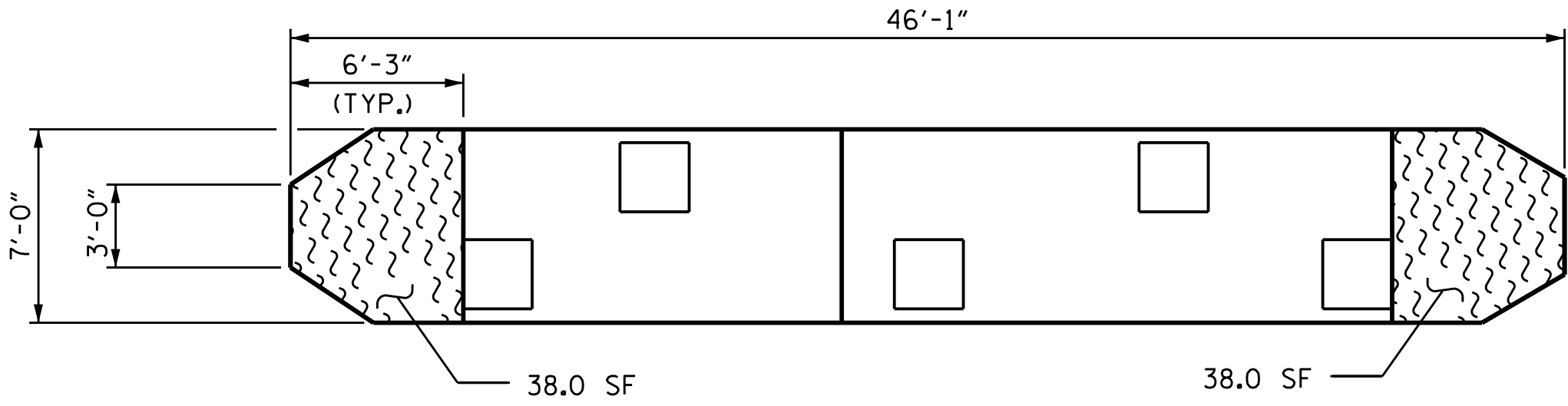
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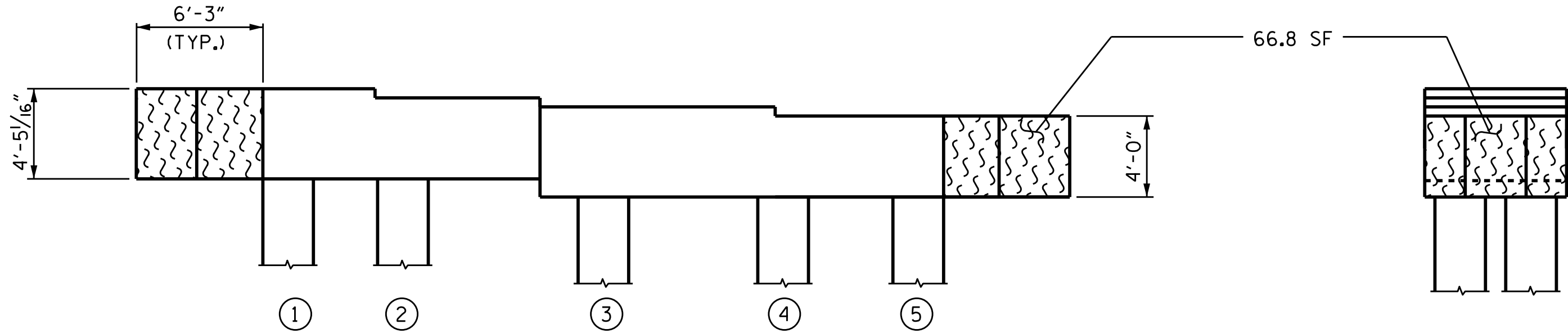
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TOP VIEW OF CAP

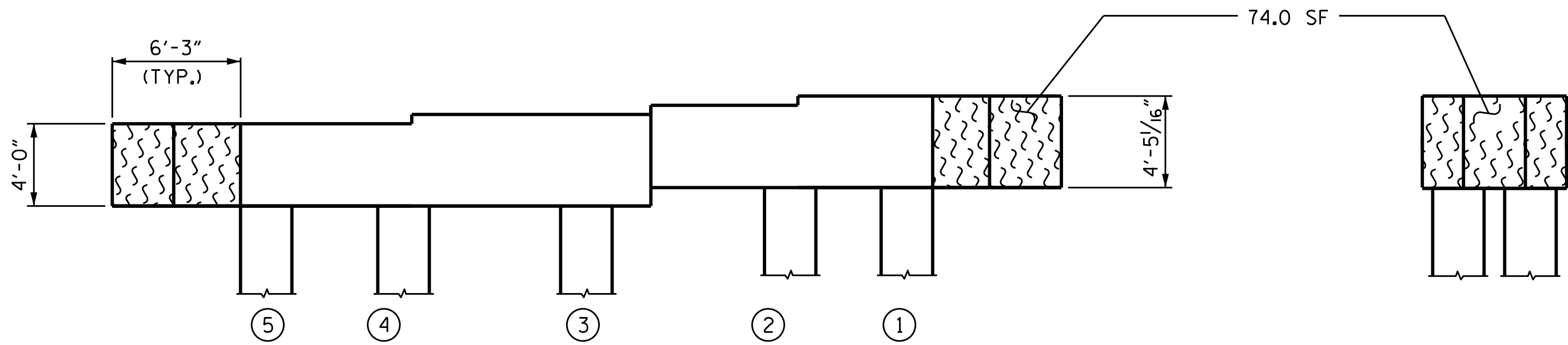


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 120  
(NORTHBOUND)  
SPAN 119  
(NORTHBOUND)

SPAN 119  
(NORTHBOUND)  
SPAN 120  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 119 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		292.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

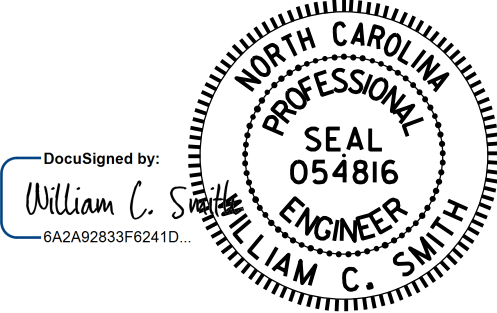
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

SHEET 124 OF 140

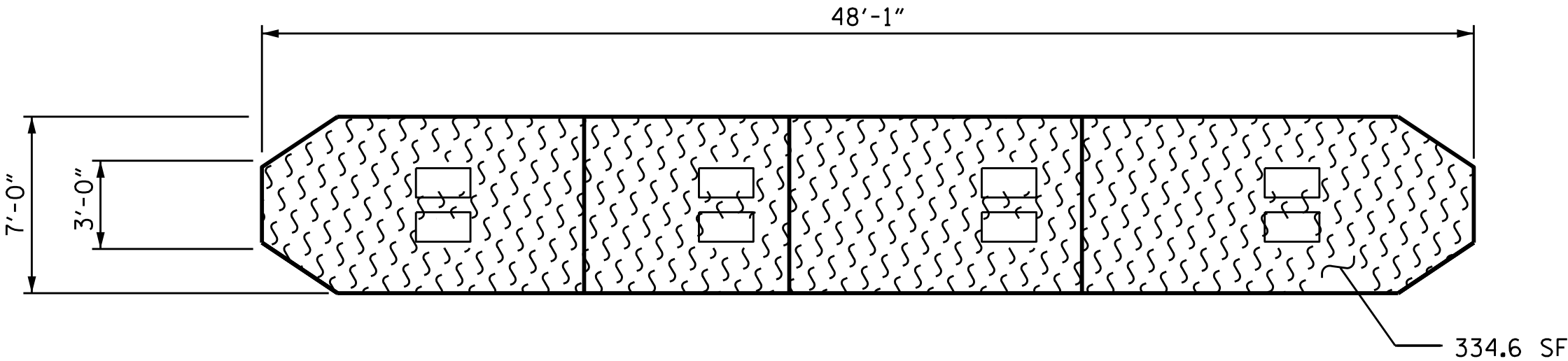


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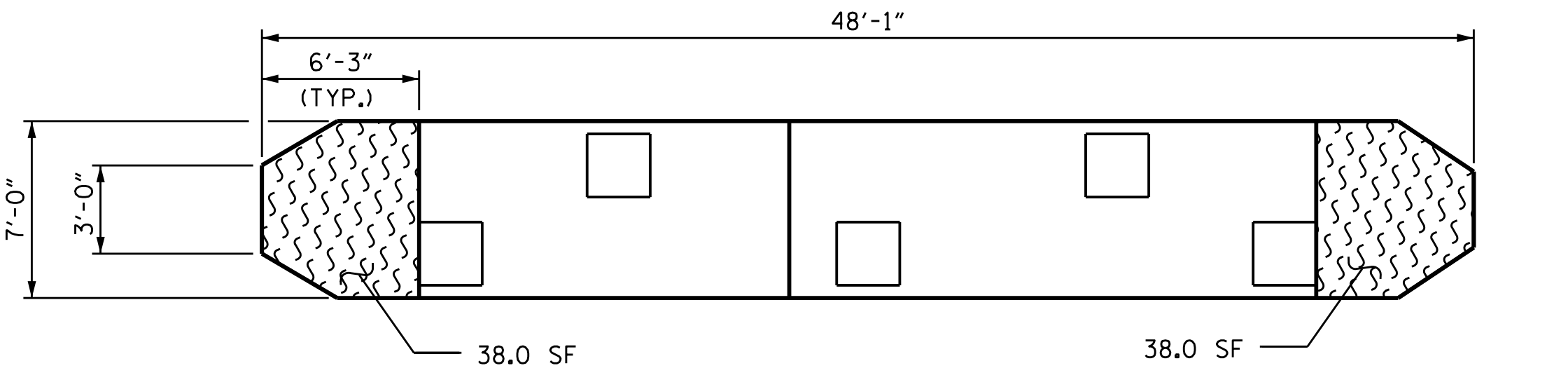
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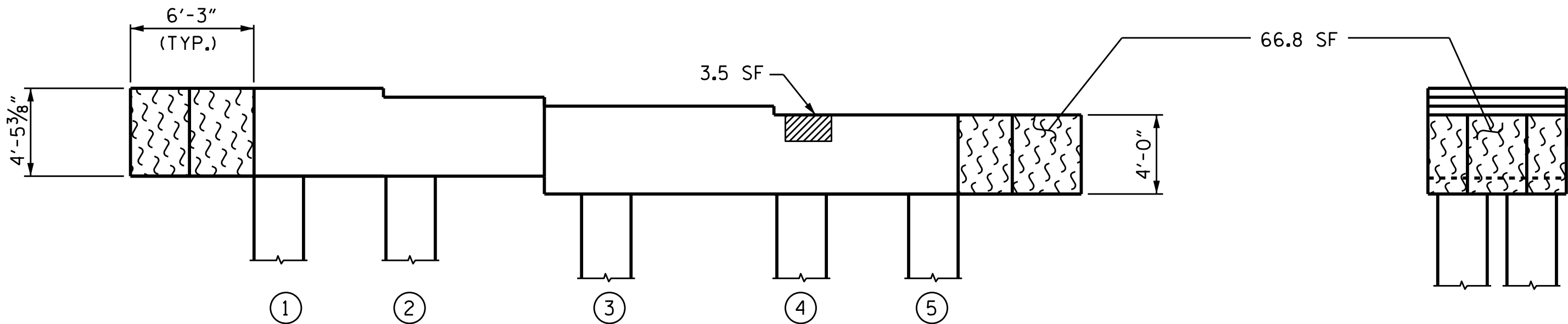
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-192
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2			4			217



TOP VIEW OF CAP

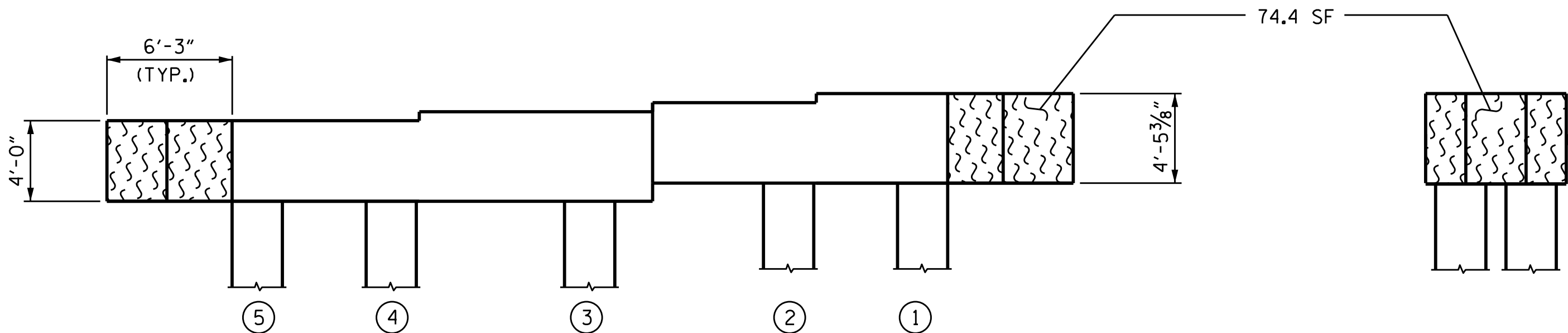


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

REPAIR QUANTITY TABLE				
BENT 120 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	3.5	1.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		551.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

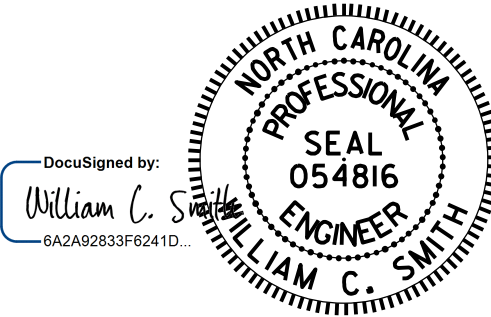
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

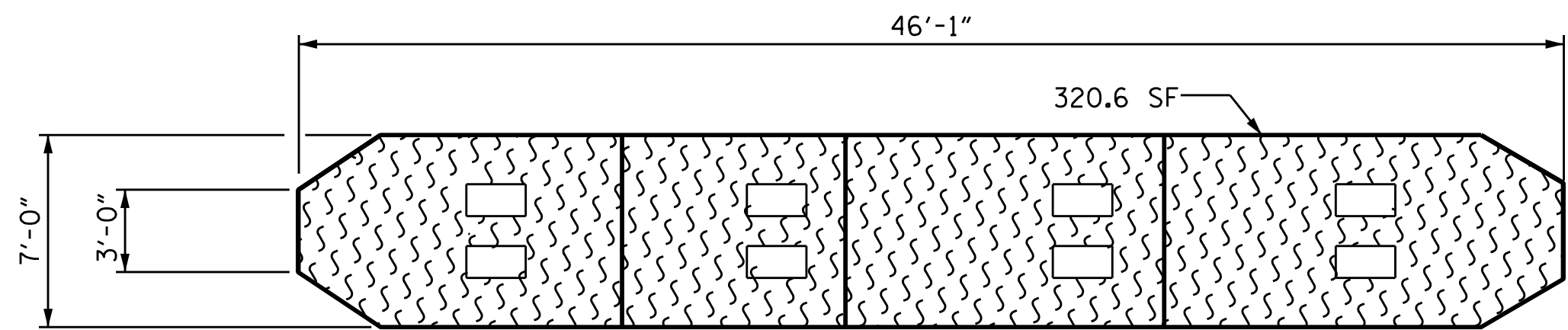
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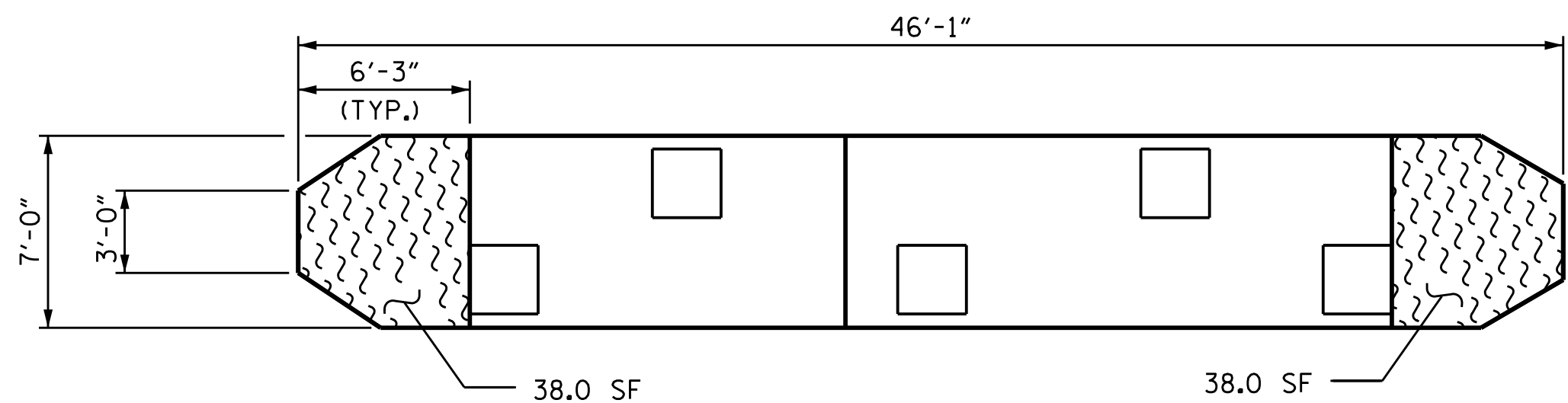
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SUBSTRUCTURE					
BENT 120 (SOUTHBOUND)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS S-193 217

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

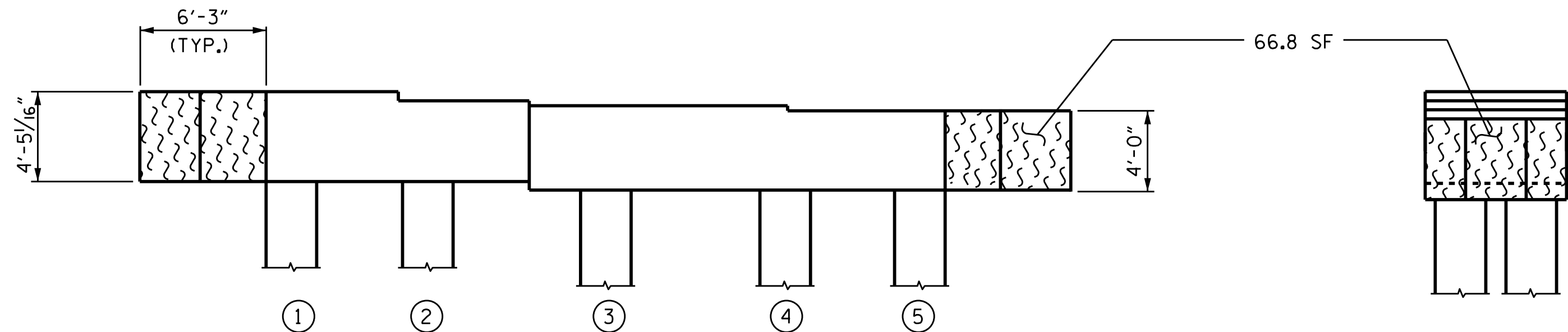




TOP VIEW OF CAP

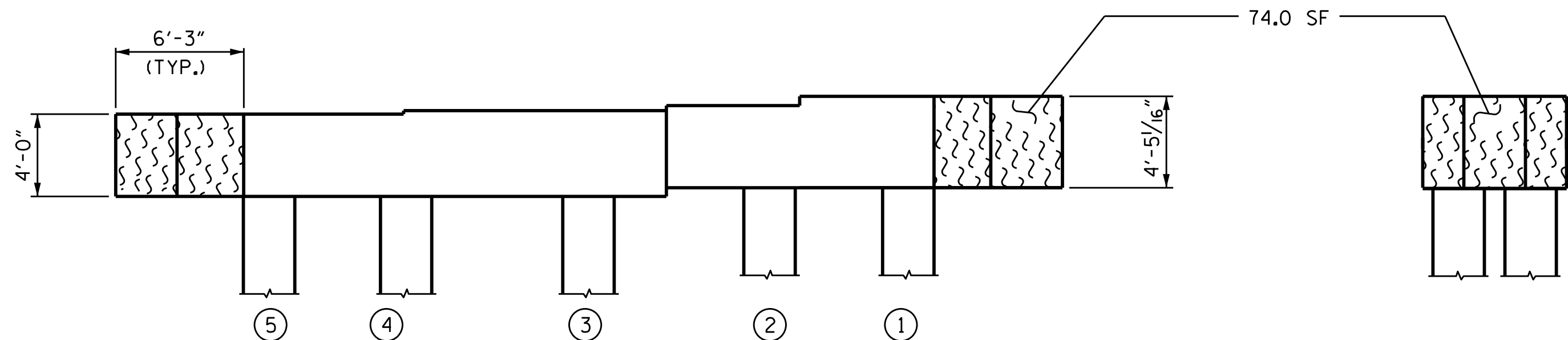


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

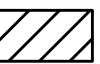


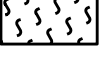
WEST END

REPAIR QUANTITY TABLE				
BENT 120 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		537.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

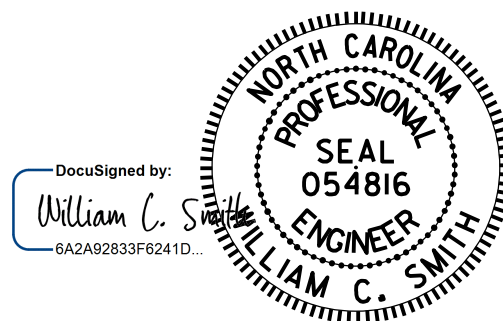
### NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
-  PILE
-  EPOXY COATING

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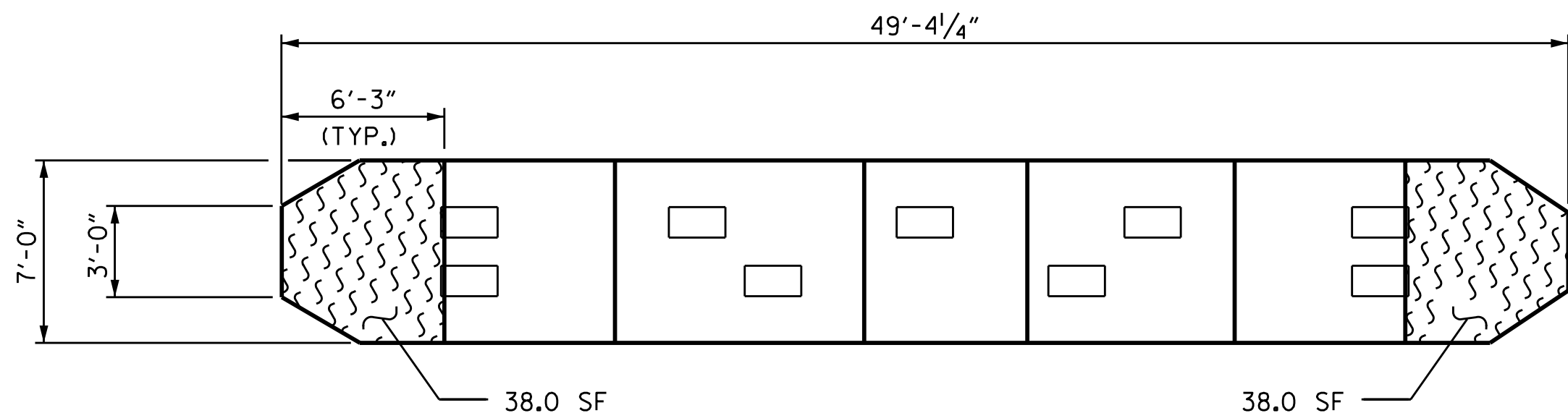
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

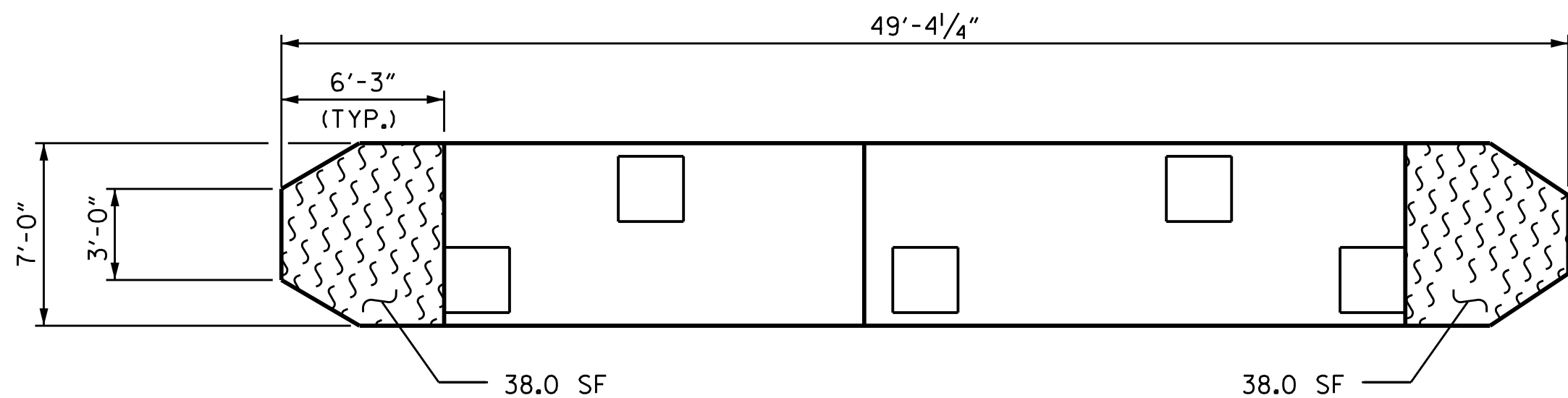
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-194
1			3			TOTAL SHEETS
2			4			217

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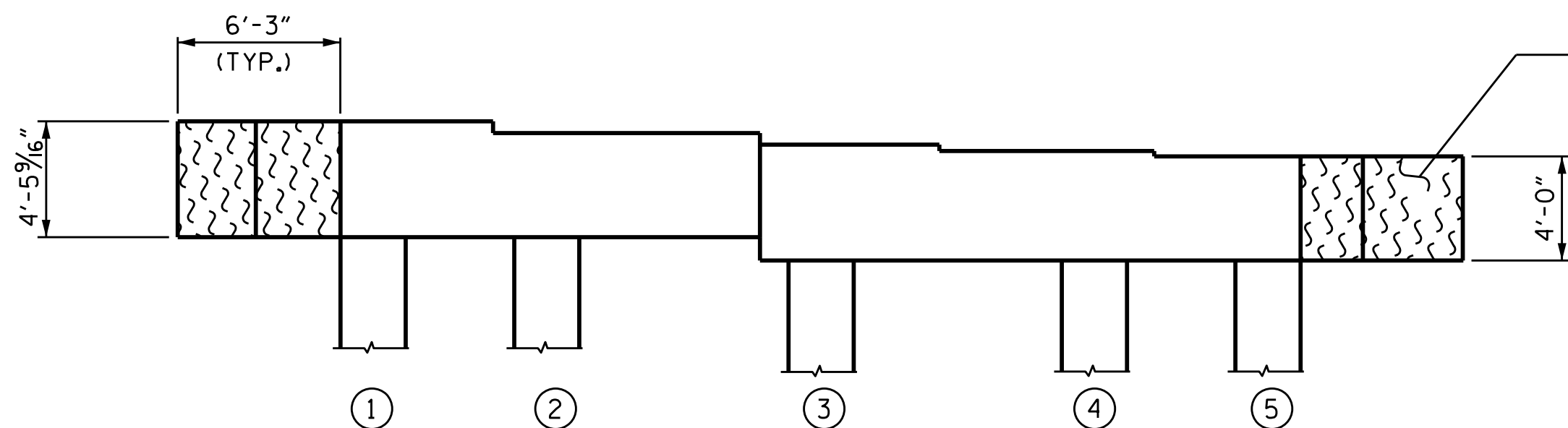
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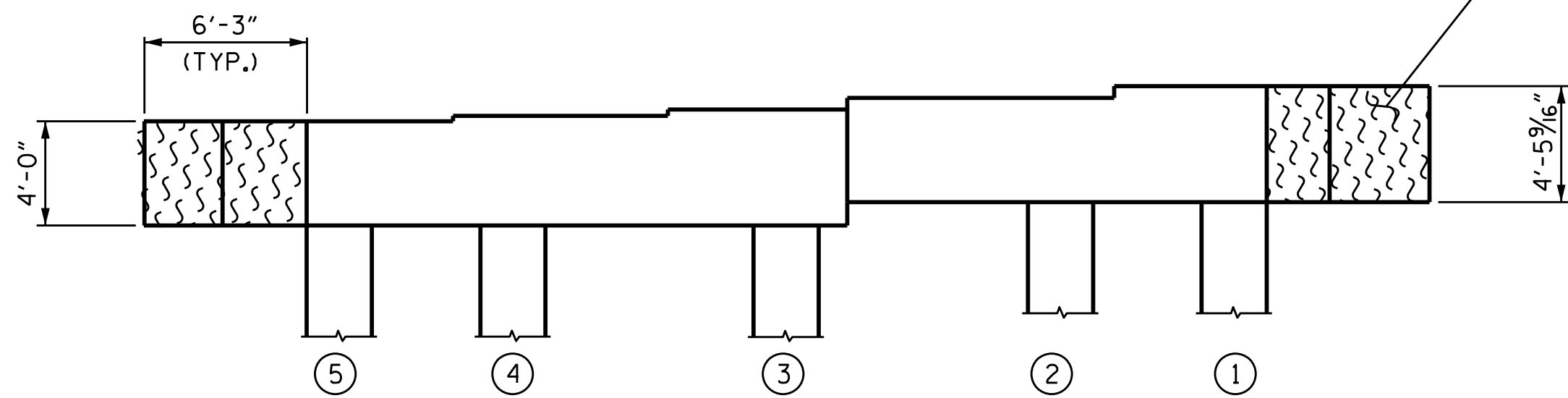
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



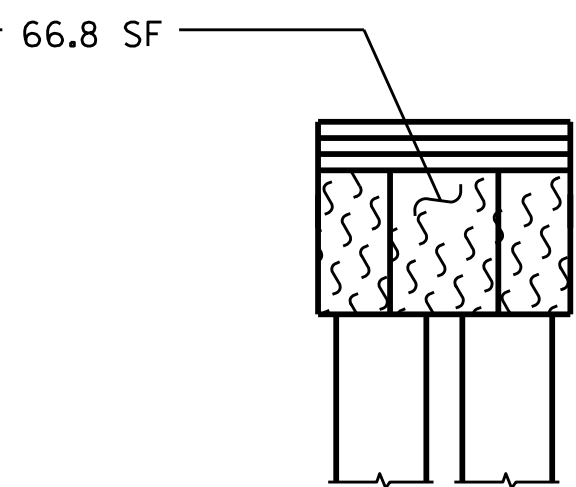
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



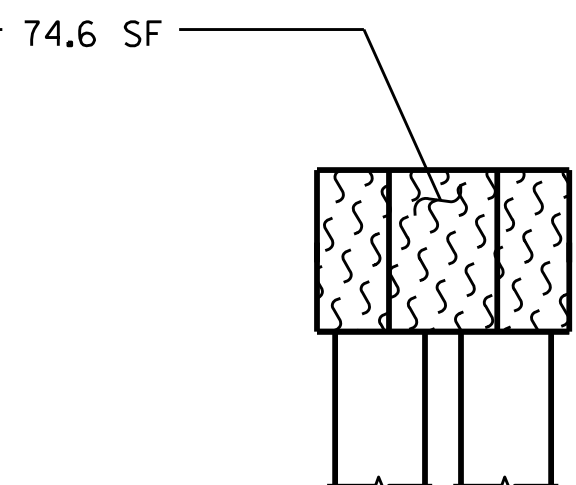
ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 122  
(SOUTHBOUND)  
SPAN 121  
(SOUTHBOUND)

SPAN 121  
(SOUTHBOUND)  
SPAN 122  
(SOUTHBOUND)



EAST END



WEST END

REPAIR QUANTITY TABLE

BENT 121 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		293.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

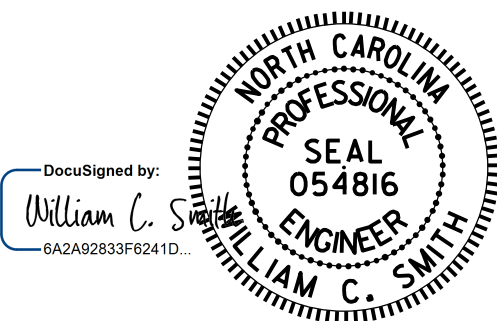
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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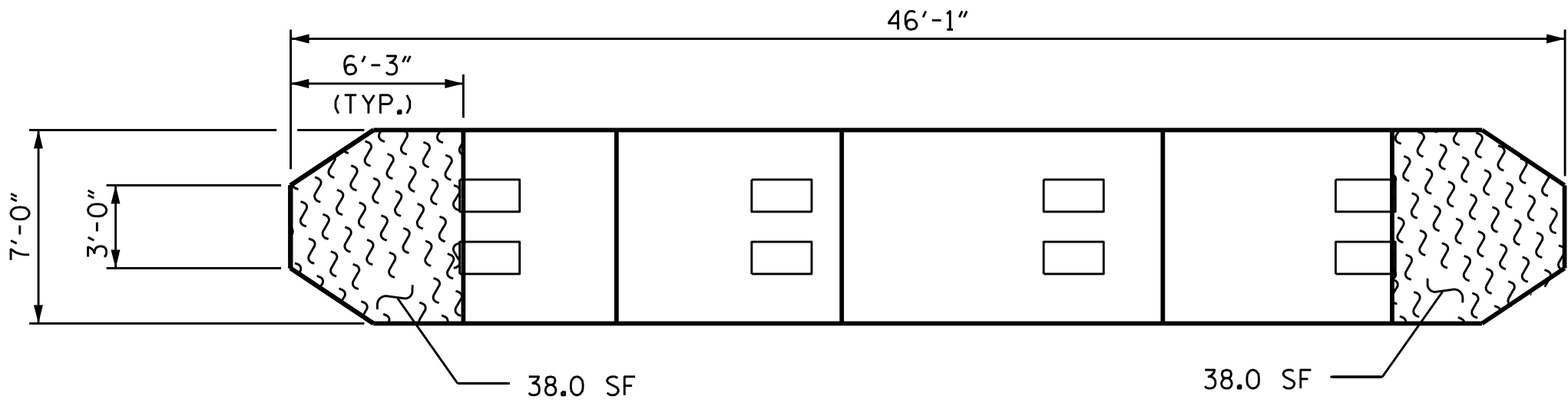


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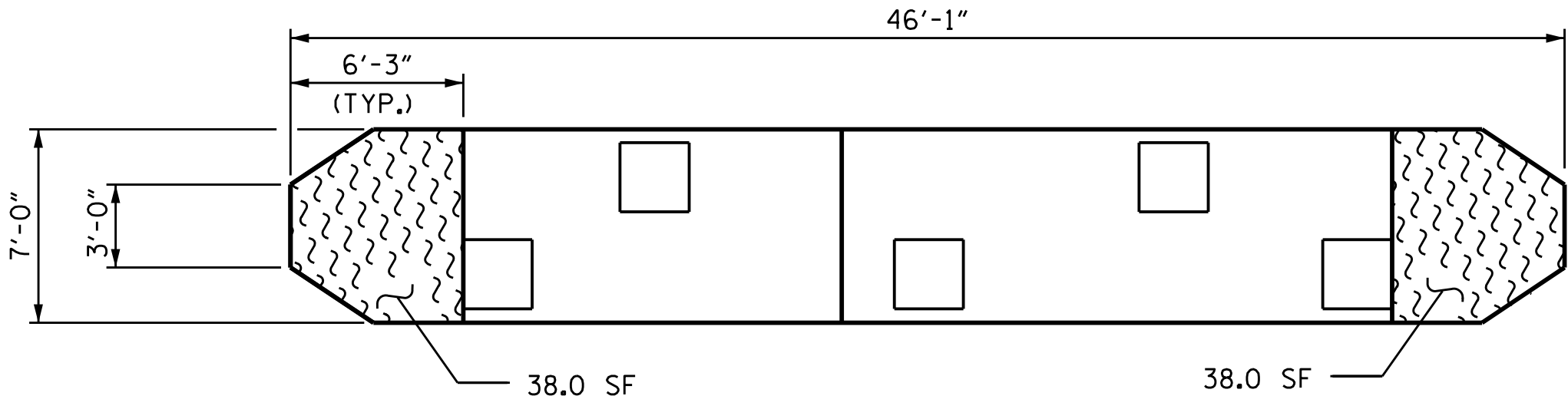
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
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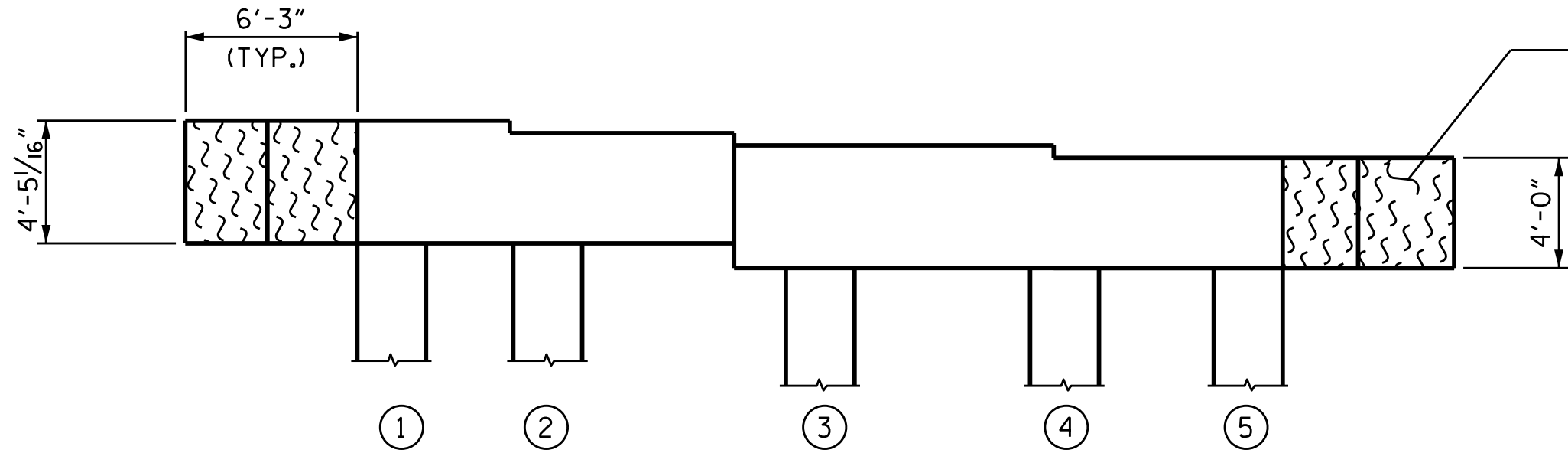
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-195
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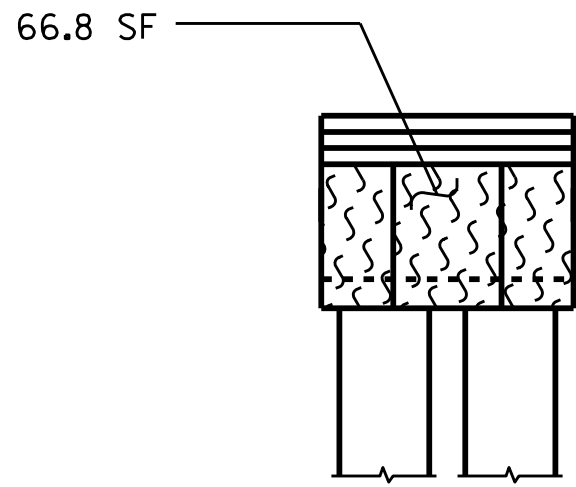
TOP VIEW OF CAP



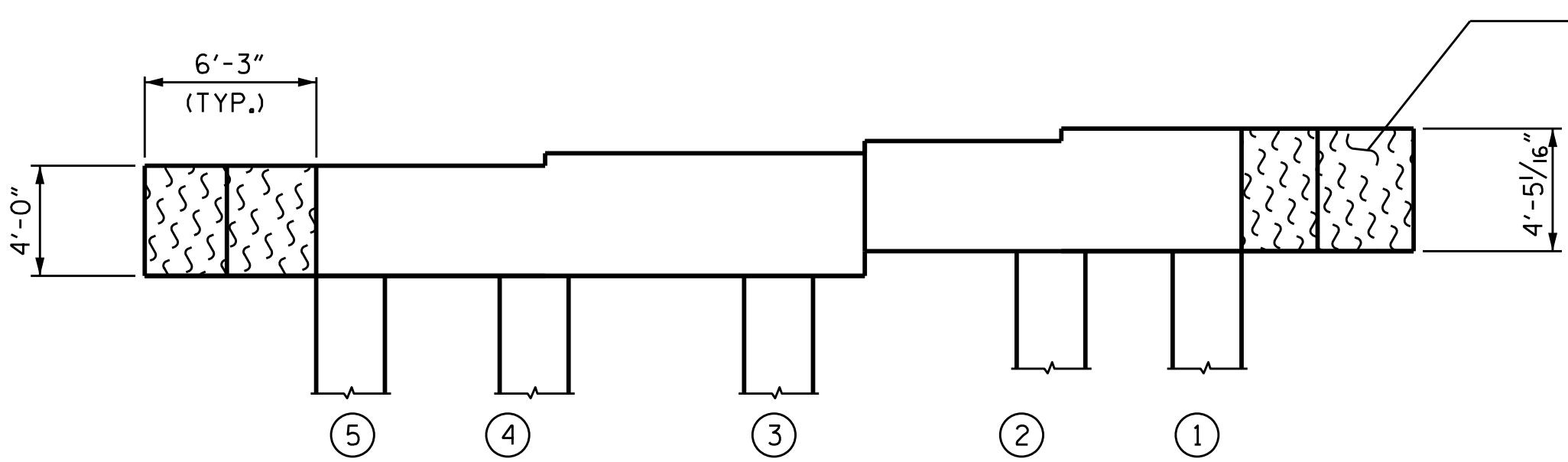
BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 122  
(NORTHBOUND)  
SPAN 121  
(NORTHBOUND)

SPAN 121  
(NORTHBOUND)  
SPAN 122  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 121 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		292.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

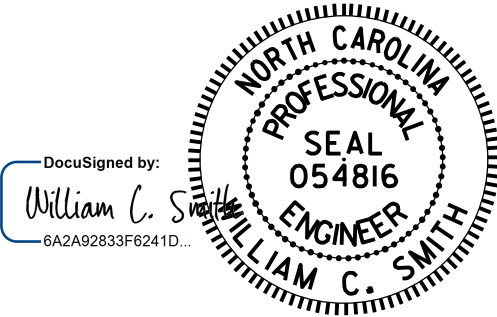
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE REPAIR

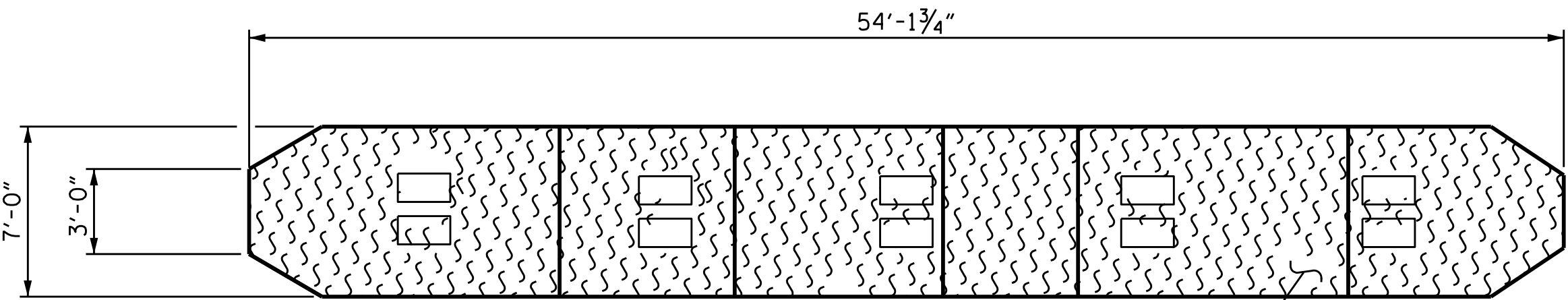
BENT 121  
(NORTHBOUND)

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

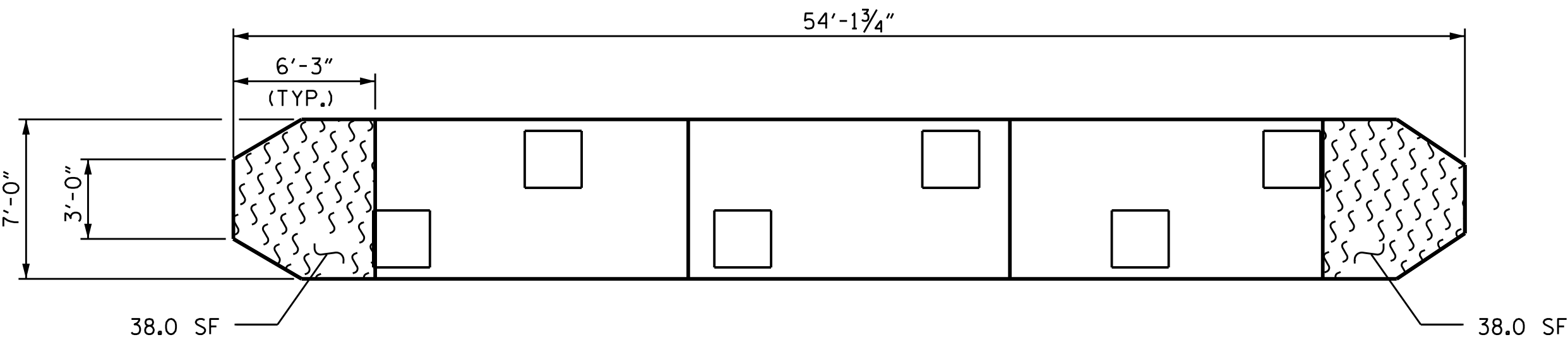
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-196
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2			4			217

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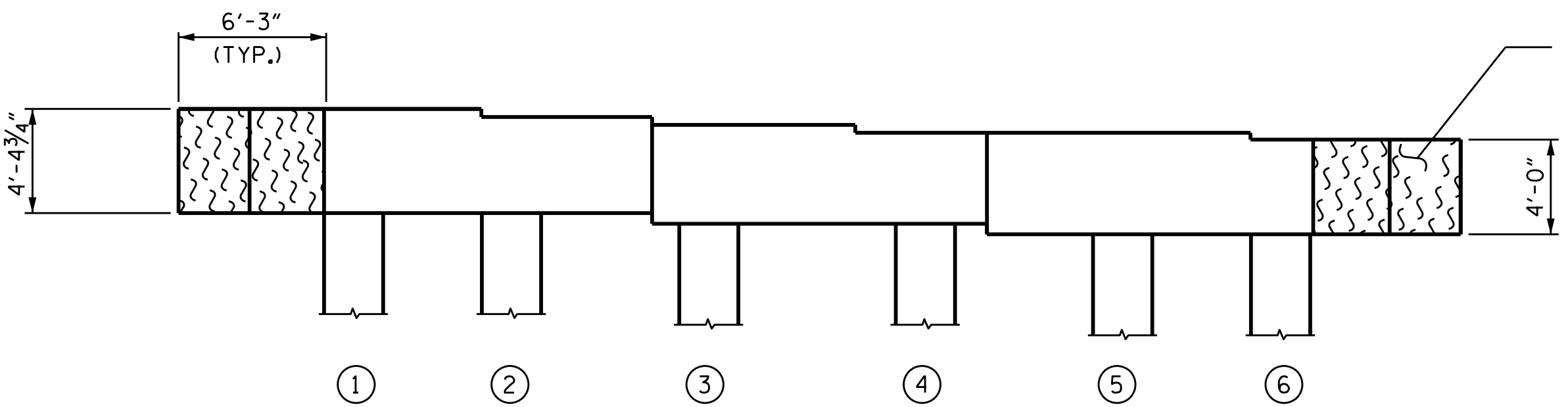




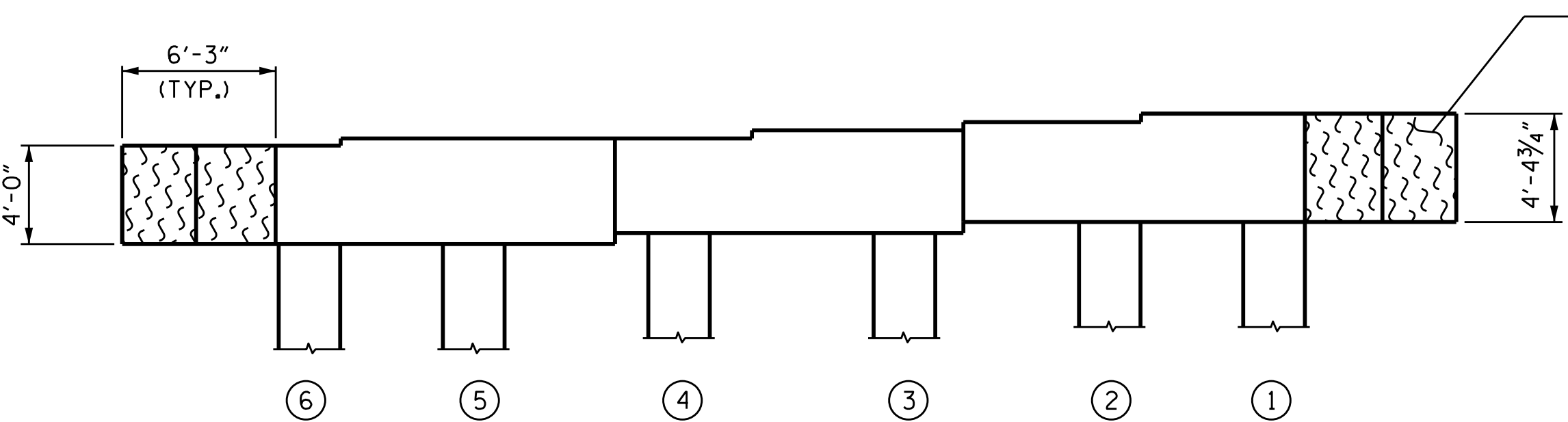
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 123  
(SOUTHBOUND)  
SPAN 122  
(SOUTHBOUND)

SPAN 122  
(SOUTHBOUND)  
SPAN 123  
(SOUTHBOUND)

EAST END

WEST END

REPAIR QUANTITY TABLE

BENT 122 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		595.3		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

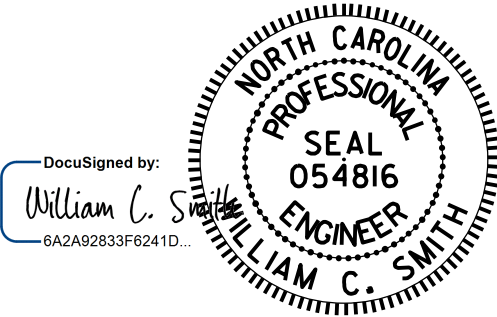
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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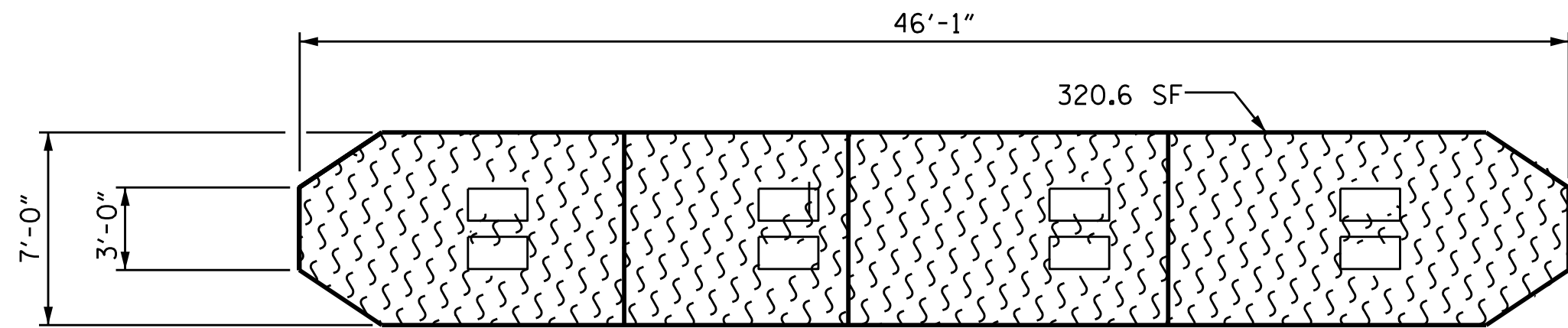


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 122  
(SOUTHBOUND)

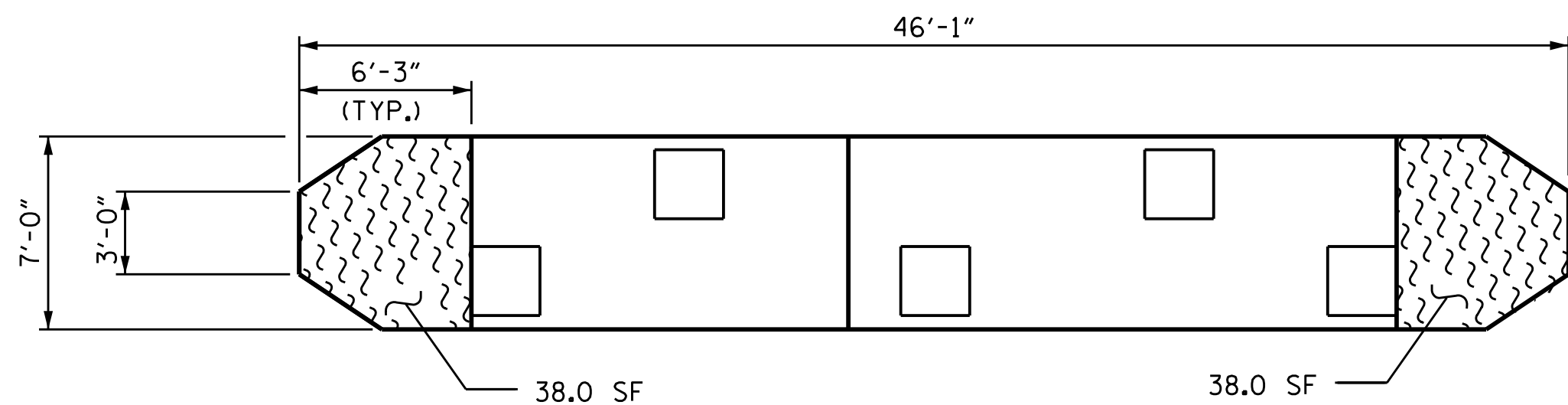
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SIGNATURES COMPLETED

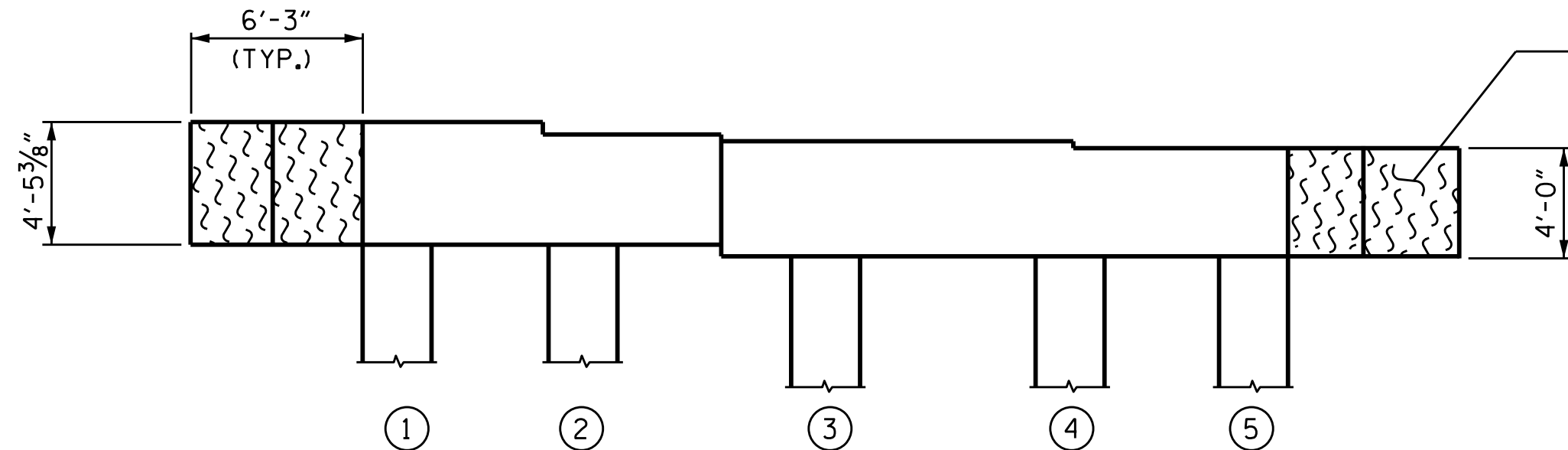
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-197
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2			4			217



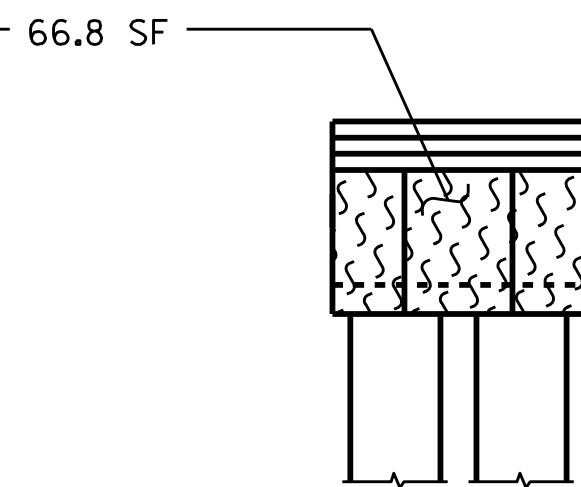
TOP VIEW OF CAP



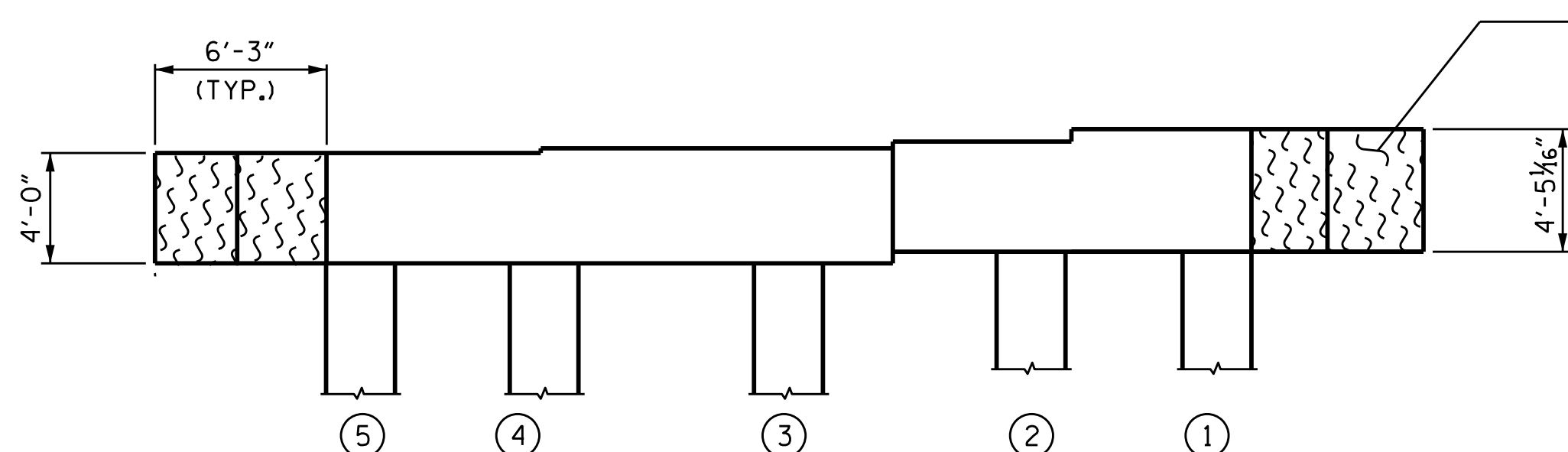
BOTTOM VIEW OF CAP



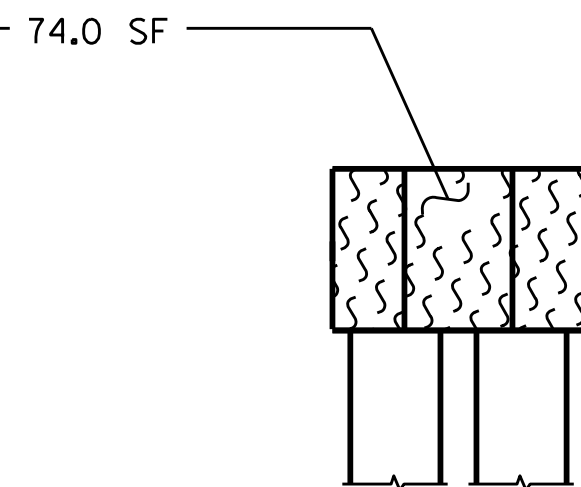
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

REPAIR QUANTITY TABLE

BENT 122 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		537.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

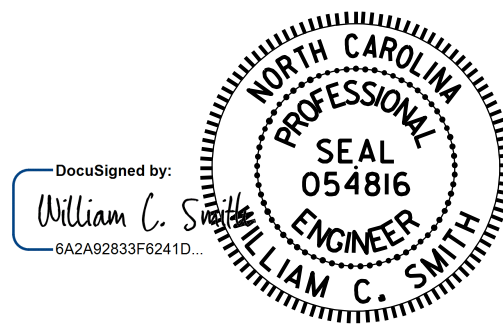
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BRIDGE NO. 060353

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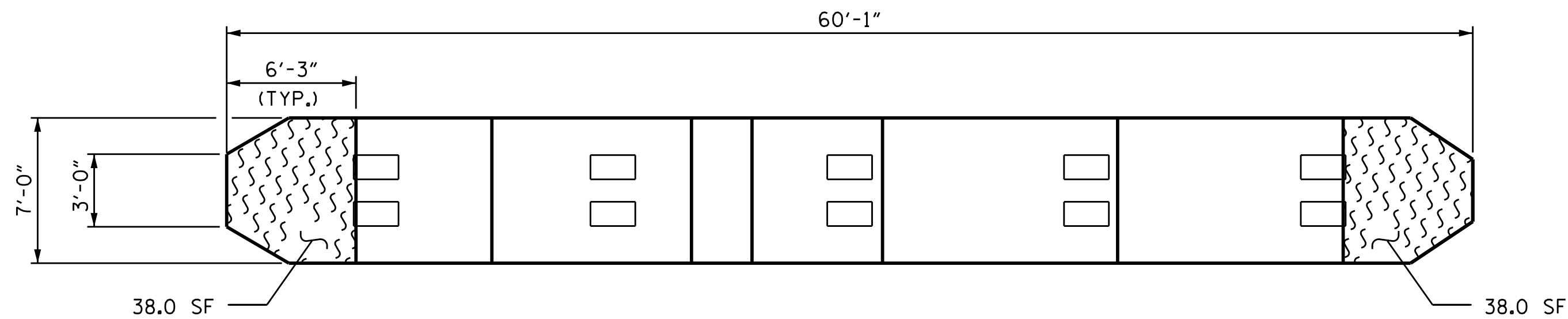


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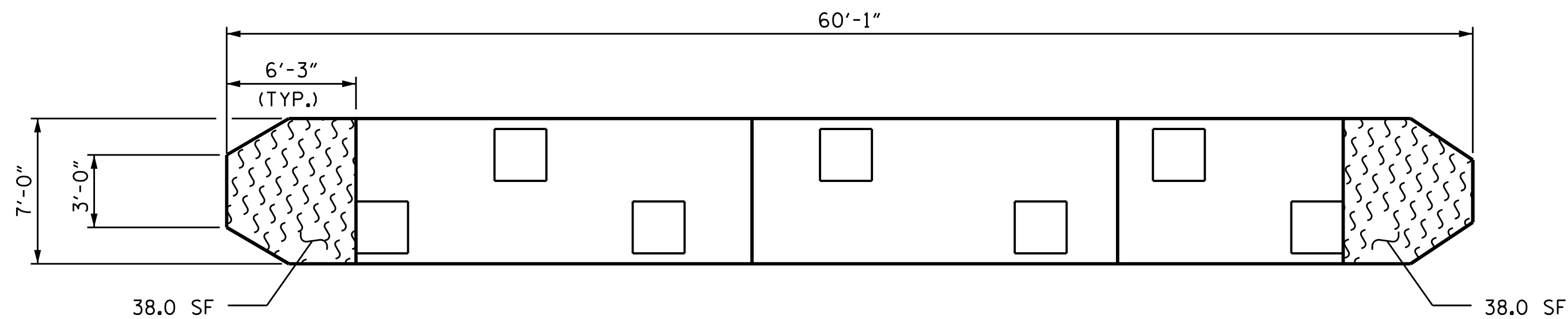
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CHECKED BY : W. C. SMITH DATE : 7/10/24

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SIGNATURES COMPLETED

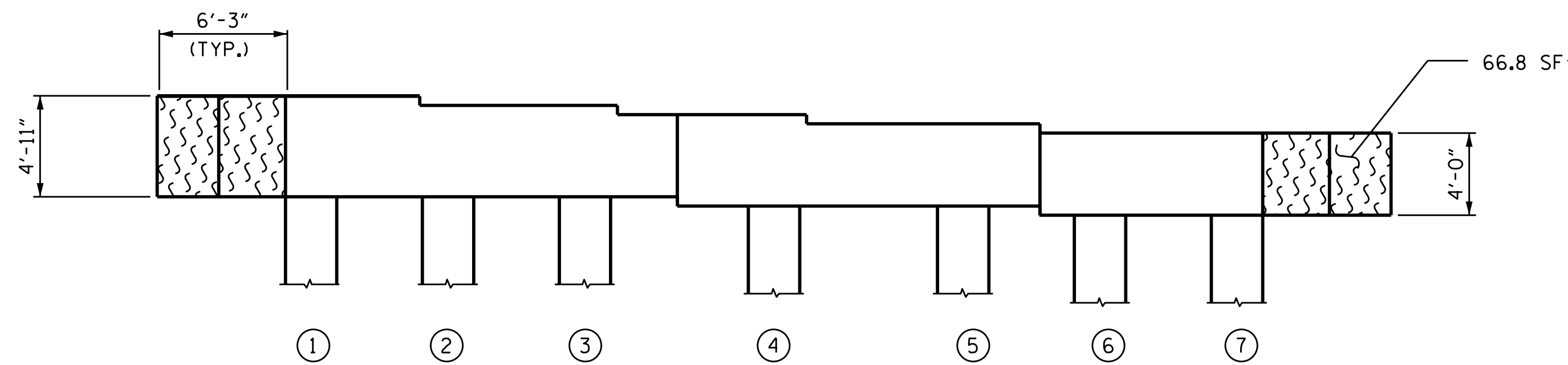
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-198
1			3			TOTAL SHEETS
2			4			217



TOP VIEW OF CAP

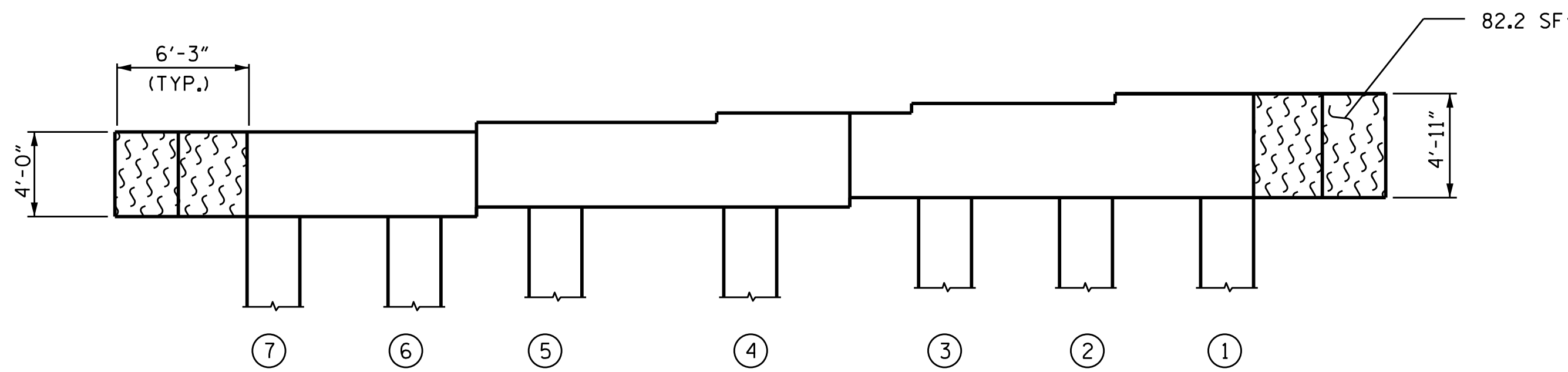


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

SPAN 124  
(SOUTHBOUND)  
SPAN 123  
(SOUTHBOUND)

SPAN 123  
(SOUTHBOUND)  
SPAN 124  
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 123 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		301.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

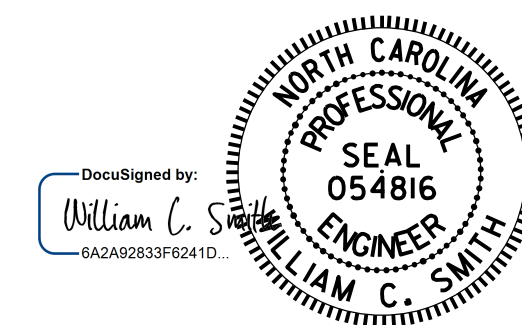
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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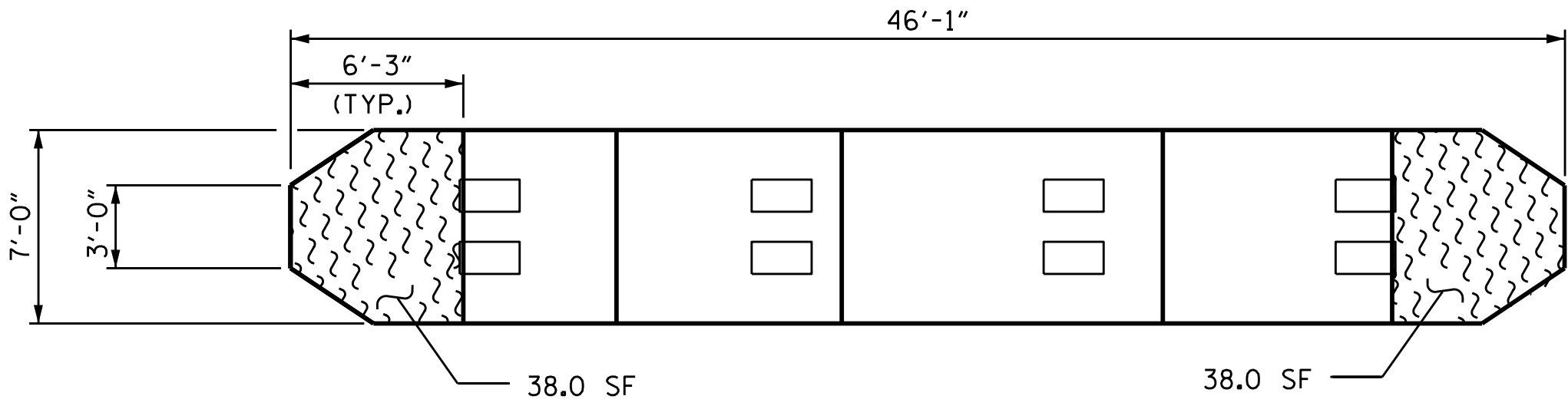
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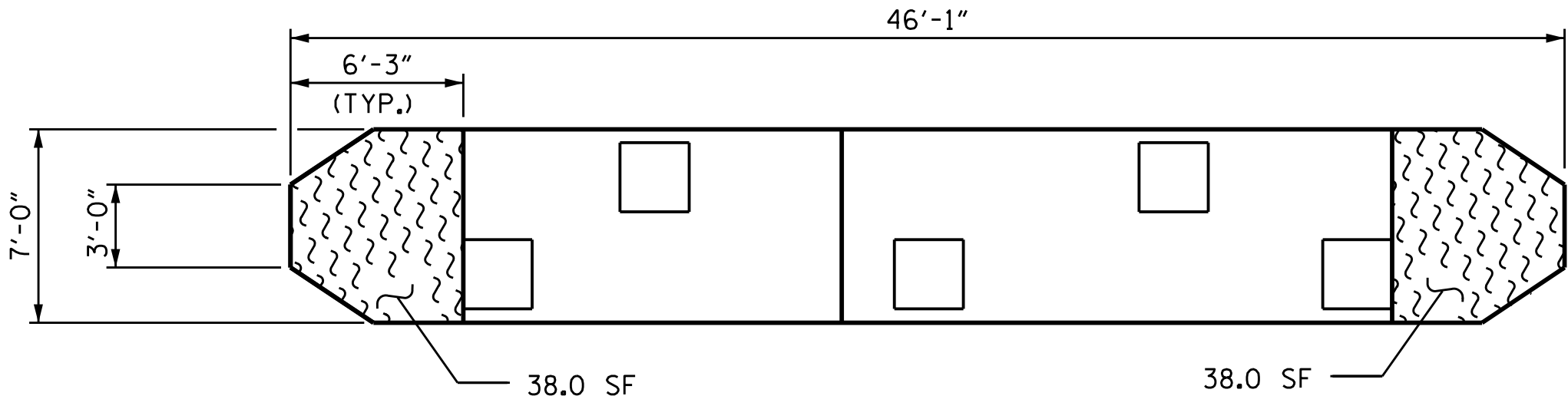
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-199
1			3			TOTAL SHEETS
2			4			217

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SIGNATURES COMPLETED

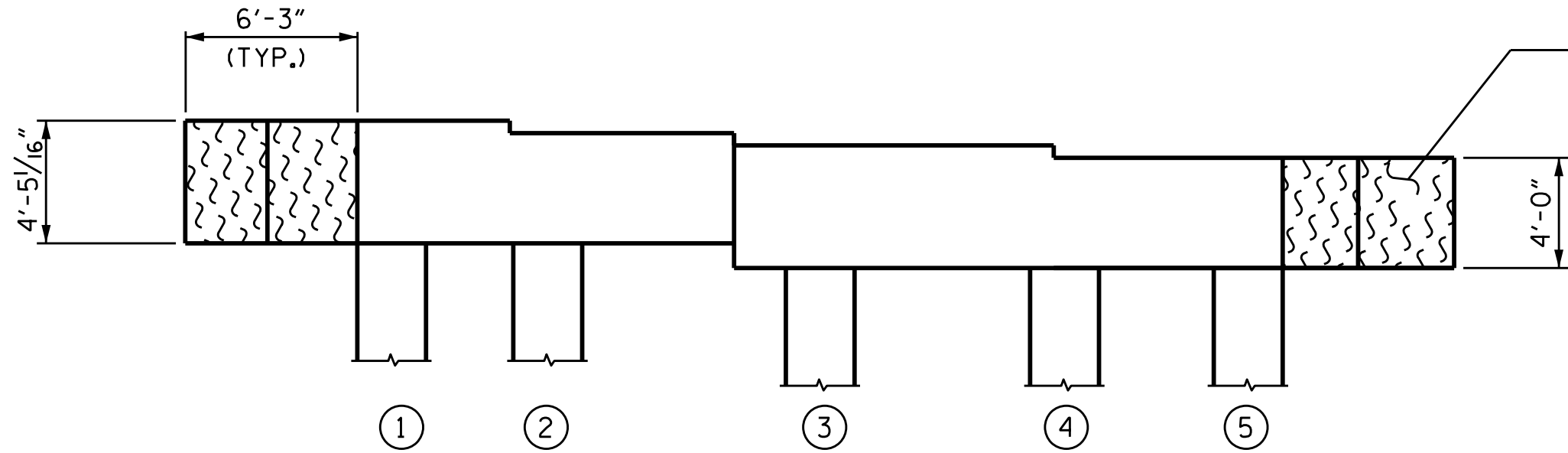




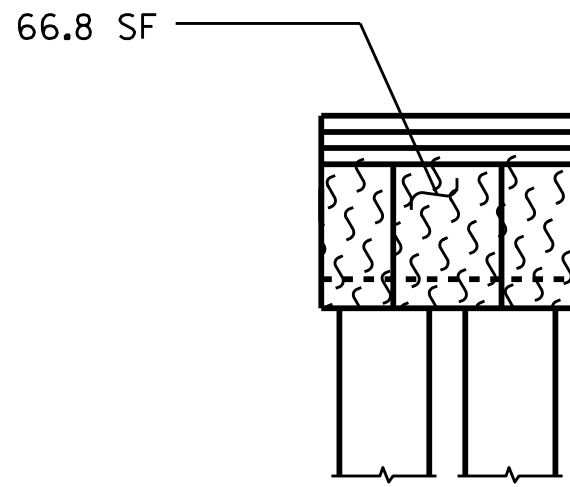
TOP VIEW OF CAP



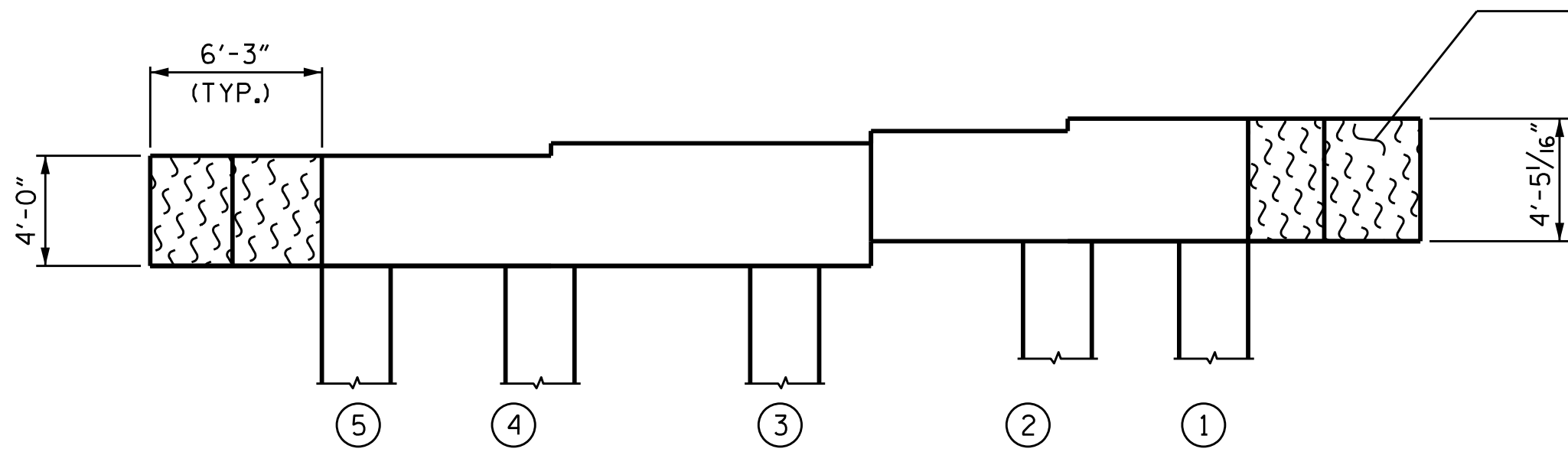
BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 124  
(NORTHBOUND)  
SPAN 123  
(NORTHBOUND)

SPAN 123  
(NORTHBOUND)  
SPAN 124  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 123 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		292.8		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

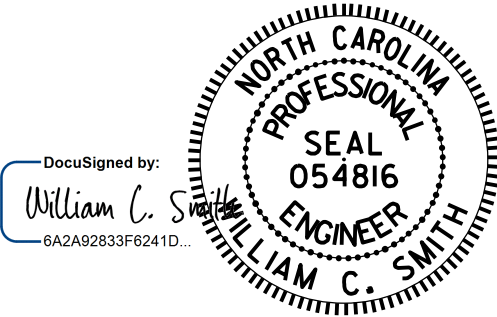
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

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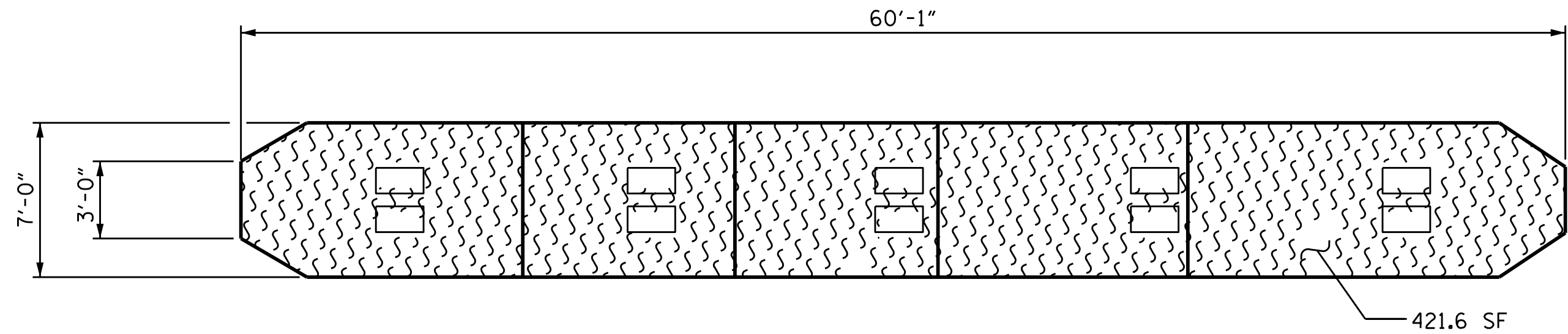


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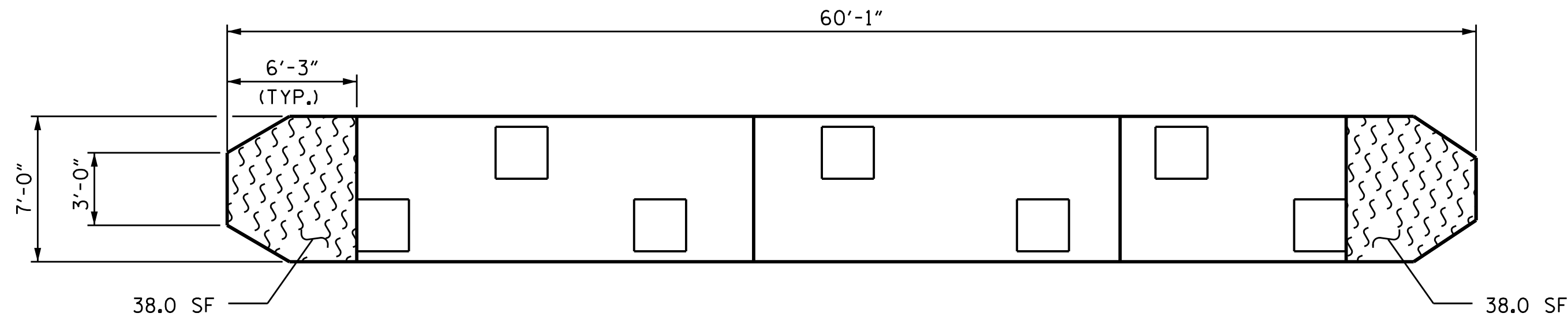
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
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SIGNATURES COMPLETED

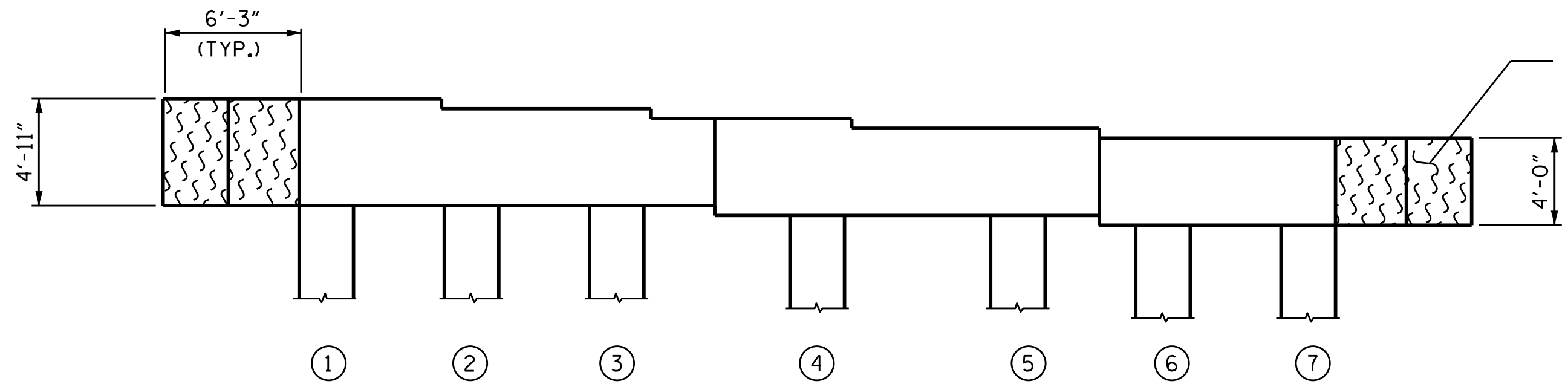
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-200 TOTAL SHEETS 217
2			4			



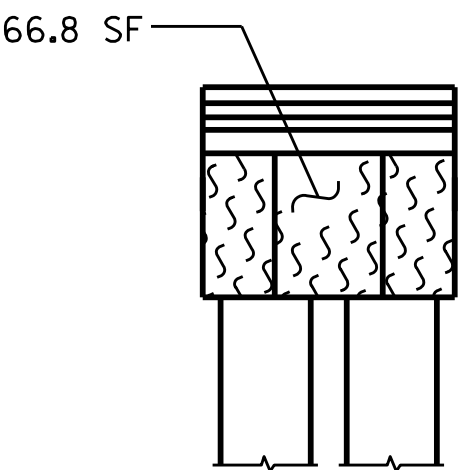
TOP VIEW OF CAP



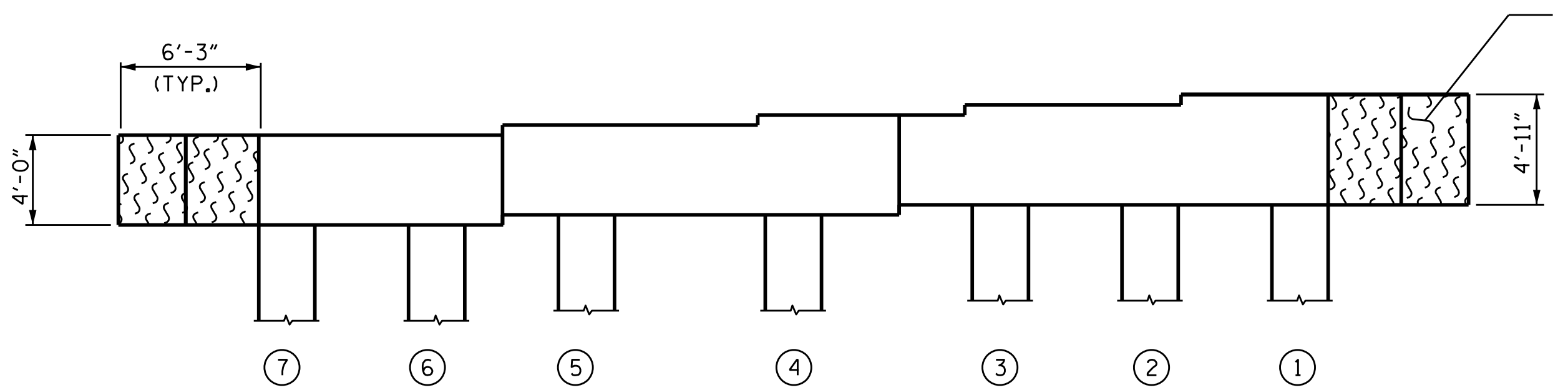
BOTTOM VIEW OF CAP



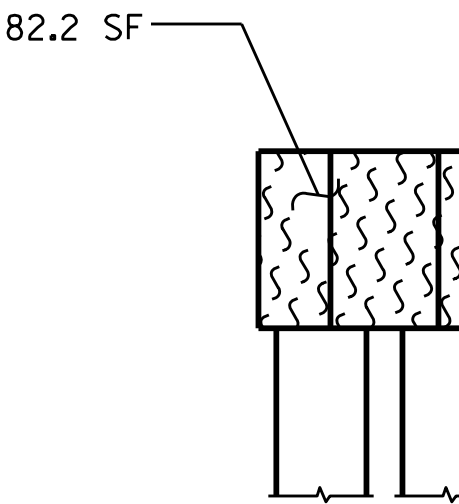
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

SPAN 125  
(SOUTHBOUND)  
SPAN 124  
(SOUTHBOUND)

SPAN 124  
(SOUTHBOUND)  
SPAN 125  
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 124 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		646.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

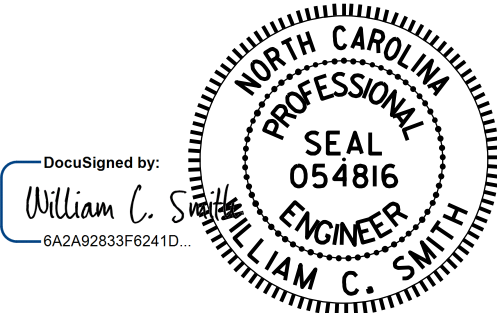
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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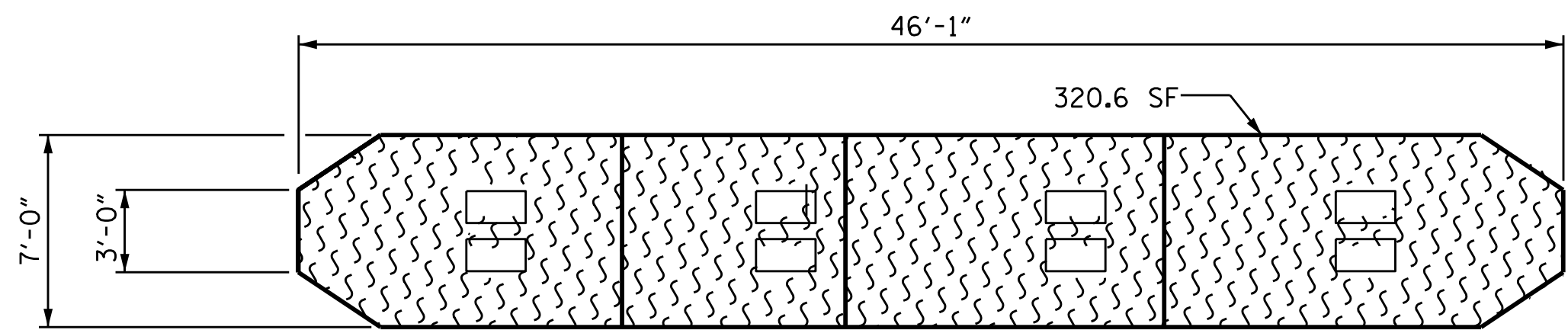


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 124  
(SOUTHBOUND)

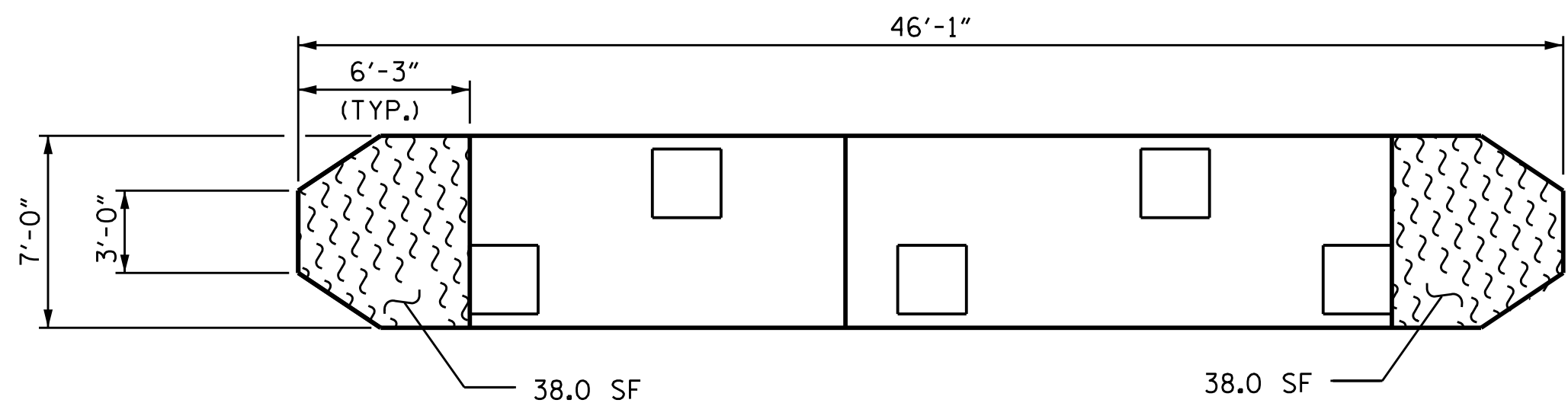
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CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

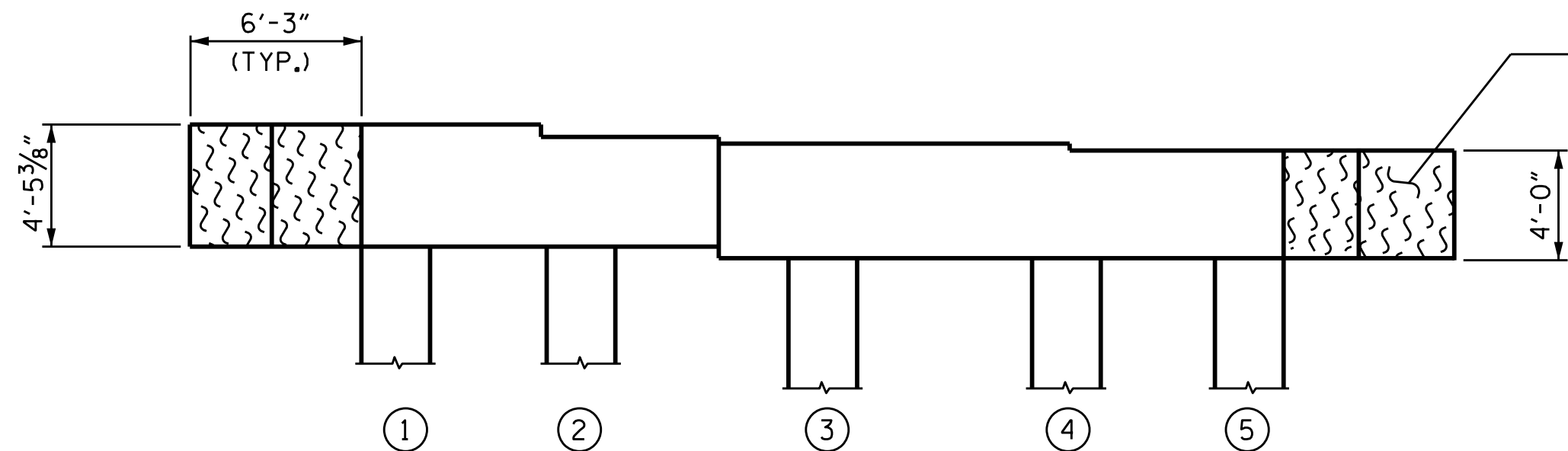
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NO.	BY:	DATE:	NO.	BY:	DATE:	
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2			4			



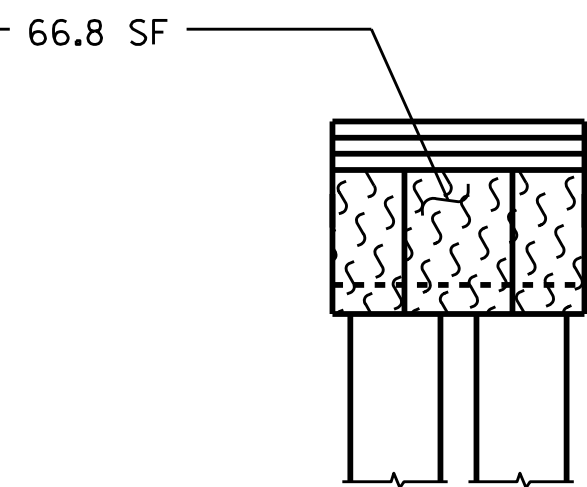
TOP VIEW OF CAP



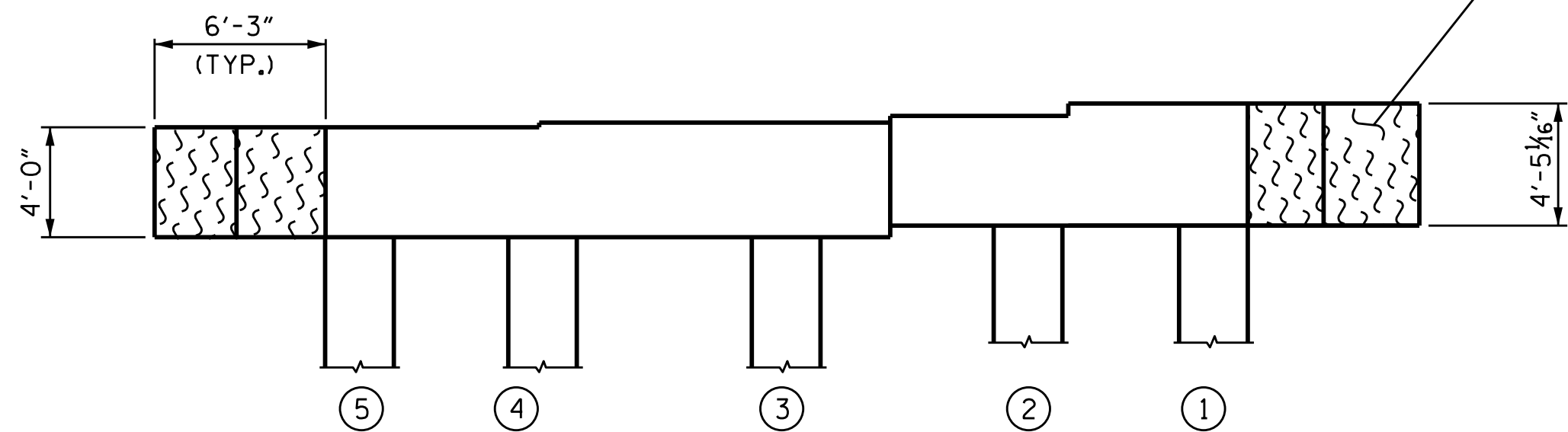
BOTTOM VIEW OF CAP



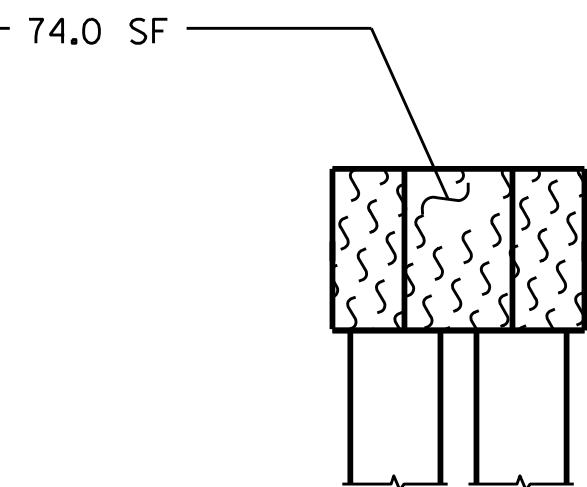
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

SPAN 125  
(NORTHBOUND)  
SPAN 124  
(NORTHBOUND)

SPAN 124  
(NORTHBOUND)  
SPAN 125  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 124 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		537.4		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

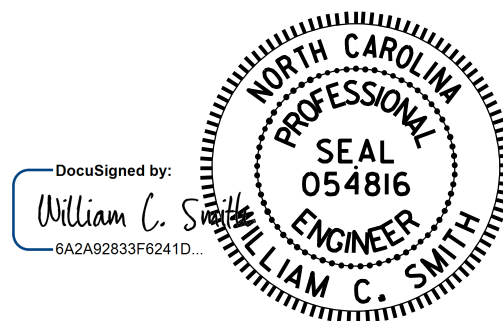
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BRIDGE NO. 060353

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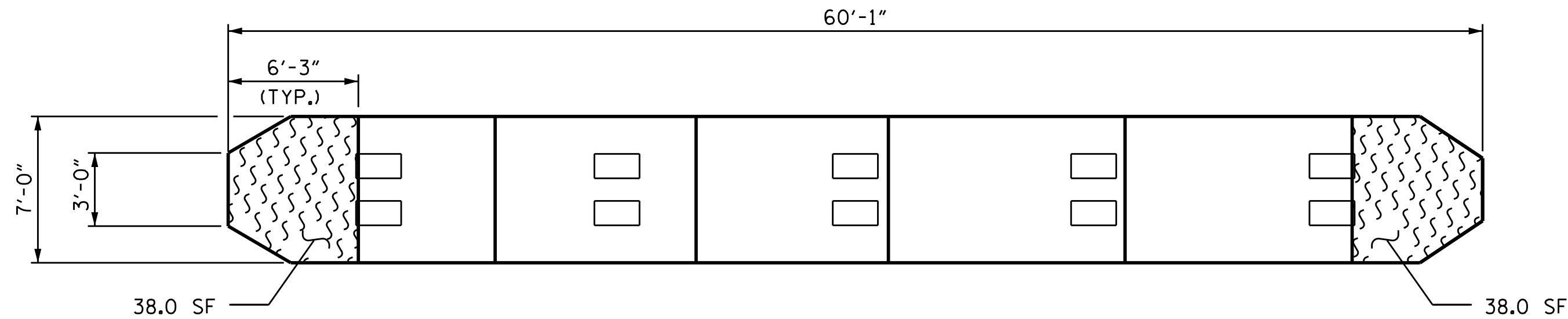
11/21/2025

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CHECKED BY : W. C. SMITH DATE : 7/10/24

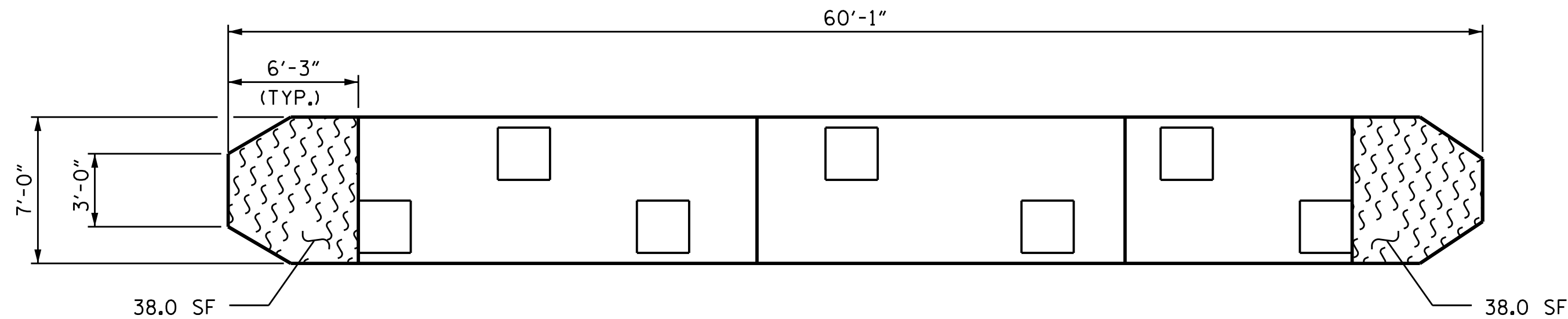
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-202
1			3			TOTAL SHEETS
2			4			217

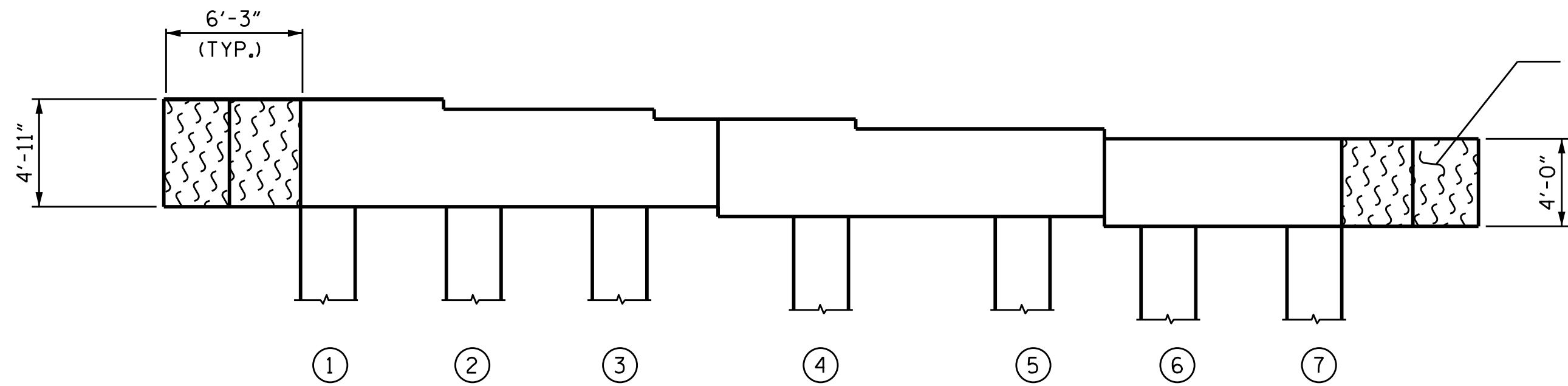




TOP VIEW OF CAP

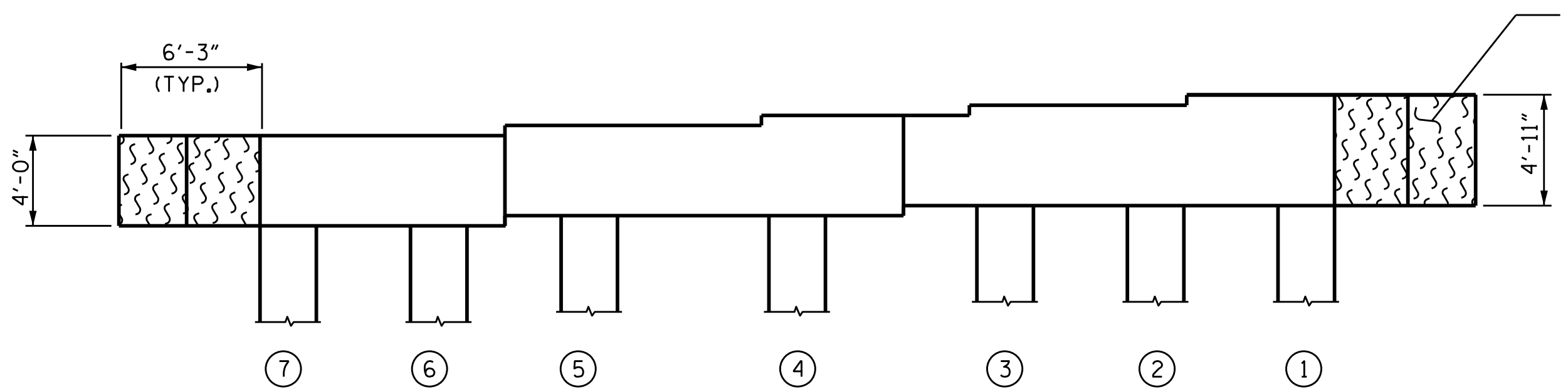


BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)

EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

WEST END

SPAN 126  
(SOUTHBOUND)  
SPAN 125  
(SOUTHBOUND)

SPAN 125  
(SOUTHBOUND)  
SPAN 126  
(SOUTHBOUND)

REPAIR QUANTITY TABLE

BENT 125 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		301.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

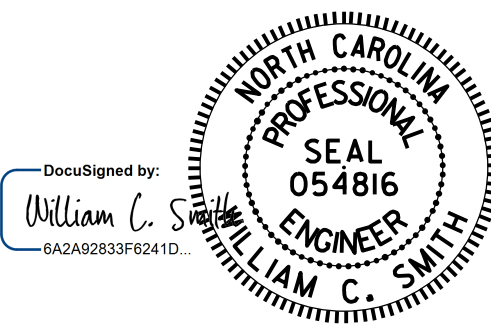
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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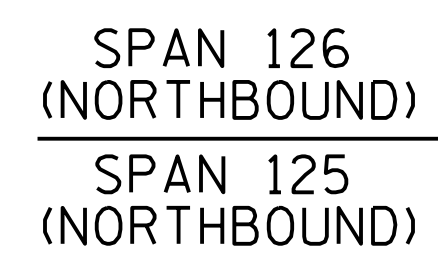


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 125  
(SOUTHBOUND)

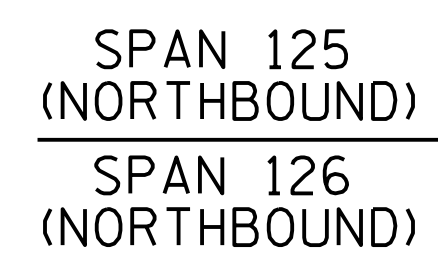
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-203
1			3			TOTAL SHEETS
2			4			217



TOP VIEW OF CAP



BOTTOM VIEW OF CAP





ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- |   |                       |
|---|-----------------------|
|  | SHOTCRETE REPAIR      |
|  | CONCRETE REPAIR       |
| ERI   | EPOXY RESIN INJECTION |
|  | PILE                  |
|  | EPOXY COATING         |

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BEAUFORT COUNTY  
 BRIDGE NO. 060353

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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE REPAIR

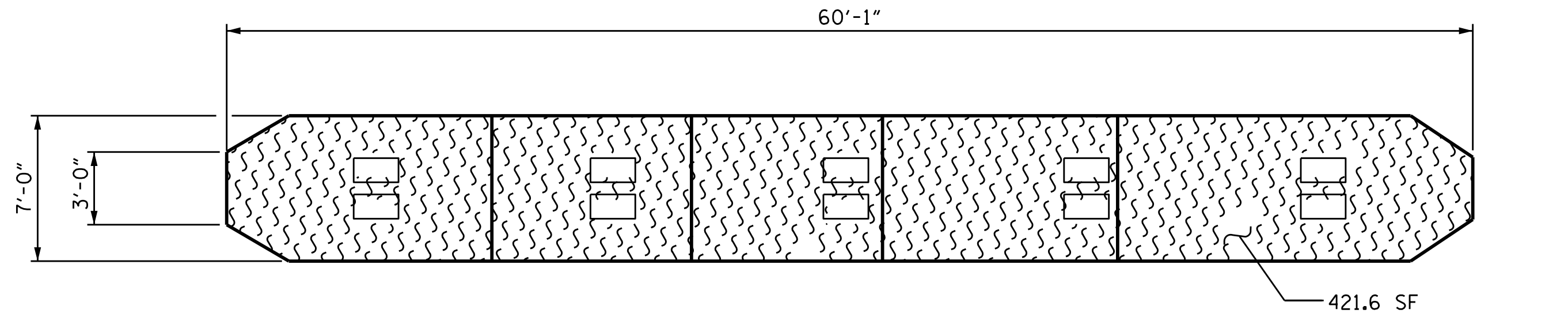
BENT 125  
(NORTHBOUND)

11/21/2025

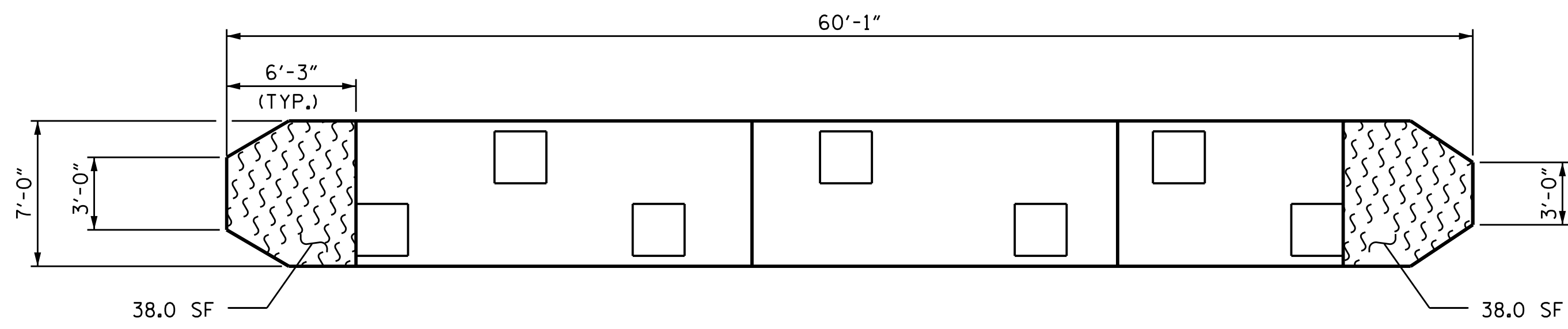
DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

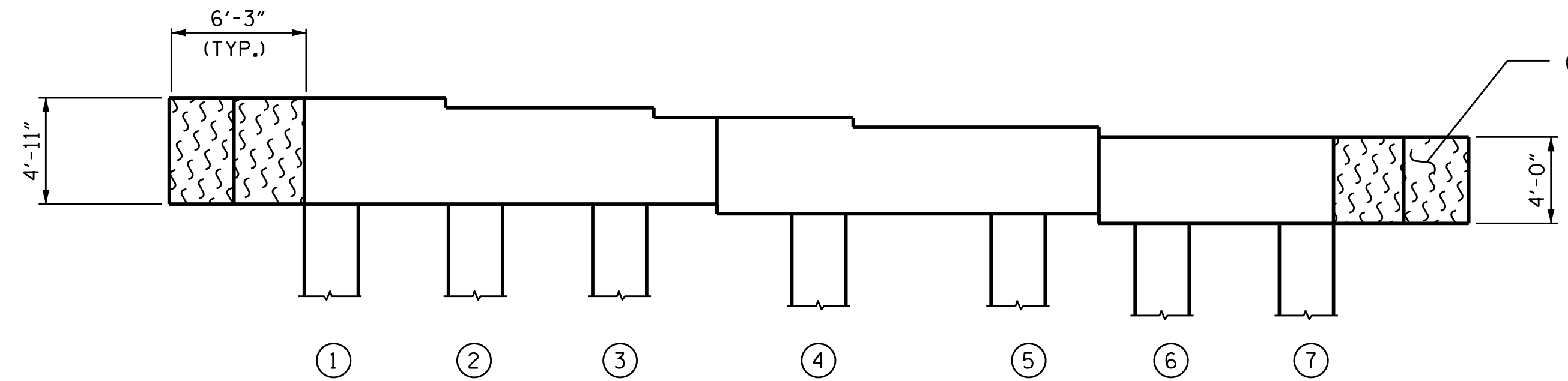
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<b>2</b>			<b>4</b>			



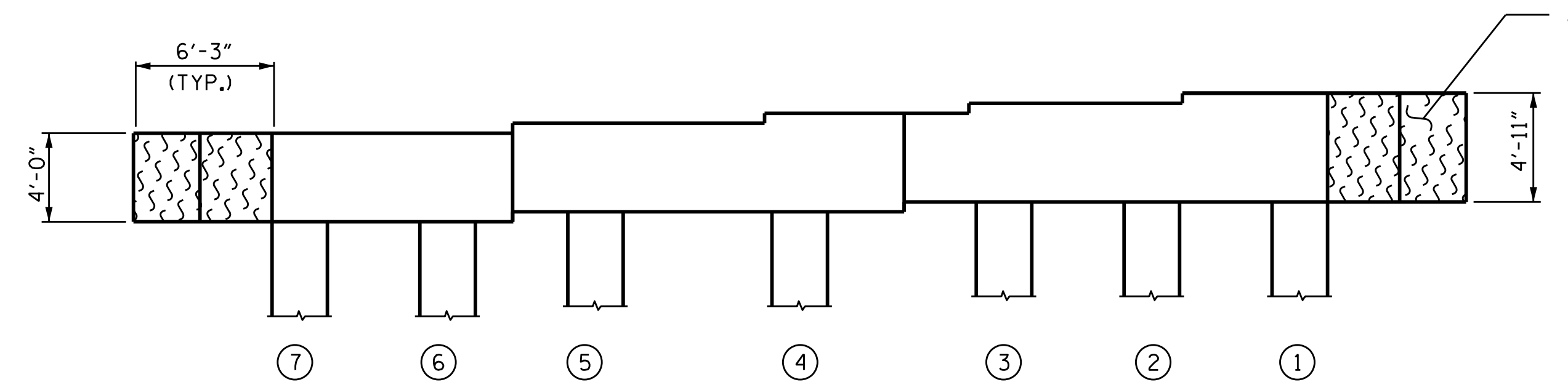
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 127  
(SOUTHBOUND)  
SPAN 126  
(SOUTHBOUND)

SPAN 126  
(SOUTHBOUND)  
SPAN 127  
(SOUTHBOUND)

EAST END

WEST END

REPAIR QUANTITY TABLE				
BENT 126 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		646.6		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

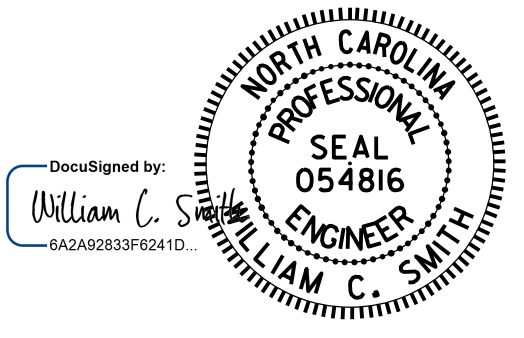
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- ERI EPOXY RESIN INJECTION
- P PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

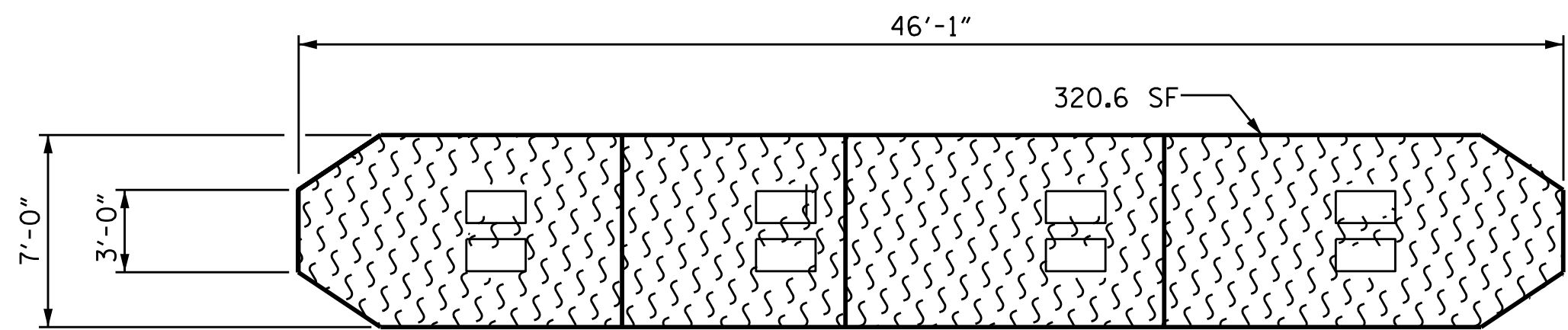
SHEET 137 OF 140



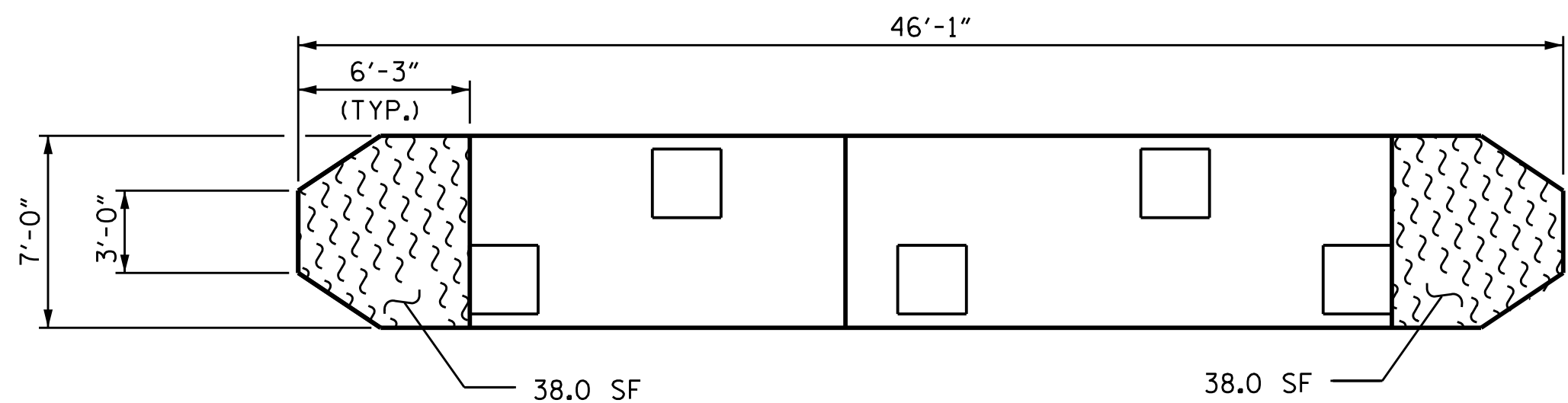
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 126 (SOUTHBOUND)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS 217

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

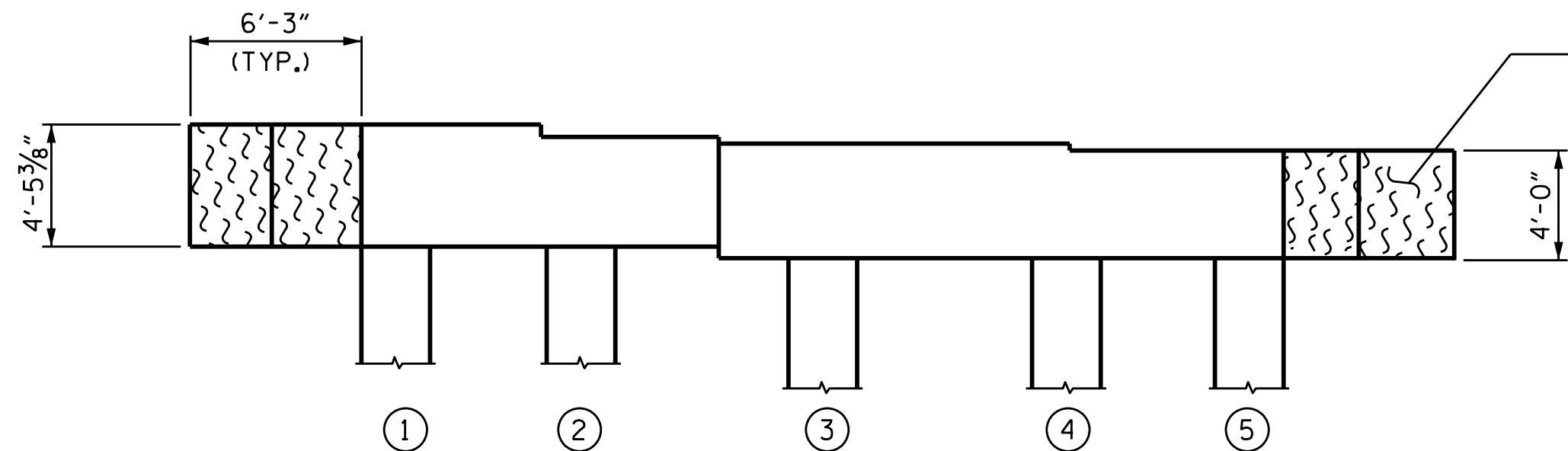




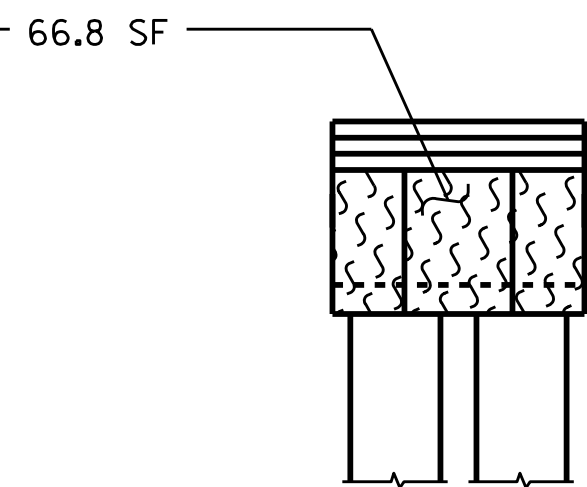
TOP VIEW OF CAP



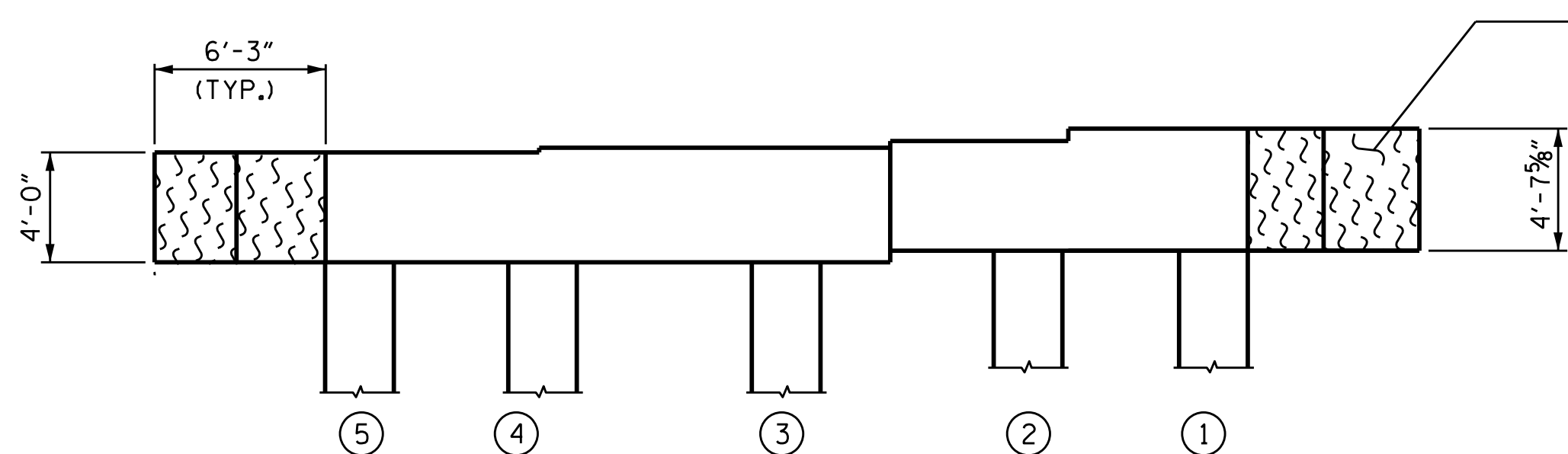
BOTTOM VIEW OF CAP



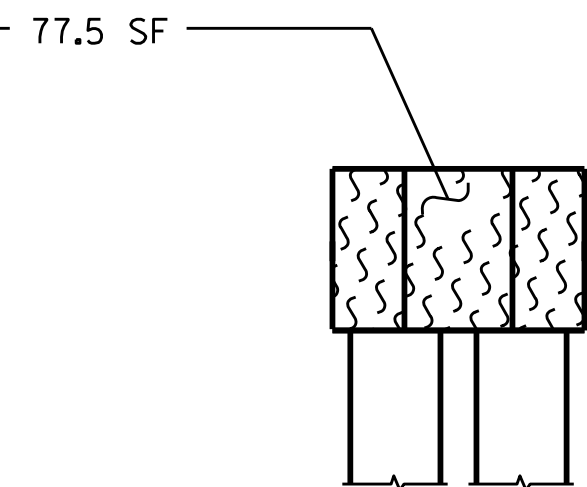
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

SPAN 127  
(NORTHBOUND)  
SPAN 126  
(NORTHBOUND)

SPAN 126  
(NORTHBOUND)  
SPAN 127  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 126 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		540.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

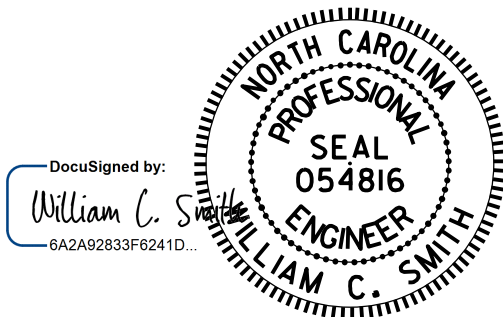
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

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BEAUFORT COUNTY  
BRIDGE NO. 060353

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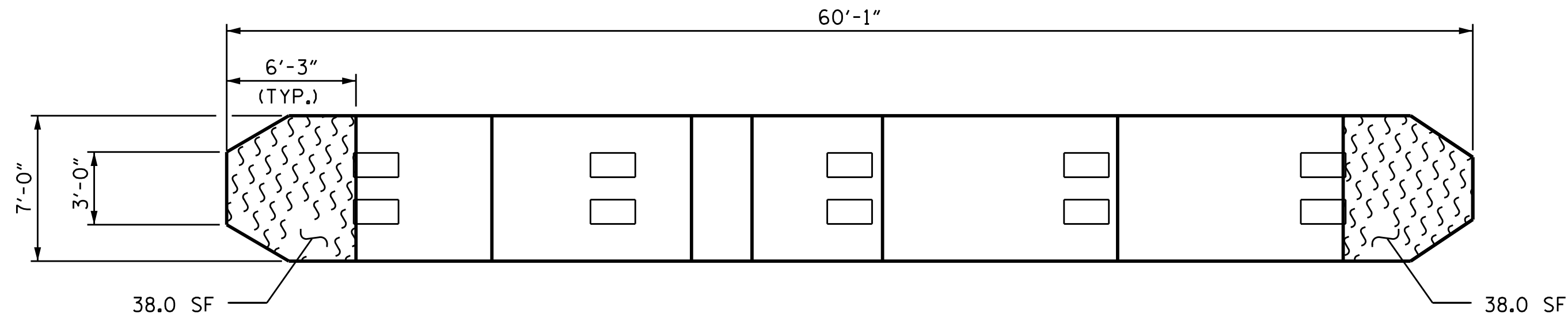


11/21/2025

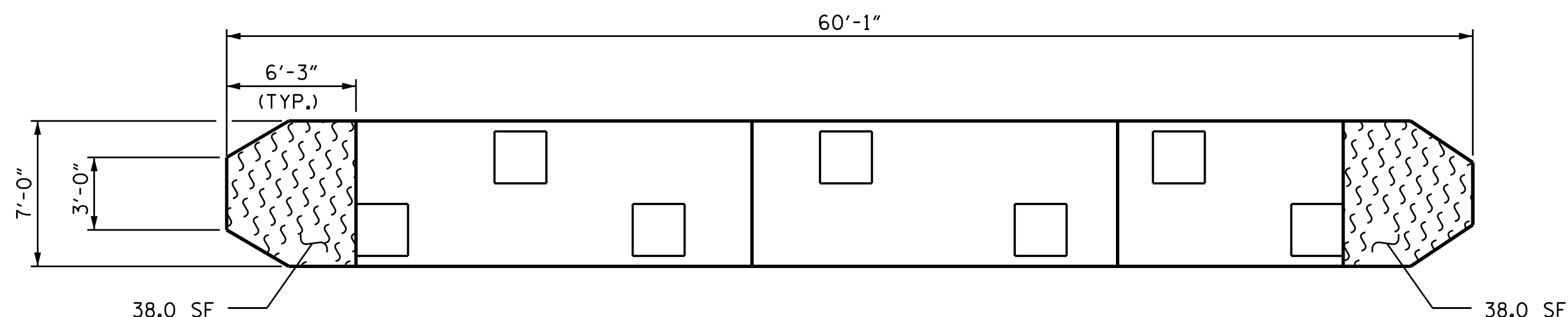
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CHECKED BY : W. C. SMITH DATE : 7/10/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

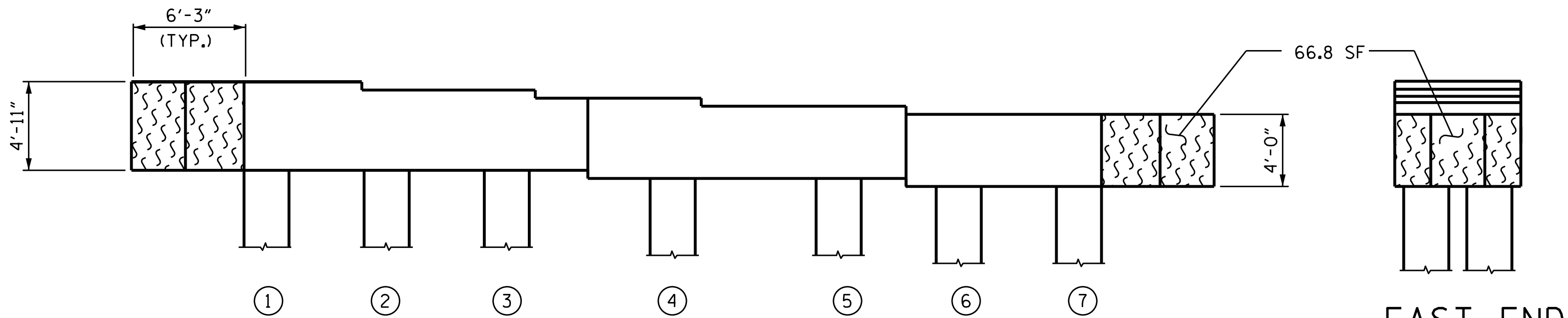
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-206
1			3			TOTAL SHEETS
2			4			217



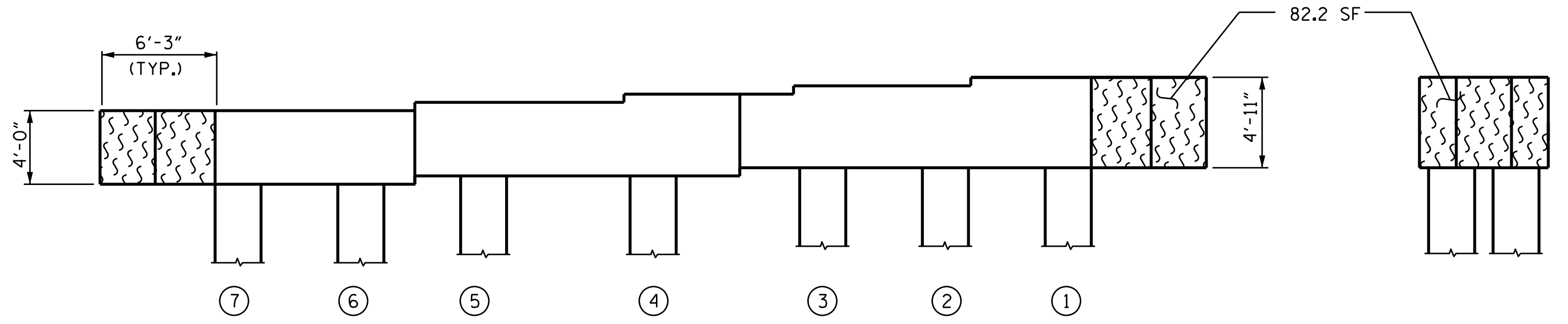
TOP VIEW OF CAP



BOTTOM VIEW OF CAP



ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)

SPAN 128  
(SOUTHBOUND)  
SPAN 127  
(SOUTHBOUND)

SPAN 127  
(SOUTHBOUND)  
SPAN 128  
(SOUTHBOUND)

EAST END

WEST END

REPAIR QUANTITY TABLE				
BENT 127 (SOUTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		301.0		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

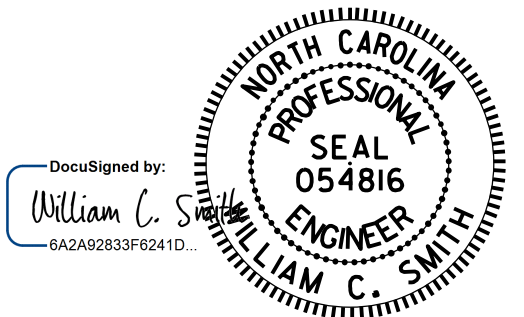
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE
- EPOXY COATING

PROJECT NO. 15BPR.137  
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BRIDGE NO. 060353

SHEET 139 OF 140



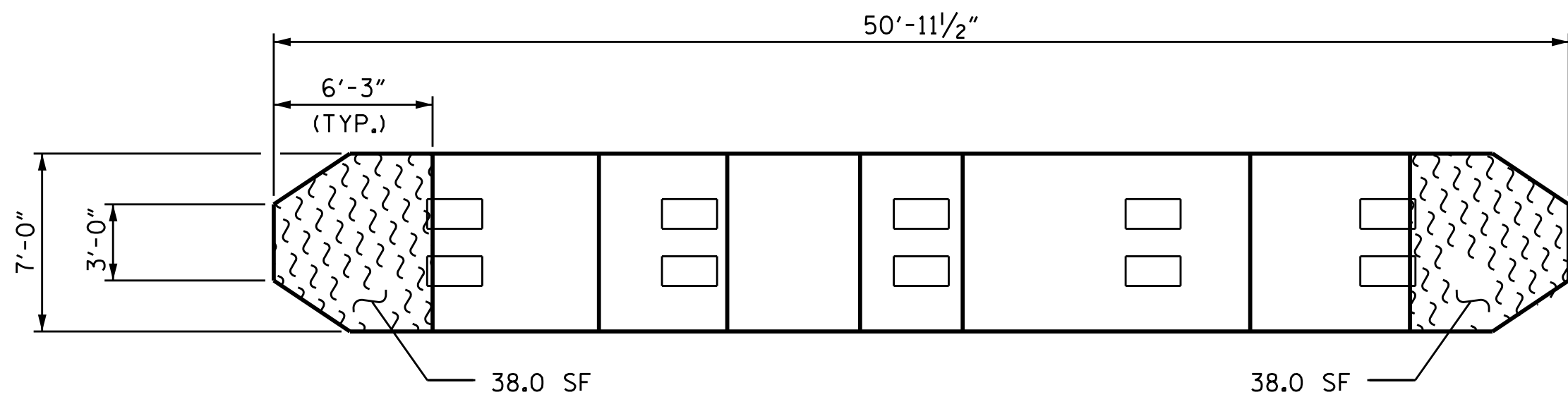
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DEPARTMENT OF TRANSPORTATION											
RALEIGH											
SUBSTRUCTURE											
BENT 127											
(SOUTHBOUND)											
REVISIONS										SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-207					
1			3			TOTAL SHEETS					
2			4			217					

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

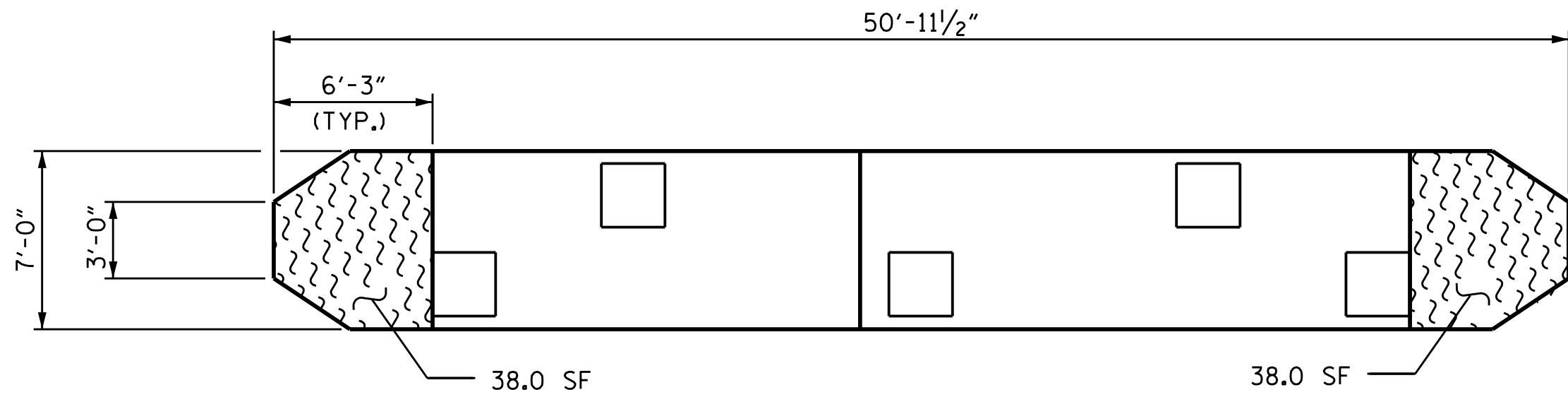
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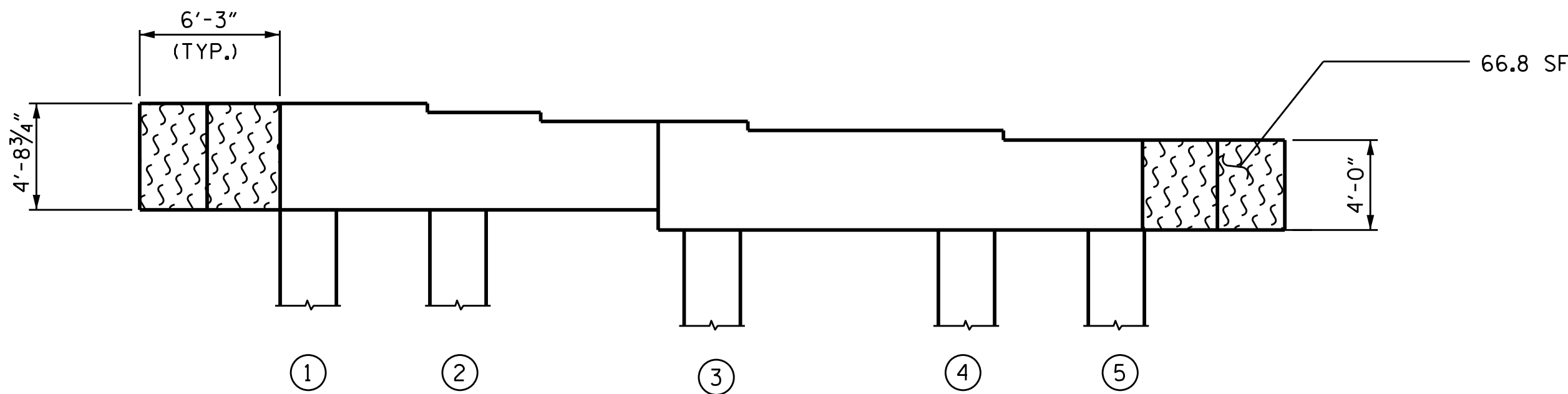
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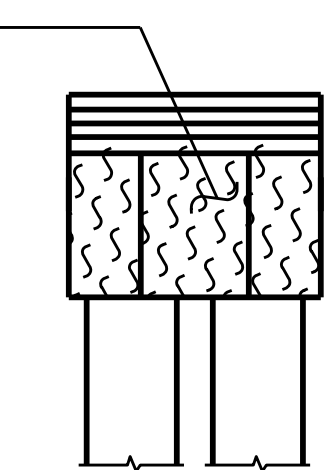
TOP VIEW OF CAP



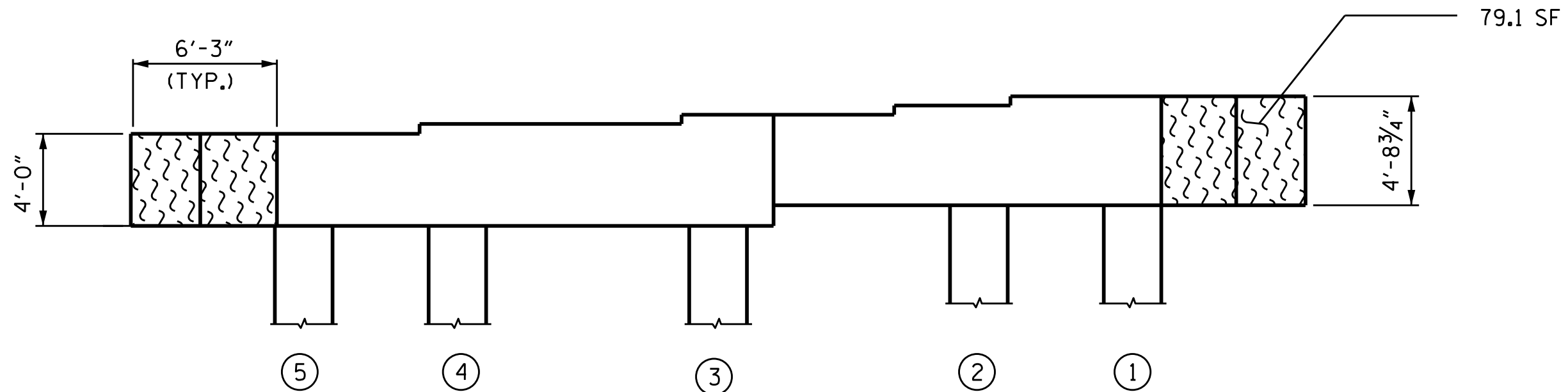
BOTTOM VIEW OF CAP



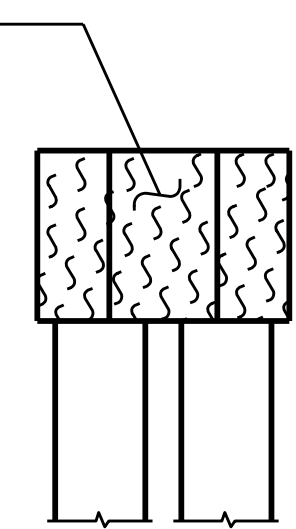
ELEVATION  
(SOUTH SIDE)  
(LOOKING NORTH)



EAST END



ELEVATION  
(NORTH SIDE)  
(LOOKING SOUTH)



WEST END

SPAN 128  
(NORTHBOUND)  
SPAN 127  
(NORTHBOUND)

SPAN 127  
(NORTHBOUND)  
SPAN 128  
(NORTHBOUND)

REPAIR QUANTITY TABLE

BENT 127 (NORTHBOUND)	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		
EPOXY COATING AND DEBRIS REMOVAL		AREA SF		
CAP		297.9		

VALUES IN THE REPAIR QUANTITY TABLE REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

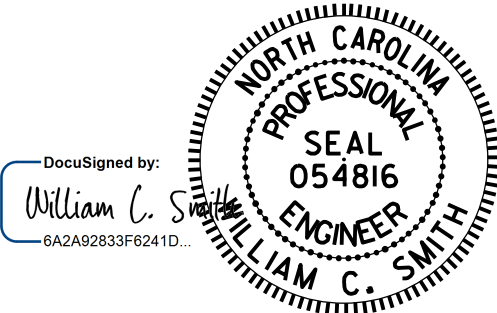
NOTES:

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET. COLUMNS ARE 30" SQUARE PRESTRESSED CONCRETE PILES.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION
- PILE

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BRIDGE NO. 060353

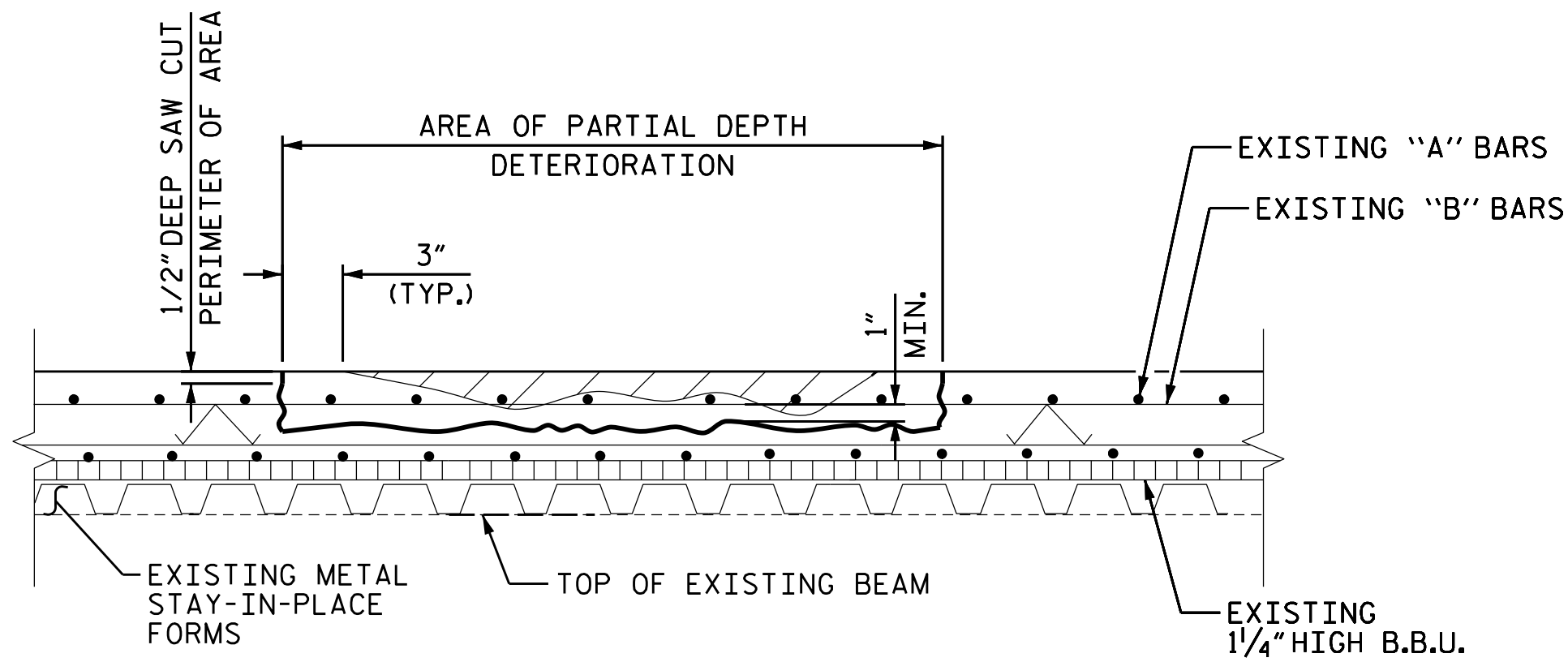
SHEET 140 OF 140



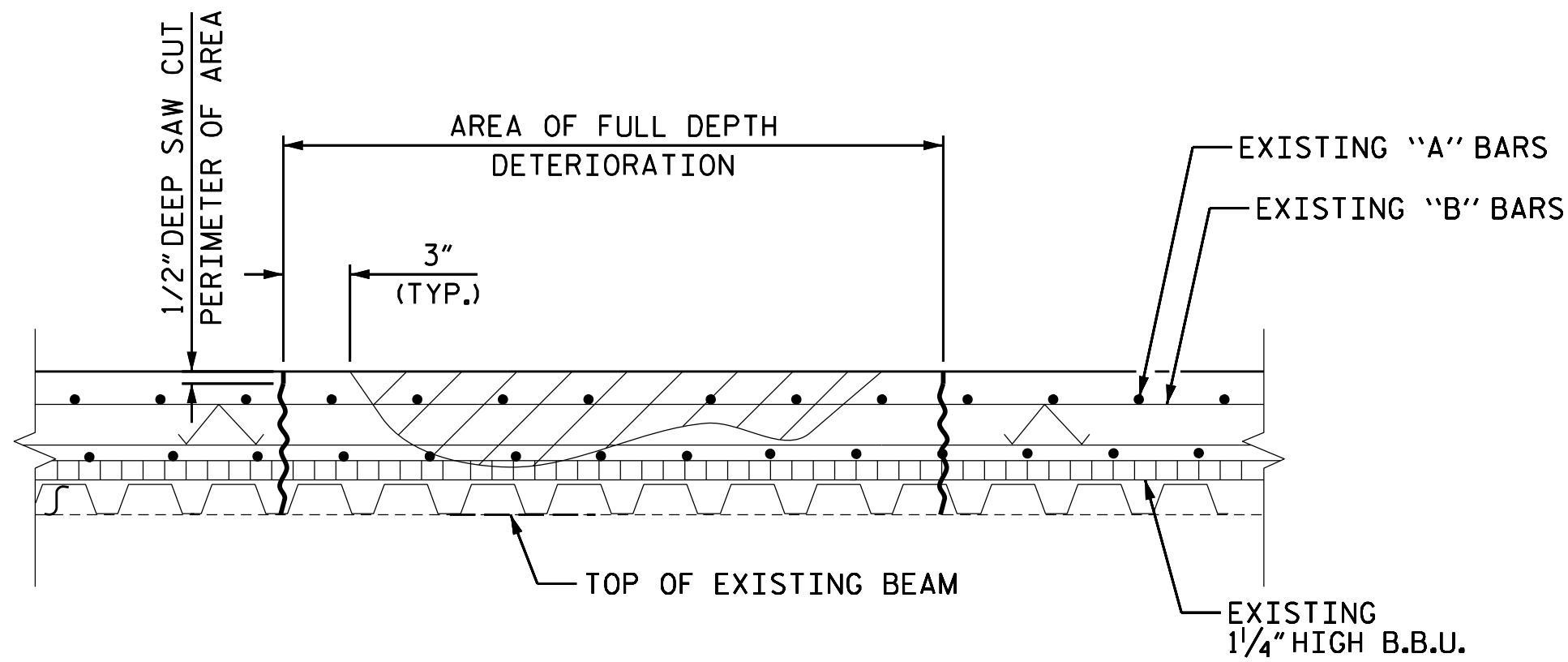
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
BENT 127 (NORTHBOUND)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS 217

DRAWN BY : S. T. SANDOR DATE : 6/28/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24

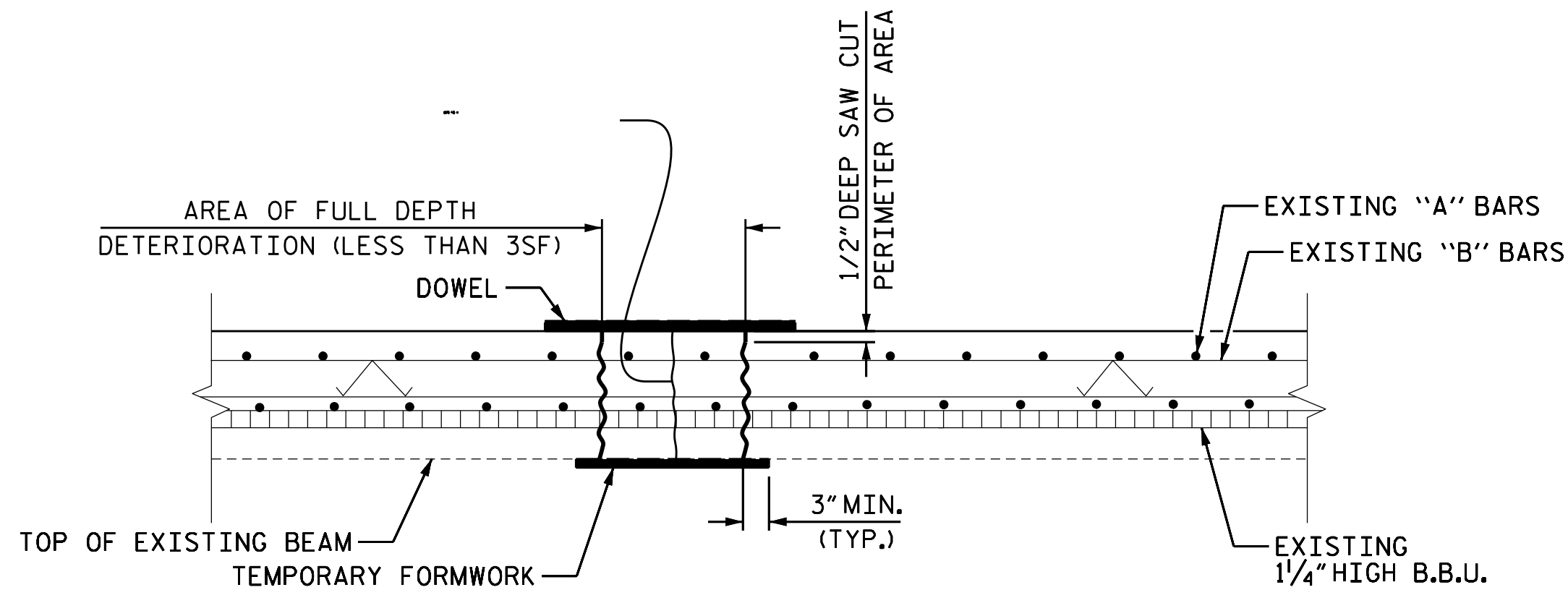




CLASS II (PARTIAL DEPTH) REPAIR



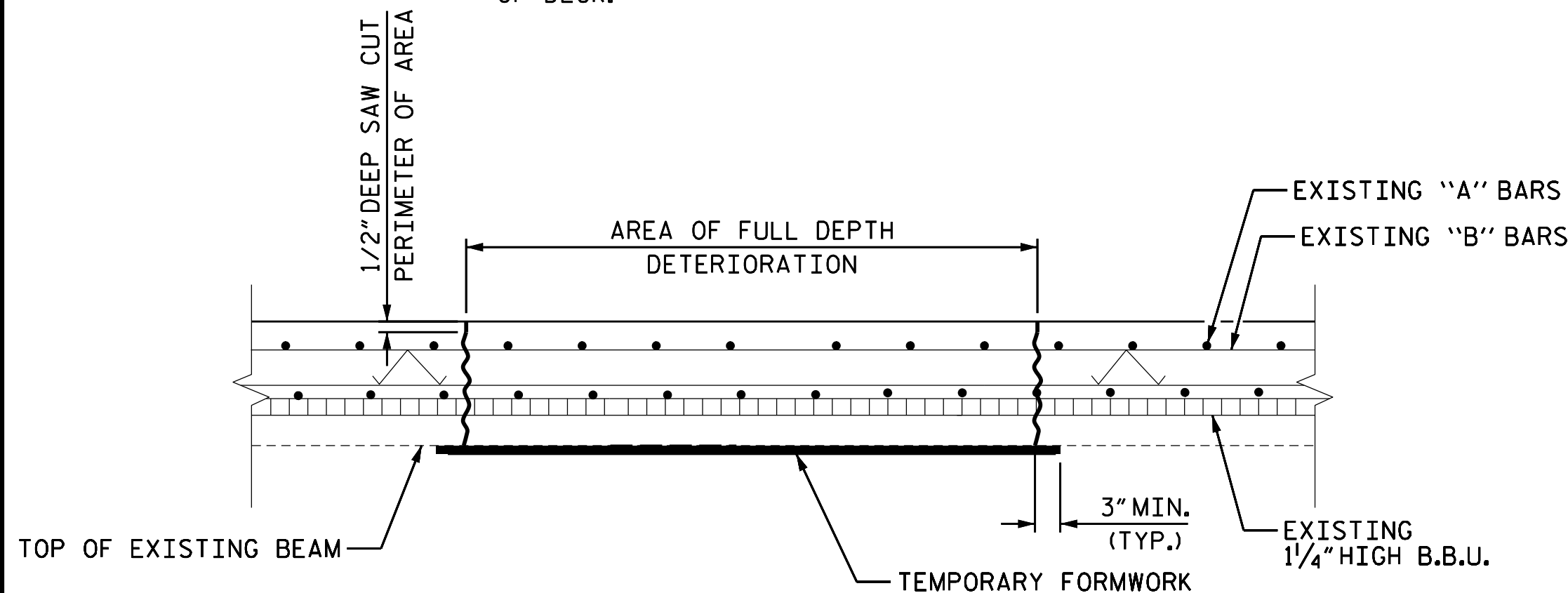
CLASS III (FULL DEPTH) REPAIR



FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

(FOR AREAS OF DETERIORATION EQUAL TO OR LESS THAN 3SF )

\* WIRE TIE TO BE KNOTTED BELOW TEMPORARY FORMWORK AND ATTACHED TO DOWEL THAT IS WIDER THAN FORMED FULL DEPTH HOLE. ROTATE DOWEL TO TIGHTEN FORMWORK AGAINST BOTTOM OF DECK.

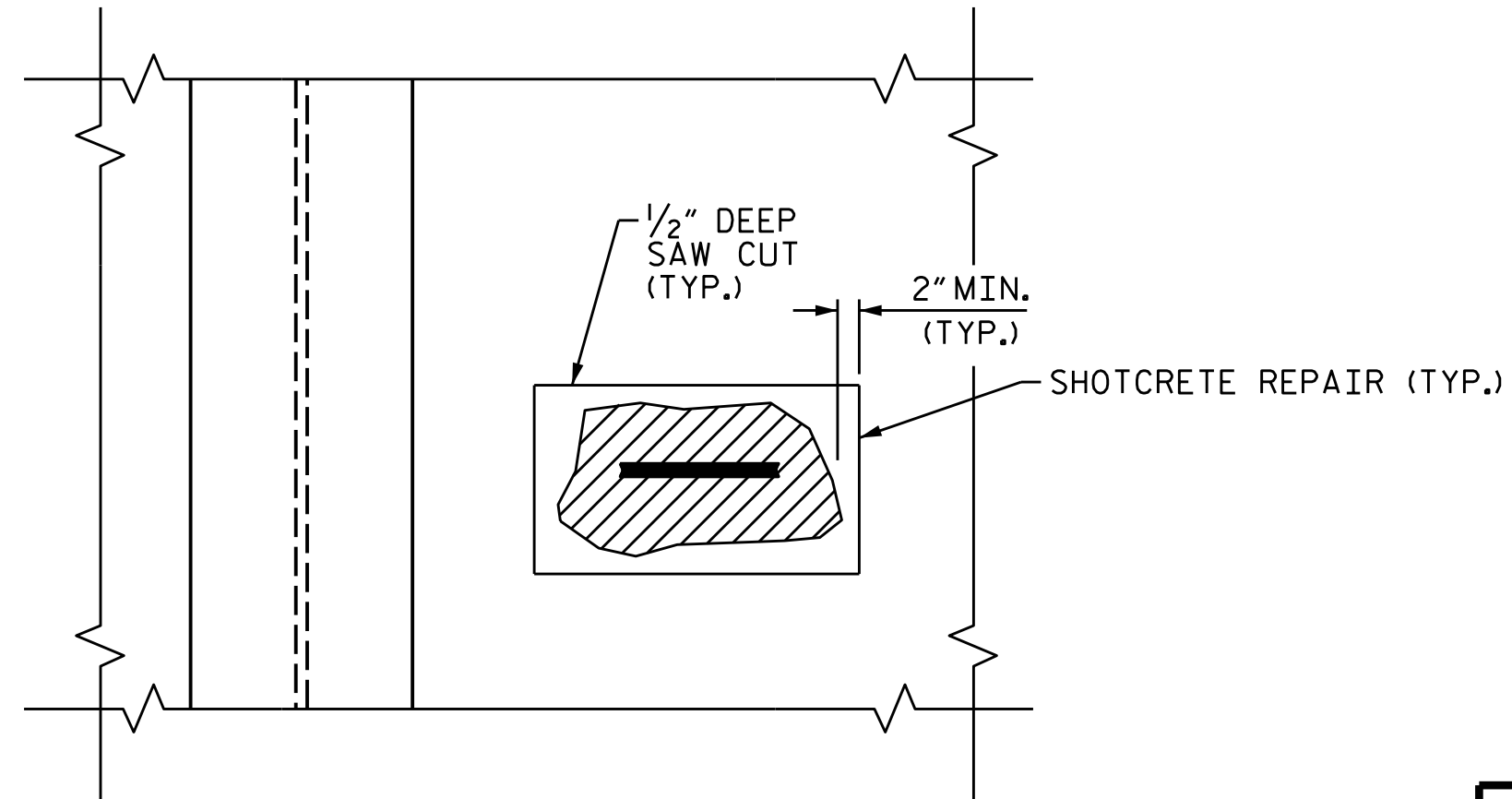


FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

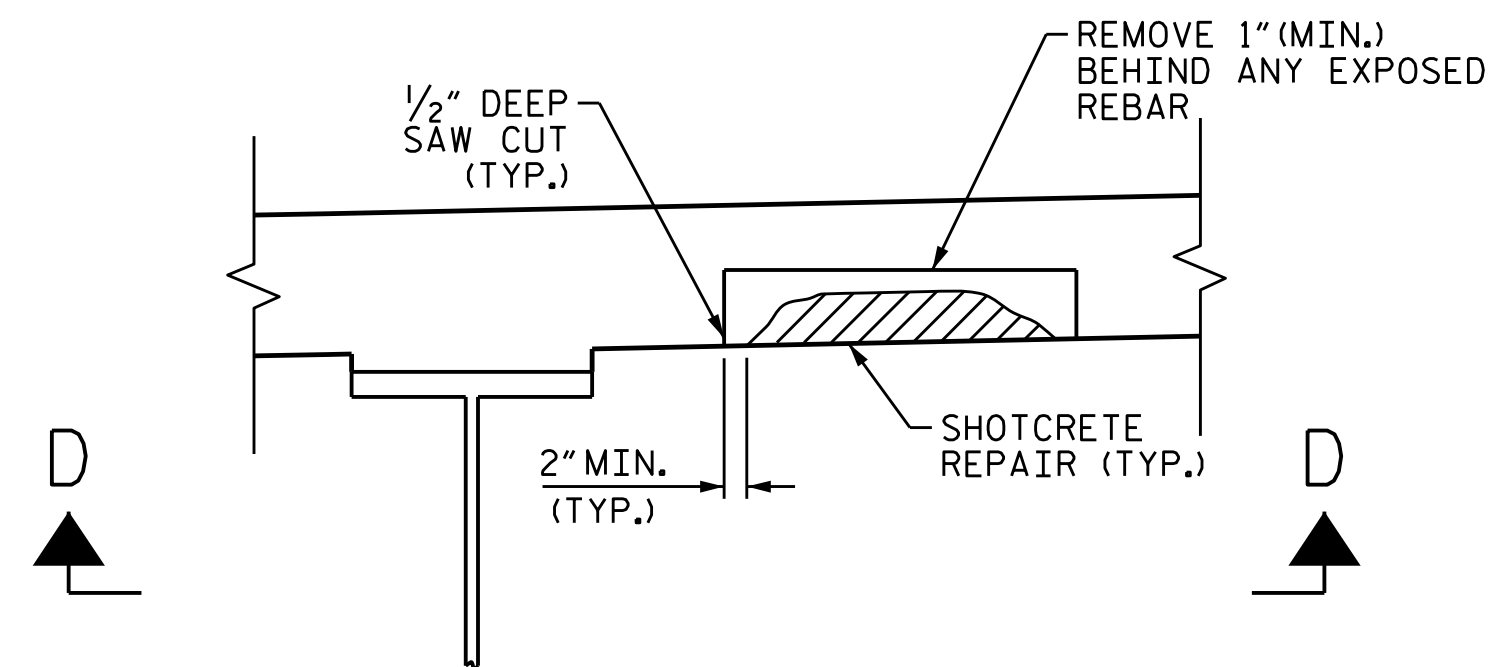
(FOR AREAS OF DETERIORATION GREATER THAN 3SF )



AREA OF DETERIORATION

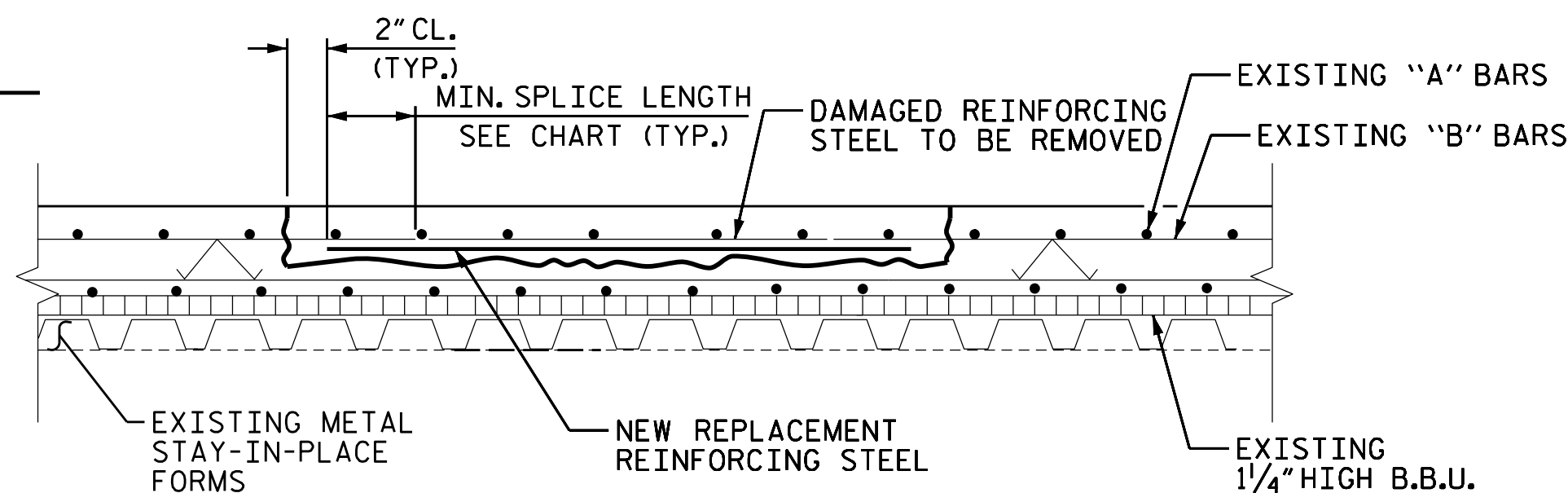


SECTION D-D



TYPICAL SECTION

UNDERSIDE OF DECK REPAIR



REINFORCING STEEL REPAIR

## NOTES

FOR AREAS TO BE REPAIRED, SEE "DECK UNDERSIDE REPAIR" SHEETS.

CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE REINFORCING STEEL.

ALL DECK REPAIRS SHALL BE COMPLETED PRIOR TO PLACEMENT OF SILANE DECK TREATMENT, SILANE BARRIER RAIL TREATMENT, OR SILANE GIRDER TREATMENT.

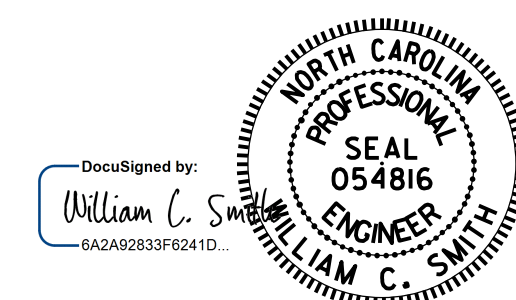
THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK FOR TEMPORARY FORMWORK. FOR SUBMITTALS OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

UPON REMOVAL OF TEMPORARY FORMWORK, ALL VOIDS AND HONEYCOMBS ON THE UNDERSIDE OF DECK SURFACE SHALL BE FILLED WITH THE SAME MATERIAL AS USED FOR THE PATCH, AND FINISHED TO CONFORM TO THE SURROUNDING CONCRETE SURFACE.

NO FORMWORK SHALL BE LEFT IN PLACE.

SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS					
BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	1'-11"	1'-7"	1'-11"	1'-7"	2'-6"
#5	2'-5"	2'-0"	2'-5"	2'-0"	3'-1"
#6	2'-10"	2'-5"	3'-7"	2'-5"	3'-8"
#7	4'-2"	2'-9"			
#8	4'-9"	3'-2"			

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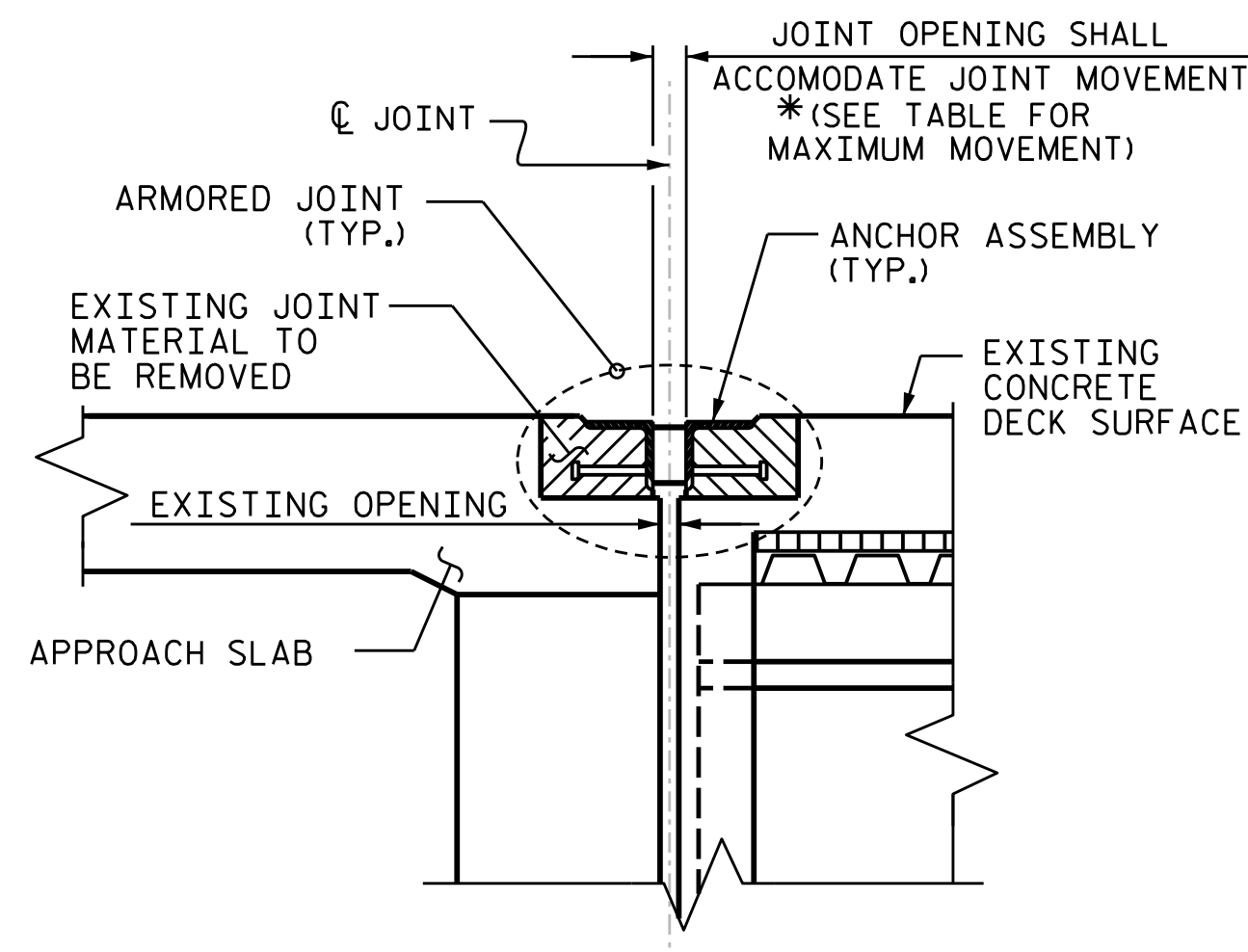
11/21/2025

ASSEMBLED BY : P. K. NEWTON	DATE : 9/6/24
CHECKED BY : W. C. SMITH	DATE : 9/26/24
DRAWN BY : NAP	9/18
CHECKED BY :	

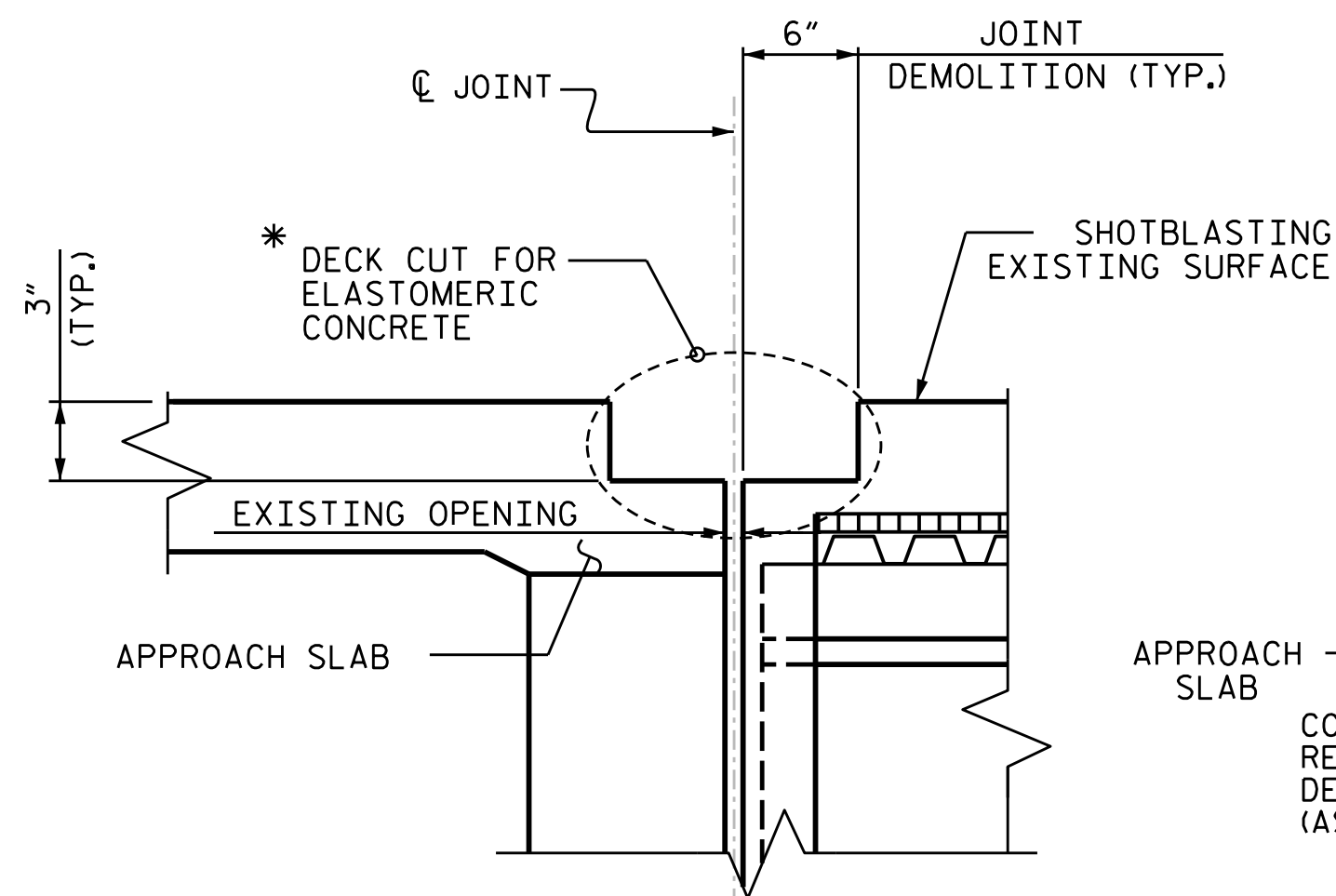
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FINAL UNLESS ALL  
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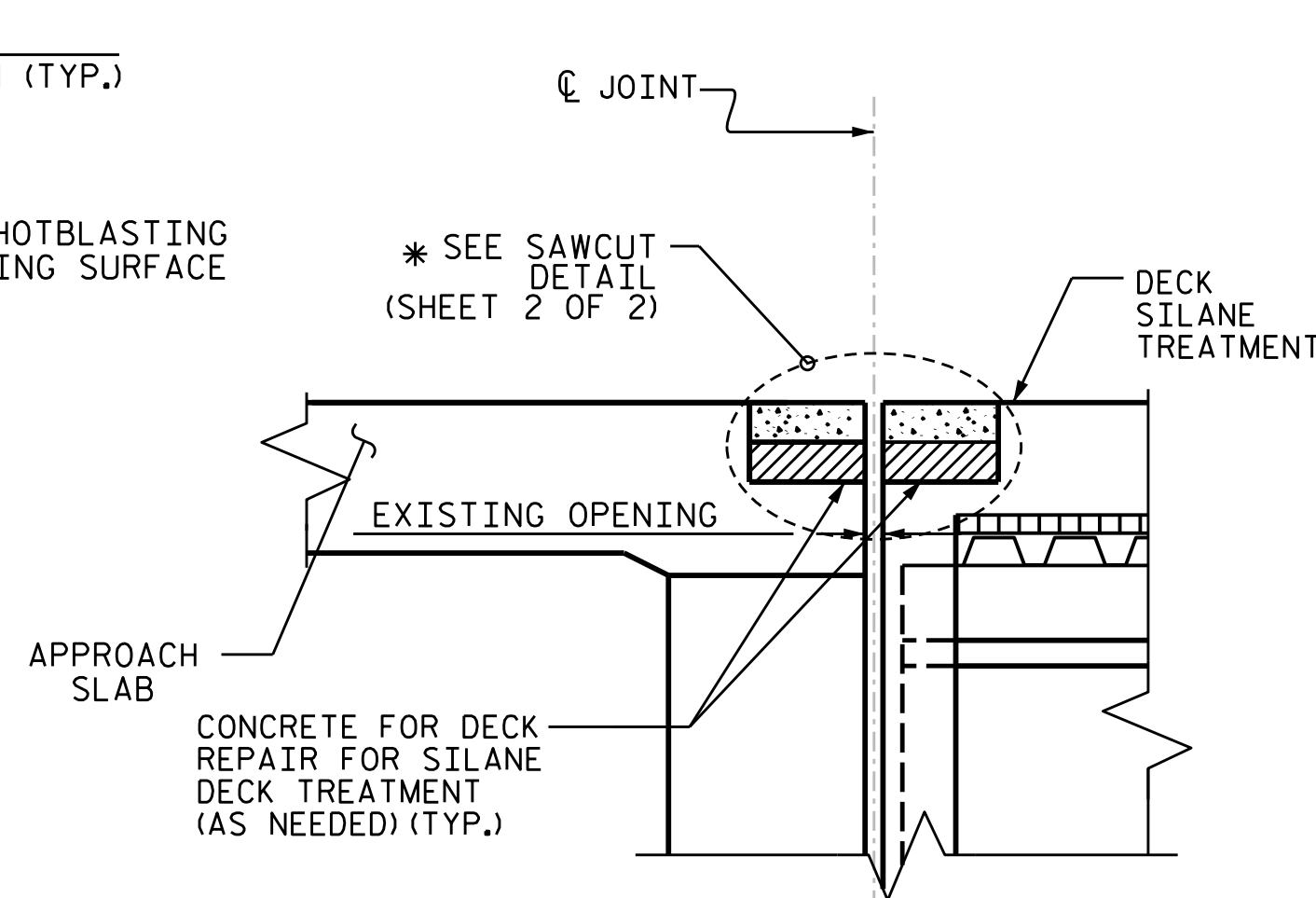
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-209
2			4			TOTAL SHEETS 217



EXISTING JOINT



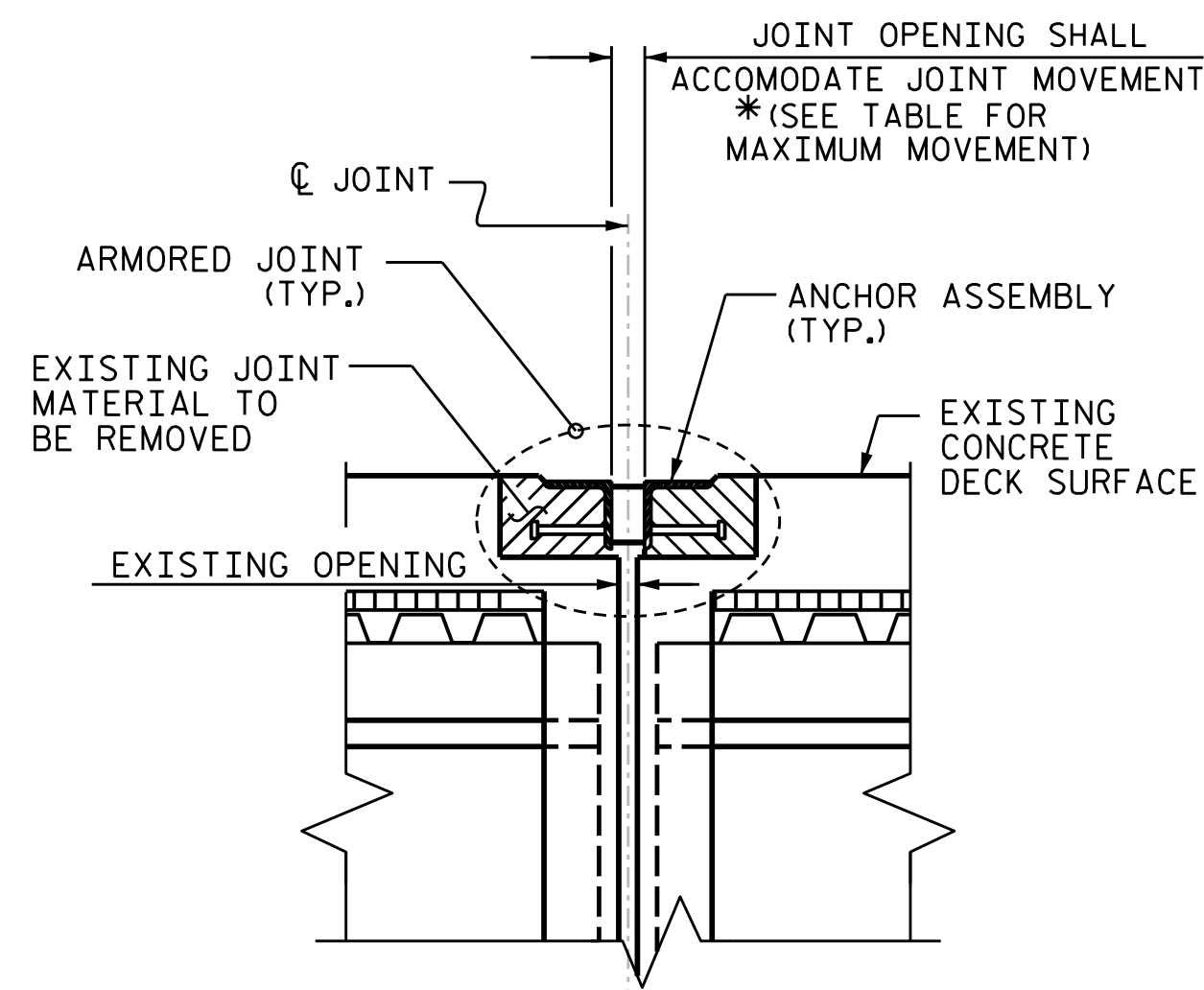
MINIMUM EXISTING JOINT DEMOLITION



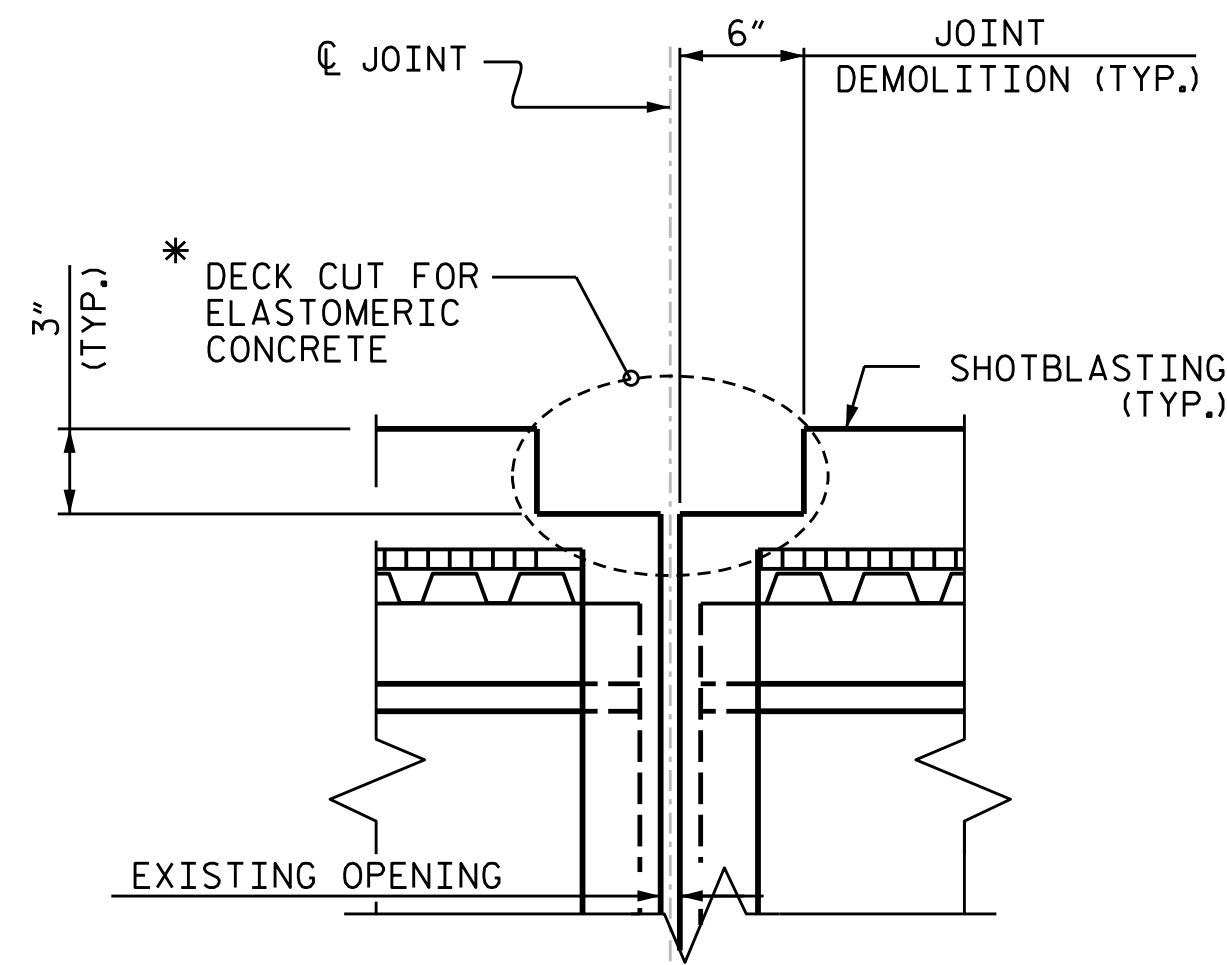
PROPOSED JOINT

JOINT INSTALLATION SEQUENCE AT END BENTS

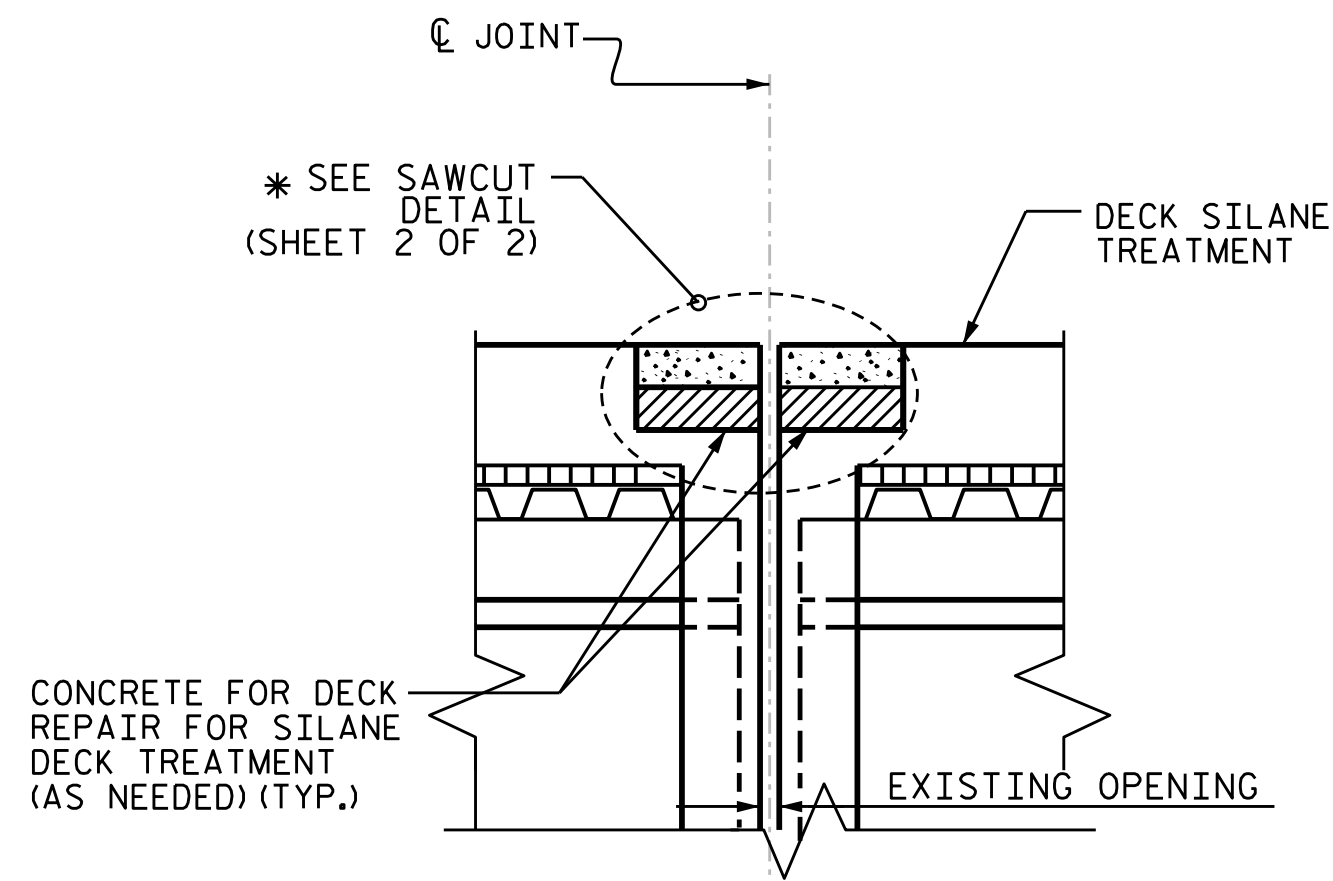
SECTION A-A



EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION



PROPOSED JOINT

JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B

\* SEE "JOINT REPAIR DETAILS" SHEET NO. 2 OF 2

NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY OR SEALANT WORK IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN DETAIL BY MORE THAN 1/4", NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WITH FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINTS.

THE INSTALLED FOAM JOINTS SHALL BE WATERTIGHT.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2", BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FINAL SURFACE OF JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHALL BE REASONABLY FLAT AND LEVEL. THE ENGINEER SHALL DETERMINE ACCEPTABILITY OF THE SURFACE.

FOR EXCAVATION BELOW THE BOTTOM OF PLANNED JOINT DEMOLITION, CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

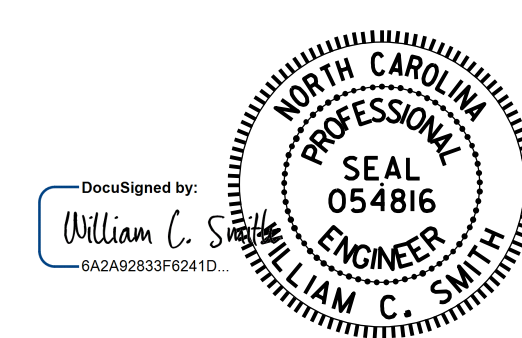
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED UPON THE MINIMUM JOINT DEMOLITION SHOWN ON THE PLANS.

FOR EXCAVATION BELOW THE BOTTOM OF PLANNED JOINT DEMOLITION, CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALL BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
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SHEET 1 OF 2



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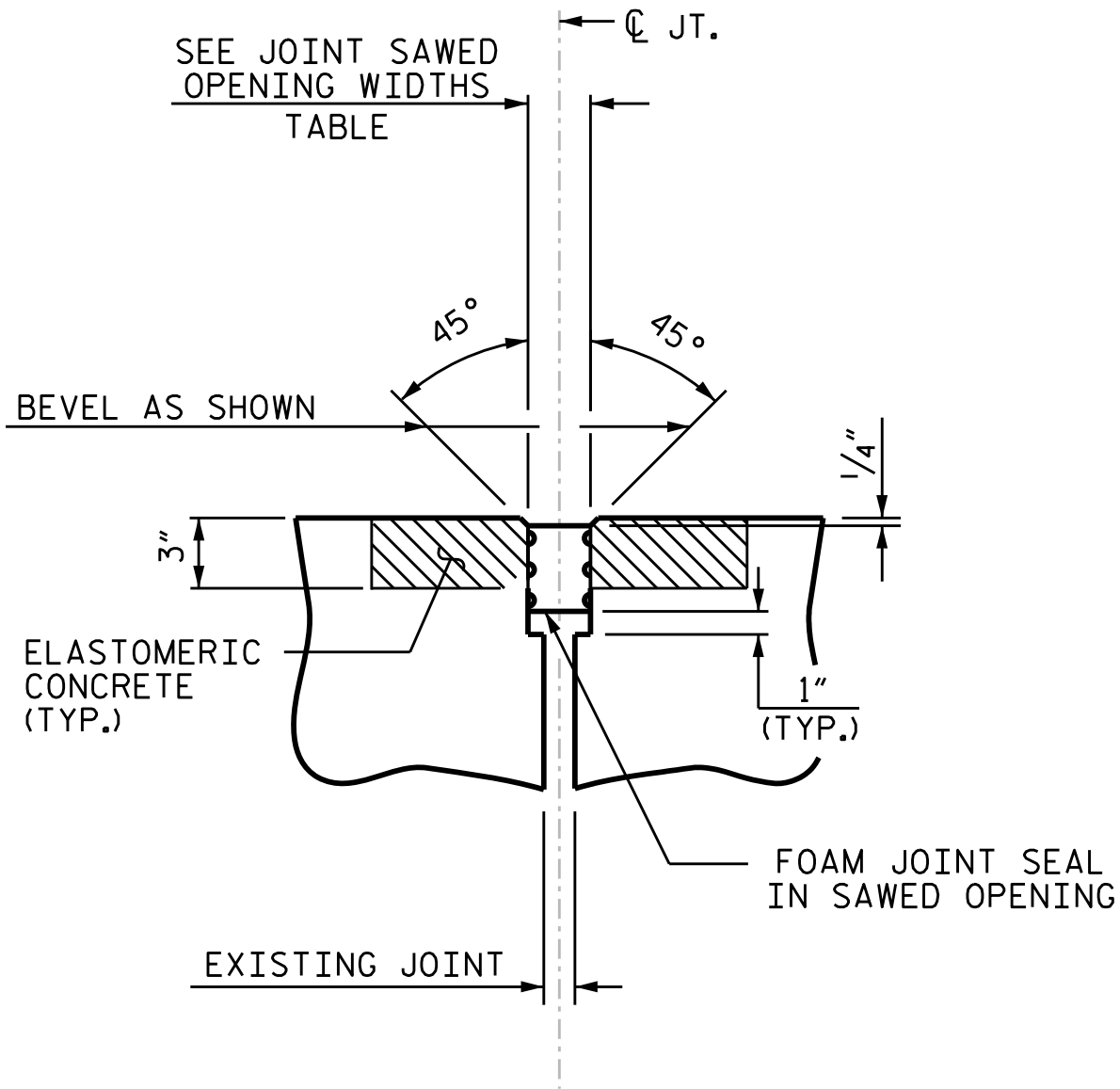
DRAWN BY : S. T. SANDOR DATE : 6/21/24  
CHECKED BY : W. C. SMITH DATE : 6/26/24

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-210 TOTAL SHEETS 217
2			4			

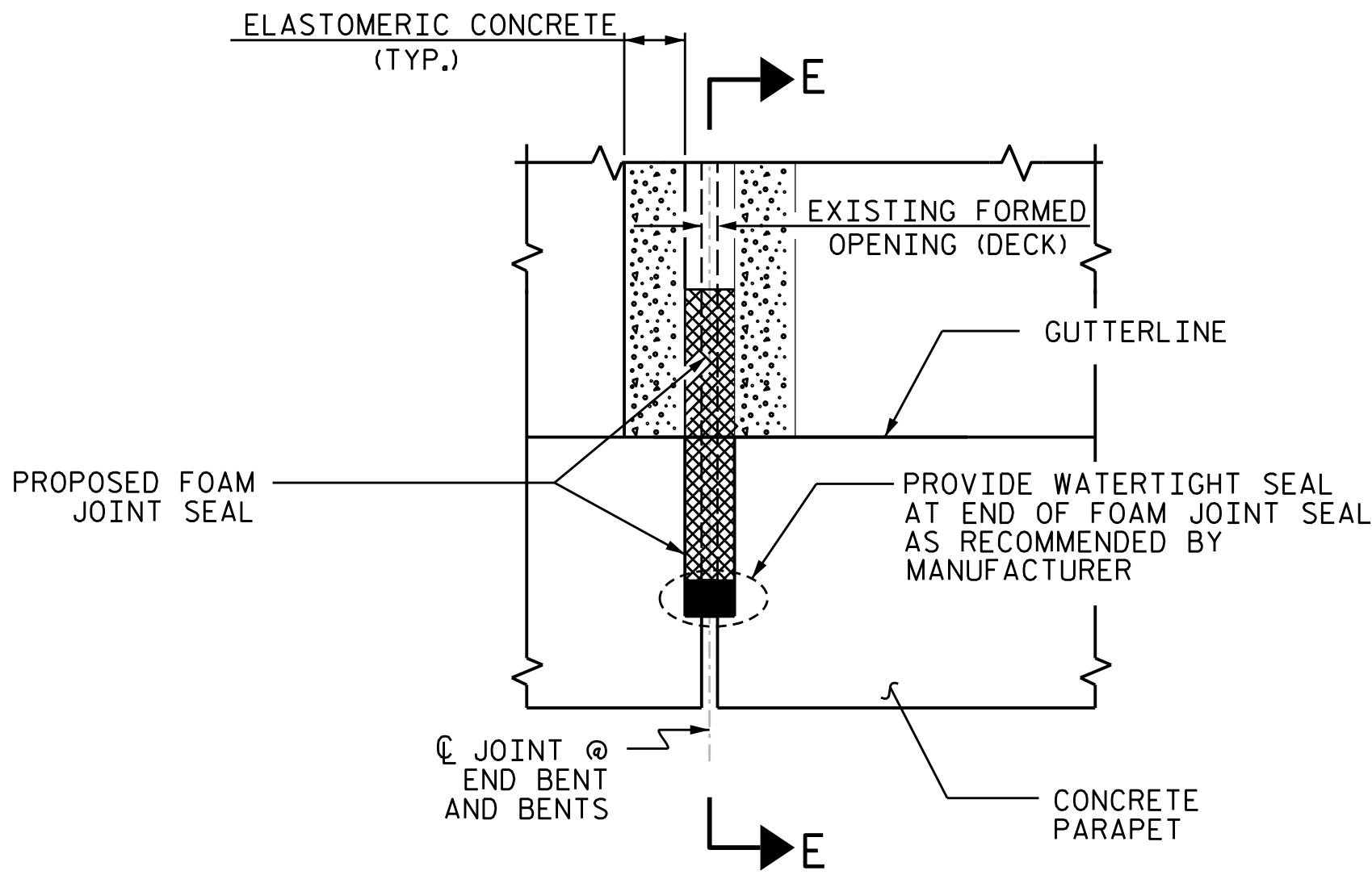


JOINT SAWED OPENING WIDTHS			
	@ 45° F	@ 60° F	@ 90° F
END BENT 1	1¾"	1½"	1⅛"
EVEN NUMBERED BENTS 2 THRU 12	2⅞"	2½"	1⅞"
BENT 14	2⅜"	2⅛"	1½"
BENT 16	2¼"	2"	1½"
EVEN NUMBERED BENTS 18 THRU 26	2⅝"	2¼"	1⅝"
EVEN NUMBERED BENTS 28 THRU 80	2⅞"	2½"	1⅞"
BENT 82	2⅜"	2"	1½"
EVEN NUMBERED BENTS 84 THRU 98	2⅜"	2⅛"	1½"
BENT 100	2⅝"	2¼"	1⅝"
EVEN NUMBERED BENTS 102 THRU 126	2⅞"	2½"	1⅞"
END BENT 2	1⅝"	1½"	1⅛"



DETAIL "A"  
(PROPOSED)

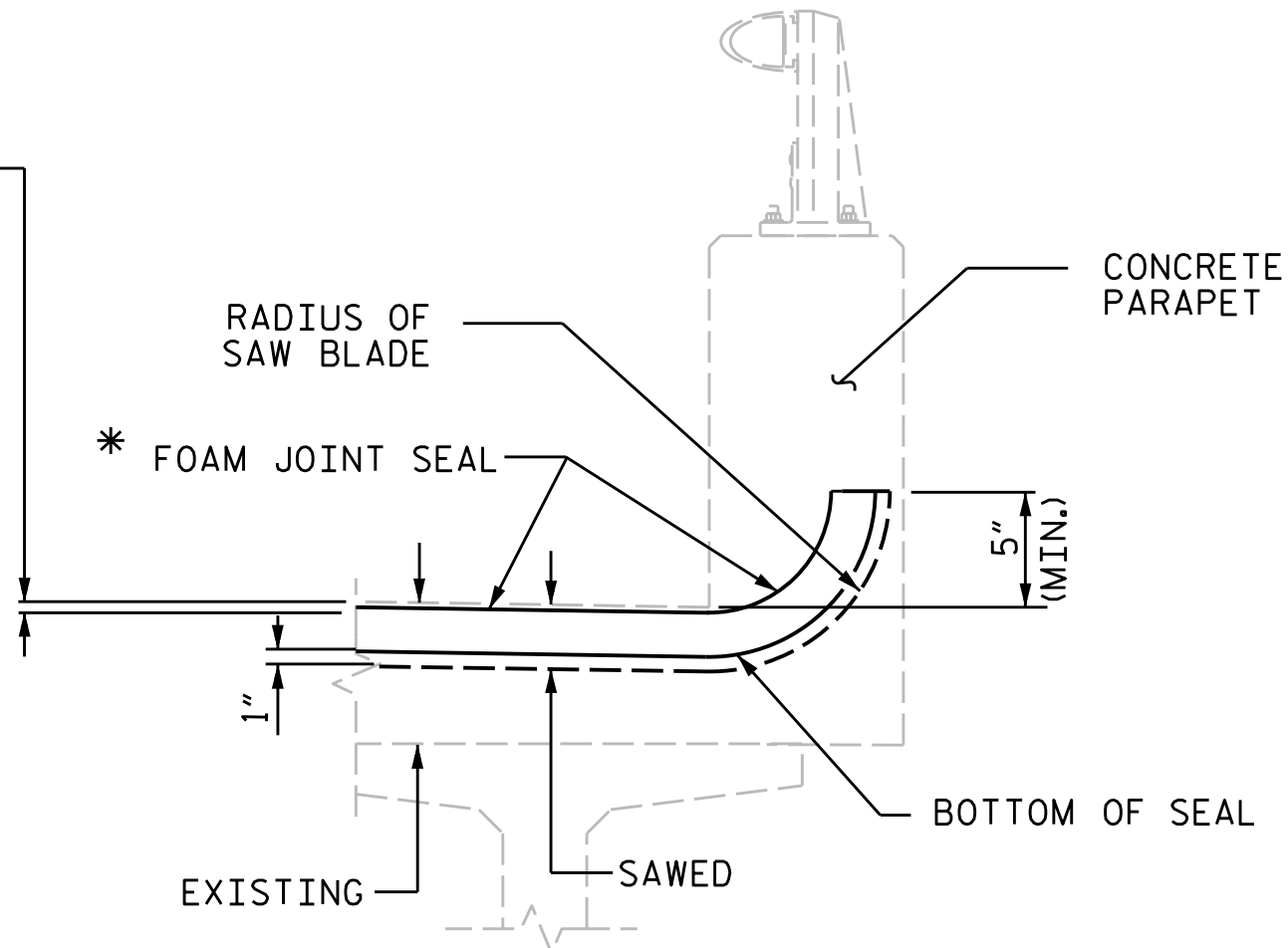
SUMMARY OF QUANTITIES				
LOCATION	ELASTOMERIC CONCRETE FOR PRESERVATION		FOAM JOINT SEAL	
	ESTIMATE (C.F.)	ACTUAL (C.F.)	ESTIMATE (L.F.)	ACTUAL (L.F.)
END BENT 1	18.1		72.4	
EVEN NUMBERED BENTS 2 THRU 12	108.6		434.4	
BENT 14	19.2		76.7	
BENT 16	23.3		93.0	
EVEN NUMBERED BENTS 18 THRU 80	579.2		2316.8	
EVEN NUMBERED BENTS 82 THRU 98	189.9		761.4	
BENT 100	18.3		73.2	
BENT 102	18.1		72.4	
EVEN NUMBERED BENTS 104 THRU 110	74.8		298.8	
BENT 112	18.9		75.4	
EVEN NUMBERED BENTS 114 THRU 120 (SOUTHBOUND)	38.8		154.8	
BENT 122 (SOUTHBOUND)	11.2		44.8	
BENTS 124 AND 126 (SOUTHBOUND)	25.4		101.4	
EVEN NUMBERED BENTS 114 THRU 120 (NORTHBOUND)	36.8		146.8	
BENT 122 (NORTHBOUND)	9.2		36.7	
BENTS 124 AND 126 (NORTHBOUND)	18.4		73.4	
END BENT 2 (SOUTHBOUND)	12.7		50.7	
END BENT 2 (NORTHBOUND)	11.8		47.1	



PLAN

(SPANS 82-100 RIGHT SIDE SHOWN.  
OTHER SPANS SIMILAR,  
INCLUDING AT MEDIAN BARRIER)

FOAM JOINT SEAL  
SHALL BE RECESSED ¼"  
BELOW DECK SURFACE



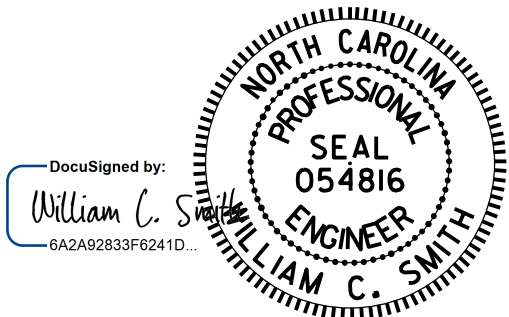
SECTION E-E

(SPANS 82-100 RIGHT SIDE SHOWN.  
OTHER SPANS SIMILAR,  
INCLUDING AT MEDIAN BARRIER)

\* FOAM JOINT SEAL TO BE CUT,  
HEAT WELDED AND TURNED UP  
PARALLEL TO SLOPED FACE OF  
THE PARAPET.

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SHEET 2 OF 2



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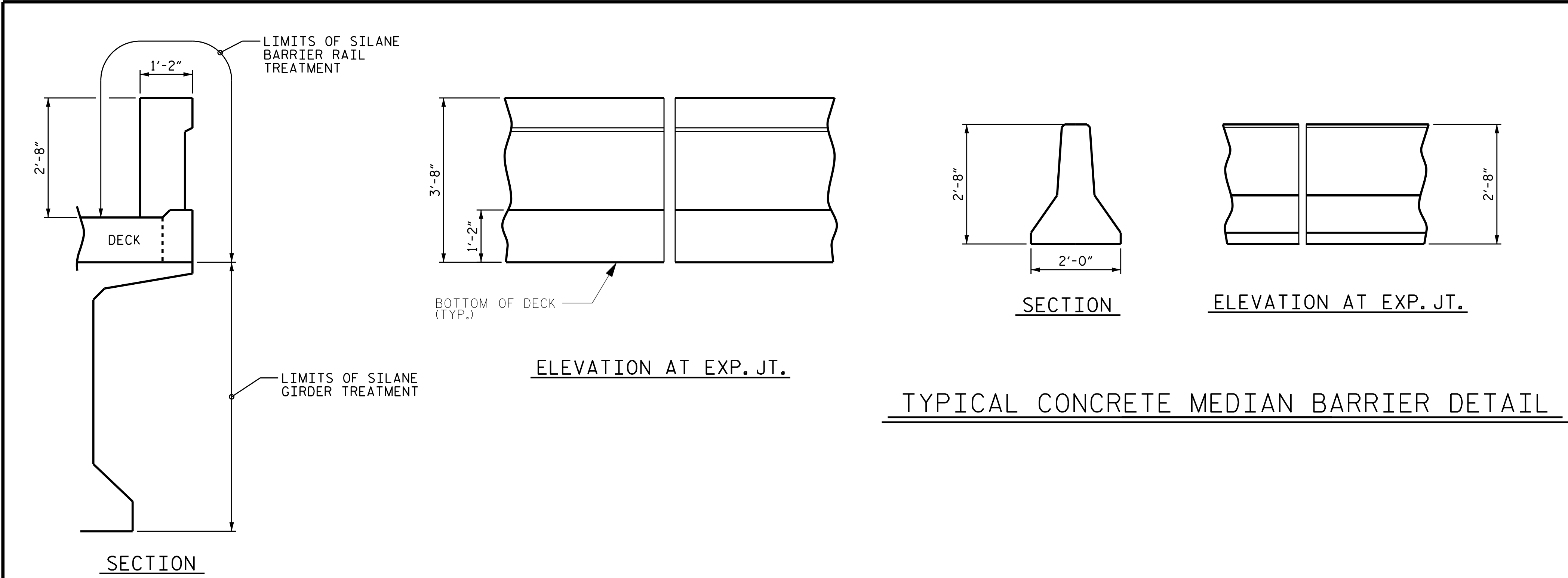
DRAWN BY : S. T. SANDOR DATE : 6/21/24  
CHECKED BY : W. C. SMITH DATE : 6/25/24

JOINT DETAIL AT BARRIER RAIL

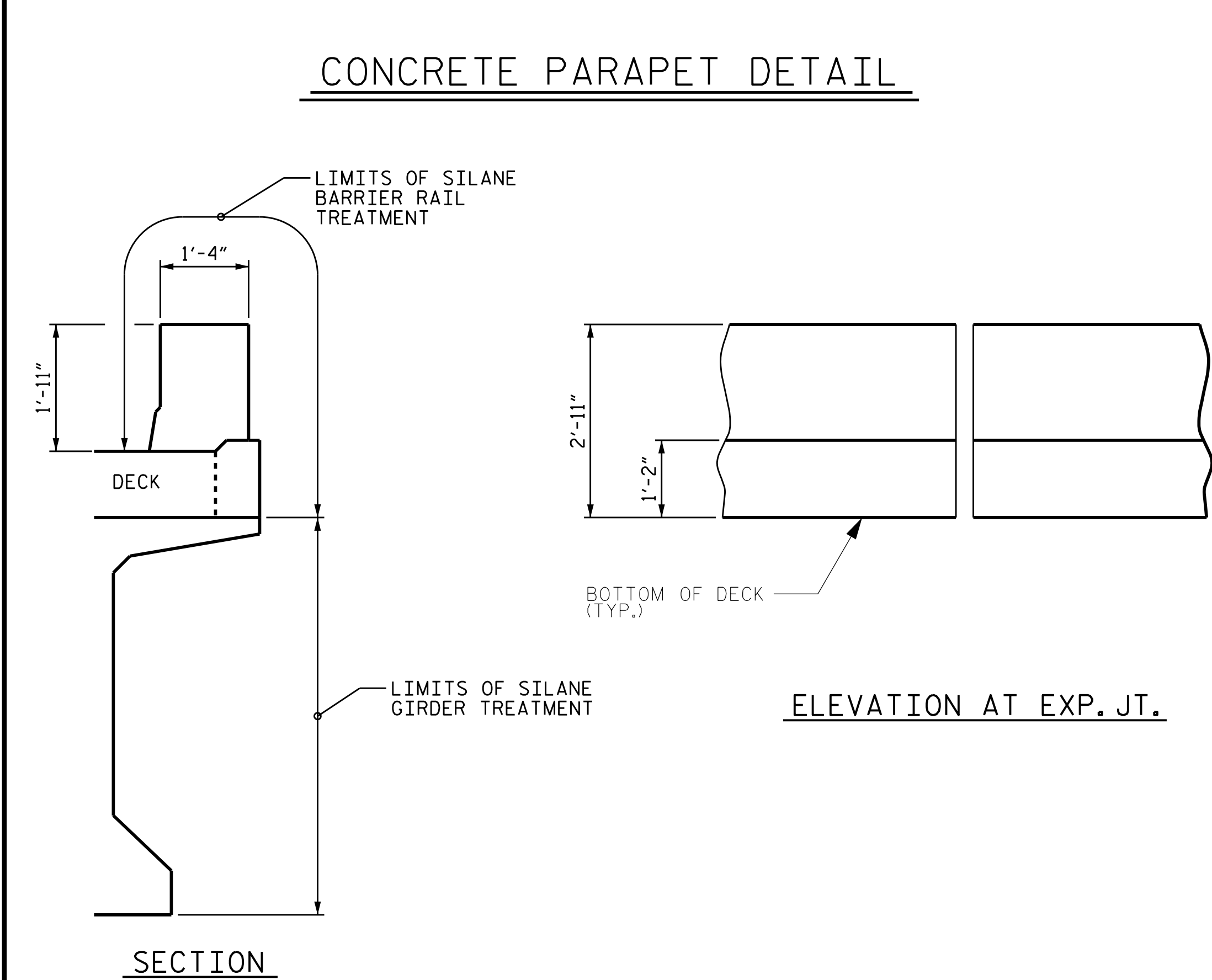
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SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
JOINT REPAIR DETAILS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					S-211
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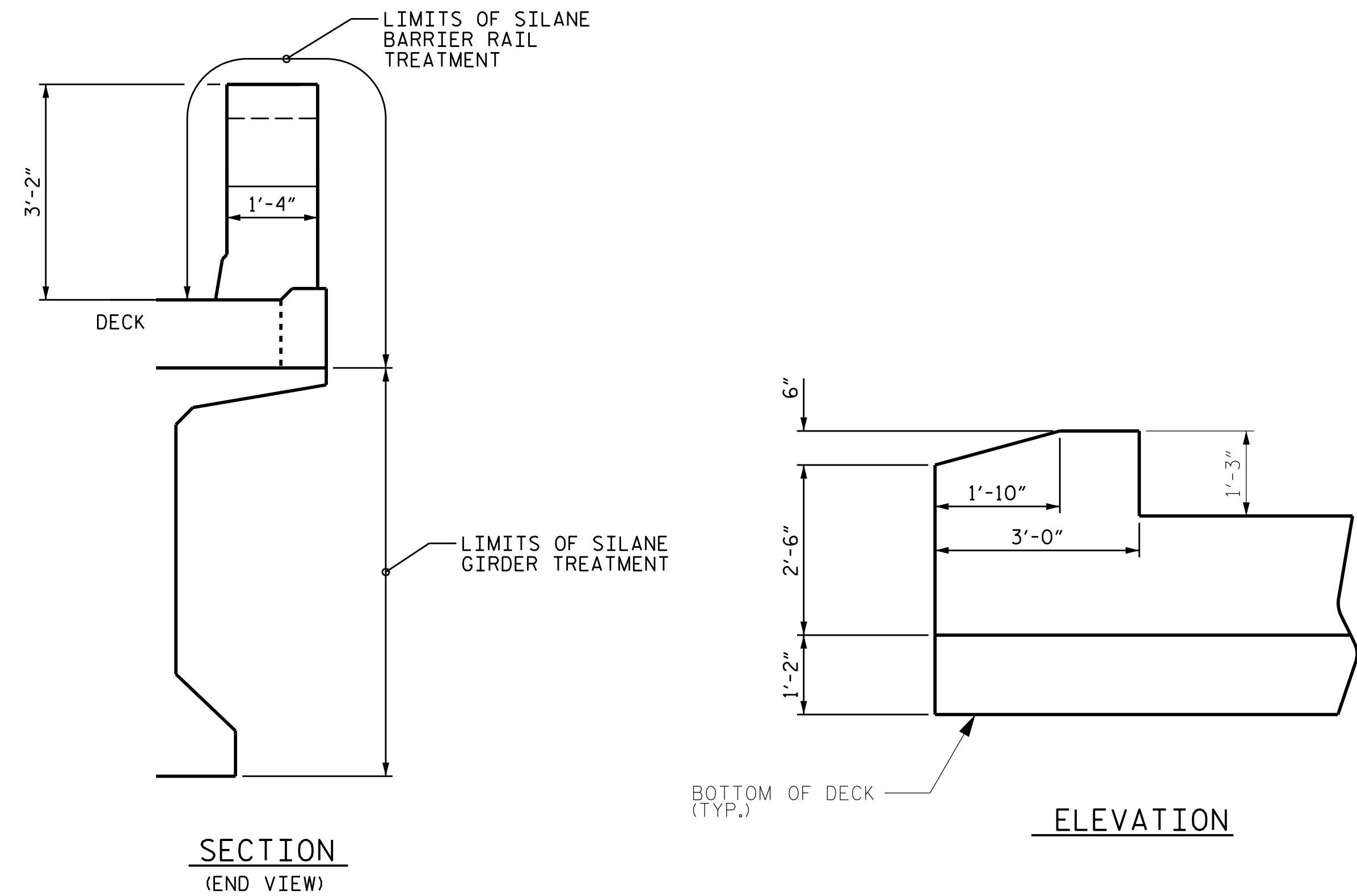




TYPICAL CONCRETE MEDIAN BARRIER DETAIL



CONCRETE PARAPET WITH METAL RAIL DETAIL  
(METAL RAIL NOT SHOWN FOR CLARITY)



END POST FOR CONCRETE PARAPET WITH METAL RAIL DETAIL  
(METAL RAIL NOT SHOWN FOR CLARITY)

REPAIR QUANTITY TABLE		
SILANE BARRIER RAIL TREATMENT	QUANTITIES	
	ESTIMATE	ACTUAL
	AREA SQ. FT.	AREA SQ. FT.
CONCRETE PARAPET	234,520.4	
CONCRETE PARAPET WITH METAL RAIL	28,807.6	
CONCRETE MEDIAN BARRIER	108,944.6	
SURFACE PREPARATION FOR CONCRETE BARRIER	372,272.6	
SILANE GIRDER TREATMENT	AREA SQ. FT.	AREA SQ. FT.
SILANE GIRDER TREATMENT	281,877.9	
SURFACE PREPARATION FOR SILANE GIRDER TREATMENT	281,877.9	

**NOTES**

SILANE BARRIER RAIL TREATMENT SHALL BE APPLIED TO ALL EXPOSED FACES OF CONCRETE PARAPETS, CONCRETE MEDIAN BARRIER, AND OUTSIDE EDGE OF DECK. SILANE TREATMENT OF OUTSIDE EDGE OF DECK AND POSTS SHALL BE CONSIDERED INCIDENTAL TO SILANE BARRIER RAIL TREATMENT.

FOR CONCRETE PARAPET AND CONCRETE MEDIAN BARRIER LOCATIONS, SEE "DECK SURFACE REPAIR" SHEETS.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

DocuSigned by:  
William C. Smith  
054816  
11/21/2025

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE SILANE BARRIER RAIL AND GIRDER TREATMENT					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					TOTAL SHEETS 217

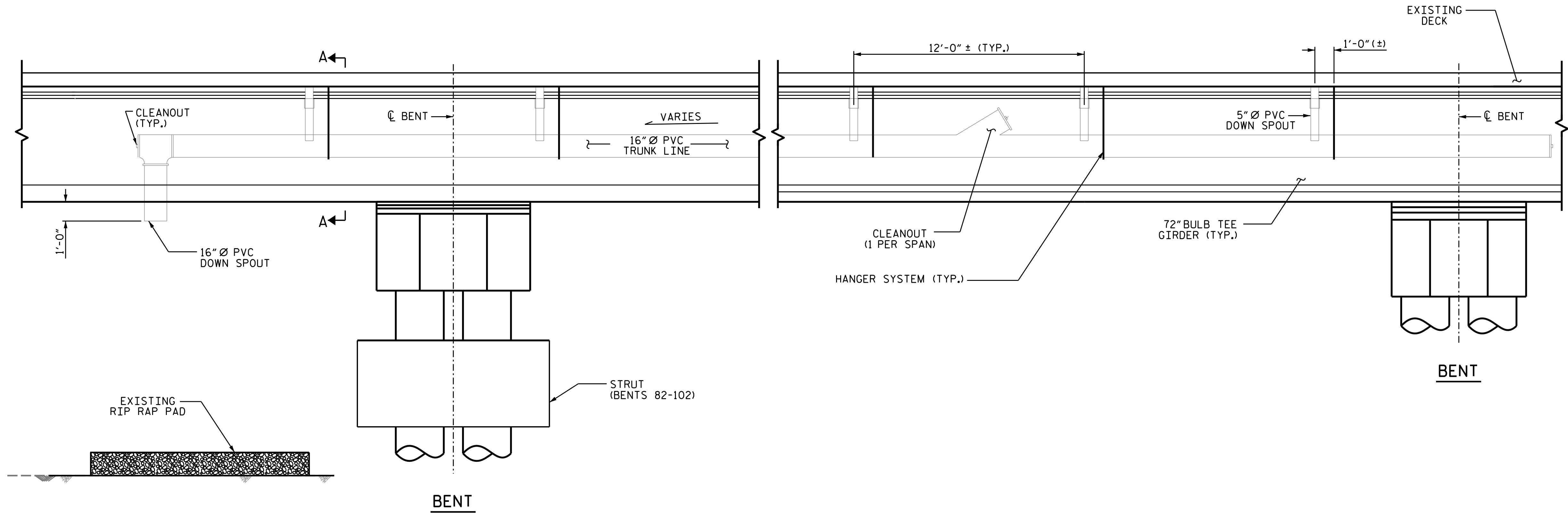
DRAWN BY : S. T. SANDOR DATE : 6/21/24  
CHECKED BY : W. C. SMITH DATE : 6/25/24

NOTES

FOR SECTION A-A SEE SHEET 2 OF 2  
CLOSED DRAINAGE SYSTEM DETAILS.

FOR DRAINAGE SYSTEM REPAIR, SEE  
SPECIAL PROVISION.

PVC PIPE AND FITTINGS SHALL BE  
SCHEDULE 40 AND CONFORM TO ASTM  
D1785.



CLOSED DRAINAGE SYSTEM ELEVATION

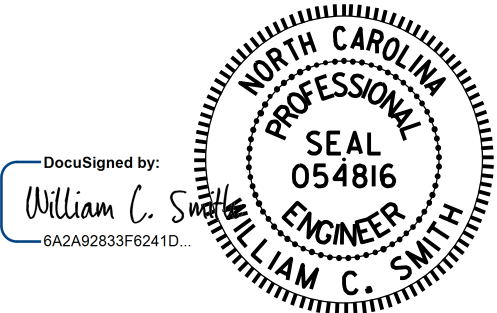
RIGHT SIDE OF BRIDGE SHOWN. LEFT SIDE SIMILAR BY ROTATION.  
(TYPICAL SPANS 81 THRU 85, 100 THRU 102, AND 115 THRU 122)

DRAINAGE SYSYTEM REPAIRS WILL CONSIST OF THE FOLLOWING WORK:

- CLEAN OUT VEGETATION AND DEBRIS FROM CLOSED DRAINAGE SYSTEM AND OPEN DRAINS.
- REPLACE MISSING OR BROKEN PVC DOWN SPOUTS AND TRUNK LINE FOR CLOSED DRAINAGE SYSTEM.
- REPLACE MISSING OR BROKEN HANGER MATERIALS FOR CLOSED DRAINAGE SYSTEM.
- ADD 5" DIAMETER DRAIN PIPE EXTENSION TO ALL OPEN DRAINS.

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SHEET 1 OF 2



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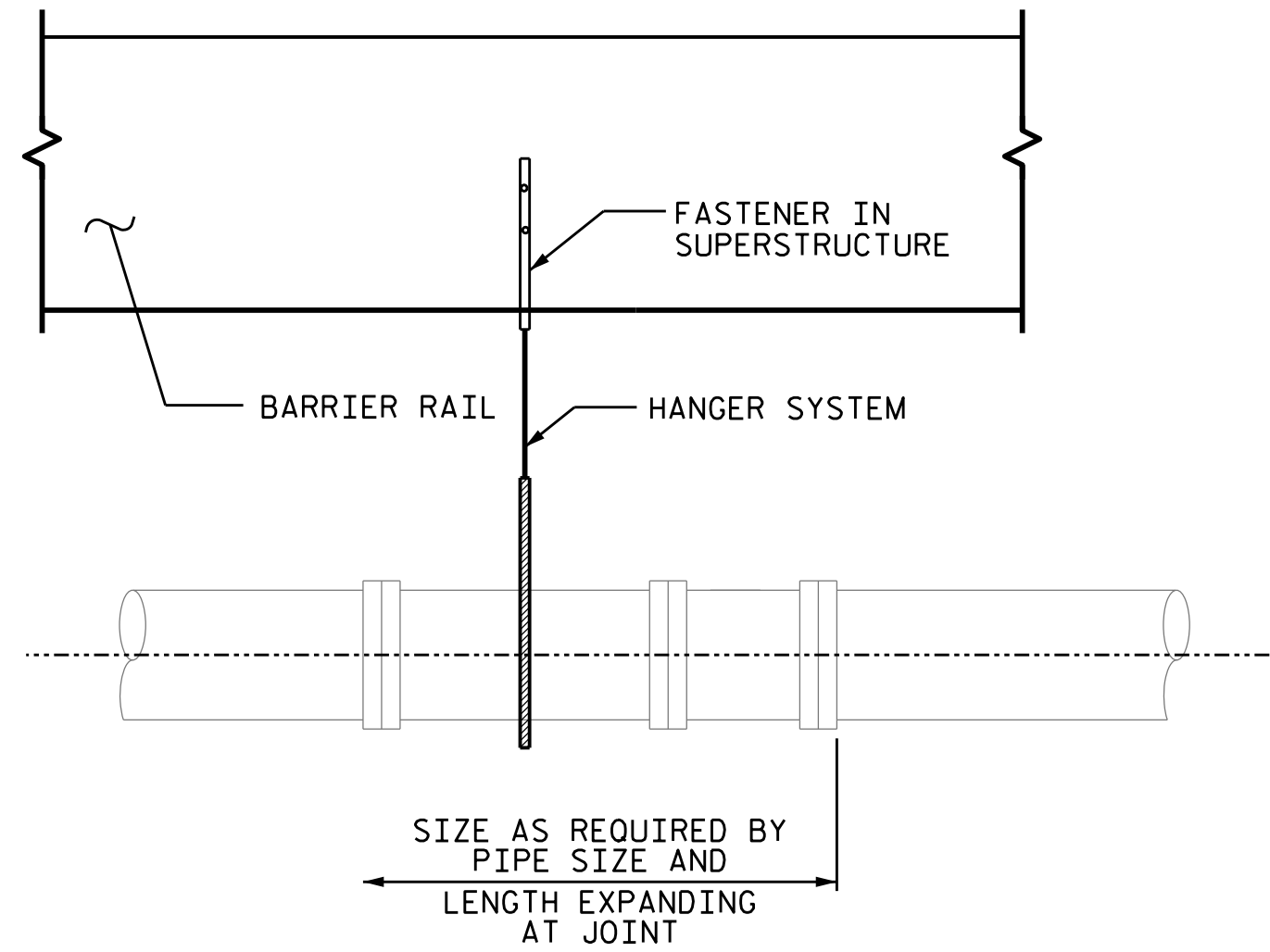
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CHECKED BY : S. T. SANDOR DATE : 7/10/24

11/21/2025  
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wsmith

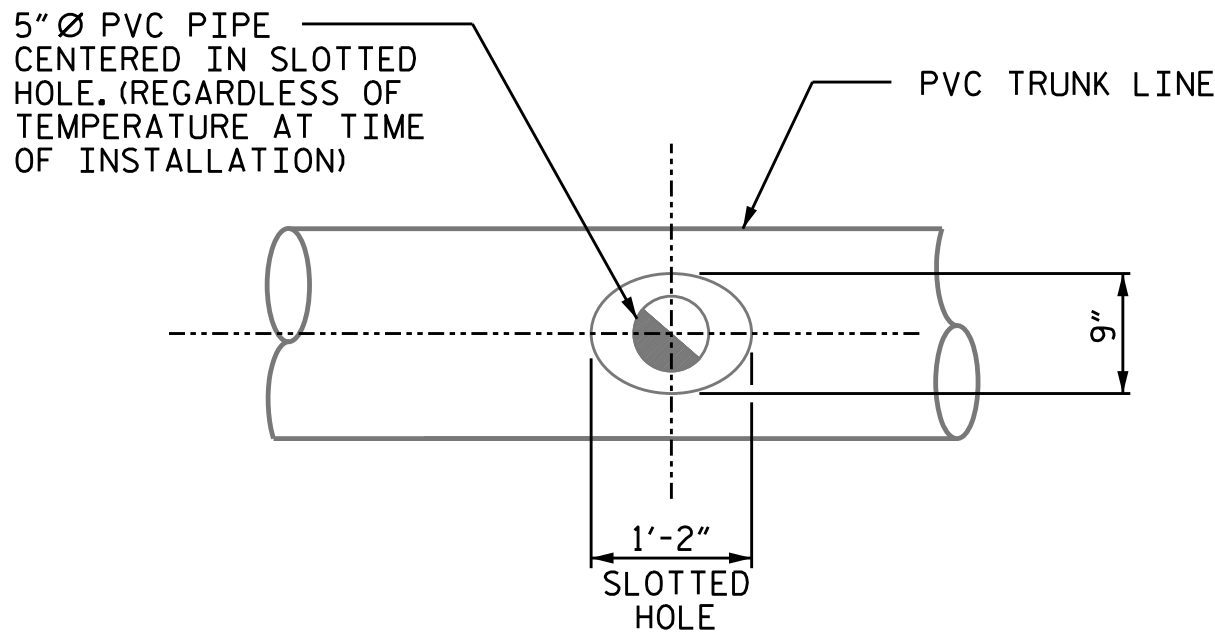
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-213
1			3			TOTAL SHEETS
2			4			217

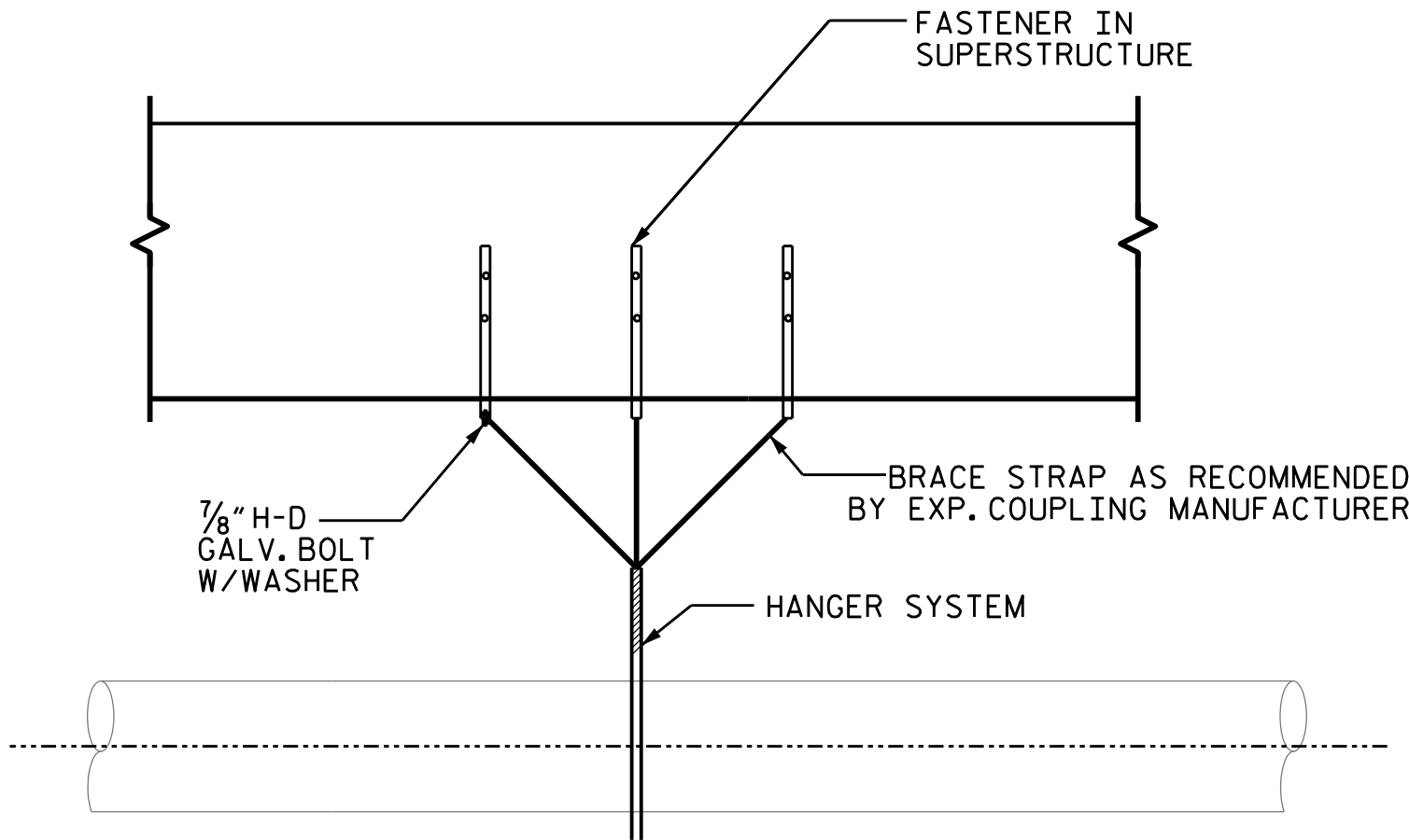
REPAIR QUANTITY TABLE		
DRAINAGE SYSTEM	QUANTITIES	
	ESTIMATE	ACTUAL
PVC. PIPES	LENGTH LIN. FT.	LENGTH LIN. FT.
16" Ø TRUNK LINE	0	
5" Ø PVC PIPE	16,114	
16" Ø PVC DOWN SPOUT	0	
DRAINAGE SYSTEM PARTS	EACH	
CLEANOUT	0	
PVC COUPLER	0	
HANGER SYSTEM	0	
FASTENERS	0	
7/8" H-D GALV. BOLT W/WASHER	2	
BRACE STRAPS	0	



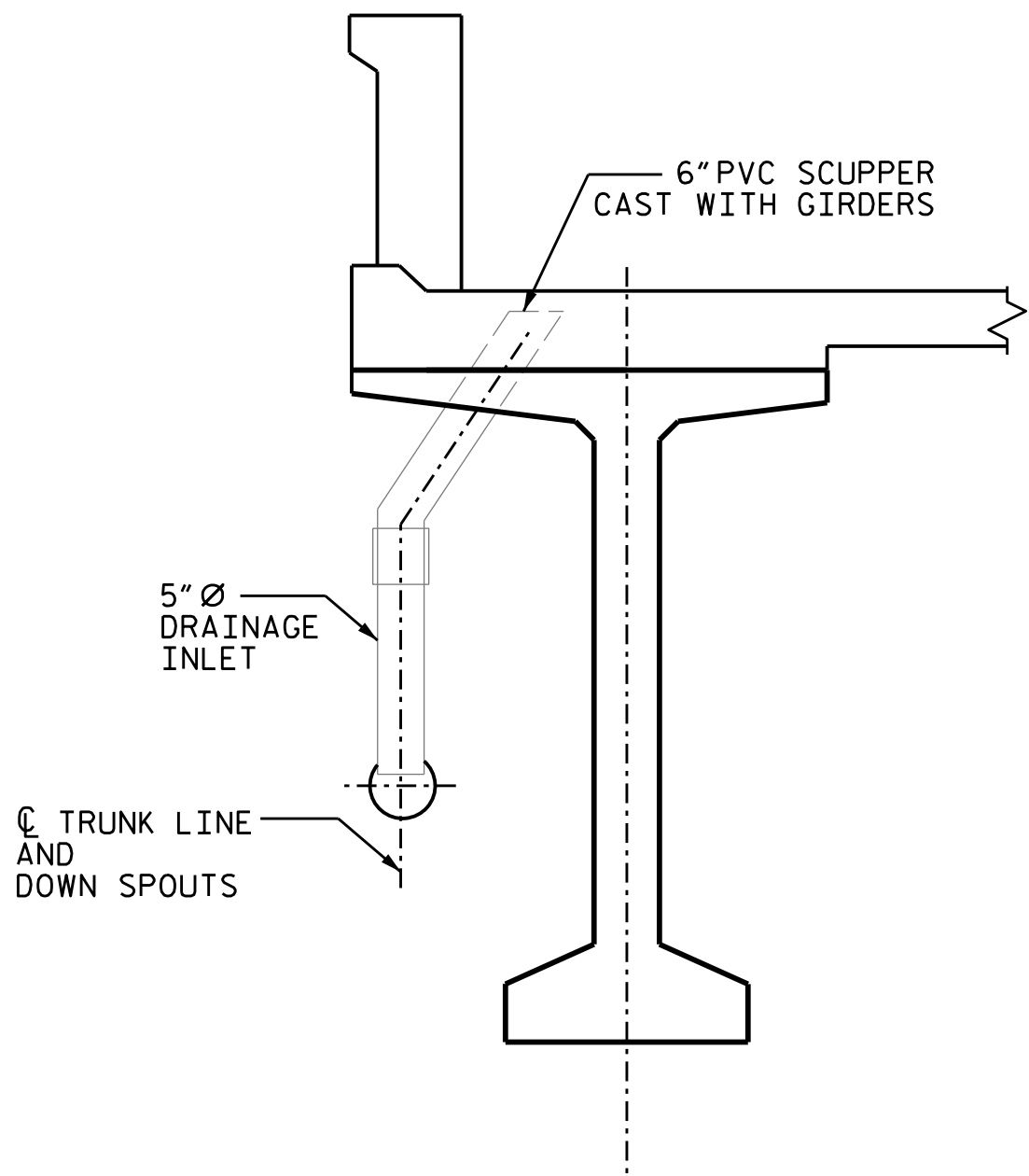
PVC EXPANSION COUPLING DETAIL



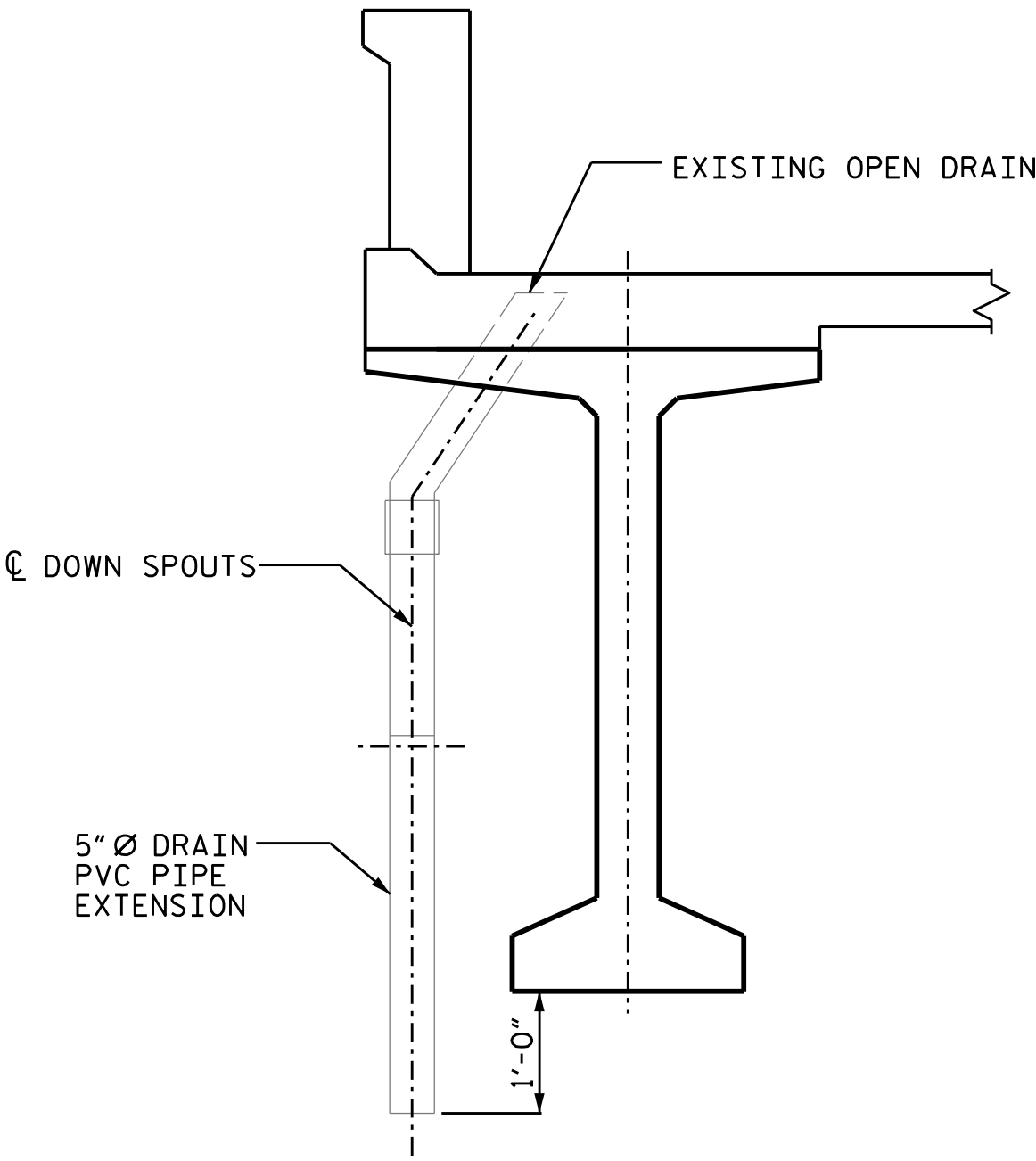
SLOTTED DETAIL



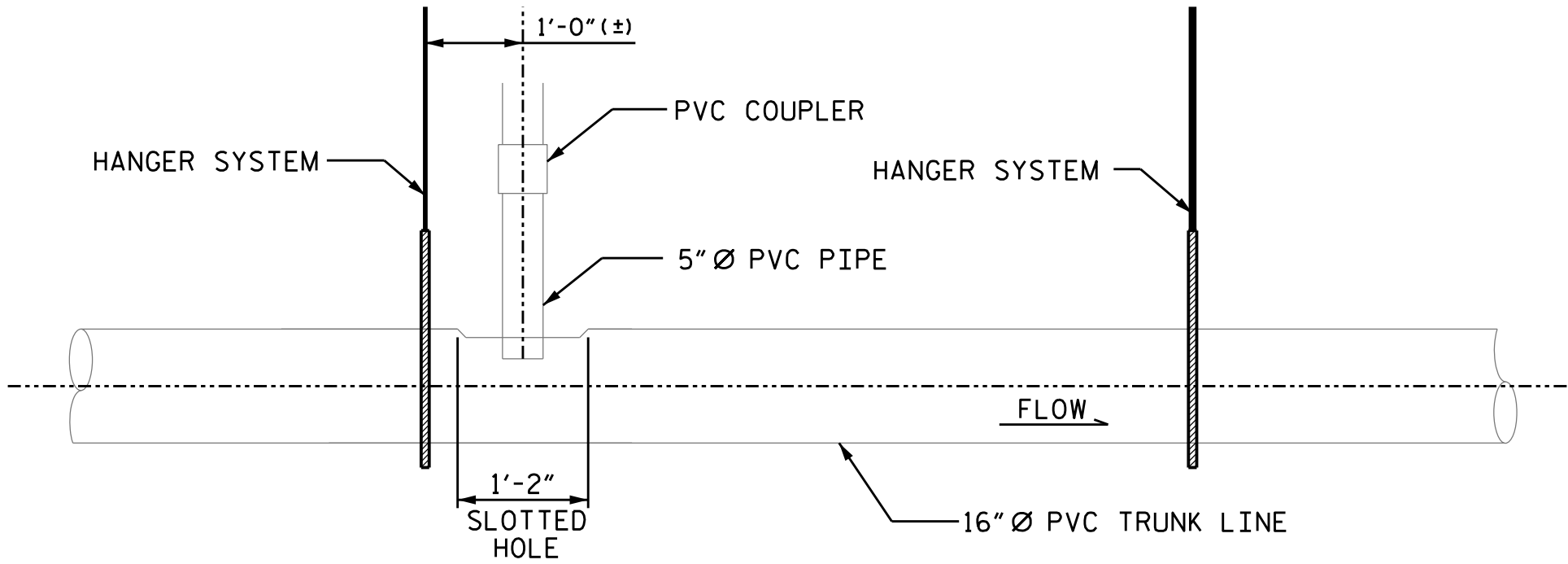
STOP DETAIL



SECTION A-A



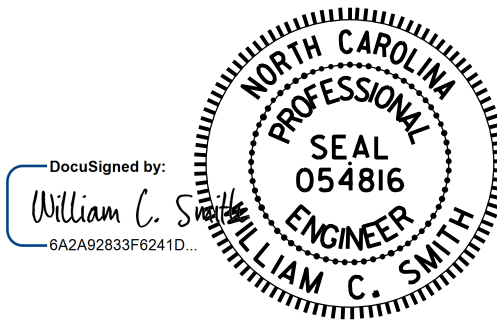
OPEN DRAIN REPAIR DETAIL



DRAIN INLET & PVC CONNECTION

CLOSED DRAINAGE SYSTEM DETAILS

DRAWN BY : S. T. SANDOR DATE : 7/5/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24



11/21/2025

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO: 060353

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO.	
DRAINAGE SYSTEM REPAIR DETAILS						S-214	
REVISIONS						TOTAL SHEETS	
NO.	BY:	DATE:	NO.	BY:	DATE:	217	
1			3				
2			4				



NOTES

TYPICAL BENT CAP REPAIRS ARE SHOWN. REPAIR DETAILS SIMILAR FOR END BENT CAPS AND STRUTS.

THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE, LEAVE ANY RESIDUE AFTER REMOVAL OR REQUIRE HARSH CHEMICALS TO REMOVE.

THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS.

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, MINIMUM OF 1" BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT.

NO MORE THAN ONE-THIRD OF THE CAP OR COLUMN CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF A CAP OR COLUMN CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR COLUMN, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1 1/2" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED, SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE PATCH SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON THIS SHEET.

THE #4 "U" DOWELS ARE REQUIRED ONLY AROUND THE ANCHOR BOLTS. THE EXISTING REINFORCING STEEL IN THE PEDESTAL WALL SHALL BE CLEANED, STRAIGHTENED AND REMAIN IN PLACE.

FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS.

COAT ALL REPAIR SURFACE AREAS ON THE TOP OF CAPS, INCLUDING CHAMFERS, WITH EPOXY PROTECTIVE COATING, OVERLAPPING THE REPAIR AREA BY A MINIMUM OF 3" ON ALL POSSIBLE SIDES.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

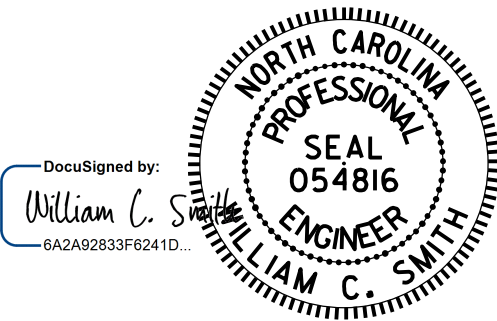
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION (ERI), SEE SPECIAL PROVISIONS.

FOR PRESTRESSED CONCRETE PILE REPAIRS, SEE "PRESTRESSED CONCRETE PILE REPAIR DETAILS" SHEET.

PROJ. NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353

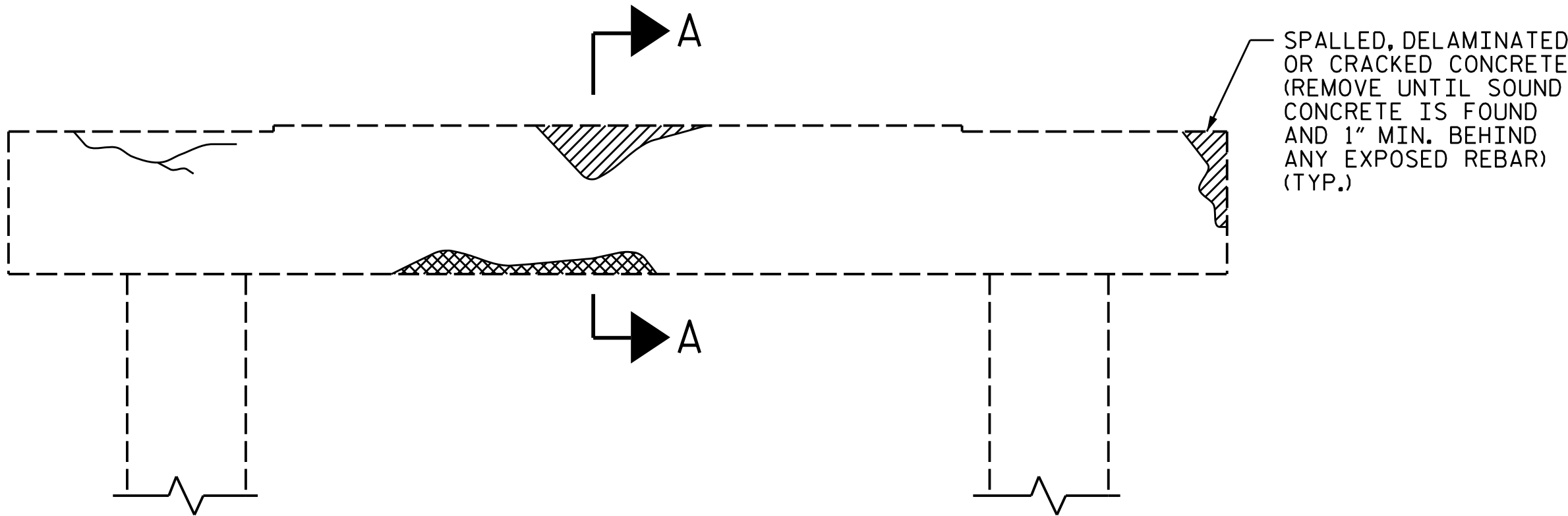


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
TYPICAL CAP  
AND COLUMN  
REPAIR DETAILS

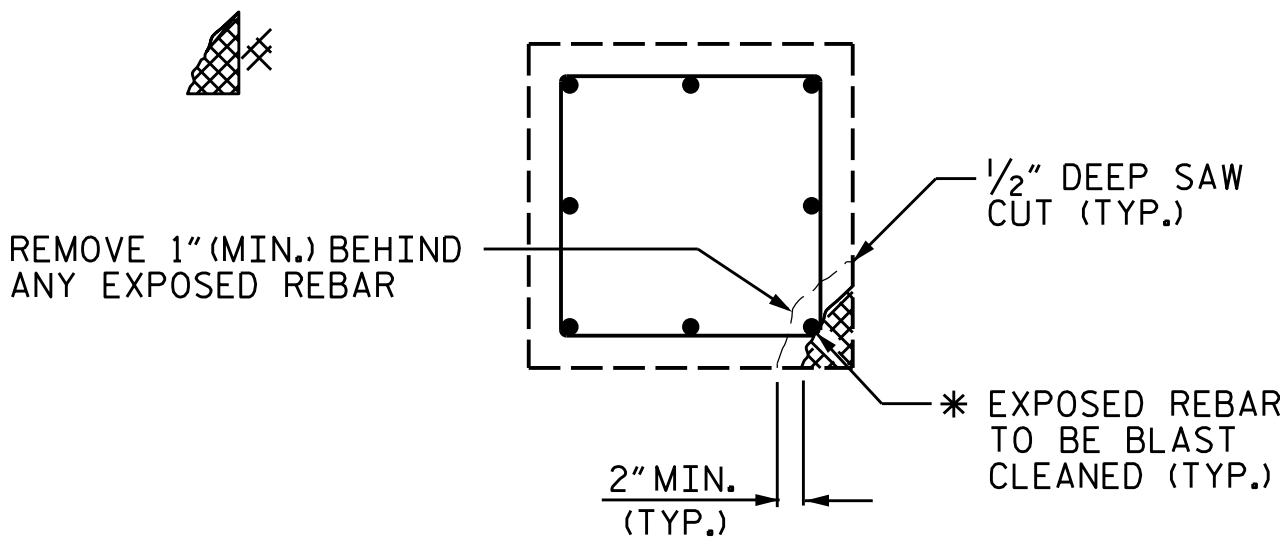
11/21/2025

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FINAL UNLESS ALL  
SIGNATURES COMPLETED

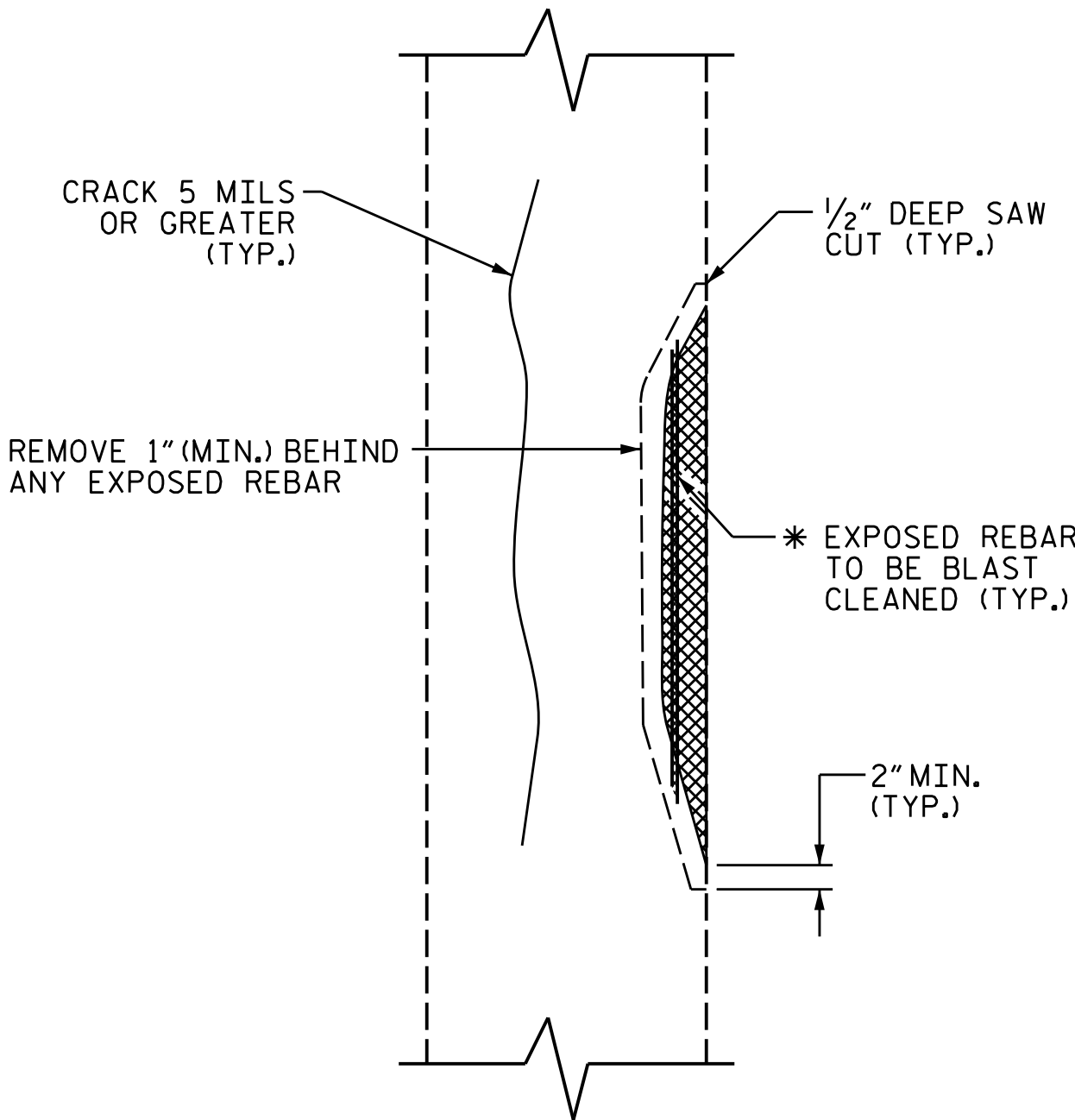
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-215
2			4			TOTAL SHEETS 217



BENT CAP REPAIRS



PLAN OF COLUMN



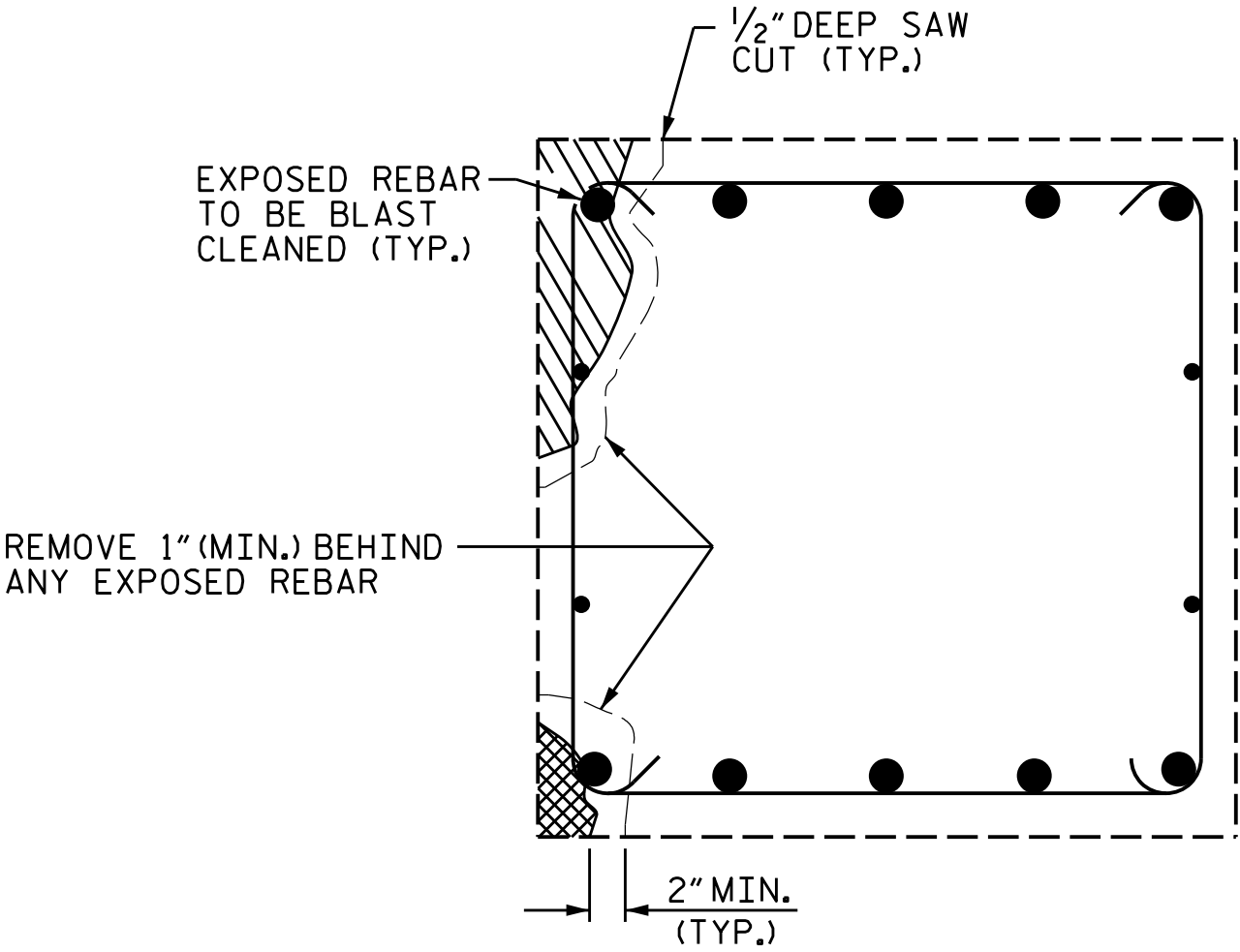
ELEVATION OF COLUMN

COLUMN REPAIR

REPAIR KEY

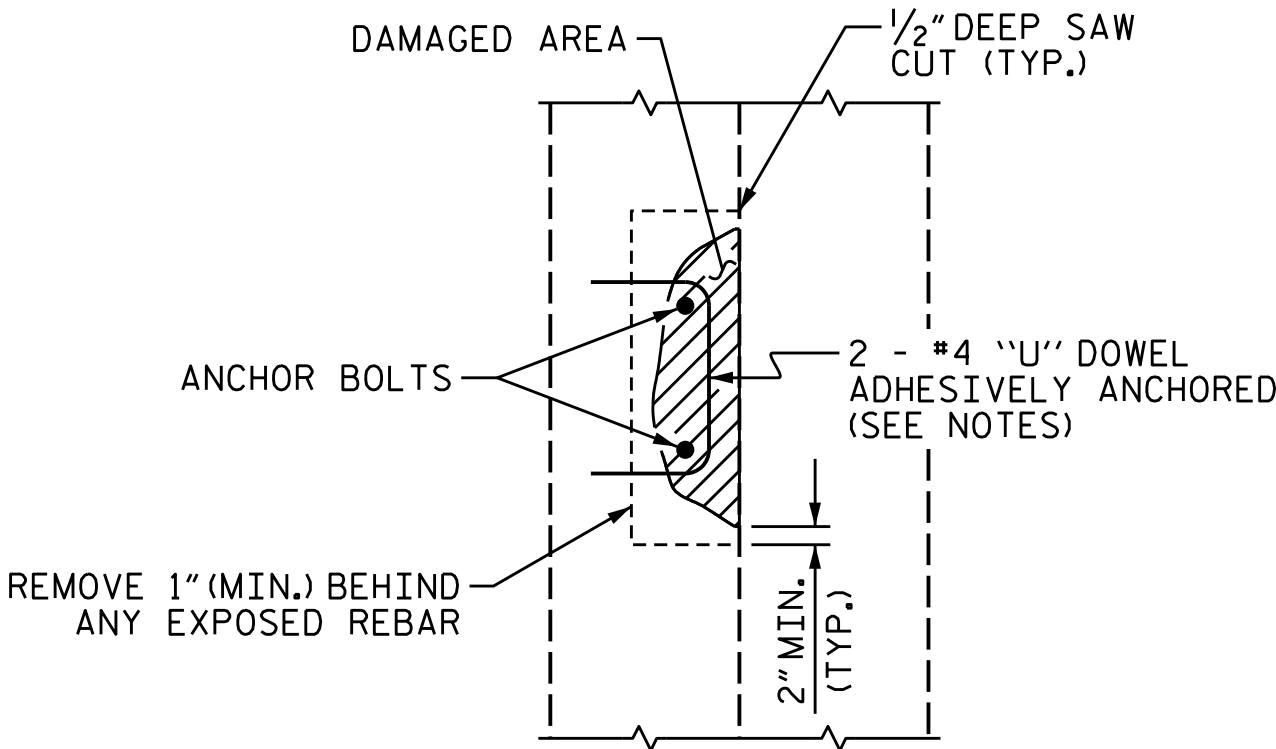
- CONCRETE REPAIR AREA (FORM AND POUR)
- SHOTCRETE REPAIR AREA
- EPOXY RESIN INJECTION (ERI)

SPLICE LENGTH TABLE	
BAR SIZE	MIN. SPLICE LENGTH
#4	2'-4"
#5	2'-9"
#6	4'-0"
#7	5'-3"
#8	6'-9"
#9	8'-6"
#10	10'-11"
#11	13'-4"

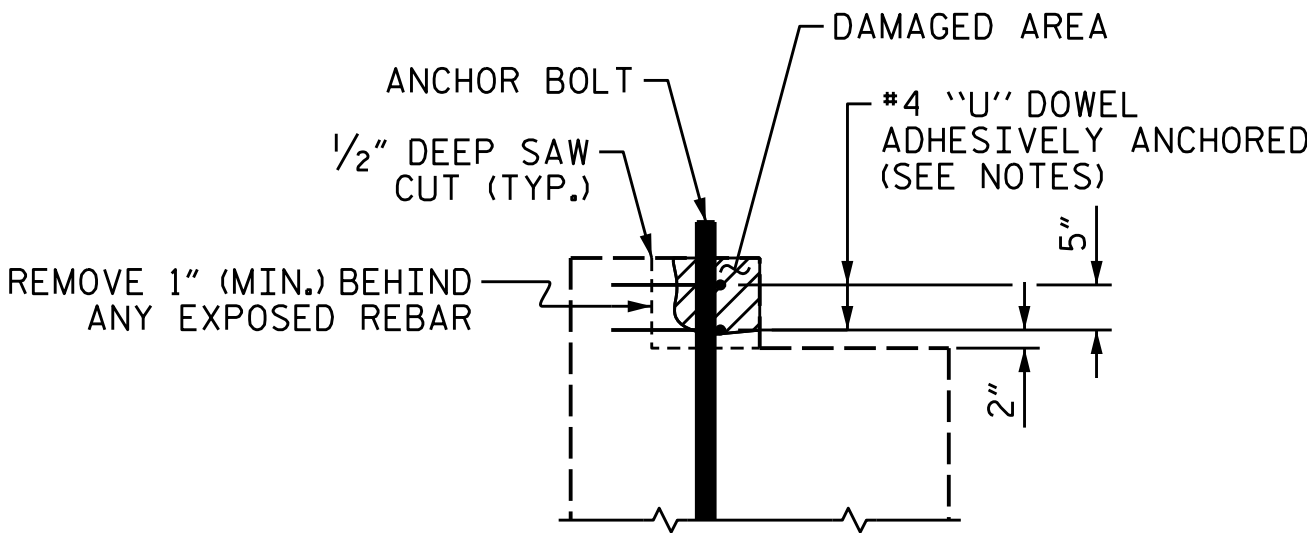


SECTION A-A

CAP REPAIR



PLAN



ELEVATION

PEDESTAL WALL REPAIR

ASSEMBLED BY : S. T. SANDOR	DATE : 7/05/24
CHECKED BY : W. C. SMITH	DATE : 7/10/24
DRAWN BY : NAP 8/18	
CHECKED BY :	

NOTES

THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE, LEAVE ANY RESIDUE AFTER REMOVAL OR REQUIRE HARSH CHEMICALS TO REMOVE.

THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS.

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, MINIMUM OF 2" CLEARANCE TO SAWCUT.

NO MORE THAN ONE-THIRD OF THE CAP OR COLUMN CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF A CAP OR COLUMN CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR COLUMN, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1½" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED, SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE REPAIR AREA SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

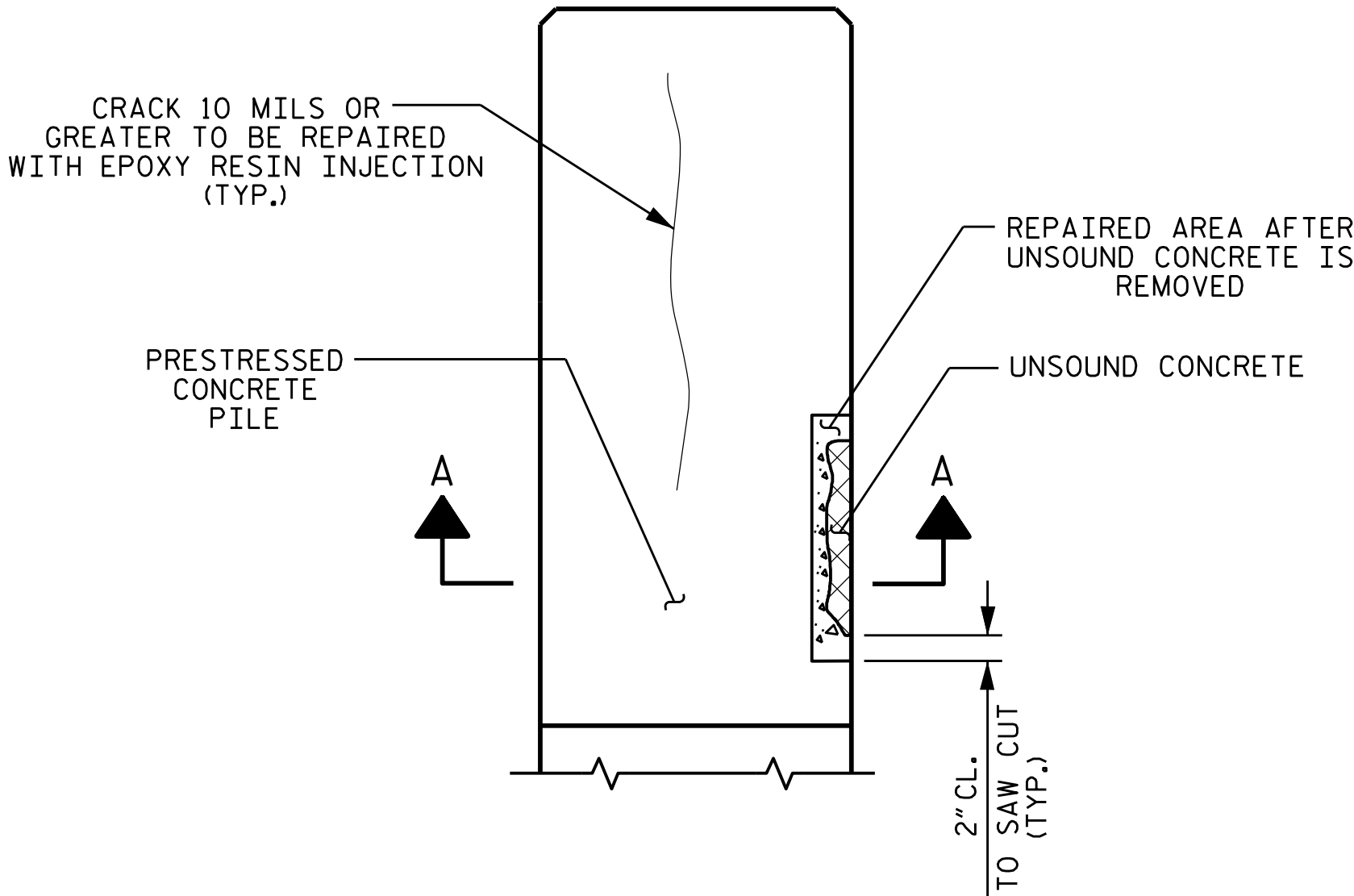
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

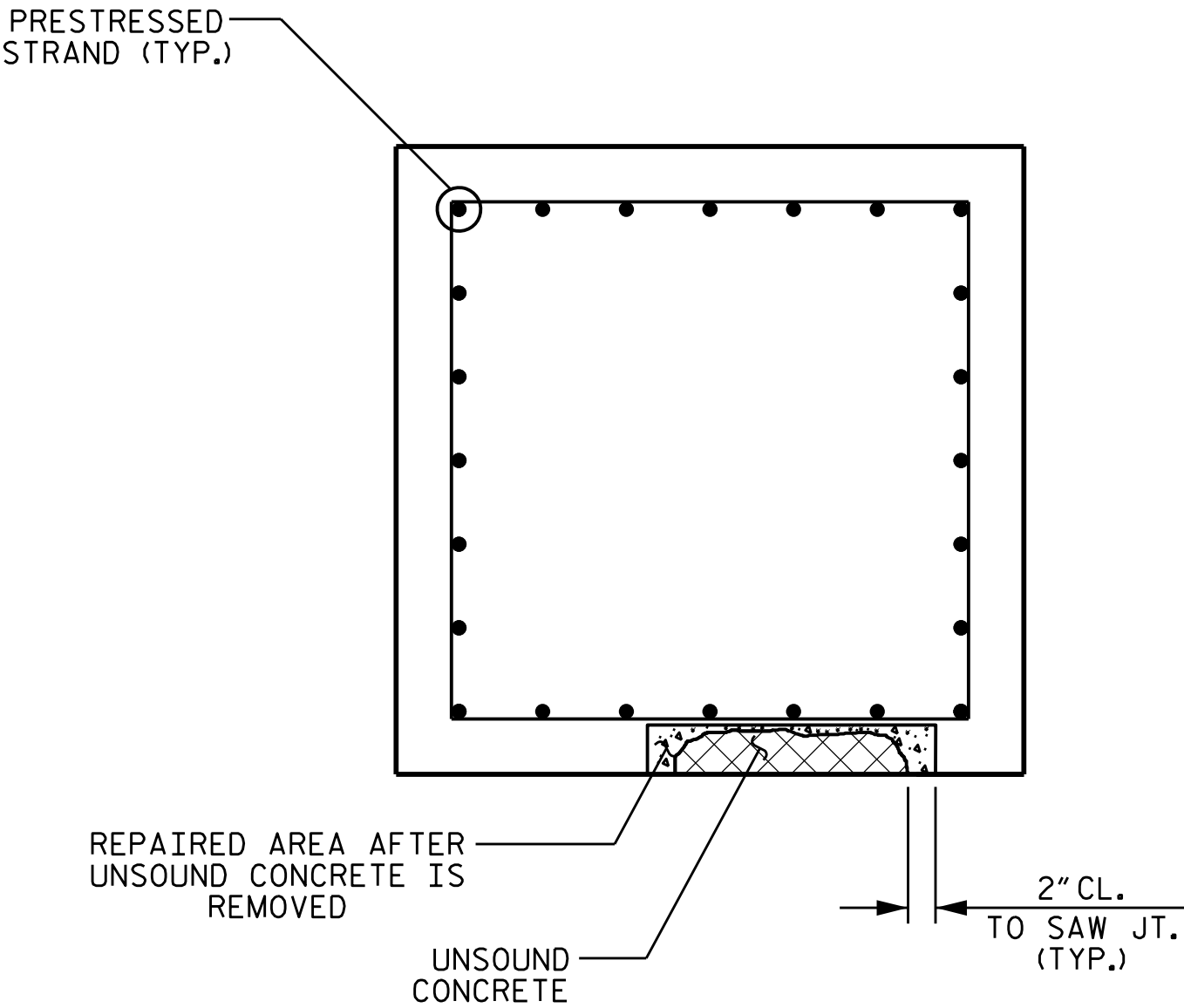
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

PRESTRESSED CONCRETE PILE REPAIR SEQUENCE:

1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A NOMINAL DEPTH OF ½".
3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM ½" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
4. IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
5. ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH SHOTCRETE REPAIRS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
7. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
8. PREPARE SURFACE AND PLACE SHOTCRETE REPAIRS IN ACCORDANCE WITH SHOTCRETE REPAIRS SPECIAL PROVISION.



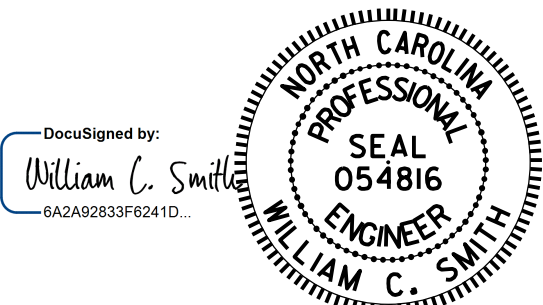
ELEVATION VIEW



SECTION A-A

PRESTRESSED CONCRETE PILE REPAIR

PROJECT NO. **15BPR.137**  
**BEAUFORT** COUNTY  
BRIDGE NO. **060353**



11/21/2025

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

PRESTRESSED  
CONCRETE PILE  
REPAIR DETAILS

DRAWN BY : S. T. SANDOR DATE : 7/5/24  
CHECKED BY : W. C. SMITH DATE : 7/10/24  
DESIGN ENGINEER OF RECORD: \_\_\_\_\_ DATE : \_\_\_\_\_

11/21/2025  
R:\Structures\15BPR.137\Plans\401\_431\_15BPR.137\_SMU\_ConcretePileRepair\_S-216\_060353.dgn  
wcsmith

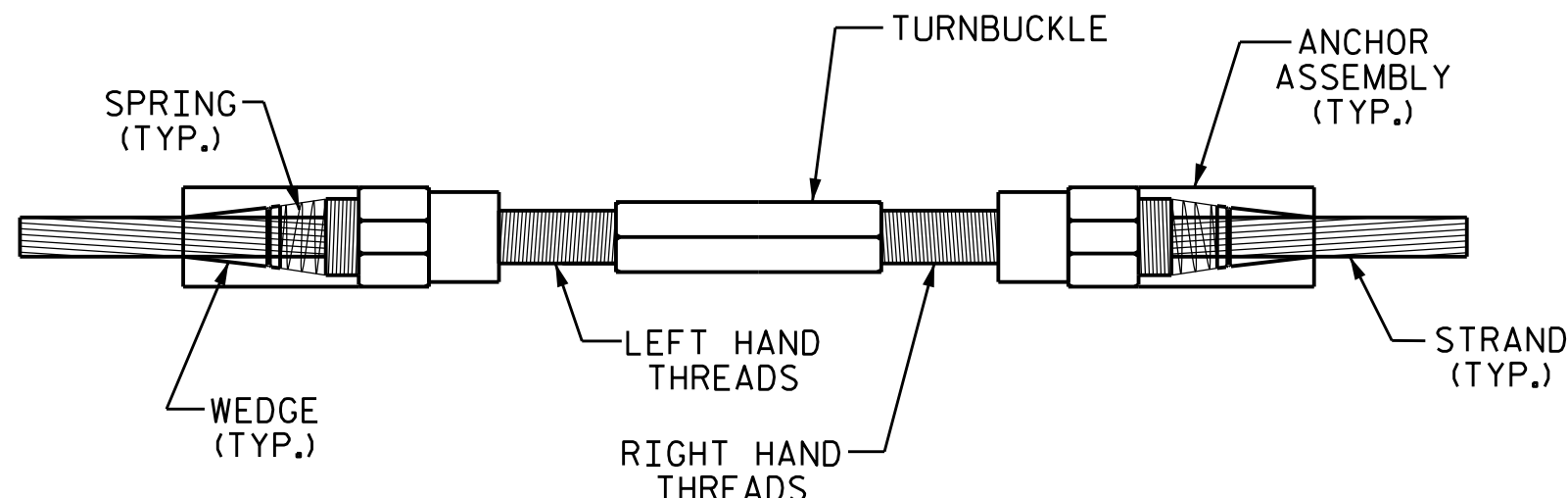
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FINAL UNLESS ALL  
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-216
2			4			TOTAL SHEETS 217

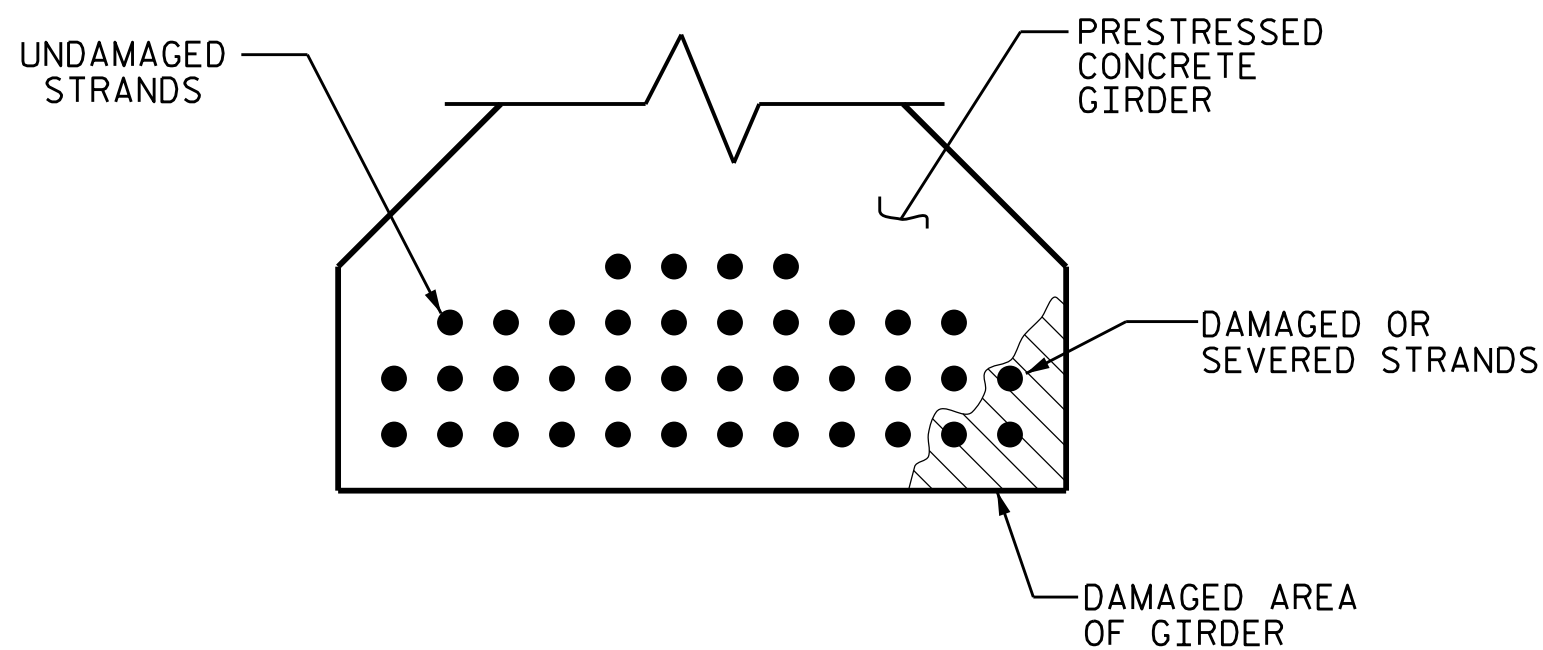




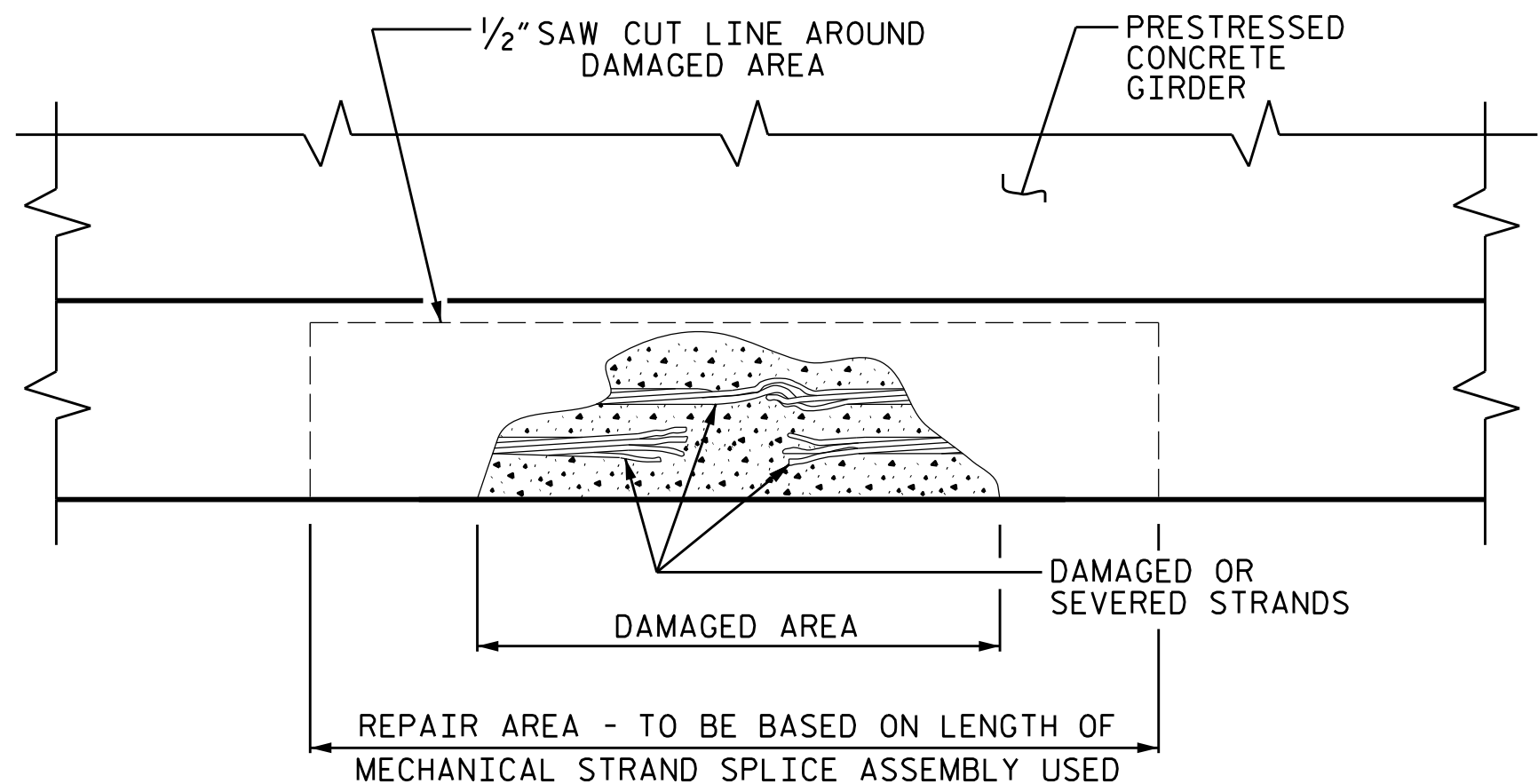
MECHANICAL STRAND SPLICE ASSEMBLY  
(ASSEMBLIES MAY VARY DEPENDING ON MANUFACTURER)



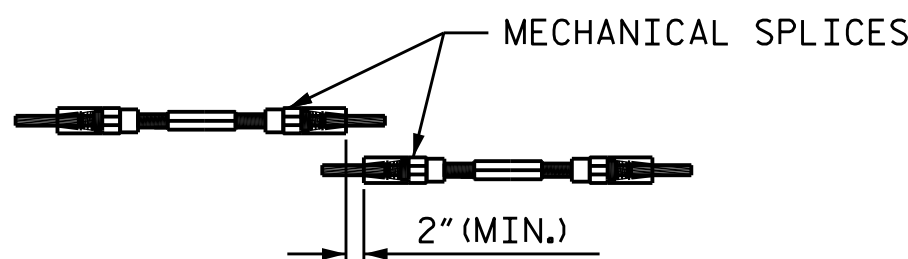
STRAND SPLICE DETAIL



SECTION VIEW OF DAMAGED GIRDER

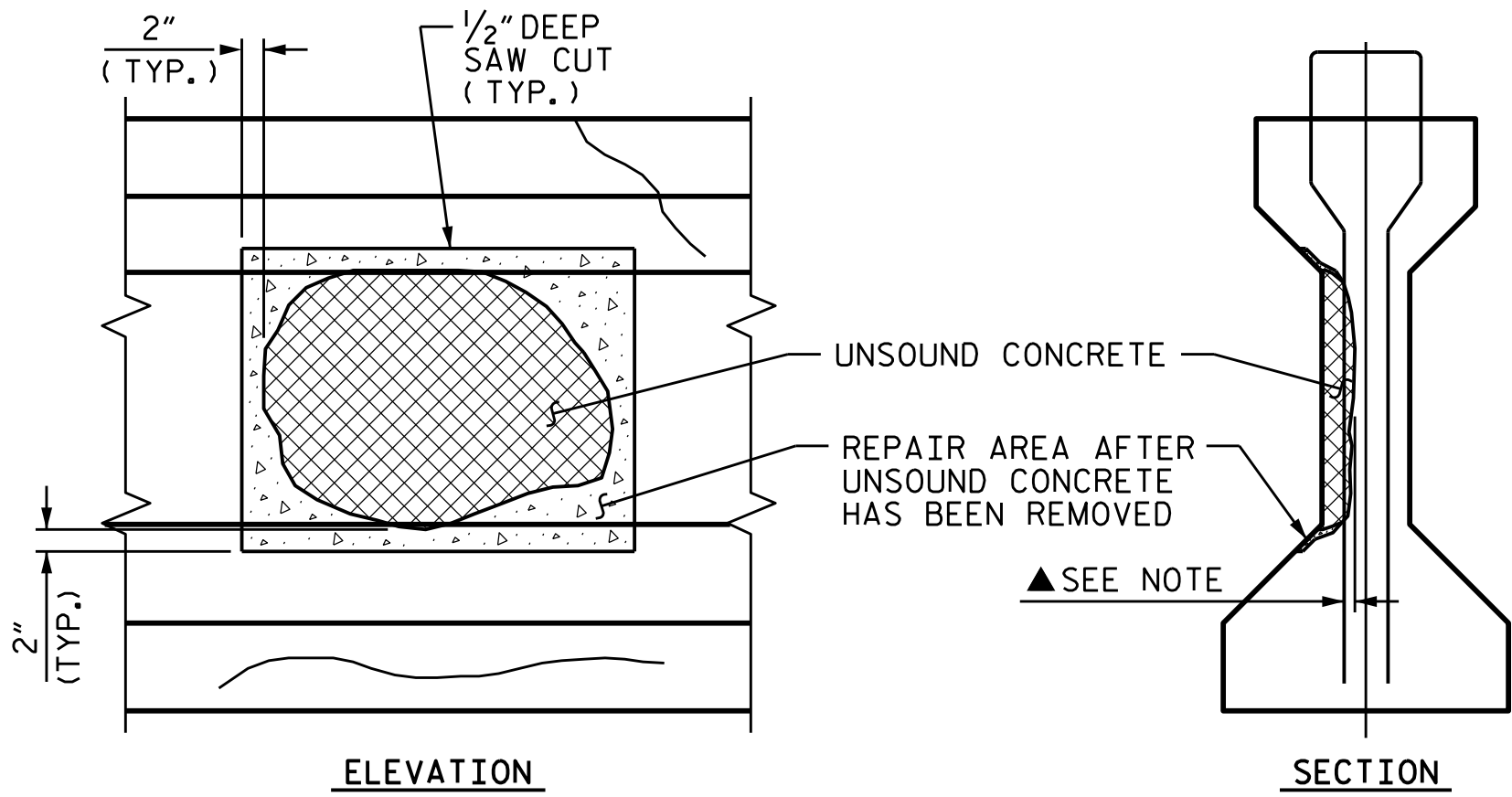


ELEVATION VIEW OF DAMAGED GIRDER

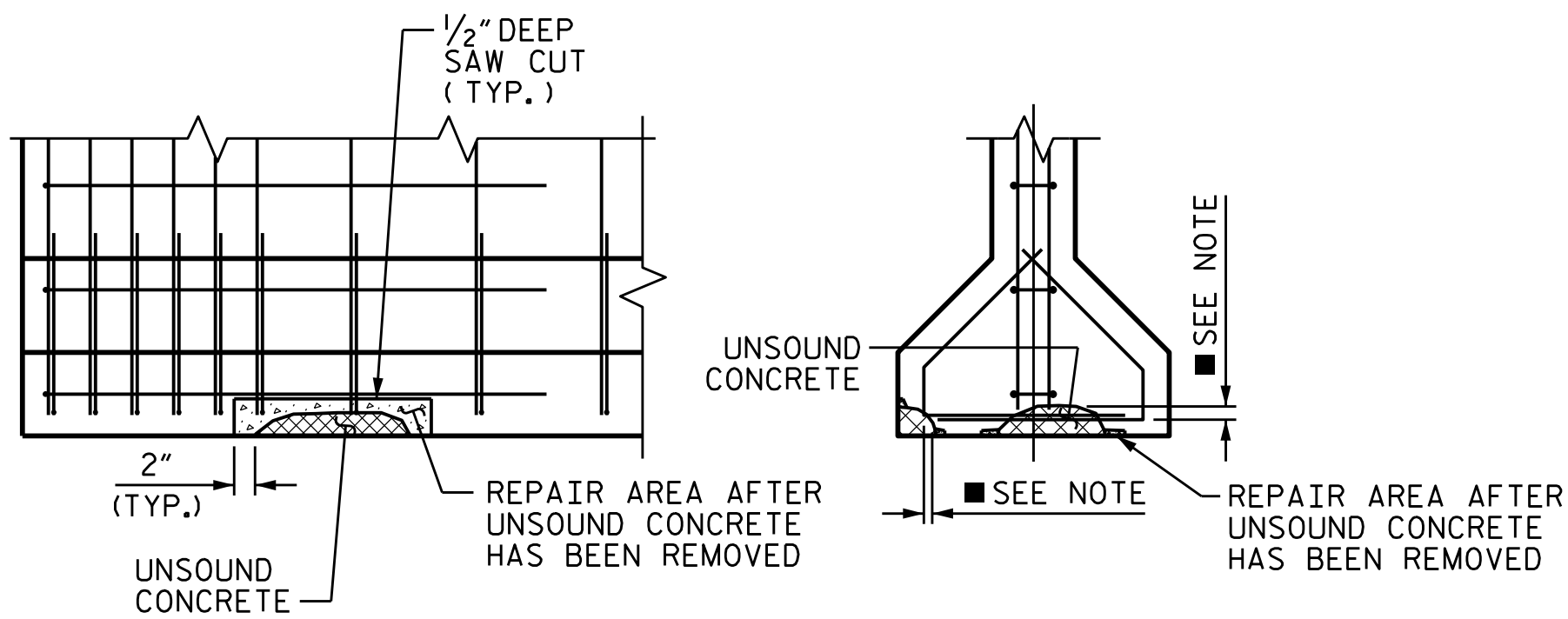


SPLICE OFFSET

STRAND REPAIR DETAILS

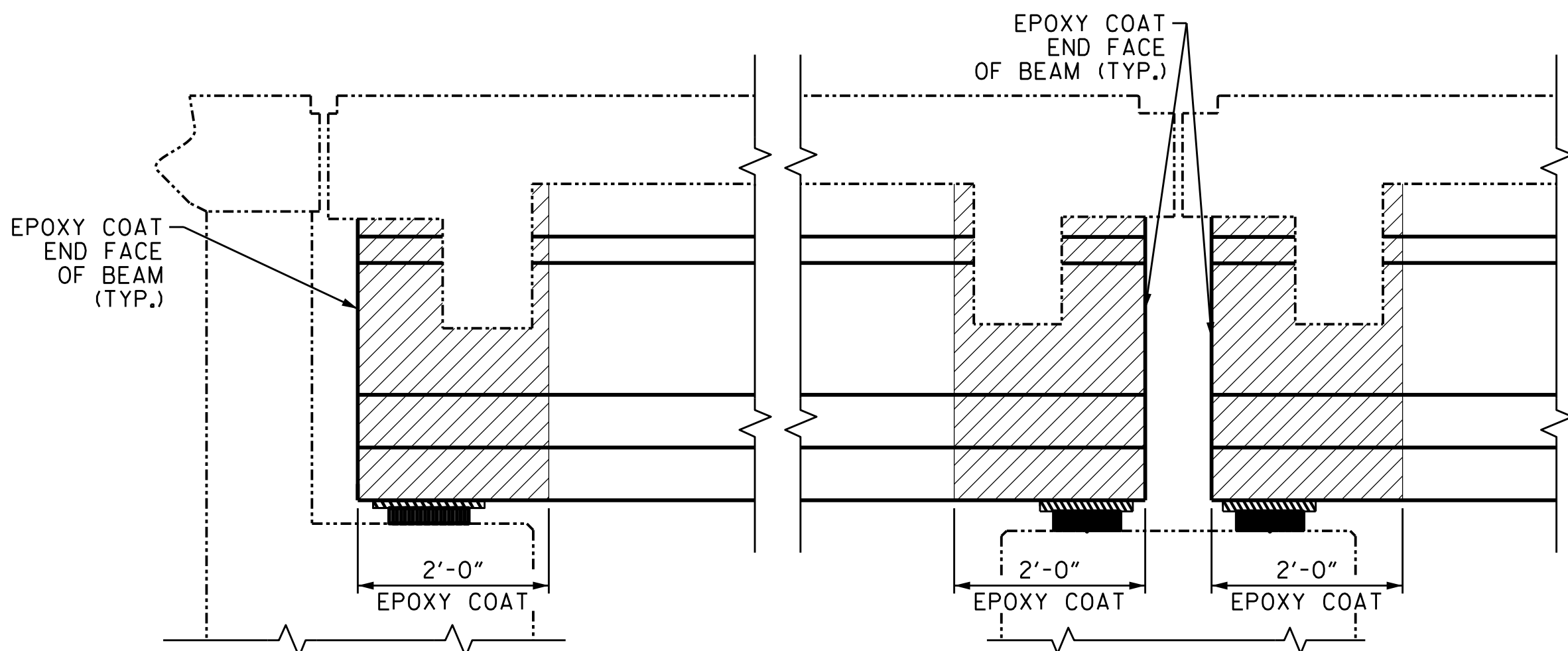
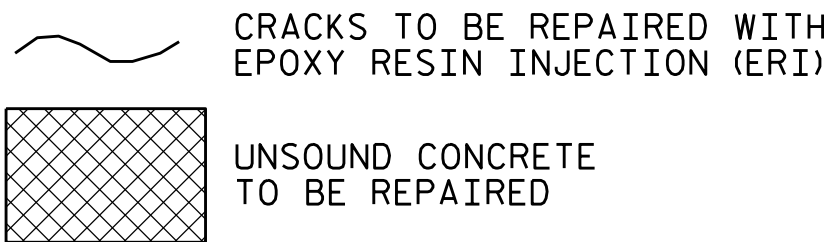


GIRDER WEB REPAIR



GIRDER FLANGE REPAIR

PRESTRESSED GIRDER REPAIR



END BENT

BENT

LIMITS OF EPOXY COATING

NOTES:

PREPACKAGED MATERIAL IS REQUIRED.

CONSULT WITH THE ENGINEER TO DETERMINE PRELOADING REQUIREMENTS WHEN REPAIR IS WITHIN THE CENTER REGION OF THE BEAM (0.25L TO 0.75L).

FOR REPAIRS OVER TRAFFIC AND SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING 1/4" GALVANIZED BOLTS, EPOXY ANCHORED WITH 2" EMBEDMENT. PLACE BOLTS IN A 6" GRID. USE A LATEX OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.

FOR REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION (ERI), SEE SPECIAL PROVISIONS.

FOR EPOXY COATING CONCRETE GIRDER ENDS, SEE SPECIAL PROVISIONS.

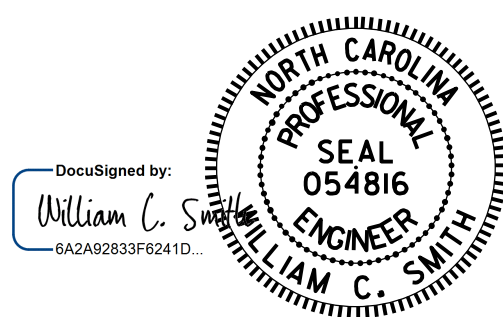
PRESTRESSED GIRDER STRAND REPAIR SEQUENCE:

- REMOVE LIVE LOAD FORM REPAIR AREA BY EITHER CLOSING BRIDGE TO TRAFFIC OR SHIFTING TRAFFIC AWAY FROM REPAIR AREA.
- MEASURE OUT THE AREA NEEDED TO HAVE ADEQUATE ROOM TO SPLICE THE BROKEN OR DAMAGED STRAND. IF MULTIPLE STRANDS ARE BROKEN ADJACENT TO ONE ANOTHER THEN THE SPLICES SHALL BE STAGGERED, SEE "SPLICE OFFSET" ABOVE. AFTER YOU HAVE DETERMINED THE REPAIR AREA NEEDED, SAW CUT A MINIMUM OF 1/2" AT RIGHT ANGLES AROUND THE DAMAGED AREA. CHIP OUT REST OF CONCRETE TO A SUFFICIENT REPAIR DEPTH.
- SPLICE STRANDS USING THE MECHANICAL SPLICE STRAND ASSEMBLY AND TENSION TO REQUIRED FORCE PER THE MANUFACTURER'S GUIDELINES.
- PATCH REPAIR AREA USING NON SHRINK GROUT. PROFILE OF GIRDER MAY NEED TO BE INCREASED AROUND REPAIR AREA TO PROVIDE PROPER COVER.
- AFTER GROUT HAS CURED PLACE TRAFFIC BACK ON BRIDGE OR REPAIRED AREA OF BRIDGE.

PRESTRESSED GIRDER REPAIR SEQUENCE:

- SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
- REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A NOMINAL DEPTH OF 1/2".
- REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM 1/2" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
- ▲ IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
- ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
- CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED GIRDERS SPECIAL PROVISION. IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED CONCRETE GIRDERS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
- REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
- PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.

PROJECT NO. 15BPR.137  
BEAUFORT COUNTY  
BRIDGE NO. 060353



11/21/2025

ASSEMBLED BY : P. K. NEWTON DATE : 5/1/2024  
CHECKED BY : W. C. SMITH DATE : 5/2/2024  
DRAWN BY : NAP 08/18  
CHECKED BY :

11/21/2025  
R:\Structures\15BPR.137\Plans\401.433.15BPR.137\_SMU\_PrestressedGirderRepair\_S-217.060353.dgn  
wsmith

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-217 TOTAL SHEETS 217
STANDARD PRESTRESSED CONCRETE GIRDER REPAIR DETAILS						
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			



STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS .....	AASHTO (CURRENT)
LIVE LOAD .....	SEE PLANS
IMPACT ALLOWANCE .....	SEE AASHTO
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36 .....	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W ...	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50 .....	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60 .....	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION .....	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR .....	SEE AASHTO
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS .....	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER .....	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH .....	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2024 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED ¾" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1½" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A ¼" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A ¼" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7⁄8" Ø SHEAR STUDS FOR THE ¾" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7⁄8" Ø STUDS FOR 4 - ¾" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7⁄8" Ø STUDS ALONG THE BEAM AS SHOWN FOR ¾" Ø STUDS BASED ON THE RATIO OF 3 - 7⁄8" Ø STUDS FOR 4 - ¾" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5⁄16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1⁄16" OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.