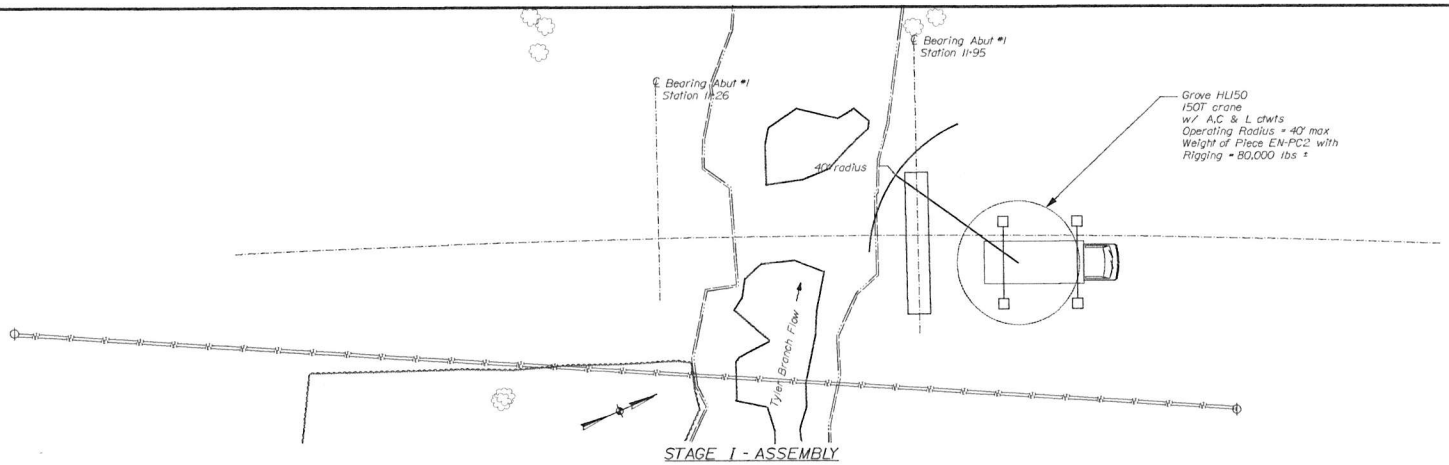
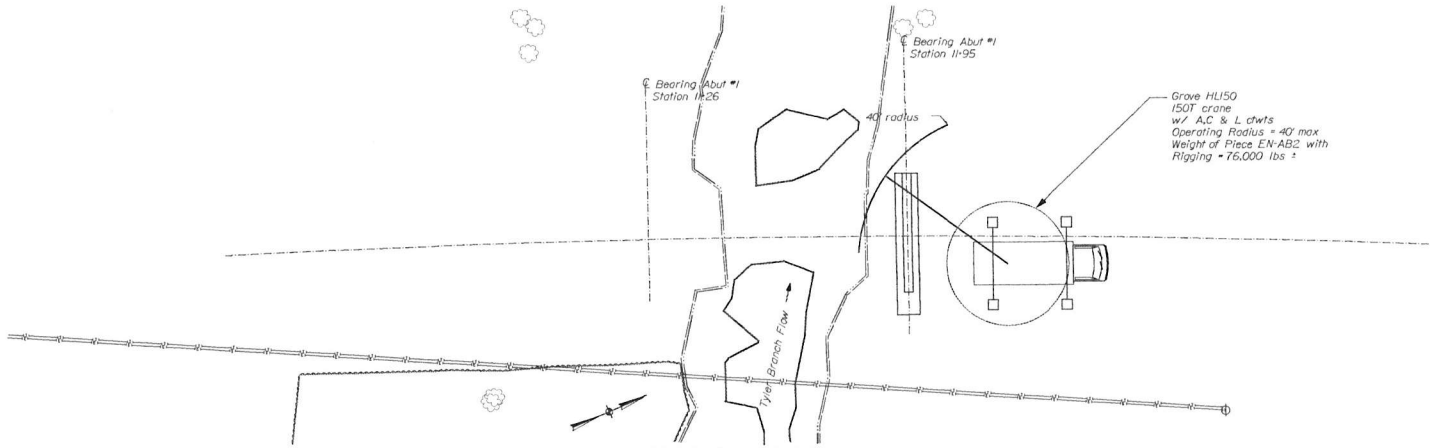


STAGE I - ASSEMBLY

1. ONCE SITE PREPARATION IS COMPLETE BEGIN INSTALLATION WITH PILE CAP PIECE EN-PC2 35.8 T
2. ENSURE ELEVATIONS AND POSITIONS ARE CORRECT ON PIECE. INSTALL RAPID SETTING CONCRETE AROUND MICROPILING PER CONTRACT REQUIREMENTS.
3. ALLOW CONCRETE TO REACH REQUIRED STRENGTH PER CONTRACT REQUIREMENTS OR 2,500 PSI WHICHEVER IS HIGHER PROCEED TO STAGE II
4. VERIFY PROJECTING REINFORCEMENT LENGTHS AND LAYOUTS FOR NMB SPLICE SLEEVES INTO PIECE EN-AB2
5. VERIFY LOCATIONS OF SPLICE SLEEVES IN PIECE EN-AB2
6. INSTALL WASHERS ON PROJECTING REINFORCING TO PREVENT THE INFLOW OF BEDDING GROUT INTO THE SPLICE SLEEVES



STAGE II - ASSEMBLY

6. INSTALL PIECE EN-AB2 ONTO PILE CAP EN-PC2 USING PLASTIC SHIMS TO ENSURE THE CORRECT ELEVATION CONTROL.
7. USE PUSH PULL BRACES IF REQUIRED TO ENSURE ABUTMENT IS PLUMB, AND TO VERIFY EXACT LAYOUT OF ℄ BEARING.
8. PLACE FLOWABLE GROUT UNDER THE ABUTMENT. BEGIN GROUTING ON ONE SIDE OF THE ABUTMENT AND FLOW GROUT TO THE OTHER SIDE OF THE ABUTMENT. STOP GROUTING WHEN GROUT REACHES APPROXIMATELY 1/8 TO 1/4 " ABOVE THE BOTTOM OF THE ABUTMENT PIECE. DO NOT FILL KEY FULL HEIGHT. DO NOT FILL OVER THE HEIGHT OF THE NMB COUPLER GROUT PORTS.
9. ENSURE BACKUP GROUT PUMPS ARE AVAILABLE ONSITE FOR THE NMB SPLICE SLEEVES. EXTRA PLUGS FOR GROUT PORTS SHOULD BE AVAILABLE AS WELL.
10. INSTALL SS MORTAR IN THE SPLICE SLEEVES PER THE MANUFACTURERS WRITTEN RECOMMENDATIONS. BEGIN AT ONE END OF THE WALL AND WORK CONTINUOUSLY TO THE OTHER END OF PIECE EN-AB2 GROUTING THE NEAR FACE AND FAR FACE SLEEVES AT APPROXIMATELY THE SAME PACE.
11. CURE SS MORTAR IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
12. VERIFY ABUTMENT PROJECTING REINFORCEMENT FOR WING SPLICE SLEEVES

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PREPARED FOR:
A.L. ST. ONGE CONTRACTOR, INC
VTAOT PROJ. NUMBER BRO-1448(40)
CEE 70-BR-14

STATE OF VERMONT REG. CAD NO. 9343 STRUCTURAL ENGINEER CENSED

	BY	DATE
DESIGN-DETAILED	ETC	7/14
CHECKED-REVIEWED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

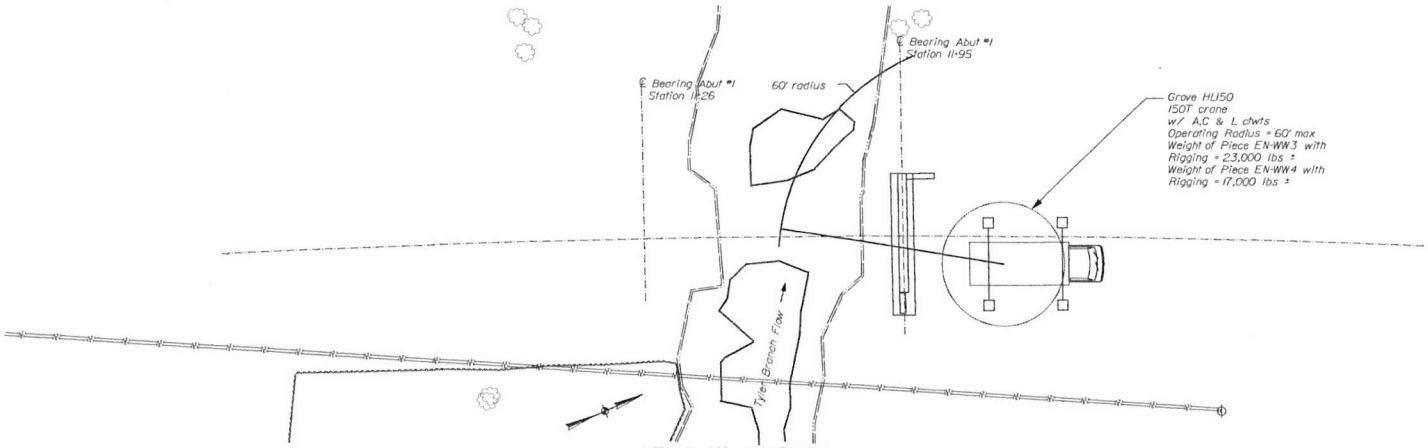
P.E. NUMBER
JUL 2014
DATE

ENOSBURG-VT BOSTON POST RD
OVER TYLER BRANCH

SUBSTRUCTURE ASSEMBLY PLAN

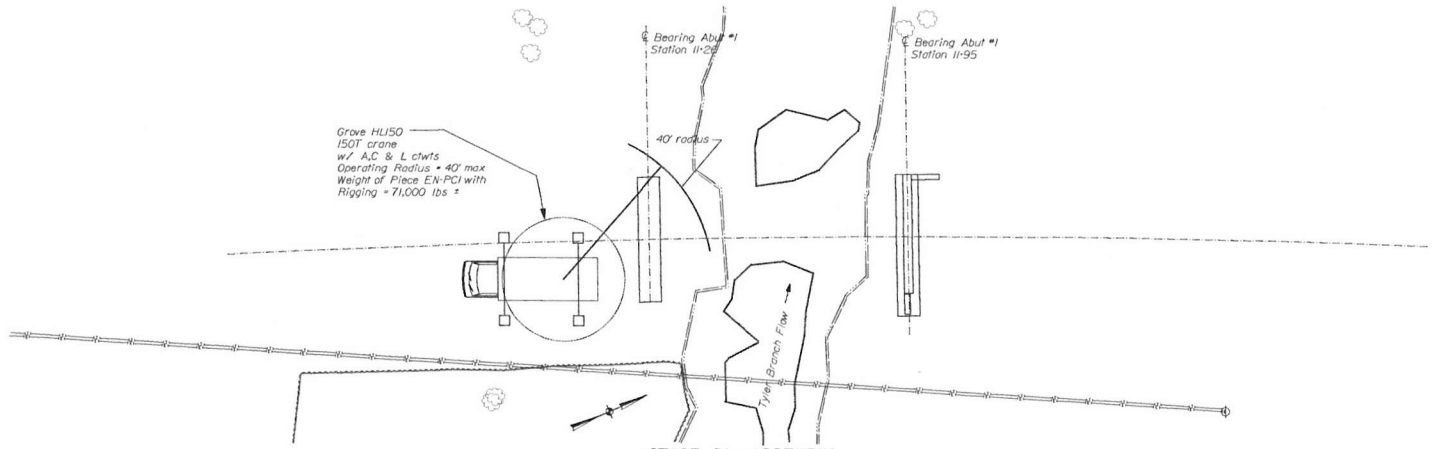
SHEET NUMBER
1

Workgroup: Structures Division Username: Eric Date 7/11/2014



STAGE III - ASSEMBLY

13. INSTALL PIECES EN-WW3 ONTO PIECE EN-AB2 & EN-WW4 ONTO PILE CAP EN-PC2 USING PLASTIC SHIMS TO ENSURE THE CORRECT ELEVATION CONTROL.
14. PLUMB PIECE EN-WW4 AND INSTALL FLOWABLE GROUT UNDER PIECE EN-WW4 AS PER APPLICABLE STEPS FOR ABUTMENT PIECE EN-AB2.
15. INSTALL PIECE EN-WW3.
16. ENSURE LAYOUT OF PIECE EN-WW3 IS CORRECT
17. GROUT SPLICE SLEEVES FOR PIECE EN-WW3 AND EN-WW4 USING SS MORTAR IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS
18. GROUT JOINT AND SHEAR KEY BETWEEN ABUTMENT AND EN-WW4. SEAL AND FILL JOINT BETWEEN ABUTMENT AND EN-WW3 WITH EPOXY.
19. ONCE SS MORTAR HAS CURED FOR 24 HOURS BRACING MAY BE REMOVED



STAGE IV - ASSEMBLY

20. ENSURE ELEVATIONS AND POSITIONS ARE CORRECT ON PIECE, INSTALL RAPID SETTING CONCRETE AROUND MICROPILING PER CONTRACT REQUIREMENTS.
21. ALLOW CONCRETE TO REACH REQUIRED STRENGTH PER CONTRACT REQUIREMENTS OR 2,500 PSI WHICHEVER IS HIGHER PROCEED TO STAGE V
22. VERIFY PROJECTING REINFORCEMENT LENGTHS AND LAYOUTS FOR NMB SPLICE SLEEVES INTO PIECE EN-AB1
23. VERIFY LOCATIONS OF SPLICE SLEEVES IN PIECE EN-AB2
24. INSTALL WASHERS ON PROJECTING REINFORCING TO PREVENT THE INFLOW OF BEDDING GROUT INTO THE SPLICE SLEEVES (RUBBER PLUGS)

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PREPARED FOR:
A.L. ST. ONGE CONTRACTOR, INC
VTAOT PROJ. NUMBER BRO-1448(40)
CEE 70-BR-14

STATE OF VERMONT
ERIC - CALDERWOOD
NO. 5
LICENSED PROFESSIONAL ENGINEER

	BY	DATE
DESIGN-DETAILED	ETC	7/14
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REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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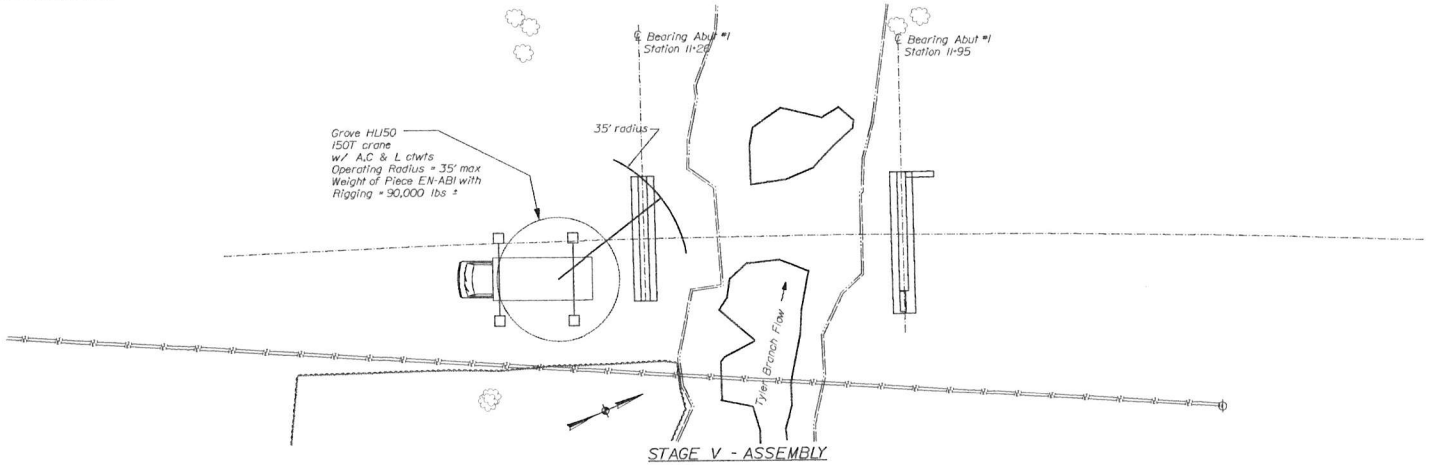
JUL 2014
DATE

ENOSBURG-VT BOSTON POST RD OVER TYLER BRANCH

SUBSTRUCTURE ASSEMBLY PLAN

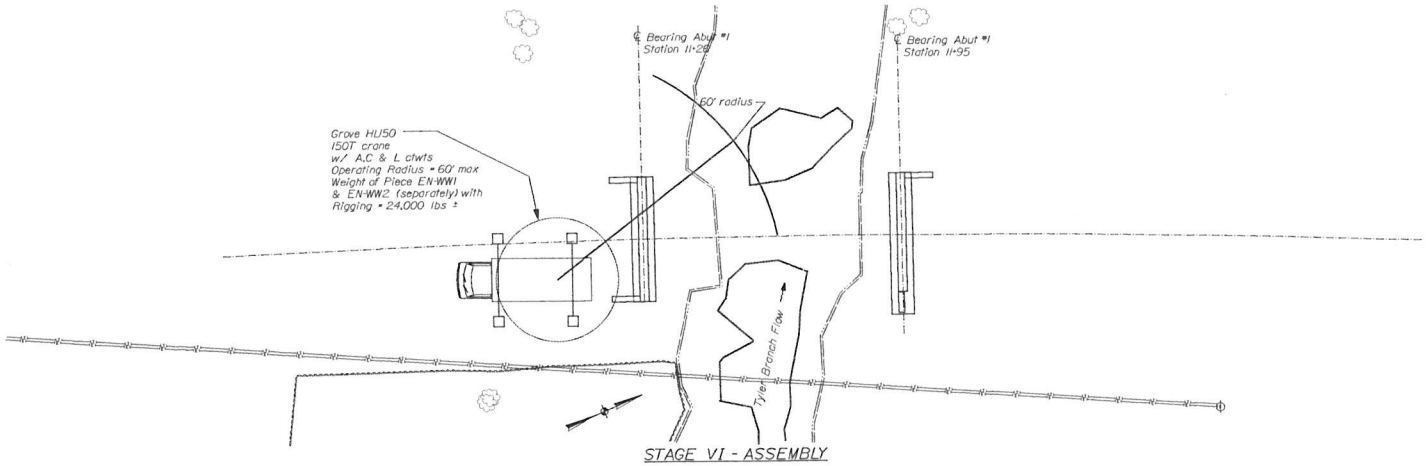
SHEET NUMBER
2

Workgroup: Structures Division Username: Eric Date:7/11/2014



STAGE V - ASSEMBLY

25. INSTALL PIECE EN-AB1 ONTO PILE CAP EN-PC1 USING PLASTIC SHIMS TO ENSURE THE CORRECT ELEVATION CONTROL.
26. USE PUSH PULL BRACES IF REQUIRED TO ENSURE ABUTMENT IS PLUMB, AND TO VERIFY EXACT LAYOUT OF ℄ BEARING.
27. PLACE FLOWABLE GROUT UNDER THE ABUTMENT. BEGIN GROUTING ON ONE SIDE OF THE ABUTMENT AND FLOW GROUT TO THE OTHER SIDE OF THE ABUTMENT. STOP GROUTING WHEN GROUT REACHES APPROXIMATELY 1/8 TO 1/4 " ABOVE THE BOTTOM OF THE ABUTMENT PIECE. DO NOT FILL KEY FULL HEIGHT. DO NOT FILL OVER THE HEIGHT OF THE NMB COUPLER GROUT PORTS.
28. ENSURE BACKUP GROUT PUMPS ARE AVAILABLE ONSITE FOR THE NMB SPLICE SLEEVES. EXTRA PLUGS FOR GROUT PORTS SHOULD BE AVAILABLE AS WELL.
29. INSTALL SS MORTAR IN THE SPLICE SLEEVES PER THE MANUFACTURERS WRITTEN RECOMMENDATIONS. BEGIN AT ONE END OF THE WALL AND WORK CONTINUOUSLY TO THE OTHER END OF PIECE EN-AB1 GROUTING THE NEAR FACE AND FAR FACE SLEEVES AT APPROXIMATELY THE SAME PACE.
30. CURE SS MORTAR IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
31. VERIFY ABUTMENT PROJECTING REINFORCEMENT FOR WING SPLICE SLEEVES



STAGE VI - ASSEMBLY

32. INSTALL PIECES EN-WW1 ONTO PIECE EN-AB1 & EN-WW2 ONTO PIECE EN-AB1
33. ENSURE LAYOUT OF WINGWALL PIECES EN-WW1 AND EN-WW2 ARE CORRECT INSTALL EXTERNAL BRACING TO HOLD PIECES IN THEIR FINAL POSITIONS DURING GROUTING PROCESS.
34. GROUT SPLICE SLEEVES FOR PIECE EN-WW1 AND EN-WW2 USING SS MORTAR IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS
35. SEAL AND FILL JOINTS BETWEEN ABUTMENT AND EN-WW1 & EN-WW2 WITH EPOXY.
36. ONCE SS MORTAR HAS CURED FOR 24 HOURS BRACING MAY BE REMOVED

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PREPARED FOR:
A.L. ST. ONGE CONTRACTOR, INC
VTAOT PROJ. NUMBER BRO-1448(40)
CEE 70-BR-14

STATE OF VERMONT
ROBERT C. CALDERWOOD
NO. 8743
LICENSED PROFESSIONAL ENGINEER

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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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JUL 2014
DATE

ENOSBURG-VT BOSTON POST RD OVER TYLER BRANCH

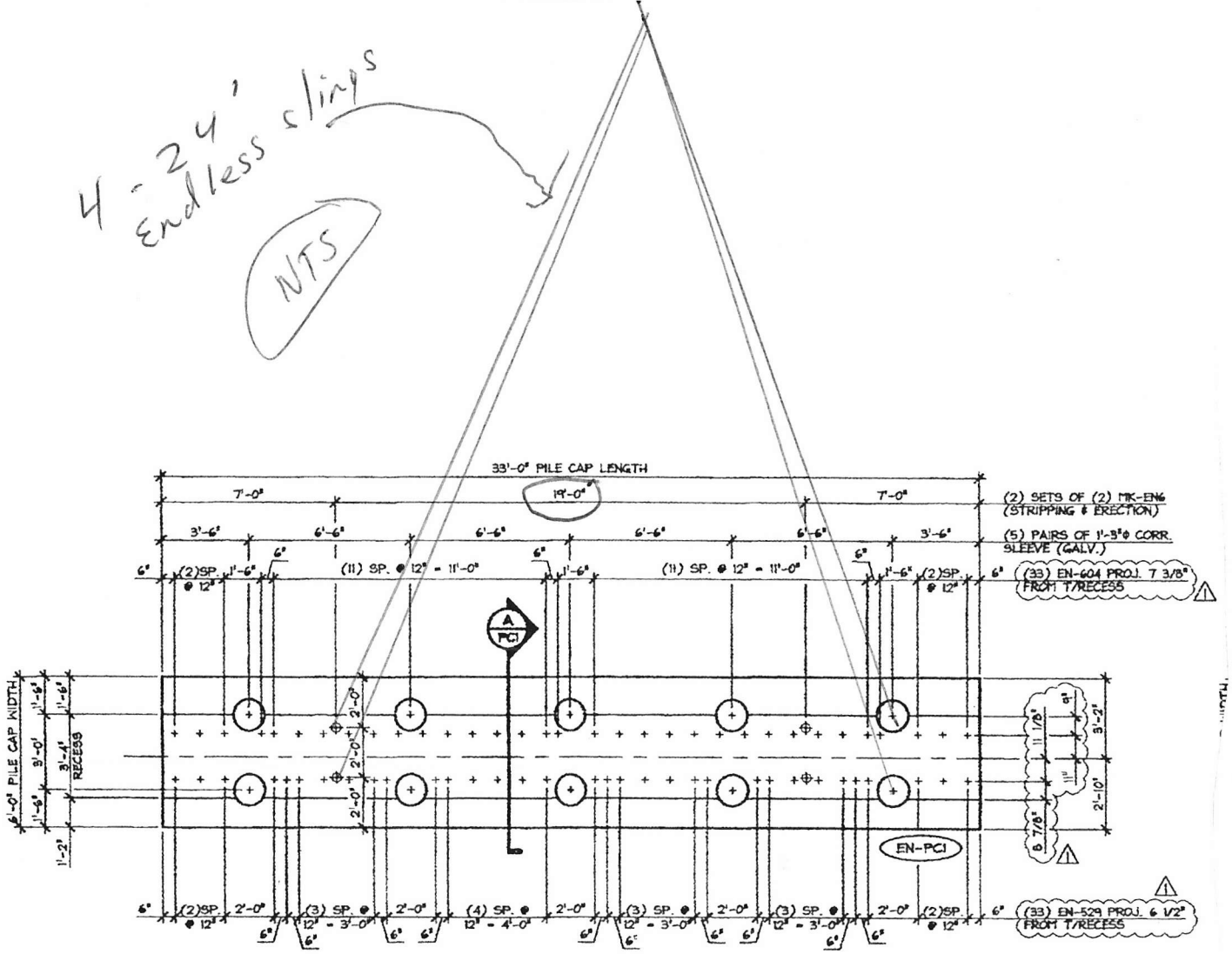
SUBSTRUCTURE ASSEMBLY PLAN

SHEET NUMBER
3

Workgroup: Structures Division Username: Eric Date: 7/11/2014

4 - 24' Endless slings

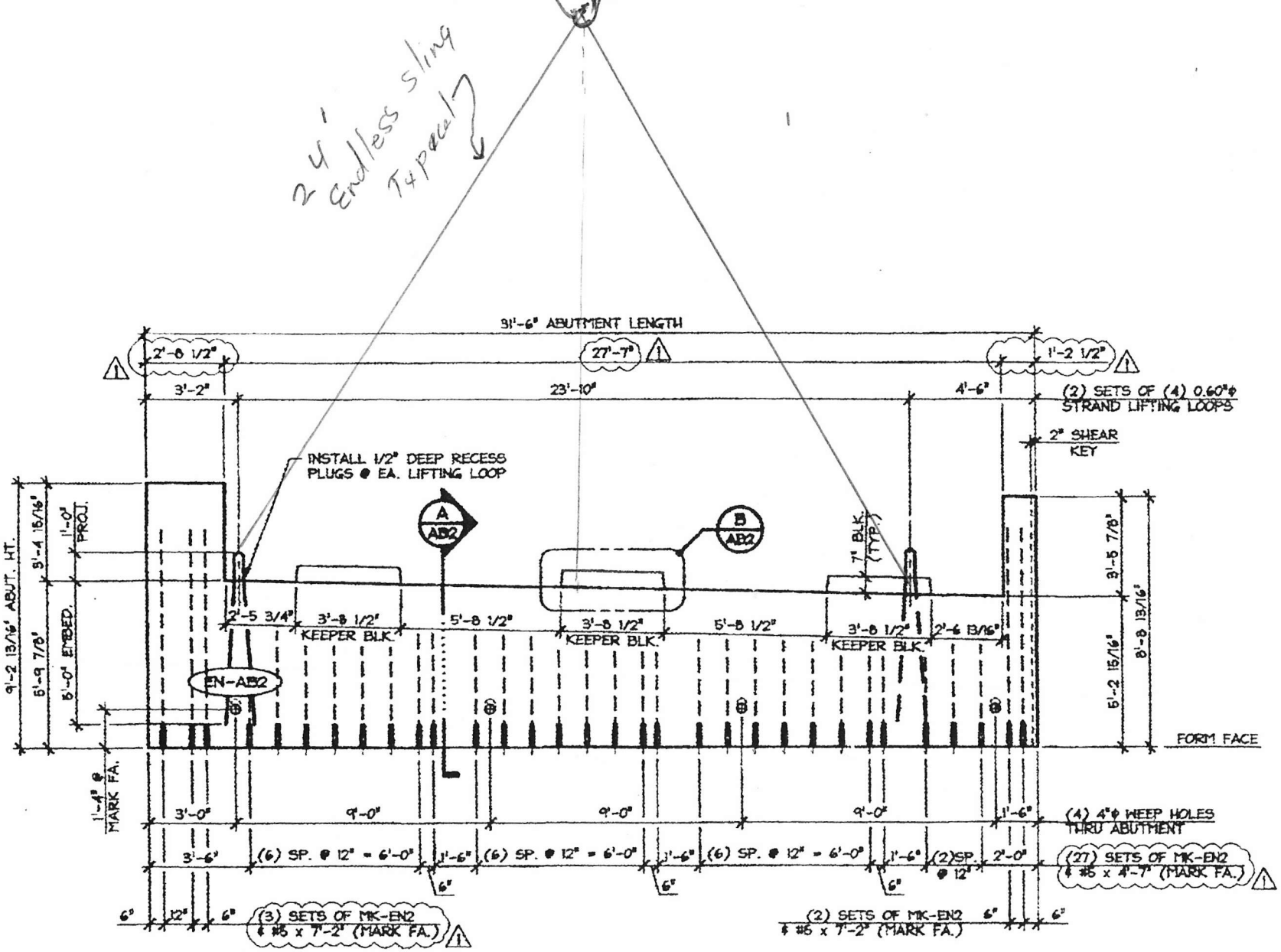
NTS



1 / PCI DIMENSIONAL PLAN VIEW IN FORM

1/4" = 1'-0"

Footing



2 / AB2 DIMENSIONAL ELEVATION (MARK FACE)

1/4" = 1'-0"

stem

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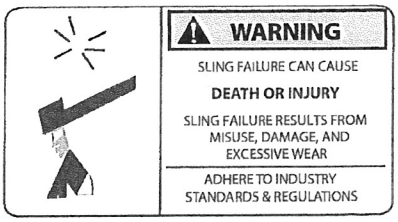
ENDLESS ROUNDSLING CAPACITY CHART

	Part Number	Vertical	Choker	Basket	Minimum Length	Approx. Diameter	Approx. WT / FT
PURPLE	ENR1	2600	2100	5200	3′	.625″	0.3 LB
GREEN	ENR2	5300	4200	10600	3′	.875″	0.4 LB
	ENR3	8400	6700	16800	3′	1.125″	0.5 LB
	ENR4	10600	8500	21200	3′	1.125″	0.6 LB
RED	ENR5	13200	10600	26400	3′	1.375″	0.8 LB
WHITE	ENR6	16800	13400	33600	6′	1.375″	0.9 LB
BLUE	ENR7	21200	17000	42400	6′	1.625″	1.3 LB
ORANGE	ENR8	25000	20000	50000	6′	1.750″	1.6 LB
ORANGE	ENR9	31000	24800	62000	6′	2.125″	2.0 LB
ORANGE	ENR10	40000	32000	80000	6′	2.350″	2.6 LB
ORANGE	ENR11	53000	42400	106000	8′	3.150″	3.4 LB
ORANGE	ENR12	66000	52800	132000	8′	3.950″	4.3 LB
ORANGE	ENR13	90000	72000	180000	8′	4.800″	5.9 LB

We are
using These

**Before ordering slings that are going to be used in a chemically active environment, contact Liftex® Customer Service, to recommend the right sling for the right usage.*

***Chemically Active Environments can affect the** strength of webbing slings in varying degrees, ranging from little to total degradation.*