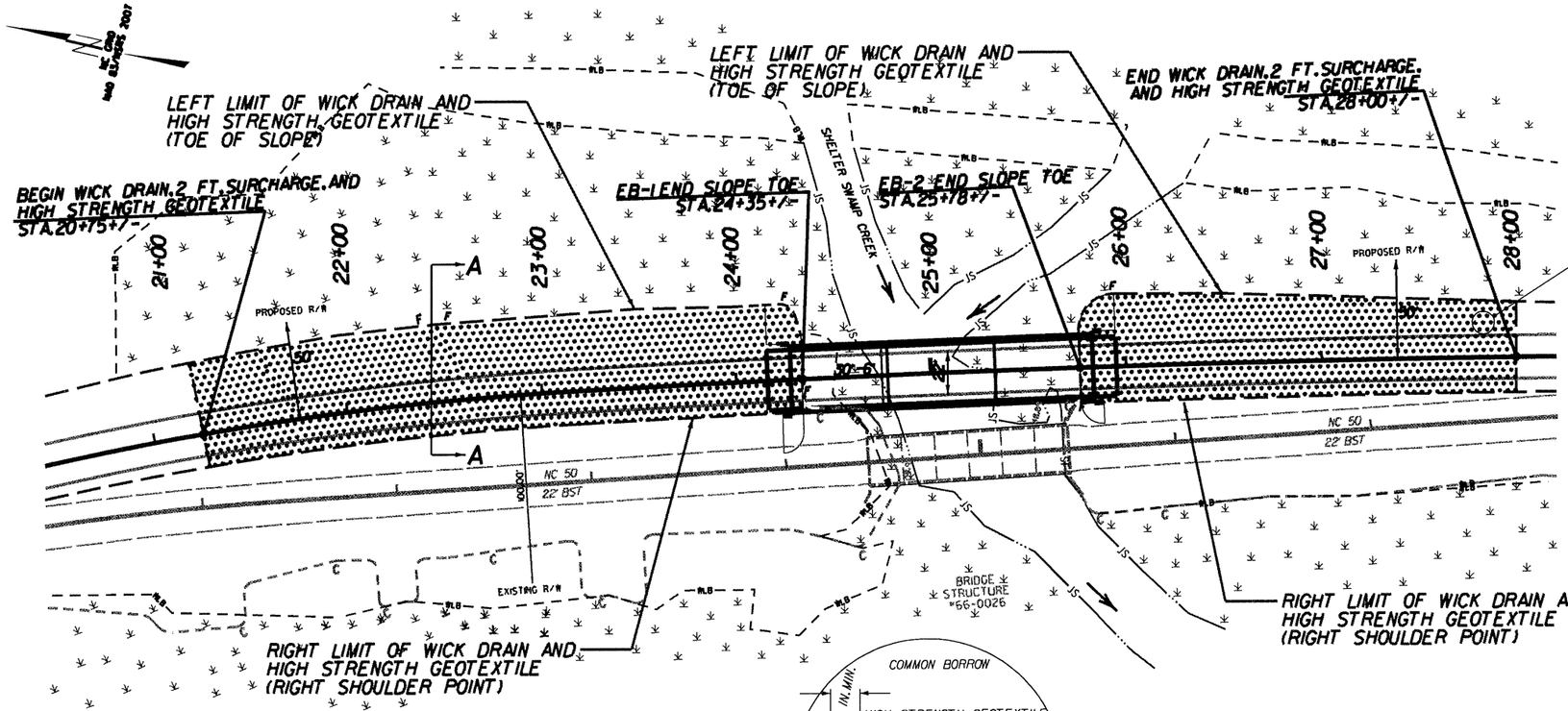
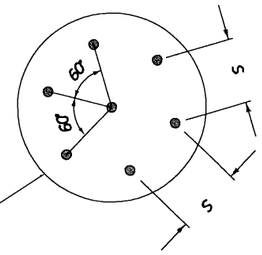
PROJECT REFERENCE NO.	SHEET
SF-660026, ONSLOW COUNTY	1

GEOTECHNICAL ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 036278 ENGINEER MAJID KHAZAEI
SIGNATURE 6-16-14 DATE





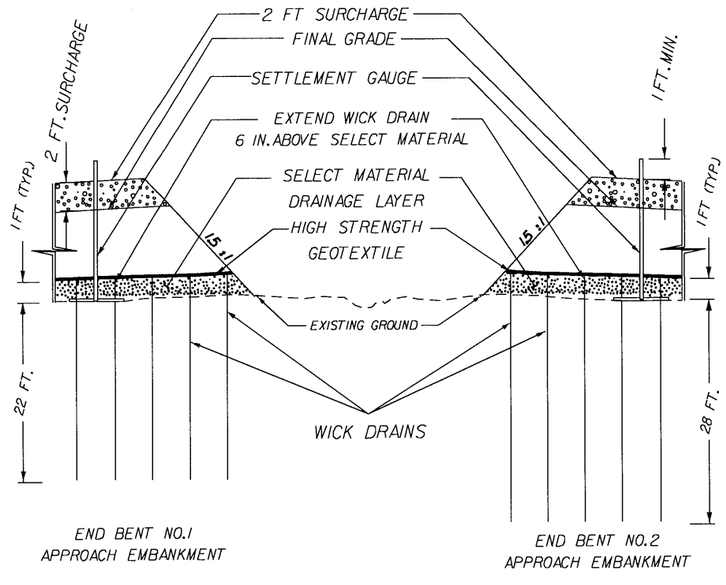
FOR WICK DRAIN SPACING, S SEE TABLE

WICK DRAIN SYSTEM CONFIGURATION				
STATIONS		LINE	WICK DRAIN SPACING, S / LENGTH, L	MINIMUM WAITING PERIOD
FROM	TO			
20 + 75 ±	24 + 35 ±	- L -	S=4 FT. / L=22 FT.	3 MONTH
25 + 78 ±	28 + 00 ±	- L -	S=4 FT. / L=28 FT.	3 MONTH

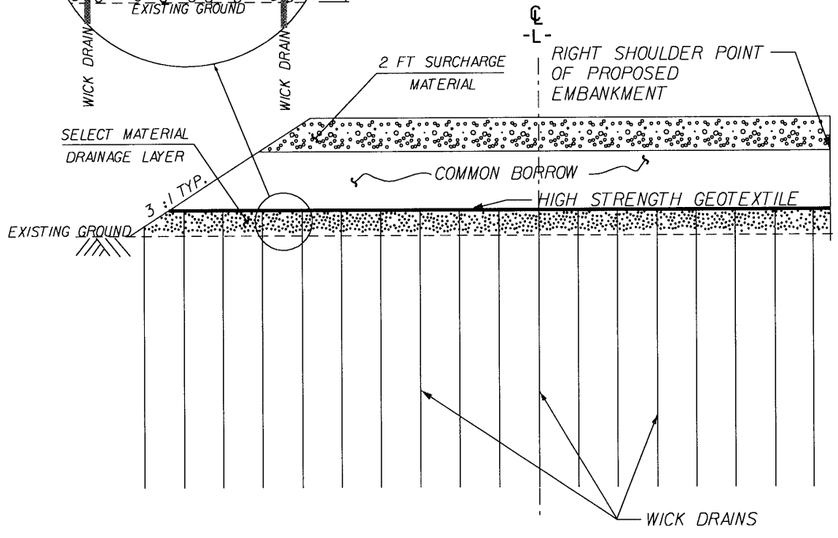
NOTES

1. FOR WICK DRAINS, SEE INSTALLATION OF VERTICAL WICK DRAINS AND DRAINAGE LAYER SPECIAL PROVISION.
2. UNDERCUT AND BACKFILL WITH SELECT GRANULAR MATERIAL, CLASS III, TYPE 1 OR 3, AS SHOWN ON THE PLANS PRIOR TO EMBANKMENT SETTLEMENT PLATE AND WICK DRAIN INSTALLATION.
3. INSTALL EMBANKMENT SETTLEMENT PLATES PRIOR TO PLACEMENT OF ONE FOOT DRAINAGE BLANCKET LAYER.
4. FOR DRAINAGE LAYER USE SELECT GRANULAR MATERIAL, CLASS III, TYPE 1 OR 3, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. INSTALL WICK DRAINS IN ACCORDANCE WITH THE PROVISIONS, PLANS, AND/OR AS DIRECTED BY THE ENGINEER AFTER PLACING SELECT MATERIAL DRAINAGE LAYER. WICK DRAINS SHALL PENETRATE THE DRAINAGE LAYER AND BE INSTALLED TO THE LENGTHS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. HIGH STRENGTH GEOTEXTILE SHALL BE PLACED ON TOP OF DRAINAGE LAYER AFTER WICK DRAINS HAVE BEEN INSTALLED. SEE GEOTEXTILE FOR EMBANKMENT STABILIZATION SPECIAL PROVISION.
7. CONSTRUCT EMBANKMENT WITH 2 FT. SURCHARGE ABOVE THE FINAL GRADE ELEVATIONS.
8. MAINTAIN THE EMBANKMENT SURCHARGE ELEVATIONS THROUGHOUT THE WAITING PERIOD.
9. FOR SETTLEMENT GAUGE, SEE EMBANKMENT MONITORING SPECIAL PROVISION AND EMBANKMENT MONITORING DETAIL SHEET.
10. WAITING PERIOD BEGINS AFTER INSTALLING EMBANKMENT AND SURCHARGE.

ESTIMATED QUANTITIES	
WICK DRAINS	51,600 FT.
GEOTEXTILE FOR EMBANKMENT STABILIZAEION, SIDE SLOPE	4,600 SY.
GEOTEXTILE FOR EMBANKMENT STABILIZAEION, END SLOPE	650 SY.
2 FT. SURCHARGE MATERIAL	1,300 CY.



SECTION ALONG ℄ -L-
NOT TO SCALE



A-A CROSS SECTION
NOT TO SCALE

PREPARED BY: M. KHAZAEI	DATE: 12/4/12
REVIEWED BY: C.A. KREIDER	DATE: 12/4/12

GEOTECHNICAL ENGINEERING UNIT
■ EASTERN REGIONAL OFFICE
□ WESTERN REGIONAL OFFICE

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

WICK DRAIN, SURCHARGE, AND GEOTEXTILE FOR EMBANKMENT STABILIZATION DETAILS

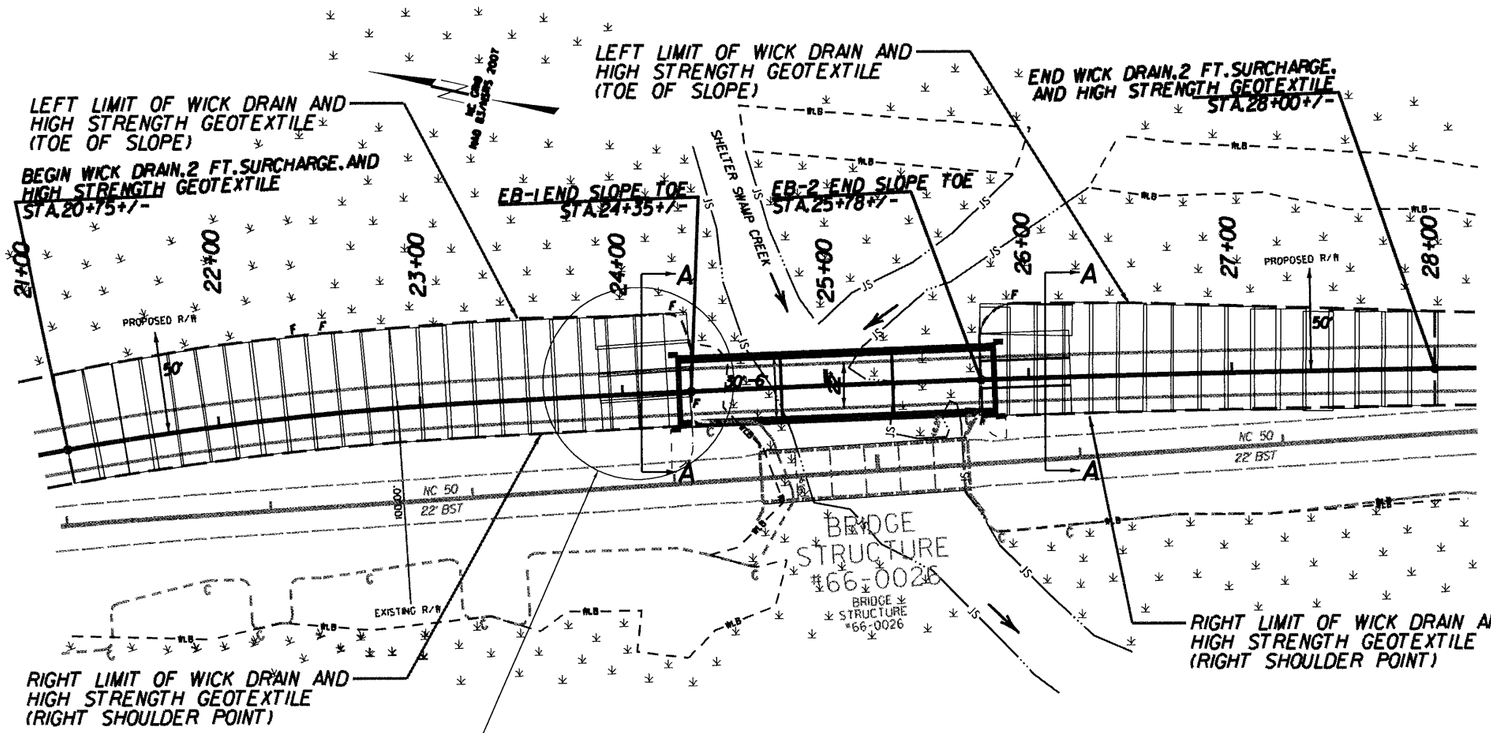
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

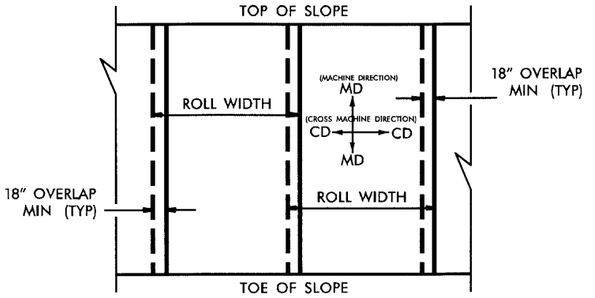
PROJECT REFERENCE NO.	SHEET
SF-660026, ONSLOW COUNTY	1

GEOTECHNICAL ENGINEER

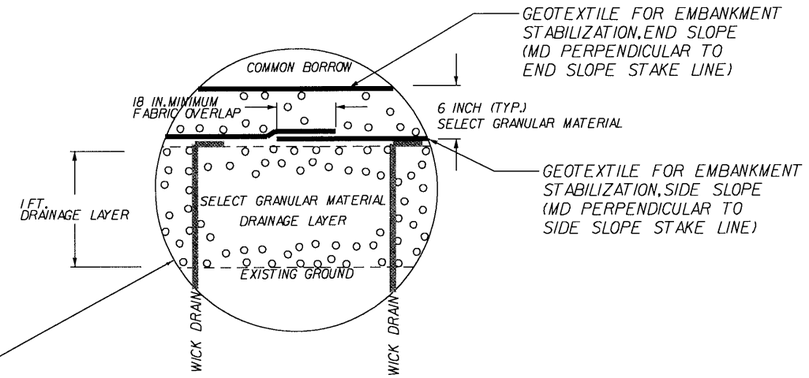
NORTH CAROLINA PROFESSIONAL SEAL 036278 ENGINEER MAJID KHAZAEI

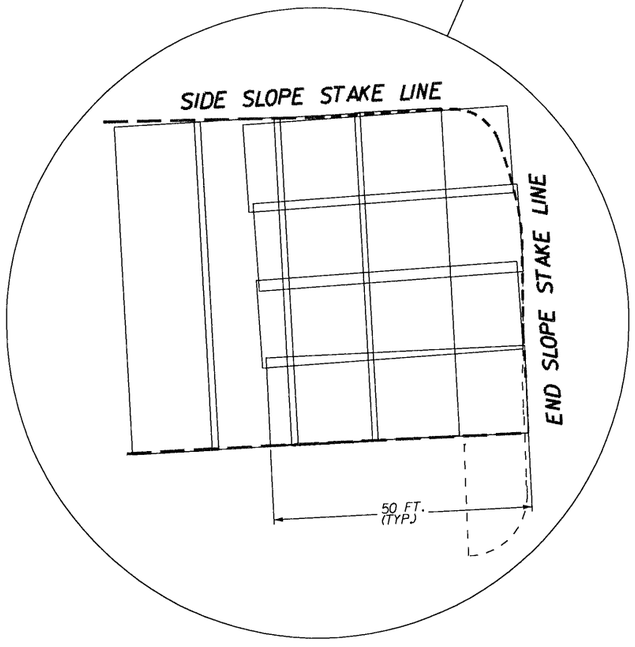
SIGNATURE 6-16-14 DATE

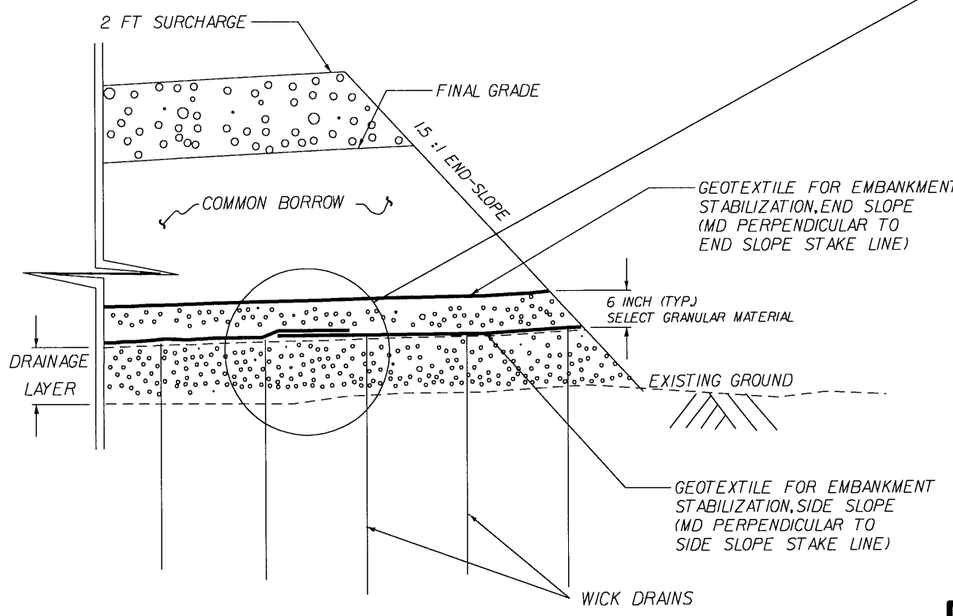




FABRIC OVERLAP DETAIL (PLAN VIEW)







SECTION ALONG ℄ -L- (END SLOPE)

NOT TO SCALE

NOTES

1. FOR HIGH STRENGTH GEOTEXTILE, SEE GEOTEXTILE FOR EMBANKMENT STABILIZATION SPECIAL PROVISION.
2. PLACE GEOTEXTILE FOR EMBANKMENT STABILIZATION, SIDE SLOPE, WITH MEACHINE DIRECTION PERPENDICULAR TO THE SIDE SLOPE STAKE LINE AND EXTEND TO THE RIGHT LIMIT AS SHOWN IN THIS PLAN AND IN ACCORDANCE WITH GEOTEXTILE FOR EMBANKMENT STABILIZATION SPECIAL PROVISION.
3. PLACE AND COMPACT 6 INCHES OF SELECT GRANULAR MATERIAL ON TOP OF GEOTEXTILE FOR EMBANKMENT STABILIZATION, SIDE SLOPE, PRIOR TO PLACEMENT OF GEOTEXTILE FOR EMBANKMENT STABILIZATION, END SLOPE.
4. PLACE 50 FT. LONG GEOTEXTILE FOR EMBANKMENT STABILIZATION, END SLOPE, WITH MEACHINE DIRECTION PERPENDICULAR TO THE END SLOPE STAKE LINE AS SHOWN IN THIS PLAN AND IN ACCORDANCE WITH GEOTEXTILE FOR EMBANKMENT STABILIZATION SPECIAL PROVISION.

PREPARED BY:	M. KHAZAEI	DATE:	12/4/12
REVIEWED BY:	C.A. KREIDER	DATE:	12/4/12

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GEOTEXTILE FOR EMBANKMENT STABILIZATION PLACEMENT DETAIL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

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GEOTECHNICAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 036278 ENGINEER MAJID KHAZAEI

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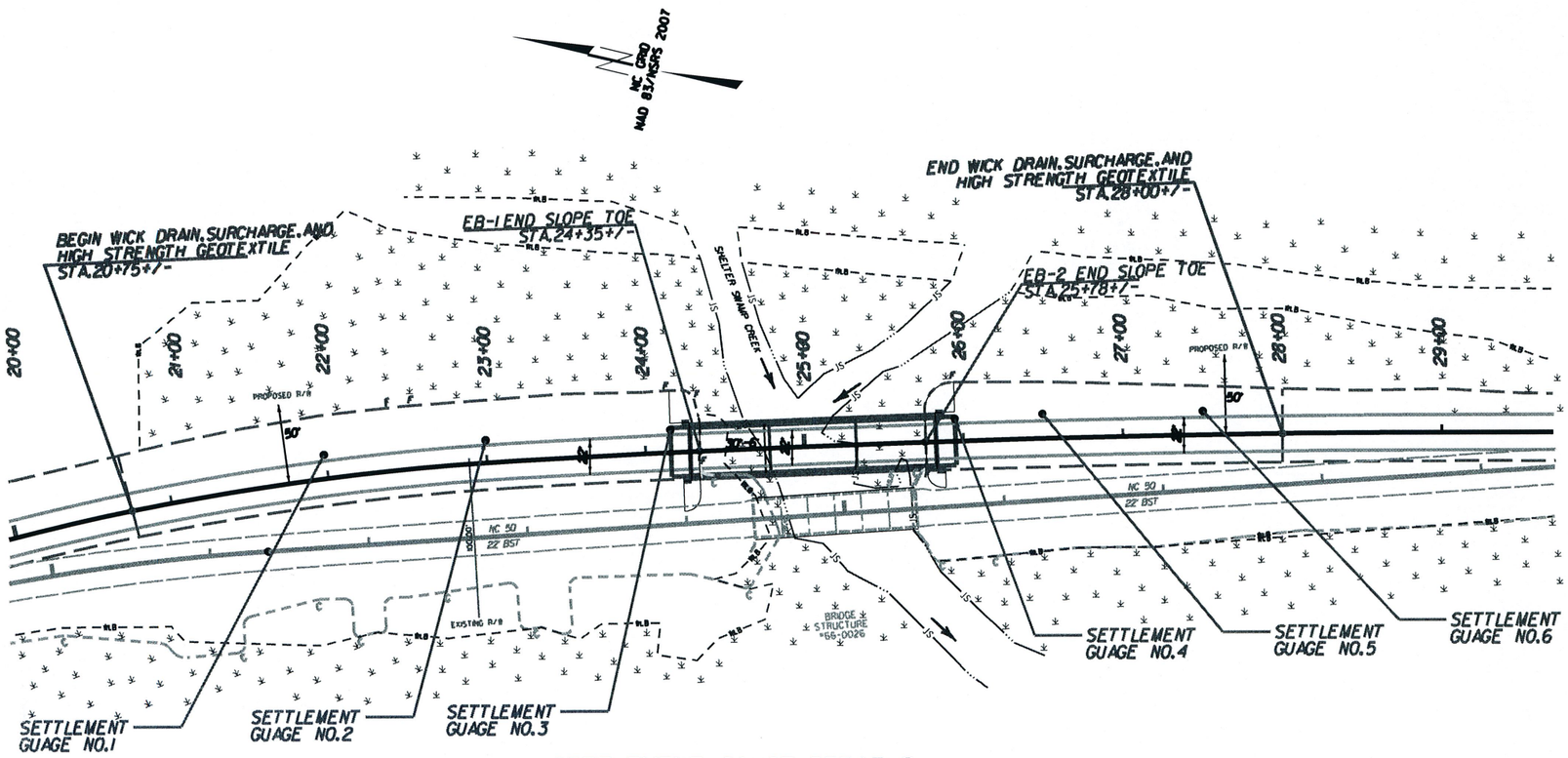
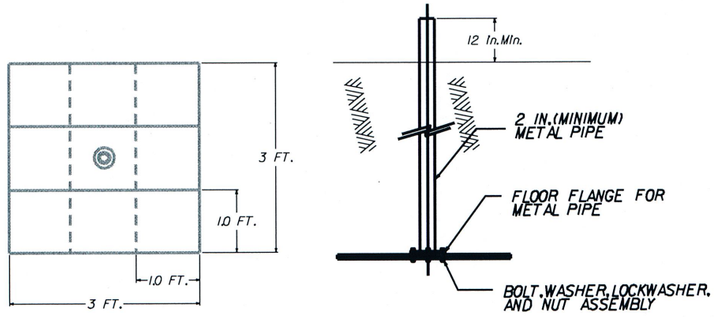


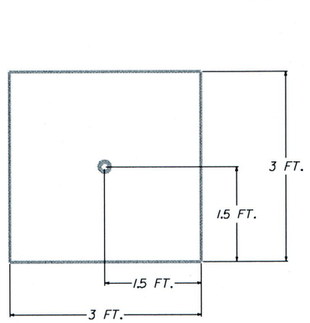
SETTLEMENT GAUGE DETAILS

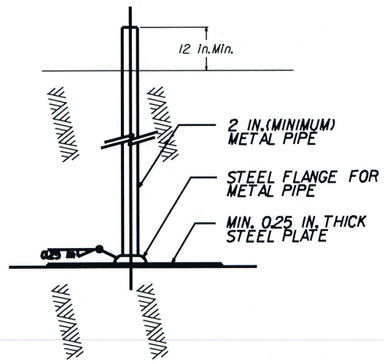
NOT TO SCALE



DETAIL OF WOOD BASE

SIX - 1 IN. X 1 FT. X 3 FT. PLANKS OF LUMBER OR TWO PIECES 1 IN. X 3 FT. X 3 FT. EXTERIOR GRADE PLYWOOD, SECURELY FASTENED AND THEN COATED WITH WOOD PRESERVATIVE





DETAIL OF STEEL BASE

SETTLEMENT GAUGE LOCATIONS		
GAUGE NO.	STATION -L-	OFFSET FROM -L-
1	22 + 00 ±	13 FT. ±, LT
2	23 + 00 ±	13 FT. ±, LT
3	24 + 15 ±	13 FT. ±, LT
4	25 + 95 ±	13 FT. ±, LT
5	26 + 50 ±	13 FT. ±, LT
6	27 + 50 ±	13 FT. ±, LT

NOTES

1. THE USE OF EITHER THE WOOD BASE OR THE STEEL BASE SETTLEMENT GAUGE SHALL BE THE CONTRACTOR'S OPTION.
2. SETTLEMENT GAUGES SHALL BE INSTALLED BEFORE ANY FILL IS PLACED.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED SETTLEMENT PLATES AS DIRECTED BY THE ENGINEER AT NO COST TO DEPARTMENT.
4. SETTLEMENT GAUGE ELEVATIONS ARE TO BE DETERMINED AND RECORDED WEEKLY BY THE RESIDENT ENGINEER.
5. THE INITIAL ELEVATION OF THE SETTLEMENT GAUGE PLATE (AT TOP OF PLATE) SHALL BE DETERMINED AT THE TIME OF INSTALLATION ALONG WITH THE EMBANKMENT ELEVATION. WHEN NEW SECTIONS OF THE PIPE ARE ADDED, ELEVATIONS SHALL BE RECORDED AT THE TOP OF EXISTING PIPE AND AT THE TOP OF THE NEW PIPE. THIS IS TO TAKE INTO ACCOUNT INTERIM SETTLEMENT, VARIABLE PIPE LENGTHS, AND THREAD LENGTHS IN COUPLING.
6. RESULTS OF SETTLEMENT GAUGE READINGS SHALL BE FORWARDED TO MR. K.J. KIM, EASTERN REGIONAL GEOTECHNICAL MANAGER, WITHIN THREE DAYS.

SETTLEMENT GUAGE QUANTITIES	
EMBANKMENT SETTLEMENT GAUGES	6

PREPARED BY:	M. KHAZAEI	DATE:	12/4/12
REVIEWED BY:	C.A. KREIDER	DATE:	12/4/12

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RALEIGH

EMBANKMENT MONITORING DETAILS

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		