



### FOUNDATION LAYOUT

PIERS AND ABUTMENTS ARE PARALLEL  
 DIMENSIONS SHOWN ARE TO THE CENTERLINE  
 PILE AT THE BOTTOM OF THE CAP  
 ▲ DENOTES DIRECTION OF 3:12 BATTER

#### NOTES:

- FOR PILES, SEE PILES (LFD-ASD) SPECIAL PROVISIONS.
- DRIVE PILES AT ABUTMENT NO. 2 TO A REQUIRED BEARING CAPACITY OF 110 TONS PER PILE. THE REQUIRED BEARING CAPACITY IS EQUAL TO THE ALLOWABLE BEARING CAPACITY WITH A MINIMUM FACTOR OF SAFETY OF TWO.
- THE ALLOWABLE BEARING CAPACITY FOR PILES AT ABUTMENT NO. 2 IS 55 TONS PER PILE.
- FOR DRILLED PIERS, SEE LFD DRILLED PIERS SPECIAL PROVISIONS.
- DRILLED PIERS AT ABUTMENT NO. 1 ARE DESIGNED FOR BOTH SKIN FRICTION AND END BEARING. CHECK FIELD CONDITIONS FOR THE REQUIRED END BEARING CAPACITY OF 20 TSF.
- DRILLED PIERS AT PIER NO. 1, PIER NO. 2 AND PIER NO. 3 ARE DESIGNED FOR BOTH SKIN FRICTION AND END BEARING. CHECK FIELD CONDITIONS FOR THE REQUIRED END BEARING CAPACITY OF 20 TSF.
- DRILLED PIERS AT ABUTMENT NO. 1 ARE DESIGNED FOR AN APPLIED LOAD OF 220 TONS EACH AT THE TOP OF THE COLUMN.
- DRILLED PIERS AT PIER NO. 1, PIER NO. 2 AND PIER NO. 3 ARE DESIGNED FOR AN APPLIED LOAD OF 365 TONS EACH AT THE TOP OF THE COLUMN.
- INSTALL DRILLED PIERS AT ABUTMENT NO. 1 THAT EXTEND TO AN ELEVATION NO HIGHER THAN 382 FT AND SATISFY THE REQUIRED END BEARING CAPACITY.
- INSTALL DRILLED PIERS AT PIER NO. 1 THAT EXTEND TO AN ELEVATION NO HIGHER THAN 378 FT AND SATISFY THE REQUIRED END BEARING CAPACITY.
- INSTALL DRILLED PIERS AT PIER NO. 2 THAT EXTEND TO AN ELEVATION NO HIGHER THAN 372 FT AND SATISFY THE REQUIRED END BEARING CAPACITY.

- INSTALL DRILLED PIERS AT PIER NO. 3 THAT EXTEND TO AN ELEVATION NO HIGHER THAN 367 FT (LT, CT) AND 371 FT (RT) AND SATISFY THE REQUIRED END BEARING CAPACITY.
- DRILLED PIER EXCAVATIONS AT ABUTMENT NO. 1 AND PIER NO. 1 THROUGH PIER NO. 3 WILL EXTEND INTO MATERIAL THAT DETERIORATES WHEN EXPOSED TO THE ELEMENTS. CHECK FIELD CONDITIONS FOR THE REQUIRED END BEARING CAPACITY AND PLACE CONCRETE IMMEDIATELY AFTER THE EXCAVATION IS COMPLETED.
- SPT TESTING IS REQUIRED FOR DRILLED PIERS AT ABUTMENT NO. 1 AND PIER NO. 3.
- SID INSPECTIONS MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTIONS.
- CSL TUBES AND TESTING ARE REQUIRED FOR DRILLED PIERS AT ABUTMENT NO. 1 AND PIER NO. 1 THROUGH PIER NO. 3.

PROJECT NO. U-3308  
DURHAM COUNTY  
 STATION: 24+55.20 -LALT-  
13+22.18 -CSXN-  
 SHEET 2 OF 5

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DRAWN BY : M. D. MAYHEW DATE : 12-31-13  
 CHECKED BY : S. A. DENNEY DATE : 2-24-14

		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH		SHEET NO. <b>S4-2</b>															
		GENERAL DRAWING																	
		FOR BRIDGE ON CSXT RAILWAY OVER ALSTON AVE. BETWEEN NC 147 AND ANGIER AVE.		TOTAL SHEETS <b>68</b>															
		REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>BY:</th> <th>DATE:</th> <th>NO.</th> <th>BY:</th> <th>DATE:</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>			NO.	BY:	DATE:	NO.	BY:	DATE:	1			3			2		
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