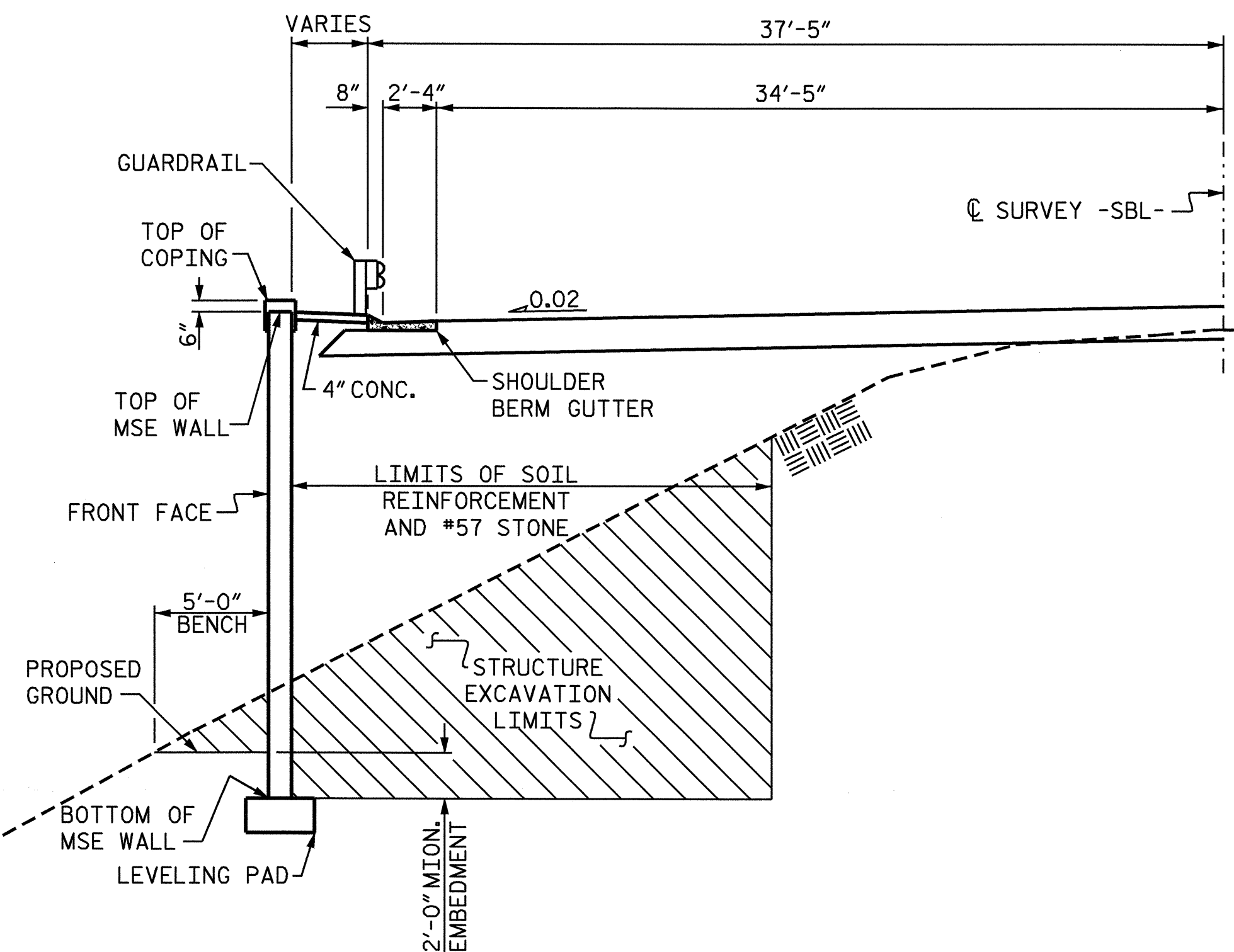


**SECTION THRU WALL**

STS. 24+91.00 -SBL- TO STA. 25+15.00 -SBL-



**SECTION THRU WALL**

STS. 22+00.00 -SBL- TO STA. 24+91.00 -SBL-

**NOTES**

SUBMIT COMPLETE WORKING DRAWINGS, ERECTION PLANS AND DESIGN CALCULATIONS FOR REVIEW AND APPROVAL PRIOR TO BEGINNING THE MSE WALL. SEE MSE RETAINING WALLS SPECIAL PROVISION.

DESIGN THE MSE WALL TO MEET ALL THE CRITERIA OF THE LATEST VERSION OF THE AASHTO STANDARD SPECIFICATIONS (ALLOWABLE STRENGTH DESIGN) FOR HIGHWAY BRIDGES AND ITS INTERIMS.

THE SERVICE LIFE OF THE MSE WALL SHALL BE 100 YEARS.

ALL BACKFILL MATERIAL WITHIN THE REINFORCED ZONE MUST BE #57 WASHED CRUSHED STONE, SEE SECTION 1005 OF THE STANDARD SPECIFICATIONS FOR #57 STONE.

USE THE FOLLOWING MATERIAL PARAMETERS IN THE WALL DESIGN:

1. #57 STONE - UNIT WEIGHT = 100 PCF,  $\phi = 34^\circ$ ,  $C = 0$ .
2. RETAINED MATERIAL - UNIT WEIGHT = 120 PCF,  $\phi = 30^\circ$ ,  $C = 0$
3. ALL OTHER EARTH MATERIAL AROUND WALL - UNIT WEIGHT = 120 PCF,  $\phi = 30^\circ$ ,  $C = 0$
4. ALLOWABLE BEARING PRESSURE = 1.5 TSF

THE TOP OF WALL ELEVATION IS WHERE THE FINISHED GRADE BEHIND THE MSE WALL INTERSECTS THE BACK OF THE WALL.

IN ELEVATION VIEW, SHOW THE TOP OF WALL (SOLID LINE), THE EXISTING GROUND LINE (LARGE DASHED LINE), THE PROPOSED GROUND LINE (SMALL DASHED LINE), AND THE BOTTOM OF WALL (SOLID LINE). SHOW ELEVATIONS FOR THE TOP OF WALL AT VERTICAL BREAK POINTS AND AT NO GREATER THAN 50 FOOT INTERVALS. SHOW FRONT FACE ELEVATION VIEW.

CONCRETE COPING MUST BE CAST-IN-PLACE. TOP OF COPING ELEVATION SHALL BE A MINIMUM OF 6" ABOVE THE FINISHED GRADE TO AVOID SPILLOVER.

SHOW A DETAIL FOR FABRIC AND SOIL ABOVE THE #57 STONE WHERE APPROPRIATE.

SHOW THE LIMITS OF SOIL REINFORCEMENT AND THE #57 STONE.

THE PANELS SHALL HAVE A PLAIN GRAY FINISH.

A MINIMUM 5 FOOT BENCH IS REQUIRED IN FRONT OF THE WALL. GRADE BENCH TO CARRY WATER AWAY FROM THE WALL.

SHOW ELEVATIONS FOR TOP OF LEVELING PAD.

A MINIMUM PANEL EMBEDMENT OF 2 FEET BELOW THE PROPOSED GROUND LINE IS REQUIRED.

SHOW THE REQUIRED BEARING PRESSURE OF THE WALL ON PLANS.

DRAINAGE MUST BE AWAY FROM THE WALL AT THE TOP AND BOTTOM.

SHOW DETAILS IN THE PLANS FOR SKEWING REINFORCING STRIPS OR MATS AROUND ANY OBSTRUCTIONS, SUCH AS GUARDRAILS, PAVED DITCHES, PAVEMENT STRUCTURES AND DRAINAGE STRUCTURES. SOIL REINFORCING MUST NOT BE IN CONTACT WITH ANY OBSTRUCTIONS.

FINAL PLANS MUST BE ON REPRODUCIBLE SHEETS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA.

THE LEVELING PAD SHALL BE CAST-IN-PLACE AND MADE CONTINUOUS AT STEPS.

CONSTRUCT JOINTS IN THE COPING IN ACCORDANCE WITH ARTICLE 825-10 OF THE STANDARD SPECIFICATIONS, LOCATE JOINTS IN ALL EXPOSED FACES OF THE COPING, AT 10 FEET MAXIMUM CENTERS, TO COINCIDE WITH PANEL, JOINTS. EVERY THIRD JOINT SHALL BE AN EXPANSION JOINT. STOP REINFORCING STEEL 2" EITHER SIDE OF EXPANSION JOINTS. OTHER JOINTS SHALL BE GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH.

NOTE ON CONTRACTOR'S WORKING DRAWINGS: "VERIFY BEARING CAPACITY OF THE WALL FOUNDATION SOILS IN THE FIELD."

ALL STRUCTURE EXCAVATION FOR THE CONSTRUCTION OF THE MSE RETAINING WALL WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE WALL.

REINFORCED BRIDGE APPROACH FILL MAY NOT ENCROACH INTO THE MSE WALL REINFORCEMENT ZONE OR AS DIRECTED BY THE ENGINEER.

PROJECT NO. I-4025A  
YADKIN-SURRY COUNTY  
 STATION: 22+00.00 -SBL-

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**MSE RETAINING WALL  
 DETAILS**



DRAWN BY : A.S. CALLAWAY DATE : 9/2/04  
 CHECKED BY : L.E. SUTTON DATE : 9/8/04

08-SEP-2004 14:26  
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 scallaway

REVISIONS						SHEET NO. W-2
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 2
2			4			