GEOTECHNICAL UNIT FIELD SCOUR REPORT

PROJECT: 8.2495501 ID: B-3649 COUNTY: Guilford
DESCRIPTION(1): Bridge No. 227 on -L- (SR 3000) over Beaver Creek
INFORMATION ON EXISTING BRIDGE
BR. NO.: 227 BR. LENGTH: 53' NO. BENTS: 3 NO. BENTS IN: CHANNEL: 2 FLOODPLAIN: 1
FOUNDATION TYPE: Concrete pier on footings at EB2 and B1; Timber piles at EB1
EVIDENCE OF SCOUR(2):
ABUTMENTS OR END BENT SLOPES: None
INTERIOR BENTS: None
CHANNEL BED: None
CHANNEL BANKS: None
EXISTING SCOUR PROTECTION:
TYPE(3): Interior bent and end bent 2 are concrete, no other scour protection.
EXTENT(4):
EFFECTIVENESS(5): effective
OBSTRUCTIONS(6) (DAMS,DEBRIS,ETC.): some trees and limbs around interior bent
DESIGN INFORMATION
CHANNEL BED MATERIAL(7) (SAMPLE RESULTS ATTACHED):silty and clayey sand (SS-6, SS-7)
and sandy silt (SS-12)
CHANNEL BANK MATERIAL(8) (SAMPLE RESULTS ATTACHED): silty and clayey sand (SS-6, SS-7)
and sandy silt (SS-12)
CHANNEL BANK COVER(9): trees and brush
FLOOD PLAIN WIDTH(10): 200 +/- feet
FLOOD PLAIN COVER(11): grass, trees and brush

SHEET 15 OF 17 3.2495501 (B-3649)

DES	8.2495501 (B-
STR	EAM IS: X DEGRADING AGGRADING (13)
ОТН	IER OBSERVATIONS AND COMMENTS:
0111	LETT OBOLITY/THOMO/TIME GOMINIENTO.
СНА	NNEL MIGRATION TENDENCY (14):Towards EB2
GEC	DTECHNICALLY ADJUSTED SCOUR ELEVATIONS(15):
	ELEVATION
	BENT 1: 607.5 FEET
	BENT 2: 602.0 FEET
	The Geotechnically Adjusted Scour Elevations are unchanged from the Hydraulic Unit's estimates of scour based on a 500 year storm.
	REPORTED BY: Jaime Love DATE: June 17, 2003
	<u>INSTRUCTIONS</u>
(1) (2)	GIVE THE DESCRIPTION OF THE SPECIFIC SITE GIVING ROUTE NUMBER AND BODY OF WATER CROSSED. NOTE ANY EVIDENCE OF SCOUR AT THE EXISTING END BENTS OR ABUTMENTS (UNDERMINING,
(3)	SLOUGHING, SCOUR LOCATIONS, DEGRADATIONS, ETC.) NOTE ANY EXISTING SCOUR PROTECTION (RIR RAP, ETC.)
(4) (5)	DESCRIBE THE EXTENT OF ANY EXISTING SCOUR PROTECTION. DESCRIBE WHETHER OR NOT THE SCOUR PROTECTION APPEARS TO BE WORKING.
(6) (7)	NOTE ANY DAMS, FALLEN TREES, DEBRIS AT BENTS, ETC. DESCRIBE THE CHANNEL BED MATERIAL: A SAMPLE SHOULD BE TAKEN FOR GRAIN SIZE DISTRIBUTION,
(8)	DESCRIBE THE CHANNEL BANK MATERIAL: A SAMPLE SHOULD BE TAKEN FOR GRAIN SIZE DISTRIBUTION, ATTACH LAB RESULTS.
(9)	DESCRIBE THE FOUNDATION BEARING MATERIAL,
(10) (11)	GIVE THE APPROXIMATE FLOOD PLAIN WIDTH (ESTIMATE). DESCRIBE THE FLOOD PLAIN COVERING (GRASS, TREES, CROPS, ETC.)
(12) (13)	CHECK THE APPROPRIATE SPACE AS TO WHETHER THE STREAM IS DEGRADING OR AGGRADING DESCRIBE THE POTENTIAL OF THE BODY OF WATER TO MIGRATE LATERALLY DURING THE LIFE OF THE
` ,	BRIDGE (APPROXIMATELY 100 YEARS). GIVE THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION EXPECTED OVER THE LIFE OF THE BRIDGE
(14)	(APPROXIMATELY 100 YEARS). THIS CAN BE GIVEN AS AN ELEVATION RANGE ACROSS THE SITE, OR ON
	A BENT BY BENT BASIS WHERE VARIATIONS EXIST. DISCUSS THE RELATIONSHIP BETWEEN THE HYDRAULICS THEORETICAL SCOUR AND THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION. IF THE
	GEOTECHNICALLY ADJUSTED SCOUR ELEVATION IS DEPENDENT ON SCOUR COUNTER MEASURES, EXPLAIN. (RIPRAP ARMORING ON SLOPES, ETC.) THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION
	IS BASED ON THE ERODABILITY OF MATERIALS WITH CONSIDERATION FOR JOINTING, FOLIATION,
	BEDDING ORIENTATION AND FREQUENCY; CORE RECOVERY PERCENTAGE; PERCENTAGE RQD; DIFFERENTIAL WEATHERING, SHEAR STRENGTH; OBSERVATIONS AT EXISTING STRUCTURES; OTHER
	TESTS DEEMED APPROPRIATE; AND OVERALL GEOLOGIC CONDITIONS AT THE SITE.