

May 3, 2012

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION
DEPARTMENT OF TRANSPORTATION
RHODE ISLAND CONTRACT NO.2012-CB-063
FEDERAL-AID PROJECT NO. FAP Nos: STP-FRIP(250)

Wellington Ave Br Mitigation Phase I (FRIP C-2B) - TYPE 2 Emergency Contract

The limit of work for this project is from approximately Sta. 0+96 to 4+80 as shown on the plans. The general area starts within the Right-of-Way of Byfield Street, between Assessor's plat 285 lot 249 and 251, then easterly toward the Amtrak Right-of-way, then northerly adjacent to the Amtrak Right-of-way and Assessor's plat 285 lots 251 – 255. The overall length of the project is approximately 0.07 miles.

CITY/TOWN OF Warwick
COUNTY OF KENT

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 1 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

A. Other Item Changes

1. 903.0206 - CHAIN LINK FENCE 6' STD 31.2.0
The quantity has been revised.
2. L05.9901 - PERMANENT EROSION CONTROL BLANKET
This item has been added to the contract. The quantity has been added.

B. Contract Documents

1. Job-Specific Specifications
Add specification L05.9901, Permanent Erosion Control Blanket, attached to this Addendum No. 1. This item of work has been added to the contract.
2. Plans
Revise Sheet 8 as shown on Sketches 1 through 4 attached to this Addendum No. 1.



RI Department of Transportation
Chief Engineer

JOB SPECIFIC

**WELLINGTON AVENUE RR BRIDGE
 HAUL ROAD REMOVAL AND WETLAND RESORATION – PHASE 1
 R.I. CONTRACT NO. 2012-CB-063**

CODE L05.9901

PERMANENT EROSION CONTROL BLANKET

L.05.01 DESCRIPTION. This work shall consist of placing a permanent erosion control blanket on prepared and sound embankment surfaces at the locations indicated on the Plans or as directed by the Engineer, all in accordance with these Specifications.

L.05.02 MATERIALS. The extended-term double net erosion control blanket shall be a machine-produced 100% biodegradable blanket of 70% agricultural straw and 30% coconut fiber with a functional longevity of up to 18 months. (Note: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The top netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form an approximate 0.5 x 1.0 inch (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The blanket shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Department of Transportation, Federal Highway Administration's (FHWA) Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 3.B Extended-term Erosion Control Blanket.

The Blanket can consist of installation staple patterns clearly marked on the erosion control blanket with environmentally safe paint. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches from the edge) as an overlap guide for adjacent mats.

Material Content		
Matrix	70% Straw Fiber	0.35 lbs/square yard
	30% Coconut Fiber	0.15 lbs/square yard
Nettings	Top - Leno Woven 100% Biodegradable organic jute	9.3 lb/ 1000 square feet
	Bottom – 100% biodegradable organic jute fiber	7.7 lb/ 1000 square feet
Thread	Biodegradable	

Index Value Properties:

Property	Test Method	Typical
Thickness	ASTM D6525	0.28 in

Resiliency	ECTC Guidelines	86%
Water Absorbent	ASTM D1117	169%
Mass/Unit Area	ASTM 6475	9.66 oz/square yard
Swell	ECTC Guidelines	46%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	0.42 oz-inch
Light Penetration	ECTC Guidelines	14.1%
Tensile Strength – MD	ASTM D6818	164.4 lbs/ft
Elongation – MD	ASTM D6818	7.2%
Tensile Strength – TD	ASTM D6818	226.8 lbs/ft
Elongation - TD	ASTM D6818	10.1%

Bench Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50 mm(2in)/hr for 30 min	SLR** = 9.98
	100 mm(4in)/hr for 30 min	SLR** = 13.01
	150 mm(6in)/hr for 30 min	SLR** = 16.95
ECTC Method 3 Shear Resistance	Shear at 0.50 inch soil loss	2.27 lbs/square feet
ECTC Method 4 Germination	Top Soil, Fescue, 21 day incubation	723% improvement of biomass
*Bench Scale tests should not be used for design purposes		
** Soil Loss Ratio = Soil loss with Bare Soil/Soil Loss with RECP (Soil loss is based on regression analysis)		

Performance Design Values:

Maximum Permissible Shear Stress	
Un-vegetated Shear Stress	2.10 lbs/square feet
Un-vegetated Velocity	8.00 ft/s

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
Less than or equal to 20 ft	0.001	0.029	0.063
20-50 ft	0.051	0.055	0.092
Greater than or equal to 50ft	0.10	0.080	0.120

Roughness Coefficients –Unvegetated

Flow Depth	Manning's n
≤0.50 ft	0.050
0.50 – 2.0 ft	0.050 – 0.018
≥2.0 ft	0.018

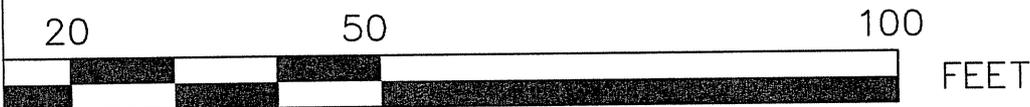
L.05.03 CONSTRUCTION METHODS. The Contractor shall place erosion control blankets in accordance with Section L.05.03 of the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction.

L.05.04 METHOD OF MEASUREMENT. “Permanent Erosion Control Blanket” will be measured by the number of square yards installed in accordance with the Plans, and/or as directed by the Engineer.

L.05.05 BASIS OF PAYMENT. The accepted quantity of “Permanent Erosion Control Blanket” will be paid for at the contract unit price per square yard as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment and for all incidentals required to finish the work, complete and accepted by the Engineer.

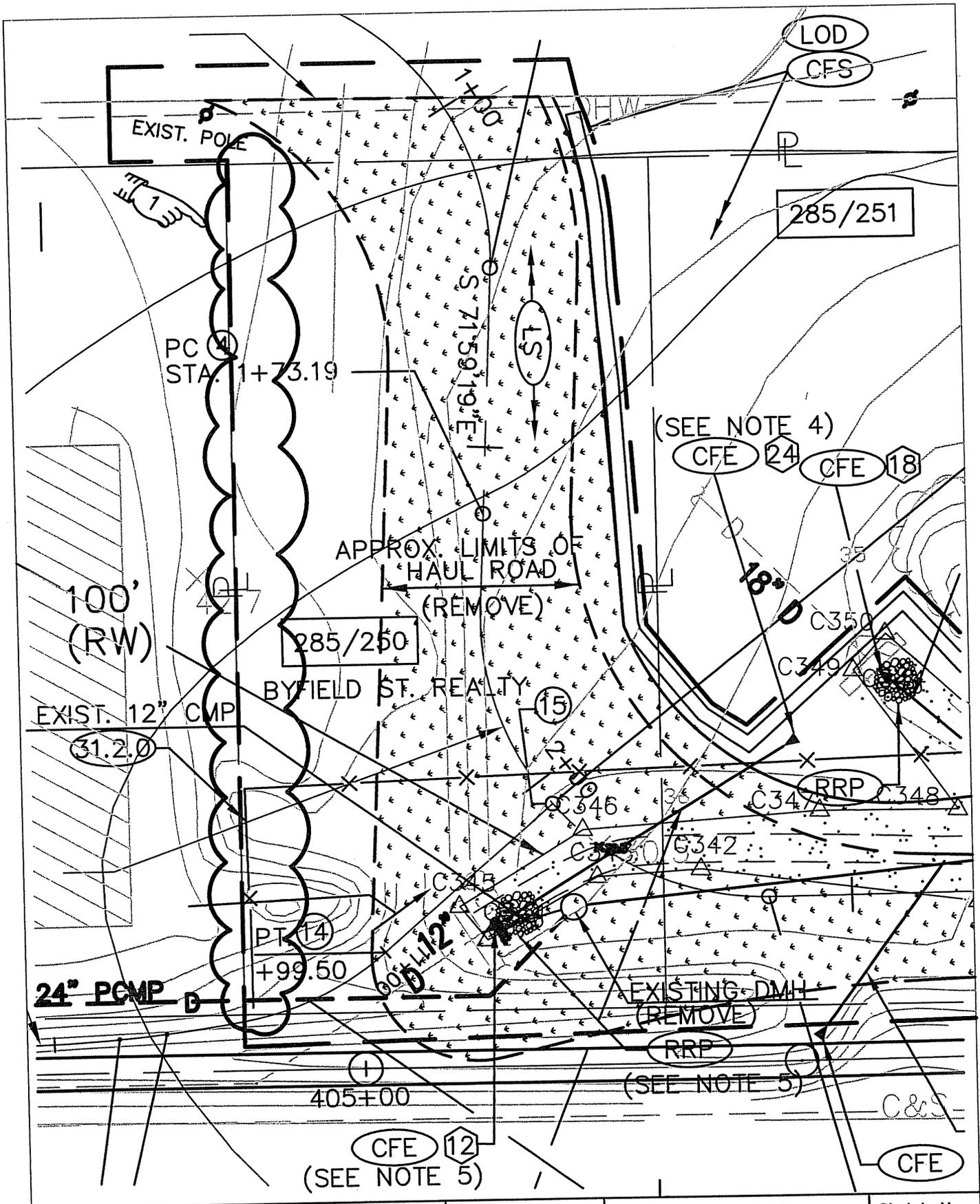
NOTES

1. LIMIT OF DISTURBANCE SHOWN ON THIS PLAN IS FOR THE REMOVAL OF THE TEMPORARY HAUL ROAD ONLY.
2. EXISTING ROCK FILLED DITCH TO BE REMOVED. RESTORE STREAM AT THIS LOCATION WITH WETLAND SEED MIX AND PERMANENT EROSION CONTROL BLANKET.
3. INSTALL 24" TEMPORARY PIPE AND CULVERT ENDS. CMP AND CULVERT ENDS ARE TO BE REMOVED ONCE THE REMOVAL OF HAUL ROAD IS ESTABLISHED IN PHASE 3.
4. INSTALL TEMPORARY PIPE AND CULVERT END AT LOCATION SHOWN. REMOVE TEMPORARY PIPE AND CUVERT END WHEN HAUL ROAD IS ESTABLISHED AT STATION 4+80.
5. ONCE TEMPORARY PIPE IS REMOVED FROM THIS LOCATION, INSTALL 12" CFE AND PLACE RIP RAP PAD AT THE LOCATION SHOWN ON THE PLANS.
6. CONTRACTOR IS REQUIRED TO LOCATE AND INSTALL FENCE AS DESCRIBED IN THE PROJECT DESCRIPTION.

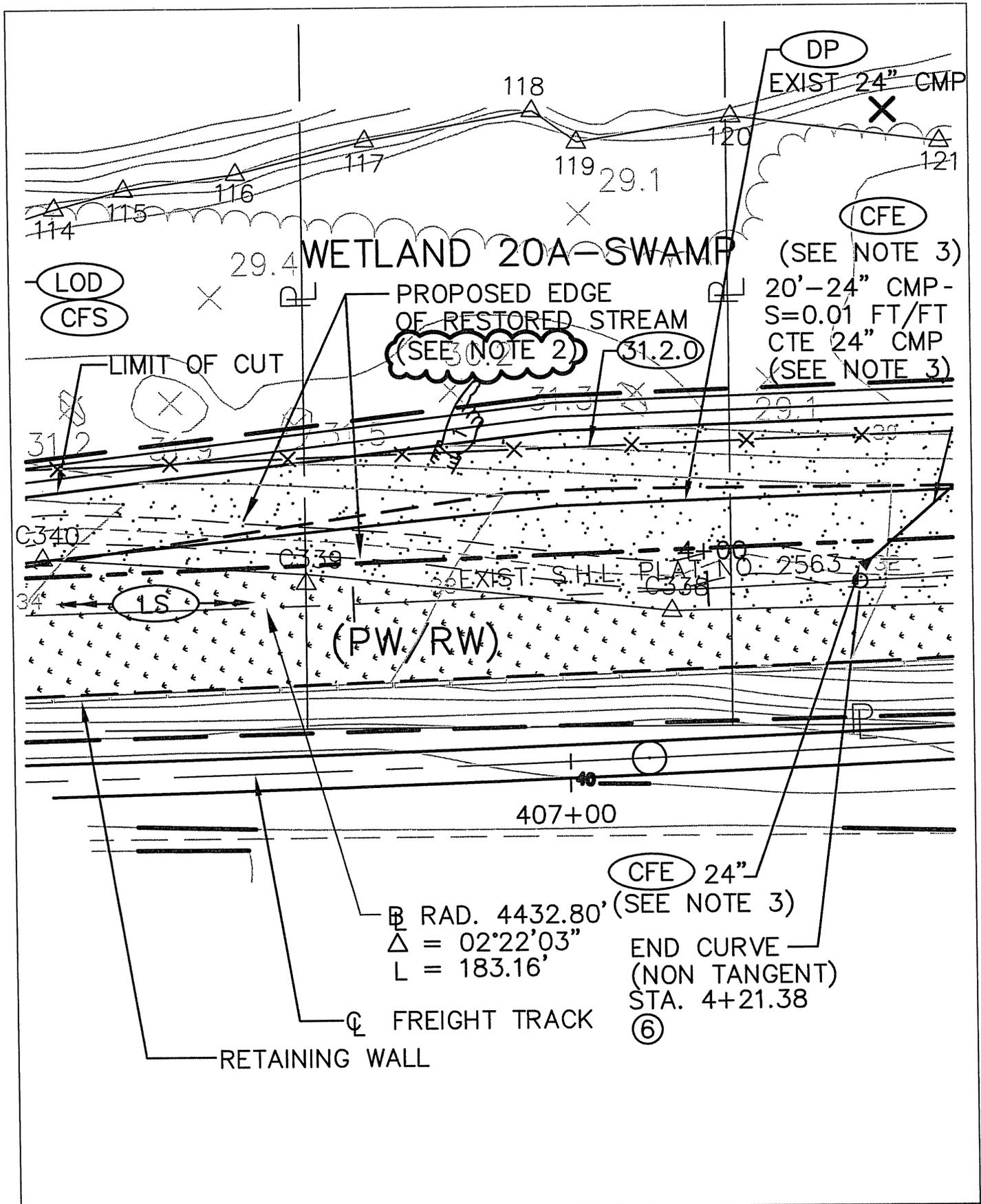


SCALE: 1"=20'-0"

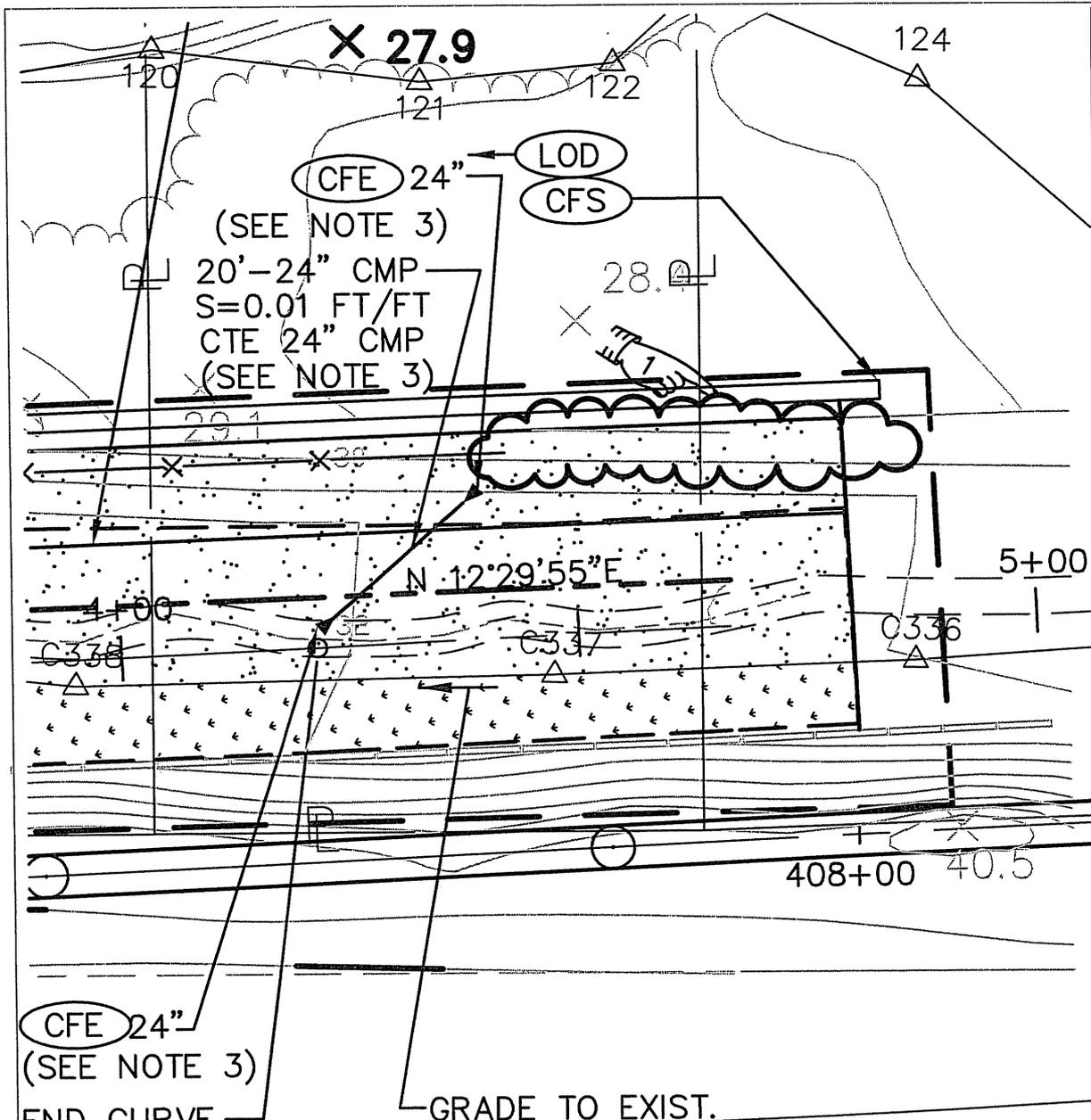
 <small>AECOM 10 ORMS ST. - PROVIDENCE, RHODE ISLAND - 02904</small>	TITLE OF SKETCH PROPOSED HAUL ROAD REMOVAL PLAN ST 0+00 TO STA 4+80	R.I. CONTRACT No. 2012-CB-073	Sketch No. 1
May 1, 2012	Addendum No. 1	Revision to Dwg. No. 0112M_V1_008_PLAN Sheet 8	



<p>AECOM</p> <p><small>AECOM 10 ORMS ST. PROVIDENCE RHODE ISLAND 02904</small></p>	<p>TITLE OF SKETCH PROPOSED HAUL ROAD REMOVAL PLAN ST 0+00 TO STA 4+80</p>	<p>R.I. CONTRACT No. 2012-CB-073</p>	<p>Sketch No. 2</p>
<p>May 1, 2012</p>	<p>Addendum No. 1</p>	<p>Revision to Dwg. No. 0112M_V1_008_PLAN Sheet 8</p>	



 <small>AECOM 10 ORMS ST. PROVIDENCE RHODE ISLAND 02904</small>	TITLE OF SKETCH PROPOSED HAUL ROAD REMOVAL PLAN ST 0+00 TO STA 4+80	R.I. CONTRACT No. 2012-CB-073	Sketch No. 3
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CFE 24"
(SEE NOTE 3)

END CURVE
(NON TANGENT)
STA. 4+21.38

⑥

GRADE TO EXIST.
HAUL ROAD AT
2:1 SLOPE

<p>AECOM AECOM 10 ORMS ST. PROVIDENCE RHODE ISLAND 02904</p>	<p>TITLE OF SKETCH PROPOSED HAUL ROAD REMOVAL PLAN ST 0+00 TO STA 4+80</p>	<p>R.I. CONTRACT No. 2012-CB-073</p>	<p>Sketch No. 4</p>
<p>May 1, 2012</p>	<p>Addendum No. 1</p>	<p>Revision to Dwg. No. 0112M_V1_008_PLAN Sheet 8</p>	