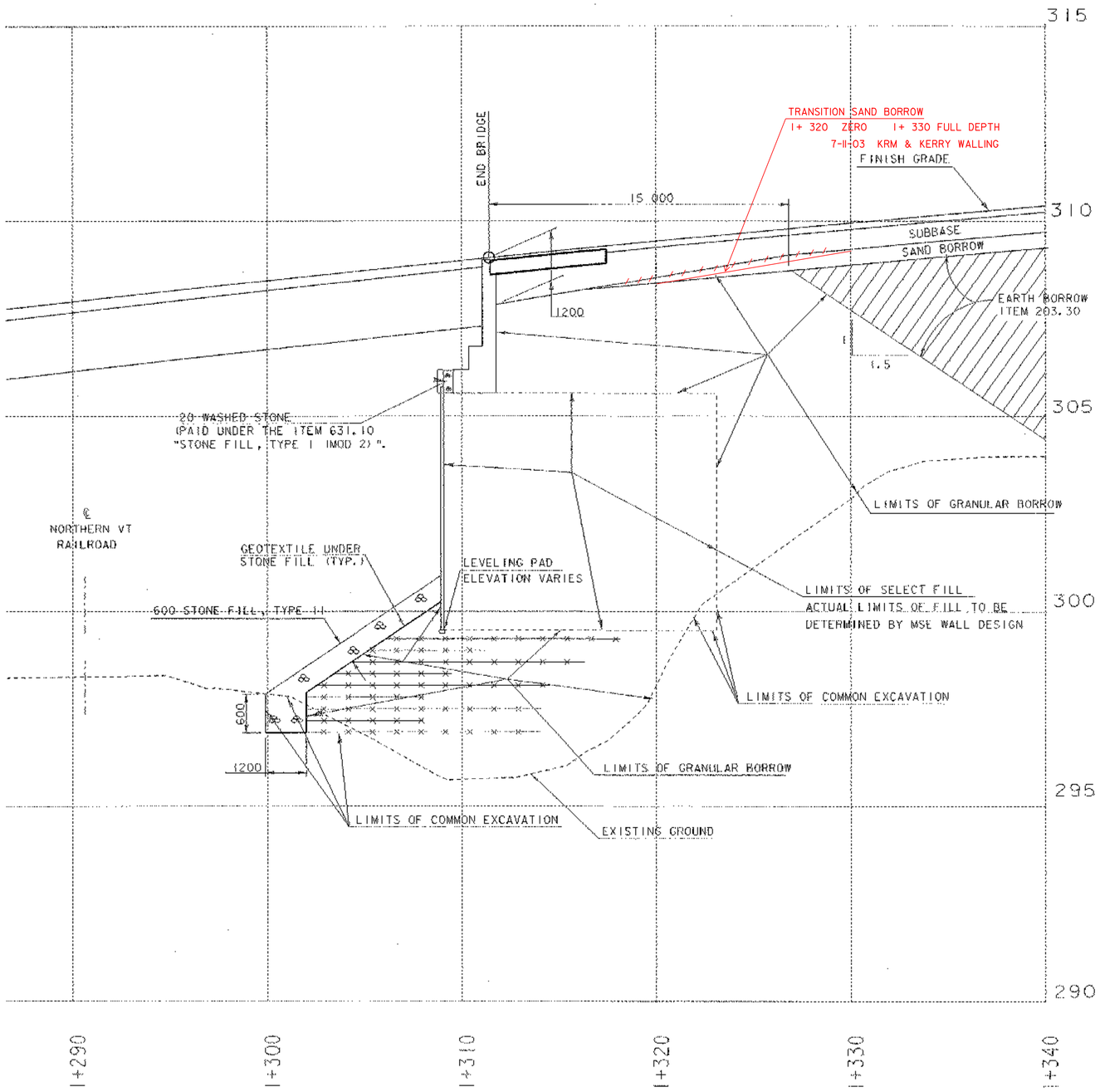

ABUTMENT 2 EARTH WORK TYPICAL SECTION

NOT TO SCALE

REINFORCED SOIL SLOPE MATERIAL NOTES:

1. THE GEOGRID USED IN THE REINFORCED SOIL SLOPE SHALL BE COMPOSED OF HIGH TENACITY POLYESTER, HIGH DENSITY POLYETHYLENE, OR HIGH DENSITY POLYPROPYLENE. ALL GEOGRID REINFORCEMENT SHALL HAVE UNIAXIAL DESIGN STRENGTH WITH THE PRIMARY AXIS PLACED PERPENDICULAR TO THE FACE OF THE REINFORCED SOIL SLOPE.

2. THE GEOGRID SHALL BE RESISTANT TO ULTRAVIOLET DEGRADATION. INERT TO BIOLOGICAL DEGRADATION AND RESISTANT TO NATURALY ENCOUNTERED CHEMICALS.

3. THE ROADWAY AND EMBANKMENT GEOGRID SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT AND SHALL MEET THE FOLLOWING REQUIREMENTS:

PROPERTY	REQUIREMENT	TEST METHOD
LONG TERM STRENGTH AT 10% STRAIN	25.3 KN/M (MIN.)	GRI-GG4
PULLOUT RESISTANCE FACTOR (F*)	0.46 (MIN.)	GRI-GG5

4. THE ABUTMENT #2 GEOGRID SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT AND SHALL MEET THE FOLLOWING REQUIREMENTS:

PROPERTY	REQUIREMENT	TEST METHOD
LONG TERM STRENGTH AT 10% STRAIN	60.1 KN/M (MIN.)	GRI-GG4
PULLOUT RESISTANCE FACTOR (F*)	0.46 (MIN.)	GRI-GG5

THE TOTAL LONG TERM STRENGTH (T AL) SHALL BE DETERMINED BY USING THE FOLLOWING FORMULA:

$$T_{AL} = \frac{T_{ULT}}{RFD * RFID * RFCR}$$

WHERE T ULT = THE ULTIMATE (OR YIELD) TENSILE STRENGTH FROM TENSILE STRENGTH TESTS, TESTED IN ACCORDANCE WITH GRI-GG1 AND BASED ON THE MINIMUM AVERAGE ROLL VALUE (MARV) FOR THE PRODUCT.

RFD = THE DURABILTY REDUCTION FACTOR - PRODUCT OF THE PARTIAL SAFETY FACTORS FOR THE BIOLOGICAL AND CHEMICAL DEGRADATION OF THE GEOSYNTHETIC AND THE JOINT SEAM STRENGTH OF THE GEOGRID. (1.1 MIN.)

RFID = THE INSTALLATION DAMAGE REDUCTION FACTOR AS DETERMINED IN ACCORDANCE WITH ASTM D 5818 (MINIMUM VALUE = 1.1)

RFCR = THE CREEP REDUCTION FACTOR AS DETERMINED IN ACCORDANCE WITH ASTM D 5262; BASED ON A 100 YEAR DESIGN LIFE.

REDUCTION FACTORS ARE TO BE PROVIDED BY THE MANUFACTURER AS A DIRECT RESULT OF TESTS PERFORMED IN ACCORDANCE WITH EACH TEST'S CORRESPONDING SPECIFICATION.

5. GRANULAR BORROW SHALL BE USED AS THE EMBANKMENT BACKFILL MATERIAL WHEN THE REINFORCED SOIL SLOPES ARE TO BE LOCATED UNDER OR IN FRONT OF MSE WALLS. EARTH BORROW SHALL BE USED AS THE EMBANKMENT BACKFILL MATERIAL IN ALL OTHER LOCATIONS.

6. THE GEOGRID SHALL BE PLACED AROUND DRAINAGE ELEMENTS AND ANY OTHER UTILITY COMPONENTS IN A MANNER THAT WILL MINIMIZE WRINKLING. A MINIMUM NUMBER OF GEOGRID ELEMENTS SHALL BE CUT TO LOCATE THE DRAINAGE ELEMENTS. EXCAVATION IN PREVIOUSLY BACKFILLED REINFORCED ZONES TO PLACE DRAINAGE ELEMENTS WILL NOT BE PERMITTED.

7. THE LENGTH OF THE GEOGRID AS SPECIFIED SHALL BE MEASURED FROM THE BACK FACE OF THE STONE FILL.

ABUTMENT NO. 2
REINFORCED SOIL SLOPE LAYOUT SCHEDULE

LAYER NO.	ELEVATION	LENGTH
1	296.900	12 000
2	297.200	6000
3	297.500	12 000
4	297.800	6000
5	298.100	12 000
6	298.400	6000
7	298.700	12 000
8	299.000	6000
9	299.300	12 000

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PROJECT NAME: BARTON
PROJECT NUMBER: STP 0113 (58)S

FILE NAME: 96c116/STRUCTURES/sc116geo.dgn
IPARM NAME: 96c116/STRUCTURES/sc116sa2.i
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: C.A. ALLEN
REINFORCED SOIL SLOPE DETAILS

PLOT DATE: 03-JAN-2002
DRAWN BY: C.A. ALLEN
CHECKED BY: W.B. SYMONDS
SHEET 76 OF 120