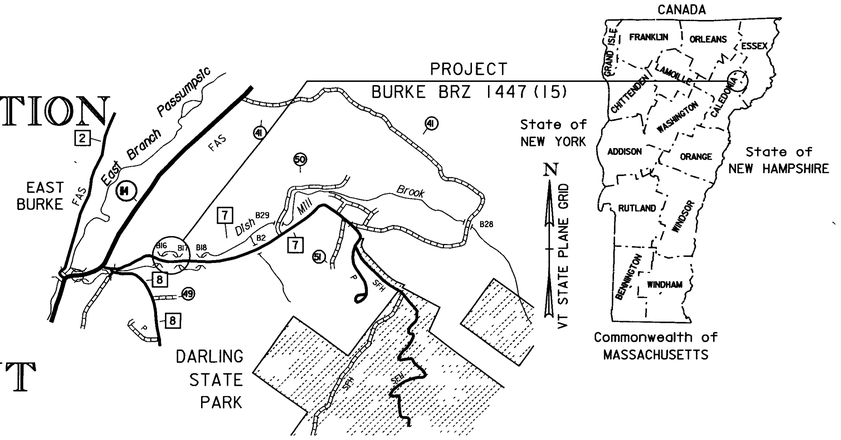
SEE SHEET 2 FOR INDEX OF SHEETS
AND LIST OF STANDARDS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF BURKE

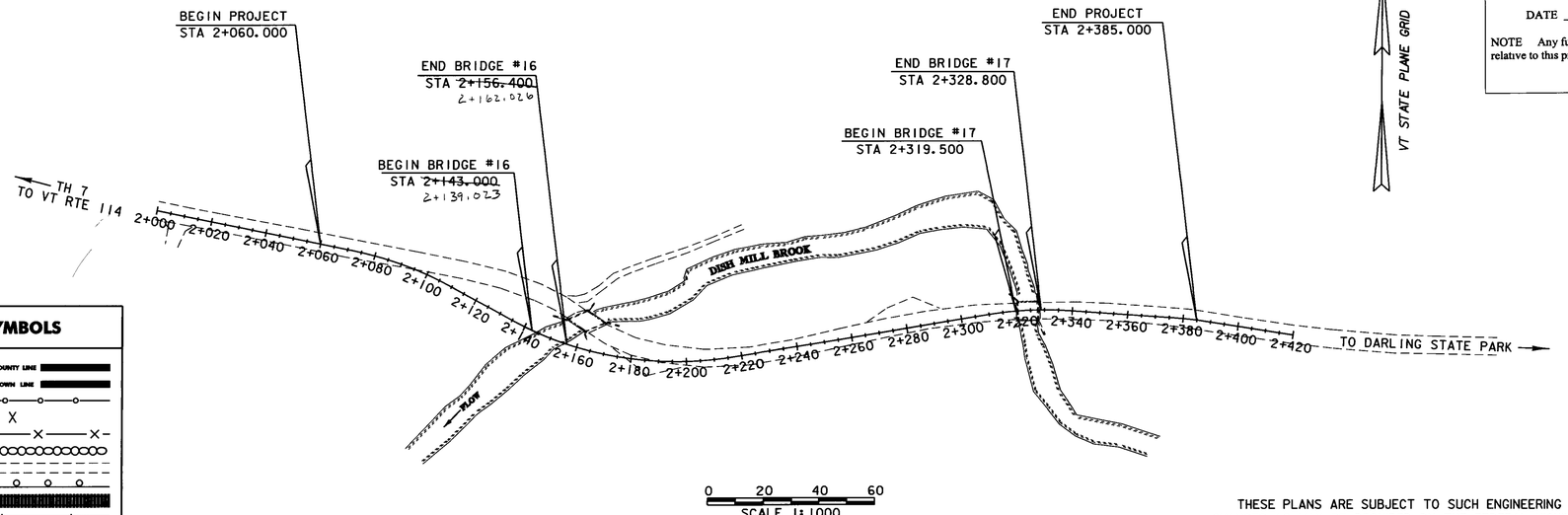
COUNTY OF CALEDONIA

ROUTE NO : TH 7, CLASS 2 (FAS 268) BRIDGE NO : 16 AND 17

PROJECT LOCATION : BEGINNING AT A POINT 0.80 KM EAST OF THE JUNCTION OF VT 114 AND TH 7 AND EXTENDING EASTERLY ALONG TH 7 FOR 325 METERS.

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGES NO. 16 AND NO. 17 ALONG WITH RELATED CHANNEL AND APPROACH WORK.

LENGTH OF STRUCTURE (BR #16):	~~13.400~~ 23.003 METERS.
LENGTH OF STRUCTURE (BR #17):	9.300 METERS.
LENGTH OF ROADWAY :	~~302.300~~ 292.697 METERS.
LENGTH OF PROJECT :	325.000 METERS.



0 20 40 60
SCALE 1:1000

CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS (SR SR SR)
TOP OF CUT
TOE OF SLOPE

SURVEYED BY : A. MEYERS
SURVEYED DATE : 12/95

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD83 (92)

RECORD PLANS

CONTRACTOR	AUSTIN CONSTRUCTION, INC – CONCORD, VT
RESIDENT ENGINEER	KEVIN McCLURE
CONSTRUCTION BEGAN	JULY 14, 2008
CONSTRUCTION COMPLETE	AUGUST 22, 2009
RECORD PLANS BY	KEVIN McCLURE & CRAIG PIERCE

I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN

BY Kevin McClure RESIDENT ENGINEER

DATE 12-15-10

NOTE Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives

VAOT Metric

UNLESS NOTED OTHERWISE
STATIONS ARE IN KILOMETERS
ELEVATIONS ARE IN METERS
DIMENSIONS ARE IN MILLIMETERS

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

PLOTTED 10-MAR-2008

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED Richard P. Williams DATE 3-10-08

PROJECT MANAGER : C. P. WILLIAMS

PROJECT NAME : BURKE
PROJECT NUMBER : BRZ 1447(15)

SHEET 1 OF 81 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET

Metric

1. TITLE SHEET
2. PRELIMINARY INFORMATION SHEET BR #16
3. PRELIMINARY INFORMATION SHEET BR #17
4.-7. QUANTITY SHEETS #1 - #4
8. TYPICAL SECTIONS
9. TRAVERSE & ALIGNMENT TIES
10. ALIGNMENT TIES
11. LAYOUT MATCHLINE A-A
12. LAYOUT BRIDGE #16
13. LAYOUT BRIDGE #17
14. LAYOUT MATCHLINE C-C
15.-17. PROFILE TH 7
18. DRIVE AND CULVERT DETAILS
19. DRAINAGE DETAIL SHEET #1
20.-23. TRAFFIC CONTROL SHEETS 1 - 4
24.-25. BORING LAYOUTS
26.-27. BORING LOGS
28. BRIDGE #16 PLAN & ELEVATION
29. BRIDGE #17 PLAN & ELEVATION
30. GENERAL NOTES & MISC. DETAILS
31. BRIDGE #16 SUPERSTRUCTURE DETAILS
32. BRIDGE #16 APPROACH SLAB DETAILS
33. BRIDGE #16 ABUTMENT 1 DETAILS
34. BRIDGE #16 ABUTMENT 2 DETAILS
35. BRIDGE #16 REINFORCEMENT DETAILS
36. BRIDGE #16 WINGWALLS 1 & 2 DETAILS
37. BRIDGE #16 WINGWALLS 3 & 4 DETAILS
38. BRIDGE #17 SUPERSTRUCTURE DETAILS
39. BRIDGE #17 APPROACH SLAB DETAILS
40. BRIDGE #17 ABUTMENT 1 DETAILS
41. BRIDGE #17 ABUTMENT 2 DETAILS
42. BRIDGE #17 REINFORCMENT DETAILS
43. BRIDGE #17 WINGWALLS 1 & 2 DETAILS
44. BRIDGE #17 WINGWALLS 3 & 4 DETAILS
45.-46. REINFORCING STEEL SCHEDULES
47. EROSION CONTROL NARRATIVE
48.-50. EXISTING CONDITIONS SITE PLAN
51.-53. EROSION PREVENTION & SEDIMENT CONTROL PLAN
54.-56. FINAL CONDITIONS SITE PLAN
57.-58. EROSION CONTROL DETAILS
59. RIGHT OF WAY LAYOUT 1
60. RIGHT OF WAY LAYOUT 2
61. RIGHT OF WAY LAYOUT 3
62. RIGHT OF WAY LAYOUT 4
63. RIGHT OF WAY DETAILS
64.-74. MAINLINE CROSS SECTIONS
74. SUBBASE TRANSITIONS
75.-78. BRIDGE #16 CHANNEL CROSS SECTIONS
79.-81. BRIDGE #17 CHANNEL CROSS SECTIONS

LIST OF STANDARDS

B-5	SLOPE GRADING, EMBANKMENTS, MUCK	6/1/1994
B-71	RESIDENTIAL AND COMMERCIAL DRIVES	7/8/2005
E-100	CONSTRUCTION APPROACH SIGNS	1/2/2004
E-100A	SIDE ROAD CONSTRUCTION - APPROACH SIGNS	1/2/2004
E-101	CONSTRUCTION SIGN DETAILS	5/30/2003
E-102	CONSTRUCTION SIGN DETAILS	6/30/2003
E-102A	CONSTRUCTION SIGN DETAILS	5/1/2004
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	6/30/2003
E-107A	BREAKAWAY BARRICADE DETAILS	8/8/1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
E-140	REGULATORY SIGN DETAILS	8/30/1996
E-160	FLANGED CHANNEL STEEL SIGN POST	5/20/1999
E-193	PAVEMENT MARKING DETAILS	8/18/1995
G-1	STEEL BEAM GUARDRAIL (50MPH & OVER) HEAVY DUTY STEEL BEAM GUARDRAIL TWISTED END TERMINAL ANCHOR FOR STEEL BEAM RAIL	1/3/2000
G-1D	STEEL BEAM GUARDRAIL (40MPH & LESS) HEAVY DUTY STEEL BEAM GUARDRAIL STEEL BEAM MEDIAN BARRIER ANCHOR FOR STEEL BEAM RAIL	1/3/2000
SB-R6-82M	BRIDGE RAILING - HEAVY DUTY STEEL BEAM	7/10/1997
SB-R7-90M	BRIDGE RAILING - HEAVY DUTY STEEL BEAM	7/10/1997

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

DRAINAGE AREA : 15.6 sq. km
CHARACTER OF TERRAIN : Hilly to mountainous
STREAM CHARACTERISTICS : Incised, sinuous and stable channel
NATURE OF STREAMBED : Sand, gravel, cobbles and boulders

PEAK FLOW DATA

Q 2.33 =	12 cms	Q 50 =	34 cms
Q 10 =	23 cms	Q 100 =	40 cms
Q 25 =	29 cms	Q 500 =	54 cms

DATE OF FLOOD OF RECORD : Unknown
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ Q25 = 3.3 mps
ICE CONDITIONS : Moderate
DEBRIS: Moderate
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? Yes
IS ORDINARY RISE RAPID? Yes
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
IF YES, DESCRIBE:

WATERSHED STORAGE: 1%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Steel beam bridge with concrete deck.
YEAR BUILT: 1928
CLEAR SPAN(NORMAL TO STREAM): 6.0 m
VERTICAL CLEARANCE ABOVE STREAMBED: 2.8 m, maximum
WATERWAY OF FULL OPENING: 15.3 sq. m (average low beam elev. 293.1 m)
DISPOSITION OF STRUCTURE: Remove and replace
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See boring sheets.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	291.9 m	VELOCITY =	2.7 mps
Q10 =	292.4 m	"	3.4 mps
Q25 =	292.6 m	"	3.6 mps
Q50 =	292.8 m	"	3.8 mps
Q100 =	293.0 m	"	4.0 mps

LONG TERM STREAMBED CHANGES: There is approximately 0.3 m to 0.6 m of local scour through the bridge. Both abutment footings are exposed and have been undermined. *

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY: above Q100
RELIEF ELEVATION: 293.6 m
DISCHARGE OVER ROAD @Q100: None

UPSTREAM STRUCTURE

TOWN: Burke — DISTANCE: 200 m
HIGHWAY# : T.H. 7 — STRUCTURE #: 17
CLEAR SPAN: 6.8 m — CLEAR HEIGHT: 2.5 m
YEAR BUILT: 1928 (to be replaced w/ this project) — FULL WATERWAY: 14.9 sq. m
STRUCTURE TYPE: Steel beam bridge with concrete deck.

DOWNSTRUCTURE STRUCTURE

TOWN: Burke — DISTANCE: 630 m
HIGHWAY# : T.H. 8 — STRUCTURE #: 13
CLEAR SPAN: 7.2 m — CLEAR HEIGHT: 3.7 m
YEAR BUILT: 1928 — FULL WATERWAY: 26 sq. m
STRUCTURE TYPE: Steel beam bridge with concrete deck.

LOAD FACTOR - LOAD RATING (METRIC TONS)

LOADING LEVELS	TRUCK						
	M	MS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	32	45					
POSTED	46	63	88		51	54	79
OPERATING		75	105	100	61	64	

COMMENTS:

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2008	1100	170	64	9	60
2028	1400	220	64	15.1	120

20 year ESAL for flexible pavement from 2008 to 2028 : 242,000
40 year ESAL for flexible pavement from 2008 to 2048 : 603,000
Design Speed : 50 km/h

PROPOSED STRUCTURE

STRUCTURE TYPE: Concrete slab bridge

CLEAR SPAN(NORMAL TO STREAM): 9.0 m
VERTICAL CLEARANCE ABOVE STREAMBED: 3.7 m
WATERWAY OF FULL OPENING: 27.9 sq. m

WATER SURFACE ELEVATIONS AT:

Q2.33 =	291.8 m	VELOCITY=	2.6 mps
Q10 =	292.2 m	"	3.2 mps
Q25 =	292.4 m	"	3.4 mps
Q50 =	292.6 m	"	3.6 mps
Q100 =	292.8 m	"	3.7 mps

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY: Above Q100
RELIEF ELEVATION: 293.6 m
DISCHARGE OVER ROAD @Q100: None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 294.0 m
VERTICAL CLEARANCE: @ Q100 = 1.2 m

SCOUR: 0.2 m of contraction scour up through the Q500.

REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

PERMIT INFORMATION

AVERAGE DAILY FLOW:	0.3 cms	DEPTH OR ELEVATION:
ORDINARY LOW WATER:	0.2 cms	Depth = 0.2 m
ORDINARY HIGH WATER:	5.2 cms	Depth = 0.5 m

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporay bridge required. Maintain traffic on existing bridge.
CLEAR SPAN (NORMAL TO STREAM):
VERTICAL CLEARANCE ABOVE STREAMBED:
WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

* Information on historical stream bed changes and scour is from the 1997 USGS scour study.

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO MS 22.5
2. DESIGN SPAN 12.445 m
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 257 kPa
   ON LEDGE N/A
4. ALLOWABLE LOAD FOR PILING N/A
   TYPE N/A
   ESTIMATED LENGTH N/A
5. STRUCTURAL STEEL AASHTO M270M/M270 GRADE N/A
6. REINFORCING STEEL GRADE 420
7. CONCRETE, HIGH PERFORMANCE CLASS A f'c: 30 Mpa
   CONCRETE, HIGH PERFORMANCE CLASS B f'c: 25 Mpa
8. DESIGN SOIL UNIT WEIGHT 22.00 kN/m³
9. DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL 227 kPa

TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED? YES
   IF YES, ON EXISTING STRUCTURE? EXISTING STRUCTURE
   OR ON TEMPORARY BRIDGE?
   ONE OR TWO-WAY TRAVEL?
2. TRAFFIC CONTROL SIGNALS REQUIRED?
3. ARE SIDEWALKS REQUIRED?
   IF SO, ON WHAT SIDE?

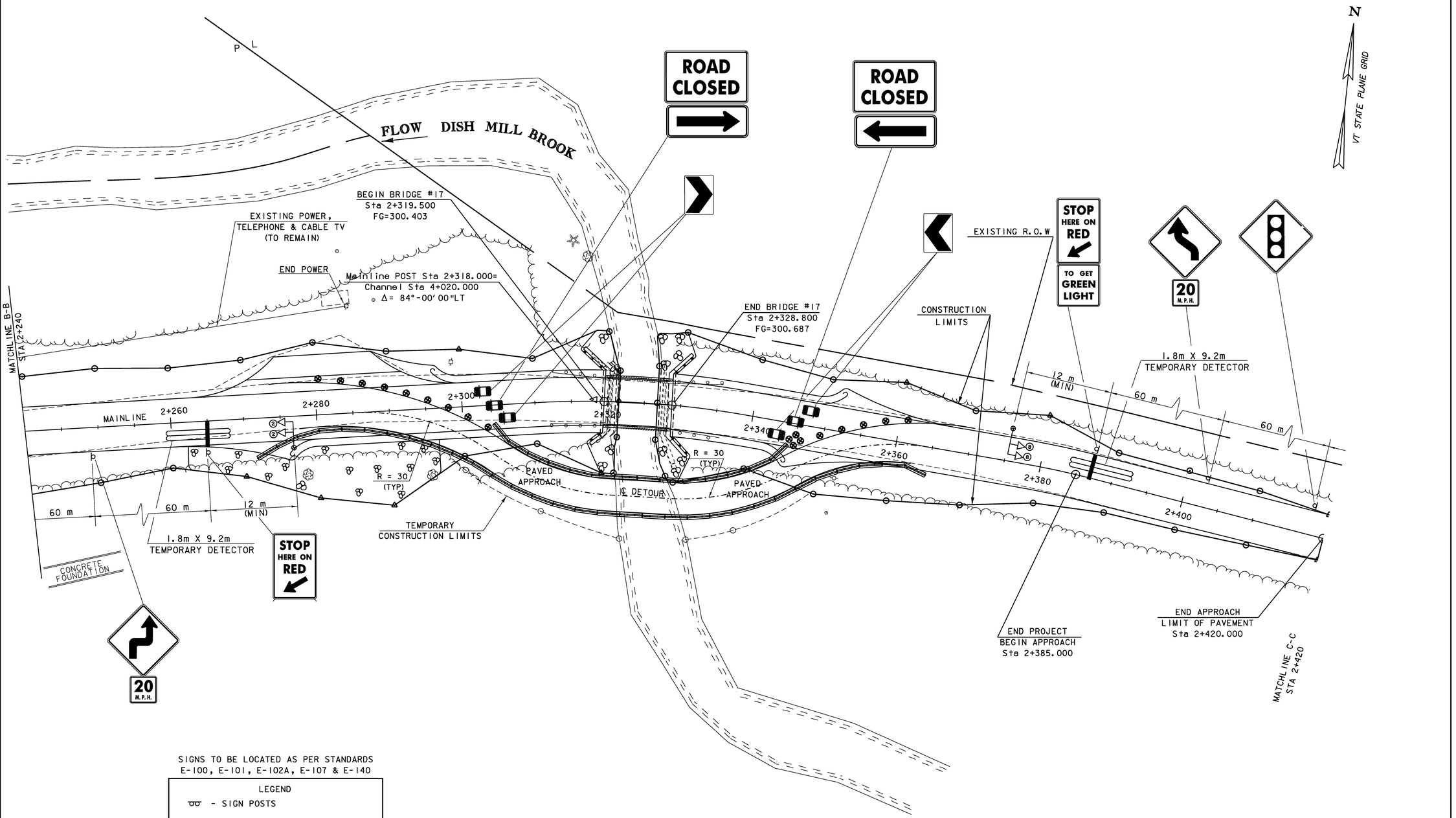
BRIDGE #16

PROJECT NAME: BURKE BR #16
PROJECT NUMBER: BRZ 1447 (15)

FILE NAME: 87e043(br16)pi.xls
PROJECT MANAGER: C.P. WILLIAMS
DESIGNED BY: K.M. HIGGINS
PRELIMINARY INFORMATION SHEET

PLOT DATE: 2/1/2008
DRAWN BY: T. ANDERSON
CHECKED BY: K.M. HIGGINS
SHEET 2 OF 81

VTrans Metric



SIGNS TO BE LOCATED AS PER STANDARDS
E-100, E-101, E-102A, E-107 & E-140

LEGEND

- SIGN POSTS
- TYPE III BARRICADES (MOD.)
- TEMP. TRAFFIC BARRIER
- REFLECTORIZED BARREL
- TEMPORARY SIGNAL LIGHTS

TRAFFIC CONTROL SHEET 3

NTS

THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043\Structures\se043bdr.dgn	
IPARM FILE NAME: se043detour3.i	PLOT DATE: 13-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: T. ANDERSON
TRAFFIC CONTROL SHEET 3	SHEET: 22 OF 81

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION,2002.

2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20°C, UNLESS OTHERWISE NOTED.

3. ALL ON AND OFF PROJECT SIGNS AND BARRICADES AS SHOWN ON THE TRAFFIC CONTROL SHEETS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PAID FOR UNDER THE ITEM 641.10 "TRAFFIC CONTROL".

4. ANY EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE TOWN OF BURKE.

5. THE BRIDGE PLAQUES SHALL BE FURNISHED BY THE AGENCY OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR AS SHOWN ON THIS SHEET.

6. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ANY PORTION OF THE SUBSTRUCTURE NOT REMOVED UNDER THE ITEM 208.35 "COFFERDAM EXCAVATION, ROCK" OR ITEM 203.27 "UNCLASSIFIED CHANNEL EXCAVATION."

7. TRAFFIC FOR BR.16 SHALL BE MAINTAINED USING THE EXISTING STRUCTURE. TRAFFIC FOR BR.17 SHALL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE LOCATED UPSTREAM OF THE STRUCTURE. THE APPROACHES TO THE TEMPORARY BRIDGE SHALL BE PAVED.

8. "STONE FILL TYPE III" SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE SLAB IS POURED.

9. THE ITEM "STONE FILL TYPE I" SHALL BE USED AS SHOWN ON THE PLANS TO PREVENT EROSION BEHIND WINGWALLS.

CONCRETE NOTES

10. DECK CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, CLASS A. THE CONCRETE CURB ON THE BRIDGE DECKS SHALL BE HIGH PERFORMANCE CONCRETE, CLASS A. ALL OTHER CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, CLASS B.

11. REINFORCING STEEL PLACEMENT TOLERANCE SHALL BE AS FOLLOWS:
    SPACING +/- 25mm
    CLEARANCE +/- 6mm

12. ALL REINFORCING STEEL IN THE CONCRETE BRIDGE SLAB, CURBS, AND APPROACH SLABS SHALL BE EPOXY COATED AND PAID FOR UNDER THE ITEM 507.17.

13. THE MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURES SHALL BE 50mm ALONG WALL FACES AGAINST EARTH, AND 80mm ELSEWHERE UNLESS DETAILED OTHERWISE.

14. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25mm X 25mm.

15. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

16. CONCRETE PORTIONS OF THE ABUTMENT AND WINGWALL ABOVE THE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL THE FINISH GRADE HAS BEEN DETERMINED BY THE RESIDENT ENGINEER.

17. THE KEY IN THE CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.

18. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE SLAB BETWEEN DRIP NOTCHES.

MISCELLANEOUS NOTES

19. TWO 25mm DIAMETER APPLE TREES SHALL BE PLANTED BETWEEN STA 2+100.00 AND STA 2+135.00 RT ON THE MATTEIS PROPERTY. THEY SHALL BE PAID FOR UNDER ITEM 656.30 "DECIDUOUS TREES (MALUS DOMESTICA)". THE LOCATION IS TO BE OUTSIDE THE RIGHT-OF-WAY AND VERIFIED BY THE PROPERTY OWNER AND RESIDENT ENGINEER.

20. CONSTRUCT A NEW DRIVE WITH A PAVED APRON, 3.6m WIDE, AT STA 2+087.00 ON THE MATTEIS PROPERTY. THE LOCATION SHALL BE VERIFIED BY THE PROPERTY OWNER AND THE RESIDENT ENGINEER PRIOR TO CONSTRUCTION.

21. ITEM 621.215 HD STEEL BEAM GUARD RAIL, GALVANIZED, WITH 2.4 m POSTS SHALL BE USED FROM STATION 2+154.20 (RT) TO 2+233.20 (RT). THE POSTS IN THIS SECTION SHALL BE DRIVEN 300 mm DEEPER SO THAT THE DISTANCE BETWEEN THE FACE OF RAIL TO THE ROADWAY SIDE SLOPE CAN BE REDUCED TO 600 mm TO MINIMIZE IMPACTS TO THE WETLANDS.

22. SUBBASE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY ACCORDING TO SUBSECTION 301.06.

23. WINGWALL #3 AND ITS FOOTING SHALL BE CONSTRUCTED AFTER TRAFFIC HAS BEEN RE-ROUTED ONTO THE NEW BRIDGE. THE COFFERDAM CONSTRUCTION FOR WINGWALL #3 SHALL BE INCLUDED UNDER THE ITEM 208.40 "COFFERDAM (STA 2+156.400)". ANY TEMPORARY TRAFFIC BARRIER NEEDED TO PROTECT TRAFFIC FROM WINGWALL #3 CONSTRUCTION SHALL BE PAID FOR UNDER ITEM 641.10 "TRAFFIC CONTROL".

SEEDING FORMULA
RURAL AREAS

% WT.	Kg/ha	NAME	PUR %	GERM %
37.5	26.0	CREEPING RED FESCUE	98	85
37.5	26.0	TALL FESCUE	95	90
5.0	4.0	RED TOP	95	90
15.0	10.0	BIRDSFOOT TREFOIL	98	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	70.0			

SEEDING GENERAL NOTES

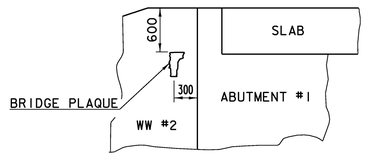
SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

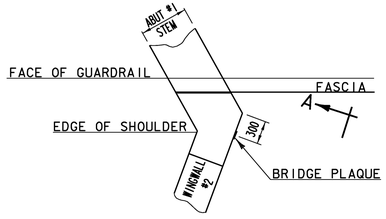
FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.



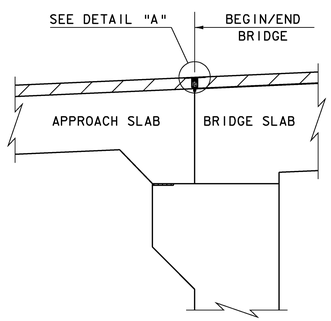
VIEW "A - A"
NTS



PLAN
NTS

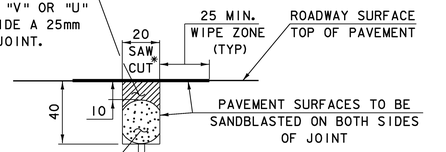
LOCATE BRIDGE PLAQUE
NTS

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.



DETAIL FOR JOINT AT BEGIN & END BRIDGE
NTS

JOINT SEALER, HOT POURED, SHALL BE SLIGHTLY OVER FILLED THEN WIPED FLUSH WITH A "V" OR "U" SHAPED SQUEEGEE TO PROVIDE A 25mm WIPE ZONE EACH SIDE OF JOINT.



22mm Ø HEAT RESISTANT FOAM BACKER ROD, COMPRESSION FIT REQUIRED TO INSURE THAT THE ROD POSITION IS MAINTAINED DURING FILLING OPERATION. COST TO BE INCLUDED WITH UNIT PRICE BID FOR JOINT SEALER.

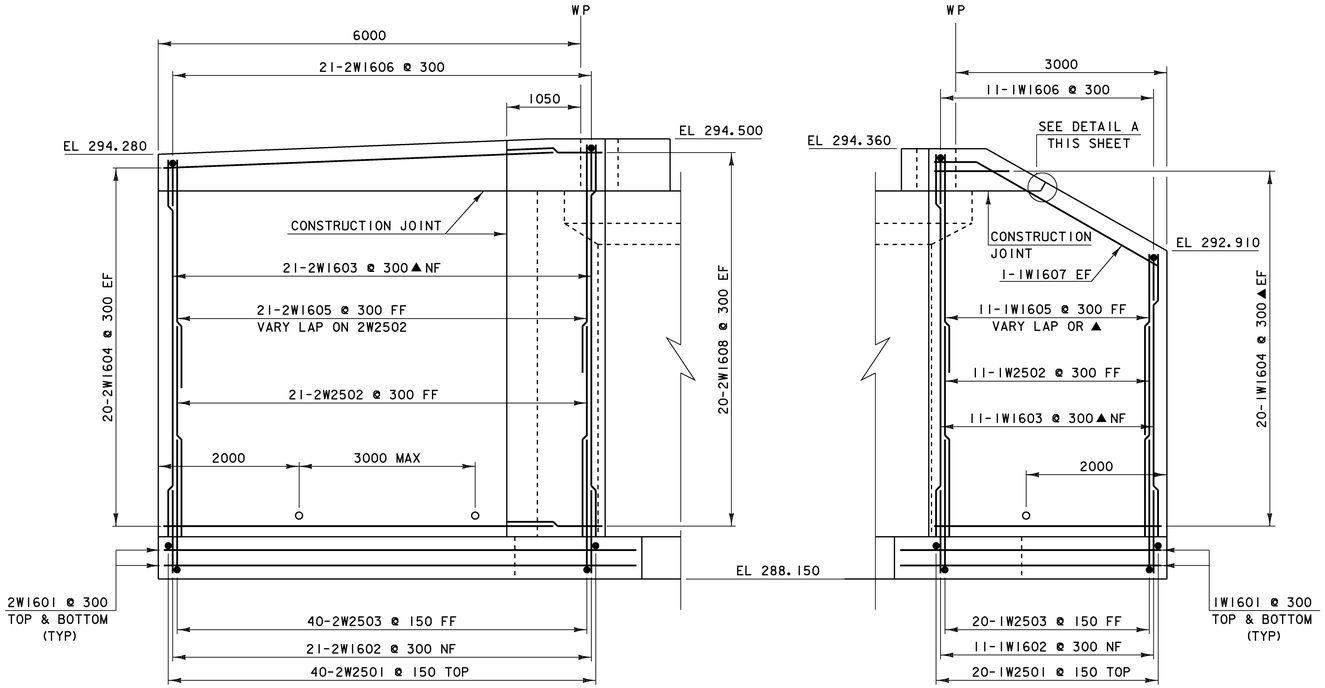
6.5mm WIDE X 13mm SAW CUT INTO BOTTOM COURSE OF PAVEMENT TO BE MADE DURING THE SAME WORKDAY AS PLACEMENT.

DETAIL "A"
NTS

* JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER. SEE VT. SPECIFICATION 524. ALL WORK FOR SAW CUT JOINT TO BE INCIDENTAL TO ITEM 524.11 "JOINT SEALER, HOT POURED".

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: se043notes.dgn
IPARM FILE NAME: se043notes.i
PLOT DATE: 14-MAR-2008
DESIGNED BY: E.L.RUSTAY
DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS
CHECKED BY: K.HIGGINS
GENERAL NOTES & MISC. DETAILS
SHEET: 30 OF 81



WW #2 ELEVATION

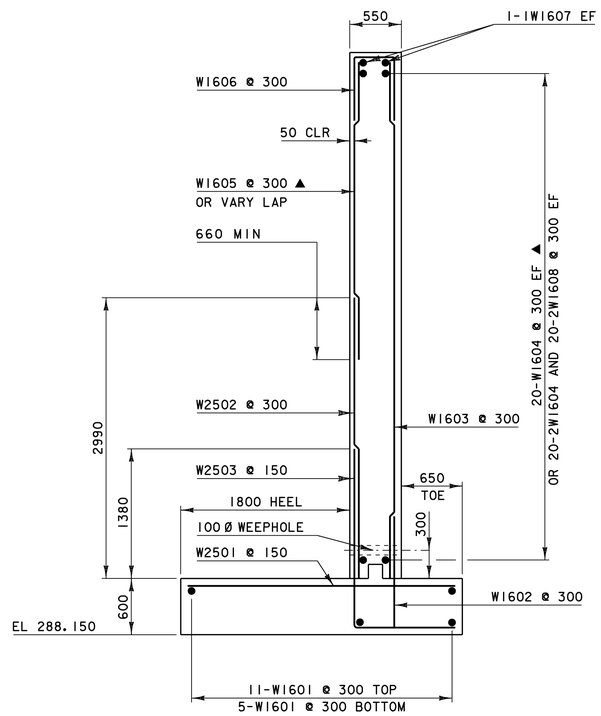
0 1 2 3 4

SCALE = 1:40

WW #1 ELEVATION

0 1 2 3 4

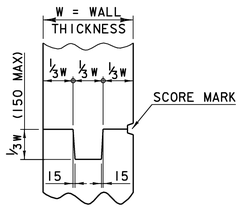
SCALE = 1:40



WW #1 & #2 TYPICAL SECTION

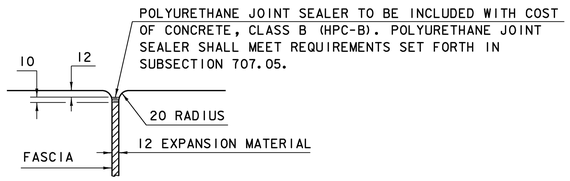
0 1 2 3

SCALE = 1:30



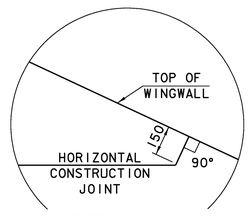
TYPICAL CONCRETE CONSTRUCTION JOINT

NTS



JOINT BETWEEN FASCIA AND WINGWALL

NTS



DETAIL "A"

NTS

NOTES:

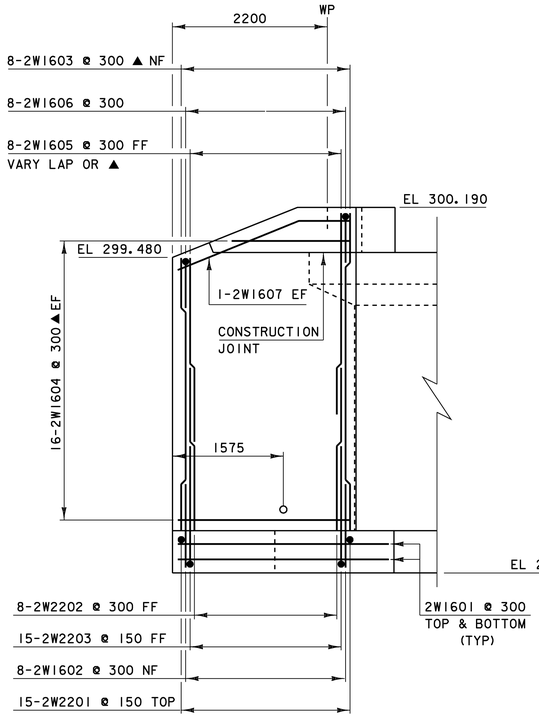
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTE: SEE BRIDGE #16 ABUTMENT #1 ELEVATION FOR CORNER BARS

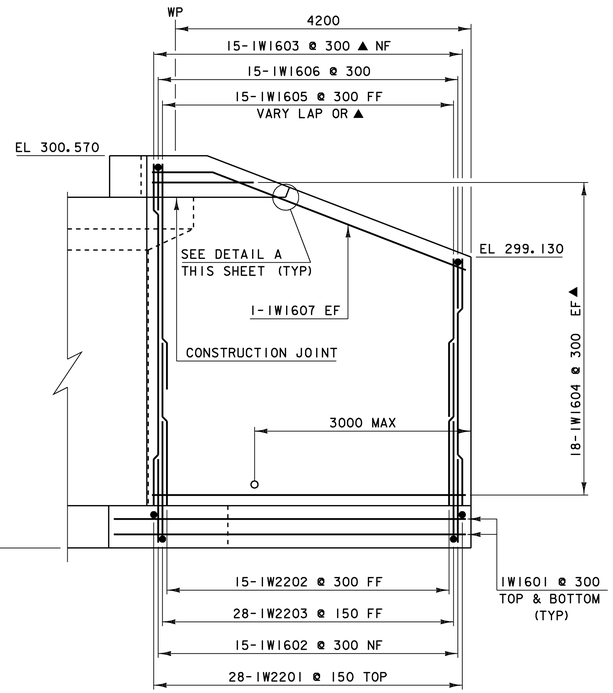
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br16sub.dgn	
IPARM FILE NAME: se043br16ww1x2.i	PLOT DATE: 13-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #16 WINGWALLS 1& 2 DETAILS	SHEET: 36 OF 81



WW #2 ELEVATION

0 1 2 3 4

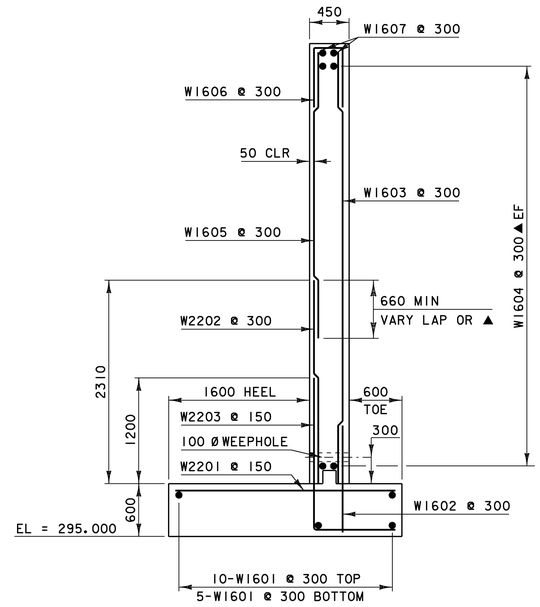
SCALE = 1:40



WW #1 ELEVATION

0 1 2 3 4

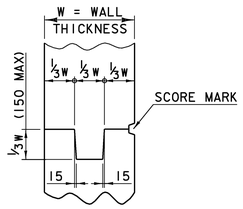
SCALE = 1:40



WINGWALL TYPICAL SECTION

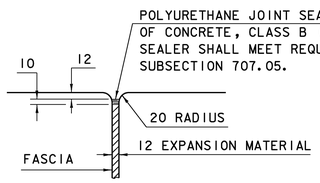
0 1 2 3

SCALE = 1:30



TYPICAL CONCRETE CONSTRUCTION JOINT

NTS



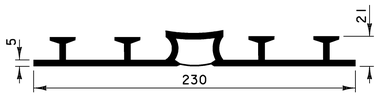
JOINT BETWEEN FASCIA AND WINGWALL

NTS



P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS

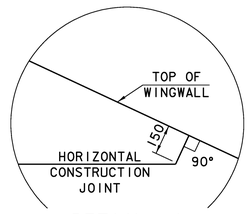
NTS



P.V.C. WATERSTOP FOR EXPANSION JOINTS

NTS

THE COSTS FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL OF THE STRUCTURES ENGINEER.



DETAIL "A"

NTS

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

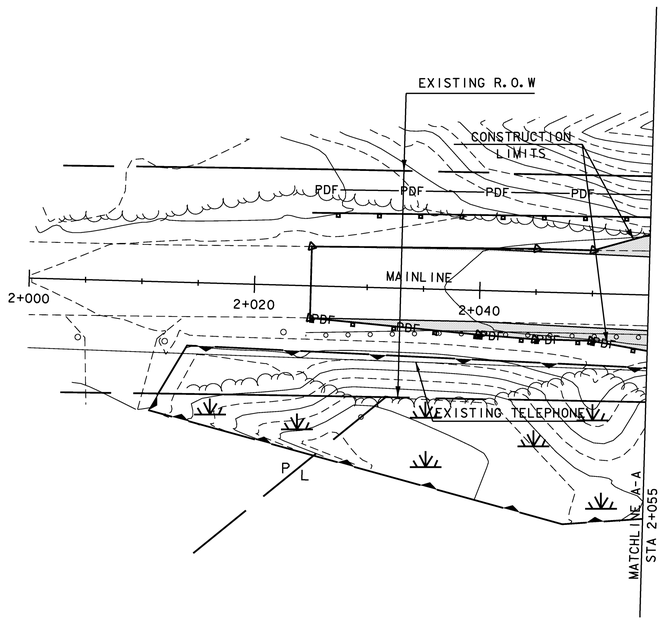
NOTE: SEE BRIDGE #17 ABUTMENT #1 ELEVATION FOR CORNER BARS

PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17ww1x2.i	PLOT DATE: 13-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #17 WINGWALLS 1 & 2 DETAILS	SHEET: 43 OF 81

VAOT Metric

N

VT STATE PLANE GRID



SOIL CLASSIFICATION

SOIL TYPE : CABOT SILT LOAM
SLOPES : 0-8%
"K FACTOR" 0.32
CLASSIFIED : MODERATE ERODIBILITY

LEGEND

- WETLANDS BOUNDARIES
- WETLANDS
- SILT FENCE
- TURBIDITY CURTAIN
- PROPOSED SLOPE LIMITS
- DETOUR CONST. LIMITS
- PDF PDF PDF PROJECT DEMARCATION FENCE
- RIPARIAN BUFFER ZONE
- SEED AND MULCH
- EROSION CONTROL MATTING

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

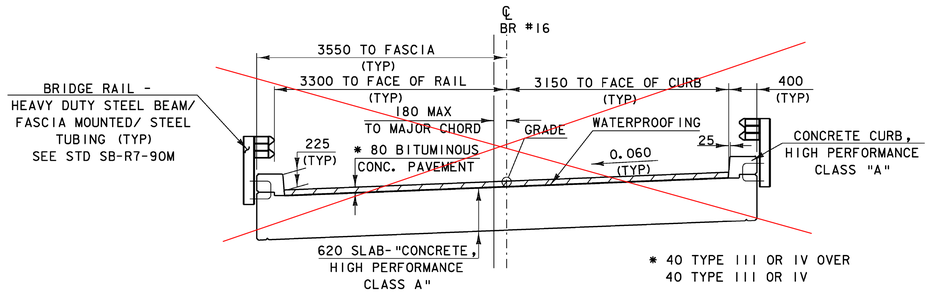
EROSION PREVENTION AND SEDIMENT CONTROL PLAN

0 10 20

SCALE 1:250

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn
IPARM FILE NAME: se043erol.i
SURVEYED BY: A. MYERS — SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: M.FESSEL
EROSION AND SEDIMENT CONTROL PLAN — PLOT DATE: 14-MAR-2008
SHEET: 51 OF 81



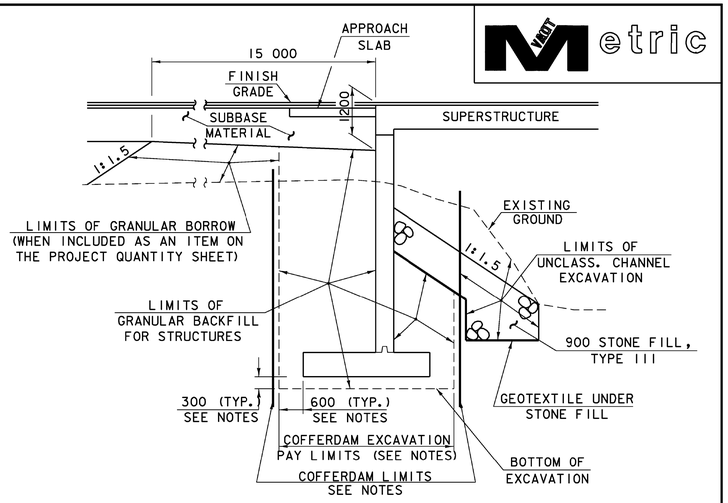
SEE VALUE ENGINEERED DESIGN SHEET NUMBER GI

BRIDGE No. 16 TYPICAL SECTION

SCALE 1:40

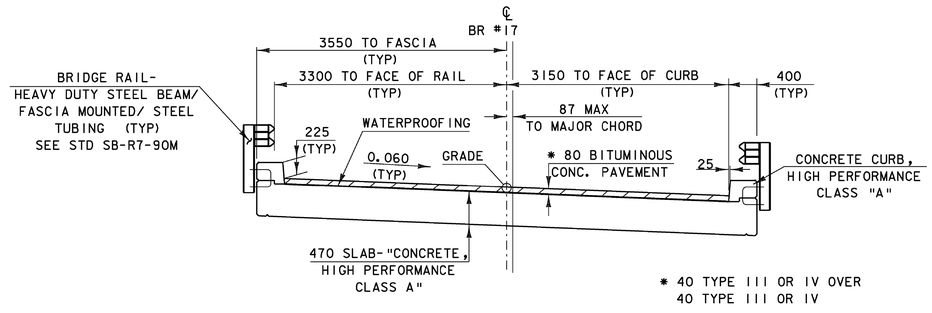
NOTES

1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 600 OUTSIDE THE PERIMETER OF THE FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
3. 300 UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.



TYPICAL ABUTMENT SECTION

(NOT TO SCALE)

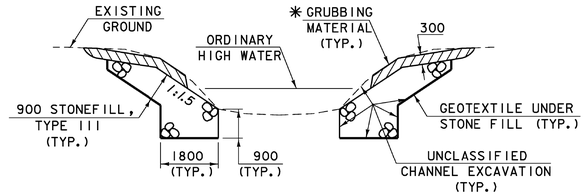


BRIDGE No. 17 TYPICAL SECTION

SCALE 1:40

BUILT AS DESIGNED

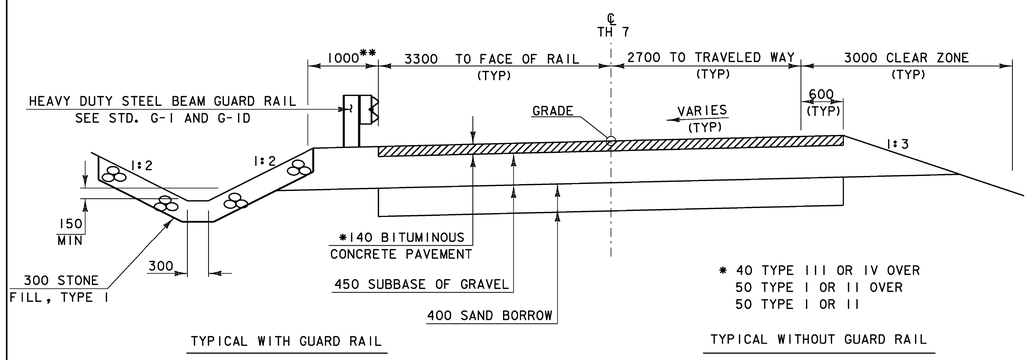
MATERIAL ITEM	TOLERANCE
PAVEMENT	±5 mm TOTAL THICKNESS
AGGREGATE SURFACE COURSE	±10 mm
BASE COURSE	±10 mm
SUBBASE	±30 mm
SAND BORROW	±30 mm
GRANULAR BORROW	±30 mm



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

* GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

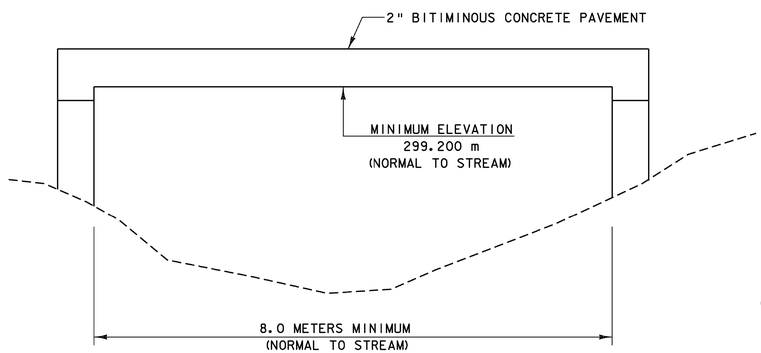


ROADWAY TYPICAL SECTION

SCALE 1:40

BUILT AS DESIGNED

** THIS DISTANCE SHALL BE REDUCED TO 600 mm AND LONGER POSTS SHALL BE USED OFF WINGWALL 3 ON BRIDGE 16. SEE NOTES ON SHEET 30 FOR MORE DETAIL.



BRIDGE No. 17 TEMPORARY BRIDGE SKETCH

(NOT TO SCALE)

0 1 2 3 4

SCALE = 1:40

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043typ.dgn	
IPARM FILE NAME: se043typ.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: K. M. HIGGINS	DRAWN BY: P.G JARVIS
SQUAD LEADER: C.P. WILLIAMS	CHECKED BY: K. M. HIGGINS
TYPICAL SECTIONS	SHEET: 8 OF 81

Metric

GPS CONTROL POINTS

HVCTRL #1

VERMONT GEODETIC SURVEY

NOT STAMPED

N = 232585.899

E = 546507.430

ELEV. = 354.658

TO REACH FROM THE INTERSECTION OF VT 114 AND TOWN HIGHWAY 7 (BURKE MOUNTAIN SKI AREA ROAD) PROCEED UP TOWN HIGHWAY 7 1.45 MI (2.33 KM) TO THE MARK ON THE RIGHT (SOUTH) . THE MARK IS 39 M (128.0 FT) SOUTHWEST OF THE INTERSECTION OF TOWN HIGHWAY 7 AND A SIDE ROAD LEADING TO BURKE MOUNTAIN CROSS COUNTRY SKI AREA LEFT (NORTH) , 19.2 M (63.0 FT) WEST SOUTHWEST OF A COMBINATION UTILITY POLE NUMBER 131/5/28/12-15/21, 4.5 M (14.8 FT) SOUTH SOUTHEAST OF AND .2 M (0.7 FT) LOWER IN ELEVATION THAN THE CENTERLINE OF TOWN HIGHWAY 7,AND .3 M (1.0 FT) NORTH NORTHEAST OF A WOODEN WITNESS MARKED 1.

HVCTRL #2

VERMONT GEODETIC SURVEY

NOT STAMPED

N = 232380.758

E = 546062.579

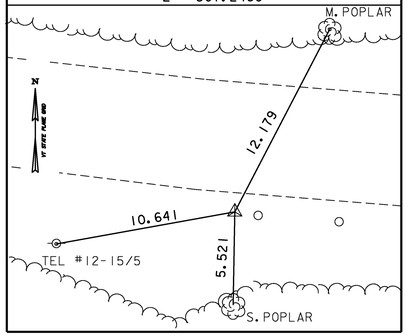
ELEV. = 338.597

TO REACH FROM THE INTERSECTION OF VT 114 AND TOWN HIGHWAY 7 (BURKE MOUNTAIN SKI AREA ROAD) PROCEED UP TOWN HIGHWAY 7 1.1 MI (1.8 KM) TO THE MARK ON THE RIGHT (SOUTH) . THE MARK IS 42 M (137.8 FT) NORTHEAST OF A COMBINATION UTILITY POLE NUMBER 13/21, 32 M (105.0 FT) SOUTH SOUTHWEST OF A COMBINATION UTILITY POLE NUMBER 14/22, 3.9 M (12.8 FT) SOUTH SOUTHWEST OF AND .2 M (0.7 FT) LOWER IN ELEVATION THAN THE CENTERLINE OF TOWN HIGHWAY 7, .5M SOUTH SOUTHWEST OF CABLED GUARDRAILS, AND .3 M (1.0 FT) NORTH NORTHEAST OF A WOODEN WITNES MARKED 2.

TRAVERSE TIES

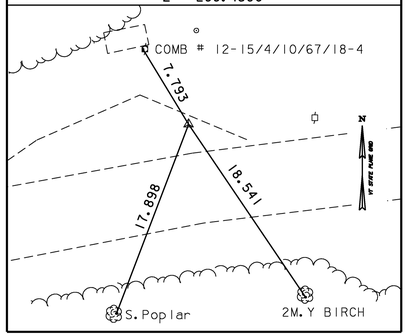
HVCTRL #4

N = 232257.3820
E = 545428.0710
Z = 307.2460



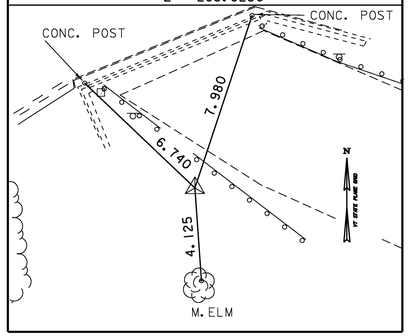
HVCTRL #5

N = 232274.4400
E = 545279.0610
Z = 299.4590



HVCTRL #6

N = 232260.3630
E = 545161.7690
Z = 293.8230

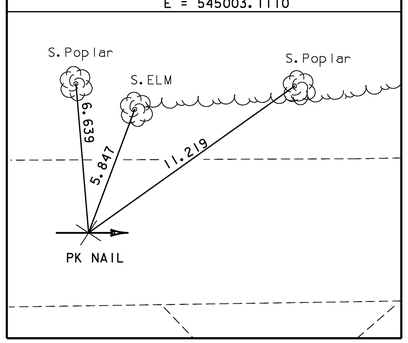


* MAIN TRAVERSE COMPLETED: DECEMBER 20, 1995 BY: A. Myers & R. Moreau

ALIGNMENT TIES

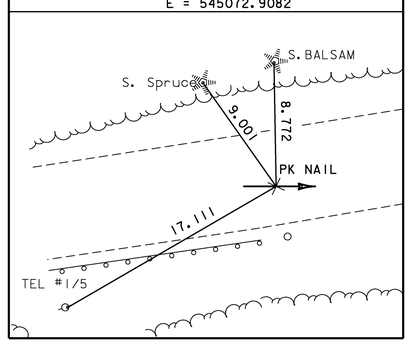
POT 2+000.00

N = 232308.5690
E = 545003.1110



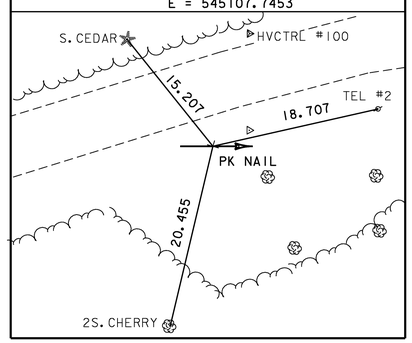
PC 2+071.244

N = 232294.2840
E = 545072.9082



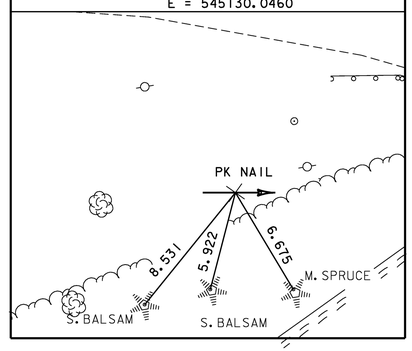
PT 2+108.478

N = 232281.5354
E = 545107.7453



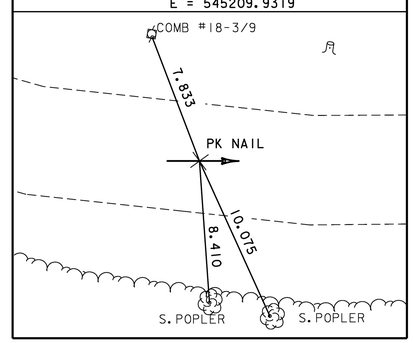
PC 2+133.886

N = 232269.3598
E = 545130.0460



PT 2+216.425

N = 232255.6806
E = 545209.9319



* ALIGNMENT STAKED ON OCTOBER 14, 2002 BY R.GILMAN, P.WINTERS & J.SCHULTZ

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83(92)
ADJUSTMENT unknown

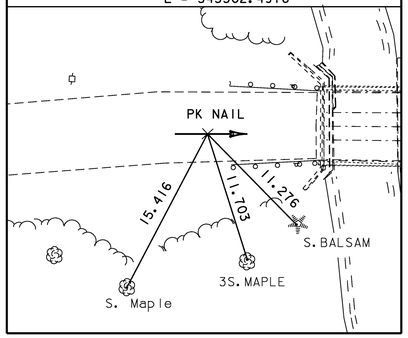
PROJECT NAME: BURKE
PROJECT NUMBER: BRZ 1447(15)

FILE NAME: 87e043/xe043t1.dgn
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: K.M. HIGGINS
TRAVERSE & ALIGNMENT TIES

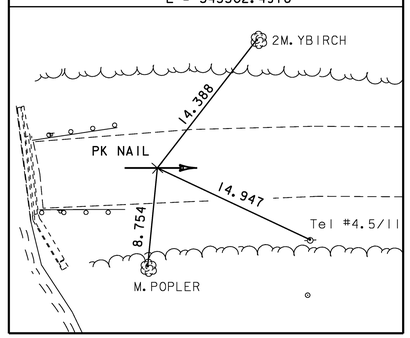
PLOT DATE: 10-MAR-2008
DRAWN BY: J.HULETT
CHECKED BY: P.HODGE
SHEET 9 OF 81

ALIGNMENT TIES

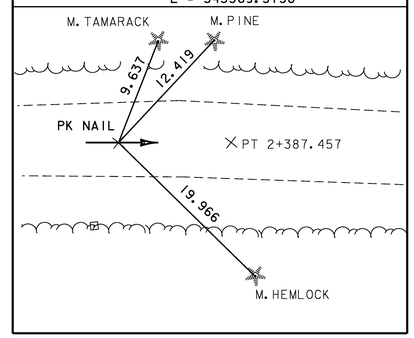
PC 2+310.197
N = 232270.6731
E = 545302.4976



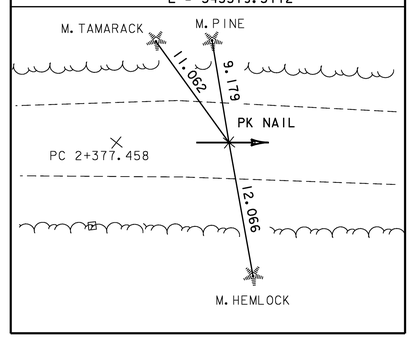
PT 2+338.850
N = 232271.9867
E = 545302.4976



PC 2+377.458
N = 232269.3386
E = 545369.5738



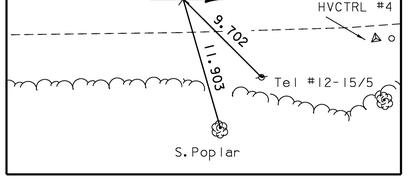
PT 2+387.457
N = 232268.2547
E = 545379.5112



* ALIGNMENT STAKED ON FEBRUARY 7, 2002 BY R.GILMAN, P.WINTERS & D.BREER

ALIGNMENT TIES

POT 2+420.000
N = 232263.4355
E = 545411.6954



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83(92)
ADJUSTMENT unknown

PROJECT NAME: BURKE
PROJECT NUMBER: BRZ 1447(15)

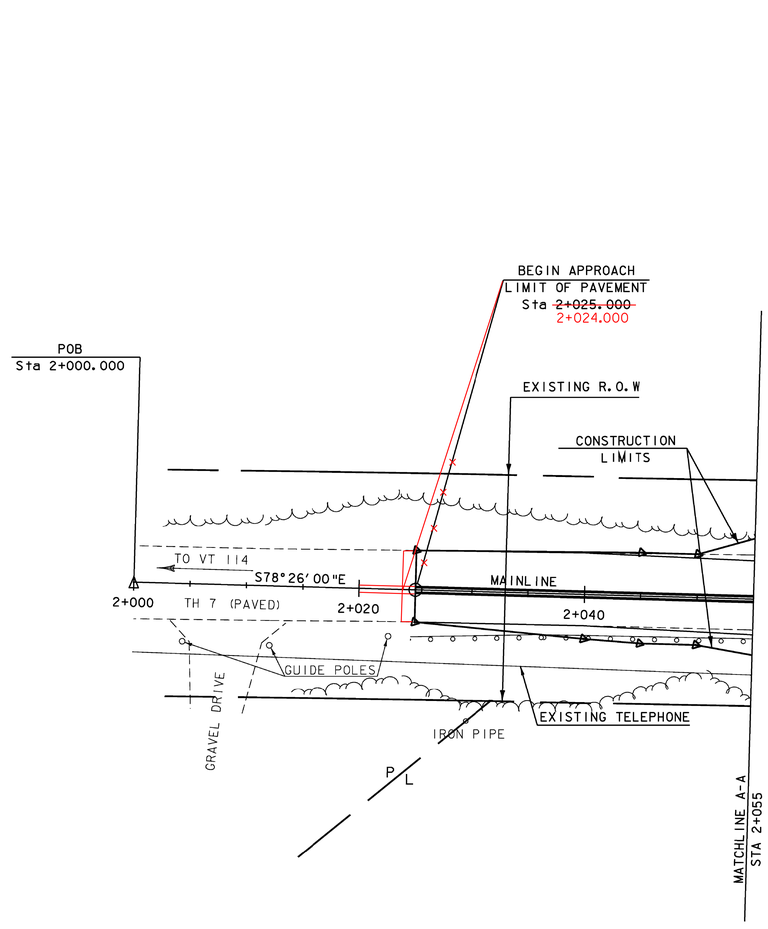
FILE NAME: 87e043/survey/xe043t1.dgn
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: K.M. HIGGINS
ALIGNMENT TIES

PLOT DATE: 10-MAR-2008
DRAWN BY: J.HULETT & R.B
CHECKED BY:
SHEET 10 OF 81

~~REMOVE AND RESET GUARD RAIL~~
~~STA 2+024.700 - 2+055.000 RT~~ NO GUARDRAIL AT THIS LOCATION WHEN THE PROJECT BEGAN

100 MM YELLOW LINE
STA ~~2+025.000~~ - 2+055.000 CENTER LINE
2+020.200

~~ANCHOR FOR STEEL BEAM RAIL~~
~~STA 2+031.00 RT~~



LAYOUT

0 10 20 30
SCALE IN METERS

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043lal.1	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
LAYOUT MATCHLINE A-A	SHEET: 11 OF 81

SEE NOTE ON SHEET II

~~REMOVE AND RESET GUARD RAIL~~
~~STA 2+055.000 RT - 2+069.700 RT~~

REMOVAL AND DISPOSAL OF GUARD RAIL
STA 2+137.200 LT - 2+172.600 LT
STA 2+155.900 LT - 2+180.800 LT

100 MM YELLOW LINE
STA 2+055.000 - 2+240.000 CENTER LINE

CONSTRUCT DRIVE W/ PAVED APRON
STA 2+087.000 RT - 3.600 m WIDE
(LOCATION TO BE VERIFIED BY PROPERTY OWNER AND RESIDENT ENGINEER PRIOR TO CONSTRUCTION)

CONSTRUCT ACCESS TO WOODS DRIVE
STA 2+124.000 LT

~~2 DECIDUOUS TREES (MALUS DOMESTICA)~~
~~STA 2+100.000 - 2+135.00 RT~~
~~(LOCATION TO BE OUTSIDE RIGHT-OF-WAY & VERIFIED BY PROPERTY OWNER AND RESIDENT ENGINEER)~~

HD STEEL BEAM GUARD RAIL, GALVANIZED
STA 2+125.700 LT - ~~2+145.000~~ LT 2+139.04
STA ~~2+124.400 RT~~ - ~~2+139.400~~ RT 2+122.50 - 2+138.34
STA ~~2+160.600 LT~~ - 2+188.000 LT
2+164.54

HD STEEL BEAM GAURD RAIL, GALVANIZED WITH 2.4m POSTS
STA ~~2+154.200~~ RT - 2+233.200 RT
2+158.300

BRIDGE RAILING, HDSB/FASCIA MOUNTED/STEEL TUBING
2+139.04 2+164.54
STA ~~2+145.000~~ LT - ~~2+160.600~~ LT
STA ~~2+139.400~~ RT - ~~2+154.200~~ RT
2+138.34 2+158.30

ANCHOR FOR STEEL BEAM RAIL
~~STA 2+063.700 RT~~ SEE NOTE ON SHEET II
STA 2+127.700 LT
STA ~~2+126.400~~ RT 2+124.5
STA 2+185.800 LT
STA 2+231.200 RT

EXCAVATION OF SURFACES AND PAVEMENTS
STA 2+092.000 LT - 2+159.100 LT

CONSTRUCT SWALE
② STA 2+121.000 - 2+149.000 LT
③ STA 2+130.000 - 2+152.000 LT

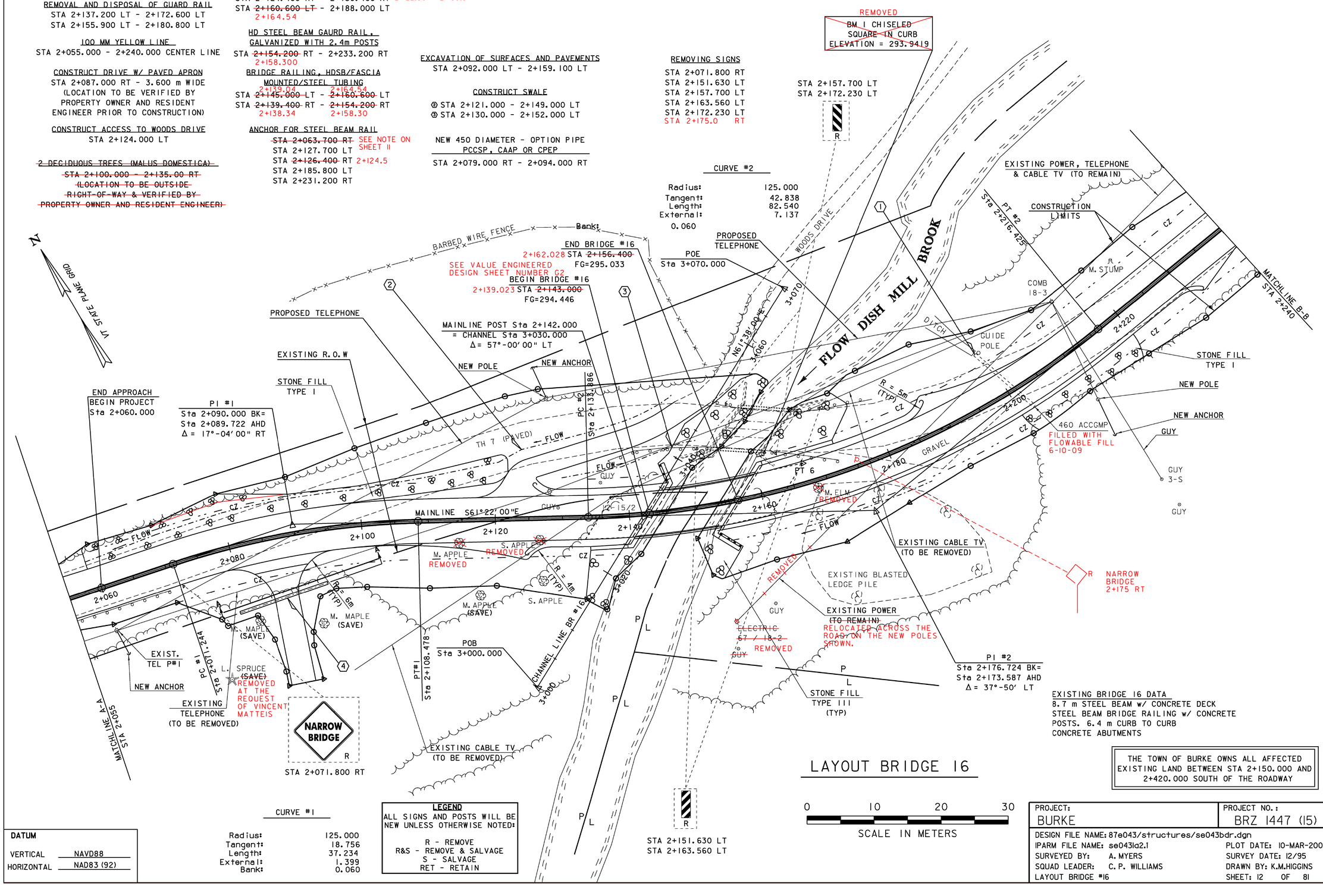
NEW 450 DIAMETER - OPTION PIPE PCCSP, CAAP OR CPEP
STA 2+079.000 RT - 2+094.000 RT

REMOVING SIGNS
STA 2+071.800 RT
STA 2+151.630 LT
STA 2+157.700 LT
STA 2+163.560 LT
STA 2+172.230 LT
STA 2+175.0 RT

REMOVED
~~BM 1 CHISELED SQUARE IN CURB~~
ELEVATION = 293.9419

STA 2+157.700 LT
STA 2+172.230 LT

CURVE #2
Radius: 125.000
Tangent: 42.838
Length: 82.540
External: 7.137
Bank: 0.060



CURVE #1
Radius: 125.000
Tangent: 18.756
Length: 37.234
External: 1.399
Bank: 0.060

LEGEND
ALL SIGNS AND POSTS WILL BE NEW UNLESS OTHERWISE NOTED:

R - REMOVE
R&S - REMOVE & SALVAGE
S - SALVAGE
RET - RETAIN

EXISTING BRIDGE 16 DATA
8.7 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE POSTS. 6.4 m CURB TO CURB
CONCRETE ABUTMENTS

THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

LAYOUT BRIDGE 16

0 10 20 30
SCALE IN METERS

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043la2.1	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
LAYOUT BRIDGE #16	SHEET: 12 OF 81

Metric

REMOVAL AND DISPOSAL OF GUARD RAIL
STA 2+312.500 - 2+320.200 LT
STA 2+312.000 - 2+320.000 RT
STA 2+328.000 - 2+335.400 LT
STA 2+328.100 - 2+336.000 RT

HD STEEL BEAM GUARD RAIL, GALVANIZED
STA 2+296.000 - 2+318.600 LT
STA 2+276.200 - 2+318.200 RT
STA 2+329.700 - 2+352.300 LT
STA 2+330.000 - 2+345.400 RT

ANCHOR FOR STEEL BEAM RAIL
STA 2+298.000 LT
STA 2+278.300 RT
STA 2+350.200 LT
STA 2+343.400 RT

CONSTRUCT DRIVE *
STA 2+280.000 LT - W/2000 PAVED APRON

* PAVEMENT FOR DRIVE SHALL BE ONE 40mm LIFT OF TYPE III OR IV PAVEMENT.

100 MM YELLOW LINE
STA 2+240.000 - 2+420.000 CENTER LINE

REMOVING SIGNS
STA 2+262.850 LT
STA 2+265.350 LT
STA 2+317.940 LT
STA 2+317.950 RT
STA 2+329.700 LT
STA 2+329.830 RT

TEMPORARY 600 MM STOP BAR
STA 2+265 RT
STA ~~2+386.5~~ LT 2+392

TEMPORARY DETECTOR
STA 2+259 RT - 2+268 RT
STA 2+384 LT - 2+393 LT

TEMPORARY TRAFFIC SIGNAL SYSTEM
STA 2+277 RT TO STA 2+375 LT

BRIDGE RAILING, HDSB/FASCIA MOUNTED/STEEL TUBING
STA 2+318.600 - 2+329.700 LT
STA 2+318.200 - 2+330.000 RT

N
VT STATE PLANE GRID

FLOW DISH MILL BROOK

POE
Sta 4+040.000

BEGIN BRIDGE #17
Sta 2+319.500
FG=300.403

EXISTING POWER, TELEPHONE & CABLE TV (TO REMAIN)

NEW ANCHOR

GUY

END POWER
WOODEN PLATFORM

Mainline POST Sta 2+318.000=
Channel Sta 4+020.000
Δ= 84°-00'00"LT

COMB 12-15/4/10/67/18-4 W/METER
OUTLET AND LARGE TELEPHONE BOX

ABANDONED TRAFFIC SIGNAL ON WOODEN POLE

GRAVEL

PT 5

M. DEAD FIR
M. YELLOW BIRCH

N3° 15' 00"W 4+040

PI #3
Sta 2+324.586 BK=
Sta 2+324.461 AHD
Δ= 13°08'00" RT

R(2)
STA 2+317.940 LT
STA 2+329.830 RT

EXISTING R.O.W

PROPOSED TELEPHONE & CABLE TV CONSTRUCTION LIMITS

NEW ANCHOR

NEW POLE

END BRIDGE #17
Sta 2+328.800
FG=300.687

PI #4
Sta 2+382.461 BK=
Sta 2+382.455 AHD
Δ= 4°35'00" Right

POE
Sta 2+420.000

NARROW BRIDGE R
STA 2+262.850 LT

R
STA 2+265.350 LT

MAINLINE 2+260 N80°48'00"E 2+280 2+300 2+320 2+340 2+360 S86°04'00"E 2+380 S81°29'00"E 2+400

CZ

FLOW

S. POPLAR 18in TYP 4m

M. TWIN YELLOW BIRCH REMOVED

PC #3
Sta 2+310.197

CHANNEL LINE BR #17
4+000

℄ DETOUR

PT #3
Sta 2+338.950
R = 5m (TYP)

TEL
CZ 4-1/2. (4.5/11)

GUY

TH 7 (PAVED)

MATCHLINE B-B
STA 2+240

CONCRETE FOUNDATION

TEMPORARY CONSTRUCTION LIMITS REMOVED

~~BM 2 CHISELED SQUARE IN CURB ELEVATION = 299.7900~~

STONE FILL TYPE I

POB
Sta 4+000.000

STONE FILL TYPE III (TYP)

0258
0302
0060 RET
STA 2+375.010 RT

PC #4
Sta 2+377.458

PT #4
Sta 2+387.457

END PROJECT
BEGIN APPROACH
Sta 2+385.000

END APPROACH
LIMIT OF PAVEMENT
Sta 2+420.000

MATCHLINE C-C
STA 2+420

EXISTING TELEPHONE & CABLE TV (TO BE REMOVED)

R(2)
STA 2+317.950 RT
STA 2+329.700 LT

EXISTING BRIDGE 17 DATA
8.1 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE POSTS
6.5 m CURB TO CURB
CONCRETE ABUTMENTS

CURVE #3

Radius:	125.000
Tangent:	14.389
Length:	28.652
External:	0.825
Bank:	0.060

CURVE #4

Radius:	125.000
Tangent:	5.002
Length:	9.999
External:	0.100
Bank:	Varies

LEGEND
ALL SIGNS AND POSTS WILL BE NEW UNLESS OTHERWISE NOTED:

R - REMOVE
R&S - REMOVE & SALVAGE
S - SALVAGE
RET - RETAIN

LAYOUT BRIDGE 17

0 10 20 30
SCALE IN METERS

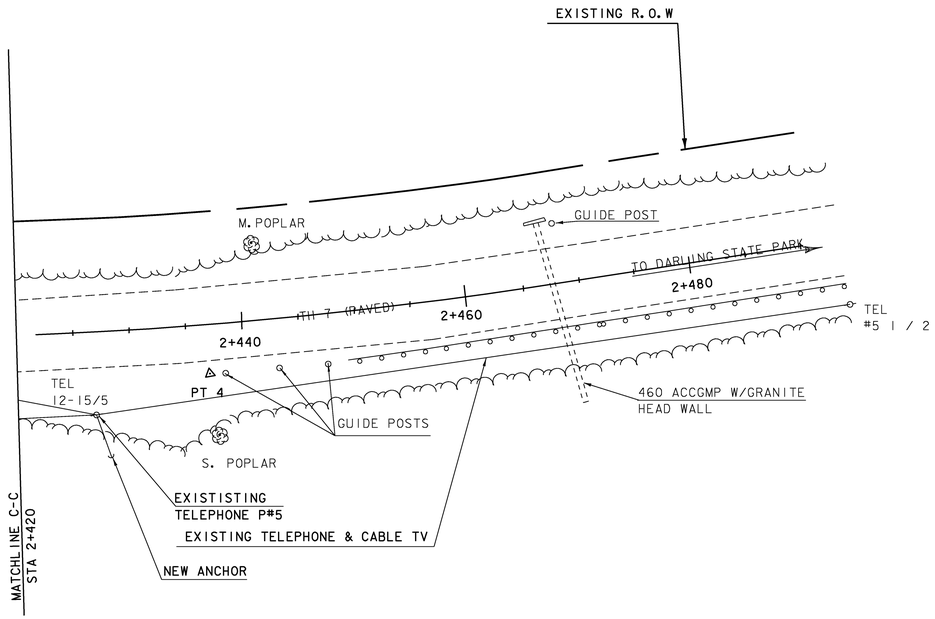
THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043la3.1	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
LAYOUT BRIDGE #17	SHEET: 13 OF 81

N

VT STATE PLANE GRID



LAYOUT

0 10 20 30

SCALE IN METERS

THE TOWN OF BURKE OWNS ALL EXISTING LAND BETWEEN STA 2+175.000 AND 2+420.000 SOUTH OF THE ROADWAY

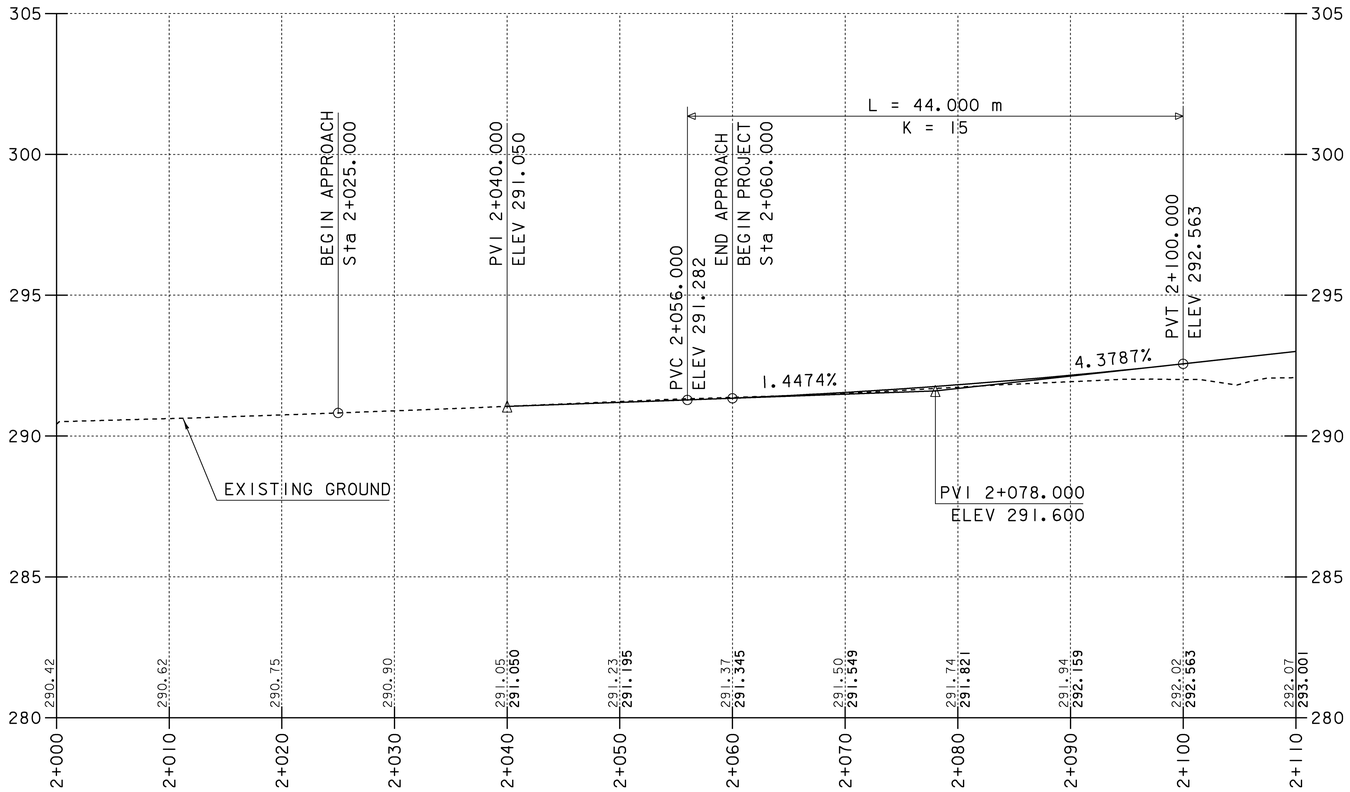
DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043la4.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
LAYOUT MATCHLINE C-C	SHEET: 14 OF 81

Metric

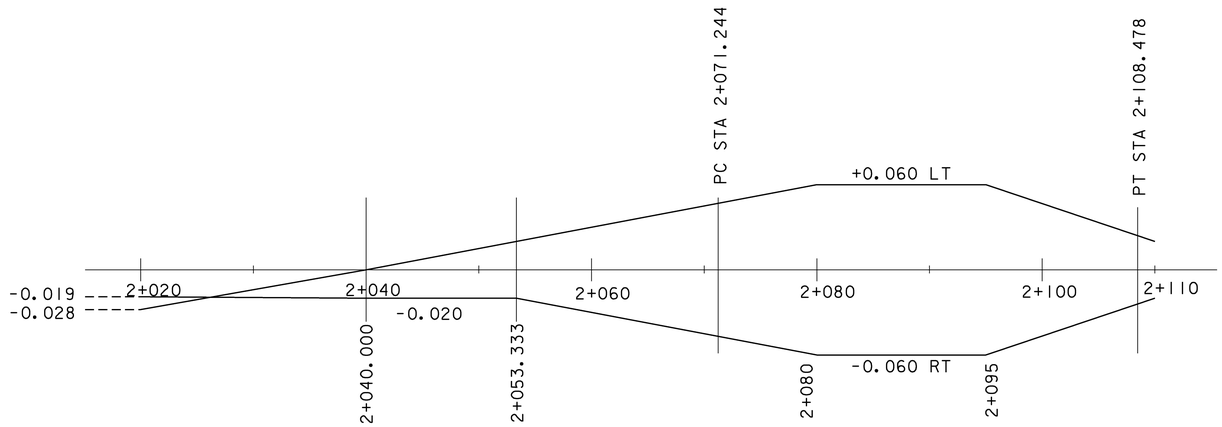
PROFILE



NOTE:

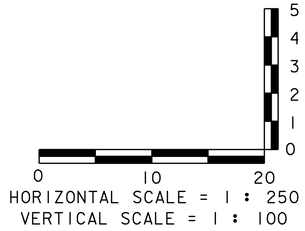
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE EXISTING GROUND ALONG ℄.

GRADES SHOWN TO THE NEAREST THOUSANDTH ARE FINISH GRADE ALONG ℄.



BANKING DIAGRAM

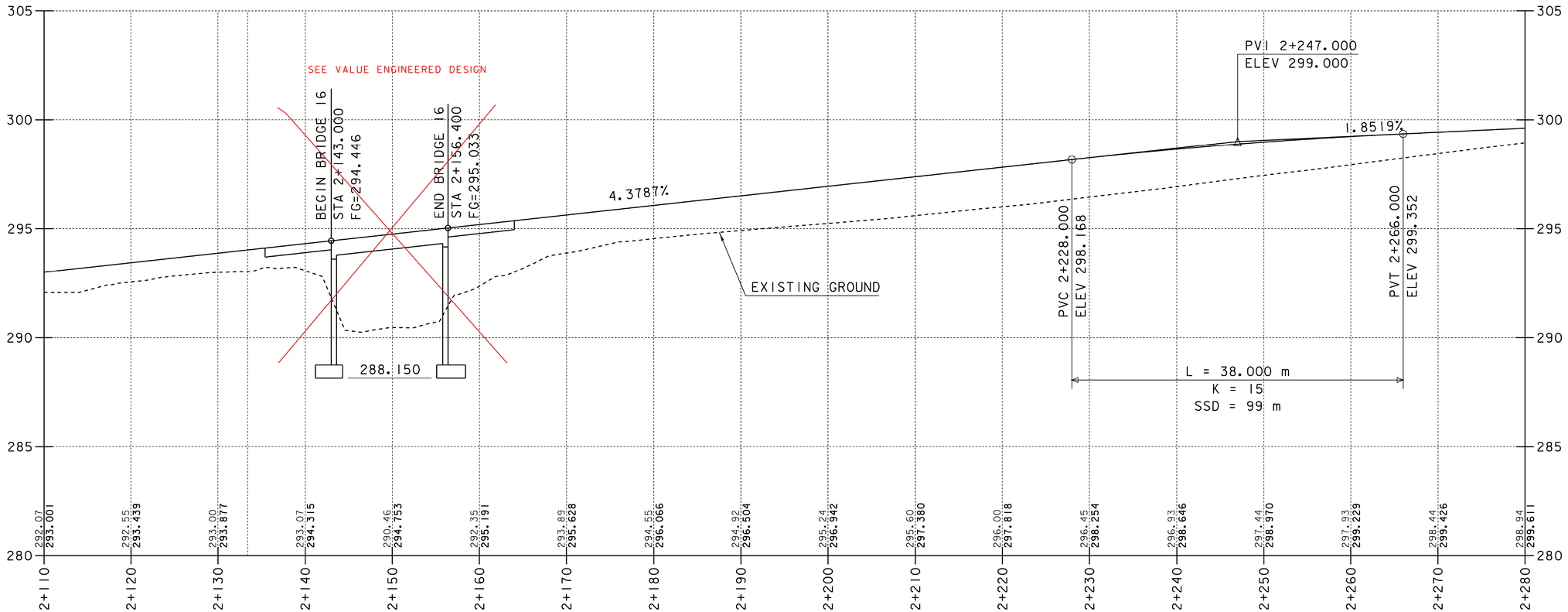
HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:2



PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: /str4/87e043/se043pro.dgn
IPARM FILE NAME: /str4/87e043/se043prl.i PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MEYERS SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS DRAWN BY: K.M.HIGGINS
PROFILE TH 7 SHEET: 15 OF 81

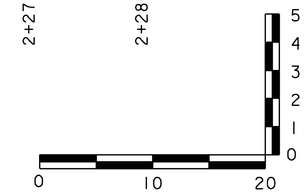
PROFILE



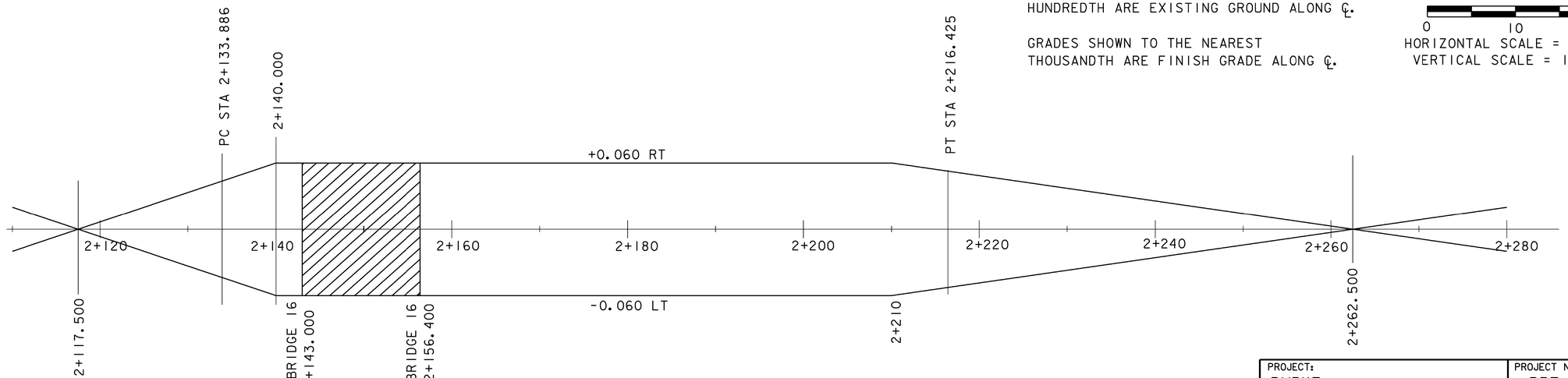
NOTE:

GRADES SHOWN TO THE NEAREST HUNDREDTH ARE EXISTING GROUND ALONG ℄.

GRADES SHOWN TO THE NEAREST THOUSANDTH ARE FINISH GRADE ALONG ℄.



HORIZONTAL SCALE = 1 : 250
VERTICAL SCALE = 1 : 100

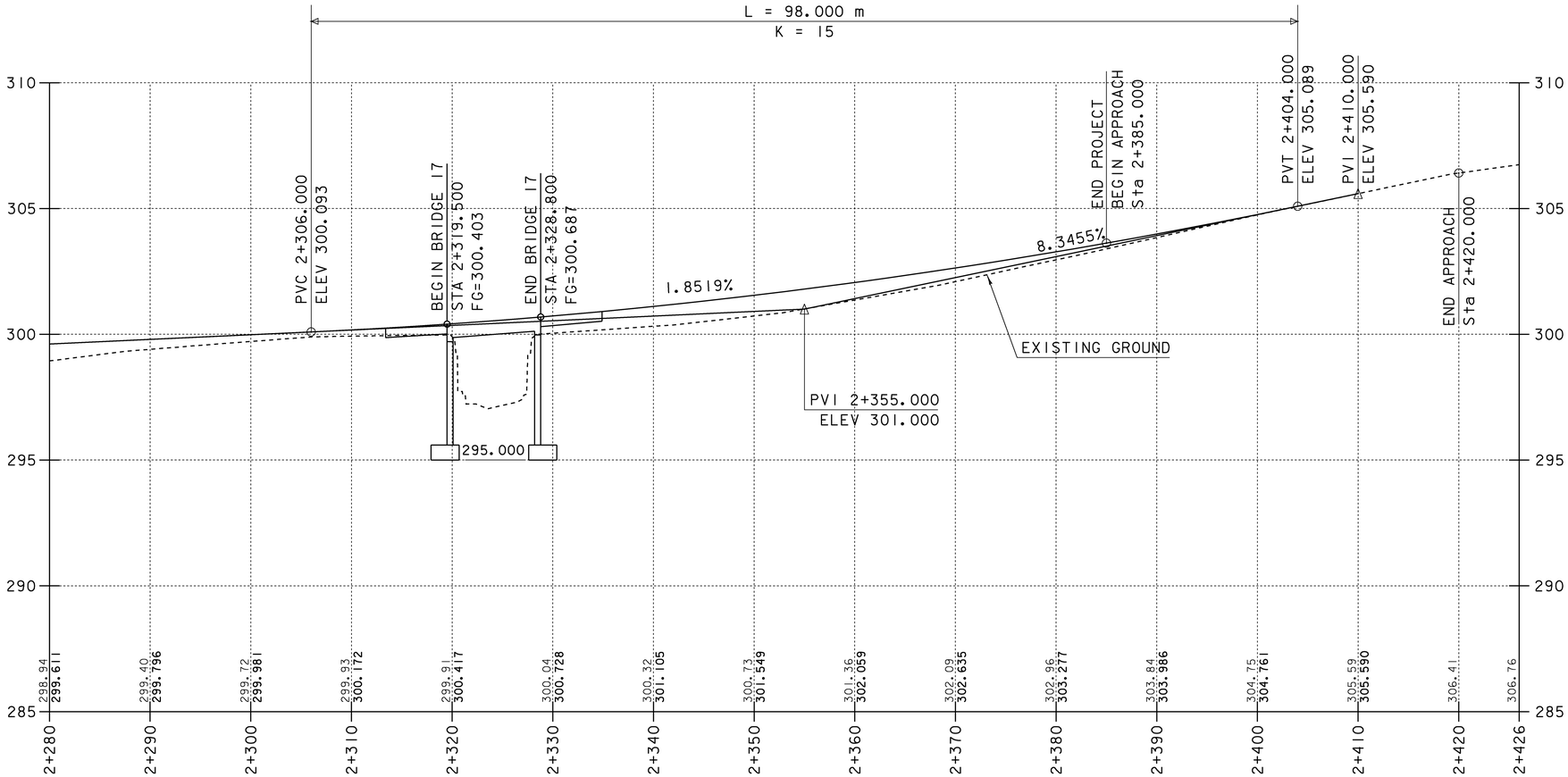


BANKING DIAGRAM

HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:2

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043pro.dgn	
IPARM FILE NAME: /str4/87e043/se043pr2.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MEYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
PROFILE TH 7	SHEET: 16 OF 81

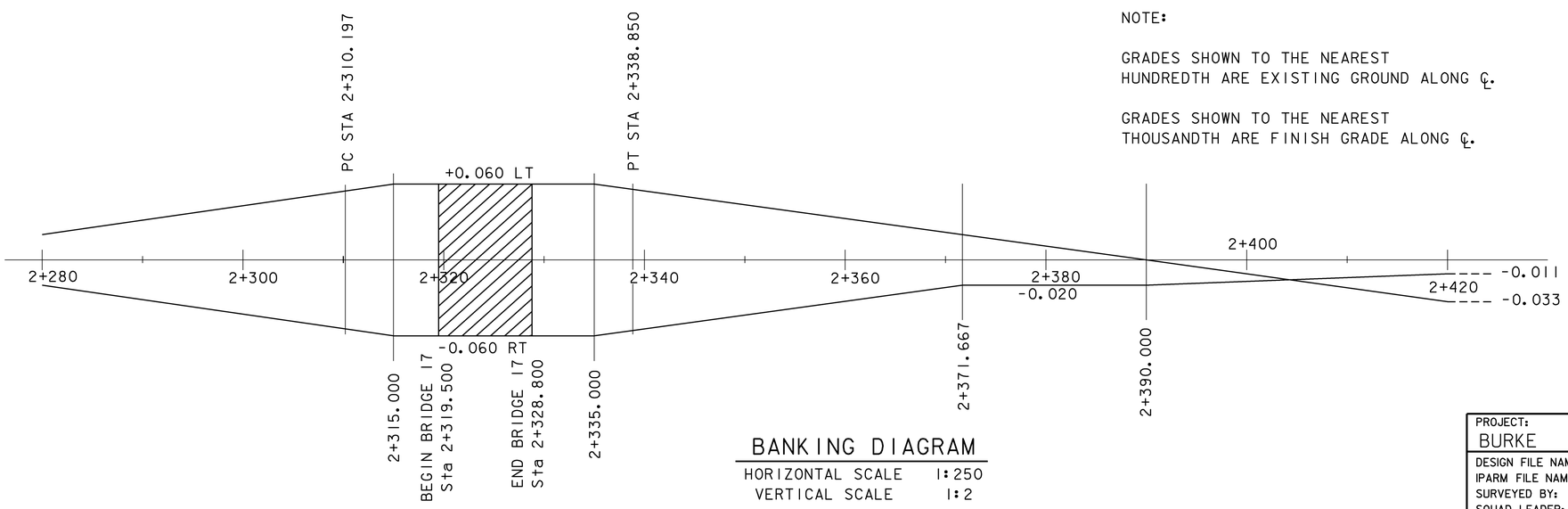
PROFILE



NOTE:

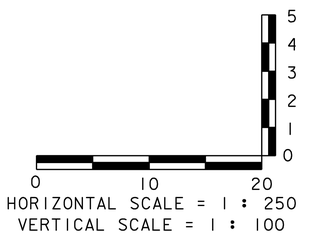
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE EXISTING GROUND ALONG ℄.

GRADES SHOWN TO THE NEAREST THOUSANDTH ARE FINISH GRADE ALONG ℄.



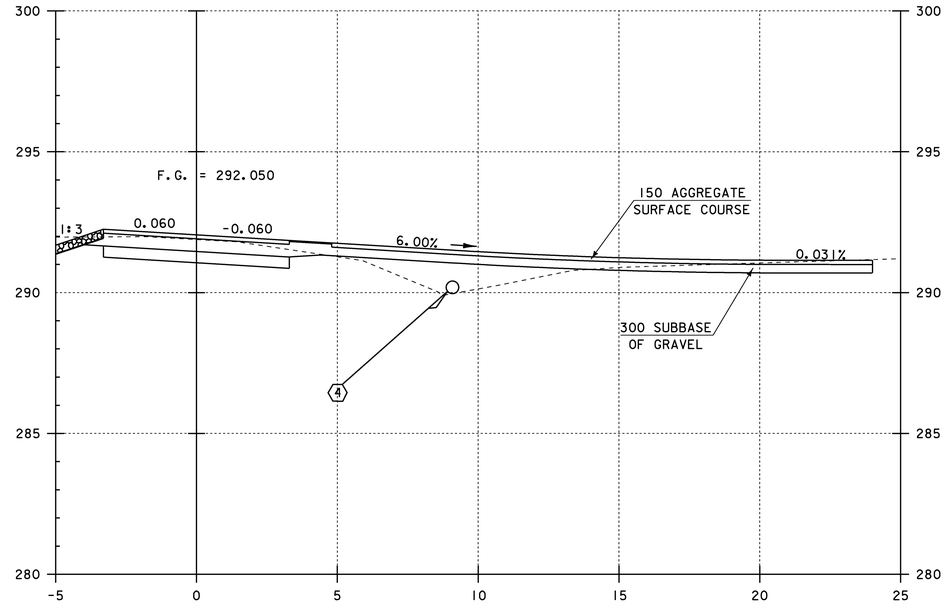
BANKING DIAGRAM

HORIZONTAL SCALE	1:250
VERTICAL SCALE	1:2



HORIZONTAL SCALE = 1 : 250
VERTICAL SCALE = 1 : 100

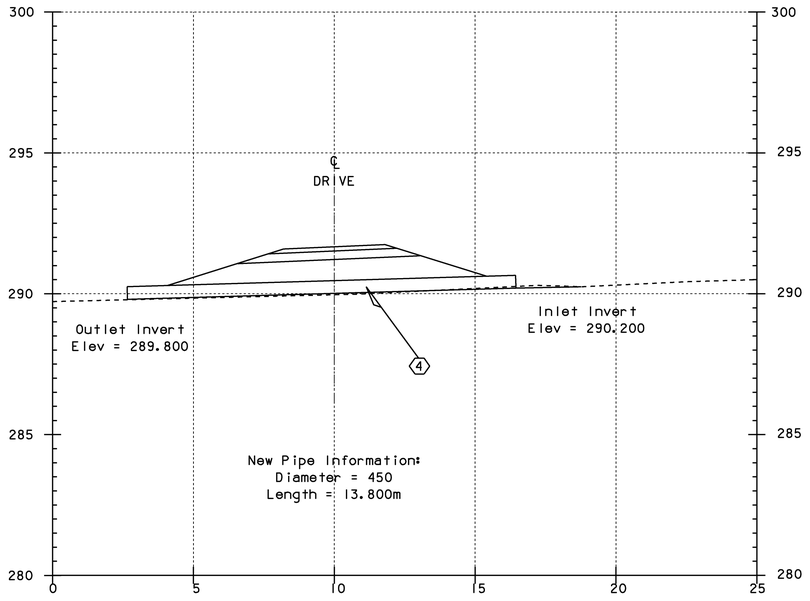
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043pro.dgn	
IPARM FILE NAME: /str4/87e043/se043pr3.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MEYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: K.M.HIGGINS
PROFILE TH 7	SHEET: 17 OF 81



DRIVE PROFILE

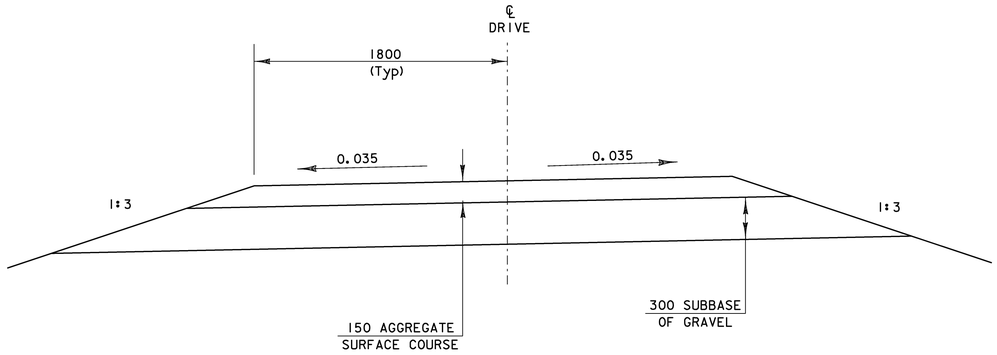
SCALE 1:100

2+087.00
SECTION ℄ DRIVE RIGHT



PIPE PROFILE ℄ SECTION A-A

SCALE 1:100



DRIVE TYPICAL SECTION

SCALE 1:20

0 1 2 4 6 8 10

SCALE = 1:100

0 1 2

SCALE = 1:20

PROJECT: BURKE	PROJECT NO. : BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043drive.dgn IPARM FILE NAME: se043drive.i	PLOT DATE: 10-MAR-2008
TH 7 OVER DISH BROOK	
DRIVE AND CULVERT DETAILS	SHEET: 18 OF 81

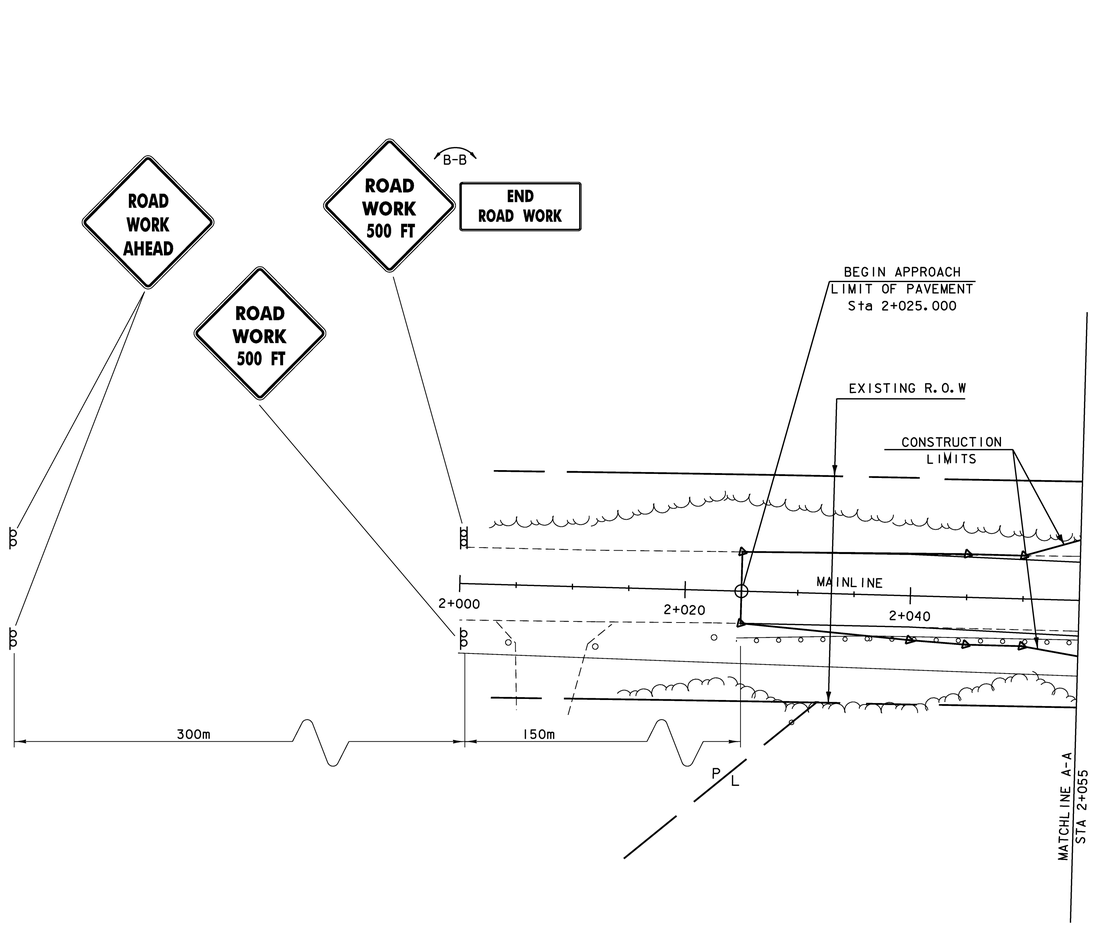
STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE DETAIL SHEET

Metric

STATION km + m	STATION km + m	POS.	ASKEW no. deg.	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW no. deg.	ES ea	CB ea	PRCCI	DEPTH DI mm	CONC CLASS B m^3	REINF STEEL kg	DI GRATE type	CHAN ELEV ea	CRM m^3	TRENCH EXCAVATION		COMM EXC m^3	UNC CHAN EXC m^3	STRUCT EXCAV m^3	GRAN BKFILL STRUCT m^3	GRAN BORR m^3	EROS MATT m^2	STONE FILL		MARKER POSTS				REMARKS
				INLET	OUTLET	IN	OUT	SPAN mm	RISE mm	L m	D mm	L m	PCCSP mm	CAAP mm	RCP CL	CSP mm	CPEP SL mm	PCCSP PI mm											EARTH m^3	ROCK m^3							m^3	type	LT ea	RT ea			
2+198.500	2+202.200	LT-RT																		20																		1	~~REMOVE~~ EXISTING 460 PIPE FILLED WITH FLOWABLE FILL 6-10-09
2+121.000	2+149.000	LT			DITCH		X																						10											2	CONSTRUCT SWALE TO NEW DITCH
2+130.000	2+152.000	LT			STONE																								1											3	CONSTRUCT SWALE OUTLET TO STONE FILL
2+079.000	2+094.000	RT									450	13.8	X	X			X												2											4	NEW 450 x 13.800 ~~PCCSP, CAAP,~~ OR CPEP OPTION PIPE.

PROJECT NAME:	**BURKE**
PROJECT NUMBER:	**BRZ-1447(15)**
FILE NAME:	se043dds
PROJECT LEADER:	C.P.WILLIAMS
DESIGNED BY:	E.RUSTAY
DRAINAGE DETAIL SHEET #1	
PLOT DATE:	12/13/2007
DRAWN BY:	D.D.BEARD
CHECKED BY:	K.M.HIGGINS
SHEET	19 OF 81





SIGNS TO BE LOCATED AS PER STANDARDS E-100 & E-107

LEGEND

- SIGN POSTS
- TYPE III BARRICADES (MOD.)
- TEMP. TRAFFIC BARRIER
- REFLECTORIZED BARREL

TRAFFIC CONTROL SHEET 1

NTS

DATUM

VERTICAL NAVD88

HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043\Structures\se043bdr.dgn	
IPARM FILE NAME: se043detour1.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: T. ANDERSON
TRAFFIC CONTROL SHEET 1	SHEET: 20 OF 81

VTrans Metric

N

VT STATE PLANE GRID

END APPROACH
BEGIN PROJECT
Sta 2+060.000

EXISTING R.O.W

END BRIDGE #16
STA 2+156.400
FG=295.033

BEGIN BRIDGE #16
STA 2+143.000
FG=294.446

FLOW DISH MILL BROOK

MATCHLINE B-B
STA 2+240

CONSTRUCTION LIMITS

MAINLINE

2+060
2+080
2+100
2+120
2+140
2+160
2+180
2+200
2+220

60 m

ONE LANE
BRIDGE
AHEAD

P L

MATCHLINE A-A
STA 2+505

SIGNS TO BE LOCATED AS PER
STANDARDS E-100, E-101, E-102 & E-107

LEGEND
- SIGN POSTS
- TYPE III BARRICADES (MOD.)
- TEMP. TRAFFIC BARRIER
- REFLECTORIZED BARREL

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

TRAFFIC CONTROL SHEET 2

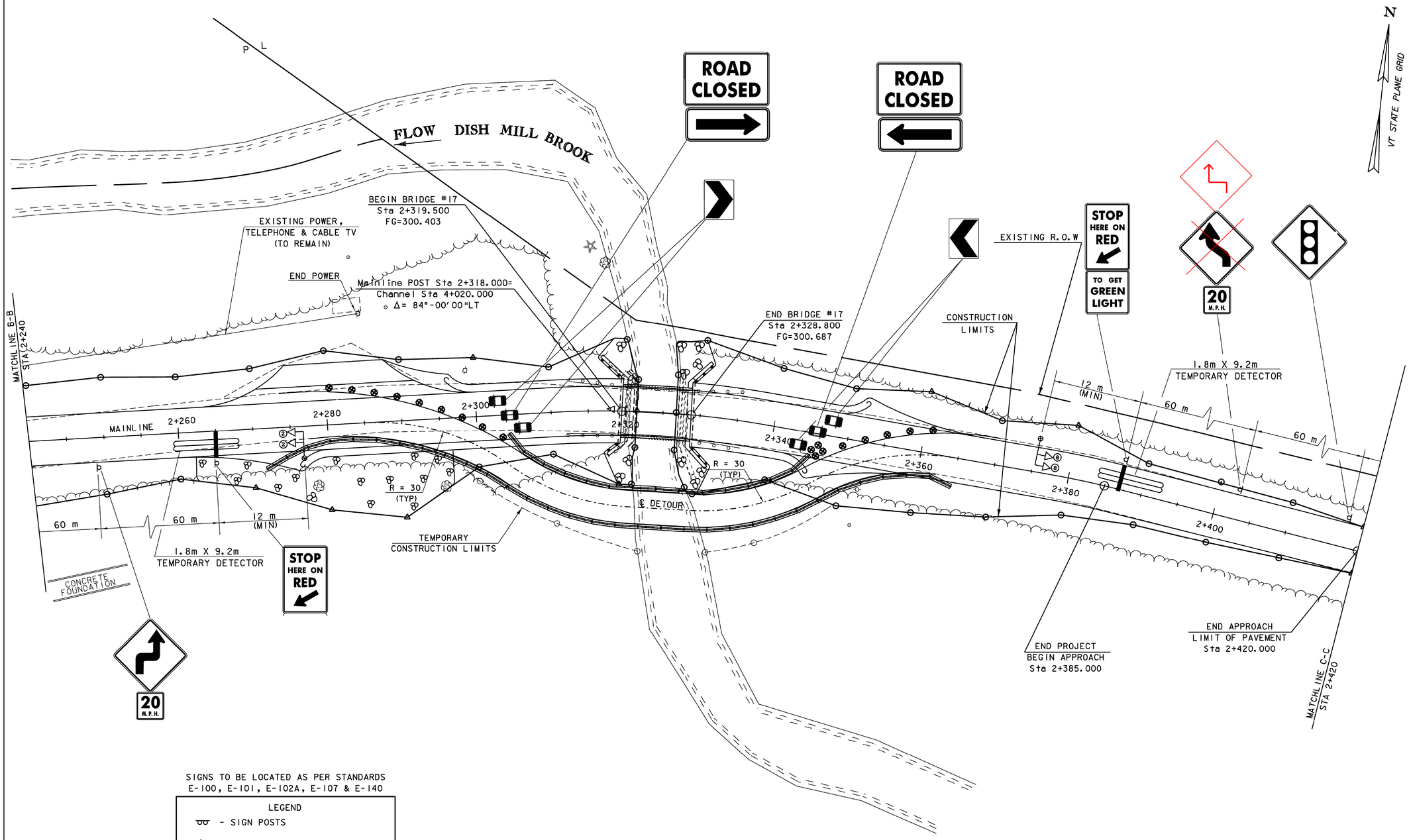
NTS

THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043\Structures\se043bdr.dgn
IPARM FILE NAME: se043detour2.i — PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS — SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: T. ANDERSON
TRAFFIC CONTROL SHEET 2 — SHEET: 21 OF 81

MDOT Metric



SIGNS TO BE LOCATED AS PER STANDARDS
E-100, E-101, E-102A, E-107 & E-140

LEGEND

- SIGN POSTS
- TYPE III BARRICADES (MOD.)
- TEMP. TRAFFIC BARRIER
- REFLECTORIZED BARREL
- TEMPORARY SIGNAL LIGHTS

TRAFFIC CONTROL SHEET 3

NTS

THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

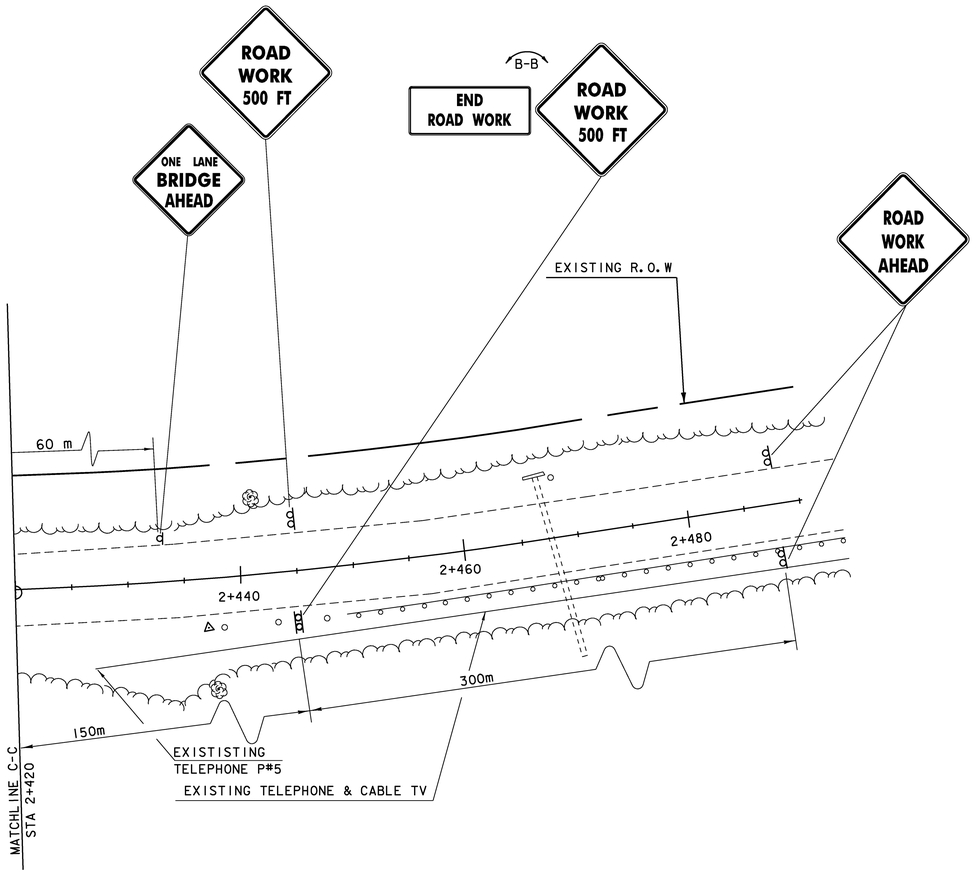
DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043\Structures\se043bdr.dgn	
IPARM FILE NAME: se043detour3.1	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: T. ANDERSON
TRAFFIC CONTROL SHEET 3	SHEET: 22 OF 81

N

VT STATE PLANE GRID



TRAFFIC CONTROL SHEET 4

NTS

SIGNS TO BE LOCATED AS PER STANDARDS E-100, E-102 & E-107

LEGEND

- SIGN POSTS
- TYPE III BARRICADES (MOD.)
- TEMP. TRAFFIC BARRIER
- REFLECTORIZED BARREL

THE TOWN OF BURKE OWNS ALL EXISTING LAND BETWEEN STA 2+175.000 AND 2+420.000 SOUTH OF THE ROADWAY

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e04.\Structures\se043bdr.dgn	
IPARM FILE NAME: se043detour4.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: T. ANDERSON
TRAFFIC CONTROL SHEET 4	SHEET: 23 OF 81

SOIL CLASSIFICATION

	AASHTO
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN kPa	CONSISTENCY
<12	Very Soft
12-24	Soft
24-48	Med. Stiff
48-96	Stiff
96-192	Very Stiff
>192	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS) N	DESCRIPTIVE TERM	CONSISTENCY (COHESIVE SOILS) N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per 300 mm For: 50.8 mm O.D. Sampler 35.0 mm I.D. Sampler Hammer Weight Of 63.5 kg. Hammer Fall Of 762 mm
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 30.1mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

COLOR			
blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 304.8 mm.

COBBLE - Rock fragments with an average dimension between 76.2 and 304.8 mm.

GRAVEL - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).

SAND - Particles of rock < 2 mm (#10 sieve) and > 75 μm (#200 sieve).

SILT - Soil < 75 μm (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

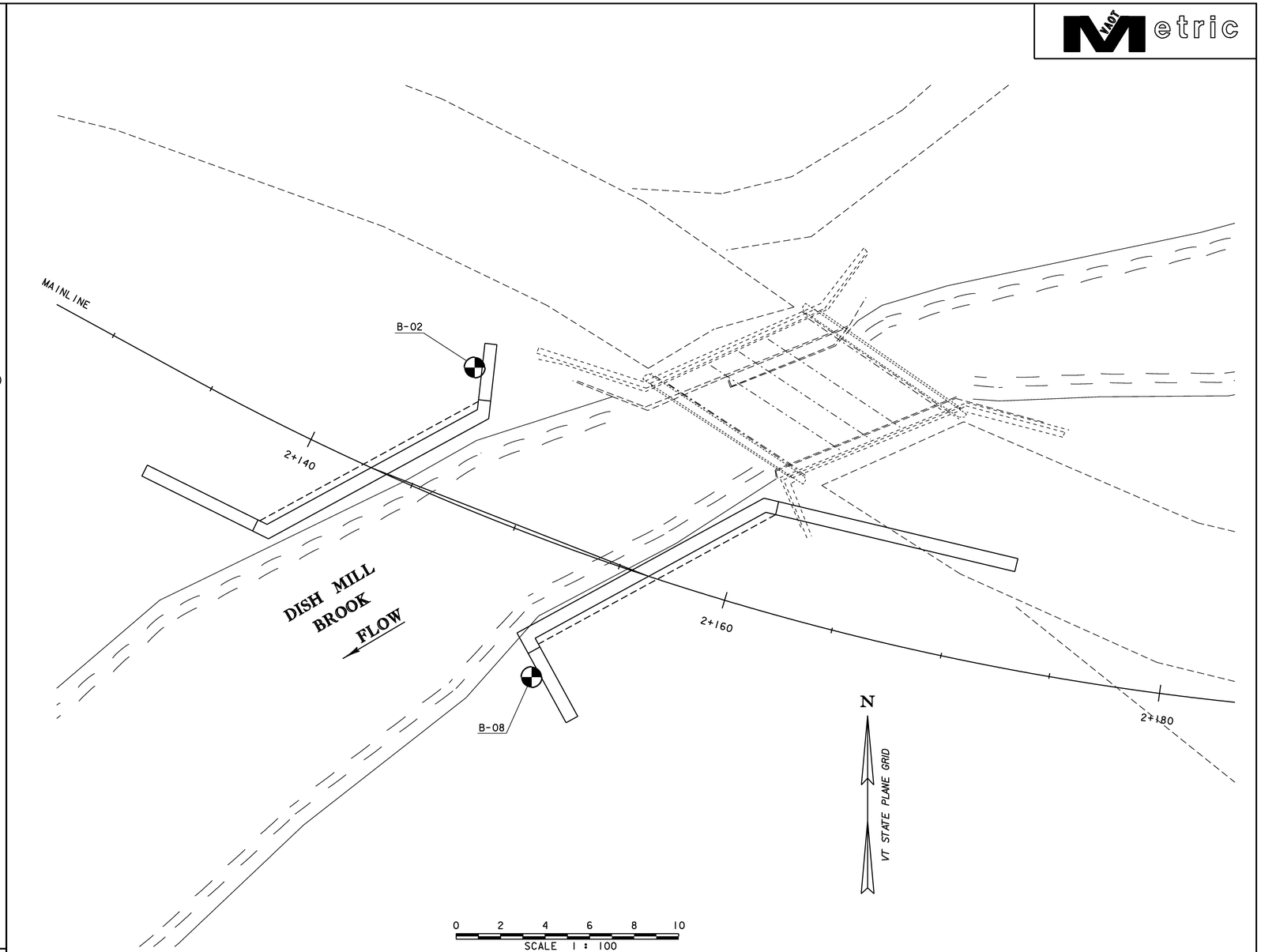
MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.



GENERAL NOTES

1. The subsurface explorations shown herein were made between 11/21/02 and 12/12/02 by the Agency.
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
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BORING CHART

HOLE NO.	STATION	OFFSET (m)	GROUND ELEV.
B-2	2+145.50	6.0 LT	292.08
B-8	2+153.00	6.0 RT	291.99

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043boring.dgn	
IPARM FILE NAME: se043bor1.i	PLOT DATE: 10-MAR-2008
BORING LAYOUT FOR BRIDGE 16	
TH 7 OVER DISH MILL BROOK	SHEET: 24 OF 81

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
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ROCK QUALITY DESIGNATION

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UNDRAINED SHEAR STRENGTH IN kPa	CONSISTENCY
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>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
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US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 30.1mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
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D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
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HP	Hardpan
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R	Refusal (N > 100)

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brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
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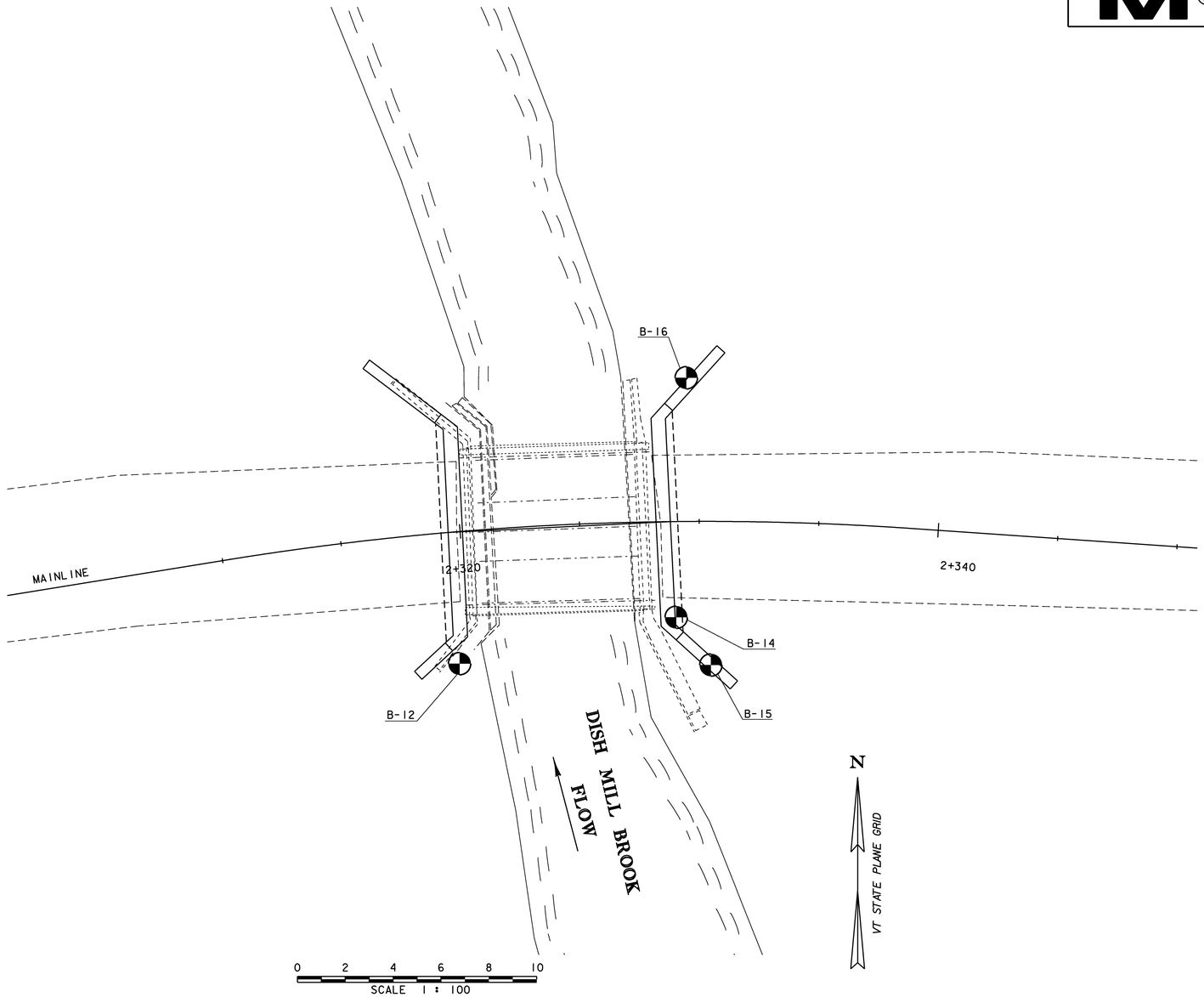
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MOISTURE CONTENT - Weight of water divided by dry weight of soil.

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BORING CHART

HOLE NO.	STATION	OFFSET (m)	GROUND ELEV.
B-12	2+319.50	5.50 RT	298.92
B-14	2+329.00	4.00 RT	299.79
B-15	2+330.50	6.00 RT	299.48
B-16	2+329.50	6.00 LT	299.17

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043boring.dgn IPARM FILE NAME: se043bor2.1	PLOT DATE: 10-MAR-2008
BORING LAYOUT FOR BRIDGE 17	
TH 7 OVER MILL BROOK	SHEET: 25 OF 81

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-02
SHEET I OF I
DATE STARTED: 12/10/02
DATE COMPLETED: 12/12/02

PROJECT NAME: BURKE
SITE NAME: BR 16
STATION: 2+145.50
GROUND EL.: 292.08

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: -6.00
G.W. DEPTH: 1.20 12/12/02

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: RUSSELL
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #1
ELEVATION = 288.150

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		BXDC, 1.20m-1.70m, Boulder, Cleaned out casing.							
		BXDC, 2.74m-3.00m, Cleaned out casing.	R	5.7	62	20.3	17.7		
		A-1-b, SaGr with Broken Rock gry, Moist, Rec. = 0.08m							
		BXDC, 4.26m-4.70m, Boulder, Cleaned casing.							
5									
		BXDC, 5.75m-6.00m, Cleaned out casing.	R	9.1	14.3	48.5	37.2		
		A-4, SiSa, gry, Moist, Rec. = 0.07m							
		A-4, SaSi, gry, Moist, Rec. = 0.20m	R	12.8	13.1	42.9	44		
		BXDC, 8.75m-9.00m, Cleaned out casing.	R	10.5	16.3	41.3	42.4		
		A-4, SaSi, gry, Moist, Rec. = 0.08m							
10									
		A-1-b, SiGrSa, gry, Moist, Rec. = 0.08m	R	8.6	38.5	40.9	20.6		
		BXDC, 11.88m-12.50m, Boulder, Cleaned casing.							

Hole stopped @ 12.50m

DRILLER'S NOTES:
1. Moved hole 1.5m from brook.

GEOLOGISTS REPORT:

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-08
SHEET I OF I
DATE STARTED: 12/2/02
DATE COMPLETED: 12/6/02

PROJECT NAME: BURKE
SITE NAME: BR 16
STATION: 2+153.00
GROUND EL.: 291.99

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: 6.00
G.W. DEPTH: 1.49 12/06/02

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: SOMERS
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #2
ELEVATION = 288.150

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		BXDC, 1.13m-1.50m, Cleaned casing.							
		A-1-b, SiSaGr with some weathered rock, brn-gry, Moist, Rec. = 0.32m	38	10.3	41	37.2	21.8		
		BXDC, 2.65m-3.0m, Cleaned casing							
		A-2-4, SaSiGr, gry, Moist, Rec. = 0.10m	R	9.1	42.1	28.9	29		
		A-2-4, GrSiSa, gry, Moist, Rec. = 0.09m	R	8.5	30.9	36.4	32.7		
5									
		BXDC, 5.00m-6.30m, Boulders, Cleaned casing.							
		RXDC, 7.31m-7.50m, Cleaned casing	R	10.1	21.7	42.6	35.7		
		A-4, GrSiSa, gry, Moist, Rec. = 0.10m							
		RXDC, 8.83m-9.00m, Cleaned casing	R	17	13.1	44.9	42		
		A-4, SiSa, gry, Moist, Rec. = 0.28m							
10									
		BXDC, 10.2m-10.5m, Cleaned casing	R	10.2	34.4	41.3	24.3		
		A-1-b, SiGrSa, gry, Moist, Rec. = 0.15m							
		BXDC, 11.75m-12.m, Cleaned casing	R	11.5	41.9	37.7	20.4		
		A-1-b, SiSaGr, gry, Moist, Rec. = 0.13m							

Hole stopped @ 12.25m

GEOLOGISTS REPORT:

BORING LOG #1

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: /M&R/87e043/me043bor.dgn
IPARM FILE NAME: se043bor3.i
SURVEYED BY: A. MYERS
SQUAD LEADER: C.C. BENDA
DATE: 12/02

PLOT DATE: 10-MAR-2008
SURVEY DATE: 12/95
DRAWN BY: J. TOUCHETTE
SHEET: 26 OF 81

AASHTO Metric

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-12
SHEET I OF I
DATE STARTED: 11/25/02
DATE COMPLETED: 11/26/02

PROJECT NAME: BURKE
SITE NAME: BR 17
STATION: 2+319.50
GROUND EL.: 298.92

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: 5.50
G.W. DEPTH: 1.37 11/26/02

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: SOMERS
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #1 ELEVATION = 295.00

BOTTOM OF FOOTING ABUTMENT #2 ELEVATION = 295.00

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		BXDC, 1.28m-1.50m, Cleaned casing							
		A-2-4, GrSiSa, gry, Moist, Rec. = 0.25m	R	10.2	29.1	38.9	32		
		BXDC, 2.85m-3.00m, Cleaned casing							
		A-2-4, SiSaGr, gry, Moist, Rec. = 0.15m	R	9	39.7	33.5	26.8		
		BXDC, 4.28m-4.50m, Cleaned casing							
		A-4, GrSiSa, gry, Moist, Rec. = 0.22m	R	9.5	26.2	37.2	36.6		
5									
		BXDC, 5.85m-6.00m, Cleaned out casing.							
		A-4, SiSa, gry, Moist, Rec. = 0.32m	R	10.5	11.6	48.6	39.8		
		A-4, SaSi, gry-brn, Moist, Rec. = 0.54m	76	16.3	14.8	32.9	52.3		
		A-1-b, SaGr, brn, Moist, Rec. = 0.12m	R	14	56.4	27.6	16		
10		BXDC, 9.65m-10.25m, Cleaned out casing.							
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.09m	R	11.3	38.9	36.7	24.4		
		A-1-b, SaGr, brn, Moist, Rec. = 0.20m	R	10.6	53.2	30.7	16.1		

Hole stopped @ 12.36m

GEOLOGISTS REPORT:

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-14
SHEET I OF I
DATE STARTED: 11/18/2
DATE COMPLETED: 11/19/02

PROJECT NAME: BURKE
SITE NAME: BR 17
STATION: 2+329.00
GROUND EL.: 299.79

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: 4.00
G.W. DEPTH: 2.13 11/19/02

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: RUSSELL
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #1 ELEVATION = 295.00

BOTTOM OF FOOTING ABUTMENT #2 ELEVATION = 295.00

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
	CONCRE	BXDC, 1.06m-1.67m, Into Concrete, Cleaned out casing.							
		BXDC, 2.05m-3.00m, Cleaned out casing.							
		A-2-4, GrSiSa HP, gry, Moist, Rec. = 0.25m	R	10.9	28.5	38.5	33		
		BXDC, 4.30m-4.50m, Cleaned casing							
		A-2-4, GrSiSa, gry, Moist, Rec. = 0.20m	R	10.7	27.1	40.7	32.2		
5									
		A-4, GrSaSi, brn-gry, Moist Rec. = 0.54m	55	19.5	23.1	26.6	50.3		
		A-4, GrSaSi, gry, Moist, Rec. = 0.55m	83	16.5	27.7	28.7	43.6		
		A-4, GrSaSi, gry, Moist, Rec. = 0.40m	81	18.5	23.1	37.7	39.2		
10									
		A-2-4, SiGrSa, gry-brn, Moist, Rec. = 0.08m	R	14.5	30.9	38.9	30.2		

Hole stopped @ 10.60m

GEOLOGISTS REPORT:

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-15
SHEET I OF I
DATE STARTED: 11/15/02
DATE COMPLETED: 11/18/02

PROJECT NAME: BURKE
SITE NAME: BR 17
STATION: 2+330.50
GROUND EL.: 299.48

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: 6.00
G.W. DEPTH: No water found, Hole caved in.

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: SOMERS
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #2 ELEVATION = 295.00

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, GrSa, brn, Moist, Rec. = 0.18m	7	13.4	40.4	46	13.6		
		A-1-b, GrSa, brn, Moist, Rec. = 0.17m	17	13.8	35.1	47.4	17.5		
	C	A-1-b, GrSa with Concrete, brn, Moist, Rec. = 0.38m	39	20.1	28.1	60.5	11.4		
	C	BXDC, 2.40m-2.88m, Concrete & Boulders							
		A-2-4, SiGrSa, gry, Moist, Rec. = 0.15m	R	10	35	38.3	26.7		
		A-1-b, SiSaGr, gry, Moist, Rec. = 0.13m	R	8.2	46.2	31.6	22.2		
		A-2-4, SiGrSa, gry, Moist, Rec. = 0.22m	R	11.3	25.1	50.1	24.8		
		A-4, SiSa, gry, Moist, Rec. = 0.15m	R	10.6	10.7	48.5	40.8		
5		BXDC, 5.2m-5.4m, Cleaned out							
		A-4, SiSa, gry, Moist, Rec. = 0.35m	R	11.2	15	46.7	38.3		
		A-4, SaGrSi, brn, Moist, Rec. = 0.50m	R	14.2	33	21.6	45.4		
		Visual Class: Broken Weathered Rock, gry, Moist, Rec. = 0.12m	R	11.9					
		BXDC, 8.07m-9.29m, Various Boulders							
10									

Hole stopped @ 9.29m

GEOLOGISTS REPORT:

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-16
SHEET I OF I
DATE STARTED: 11/21/02
DATE COMPLETED: 11/22/02

PROJECT NAME: BURKE
SITE NAME: BR 17
STATION: 2+329.50
GROUND EL.: 299.17

PROJECT NUMBER: BRZ 1447(15)
SITE NO.: TH 7
OFFSET: -6.00
G.W. DEPTH: 1.22 11/22/02

BORING CREW
CREW CHIEF: YOUNG
DRILLER: YOUNG
LOGGER: SOMERS
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

BOTTOM OF FOOTING ABUTMENT #2 ELEVATION = 295.00

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-a, SaGr, brn, Moist, Rec. = 0.38m	64	12.1	55.6	34.4	10		
		BXDC, 2.85m-3.00m, Cleaned casing							
		A-1-b, GrSa, brn-gry, Moist, Rec. = 0.47m	97	13.9	32.2	48.5	19.3		
		BXDC, 4.47m-4.50m, Cleaned out							
		A-1-b, SaGr, brn-gry, Moist, Rec. = 0.23m	R	12.5	49.1	32.7	18.2		
5									
		BXDC, 5.78m-6.00m, Cleaned casing							
		A-1-b, SaGr, brn, Moist, Rec. = 0.31m	R	8.8	47.4	32.8	19.8		
		BXDC, 7.35m-7.50m, Cleaned casing							
		A-4, GrSaSi, brn, Moist, Rec. = 0.18m	R	16.3	24.6	35.9	39.5		
		A-4, GrSaSi, brn, Moist, Rec. = 0.20m	R	15.4	22	25.1	52.9		
10									
		Visual Class: Broken Weathered Rock, brn, Moist Rec. = 0.19m	R	16.2					

Hole stopped @ 10.69m

GEOLOGISTS REPORT:

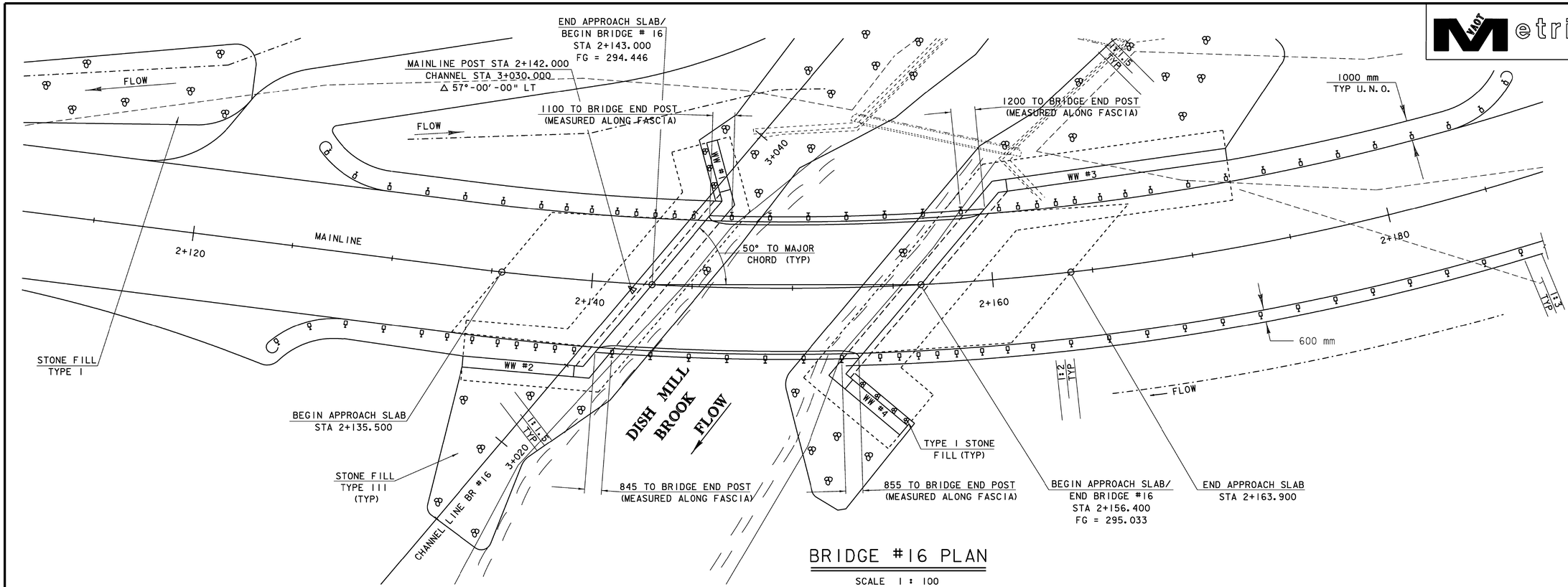
BORING LOG #2

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: /M&R/87e043/me043bor.dgn
IPARM FILE NAME: se043bor4.i
SURVEYED BY: A. MYERS
SQUAD LEADER: C.C. BENDA
DATE: 12/02

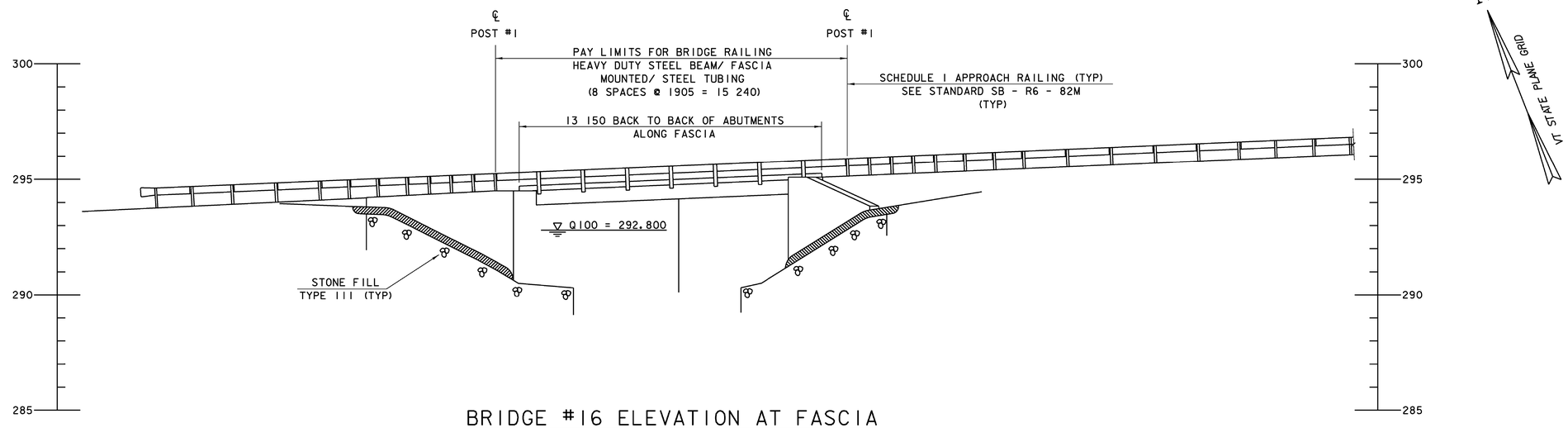
PLOT DATE: 10-MAR-2008
SURVEY DATE: 12/95
DRAWN BY: J. TOUCHETTE
SHEET: 27 OF 81

VAOT Metric



BRIDGE #16 PLAN

SCALE 1 : 100



BRIDGE #16 ELEVATION AT FASCIA

SCALE 1 : 100

THIS SHEET NOT USED FOR RECORD PLANS. SEE VE DESIGN.

0 2 4 6 8 10

SCALE 1 : 100

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO. : BRZ 1447 (15)
DESIGN FILE NAME: 87e043\Structures\se043br16pe.dgn	
IPARM FILE NAME: se043br16pe.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A.MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C.P.WILLIAMS	DRAWN BY: T.ANDERSON
BRIDGE #16 PLAN & ELEVATION	SHEET: 28 OF 81

VAOT Metric

END APPROACH SLAB/
BEGIN BRIDGE #17
Sta 2+319.500
FG=300.403

800 TO BRIDGE END POST
(MEASURED ALONG FASCIA)

880 TO BRIDGE END POST
(MEASURED ALONG FASCIA)

Mainline POST Sta 2+318.000
Channel Sta 4+020.000=
Δ = 84°-00'00"LT

BEGIN APPROACH SLAB
STA 2+313.500

1:5 TYP

END BRIDGE #17/
BEGIN APPROACH SLAB
Sta 2+328.800
FG=300.687

END APPROACH SLAB
STA 2+334.800

WW 1

WW 3

1:2

1:3

90° TO MAJOR
CHORD (TYP)

2+320

MAINLINE

2+340

2+300

2+360

WW 2

WW 4

PC #3
Sta 2+310.197

STONE FILL
TYPE III
(TYP)

TYPE I STONE
FILL (TYP)

PT #3
Sta 2+338.850

FLOW

DISH MILL BROOK

FLOW

800 TO BRIDGE END POST
(MEASURED ALONG FASCIA)

880 TO BRIDGE END POST
(MEASURED ALONG FASCIA)

CHANNEL LINE BR #17

4+000
4+005

STONE FILL
TYPE I

N

VT STATE PLANE GRID

BRIDGE #17 PLAN

SCALE 1 : 100

℄ POST 1

℄ POST 1

PAY LIMITS FOR HEAVY DUTY STEEL BEAM
FASCIA MOUNTED/STEEL TUBING BRIDGE RAIL
6 SPACES @ 1905 = 11 430

9300 BACK TO BACK
ABUTMENTS - ALONG FASCIA

HEAVY DUTY STEEL BEAM APPROACH
GUARD RAIL SCHEDULE 1 - (SEE SB-R6-82M)
(TYP)

305

300

295

▽ 0100 = 299.3

STONE FILL
TYPE III (TYP)

BRIDGE #17 ELEVATION AT FASCIA

SCALE 1 : 100

0 2 4 6 8 10
SCALE 1 : 100

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD83 (92)

PROJECT:	PROJECT NO. :
BURKE	BRZ 1447 (15)
DESIGN FILE NAME: str4/87e043/se043br17pe.dgn	
IPARM FILE NAME: se043br17pe.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A.MEYERS	SURVEY DATE: 12/95
SQUAD LEADER: C.P. WILLIAMS	DRAWN BY: M. GAGULIC
BRIDGE #17 PLAN & ELEVATION	SHEET: 29 OF 81

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION,2002.

2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20°C, UNLESS OTHERWISE NOTED.

3. ALL ON AND OFF PROJECT SIGNS AND BARRICADES AS SHOWN ON THE TRAFFIC CONTROL SHEETS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PAID FOR UNDER THE ITEM 641.10 "TRAFFIC CONTROL".

4. ANY EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE TOWN OF BURKE.

5. THE BRIDGE PLAQUES SHALL BE FURNISHED BY THE AGENCY OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR AS SHOWN ON THIS SHEET.

6. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ANY PORTION OF THE SUBSTRUCTURE NOT REMOVED UNDER THE ITEM 208.35 "COFFERDAM EXCAVATION, ROCK" OR ITEM 203.27 "UNCLASSIFIED CHANNEL EXCAVATION."

7. TRAFFIC FOR BR.16 SHALL BE MAINTAINED USING THE EXISTING STRUCTURE. TRAFFIC FOR BR.17 SHALL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE LOCATED UPSTREAM OF THE STRUCTURE. THE APPROACHES TO THE TEMPORARY BRIDGE SHALL BE PAVED.

8. "STONE FILL TYPE III" SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE SLAB IS POURED.

9. THE ITEM "STONE FILL TYPE I" SHALL BE USED AS SHOWN ON THE PLANS TO PREVENT EROSION BEHIND WINGWALLS.

CONCRETE NOTES

10. DECK CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, CLASS A. THE CONCRETE CURB ON THE BRIDGE DECKS SHALL BE HIGH PERFORMANCE CONCRETE, CLASS A. ALL OTHER CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE, CLASS B.

11. REINFORCING STEEL PLACEMENT TOLERANCE SHALL BE AS FOLLOWS:
    SPACING +/- 25mm
    CLEARANCE +/- 6mm

12. ALL REINFORCING STEEL IN THE CONCRETE BRIDGE SLAB, CURBS, AND APPROACH SLABS SHALL BE EPOXY COATED AND PAID FOR UNDER THE ITEM 507.17.

13. THE MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURES SHALL BE 50mm ALONG WALL FACES AGAINST EARTH, AND 80mm ELSEWHERE UNLESS DETAILED OTHERWISE.

14. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25mm X 25mm.

15. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

16. CONCRETE PORTIONS OF THE ABUTMENT AND WINGWALL ABOVE THE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL THE FINISH GRADE HAS BEEN DETERMINED BY THE RESIDENT ENGINEER.

17. THE KEY IN THE CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.

18. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE SLAB BETWEEN DRIP NOTCHES.

MISCELLANEOUS NOTES

19. TWO 25mm DIAMETER APPLE TREES SHALL BE PLANTED BETWEEN STA 2+100.00 AND STA 2+135.00 RT ON THE MATTEIS PROPERTY. THEY SHALL BE PAID FOR UNDER ITEM 656.30 "DECIDUOUS TREES (MALUS DOMESTICA)". THE LOCATION IS TO BE OUTSIDE THE RIGHT-OF-WAY AND VERIFIED BY THE PROPERTY OWNER AND RESIDENT ENGINEER.

20. CONSTRUCT A NEW DRIVE WITH A PAVED APRON, 3.6m WIDE, AT STA 2+087.00 ON THE MATTEIS PROPERTY. THE LOCATION SHALL BE VERIFIED BY THE PROPERTY OWNER AND THE RESIDENT ENGINEER PRIOR TO CONSTRUCTION.

21. ITEM 621.215 HD STEEL BEAM GUARD RAIL, GALVANIZED, WITH 2.4 m POSTS SHALL BE USED FROM STATION 2+154.20 (RT) TO 2+233.20 (RT). THE POSTS IN THIS SECTION SHALL BE DRIVEN 300 mm DEEPER SO THAT THE DISTANCE BETWEEN THE FACE OF RAIL TO THE ROADWAY SIDE SLOPE CAN BE REDUCED TO 600 mm TO MINIMIZE IMPACTS TO THE WETLANDS.

22. SUBBASE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY ACCORDING TO SUBSECTION 301.06.

23. WINGWALL #3 AND ITS FOOTING SHALL BE CONSTRUCTED AFTER TRAFFIC HAS BEEN RE-ROUTED ONTO THE NEW BRIDGE. THE COFFERDAM CONSTRUCTION FOR WINGWALL #3 SHALL BE INCLUDED UNDER THE ITEM 208.40 "COFFERDAM (STA 2+156.400)". ANY TEMPORARY TRAFFIC BARRIER NEEDED TO PROTECT TRAFFIC FROM WINGWALL #3 CONSTRUCTION SHALL BE PAID FOR UNDER ITEM 641.10 "TRAFFIC CONTROL".

SEEDING FORMULA
RURAL AREAS

% WT.	Kg/ha	NAME	PUR %	GERM %
37.5	26.0	CREEPING RED FESCUE	98	85
37.5	26.0	TALL FESCUE	95	90
5.0	4.0	RED TOP	95	90
15.0	10.0	BIRDSFOOT TREFOIL	98	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	70.0			

SEEDING GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

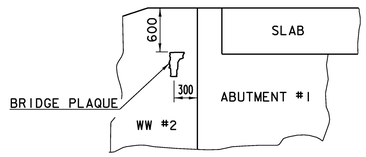
SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

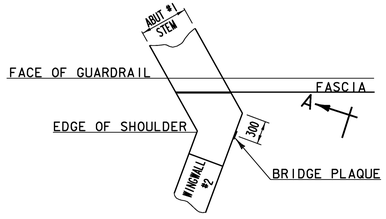
AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



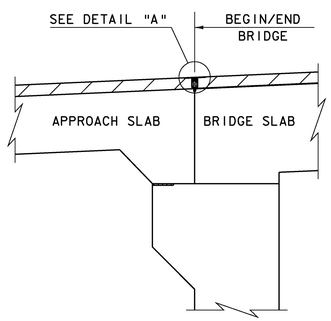
VIEW "A - A"
NTS



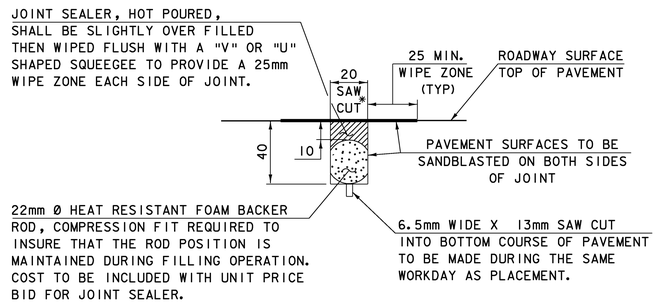
PLAN
NTS

LOCATE BRIDGE PLAQUE
NTS

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.



DETAIL FOR JOINT AT BEGIN & END BRIDGE
NTS

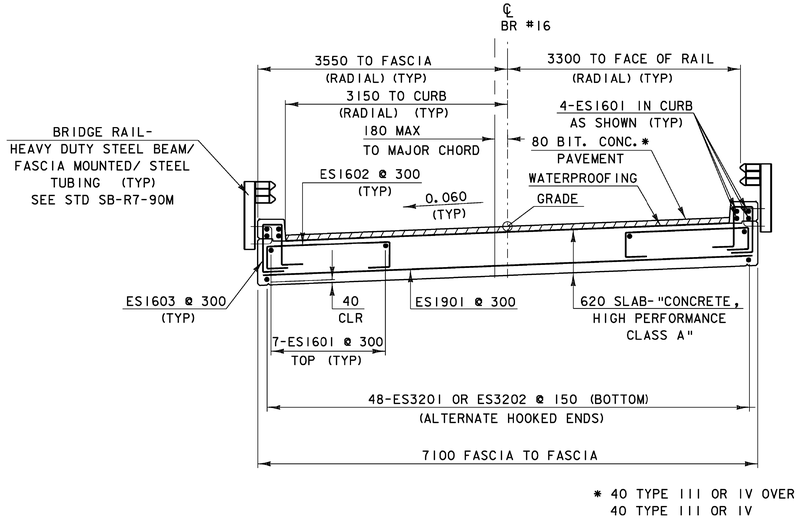


DETAIL "A"
NTS

* JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER. SEE VT. SPECIFICATION 524. ALL WORK FOR SAW CUT JOINT TO BE INCIDENTAL TO ITEM 524.11 "JOINT SEALER, HOT POURED".

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: se043notes.dgn
IPARM FILE NAME: se043notes.i — PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY — DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS — CHECKED BY: K.HIGGINS
GENERAL NOTES & MISC. DETAILS — SHEET: 30 OF 81

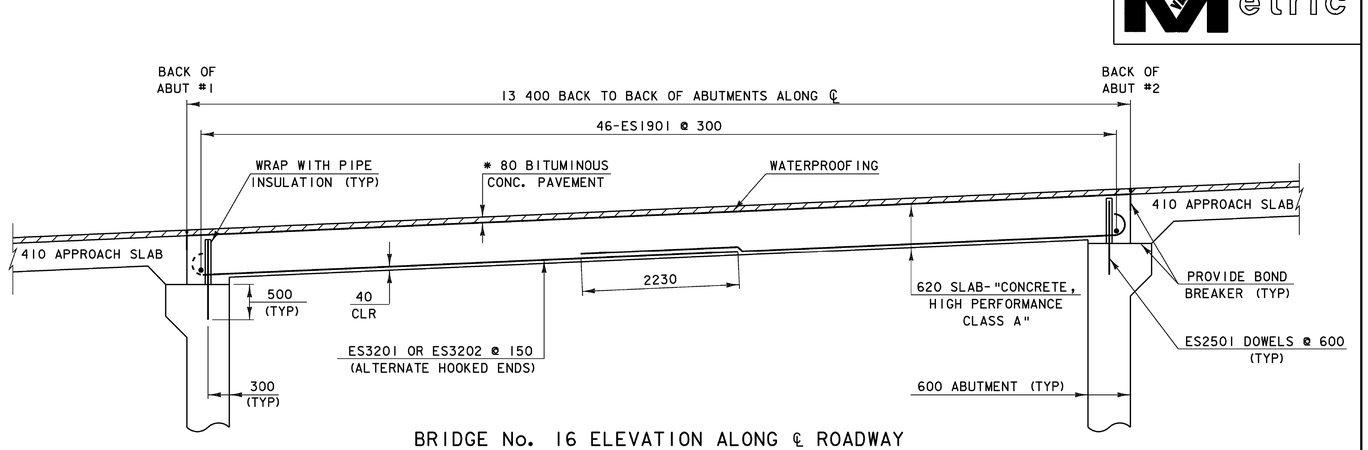


* 40 TYPE III OR IV OVER
40 TYPE III OR IV

BRIDGE No. 16 TYPICAL SECTION

0 1 2 3 4

SCALE = 1:40



BRIDGE No. 16 ELEVATION ALONG ℄ ROADWAY

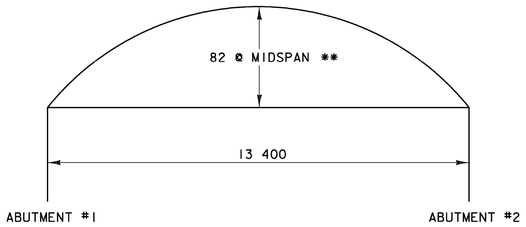
0 1 2 3 4

SCALE = 1:40



ACUTE CORNER DETAIL

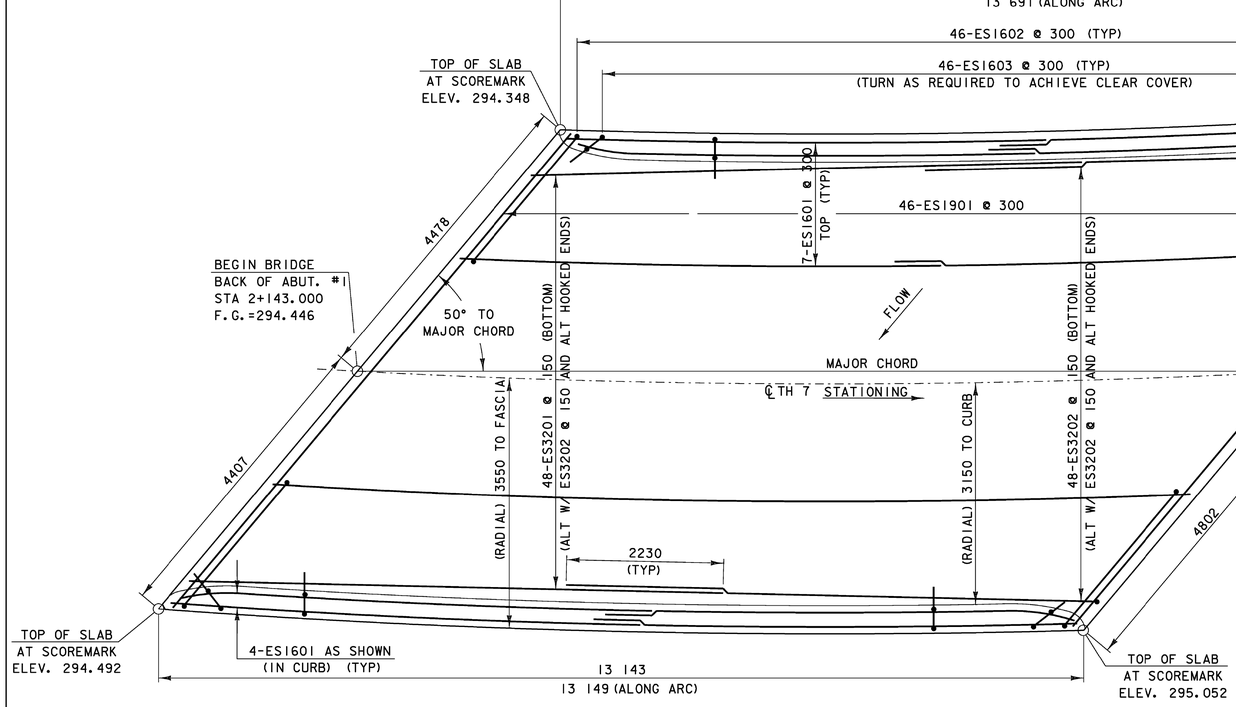
NTS



* * SET CONSTRUCTION FORMS TO THIS CAMBER
CAMBER SHALL APPROXIMATE A CIRCULAR CURVE

BRIDGE No. 16 CAMBER

NTS



BRIDGE No. 16 SLAB PLAN VIEW

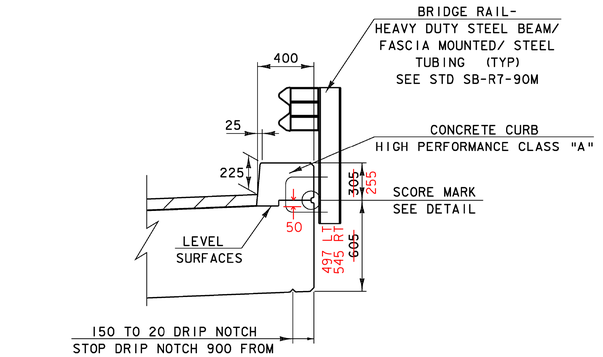
0 1 2 3 4

SCALE = 1:40

NOTES:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS



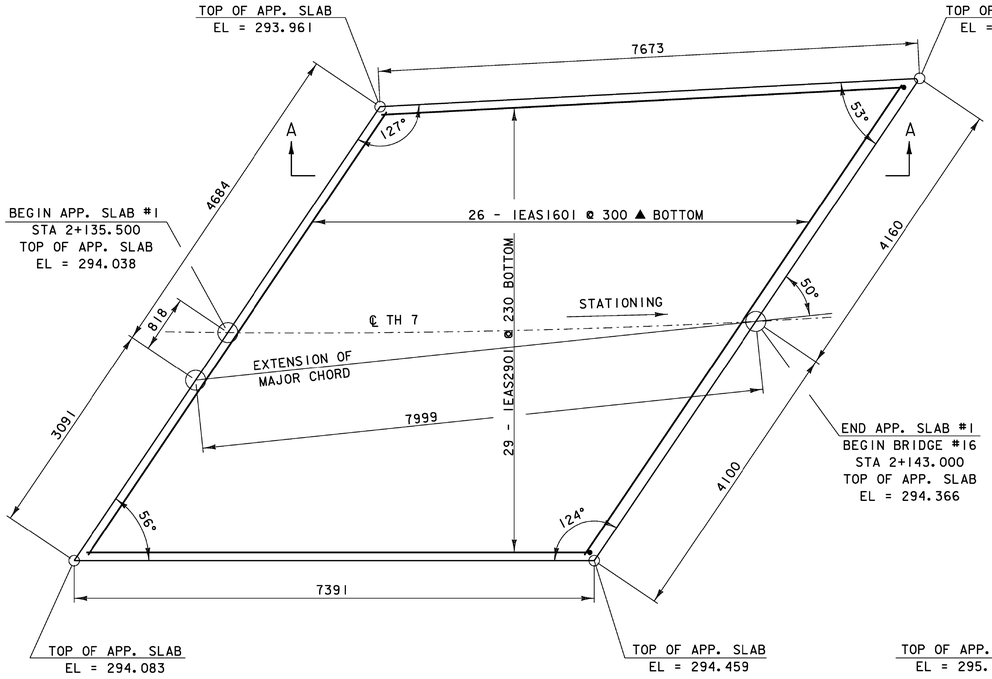
BRIDGE No. 16 CURB AND RAIL DETAIL

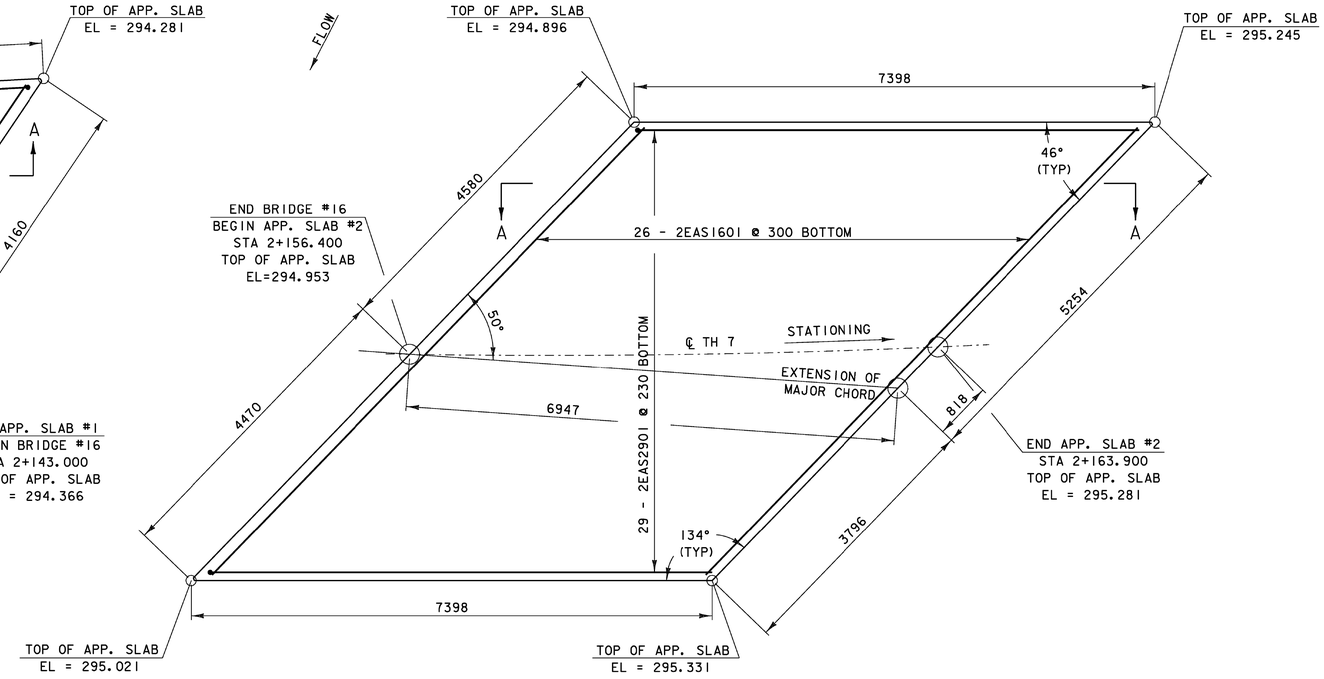
0 1 2

SCALE = 1:20

THIS SHEET NOT USED FOR RECORD PLANS.
SEE VALUE ENGINEERED DESIGN.

PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043slabs.dgn	
IPARM FILE NAME: se043br16slab.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BR.16 SUPERSTRUCTURE DETAILS	SHEET: 31 OF 81





BRIDGE No. 16 APPROACH SLAB #1 PLAN

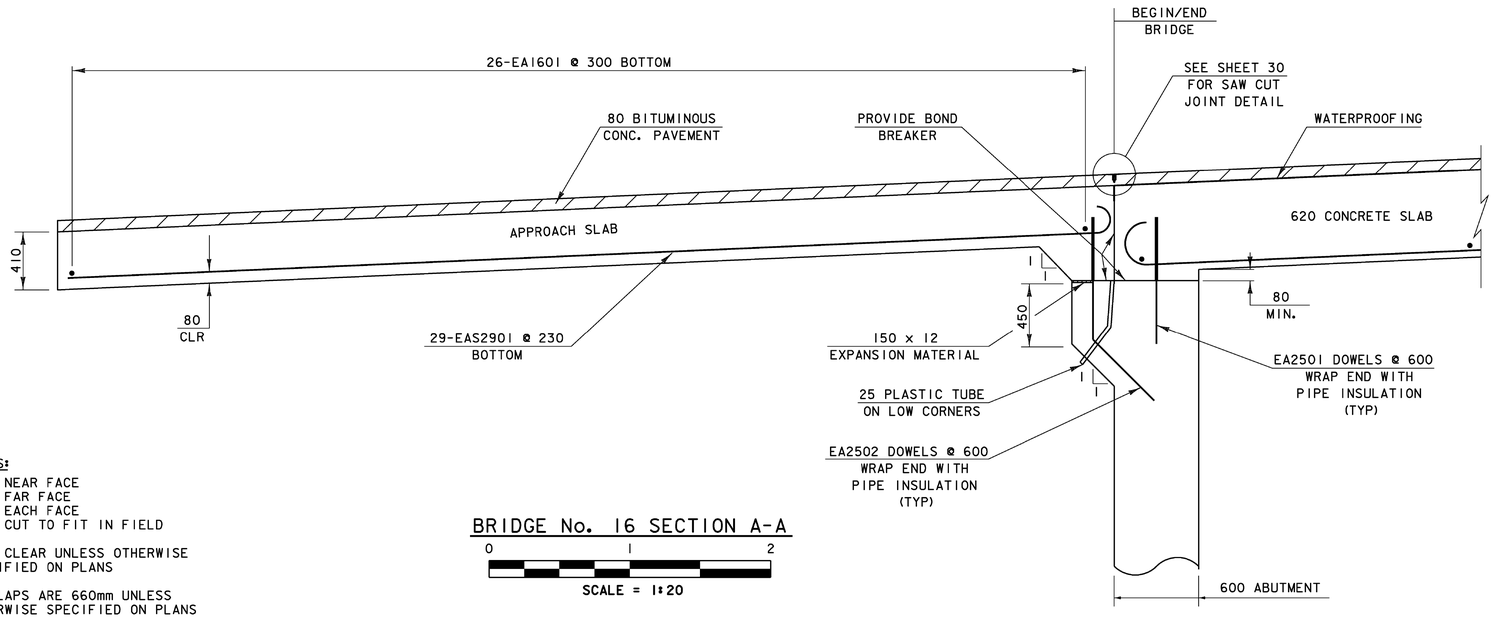
0 1 2 3 4

SCALE = 1:40

BRIDGE No. 16 APPROACH SLAB #2 PLAN

0 1 2 3 4

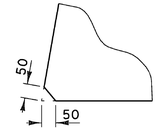
SCALE = 1:40



BRIDGE No. 16 SECTION A-A

0 1 2

SCALE = 1:20



ACUTE CORNER DETAIL

0 0.5 1

SCALE = 1:10

NOTES:

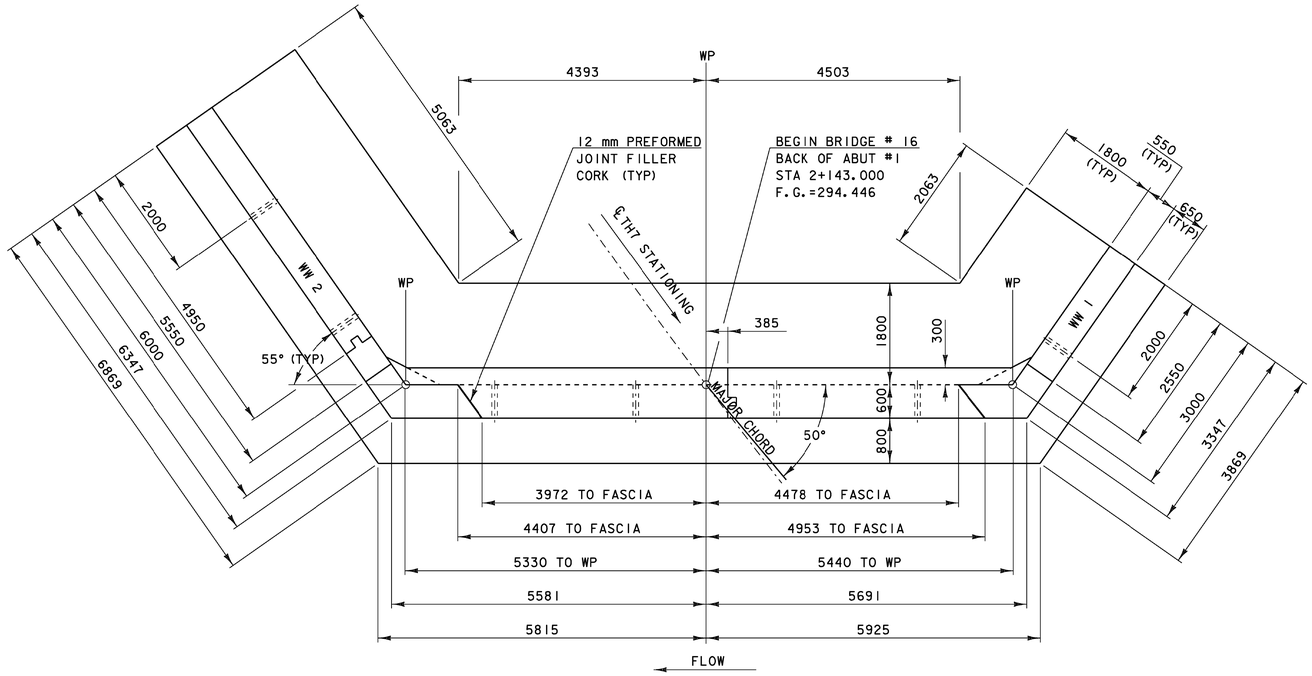
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

SEE VALUE ENGINEERED DESIGN.
THIS SHEET NOT USED FOR RECORD PLANS.

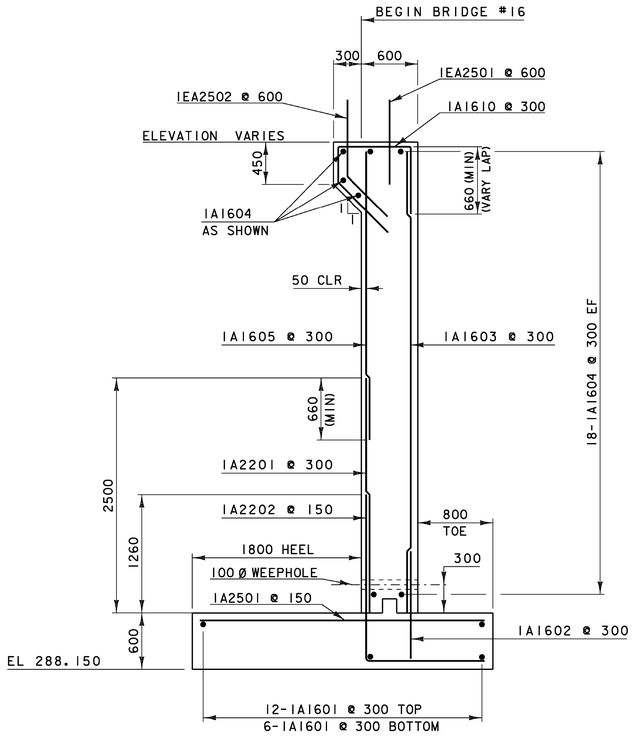
PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)
DESIGN FILE NAME: se043slabs.dgn	
IPARM FILE NAME: se043br16aps.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BR.16 APPROACH SLAB DETAILS	SHEET: 32 OF 81



BR. 16 ABUTMENT #1 PLAN

0 1 2 3 4 5

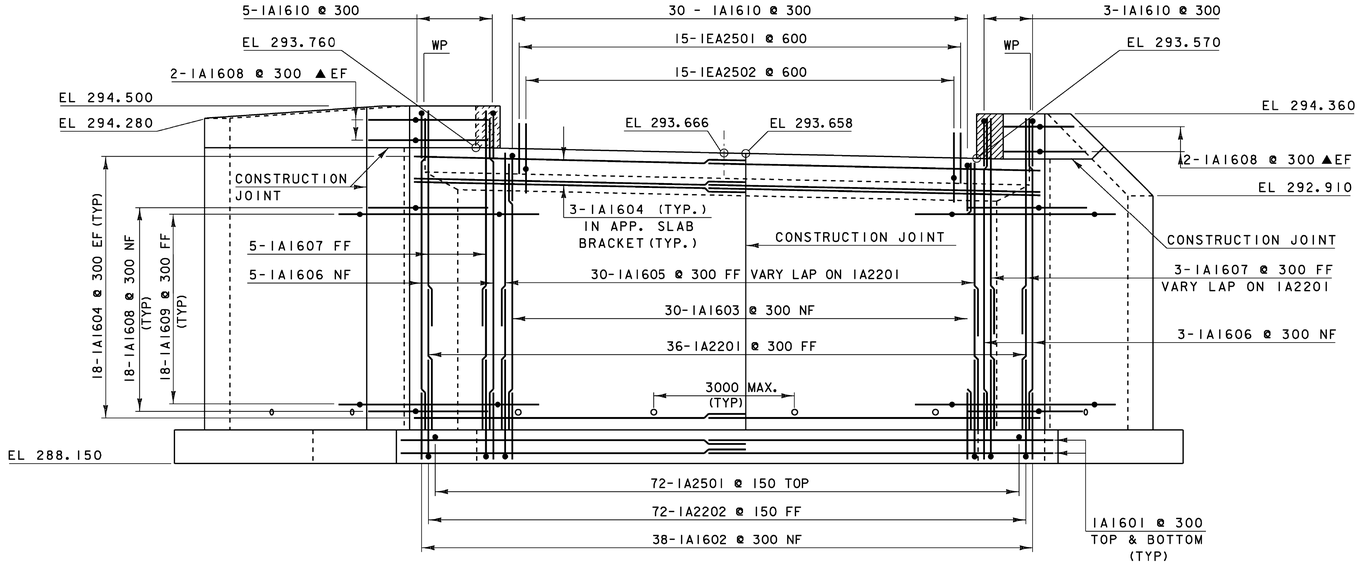
SCALE = 1:50



BR. 16 ABUTMENT #1 TYPICAL SECTION

0 1 2 3

SCALE = 1:30



BR. 16 ABUTMENT #1 ELEVATION

0 1 2 3 4 5

SCALE = 1:50

NOTE: SEE SHEET 30 FOR LOCATING THE BRIDGE PLAQUE

NOTES:

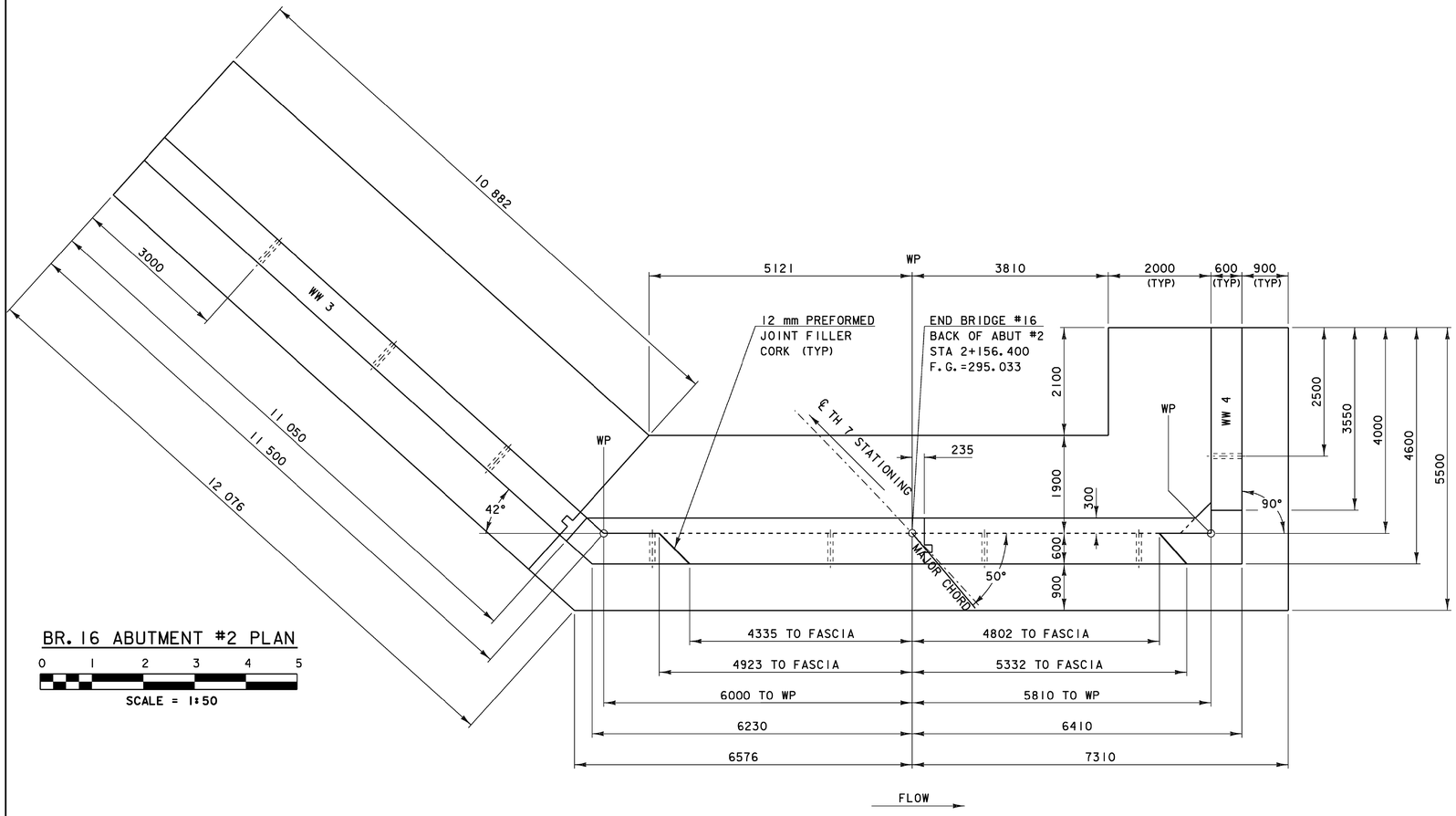
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
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80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

SEE VALUE ENGINEERED DESIGN.
THIS SHEET NOT USED FOR RECORD PLANS.

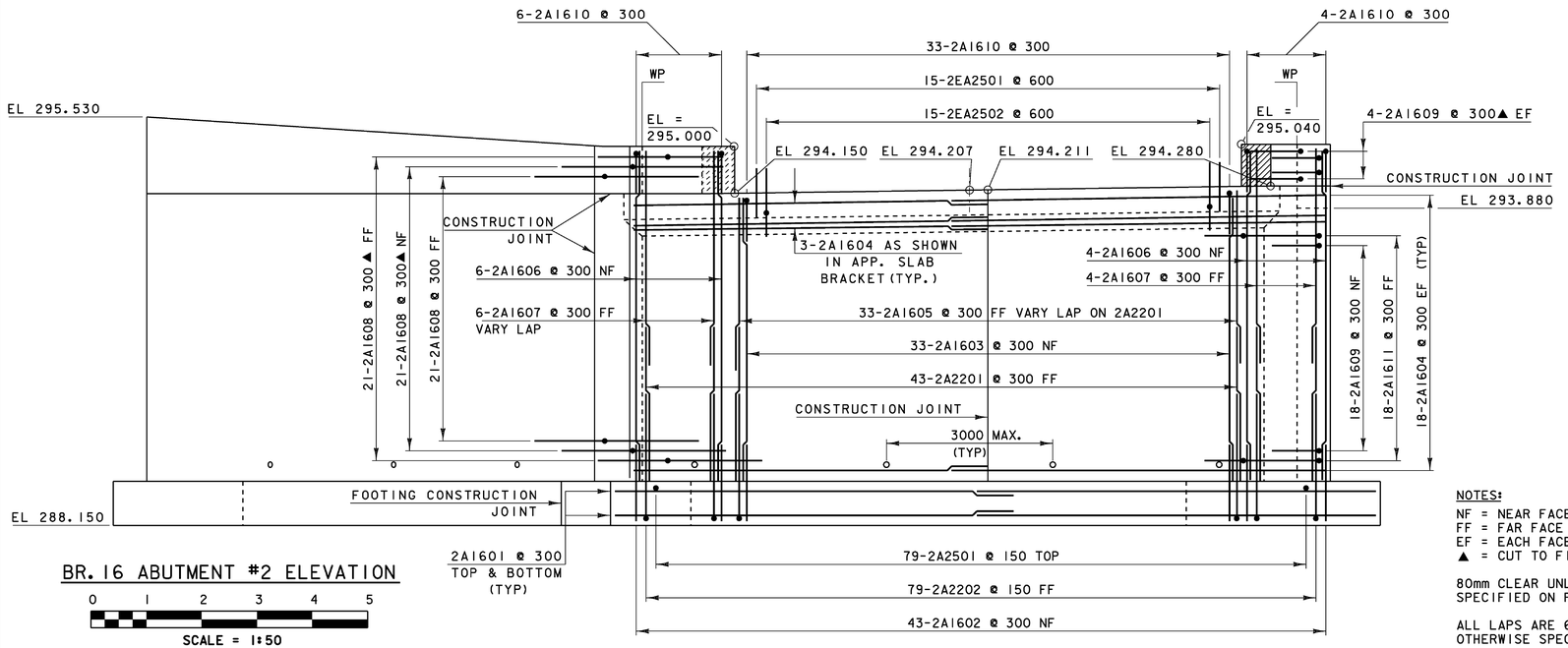
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: se043br16sub.dgn	
IPARM FILE NAME: se043br16abut1.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #16 ABUTMENT 1 DETAILS	SHEET: 33 OF 81



BR. 16 ABUTMENT #2 PLAN

0 1 2 3 4 5

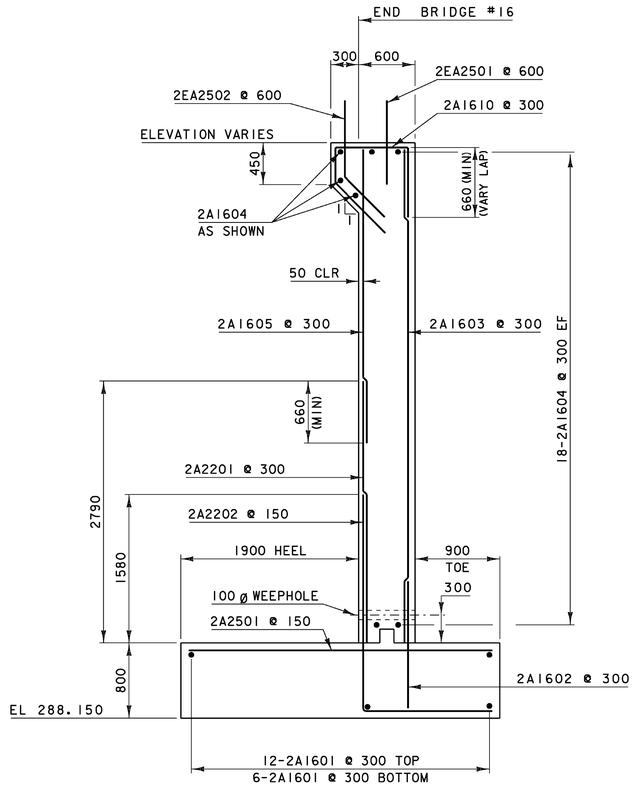
SCALE = 1:50



BR. 16 ABUTMENT #2 ELEVATION

0 1 2 3 4 5

SCALE = 1:50



BR. 16 ABUTMENT #2 TYPICAL SECTION

0 1 2 3

SCALE = 1:30

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

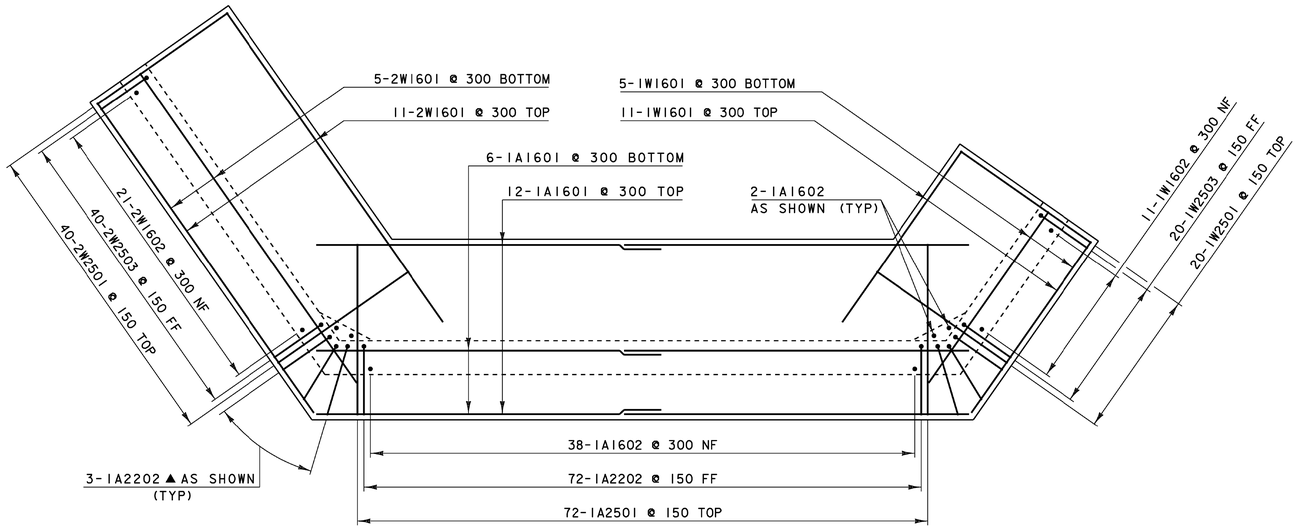
80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTE:
LAST FASCIA MOUNTED RAIL AT ABUTMENT #2 NEAR WINGWALL #4 WILL REQUIRE A NOTCH-OUT.

SEE VALUE ENGINEERED DESIGN.
THIS SHEET NOT USED FOR RECORD PLANS.

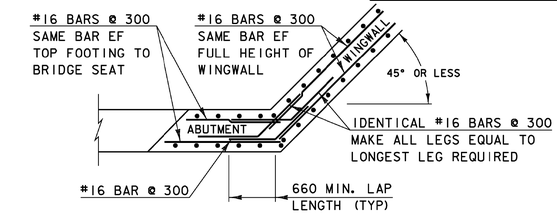
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: se043br16sub.dgn	
IPARM FILE NAME: se043br16abut2.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #16 ABUTMENT 2 DETAILS	SHEET: 34 OF 81



BR. 16 ABUTMENT #1 FOOTING PLAN

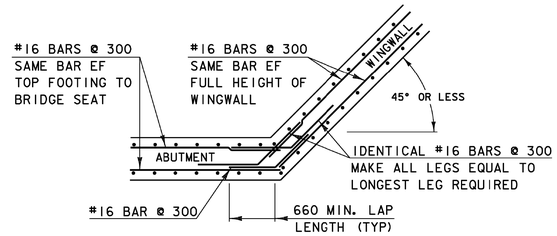
0 1 2 3 4 5

SCALE = 1:50



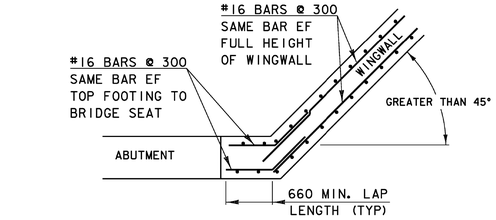
WINGWALL CORNER DETAIL FOR 45° OR LESS ABOVE BRIDGESEAT (TYP)

SCALE= 1:40



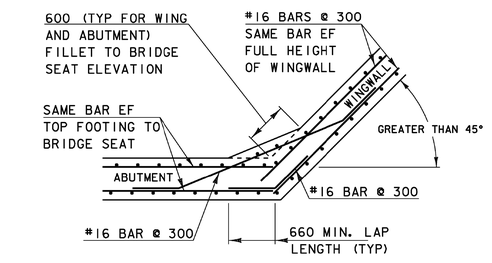
WINGWALL CORNER DETAIL FOR 45° OR LESS BELOW BRIDGESEAT (TYP)

SCALE= 1:40



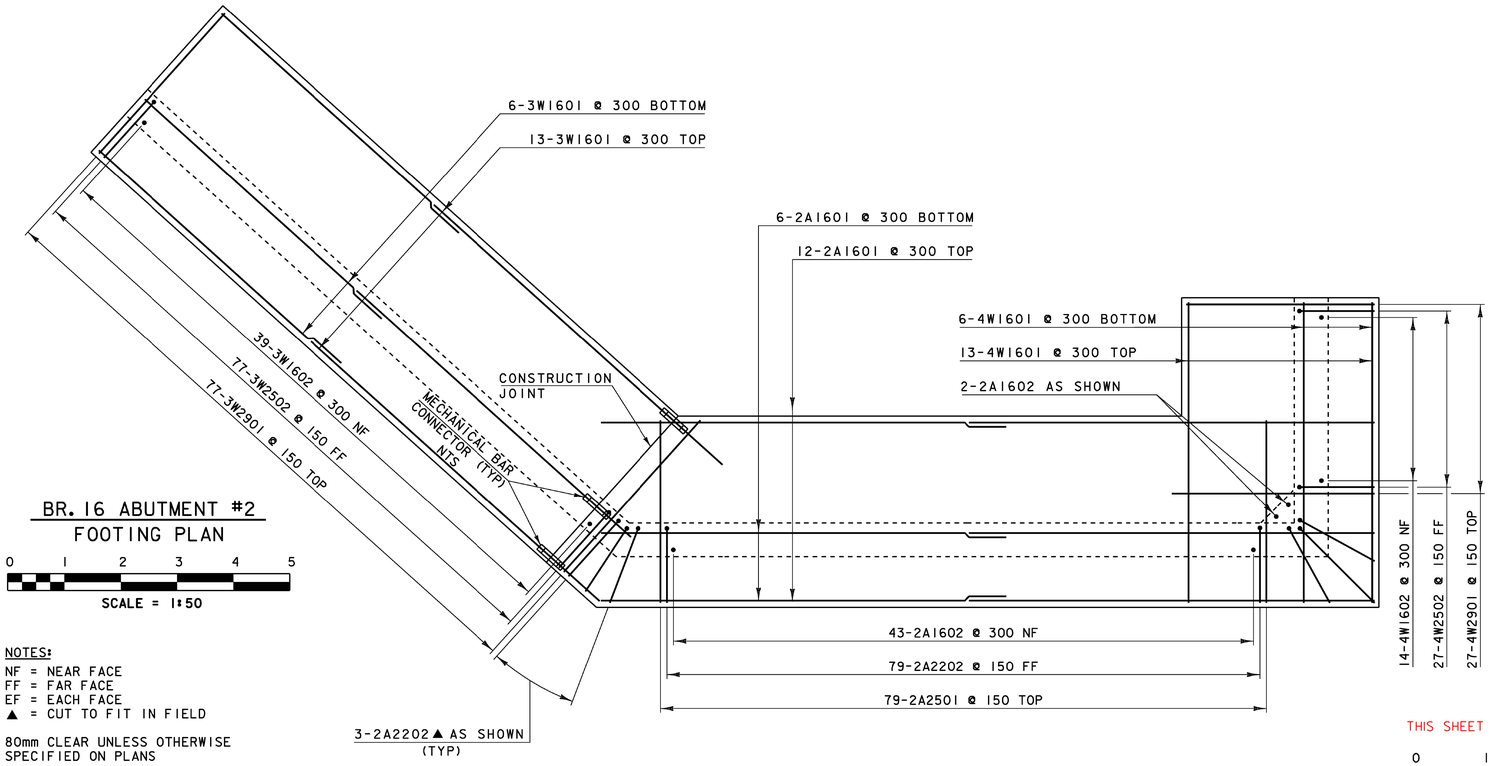
WINGWALL CORNER DETAIL FOR GREATER THAN 45° ABOVE BRIDGESEAT (TYP)

SCALE= 1:40



WINGWALL CORNER DETAIL FOR GREATER THAN 45° BELOW BRIDGESEAT (TYP)

SCALE= 1:40



BR. 16 ABUTMENT #2 FOOTING PLAN

0 1 2 3 4 5

SCALE = 1:50

NOTES:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

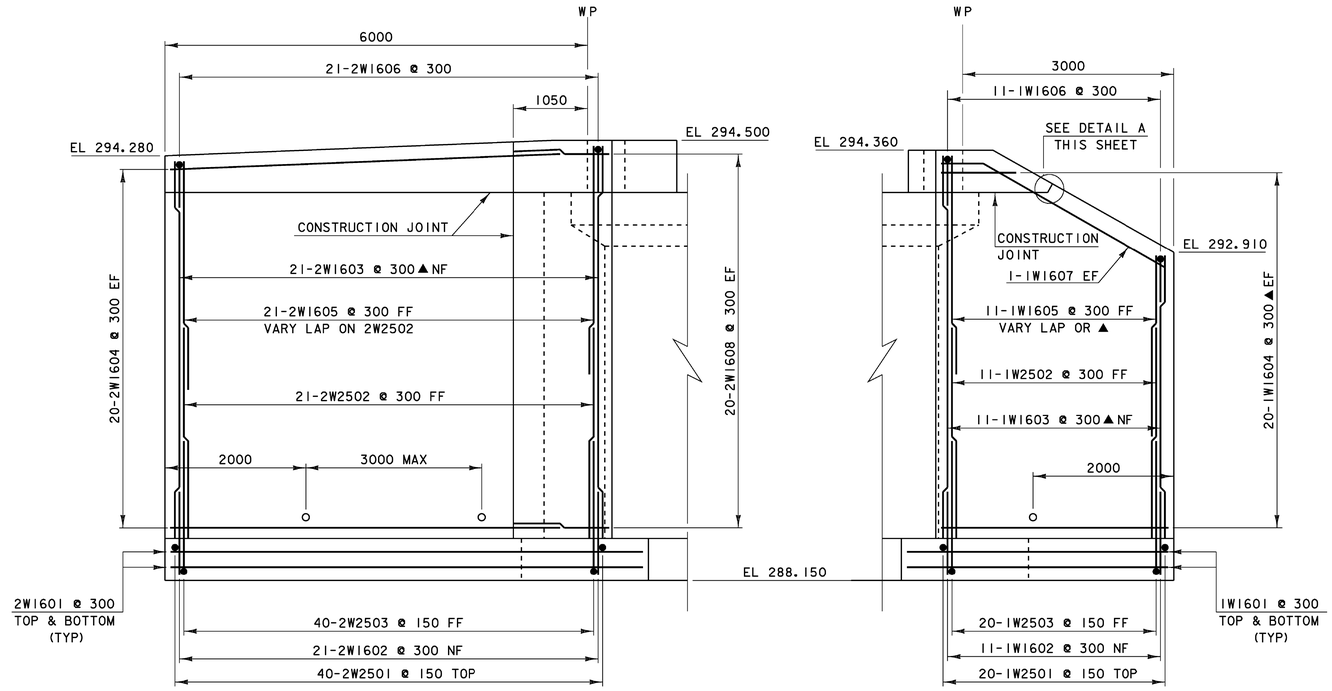
ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

SEE VALUE ENGINEERED DESIGN. THIS SHEET NOT USED FOR RECORD PLANS.

0 1 2 3 4

SCALE = 1:40

PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br16sub.dgn	
IPARM FILE NAME: se043br16ftg.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #16 REINFORCEMENT DETAILS	SHEET: 35 OF 81



WW #2 ELEVATION

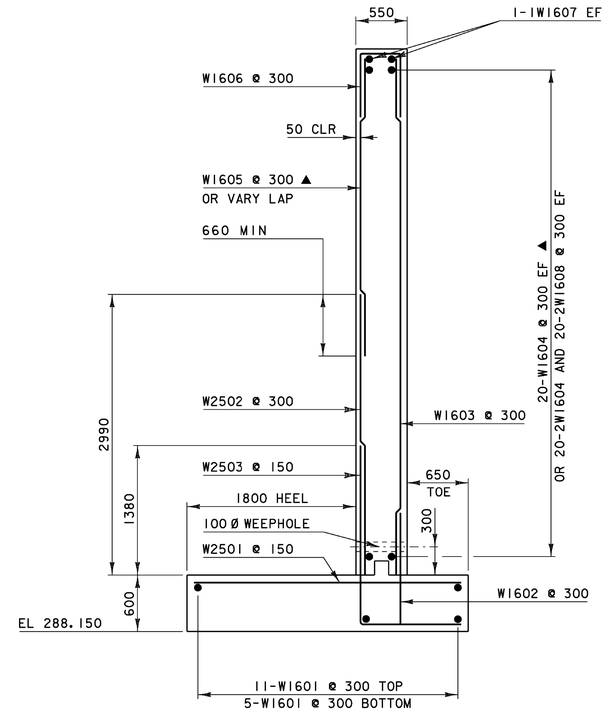
0 1 2 3 4

SCALE = 1:40

WW #1 ELEVATION

0 1 2 3 4

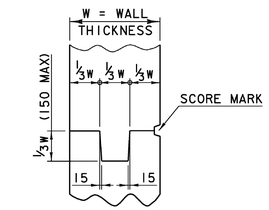
SCALE = 1:40



WW #1 & #2 TYPICAL SECTION

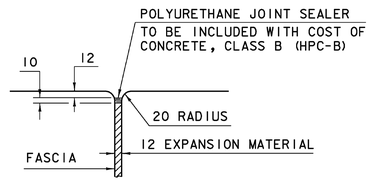
0 1 2 3

SCALE = 1:30



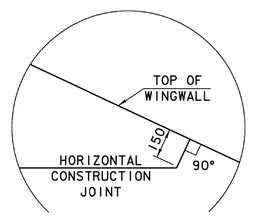
TYPICAL CONCRETE CONSTRUCTION JOINT

NTS



JOINT BETWEEN FASCIA AND WINGWALL

NTS



DETAIL "A"

NTS

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

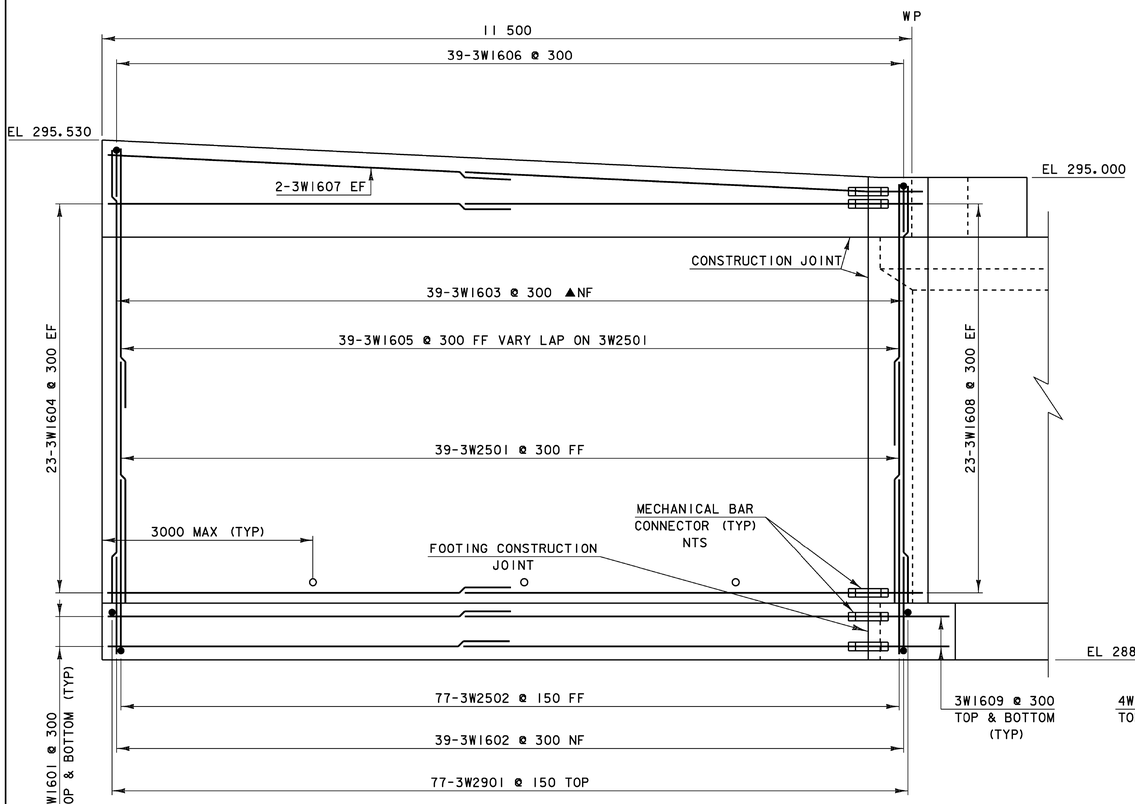
80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTE: SEE BRIDGE #16 ABUTMENT #1 ELEVATION FOR CORNER BARS

SEE VALUE ENGINEERED DESIGN.
THIS SHEET NOT USED FOR RECORD PLANS.

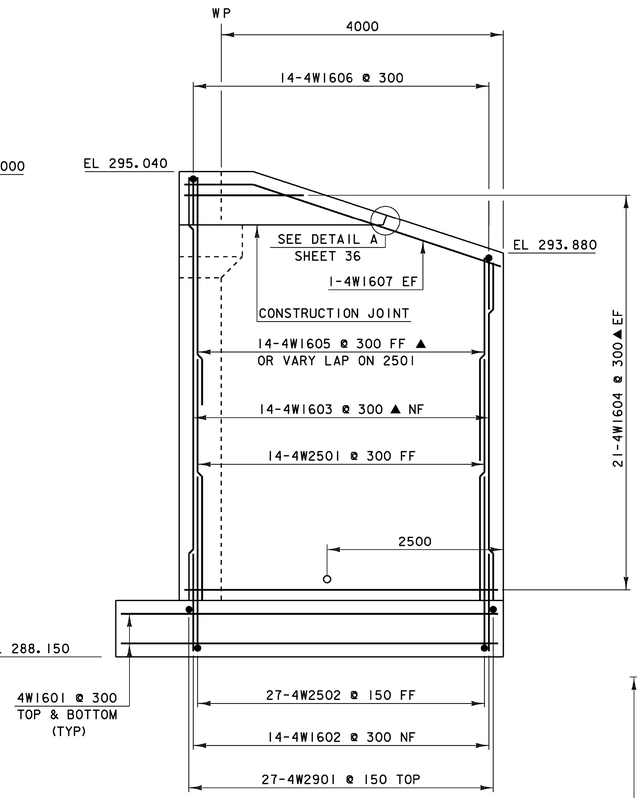
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br16sub.dgn	
IPARM FILE NAME: se043br16ww1x2.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #16 WINGWALLS 1& 2 DETAILS	SHEET: 36 OF 81



WW #3 ELEVATION

0 1 2 3 4

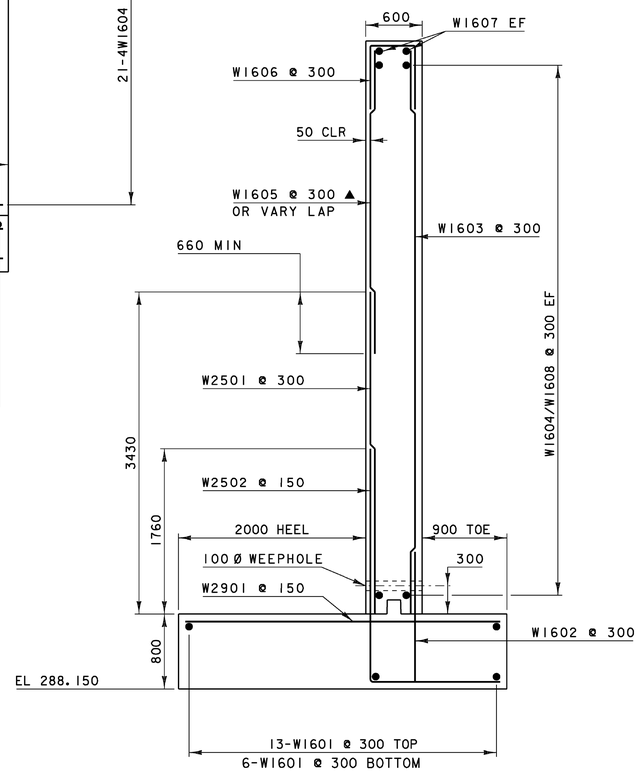
SCALE = 1:40



WW #4 ELEVATION

0 1 2 3 4

SCALE = 1:40



WW #3 & #4 TYPICAL SECTION

0 1 2 3

SCALE = 1:30

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTES:

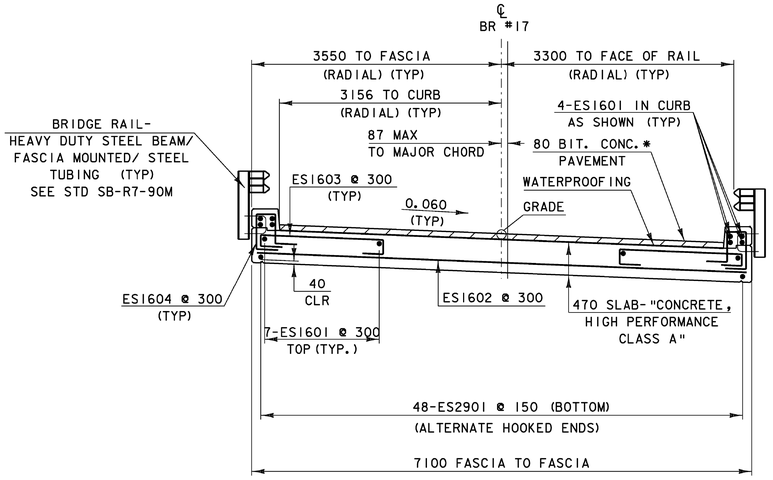
1. SEE BRIDGE #16 ABUTMENT #2 ELEVATION FOR CORNER BARS.
2. WINGWALL #3 AND ITS FOOTING SHALL BE CONSTRUCTED AFTER TRAFFIC HAS BEEN RE-ROUTED ONTO THE NEW BRIDGE #16. MECHANICAL CONNECTORS SHALL HAVE A MINIMUM YIELD (Fy) EQUAL TO 150% FY OF THE REINFORCING STEEL BEING CONNECTED.

SEE VALUE ENGINEERED DESIGN.
THIS SHEET NOT USED FOR RECORD PLANS.

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: se043br16sub.dgn
IPARM FILE NAME: se043br16ww3x4.i
PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY
DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS
CHECKED BY: K.M.HIGGINS
BRIDGE#16 WINGWALLS 3 & 4 DETAILS SHEET: 37 OF 81

Metric

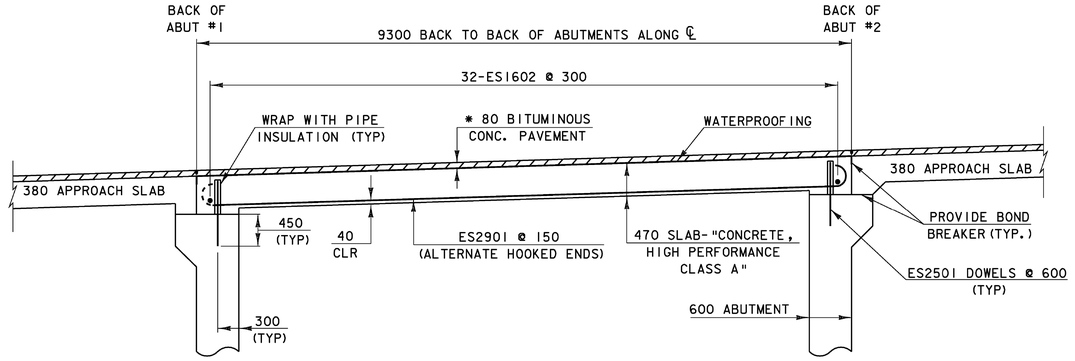


BRIDGE No. 17 TYPICAL SECTION

0 1 2 3 4

SCALE = 1:40

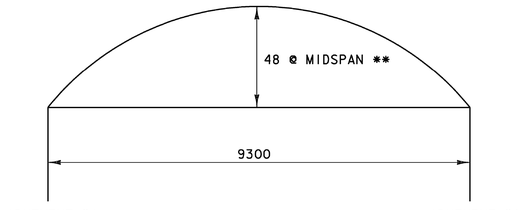
* 40 TYPE III OR IV OVER
40 TYPE III OR IV



BRIDGE No. 17 ELEVATION ALONG ℄ ROADWAY

0 1 2 3 4

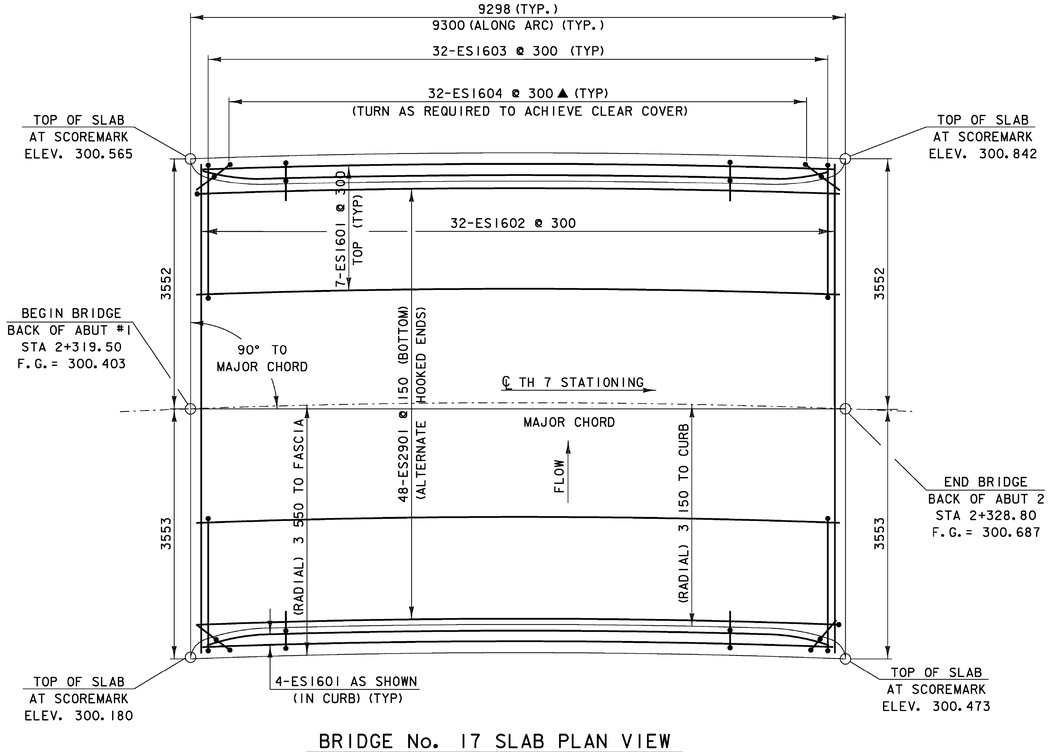
SCALE = 1:40



* * SET CONSTRUCTION FORMS TO THIS CAMBER
CAMBER SHALL APPROXIMATE A CIRCULAR CURVE

BRIDGE No. 17 CAMBER

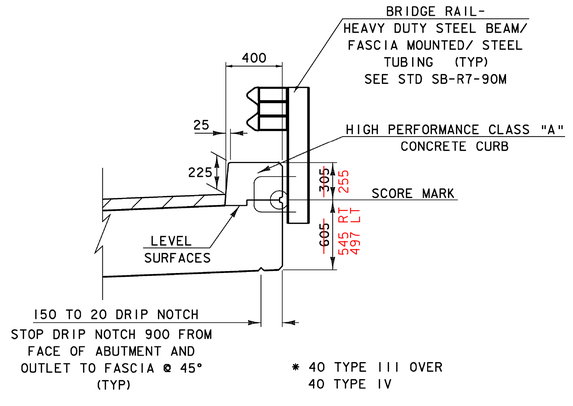
NTS



BRIDGE No. 17 SLAB PLAN VIEW

0 1 2 3 4

SCALE = 1:40



* 40 TYPE III OVER
40 TYPE IV

BRIDGE No. 17 CURB AND RAIL DETAIL

0 1 2

SCALE = 1:20

NOTES:

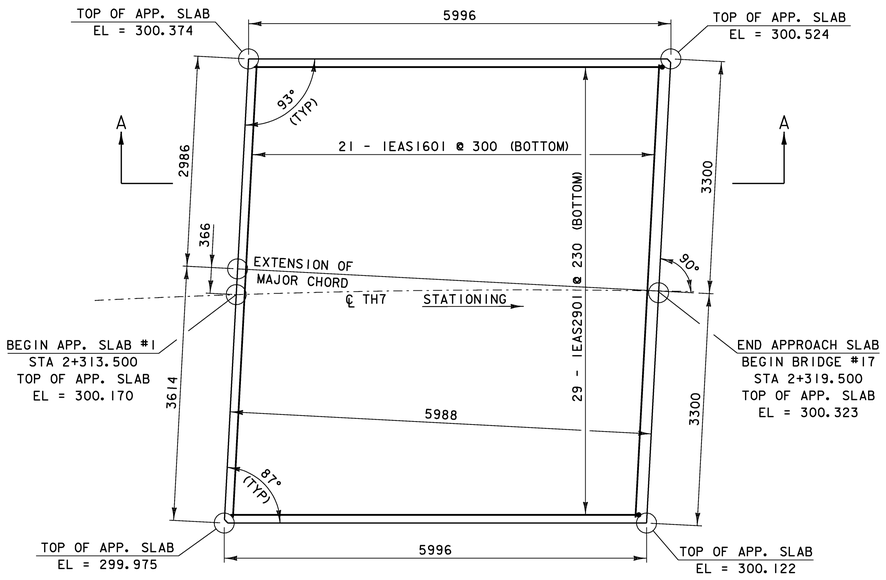
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

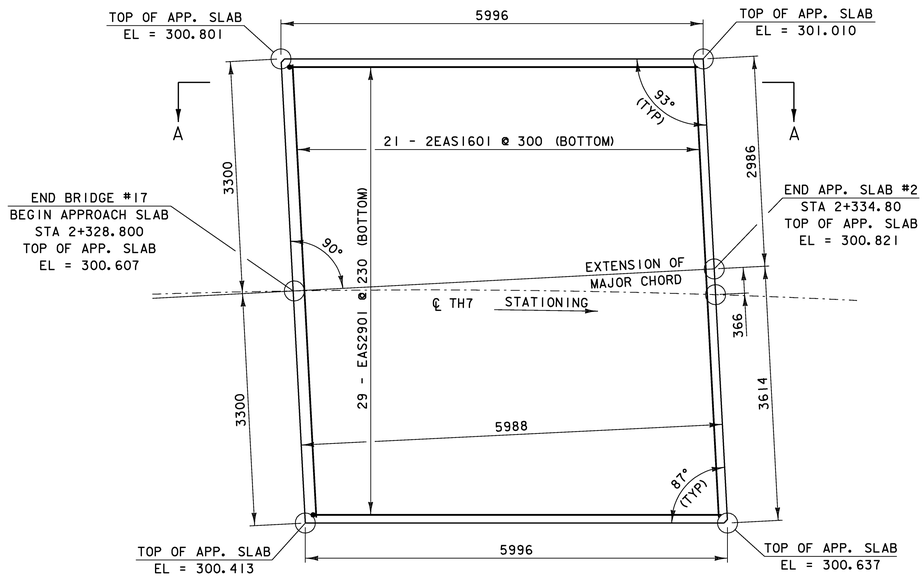
ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043slabs.dgn	
IPARM FILE NAME: se043br17slab.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BR.17 SUPERSTRUCTURE DETAILS	SHEET: 38 OF 81

Metric



FLOW



BRIDGE No. 17 APPROACH SLAB #1 PLAN

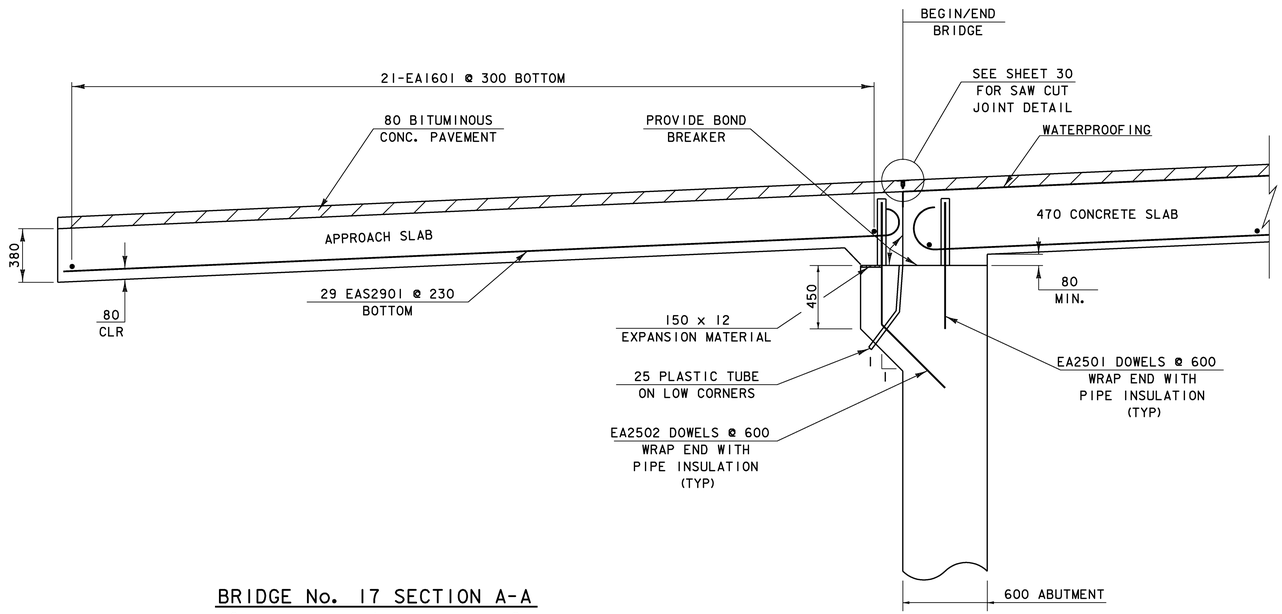
0 1 2 3 4

SCALE = 1:40

BRIDGE No. 17 APPROACH SLAB #2 PLAN

0 1 2 3 4

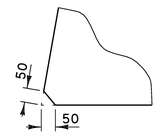
SCALE = 1:40



BRIDGE No. 17 SECTION A-A

0 1 2

SCALE = 1:20



ACUTE CORNER DETAIL

0 0.5 1

SCALE = 1:10

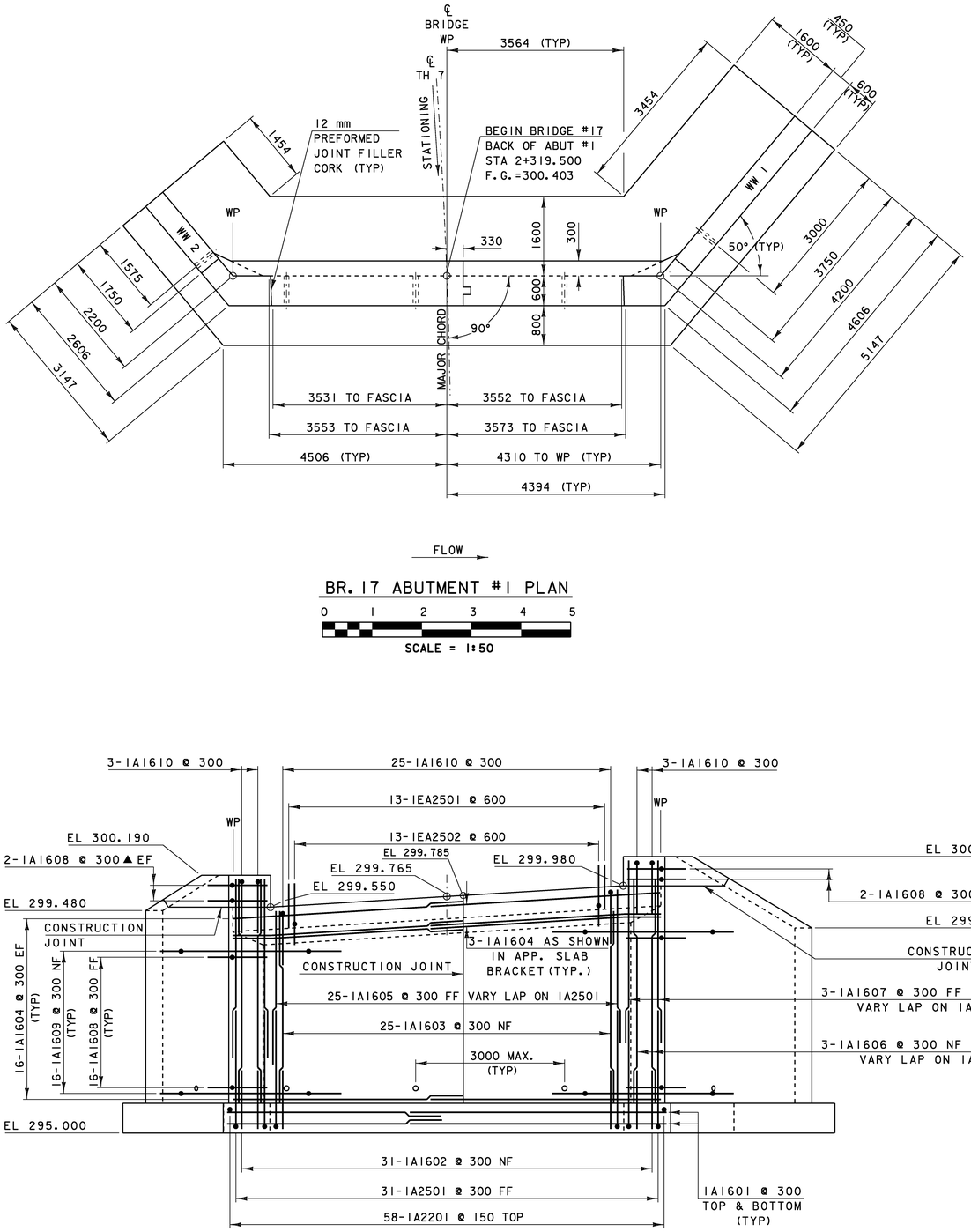
NOTES:

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EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043slabs.dgn	
IPARM FILE NAME: se043br17aps.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BR.17 APPROACH SLAB DETAILS	SHEET: 39 OF 81



BR. 17 ABUTMENT #1 PLAN

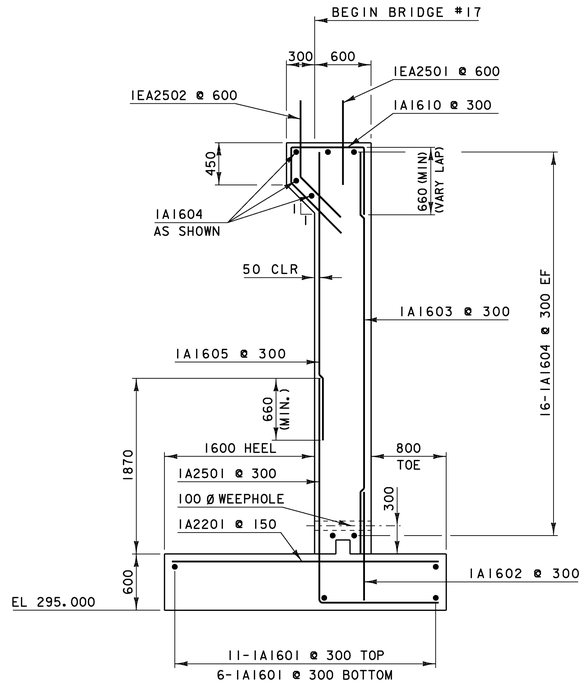
0 1 2 3 4 5

SCALE = 1:50

BR. 17 ABUTMENT #1 ELEVATION

0 1 2 3 4 5

SCALE = 1:50



BR. 17 ABUTMENT #1 TYPICAL SECTION

0 1 2 3

SCALE = 1:30

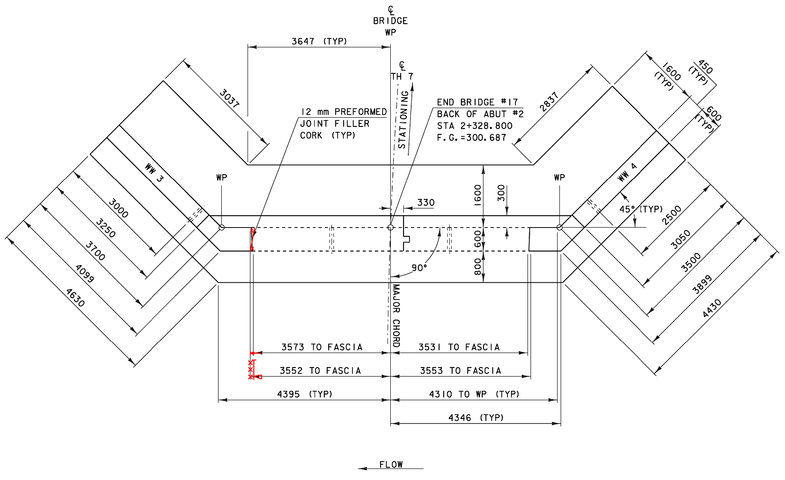
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▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

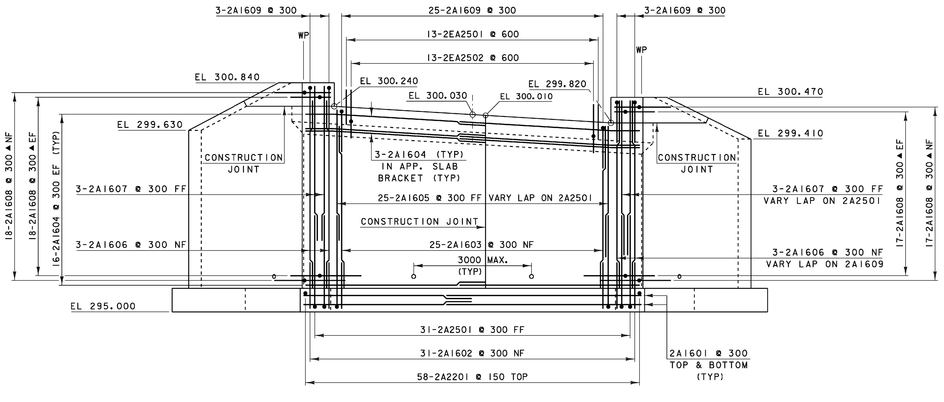
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17abut1.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #17 ABUTMENT 1 DETAILS	SHEET: 40 OF 81



BR. 17 ABUTMENT #2 PLAN

0 1 2 3 4 5

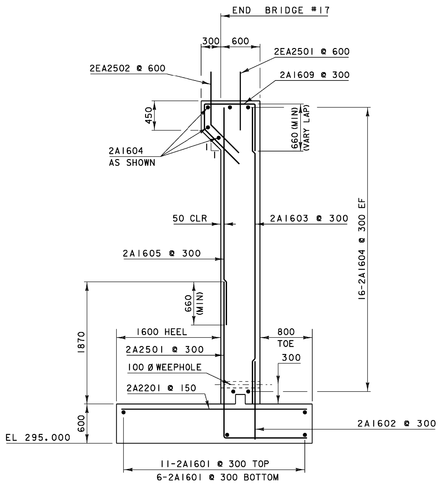
SCALE = 1:50



BR. 17 ABUTMENT #2 ELEVATION

0 1 2 3 4 5

SCALE = 1:50



BR. 17 ABUTMENT #2 TYPICAL SECTION

0 1 2 3

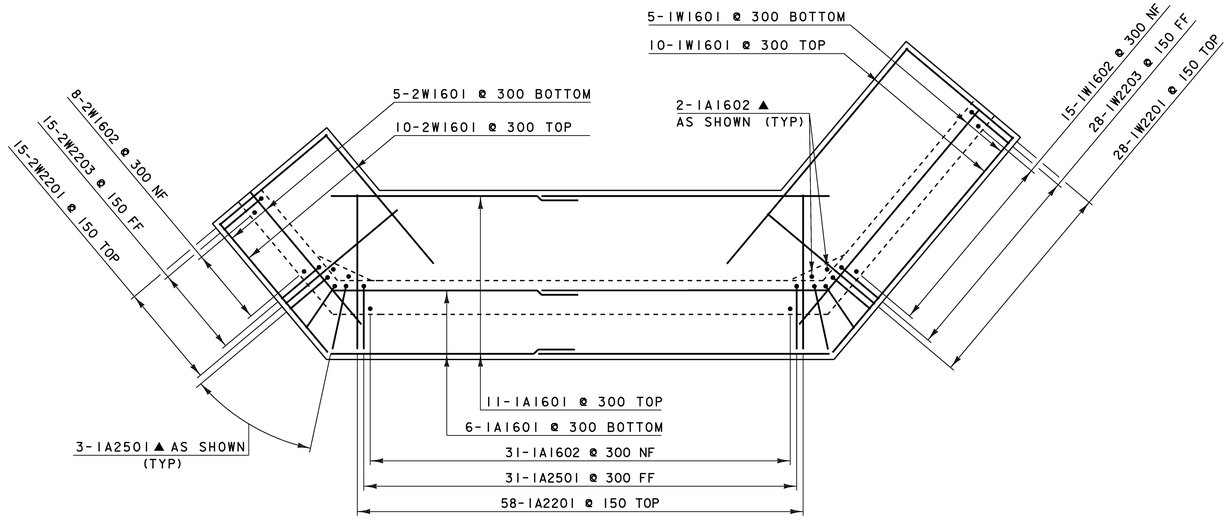
SCALE = 1:30

NOTES:
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80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

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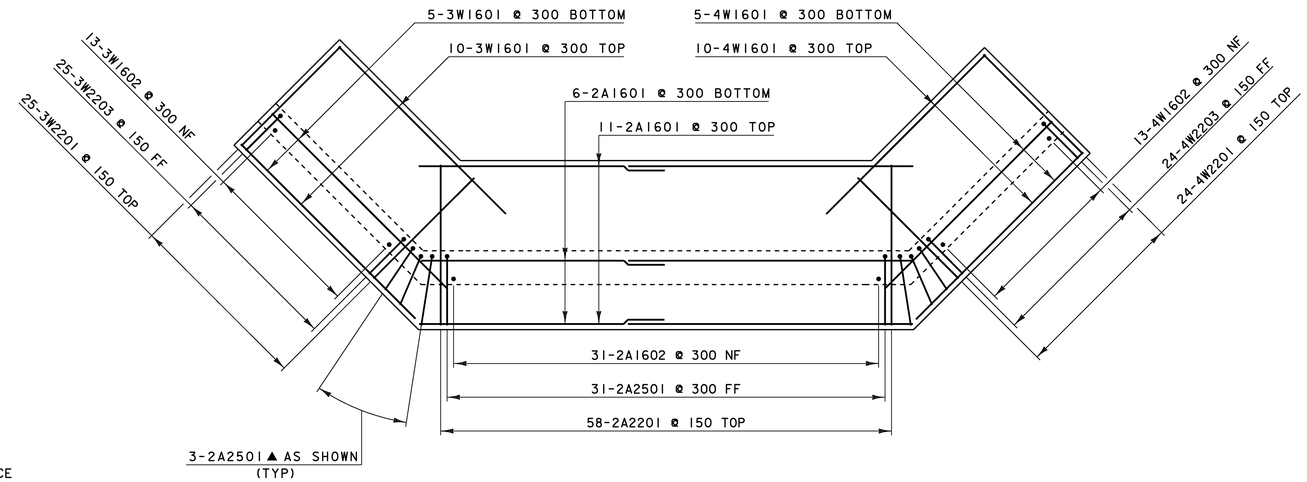
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17abut2.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #17 ABUTMENT 2 DETAILS	SHEET: 41 OF 81



BR. 17 ABUTMENT #1 FOOTING PLAN

0 1 2 3 4 5

SCALE = 1:50



BR. 17 ABUTMENT #2 FOOTING PLAN

0 1 2 3 4 5

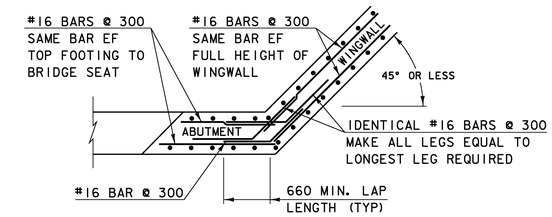
SCALE = 1:50

NOTES:

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FF = FAR FACE
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▲ = CUT TO FIT IN FIELD

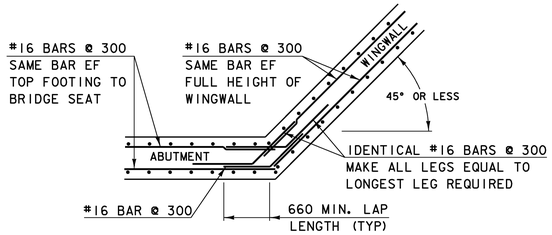
80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS



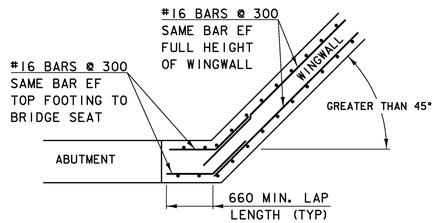
WINGWALL CORNER DETAIL FOR 45° OR LESS ABOVE BRIDGE SEAT (TYP)

SCALE= 1:40



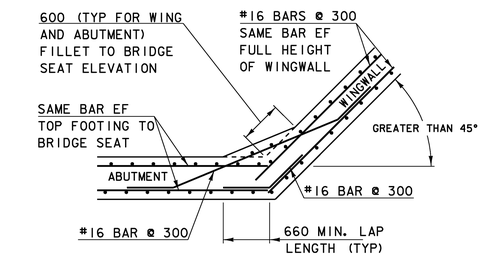
WINGWALL CORNER DETAIL FOR 45° OR LESS BELOW BRIDGE SEAT (TYP)

SCALE= 1:40



WINGWALL CORNER DETAIL FOR GREATER THAN 45° ABOVE BRIDGE SEAT (TYP)

SCALE= 1:40



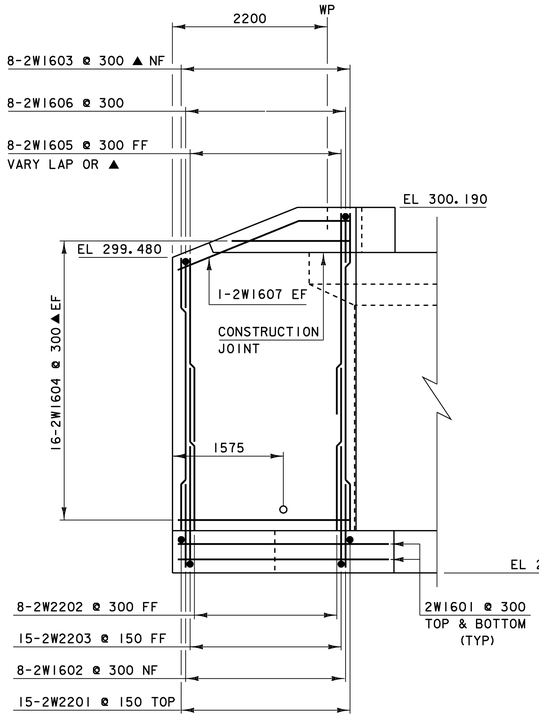
WINGWALL CORNER DETAIL FOR GREATER THAN 45° BELOW BRIDGE SEAT (TYP)

SCALE= 1:40

0 1 2 3 4

SCALE = 1:40

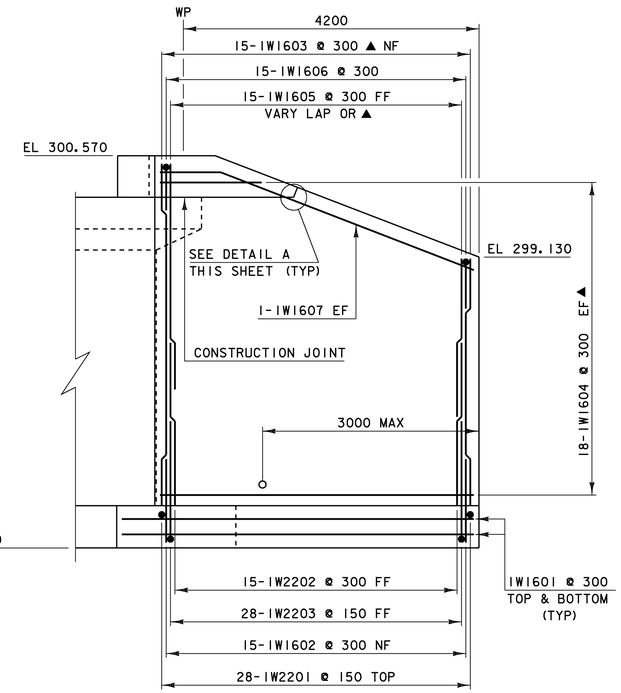
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17ftg.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #17 REINFORCEMENT DETAILS	SHEET: 42 OF 81



WW #2 ELEVATION

0 1 2 3 4

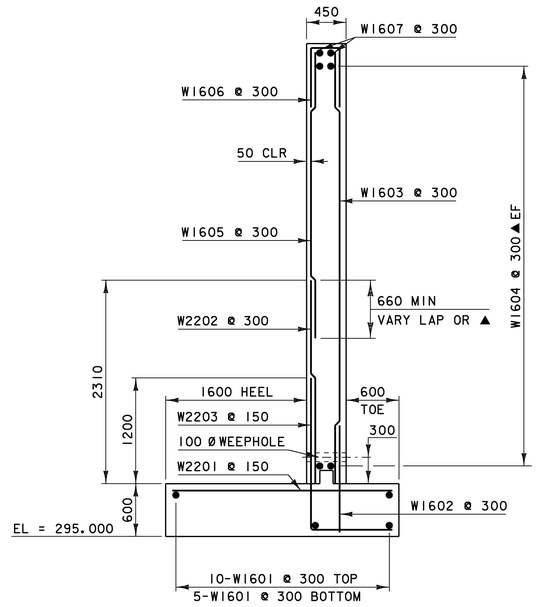
SCALE = 1:40



WW #1 ELEVATION

0 1 2 3 4

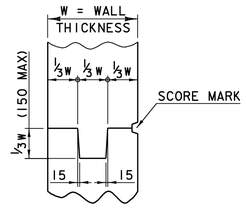
SCALE = 1:40



WINGWALL TYPICAL SECTION

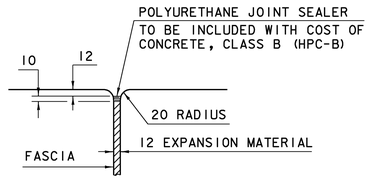
0 1 2 3

SCALE = 1:30



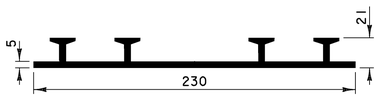
TYPICAL CONCRETE CONSTRUCTION JOINT

NTS



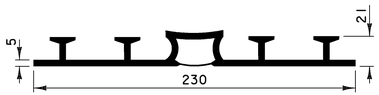
JOINT BETWEEN FASCIA AND WINGWALL

NTS



P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS

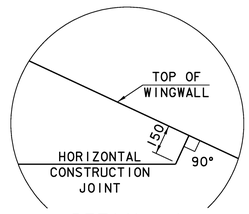
NTS



P.V.C. WATERSTOP FOR EXPANSION JOINTS

NTS

THE COSTS FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL OF THE STRUCTURES ENGINEER.



DETAIL "A"

NTS

NOTES:

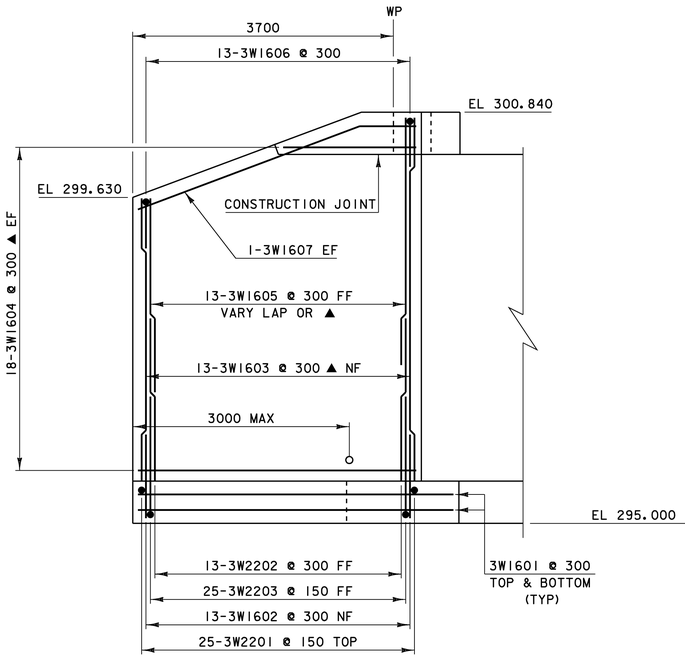
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTE: SEE BRIDGE #17 ABUTMENT #1 ELEVATION FOR CORNER BARS

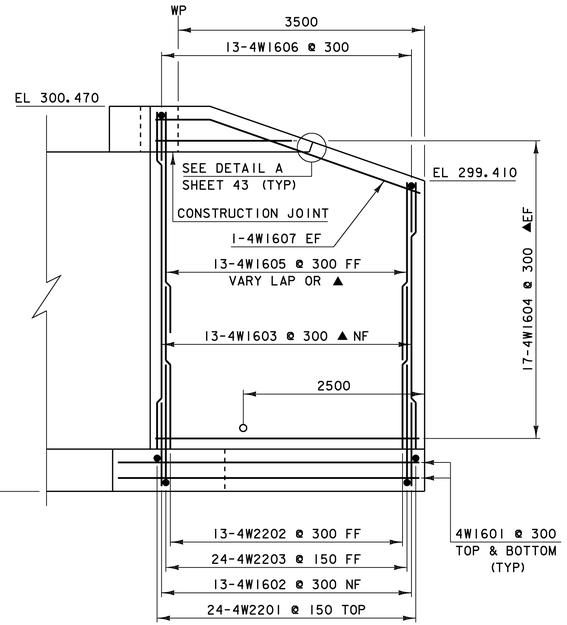
PROJECT: BURKE	PROJECT NO.: BRZ 1447(15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17ww1x2.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BRIDGE #17 WINGWALLS 1 & 2 DETAILS	SHEET: 43 OF 81



WW #3 ELEVATION

0 1 2 3 4

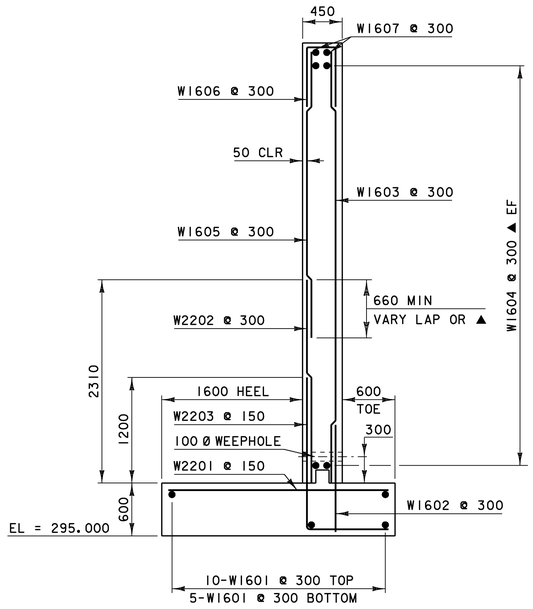
SCALE = 1:40



WW #4 ELEVATION

0 1 2 3 4

SCALE = 1:40



WINGWALL TYPICAL SECTION

0 1 2 3

SCALE = 1:30

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80mm CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

ALL LAPS ARE 660mm UNLESS OTHERWISE SPECIFIED ON PLANS

NOTE: SEE BRIDGE #17 ABUTMENT #2 ELEVATION FOR CORNER BARS

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: se043br17sub.dgn	
IPARM FILE NAME: se043br17ww3x4.i	PLOT DATE: 10-MAR-2008
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: K.M.HIGGINS
BR. #17 WINGWALLS 3 & 4 DETAILS	SHEET: 44 OF 81

STATE OF VERMONT
AGENCY OF TRANSPORTATION

REINFORCING STEEL SCHEDULE

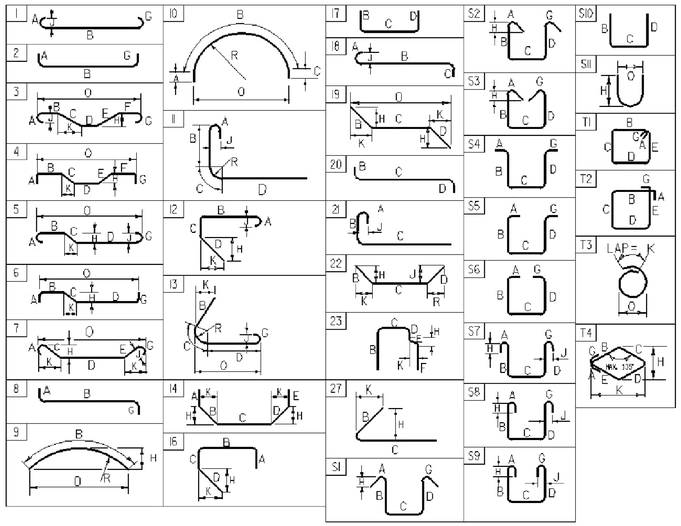
Metric

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
BRIDGE 16																	
✳	45	16	6950	ES1601	STR												
✳	93	16	3100	ES1602	S6	250	440	1720	440			250					
	92	16	2140	ES1603	S5	250	700	210	730			250					
△	48	19	6940	ES1901	STR												
✳	49	32	7735	ES3201	STR												
✳	49	32	8160	ES3202	1	425	7735							335			
APPROACH SLAB 1																	
△ ▲	28	16	8100	1EAS1601	STR												
△ ▲	31	29	7845	1EAS2901	1	375	7470							300			
APPROACH SLAB 2																	
△	28	16	8820	2EAS1601	STR												
△	31	29	7495	2EAS2901	1	375	7120							300			
ABUT # 1																	
	36	16	6120	1A1601	STR												
	42	16	1180	1A1602	STR												
	34	16	4740	1A1603	STR												
	78	16	5635	1A1604	STR												
✳	31	16	3090	1A1605	STR												
	8	16	5670	1A1606	STR												
	8	16	3830	1A1607	STR												
▲	44	16	2700	1A1608	22		1350	1350	---				1100		770		
	36	16	4160	1A1609	22		660	2840	660				300		580		
	38	16	2620	1A1610	16	850	740	330	700								
✳	39	22	2500	1A2201	STR												
✳	79	22	3050	1A2202	17		1780	1270	---								
	72	25	3040	1A2501	STR												
△	17	25	900	1EA2501	STR												
△	17	25	1410	1EA2502	19		810	600	---								
WINGWALL # 1																	
	16	16	3710	1W1601	STR												
	11	16	1180	1W1602	STR												
▲	11	16	5530	1W1603	STR												
✳ ▲	41	16	2840	1W1604	STR												
▲	10	16	3200	1W1605	STR												
	11	16	1710	1W1606	17		660	390	660								
	2	16	3590	1W1607	22		710	2880	---				350		615		
✳	21	25	2840	1W2501	STR												
	11	25	2990	1W2502	STR												
	20	25	2970	1W2503	17		1900	1070	---								
WINGWALL # 2																	
	16	16	6710	2W1601	STR												
	21	16	1180	2W1602	STR												
▲	21	16	5670	2W1603	STR												
	40	16	5530	2W1604	STR												
	21	16	3340	2W1605	STR												
	40	16	1050	2W1608	STR												
	21	16	1710	2W1606	17		660	390	660								
✳	41	25	2840	2W2501	STR												
	21	25	2990	2W2502	STR												
	40	25	2970	2W2503	17		1900	1070	---								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
ABUT # 2																	
	36	16	7190	2A1601	STR												
	45	16	1380	2A1602	STR												
	35	16	5120	2A1603	STR												
	78	16	6160	2A1604	STR												
✳	34	16	3120	2A1605	STR												
	10	16	6010	2A1606	STR												
	10	16	3880	2A1607	STR												
▲	63	16	3400	2A1608	22		1700	1700	---				1130		1255		
▲	22	16	1920	2A1609	22		960	960	---				960		0		
	43	16	2560	2A1610	16	790	740	330	700								
	18	16	3460	2A1611	22		660	2140	660				465		465		
✳	44	22	2790	2A2201	STR												
✳	86	22	3670	2A2202	17		2300	1370	---								
✳	80	25	3240	2A2501	STR												
△	17	25	900	2EA2501	STR												
△	17	25	1410	2EA2502	19		810	600	---								
WINGWALL # 3																	
	38	16	5730	3W1601	STR												
	39	16	1380	3W1602	STR												
▲	39	16	6500	3W1603	STR												
	46	16	5730	3W1604	STR												
	39	16	3730	3W1605	STR												
	39	16	1760	3W1606	17		660	440	660								
	4	16	5735	3W1607	STR												
	46	16	815	3W1608	STR												
✳	40	25	3430	3W2501	STR												
	77	25	3850	3W2502	17		2480	1370	---								
✳	78	29	3340	3W2901	STR												
	38	16	1160	3W1609	STR												
WINGWALL # 4																	
	19	16	5340	4W1601	STR												
	14	16	1380	4W1602	STR												
▲	14	16	6010	4W1603	STR												
▲	21	16	3840	4W1604	STR												
✳ ▲	15	16	3240	4W1605	STR												
	14	16	1760	4W1606	17		660	440	660								
	2	16	4630	4W1607	22		950	3680	---				305		895		
	14	25	3430	4W2501	STR												
	27	25	3850	4W2502	17		2480	1370	---								
✳	28	29	3340	4W2901	STR												

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31M (ASTM A 615M-SI). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. ✳ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. E DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

BAR SIZE	NOMINAL MASS (Kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **BURKE BR #16**
PROJECT NUMBER: **BRZ 1447 (15)**

FILE NAME: **se043br16rss.xls** | PLOT DATE: **2/28/2008**
PROJECT MANAGER: **C. P. WILLIAMS** | DRAWN BY: **D. D. BEARD**
DESIGNED BY: **E. L. RUSTAY** | CHECKED BY: **E.L.RUSTAY**
REINFORCING STEEL SCHEDULE SHEET #1 | SHEET **45** OF **81**

STATE OF VERMONT
AGENCY OF TRANSPORTATION

REINFORCING STEEL SCHEDULE

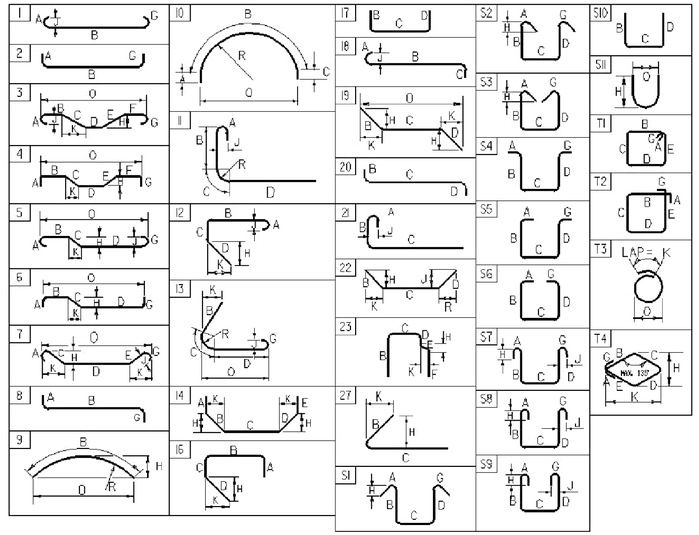
Metric

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	BRIDGE 17																
✳	23	16	9140	ES1601	STR												
✳	33	16	6940	ES1602	STR												
	64	16	2830	ES1603	S6	250	305	1720	305			250					
	64	16	1860	ES1604	S5	250	560	210	590			250					
△	50	29	9515	ES2901	1	375	9140					---		300			
	APPROACH SLAB 1																
△	23	16	6440	1EAS1601	STR												
△	31	29	6205	1EAS2901	1	375	5830					---		300			
	APPROACH SLAB 2																
△	23	16	6440	2EAS1601	STR												
△	31	29	6205	2EAS2901	1	375	5830					---		300			
	ABUT # 1																
	34	16	4750	1A1601	STR												
	35	16	1180	1A1602	STR												
	29	16	3870	1A1603	STR												
	70	16	4560	1A1604	STR												
	25	16	3090	1A1605	STR												
	6	16	4510	1A1606	STR												
	6	16	3680	1A1607	STR												
▲	40	16	1460	1A1608	22		730	730	---				560		470		
	32	16	4035	1A1609	22		660	2715	660				275		595		
	31	16	2860	1A1610	16	1090	740	330	700								
	58	22	2840	1A2201	STR												
△	39	25	3660	1A2501	17		2390	1270	---								
△	15	25	900	1EA2501	STR												
△	15	25	1410	1EA2502	19		810	600	---								
	WINGWALL # 1																
	15	16	4980	1W1601	STR												
	15	16	1180	1W1602	STR												
▲	15	16	4890	1W1603	STR												
▲	36	16	4440	1W1604	STR												
▲	15	16	3240	1W1605	STR												
	15	16	1610	1W1606	17		660	290	660								
	2	16	4700	1W1607	22		750	3950	---				270		705		
	28	22	2490	1W2201	STR												
✳	16	22	2310	1W2202	STR												
	28	22	2640	1W2203	17		1720	920	---								
	WINGWALL # 2																
	15	16	2980	2W1601	STR												
	8	16	1180	2W1602	STR												
▲	8	16	4510	2W1603	STR												
✳ ▲	33	16	2040	2W1604	STR												
✳ ▲	9	16	2860	2W1605	STR												
	8	16	1610	2W1606	17		660	290	660								
	2	16	2570	2W1607	22		730	1840	---				270		675		
	15	22	2490	2W2201	STR												
✳	9	22	2310	2W2202	STR												
	15	22	2640	2W2203	17		1720	920	---								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	ABUT # 2																
	34	16	4650	2A1601	STR												
	31	16	1180	2A1602	STR												
	25	16	4140	2A1603	STR												
	70	16	4560	2A1604	STR												
	24	16	3350	2A1605	STR												
	6	16	4790	2A1606	STR												
	6	16	3950	2A1607	STR												
	105	16	2120	2A1608	22		1060	1060	---								
	31	16	2850	2A1609	16	1080	740	330	700								
	58	22	2840	2A2201	STR												
△	39	25	3660	2A2501	17		2390	1270	---								
△	15	25	900	2EA2501	STR												
△	15	25	1410	2EA2502	19		810	600	---								
	WINGWALL #3																
	15	16	4470	3W1601	STR												
	13	16	1180	3W1602	STR												
▲	13	16	5160	3W1603	STR												
▲	36	16	3540	3W1604	STR												
▲	13	16	3510	3W1605	STR												
	13	16	1610	3W1606	17		660	290	660								
	2	16	4140	3W1607	22		750	3390	---					260		700	
	25	22	2490	3W2201	STR												
✳	14	22	2310	3W2202	STR												
	25	22	2640	3W2203	17		1720	920	---								
	WINGWALL # 4																
	15	16	4270	4W1601	STR												
	13	16	1180	4W1602	STR												
▲	13	16	4790	4W1603	STR												
✳ ▲	35	16	3340	4W1604	STR												
✳ ▲	14	16	3140	4W1605	STR												
	13	16	1610	4W1606	17		660	290	660								
	2	16	3910	4W1607	22		750	3160	---					245		705	
	24	22	2490	4W2201	STR												
✳	14	22	2310	4W2202	STR												
	24	22	2640	4W2203	17		1720	920	---								

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6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
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8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. ✳ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
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ASTM STANDARD REINFORCING BARS

BAR SIZE	NOMINAL MASS (Kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
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#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **BURKE BR #17**
PROJECT NUMBER: **BRZ 1447 (15)**

FILE NAME: **se043br17rss.xls** | PLOT DATE: **2/28/2008**
PROJECT MANAGER: **C. P. WILLIAMS** | DRAWN BY: **D.D.BEARD**
DESIGNED BY: **E. L. RUSTAY** | CHECKED BY: **M.FESSEL**
REINFORCING STEEL SCHEDULE SHEET #2 | SHEET **46** OF **81**

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

PROJECT BURKE BRZ 1447(15) CONSISTS OF THE REPLACEMENT OF BRIDGES #16 AND #17 OVER DISH MILL BROOK ON TOWN HIGHWAY 7 IN THE TOWN OF BURKE, VT. THIS PROJECT SITE IS LOCATED ON TH 7 BEGINNING AT A POINT 0.80 KM EAST OF THE JUNCTION OF VT 114 AND TH 7, EXTENDING EASTERLY ALONG TH 7 FOR 325 METERS. CONSTRUCTION EXTENDS FOR 325 METERS ON TH 7 AND INCLUDES THE RECONSTRUCTION OF TWO SINGLE SPAN STEEL BEAM BRIDGES, ROADWAY WORK, NEW BITUMINOUS CONCRETE PAVEMENT, AND RELATED DRAINAGE WORK. BRIDGE #17 WILL BE RECONSTRUCTED IN THE SAME LOCATION, WHILE BRIDGE #16 WILL BE RECONSTRUCTED APPROXIMATELY 13 METERS DOWNSTREAM TO MATCH IN WITH A NEW ROADWAY ALIGNMENT. DURING CONSTRUCTION A PAVED DETOUR, WITH A TEMPORARY BRIDGE, WILL BE CONSTRUCTED TO DIVERT TRAFFIC AROUND BRIDGE #17.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.72 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST TWO CONSTRUCTION SEASONS.

1.2 SITE INVENTORY

1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

DUE TO THE NATURE OF THE TOPOGRAPHY, ADJACENT WETLANDS, AND THE SOIL TYPES PRESENT ON THE SITE, THERE ARE MANY CRITICALLY EROSIVE AREAS ON THIS PROJECT. SPECIAL ATTENTION SHALL BE GIVEN TO THE AREAS ON THE NORTH SIDE OF TH 7, WHERE STEEP SLOPES WILL CONVEY HIGH VELOCITY OFF-SITE "RUN-ON" TO DISTURBED AREAS ON THE PROJECT, AND AREAS TO THE SOUTH OF TH 7, WHERE THERE IS POTENTIAL FOR SEDIMENT MOBILIZATION ONTO ADJACENT WETLANDS.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

DISH MILL BROOK HAS INCISED, SINUOUS, AND STABLE CHANNEL CHARACTERISTICS. THE STREAMBED IN THE PROJECT AREA CONSISTS OF SAND, GRAVEL, COBBLES, AND BOULDERS. THE SOUTHERN SIDE OF THE ROAD MAINLY CONSISTS OF CLASS III WETLANDS.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

TH 7 IS A PAVED ROAD. THE ROADWAY PORTION OF THE PROJECT IS LOCATED ON AN UPHILL SLOPE IN THE WEST TO EAST DIRECTION, WITH THE SLOPE OF THE ROAD RANGING FROM 2% TO 8.5%. THE LAND ON AND ADJACENT TO THE SITE HAS HILLY TO MOUNTAINOUS TERRAIN WITH A MIXTURE OF OPEN AND FORESTED AREAS. THE LAND ON THE NORTH SIDE OF THE ROAD IS VERY STEEP, AS SLOPES REACH A GRADE OF 65%. THESE STEEP SLOPES ARE FORESTED AND TERMINATE AT THE ROADWAY DRAINAGE DITCH.

1.2.4 VEGETATION

THE MAJORITY OF THE VEGETATION PRESENT ON THE PROJECT SITE IS TREES, WITH SOME SHRUBS AND GRASSY AREAS. THE DISTURBED LAND WILL BE REPLACED WITH THE VERMONT AGENCY OF TRANSPORTATION STANDARD RURAL SEED MIX, MADE UP OF FIVE DIFFERENT VARIETIES OF GRASSES.

1.2.5 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE FOR THE COUNTY OF CALEDONIA, VERMONT. SOILS ON THE PROJECT SITE ARE CABOT SILT LOAM, 0% TO 8% SLOPES, "K FACTOR" = 0.32. THE SOIL IS CONSIDERED MODERATELY ERODIBLE.
NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL: 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

1.2.6 SENSITIVE RESOURCE AREAS

THERE ARE NO 'THREATENED & ENDANGERED SPECIES' LIVING ON OR NEAR THE PROJECT SITE. THE SOUTHERN HALF OF THE PROJECT AREA CONTAINS SEVERAL AREAS SENSITIVE FOR ARCHAEOLOGICAL RESOURCES. THIS SOUTHERN AREA CONSISTS PRIMARILY OF CLASS III WETLANDS. THE ARMY CORP OF ENGINEERS HAS DETERMINED THAT THE WORK PROPOSED WILL HAVE MINOR INDIVIDUAL AND CUMULATIVE IMPACTS ON THE WATERS AND WETLANDS OF THE U.S.

1.3 RISK EVALUATION

THIS PROJECT HAS BEEN DETERMINED TO BE LOW RISK UNDER CONSTRUCTION GENERAL PERMIT 3-9020 (2006), AND AS SUCH THE LOW RISK SITE HANDBOOK MUST BE COMPLIED WITH AND BE ON SITE AT ALL TIMES. THE RISK EVALUATION SCORE FOR THIS PROJECT IS -1. OVERALL SCORES OF LESS THAN 1 QUALIFY THE PROJECT AS LOW RISK. ANY MODIFICATIONS TO THE PROJECT SHALL RESULT IN A RE-EVALUATION OF THE RISK AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-FILING SHOULD THE RISK CHANGE.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

(REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING.)

1.4.1 MARK SITE BOUNDARIES
PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION. PLAN ALL GRADING TO MINIMIZE SOIL EXPOSURE.

1.4.2 LIMIT DISTURBANCE AREA
EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

1.4.3 STABILIZE CONSTRUCTION EXIT
STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED AS NECESSARY.

1.4.4 INSTALL SILT FENCE
SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

1.4.5 DIVERT UPLAND RUNOFF
SWALE (STORM WATER FROM STREET COLLECTIONS DRAINAGE SYSTEM)

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHECK DAMS SHALL BE UTILIZED AS NECESSARY.

1.4.7 CONSTRUCT PERMANENT CONTROLS
TYPE I, II, III STONE FOR SLOPE LINING AND CHANNEL PROTECTION
SEED AND MULCH
DRAINAGE INLETS AND PIPING
SOIL RETENTION WALLS

STREAM BANK VEGETATION WILL BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

1.4.8 STABILIZE EXPOSED SOILS
SEED AND MULCH
EROSION MATTING

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.
SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION.

1.4.9 WINTER STABILIZATION
VARIOUS MEASURES SPECIFIC TO WINTER (SEE LOW RISK HANDBOOK)

1.4.10 STABILIZE SOIL AT FINAL GRADE
SEED AND MULCH
EROSION MATTTING

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

1.4.11 DE-WATERING ACTIVITIES
SEDIMENT BASINS SHALL BE USED AS NECESSARY FOR SUBSTRUCTURE WORK. SPECIAL CONSIDERATION MUST BE GIVEN TO THE FIRST PUMP-DOWN OF THE COFFERDAMS. THIS WILL CONTAIN THE GREATEST VOLUME OF WATER WITH A HIGH SEDIMENT LOAD. CLEAN SEDIMENT BASINS WHEN HALF FULL OF SEDIMENT. AFTER SUBSTRUCTURE COMPLETION, THE SEDIMENT IN THE BASINS SHALL BE REMOOVED AND THE GROUND RESTORED TO ITS ORIGINAL SLOPES OR GRADED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

1.4.12 INSPECT YOUR SITE
INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

TEMPORARY EROSION PREVENTION MEASURES TO BE UTILIZED INCLUDE:

PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL ALSO BE UTILIZED ON A REGULAR BASIS. ANY SLOPES TO BE EXPOSED FOR SEVERAL DAYS PRIOR TO FINAL GRADING SHALL BE TRACKED AND MULCHED. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING, OR AN EQUIVALENT, SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION.

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK. INSTALLATION SHALL BE PERFORMED PER INCLUDED DETAIL SHEET.

MEASURES SUCH AS SILT FENCE SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT BUILD-UP SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE CONTROL MEASURE. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

PERMANENT EROSION CONTROL:

SEVERAL PERMANENT EROSION CONTROL WILL BE UTILIZED:

STREAM BANKS WILL BE ARMORED WITH STONE FILL TYPE III AS SPECIFIED BY VTRANS ON THE PROJECT PLANS. THE STONE FILL WILL STABILIZE THE EXISTING BANK IN ORDER TO PROTECT IT FROM EROSION DURING STORM AND HIGH WATER EVENTS.

IN ORDER TO DISSIPATE WATER VELOCITIES AND REDUCE EROSION POTENTIAL, UTILIZE STONE FILL, TYPE I AT CULVERT OUTLETS.

ALL DISTURBED AREAS WILL BE SEEDED AND MULCHED WITHIN 48 HOURS AFTER FINAL GRADE HAS BEEN ESTABLISHED. AREAS WITH SLOPES STEEPER THAN 1:3 SHALL UTILIZE BIODEGRADABLE EROSION CONTROL MATTING.

STREAM BANK VEGETATION WILL BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

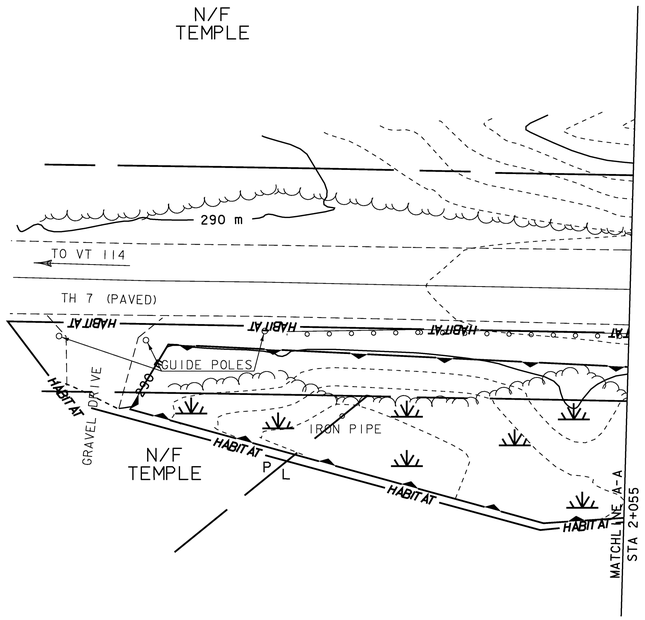
EPSC NARRATIVE

PROJECT NAME: BURKE	
PROJECT NUMBER: BRZ 1447(15)	
FILE NAME: 87e043\se043eronar.dgn	PLOT DATE: 10-MAR-2008
PROJECT LEADER: C.P. WILLIAMS	DRAWN BY: M.FESSEL
DESIGNED BY:	CHECKED BY: E.L.RUSTAY
EROSION CONTROL NARRATIVE	SHEET 47 OF 81

VAOT Metric

N

VT STATE PLANE GRID



MATTEIS, VINCENT M.
& LORRAINE C.

LEGEND	
	WETLANDS BOUNDARIES
	WETLANDS
HABITAT	CRITICAL WILDLIFE HABITAT

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

EXISTING CONDITIONS

0 10 20

SCALE 1:250

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn	
IPARM FILE NAME: se043exconi.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
EXISTING CONDITIONS SITE PLAN	SHEET: 48 OF 81

VAOT Metric

BM I CHISELED
SQUARE IN CURB
ELEVATION = 293.9419

N

VT STATE PLANE GRID

BARBED WIRE FENCE

PROPOSED TELEPHONE

WOODS DRIVE

FLOW DISH MILL BROOK

N/F
TEMPLE, RALPH R.
& SHIRLEY M.

PROPOSED TELEPHONE

305 m

300 m

295 m

TH 7 (PAVED)

DITCH

GUIDE POST

COMB 18-3

M. STUMP

ARCH

HABIT AT

MATCHLINE B-B
STA 2+240

460 ACCGMP

GRAVEL

GUY

PT 6

M. ELM

2-15/2"

EXISTING CABLE TV
(TO BE REMOVED)

EXISTING BLASTED
LEDGE PILE

M. APPLE

S. APPLE

M. MAPLE

SPRUCE

ELECTRIC
47/78-2

2+144.587
7.54M (24.7') RT.

N/F
TOWN OF BURKE

P
L

2+091.627
7.54M (24.7') RT.

EXISTING
TELEPHONE
(TO BE REMOVED)

EXISTING CABLE TV
(TO BE REMOVED)

MATCHLINE A-A
STA 2+055

MATTESS, VINCENT M.
& LORRAINE C.

N/F GREER

EXISTING CONDITIONS BRIDGE 16

0 10 20

SCALE 1:250

LEGEND

- WETLANDS BOUNDARIES
- WETLANDS
- HABIT AT - CRITICAL WILDLIFE HABITAT
- ARCH — ARCH — SENSITIVE ARCHEOLOGICAL AREA

EXISTING BRIDGE 16 DATA
8.7 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE
POSTS. 6.4 m CURB TO CURB
CONCRETE ABUTMENTS

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn
IPARM FILE NAME: se043excon2.i — PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS — SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: M.FESSEL
EXISTING CONDITIONS BRIDGE 16 — SHEET: 49 OF 81

VAOT Metric

N

VT STATE PLANE GRID

N/F TEMPLE

P L

FLOW DISH MILL BROOK

295 m

ARCH

GUY

M. DEAD FIR

M. YELLOW BIRCH

N/F HORTON, BARNARD S.

300 m

305 m

310 m

315 m

WOODEN PLATFORM

GUY

COMB 12-15/4/10/67/18-4 W/METER OUTLET AND LARGE TELEPHONE BOX

ABANDONED TRAFFIC SIGNAL ON WOODEN POLE

GRAVEL

PT 5

EXISTING R.O.W

HABITAT

S. POPS

M. TWIN YELLOW BIRCH

TEL 4-1/2 (4.5/11)

TH 7 (PAVED)

GUY

MATCHLINE B-B STA 2+240

CONCRETE FOUNDATION

N/F TOWN OF BURKE

BM 2 CHISELED SQUARE IN CURB ELEVATION = 299.73

N/F TOWN OF BURKE

MATCHLINE C-C STA 2+420

EXISTING BRIDGE 17 DATA
8.1 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE POSTS
6.5 m CURB TO CURB
CONCRETE ABUTMENTS

LEGEND

- WETLANDS BOUNDARIES
- WETLANDS
- HABITAT - CRITICAL WILDLIFE HABITAT
- ARCH ARCH SENSITIVE ARCHEOLOGICAL AREA

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

EXISTING CONDITIONS BRIDGE 17

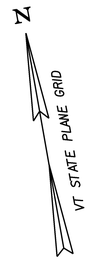
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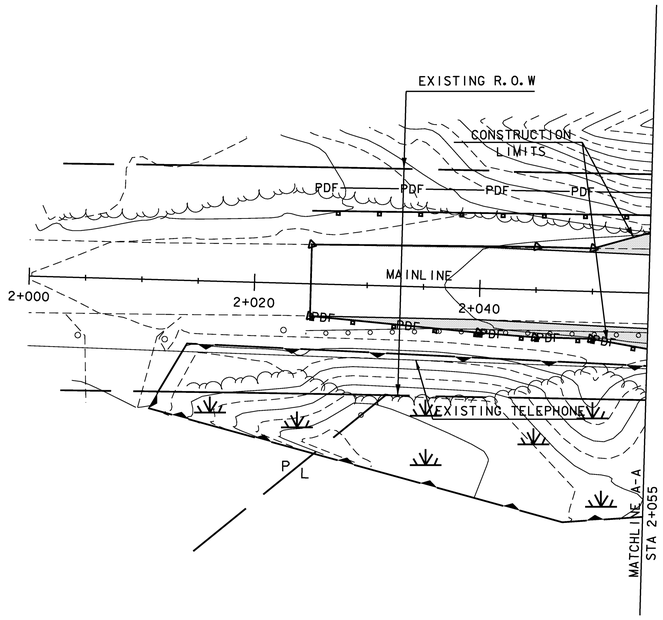
SCALE 1:250

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn
IPARM FILE NAME: se043excon3.i — PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS — SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: M.FESSEL
EXISTING CONDITIONS BRIDGE 17 — SHEET: 50 OF 81

VAOT Metric





SOIL CLASSIFICATION

SOIL TYPE : CABOT SILT LOAM
SLOPES : 0-8%
"K FACTOR" 0.32
CLASSIFIED : MODERATE ERODIBILITY

LEGEND

- WETLANDS BOUNDARIES
- WETLANDS
- SILT FENCE
- TURBIDITY CURTAIN
- PROPOSED SLOPE LIMITS
- DETOUR CONST. LIMITS
- LOD — LIMITS OF DISTURBANCE
- PDF — PDF — PDF PROJECT DEMARCATION FENCE
- RIPARIAN BUFFER ZONE
- SEED AND MULCH
- EROSION CONTROL MATTING

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

0 10 20

SCALE 1:250

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn	
IPARM FILE NAME: se043erol.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
EROSION AND SEDIMENT CONTROL PLAN	SHEET: 51 OF 81

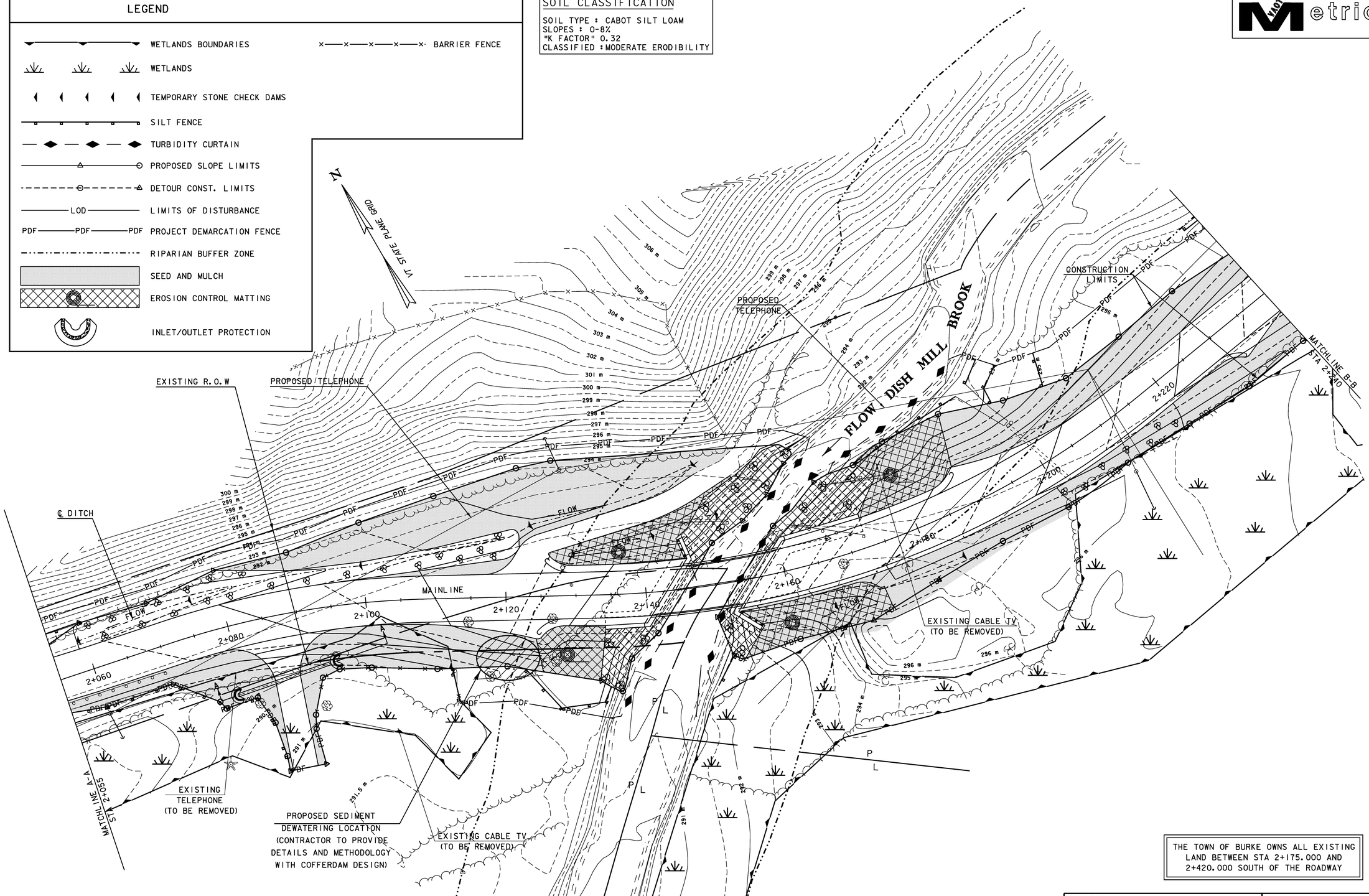
LEGEND

- WETLANDS BOUNDARIES
- BARRIER FENCE
- WETLANDS
- TEMPORARY STONE CHECK DAMS
- SILT FENCE
- TURBIDITY CURTAIN
- PROPOSED SLOPE LIMITS
- DETOUR CONST. LIMITS
- LOD — LIMITS OF DISTURBANCE
- PDF — PDF — PDF PROJECT DEMARCATION FENCE
- RIPARIAN BUFFER ZONE
- SEED AND MULCH
- EROSION CONTROL MATTING
- INLET/OUTLET PROTECTION

SOIL CLASSIFICATION

SOIL TYPE : CABOT SILT LOAM
SLOPES : 0-8%
"K FACTOR" 0.32
CLASSIFIED : MODERATE ERODIBILITY

VAOT Metric



THE TOWN OF BURKE OWNS ALL EXISTING LAND BETWEEN STA 2+175.000 AND 2+420.000 SOUTH OF THE ROADWAY

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

0 10 20

SCALE 1:250

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn
IPARM FILE NAME: se043ero2.i — PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS — SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: M.FESSEL
EROSION AND SEDIMENT CONTROL PLAN — SHEET: 52 OF 81

SOIL CLASSIFICATION

SOIL TYPE : CABOT SILT LOAM
SLOPES : 0-8%
"K FACTOR" 0.32
CLASSIFIED : MODERATE ERODIBILITY

LEGEND

- WETLANDS BOUNDARIES
- WETLANDS
- TEMPORARY STONE CHECK DAMS
- SILT FENCE
- TURBIDITY CURTAIN
- PROPOSED SLOPE LIMITS
- DETOUR CONST. LIMITS
- PDF PDF PDF PROJECT DEMARCATION FENCE
- RIPARIAN BUFFER ZONE
- SEED AND MULCH
- EROSION CONTROL MATTING

VAOT Metric

N
VT STATE PLANE GRID

PROPOSED SEDIMENT DEWATERING LOCATION (CONTRACTOR TO PROVIDE DETAILS AND METHODOLOGY WITH COFFERDAM DESIGN)

FLOW DISH MILL BROOK

CONSTRUCTION LIMITS

EXISTING R.O.W

MAINLINE

2+260 2+280 2+300 2+320 2+340 2+360 2+380 2+400

4+040 4+000

FLOW

DETOUR

TEMPORARY CONSTRUCTION LIMITS

TEMPORARY DIVERSION CHANNEL
STONE FILL TYPE I

MATCHLINE B-B
STA 2+240

MATCHLINE C-C
STA 2+420

296 m 298 m 299 m 300 m 301 m 302 m 303 m 304 m 305 m 306 m 307 m 308 m

PDF

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

0 10 20
SCALE 1:250

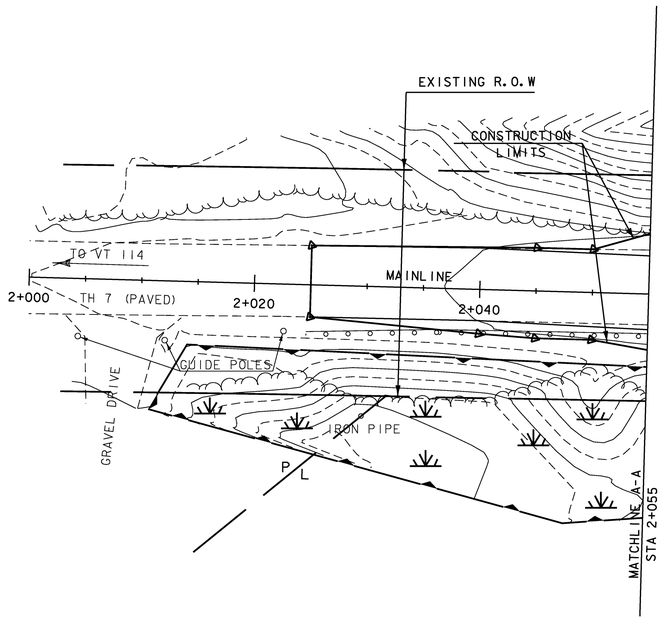
DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn	
IPARM FILE NAME: se043ero3.i	PLOT DATE: 14-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
EROSION AND SEDIMENT CONTROL PLAN	SHEET: 53 OF 81

Metric





FINAL CONDITIONS SITE PLAN

0 10 20

SCALE 1:250

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043finconi.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
FINAL CONDITIONS SITE PLAN	SHEET: 54 OF 81

LEGEND

RIPARIAN BUFFER ZONE

VAOT Metric

BM 1 CHISELED SQUARE IN CURB ELEVATION = 293.9419

N

VT STATE PLANE GRID

BARBED WIRE FENCE

EXISTING R.O.W

℄ DITCH

TH 7 (PAVED)

MAINLINE

MATCHLINE A-A STA 2+055

MATCHLINE B-B STA 2+240

WOODS DRIVE

FLOW DISH MILL BROOK

DITCH

CONSTRUCTION LIMITS

GUIDE POLE

M. STUMP

COMB 18-3

2+220

2+200

460 ACCGMP

GRAVEL

GUY 3-5

GUY

PT 6

M. ELM

2+180

2+160

2+140

2+120

2+100

2+080

2+060

M. APPLE

S. APPLE

M. MAPLE

L. SPRUCE

EXISTING BLASTED LEDGE F.H.L.

ELECTRIC 67 / 18-2

P L

306 m 305 m 304 m 303 m 302 m 301 m 300 m 299 m 298 m 297 m 296 m 295 m 294 m 293 m 292 m 291.5 m 291 m

FINAL CONDITIONS BRIDGE 16

0 10 20

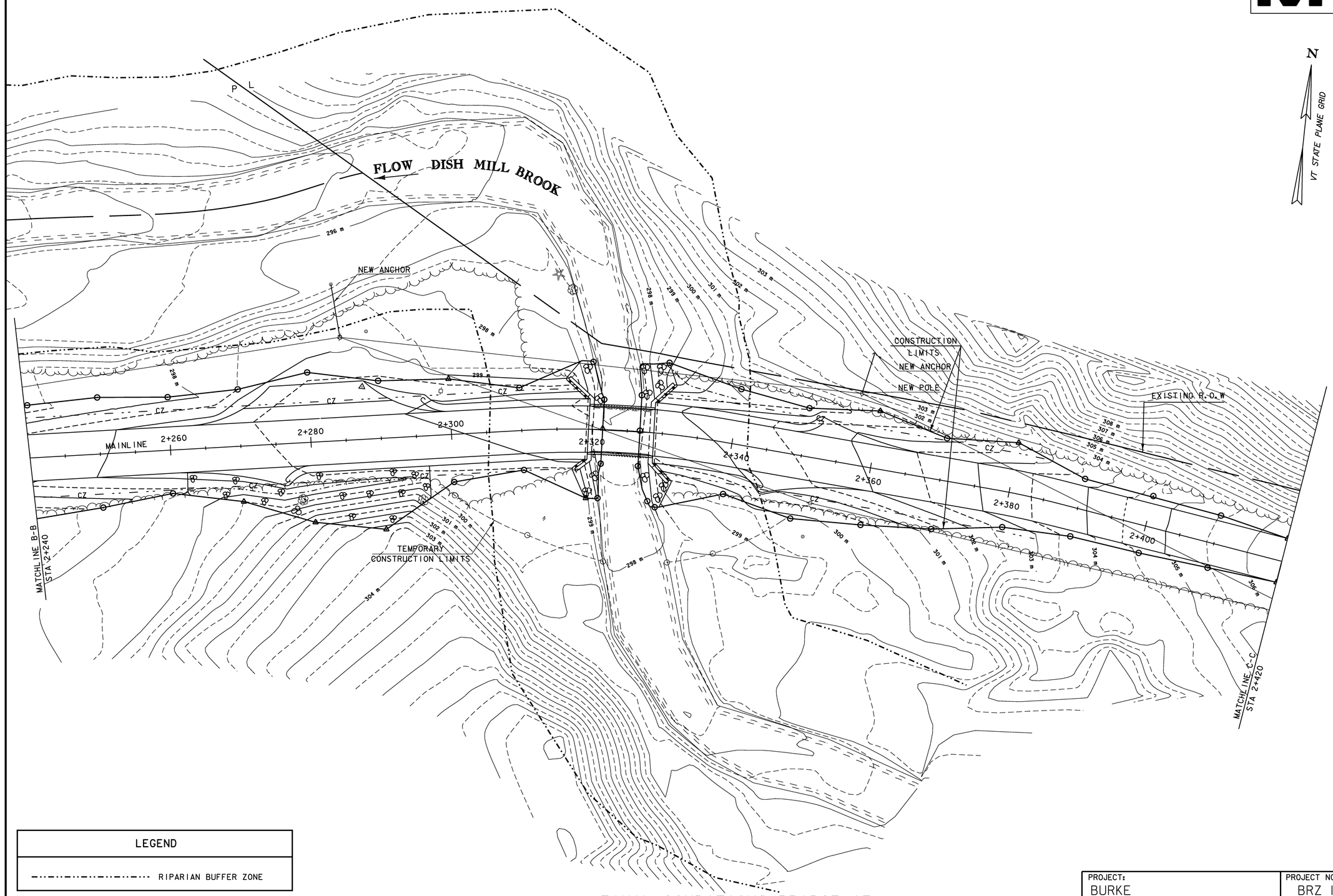
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DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: 87e043/structures/se043bdr.dgn	
IPARM FILE NAME: se043finconz.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
FINAL CONDITIONS BRIDGE 16	SHEET: 55 OF 81

VAOT Metric



LEGEND
····· RIPARIAN BUFFER ZONE

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

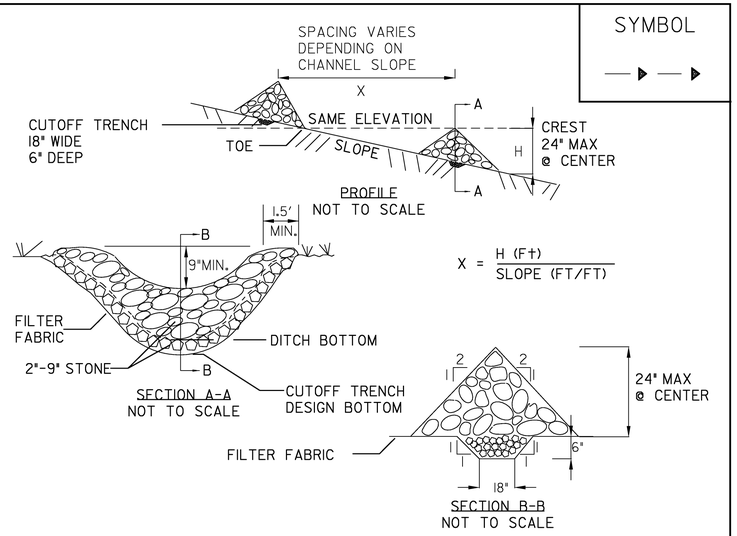
FINAL CONDITIONS BRIDGE 17

0 10 20

SCALE 1:250

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: 87e043/structures/se043bdr ero.dgn	
IPARM FILE NAME: se043fincon3.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 12/95
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: M.FESSEL
FINAL CONDITIONS BRIDGE 17	SHEET: 56 OF 81



SYMBOL

CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. SET SPACING OF CHECK DAMS SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DECORIGINALLY DEVELOPED BY USDA-NRCSVERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

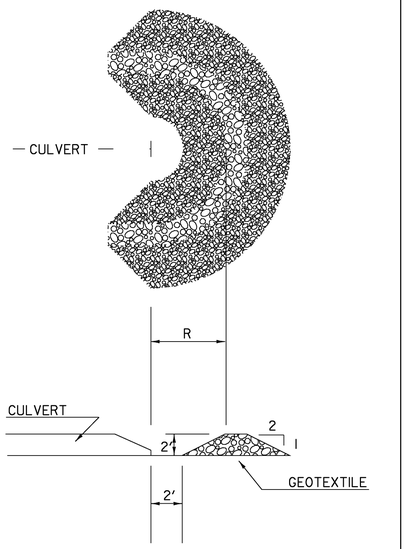
THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.25 TEMPORARY STONE CHECK DAM, TYPE I

REVISIONS	
MARCH 8, 2007	JMF

NOTES:

1. USE 2" TO 3" STONE.
2. PLACE STONE OVER GEOTEXTILE.
3. ONCE THE AREAS UPSTREAM FROM THE CHECK DAM ARE STABILIZED WITH VEGETATION, THE SEDIMENT TRAPPED BEHIND THE DAM SHAL BE DISPOSED OF IN AN APPROVED WASTE AREA.
4. THE CHECK DAM(S) SHALL BE FLATTENED AND GRADED IN A MANNER WHICH PROTECTS THE AREA FROM EROSION AND CHANNEL BLOCKAGE . (GEOTEXTILE MUST BE REMOVED).
5. THE GEOTEXTILE MUST BE DISPOSED OF APPROPRIATELY.
6. THE AREA CONTRIBUTING TO THE CHECK DAM SHALL NOT EXCEED 4 ACRES.

PIPE DIA.	R
18"	7'
24"	7'
30"	8'

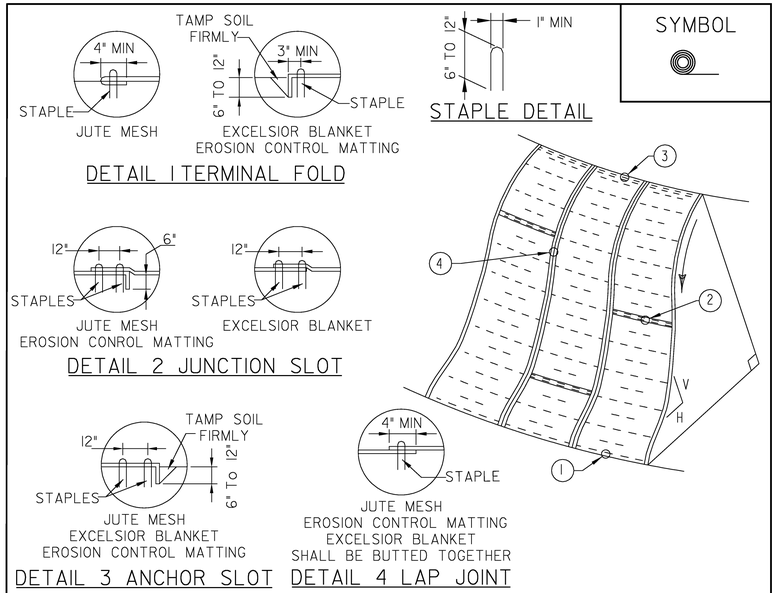


NOT TO SCALE

SYMBOL

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.25 TEMPORARY STONE CHECK DAM, TYPE I

TEMPORARY STONE INLET/OUTLET PROTECTION



SYMBOL

CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.20 TEMPORARY EROSION MATTING OR
653.21 PERMANENT EROSION MATTING

NEW	
APRIL 16, 2007	WHF
REVISIONS	

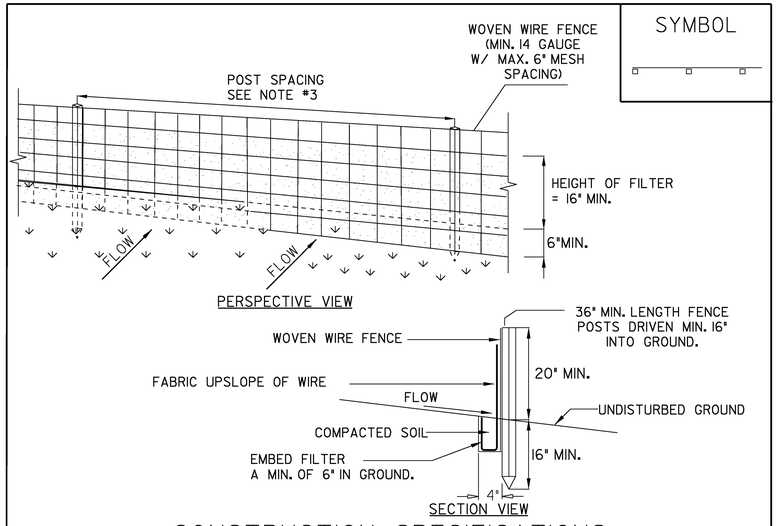
EPSC DETAIL SHEETS

NTS

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: 87e043\Structures\se043erodet.dgn
IPARM FILE NAME: se043epsc1.i
PLOT DATE: 10-MAR-2008
DESIGNED BY: CONST. ENV. SECTION
DRAWN BY: CONST. ENV. SECT.
SQUAD LEADER: C.P. WILLIAMS
CHECKED BY: A. CABRAL
EPSC DETAIL SHEET - 1
SHEET: 57 OF 81

SYMBOL



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.

2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MAXIMUM MESH OPENING. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.

3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4'. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.

4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.

6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.

7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

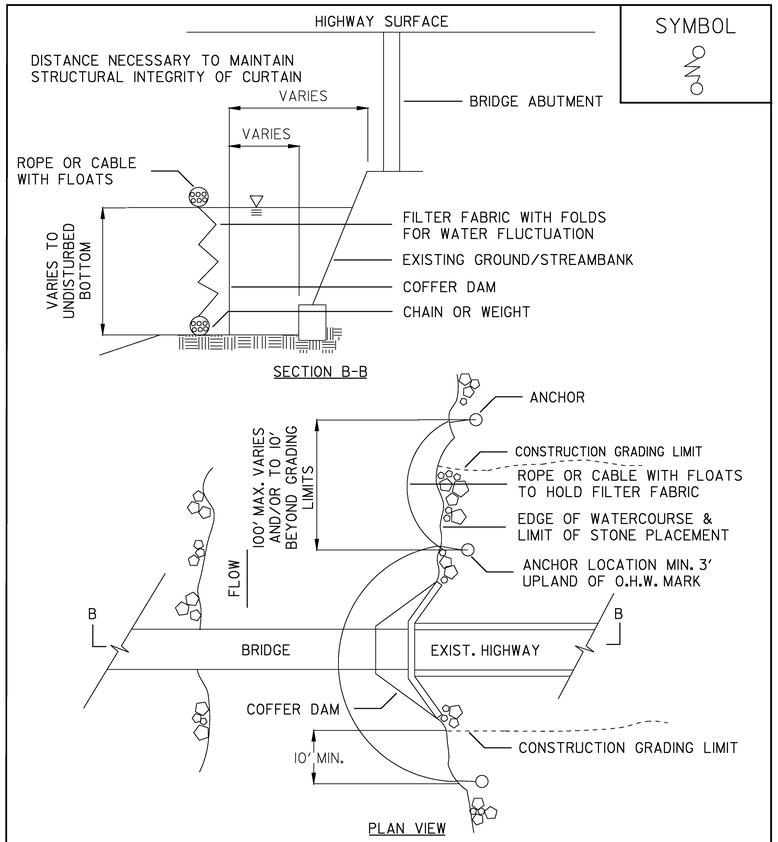
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
~~STANDARD SPECIFICATION 649.5 GEOTEXTILE FOR SILT FENCE OR~~
SPECIAL PROVISION 900.675 (GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED)

SYMBOL



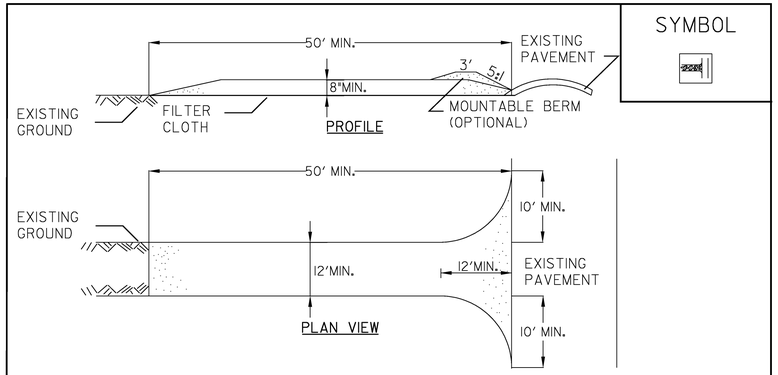
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT AGENCY OF TRANSPORTATION

TURBIDITY CURTAIN

NOTES:

THIS ITEM SHALL BE PAID FOR UNDER ITEM
649.61 GEOTEXTILE FOR FILTER CURTAIN

SYMBOL



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).

3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.

4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.

5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.

6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED CONSTRUCTION ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.35 VEHICLE TRACKING PAD

REVISIONS	
FEBRUARY 9, 2007	WHF
MARCH 8, 2007	JMF

EPSC DETAIL SHEETS

NTS

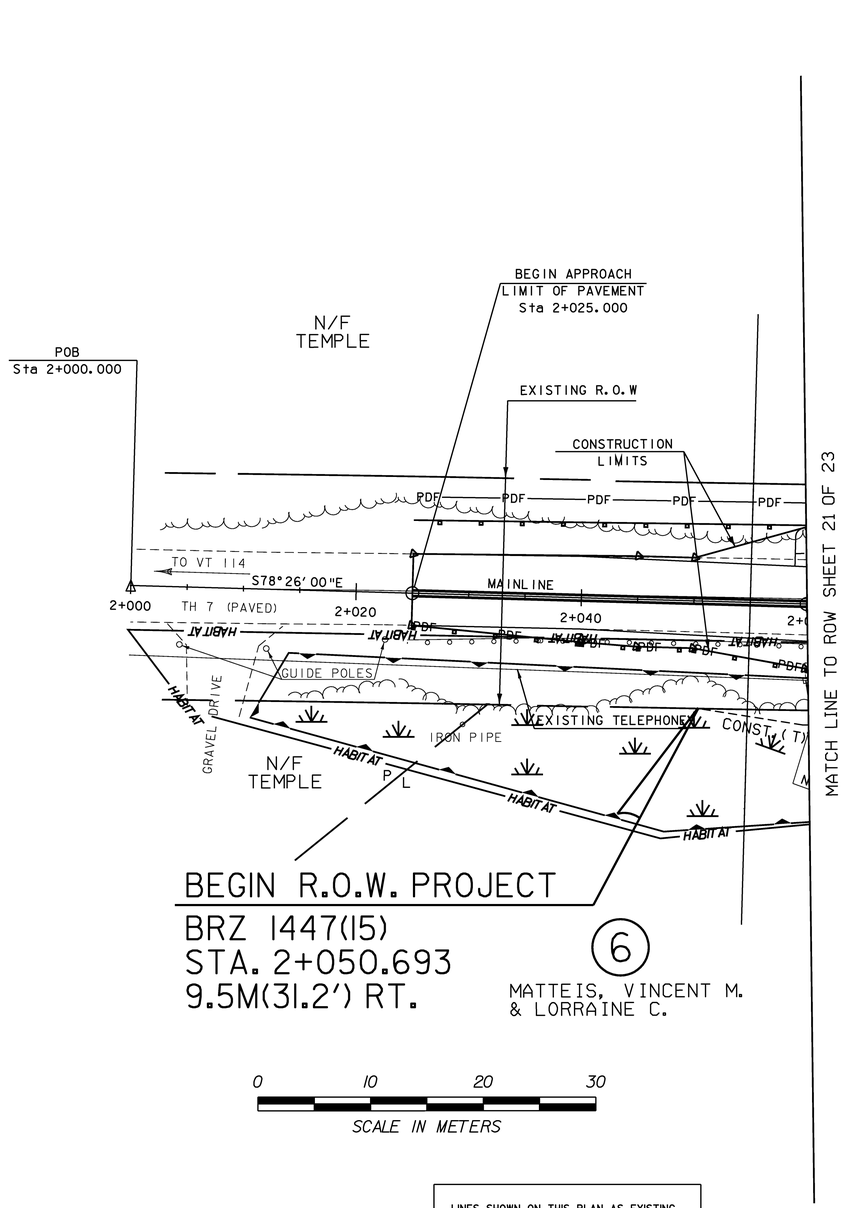
PROJECT:	PROJECT NO.:
BURKE	BRZ 1447(15)

DESIGN FILE NAME: 87e043\Structures\se043erodet.dgn
IPARM FILE NAME: se043epsc2.i — PLOT DATE: 10-MAR-2008
DESIGNED BY: CONST. ENV. SECTION — DRAWN BY: CONST. ENV. SECT.
SQUAD LEADER: C.P. WILLIAMS — CHECKED BY: A. CABRAL
EPSC DETAIL SHEET - 2 — SHEET: 58 OF 81

REMOVE AND RESET GUARD RAIL
STA 2+024.700 - 2+055.000 RT

100 MM YELLOW LINE
STA 2+025.000 - 2+055.000 CENTER LINE

ANCHOR FOR STEEL BEAM RAIL
STA 2+031.00 RT



BEGIN R.O.W. PROJECT
BRZ 1447(15)
STA. 2+050.693
9.5M(31.2') RT.

6
MATTEIS, VINCENT M.
& LORRAINE C.

0 10 20 30
SCALE IN METERS

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF BURKE'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 SECTION 1111, V.S.A.

FOR EROSION CONTROL DETAILS SEE SHEETS 13-16 OF 23

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

FOR R.O.W. USE ONLY

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: str4/87e043/se043bdr.dgn
IPARM FILE NAME: /str4/87e043/se043ldl.l — PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS — SURVEY DATE: 6/96
SQUAD LEADER: C. P. WILLIAMS — DRAWN BY: KMH
R. O. W SHEET 20 OF 23 SHEETS — SHEET 59 OF 81

VTrans Metric

REMOVE AND RESET GUARD RAIL
STA 2+055.000 RT - 2+069.700 RT

REMOVAL AND DISPOSAL OF GUARD RAIL
STA 2+137.200 LT - 2+172.600 LT
STA 2+155.900 LT - 2+180.800 LT

100 MM YELLOW LINE
STA 2+055.000 - 2+240.000 CENTER LINE

CONSTRUCT DRIVE W/ PAVED APRON
STA 2+087.000 RT - 3.600 m WIDE
(LOCATION TO BE VERIFIED BY PROPERTY OWNER AND RESIDENT ENGINEER PRIOR TO CONSTRUCTION)

CONSTRUCT ACCESS TO WOODS DRIVE
STA 2+124.000 LT

2 DECIDUOUS TREES (MALUS DOMESTICA)
STA 2+100.000 - 2+135.00 RT
(LOCATION TO BE OUTSIDE RIGHT-OF-WAY & VERIFIED BY PROPERTY OWNER AND RESIDENT ENGINEER)

HD STEEL BEAM GUARD RAIL, GALVANIZED
STA 2+125.700 LT - 2+145.000 LT
STA 2+124.400 RT - 2+139.400 RT
STA 2+160.600 LT - 2+188.000 LT

HD STEEL BEAM GAURD RAIL, GALVANIZED WITH 2.4m POSTS
STA 2+154.200 RT - 2+233.200 RT

BRIDGE RAILING, HDSB/FASCIA MOUNTED/STEEL TUBING
STA 2+145.000 LT - 2+160.600 LT
STA 2+139.400 RT - 2+154.200 RT

ANCHOR FOR STEEL BEAM RAIL
STA 2+063.700 RT
STA 2+127.700 LT
STA 2+126.400 RT
STA 2+185.800 LT
STA 2+231.200 RT

EXCAVATION OF SURFACES AND PAVEMENTS
STA 2+092.000 LT - 2+159.100 LT

CONSTRUCT SWALE
① STA 2+121.000 - 2+149.000 LT
② STA 2+130.000 - 2+152.000 LT

NEW 450 DIAMETER - OPTION PIPE PCCSP, CAAP OR CPEP
STA 2+079.000 RT - 2+094.000 RT

REMOVING SIGNS
STA 2+071.800 RT
STA 2+151.630 LT
STA 2+157.700 LT
STA 2+168.700 LT
STA 2+172.230 LT

END R.O.W. PROJECT
BRZ 1447(15) STA. 2+152.081
2.0M(6.6') LT.

BM 1 CHISELED SQUARE IN CURB ELEVATION = 293.9419

CURVE #2
Radius: 125.000
Tangent: 42.838
Length: 82.540
External: 7.137
Bank: 0.060

VT STATE PLANE GRID N

MATCH LINE TO ROW SHEET 22 OF 23

MATCH LINE TO ROW SHEET 20 OF 23

BARBED WIRE FENCE

N/F TEMPLE, RALPH R. & SHIRLEY M.

PROPOSED TELEPHONE

EXISTING R.O.W

STONE FILL TYPE I

END APPROACH BEGIN PROJECT Sta 2+060.000

PI #1 Sta 2+090.000 BK= Sta 2+089.722 AHD Δ = 17°-04'00" RT

POE Sta 0+025.000 = ML Sta 2+087.000 Δ = 90°00'00"

POB Sta 0+000.000

END BRIDGE #16 STA 2+156.400 FG=295.033

BEGIN BRIDGE #16 STA 2+143.000 FG=294.446

MAINLINE POST Sta 2+142.000 = CHANNEL Sta 3+030.000 Δ = 57°-00'00" LT

POE Sta 3+070.000

PROPOSED TELEPHONE

WOODS DRIVE

NEW POLE

NEW ANCHOR

PC #2 Sta 2+133.886

PT #2 Sta 2+216.425

PI #2 Sta 2+176.724 BK= Sta 2+173.587 AHD Δ = 37°-50' LT

MAINLINE S61°22'00"E 60.305M (198')

2+100 2+120 2+140 2+160 2+180 2+200 2+220

M. APPLE 52.730M (173')

S. APPLE

M. MAPLE (SAVE)

M. APPLE (SAVE)

SR. (T)

SR. (P) #16

CHANNEL (P)

CHANNEL LINE

CONST. (T)

LANDSCAPE (T)

POB Sta 3+000.000

2+144.587 7.54M (24.7') RT.

2+091.527 7.54M (24.7') RT.

PT #1 Sta 2+108.478

PC #1 Sta 2+087.244

CULV. (T) (TYP) 6m

EXIST. TEL P# INSTALL (P) NEW ANCHOR

EXISTING TELEPHONE (TO BE REMOVED)

SPRUCE (SAVE)

PROPOSED SEDIMENT DEWATERING LOCATION (CONTRACTOR TO PROVIDE DETAILS AND METHODOLOGY WITH COFFERDAM DESIGN)

EXISTING CABLE TV (TO BE REMOVED)

MATTESS, VINCENT M. & LORRAINE C.

CURVE #1
Radius: 125.000
Tangent: 18.756
Length: 37.234
External: 1.399
Bank: 0.060

N/F TOWN OF BURKE

STONE FILL TYPE III (TYP)

N/F GREER

FLOW DISH MILL BROOK

EXISTING POWER, TELEPHONE & CABLE TV (TO REMAIN)

CONSTRUCTION LIMITS

M. STUMP

COMB 18-3

GUIDE POLE

DITCH

STONE FILL TYPE I

460 ACCGMP

GUY

GUY 3-S

M. ELM

GRAVEL

EXISTING BLASTED LEDGE PILE

EXISTING POWER (TO REMAIN)

ELECTRIC 67 5/8-2

EXISTING CABLE TV (TO BE REMOVED)

HABITAT

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF BURKE'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 SECTION 1111, V.S.A.

EXISTING BRIDGE 16 DATA
8.7 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE POSTS. 6.4 m CURB TO CURB
CONCRETE ABUTMENTS

FOR R.O.W. USE ONLY
THE TOWN OF BURKE OWNS ALL EXISTING RIGHT-OF-WAY WITHIN STA 2+060.000 AND STA 2+220.000 SOUTH OF THE ROADWAY

0 10 20 30
SCALE IN METERS

FOR EROSION CONTROL DETAILS SEE SHEETS 13-16 OF 23

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT:	PROJECT NO.:
BURKE	BRZ 1447 (15)

DESIGN FILE NAME: str4/87e043/se043bdr.dgn
IPARM FILE NAME: /str4/87e043/se043lq2.I
PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS
SURVEY DATE: 6/96
SQUAD LEADER: C. P. WILLIAMS
DRAWN BY: KMH
R. O. W. SHEET 21 OF 23 SHEETS
SHEET 60 OF 81

MATCH LINE TO ROW SHEET 21 OF 23

REMOVALAND DISPOSAL OF GUARD RAIL
STA 2+312.500 - 2+320.200 LT
STA 2+312.000 - 2+320.000 RT
STA 2+328.000 - 2+335.400 LT
STA 2+328.100 - 2+336.000 RT

HD STEEL BEAM GUARD RAIL, GALVANIZED
STA 2+296.000 - 2+318.600 LT
STA 2+276.200 - 2+318.200 RT
STA 2+329.700 - 2+352.300 LT
STA 2+330.000 - 2+345.400 RT

ANCHOR FOR STEEL BEAM RAIL
STA 2+298.000 LT
STA 2+278.300 RT
STA 2+350.200 LT
STA 2+343.400 RT

CONSTRUCT DRIVE*
STA 2+280.000 LT - W/2000 PAVED APRON

* PAVEMENT FOR DRIVE SHALL BE ONE 40mm LIFT OF TYPE III OR IV PAVEMENT.

100 MM YELLOW LINE
STA 2+240.000 - 2+420.000 CENTER LINE

REMOVING SIGNS
STA 2+262.850 LT
STA 2+265.350 LT
STA 2+317.940 LT
STA 2+317.950 RT
STA 2+329.700 LT
STA 2+329.830 RT

TEMPORARY 600 MM STOP BAR
STA 2+265 RT
STA 2+386.5 LT

TEMPORARY DETECTOR
STA 2+259 RT - 2+268 RT
STA 2+384 LT - 2+393 LT

TEMPORARY TRAFFIC SIGNAL SYSTEM
STA 2+277 RT TO STA 2+375 LT

BRIDGE RAILING, HDSB/FASCIA MOUNTED/STEEL TUBING
P L STA 2+318.600 - 2+329.700 LT
STA 2+318.200 - 2+330.000 RT

N/F TEMPLE

FLOW DISH MILL BROOK

BEGIN BRIDGE #17
Sta 2+319.500
FG=300.403

EXISTING POWER, TELEPHONE & CABLE TV (TO REMAIN)

NEW ANCHOR

END POWER

WOODEN PLATFORM

GUY

Mainline POST Sta 2+318.000=
Channel Sta 4+020.000
Δ= 84°-00'00"LT

COMB 12-15/4/0/67/18-4 W/METER OUTLET AND LARGE TELEPHONE BOX

ABANDONED TRAFFIC SIGNAL ON WOODEN POLE

GRAVEL

PT 5

MAINLINE 2+260 N80°48'00"E 2+280 2+300

M. DEAD FIR

M. YELLOW BIRCH

POE
Sta 4+040.000

PI #3
Sta 2+324.586 BK=
Sta 2+324.461 AHD
Δ= 13°08'00" RT

N/F HORTON, BARNARD S.

EXISTING R.O.W

END BRIDGE #17
Sta 2+328.800
FG=300.687

PROPOSED TELEPHONE & CABLE TV CONSTRUCTION LIMITS

NEW ANCHOR

NEW POLE

PI #4
Sta 2+382.461 BK=
Sta 2+382.455 AHD
Δ= 4°35'00" Right

POE
Sta 2+420.000

N3°00'00"W 4+040

2+320

2+340

2+360

S86°04'00"E

2+380

S81°29'00"E

2+400

TH 7 (PAVED)

TEL 12-15/5

FLOW

S. POST TYP

R = 40'

M. TWIN YELLOW BIRCH

℄ DETOUR

CHANNEL LINE #17

4+000

TEMPORARY CONSTRUCTION LIMITS

CONCRETE FOUNDATION

N/F TOWN OF BURKE

STONE FILL TYPE I

BM 2 CHISELED SQUARE IN CURB ELEVATION = 299.7900

POB
Sta 4+000.000

PC #3
Sta 2+310.000

PT #3
Sta 2+438.650

CURVE #3 DATA
Radius: 125.000
Tangent: 14.389
Length: 28.652
External: 0.825
Bank: 0.060

STONE FILL TYPE III (TYP)

PC #4
Sta 2+377.458

PT #4
Sta 2+387.457

N/F TOWN OF BURKE

END PROJECT
BEGIN APPROACH
Sta 2+385.000

EXISTING TELEPHONE & CABLE TV (TO BE REMOVED)

END APPROACH
LIMIT OF PAVEMENT
Sta 2+420.000

CURVE #4 DATA
Radius: 125.000
Tangent: 5.002
Length: 9.999
External: 0.100
Bank: Varies

EXISTING BRIDGE 17 DATA
8.1 m STEEL BEAM w/ CONCRETE DECK
STEEL BEAM BRIDGE RAILING w/ CONCRETE POSTS
6.5 m CURB TO CURB
CONCRETE ABUTMENTS

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF BURKE'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

FOR EROSION CONTROL DETAILS SEE SHEETS 13-16 OF 23

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 SECTION 1111, V.S.A.

THE TOWN OF BURKE OWNS ALL AFFECTED EXISTING LAND BETWEEN STA 2+150.000 AND 2+420.000 SOUTH OF THE ROADWAY

0 10 20 30
SCALE IN METERS

N
VT STATE PLANE GRID

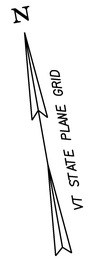
MATCH LINE TO ROW SHEET 23 OF 23

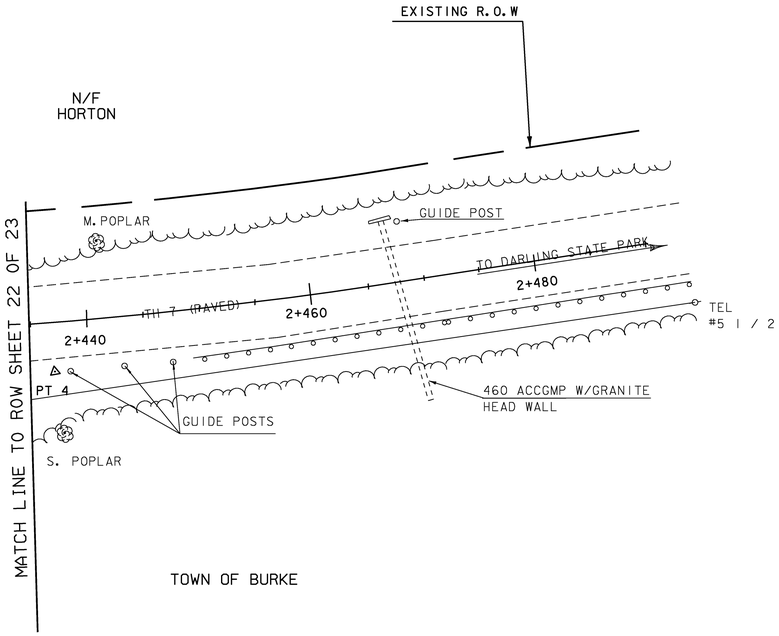
FOR R.O.W. USE ONLY

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: str4/87e043/se043bdr.dgn	
IPARM FILE NAME: /str4/87e043/se043la3.1	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 6/96
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: KMH
R. O. W. SHEET 22 OF 23 SHEETS	SHEET 61 OF 81

MDOT Metric





TOWN OF BURKE

0 10 20 30

SCALE IN METERS

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF BURKE'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

FOR EROSION CONTROL DETAILS SEE SHEETS ~~XX~~ ~~XX~~ ~~XX~~ ~~XX~~ 23 ~~XX~~

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 SECTION 1111, V.S.A.

FOR R.O.W. USE ONLY

THE TOWN OF BURKE OWNS ALL EXISTING LAND BETWEEN STA 2+175.000 AND 2+420.000 SOUTH OF THE ROADWAY

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83 (92)

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: str4/87e043/se043bdr.dgn	
IPARM FILE NAME: /str4/87e043/se043ia4.i	PLOT DATE: 10-MAR-2008
SURVEYED BY: A. MYERS	SURVEY DATE: 6/96
SQUAD LEADER: C. P. WILLIAMS	DRAWN BY: KMH
R. O. W. SHEET 23 OF 23 SHEETS	SHEET 62 OF 81

STATE OF VERMONT
AGENCY OF TRANSPORTATION

RIGHT - OF - WAY DETAIL SHEET

Metric

TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKE	REMAINDER	RIGHT			RECORDING DATA					REMARKS
					AREA ±	AREA ±	TYPE	(T)/(P)	AREA ±	TITLE	DATE	TOWN / CITY	BOOK	PAGE	
6	MATTEIS, VINCENT M. & LORRAINE C.	20,21	2+091.627 RT.	2+152.081 LT.	364 SM					WDOE	6/23/2004	BURKE	96	529-531	3918 S.F.±
			2+050.693 RT.	2+144.587 RT.			CONST.	(T)	469 SM						5048 S.F.±;
															INCLUDES EROSION CONTROL & LOD
			2+079.000 RT.	2+094.000 RT.			CULVERT	(T)							
			2+087.000 RT.				DRIVE	(T)							3.6M(11.8')
			2+100.000 RT.	2+135.000 RT.			LANDSCAPE	(T)							2 APPLE TREES
			2+100.000 RT.	2+120.000 RT.			SLOPE	(T)	43 SM						463 S.F.±; INCLUDES SEDIMENT TRAP
			2+120.000 RT.	2+133.815 RT.			SLOPE	(P)	48 SM						517 S.F.±; INCLUDES SEDIMENT TRAP
			2+133.340 RT.	2+139.351 RT.			CHANNEL	(P)	24 SM						258 S.F.±
7	LYNDONVILLE ELECTRIC COMPANY														UTILITY
8	VERIZON NEW ENGLAND, INC.														UTILITY
9	CHARTER ONE COMMUNICATIONS														UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.		DATE
1	-----	GENERAL, CHANGE THE NUMBERS OF THE PARCELS 2,3,	3/10/2004
		AND 4 TO PARCELS 7,8 AND 9. PER C.O. 9341	
		MADE BY: MR APPROVED: RPD	
2	19,20,21	PARCEL NO. 1 MATTEIS. CHANGE PARCEL NUMBER FROM	3/10/2004
		PARCEL NO. 1 TO PARCEL NO. 6 PER C.O. 9340	
		MADE BY: MR APPROVED: RPD	
		ELECTRONIC FILES TO STRUCTURES 10-31-07	

PLAN LEGEND

- EXISTING RIGHT-OF-WAY
- TAKING WITH ACCESS
- TAKING WITHOUT ACCESS
- CZ — CLEAR ZONE
- P / L — PROPERTY LINE
- TOE OF SLOPE
- TOP OF CUT
- SR (P) — SLOPE RIGHT
- CONST.(T) — CONSTRUCTION RIGHT

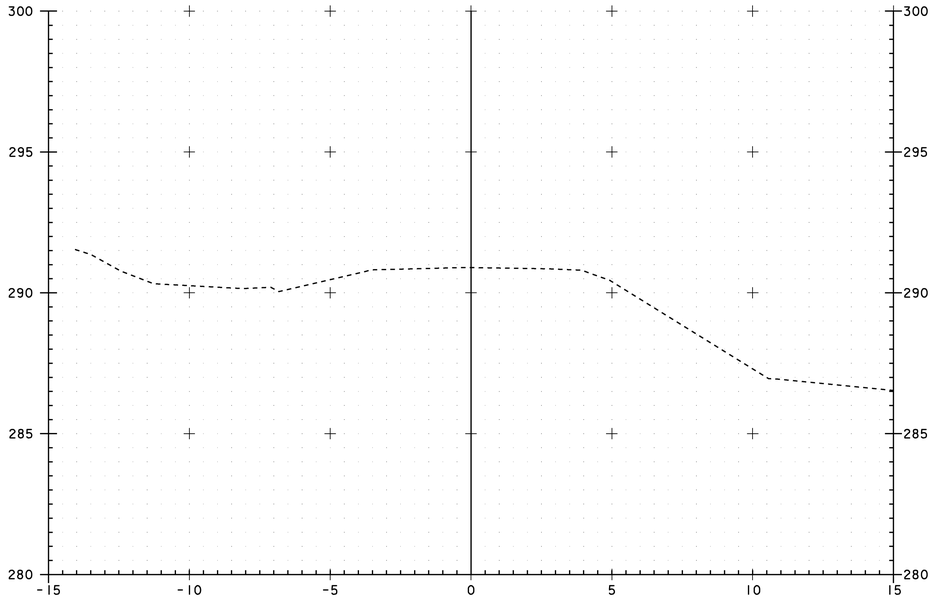
(P) -PERMANENT
(T) -TEMPORARY
DR. -DRAINAGE RIGHT
DIT. -DITCHING RIGHT
CH. -CHANNEL RIGHT
DRIVE -DRIVE RIGHT
CUL. -CULVERT RIGHT
C&T -CLEARING & TRIMMING RIGHT
SR -SLOPE RIGHT
UE -UTILITY EASEMENT

APPROVED: ROGER P. DUMAS DATE: 12-31-03
CHIEF, PLANS & TITLES

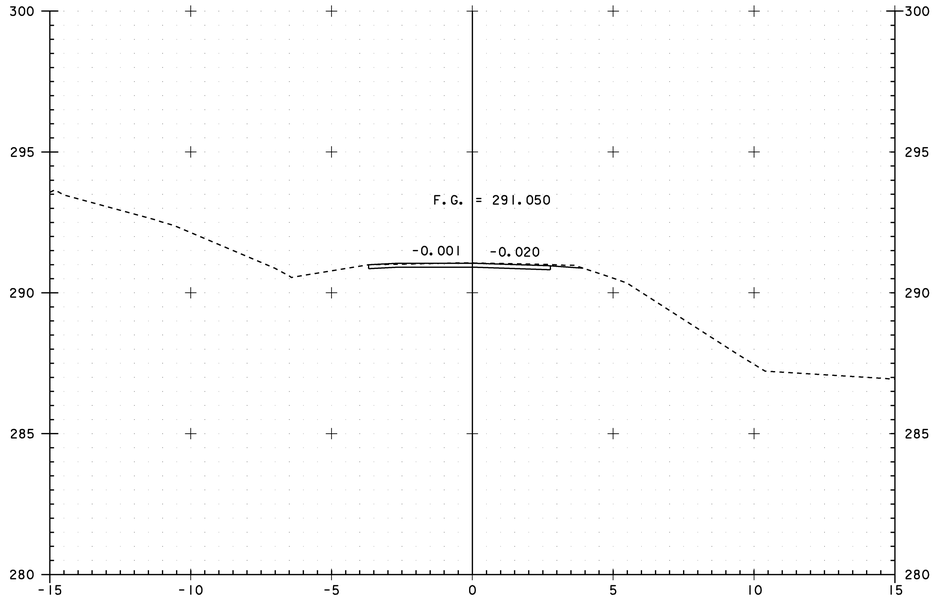
PROJECT NAME: BURKE
PROJECT NUMBER: BRZ 1447(15)

FILE NAME: 87e043d.xls
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: KHM
R.O.W. SHEET 19 of 23

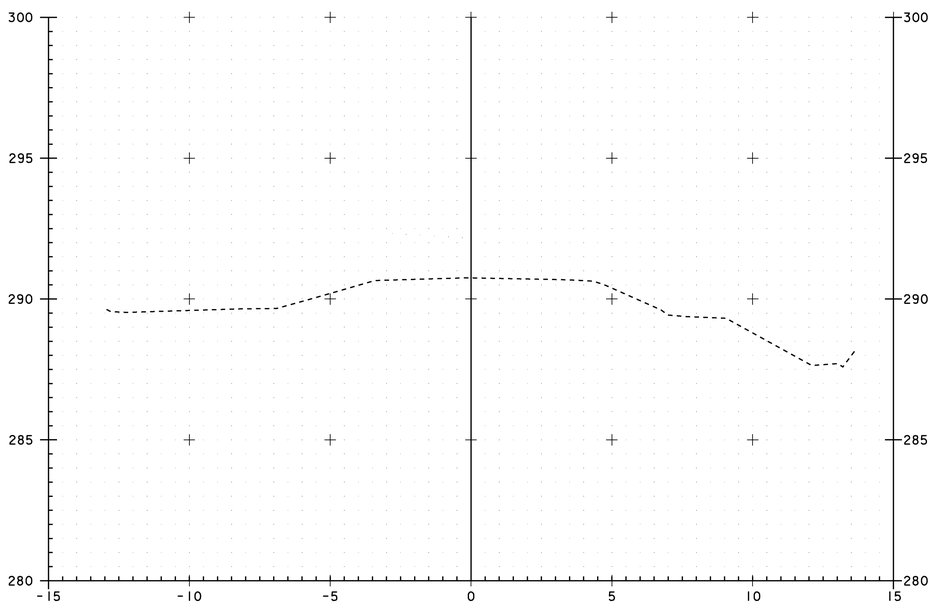
PLOT DATE: 12/31/03
DRAWN BY: GJF
CHECKED BY: JFM
SHEET 63 OF 81



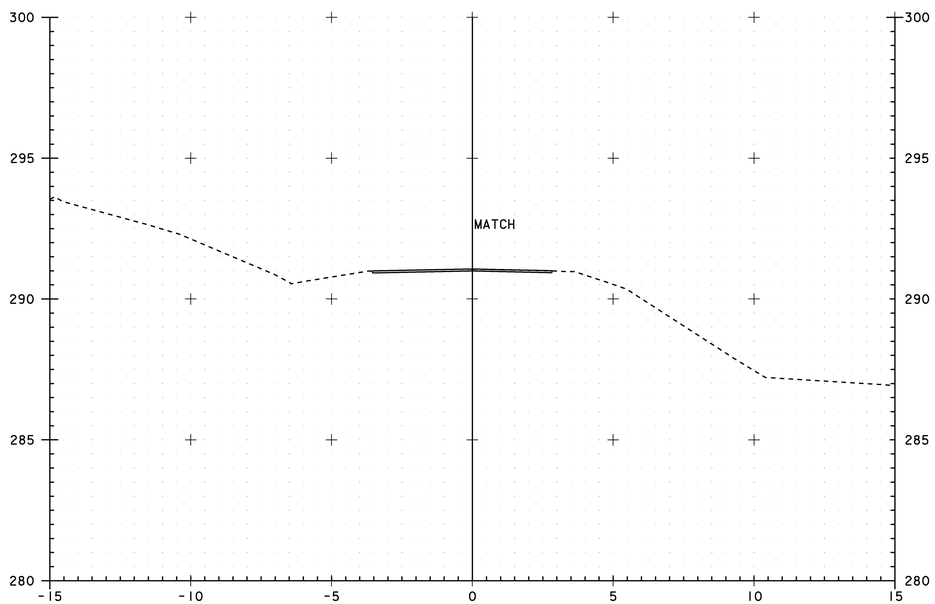
2+020



2+040



2+010

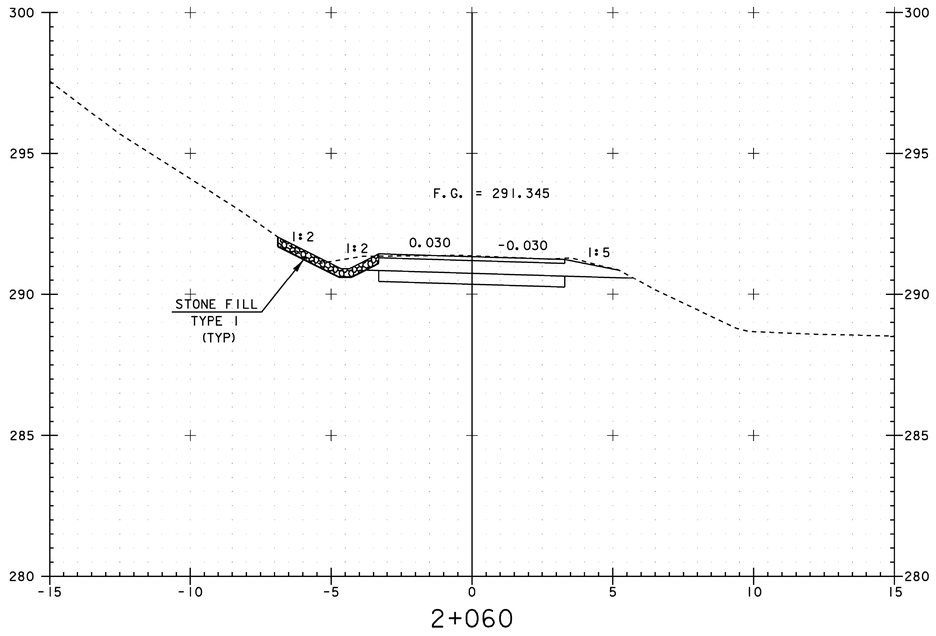


2+030

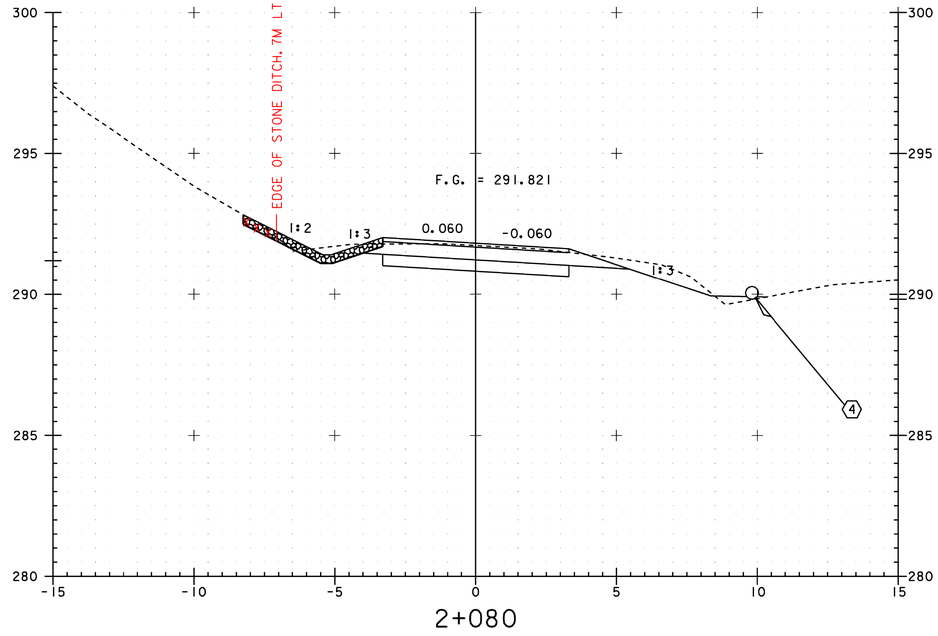
0 2 4 6 8 10

SCALE 1 : 100

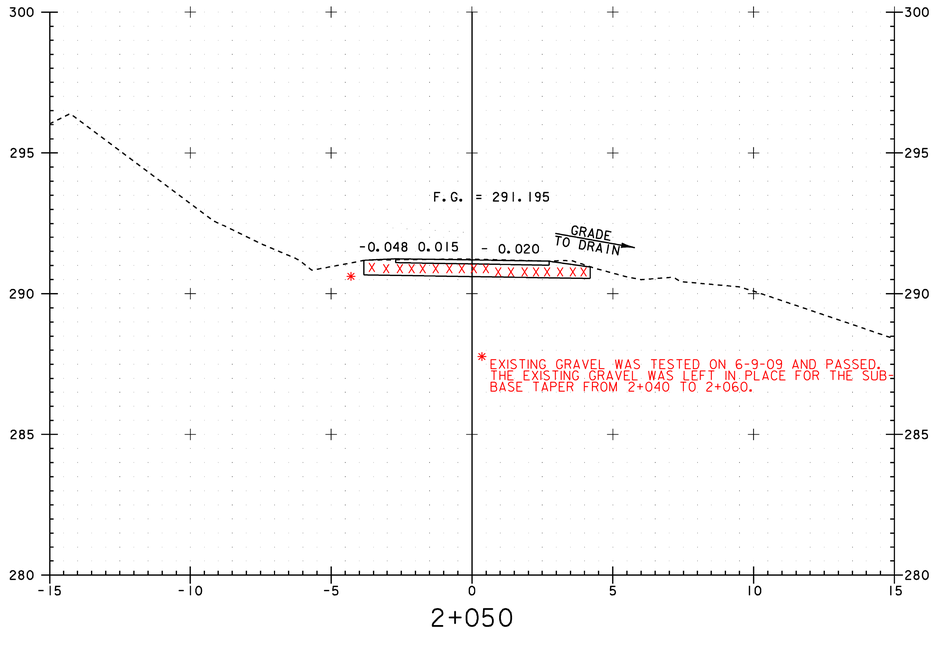
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ml.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+010 THROUGH 2+040	SHEET: 64 OF 81



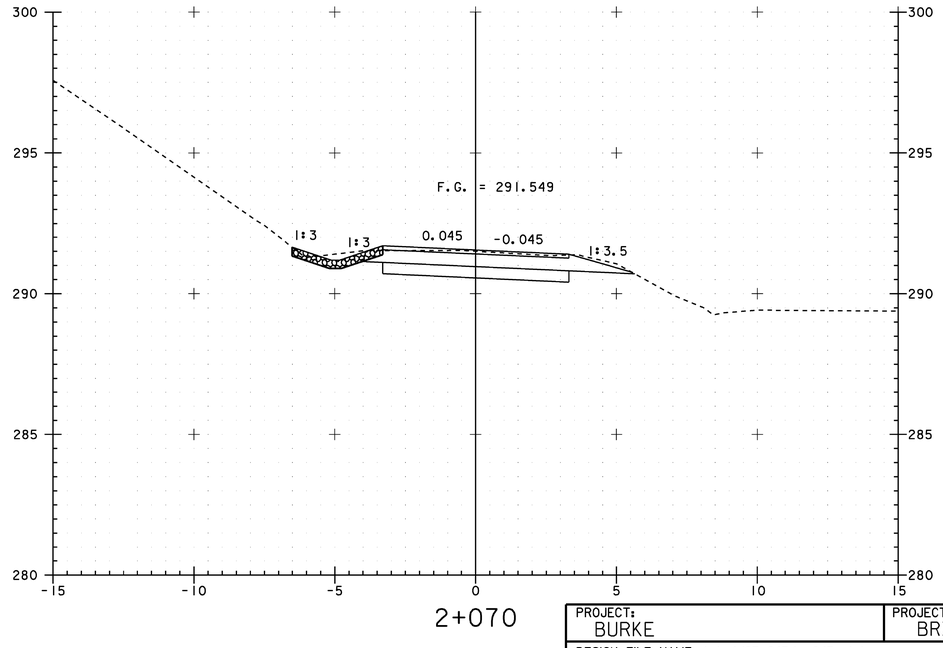
2+060



2+080



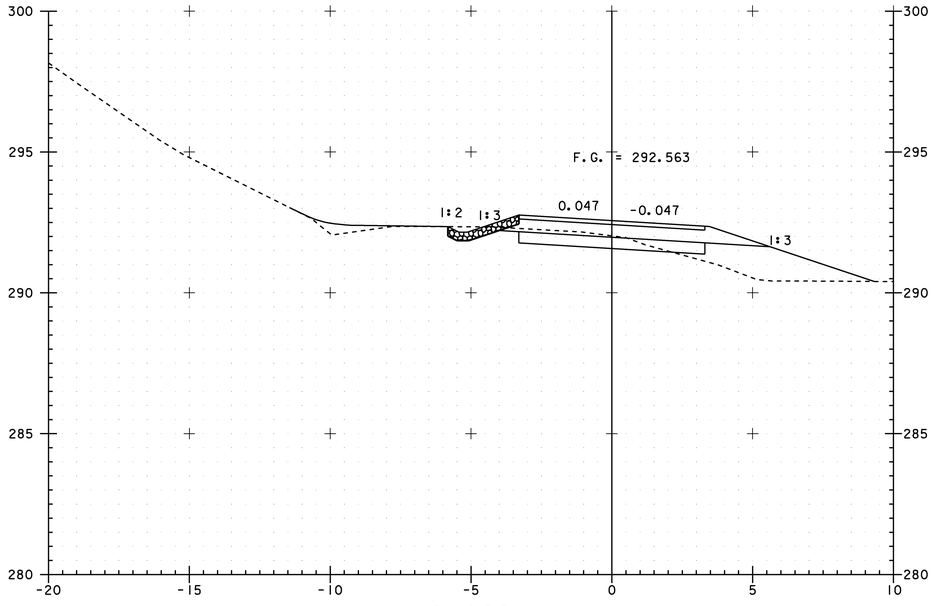
2+050



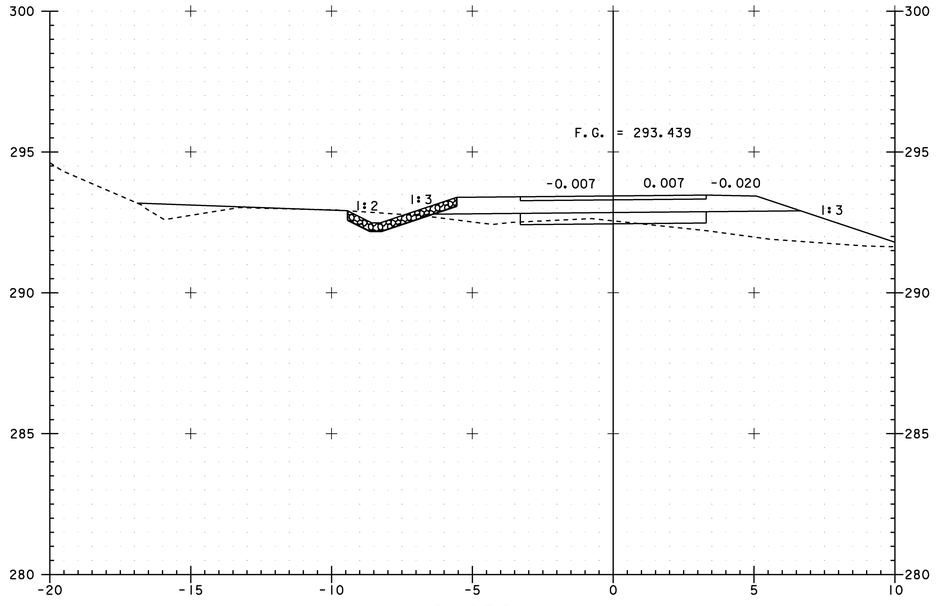
2+070

0 2 4 6 8 10
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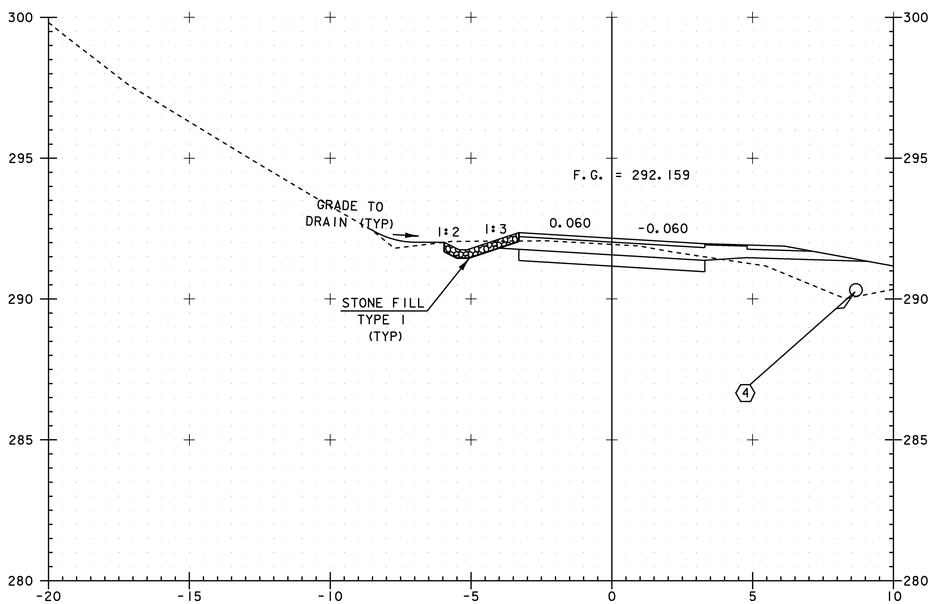
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m2.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+050 THROUGH 2+080	SHEET: 65 OF 81



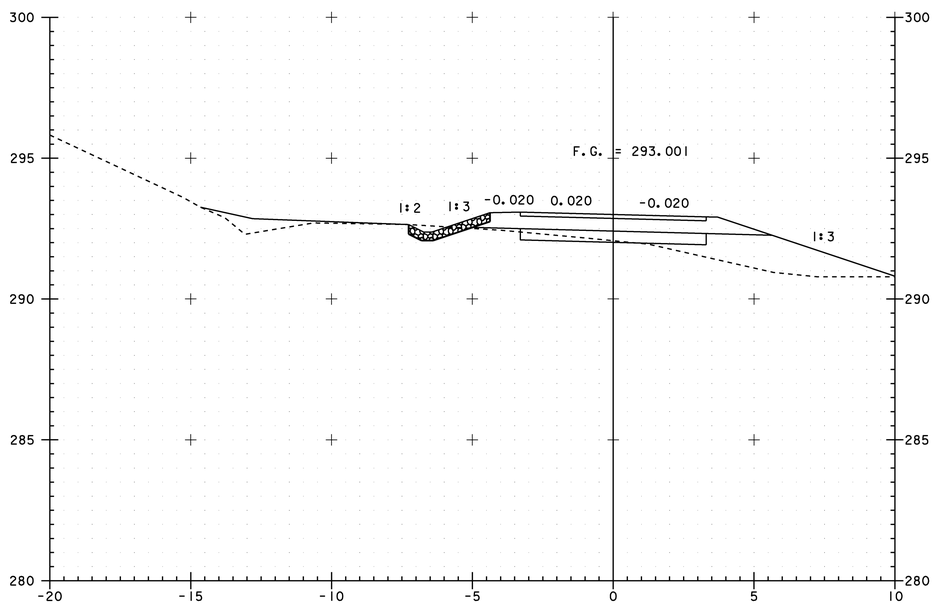
2+100



2+120



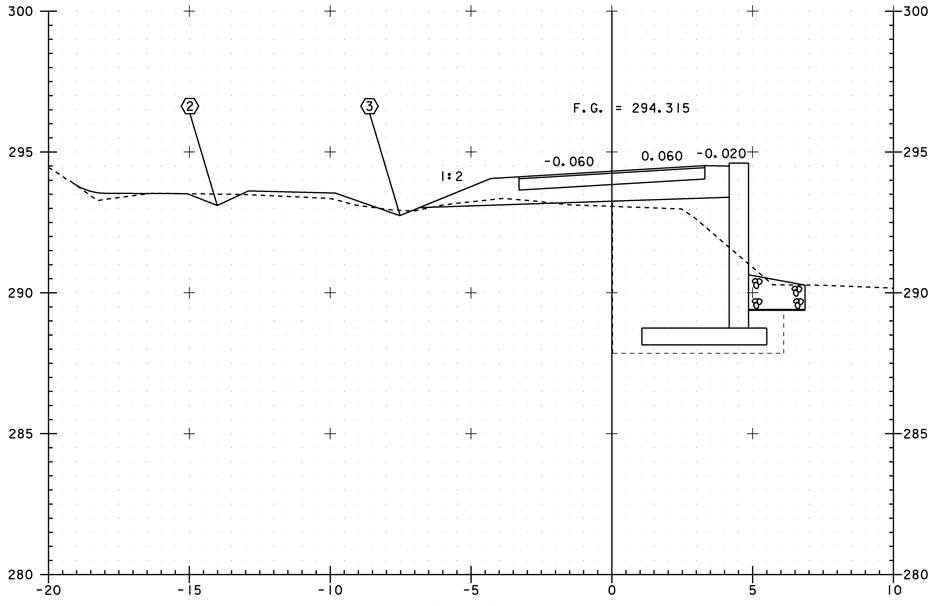
2+090



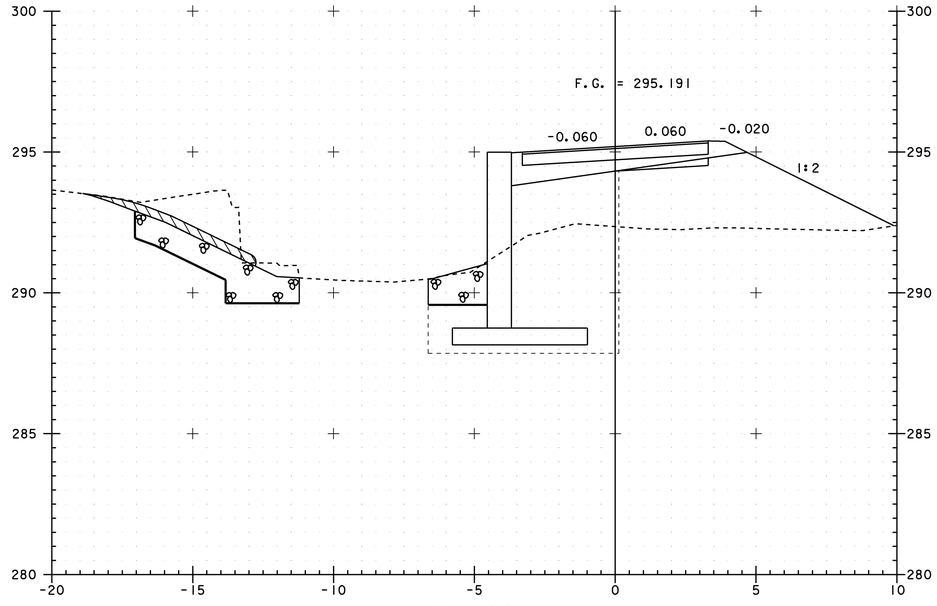
2+110

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m3.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+090 THROUGH 2+120	SHEET: 66 OF 81

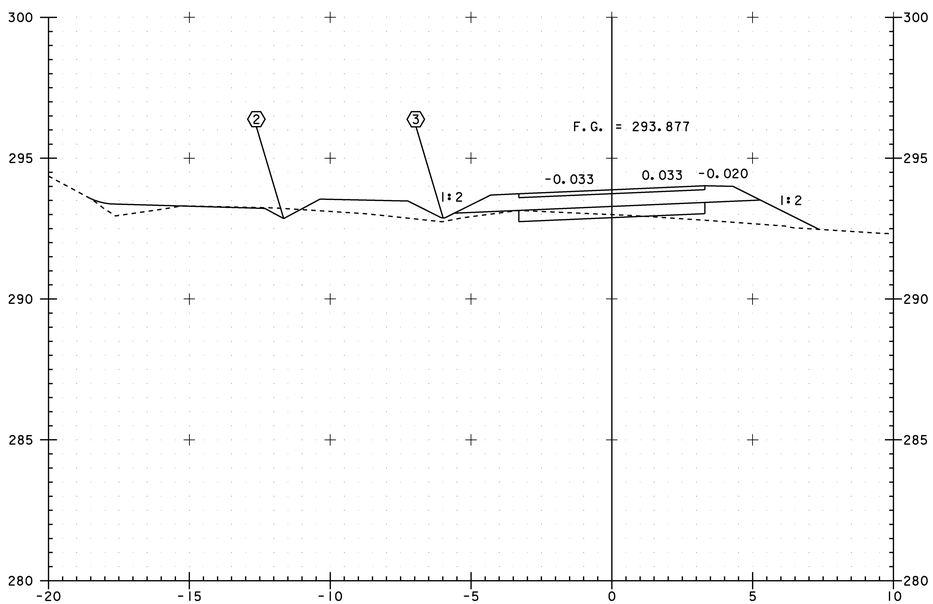
BEGIN BRIDGE 16
STA 2+143.000



2+140

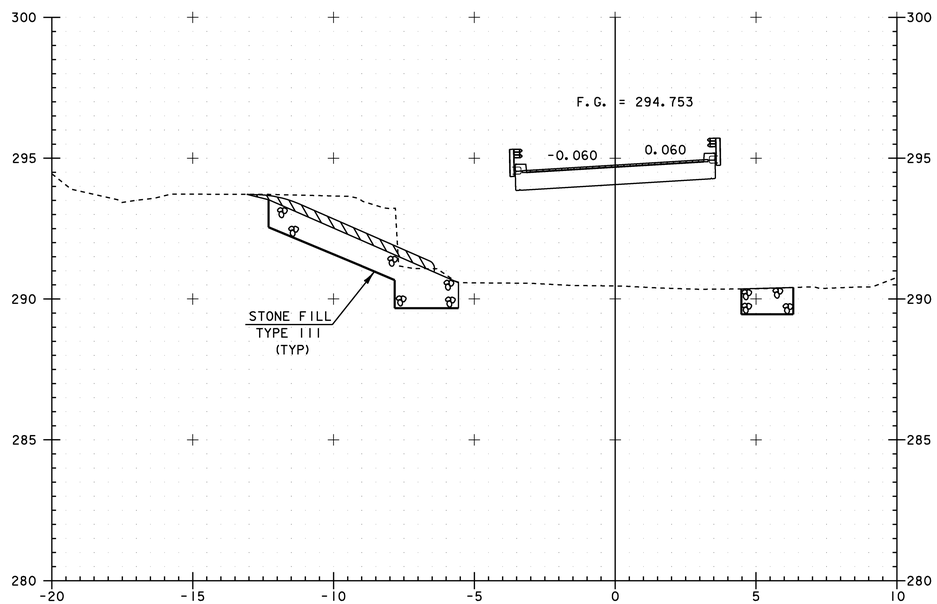


2+160



2+130

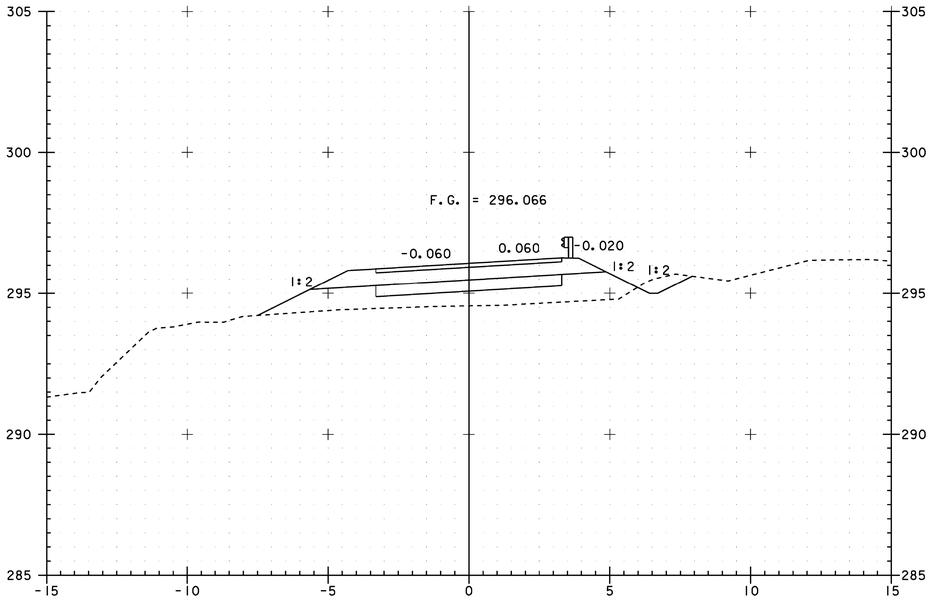
END BRIDGE 16
STA 2+156.400



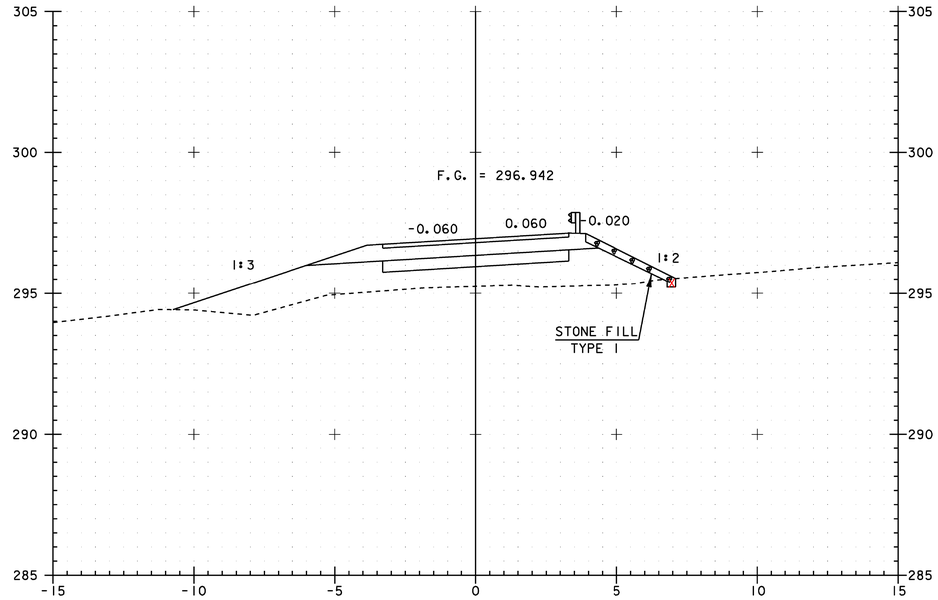
2+150

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m4.i	PLOT DATE: 14-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+130 THROUGH 2+160	SHEET: 67 OF 81

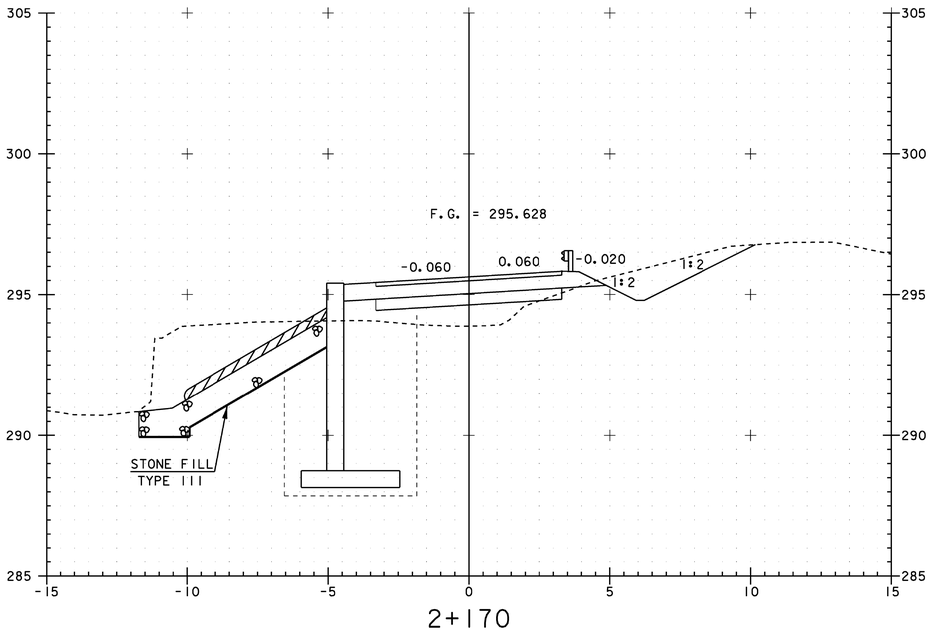
Metric



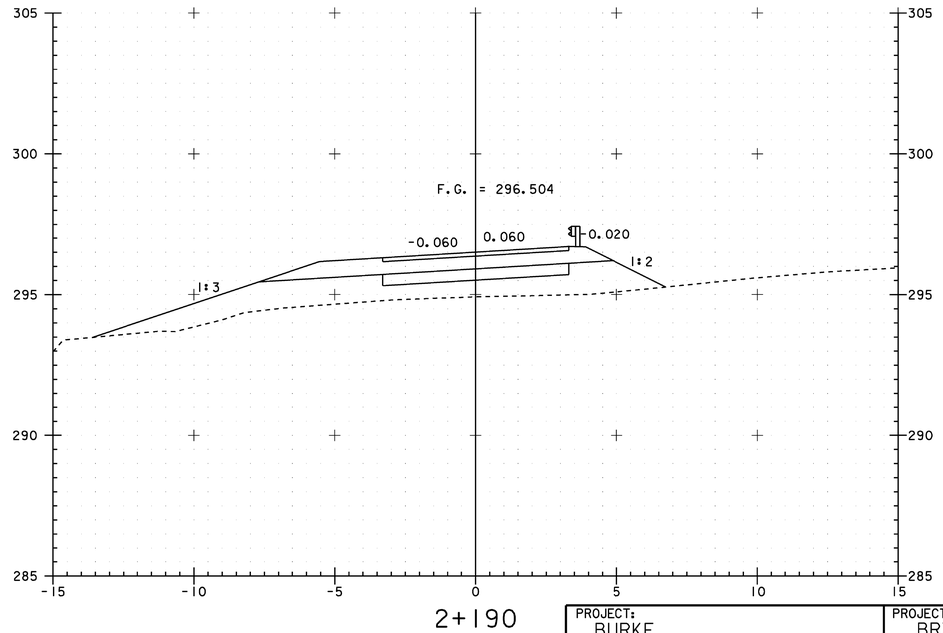
2+180



2+200



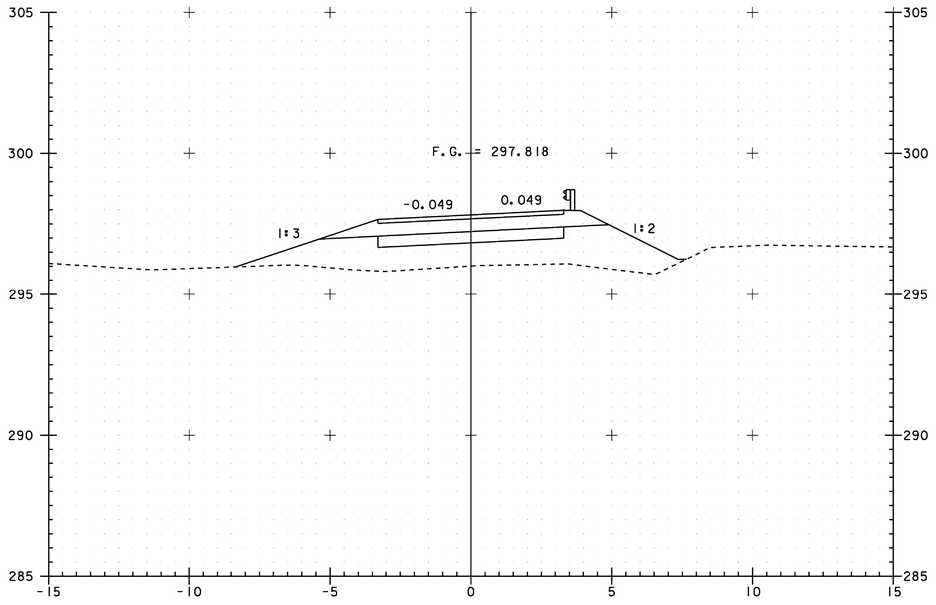
2+170



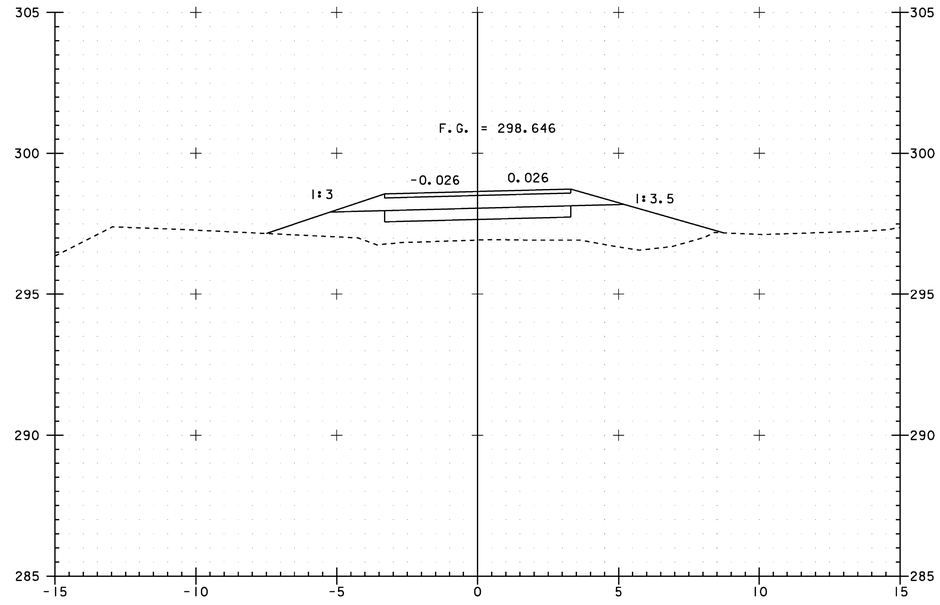
2+190

0 2 4 6 8 10
SCALE 1 : 100

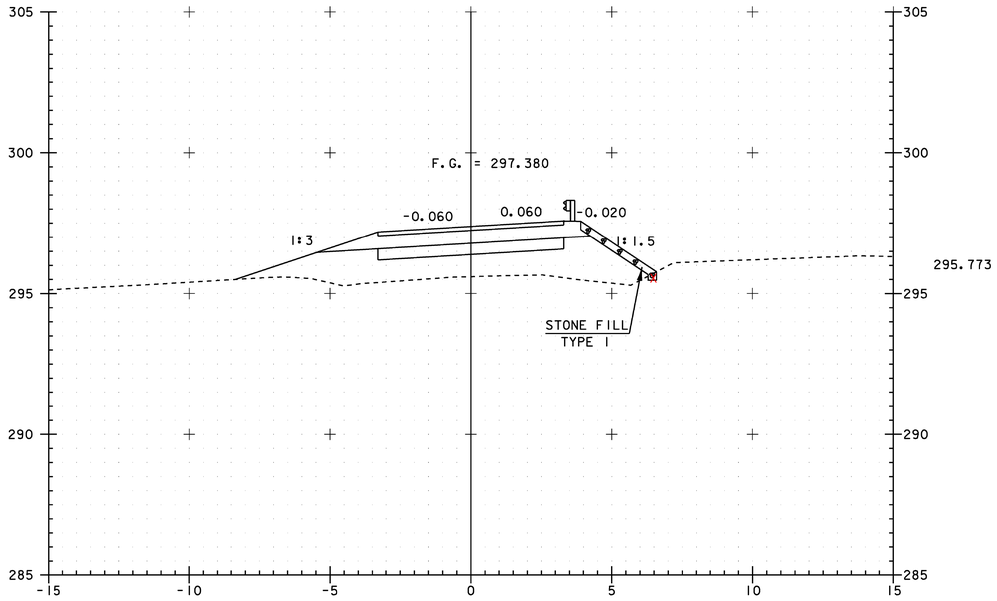
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m5.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+170 THROUGH 2+200	SHEET: 68 OF 81



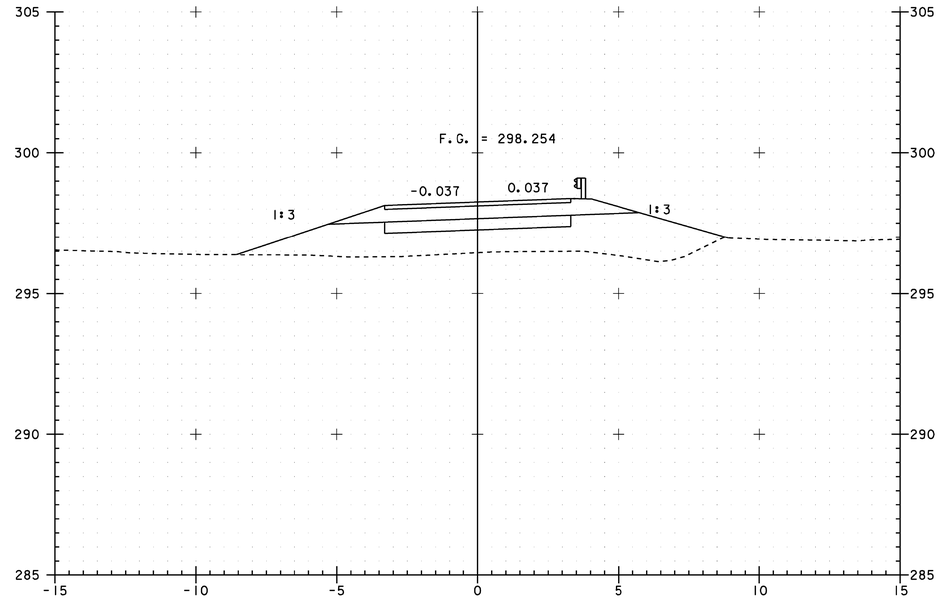
2+220



2+240



2+210

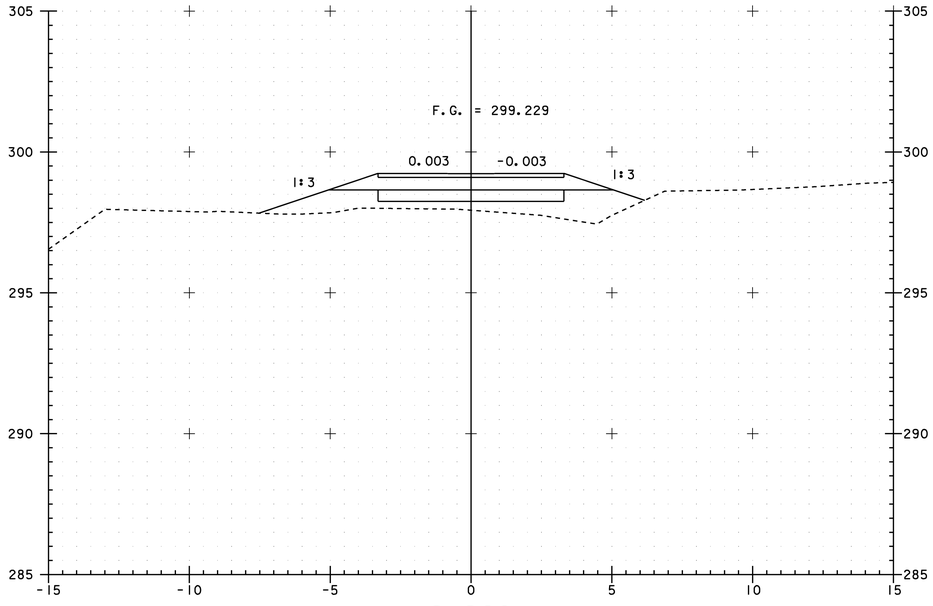


2+230

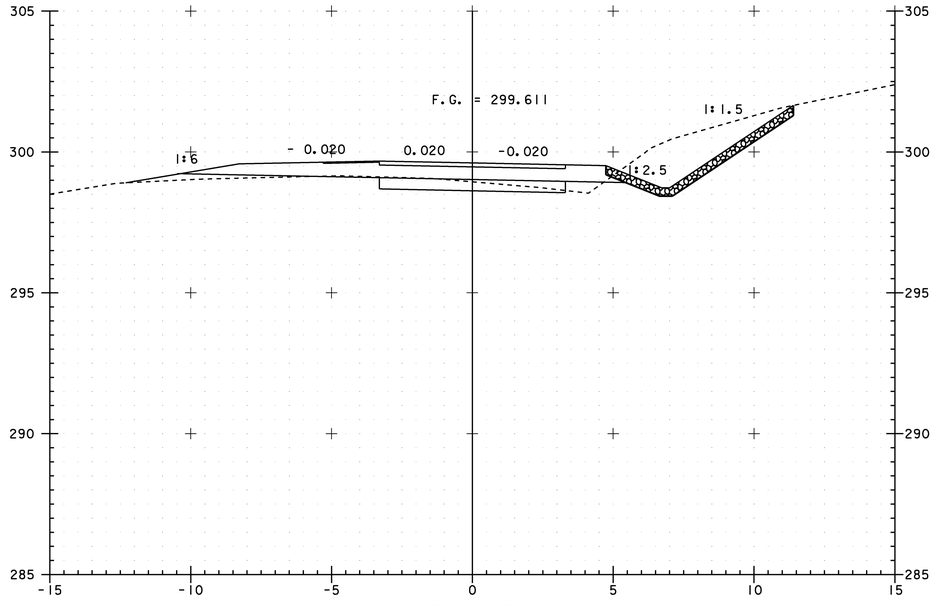
0 2 4 6 8 10

SCALE 1 : 100

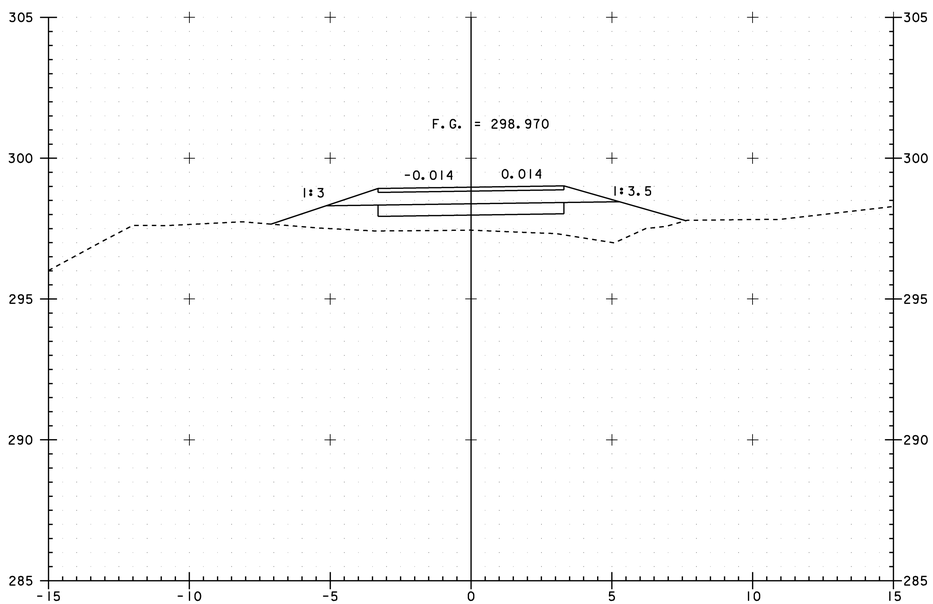
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m6.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+210 THROUGH 2+240	SHEET: 69 OF 81



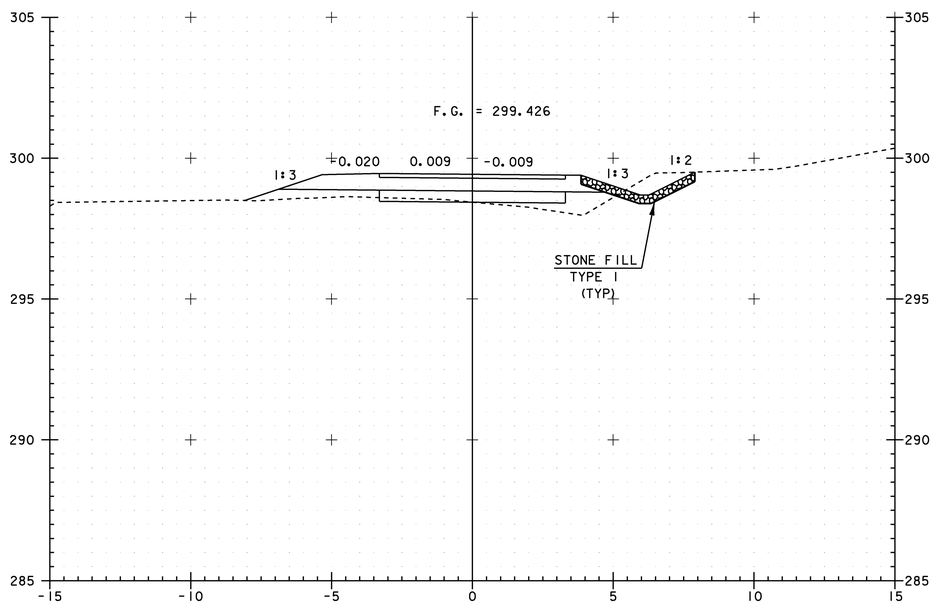
2+260



2+280



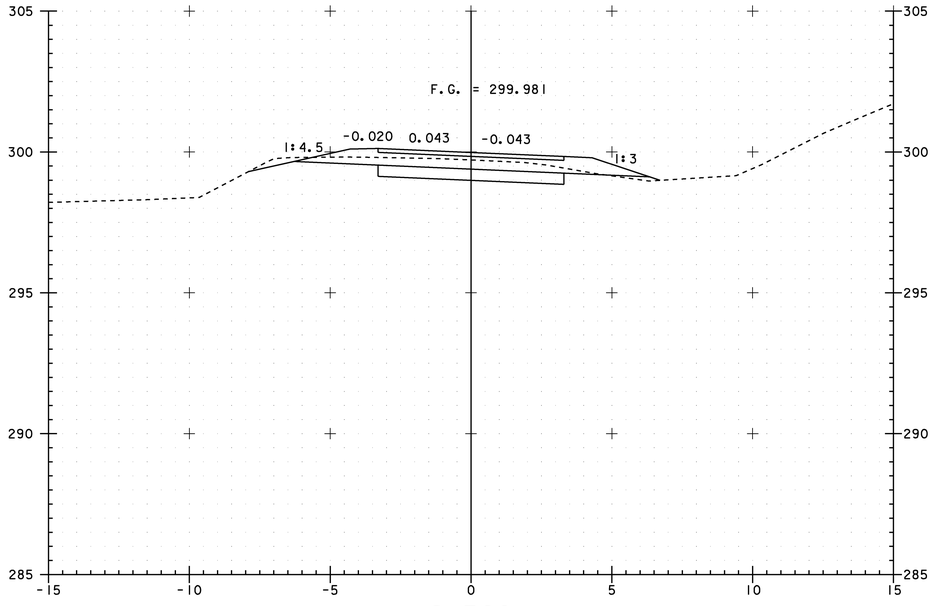
2+250



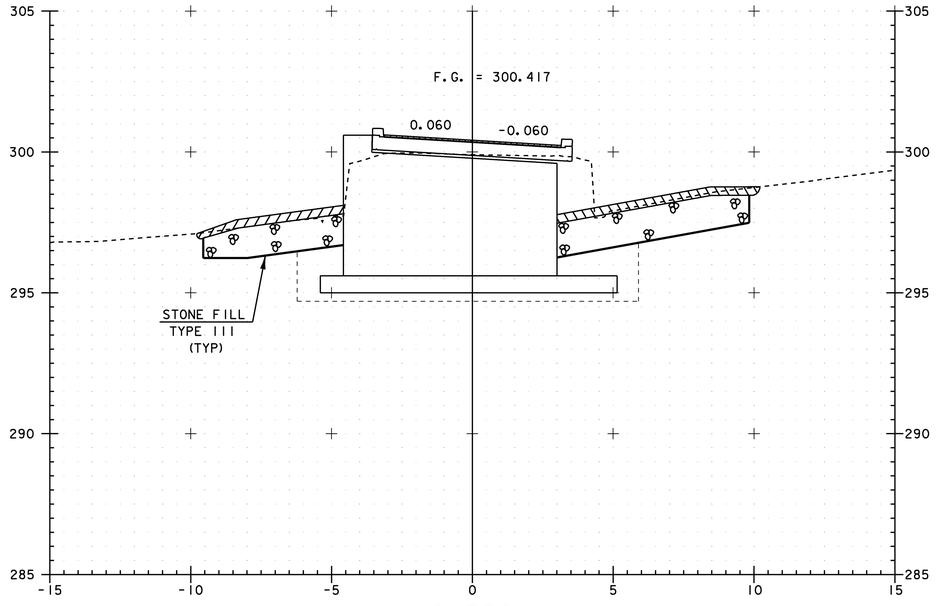
2+270

0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m7.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+250 THROUGH 2+280	SHEET: 70 OF 81

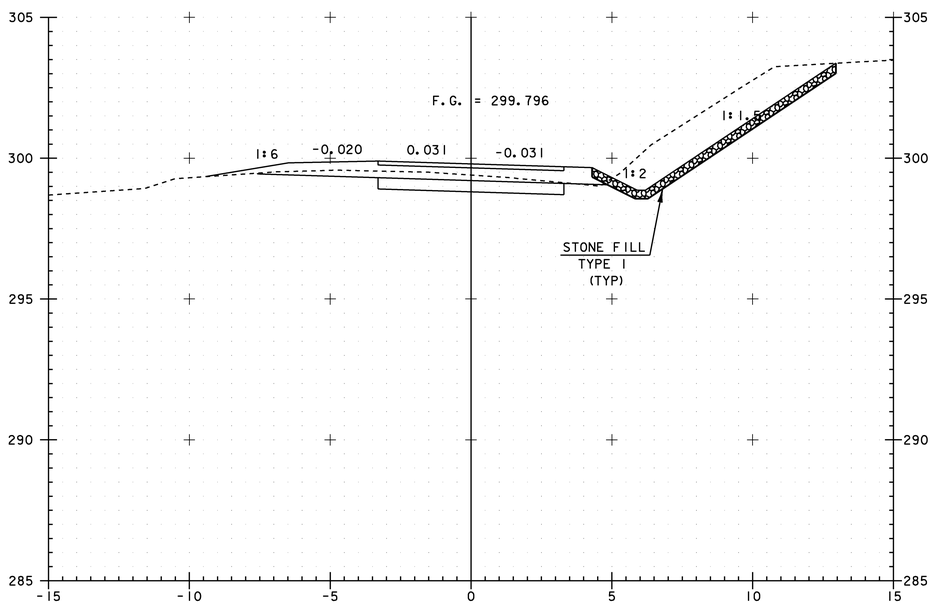


2+300

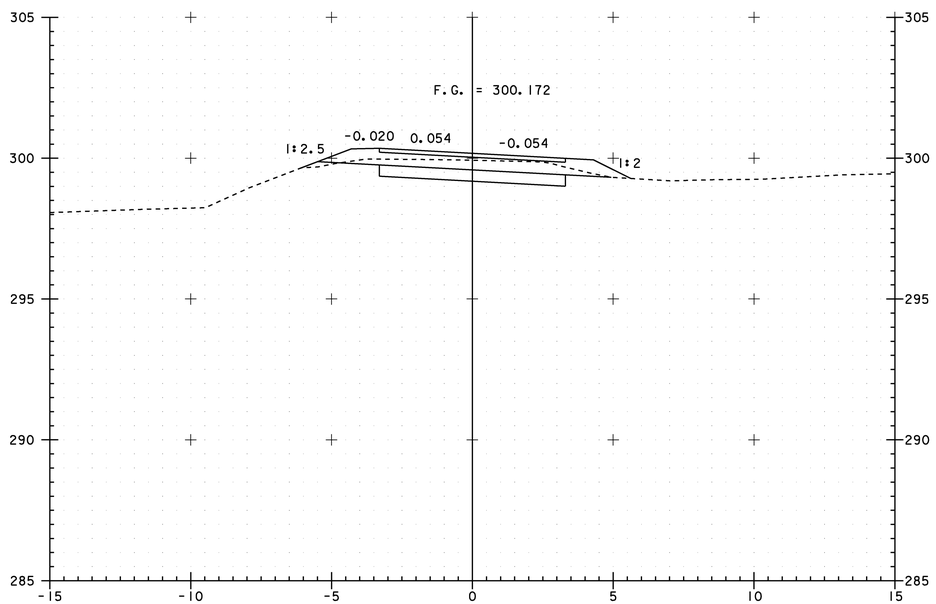


2+320

BEGIN BRIDGE 17
STA 2+319.500



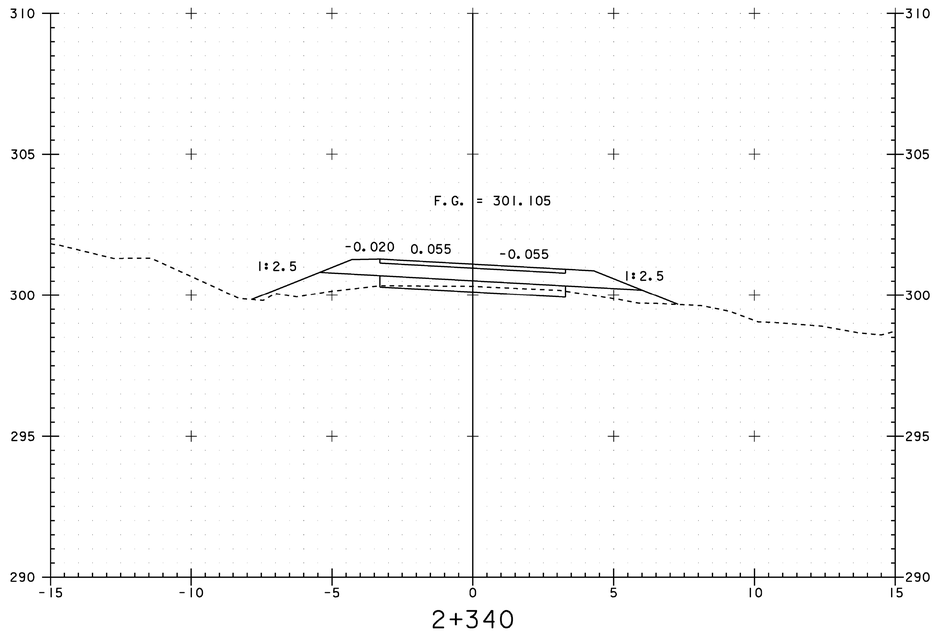
2+290



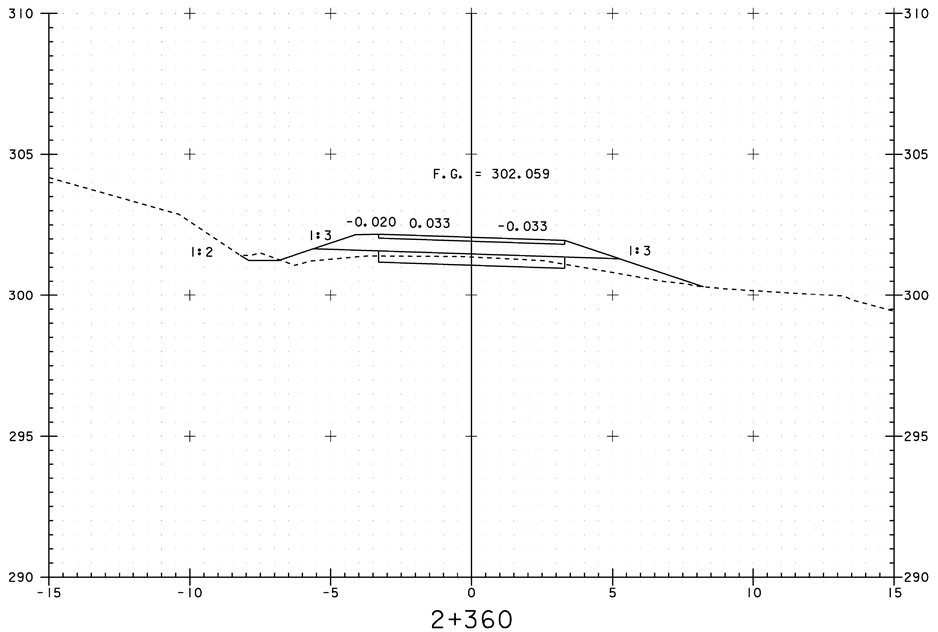
2+310

0 2 4 6 8 10
SCALE 1 : 100

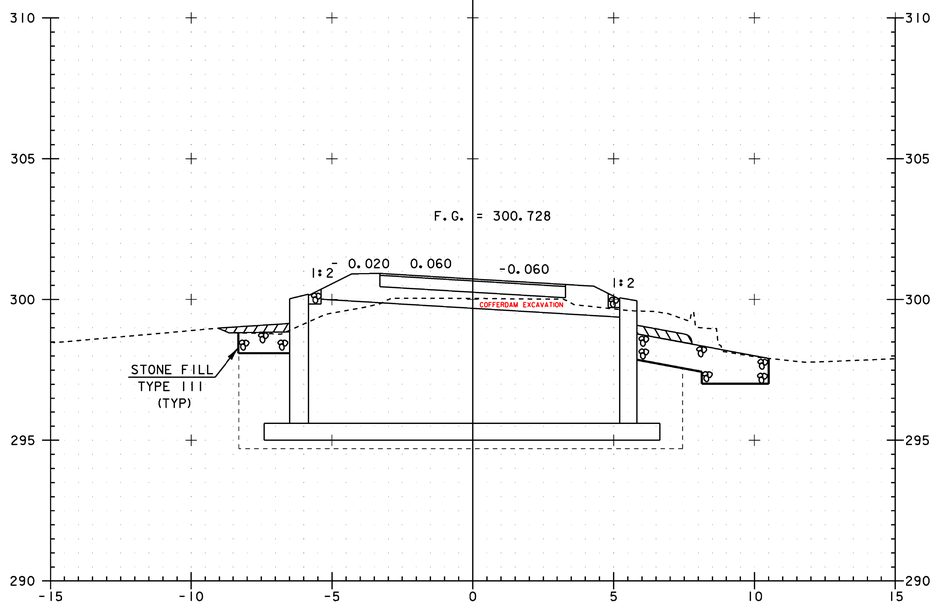
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m8.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+290 THROUGH 2+320	SHEET: 71 OF 81



2+340

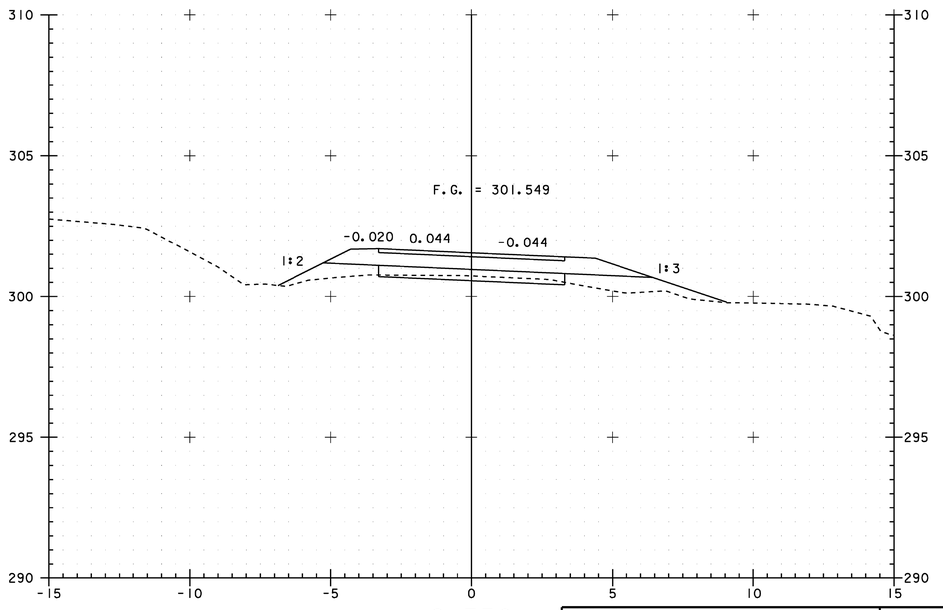


2+360



2+330

END BRIDGE 17
STA 2+328.800

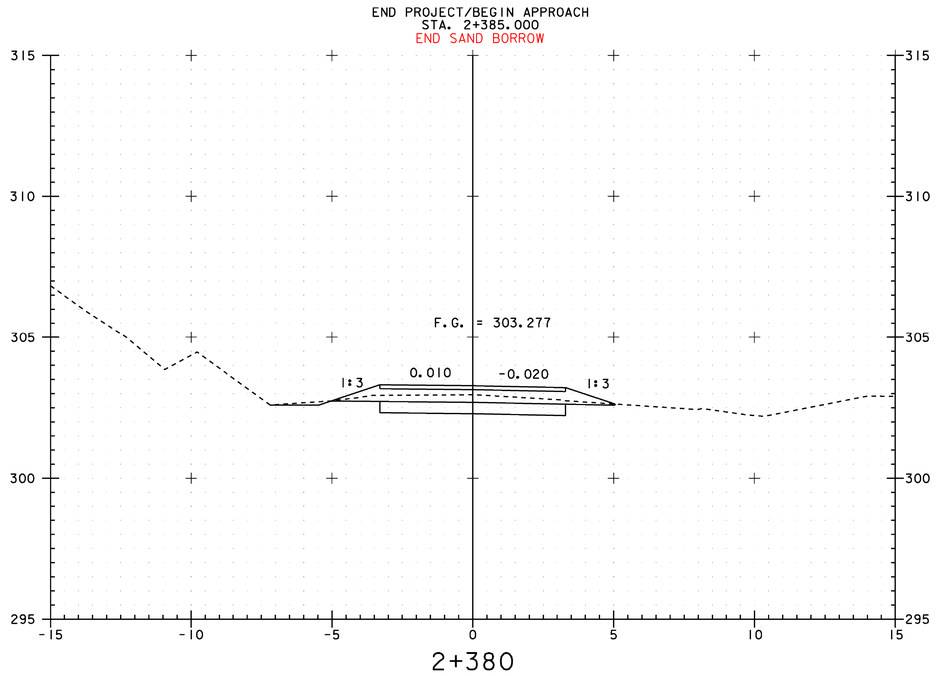


2+350

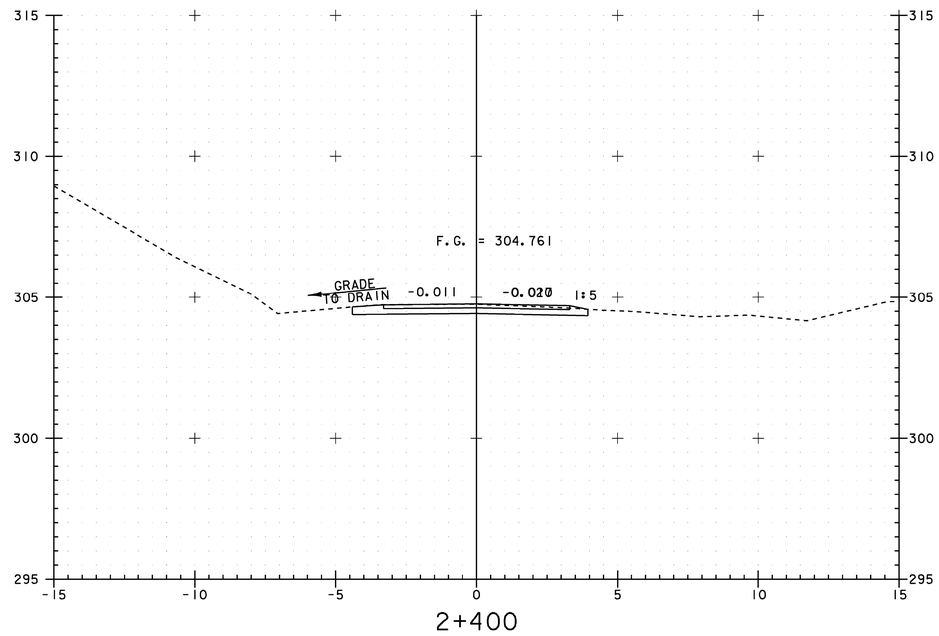
0 2 4 6 8 10

SCALE 1 : 100

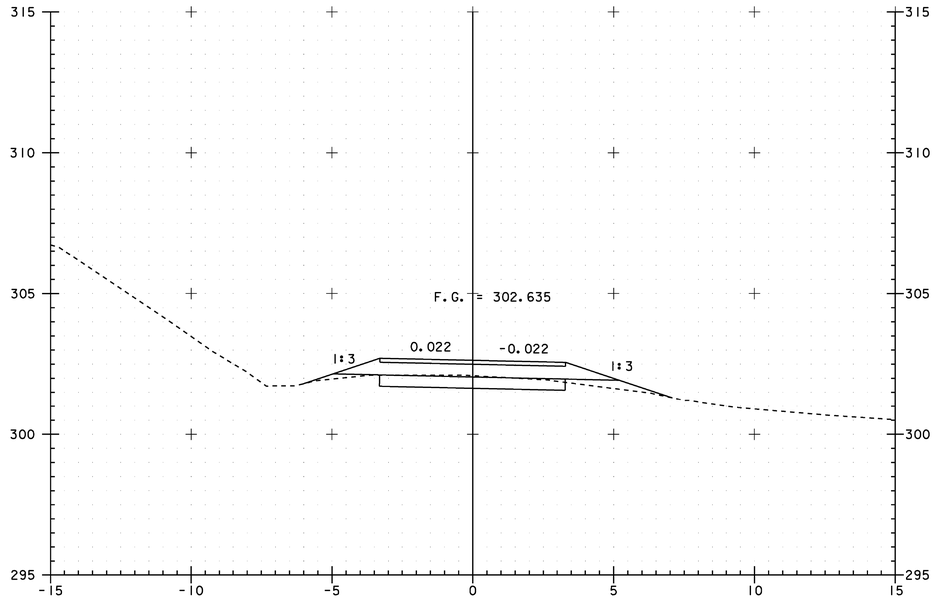
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043m9.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+330 THROUGH 2+360	SHEET: 72 OF 81



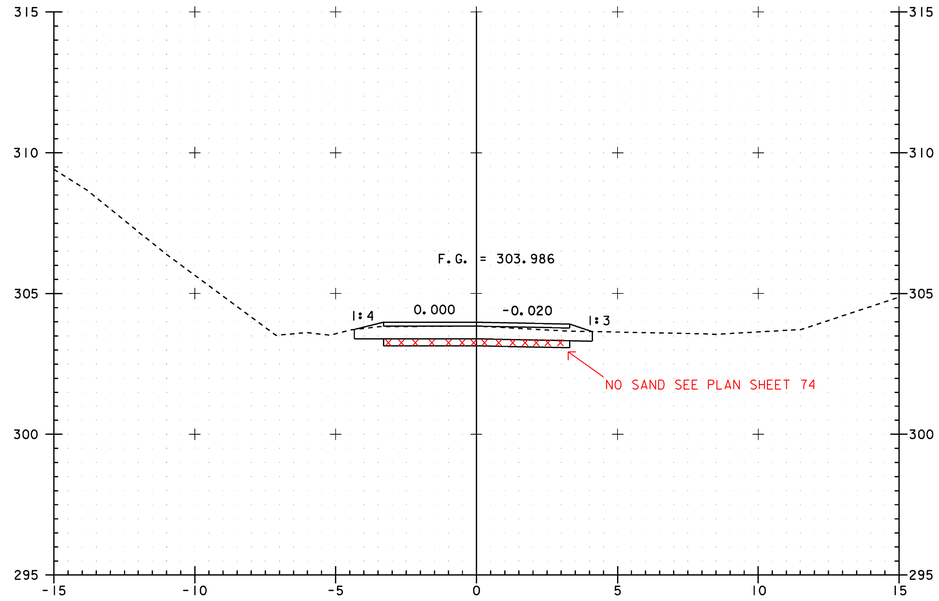
2+380



2+400



2+370

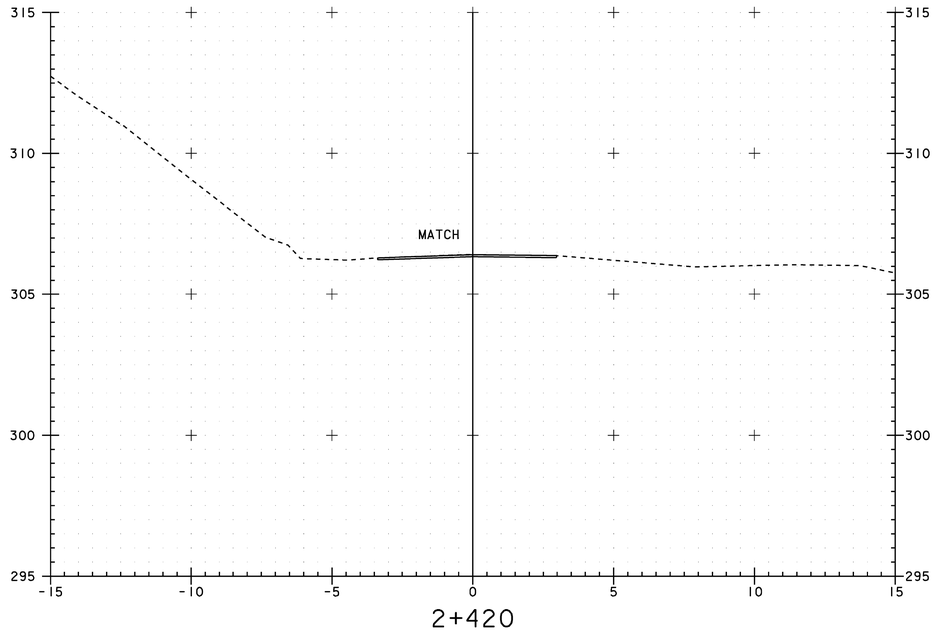


2+390

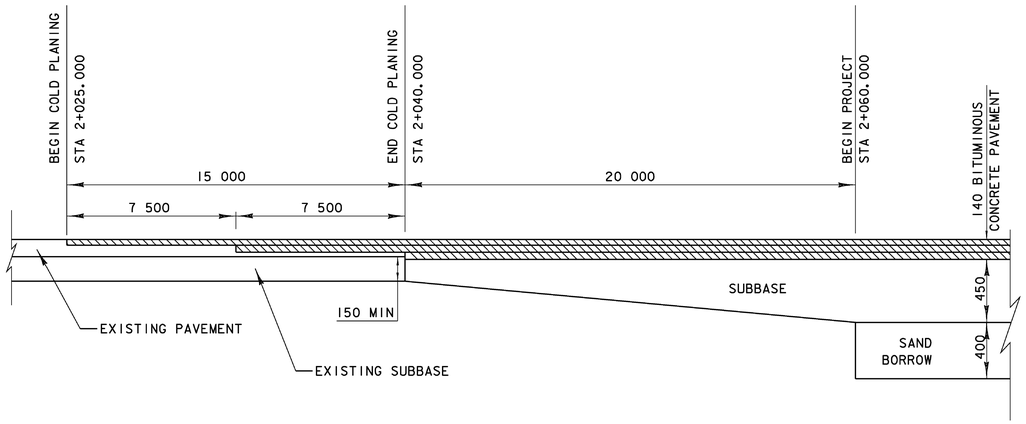
0 2 4 6 8 10

SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ml0.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS	
SECTION 2+370THROUGH 2+400	SHEET: 73 OF 81



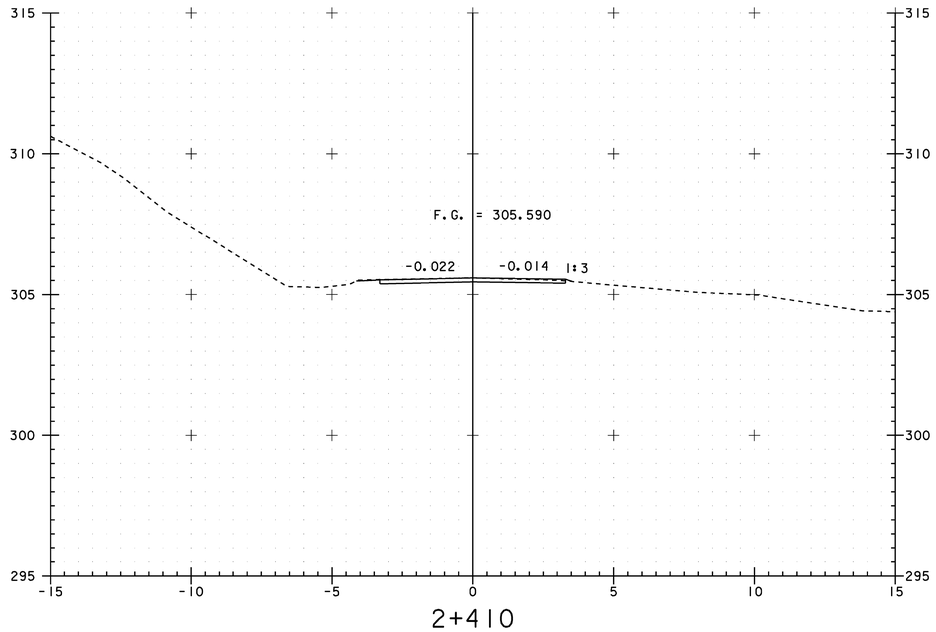
2+420



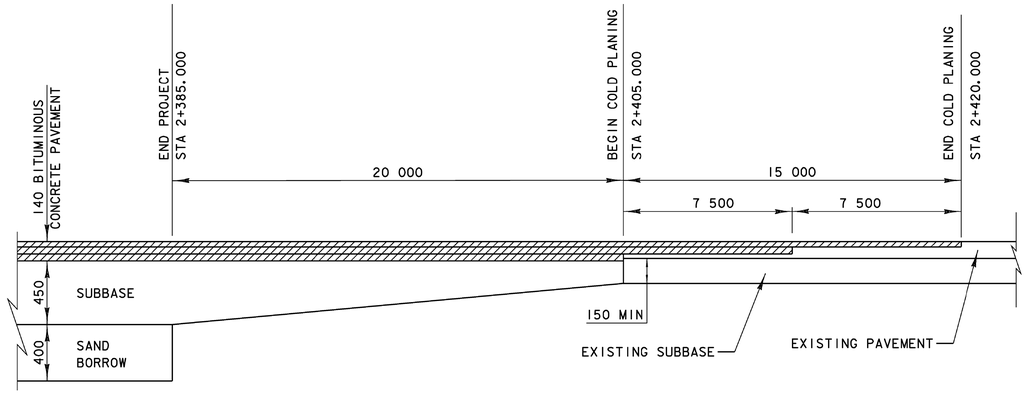
TRANSITION AT BEGIN OF PROJECT

NTS

END APPROACH
STA. 2+420



2+410



203.15 COMMON EXCAVATION

2+405 NO SECTION

AREA = 6.6m x (0.15m + 0.15m) = 1.98m²

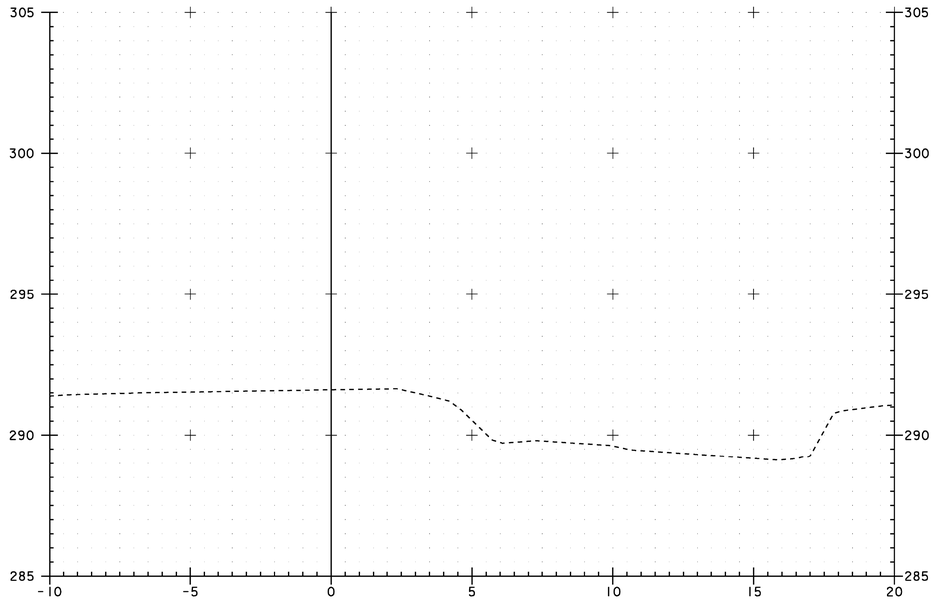
TRANSITION AT END OF PROJECT

NTS

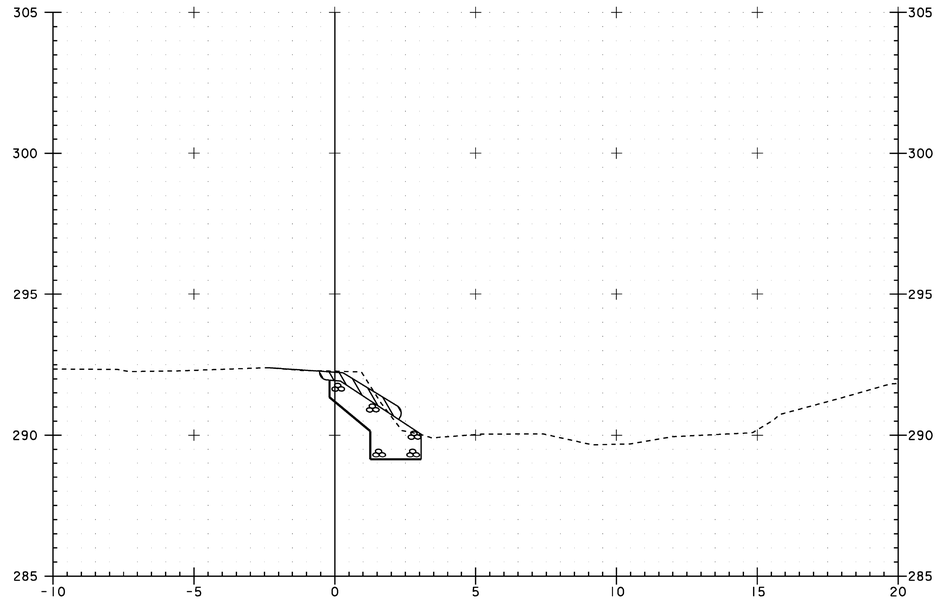
0 2 4 6 8 10

SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043mll.i	PLOT DATE: 10-MAR-2008
MAINLINE CROSS SECTIONS & SUBBASE TRANSITIONS	
SECTION 2+410 THROUGH 2+420	SHEET: 74 OF 81

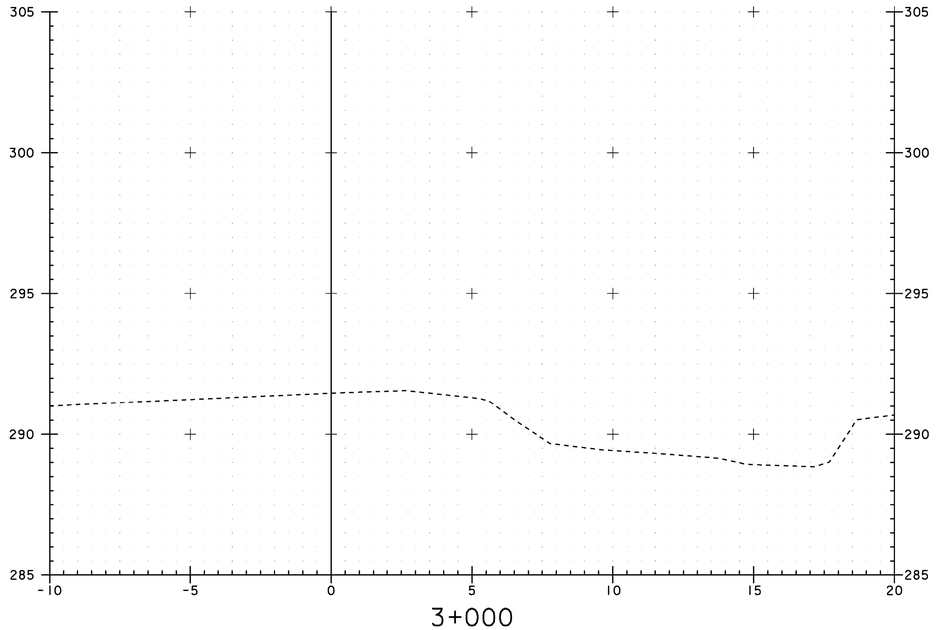


3+005

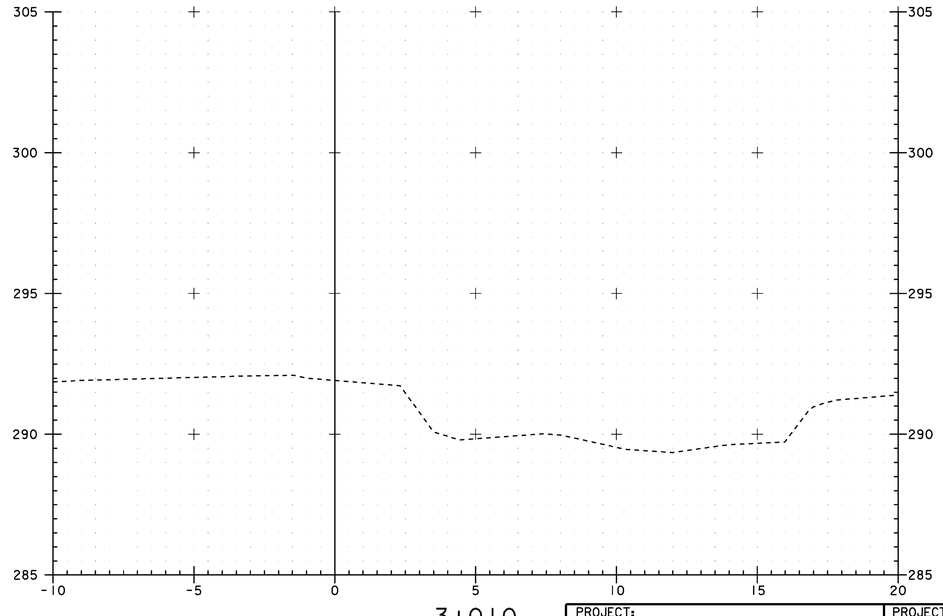


3+015

STA. 3+015 RIGHT (ABUTMENT 1)
BEGIN STONE FILL TYPE III
BEGIN UNCLASSIFIED EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL



3+000



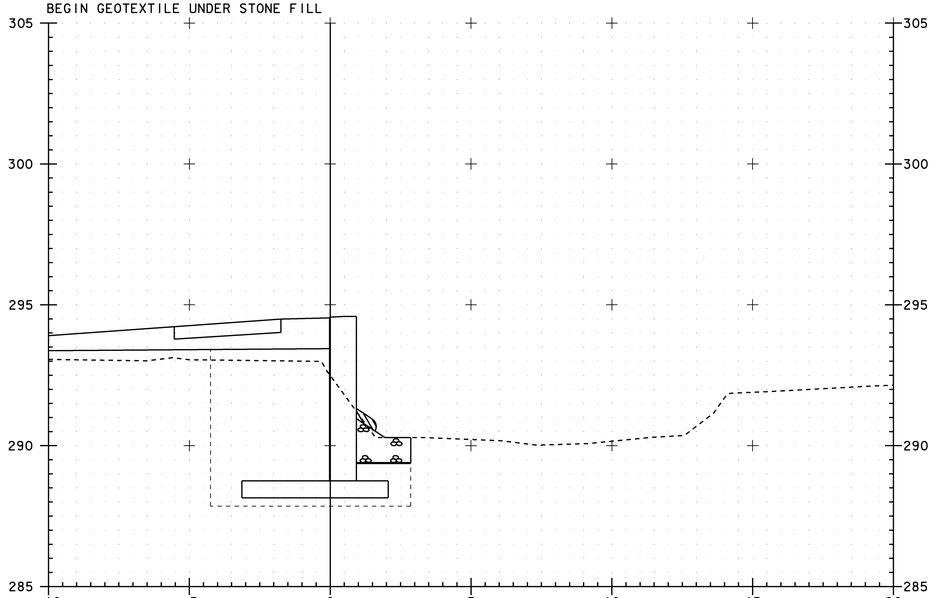
3+010

THIS SHEET NOT USED FOR RECORD PLANS. SEE VALUE ENGINEERED DESIGN.

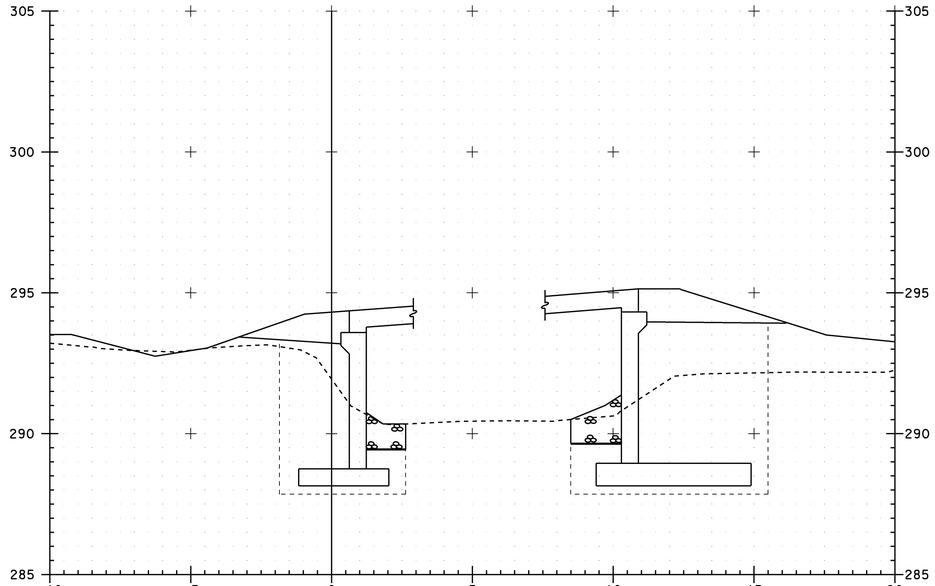
0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043chl.i	PLOT DATE: 10-MAR-2008
BRIDGE #16 CHANNEL CROSS SECTIONS	
SECTION 3+000 THROUGH 3+015	SHEET: 75 OF 81

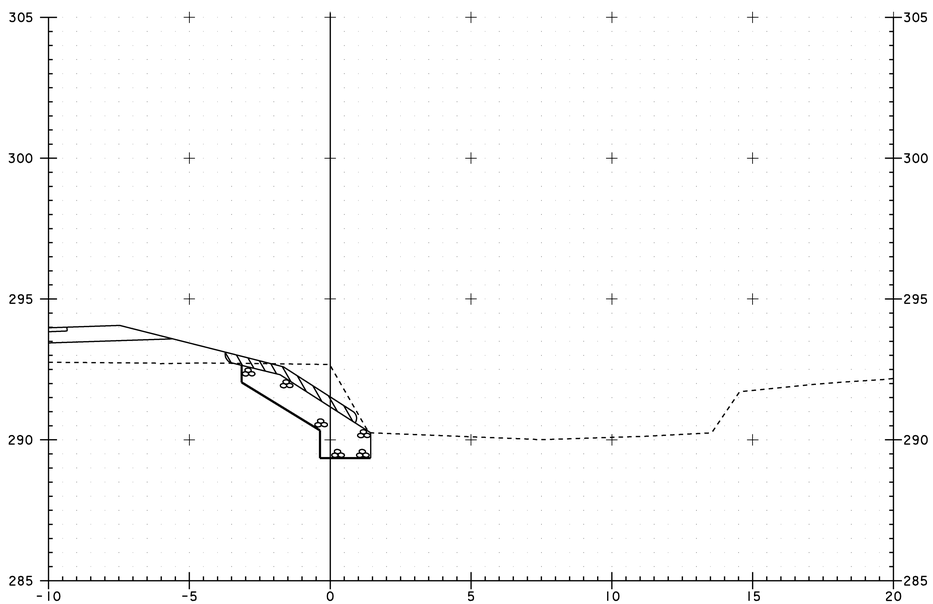
STA. 3+028 RIGHT (ABUTMENT 2)
BEGIN STONE FILL TYPE III
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL



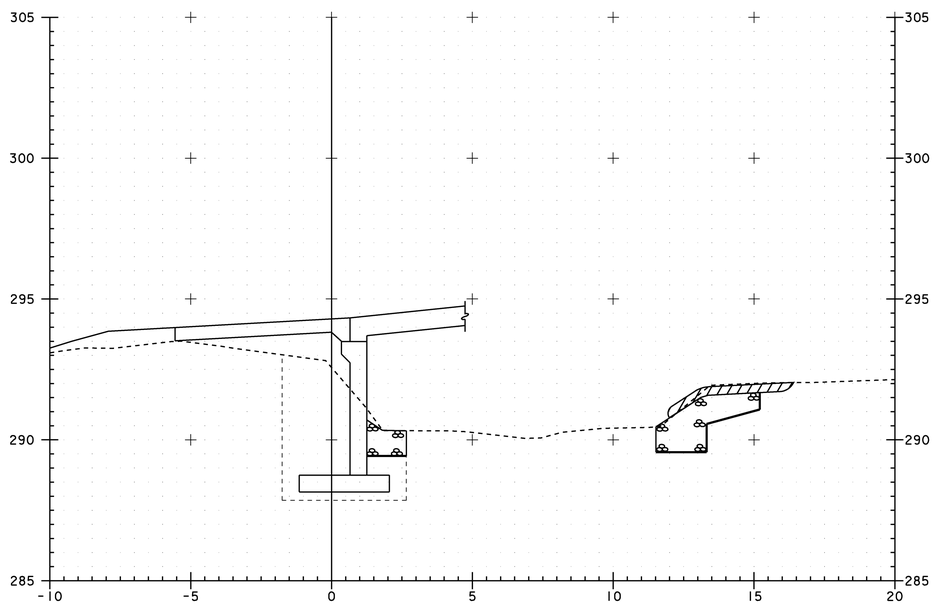
3+025



3+035



3+020



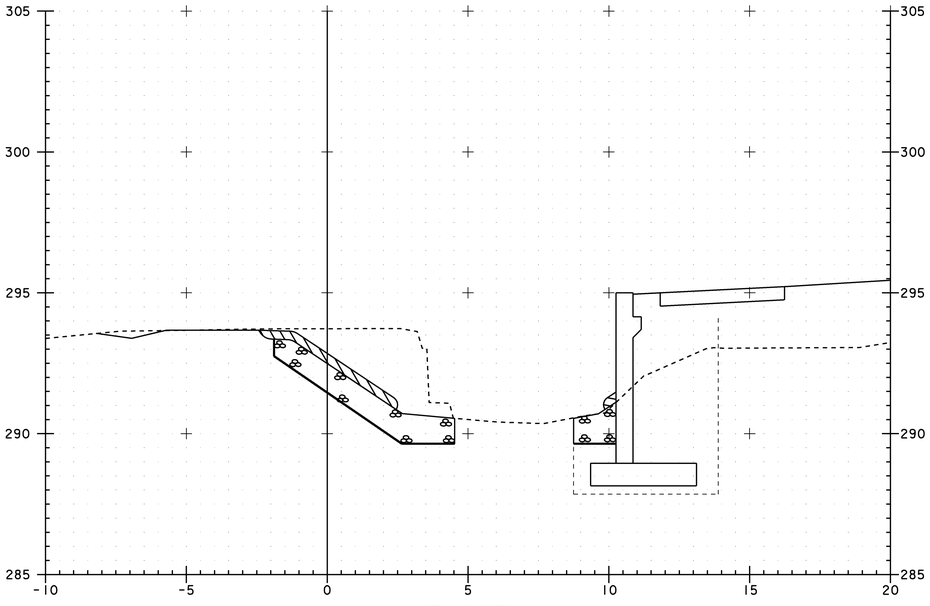
3+030

0 2 4 6 8 10
SCALE 1 : 100

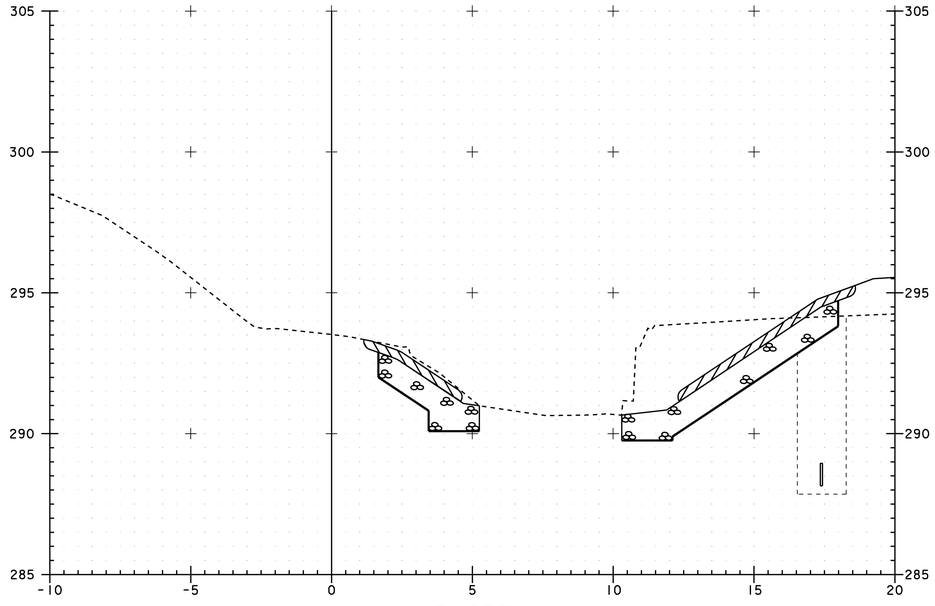
PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch2.I	PLOT DATE: 14-MAR-2008
BRIDGE #16 CHANNEL CROSS SECTIONS	
SECTION 3+020 THROUGH 3+035	SHEET: 76 OF 81

Metric

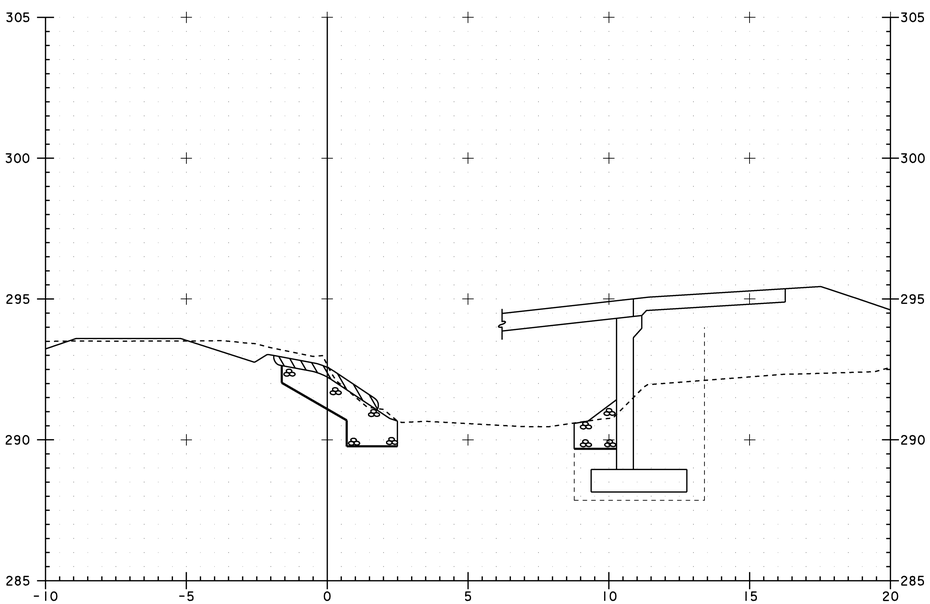
STA. 3+057 RIGHT (ABUTMENT 1)
END STONE FILL TYPE III
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL



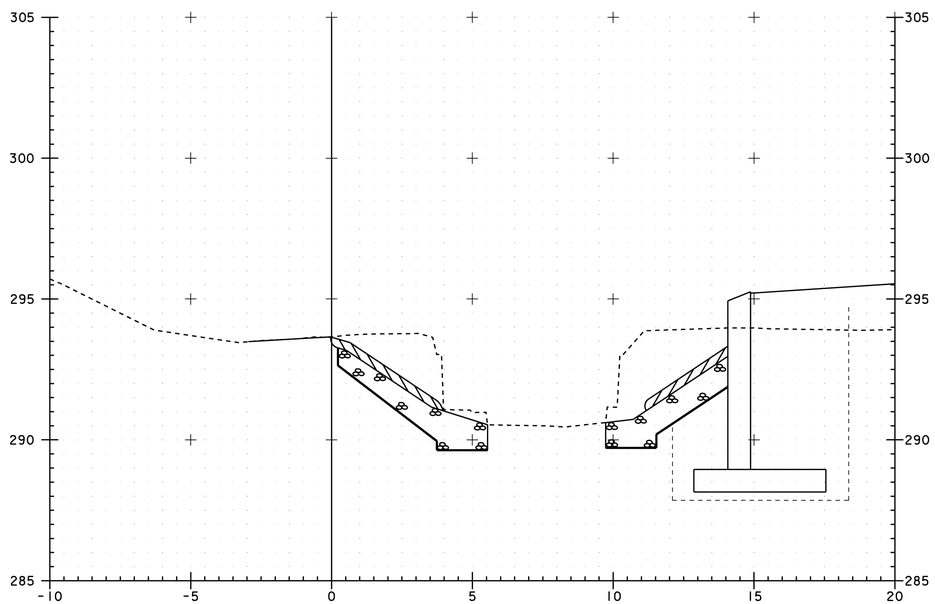
3+045



3+055



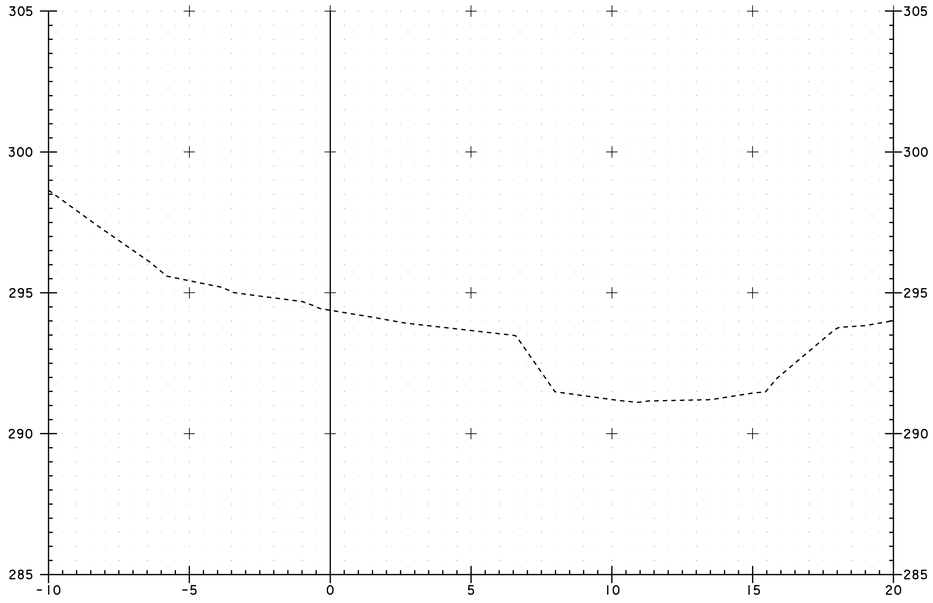
3+040



3+050

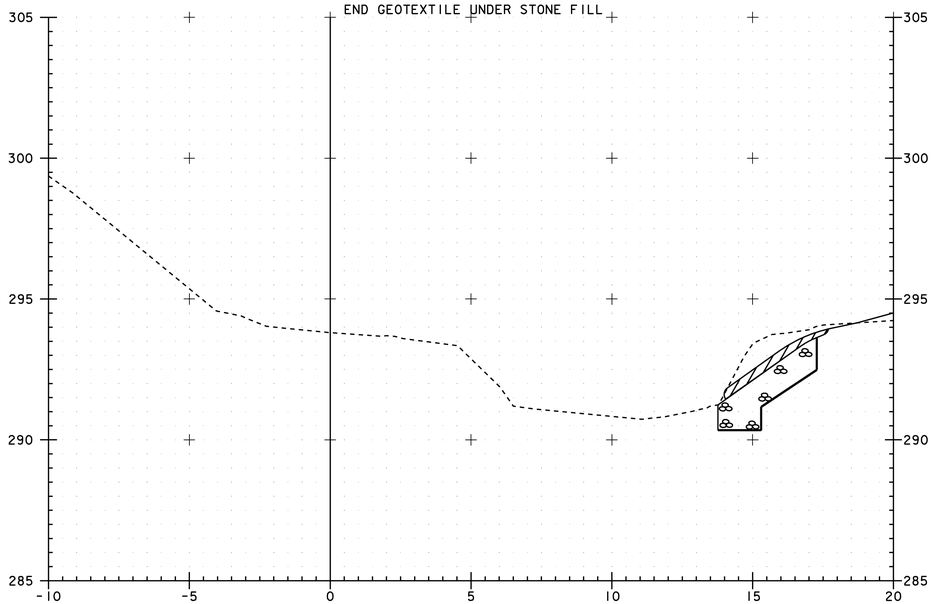
0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch3.I	PLOT DATE: 14-MAR-2008
BRIDGE #16 CHANNEL CROSS SECTIONS	
SECTION 3+040 THROUGH 3+055	SHEET: 77 OF 81

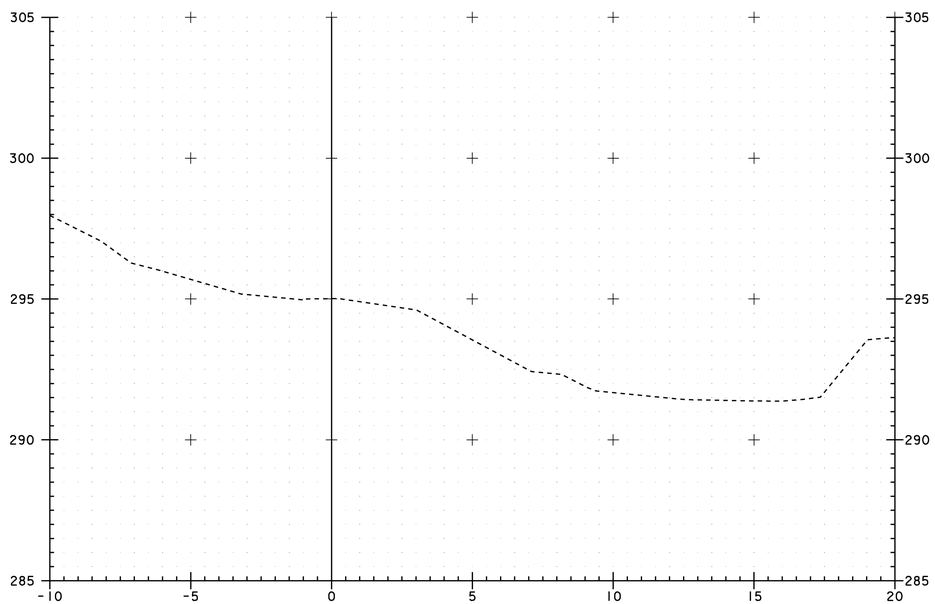


3+065

STA. 3+060.300 RIGHT (ABUTMENT 2)
END STONE FILL TYPE III
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL



3+060



3+070

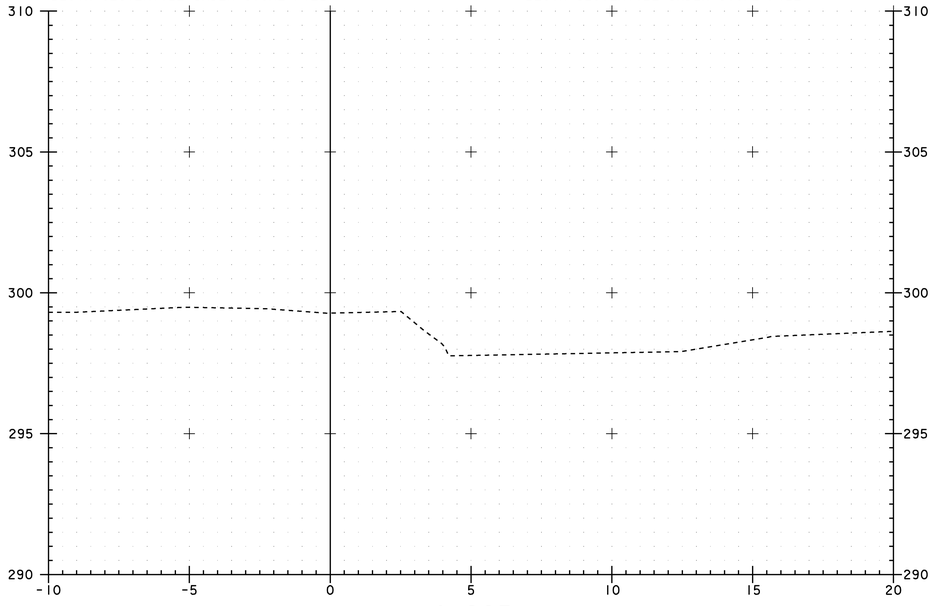
0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch4.I	PLOT DATE: 14-MAR-2008
BRIDGE #16 CHANNEL CROSS SECTIONS	
SECTION 3+060 THROUGH 3+070	SHEET: 78 OF 81

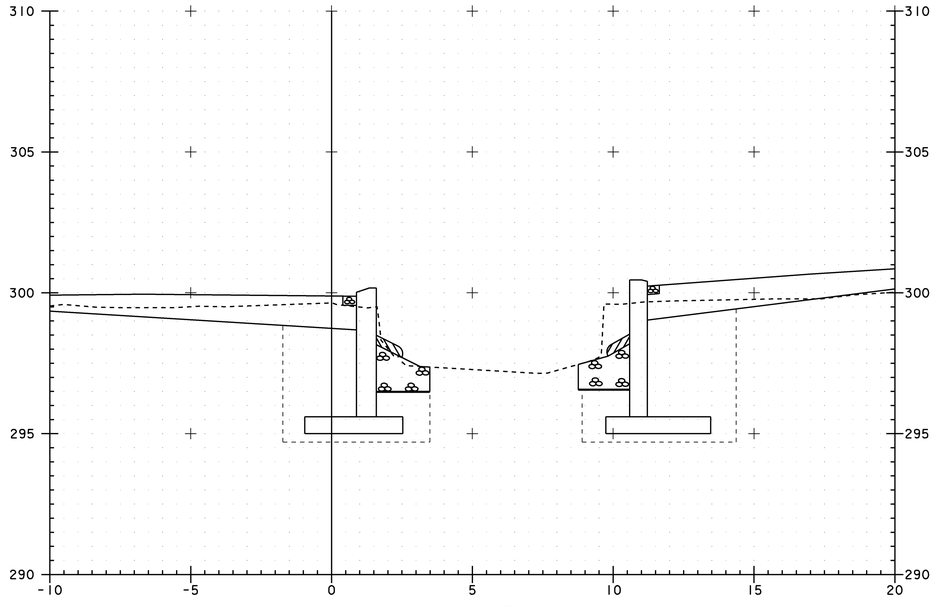
Metric

STA. 4+010 RIGHT (ABUTMENT 1)
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BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL

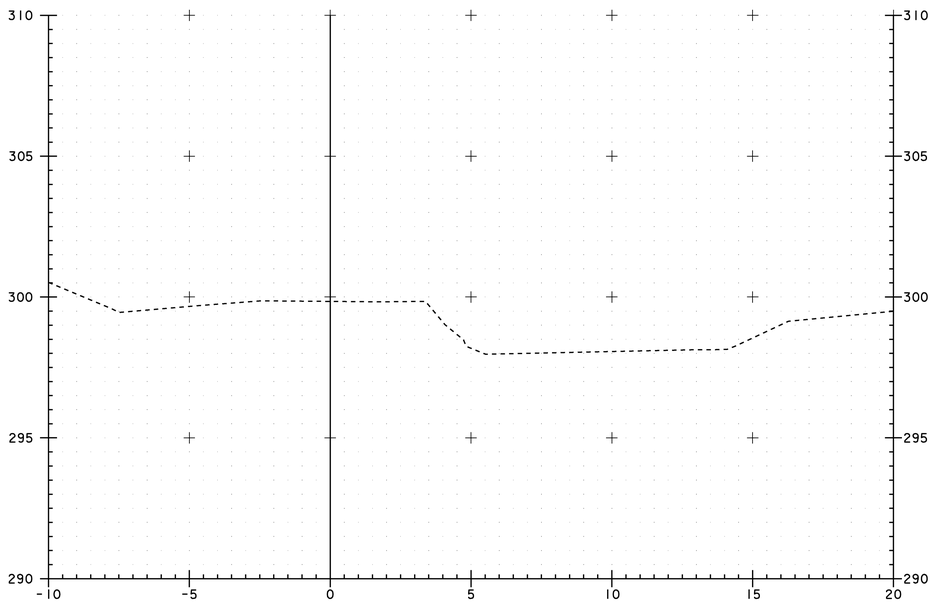
STA. 4+009 RIGHT (ABUTMENT 2)
BEGIN STONE FILL TYPE III
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL



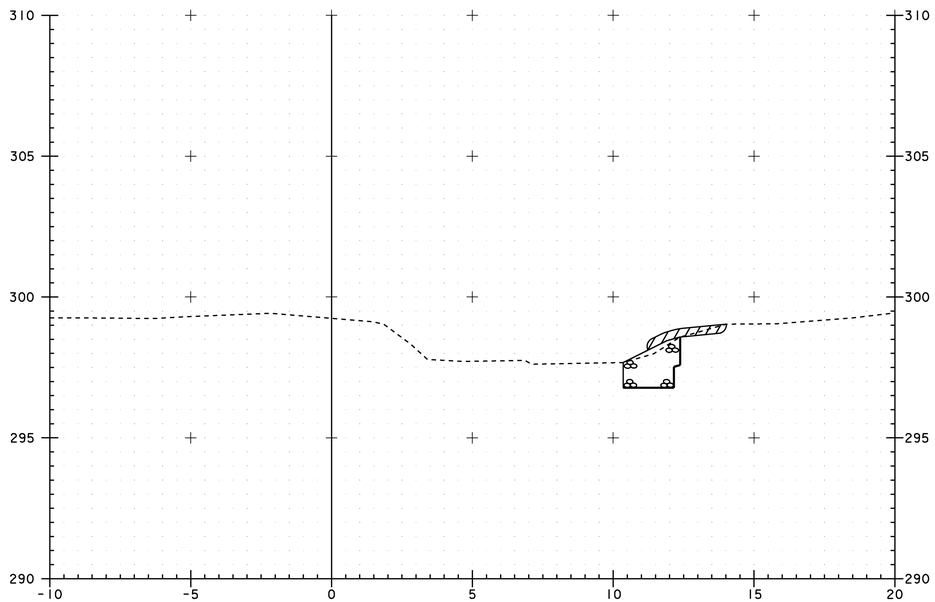
4+005



4+015



4+000

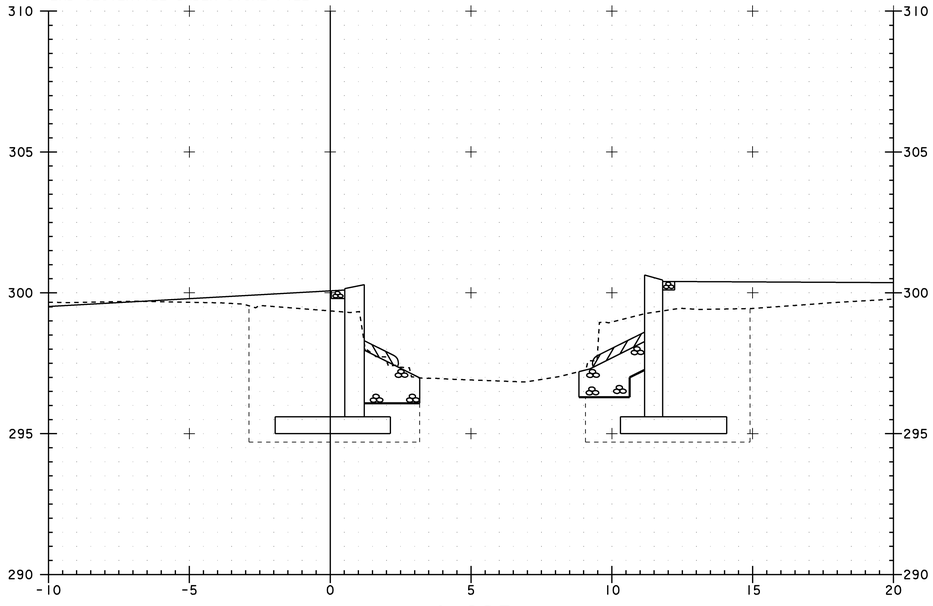


4+010

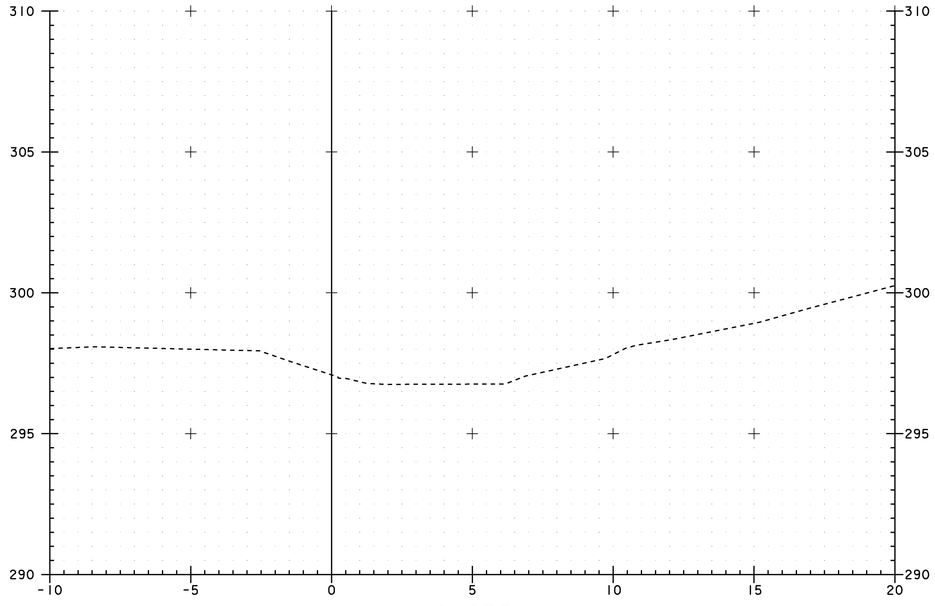
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SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch5.I	PLOT DATE: 13-MAR-2008
BRIDGE #17 CHANNEL CROSS SECTIONS	
SECTION 4+000 THROUGH 4+015	SHEET: 79 OF 81

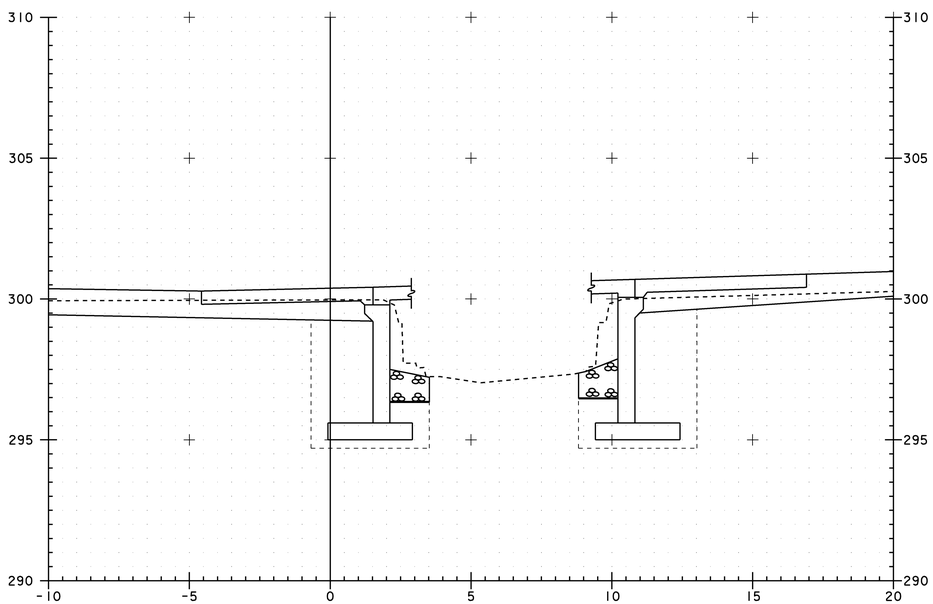
STA. 4+029.50 RT (ABUTMENT 1 & 2)
END STONE FILL TYPE III
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL



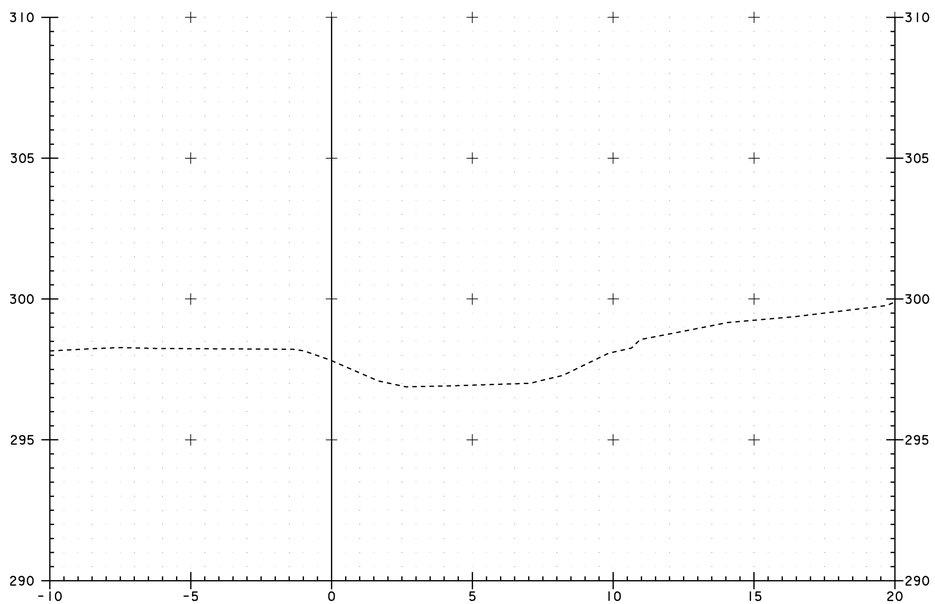
4+025



4+035



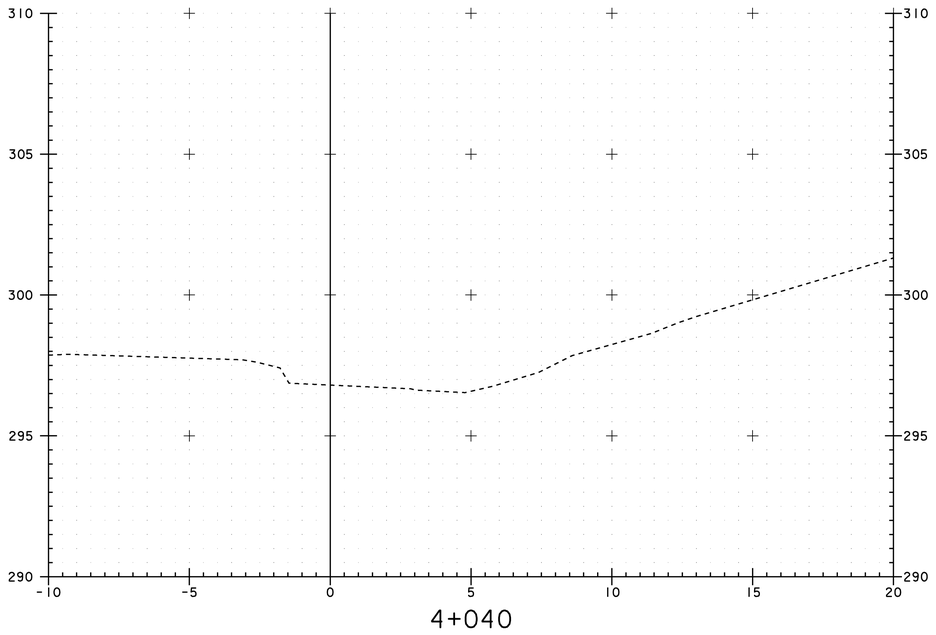
4+020



4+030

0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch6.I	PLOT DATE: 13-MAR-2008
BRIDGE #17 CHANNEL CROSS SECTIONS	
SECTION 4+020 THROUGH 4+035	SHEET: 80 OF 81



0 2 4 6 8 10
SCALE 1 : 100

PROJECT: BURKE	PROJECT NO.: BRZ 1447 (15)
DESIGN FILE NAME: /str4/87e043/se043xsl.dgn IPARM FILE NAME: /str4/87e043/se043ch7.I	PLOT DATE: 10-MAR-2008
BRIDGE #17 CHANNEL CROSS SECTIONS	
SECTION 4+040	SHEET: 81 OF 81

Username Eric Calderwood Date 4/3/2009
Filename \76_br_08_BURKE E1.dgn Workgroup Structures Division

ESTIMATED QUANTITIES FOR BRIDGE NO 16

ITEM NO	DESCRIPTION	QUANTITY	UNIT	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	465	CM	5
204.30	GRANULAR BACKFILL FOR STRUCTURES	105	CM	
208.30	COFFERDAM EXCAVATION (EARTH)	0	CM	
208.35	COFFERDAM EXCAVATION (ROCK)	0	CM	
208.40	COFFERDAM (ABUT #1)	1	LS	
208.40	COFFERDAM (ABUT #2)	1	LS	
404.65	EMULSIFIED ASPHALT	25	KG	
406.25	BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	45	T	
501.33	CONCRETE, HIGH PERFORMANCE CLASS A	70	CM	
501.34	CONCRETE, HIGH PERFORMANCE CLASS B	83	CM	
503.20	PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES	54	M	
504.10	FURNISHING EQUIPMENT FOR PILE DRIVING	1	LS	
505.26	STEEL PILING FOR INTEGRAL ABUTMENTS HP 310x110 (HP 12x74)	60	M	5
505.45	DYNAMIC LOADING TEST	2	EA	
506.55	STRUCTURAL STEEL, PLATE GIRDER	23800	KG	1
507.15	REINFORCING STEEL, PLAIN	0	KG	
507.17	REINFORCING STEEL, EPOXY COATED	14,360	KG	
507.19	MECHANICAL BAR CONNECTOR	0	EA.	
508.15	SHEAR STUDS (648 SHEAR STUDS REQ'D)	1	LS	5
514.10	WATER REPELLANT SILANE	100	L	5
516.10	BRIDGE EXPANSION JOINT ASPHALTIC PLUG	15	M	
519.20	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	145	SM	
524.11	JOINT SEALER, HOT POURED	0	M	
525.44	BRIDGE RAILING GALV. HDSB/FASCIA MOUNTED/STEEL TUBING	49.53	M	
527.10	MAINTENANCE OF STRUCTURE AND APPROACHES	1	LS	
529.10	REMOVAL OF BRIDGE PAVEMENT	53	SM	
529.15	REMOVAL OF STRUCTURE (56 SM EST)	1	LS	
531.14	BEARING DEVICE ASSEMBLY, INTEGRAL ABUTMENT	8	EA.	
613.10	STONE FILL TYPE I	5	CM	
613.12	STONE FILL TYPE III	360	CM	5

GENERAL CONSTRUCTION NOTES

1. THIS PLANSET IS NOT INTENDED TO BE USED ALONE, BUT IS INTENDED TO BE WORKED WITH THE VAOT PLANS AND CONTRACT DOCUMENTS FOR THE BURKE PROJECT BRZ 1447(15)
2. REPORT ANY DISCREPANCY BETWEEN THESE PLANS AND ACTUAL OBSERVED FIELD CONDITIONS OR ANY OBSERVED DISCREPANCY WITHIN THESE PLANS TO THE VALUE ENGINEERING ENGINEER OF RECORD IMMEDIATELY.
3. DO NOT PROCEED WITH DEPENDENT WORK UNTIL ANY SUCH REPORTED DISCREPANCY IS CORRECTED TO THE SATISFACTION OF THE VALUE ENGINEERING ENGINEER OF RECORD.
4. ESTIMATED QUANTITIES INCLUDE QUANTITIES FOR BRIDGE #16 AND FOR APPROACH SLABS FOR BRIDGE NO. 16. ROADWAY, AND BRIDGE NO. 17 QUANTITIES ARE NOT INCLUDED AND MAY BE FOUND ON THE ORIGINAL CONTRACT DRAWINGS
5. DYNAMIC LOAD TESTING SHALL BE PERFORMED USING THE REQUIREMENTS OF THE 2006 VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION AS MODIFIED BY THE VTRANS 2006 GENERAL SPECIAL PROVISIONS. 5

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER ROAD, RICHMOND, ME 04357 PH/FX (207)737-4651

PREPARED FOR AUSTIN CONST., INC

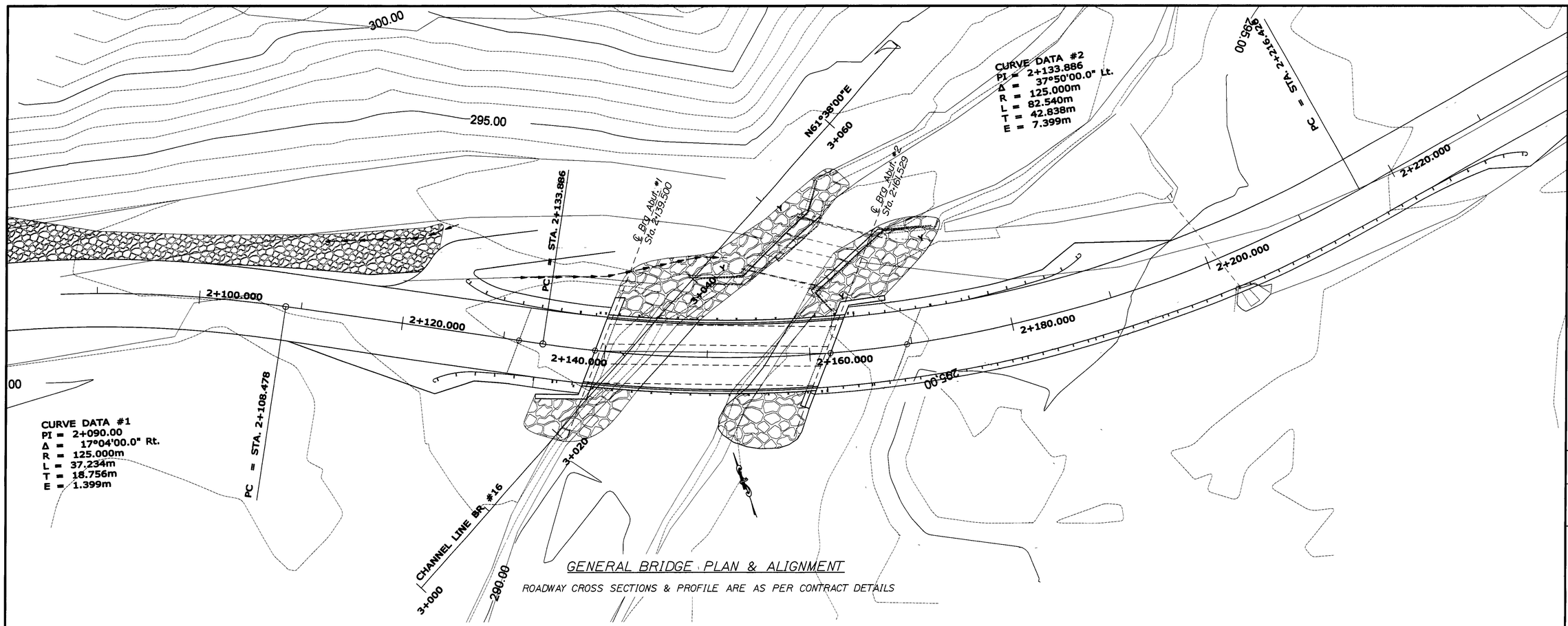
BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

ERIC F. CALDERWOOD — STATE OF VERMONT — NO. 9099 — REGISTERED PROFESSIONAL ENGINEER — No Structural Liability

P.E. NUMBER 9099

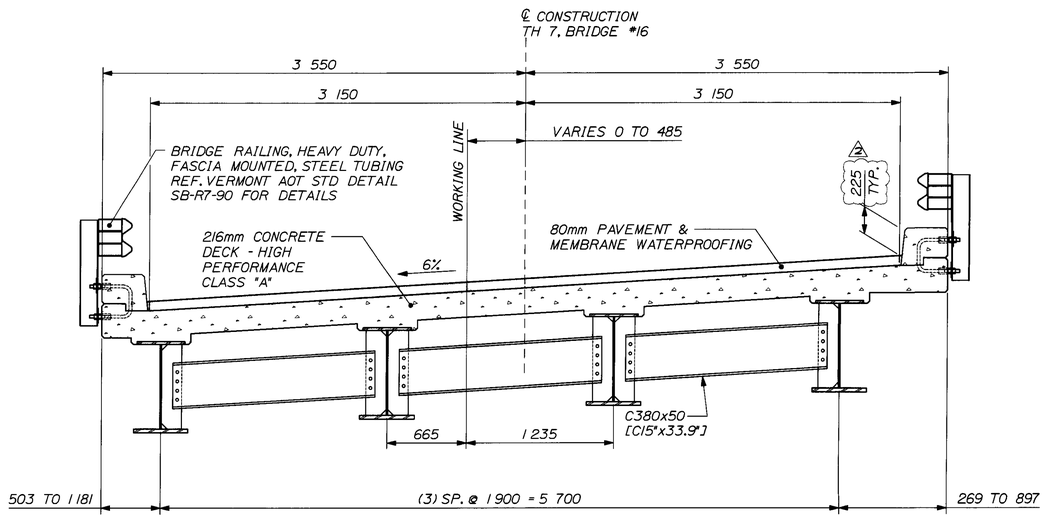
DATE NOV 2008

BY	DATE
ETC	NOV 08



GENERAL BRIDGE PLAN & ALIGNMENT

ROADWAY CROSS SECTIONS & PROFILE ARE AS PER CONTRACT DETAILS



TYPICAL BRIDGE SECTION

SHEAR STUDS NOT SHOWN

GENERAL NOTES

1. DESIGN SPECIFICATIONS AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4TH EDITION W/ 2008 INTERIMS

2. DESIGN LOADING AASHTO HL-93

3. ALL SUPERSTRUCTURE STEEL SHALL BE ASTM A709M GR. 345W [GRADE 50] AND SHALL BE UNPAINTED. ALL HOLES SHALL BE 24mm ϕ FOR 22mm ϕ ASTM A325M TYPE III BOLTS. ALL BOLTS SHOULD BE TENSIONED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND STANDARD INDUSTRY PRACTICE.

4. STEEL PILING SHALL BE ASTM A572 GRADE 50

5. THESE PLANS ARE NOT INTENDED TO BE WORKED ALONE, BUT ARE INTENDED TO BE USED IN CONJUNCTION WITH THE CONTRACT DETAILS. SHOULD THERE BE ANY DISCREPANCY BETWEEN THESE PLANS AND ACTUAL OBSERVED FIELD CONDITIONS, REPORT ANY SUCH DISCREPANCY TO THE ENGINEER OF RECORD OF THE VALUE ENGINEERED PROJECT IMMEDIATELY. SHOULD THERE BE ANY DISCREPANCY NOTED WITHIN THESE PLANS REPORT ANY SUCH DISCREPANCY TO THE ENGINEER OF RECORD OF THE VALUE ENGINEERED PROJECT IMMEDIATELY.

6. DO NOT PROCEED WITH ANY DEPENDENT WORK UNTIL ANY SUCH REPORTED DISCREPANCY IS CORRECTED TO THE SATISFACTION OF THE ENGINEER OF RECORD OF THE VALUE ENGINEERED PROJECT.

7. HORIZONTAL AND VERTICAL ALIGNMENTS REMAIN UNCHANGED FROM THE CONTRACT ALIGNMENTS. ROADWAY CROSS SLOPE REMAINS UNCHANGED FROM THE CONTRACT DOCUMENTS EXCEPT THAT THE FULL BANK STATION ON THE RIGHT IS CHANGED TO MATCH THE END OF BRIDGE SLAB (CHANGED TO STA. 2+138.127 FROM STA. 2+140.000)

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PREPARED FOR AUSTIN CONST., INC

BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

STATE OF MAINE — ERIC T. CALDERWOOD — NO. 5711 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

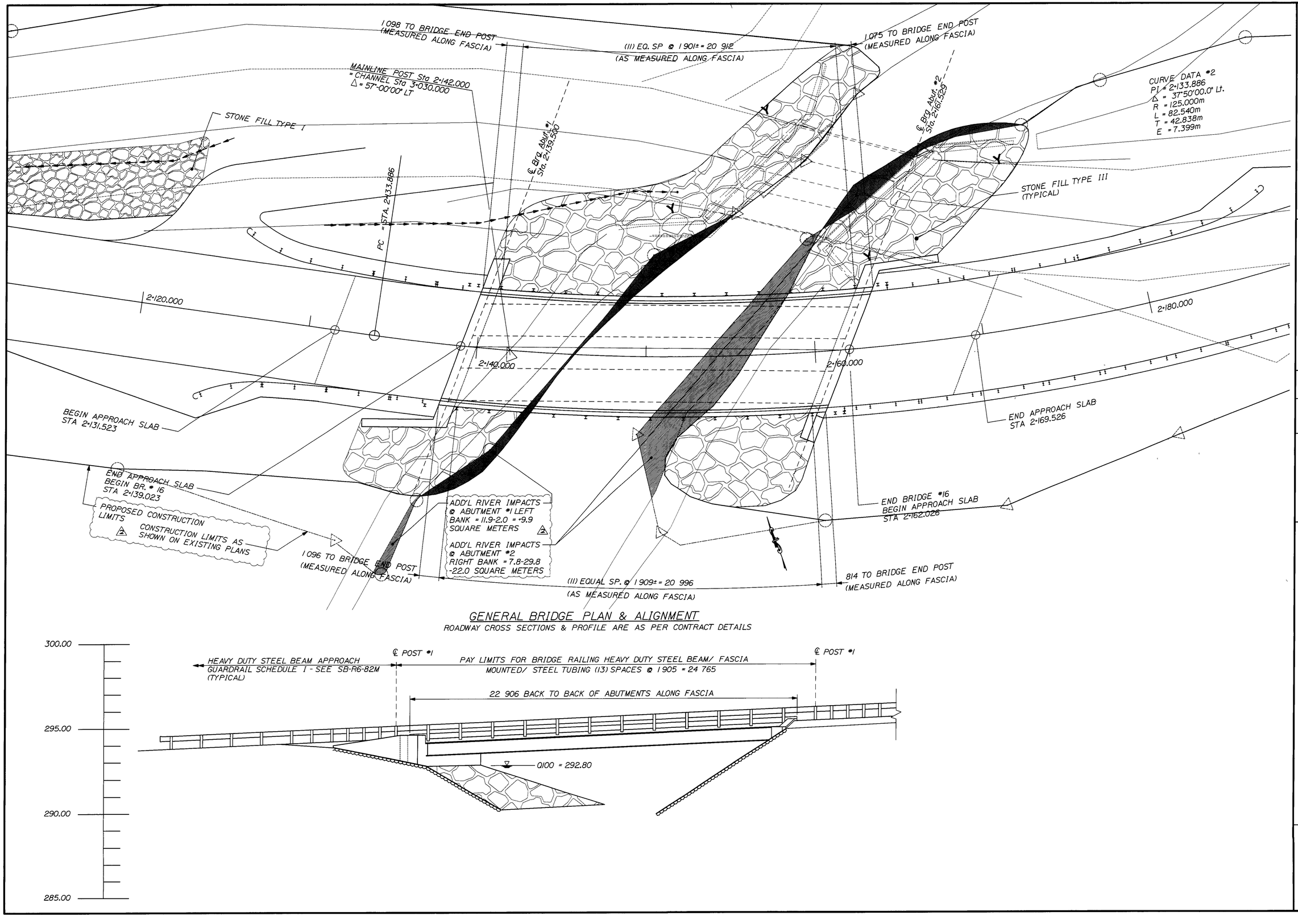
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REVISIONS 2	MISC REV	MAR 09
REVISIONS 3	NO CHANGES THIS SHT	APR 09
REVISIONS 4		
FIELD CHANGES		

BURKE
VALUE ENGINEERED DESIGN

GENERAL PLAN & SECTION

SHEET NUMBER
G1

Username Eric Calderwood Date 4/3/2009
Filename \76_br_08_BURKE G1 dgnWorkgroup Structures Division



GENERAL BRIDGE PLAN & ALIGNMENT

ROADWAY CROSS SECTIONS & PROFILE ARE AS PER CONTRACT DETAILS

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BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

STATE OF VERMONT — ERIC T. CALDERWOOD — NO. 9099 — REGISTERED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

BY	DATE	
ETC	NOV 08	
	JAN 09	NO REVISIONS
	MAR 09	MISC. REV
	APR 09	NO CHANGES THIS SHT

DESIGN DETAILED
CHECKED REVIEWED

REVISIONS 1 — NO REVISIONS
REVISIONS 2 — MISC. REV
REVISIONS 3 — NO CHANGES THIS SHT
REVISIONS 4 — FIELD CHANGES

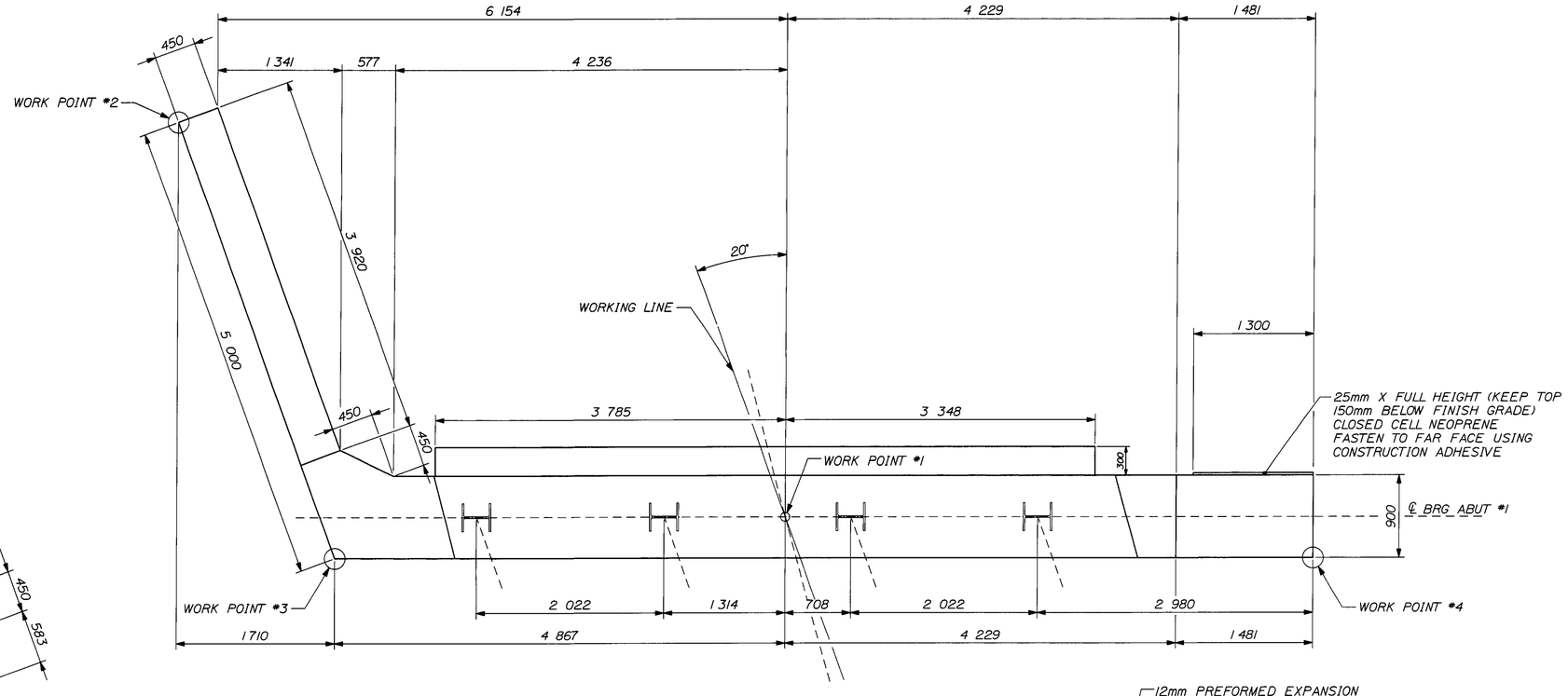
BURKE
VALUE ENGINEERED DESIGN

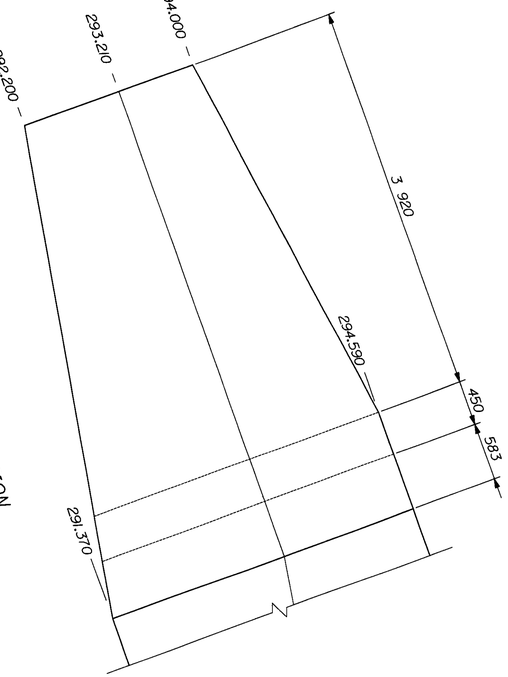
BRIDGE #16 PLAN & ELEVATION

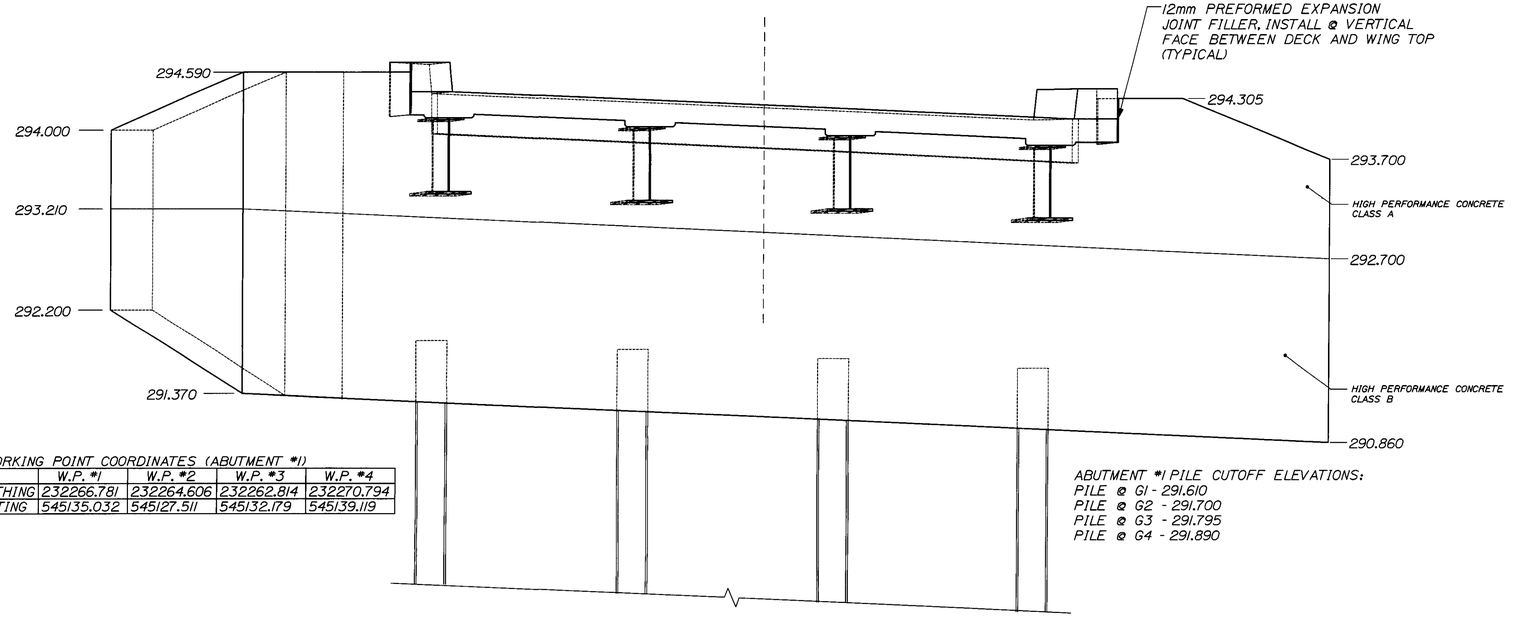
SHEET NUMBER
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Filename \76_br_08_BURKE G2 dgnWorkgroup Structures Division Username Eric Calderwood Date 4/3/2009

Filename \76_br_08_BURKE A1.dgn Workgroup Structures Division Username Eric Calderwood Date 4/3/2009







WORKING POINT COORDINATES (ABUTMENT #1)

	W.P. #1	W.P. #2	W.P. #3	W.P. #4
NORTHING	232266.781	232264.606	232262.814	232270.794
EASTING	545135.032	545127.511	545132.179	545139.119

ABUTMENT #1 PILE CUTOFF ELEVATIONS:
PILE @ G1 - 291.610
PILE @ G2 - 291.700
PILE @ G3 - 291.795
PILE @ G4 - 291.890

ABUTMENT #1 PLAN & ELEVATION

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PROJ. BRZ 1447 (16)

STATE OF VERMONT — ERIC T. CALDERWOOD — NO. 9099 — REGISTERED PROFESSIONAL ENGINEER — LICENSED

9099

P.E. NUMBER

DATE NOV 2008

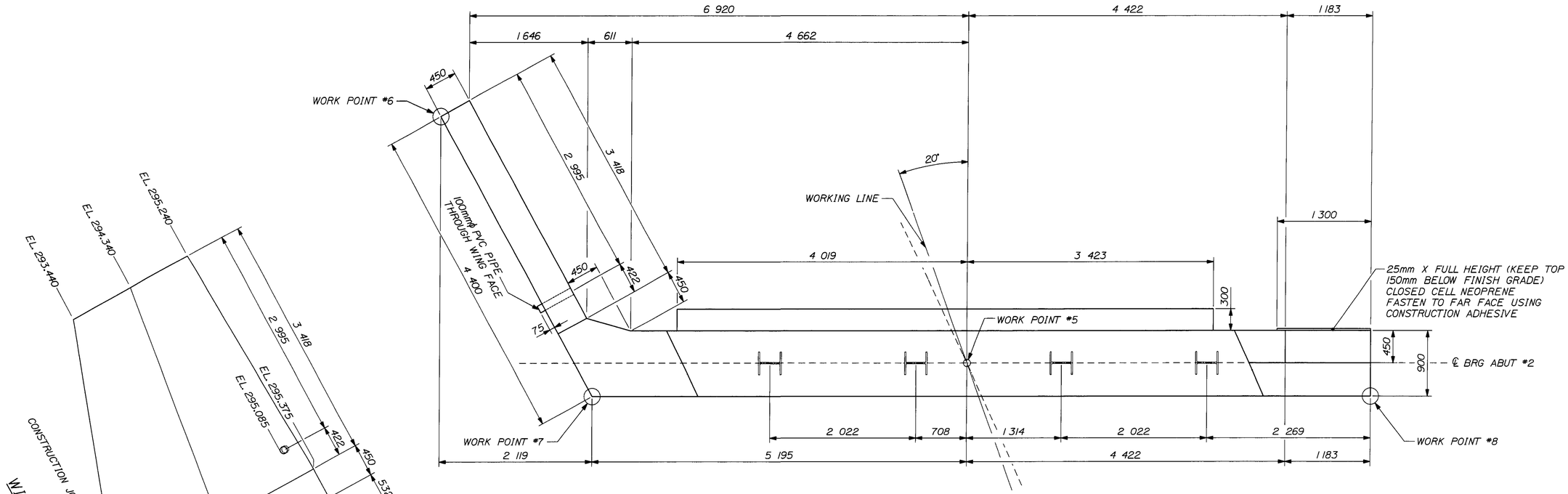
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REVISIONS 3	NO CHANGE THIS SHT	MAR 09
REVISIONS 4	NO CHANGE THIS SHT	APR 09
FIELD CHANGES		
DESIGN-DETAILED		
CHECKED-REVIEWED		

BURKE
VALUE ENGINEERED DESIGN

ABUT. #1 DIMENSIONAL PLAN & ELEV.

SHEET NUMBER

A1



ABUTMENT #2 PILE CUTOFF ELEVATIONS:
PILE @ G1 - 292.605
PILE @ G2 - 292.675
PILE @ G3 - 292.745
PILE @ G4 - 292.815

WORKING POINT COORDINATES (ABUTMENT #2)

	W.P. #5	W.P. #6	W.P. #7	W.P. #8
NORTHING	232258.893	232262.177	232263.108	232254.959
EASTING	545155.570	545162.939	545158.639	545151.552

ABUTMENT #2 PLAN & ELEVATION

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BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

STATE OF VERMONT — BRIGET CALDERWOOD — NO. 9099 REGISTERED — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

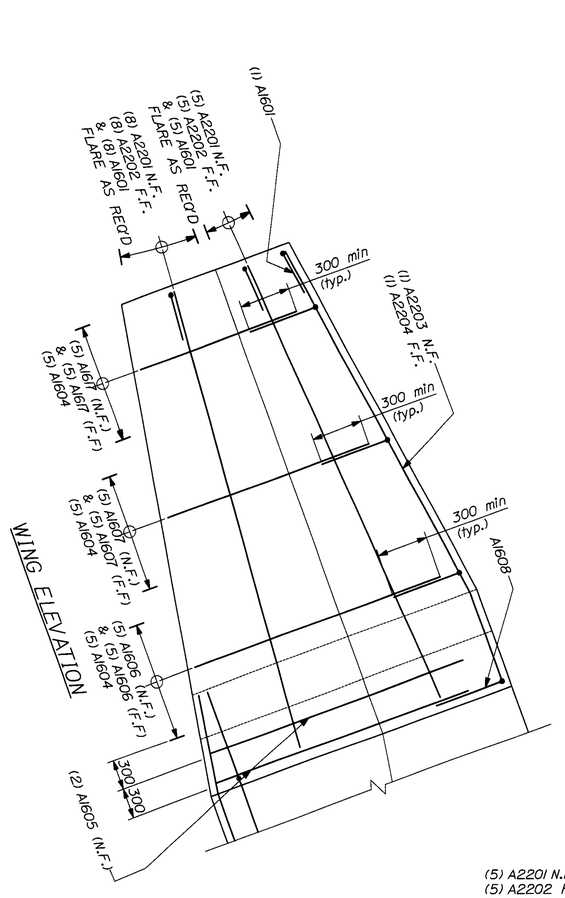
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FIELD CHANGES		

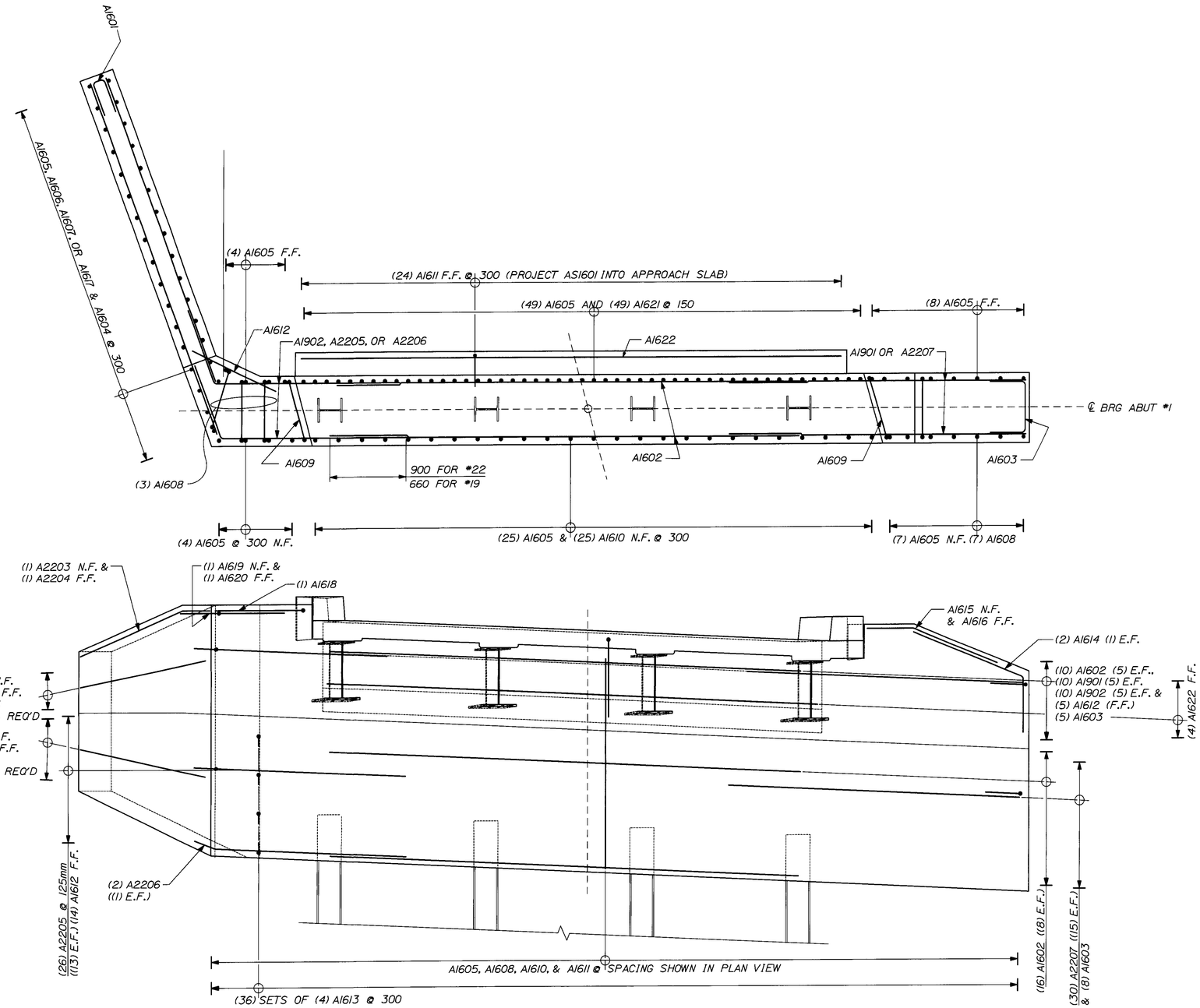
BURKE
VALUE ENGINEERED DESIGN

ABUT. #2 DIMENSIONAL PLAN & ELEV.

SHEET NUMBER
A2

Username: Eric Calderwood Date 4/3/2009
Filename \76_br_08_BURKE A2 dgn Workgroup Structures Division





ABUTMENT #1 PLAN & ELEVATION

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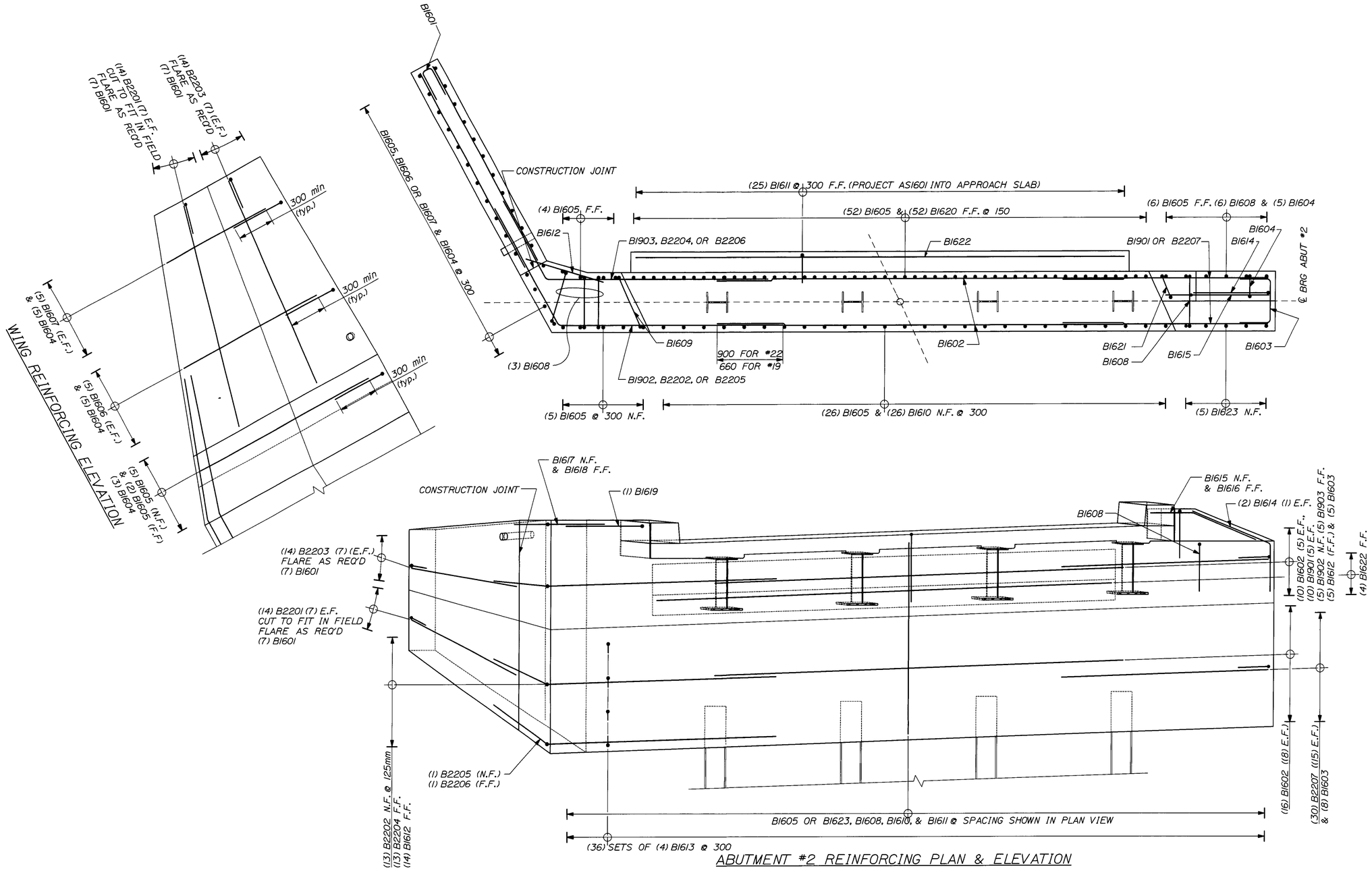
BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

COMMONWEALTH OF VIRGINIA — ERIC T. CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

BY	DATE
ETC	NOV 08



ABUTMENT #2 REINFORCING PLAN & ELEVATION

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BURKE - VALUE ENGINEERING
PROJ. BR2 1447 (15)

STATE OF VERMONT — ERIC CALDERWOOD — NO 5751 — LICENSED PROFESSIONAL ENGINEER

9059

P.E. NUMBER

DATE NOV 2008

DESIGN-DETAILED	BY	DATE
CHECKED-REVIEWED	ETC	NOV 08
REVISIONS 1	NO CHANGE THIS SHT	JAN 09
REVISIONS 2	NO CHANGE THIS SHT	MAR 09
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FIELD CHANGES		

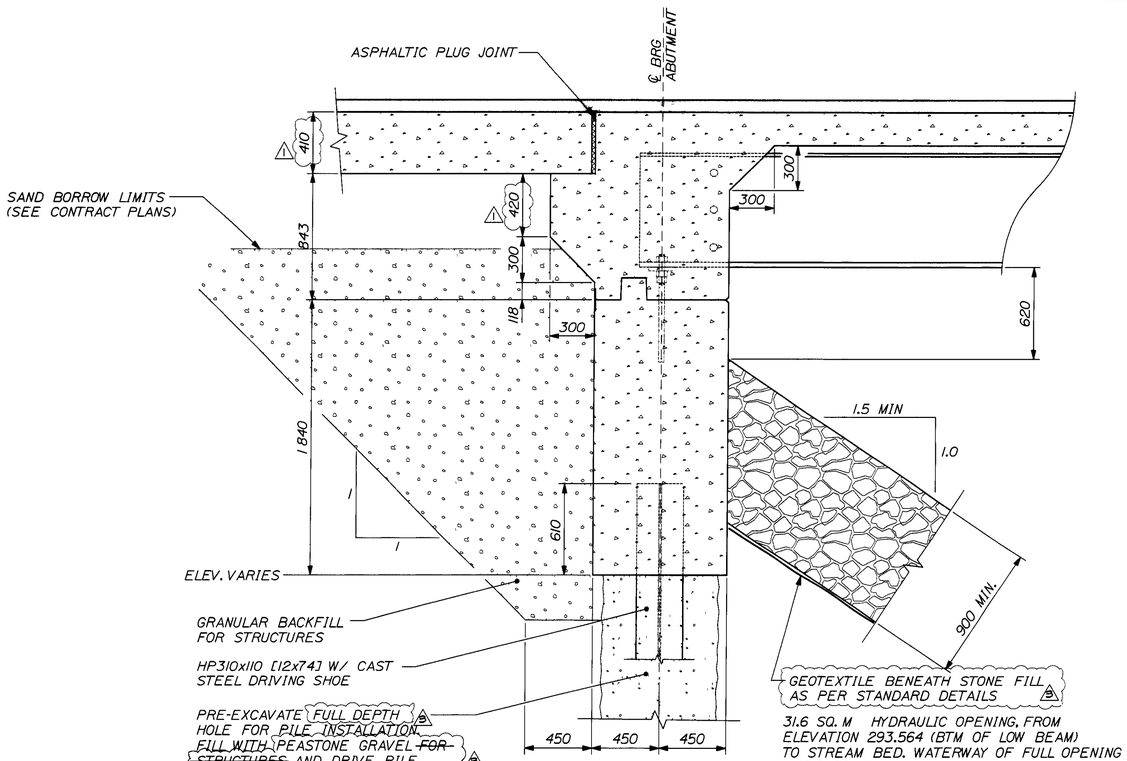
BURKE
VALUE ENGINEERED DESIGN

ABUT. #2 REINFORCING PLAN & ELEV.

SHEET NUMBER

A4

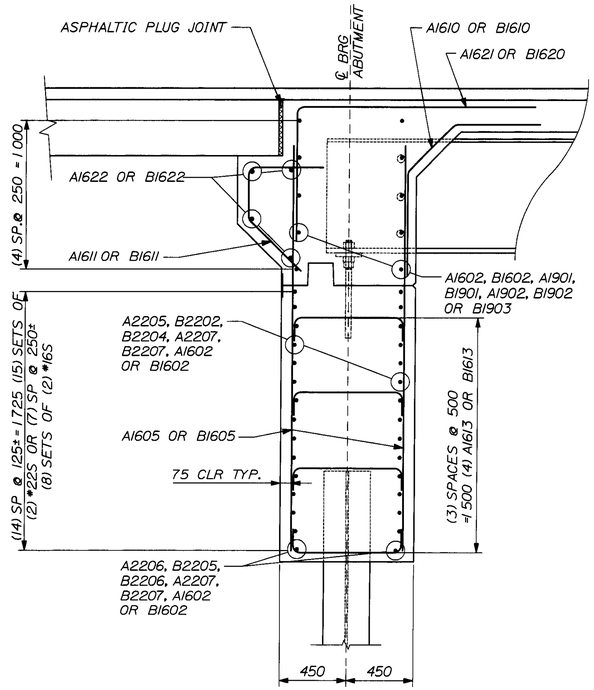
Filename \76_br_08_BURKE A4 dgn Workgroup Structures Division Username Eric Calderwood Date 4/3/2009



31.6 SQ. M HYDRAULIC OPENING, FROM ELEVATION 293.564 (BTM OF LOW BEAM) TO STREAM BED. WATERWAY OF FULL OPENING = 40.2 SQ. M

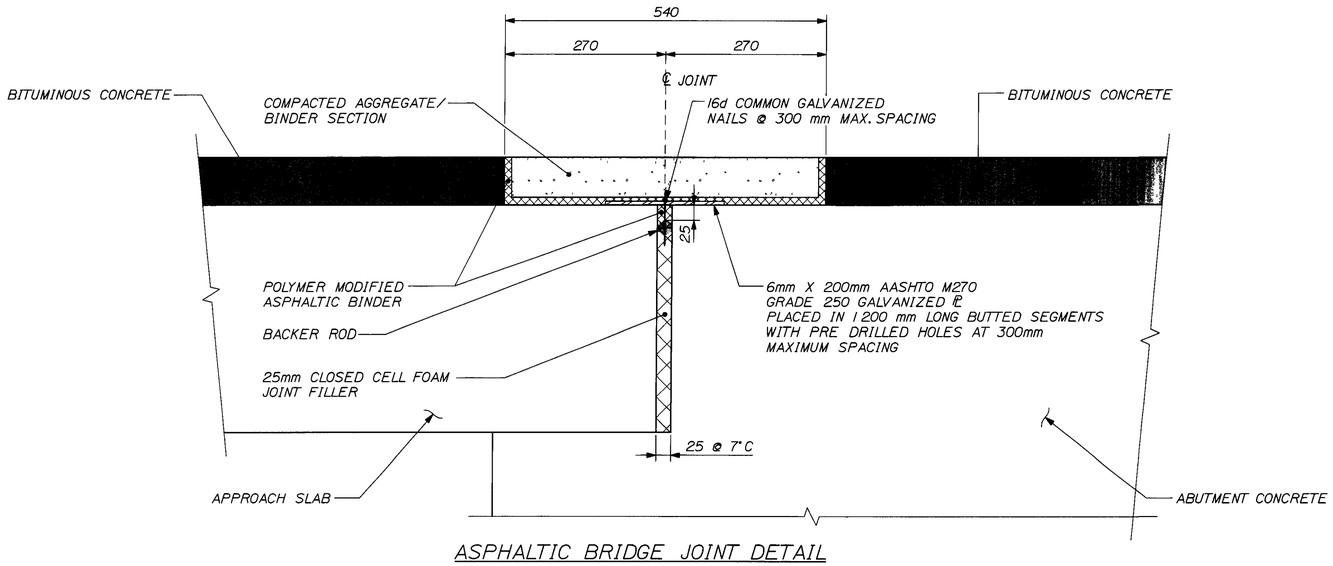
ULTIMATE PILE CAPACITY - REQ'D
STR I - 950 kN (213.5 K)
SVC I - 631 kN (141.9 K)

ABUTMENT DIMENSIONAL SECTION



ABUTMENT REINFORCING SECTION

FOR DECK SLAB REINFORCING DETAILS
REFERENCE DECK SLAB SHEETS



ASPHALTIC BRIDGE JOINT DETAIL

ASPHALTIC BRIDGE JOINT CONSTRUCTION SEQUENCE NOTES

1. MAINTAIN THE REQUIRED BLOCK OUT DURING PAVING OPERATIONS

2. CLEAN THE BLOCK OUT TO REMOVE DELETERIOUS AND FOREIGN MATERIALS.

3. PLACE THE BACKER ROD, POLYMER MODIFIED BINDER AND STEEL PLATE SECURED IN PLACE WITH GALVANIZED NAILS.

4. COAT BLOCK OUT SURFACES WITH POLYMER MODIFIED ASPHALTIC BINDER.

5. PLACE COMPACTED AGGREGATE/BINDER TO FILL ALL VOIDS AND OBTAIN A FINAL AND EVEN SURFACE WITH THE ADJACENT WEARING SURFACE

6. IT IS NOT NECESSARY TO CONSTRUCT THE JOINT AT MEAN TEMPERATURE. HOWEVER THE MANUFACTURER SHOULD BE CONSULTED FOR INSTALLATION GUIDELINES FOR EXTREME CLIMATE CONDITIONS.

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BURKE - VALUE ENGINEERING
PROJ. BR2 1447 (16)

STATE OF VERMONT — DEPT. OF TRANSPORTATION — NO. 5751 REGISTERED — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

	BY	DATE
DESIGN DETAILED	ETC	NOV 08
CHECKED-REVIEWED		
REVISIONS 1	REVISED PER AOT COMMENTS	JAN 09
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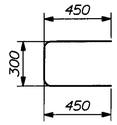
BURKE
VALUE ENGINEERED DESIGN

ABUT DIMENSIONAL & REINF. SECTIONS

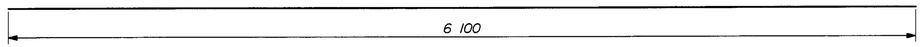
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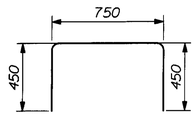
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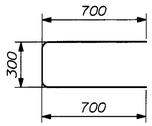
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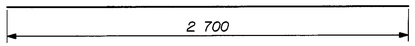
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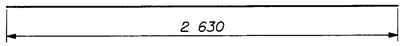
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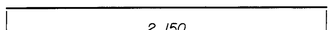
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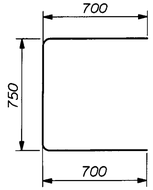
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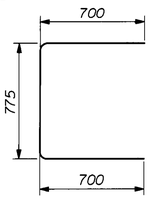
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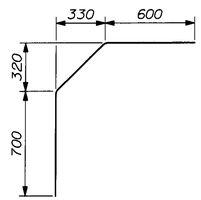
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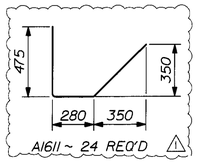
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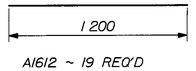
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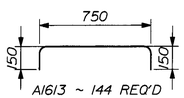
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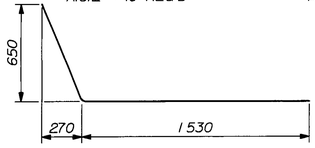
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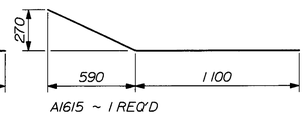
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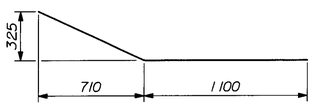
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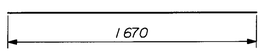
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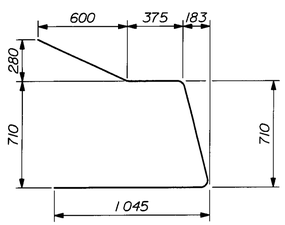
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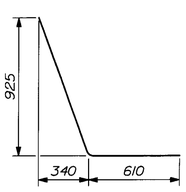
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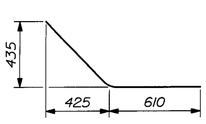
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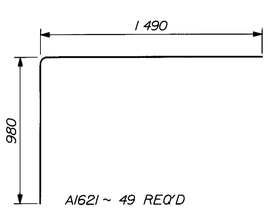
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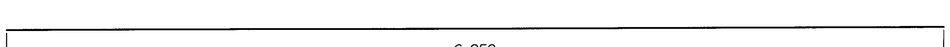
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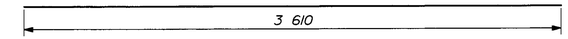
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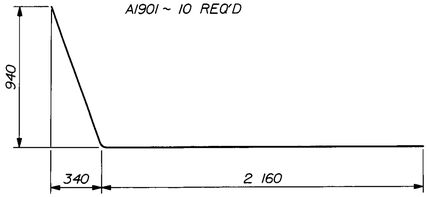
A1621 ~ 49 REQ'D



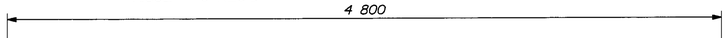
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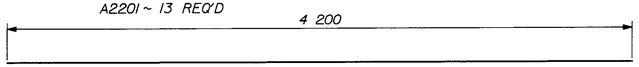
A1901 ~ 10 REQ'D



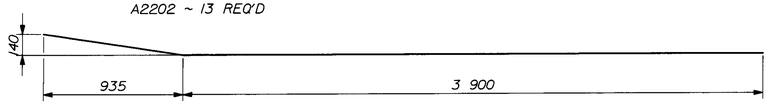
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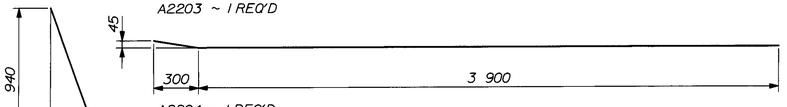
A2201 ~ 13 REQ'D



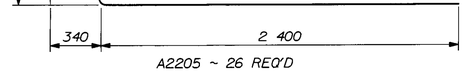
A2202 ~ 13 REQ'D



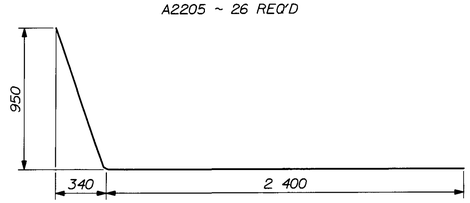
A2203 ~ 1 REQ'D



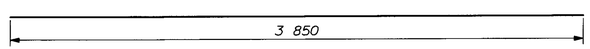
A2204 ~ 1 REQ'D



A2205 ~ 26 REQ'D



A2206 ~ 2 REQ'D



A2207 ~ 30 REQ'D

ABUTMENT #1 REINFORCING NOTES

1. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M31M (ASTM A615M) ALL BARS SHALL BE GRADE 420 Mpa
2. ALL ABUTMENT REINFORCEMENT SHALL BE EPOXY COATED FINISH UNLESS NOTED OTHERWISE.
3. ALL BENDS SHALL CONFORM TO ACI 318M RECOMMENDED PIN DIAMETERS
4. ALL DIMENSIONS ARE OUT TO OUT OF REINFORCEMENT
5. PROVIDE 75 mm CLEAR COVER TYPICAL U.N.O.

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PROJ. BRZ 1447 (16)

STATE OF MAINE · SCOTT CALDERWOOD · NO. 9099 · LICENSED PROFESSIONAL ENGINEER

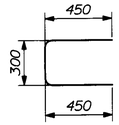
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P.E. NUMBER

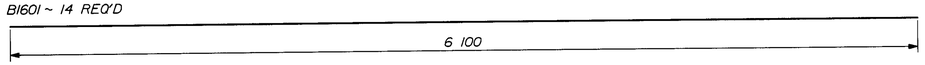
DATE NOV 2008

	BY	DATE
	ETC	NOV 08

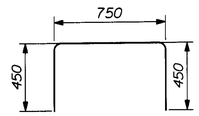
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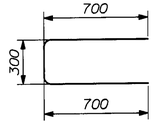
BI601 ~ 14 REQ'D



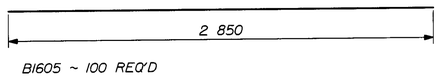
BI602 ~ 26 REQ'D



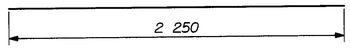
BI603 ~ 13 REQ'D



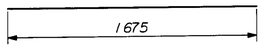
BI604 ~ 18 REQ'D



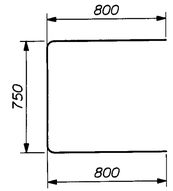
BI605 ~ 100 REQ'D



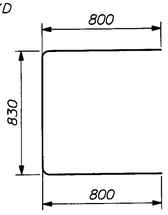
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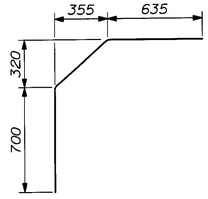
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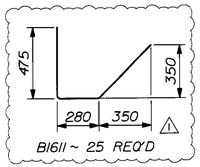
BI608 ~ 9 REQ'D



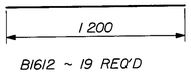
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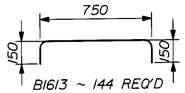
BI610 ~ 26 REQ'D



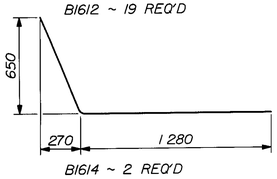
BI611 ~ 25 REQ'D



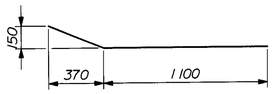
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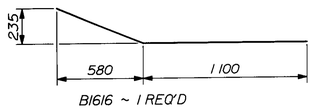
BI613 ~ 144 REQ'D



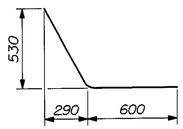
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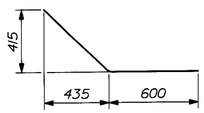
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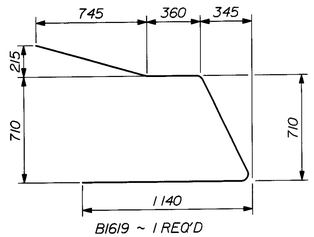
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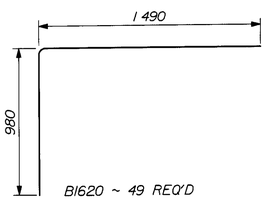
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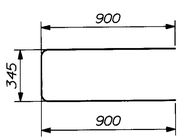
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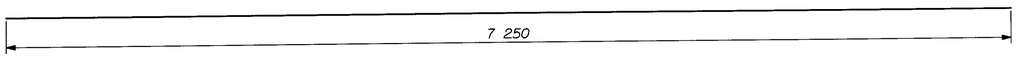
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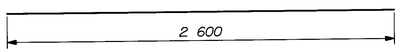
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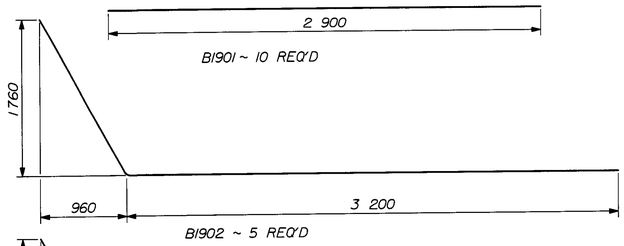
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BI622 ~ 4 REQ'D

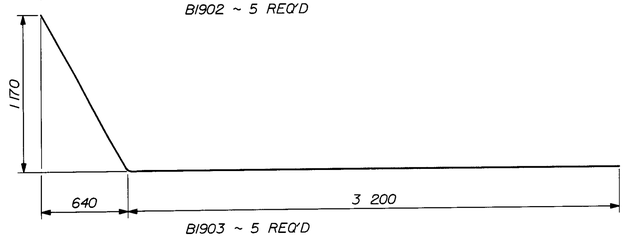


BI623 ~ 5 REQ'D

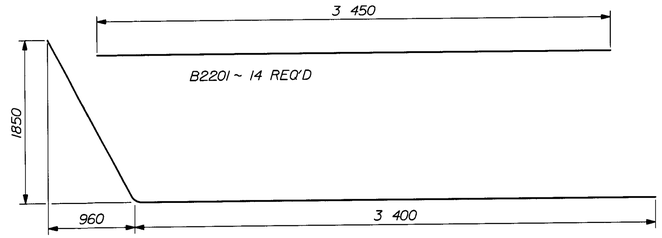


BI901 ~ 10 REQ'D

BI902 ~ 5 REQ'D



BI903 ~ 5 REQ'D

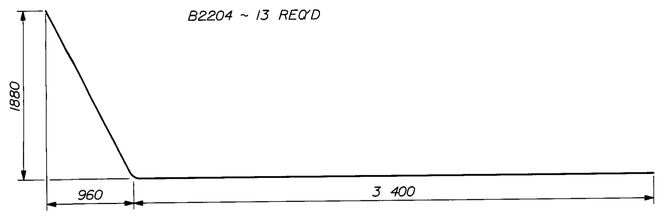


B2201 ~ 14 REQ'D

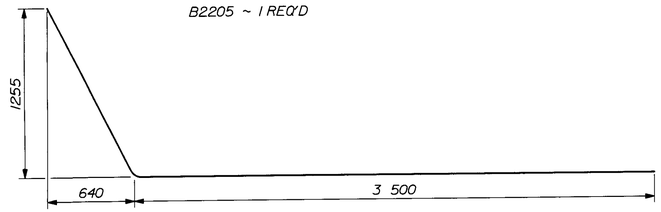
B2202 ~ 13 REQ'D

B2203 ~ 14 REQ'D

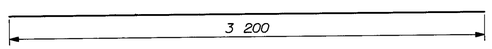
B2204 ~ 13 REQ'D



B2205 ~ 1 REQ'D



B2206 ~ 1 REQ'D



B2207 ~ 30 REQ'D

ABUTMENT #2 REINFORCING NOTES

1. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M31M (ASTM A615M) ALL BARS SHALL BE GRADE 420 Mpa
2. ALL ABUTMENT REINFORCEMENT SHALL BE EPOXY COATED FINISH UNLESS NOTED OTHERWISE.
3. ALL BENDS SHALL CONFORM TO ACI 318M RECOMMENDED PIN DIAMETERS
4. ALL DIMENSIONS ARE OUT TO OUT OF REINFORCEMENT
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BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

STATE OF VERMONT — ERIC F. CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

BY	DATE	
ETC	NOV 08	
		REVISED PER AOT COMMENTS - JAN 09
		NO REVISIONS THIS SHT - MAR 09
		NO REVISIONS THIS SHT - APR 09

DESIGN-DETAILED
CHECKED-REVIEWED

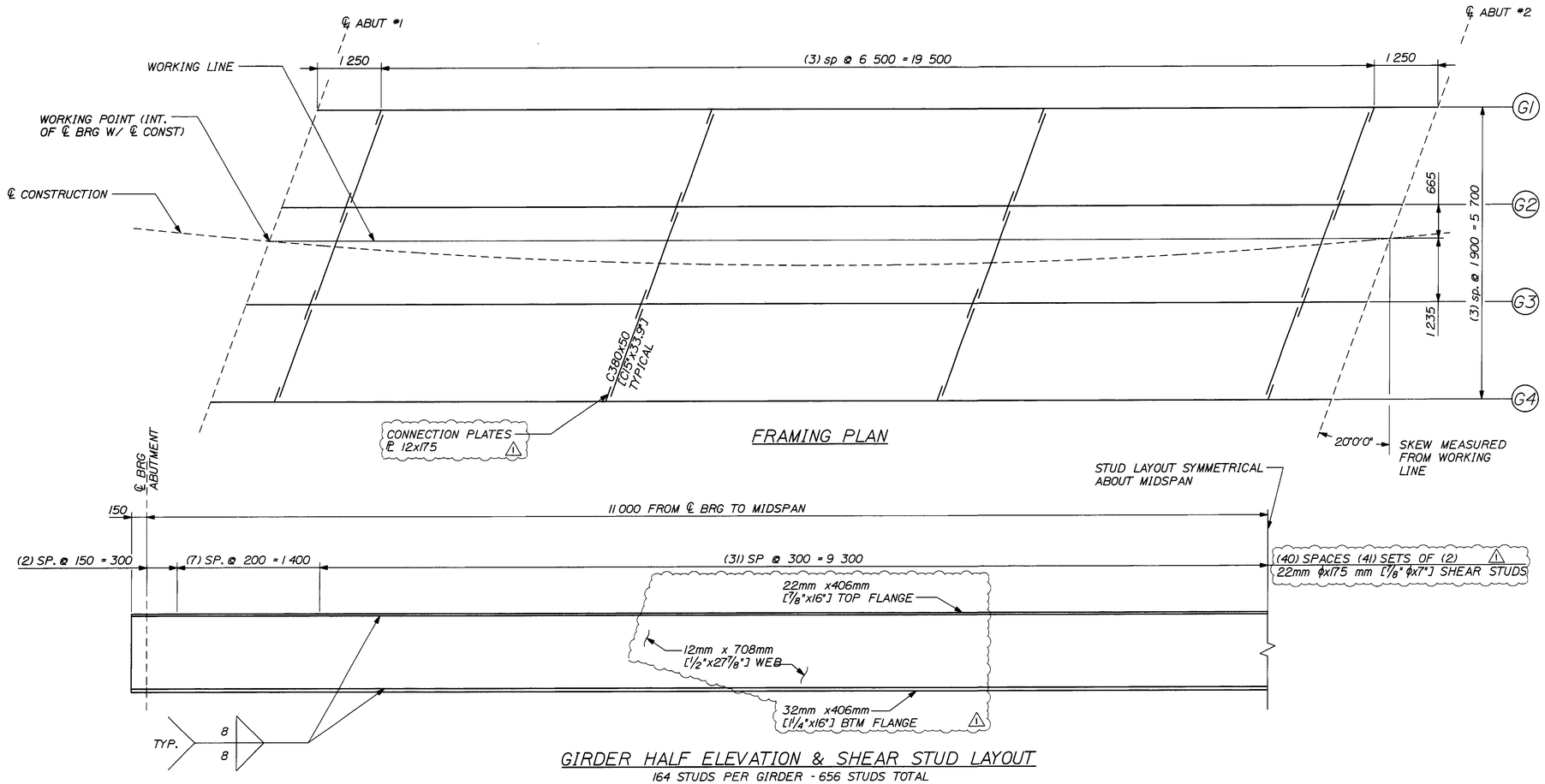
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REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

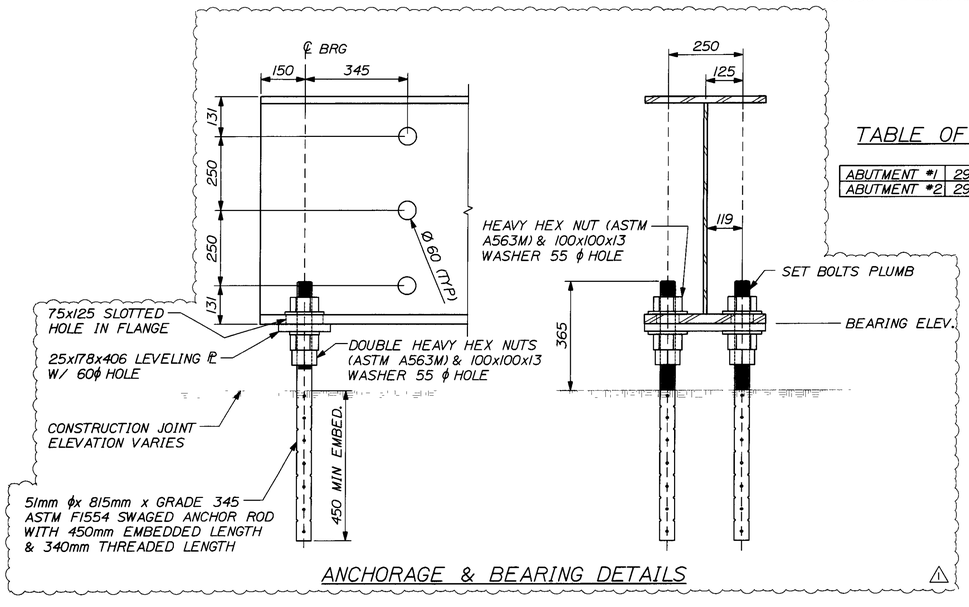
BURKE
VALUE ENGINEERED DESIGN

ABUTMENT #2 REINFORCEMENT

SHEET NUMBER

A7

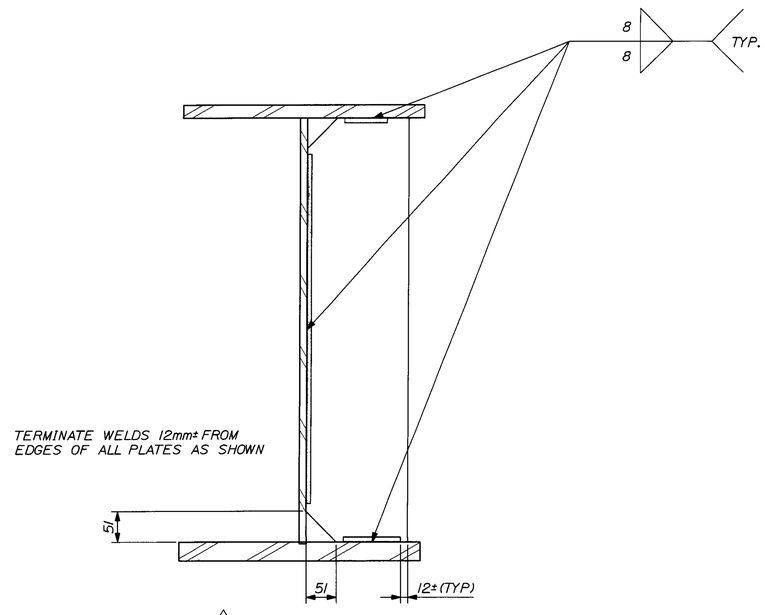




ANCHORAGE & BEARING DETAILS ⚠1

TABLE OF BEARING ELEVATIONS

	G1	G2	G3	G4
ABUTMENT #1	293.060	293.155	293.250	293.345
ABUTMENT #2	294.055	294.125	294.200	294.275



⚠1 12 mm CONNECTION ℄ DETAIL

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BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (16)

STATE OF VERMONT ERIC CALDERWOOD NO. 5743 REGISTERED PROFESSIONAL ENGINEER LICENSED

9099

P.E. NUMBER

DATE NOV 2008

BY	DATE	REVISIONS
ETC	NOV 08	
	JAN 09	ADDRESS AOT COMMENTS
	MAR 09	NO CHANGES THIS SHT
	APR 09	NO CHANGES THIS SHT
		FIELD CHANGES

DESIGN-DETAILED
CHECKED-REVIEWED

BURKE
VALUE ENGINEERED DESIGN

FRAMING PLAN & GIRDER ELEVATION

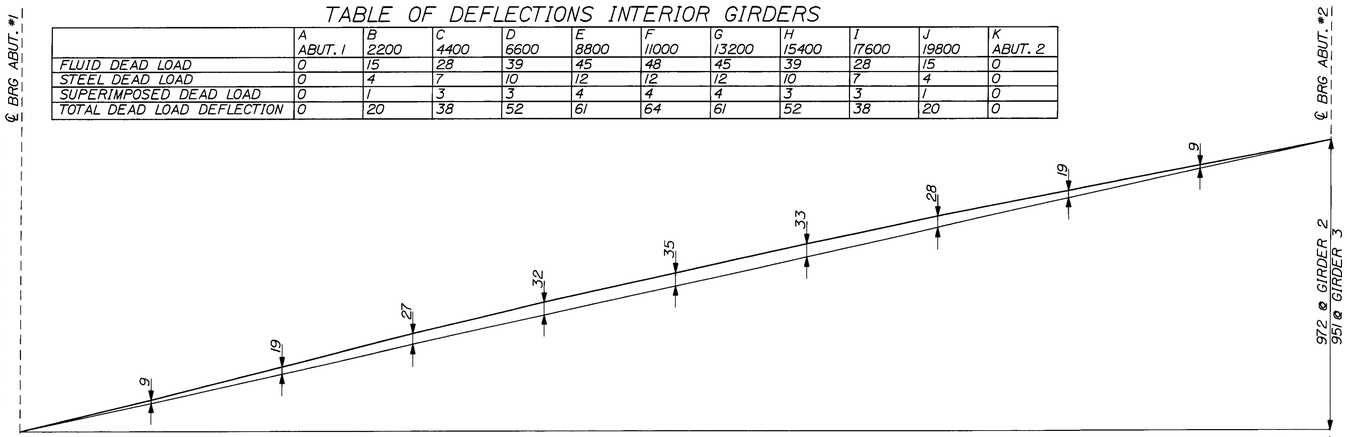
SHEET NUMBER
F1

Filename \76_br_08_BURKE F1.dgn Workgroup Structures Division Username: Eric Calderwood Date:4/3/2009

Filename \76_br_08_BURKE F2 dgn Workgroup Structures Division Username Eric Calderwood Date 4/3/2009

TABLE OF DEFLECTIONS INTERIOR GIRDERS

	A ABUT. 1	B 2200	C 4400	D 6600	E 8800	F 11000	G 13200	H 15400	I 17600	J 19800	K ABUT. 2
FLUID DEAD LOAD	0	15	28	39	45	48	45	39	28	15	0
STEEL DEAD LOAD	0	4	7	10	12	12	12	10	7	4	0
SUPERIMPOSED DEAD LOAD	0	1	3	3	4	4	4	3	3	1	0
TOTAL DEAD LOAD DEFLECTION	0	20	38	52	61	64	61	52	38	20	0



CAMBER DIAGRAM

TABLE OF DEFLECTIONS EXTERIOR GIRDERS

	A ABUT. 1	B 2200	C 4400	D 6600	E 8800	F 11000	G 13200	H 15400	I 17600	J 19800	K ABUT. 2
FLUID DEAD LOAD	0	13	25	34	40	41	40	34	25	13	0
STEEL DEAD LOAD	0	4	7	10	12	12	12	10	7	4	0
SUPERIMPOSED DEAD LOAD	0	1	3	4	4	4	4	4	3	1	0
TOTAL DEAD LOAD DEFLECTION	0	18	35	48	56	58	56	48	35	18	0

⚠

STRUCTURAL STEEL NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
2. No transverse butt-weld splices will be allowed in the flange plates or web plates within 3.0 m or 10 percent of the span length (whichever is greater) from the point of maximum positive moment. Butt-weld splices in flanges shall be not less than 1.0 m from transverse butt-welds in the web plates and no transverse web or flange butt-welds shall be located within 1.0 m of other transverse welds (e.g. connection plates to web welds) on either flange or web.
3. Cross-frame or diaphragm connection plates may be either plumb or normal to the top flange.
4. Filler plates may be steel conforming to the requirements of A709/A709M, Grade 250W.
5. All other structural steel shall conform to the requirements of ASTM A709/A709M Grade 345W
6. Theoretical Blocking is 50mm as measured from the top of the top flange or 72mm as measured from the top of the web.
7. All bolt holes shall be 24mmϕ for 22mmϕ A325M bolts UNO

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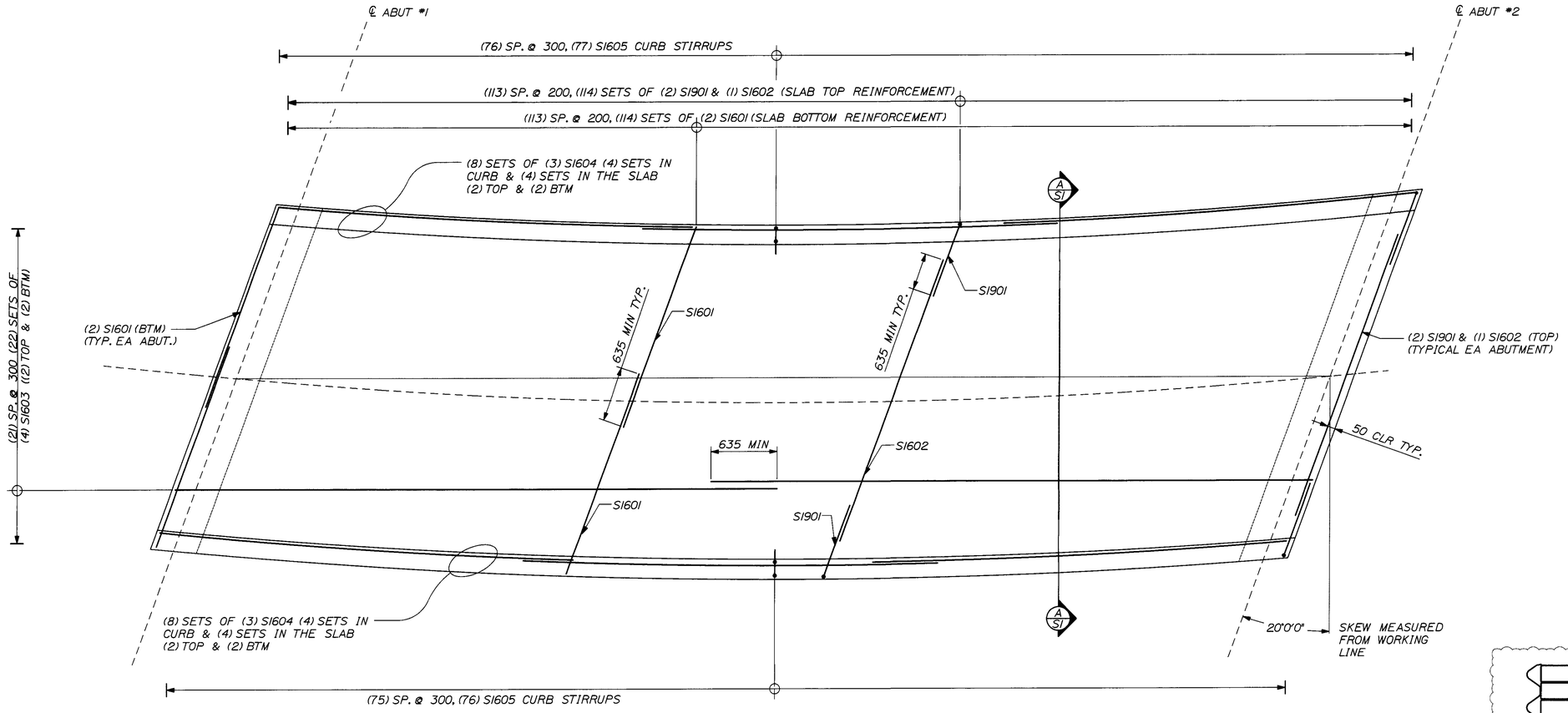
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BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (15)

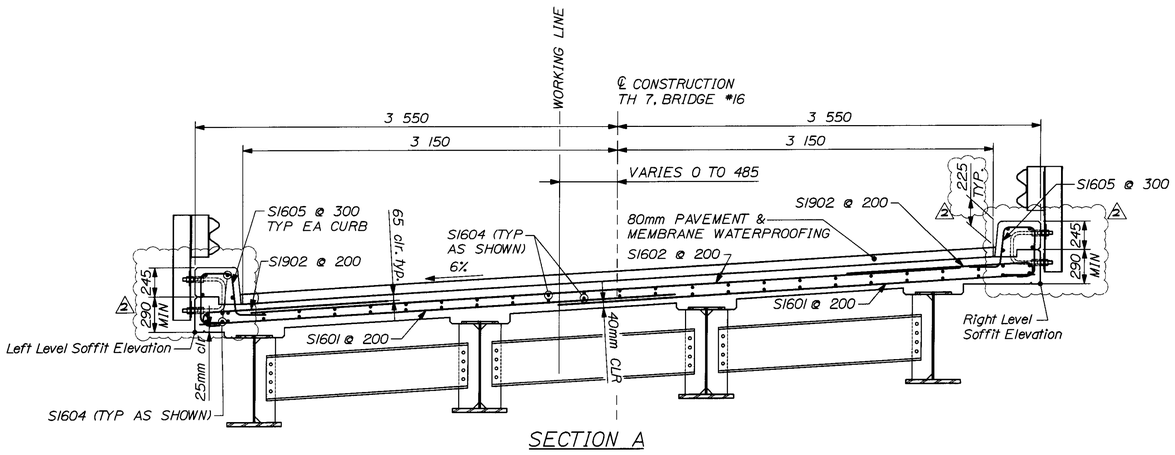
STATE OF MAINE — ERIC T. CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099 DATE NOV 2008

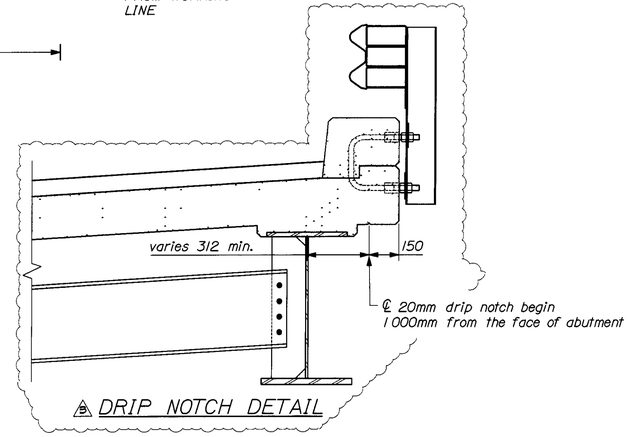
BY	DATE	
ETC	NOV 08	



DECK REINFORCING PLAN



SECTION A



B DRIP NOTCH DETAIL

BOTTOM OF SLAB ELEVATIONS

	A ABUT. 1	B 2200	C 4400	D 6600	E 8800	F 11000	G 13200	H 15400	I 17600	J 19800	K ABUT. 2
G1	293.870	293.975	294.075	294.180	294.285	294.385	294.485	294.580	294.675	294.770	294.865
G2	293.965	294.065	294.170	294.270	294.375	294.475	294.570	294.660	294.755	294.845	294.935
G3	294.060	294.160	294.260	294.360	294.460	294.555	294.650	294.740	294.830	294.920	295.010
G4	294.155	294.250	294.345	294.445	294.540	294.635	294.730	294.820	294.905	294.995	295.085

FOR LEFT AND RIGHT BOTTOM OF DECK SOFFIT LOCATIONS REFERENCE SHEET S2
BOTTOM OF SLAB ELEVATIONS ACCOUNT FOR FLUID LOAD DEFLECTIONS ⚠

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P.E. NUMBER 9099

DATE NOV 2008

	BY	DATE
REVISIONS 1	ETC	NOV 08
REVISIONS 2	ADDRESS AOT COMMENTS	JAN 09
REVISIONS 3	MISC. REVISIONS	MAR 09
REVISIONS 4	MISC. REVISIONS	APR 09
FIELD CHANGES		

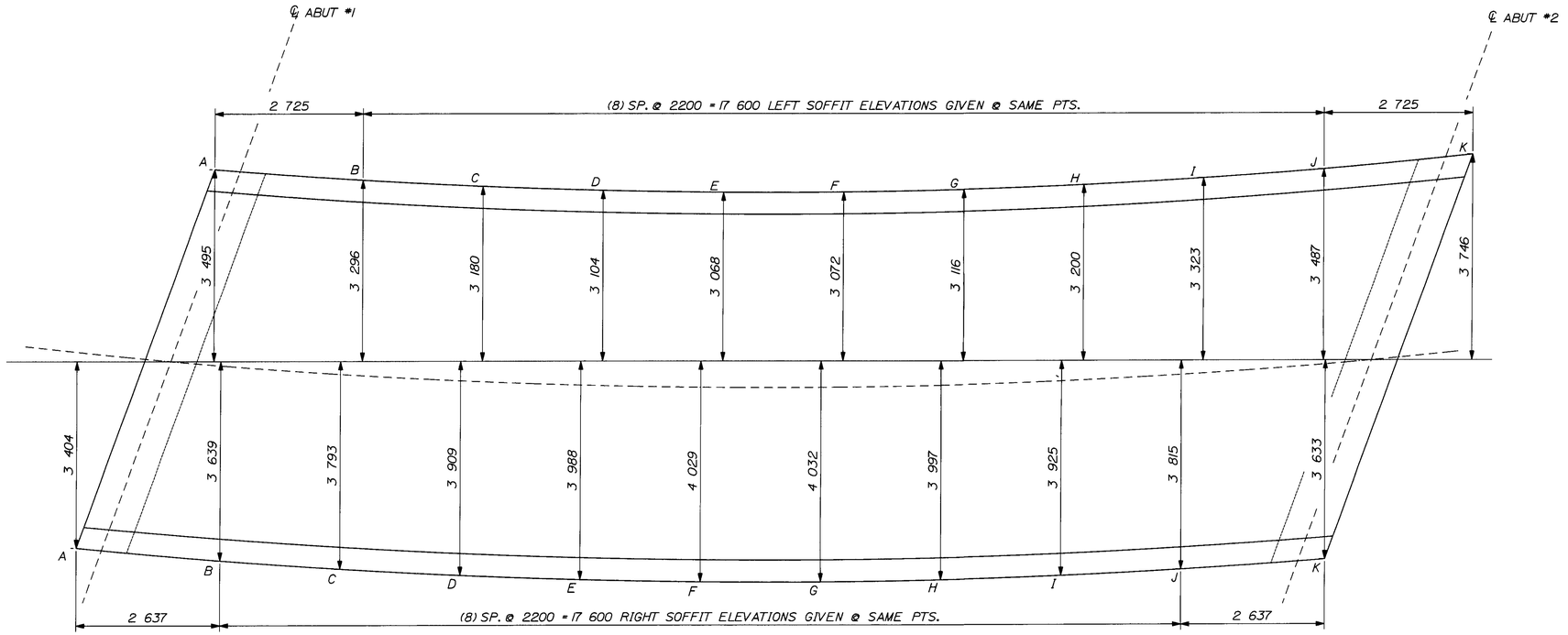
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CHECKED-REVIEWED

BURKE
VALUE ENGINEERED DESIGN

DECK REINFORCING PLAN

SHEET NUMBER
S1

Filename \76_br_08_BURKE S1 dgnWorkgroup Structures Division Username Eric Calderwood Date 4/3/2009

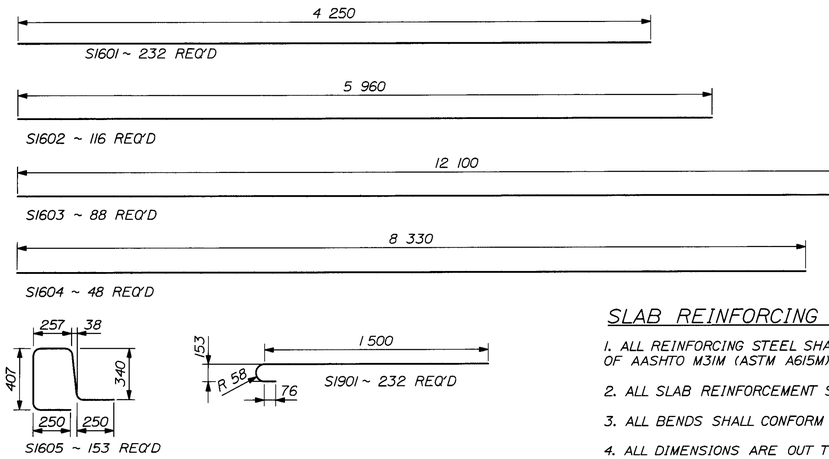


CURB LAYOUT PLAN

SOFFIT BOTTOM OF SLAB ELEVATIONS

	A	B	C	D	E	F	G	H	I	J	K
LEFT	293.815	293.955	294.065	294.175	294.280	294.380	294.480	294.570	294.660	294.745	294.830
RIGHT	294.110	294.240	294.345	294.450	294.550	294.645	294.735	294.825	294.905	294.990	295.085

SOFFIT ELEVATIONS ACCOUNT FOR FLUID LOAD DEFLECTIONS



SLAB REINFORCING NOTES

1. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M31M (ASTM A615M) ALL BARS SHALL BE GRADE 420 Mpa
2. ALL SLAB REINFORCEMENT SHALL BE EPOXY COATED
3. ALL BENDS SHALL CONFORM TO ACI 318M RECOMMENDED PIN DIAMETERS
4. ALL DIMENSIONS ARE OUT TO OUT OF REINFORCEMENT (EXCEPT RADIUS OF S1901)
5. PROVIDE 40 mm CLEAR COVER BTM & 65mm CLEAR COVER TOP TYPICAL U.N.O.

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STATE OF MAINE — ERIC T CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE NOV 2008

	BY	DATE
REVISIONS 1	ADDRESS AOT COMMENTS	JAN 09
REVISIONS 2	NO CHANGES THIS SHT	MAR 09
REVISIONS 3	NO CHANGES THIS SHT	APR 09
REVISIONS 4		
FIELD CHANGES		

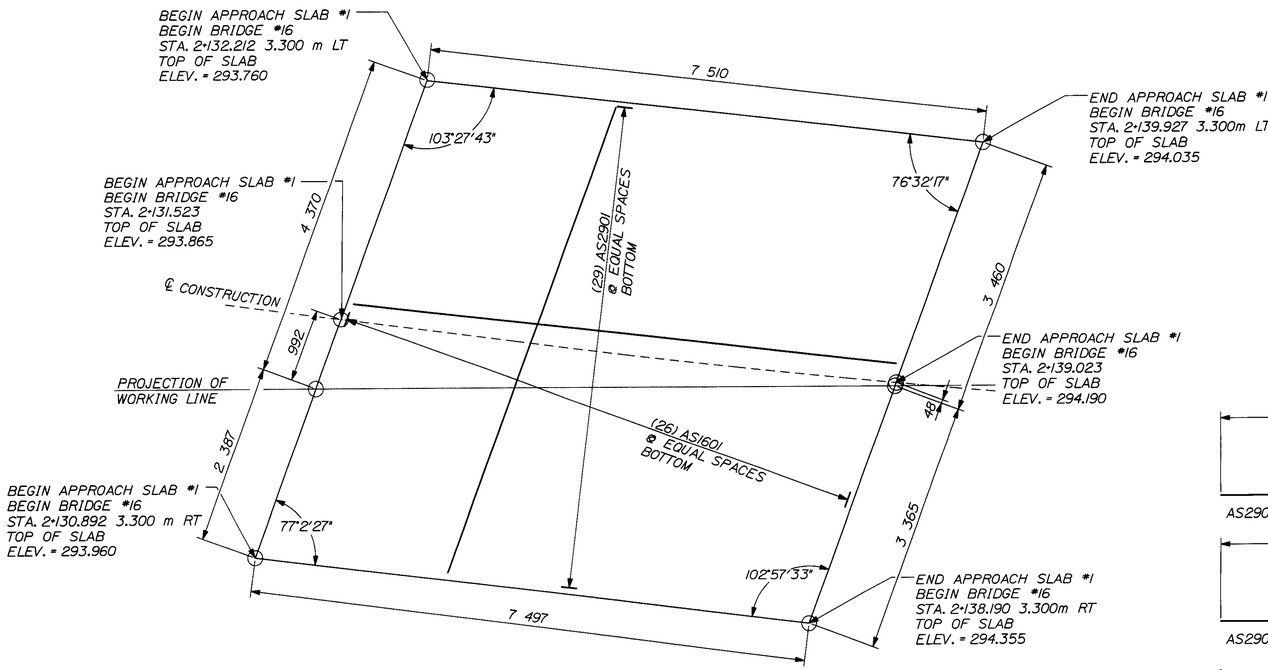
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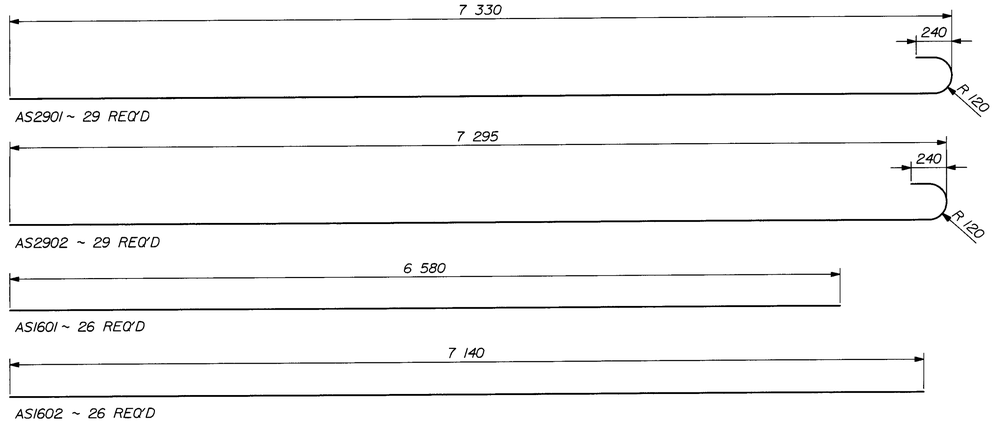
BURKE
VALUE ENGINEERED DESIGN

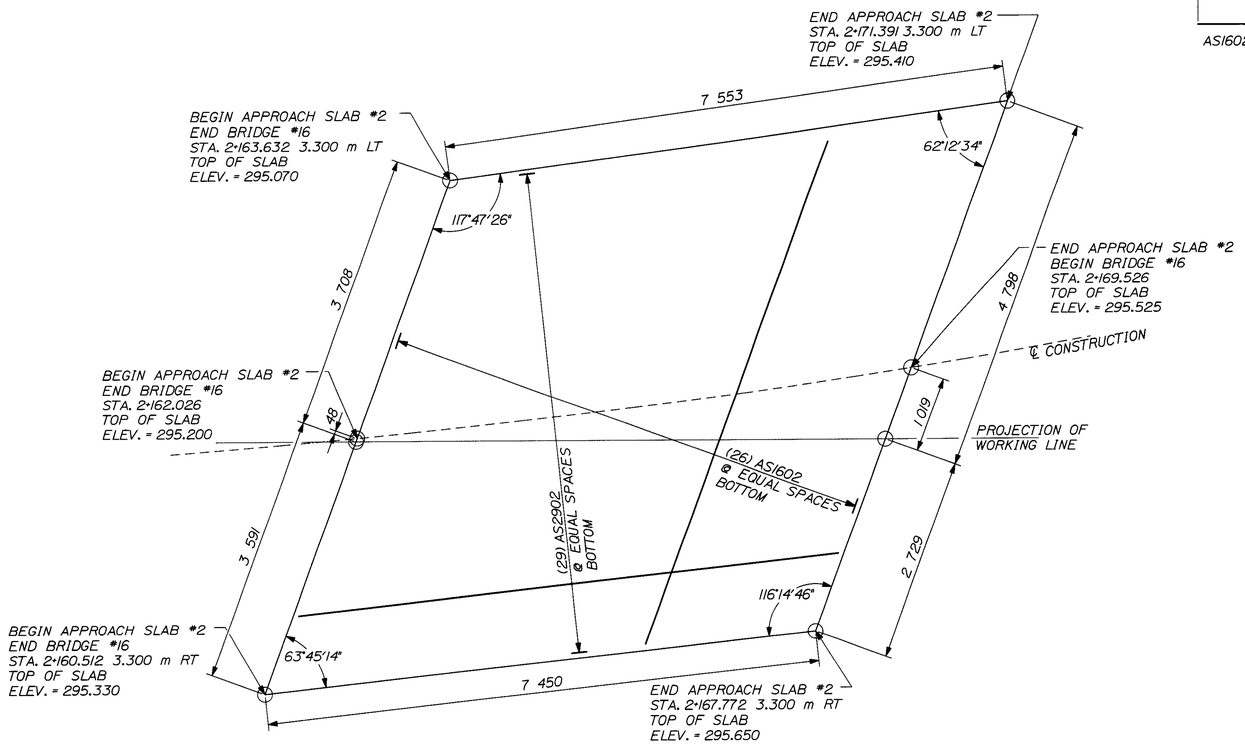
CURB LAYOUT & SOFFIT ELEV.

SHEET NUMBER
S2

Filename \76_br_08_BURKE S2.dgn Workgroup Structures Division Date 4/3/2009 Username Eric Calderwood







APPROACH SLAB REINFORCING NOTES

1. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M31M (ASTM A615M) ALL BARS SHALL BE GRADE 420 Mpa
2. ALL REINFORCEMENT SHALL BE EPOXY COATED U.N.O.
3. ALL BENDS SHALL CONFORM TO ACI 318M RECOMMENDED PIN DIAMETERS
4. ALL DIMENSIONS ARE OUT TO OUT OF REINFORCEMENT (EXCEPT RADIUS OF AS290X)
5. PROVIDE 75 mm CLEAR COVER TYPICAL U.N.O.

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PROJ. BRZ 1447 (16)

STATE OF VERMONT ERIC T. CALDERWOOD LICENSED PROFESSIONAL ENGINEER NO. 9090

P.E. NUMBER 9090

DATE NOV 2008

BY	DATE
ETC	NOV 08
NO REVISIONS THIS SHT	JAN 09
NO REVISIONS THIS SHT	MAR 09
NO REVISIONS THIS SHT	APR 09

DESIGN-DETAILED
CHECKED-REVIEWED

REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BURKE
VALUE ENGINEERED DESIGN

APPROACH SLAB DETAILS

SHEET NUMBER
S3

Filename \76_br_08_BURKE S3.dgn Workgroup Structures Division Username Eric Calderwood Date 4/3/2009

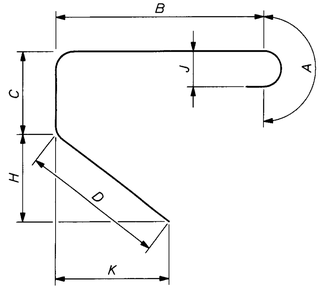
Filename \76_br_08_BURKE R1.dgnWorkgroup Structures Division Username Eric Calderwood Date 4/3/2009

BENT BARS

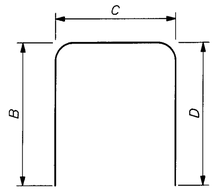
MARK	QTY	LENGTH	TYPE	A	B	C	D	E	H	J	K	LOCATION/COMMENTS
ABUTMENT NO. 1												
A1601	14	1 160	S10		450	300	450					WINGWALL END
A1602	26	6 100	STR.									BREASTWALL HORIZONTAL
A1603	13	1 610	S10		450	750	450					WINGWALL END
A1604	15	1 660	S10		700	300	700					WINGWALL TOP
A1605	103	2 700	STR.									WING & BREASTWALL VERT.
A1606	10	2 630	STR.									WINGWALL VERTICAL
A1607	10	2 150	STR.									WINGWALL VERTICAL
A1608	10	2 110	S10		700	750	700					BREASTWALL TOP
A1609	2	2 135	S10		700	775	700					BREASTWALL TOP
A1610	25	1740	14	700	460	600	--	--	320	⚠1	330	BREASTWALL & BOTTOM OF SLAB STEEL
A1611	24	1 250	12	--	475	280	495		350	--	350	APPROACH SLAB SEAT REINFORCEMENT
A1612	19	1 200	STR.									FAR FACE CORNER REINFORCING HORIZ.
A1613	144	1 025	S10		150	750	150					BREASTWALL TIES BEND AROUND 65mm PIN
A1614	2	2 220	12	--	--	1 530	705		270	--	650	WING TOP
A1615	1	1 745	12	--	--	1 100	650		590	--	270	WING TOP
A1616	1	1 875	12	--	--	1 100	780		710	--	325	WING TOP
A1617	10	1 670	STR.									WINGWALL VERTICAL
A1618	1	2 775	--	SEE	SKETCH	SHEET A6						TOP OF BREASTWALL
A1619	1	1 580	12	--	--	610	985		340	--	925	TOP OF BREASTWALL
A1620	1	1 210	12	--	--	610	610		425	--	435	TOP OF BREASTWALL
A1621	1	2 450	S10		--	1 490	980					BREASTWALL TO TOP OF SLAB
A1622	4	6 950	STR.									APPROACH SLAB SEAT HORIZONTAL
A1901	10	3 610	STR.									WING HORIZONTAL
A1902	10	3 135	12	--	--	2 160	1 000		340	--	940	WING HORIZONTAL
A2201	13	4 800	STR.									WING HORIZONTAL N.F.
A2202	13	4 200	STR.									WING HORIZONTAL F.F.
A2203	1	4 840	12	--	--	3 900	945		935	--	140	TOP OF WING HORIZONTAL
A2204	1	4 200	12	--	--	3 900	305		300	--	45	TOP OF WING HORIZONTAL
A2205	26	4 375	12	--	--	2 400	1 000		340	--	940	BREASTWALL HORIZONTAL
A2206	2	4 385	12	--	--	2 400	1 010		340	--	950	BREASTWALL HORIZONTAL BTM
A2207	30	3 850	STR.									WINGWALL HORIZONTAL
DECK SLAB REINFORCEMENT												
S1601	232	4 250	STR.									BOTTOM MAT TRANSVERSE
S1602	116	5 960	STR.									TOP MAT TRANSVERSE
S1603	88	12 100	STR.									TOP & BTM MAT LONGITUDINAL
S1604	48	8 330	STR.									CURB & SLAB ADDITIONAL LONGIT. REINF.
S1605	153	1 425	--	SEE	SKETCH	SHEET S2						CURB STIRRUPS
S1901	232	1755	12	180	1 500	--	--		--	153	--	TOP MAT OVERHANG TRANSVERSE

BENT BARS

MARK	QTY	LENGTH	TYPE	A	B	C	D	E	H	J	K	LOCATION/COMMENTS
ABUTMENT NO. 2												
B1601	14	1 160	S10		450	300	450					WINGWALL END
B1602	26	6 100	STR.									BREASTWALL HORIZONTAL
B1603	13	1 610	S10		450	750	450					WINGWALL END
B1604	18	1 660	S10		700	300	700					WINGWALL TOP
B1605	100	2 850	STR.									WING & BREASTWALL VERT.
B1606	10	2 250	STR.									WINGWALL VERTICAL
B1607	10	1 675	STR.									WINGWALL VERTICAL
B1608	10	2 310	S10		800	750	800					BREASTWALL TOP
B1609	1	2 390	S10		800	830	800					BREASTWALL TOP
B1610	26	1795	14	700	480	635	--	--	320	⚠1	355	BREASTWALL & BOTTOM OF SLAB STEEL
B1611	25	1 250	12	--	475	280	495		350	--	350	APPROACH SLAB SEAT REINFORCEMENT
B1612	19	1 200	STR.									FAR FACE CORNER REINFORCING HORIZ.
B1613	144	1 025	S10		150	750	150					BREASTWALL TIES BEND AROUND 65mm PIN
B1614	2	1 970	12	--	--	1 280	705		270	--	650	WING TOP
B1615	1	1 495	12	--	--	1 100	400		370	--	150	WING TOP
B1616	1	1720	12	--	--	1 100	625		580	--	235	WING TOP
B1617	1	1 185	12	--	--	600	600		290	--	530	TOP OF BREASTWALL
B1618	1	1 185	12	--	--	600	600		435	--	415	TOP OF BREASTWALL
B1619	1	3 020	--	SEE	SKETCH	SHEET A7						TOP OF BREASTWALL
B1620	49	2 450	S10		--	1 490	980					BREASTWALL TO TOP OF SLAB
B1621	1	2 105	S10		900	345	900					TOP OF WINGWALL
B1622	4	7 250	STR.									APPROACH SLAB HORIZONTAL
B1623	5	2 600	STR.									BREASTWALL NEAR FACE VERTICAL
B1901	10	2 900	STR.									WING TOP HORIZONTAL
B1902	5	5 185	12	--	--	3 200	2 005		960	--	1760	WING HORIZONTAL N.F.
B1903	5	4 515	12	--	--	3 200	1 335		640	--	1170	WING HORIZONTAL F.F.
B2201	14	3 450	STR.									WING HORIZONTAL CUT TO FIT AS REQ.
B2202	13	5 460	12	--	--	3 400	2 085		960	--	1 850	WING HORIZONTAL N.F.
B2203	14	3 250	STR.									TOP OF WING HORIZONTAL
B2204	13	4 860	12	--	--	3 500	1385		640	--	1 230	WING HORIZONTAL F.F.
B2205	1	5 485	12	--	--	3 400	2 110		960	--	1 880	WING HORIZONTAL BTM
B2206	1	4 385	12	--	--	3 500	1 410		640	--	1 255	WING HORIZONTAL BTM
B2207	30	3 200	STR.									WINGWALL HORIZONTAL
APPROACH SLAB REINFORCEMENT												
AS1601	29	6 580	STR.									APPROACH SLAB TRANSVERSE BTM
AS1602	29	7 140	STR.									APPROACH SLAB TRANSVERSE BTM
AS2901	29	7 695	12	375	7 210	--	--		--	300	--	APPROACH SLAB LONGITUDINAL BTM
AS2902	29	7 660	12	375	7 175	--	--		--	300	--	APPROACH SLAB LONGITUDINAL BTM



BEND TYPE 12



BEND TYPE S10

GENERAL NOTES

ALL DIMENSIONS ARE OUT-TO-OUT OF BAR.

BENDING DETAILS AND HOOKS SHALL CONFORM TO THE RECOMMENDATIONS OF THE CURRENT REVISION OF ACI STANDARD 315 AND ACI STANDARD 318.

REINFORCING BAR: ASTM A615M GR. 420 EPOXY COATED

THE FIRST TWO DIGITS FOLLOWING THE LETTER OF THE MARK INDICATE THE SIZE OF THE BAR:

MARK "A1602" = BAR SIZE #16
MARK "P2505" = BAR SIZE #25
MARK "S1950" = BAR SIZE #19

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STATE OF VERMONT — BRETT C. CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

9099

P.E. NUMBER

DATE NOV 2008

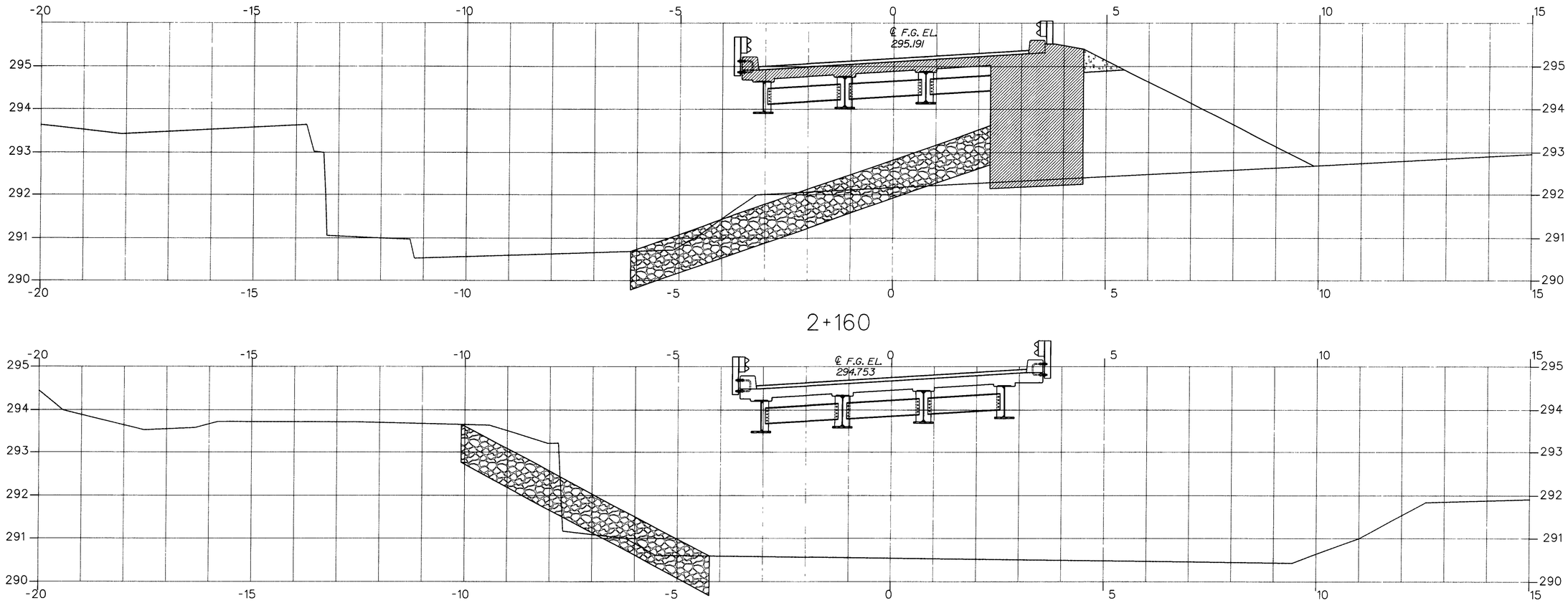
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REVISIONS 2	NO CHANGES THIS SHT	MAR 09
REVISIONS 3	NO CHANGES THIS SHT	APR 09
REVISIONS 4		
FIELD CHANGES		

BURKE
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REINFORCING STEEL SCHEDULE

SHEET NUMBER

R1



Filename \76_br_08_BURKE C1.dgn Workgroup Structures Division Username Eric Calderwood Date 4/3/2009

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PROJ. BRZ 1447 (16)

STATE OF VERMONT
ERIC J. CALDERWOOD
NO. 9099
LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

DATE: NOV 2008

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ETC	NOV 08

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REVISIONS 4		
FIELD CHANGES		

BURKE
VALUE ENGINEERED DESIGN

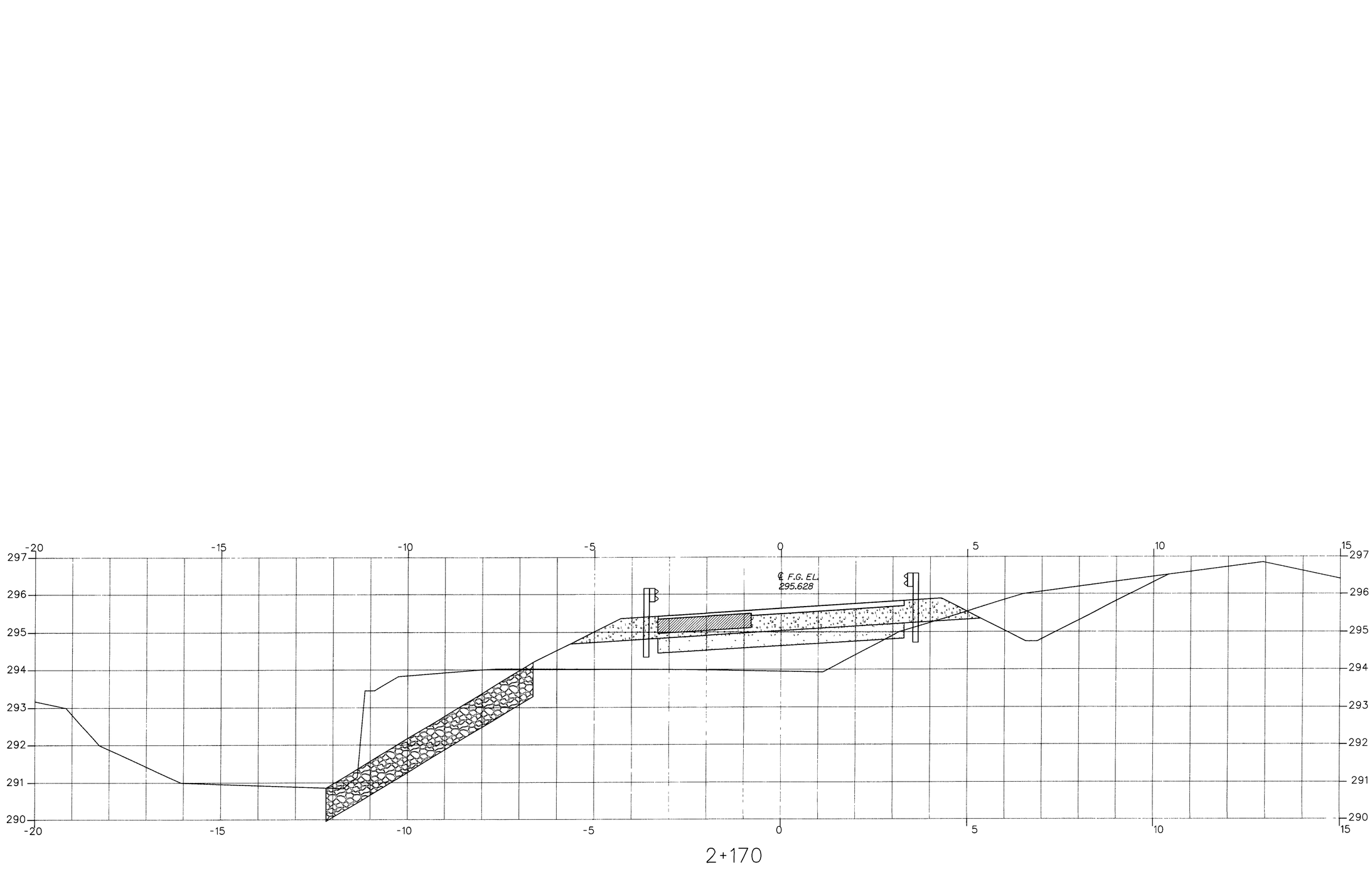
CROSS SECTIONS

SHEET NUMBER

C1

Username Eric Calderwood Date 4/3/2009

Filename \76_br_08_BURKE C2 dgWorkgroup Structures Division



2+170

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REVISIONS 2	NO REVISIONS THIS SHT		MAR 09
REVISIONS 3	NO REVISIONS THIS SHT		APR 09
REVISIONS 4			
FIELD CHANGES			

STATE OF VERMONT — ERIC T. CALDERWOOD — NO. 9099 — LICENSED PROFESSIONAL ENGINEER

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DATE NOV 2008

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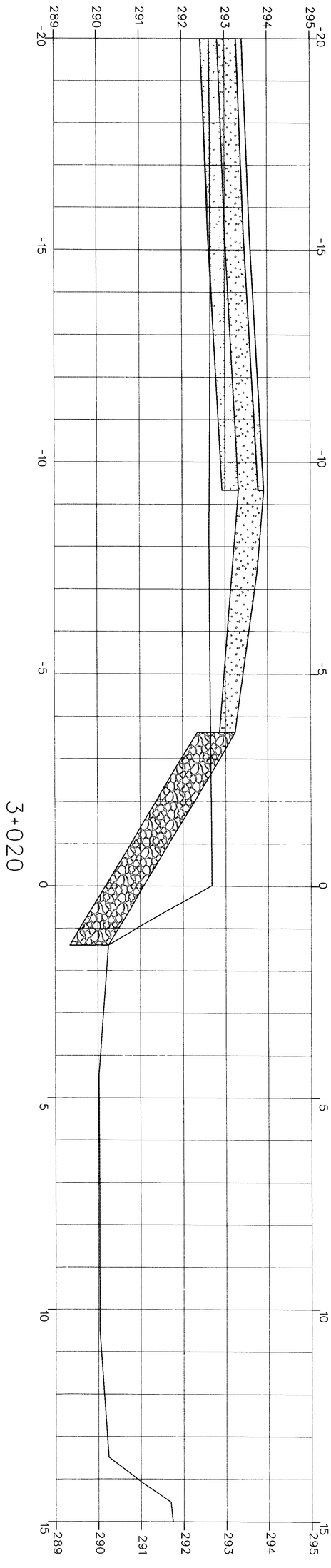
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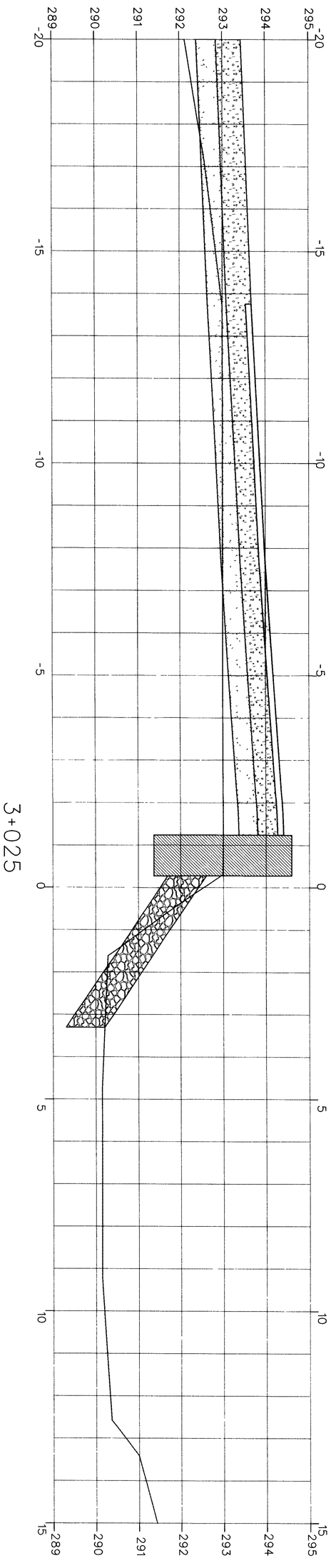
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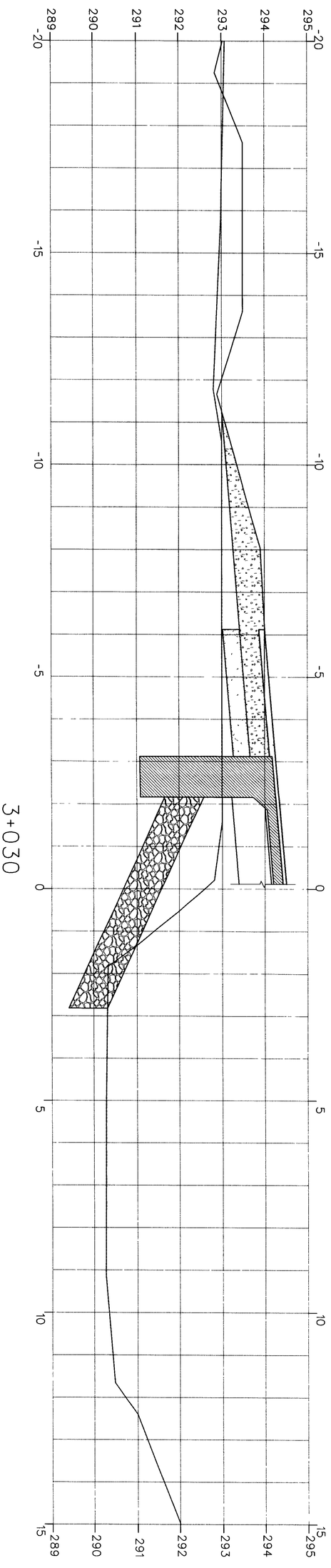
CROSS SECTIONS

SHEET NUMBER

C2







SHEET NUMBER C3

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CROSS SECTIONS

		BY	DATE
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REVISIONS 2	NO REVISIONS THIS SHT		MAR 09
REVISIONS 3	NO REVISIONS THIS SHT		APR 09
REVISIONS 4			
FIELD CHANGES			

9099 P.E. NUMBER

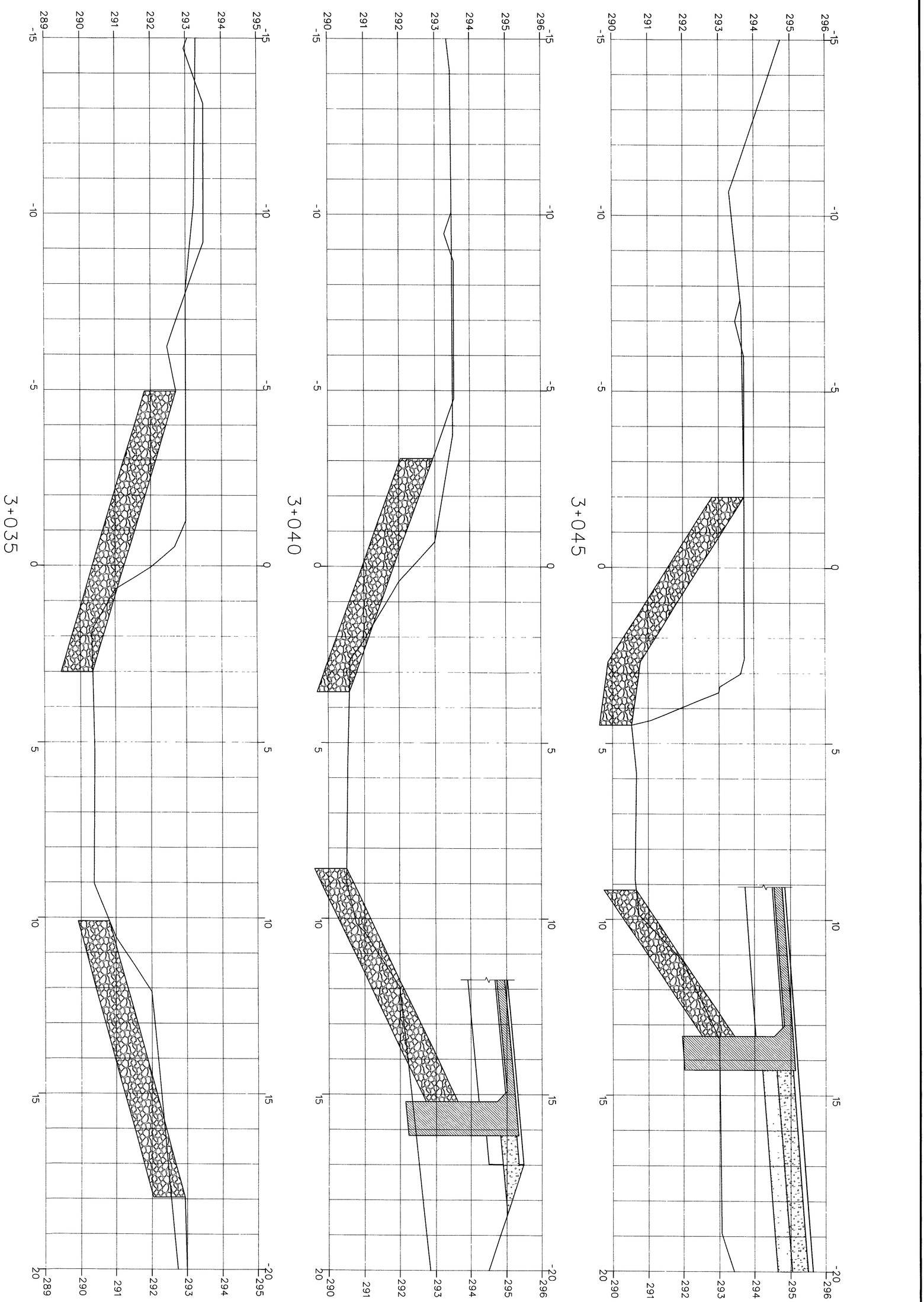
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PROJ. BRZ 1447 (15)

Filename \76_br_08_BURKE C4 dgWorkgroup Structures Division Username Eric Calderwood Date 4/3/2009



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VALUE ENGINEERED DESIGN
CROSS SECTIONS

SHEET NUMBER C4

		BY	DATE
DESIGN-DETAILED		ETC	NOV '08
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REVISIONS 1	NO REVISIONS THIS SHT		JAN '09
REVISIONS 2	NO REVISIONS THIS SHT		MAR '09
REVISIONS 3	NO REVISIONS THIS SHT		APR '09
REVISIONS 4			
FIELD CHANGES			

9099 P.E. NUMBER

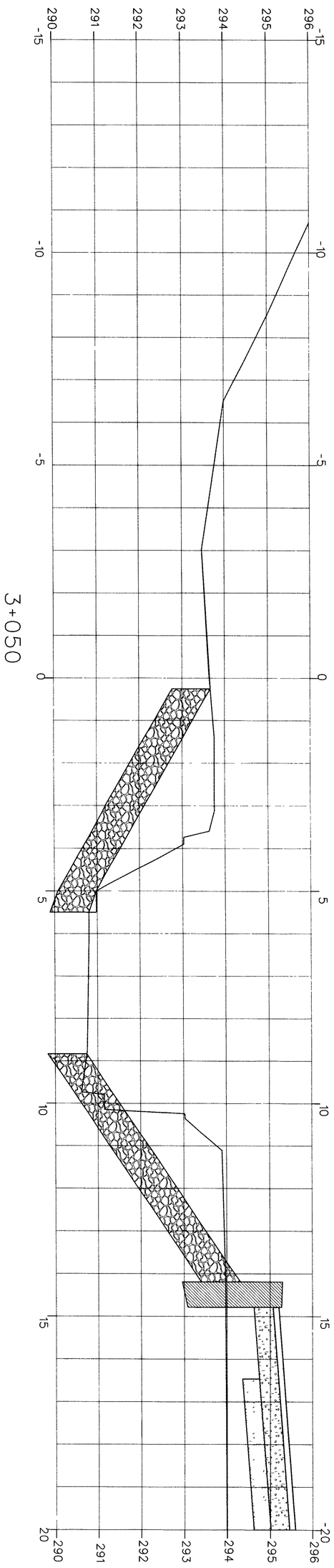
DATE NOV 2008

STATE OF MAINE ERIC T. CALDERWOOD 9099 REGISTERED PROFESSIONAL ENGINEER

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PROJ. BRZ 1447 (15)



BURKE
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CROSS SECTIONS

SHEET NUMBER C5

		BY	DATE
DESIGN-DETAILED		ETC	NOV 08
CHECKED-REVIEWED			
REVISIONS 1	NO REVISIONS THIS SHT		JAN 09
REVISIONS 2	NO REVISIONS THIS SHT		MAR 09
REVISIONS 3	NO REVISIONS THIS SHT		APR 09
REVISIONS 4			
FIELD CHANGES			

9099 P.E. NUMBER

DATE NOV 2008

STATE OF MAINE ERIC T. CALDERWOOD NO. 9099 REGISTERED PROFESSIONAL ENGINEER

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER ROAD, RICHMOND, ME 04357 PH/FX (207)737-4601

PREPARED FOR AUSTIN CONST., INC

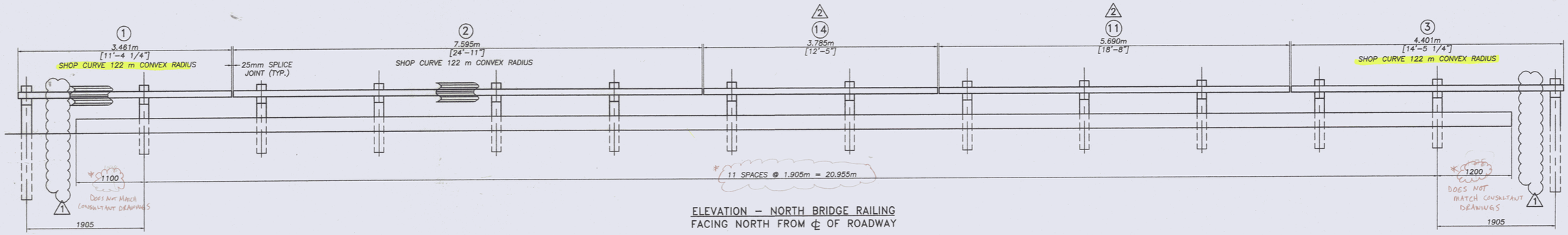
BURKE - VALUE ENGINEERING
PROJ. BRZ 1447 (15)

BRIDGE # 16

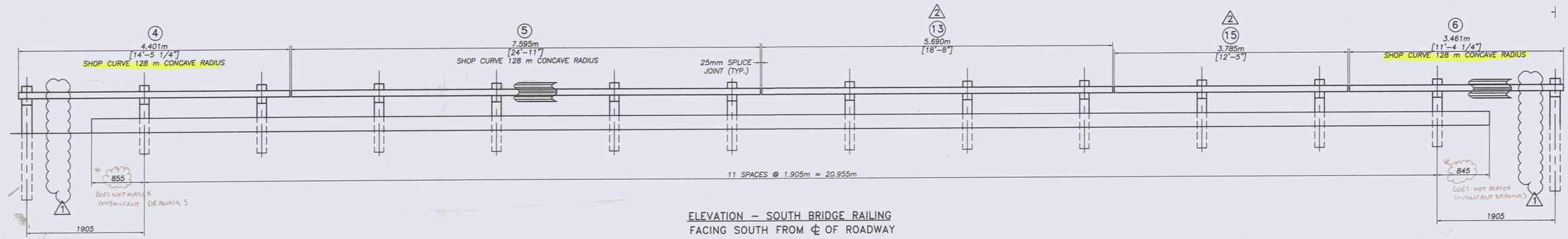
1098 / 20912 / 1075

1098 + 20912 + 1075 = 23085
1100 + 20995 + 1200 = 23295
210mm (~8¼") Long

20995 − 20912 = 83 (~3¼" Long)



ELEVATION – NORTH BRIDGE RAILING
FACING NORTH FROM ℄ OF ROADWAY



ELEVATION – SOUTH BRIDGE RAILING
FACING SOUTH FROM ℄ OF ROADWAY

1096 / 20996 / 814

1096 + 20996 + 814 = 22906
855 + 20995 + 845 = 22695
211mm (~8¼" Short)

20996 − 20995 = 1 Short OK

* THESE NUMBERS DO NOT MATCH THOSE SHOWN ON CONSULTANT DRAWINGS. THESE NUMBERS WILL NOT AFFECT RAILING FABRICATIONS, BUT RAIL LAYOUT IN THE FIELD WILL NEED TO BE READJUSTED.

ADDITIONAL MATERIAL			
Mk.	Qty.	Description	Material
	10	FASCIA MOUNTED POST W150x29.8 (965mm OAL)	A572 gr 50
	4	SPLICE CHANNEL C180x18.2 (790mm OAL)	A572 gr 50
	20	TUBE BLOCKOUTS TS 203x102x4.8 (150 Lg.)	A500 gr B
11	1	TS 203x102x4.8 (5.690m OAL) 122m convex RADIUS	A500 gr B
13	1	TS 203x102x4.8 (5.690m OAL) 122m cocave RADIUS	A500 gr B
14	1	TS 203x102x4.8 (3.785m OAL) 122m convex RADIUS	A500 gr B
15	1	TS 203x102x4.8 (3.785m OAL) 128m concave RADIUS	A500 gr B
	4	10 Ga. HDSB RAIL (3.810m /1.905m SPACING)	A500 gr B
	2	10 Ga. HDSB RAIL (1.905m /1.905m SPACING)	A500 gr B
	10	16ø x 330mm Lg. HEX BOLT W/HEX NUT & 2 FLAT WASHERS	A325
	10	16ø x 260mm Lg. HEX BOLT W/HEX NUT, FLAT WASHER & SPECIAL WASHER	A325
	36	16ø x 50mm Lg. HEX BOLT W/HEX NUT & 2 FLAT WASHERS	A325
	32	16ø SPLICE BOLT W/HEX NUT, FLAT WASHER & Dbl. RECESSED NUT	A307
	20	U-SHAPED ANCHOR BOLT (25ø) W/2 HEX NUTS, FLAT WASHER & PLATE WASHER	~~A449~~

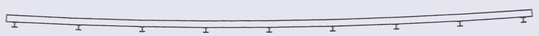


122 meter CONVEX SHOP CURVE RADIUS AT TRAFFIC FACE OF RAIL TUBE NORTH FASCIA

PLAN VIEW



125 meter RADIUS
@ CENTERLINE OF ROADWAY



128 meter CONCAVE SHOP CURVE RADIUS AT TRAFFIC FACE OF RAIL TUBE SOUTH FASCIA

NOTE: ALL LINEAR DIMENSIONS ARE MEASURED ALONG FASCIA

PORTIONS OF HDSB & STEEL TUBE BLOCKOUTS REMOVED FROM THIS VIEW FOR CLARITY.

ALL DIMENSION SHOWN ARE IN (mm) MILLIMETERS UNLESS OTHERWISE NOTED.

SHOP CURVE RADIUS DIMENSIONS HAVE BEEN ROUNDED TO NEAREST METER TO REFLECT MANUFACTURING TOLERANCES

REVISIONS		
No.	Remarks	Date
0	Initial submittal	
1	As corrected revision	8/19/08
2	As built revision	9/12/09

RECEIVED
CK'D BY ELC CK'D BY
MAY 19 2009
RESUBMIT APPROVED AS NOTED
BY GPW DATE 6/12/09
STRY STRUCTURES COPY

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

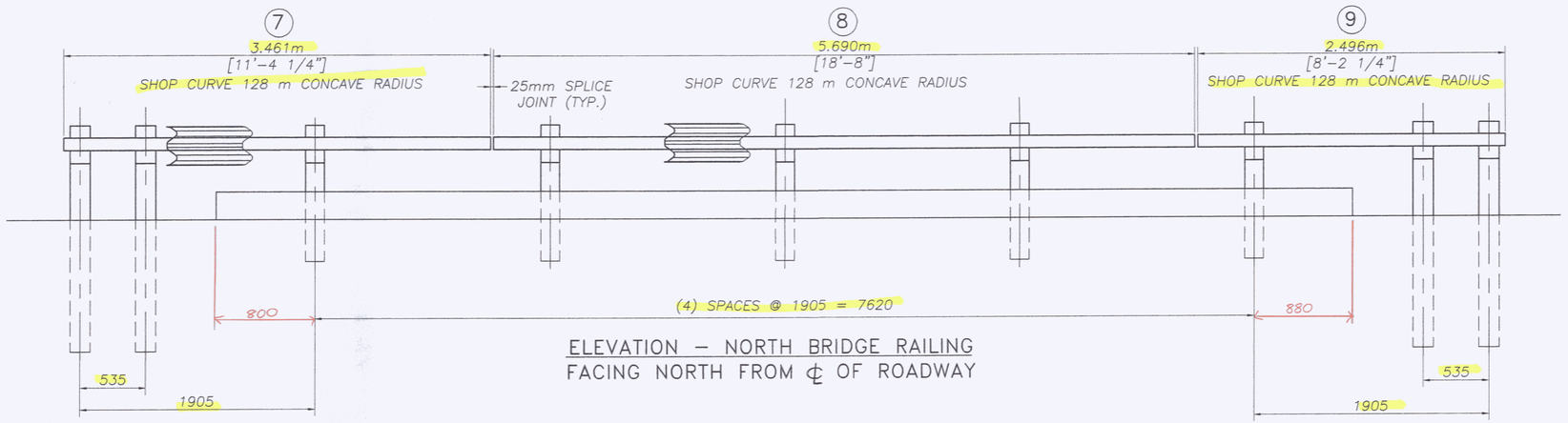
ITEM 525.44 SB–R790M
BRIDGE RAILING, GALVANIZED HDSB/
FASCIA MOUNTED/STEEL TUBING
TOWN OF BURKE, VT
PROJECT No. BRZ 1447 (15)

GENERAL CONTRACTOR

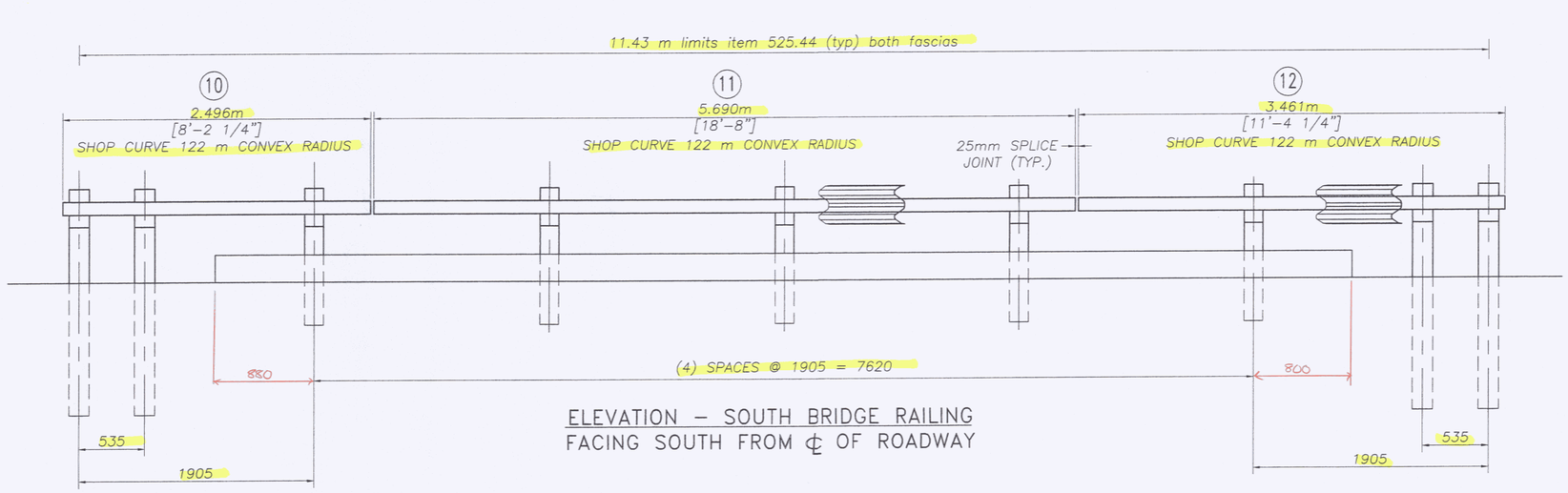
SUB CONTRACTOR
F. R. LAFAYETTE

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CHECKED
DATE 7/24/08
SCALE NONE
NSC REFERENCE NO. 1661
SIZE D REVISION 2
SHEET NO. 1 of 3

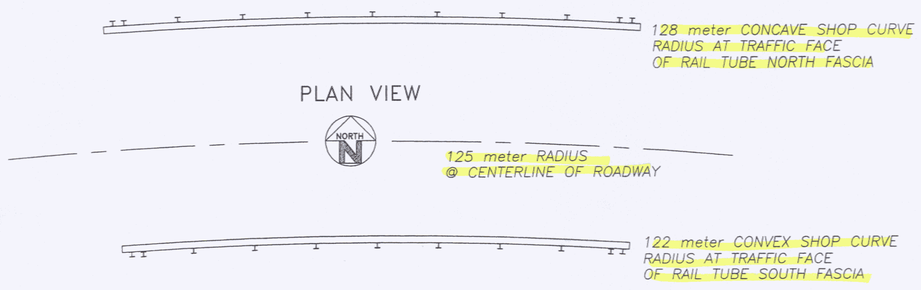
BRIDGE # 17



ELEVATION – NORTH BRIDGE RAILING
FACING NORTH FROM ℄ OF ROADWAY



ELEVATION – SOUTH BRIDGE RAILING
FACING SOUTH FROM ℄ OF ROADWAY



NOTE: ALL LINEAR DIMENSIONS ARE MEASURED ALONG FASCIA

PORTIONS OF HDSB & STEEL TUBE BLOCKOUTS REMOVED FROM THIS VIEW FOR CLARITY.

ALL DIMENSION SHOWN ARE IN (mm) MILLIMETERS UNLESS OTHERWISE NOTED.

SHOP CURVE RADIUS DIMENSIONS HAVE BEEN ROUNDED TO NEAREST METER TO REFLECT MANUFACTURING TOLERANCES

REVISIONS		
No.	Remarks	Date
0	Initial submittal	

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CK'D BY LSC OK'D BY ELR
AUG 05 2008
RESUBMIT ____ APPROVED As Noted
BY CPW DATE 8/12/08

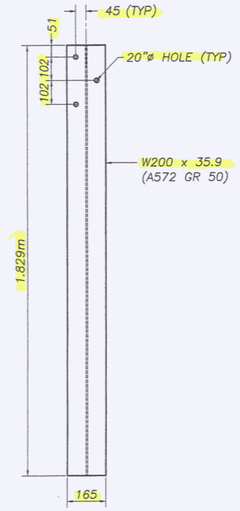
HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 525.44 SB-R790M
BRIDGE RAILING, GALVANIZED HDSB/ FASCIA MOUNTED/STEEL TUBING
TOWN OF BURKE, VT
PROJECT No. BRZ 1447 (15)

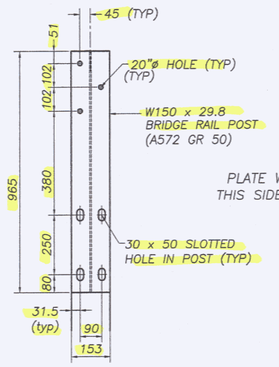
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REVISION	0
SHEET NO.	2 of 3

GENERAL CONTRACTOR

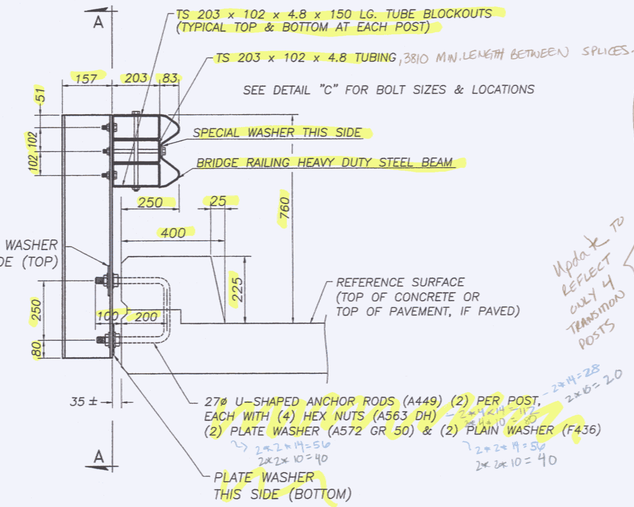
SUB CONTRACTOR F. R. LAFAYETTE



TRANSITION POST
W200x35.9 (A572 GR 50)



SECTION A–A



FASCIA MOUNTED POST WITH CURB
W150x29.8 (A572 GR 50)

Update X TO REFLECT ONLY 4 TRANSITION POSTS

BRIDGE # 16

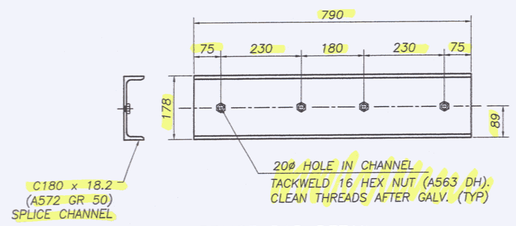
BILL OF MATERIAL

Mk.	Qty.	Description	Material
	14	FASCIA MOUNTED POST W150x29.8 (965mm OAL)	A572 gr 50
	~~8~~ 4	TRANSITION POST W200x35.9 (1.829m OAH)	A572 gr 50
	4	SPLICE CHANNEL C180x18.2 (790mm OAL)	A572 gr 50
	~~44~~ 30	TUBE BLOCKOUTS TS 203x102x4.8 (150 Lg.)	A500 gr B
1	1	TS 203x102x4.8 (3.461m OAL) 122m convex RADIUS	A500 gr B
2	1	TS 203x102x4.8 (7.595m OAL) 122m convex RADIUS	A500 gr B
3	1	TS 203x102x4.8 (4.401m OAL) 122m convex RADIUS	A500 gr B
4	1	TS 203x102x4.8 (4.401m OAL) 128m concave RADIUS	A500 gr B
5	1	TS 203x102x4.8 (7.595m OAL) 128m concave RADIUS	A500 gr B
6	1	TS 203x102x4.8 (3.461m OAL) 128m concave RADIUS	A500 gr B
	8	10 Ga. HDSB RAIL (3.810m /1.905m SPACING)	A500 gr B
	22	16ø x 330mm Lg. HEX BOLT (A325)	A325
	44	16ø x 260mm Lg. HEX BOLT (A325)	A325
	60	16ø x 51mm Lg. HEX BOLT (A325)	A325
	44	RECTANGULAR WASHER 5mmx45mmx75mm	A572 gr 50
	110	16ø HEX NUT	A563 DH
	192	16ø ROUND WASHER	F436
	64	16ø SPLICE BOLT	A307
	64	16ø Dbl. RECESSED NUT	A563 A
	28	U-SHAPED ANCHOR BOLT (25ø)	A449
	56	PLATE WASHER (6mmx55mmx130mm)	A572 gr 50
	112	25ø HEX NUT	A563 DH
	56	25ø ROUND WASHER	F436

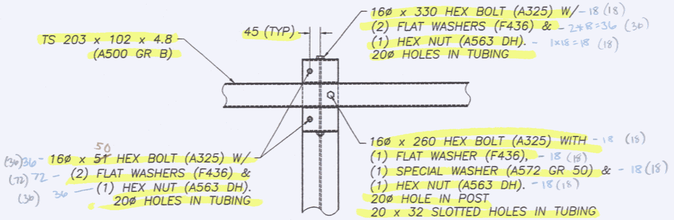
BRIDGE # 17

BILL OF MATERIAL

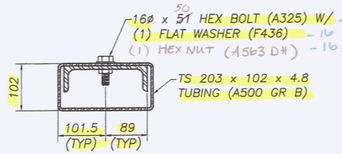
Mk.	Qty.	Description	Material
	10	FASCIA MOUNTED POST W150x29.8 (965mm OAL)	A572 gr 50
	8	TRANSITION POST W200x35.9 (1.829m OAH)	A572 gr 50
	4	SPLICE CHANNEL C180x18.2 (790mm OAL)	A572 gr 50
	36	TUBE BLOCKOUTS TS 203x102x4.8 (150 Lg.)	A500 gr B
7	1	TS 203x102x4.8 (3.461m OAL) 128m concave RADIUS	A500 gr B
8	1	TS 203x102x4.8 (5.690m OAL) 128m concave RADIUS	A500 gr B
9	1	TS 203x102x4.8 (2.496m OAL) 128m concave RADIUS	A500 gr B
10	1	TS 203x102x4.8 (2.496m OAL) 122m convex RADIUS	A500 gr B
11	1	TS 203x102x4.8 (5.690m OAL) 122m convex RADIUS	A500 gr B
12	1	TS 203x102x4.8 (3.461m OAL) 122m convex RADIUS	A500 gr B
	6	10 Ga. HDSB RAIL (3.810m /1.905m SPACING)	A500 gr B
	18	16ø x 330mm Lg. HEX BOLT (A325)	A325
	36	16ø x 260mm Lg. HEX BOLT (A325)	A325
	52	16ø x 51mm Lg. HEX BOLT (A325)	A325
	36	RECTANGULAR WASHER 5mmx45mmx75mm	A572 gr 50
	90	16ø HEX NUT	A563 DH
	160	16ø ROUND WASHER	F436
	48	16ø SPLICE BOLT	A307
	48	16ø Dbl. RECESSED NUT	A563 A
	20	U-SHAPED ANCHOR BOLT (25ø)	A449
	40	PLATE WASHER (6mmx55mmx130mm)	A572 gr 50
	80	25ø HEX NUT	A563 DH
	40	25ø ROUND WASHER	F436



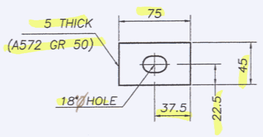
SPLICE BAR DETAIL



DETAIL "C"
STEEL BEAM GUARD RAIL NOT SHOWN



PARTIAL SECTION B–B
SHOWING TUBE & SPLICE ONLY



SPECIAL WASHER DETAIL

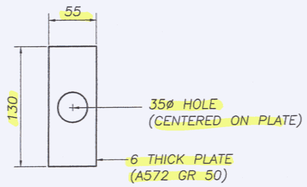
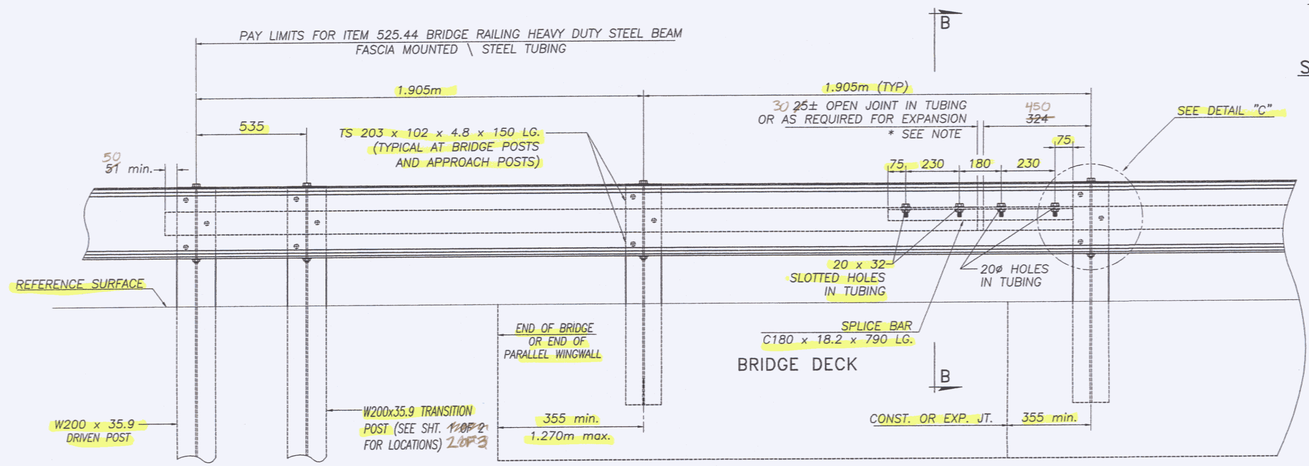


PLATE WASHER DETAIL



RAILING ELEVATION VIEW
(SHOWN LOOKING FROM ℄ WITHOUT CURB)

* NOTE min. SPLICE OPENING WILL VARY DEPENDING ON AMOUNT OF EXPANSION REQUIRED

BOLTS IN SLOTTED HOLES SHALL NOT BE SO TIGHT AS TO PREVENT SLIDING BETWEEN THE TUBING AND THE SPLICE CHANNEL

GENERAL ERECTION NOTES

1. HEAVY DUTY STEEL BEAM GUARD RAIL SHALL CONFORM TO VAOT STD. SPECIFICATION 732.
2. STRUCTURAL STEEL TUBING SHALL CONFORM TO VAOT STD. SPECIFICATION 732 AND SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111.
3. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 AND SHALL CONFORM TO VAOT STD. SPECIFICATION 714 UNLESS OTHERWISE NOTED.
4. BRIDGE RAIL POSTS, SPECIAL WASHERS, PLATE WASHERS AND SPLICE BARS SHALL CONFORM TO AASHTO M223/M232M Gr. 345 AND SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111.
5. ALL BOLTS AND RELATED HARDWARE SHALL CONFORM TO AASHTO M164M, TYPE 1 BOLTS AND SHALL BE HOT DIPPED OR MECHANICALLY GALVANIZED PER SPECIFICATION.
6. SEE STANDARD DRAWING G-IM AND G-IdM FOR ADDITIONAL DETAILS CONCERNING GUARDRAIL.
7. SEE STANDARD DRAWINGS SB-R6-82M FOR APPROACH RAIL DETAILS AND FOR INFORMATION RELATIVE TO SCHEDULE 1 AND SCHEDULE 2. ALL APPROACH RAIL SHALL BE HEAVY DUTY STEEL BEAM GUARDRAIL. ALSO SEE STD. DRWG. SB-R6-82M FOR HANDRAIL DETAILS (EXCEPT END DETAILS) IF HANDRAIL IS REQUIRED.
8. ALL POSTS SHALL BE SET NORMAL TO GRADE.
9. SPLICES FOR THE STEEL BEAM GUARDRAIL SHALL LAP IN THE DIRECTION OF TRAFFIC.
10. SEE STANDARD DRAWING G-IM FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL BE LOCATED AT EVERY FIFTH POST. PAYMENT SHALL BE SUBSIDIARY TO OTHER ITEMS.
11. A RAILING JOINT SPLICE SHALL BE PROVIDED AT EACH SUPERSTRUCTURE EXPANSION JOINT.
12. ALL FIELD CUT OR DRILLED AREAS SHALL BE COATED WITH AN APPROVED SEALANT.
13. FOR RADII LESS THAN 290m. THE STEEL TUBING SHALL BE SHOP BENT TO FIT THE APPLICABLE CURVE.
14. THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING ON THIS STANDARD.
15. PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1.6 MM (1/16 INCH) RADIUS.

RECEIVED
CK'D BY ASS OK'D BY ELR
AUG 05 2008
RESUBMIT ____ APPROVED As Noted
BY cpw DATE 8/12/08

REVISIONS		
No.	Remarks	Date
0	Initial submittal	

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 525.44 SB-R790M
BRIDGE RAILING, GALVANIZED HDSB/
FASCIA MOUNTED/STEEL TUBING
TOWN OF BURKE, VT
PROJECT No. BRZ 1447 (15)

DRAWN p. radice
CHECKED
DATE 7/24/08
SCALE NONE
HSC REFERENCE NO. 1661
SIZE D REVISION 0
SHEET NO. 3 of 3

GENERAL CONTRACTOR
SUB CONTRACTOR F. R. LAFAYETTE

* OUR NOTES ABOUT QUANTITIES. BRIDGE #16 (BRIDGE #17)