INDEX OF SHEETS

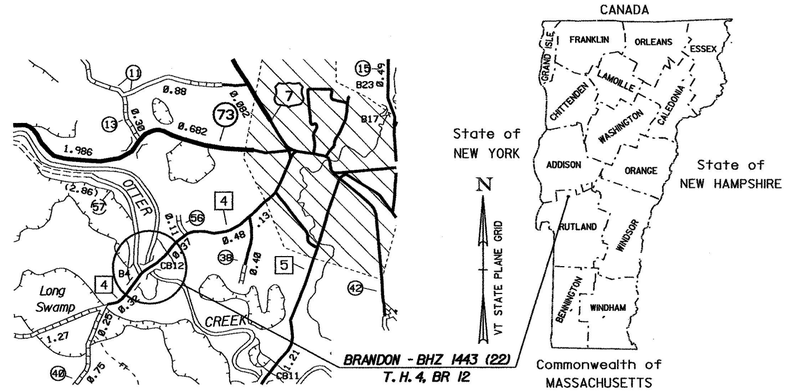
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2. PRELIMINARY INFORMATION SHEET
3. PROJECT TYPICAL SECTIONS
4-5. QUANTITY SHEETS
6-8. R.O.W. SHEETS
9. TIE SHEET
10-12. LAYOUT SHEETS
13. PROFILE SHEET
14. DRIVE PROFILES & TYPICAL SECTIONS
15. TRAFFIC SIGN LAYOUT SHEET
16. TRAFFIC SIGN SUMMARY SHEET
17. PLAN AND ELEVATION SHEET
18-19. EROSION CONTROL SHEETS
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21. ROOF FRAMING PLAN SHEET
22-24. TRUSS DETAIL SHEETS
25. DECK FRAMING PLAN
26. FLOOR FRAMING PLAN
27. BEARING DETAILS
28-32. ABUTMENT DETAILS
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34. MISCELLANEOUS PROJECT DETAILS
35. REINFORCING STEEL SCHEDULE
36. MATERIAL TRANSITION DETAIL & BANKING DIAGRAM
37-44. ROADWAY CROSS SECTIONS
45-51. CHANNEL CROSS SECTIONS

LIST OF STANDARDS

B-71	03-10-95
E-100	01-06-97
E-100A	01-06-97
E-101	03-10-97
E-102	08-08-95
E-102A	08-08-95
E-106	08-08-95
E-107	08-08-95
E-107A	08-08-95
E-120	08-08-95
E-121	08-08-95
E-155	08-08-95
E-160	05-20-99
G-1	01-03-00
G-1d	01-03-00
T-1	06-01-94
T-2	06-01-94

STATE OF VERMONT
AGENCY OF TRANSPORTATION





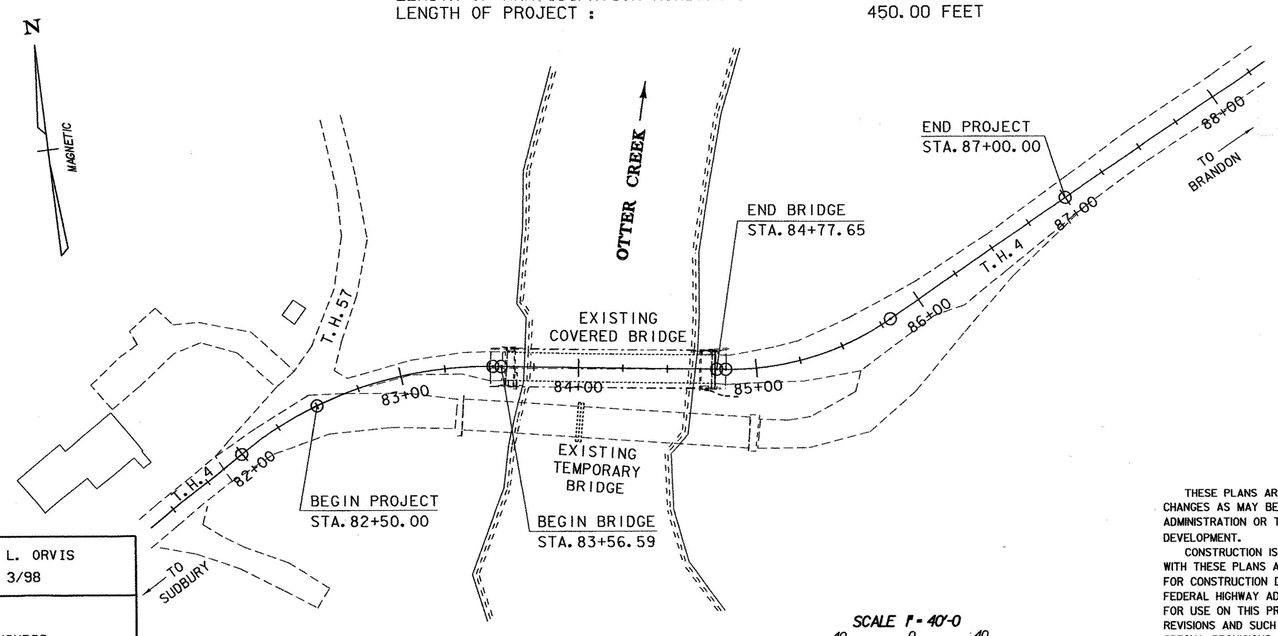
PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF BRANDON
COUNTY OF RUTLAND

ROUTE NO. : T.H. 4, CL. 2 BRIDGE NO. : 12

PROJECT LOCATION : BEGINNING IN THE TOWN OF BRANDON ON T.H. 4 APPROXIMATELY 1.3 MILES SOUTH OF THE INTERSECTION OF T.H. 4 AND VT 73 AND EXTENDING 0.09 MILES NORTHERLY ALONG T.H. 4.

PROJECT DESCRIPTION : REHABILITATION OF THE EXISTING COVERED BRIDGE AND RELATED APPROACH WORK.

LENGTH OF STRUCTURE :	121.06 FEET
LENGTH OF PARTICIPATION ROADWAY :	328.94 FEET
LENGTH OF PROJECT :	450.00 FEET



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
TOP OF CUT
TOE OF SLOPE

SURVEYED BY :	L. ORVIS
SURVEYED DATE :	3/98
DATUM	
VERTICAL	NGVD29
HORIZONTAL	N/A

RECORD PLANS

CONTRACTOR: BLOW & COTE INC. MORRISVILLE, VT
RESIDENT ENGINEER: TONY COARSE
CONSTRUCTION BEGAN: AUGUST 19, 2002
CONSTRUCTION COMPLETE: DECEMBER 09, 2003
RECORD PLANS BY: K. NORTH & N. GARBACIK

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

BY Anthony J. Coarse RESIDENT ENGINEER
DATE April 12 2004

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.

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

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

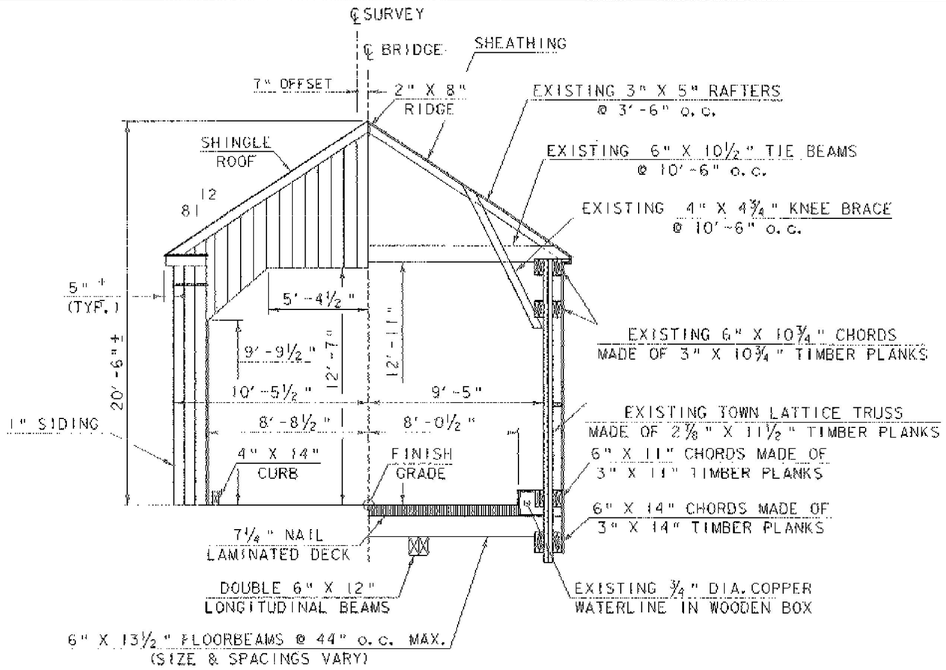
87 J137\Structures\s J137ttl1 PLOTTED 02-OCT-2001

DIRECTOR OF PROJECT DEVELOPMENT
APPROVED [signature] DATE 10/17/01

PROJECT MANAGER : R.R. WHITCOMB

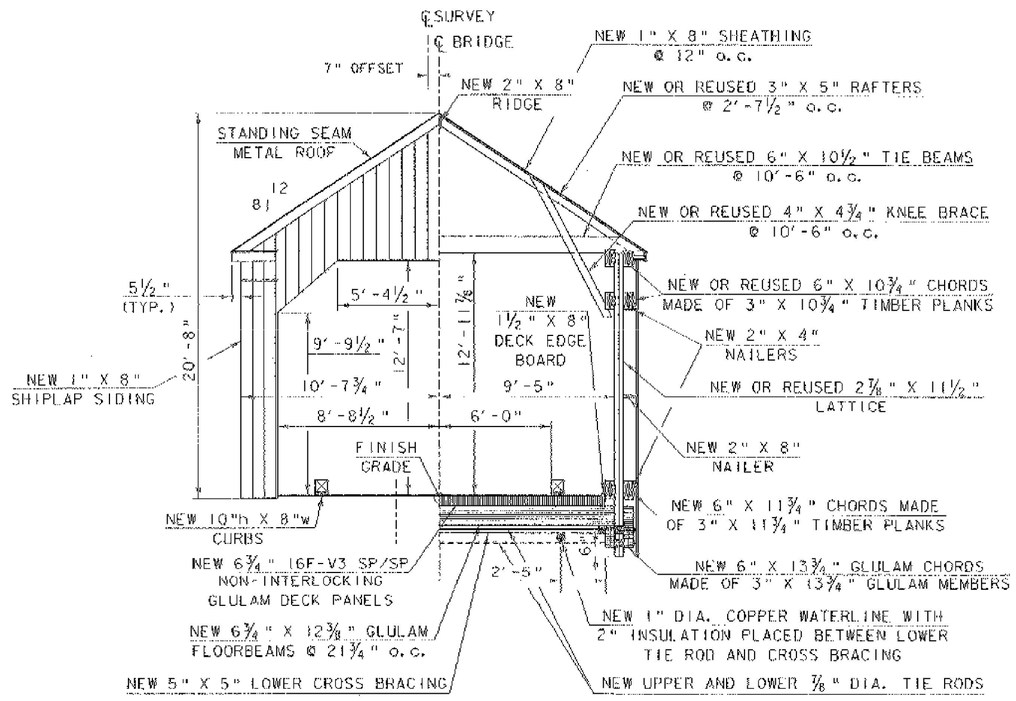
PROJECT NAME : BRANDON
PROJECT NUMBER : BHZ 1443 (22)

SHEET 1 OF 51 SHEETS



EXISTING TYPICAL BRIDGE SECTION

SCALE: ¼" = 1'-0"



NEW TYPICAL BRIDGE SECTION

SCALE: ¼" = 1'-0"

EXISTING STRUCTURE*

1. STRUCTURE TYPE: WOODEN (TOWN LATTICE) COVERED BRIDGE OVERALL LENGTH: 132'-0" INVENTORY RATING: N/A
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: N/A
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 106'
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 2200 SF VERTICAL CLEARANCE ABOVE STREAMBED: 25'
5. WATER SURFACE ELEVATION @ Q 2.33: 350.5 WATER SURFACE ELEVATION @ Q 100: 358.7
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD: 367.0 YEAR: 1927 ESTIMATED DISCHARGE: N/A
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? NO IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? 05 ELEV 352.0
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: UNLIMITED
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL: WEST ABUTMENT ON LEDGE, EAST ABUTMENT ON UNKNOWN
9. DISPOSITION OF STRUCTURE: REHABILITATE

* NOTE: THE YADT BASED THE EXISTING STRUCTURE HYDRAULIC DATA ON THE EFFECTS OF THE COVERED BRIDGE IN PLACE ONLY. THE DATA DOES NOT TAKE INTO ACCOUNT THE EFFECT OF THE EXISTING TEMPORARY BRIDGE.

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE: WOODEN (TOWN LATTICE) COVERED BRIDGE OVERALL LENGTH: 133'-7½"
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: N/A
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER: 25'
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 106'
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 2200 SF
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? YES

HYDRAULIC DATA:

1. Q 2.33: 5000 CFS WATER ELEVATION: 350.5 VELOCITY: 4.1 FPS
   Q 10: 9600 CFS WATER ELEVATION: 354.9 VELOCITY: 6.1 FPS
   Q 25: 12400 CFS WATER ELEVATION: 356.4 VELOCITY: 7.5 FPS
   Q 50: √ 14400 CFS WATER ELEVATION: 357.5 √ VELOCITY: 8.9 FPS
   Q 100: 16800 CFS WATER ELEVATION: 358.7 VELOCITY: 10.4 FPS
2. DRAINAGE AREA: 459 SQ. MI. CHARACTER OF TERRAIN: VARIES FROM ROLLING HILLS IN HEADWATERS TO WIDE VALLEYS AT THE SITE
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? N/A
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE RAPID? NO
5. NATURE OF NATURAL STREAMBED: SILTY SAND
6. ESTIMATED SCOUR DEPTH: Q100= 4'-0" Q500= 8'-0" COMMENT ON DRIFT: SLIGHT ICE: MODERATE
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? NO IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? 05 ELEV 352.0
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: UNLIMITED
8. VERTICAL CLEARANCE ABOVE Q: 25 ± 1.1'
9. ALLOWABLE WATER SURFACE ELEVATION: 357.5 LIMITED BY: LOWER CHORD OF EXISTING BRIDGE
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE:
11. ORDINARY LOW WATER: 425 CFS DEPTH: 6.9 FT. ORDINARY HIGH WATER: 2150 CFS DEPTH: 8.0 FT. ELEV 341.0
12. AVERAGE DAILY FLOW: 1000 CFS STREAMBANK OR CHANNEL PROTECTION REQUIRED: STONE FILL TYPE III
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE: 0.8 MI. SPAN: 110' WATERWAY AREA OF FULL OPENING: N/A 0
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE: 1.4 MI. SPAN: 225' WATERWAY AREA OF FULL OPENING: N/A 0

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO: H 20 (OPERATING PER WORKING STRESS)
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL: N/A ON LEDGE: 10 KSF
3. ALLOWABLE LOAD FOR PILING: N/A TYPE: N/A ESTIMATED LENGTH: N/A
4. STRUCTURAL STEEL AASHTO GRADE: N/A
5. REINFORCING STEEL GRADE 60: N/A
6. CONCRETE CLASS A f'c: N/A
   CLASS B f'c: 3500 PSI

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED: YES IF YES, ON EXISTING STRUCTURE: NO OR ON TEMPORARY BRIDGE: YES, EXIST. TEMP. BR.
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY: N/A TRAFFIC CONTROL SIGNALS REQUIRED: N/A
   MINIMUM CLEAR SPAN: N/A MINIMUM CLEAR HEIGHT: N/A MINIMUM WATERWAY AREA: N/A
   ARE SIDEWALKS REQUIRED: N/A IF SO, ON WHAT SIDE: N/A

NOTE: NA = INFORMATION NOT AVAILABLE
N/A = INFORMATION NOT APPLICABLE TO PROJECT

LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	TRUCK						
	H*	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	16						
POSTED OPERATING	20						

*FLOOR BEAMS IN BENDING GOVERN

TRAFFIC DATA

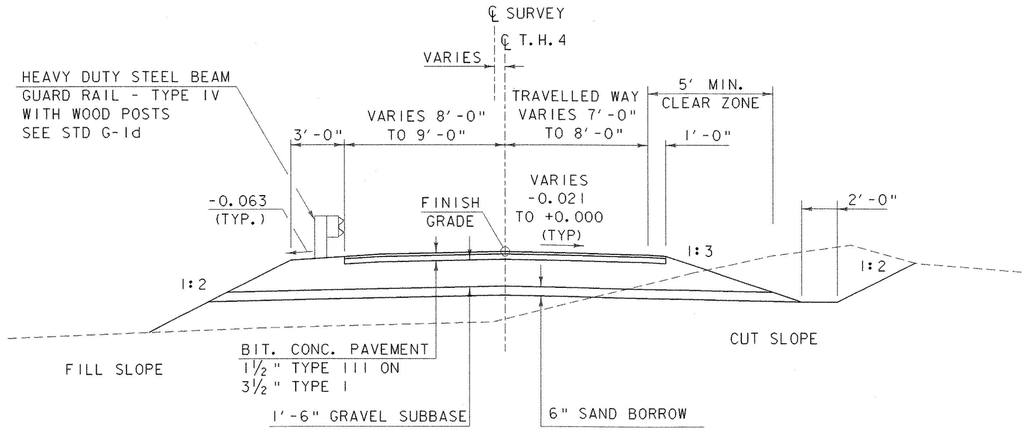
YEAR	ADT	DHV	% D	% T	ADTT
1992	600	85	5	---	---
2012	840	120	6	53	---

18 kip ESAL for flexible pavement from 1992 to 2012: 312,000
18 kip ESAL for flexible pavement from -- to -- : --
Design speed: 20 mph

PRELIMINARY INFORMATION SHEET (1)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

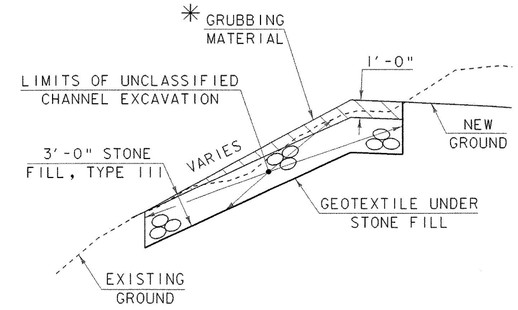
FILE NAME: 87I137\Structures\s1137pi1.1 PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER CHECKED BY: T. SUMNER
SHEET 2 OF 51



TYPICAL ROADWAY SECTION

SCALE ¼" = 1'-0

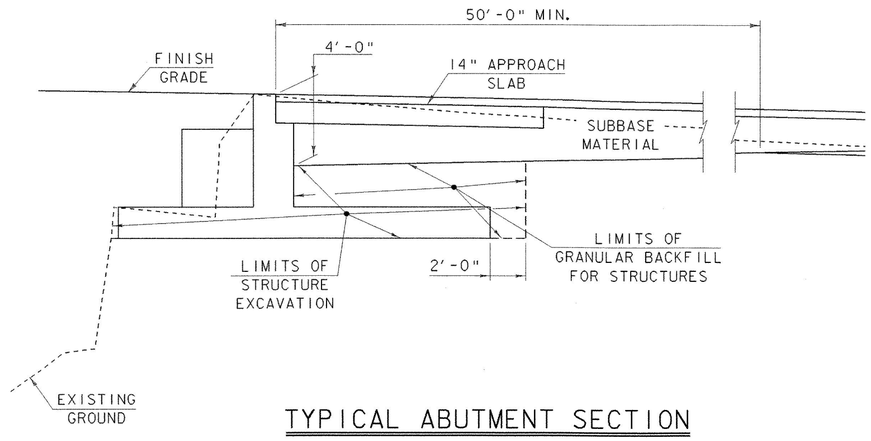
0 2 4 6



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.



TYPICAL ABUTMENT SECTION

NOT TO SCALE

MATERIAL ITEM	TOLERANCE
PAVEMENT	±¼" TOTAL THICKNESS
SUBBASE	± 1"
SAND BORROW	± 1"

PROJECT TYPICAL SECTIONS

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137pi2.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 3 OF 51

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES

FULL E&C		ROADWAY		EROSION CONTROL		CHANNEL		APPROACH SLAB NO.2	APPROACH SLAB NO.1		ABUTMENT NO. 2		ABUTMENT NO. 1		SUPER-STRUCTURE	BRIDGE QUANTITY
		1														
		2040														
		30														
						65										65
		170														
				10												
											40		40			80
											20		20			40
		190														
		740		10												
		1.4														
		275														
								10	10		51		43			114
															1	1
															850	850
								960	940		6660		5970			14530
															1	1
															1	1
											2		2			4
								26	26							52
															14.3	14.3
															5.5	5.5
															5.7	5.7
															2.2	2.2
															1	1
															1	1
															1	1
		1														
															1	1
											2		2			4
											2		2			4
				5												
				10												
						75										75
		296														
		4														
		235														
		1														
		1														
1																

TOTALS

ROUND	GRAND TOTAL	FINAL
	1	
	2040	
	30	
	65	
	170	
	10	
	80	
	40	
	40	
	190	
	750	
	1.4	
	275	
	114	
	1	
	850	
	14530	
	1	
	1	
	4	
	52	
	14.3	
	5.5	
	5.7	
	2.2	
	1	
	1	
	1	
	1	
	1	
	4	
	4	
	5	
	10	
	75	
	296	
	4	
	235	
	1	
	1	
	1	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER
LS	CLEARING AND GRUBBING (INCLUDING INDIVIDUAL TREES AND STUMPS)	201.10
CY	COMMON EXCAVATION	203.15
CY	SOLID ROCK EXCAVATION	203.16
CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27
CY	SAND BORROW	203.31
CY	TRENCH EXCAVATION OF EARTH	204.20
CY	STRUCTURE EXCAVATION	204.25
CY	GRANULAR BACKFILL FOR STRUCTURES	204.30
SY	COLD PLANING-BIT.PAVEMENT	210.10
CY	SUBBASE OF GRAVEL	301.15
CWT	EMULSIFIED ASPHALT	404.65
TON	BITUMINOUS CONCRETE PAVEMENT (PG 58-28)	406.25
CY	CONCRETE, CLASS B (HPC-B)	501.25
LS	SHORING SUPERSTRUCTURE	502.10
LB	STRUCTURAL STEEL	506.60
LB	EPOXY COATED REINFORCING STEEL	507.17
LS	STRUCTURAL PAINTING,FIELD APPLIED (MOD.)	513.30
LS	CONTAINMENT & ENVIRON. PROTECTION,FIELD	513.36
GAL	WATER REPELLENT	514.10
SY	SHEET MEMBRANE WATERPROOFING	519.20
MFBM	STRUCTURAL LUMBER AND TIMBER - UNTREATED	522.20
MFBM	STRUCTURAL LUMBER AND TIMBER - TREATED	522.25
MFBM	NON - STRUCTURAL LUMBER-UNTREATED	522.30
MFBM	NON - STRUCTURAL LUMBER-TREATED	522.35
LS	STRUCTURAL GLUED LAMINATED TIMBER (FLOOR BEAMS)	522.40
LS	STRUCTURAL GLUED LAMINATED TIMBER (LOWER BOTTOM CHORDS)	522.40
LS	STRUCTURAL GLUED LAMINATED TIMBER (DECK PANELS)	522.40
EACH	REMOVAL OF STRUCTURE	529.15
EACH	PARTIAL REMOVAL OF STRUCTURE	529.20
EACH	BEARING DEVICE ASSEMBLY (MOD. 1)	531.10
EACH	BEARING DEVICE ASSEMBLY (MOD. 2)	531.10
HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25
CY	STONE FILL, TYPE I	613.10
CY	STONE FILL, TYPE III	613.12
LF	HVY DUTY STEEL BEAM GUARD RAIL	621.21
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60
LF	REMOVL AND DISP OF GUARD RAIL	621.80
EACH	RELOCATE WATER LINE - (MOD. 1)	629.80
EACH	RELOCATE WATER LINE - (MOD. 2)	629.80
LS	FIELD OFFICE-ENGINEERS	631.10

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		TEMPORARY EROSION CONTROL ITEMS (INCLUDED IN EROSION CONTROL ITEMS)
10	CY	TRENCH EXCAVATION OF EARTH
10	CY	SUBBASE OF GRAVEL
5	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I
10	CY	STONE FILL, TYPE I
460	SY	GEOTEXTILE FOR SILT FENCE
40	LB	SEED
10	LB	SEED-WINTER RYE *
20	EACH	HAY BALES FOR EROSION CONTROL
2510	SY	EROSION MATTING
		* 50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) AND CEREAL (WINTER) RYE
		EARTHWORKS SUMMARY
170	CY	FILL REQUIRED
		FILL AVAILABLE:
2040	CY	COMMON EXCAVATION: 2040 X 1.0
30	CY	SOLID ROCK EXCAVATION, EARTH: 30 X 1.0
48	CY	STRUCTURE EXCAVATION, ROCK: 80 X 0.6
6	CY	TRENCH EXCAVATION OF EARTH: 10 X 0.6
24	CY	UNCLASSIFIED CHANNEL EXCAVATION : 40 X 0.6
2148	CY	SUBTOTAL
2	CY	ROUNDING
2150	CY	TOTAL
2150	CY	FILL AVAILABLE
170	CY	FILL REQUIRED
1980	CY	WASTE

PROJECT NAME: **BRANDON**
PROJECT NUMBER: **BHZ 1443 (22)**

FILE NAME: **\87j137\Structures\sj137qty.xls**
PROJECT MANAGER: **R. R. WHITCOMB**
DESIGNED BY: **T. SUMNER**
QUANTITY SHEET #1

PLOT DATE: **6/13/02**
DRAWN BY: **G. ROY**
CHECKED BY: **T. SUMNER**
SHEET **4** OF **51**

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES																TOTALS			DESCRIPTIONS			
FULL E&C		ROADWAY		EROSION CONTROL		CHANNEL		APPROACH SLAB NO.2	APPROACH SLAB NO.1		ABUTMENT NO. 2		ABUTMENT NO. 1		SUPER-STRUCTURE	BRIDGE QUANTITY	ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER
1																		1		LS	TESTING EQUIPMENT - CONCRETE	631.16
1																		1		LS	TESTING EQUIPMENT - BITUMINOUS	631.17
1																		1		LU	FIELD OFFICE - TELEPHONE (N.A.B.I.)	631.25
															1	1		1		LS	MOBILIZATION	635.10
						80										80		80		SY	GEOTEXTILE UNDER STONE FILL	649.31
				460														460		SY	GEOTEXTILE FOR SILT FENCE	649.51
				80														80		SY	GEOTEXTILE FOR FILTER CURTAINS	649.61
				40														40		LB	SEED	651.15
				10														10		LB	SEED-WINTER RYE	651.17
				300														300		LB	FERTILIZER	651.18
				1.25														1.25		TON	AGRICULTURAL LIMESTONE	651.20
				1.25														1.25		TON	HAY MULCH	651.25
				20														20		EACH	HAY BALES FOR EROSION CONTROL	651.26
				150														150		CY	TOPSOIL	651.35
						80										80		80		SY	GRUBBING MATERIAL	651.40
				2510														2510		SY	EROSION MATTING	654.10
															3570	3570		3570		SF	REMOVING EXISTING ROOF	665.15
															3570	3570		3570		SF	METAL ROOFING	665.18
		48																48		SF	TRAFFIC SIGNS, TYPE A	675.20
		84																84		LF	FLANGED CHANNEL SIGN POST	675.301
		3																3		EACH	REMOVING SIGNS	675.50

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS

PROJECT NAME: **BRANDON**
PROJECT NUMBER: **BHZ 1443 (22)**

FILE NAME: **\87j137\Structures\sj137qty.xls**
PROJECT MANAGER: **R. R. WHITCOMB**
DESIGNED BY: **T. SUMNER**
QUANTITY SHEET #2

PLOT DATE: **9/27/01**
DRAWN BY: **G. ROY**
CHECKED BY: **T. SUMNER**
SHEET **5** OF **51**

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT OF WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1A	QUESNEL HOLSTEINS, INC.	9	82+21 RT.	82+88 RT.			INSTALL (T) 275 SF±	WDOE	11-15-01	BRANDON	148	492-494	SILT FENCE
			82+31 RT.	84+10 RT.									EXISTING DETOUR
			83+00 RT.	83+65 RT.			DITCH & DRAINAGE (P)						DITCH WITH TEMPORARY HAY BALES
			83+26 RT.	83+63 RT.			INSTALL (T) 175 SF±						FILTER CURTAIN
			82+47 LT.	82+87 LT.			INSTALL (T) 475 SF±						SILT FENCE
			82+45 LT.				DRIVE (T)						14' WIDE GRAVEL
			82+55 LT.				DRIVE (T)						12' WIDE GRAVEL
			82+90 LT.	83+08 LT.			INSTALL (T) 350 SF±						SILT FENCE
1B		9,10	84+68 LT.	85+13 LT.			CONST. (T) 590 SF±						
			84+76 LT.	84+94 LT.			CHANNEL (P) 40 SF±						
			85+59 LT.	85+72 LT.			INSTALL (T) 5 SF±						SILT FENCE
2	LEARY, JAMES C. & NANCY F.	9	82+45 LT.				DRIVE (T)	TU	06-26-01	BRANDON	145	654	14' WIDE GRAVEL
3	LEGAULT, NORMAN	9,10	84+08 RT.	87+20 RT.				WDOE	10-22-01	BRANDON	148	192-193	EXISTING DETOUR
			84+67 RT.	84+75 RT.			INSTALL (T) 185 SF±						FILTER CURTAIN
			84+75 RT.	87+56 RT.			INSTALL (T) 1650 SF±						SILT FENCE
			84+79 RT.	84+90 RT.			CHANNEL (P) 130 SF±						
			84+90 RT.	85+96 RT.			SLOPE (T) 370 SF±						
4	BRANDON FIRE DISTRICT NO. 1	9											UTILITY WATER LINE

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	8,9 10	PARCEL NO. 3 THE FIRST NATIONAL BANK OF ORWELL. CHANGE PROPERTY OWNER NAME TO "NORMAN LEGAULT". PROPERTY WAS TRANSFERRED. PER C.O. 9167.	11-09-00	S.L.D.	R.P.D.
		ELECTRONIC PLANS TO STRUCTURES	10-05-01		

ACCT. MRyan
\\vaot_cadd\filingcabinet$\87J137\RightOfWay\rJ137cd.dgn
DATE PLOTTED 15-FEB-2002

DR. (P)- DRAINAGE RIGHT
DIT. (P)- DITCHING RIGHT
CH. (P)- CHANNEL RT.
DRIVE (T)- DRIVE RIGHT
CUL. (P)- CULVERT RIGHT
[W]- WATER SOURCES

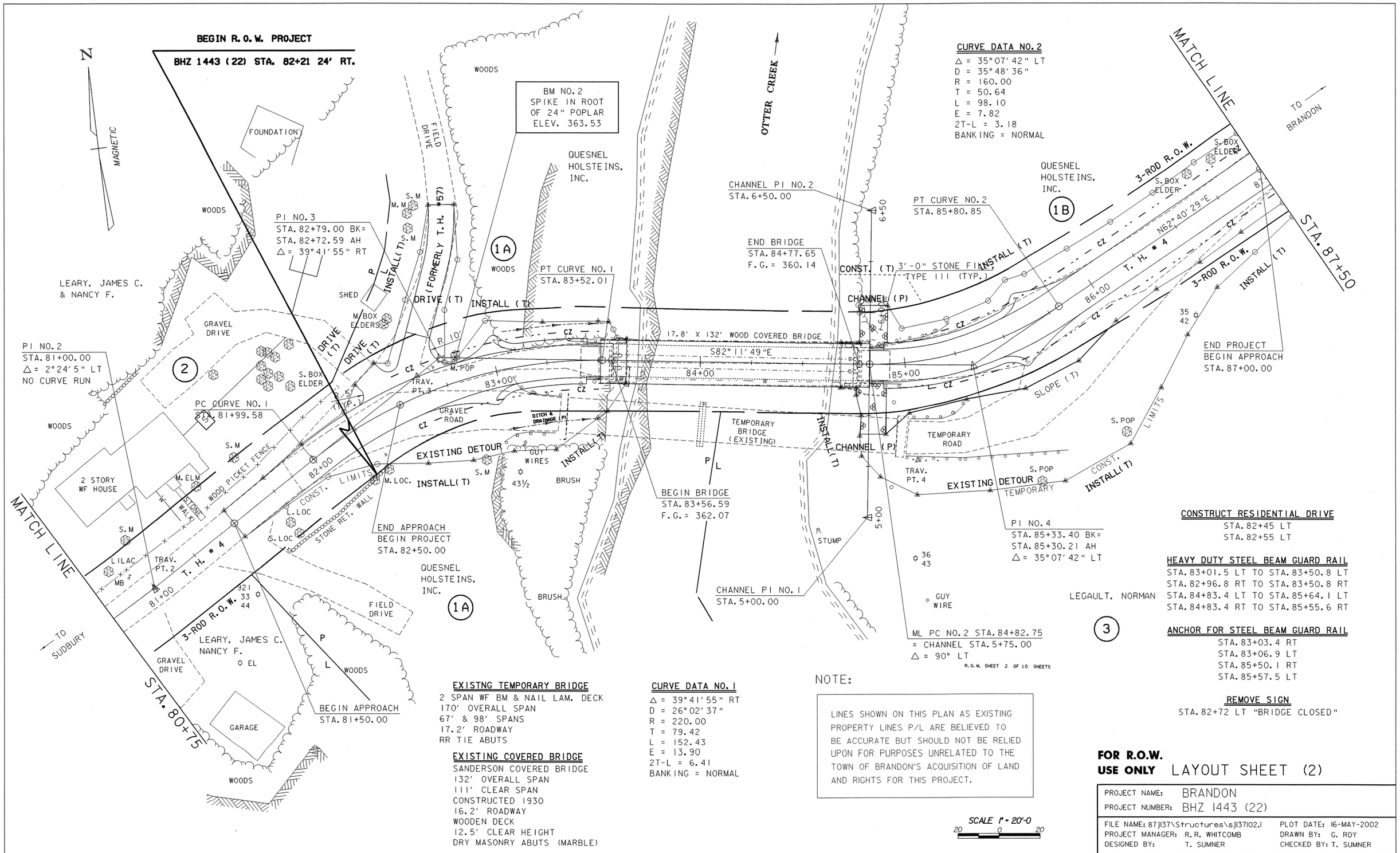
PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINE
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CZ (P) CLEAR ZONE
CONST. (T) CONSTRUCTION EASEMENT
SR SR SLOPE RIGHTS
PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED: ROGER P. DUMAS DATE: 1-26-00
AGENT D, PLANS & TITLES

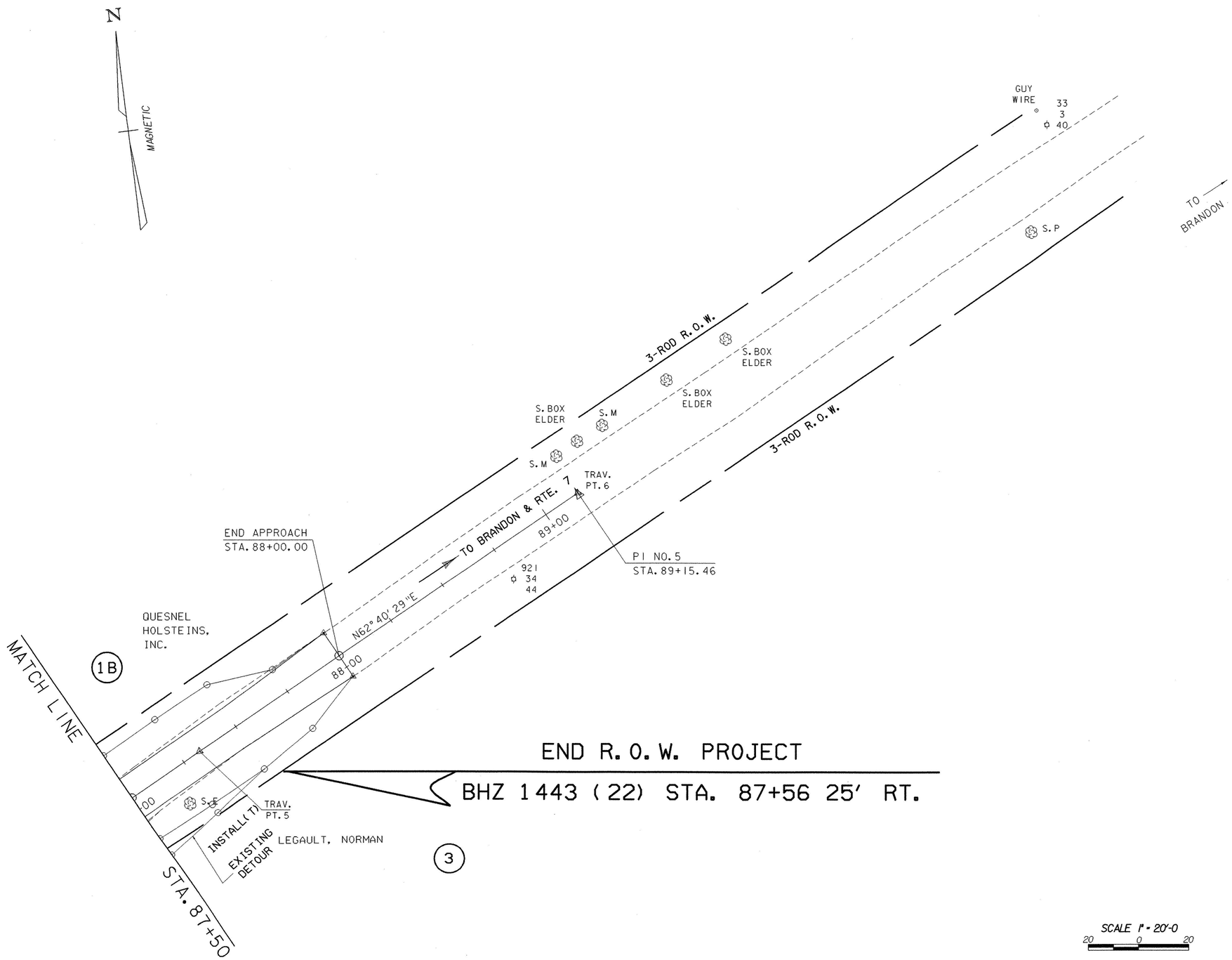
R. O. W. PLANS

BRANDON
BHZ 1443 (22)
R. O. W. SHEET 8 OF 10 SHEETS
SHEET 6 OF 51



FOR R.O.W. USE ONLY LAYOUT SHEET (2)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sJ137102.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
R.O.W. SHEET 9 OF 10 SHEETS	SHEET 7 OF 51 SHEETS



SCALE 1" - 20'-0
20 0 20

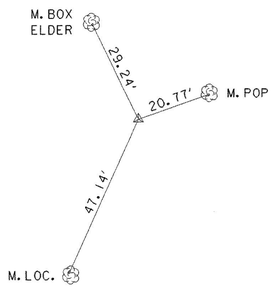
FOR R.O.W. USE ONLY LAYOUT SHEET (3)

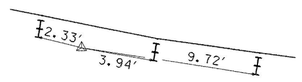
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sj137103.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
R.O.W. SHEET 10 OF 10 SHEETS	SHEET 8 OF 51 SHEETS

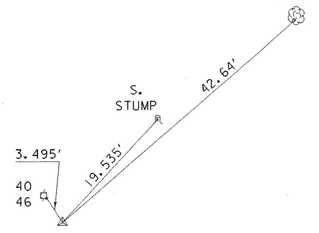
GPS CONTROL POINTS

TRAVERSE TIES

TRAVERSE PT. 3	TRAVERSE PT. 4	TRAVERSE PT. 7
N = 10087.0696	N = 10016.5491	N = 9779.8762
E = 50139.9074	E = 50377.9129	E = 49596.2223
Z = 362.370	Z = 361.549	Z = 354.878

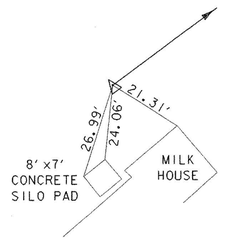


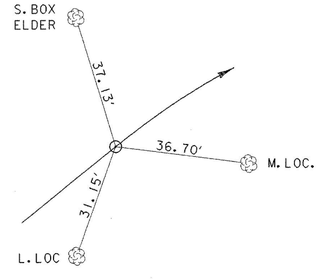


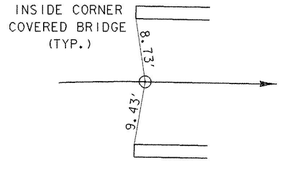


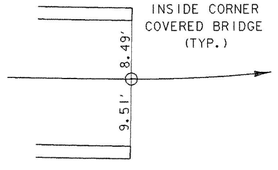
ALIGNMENT TIES

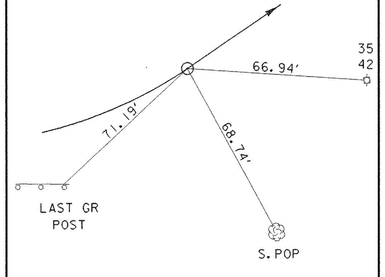
PI NO. 1 STA. 80+00.00	PC STA. 81+99.58	PT STA. 83+52.01	PC STA. 84+82.75	PT STA. 85+80.85	PI NO. 5 STA. 89+15.46
N = 9950.7663	N = 10052.6161	N = 10083.7963	N = 10066.0460	N = 10082.4182	N = 10236.01887
E = 49912.9595	E = 50084.5458	E = 50230.6566	E = 50360.1869	E = 50455.3563	E = 50752.6297

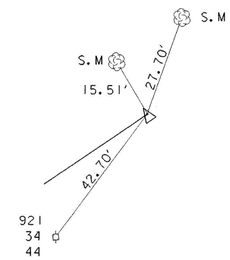












TIE SHEET

DATUM

VERTICAL NGVD29

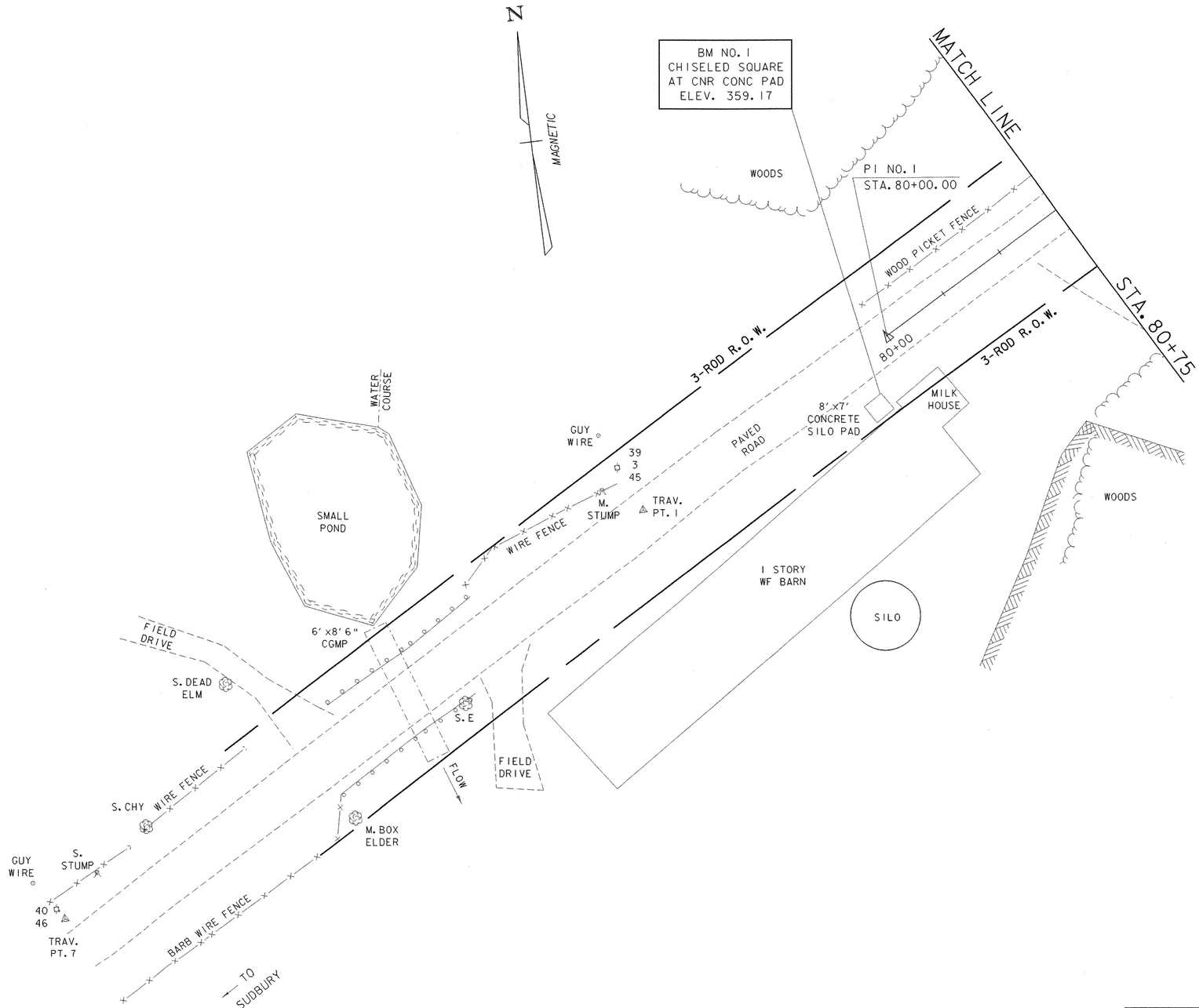
HORIZONTAL N/A

PROJECT NAME: BRANDON

PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137tie.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 9 OF 51



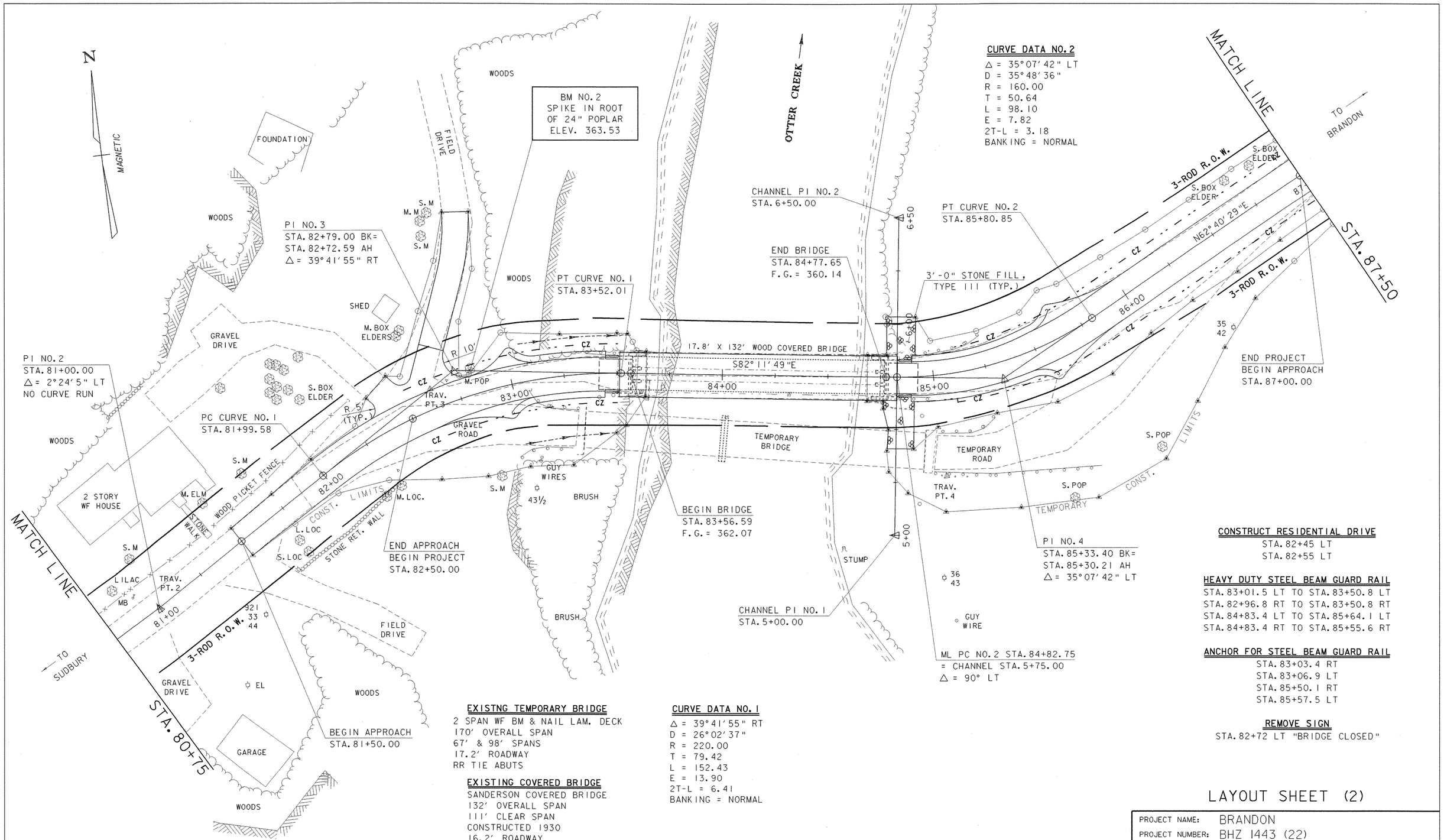
SCALE 1" = 20'-0

20 0 20

LAYOUT SHEET (1)

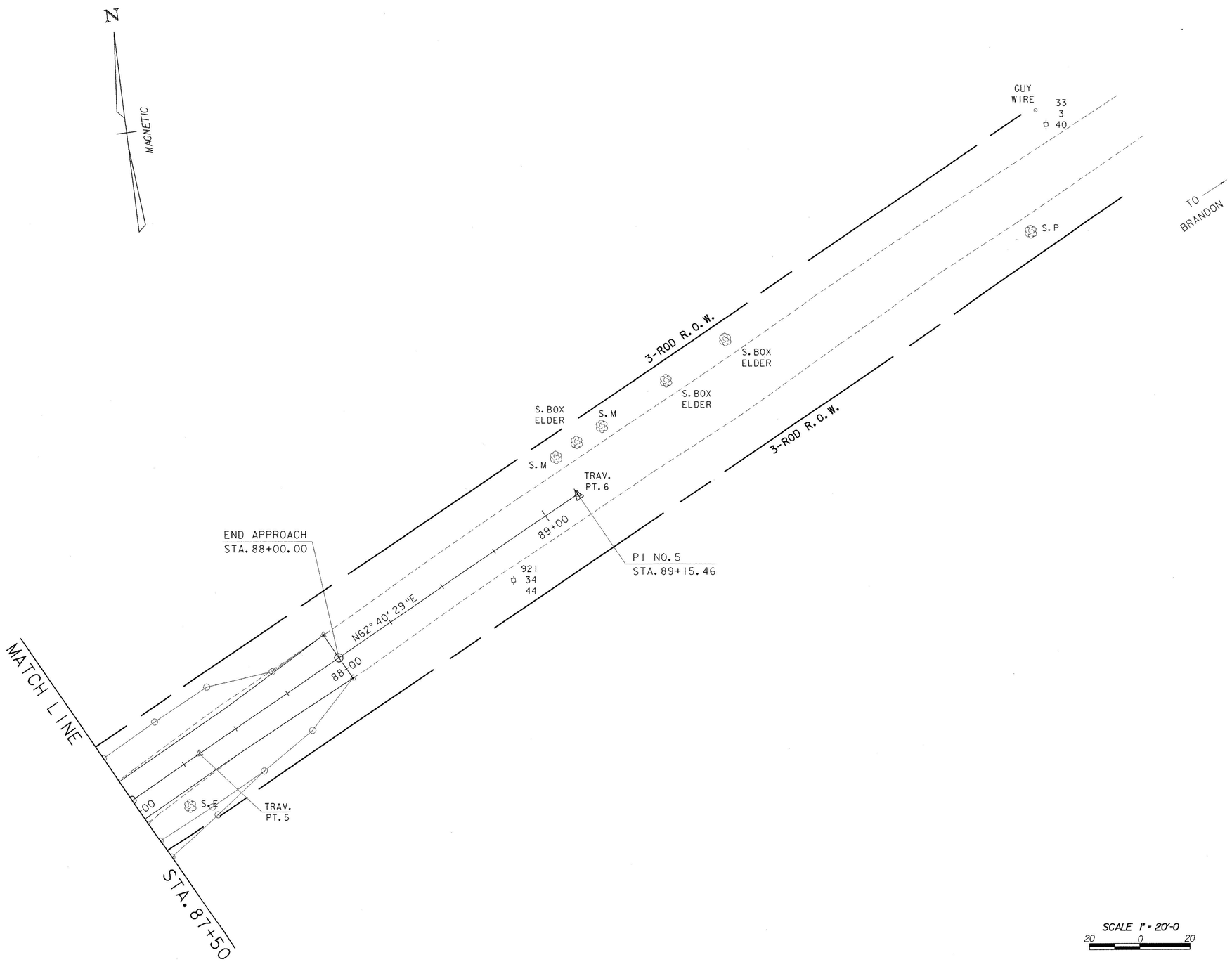
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj13701.i		PLOT DATE:	16-MAY-2002
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	10 OF 51



LAYOUT SHEET (2)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sj137102.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 11 OF 51



SCALE 1" = 20'-0

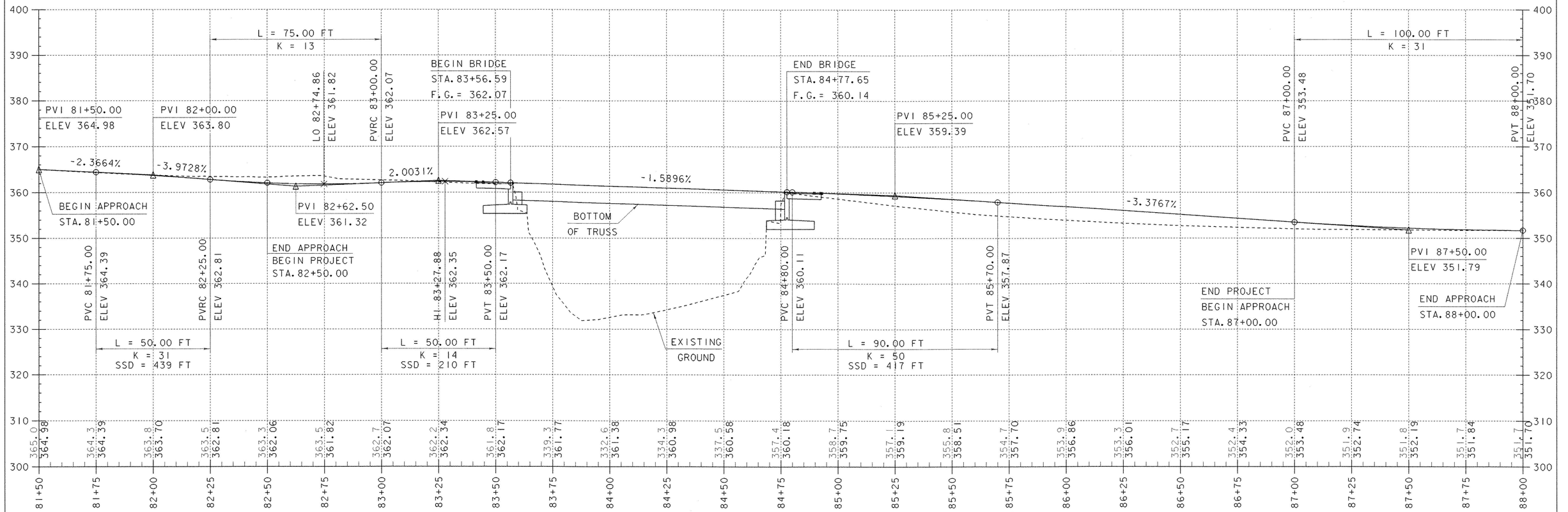
20 0 20

LAYOUT SHEET (3)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137103.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 12 OF 51

Profile Along T.H. 4 and Covered Bridge Centerline



NOTE:
ELEVATIONS SHOWN TO THE NEAREST TENTHS
ARE EXISTING GROUND ALONG CENTERLINE.
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTHS
ARE FINISH GRADES ALONG CENTERLINE.

VERTICAL 0 10 20 30

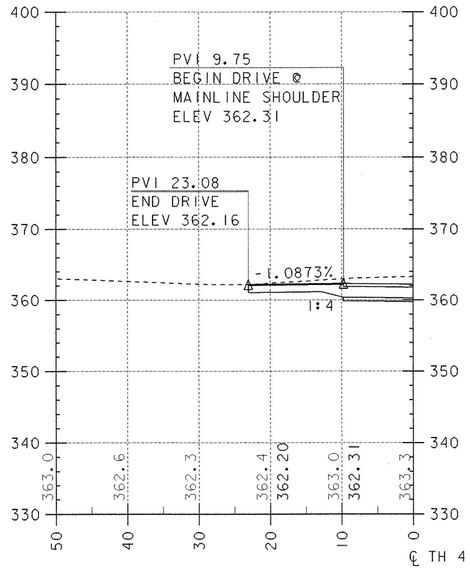
HORIZONTAL 0 20 40 60

SCALE IN FEET

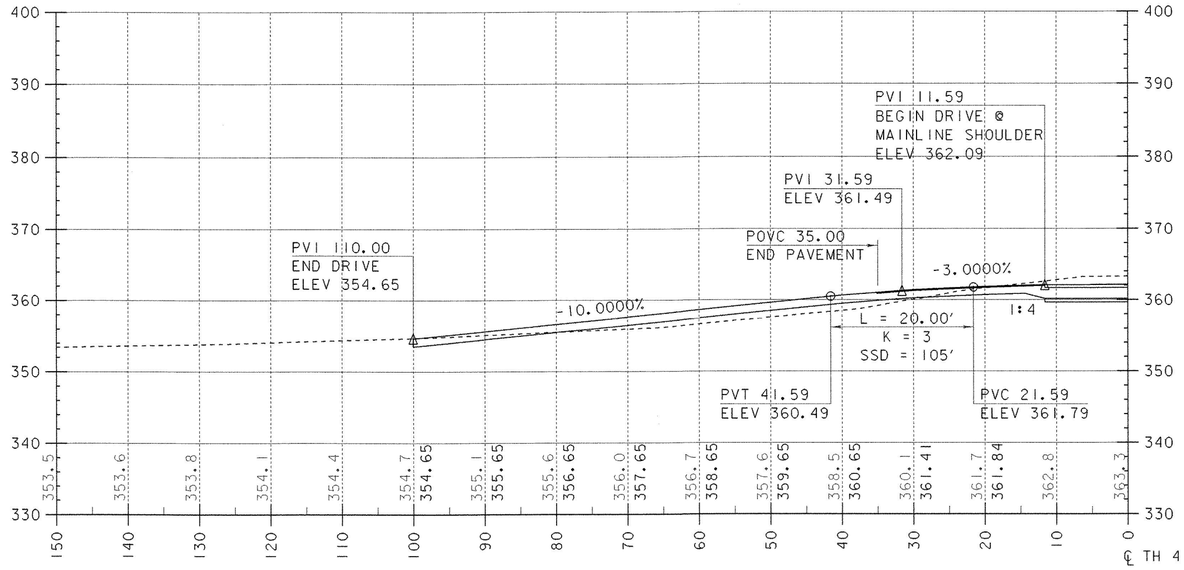
PROFILE SHEET

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

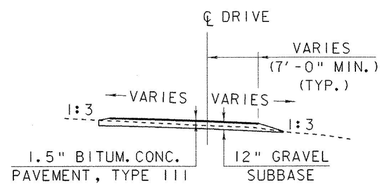
FILE NAME: 87J37\Structures\sj137pf.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 13 OF 51



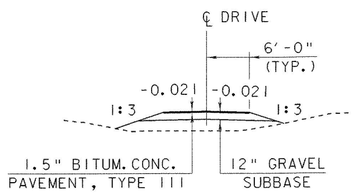
RESIDENTIAL DRIVE PROFILE
@ STA. 82+45 LT



FIELD DRIVE PROFILE
@ STA. 82+55 LT



RESIDENTIAL DRIVE SECTION
@ STA. 82+45 LT

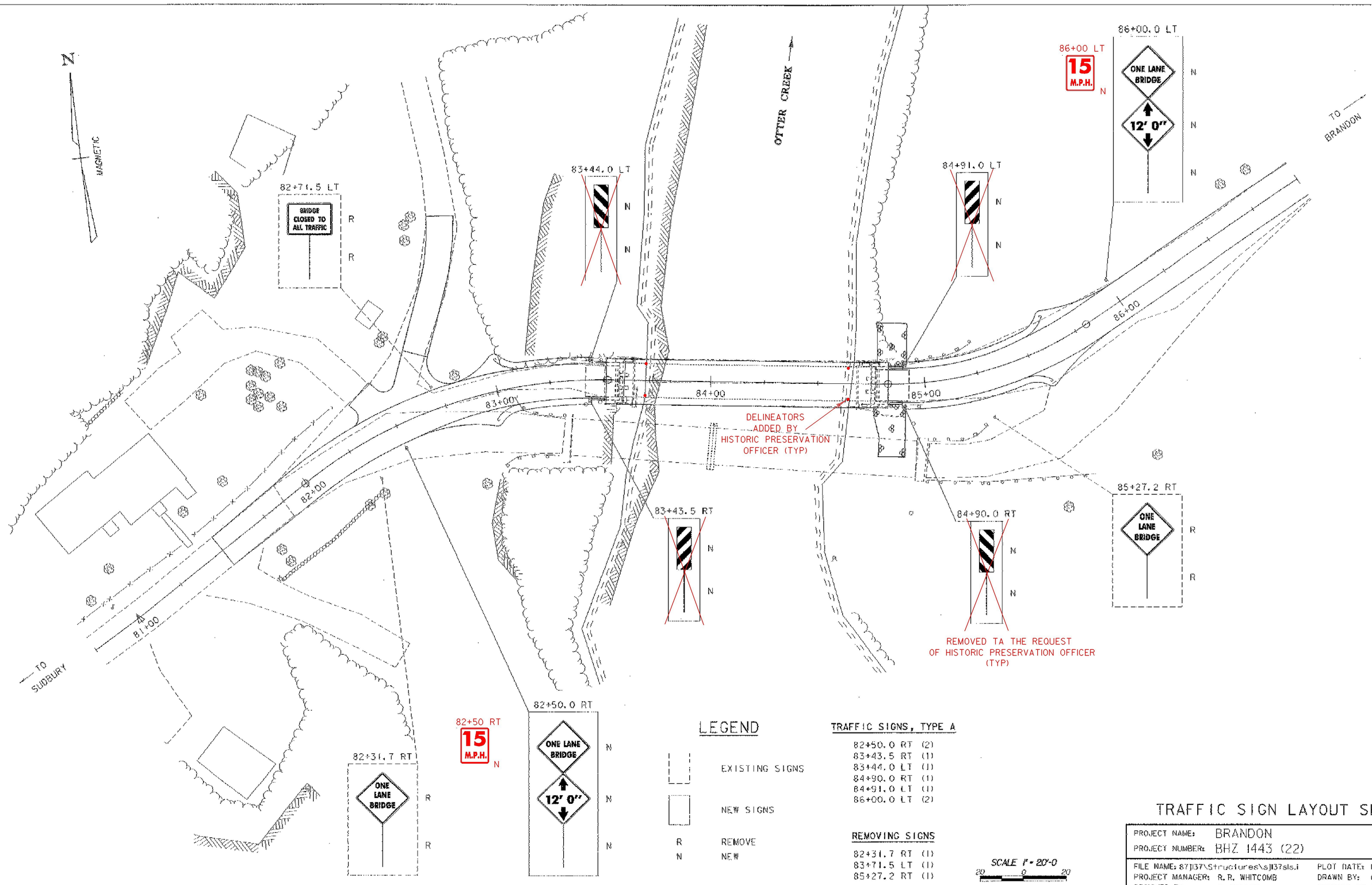


FIELD DRIVE SECTION
@ STA. 82+55 LT

DRIVE PROFILES & TYPICAL SECTIONS

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137drv.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 14 OF 51



LEGEND

EXISTING SIGNS

NEW SIGNS

R REMOVE

N NEW

TRAFFIC SIGNS, TYPE A

82+50.0 RT (2)
83+43.5 RT (1)
83+44.0 LT (1)
84+90.0 RT (1)
84+91.0 LT (1)
86+00.0 LT (2)

REMOVING SIGNS

82+31.7 RT (1)
83+71.5 LT (1)
85+27.2 RT (1)

SCALE 1" = 20'-0

20 0 20

TRAFFIC SIGN LAYOUT SHEET

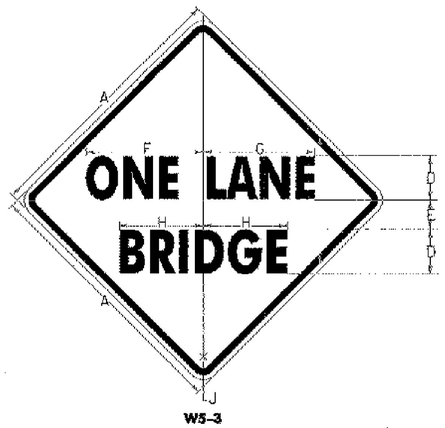
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J37\Structures\sJJ37sls.i
PROJECT MANAGER: R.R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 15 OF 51

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NO. OF POSTS	NEW SIGN POSTS: FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75	2.0	2.5	1.88	2.16	3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0	4.0	4.0 MOD	1.3	1.7	1.7	TUBULAR STEEL Ø (in) FOUNDATION	3.0	3.5	4.0	5.0 lb/ft	7.6	9.0	10.8	14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
												OPTION ITEMS																																
82+50.0 RT	ONE LANE BRIDGE 15 M.P.H.	1	36 18	36 18	9.00 2.25						1			X																											W5-3	16	—
	12' 0"	1	36	36	9.00																																			W12-2	—	E-155
83+43.5 RT		1	12	36	3.00						1			X																									OM-3R	—	E-120
83+44.0 LT		1	12	36	3.00						1			X																									OM-3L	—	E-120
84+90.0 RT		1	12	36	3.00						1			X																									OM-3L	—	E-120
84+91.0 LT		1	12	36	3.00						1			X																									OM-3R	—	E-120
86+00.0 LT	ONE LANE BRIDGE 15 M.P.H.	1	36 18	36 18	9.00 2.25						1			X																											W5-3	16	—
	12' 0"	1	36	36	9.00																																			W12-2	—	E-155
TOTALS			SF 48	SF	EA.	SF						FT 84	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB				EA.	LB											



W5-3

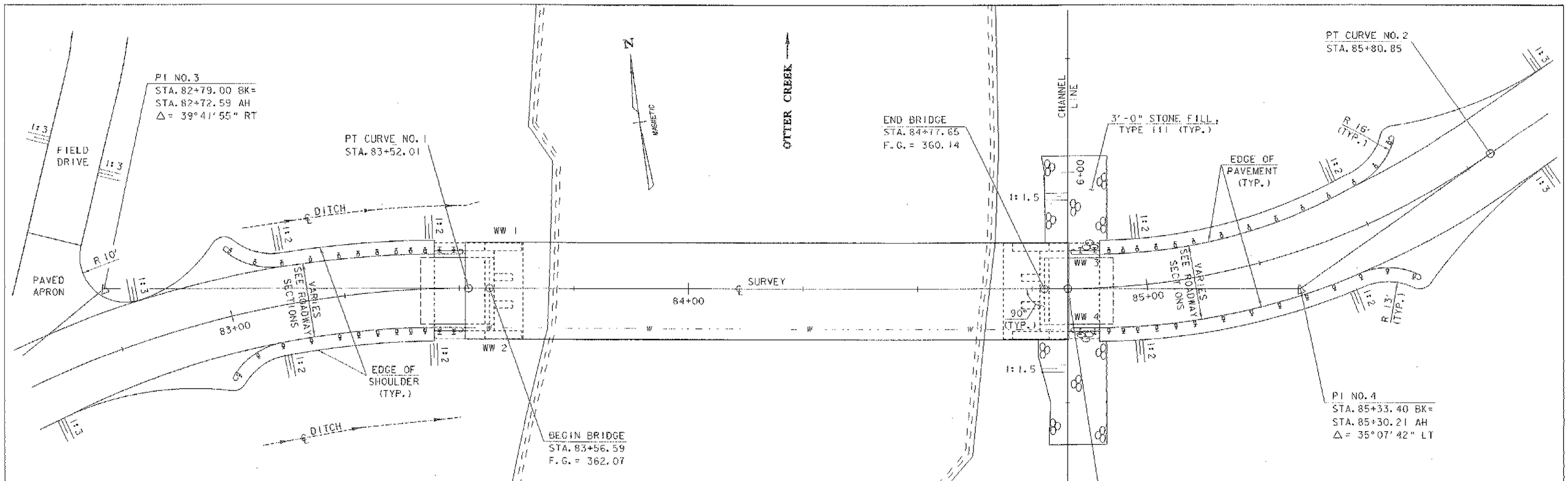
SIGN	DIMENSIONS (INCHES) A	B	C	D	E	F	G	H	J
MIN.	30	½	¾	5C	3¼	13 3/16	12 1/16	9⅛	1⅛
STD.	36	⅝	⅞	6C	4	16	15¼	11½	2¼
SPECIAL	48	¾	1¼	8C	5	21¼	20¼	15⅜	3

COLORS
LEGEND - BLACK (NON-REFL.)
BACKROUND - YELLOW (REFL.)

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

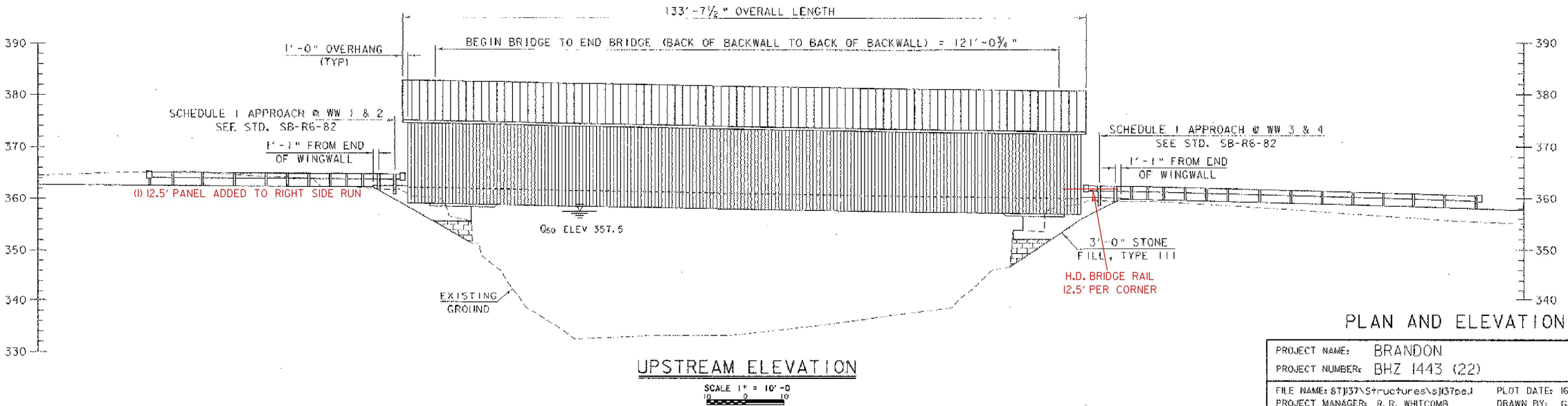
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J37\Structures\sj37sls.t
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
TRAFFIC SIGN SUMMARY SHEET
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 16 OF 51



PLAN

SCALE 1" = 10'-0



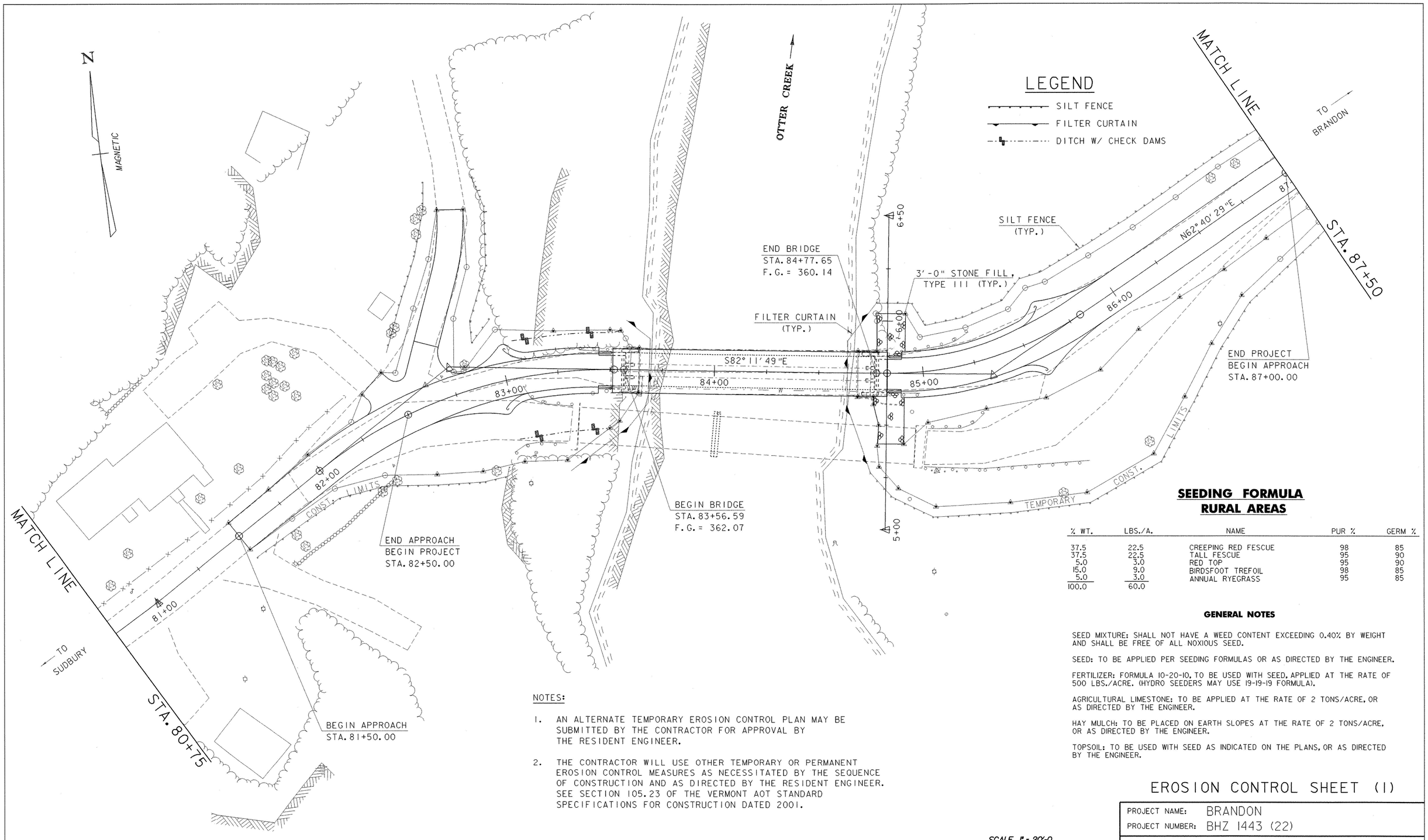
UPSTREAM ELEVATION

SCALE 1" = 10'-0

PLAN AND ELEVATION

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J37\Structures\sj137pe.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 17 OF 51



NOTES:

1. AN ALTERNATE TEMPORARY EROSION CONTROL PLAN MAY BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE RESIDENT ENGINEER.
2. THE CONTRACTOR WILL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001.

SCALE 1" - 20'-0

20 0 20

SEEDING FORMULA
RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

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 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

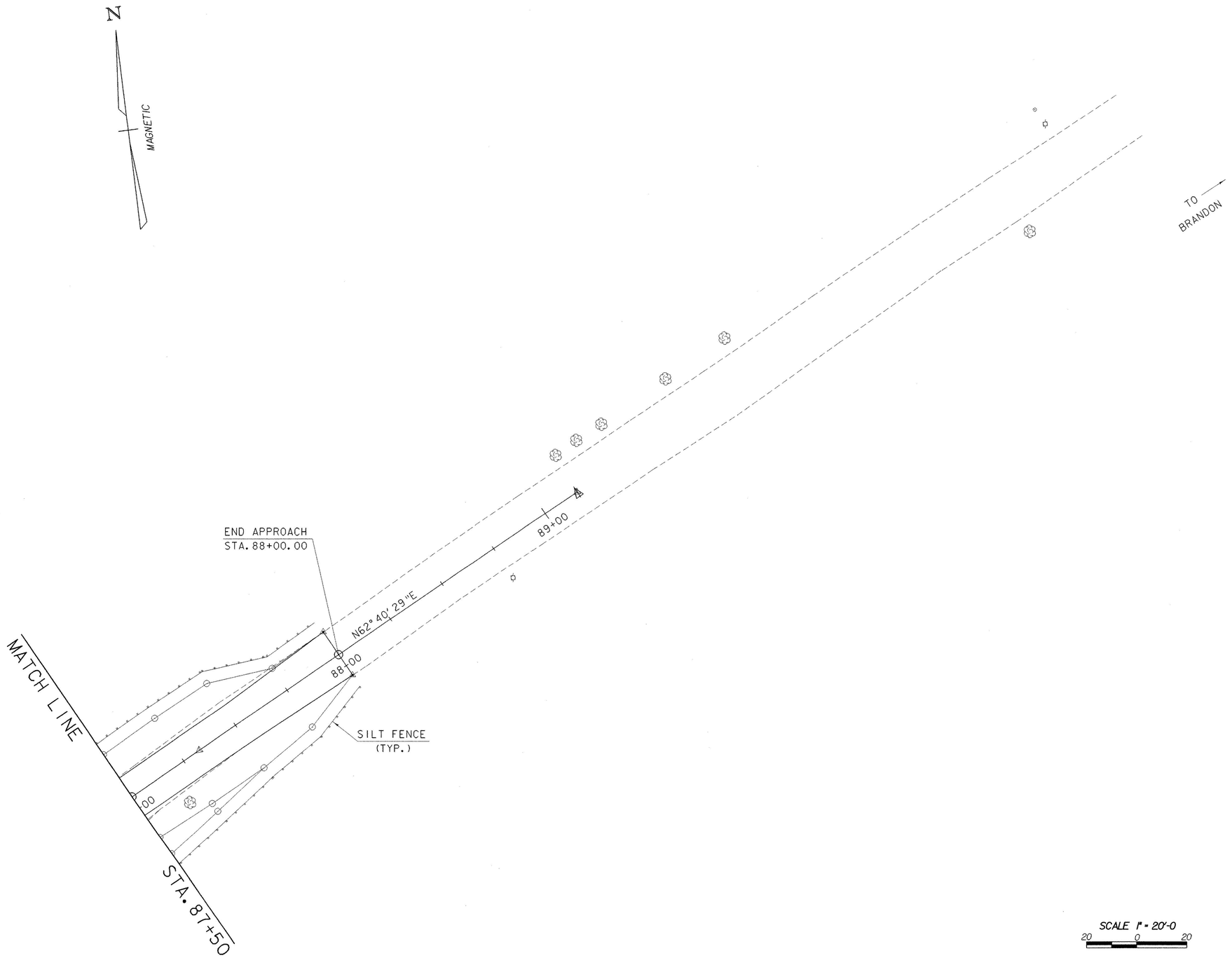
HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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

EROSION CONTROL SHEET (1)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137e01.i
PROJECT MANAGER: R.R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 18 OF 51



SCALE 1" = 20'-0
20 0 20

EROSION CONTROL SHEET (2)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J37\Structures\sj37e02.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 19 OF 51

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVSIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION DATED 1996, AND ITS LATEST REVISIONS.

2. DESIGN OF THE REHABILITATED STRUCTURE IS FOR H20-44 LIVE LOADING.

3. BRIDGE 12 WILL CONTINUE TO BE CLOSED TO ALL PEDESTRIANS AND VEHICULAR TRAFFIC DURING CONSTRUCTION. TRAFFIC SHALL BE MAINTAINED ON THE EXISITNG TEMPORARY BRIDGE.

4. ALTHOUGH THIS PROJECT INVOLVES MAJOR REHABILITATION OF THE EXISTING COVERED BRIDGE, INCLUDING REPLACEMENT OF MANY MEMBERS, THE INTENT OF THE PROJECT IS TO MAINTAIN THE DIMENSIONAL GEOMETRY OF THE BRIDGE ALONG WITH MOST OF THE CONNECTION TYPES AND DETAILS. ALL EXISTING DIMENSIONS, SHOWN ON THE PLANS SHALL BE CHECKED IN THE FIELD PRIOR TO COMMENCING THE WORK. ACTUAL WORK WILL MATCH FIELD CONDITIONS.

5. ALL ON-PROJECT CONSTRUCTION SIGNS AND BARRICADES AS REQUIRED BY THE RESIDENT ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBSIDIARY TO THE ITEM 635.10 "MOBILIZATION". ALL OFF-PROJECT SIGNING SHALL BE THE RESPONSIBILITY OF THE TOWN.

6. THE EXISTING CONCRETE JERSEY BARRIERS BELONG TO THE TOWN OF BRANDON. THE CONTRACTOR CAN STOCK PILE THE BARRIERS ON PROJECT OR CALL BRANDON'S SUPERINTENDENT OF PUBLIC WORKS, BRUCE ROUNDS AT (802) 247-0224 AND HAVE THE TOWN REMOVE THE CONCRETE BARRIERS.

7. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F OR AS NOTED OTHERWISE.

EARTHWORK AND RELATED ITEMS

8. THE BID PRICE FOR THE ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE COMPENSATION FOR REMOVING THE EXISTING TEMPORARY BRIDGE AND SUBSTRUCTURE, IN ITS ENTIRETY, ONCE THE REHABILITATED COVERED BRIDGE IS OPEN TO TRAFFIC. THE EXISTING TEMPORARY BRIDGE STEEL SUPERSTRUCTURE IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE STRUCTURAL STEEL.

9. ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE BUT NOT BE LIMITED TO:
   - REMOVAL OF PORTIONS OF THE EXISTING SUBSTRUCTURE NOT REMOVED UNDER ITEM 204.25 "STRUCTURE EXCAVATION".
   - DISMANTLING OF EXISTING SUPERSTRUCTURE AS REQUIRED.
   - REMOVAL OF END POSTS, SIDING, DECK, CURBS, FLOOR BEAMS, LOWER CROSS BRACING, LONGITUDINAL DISTRIBUTION BEAMS, LOWER AND UPPER BOTTOM CHORDS, BOLSTER BEAMS AND NAILERS.
   - SALVAGE AND REUSE OF THE RAFTERS, CROSS TIE BEAMS, UPPER CROSS BRACING, PORTAL FRAMEWORK, UPPER AND LOWER TOP CHORDS, KNEE BRACES AND LATTICES.

10. ITEM 665.15 "REMOVE EXISTING ROOFING" INCLUDES THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING ASPHALT SHINGLES, RIDGE BEAM AND ROOFING NAILERS.

11. FULL ACCESS TO ALL DRIVES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. THIS WORK WILL BE CONSIDERED TO BE SUBSIDIARY TO ITEM 635.10 "MOBILIZATION".

12. THE NEW WATERLINE ON THE REHABILITATED COVERED BRIDGE WILL BE HUNG FROM THE FLOOR BEAMS, NEAR THE INSIDE FACE OF THE UPSTREAM TRUSS BOTTOM CHORD. THE WATERLINE SHALL FIT BETWEEN THE UPPER AND LOWER LATERAL TIE RODS WITHOUT RESTING ON THE LOWER TIE ROD. THE WATERLINE AND ITS INSULATION WILL RUN THROUGH A PROCTECTIVE 6 INCH DIAMETER, 20 FOOT LONG PVC PIPE SLEEVE. THE SLEEVE WILL START AT THE INSIDE FACE OF THE BACKWALL AND EXTEND PAST THE END OF THE APPROACH SLAB. THE PVC SLEEVE WILL NOT HAVE ANY BENDS OR ELBOWS IN ORDER TO HELP FACILITATE SLIDING THE INSULATED WATERLINE THROUGH IT. WATER SERVICE TO BE MAINTAINED DURING CONSTRUCTION. ALL WATERLINE WORK SHALL BE INSPECTED AND APPROVED BY THE ENGINEER AND RAY COUNTER OF THE BRANDON WATER DISTRICT. RAY COUNTER CAN BE REACHED AT (802)247-3311.

STRUCTURAL AND NON-STRUCTURAL LUMBER AND TIMBER

13. THE CONTRACTOR SHALL SUBMIT JACKING AND SHORING PLANS TO THE STRUCTURES ENGINEER FOR REVIEW AND COMMENT. APPROVAL OF THE INFORMATION IS REQUIRED PRIOR TO COMMENCEMENT OF THE WORK.

14. THE DESIGN HAS BEEN BASED ON REPLACEMENT OF STRUCTURAL COMPONENTS WITH THE STRUCTURE SUPPORTED BY A TEMPORARY FALSEWORK SYSTEM IN ITS CURRENT LOCATION. STRUCTURE DETAILS AND SIZES HAVE NOT BEEN EXAMINED FOR LOADING CONDITIONS RELATED TO OTHER ERECTION SCHEMES.

15. FOR REHABILITATION OF THE BRIDGE IN ITS CURRENT LOCATION, THE INTENDED ERECTION SEQUENCE FOR THE FLOOR BEAMS ASSUMES INSTALLATION OF TRUSS LATTICES AND LOWER BOTTOM CHORDS AND TIE RODS BENEATH FLOOR BEAMS, FOLLOWED BY INSTALLATION OF FLOOR BEAMS AND BRACING, THEN UPPER BOTTOM CHORDS. ACCORDINGLY, NO NOTCHING OF THE BOTTOM OF THE FLOOR BEAMS IS REQUIRED.

16. IF THE CONTRACTOR CHOOSES TO REMOVE THE BRIDGE FROM ITS PRESENT LOCATION TO DO THE REHABILITATION WORK, ALL COSTS INVOLVED IN MOVING TO AND SHORING IN A NEW LOCATION AND REINSTALLING IN ITS FINAL LOCATION WILL BE INCLUDED IN ITEM 502.10, "SHORING SUPERSTRUCTURE". THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGE DONE TO THE STRUCTURE IN PERFORMING THIS WORK. COMPLETE PLANS FOR SUCH WORK MUST BE SUBMITTED TO THE STRUCTURES ENGINEER FOR REVIEW AND COMMENT. APPROVAL OF THE INFORMATION IS REQUIRED PRIOR TO COMMENCEMENT OF THE WORK.

17. THE FINAL CAMBER AFTER SHORING REMOVAL SHALL BE 3 INCHES. THE BRIDGE SHALL BE STRAIGHT ALONG A HORIZONTAL LINE BETWEEN THE ABUTMENTS AND NOT BE RACKED WHEN COMPLETED.

18. ALL STRUCTURAL MEMBERS AND CONNECTORS INDICATED TO BE RETAINED AND/OR REUSED, SHALL BE CHECKED IN THE FIELD FOR DAMAGE AND DECAY AND SHALL BE REMOVED AND REPLACED AS DEEMED NECESSARY BY THE RESIDENT ENGINEER. PAYMENT SHALL BE UNDER THE APPROPRIATE LUMBER AND TIMBER PAY ITEM.

19. ALL TIMBER DIMENSIONS ARE NOMINAL. ALL TIMBER IS TO BE FULL SAWN UNLESS OTHERWISE NOTED. (FULL SAWN TIMBER IS THE SAME SIZE AS THE STATED NOMINAL SIZE.)

20. FULL SAWN STRUCTURAL LUMBER AND TIMBER SHALL INCLUDE THE FOLLOWING MEMBERS:

    A. STRUCTURAL UNTREATED, ITEM 522.20
       - NEW RIDGE BEAM (SPRUCE-PINE-FIR, NO.1 GRADE)
       - NEW ROOF NAILERS (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT AND ADDITIONAL RAFTERS, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT CROSS TIE BEAMS, IF REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT UPPER LATERAL CROSS BRACING COMPONENTS, IF REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - NEW ROOF FASCIA AND SOFFIT BOARDS (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT UPPER TOP CHORDS, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT LOWER TOP CHORDS, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT TRUNNELS, AS REQUIRED (WHITE OAK OR WHITE ASH)
       - REPLACEMENT PORTAL FRAMING, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT LATTICE MEMBERS, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - REPLACEMENT KNEE BRACES, AS REQUIRED (SPRUCE-PINE-FIR, NO.1 GRADE)
       - NEW DOWELS FOR LOWER LATERAL CROSS BRACING (WHITE OAK OR WHITE ASH)

    B. STRUCTURAL TREATED, ITEM 522.25. TREATMENT SHALL COMPLY WITH STANDARD SPECIFICATION 726.01 PRESERVATION TREATMENT TYPE II, TYPE III OR TYPE IV.
       - NEW UPPER BOTTOM CHORDS (SOUTHERN PINE, NO.1 GRADE)
       - NEW VERTICAL END POSTS (SOUTHERN PINE, NO.1 GRADE)
       - NEW LOWER LATERAL CROSS BRACING, CONNECTION BLOCKING (SOUTHERN PINE, NO.1 GRADE)
       - NEW BOLSTER BEAMS AND BLOCKING, BEARING BLOCKS, BEDDING TIMBERS (SOUTHERN PINE, NO.1 GRADE)
       - SHIMS, IF REQUIRED (WHITE OAK OR WHITE ASH)

21. FULL SAWN NON-STRUCTURAL LUMBER SHALL INCLUDE THE FOLLOWING MEMBERS:

    A. NON-STRUCTURAL LUMBER UNTREATED, ITEM 522.30
       - NEW SHIPLAP SIDING (NO.1 GRADE WHITE PINE OR EASTERN SPRUCE)
       - NAILING STRIPS (SPRUCE-PINE-FIR, NO.2 GRADE)
       - NEW ROOF FASCIA AND SOFFIT BOARD NAILERS (SPRUCE-PINE-FIR, NO.2 GRADE)
       - NEW ROOF RETURNS AND CORNICES (SPRUCE-PINE-FIR, NO.1 GRADE)

    B. NON-STRUCTURAL LUMBER TREATED, ITEM 522.35. TREATMENT SHALL COMPLY WITH STANDARD SPECIFICATION 726.01 PRESERVATION TREATMENT TYPE II, TYPE III OR TYPE IV.
       - CURBS AND BLOCKING (SOUTHERN PINE, NO.1 GRADE)
       - FLOOR BEAM BLOCKING (SOUTHERN PINE, NO.1 GRADE)
       - DECK EDGE BOARDS (SOUTHERN PINE, NO.1 GRADE)

22. STRUCTURAL GLUED LAMINATED TIMBER, ITEM 522.40
    - NEW DECK PANELS: SOUTHERN PINE, #16-V3 SP/SP (OR COMBINATION 47 SP)
    - NEW FLOOR BEAMS: SOUTHERN PINE, #26F-V3 SP/SP, 2600 PSI BENDING STRESS PRIOR TO TREATMENT.
    - NEW LOWER BOTTOM CHORD: SOUTHERN PINE, COMBINATION 48 SP, ARCHITECTURAL APPEARANCE GRADE.

    A. ALL STRUCTURAL GLUED LAMINATED TIMBER SHALL BE TREATED PRIOR TO GLUING.

    B. STRUCTURAL GLUED LAMINATED DECK PANELS SHALL COMPLY WITH STANDARD SPECIFICATION 726.01 PRESERVATION TREATMENT TYPE IV. STRUCTURAL GLUED LAMINATED FLOOR BEAMS AND LOWER BOTTOM CHORD SHALL COMPLY WITH STANDARD SPECIFICATION 726.01 PRESERVATION TREATMENT TYPE II, TYPE III OR TYPE IV.

23. THE DECK SHALL CONSIST OF 5 PANELS OF EQUAL WIDTHS. THE END JOINTS OVER THE FLOOR BEAMS WILL BE STAGGERED. THE ALUMINUM DECK BRACKETS SHALL CONFORM TO MANUFACTURERS SPECIFICATIONS. THE LAG SCREWS CONNECTING THE DECK TO THE FLOOR BEAMS SHALL BE RECESSED INTO THE DECK AND PLUGGED AND SEALED. COST AND MATERIALS FOR THIS WORK WILL BE SUBSIDIARY TO ITEM 522.40 STRUCTURAL GLUED TIMBER (DECK PANELS).

24. "UNTREATED LUMBER AND TIMBER" AND "TREATED LUMBER AND TIMBER" ARE FOR ESTIMATING PURPOSES ONLY. ACTUAL QUANTITIES MAY VARY DEPENDING ON CONDITION OF LUMBER SCHEDULED TO BE RETAINED.

25. ALL EXISTING WOOD TRUNNELS THAT ARE REMOVED IN THE REHABILITATION PROCESS, ARE TO BE REPLACED WITH NEW WOOD TRUNNELS. EXISTING TRUNNELS THAT HAVE DAMAGE OR DECAY WILL ALSO BE REPLACED WITH NEW WOOD TRUNNELS AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.

26. ALL NEW WOOD TRUNNELS SHALL BE UNTREATED, DRIED (MAXIMUM MOISTURE CONTENT OF 19%), WHITE OAK OR WHITE ASH, AND SHALL BE DRIVEN IN A MANNER WHICH AVOIDS SPLITTING OF THE TRUNNELS OR THE PIECES CONNECTED BY THEM. TRUNNELS SHALL BE 1 7/8 INCHES IN DIAMETER. TRUNNELS MAY BE DIPPED IN BOILED LINSEED OIL PRIOR TO DRIVING. TRUNNEL MATERIAL AND INSTALLATION WILL BE PAID FOR UNDER ITEM 522.20.

27. TRUNNEL HOLES IN EXISTING MEMBERS THAT ARE TO BE RETAINED WHICH ARE OVERSIZED DUE TO WEAR OR WHICH WILL NOT ACHEIVE SATISFACTORY ALIGNMENT SHALL BE PLUGGED WITH A COMPATIBLE WOODEN FILLER AS APPROVED AND DEEMED NECESSARY BY THE RESIDENT ENGINEER, AND REDRILLED. THE COST OF THIS WORK WILL BE SUBSIDIARY TO ITEM 522.20.

28. THE INTERMEDIATE RAFTERS AND CROSS TIE BEAMS WILL BE ATTACHED TO THE UPPER TOP CHORD USING "SIMPSON STRONGTIE H2.5 HURRICANE TIES, GALVANIZED" OR EQUIVILENT CONNECTOR. "SIMPSON STRONGTIE H4 HURRICANE TIES, GALVANIZED" OR EQUIVILENT CONNECTOR, WILL BE USED TO CONNECT THE RAFTER TO THE CROSS TIE BEAM. NO.8 GALVANIZED SCREWS, 1½ INCH LONG, WILL BE USED TO ATTACH A HURRICANE TIE ON EACH SIDE RAFTER OR TIE BEAM.

29. THE EXISTING COVERED BRIDGE TRUSSES ARE NOT PERFECTLY SYMMETRICAL AND THE FLOOR BEAM SPACING MAY VARY SLIGHTLY. TO HELP FACILITATE CONNECTING THE GLUED LAMINATED DECK PANELS TO THE FLOOR BEAMS, THE LEAD HOLES FOR THE LAG SCREWS WILL BE DRILLED IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT THE END PANEL CONNECTION JOINTS WILL OCCUR AT THE CENTERLINE OF THE FLOOR BEAMS.

30. ALL SIDING, NAILERS, AND DECK EDGE BOARDS SHALL BE FASTENED WITH 2½ INCH LONG NO. 8 GALVANIZED SCREWS, COST INCIDENTAL TO SIDING. SIDING SHALL EXTEND INSIDE THE COVERED BRIDGE 10 FEET FROM EACH END.

32. LEAD HOLES FOR THE LAG SCREWS WILL BE DOUBLE DRILLED. THE DIAMETER OF THE LEAD HOLE FOR THE THREADED PORTION OF THE LAG SCREW WILL BE ¼ INCHES FOR THE ½ INCH DIAMETER LAG SCREW AND 7/16 INCHES FOR THE ¾ INCH LAG SCREW. THE LEAD HOLE FOR THE UNTHREADED SHANK MUST BE THE SAME DIAMETER AND EXTEND TO THE SAME DEPTH AS THE UNTHREADED PORTION.

STRUCTURAL STEEL AND BEARINGS

33. STRUCTURAL STEEL SHALL INCLUDE ALL TIE RODS BETWEEN TRUSSES AND CORRESPONDING, TURNBUCKLES, NUTS AND OGEE WAHSERS. TIE RODS SHALL MEET ASTM A 307. ALL OTHER HARDWARE SHALL BE PAID FOR SUBSIDIARY TO THE ITEM TO WHICH IT IS ATTACHED. ALL NEW BOLTS, LAG SCREWS, NUTS AND WASHERS SHALL BE ASTM A 307. ALL STRUCTURAL STEEL, HARDWARE AND STEEL IN THE BEARING DEVICE ASSEMBLIES SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO SPECIFICATION M 232.

34. ITEM 531.10 "BEARING DEVICE ASSEMBLY (MOD.1)" SHALL INCLUDE:
    - PLACEMENT OF BEARING BLOCKS UNDER THE FLOOR BEAMS.
    - PLANING OF BEARING BLOCKS IN ORDER TO MATCH GRADE.
    - MATERIAL COSTS AND PLACEMENT OF ANCHOR BOLTS, NUTS AND WASHERS.

35. ITEM 531.10 "BEARING DEVICE ASSEMBLY (MOD.2)" SHALL INCLUDE:
    - PLACEMENT OF BOLSTER BEAMS UNDER THE LOWER BOTTOM CHORD.
    - PLACEMENT OF BEDDING TIMBERS UNDER THE BOLSTER BEAMS.
    - PLANING OF BEDDING TIMBERS IN ORDER TO MATCH GRADE.
    - MATERIAL COSTS AND PLACEMENT OF ANGLE STEEL (ASTM A36/A36M) ANCHOR BOLTS, NUTS AND WASHERS.

CONCRETE AND REINFORCING STEEL

36. NO TRAFFIC SHALL BE ALLOWED ON THE APPROACH SLABS UNTIL THE CURE PERIOD IS UP AND THE 28 DAY DESIGN STRENGTH IS ATTAINED AS EVIDENCED BY TEST CYLINDERS CURED UNDER FIELD CONDITIONS.

37. THE KEY IN 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.

38. JOINTS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

39. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".

40. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND PAID FOR UNDER THE ITEM 507.17. WHEN EPOXY COATED REINFORCING STEEL IS CUT THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.

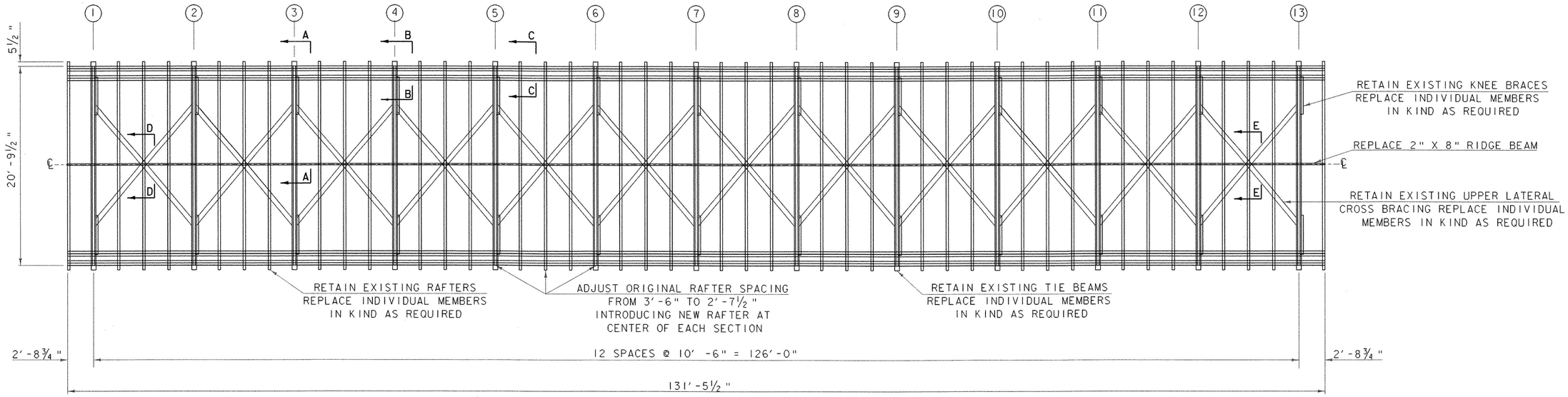
41. THE MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURES SHALL BE TWO INCHES ALONG WALL FACES AGAINST EARTH, AND THREE INCHES ELSEWHERE UNLESS DETAILED OTHERWISE.

42. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:

SPACING	+/- 1"
CLEARANCE	+/- ¼"

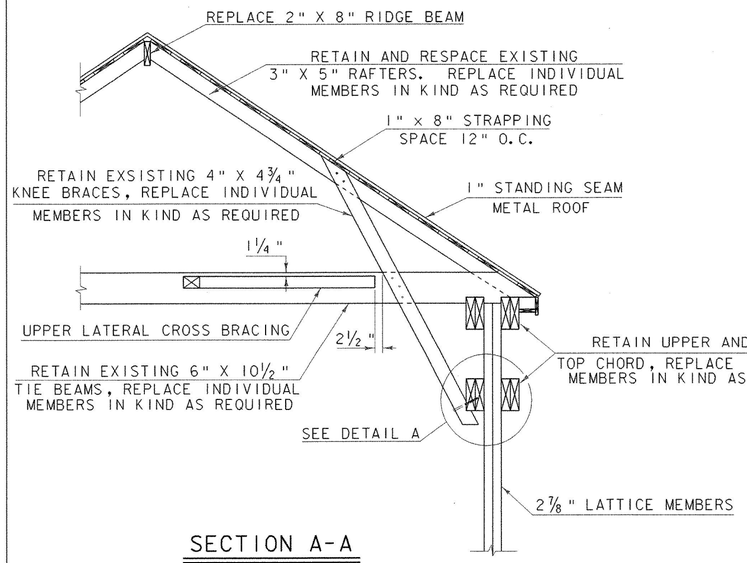
PROJECT NOTES

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sJ137pn.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 20 OF 51



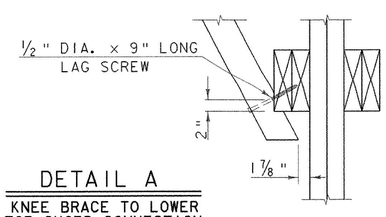
ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"



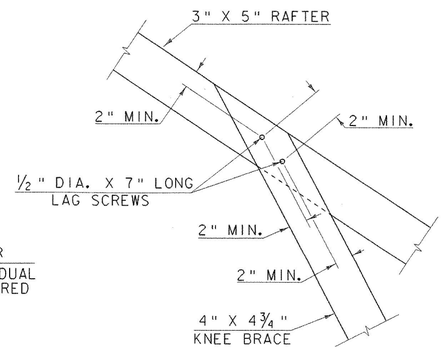
SECTION A-A

SCALE: ½" = 1'-0"



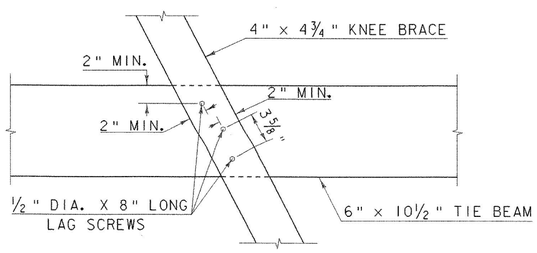
DETAIL A

KNEE BRACE TO LOWER
TOP CHORD CONNECTION
SCALE: 1" = 1'-0"



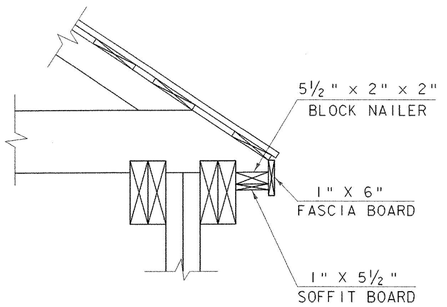
KNEE BRACE TO RAFTER CONNECTION

SCALE: 1½" = 1'-0"



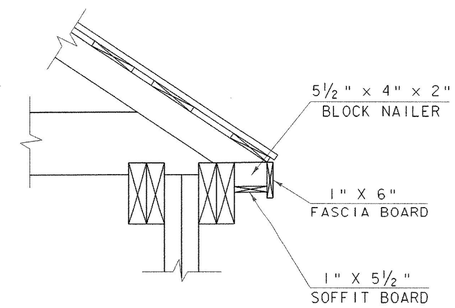
KNEE BRACE TO TIE BEAM CONNECTION

SCALE: 1½" = 1'-0"



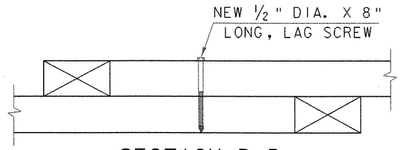
SECTION B-B

CONNECTION AT CROSS TIE BEAM
SCALE: 1" = 1'-0"



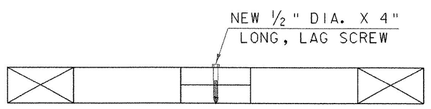
SECTION C-C

CONNECTION AT INTERMEDIATE RAFTER
SCALE: 1" = 1'-0"



SECTION D-D

SCALE: 1½" = 1'-0"



SECTION E-E

SCALE: 1½" = 1'-0"

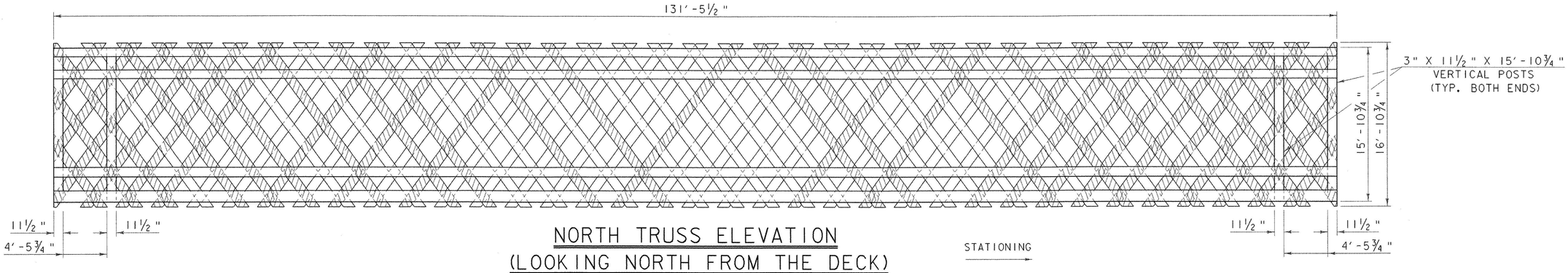
NOTES:

1. UNNOTCHED CONNECTION IN SECTION D-D ALTERNATES BY BAY WITH NOTCHED CONNECTION SHOWN IN SECTION E-E
2. RETAIN EXSISTING 4" X 6" UPPER LATERAL CROSS BRACING, REPLACE INDIVIDUAL MEMBERS IN KIND AS REQUIRED

ROOF FRAMING PLAN

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

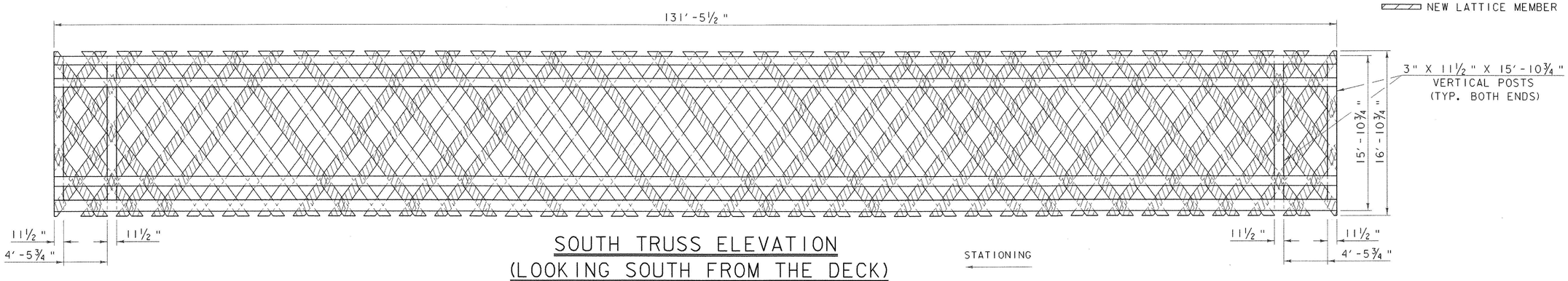
FILE NAME: 87J137\Structures\sJ137rfp.I
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: B. MAURICE
CHECKED BY: T. SUMNER
SHEET 21 OF 51



NORTH TRUSS ELEVATION
(LOOKING NORTH FROM THE DECK)

SCALE: 3/16" = 1'-0"

STATIONING →



SOUTH TRUSS ELEVATION
(LOOKING SOUTH FROM THE DECK)

SCALE: 3/16" = 1'-0"

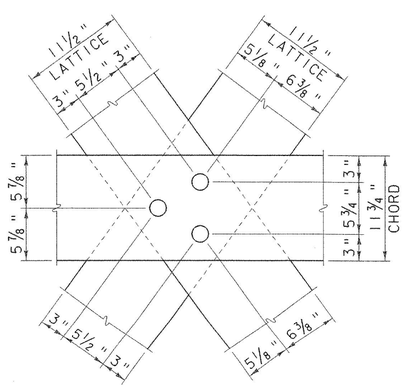
STATIONING ←

LEGEND

NEW LATTICE MEMBER

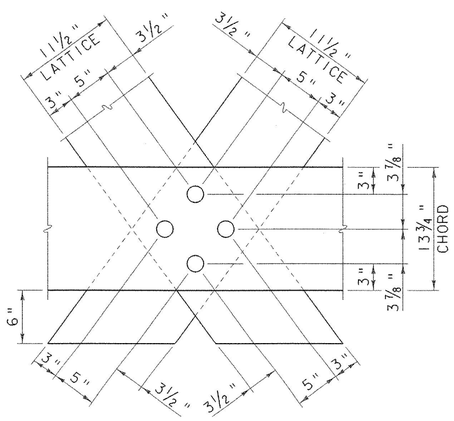
FOR ESTIMATING PURPOSES, THE FOLLOWING MEMBERS WERE INCLUDED IN THE ESTIMATED LUMBER QUANTITIES:

- RIDGE BEAM
- 100% OF THE ROOF NAILERS
- 48 RAFTERS
- 5 TIE BEAMS
- 2 UPPER CROSS BRACES
- 5 KNEE BRACES
- 77% OF THE UPPER TOP CHORD
- 65% OF THE LOWER TOP CHORD
- 89 LATTICE MEMBERS
- 50% OF THE PORTAL FRAME
- 660 TRUNNELS
- 100% OF THE UPPER BOTTOM CHORD
- 100% OF THE LOWER BOTTOM CHORD
- VERTICAL POSTS
- LOWER CROSSING SYSTEM
- BOLSTER BEAMS, BLOCKING AND BEDDING TIMBERS
- BEARING BLOCKS
- FASCIA AND SOFFIT BOARD AND NAILERS
- ROOF RETURNS AND CORNICES
- CURBS
- FLOOR BEAMS AND BLOCKING
- DECKING
- DECK EDGE BOARDS



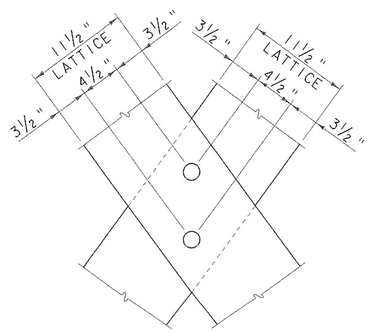
UPPER BOTTOM CHORD
3 TRUNNEL CONNECTION

SCALE: 1½" = 1'-0"



LOWER BOTTOM CHORD
4 TRUNNEL CONNECTION

SCALE: 1½" = 1'-0"



LATTICE
2 TRUNNEL CONNECTION

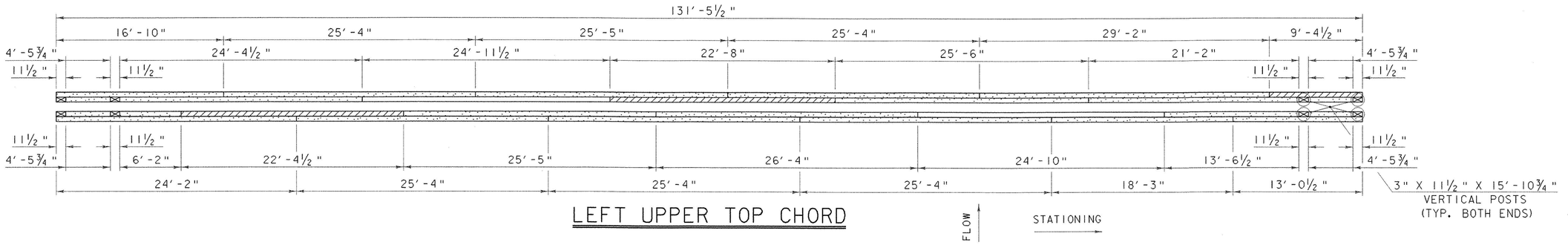
SCALE: 1½" = 1'-0"

NOTES FOR NEW TRUNNEL CONNECTIONS:

1. HOLE POSITION IN GROUP TO BE AS INDICATED.
2. MINIMUM EDGE DISTANCE IN 4 TRUNNEL CHORD CONNECTION = 3".
   MINIMUM EDGE DISTANCE IN 3 TRUNNEL CHORD CONNECTION = 3".
   MINIMUM EDGE DISTANCE IN LATTICE CONNECTION = 3½".
   MINIMUM END DISTANCE = 13"
3. A MINIMUM OF 1/3 TRUNNELS IN EACH CONNECTION TO BE DRIVEN FROM OPPOSITE SIDES.
4. TOP CHORDS AND LATTICE JOINTS SIMILAR.

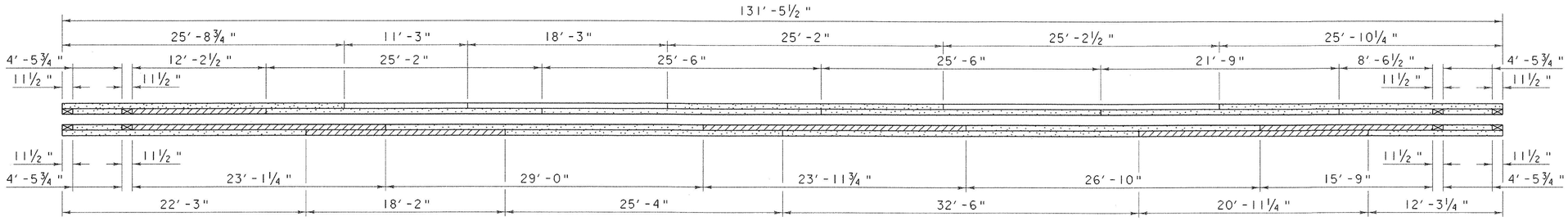
INTERIOR TRUSS ELEVATIONS & TRUNNEL CONNECTION DETAILS

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sJ137ite.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 22 OF 51



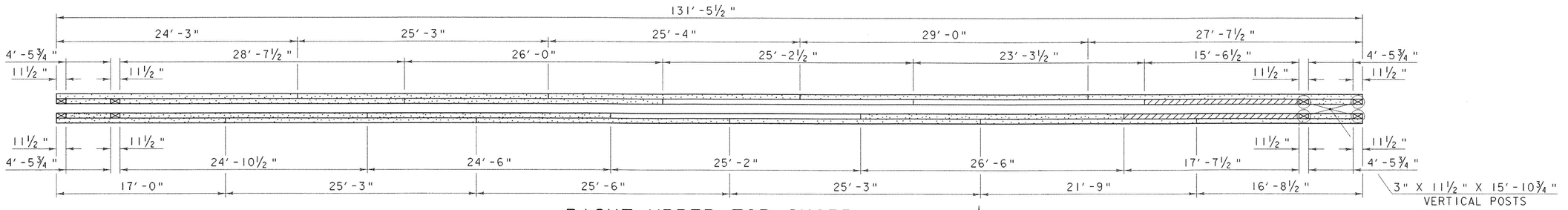
LEFT UPPER TOP CHORD

FLOW STATIONING



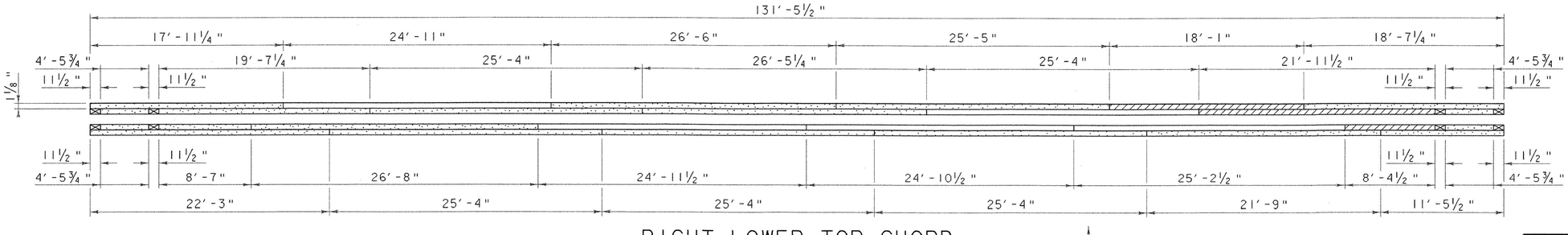
LEFT LOWER TOP CHORD

FLOW STATIONING



RIGHT UPPER TOP CHORD

FLOW STATIONING



RIGHT LOWER TOP CHORD

FLOW STATIONING

LEGEND

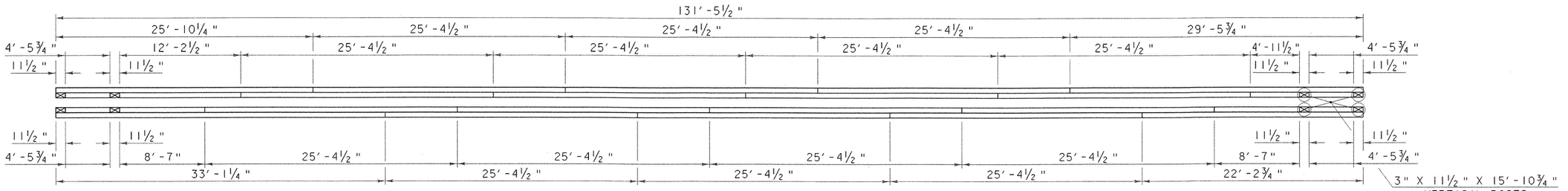
- EXISTING MEMBER NOT CUT
- EXISTING MEMBER CUT TO LENGTH
- NEW MEMBER

HORIZ. SCALE: 3/16" = 1'-0"
VERT. SCALE: 3/8" = 1'-0"

TOP CHORD SPLICE DETAILS

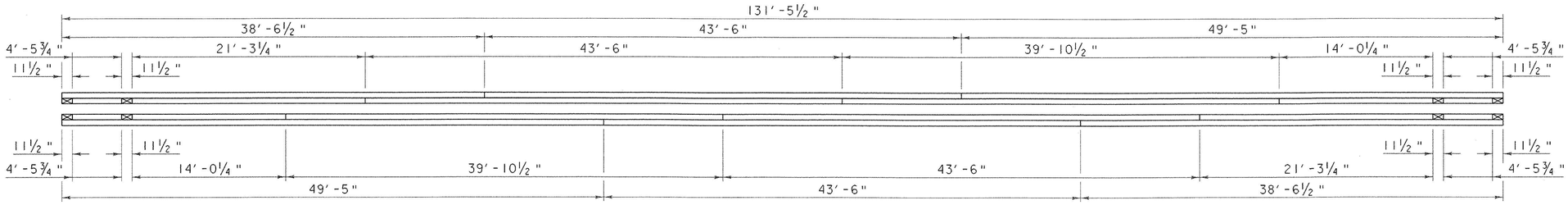
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137tcs.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 23 OF 51



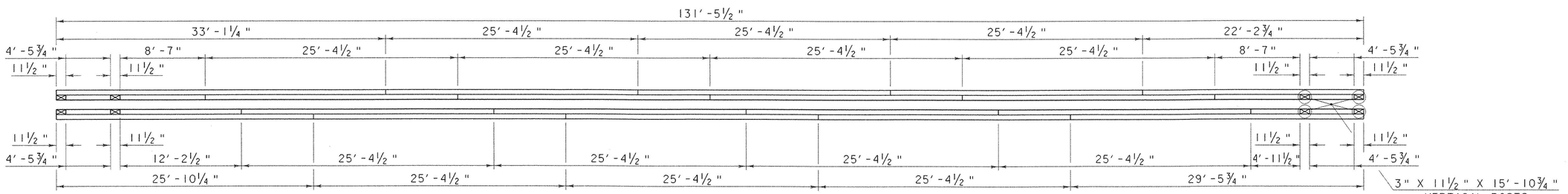
LEFT UPPER BOTTOM CHORD

FLOW ↑ STATIONING →



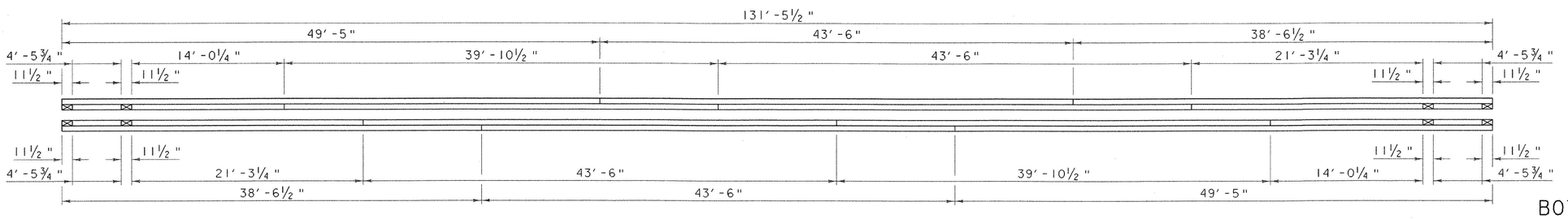
LEFT LOWER BOTTOM CHORD

FLOW ↑ STATIONING →



RIGHT UPPER BOTTOM CHORD

FLOW ↑ STATIONING →



RIGHT LOWER BOTTOM CHORD

FLOW ↑ STATIONING →

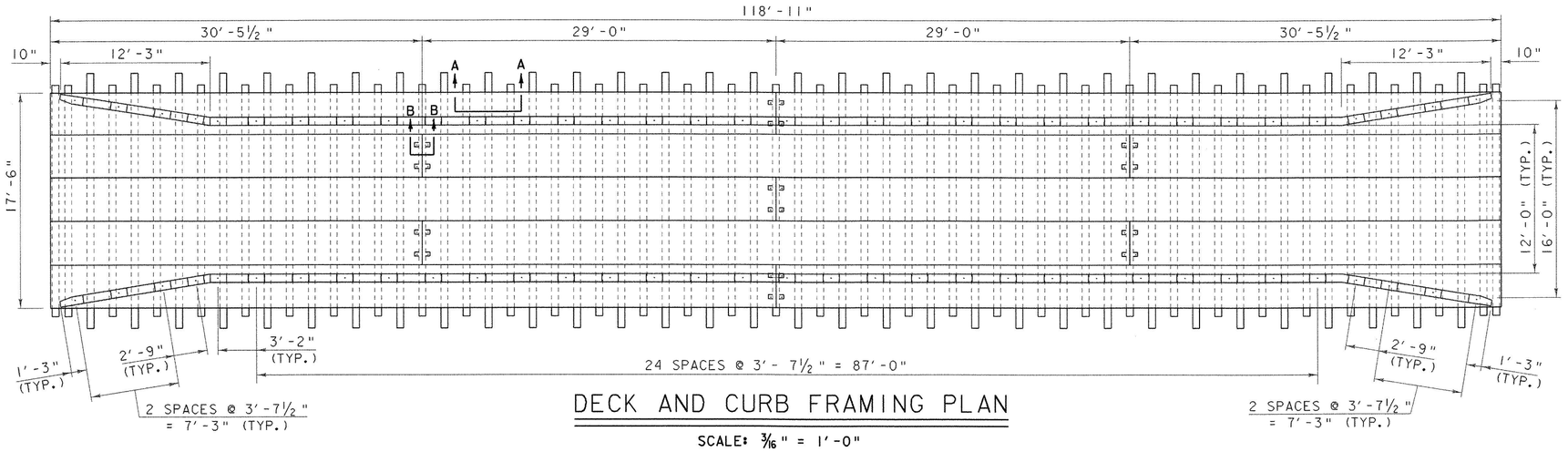
NOTE: ALL BOTTOM CHORD MEMBERS ARE NEW MATERIAL.

HORIZ. SCALE: 3/16" = 1′-0"
VERT. SCALE: 3/8" = 1′-0"

BOTTOM CHORD SPLICE DETAILS

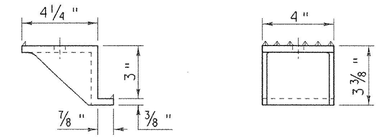
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137bcs.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 24 OF 51



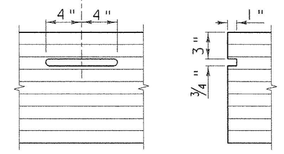
DECK AND CURB FRAMING PLAN

SCALE: 3/16" = 1'-0"



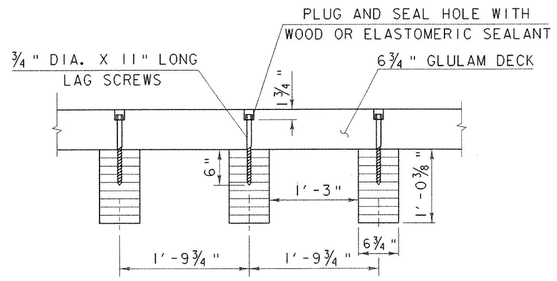
ALUMINUM DECK BRACKET

SCALE: 3" = 1'-0"



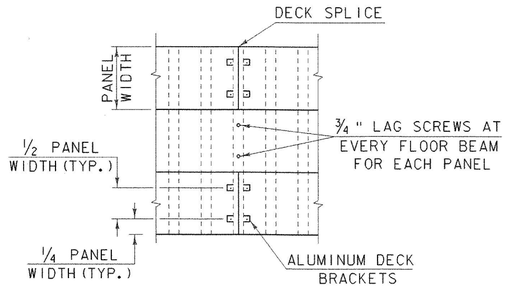
FLOOR BEAM DAP DETAIL

SCALE: 3" = 1'-0"



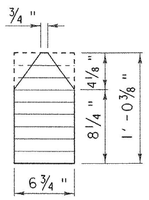
SECTION A-A

GLULAM DECK
SCALE: 1" = 1'-0"



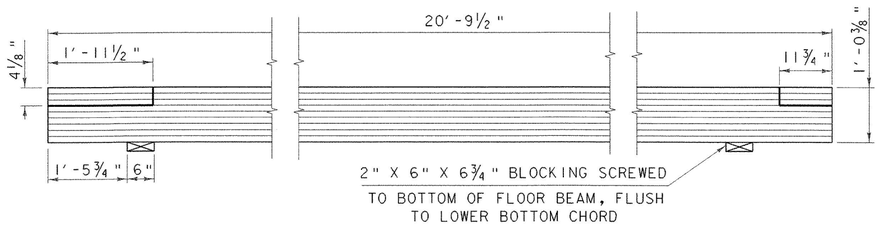
DECK PANEL SPLICE DETAIL

SCALE: ¼" = 1'-0"



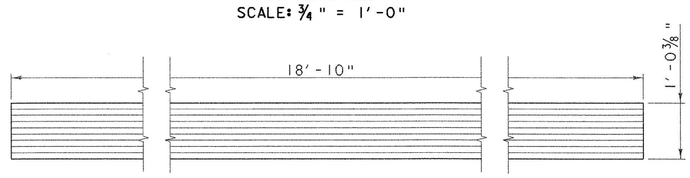
NOTCHED FLOOR BEAM

END SECTION
SCALE: 3" = 1'-0"



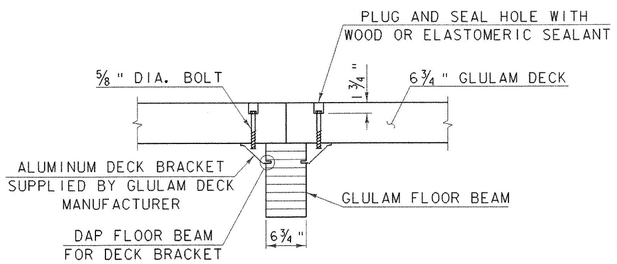
NOTCHED FLOOR BEAM

(32 REQUIRED)
SCALE: ¾" = 1'-0"



UNNOTCHED FLOOR BEAM

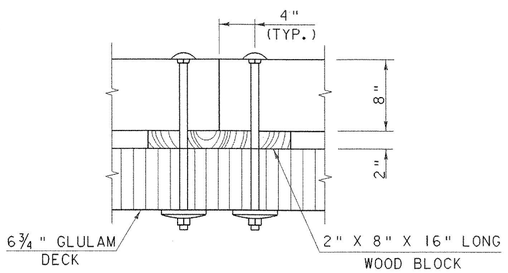
(35 REQUIRED)
SCALE: ¾" = 1'-0"



SECTION B-B

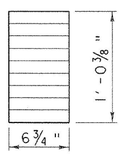
PANEL SPLICE AT FLOOR BEAM
SCALE: 1" = 1'-0"

NOTE:
DAP TO BE DONE BY GLULAM DECK MANUFACTURER TO INSURE PROPER DECK TO FLOOR BEAM CONNECTION



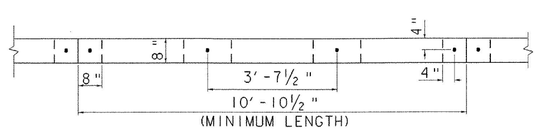
CURB SPLICE

SCALE: 1½" = 1'-0"



UNNOTCHED FLOOR BEAM

END SECTION
SCALE: 3" = 1'-0"



CURB SPLICE PLAN DETAIL

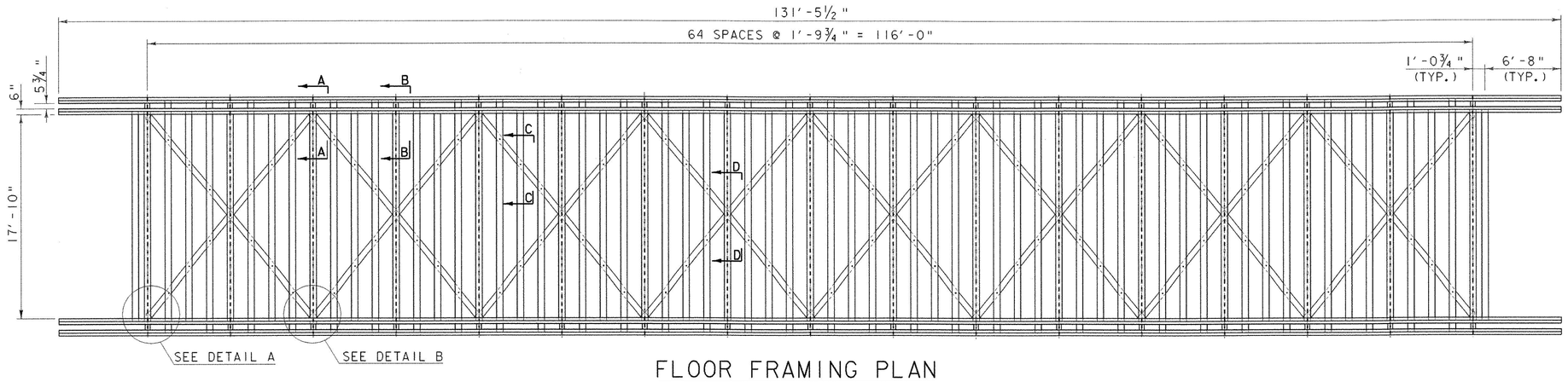
SCALE: ½" = 1'-0"

NOTE:
LONG FLOOR BEAMS WILL BE PLACED WITH LONG NOTCHES ALTERNATING IN PLAN VIEW.

DECK FRAMING PLAN

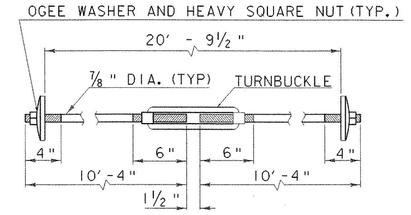
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\structures\sJ137dfp.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: B. MAURICE
CHECKED BY: T. SUMNER
SHEET 25 OF 51



FLOOR FRAMING PLAN

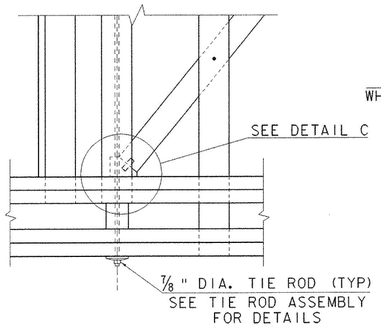
SCALE: 3/16" = 1'-0"



TIE ROD ASSEMBLY

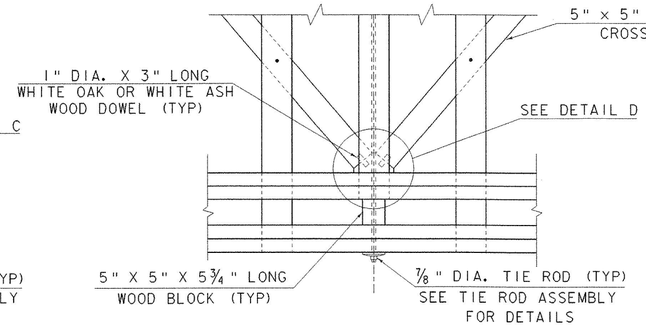
(GALVANIZED) (17 REQUIRED)

SCALE: 1½" = 1'-0"



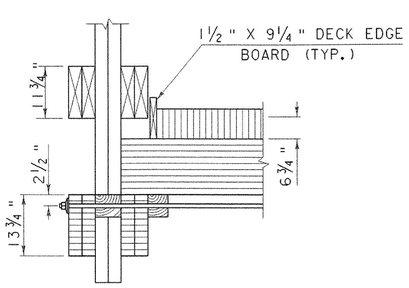
DETAIL A

SCALE: ¾" = 1'-0"



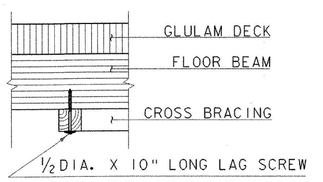
DETAIL B

SCALE: ¾" = 1'-0"



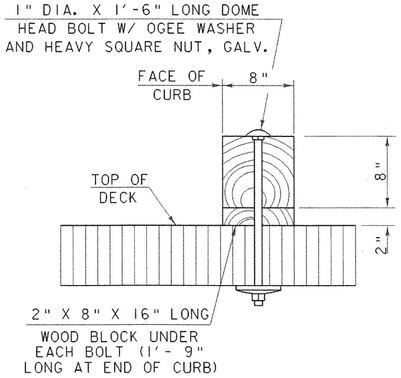
SECTION A-A

SCALE: ¾" = 1'-0"



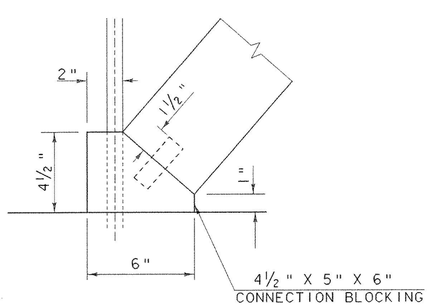
SECTION C-C

SCALE: ¾" = 1'-0"



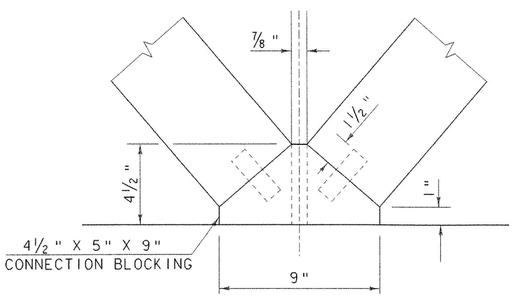
SECTION VIEW

SCALE: 1½" = 1'-0"



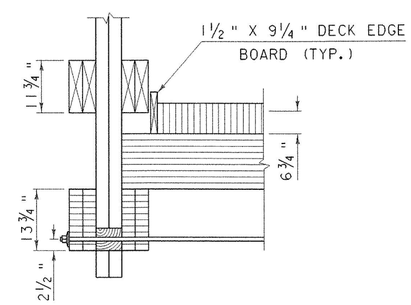
DETAIL C

SCALE: 3" = 1'-0"



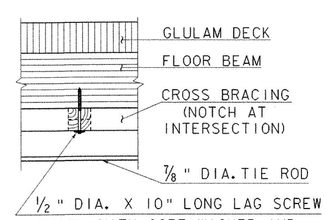
DETAIL D

SCALE: 3" = 1'-0"



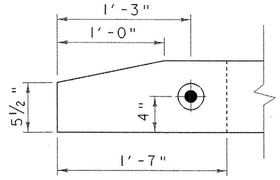
SECTION B-B

SCALE: ¾" = 1'-0"



SECTION D-D

SCALE: ¾" = 1'-0"



TOP VIEW

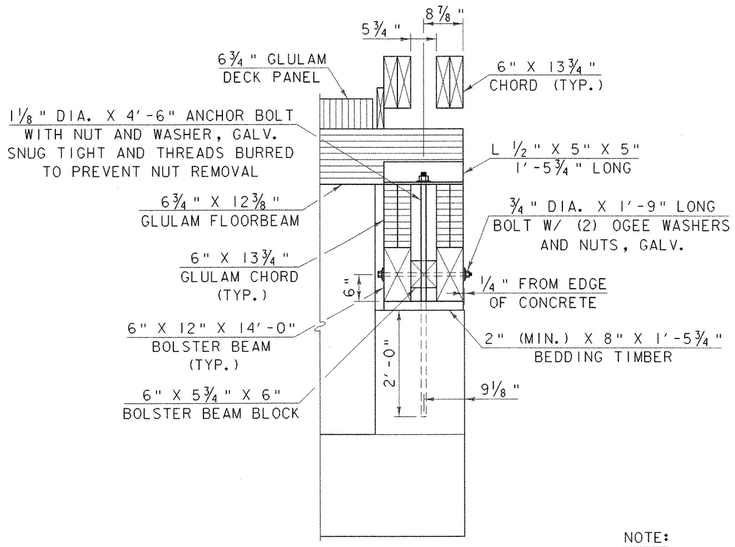
SCALE: 1½" = 1'-0"

CURB DETAILS

BOTTOM CORD CROSS BRACING DETAILS

FLOOR FRAMING PLAN

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87JI37\structures\sji37ffp.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: B. MAURICE
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 26 OF 51

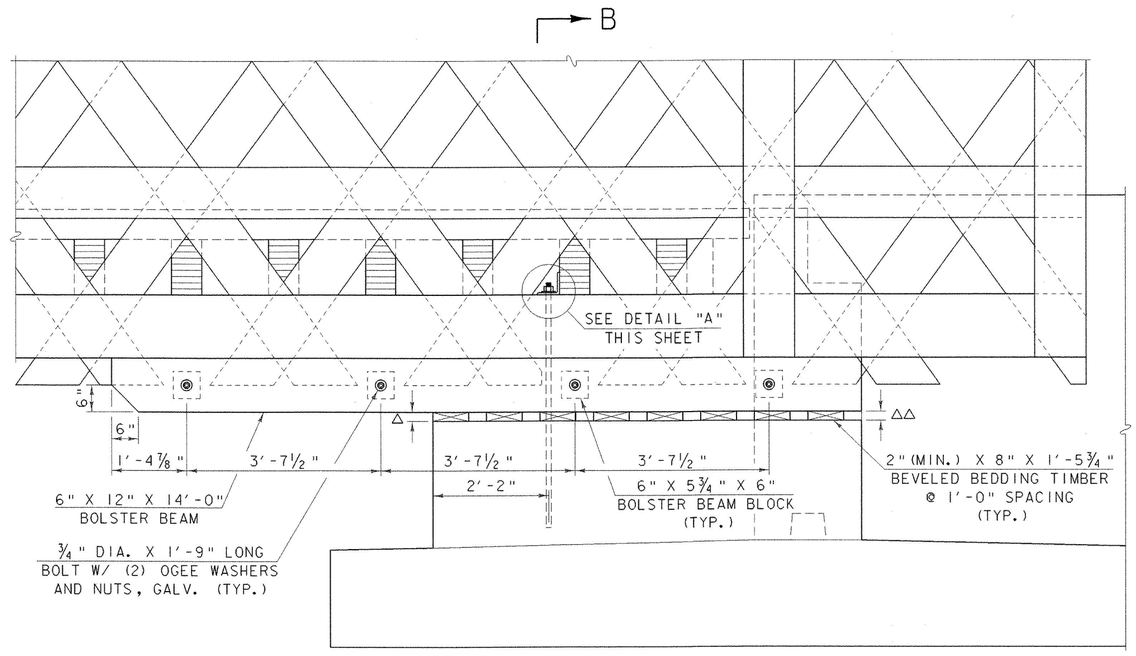


SECTION B-B

SCALE: ¾" = 1'-0"

NOTE:

THE CONTRACTOR MAY SUBMIT DETAILS FOR AN ALTERNATIVE ANCHORING SYSTEM TO THE ENGINEER FOR APPROVAL.

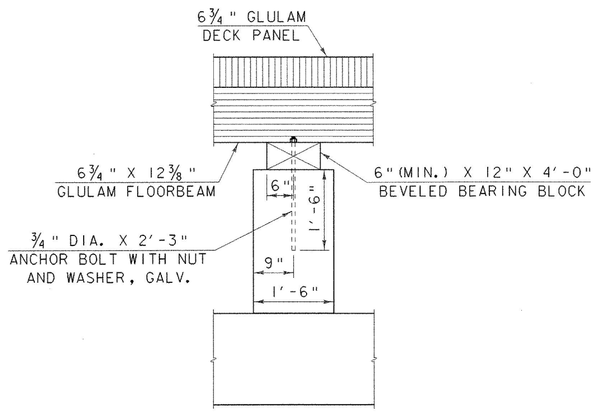


△ ABUTMENT NO. 1: 2"
ABUTMENT NO. 2: 3½"

△△ ABUTMENT NO. 1: 3½"
ABUTMENT NO. 2: 2"

BOLSTER BLOCK DETAIL

SCALE: ¾" = 1'-0"

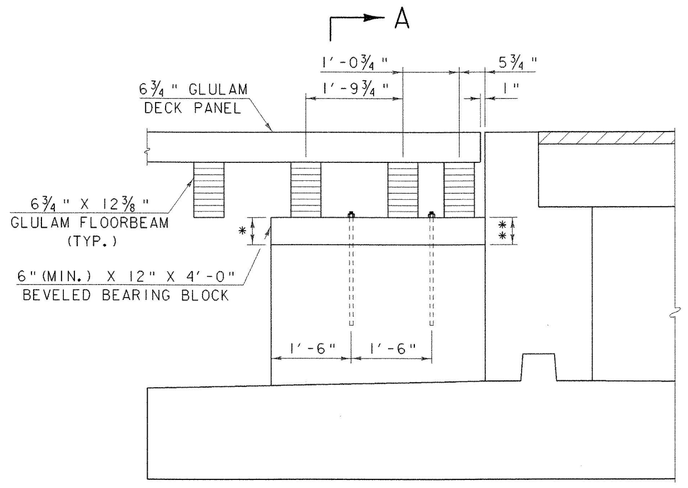


SECTION A-A

SCALE: ¾" = 1'-0"

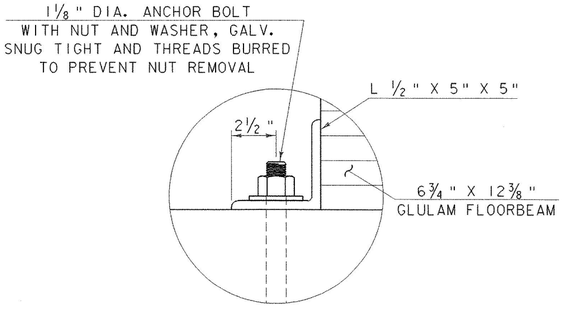
*ABUTMENT NO. 1: 6"
ABUTMENT NO. 2: 6¾"

**ABUTMENT NO. 1: 6¾"
ABUTMENT NO. 2: 6"



BEARING BLOCK DETAIL

SCALE: ¾" = 1'-0"

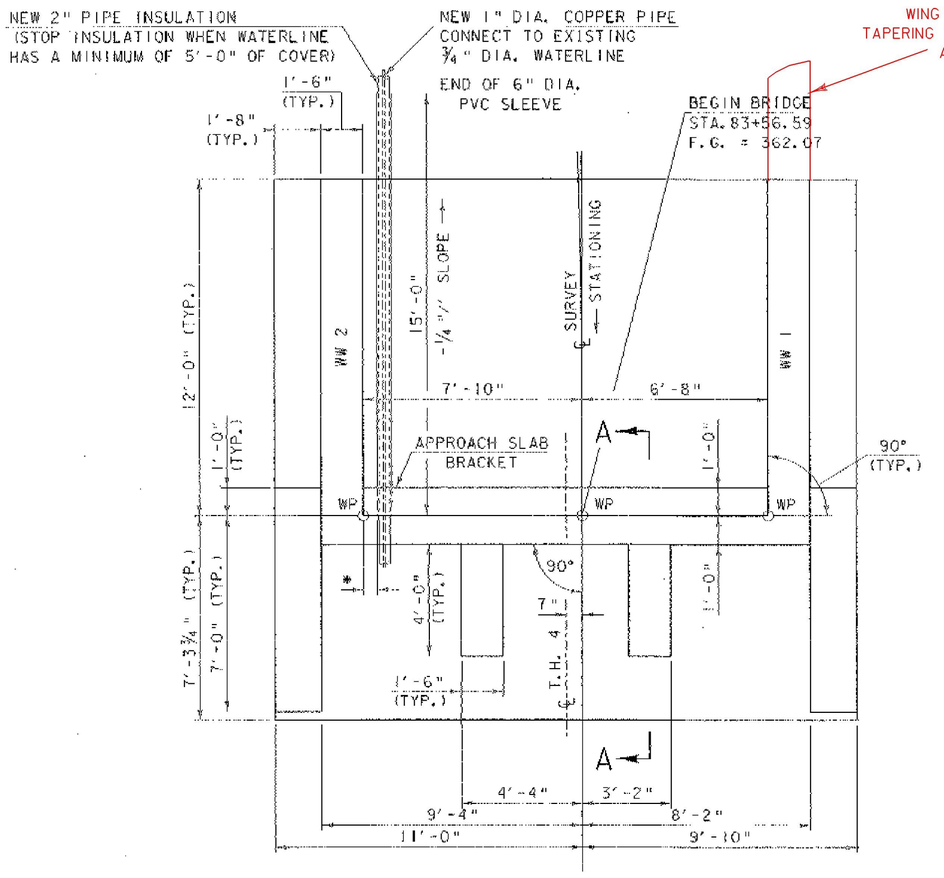


DETAIL "A"

SCALE: 3" = 1'-0"

BEARING DETAILS

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sj137brg.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 27 OF 51

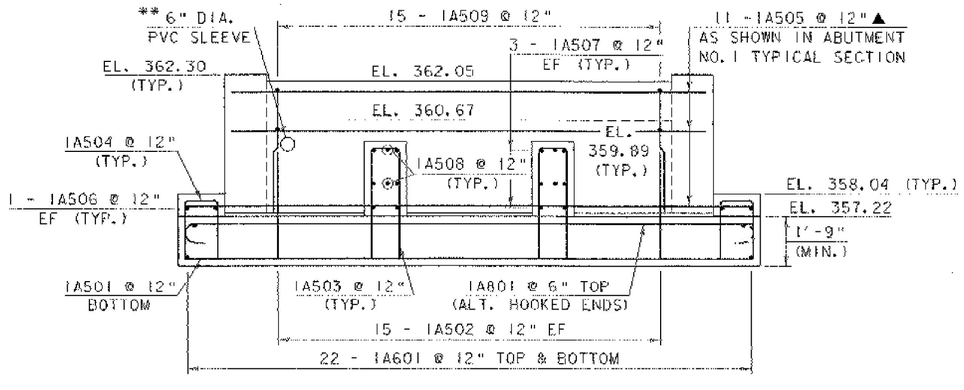


ABUTMENT NO. 1 PLAN

SCALE: ⅜" = 1'-0"

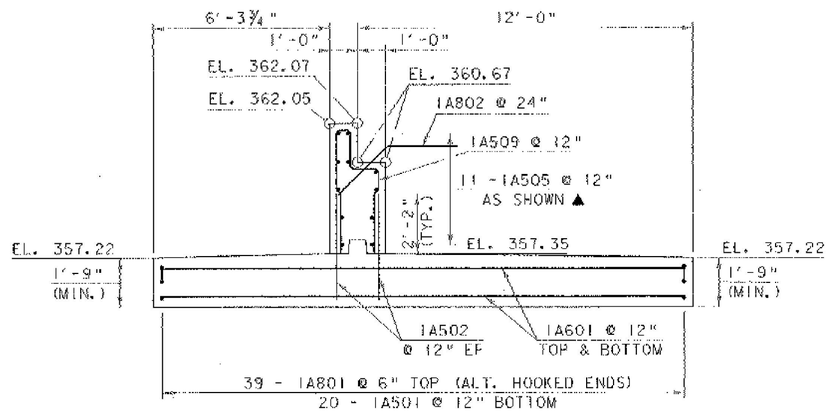
*6" MINIMUM FROM WP TO EDGE OF 6" DIA. PVC SLEEVE THROUGH STEM

**EXACT LOCATION OF 6" DIA. PVC SLEEVE TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER AND THE CONTRACTOR.



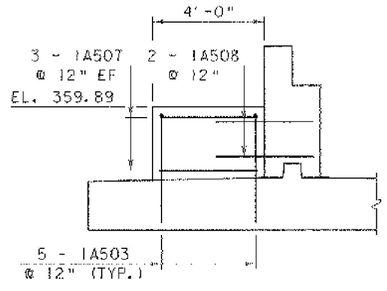
ABUTMENT NO. 1 ELEVATION

SCALE: ⅜" = 1'-0"



ABUTMENT NO. 1 TYPICAL SECTION

SCALE: ⅜" = 1'-0"



SECTION A-A

SCALE: ⅜" = 1'-0"

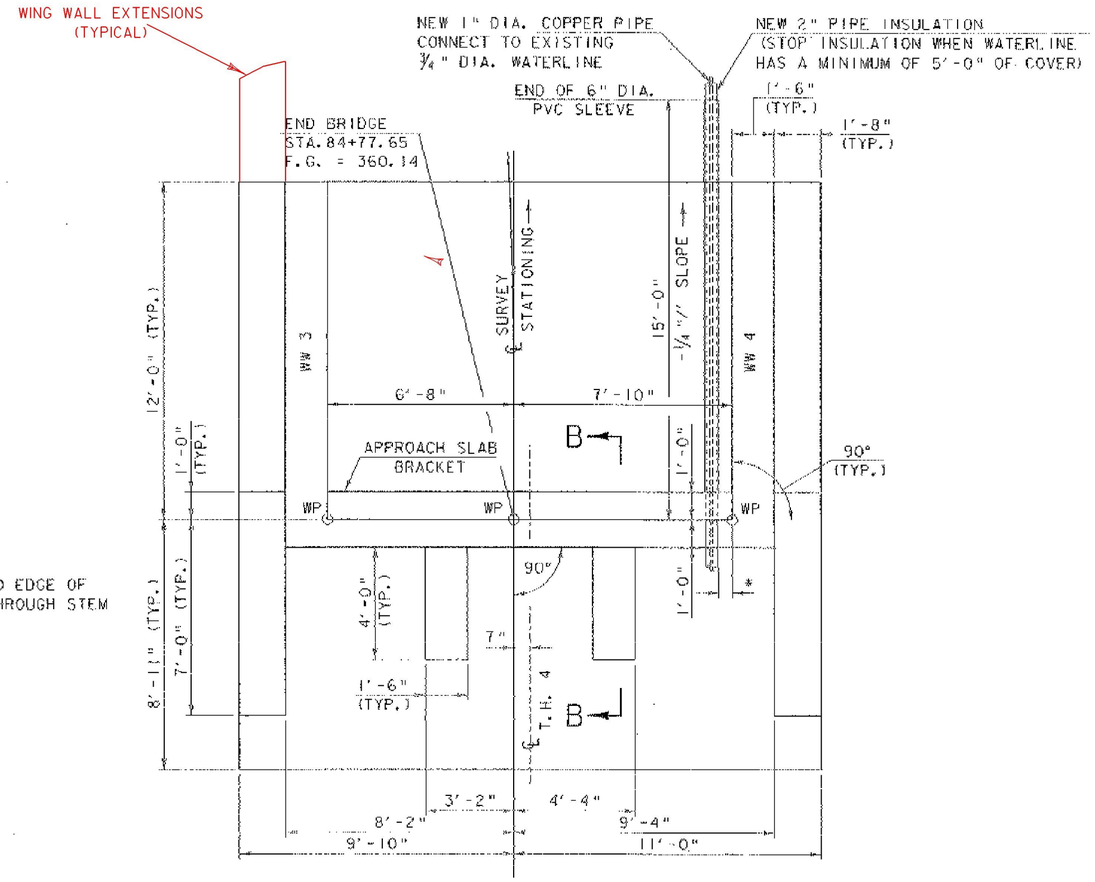
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ABUTMENT NO. 1 DETAILS

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87B37\Structures\sl137ab1.f
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 28 OF 51

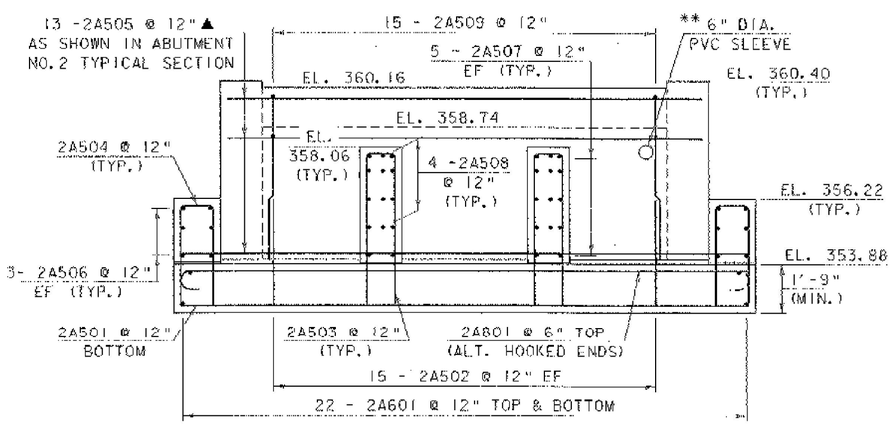


ABUTMENT NO. 2 PLAN

SCALE: ⅜" = 1'-0"

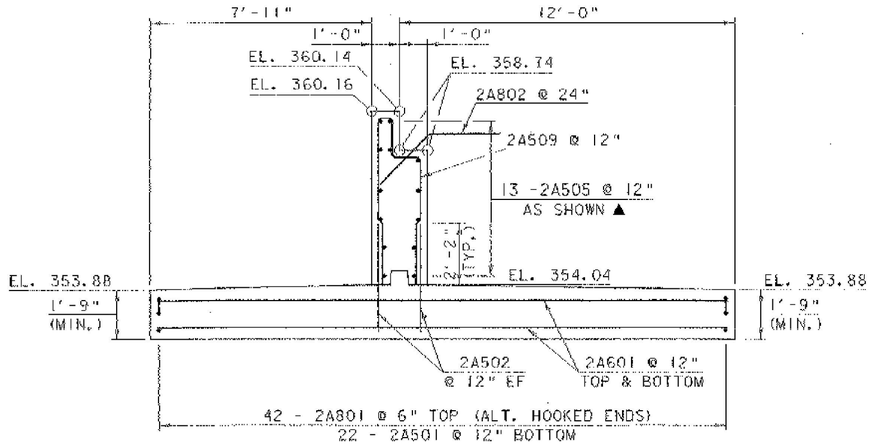
* 6" MINIMUM FROM WP TO EDGE OF 6" DIA. PVC SLEEVE THROUGH STEM

** EXACT LOCATION OF 6" DIA. PVC SLEEVE TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER AND THE CONTRACTOR.



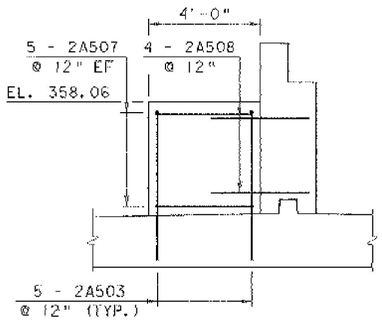
ABUTMENT NO. 2 ELEVATION

SCALE: ⅜" = 1'-0"



ABUTMENT NO. 2 TYPICAL SECTION

SCALE: ⅜" = 1'-0"



SECTION B-B

SCALE: ⅜" = 1'-0"

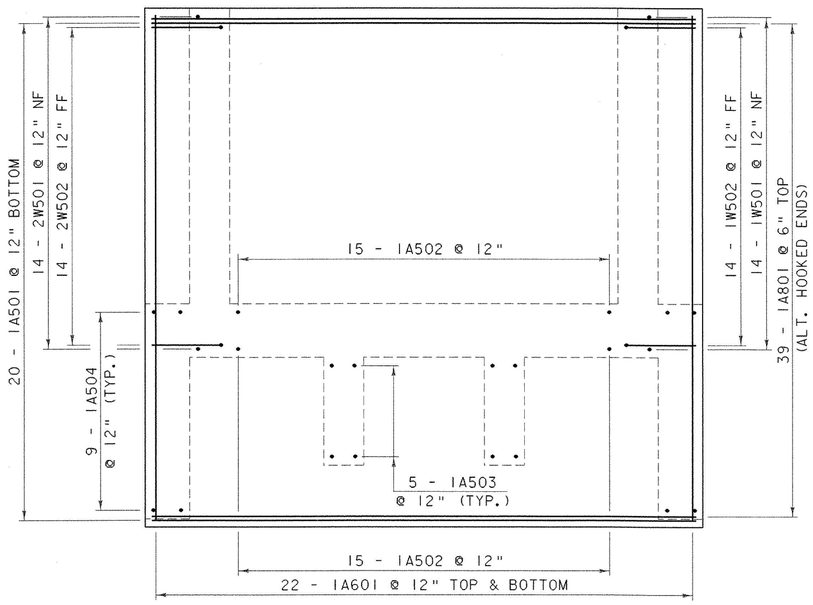
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ABUTMENT NO. 2 DETAILS

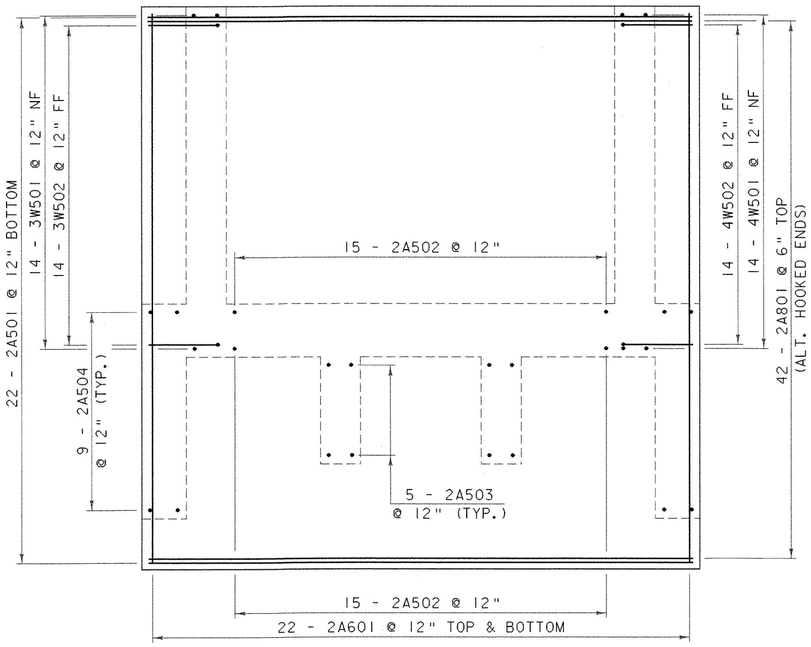
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J37\Structures\sj37ab2.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 29 OF 51



ABUTMENT NO. 1 FOOTING REINFORCING PLAN

SCALE: 3/8" = 1'-0"



ABUTMENT NO. 2 FOOTING REINFORCING PLAN

SCALE: 3/8" = 1'-0"

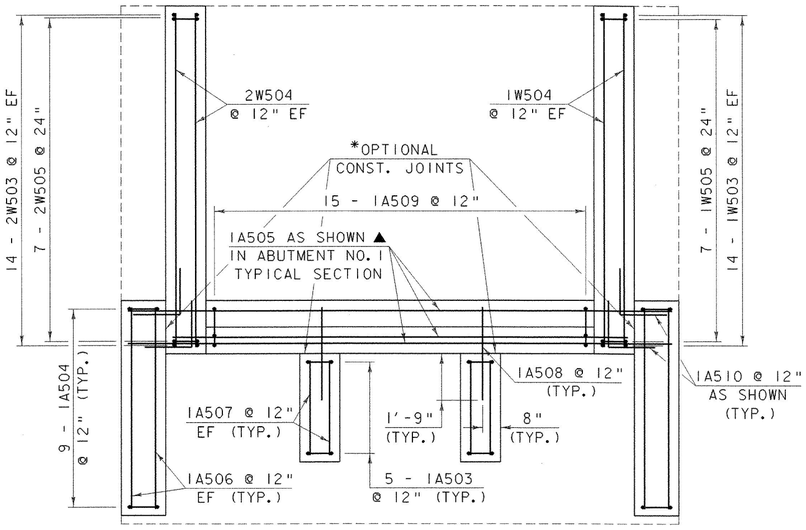
NOTE:

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FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

FOOTING REINFORCING DETAILS

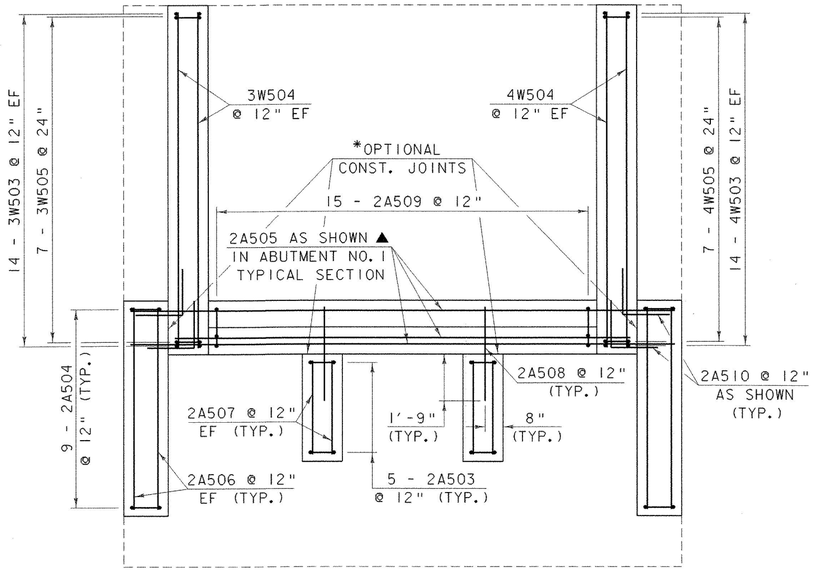
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137frd.i		PLOT DATE:	16-MAY-2002
PROJECT MANAGER:	R.R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	30 OF 51



ABUTMENT NO. 1 STEM REINFORCING PLAN

SCALE: 3/8" = 1'-0"



ABUTMENT NO. 2 STEM REINFORCING PLAN

SCALE: 3/8" = 1'-0"

* THE CONSTRUCTION JOINT KEY MAY BE ELIMINATED FOR THESE VERTICAL CONSTRUCTION JOINTS ONLY.

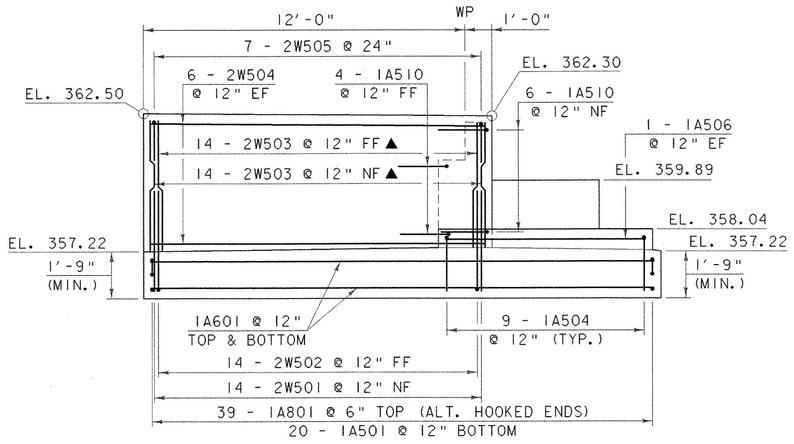
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

STEM REINFORCING DETAILS

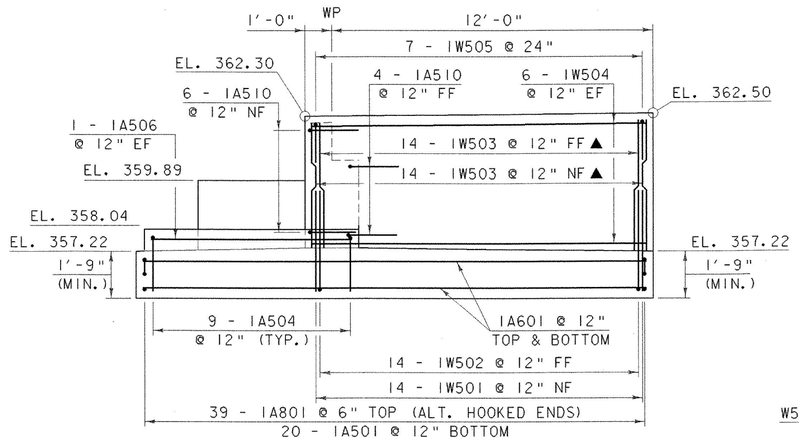
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137srd.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 31 OF 51



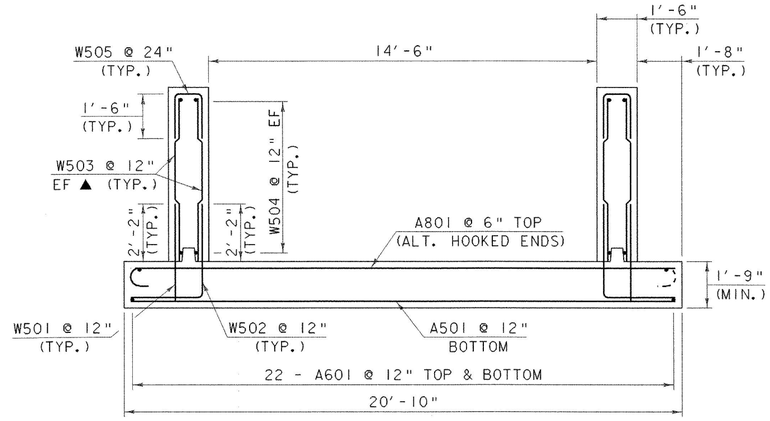
WINGWALL NO. 2 ELEVATION

SCALE: 3/8" = 1'-0"



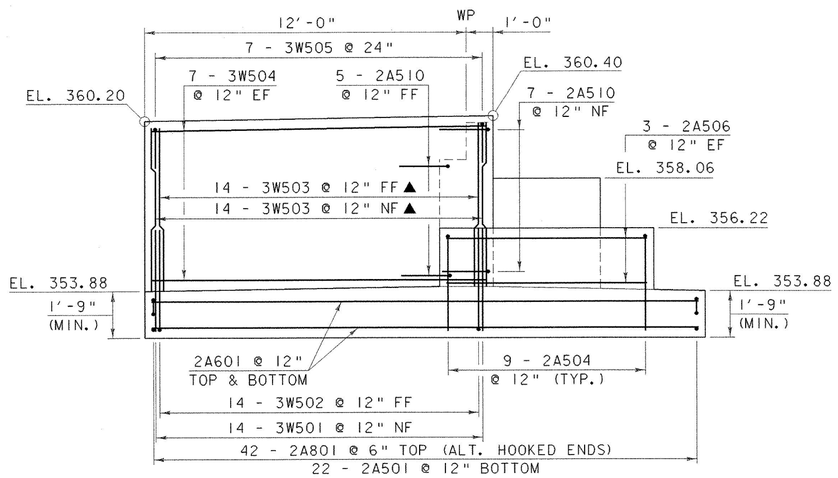
WINGWALL NO. 1 ELEVATION

SCALE: 3/8" = 1'-0"



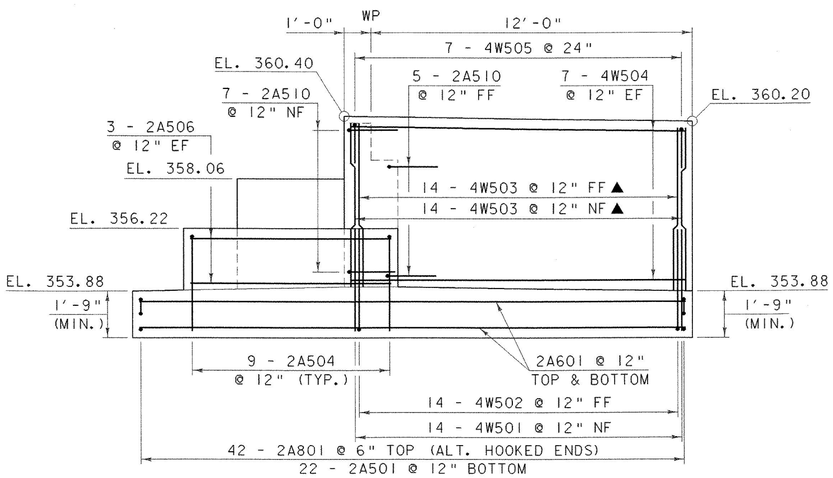
WINGWALL TYPICAL SECTION

SCALE: 3/8" = 1'-0"



WINGWALL NO. 3 ELEVATION

SCALE: 3/8" = 1'-0"



WINGWALL NO. 4 ELEVATION

SCALE: 3/8" = 1'-0"

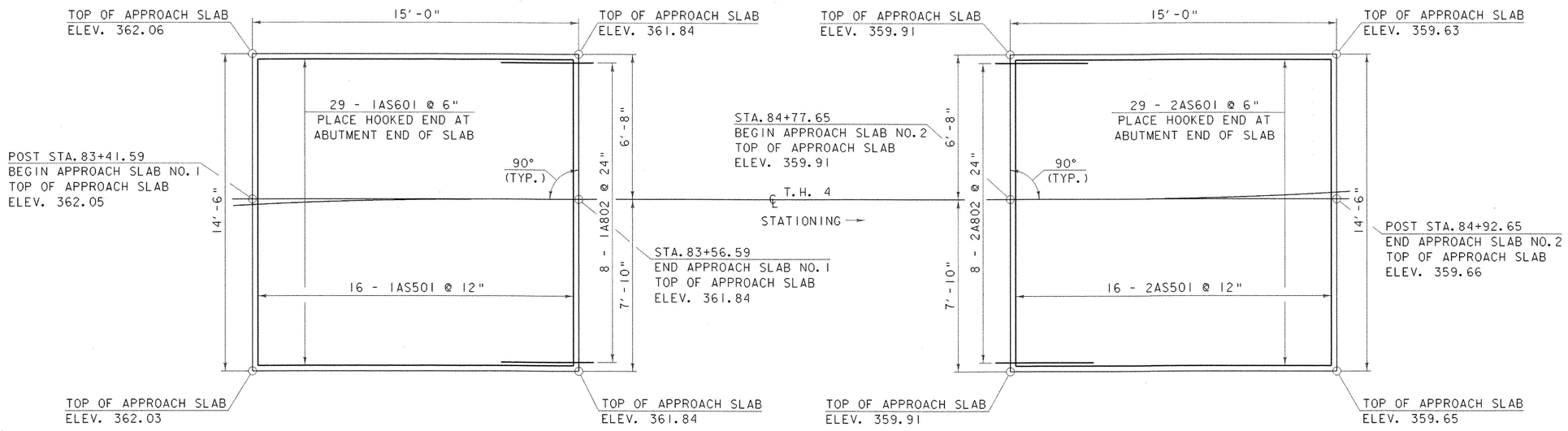
NOTE:

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EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

WINGWALL DETAILS

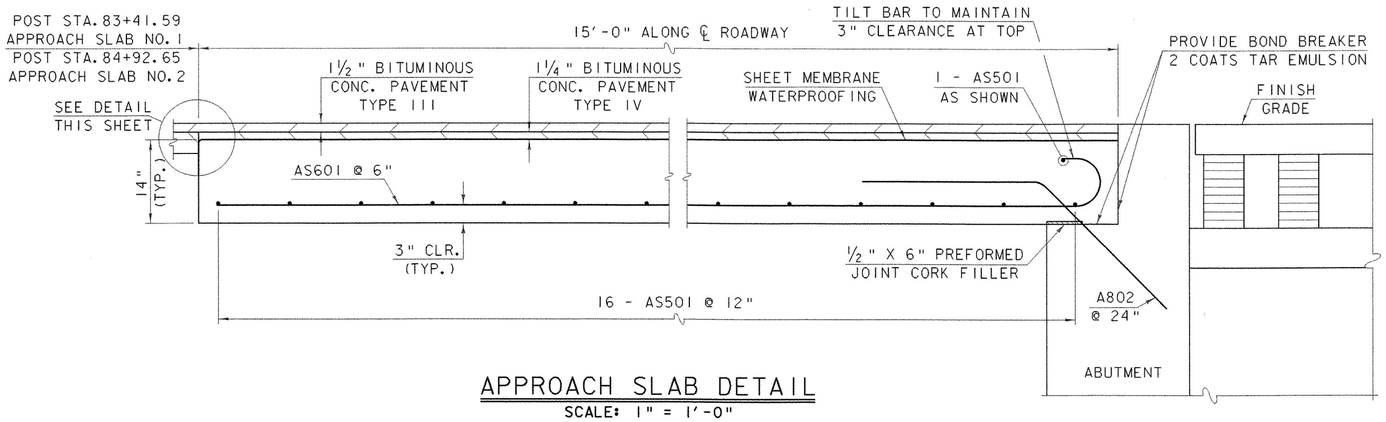
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137wwd.i		PLOT DATE:	16-MAY-2002
PROJECT MANAGER:	R.R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	32 OF 51



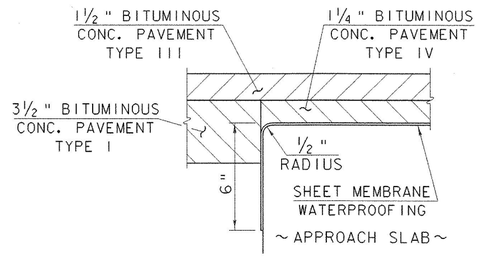
APPROACH SLAB PLAN

SCALE: 3/8" = 1'-0"



APPROACH SLAB DETAIL

SCALE: 1" = 1'-0"



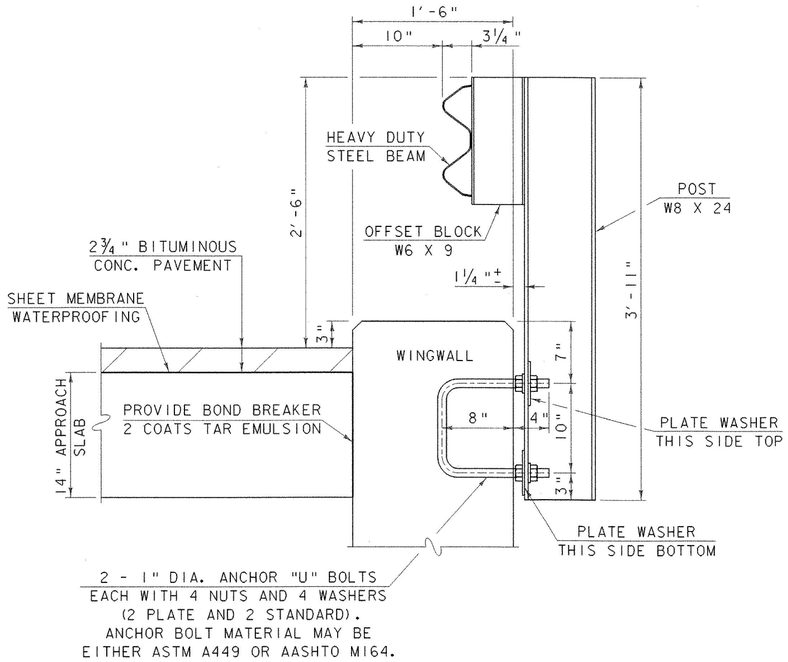
DETAIL FOR SHEET MEMBRANE AT APPROACH SLAB END

SCALE: 3" = 1'-0"

APPROACH SLAB DETAILS

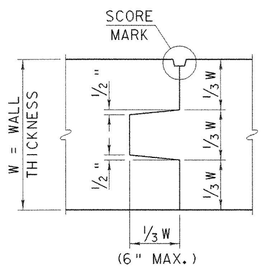
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137asd.i		PLOT DATE: 16-MAY-2002	
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	33 OF 51



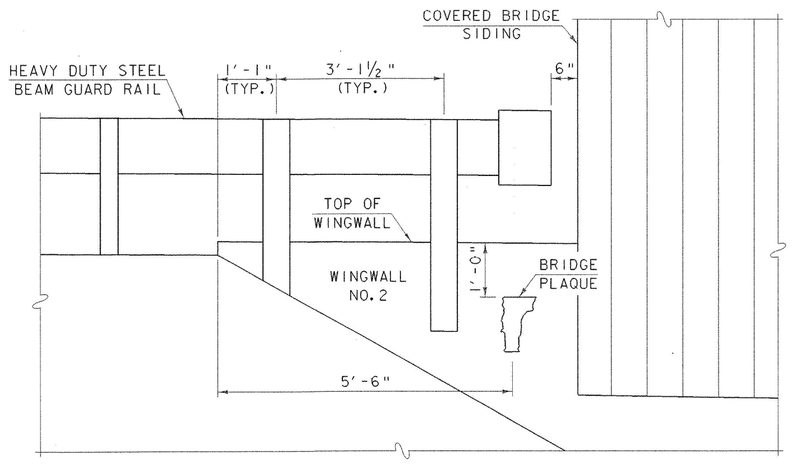
WINGWALL RAIL DETAIL

SCALE: 1½" = 1'-0"



TYPICAL CONCRETE CONSTRUCTION JOINT

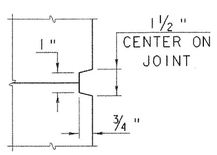
NOT TO SCALE



BRIDGE PLAQUE DETAIL

NOT TO SCALE

THE BENCH MARK AND BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AS SHOWN OR AS DIRECTED BY THE ENGINEER.



SCORE MARK DETAIL

NOT TO SCALE

MISCELLANEOUS PROJECT DETAILS

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137mpd.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 34 OF 51

STATE OF VERMONT
AGENCY OF TRANSPORTATION

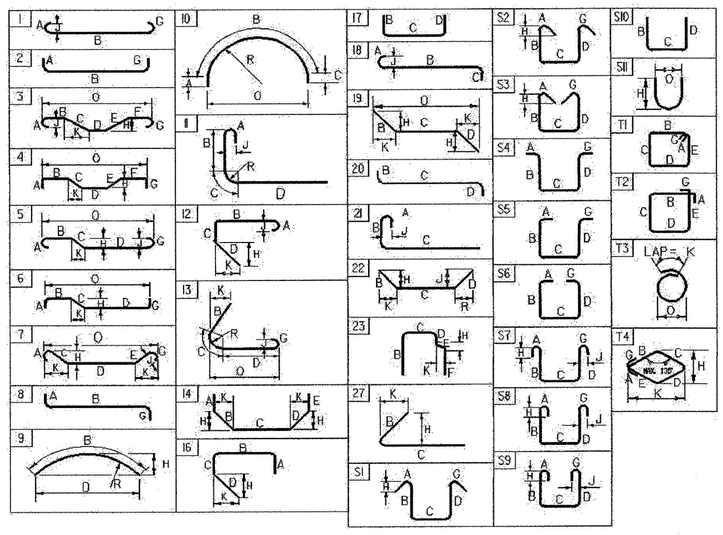
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
ABUTMENT NO. 1																	
	20	5	20'- 4"	1A501	STR												
	30	5	3'- 10"	1A502	STR												
▲	11	5	20'- 4"	1A505	STR												
	4	5	7'- 6"	1A506	STR												
	12	5	3'- 6"	1A507	STR												
	4	5	3'- 6"	1A508	STR												
	10	5	8'- 10"	1A503	S10		3'- 11"	1'- 0"	3'- 11"								
	18	5	5'- 4"	1A504	S10		2'- 1"	1'- 2"	2'- 1"								
	15	5	10'- 4"	1A509	23		4'- 5"	0'- 6"	1'- 4"	1'- 0"	3'- 1"		----		----		
	20	5	3'- 6"	1A510	S10		1'- 9"	1'- 9"	----								
△	46	6	18'- 10"	1A601	STR												
✳	40	8	21'- 3"	1A801	1	0'- 11"	20'- 4"					----		0'- 8"			
✳	9	8	5'- 0"	1A802	19		2'- 6"	2'- 6"	----								
WINGWALL NO. 1																	
	16	5	3'- 10"	1W501	STR												
✳ ▲	29	5	5'- 0"	1W503	STR												
	12	5	12'- 5"	1W504	STR												
	14	5	6'- 6"	1W502	17		3'- 10"	2'- 8"	----								
	7	5	4'- 0"	1W505	S10		1'- 6"	1'- 0"	1'- 6"								
WINGWALL NO. 2																	
△	16	5	3'- 10"	2W501	STR												
▲	28	5	5'- 0"	2W503	STR												
	12	5	12'- 5"	2W504	STR												
	14	5	6'- 6"	2W502	17		3'- 10"	2'- 8"	----								
	7	5	4'- 0"	2W505	S10		1'- 6"	1'- 0"	1'- 6"								
ABUTMENT NO. 2																	
	22	5	20'- 4"	2A501	STR												
△	32	5	3'- 10"	2A502	STR												
▲	13	5	20'- 4"	2A505	STR												
	12	5	7'- 6"	2A506	STR												
	20	5	3'- 6"	2A507	STR												
	8	5	3'- 6"	2A508	STR												
	10	5	11'- 10"	2A503	S10		5'- 5"	1'- 0"	5'- 5"								
	18	5	8'- 4"	2A504	S10		3'- 7"	1'- 2"	3'- 7"								
	15	5	13'- 2"	2A509	23		5'- 10"	0'- 6"	1'- 4"	1'- 0"	4'- 6"		----		----		
	24	5	3'- 6"	2A510	S10		1'- 9"	1'- 9"	----								
△	46	6	20'- 5"	2A601	STR												
	42	8	21'- 3"	2A801	1	0'- 11"	20'- 4"					----		0'- 8"			
△	10	8	5'- 0"	2A802	19		2'- 6"	2'- 6"	----								
WINGWALL NO. 3																	
	14	5	3'- 10"	3W501	STR												
▲	28	5	6'- 1"	3W503	STR												
	14	5	12'- 5"	3W504	STR												
	14	5	6'- 6"	3W502	17		3'- 10"	2'- 8"	----								
	7	5	4'- 0"	3W505	S10		1'- 6"	1'- 0"	1'- 6"								
WINGWALL NO. 4																	
	14	5	3'- 10"	4W501	STR												
▲	28	5	6'- 1"	4W503	STR												
	14	5	12'- 5"	4W504	STR												
✳	15	5	6'- 6"	4W502	17		3'- 10"	2'- 8"	----								
	7	5	4'- 0"	4W505	S10		1'- 6"	1'- 0"	1'- 6"								
APPROACH SLAB NO. 1																	
△	19	5	14'- 0"	1AS501	STR												
	29	6	15'- 2"	1AS601	1	0'- 8"	14'- 6"					----					
APPROACH SLAB NO. 2																	
	17	5	14'- 0"	2AS501	STR												
△	31	6	15'- 2"	2AS601	1	0'- 8"	14'- 6"					----					

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-SI). ALL BARS SHALL BE GRADE 60, 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. ALL REINFORCING STEEL SHALL BE EPOXY COATED.



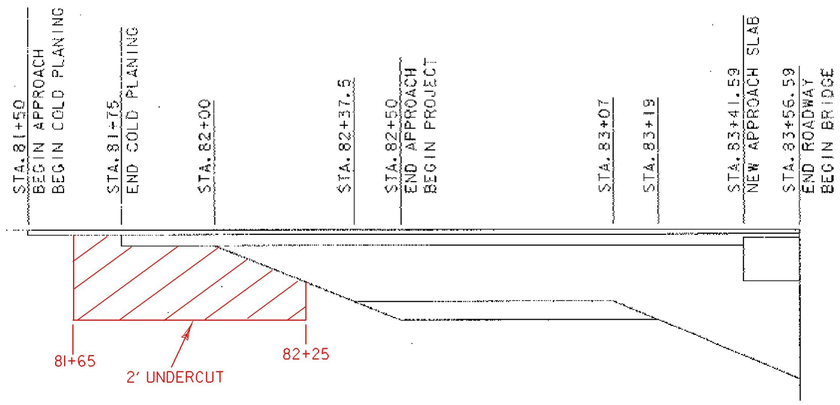
ASTM STANDARD REINFORCING BARS

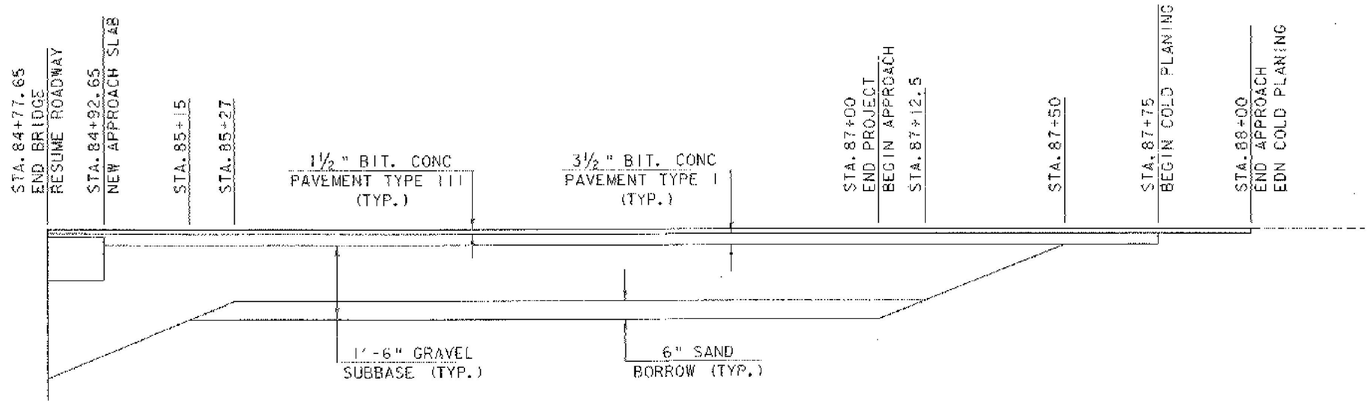
BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	AREA INCHES^2	PERIMETER INCHES
#3	0.376	0.375	0.11	1.178
#4	0.668	0.500	0.20	1.571
#5	1.043	0.625	0.31	1.963
#6	1.502	0.750	0.44	2.356
#7	2.044	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

PROJECT NAME: **BRANDON**
PROJECT NUMBER: **BHZ 1443 (22)**

FILE NAME: **\87j137\Structures\sj137rf.xls**
PROJECT MANAGER: **R. R. WHITCOMB**
DESIGNED BY: **T. SUMNER**
REINFORCING STEEL SCHEDULE SHEET #1

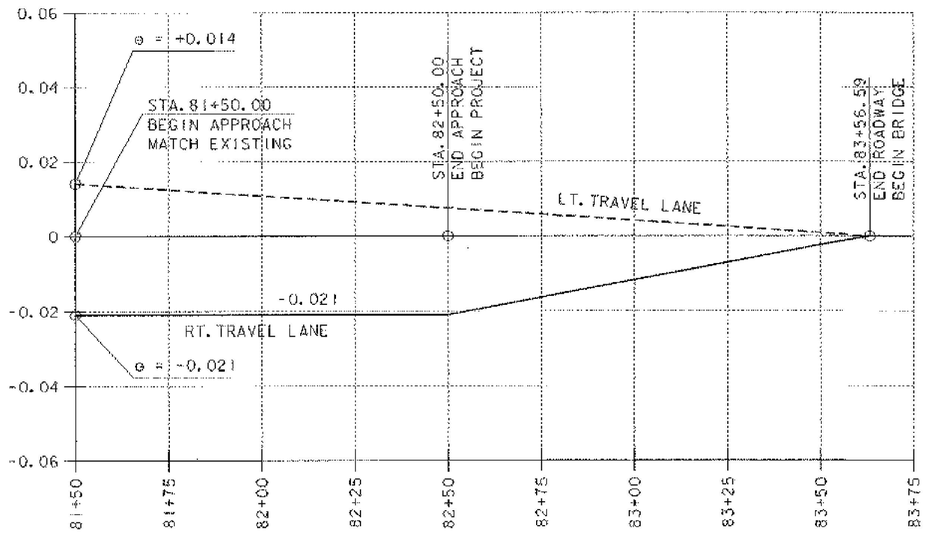
PLOT DATE: **9/27/01**
DRAWN BY: **G. ROY**
CHECKED BY: **T. SUMNER**
SHEET **35** OF **51**

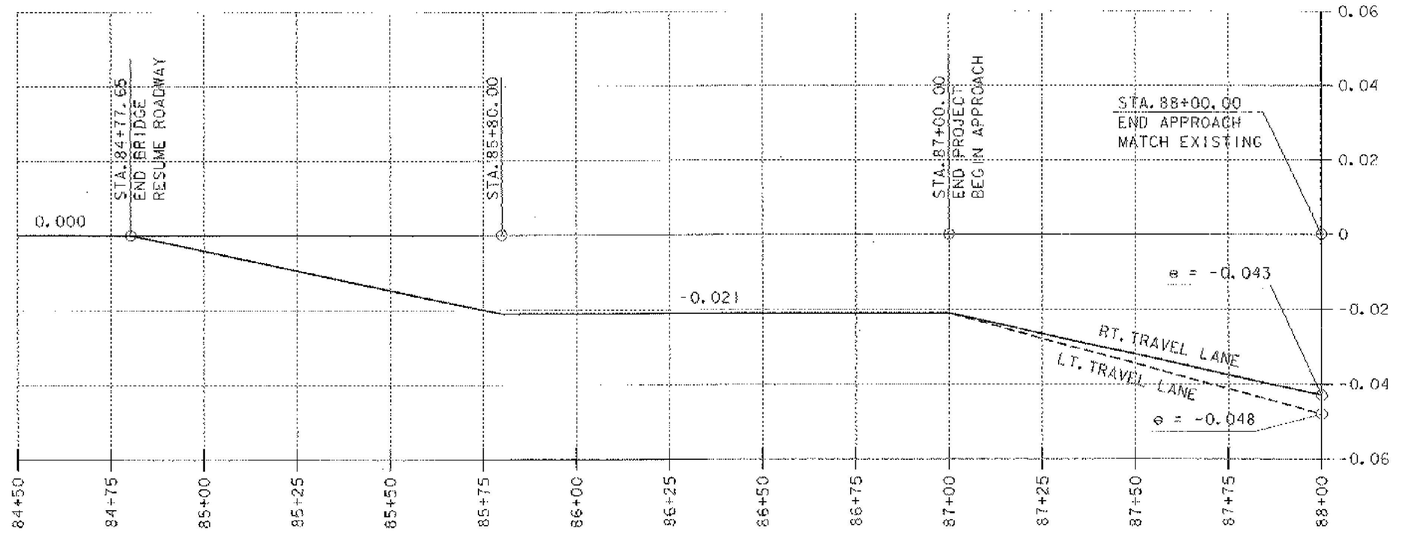




MATERIAL TRANSITION DETAIL

NOT TO SCALE





BANKING DIAGRAM

SCALE: HORIZ. 1" = 20'-0

20 0 20

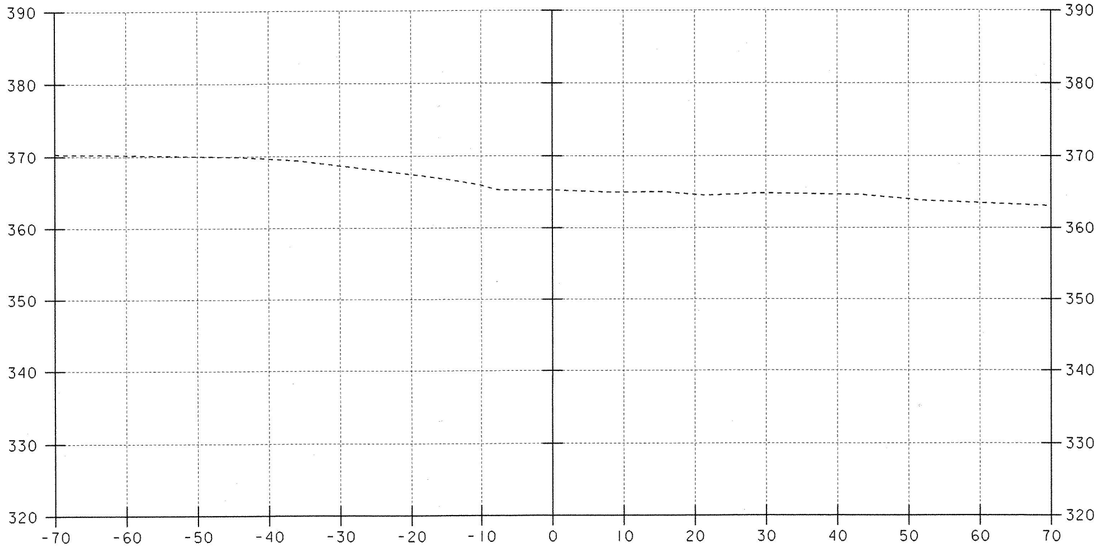
SCALE: VERT. 1" = 0.02 '/'

0.02 0 0.02

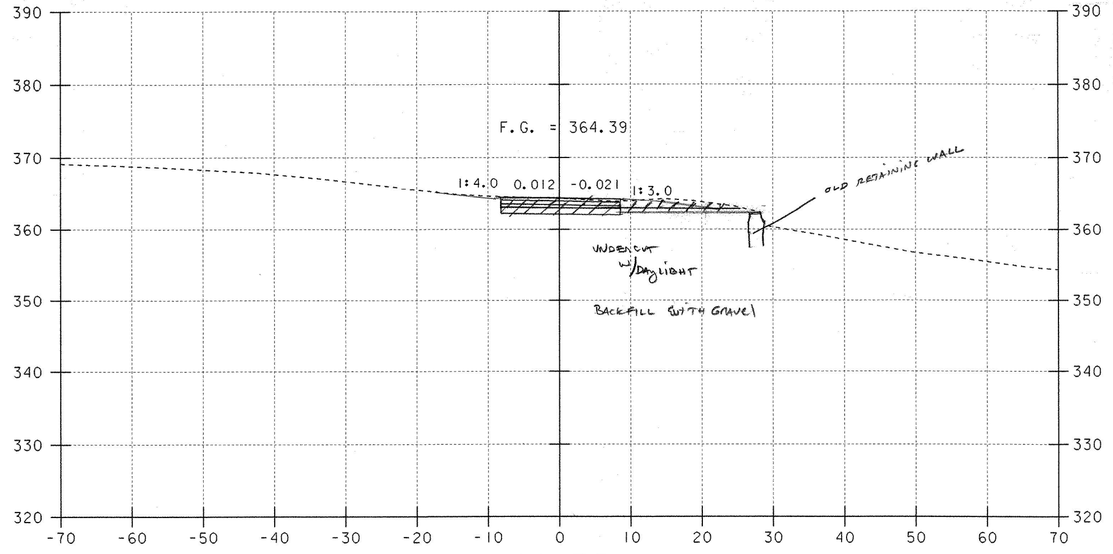
MATERIAL TRANSITION DETAIL & BANKING DIAGRAM

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

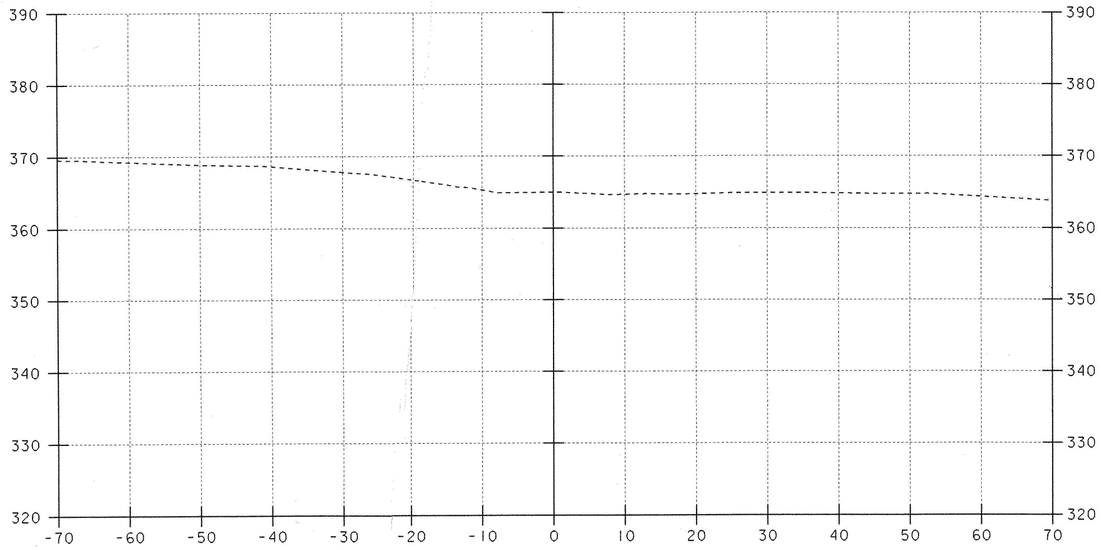
FILE NAME: 87137\Structures\s87mat1		PLOT DATE: 16-MAY-2002
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY: T. SUMNER
		SHEET 36 OF 51



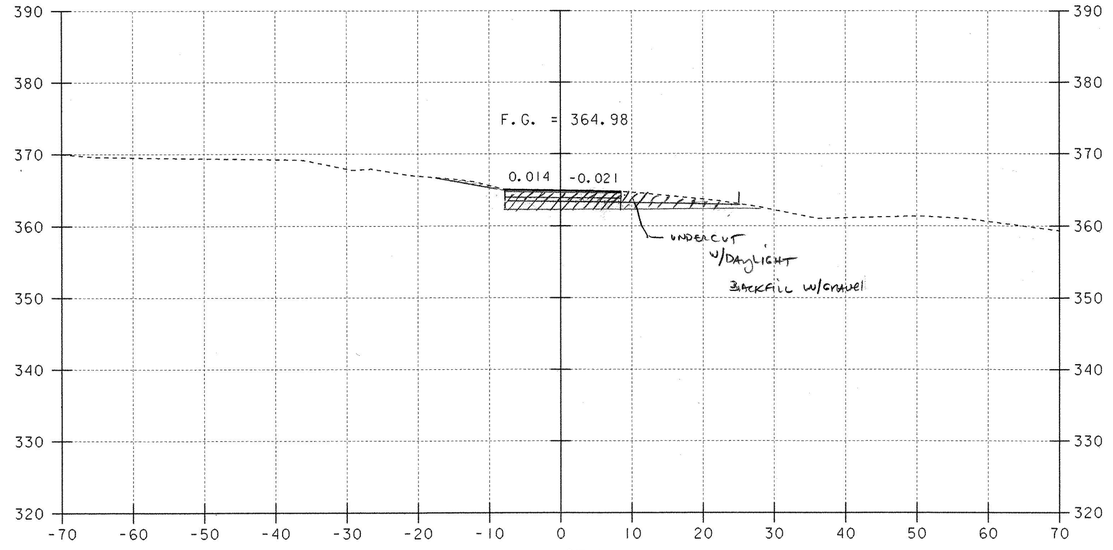
81+25



81+75



81+00



STA. 81+50
BEGIN APPROACH

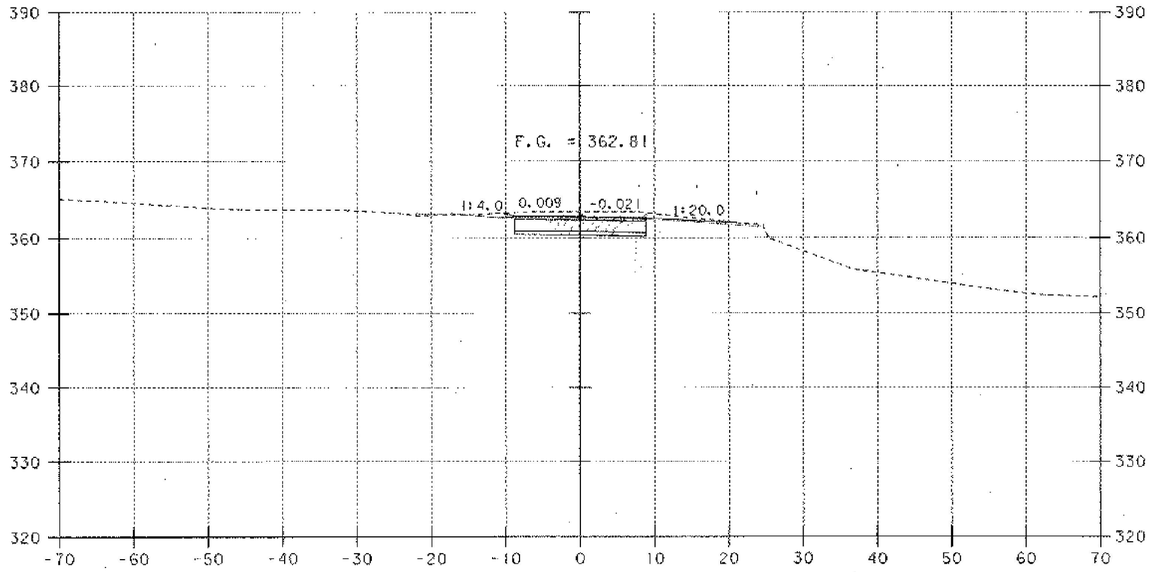
81+~~50~~ 65

SCALE 1" = 10'-0
10 0 10

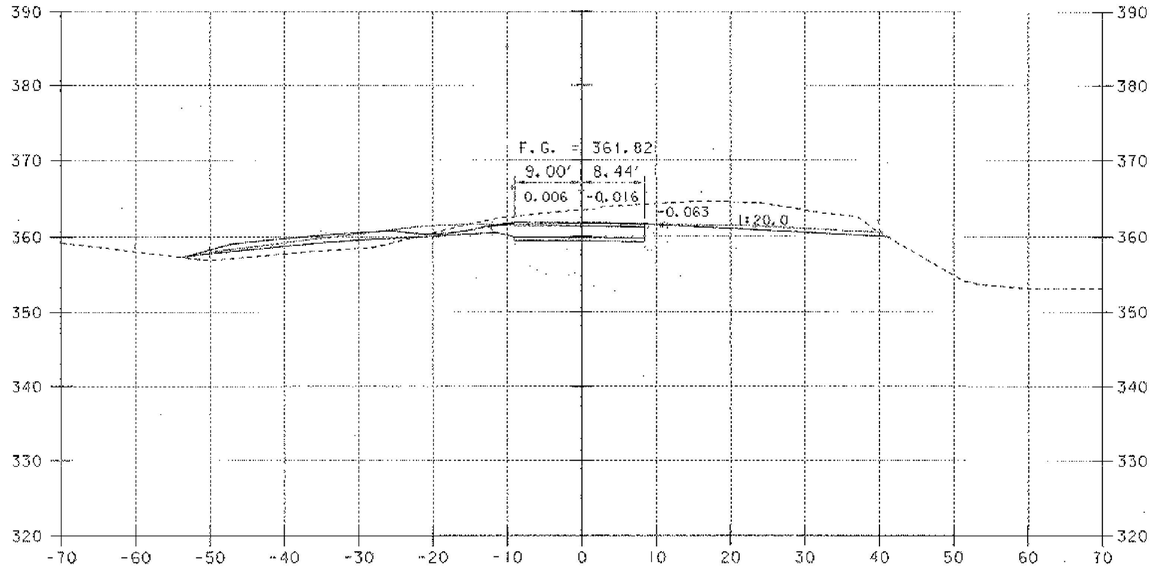
ROADWAY CROSS SECTIONS (1)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137m01.i		PLOT DATE:	16-MAY-2002
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	37 OF 51



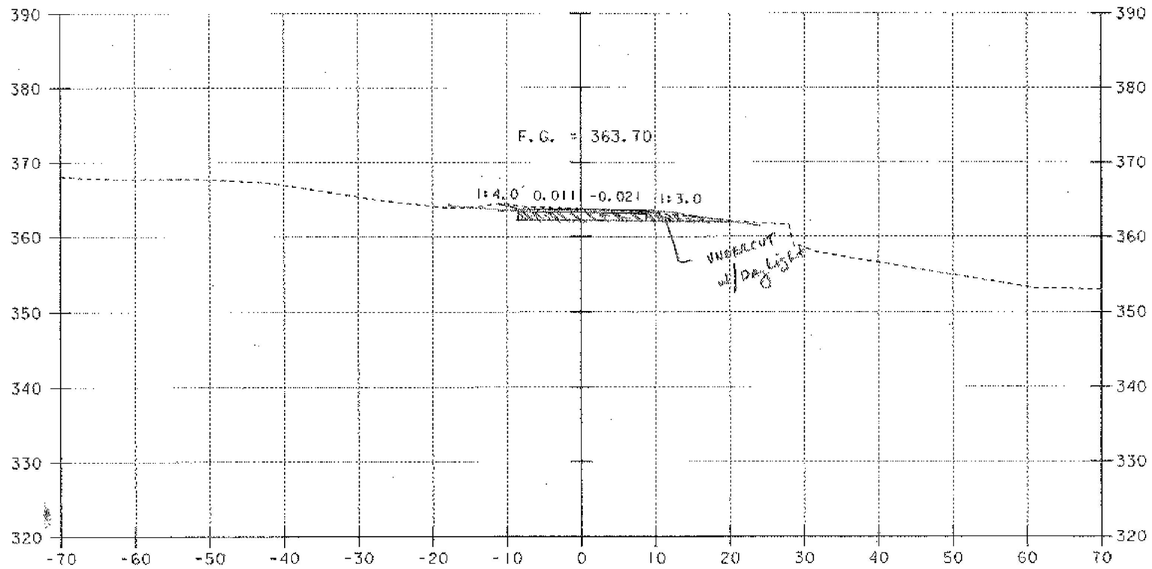
82+25



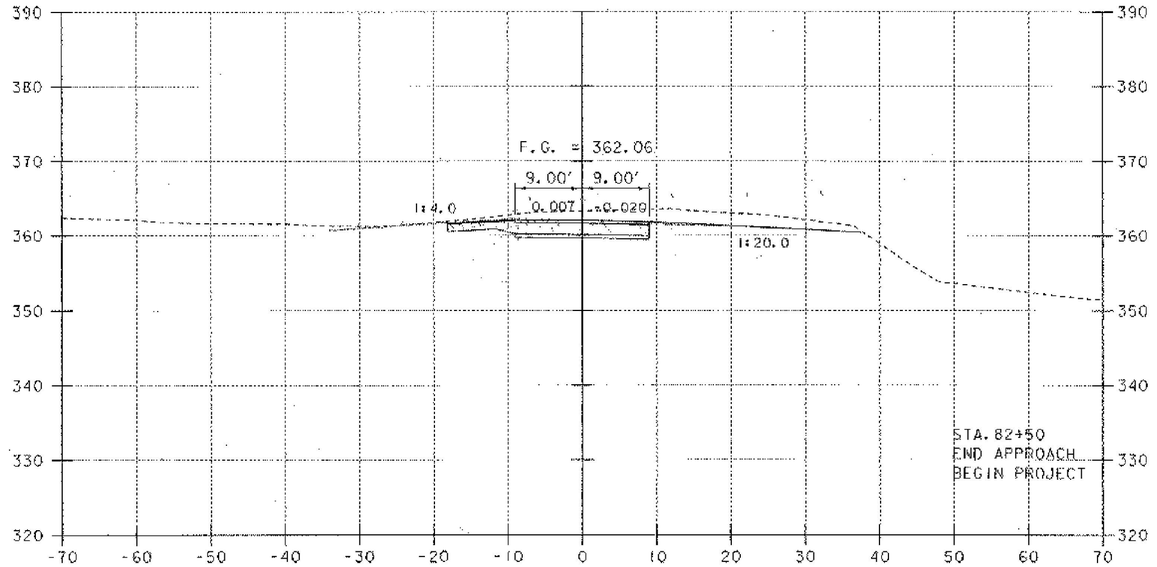
82+75

STA. 82+55
CONSTRUCT FIELD DRIVE
(SEE DRIVE CROSS SECTION SHEET)

SHEET 14 OF 51



82+00



82+50

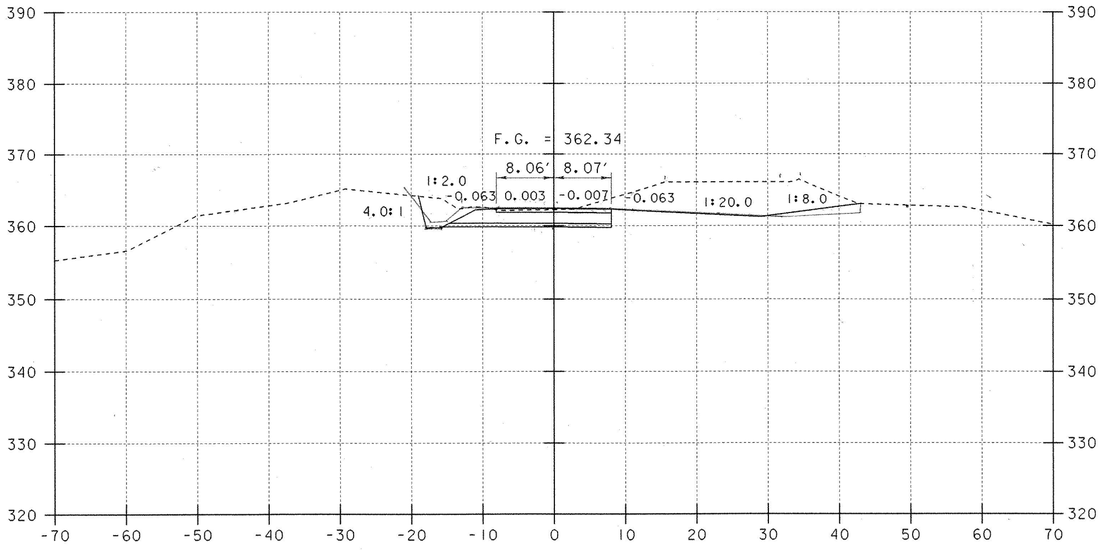
STA. 82+45
CONSTRUCT RESIDENTIAL DRIVE
(SEE DRIVE CROSS SECTION SHEET)

SCALE 1" = 10'-0
10 0 10

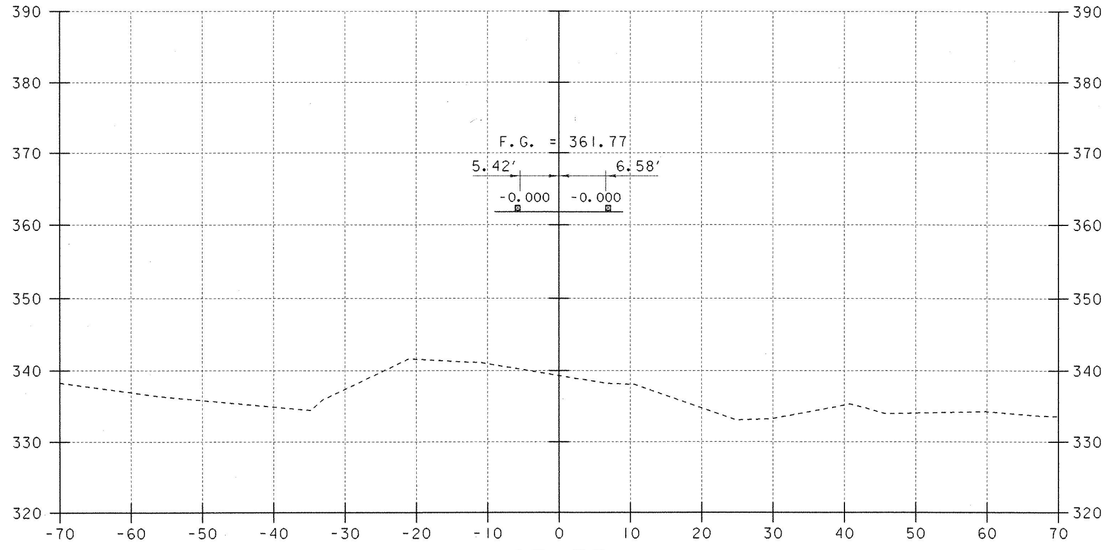
ROADWAY CROSS SECTIONS (2)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137m02.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 38 OF 51

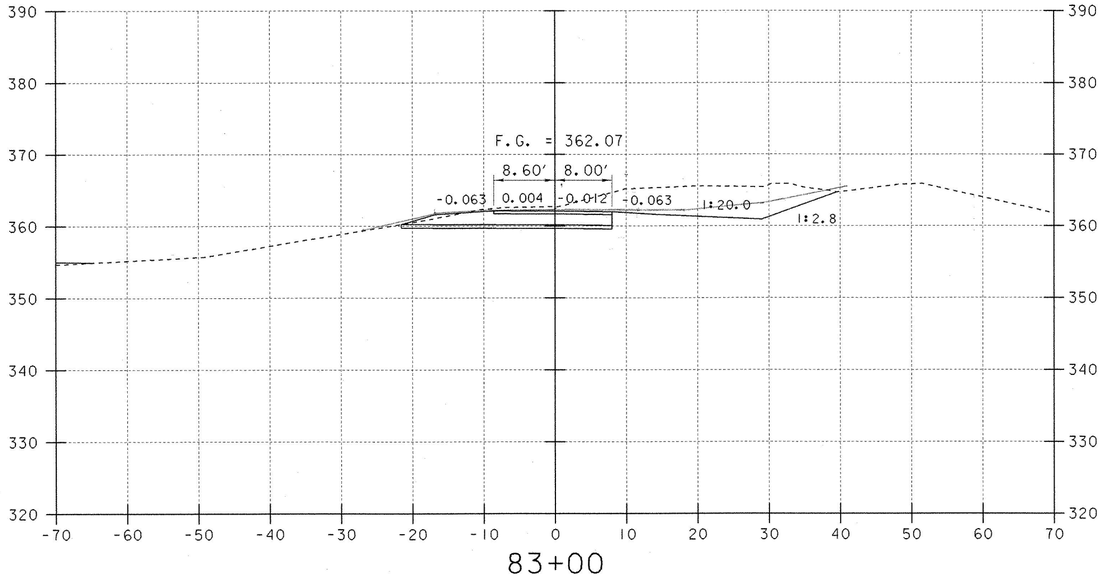


83+25

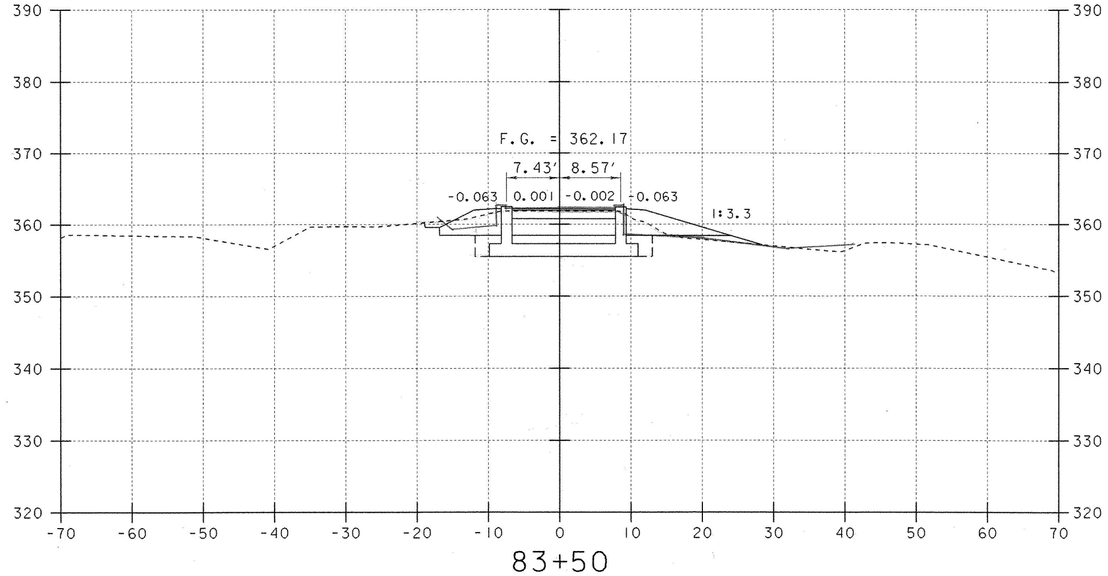


83+75

STA. 83+56.59
END ROADWAY
BEGIN BRIDGE



83+00



83+50

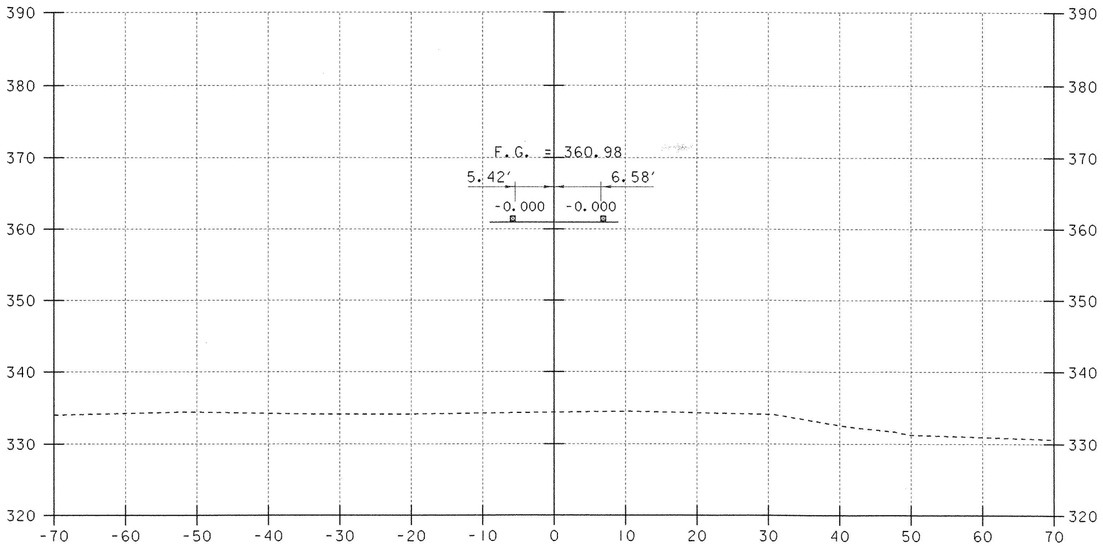
SCALE 1" = 10'-0
10 0 10

ROADWAY CROSS SECTIONS (3)

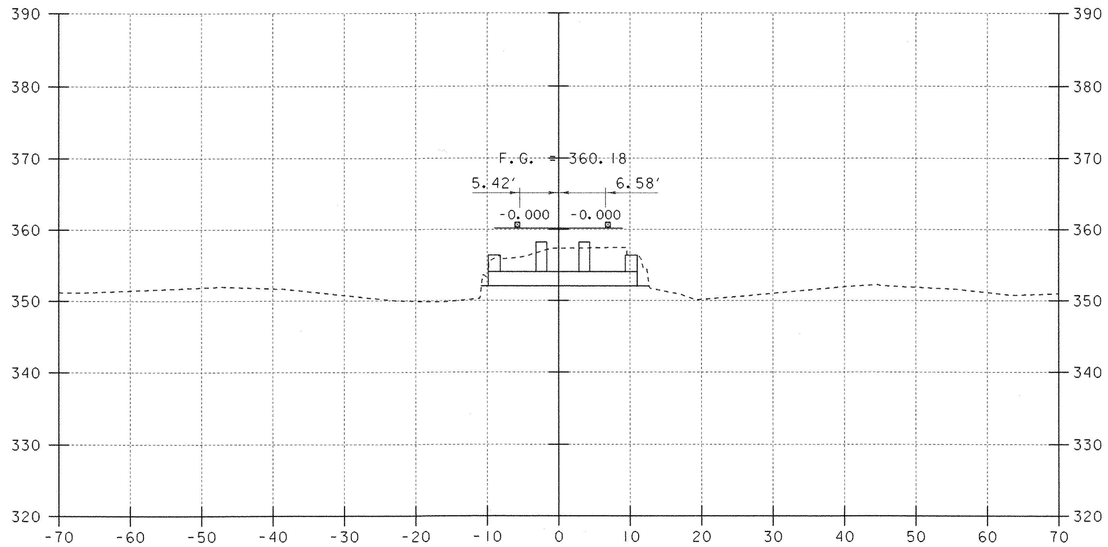
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

1458

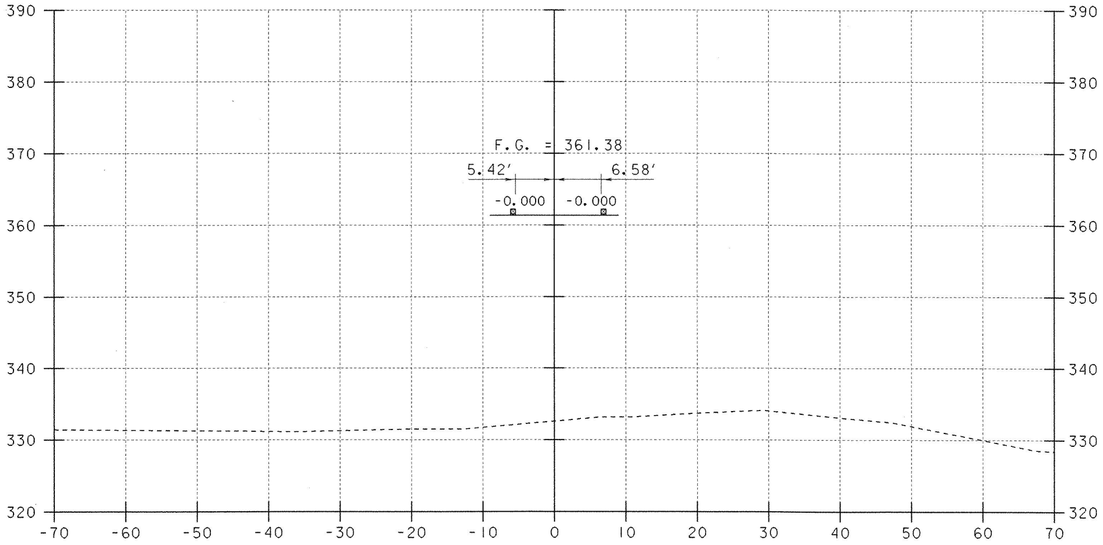
FILE NAME: 87J137\Structures\sJ137m03.1
PROJECT MANAGER: R.R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 39 OF 51



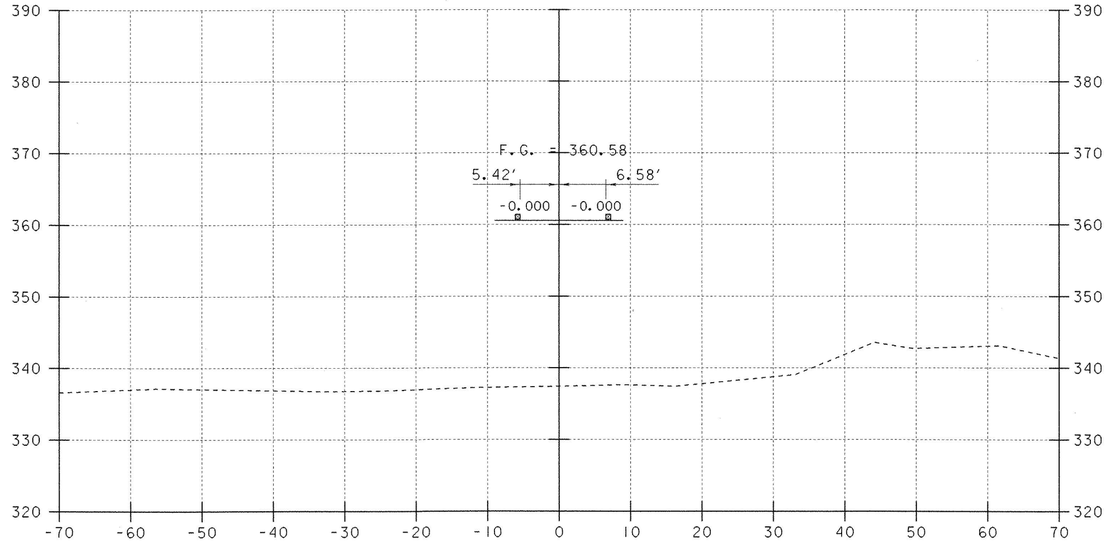
84+25



84+75



84+00



84+50

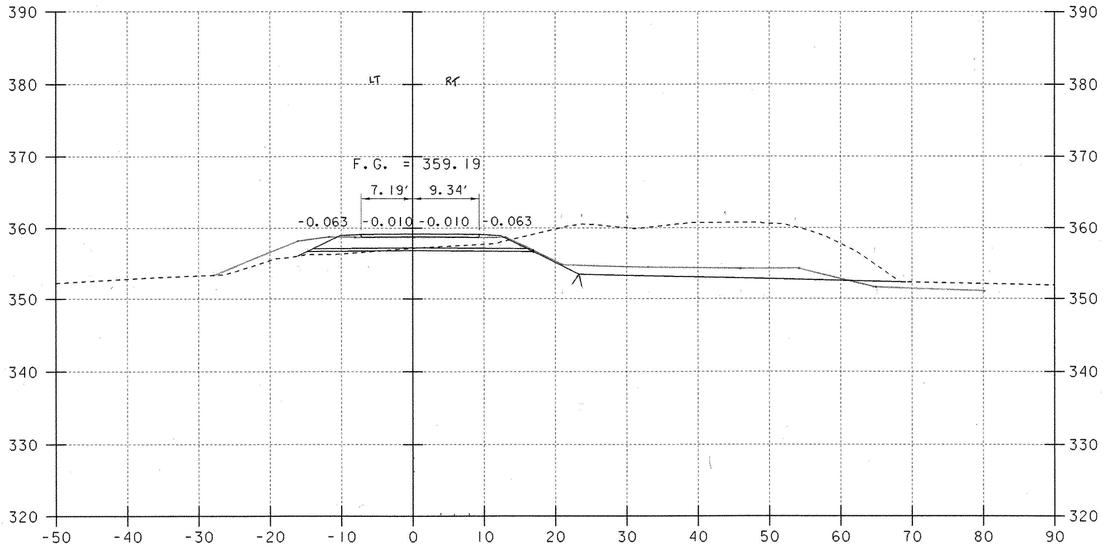
SCALE 1" = 10'-0
10 0 10

ROADWAY CROSS SECTIONS (4)

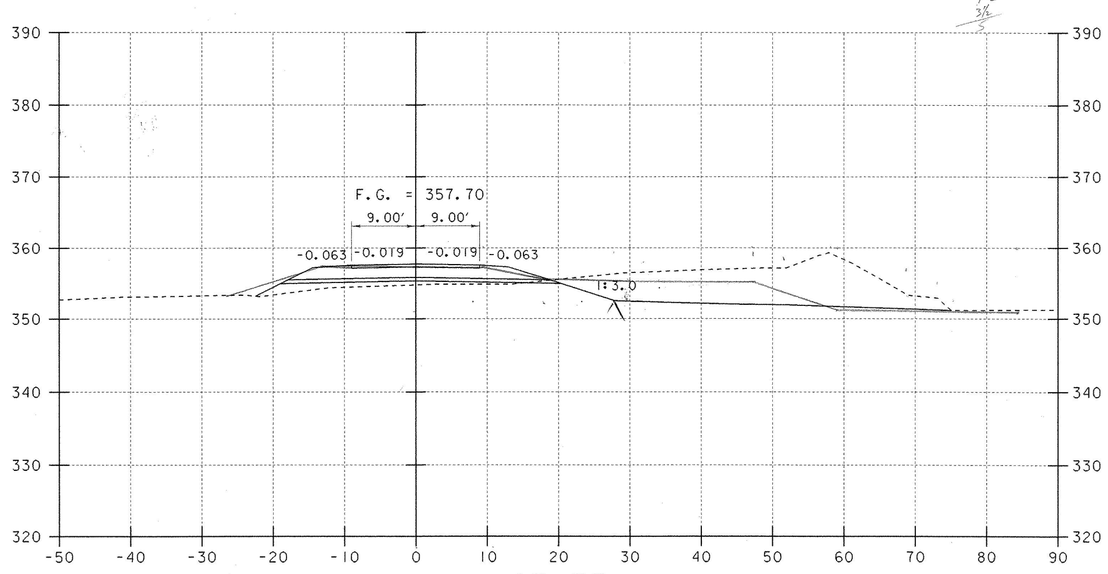
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137m04.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

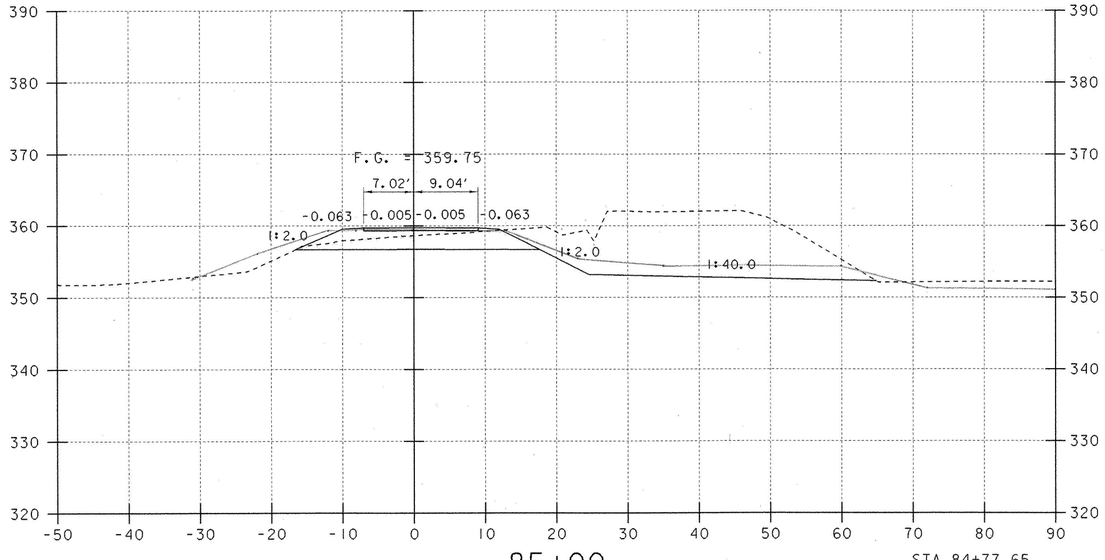
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 40 OF 51



85+25

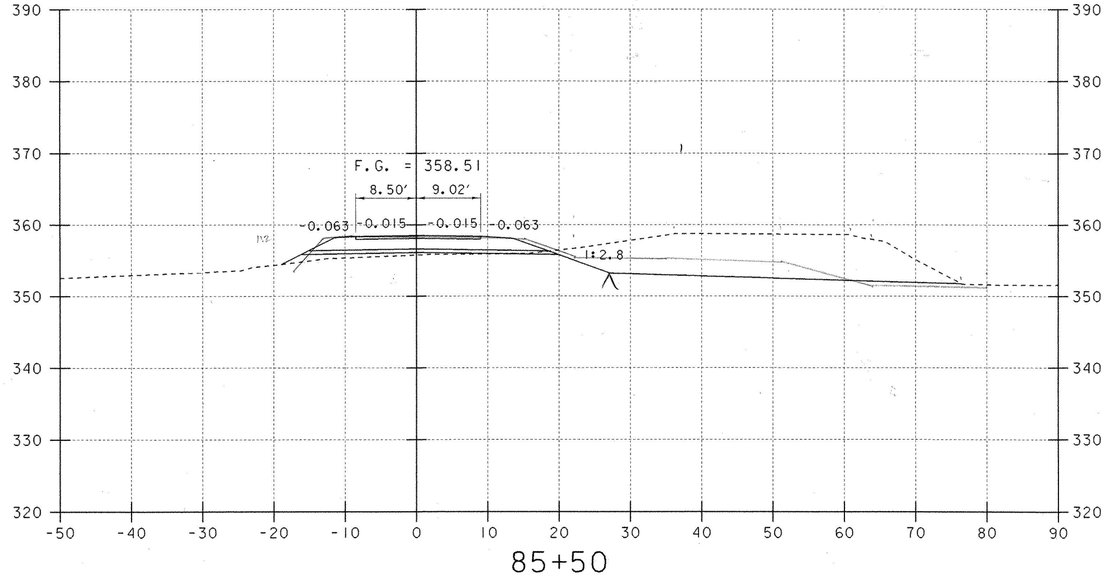


85+75



85+00

STA. 84+77.65
END BRIDGE
RESUME ROADWAY



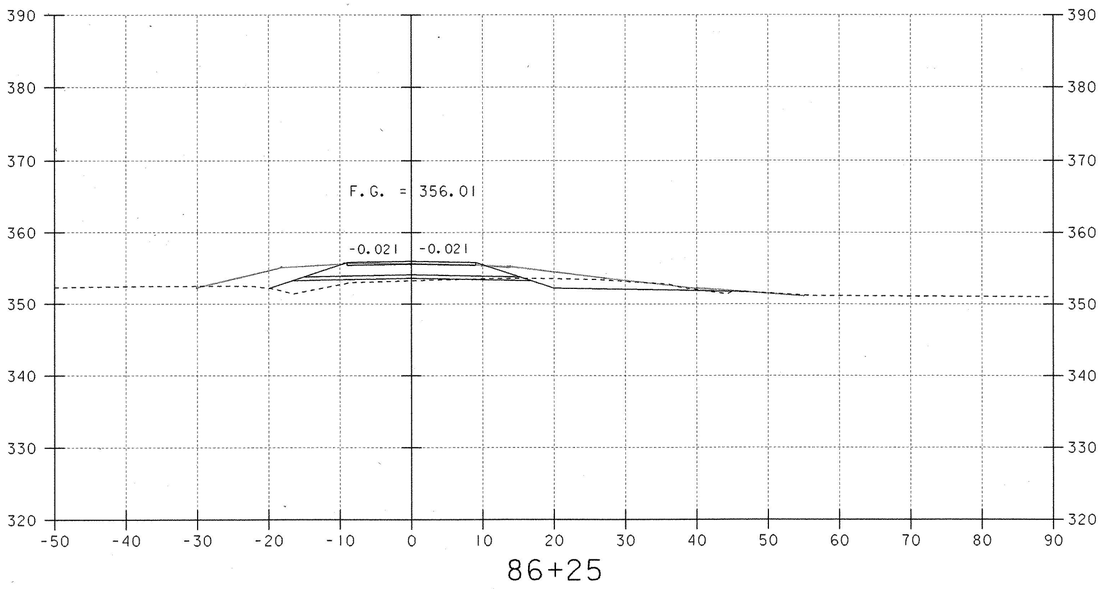
85+50

SCALE 1" = 10'-0
10 0 10

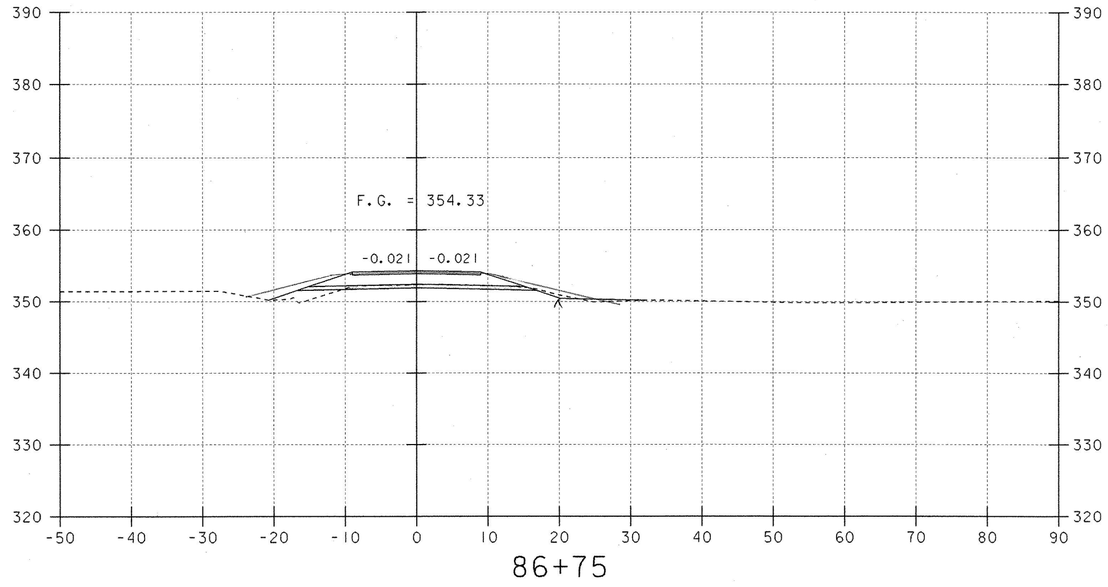
ROADWAY CROSS SECTIONS (5)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

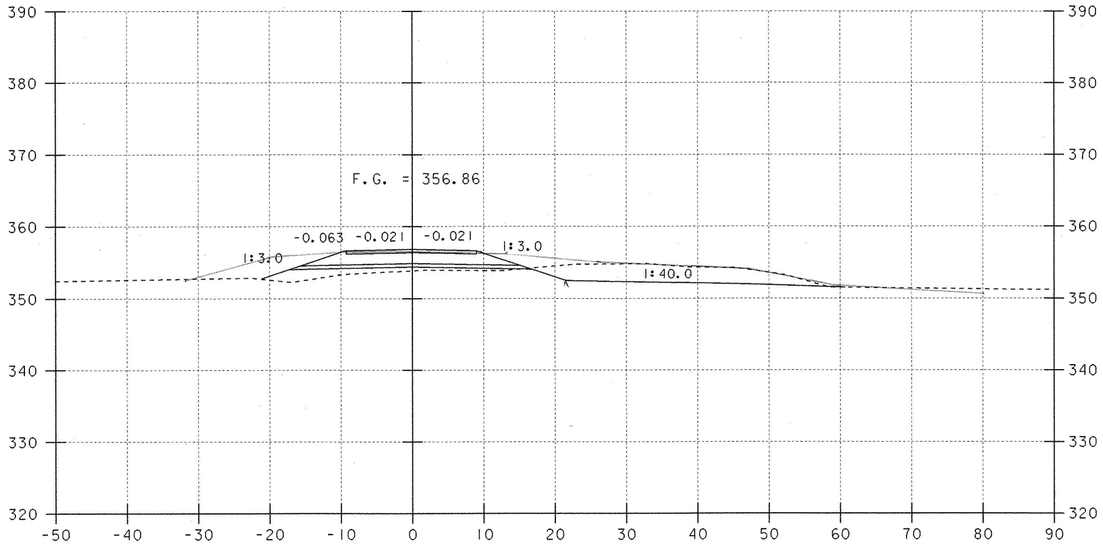
FILE NAME: 87J137\Structures\sJ137m05.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 41 OF 51



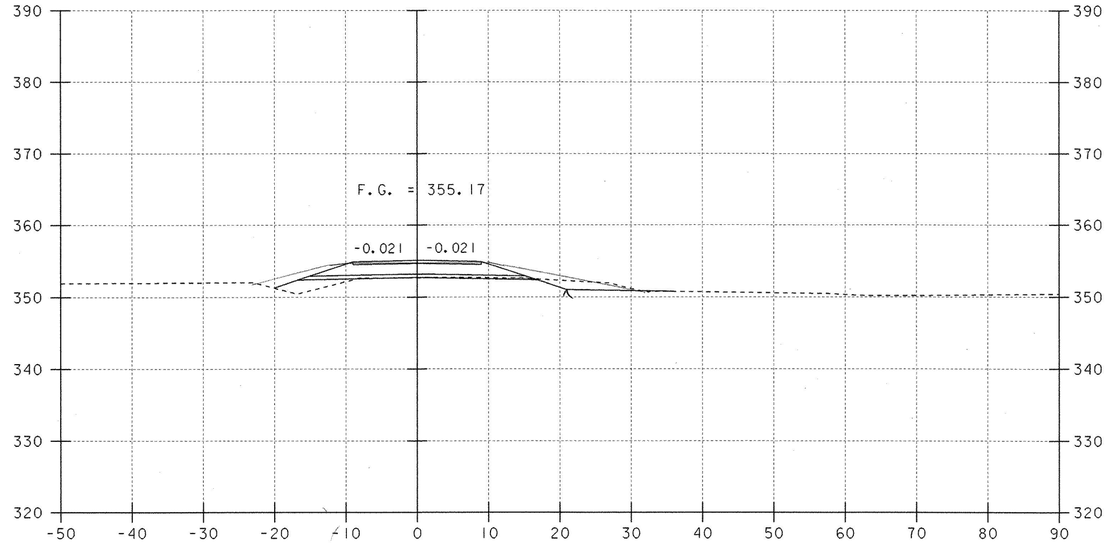
86+25



86+75



86+00



86+50

SCALE 1" = 10'-0
10 0 10

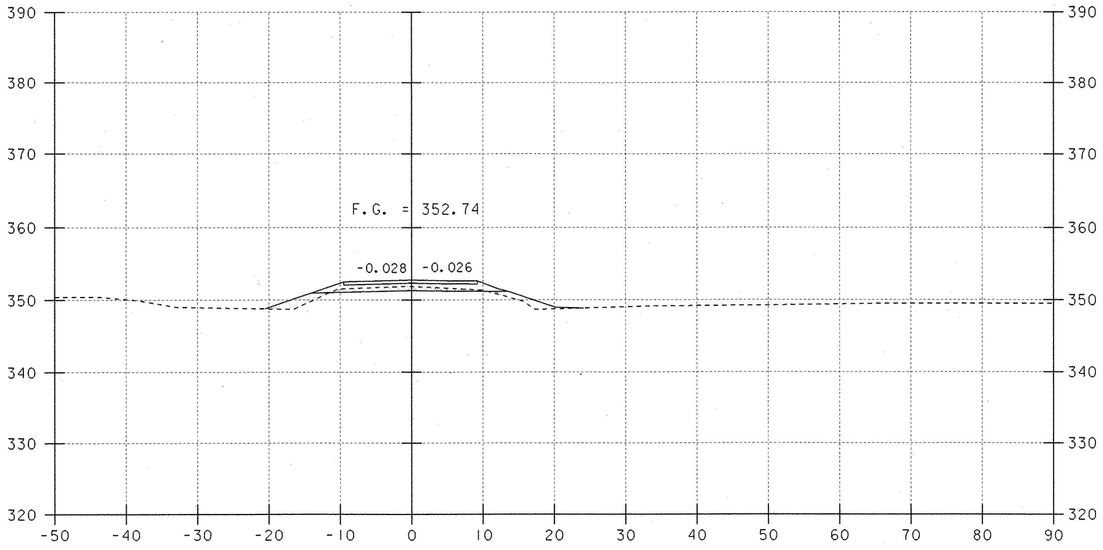
ROADWAY CROSS SECTIONS (6)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

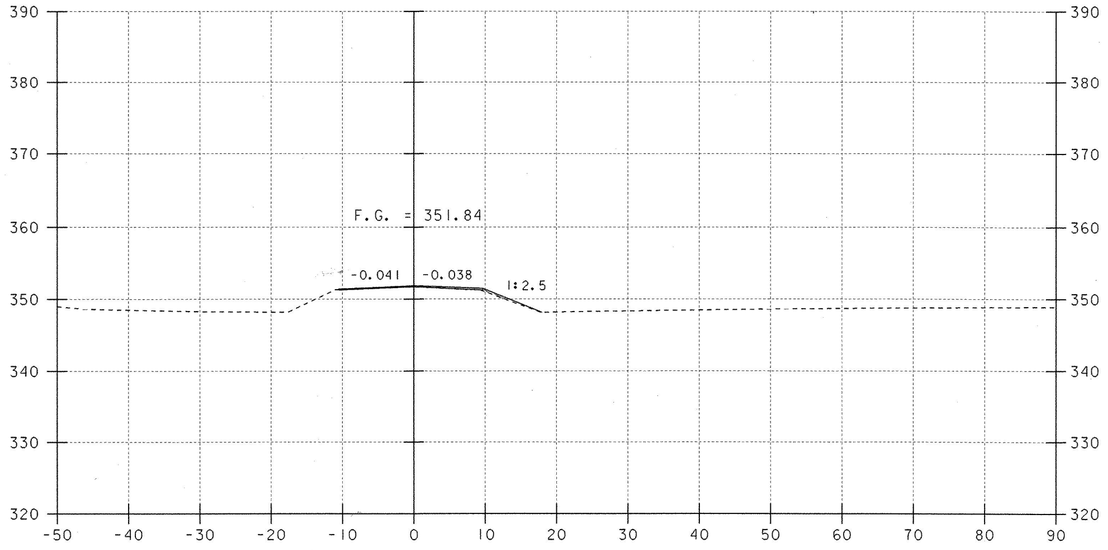
FILE NAME: 87J137\Structures\sJ137m06.i
PROJECT MANAGER: R.R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 42 OF 51

1'

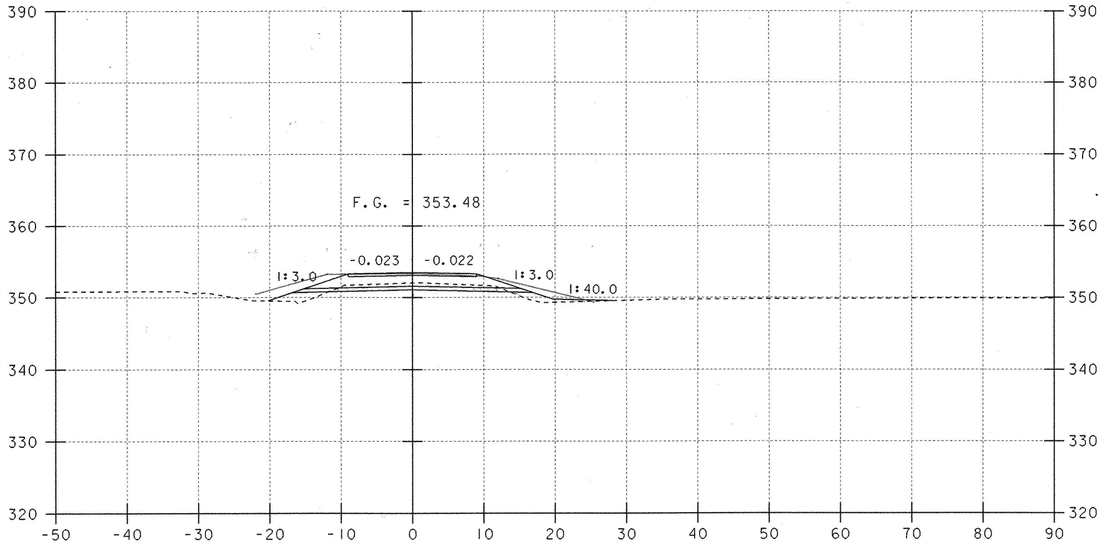
6.125' 3.125'



87+25

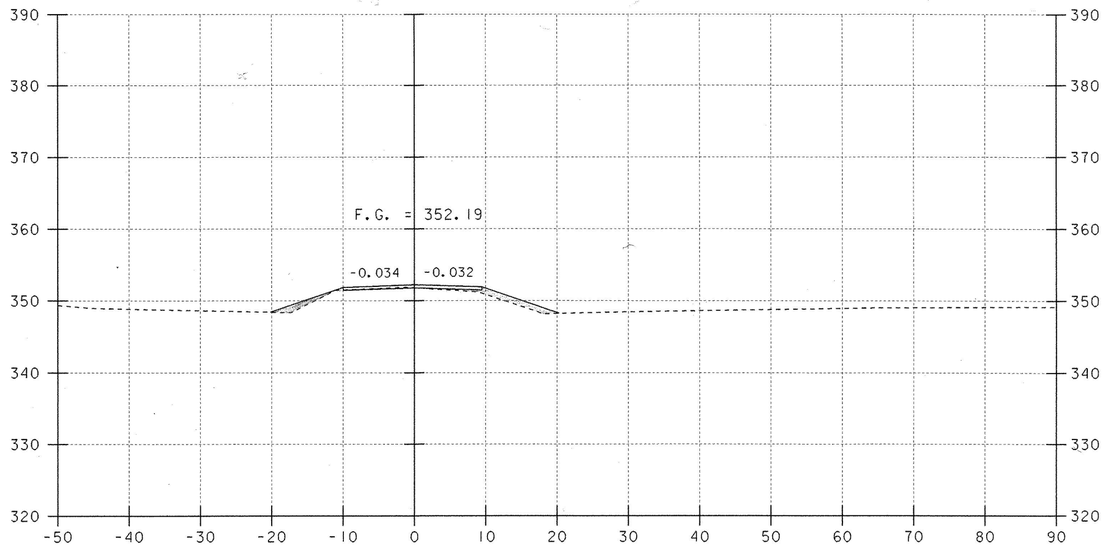


87+75



87+00

STA. 87+00
END PROJECT
BEGIN APPROACH



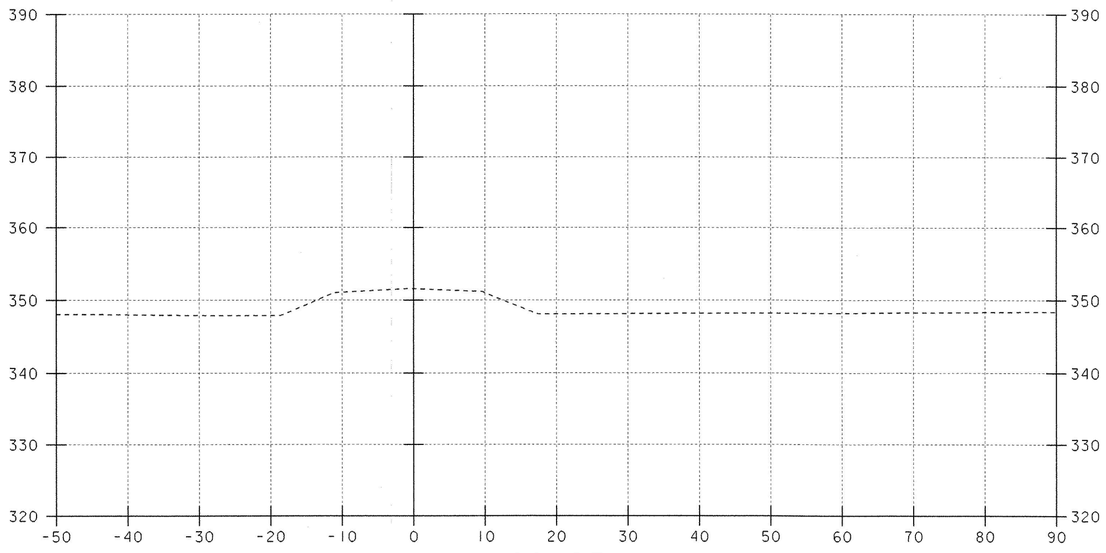
87+50

SCALE 1" = 10'-0
10 0 10

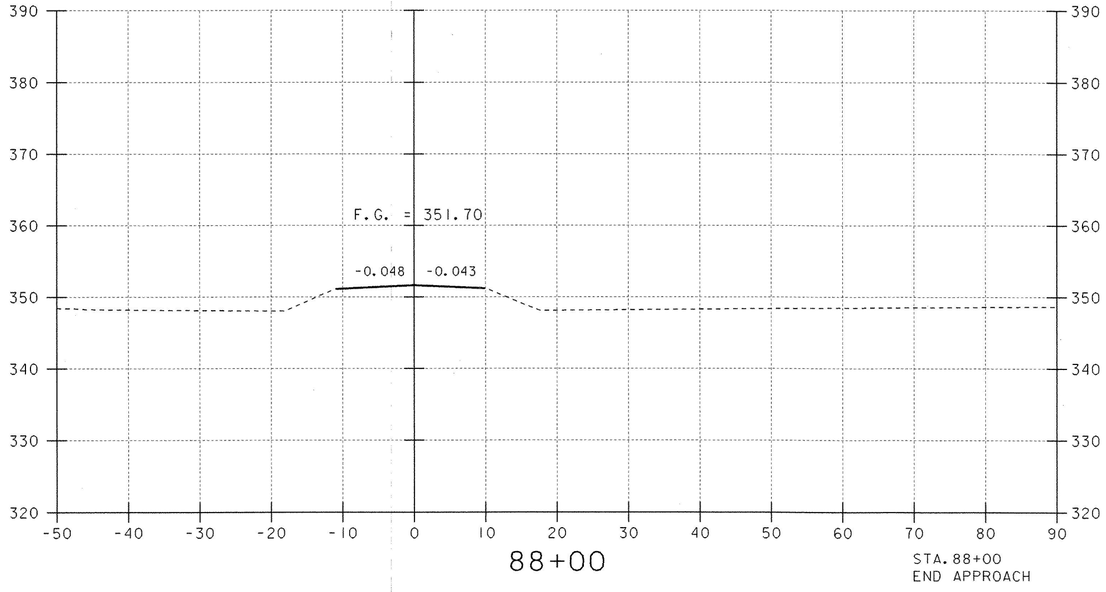
ROADWAY CROSS SECTIONS (7)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137m07.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 43 OF 51

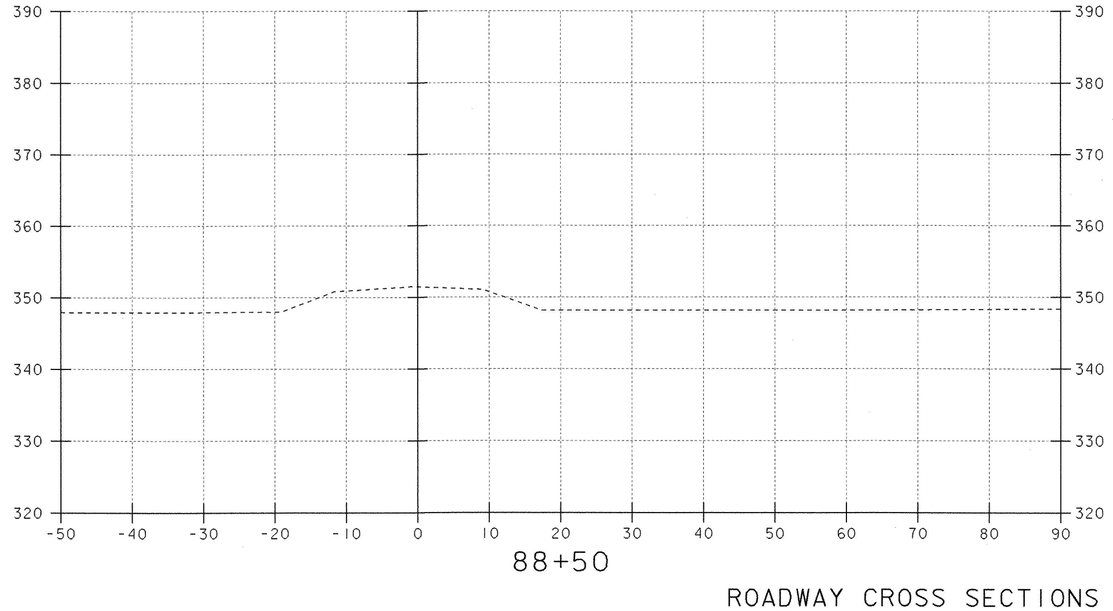


88+25



88+00

STA. 88+00
END APPROACH



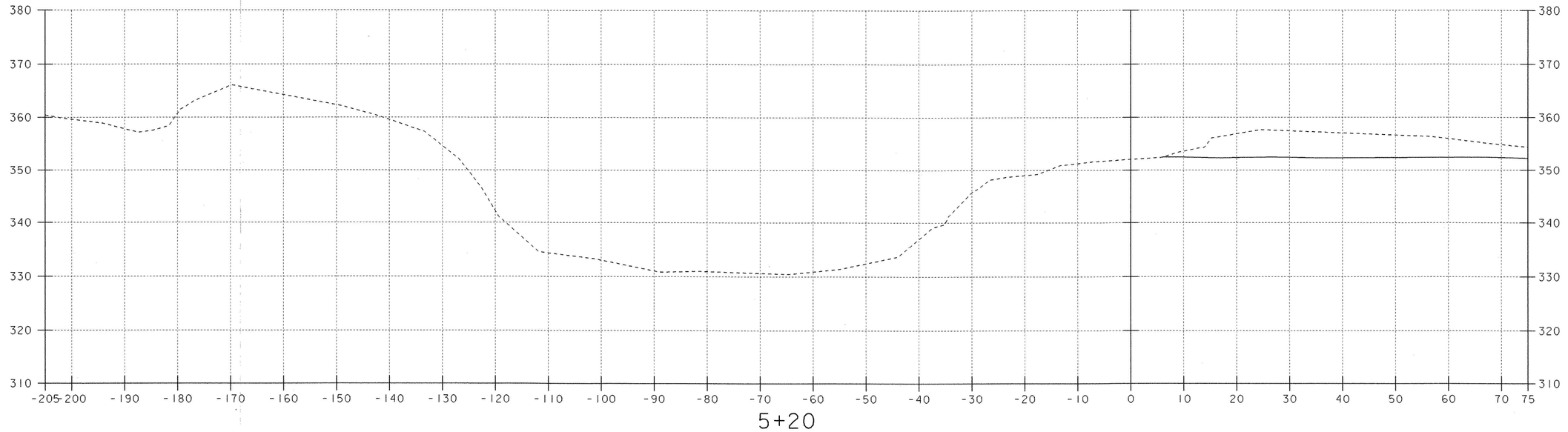
88+50

SCALE 1" = 10'-0
10 0 10

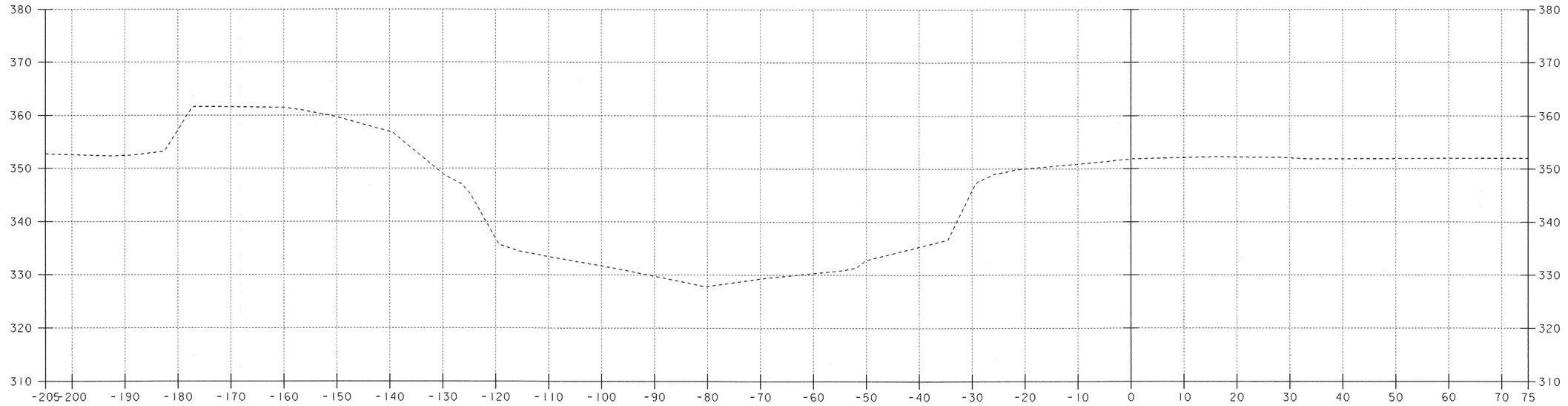
ROADWAY CROSS SECTIONS (8)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sj137m08.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 44 OF 51



5+20



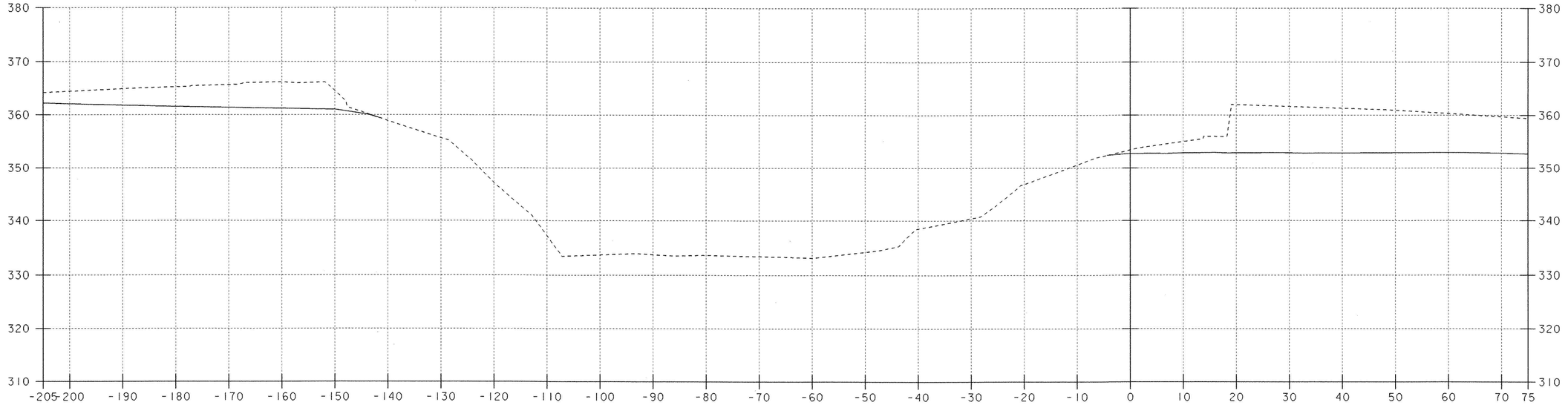
5+00

SCALE 1" = 10'-0
10 0 10

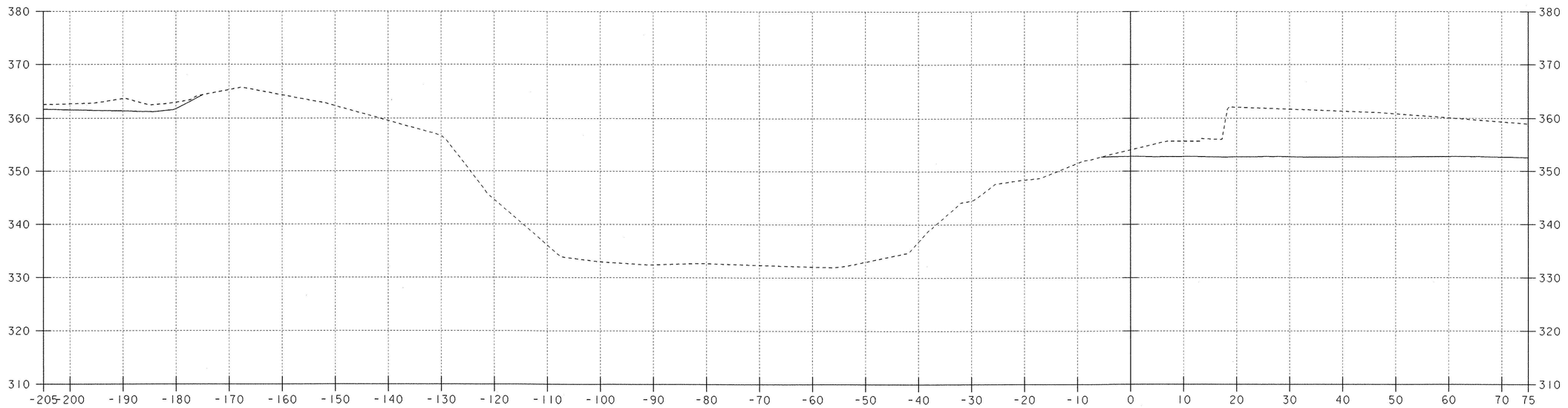
CHANNEL CROSS SECTIONS (1)

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137c01.i		PLOT DATE: 16-MAY-2002	
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	C. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
		SHEET	45 OF 51



5+40



5+30

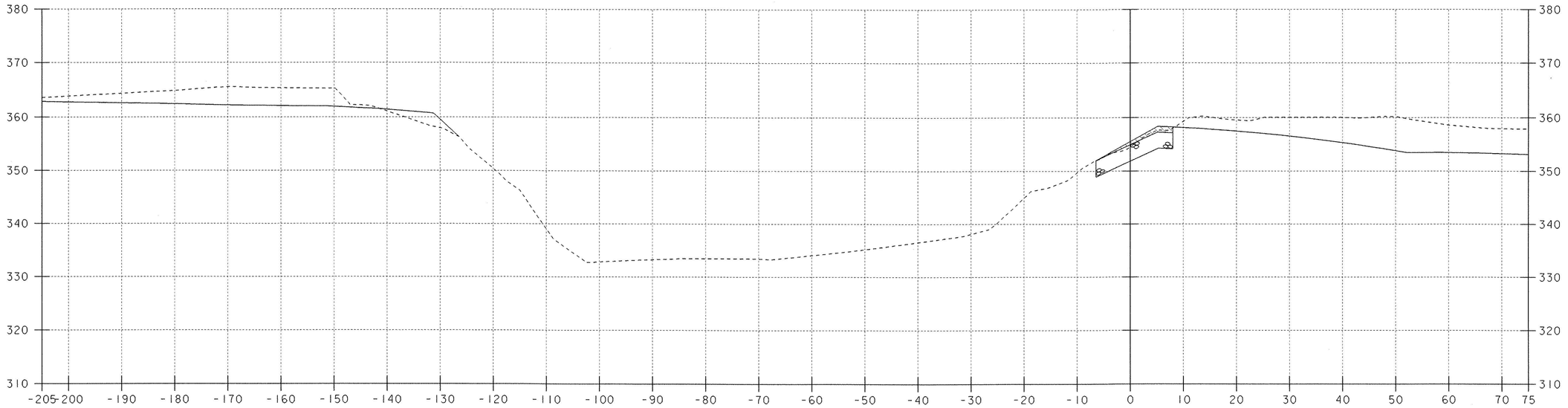
SCALE 1" = 10'-0
10 0 10

CHANNEL CROSS SECTIONS (2)

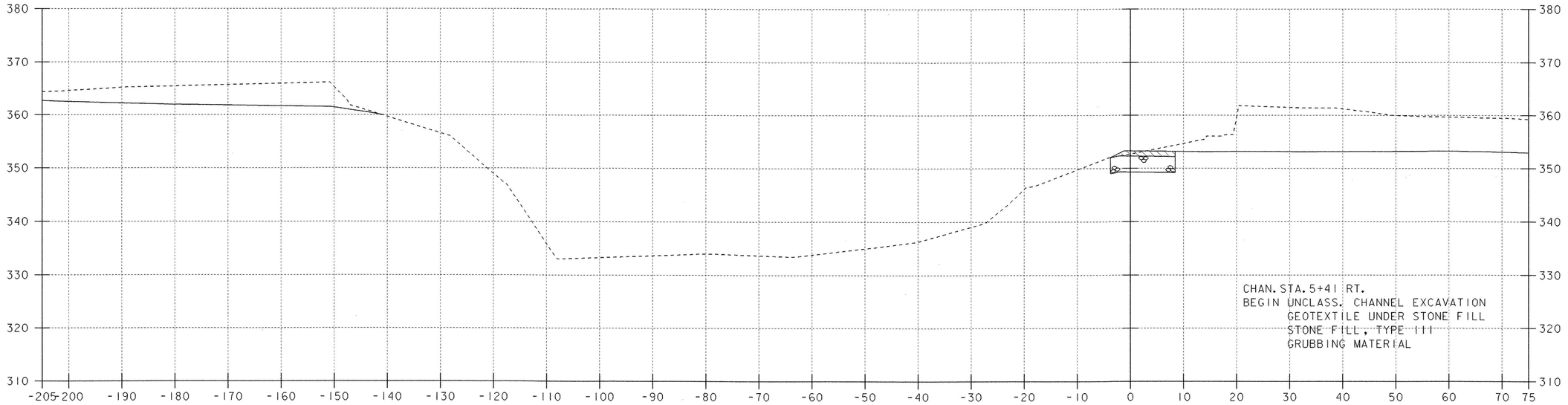
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137c02.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 46 OF 51



5+60



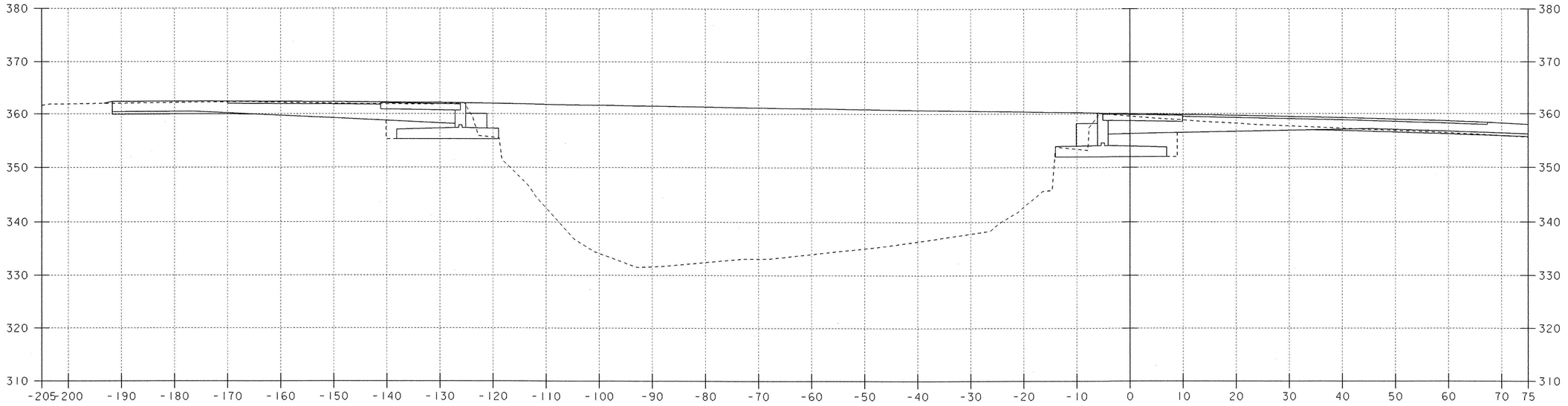
5+50

SCALE 1" = 10'-0
10 0 10

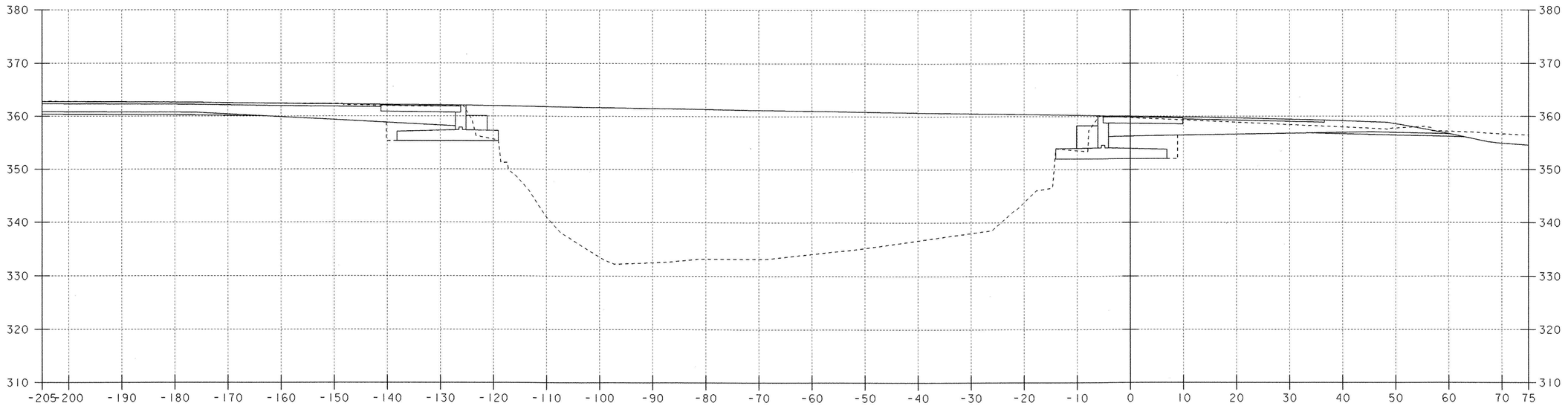
CHANNEL CROSS SECTIONS (3)

PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137c03.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER
PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 47 OF 51



5+80



5+70

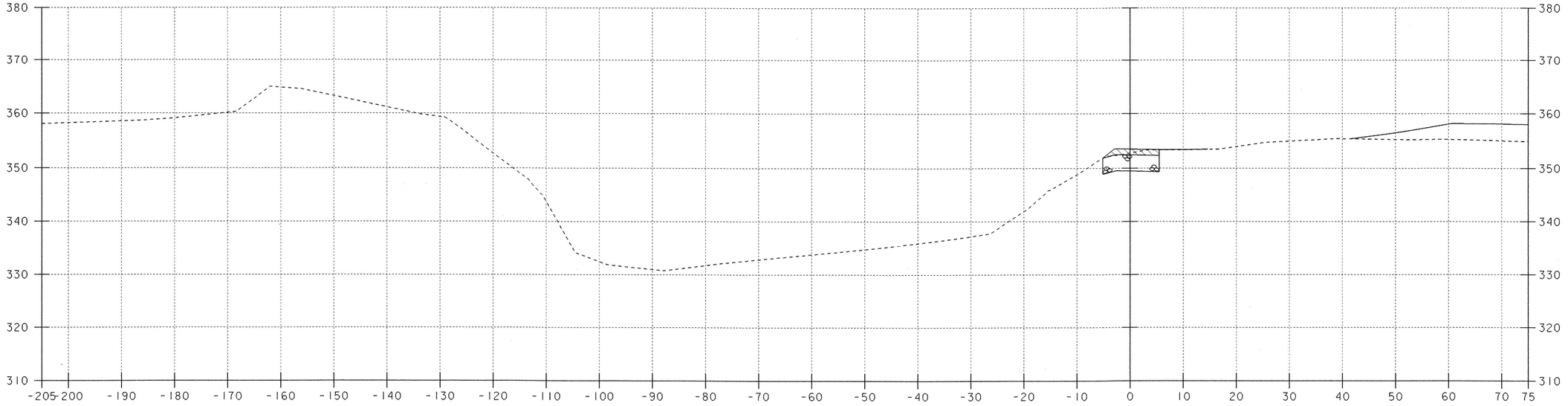
SCALE 1" = 10'-0
10 0 10

CHANNEL CROSS SECTIONS (4)

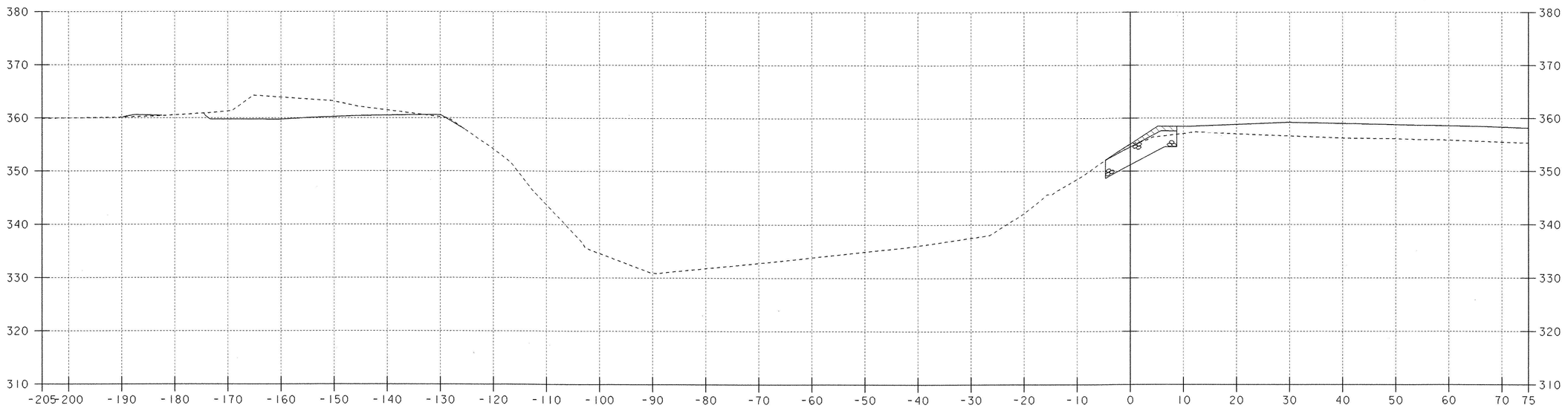
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87JI37\Structures\sJI37c04.1
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 48 OF 51



6+00



5+90

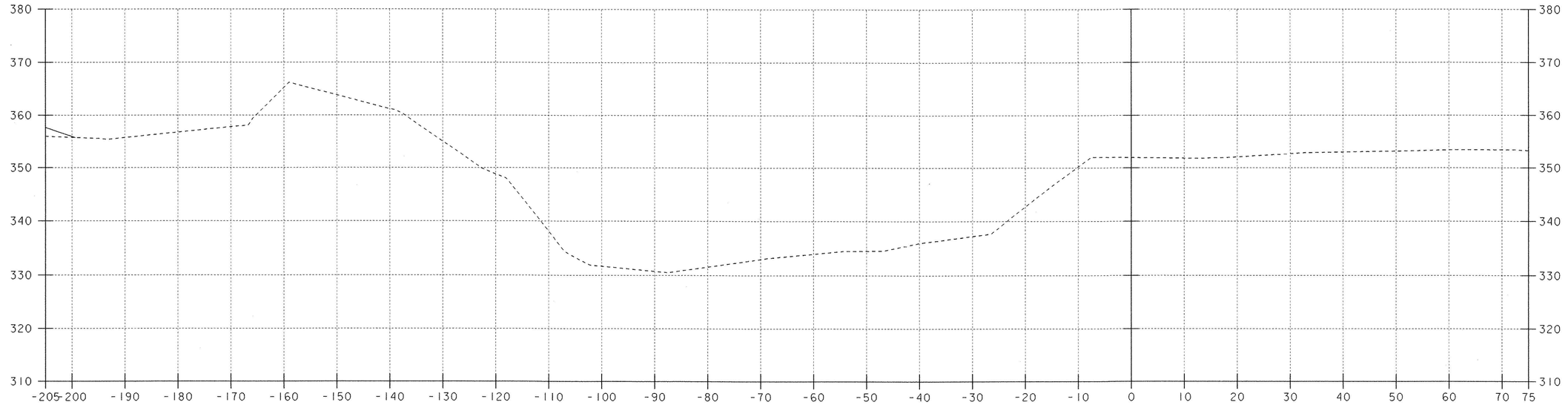
SCALE 1" = 10'-0
10 0 10

CHANNEL CROSS SECTIONS (5)

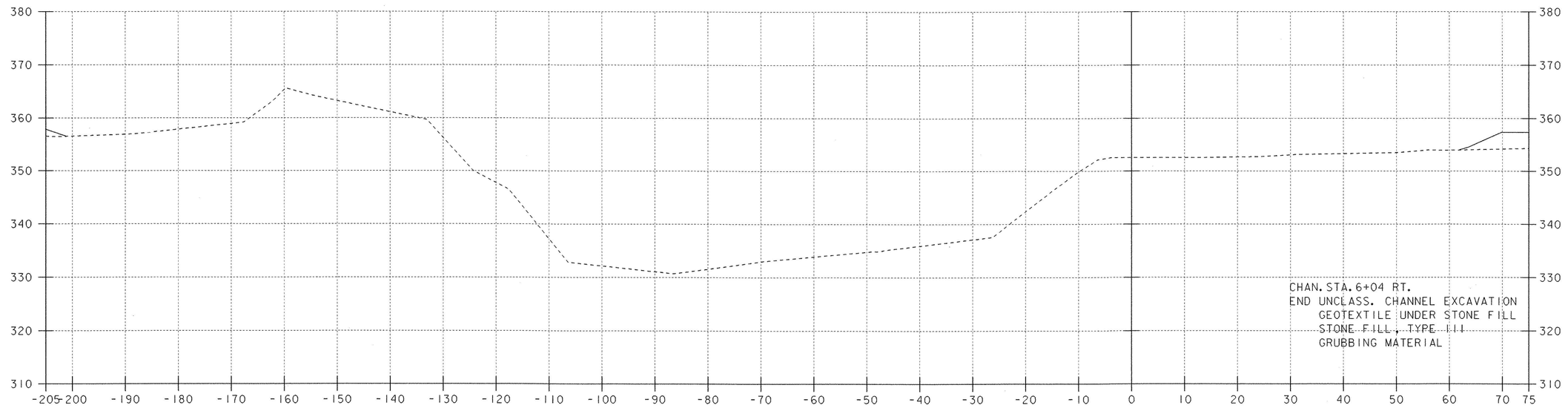
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87J137\Structures\sJ137c05.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 49 OF 51



6+20



6+10

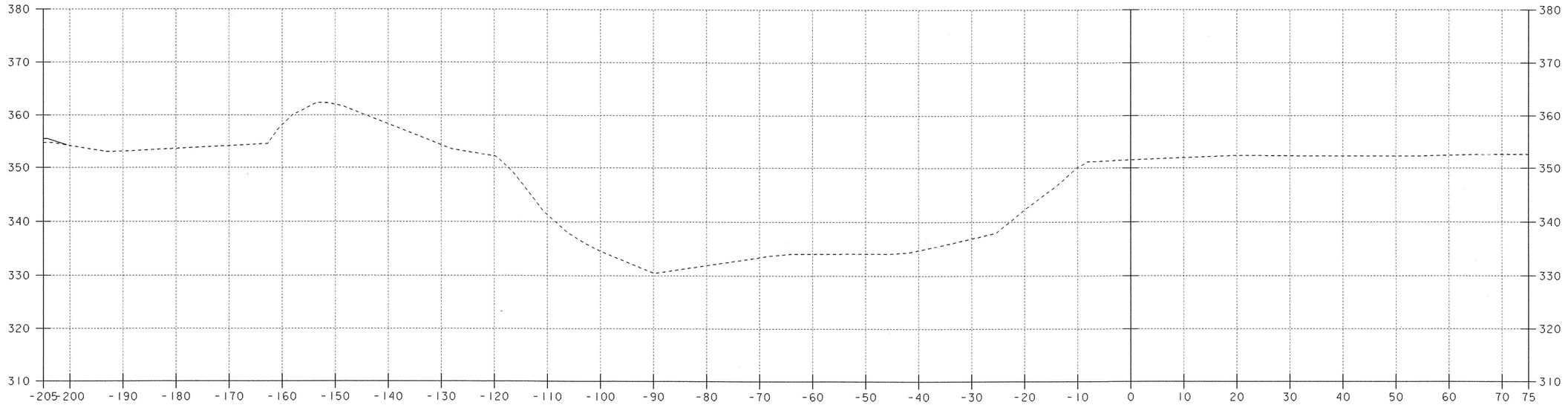
SCALE 1" = 10'-0
10 0 10

CHANNEL CROSS SECTIONS (6)

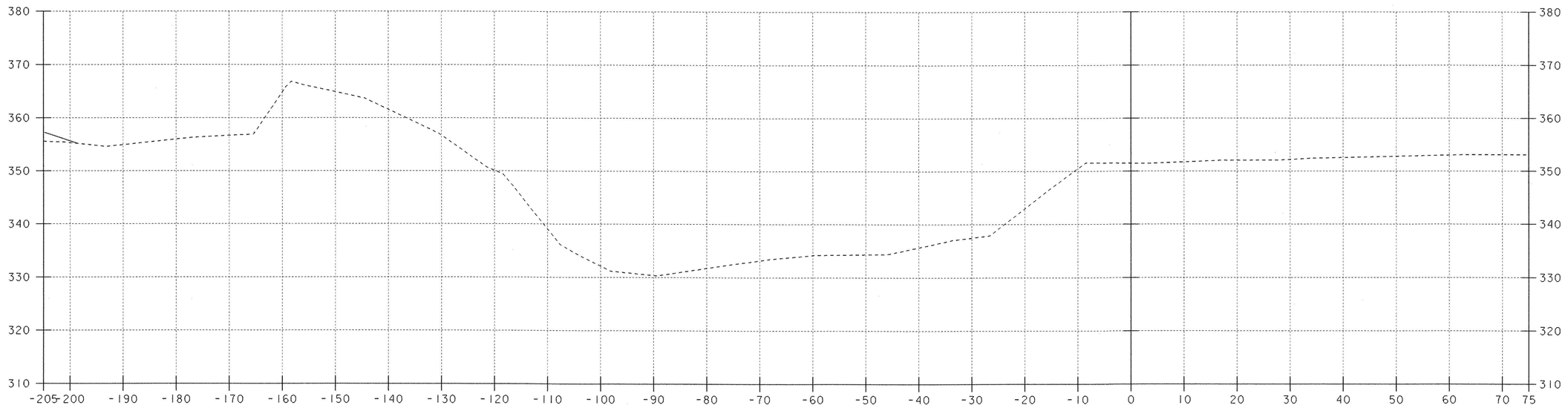
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87JI37\Structures\sJI37c06.i
PROJECT MANAGER: R. R. WHITCOMB
DESIGNED BY: T. SUMNER

PLOT DATE: 16-MAY-2002
DRAWN BY: G. ROY
CHECKED BY: T. SUMNER
SHEET 50 OF 51



6+50



6+30

CHANNEL CROSS SECTIONS (7)

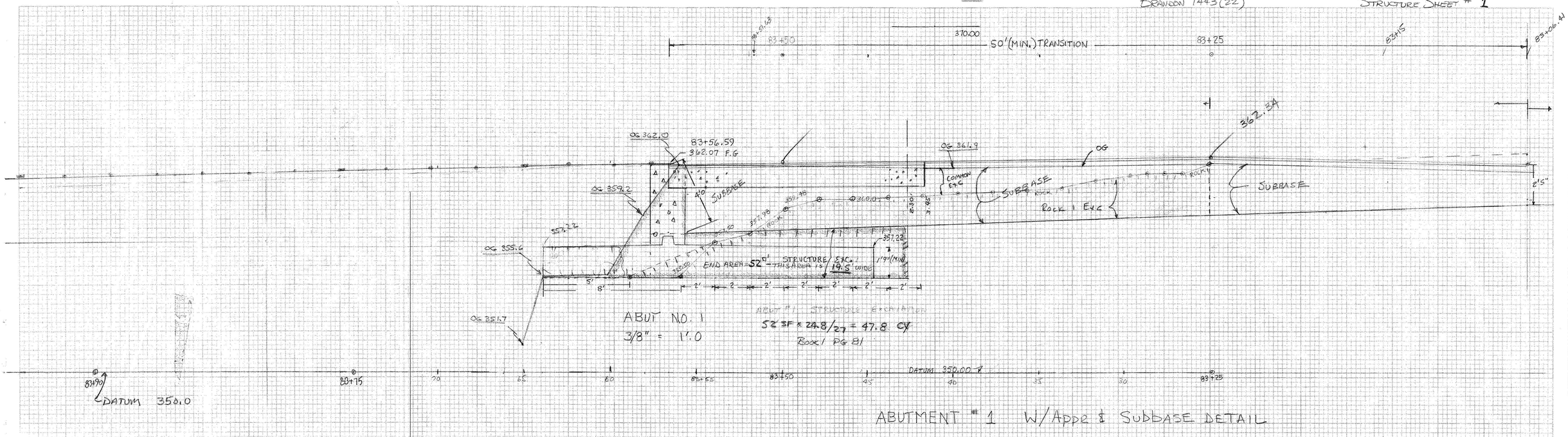
SCALE 1" = 10'-0
10 0 10

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME: 87J137\Structures\sJ137c07.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 51 OF 51

PLATE 3. CROSS SECTION 48 7055 Made in U.S.A.
Kelly-Essex Company

BRANDON 1443(22)

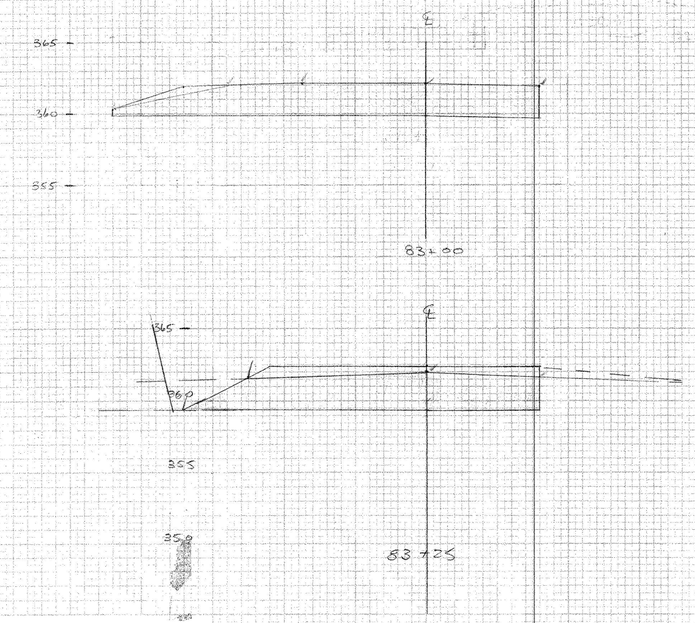
STRUCTURE SHEET # 1

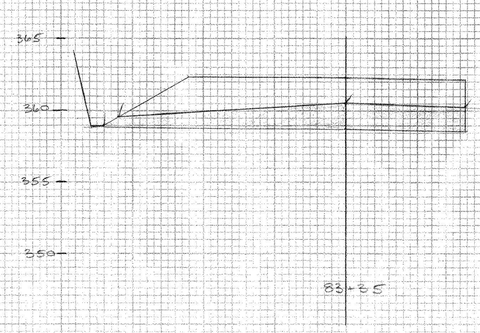


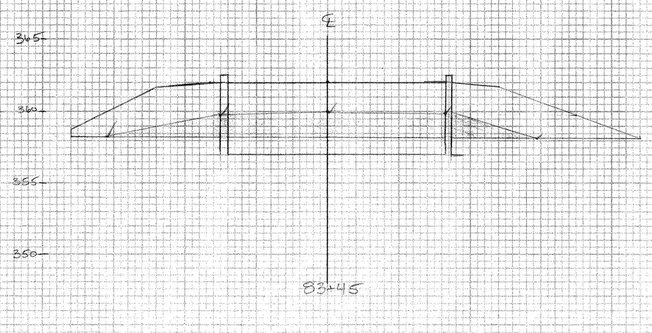
ABUT NO. 1
3/8" = 1'.0

ABUT #1 STRUCTURE EXCAVATION
52 SF × 24.8/27 = 47.8 CY
Rock PG 81

ABUTMENT # 1 W/Appr & SUBBASE DETAIL







C.P.I.

052

STRUCTURE SHEET # 1

DTP 11/22/02

PLATE 3. CROSS SECTION 48 7056 Made in U.S.A.
Keuffel & Esser Company

50' (MIN) TRANSITION

359.19 357.1 359.75 OG 358.7 360.18 0.6 360.14 OG 357.4 OG 353.88 354.04

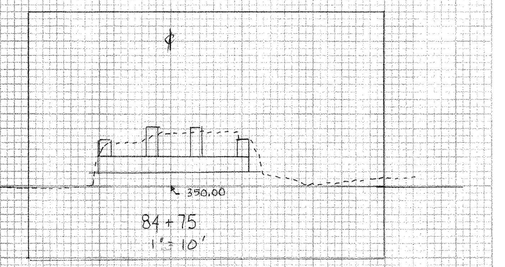
SUBBASE OG Subbase COMMON EXC. Subbase STRUCTURE EXC. AREA = 97.1 SF WIDTH FOR THIS SECTION = 24.8'

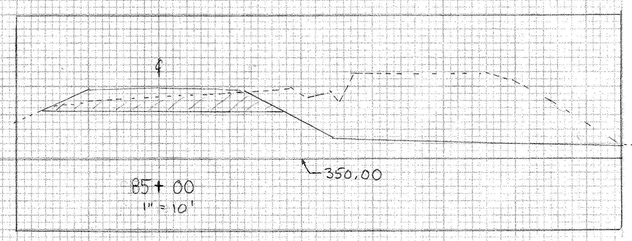
STRUCTURE EXC.
97.1 x 24.8 / 27 = 89.2 cy
BOOK 1 PG 81

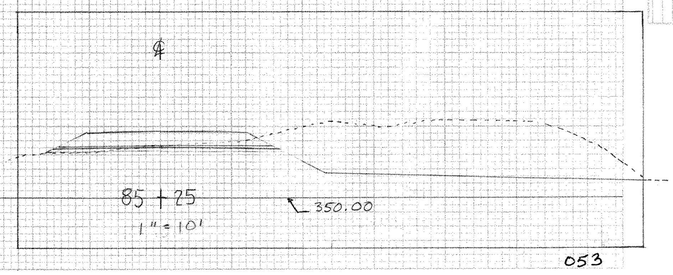
ABUT # 2 3/8" = 1'

85+27.65 85+25 DATUM 350.00 85+00 84+77.65 360.14 84+75 DATUM 350.00 85+00 DATUM 350.00

ABUTMENT # 2 w/APPROACH & Subbase Detail







053

STRUCTURE SHEET # 2

DTP - 11/22/02

GPI.