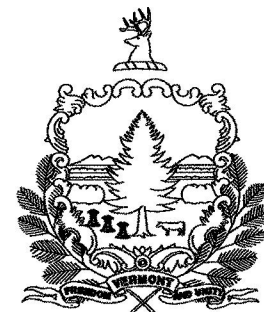


- INDEX OF SHEETS**
1. TITLE SHEET
 2. PRELIMINARY INFORMATION SHEET
 3. PROJECT TYPICAL SECTIONS
 - 4-5. QUANTITY SHEETS
 - 6-8. R.O.W. SHEETS
 9. TIE SHEET
 - 10-12. LAYOUT SHEETS
 13. PROFILE SHEET
 14. DRIVE PROFILES & TYPICAL SECTIONS
 15. TRAFFIC SIGN LAYOUT SHEET
 16. TRAFFIC SIGN SUMMARY SHEET
 17. PLAN AND ELEVATION SHEET
 - 18-19. EROSION CONTROL SHEETS
 20. PROJECT NOTES SHEET
 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
 33. APPROACH SLAB DETAILS
 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



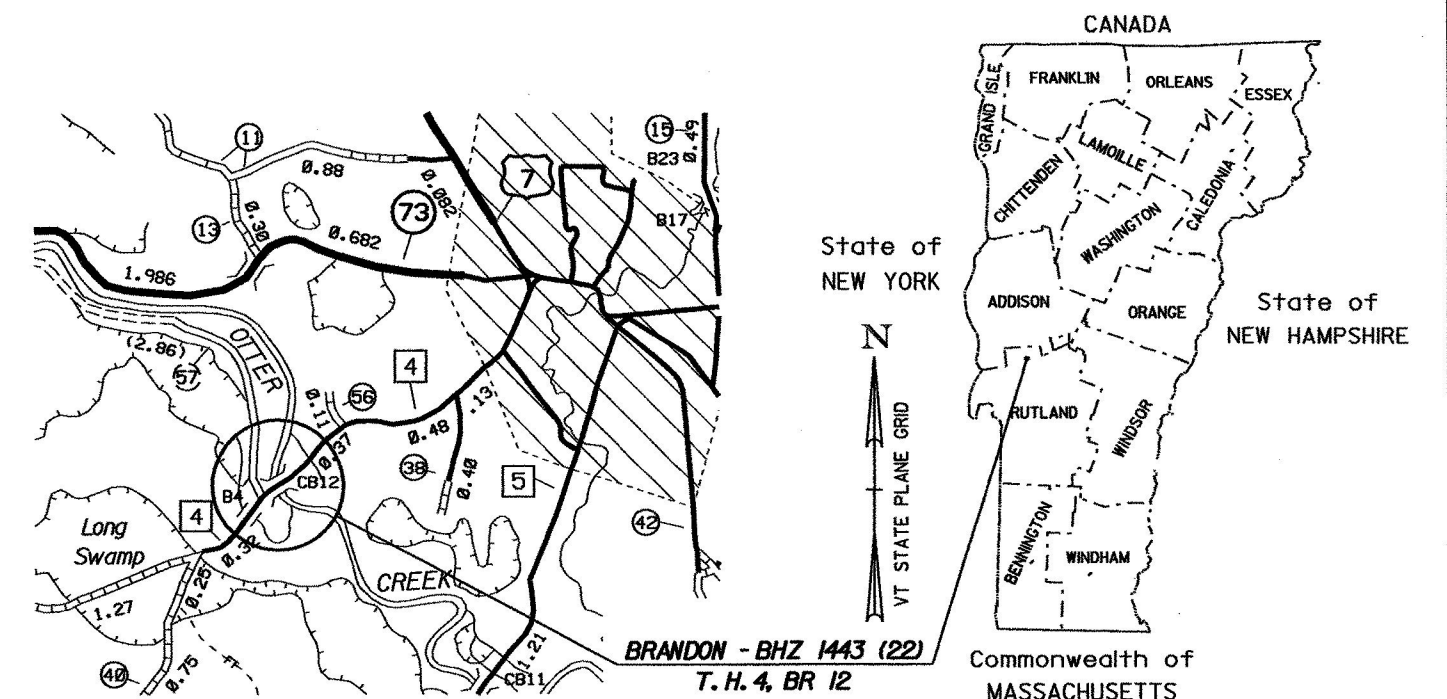
PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF BRANDON COUNTY OF RUTLAND

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



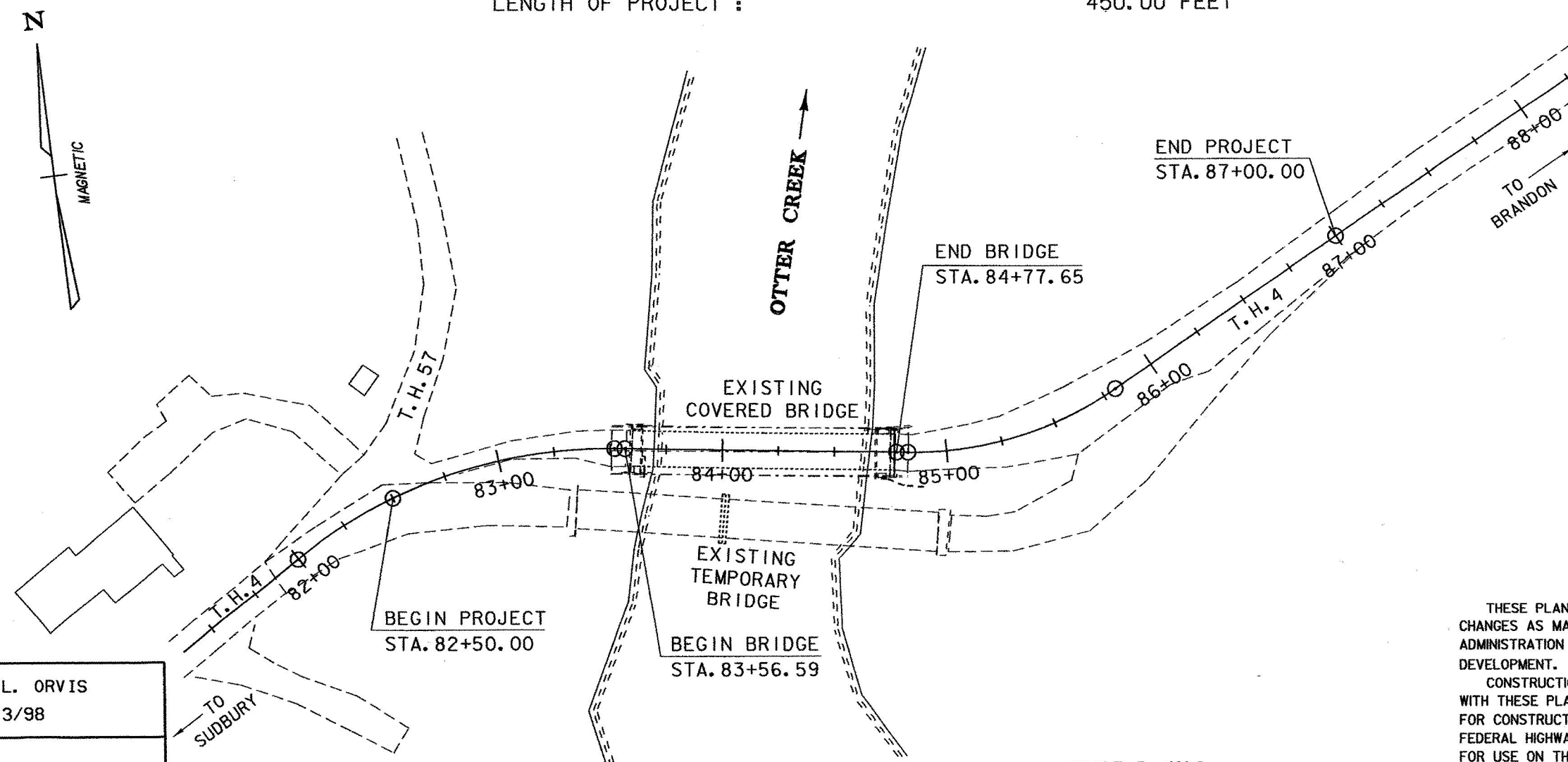
RECORD PLANS	
CONTRACTOR:	BLOW & COTE INC. MORRISVILLE, VT
RESIDENT ENGINEER:	TONY COARSE
CONSTRUCTION BEGAN:	AUGUST 19, 2002
CONSTRUCTION COMPLETE:	DECEMBER 09, 2003
RECORD PLANS BY:	K. NORTH & N. GARBACIK
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>Anthony J. Coarse</i> 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.	

CONVENTIONAL SYMBOLS

COUNTY LINE	— — — — —
TOWN LINE	— — — — —
LIMITS OF ACCESS	— — — — —
POINT OF ACCESS	X
FENCE LINE	X — — — — X
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



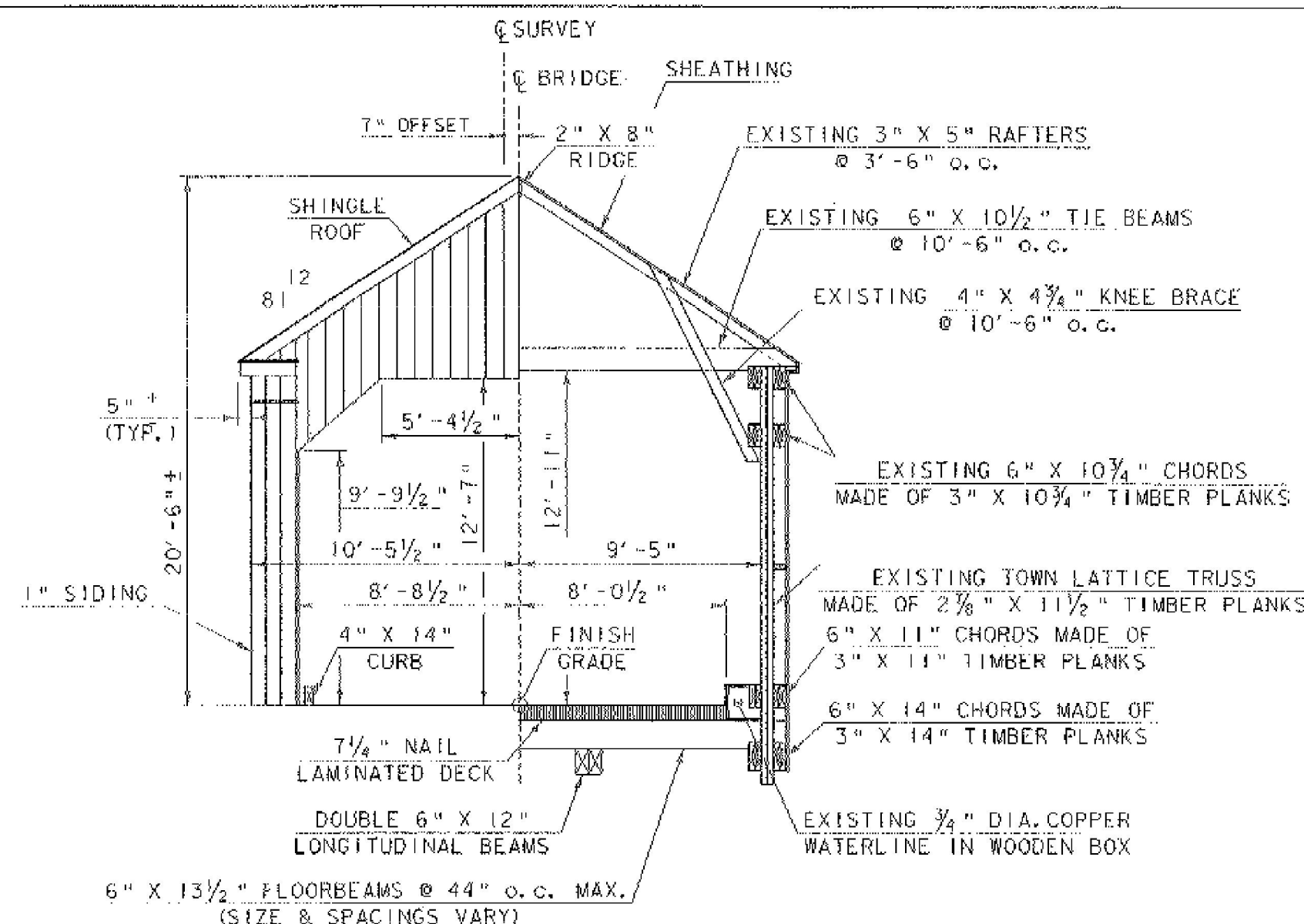
SCALE 1" = 40'-0"

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.

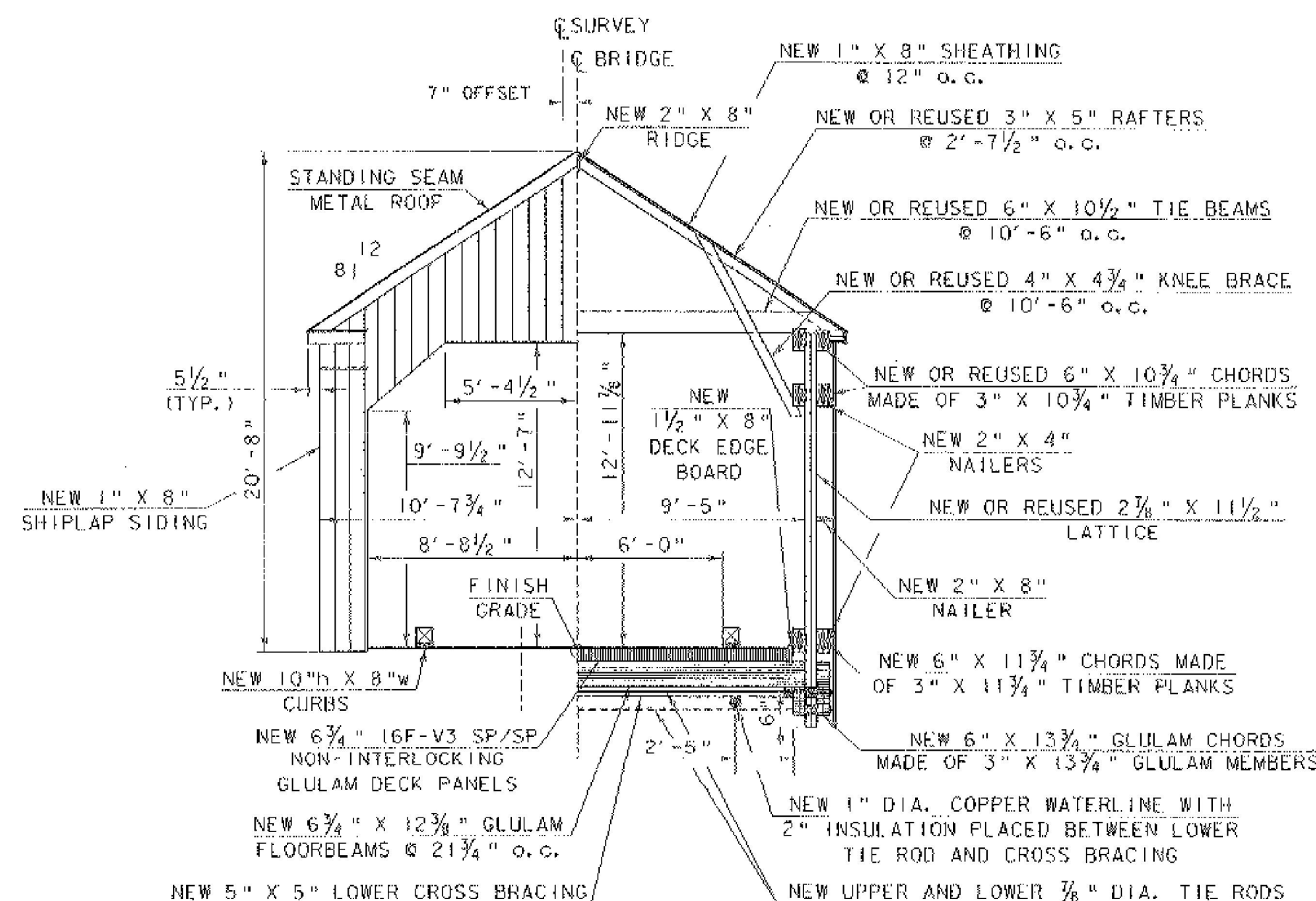
87 J137 Structures J137HJ PLOTTED 02-OCT-2004

DIRECTOR OF PROJECT DEVELOPMENT	
APPROVED	DATE 10/17/04
PROJECT MANAGER : R.R. WHITCOMB	
PROJECT NAME : BRANDON	
PROJECT NUMBER : BHZ 1443 (22)	
SHEET 1 OF 51 SHEETS	



EXISTING TYPICAL BRIDGE SECTION

SCALE: 1/4" = 1'-0"



NEW TYPICAL BRIDGE SECTION

SCALE: 1/4" = 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: 100'
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 2200 SF VERTICAL CLEARANCE ABOVE STREAMBED: 25'
5. WATER SURFACE ELEVATION @ 2.33: 358.5 WATER SURFACE ELEVATION @ D.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
8. ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: UNLIMITED
9. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL: WEST ABUTMENT ON LEDGE, EAST ABUTMENT ON UNKNOWN
10. DISPOSITION OF STRUCTURE: REHABILITATE

* NOTE: THE VADT 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

1. STRUCTURE TYPE: WOODEN (TOWN LATTICE) COVERED BRIDGE OVERALL LENGTH: 133' - 7 1/2"
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: 100'
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	358.5
Q 10	9600 CFS	WATER ELEVATION	354.5
Q 25	12400 CFS	WATER ELEVATION	350.4
Q 50	14400 CFS	WATER ELEVATION	347.5
Q 100	16000 CFS	WATER ELEVATION	345.2
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	IS ORDINARY RISE RAPID?	NO
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	0.000' - 1.282'	COMMENT ON DRIFT	SLIGHT
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE?	NO	IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR?	05 ELEV 352.0
8. ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF	UNLIMITED		
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.
12. AVERAGE DAILY FLOW	1800 CFS	STREAMWAY OR CHANNEL PROTECTION REQUIRED	STONE FILL TYPE III
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE	0.8 MI.	SPAN	110'
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE	1.4 MI.	SPAN	225'

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
6. CONCRETE CLASS A: FC N/A CLASS B: FC 3500 PSI

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

LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS	LOAD FACTOR	TRUCK
INVENTORY	16	HS, SS2, 4 AXLE, 3A. STR., 4A. STR., 5A. SEMI
POSTED	20	
OPERATING		

*FLOOR BEAMS IN BENDING GOVERN

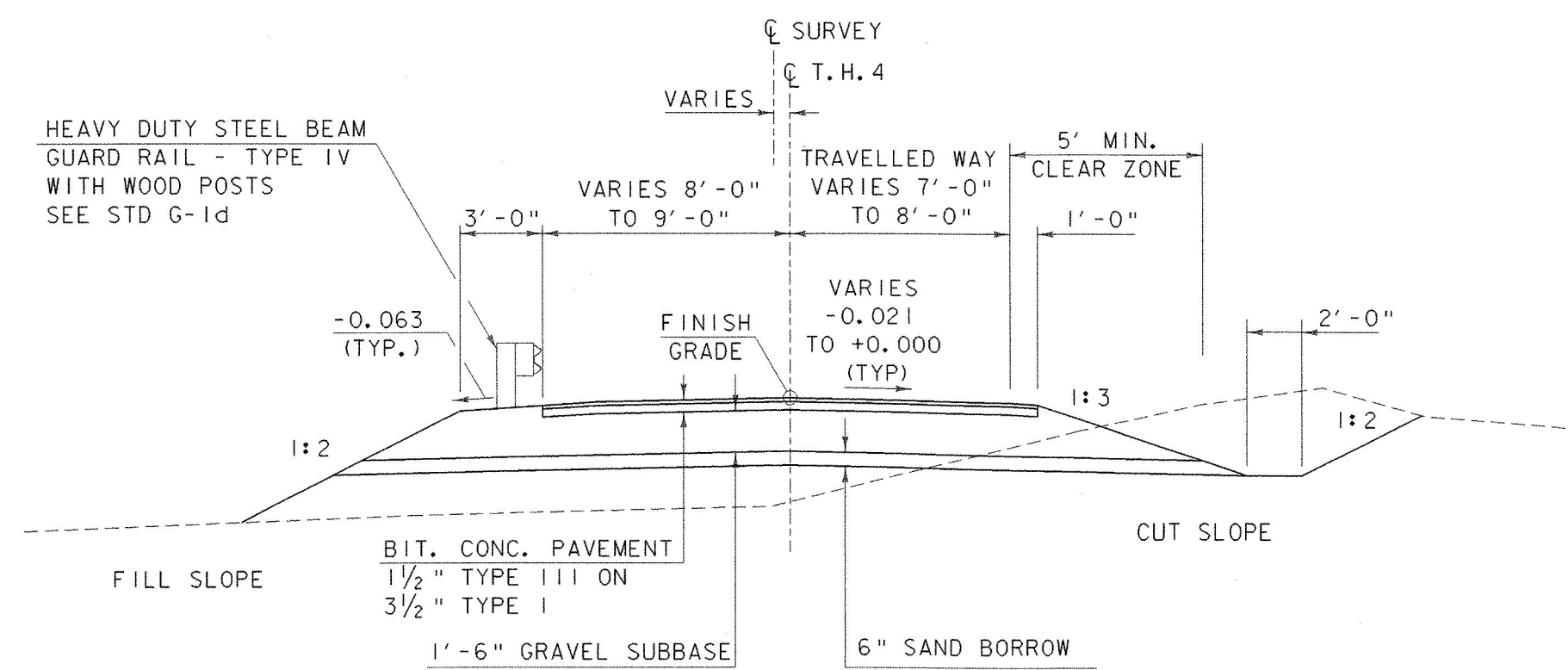
TRAFFIC DATA

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)

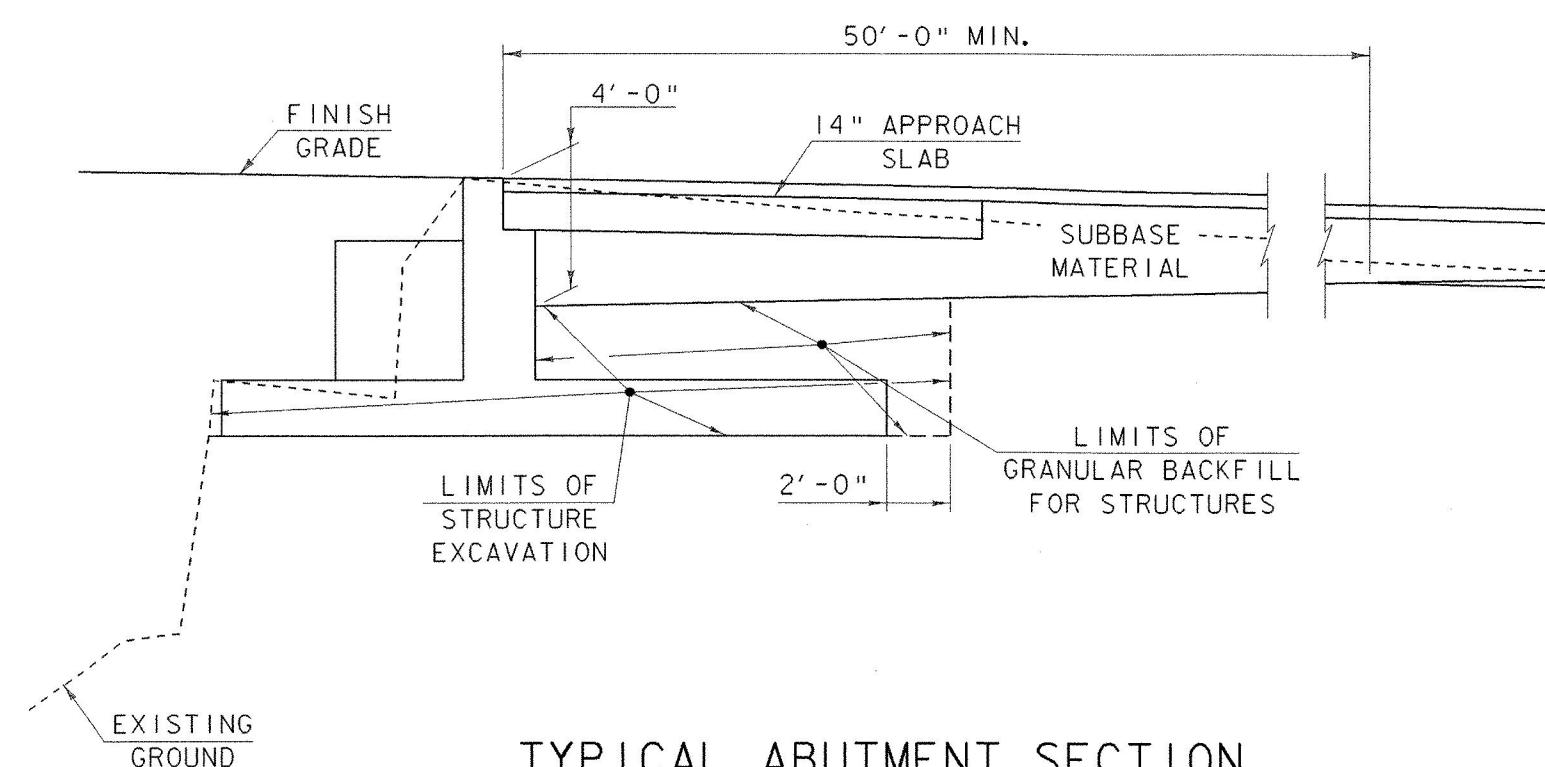
PROJECT NAME: BRANDON
PROJECT NUMBER: BHZ 1443 (22)
FILE NAME: 871137\Structures\BHZ1443.pit
PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R. R. WHITCOMB
DRAWN BY: C. ROY
DESIGNED BY: T. SUMNER
CHECKED BY: T. SUMNER
SHEET 2 OF 51



GUARDRAIL NO GUARDRAIL

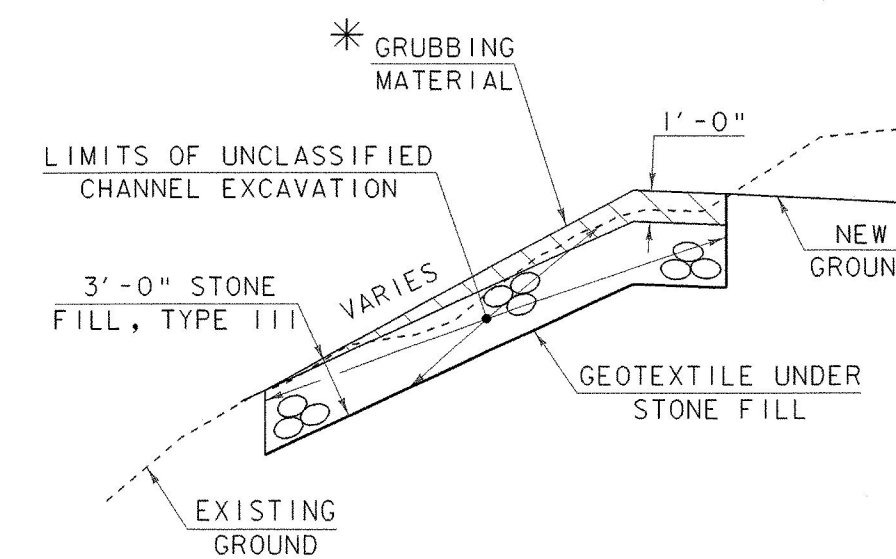
TYPICAL ROADWAY SECTION

SCALE 1/4" = 1'-0"



TYPICAL ABUTMENT SECTION

NOT TO SCALE



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.

MATERIAL ITEM	TOLERANCE
PAVEMENT	± 1/4" TOTAL THICKNESS
SUBBASE	± 1"
SAND BORROW	± 1"

PROJECT TYPICAL SECTIONS

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137p12.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	3 OF 51
DESIGNED BY:	T. SUMNER		

STATE OF VERMONT AGENCY OF TRANSPORTATION																	QUANTITY SHEET									
SUMMARY OF ESTIMATED QUANTITIES																	TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF 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	ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS		
		1															1		LS	CLEARING AND GRUBBING (INCLUDING INDIVIDUAL TREES AND STUMPS)	201.10			TEMPORARY EROSION CONTROL ITEMS (INCLUDED IN EROSION CONTROL ITEMS)		
		2040															2040		CY	COMMON EXCAVATION	203.15					
		30															30		CY	SOLID ROCK EXCAVATION	203.16	10	CY	TRENCH EXCAVATION OF EARTH		
						65									65		65		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	10	CY	SUBBASE OF GRAVEL		
		170															170		CY	SAND BORROW	203.31	5	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I		
				10													10		CY	TRENCH EXCAVATION OF EARTH	204.20	10	CY	STONE FILL, TYPE I		
											40	40			80		80		CY	STRUCTURE EXCAVATION	204.25	460	SY	GEOTEXTILE FOR SILT FENCE		
											20	20			40		40		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	40	LB	SEED		
		190															190		SY	COLD PLANING-BIT.PAVEMENT	210.10	10	LB	SEED-WINTER RYE *		
		740		10													750		CY	SUBBASE OF GRAVEL	301.15	20	EACH	HAY BALES FOR EROSION CONTROL		
		1.4															1.4		CWT	EMULSIFIED ASPHALT	404.65	2510	SY	EROSION MATTING		
		275															275		TON	BITUMINOUS CONCRETE PAVEMENT (PG 58-28)	406.25			* 50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) AND CEREAL (WINTER) RYE		
								10	10		51	43			114		114		CY	CONCRETE, CLASS B (HPC-B)	501.25			EARTHWORKS SUMMARY		
														1	1		1		LS	SHORING SUPERSTRUCTURE	502.10					
														850	850		850		LB	STRUCTURAL STEEL	506.60	170	CY	FILL REQUIRED		
								960	940		6660	5970			14530		14530		LB	EPOXY COATED REINFORCING STEEL	507.17			FILL AVAILABLE:		
														1	1		1		LS	STRUCTURAL PAINTING, FIELD APPLIED (MOD.)	513.30	2040	CY	COMMON EXCAVATION: 2040 X 1.0		
														1	1		1		LS	CONTAINMENT & ENVIRON. PROTECTION, FIELD	513.36	30	CY	SOLID ROCK EXCAVATION, EARTH: 30 X 1.0		
											2	2			4		4		GAL	WATER REPELLENT	514.10	48	CY	STRUCTURE EXCAVATION, ROCK: 80 X 0.6		
								26	26						52		52		SY	SHEET MEMBRANE WATERPROOFING	519.20	6	CY	TRENCH EXCAVATION OF EARTH: 10 X 0.6		
														14.3	14.3		14.3		MFBM	STRUCTURAL LUMBER AND TIMBER - UNTREATED	522.20	24	CY	UNCLASSIFIED CHANNEL EXCAVATION : 40 X 0.6		
														5.5	5.5		5.5		MFBM	STRUCTURAL LUMBER AND TIMBER - TREATED	522.25	2148	CY	SUBTOTAL		
														5.7	5.7		5.7		MFBM	NON - STRUCTURAL LUMBER-UNTREATED	522.30	2	CY	ROUNDING		
														2.2	2.2		2.2		MFBM	NON - STRUCTURAL LUMBER-TREATED	522.35	2150	CY	TOTAL		
														1	1		1		LS	STRUCTURAL GLUED LAMINATED TIMBER (FLOOR BEAMS)	522.40	2150	CY	FILL AVAILABLE		
														1	1		1		LS	STRUCTURAL GLUED LAMINATED TIMBER (LOWER BOTTOM CHORDS)	522.40	170	CY	FILL REQUIRED		
														1	1		1		LS	STRUCTURAL GLUED LAMINATED TIMBER (DECK PANELS)	522.40	1980	CY	WASTE		
		1															1		EACH	REMOVAL OF STRUCTURE	529.15					
														1	1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20					
											2	2			4		4		EACH	BEARING DEVICE ASSEMBLY (MOD. 1)	531.10					
											2	2			4		4		EACH	BEARING DEVICE ASSEMBLY (MOD. 2)	531.10					
				5													5		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25					
				10													10		CY	STONE FILL, TYPE I	613.10					
						75									75		75		CY	STONE FILL, TYPE III	613.12					
		296															296		LF	HVY DUTY STEEL BEAM GUARD RAIL	621.21					
		4															4		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60					
		235															235		LF	REMOVL AND DISP OF GUARD RAIL	621.80					
		1															1		EACH	RELOCATE WATER LINE - (MOD. 1)	629.80					
		1															1		EACH	RELOCATE WATER LINE - (MOD. 2)	629.80					
1																	1		LS	FIELD OFFICE-ENGINEERS	631.10					
PROJECT NAME: BRANDON PROJECT NUMBER: BHZ 1443 (22) FILE NAME: \87\137\Structures\137qty.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				

QUANTITY SHEET

PROJECT NAME: BRANDON	
PROJECT NUMBER: BHZ 1443 (22)	
FILE NAME: 187137Structure.s137qty.xls	PLOT DATE: 9/27/01
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
QUANTITY SHEET #2	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	REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1A	QUESNEL HOLSTEINS, INC.	9	82+21 RT. 82+31 RT. 83+00 RT. 83+26 RT. 82+47 LT. 82+45 LT. 82+55 LT. 82+90 LT.	82+88 RT. 84+10 RT. 83+65 RT. 83+63 RT. 82+87 LT. 83+08 LT.			INSTALL (T) 275 SF± DITCH & DRAINAGE (P) INSTALL (T) 175 SF± INSTALL (T) 475 SF± DRIVE (T) DRIVE (T) INSTALL (T) 350 SF±	WDOE	11-15-01	BRANDON	148	492-494	SILT FENCE EXISTING DETOUR DITCH WITH TEMPORARY HAY BALES FILTER CURTAIN SILT FENCE 14' WIDE GRAVEL 12' WIDE GRAVEL SILT FENCE	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. ELECTRONIC PLANS TO STRUCTURES	11-09-00 10-05-01	S. L. D.	R. P. D.
1B		9, 10	84+68 LT. 84+76 LT. 85+59 LT.	85+13 LT. 84+94 LT. 85+72 LT.			CONST. (T) 590 SF± CHANNEL (P) 40 SF± 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. 84+67 RT. 84+75 RT. 84+79 RT. 84+90 RT.	87+20 RT. 84+75 RT. 87+56 RT. 84+90 RT. 85+96 RT.			INSTALL (T) 185 SF± INSTALL (T) 1650 SF± CHANNEL (P) 130 SF± SLOPE (T) 370 SF±	WDOE	10-22-01	BRANDON	148	192-193	EXISTING DETOUR FILTER CURTAIN SILT FENCE						
4	BRANDON FIRE DISTRICT NO. 1	9											UTILITY WATER LINE						

ACCT.MRyan
\\vaot_cadd\flingcabine\87\J37\RightOfWay\J37cd.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

— — — — —

— — — — —

— — — — —

— — — — —

(P)

(T)

— — — — —

— — — — —

— — — — —

— — — — —

(P)

(T)

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINE
TAKING WITH ACCESS
PERMANENT EASEMENT
TEMPORARY EASEMENT

LEGEND

...CZ (P)...

---CONST. (T)---

SR

P

L

△

○

CLEAR ZONE
CONSTRUCTION EASEMENT
SLOPE RIGHTS
PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED: ROGER P. DUMAS

DATE: 1-26-00

AGENT D, PLANS & TITLES

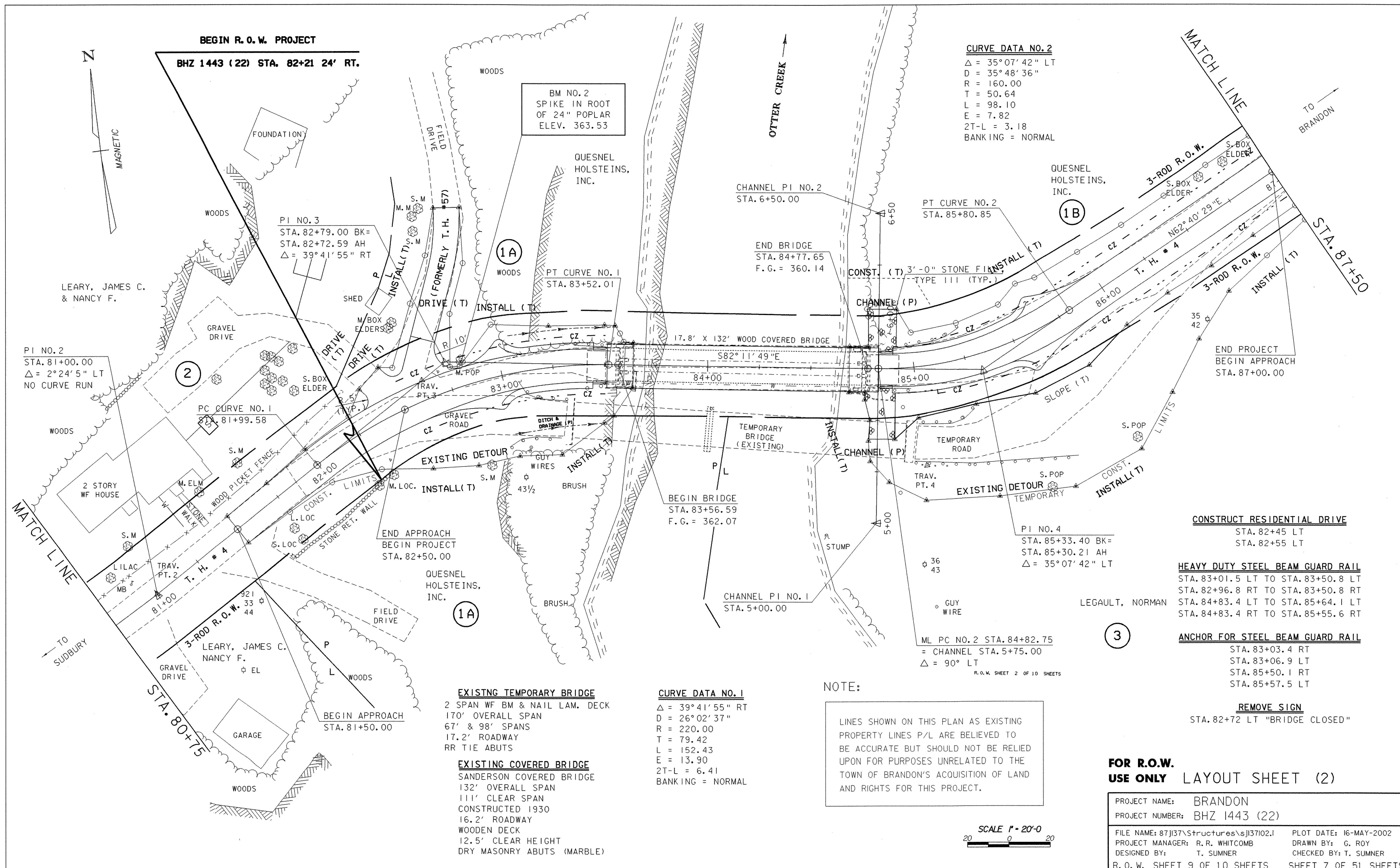
R. O. W. PLANS

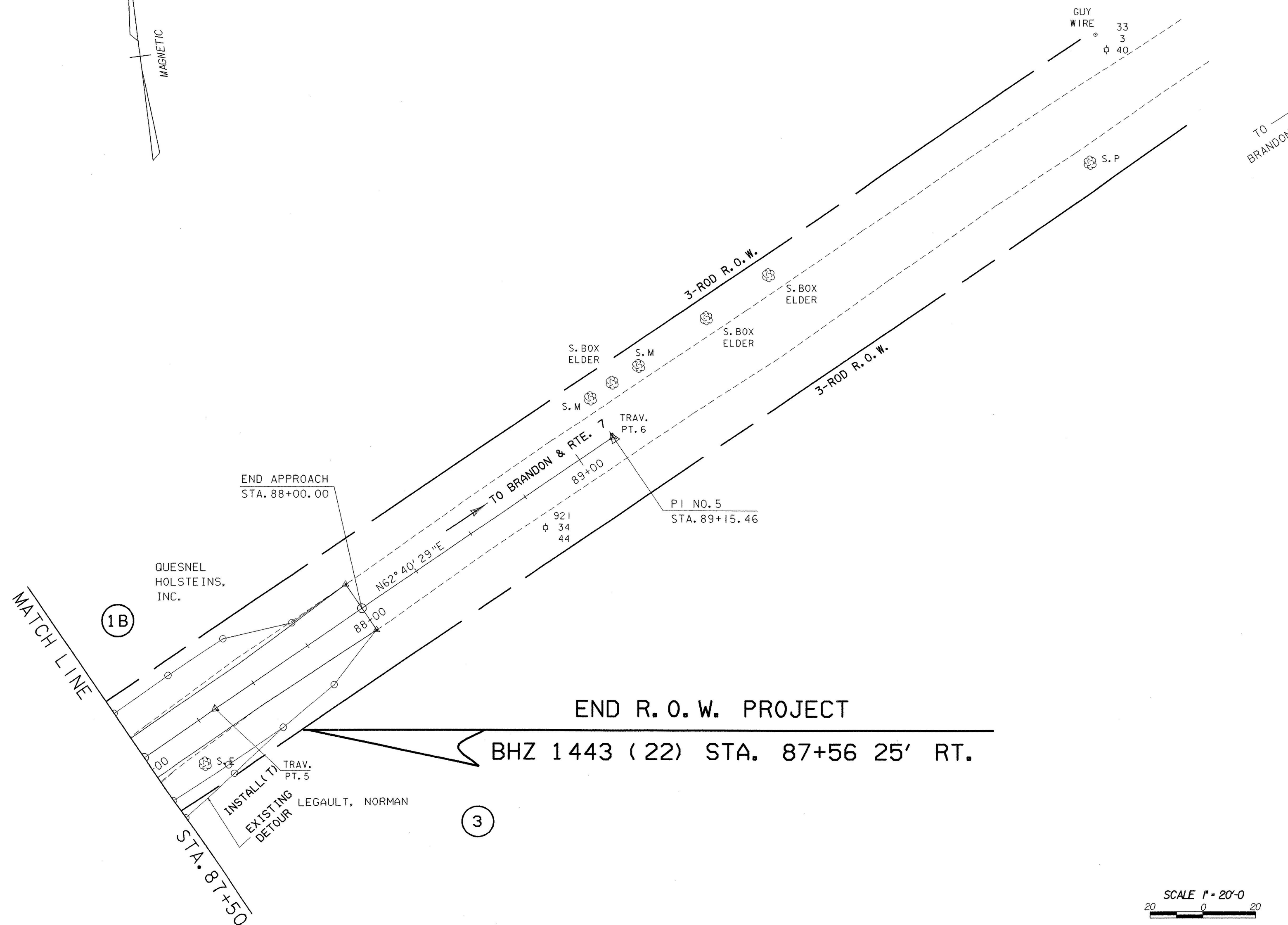
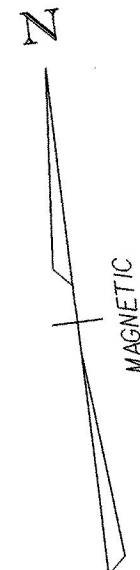
BRANDON

BHZ 1443 (22)

R. O. W. SHEET 8 OF 10 SHEETS

SHEET 6 OF 51





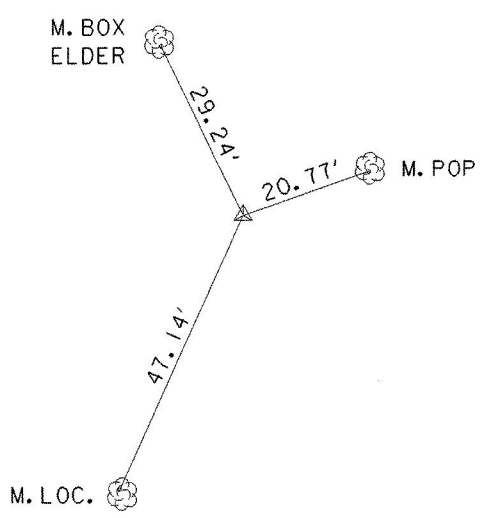
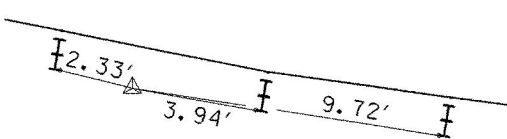
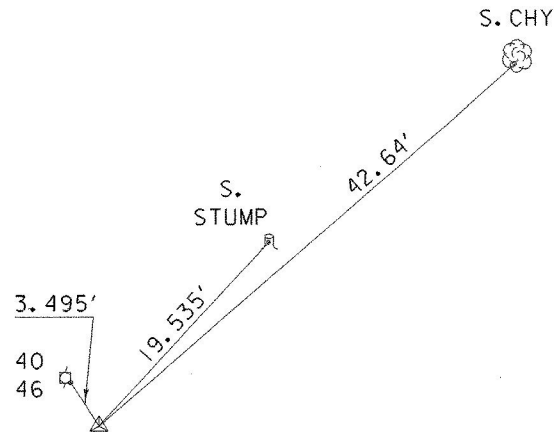
SCALE 1" = 20'-0"

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

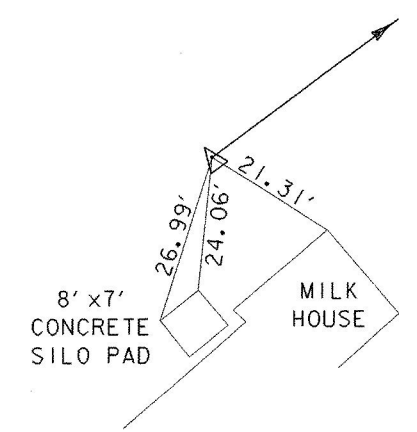
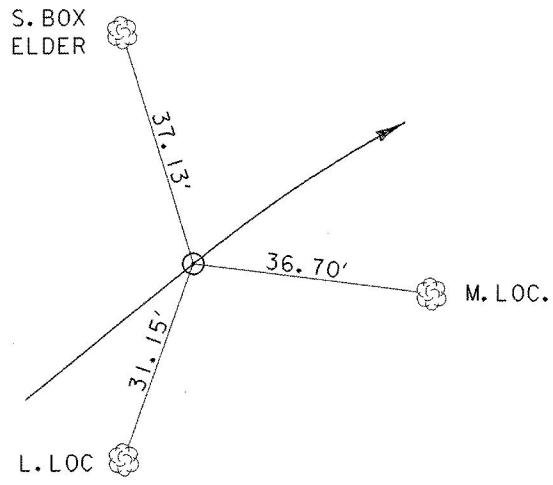
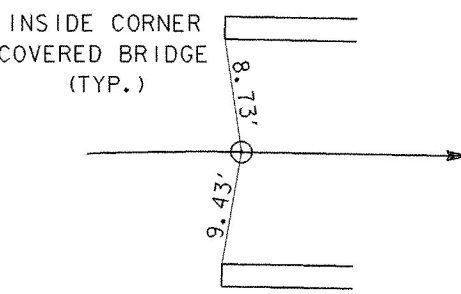
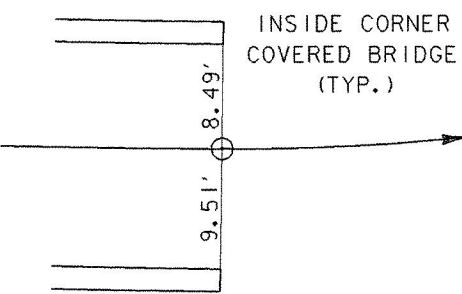
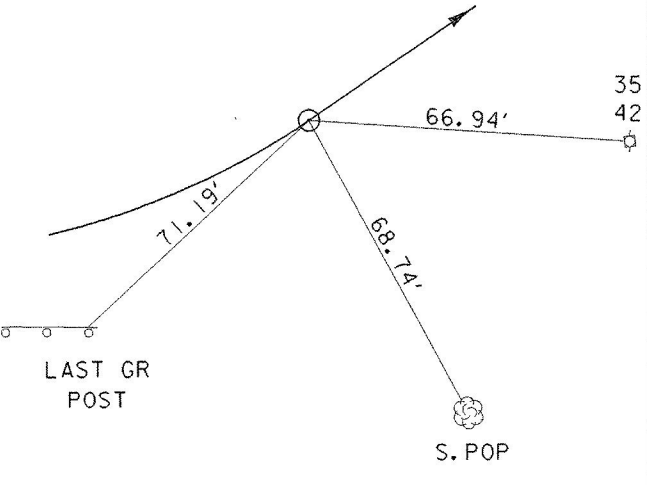
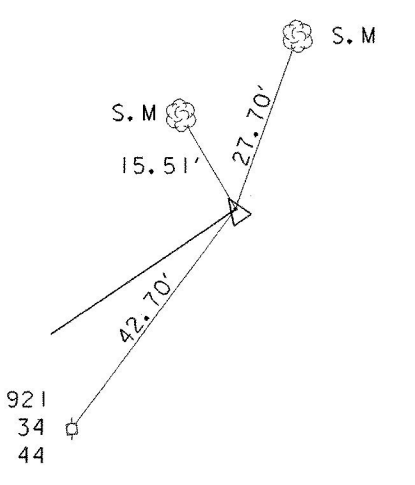
PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137103.I	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
R.O.W. SHEET 10 OF 10 SHEETS			SHEET 8 OF 51 SHEETS		

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
		

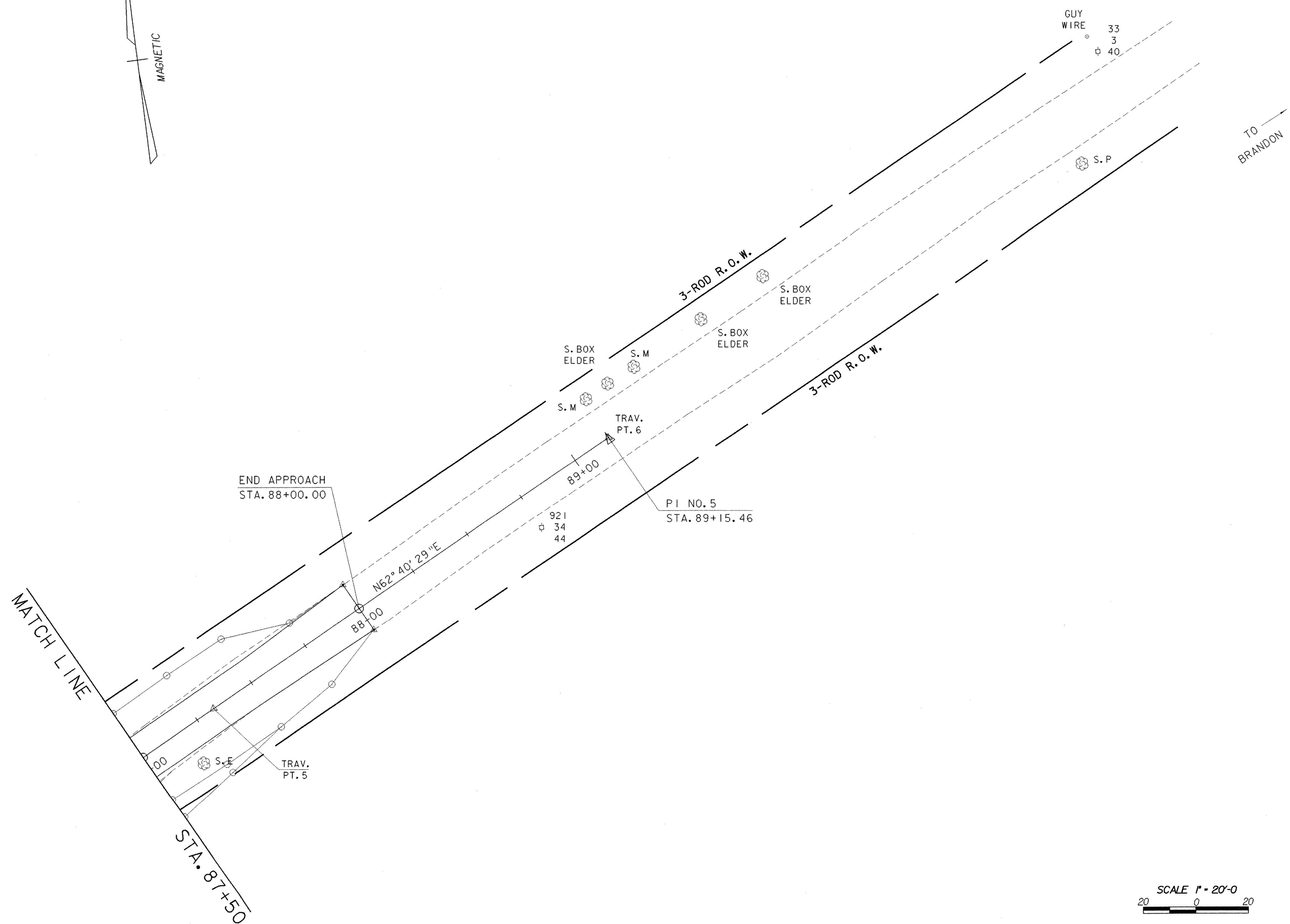
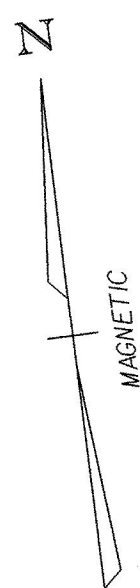
ALIGNMENT TIES

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

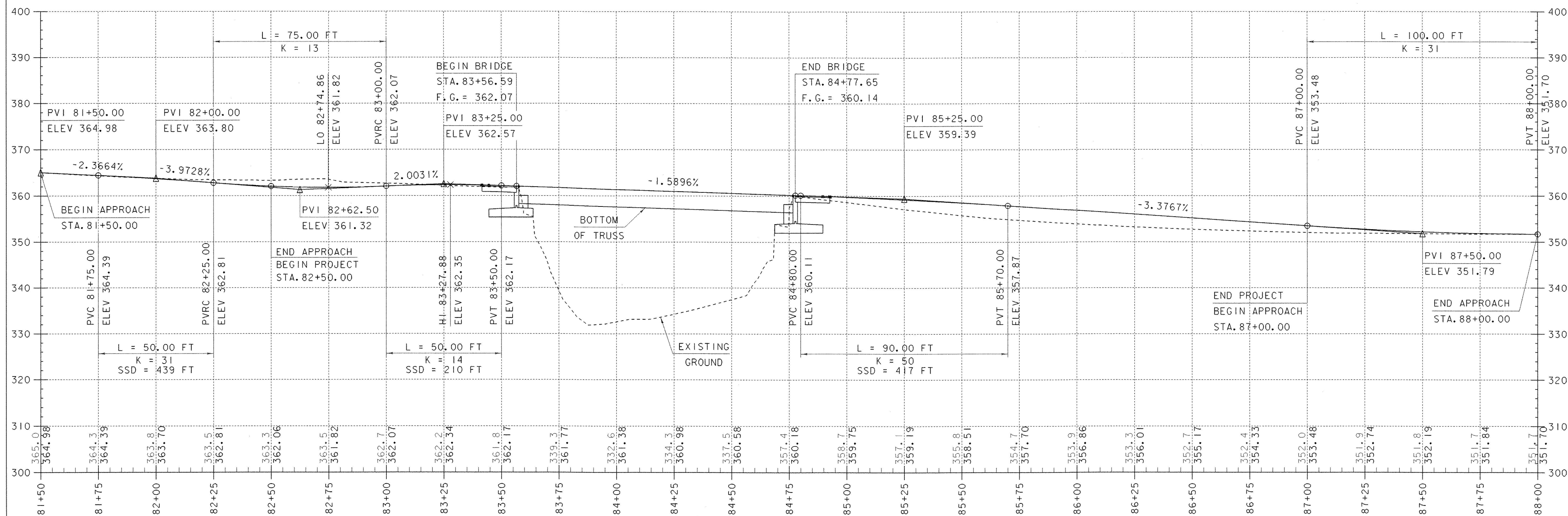
PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137tie.i	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	9 OF 51



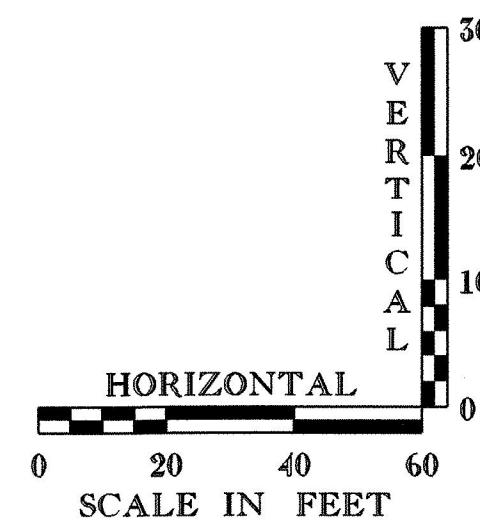
LAYOUT SHEET (3)

PROJECT NAME: BRANDON	
PROJECT NUMBER: BHZ 1443 (22)	
FILE NAME: 87J137\Structures\sj137103.1	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 Center Line

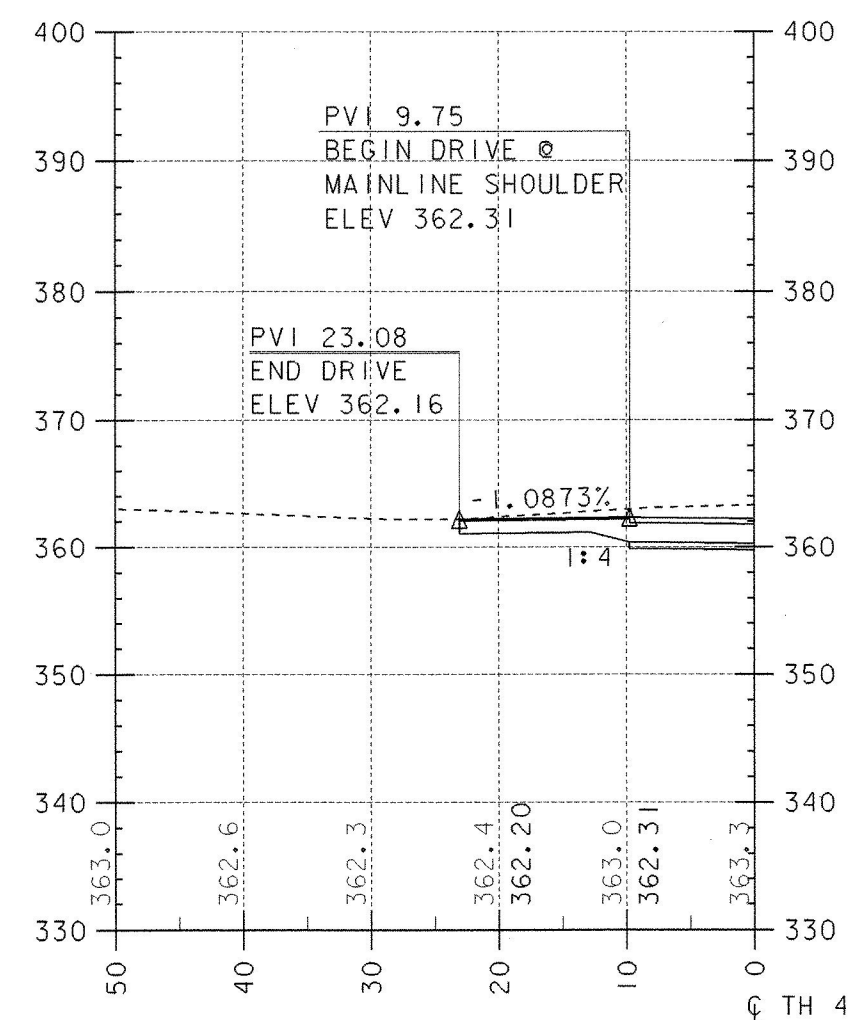


NOTE:
ELEVATIONS SHOWN TO THE NEAREST TENTHS
ARE EXISTING GROUND ALONG CENTERLINE.
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTHS
ARE FINISH GRADES ALONG CENTERLINE.

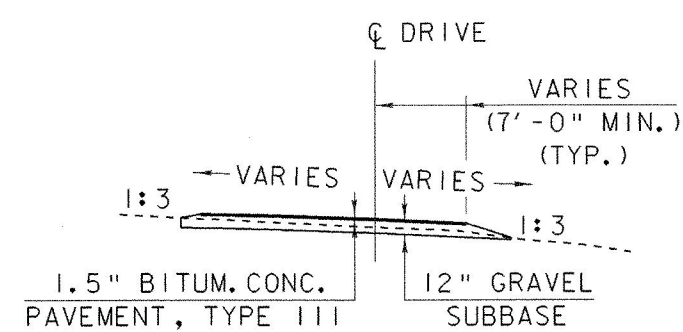


PROFILE SHEET

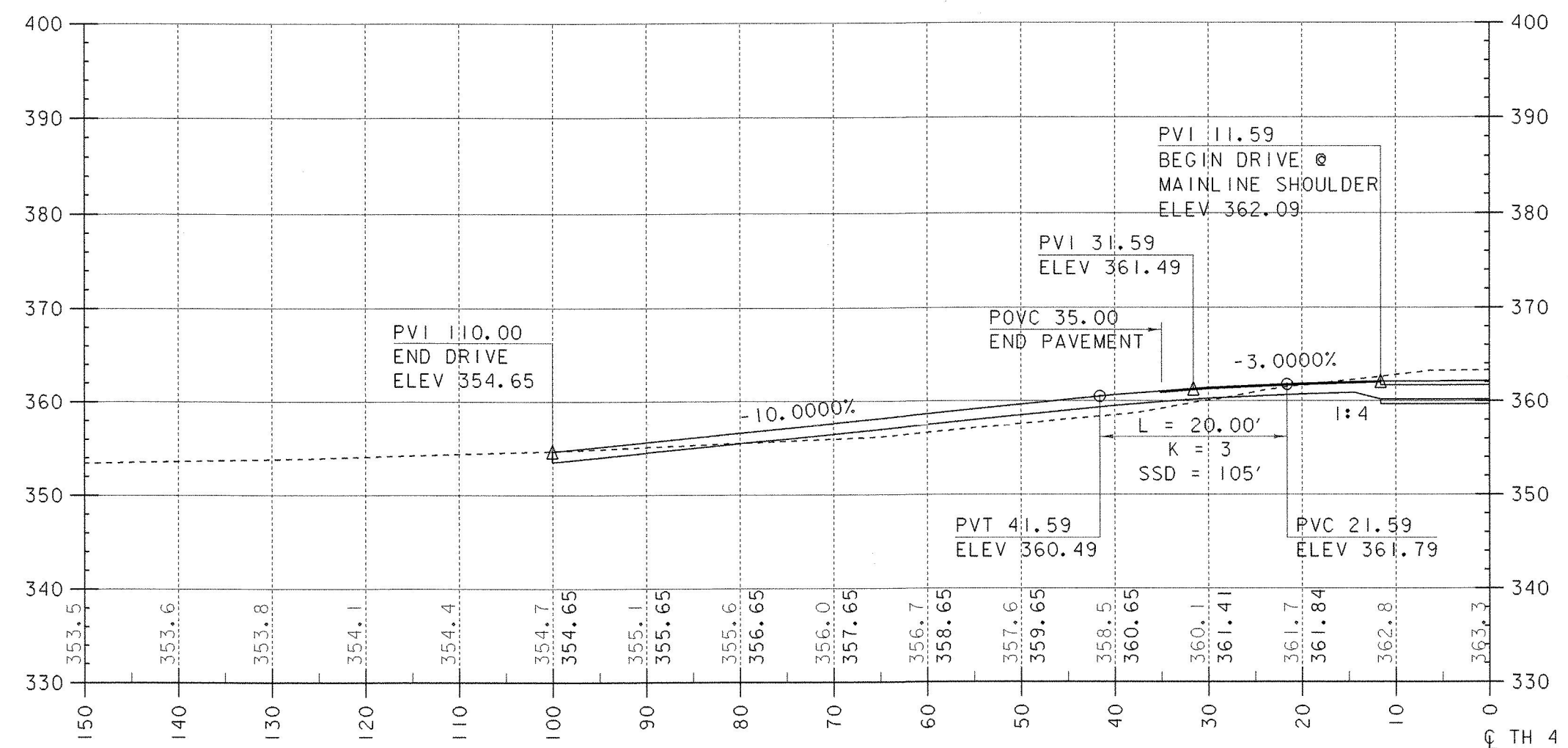
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PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	13 OF 51



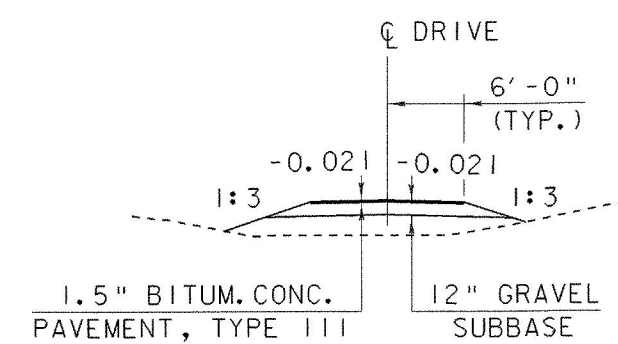
RESIDENTIAL DRIVE PROFILE
@ STA. 82+45 LT



RESIDENTIAL DRIVE SECTION
@ STA. 82+45 LT



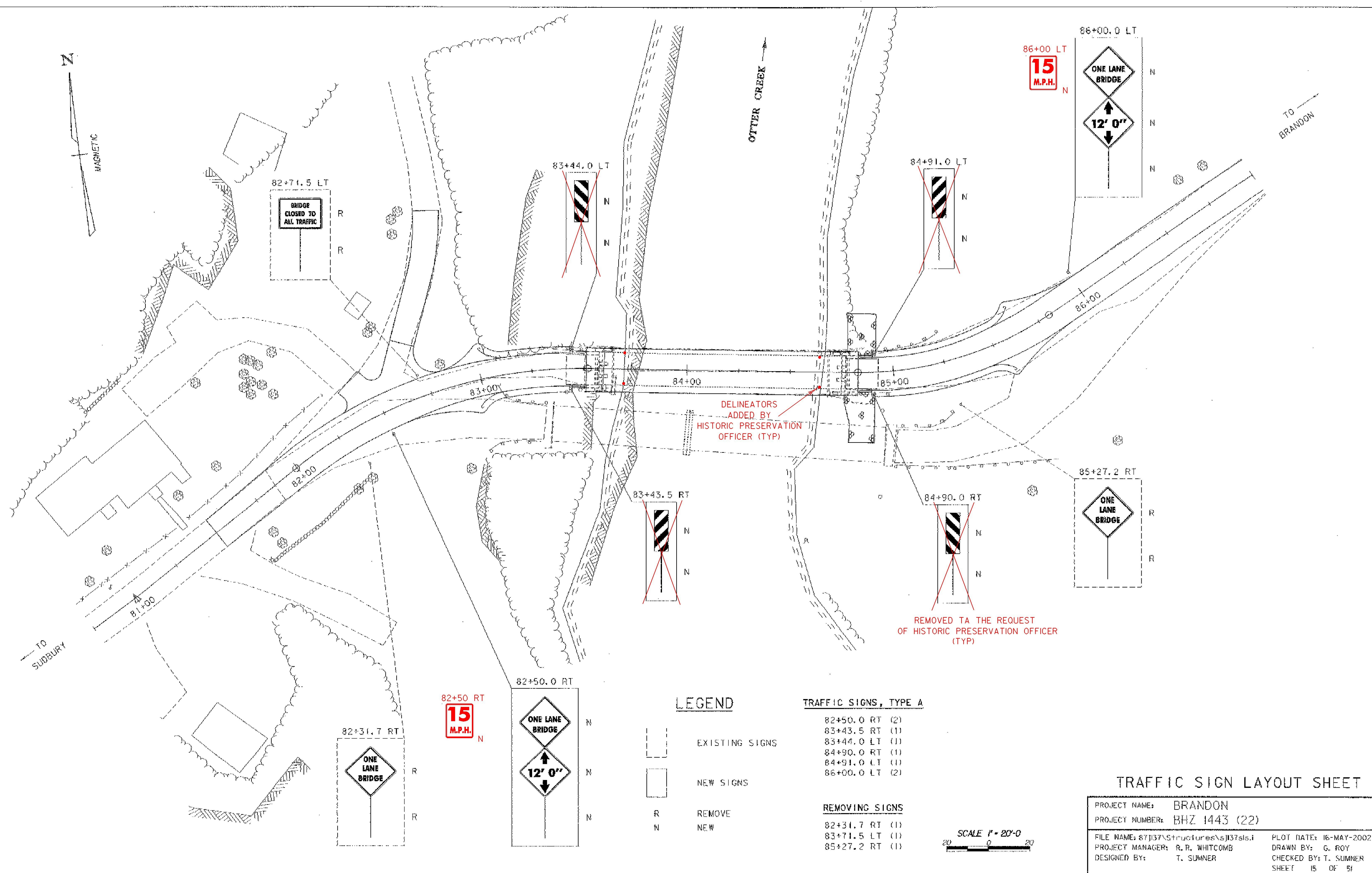
FIELD DRIVE PROFILE
@ STA. 82+55 LT



FIELD DRIVE SECTION
@ STA. 82+55 LT

DRIVE PROFILES & TYPICAL SECTIONS

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME:	87J37\Structures\sj37drv.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
- REMOVE
- 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

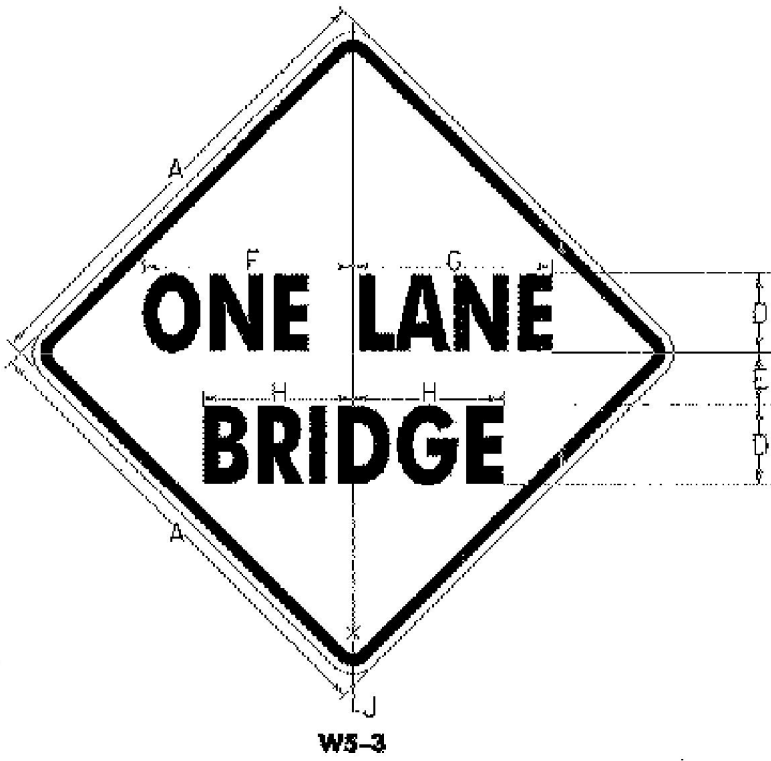
- 82+31.7 RT (1)
- 83+71.5 LT (1)
- 85+27.2 RT (1)

TRAFFIC SIGN LAYOUT SHEET

PROJECT NAME:	BRANDON	FILE NAME:	87137\Structures\J137sls.i	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	15 OF 51

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST REPLACE SALVAGE	NO. OF POSTS	NEW SIGN POSTS																	REMARKS	SIGN DETAIL				
					"A"	"B"	SALV SIGN	SALV TIS			FLANGED CHANNEL	SQUARE STEEL (in)				ANCHOR SLEEVE	TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL					DETAIL ON SHEET NUMBER	STD. SHEET NUMBER			
		E A	WIDTH (in)	HEIGHT (in)								L75	2.0	2.5	3.0		4.0	4.0 MOD	FOUND- ATION	3.0	3.5	4.0	5.0	FTG. SIZE		WEIGHT	POST SIZE						
																								b/f ft	b/f ft						b/f ft	24"	30"
OPTION ITEMS																																	
82+50.0 RT		I	36 18	36 18	9.00 2.25						I			X														W5-3	16	---			
		I	36	36	9.00																								W12-2	---	E-155		
83+43.5 RT		I	12	36	3.00						I			X															QM-3R	---	E-120		
83+44.0 LT		I	12	36	3.00						I			X															QM-3L	---	E-120		
84+90.0 RT		I	12	36	3.00						I			X															QM-3L	---	E-120		
84+91.0 LT		I	12	36	3.00						I			X															QM-3R	---	E-120		
86+00.0 LT		I	36 18	36 18	9.00 2.25						I			X															W5-3	16	---		
		I	36	36	9.00																									W12-2	---	E-155	



SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	30	1/2	3/4	5C	3/4	13 3/8	12 3/4	9 1/8	1 1/8
STD.	36	5/8	7/8	6C	4	16	15 1/4	11 1/2	2 1/4
SPECIAL	48	3/4	1 1/4	8C	5	21 1/4	20 1/4	15 3/8	3

COLORS
LEGEND - BLACK (NON-REFL.)
BACKGROUND - 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."

TOTALS

SF

SF

EA

SF

FT

FT

FT

FT

FT

EA

LB

LB

LB

LB

EA

LB

EA

EA

LB

PROJECT NAME: BRANDON

PROJECT NUMBER: BHZ 1443 (22)

FILE NAME: 87337\Structures\87337s.d

PROJECT MANAGER: R. R. WHITCOMB

DESIGNED BY: T. SUMNER

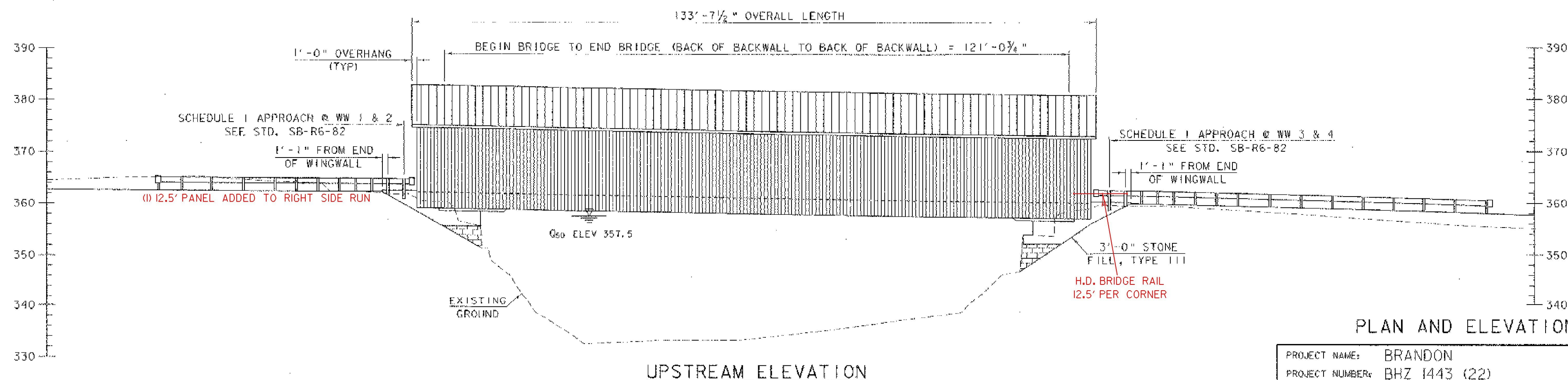
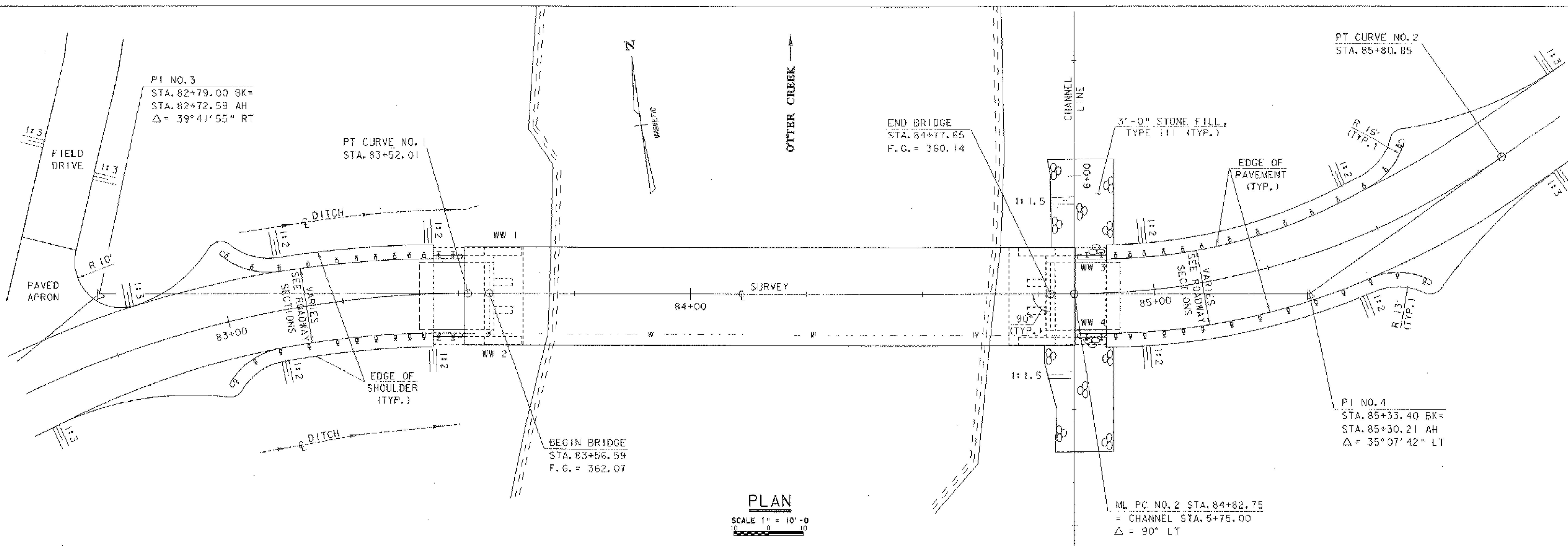
TRAFFIC SIGN SUMMARY SHEET

PLOT DATE: 16-MAY-2002

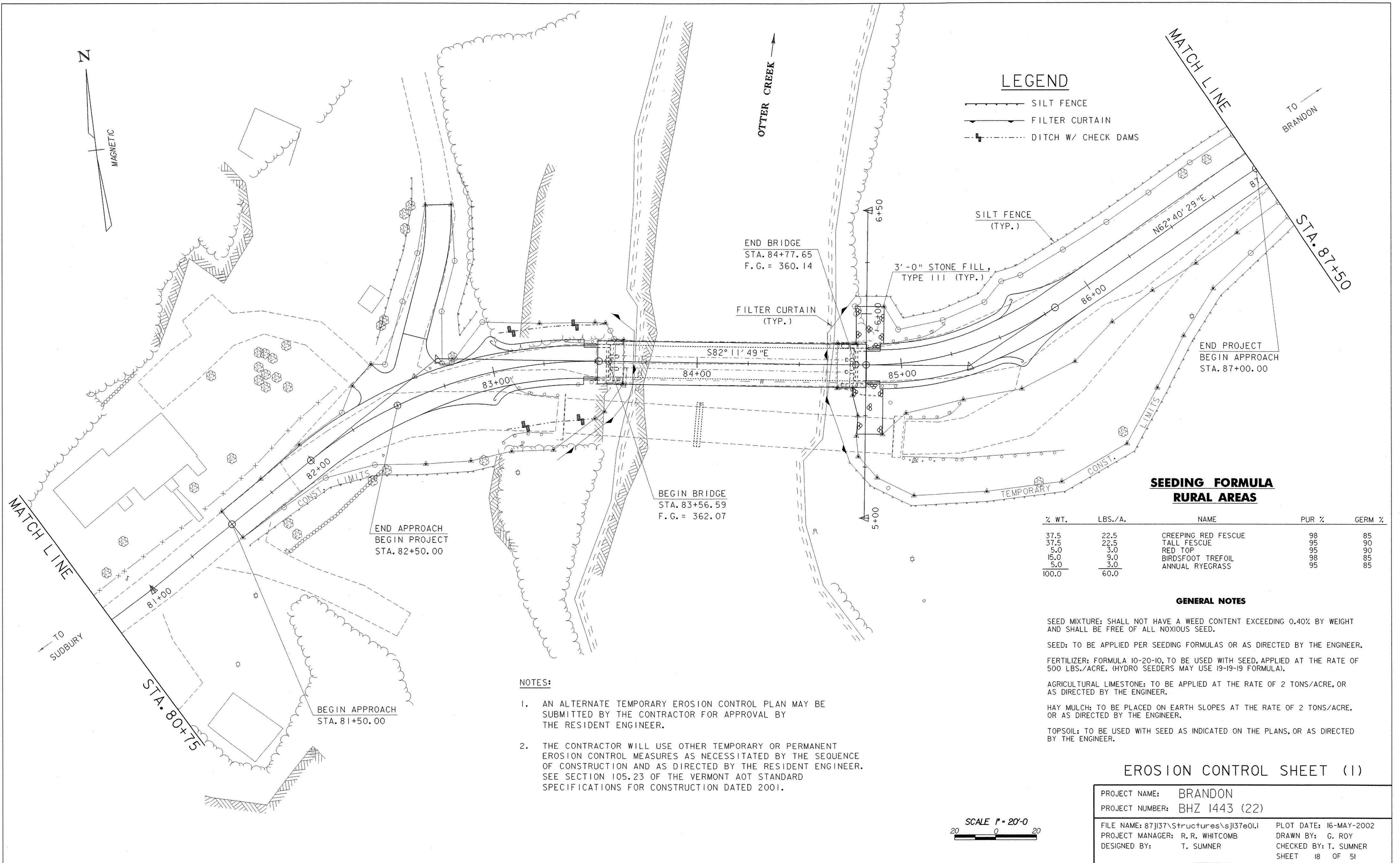
DRAWN BY: G. ROY

CHECKED BY: T. SUMNER

SHEET 16 OF 51



PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87137\Structures\87137pe.d	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	17 OF 51
DESIGNED BY:	T. SUMNER		



LEGEND

- SILT FENCE
- FILTER CURTAIN
- DITCH W/ CHECK DAMS

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

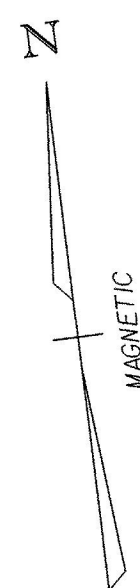
- SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
- FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 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	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137e0Li	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	18 OF 51
DESIGNED BY:	T. SUMNER		

- NOTES:
- AN ALTERNATE TEMPORARY EROSION CONTROL PLAN MAY BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE RESIDENT ENGINEER.
 - 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"



MATCH LINE

STA. 87+50

END APPROACH
STA. 88+00.00

SILT FENCE
(TYP.)

N62° 40' 29" E

89+00

TO
BRANDON

SCALE 1" = 20'-0"

EROSION CONTROL SHEET (2)

PROJECT NAME: BRANDON	
PROJECT NUMBER: BHZ 1443 (22)	
FILE NAME: 87J137\Structures\sj137e02.1	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 PROTECTIVE 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 LIALE 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 ⅙ 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.

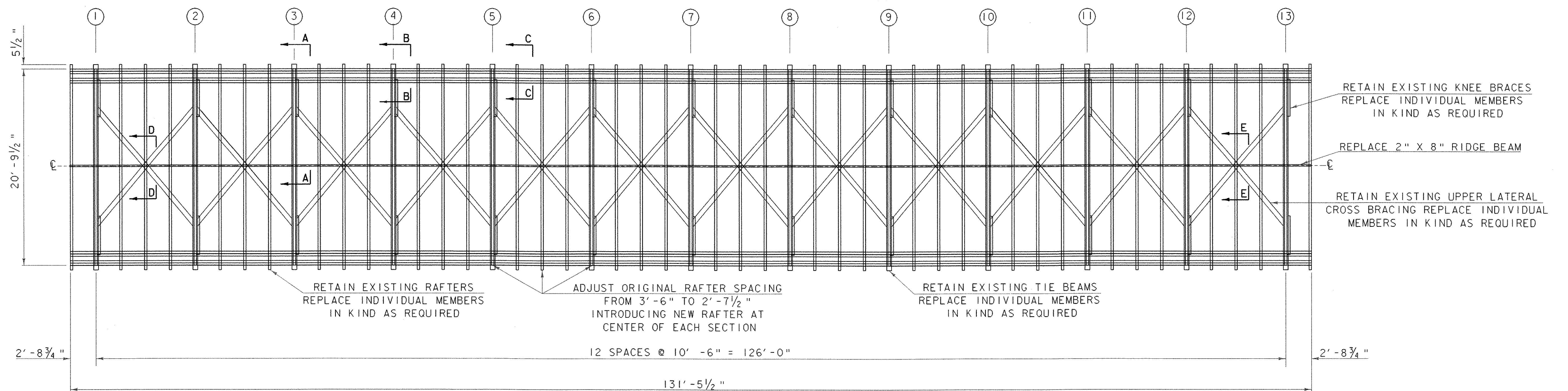
CONCRETE AND REINFORCING STEEL

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"

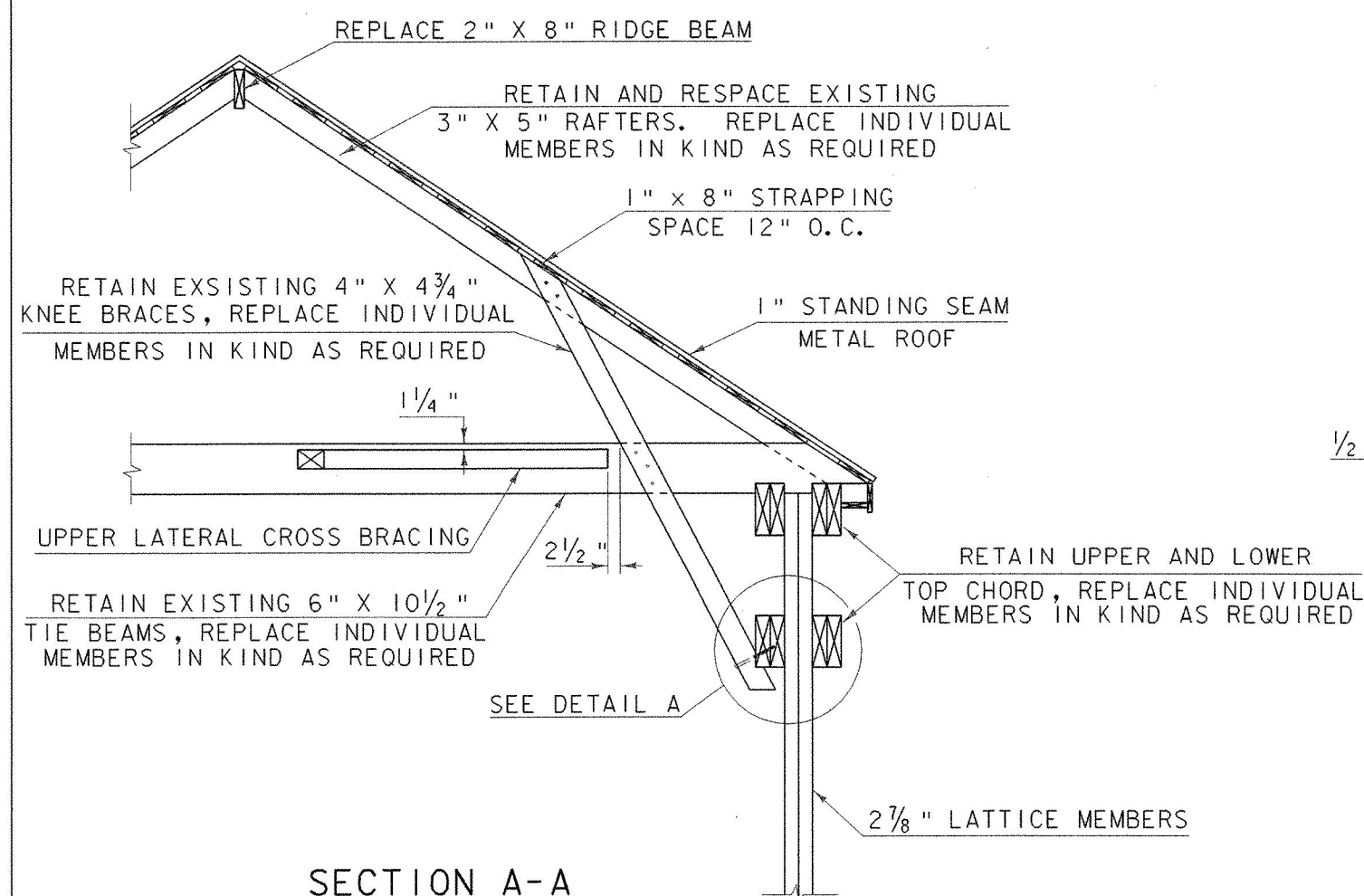
PROJECT NOTES

PROJECT NAME: BRANDON	
PROJECT NUMBER: BHZ I443 (22)	
FILE NAME: 87J37\Structures\sj37pn.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



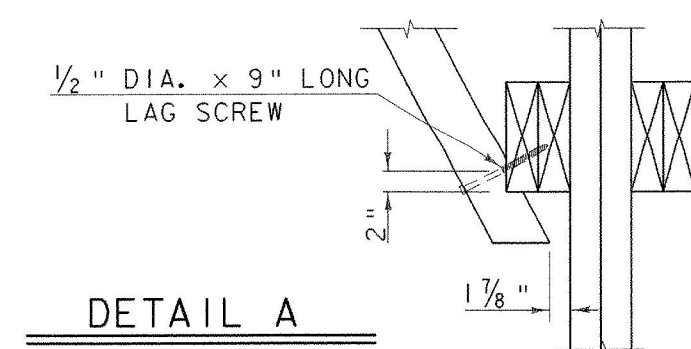
ROOF FRAMING PLAN

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



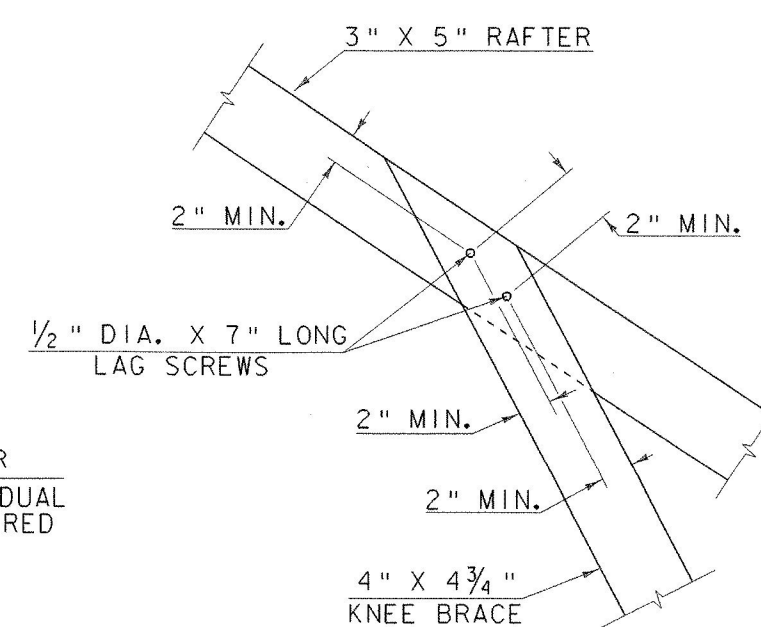
SECTION A-A

SCALE: 1/2" = 1'-0"



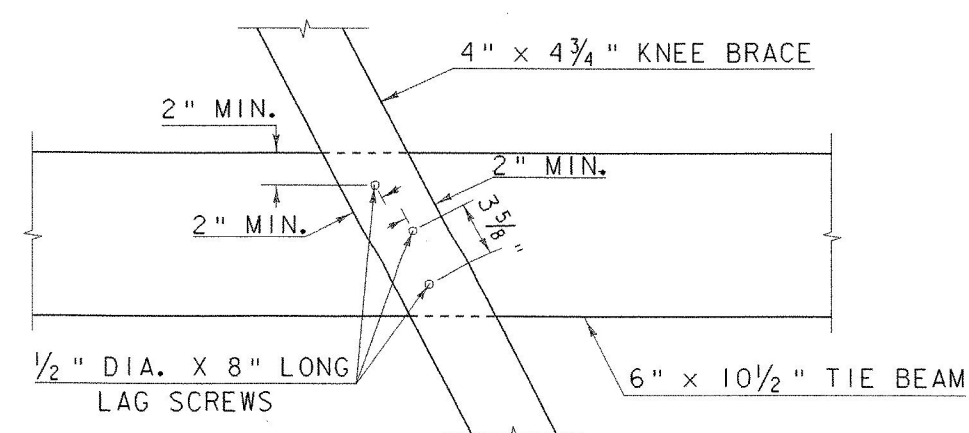
DETAIL A

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



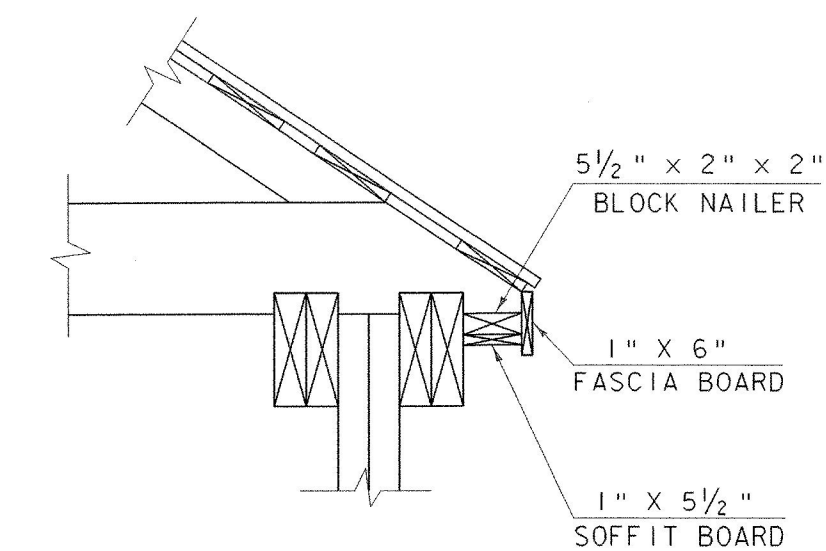
KNEE BRACE TO RAFTER CONNECTION

SCALE: 1 1/2" = 1'-0"



KNEE BRACE TO TIE BEAM CONNECTION

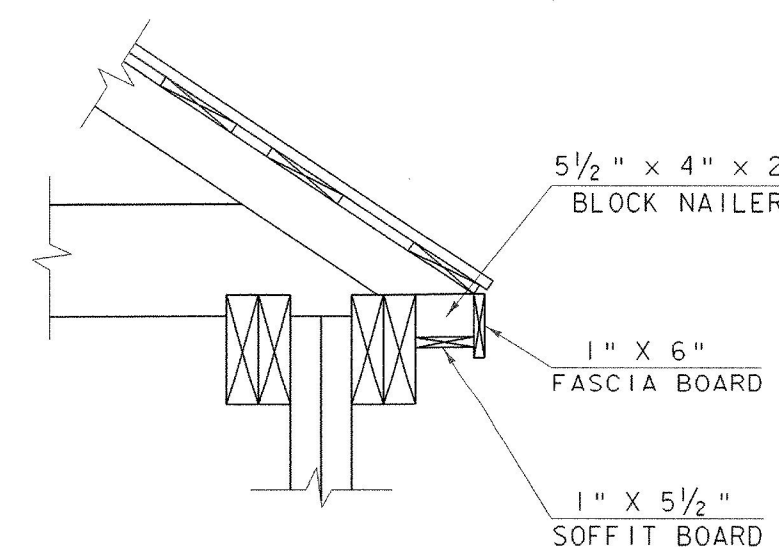
SCALE: 1 1/2" = 1'-0"



SECTION B-B

CONNECTION AT CROSS TIE BEAM

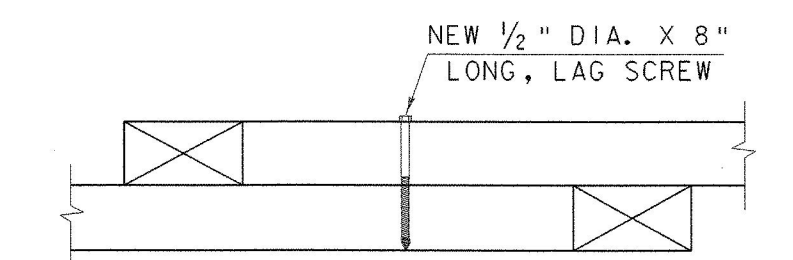
SCALE: 1" = 1'-0"



SECTION C-C

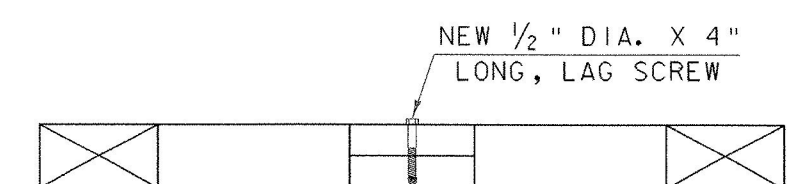
CONNECTION AT INTERMEDIATE RAFTER

SCALE: 1" = 1'-0"



SECTION D-D

SCALE: 1 1/2" = 1'-0"



SECTION E-E

SCALE: 1 1/2" = 1'-0"

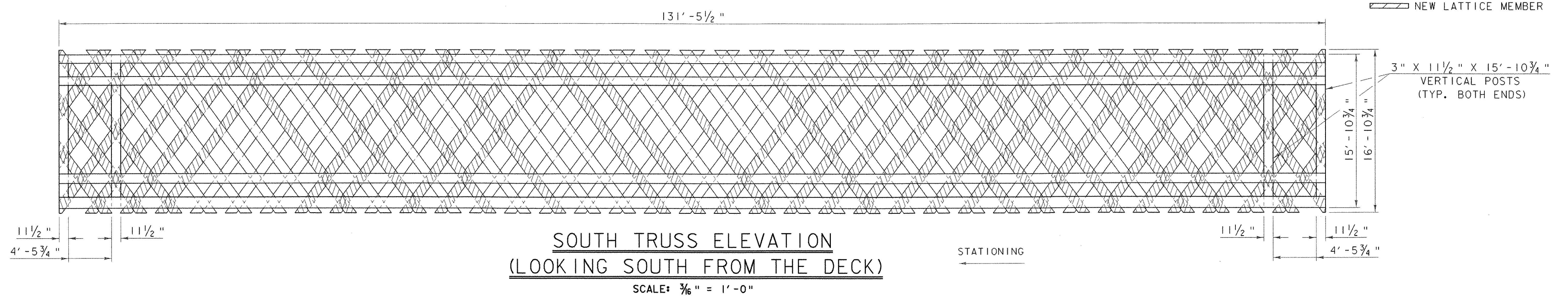
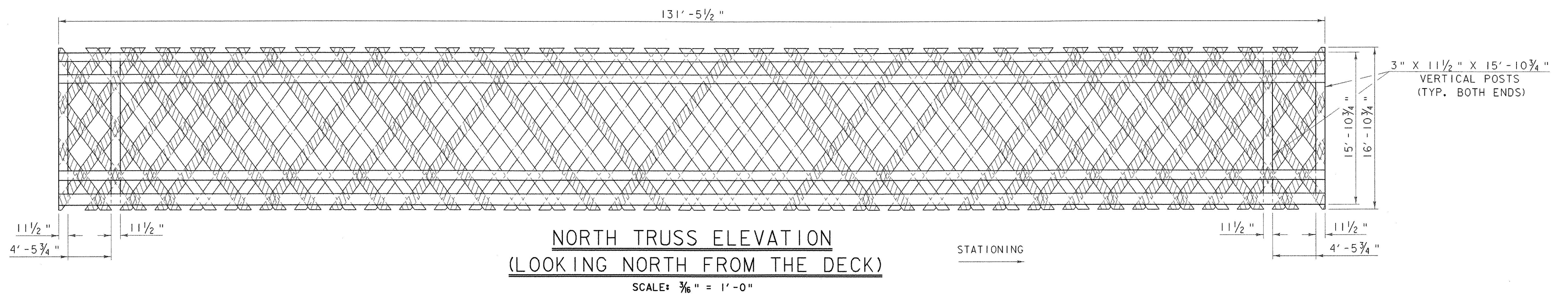
NOTES:

1. UNNOTCHED CONNECTION IN SECTION D-D ALTERNATES BY BAY WITH NOTCHED CONNECTION SHOWN IN SECTION E-E
2. RETAIN EXISTING 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: 87j37\Structures\sj37rfp.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

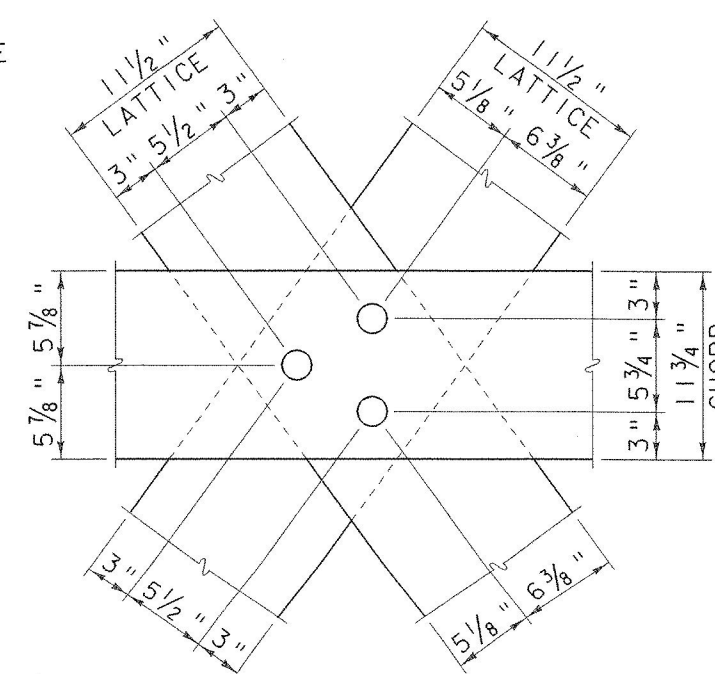


LEGEND

NEW LATTICE MEMBER

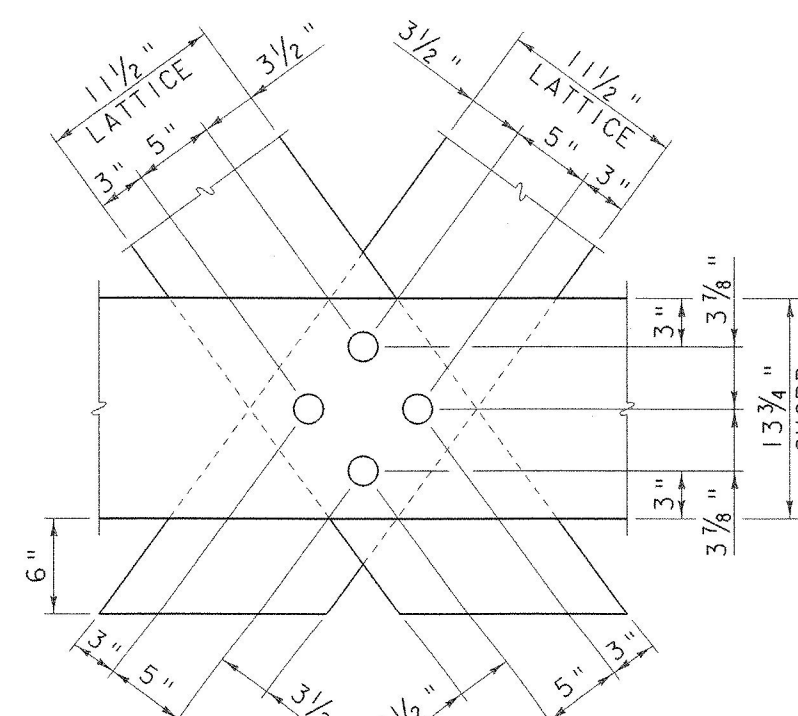
FOR ESTIMATING PURPOSES, THE FOLLOWING MEMBERS WERE INCLUDED IN THE ESTIMATED LUMBER QUANTITIES:

- 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



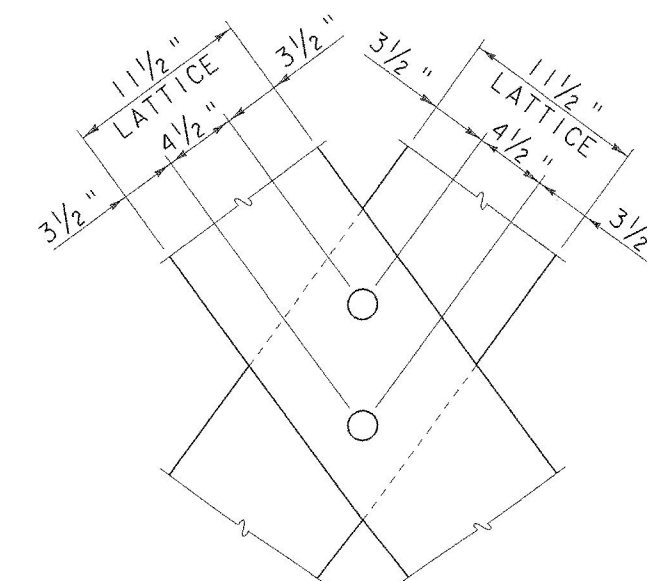
UPPER BOTTOM CHORD
3 TRUNNEL CONNECTION

SCALE: 1 1/2" = 1'-0"



LOWER BOTTOM CHORD
4 TRUNNEL CONNECTION

SCALE: 1 1/2" = 1'-0"



LATTICE
2 TRUNNEL CONNECTION

SCALE: 1 1/2" = 1'-0"

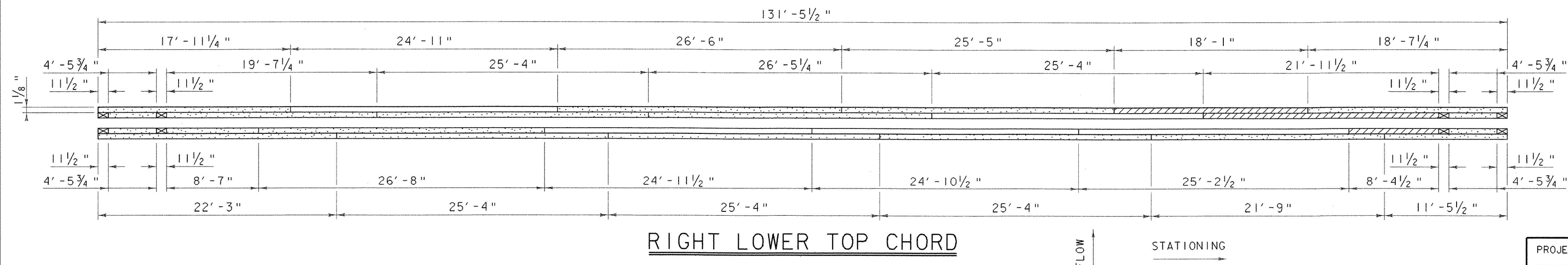
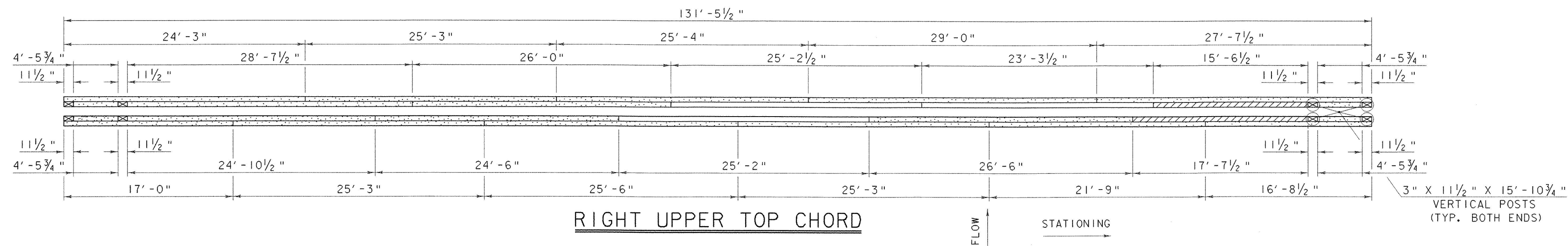
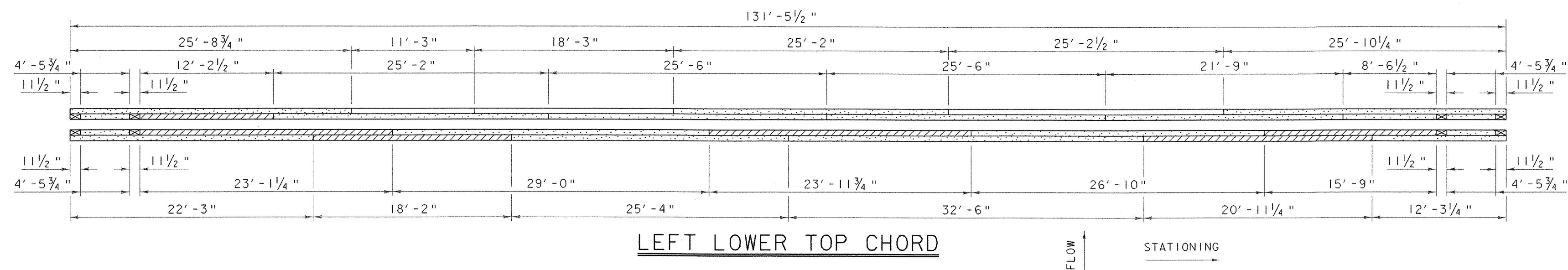
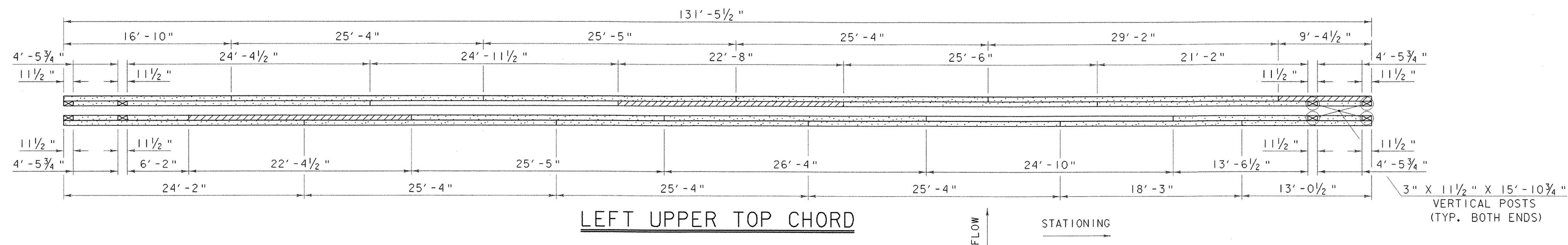
NOTES FOR NEW TRUNNEL CONNECTIONS:

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 = 3 1/2".
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: 87137\Structures\sj137ite.l 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



LEGEND

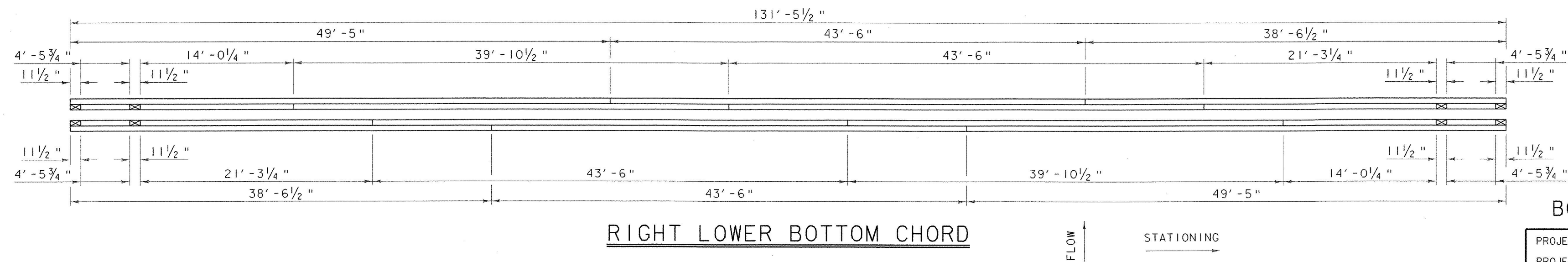
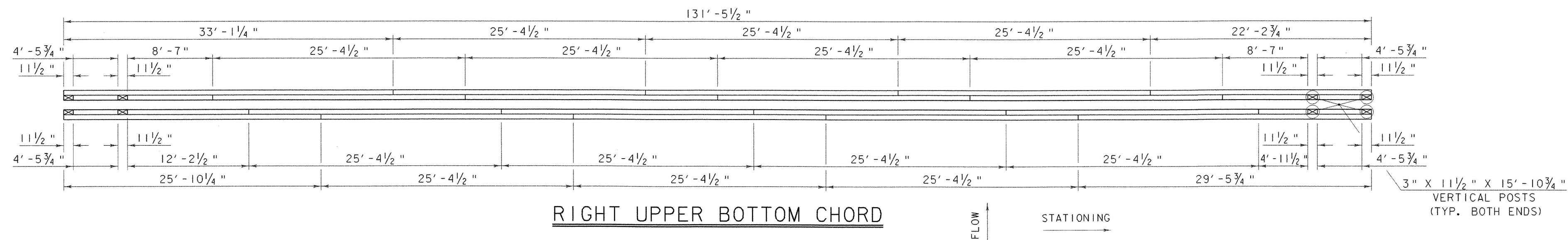
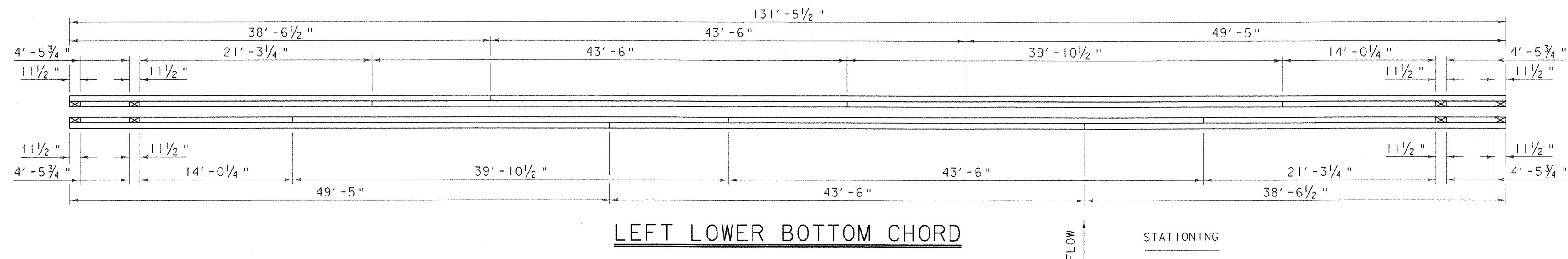
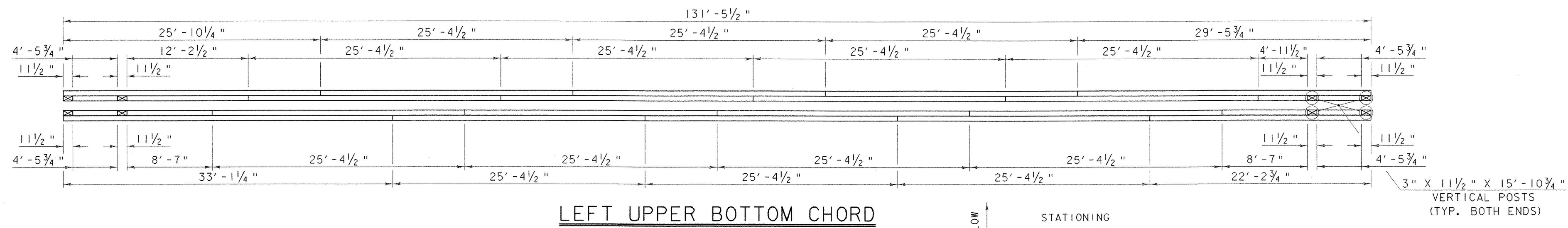
- EXISTING MEMBER NOT CUT
- EXISTING MEMBER CUT TO LENGTH
- NEW MEMBER

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

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

TOP CHORD SPLICE DETAILS

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137tcs.I	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R.R. WHITCOMB	SHEET	23 OF 51
DESIGNED BY:	T. SUMNER		

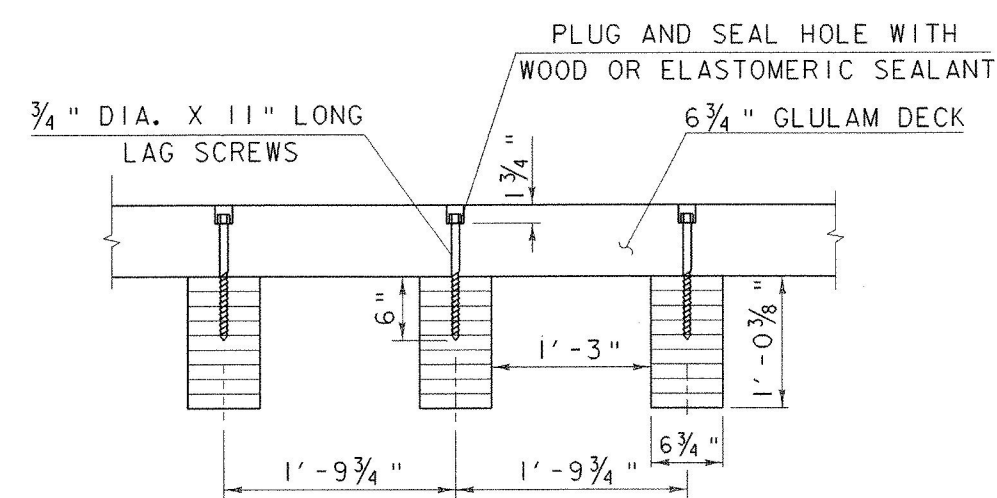
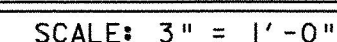
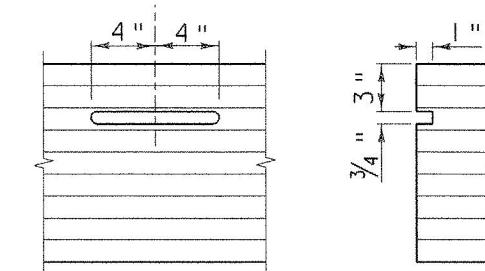
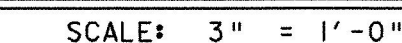
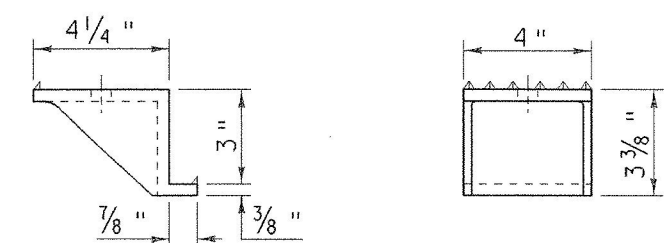
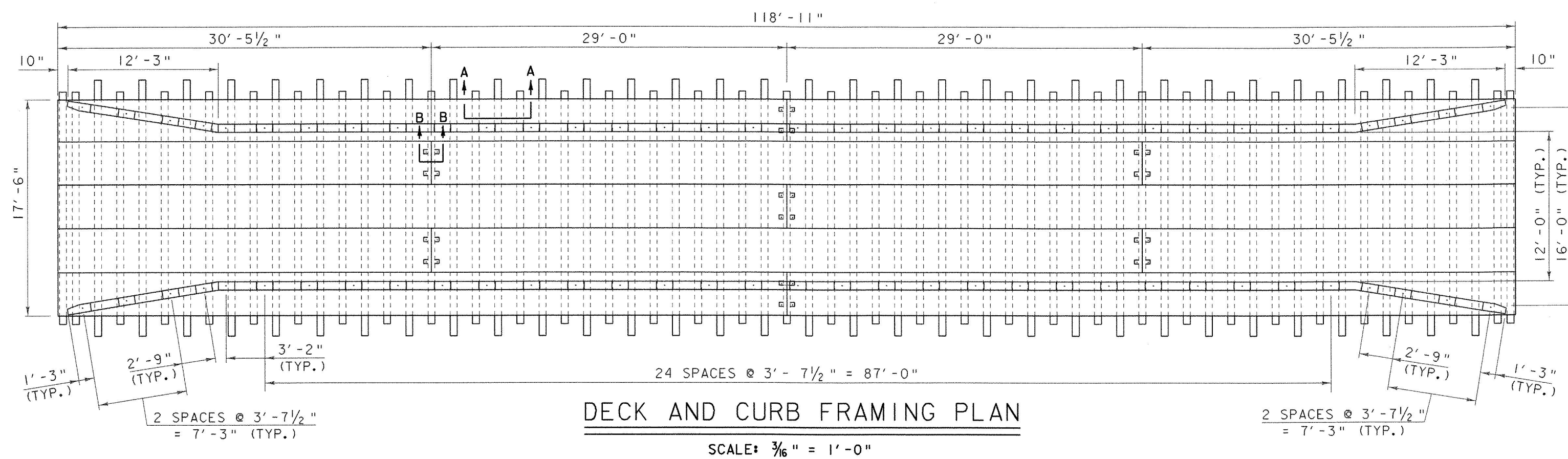


NOTE: ALL BOTTOM CHORD MEMBERS ARE NEW MATERIAL.

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

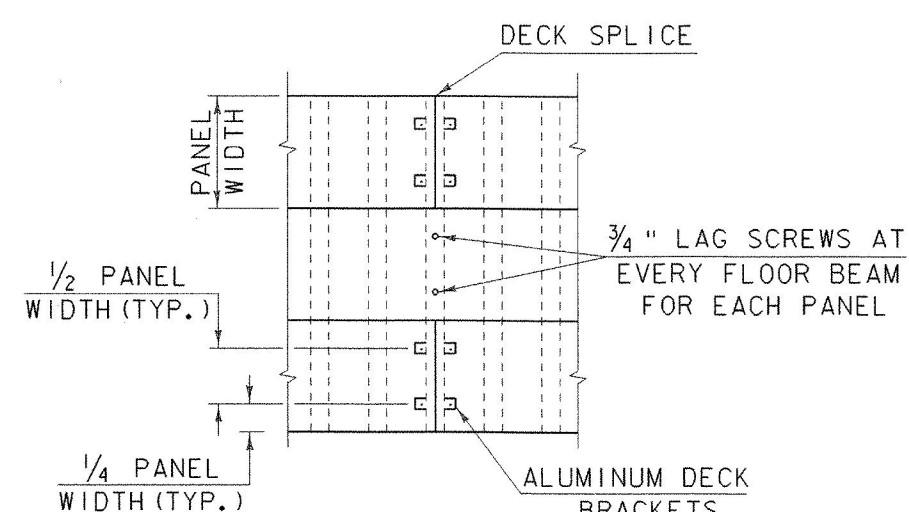
BOTTOM CHORD SPLICE DETAILS

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137bcs.1	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	24 OF 51
DESIGNED BY:	T. SUMNER		



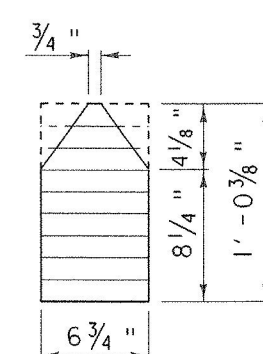
SECTION A-A

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



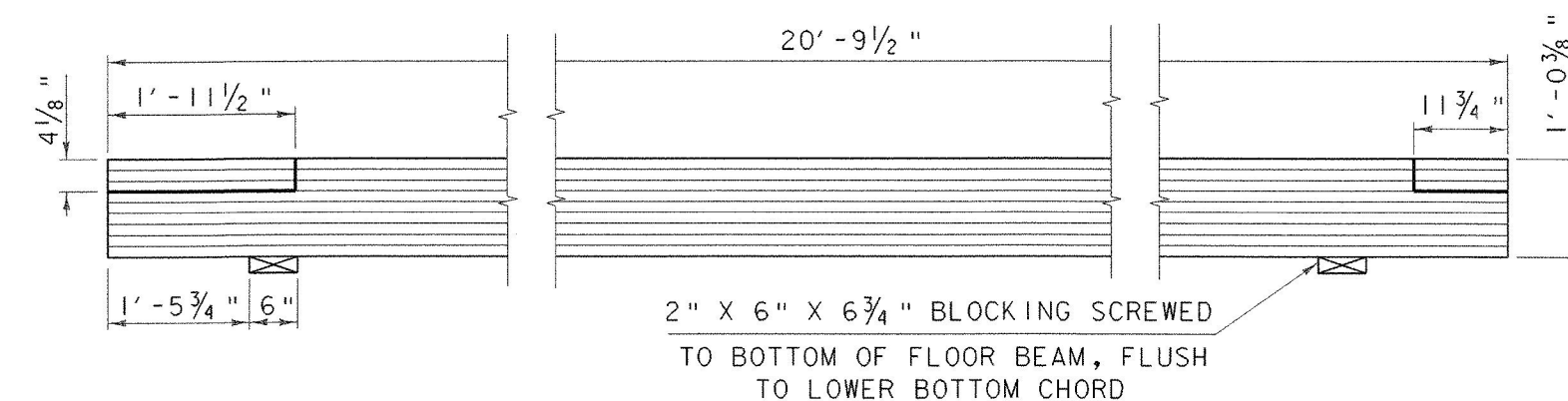
DECK PANEL SPLICE DETAIL

SCALE: $\frac{1}{4}$ " = 1'-0"



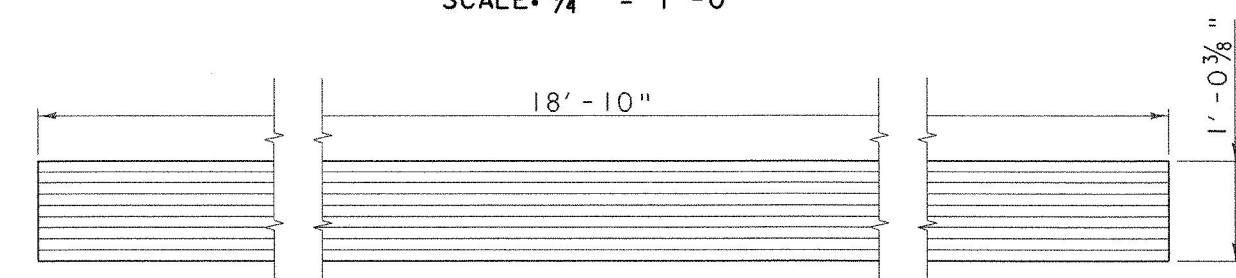
NOTCHED FLOOR BEAM

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



NOTCHED FLOOR BEAM

(32 REQUIRED)
SCALE: $\frac{3}{4}$ " = 1'-0"

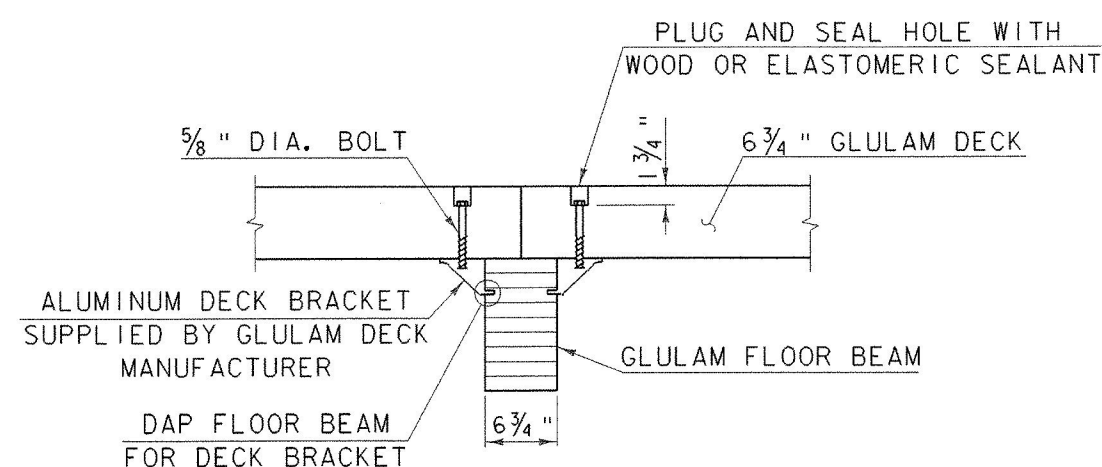


UNNOTCHED FLOOR BEAM

(35 REQUIRED)
SCALE: $\frac{3}{4}" = 1' - 0"$

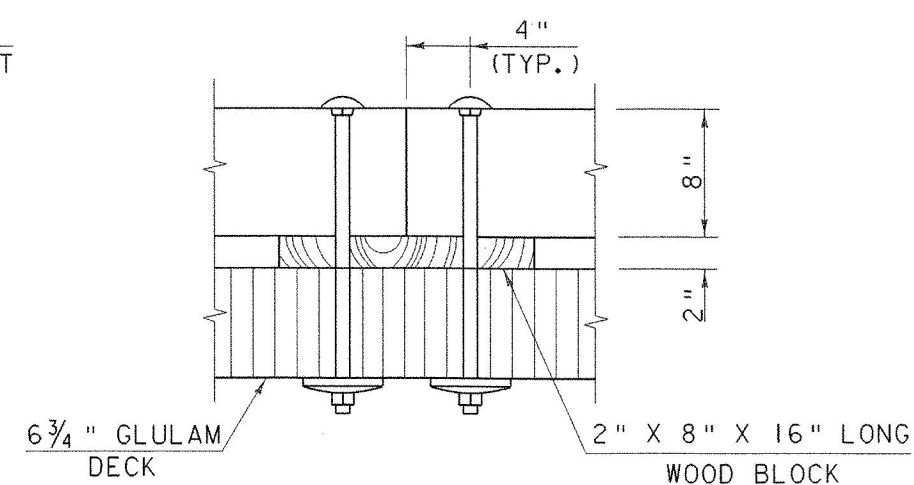
NOTE:

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



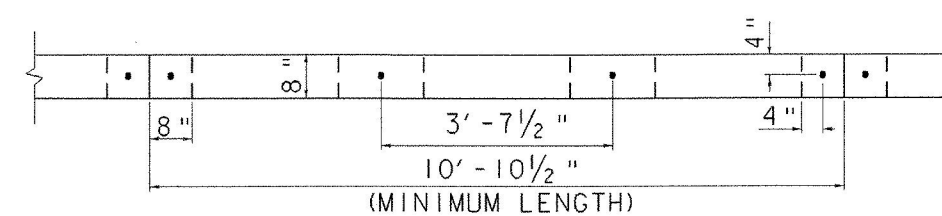
SECTION B-B

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



CURB SPLICE

SCALE: $1\frac{1}{2}'' = 1' - 0''$



CURB SPLICE PLAN DETAIL

SCALE: $\frac{1}{2}$ " = 1' - 0"

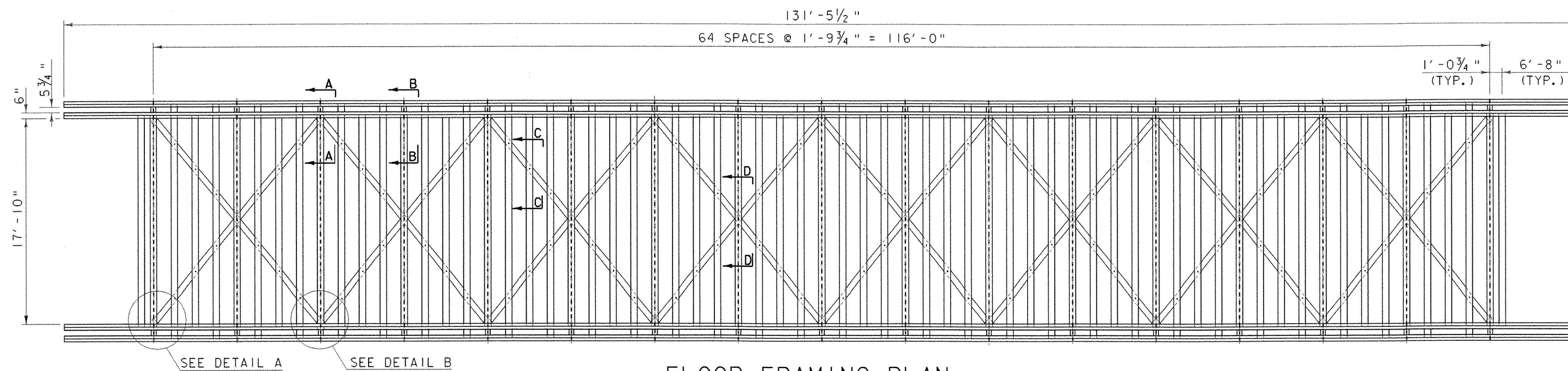
NOTE:

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

DECK FRAMING PLAN

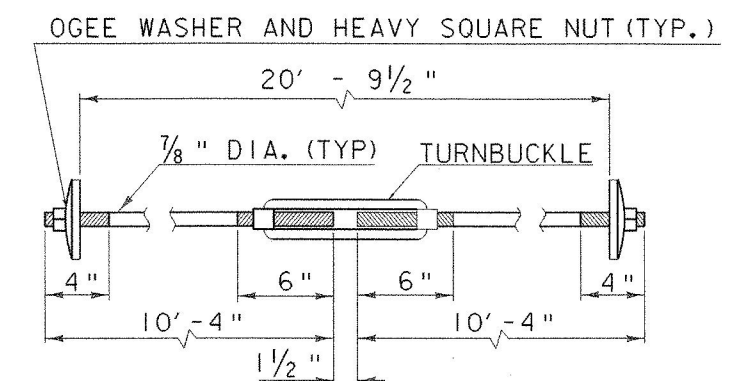
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)

FILE NAME: 87j137\structures\sj37dftp.i	PLOT DATE: 16-MAY-2002
PROJECT MANAGER: R.R. WHITCOMB	DRAWN BY: B. MAURICE
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
	SHEET 25 OF 51



FLOOR FRAMING PLAN

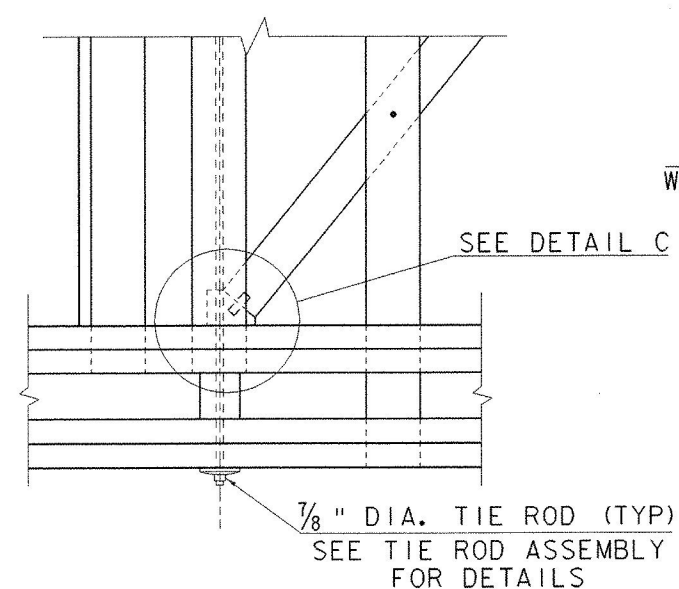
SCALE: $\frac{3}{16}$ " = 1'-0"



TIE ROD ASSEMBLY

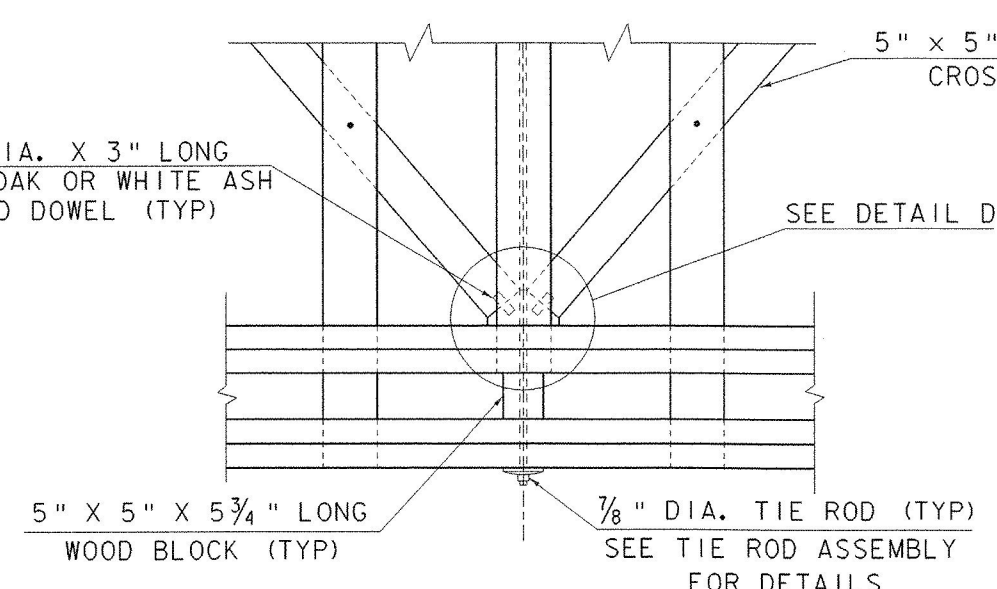
(GALVANIZED) (17 REQUIRED)

SCALE: $1\frac{1}{2}$ " = 1'-0"



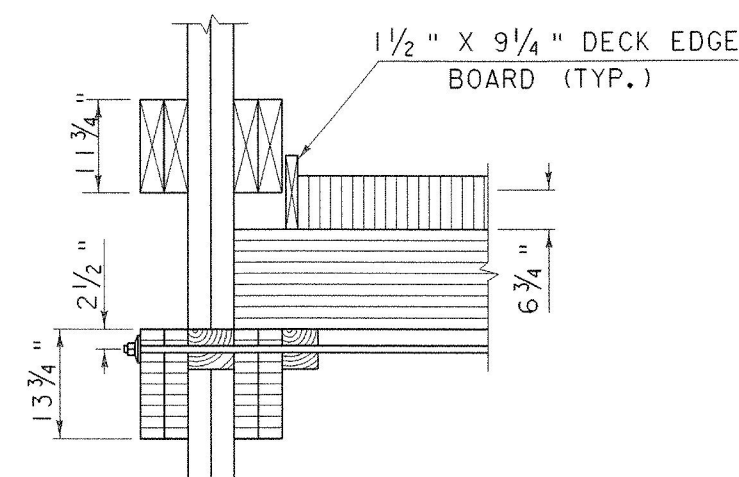
DETAIL A

SCALE: $\frac{3}{4}$ " = 1'-0"



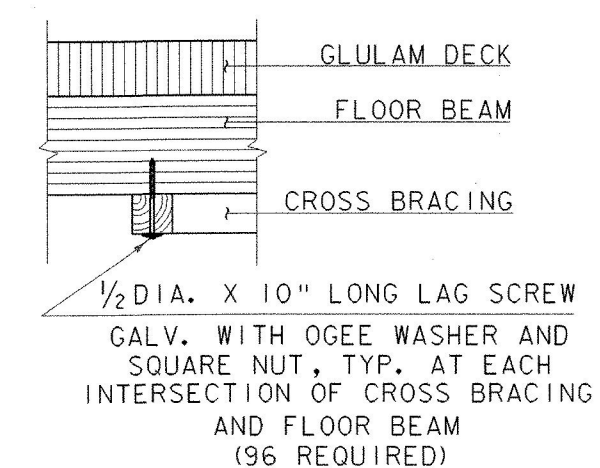
DETAIL B

SCALE: $\frac{3}{4}$ " = 1'-0"



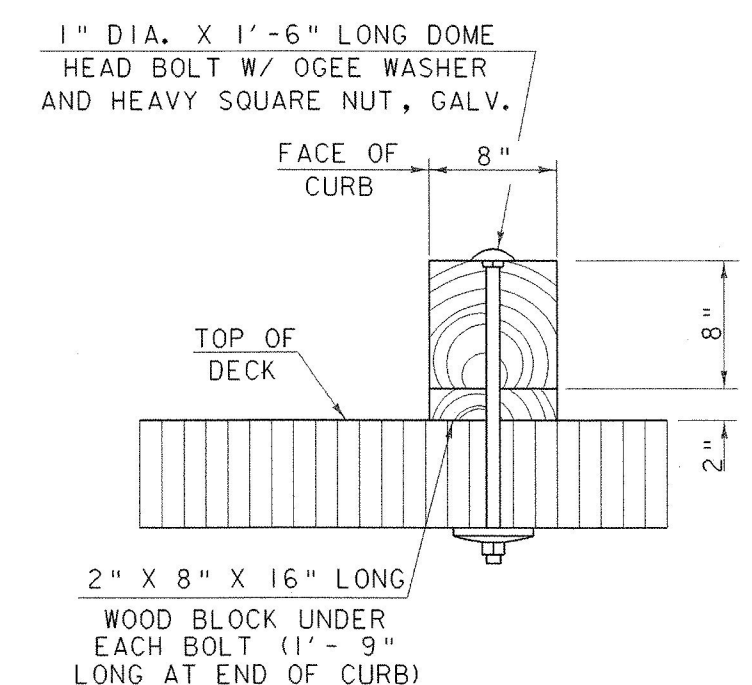
SECTION A-A

SCALE: $\frac{3}{4}$ " = 1'-0"



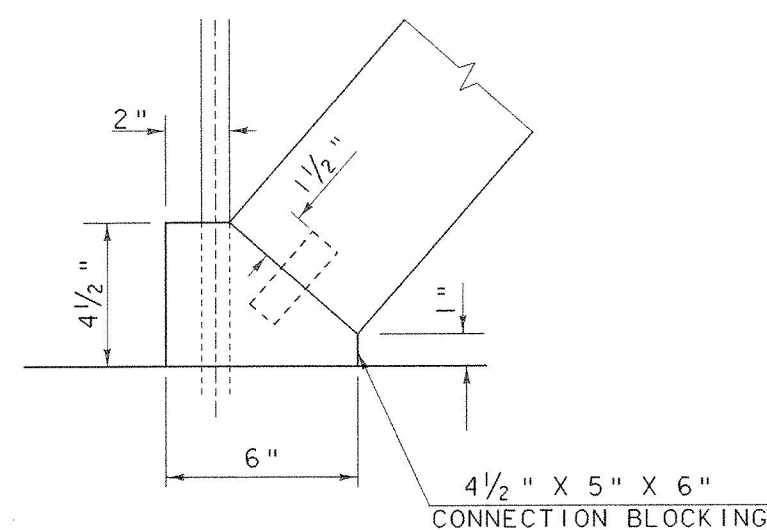
SECTION C-C

SCALE: $\frac{3}{4}$ " = 1'-0"



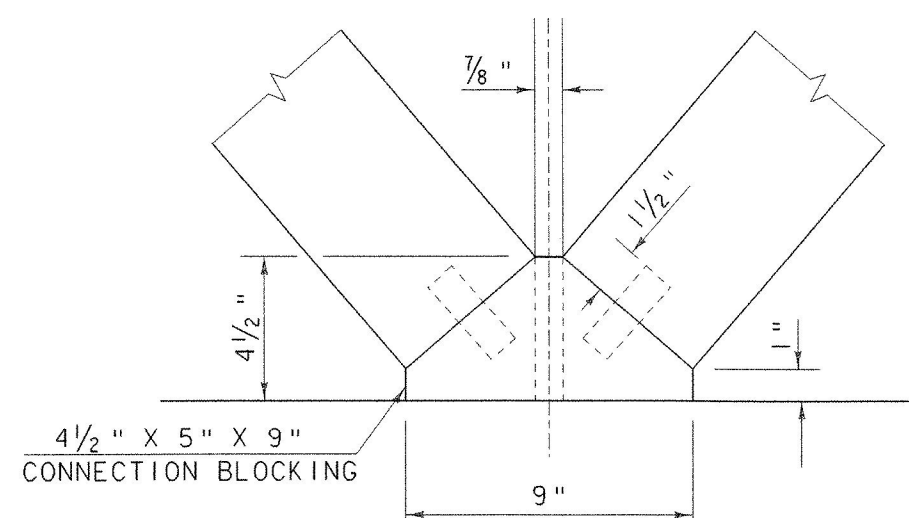
SECTION VIEW

SCALE: $1\frac{1}{2}$ " = 1'-0"



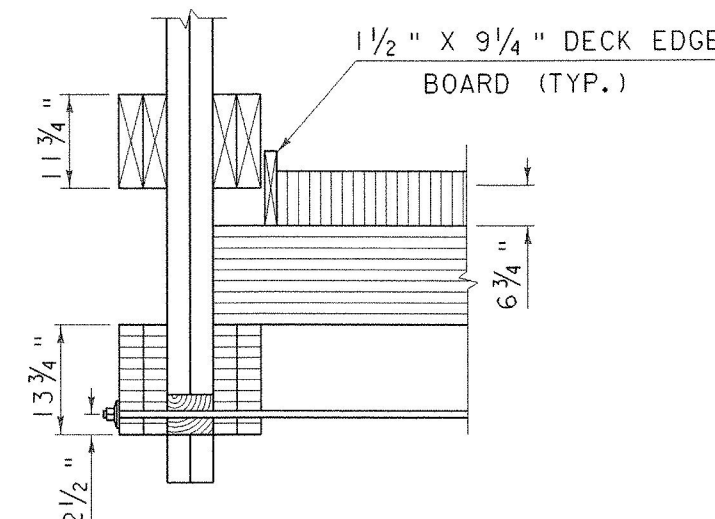
DETAIL C

SCALE: $\frac{3}{4}$ " = 1'-0"



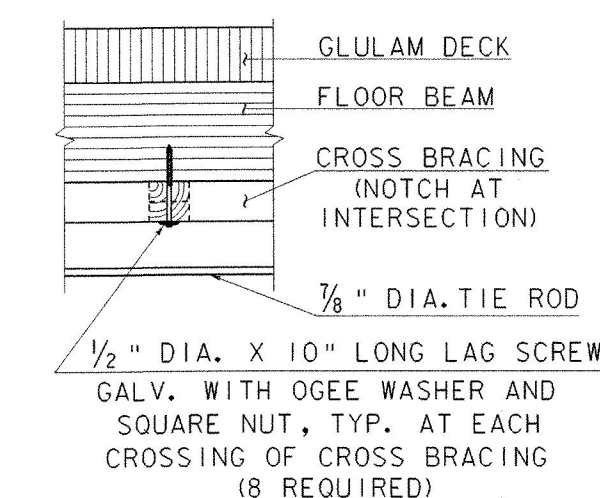
DETAIL D

SCALE: $\frac{3}{4}$ " = 1'-0"



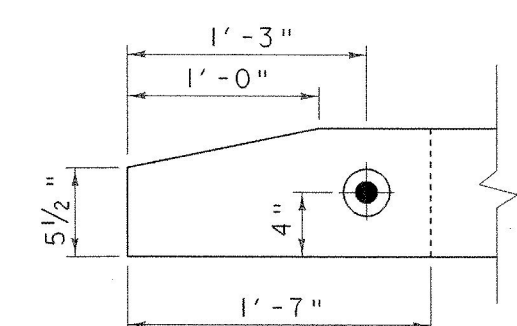
SECTION B-B

SCALE: $\frac{3}{4}$ " = 1'-0"



SECTION D-D

SCALE: $\frac{3}{4}$ " = 1'-0"



TOP VIEW

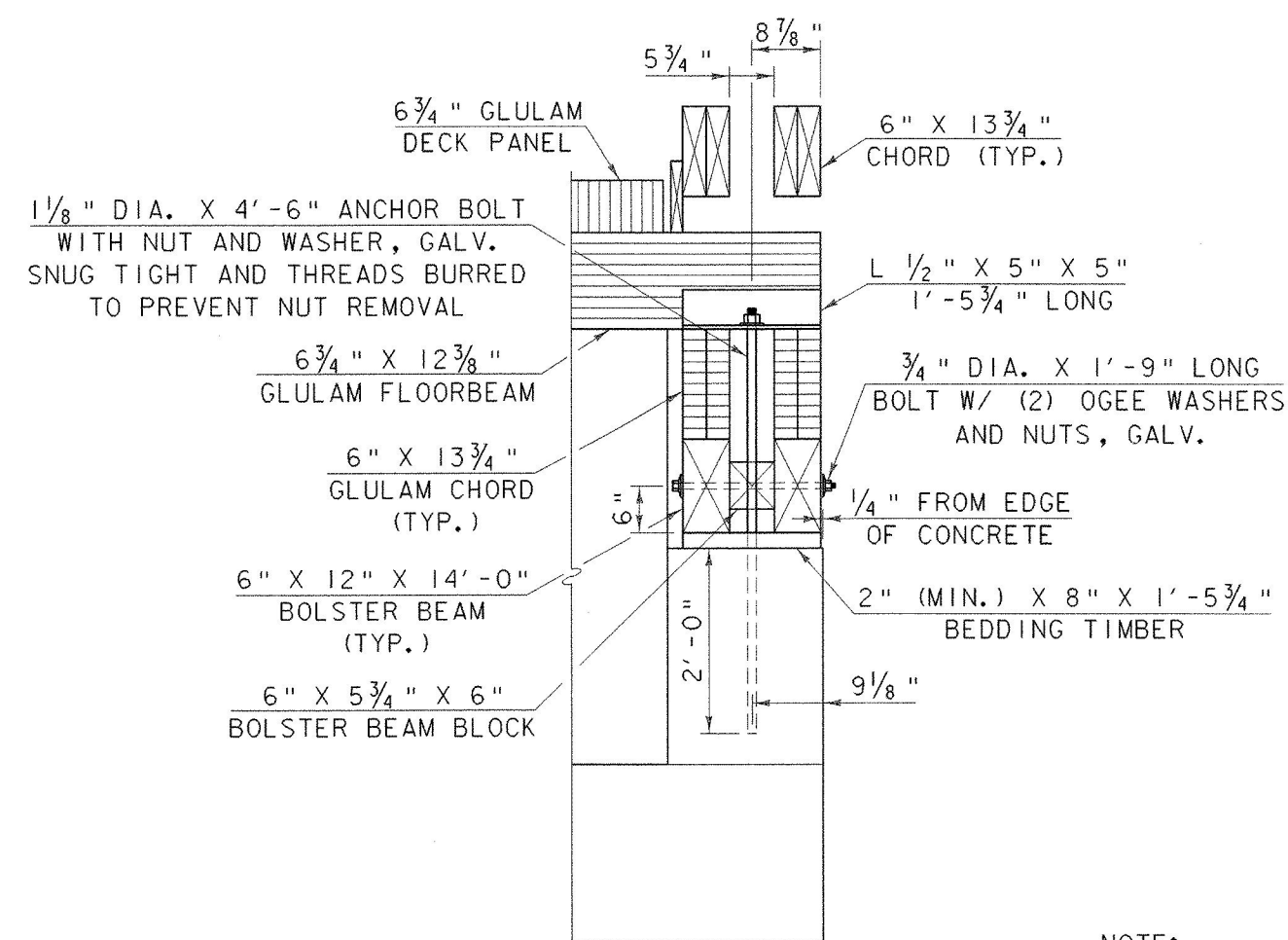
SCALE: $1\frac{1}{2}$ " = 1'-0"

CURB DETAILS

BOTTOM CORD CROSS BRACING DETAILS

FLOOR FRAMING PLAN

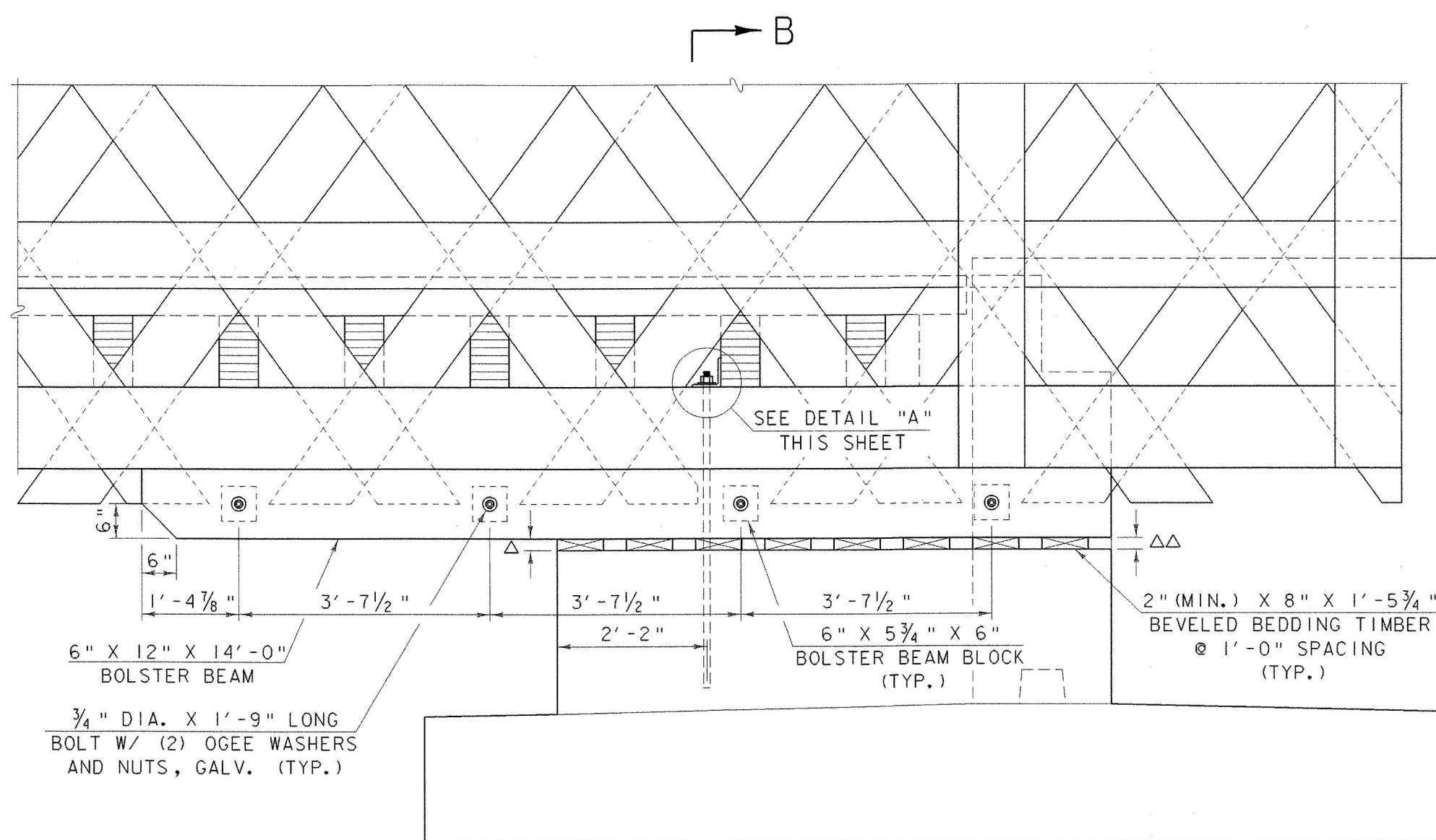
PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME:	87J137\structures\sj137fpj
PROJECT MANAGER:	R. R. WHITCOMB
DESIGNED BY:	T. SUMNER
PLOT DATE:	16-MAY-2002
DRAWN BY:	B. MAURICE
CHECKED BY:	T. SUMNER
SHEET	26 OF 51



SECTION B-B
SCALE: 3/4" = 1'-0"

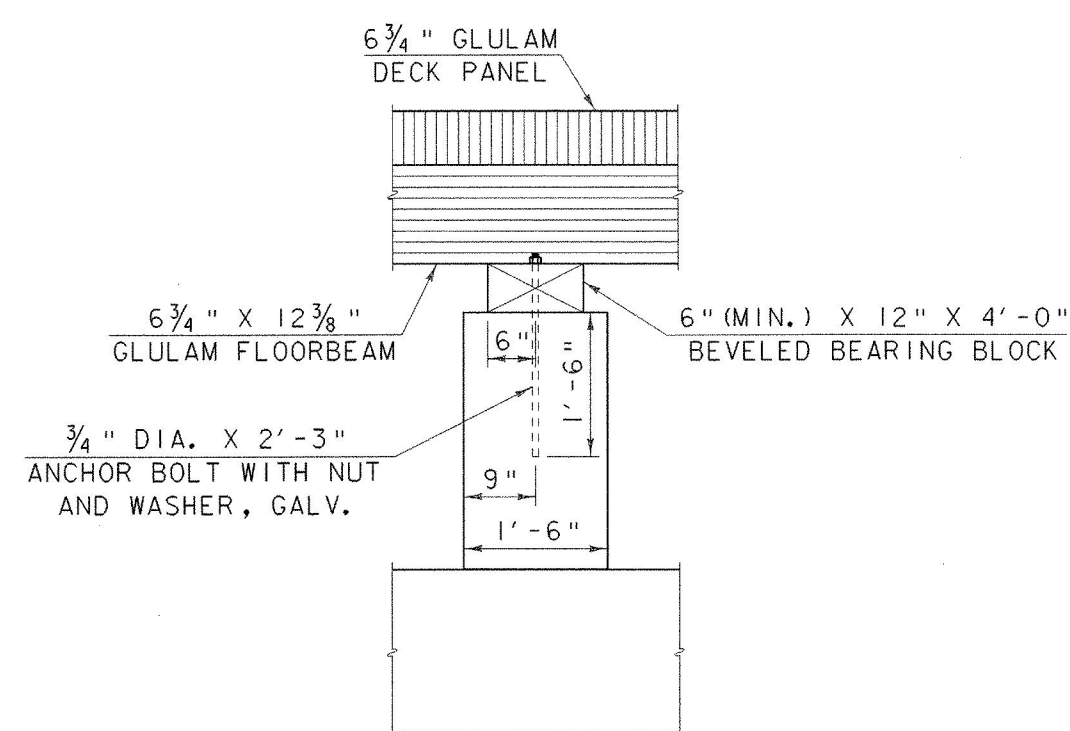
NOTE:

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



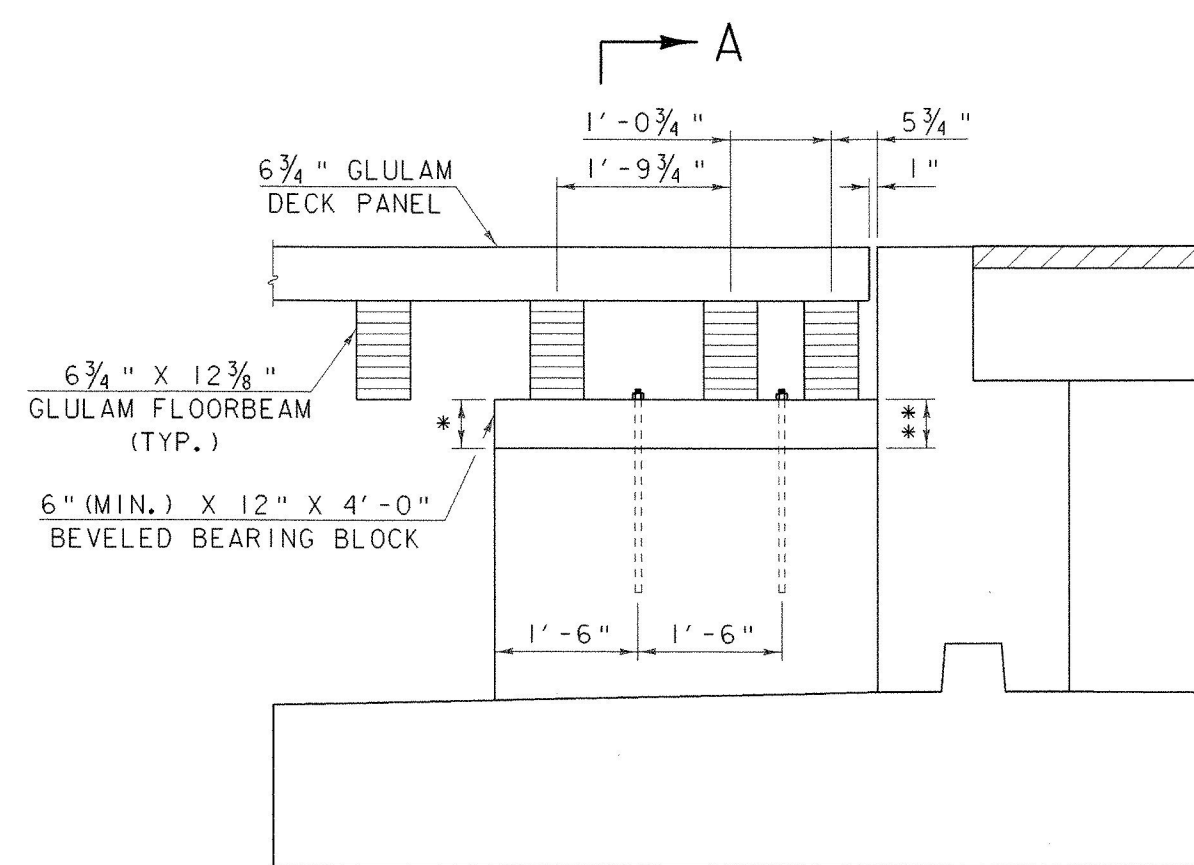
BOLSTER BLOCK DETAIL
SCALE: 3/4" = 1'-0"

Δ ABUTMENT NO. 1: 2"
ABUTMENT NO. 2: 3 1/2"
ΔΔ ABUTMENT NO. 1: 3 1/2"
ABUTMENT NO. 2: 2"

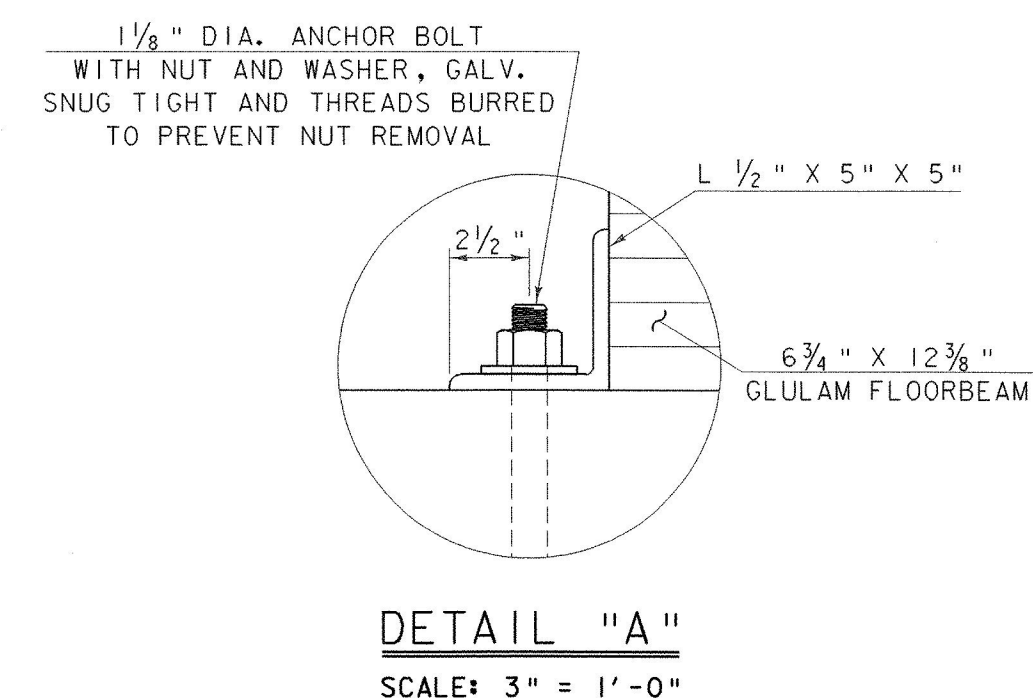


SECTION A-A
SCALE: 3/4" = 1'-0"

*ABUTMENT NO. 1: 6"
ABUTMENT NO. 2: 6 3/4"
**ABUTMENT NO. 1: 6 3/4"
ABUTMENT NO. 2: 6"

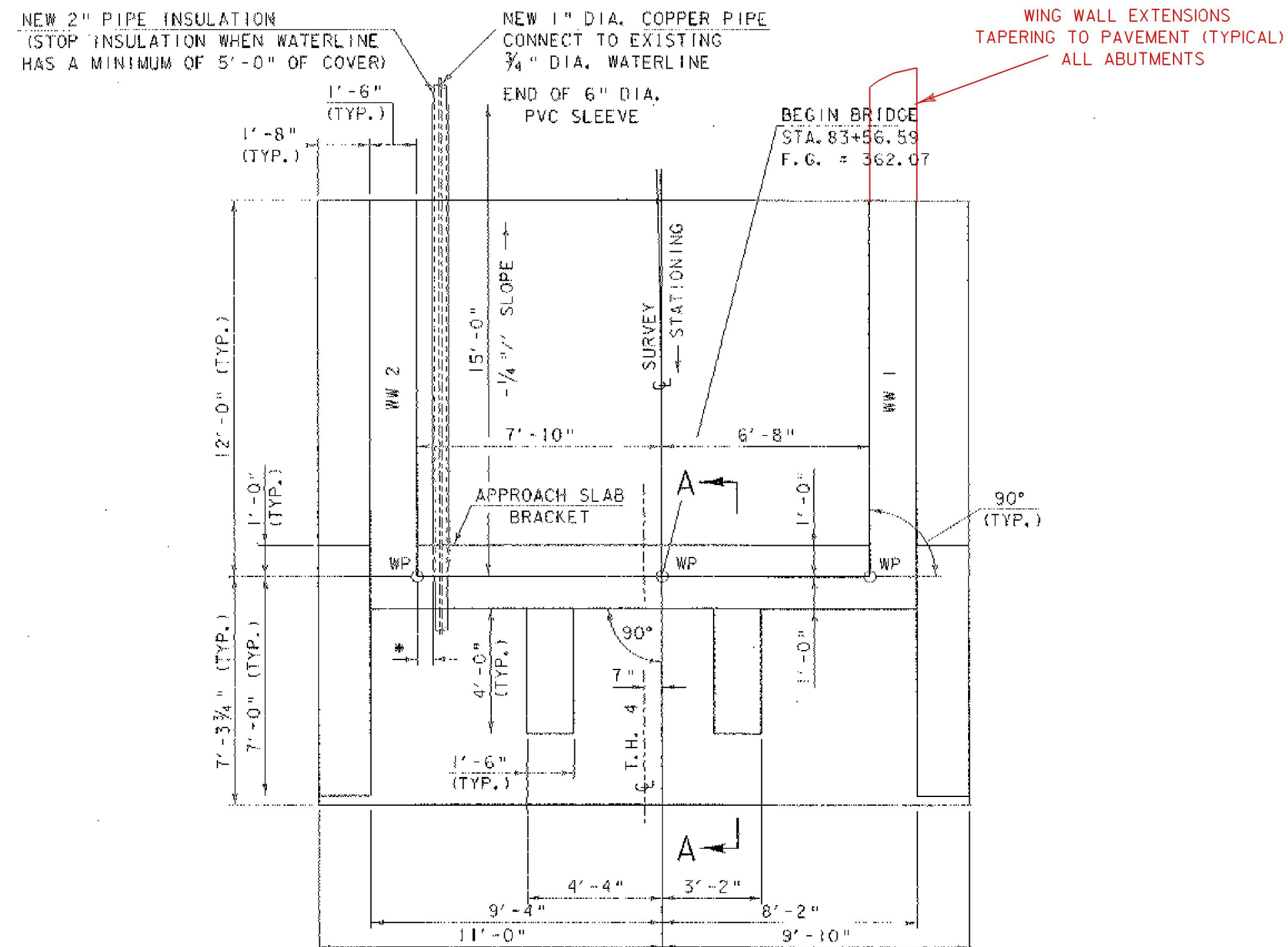


BEARING BLOCK DETAIL
SCALE: 3/4" = 1'-0"



BEARING DETAILS

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87j137\Structures\sj137brg.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R.R. WHITCOMB	SHEET	27 OF 51
DESIGNED BY:	T. SUMNER		

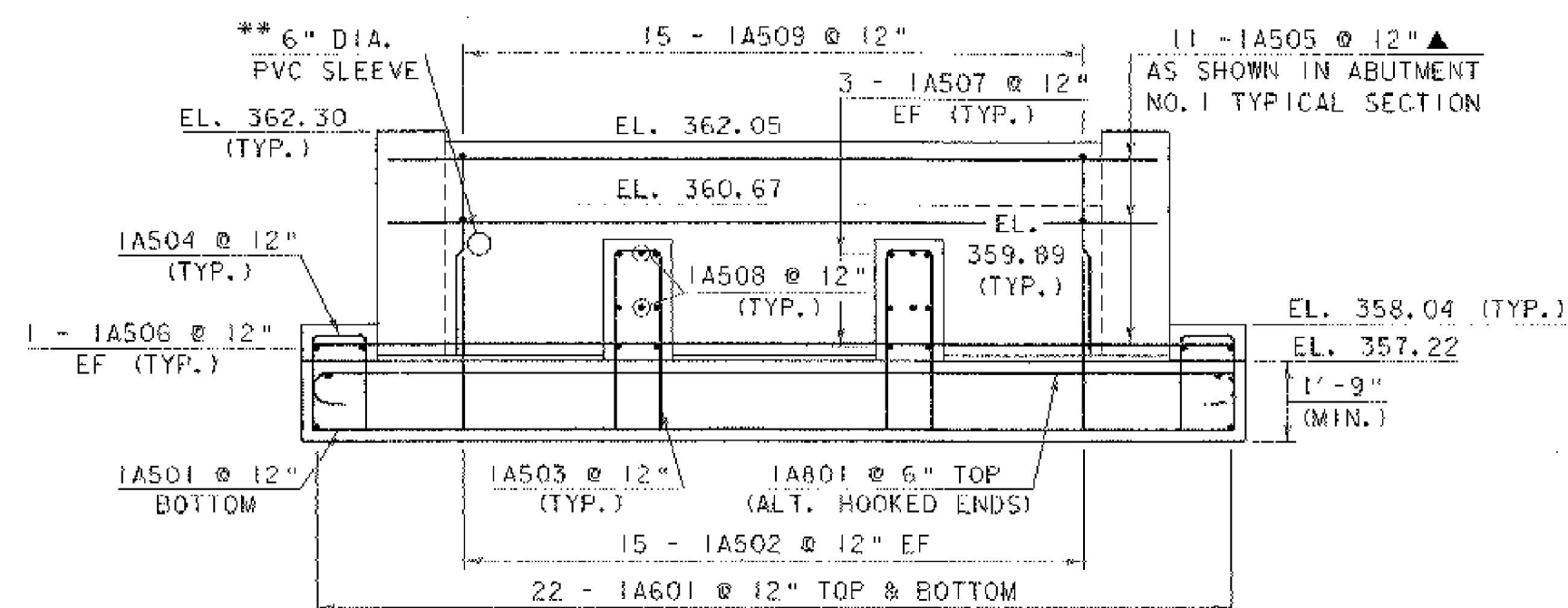


* 6" MINIMUM FROM WP TO EDGE OF 6" DIA. PVC SLEEVE THROUGH STEM

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

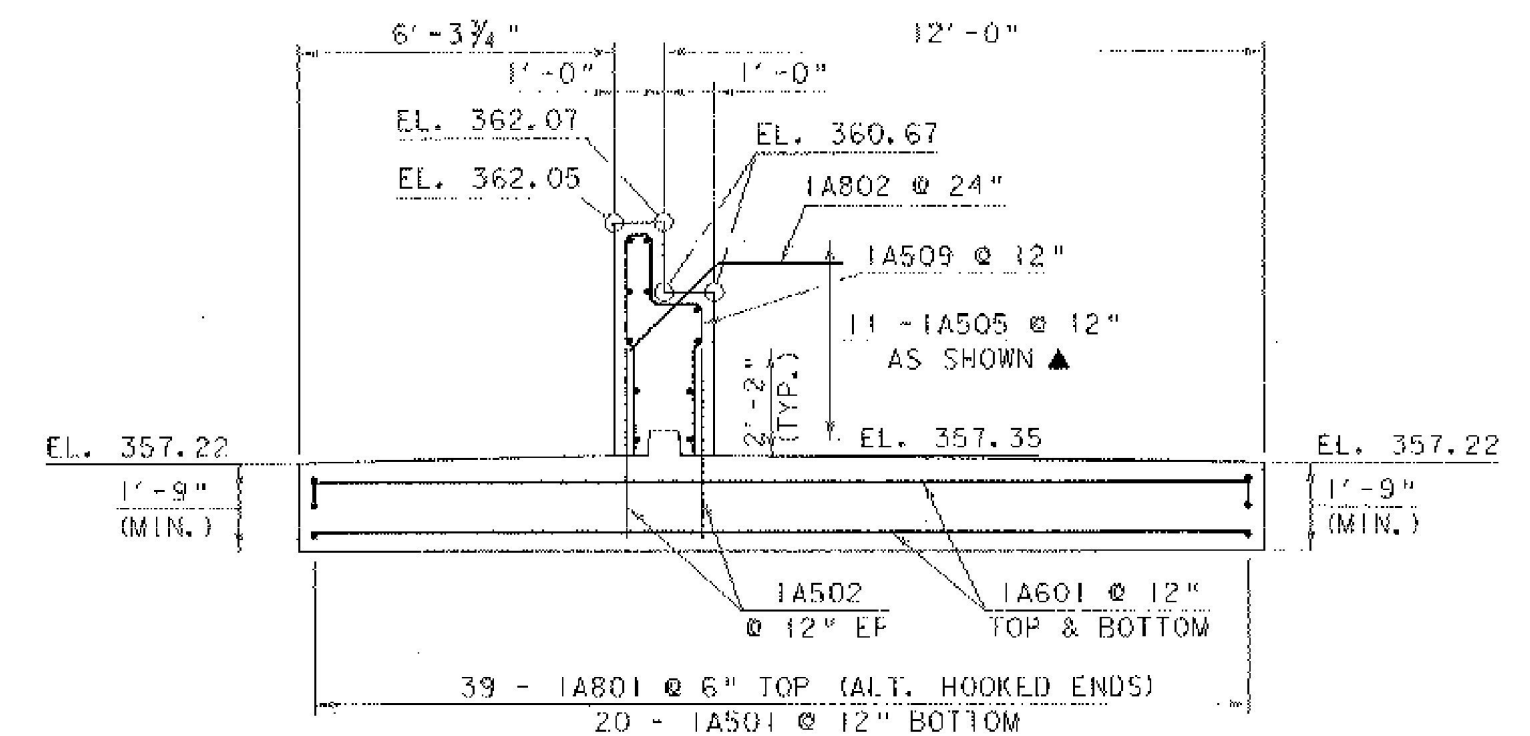
ABUTMENT NO. 1 PLAN

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



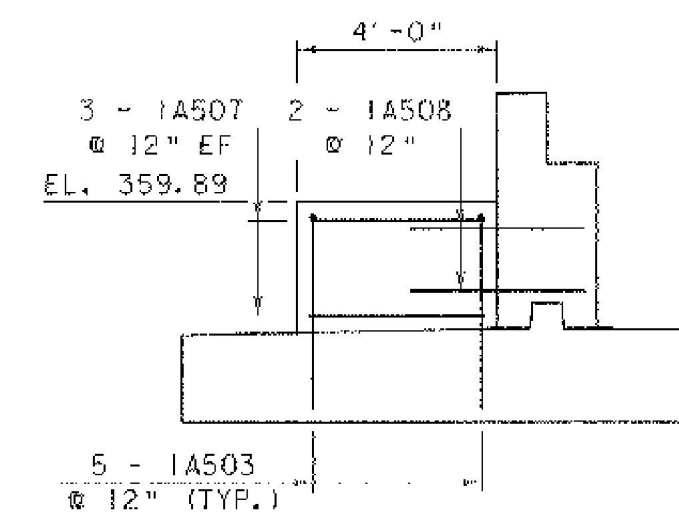
ABUTMENT NO. 1 ELEVATION

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



ABUTMENT NO. 1 TYPICAL SECTION

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



SECTION A-A

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

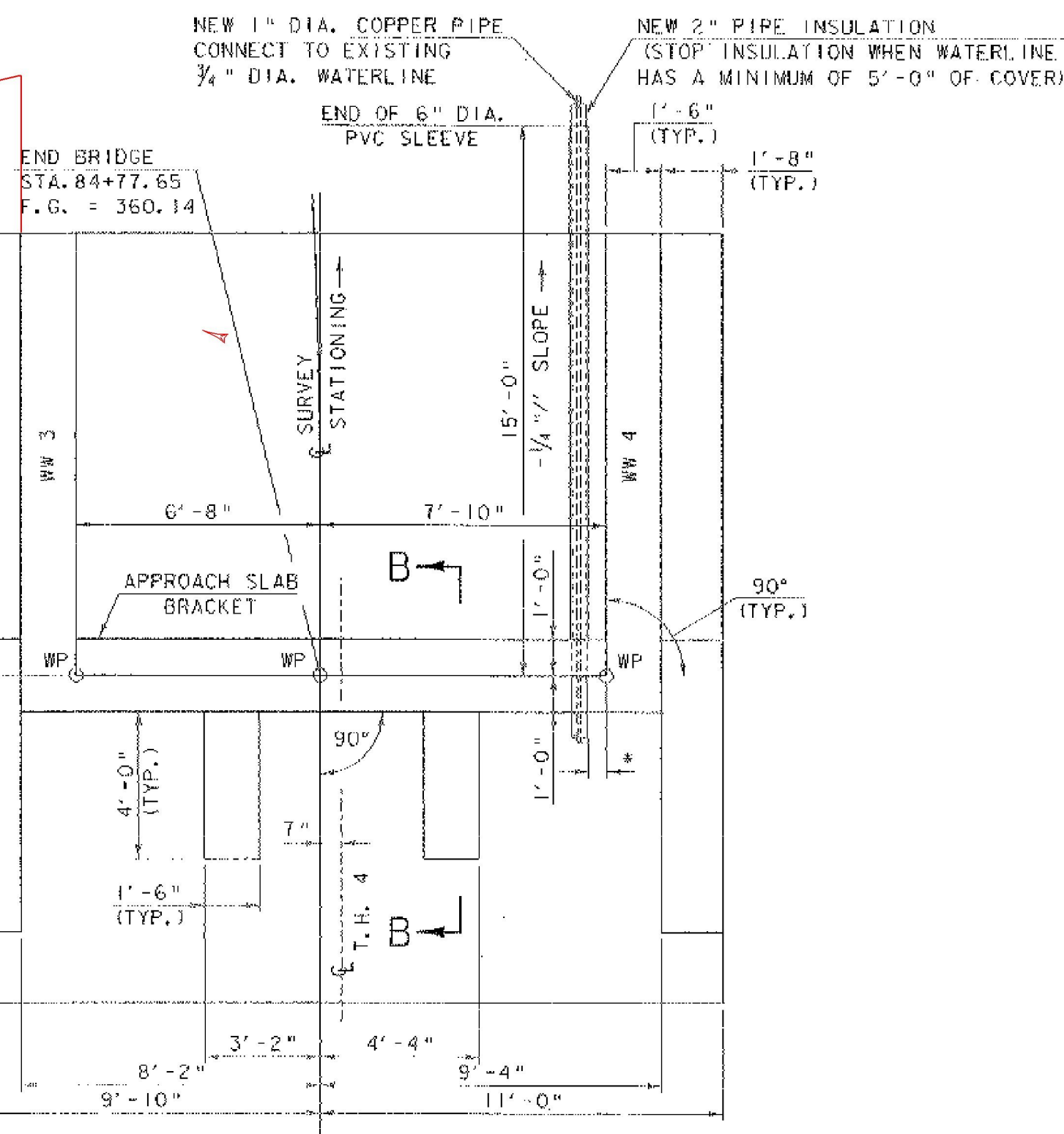
NOTE:

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:	87137\Structures\1137tbl1
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

WING WALL EXTENSIONS
(TYPICAL)

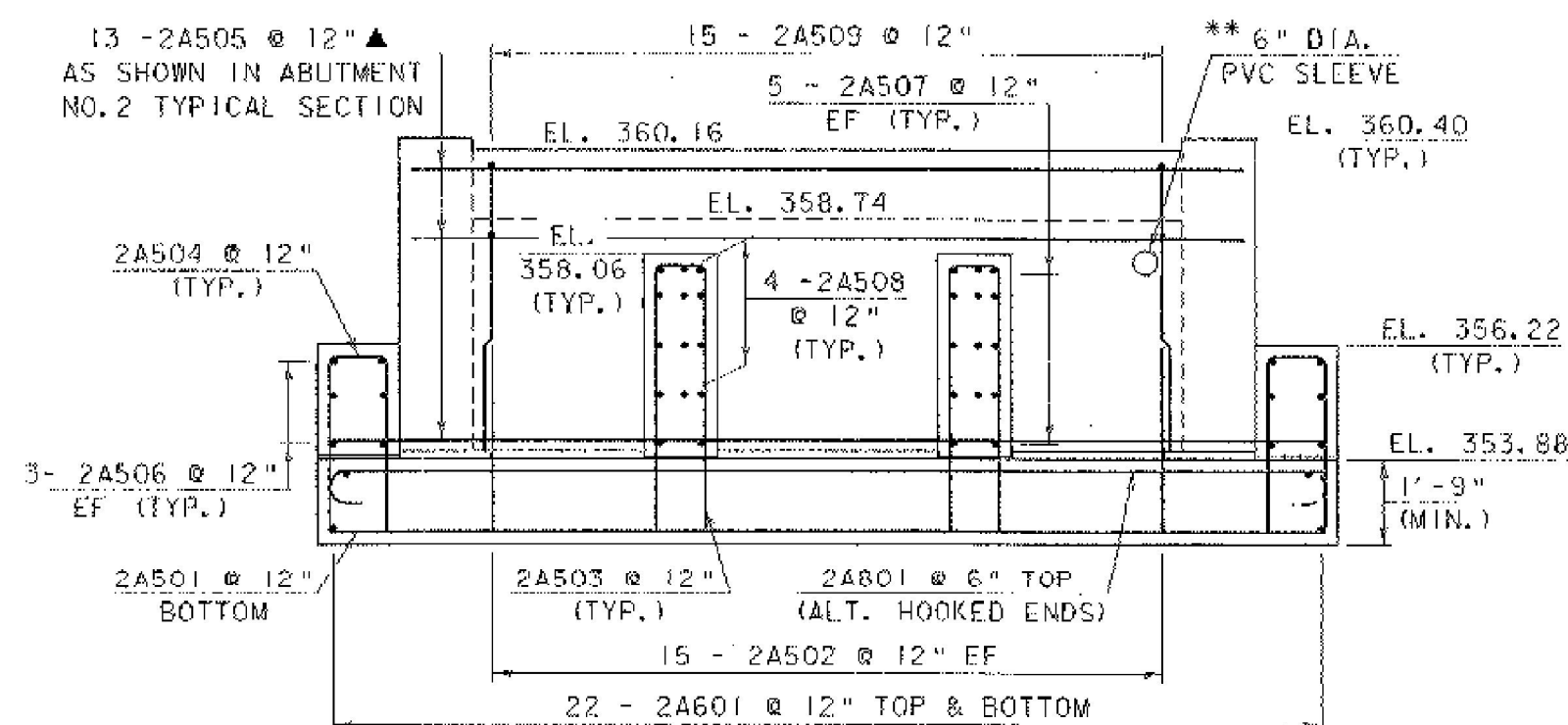


ABUTMENT NO. 2 PLAN

SCALE: $\frac{3}{8}$ " = 1'-0"

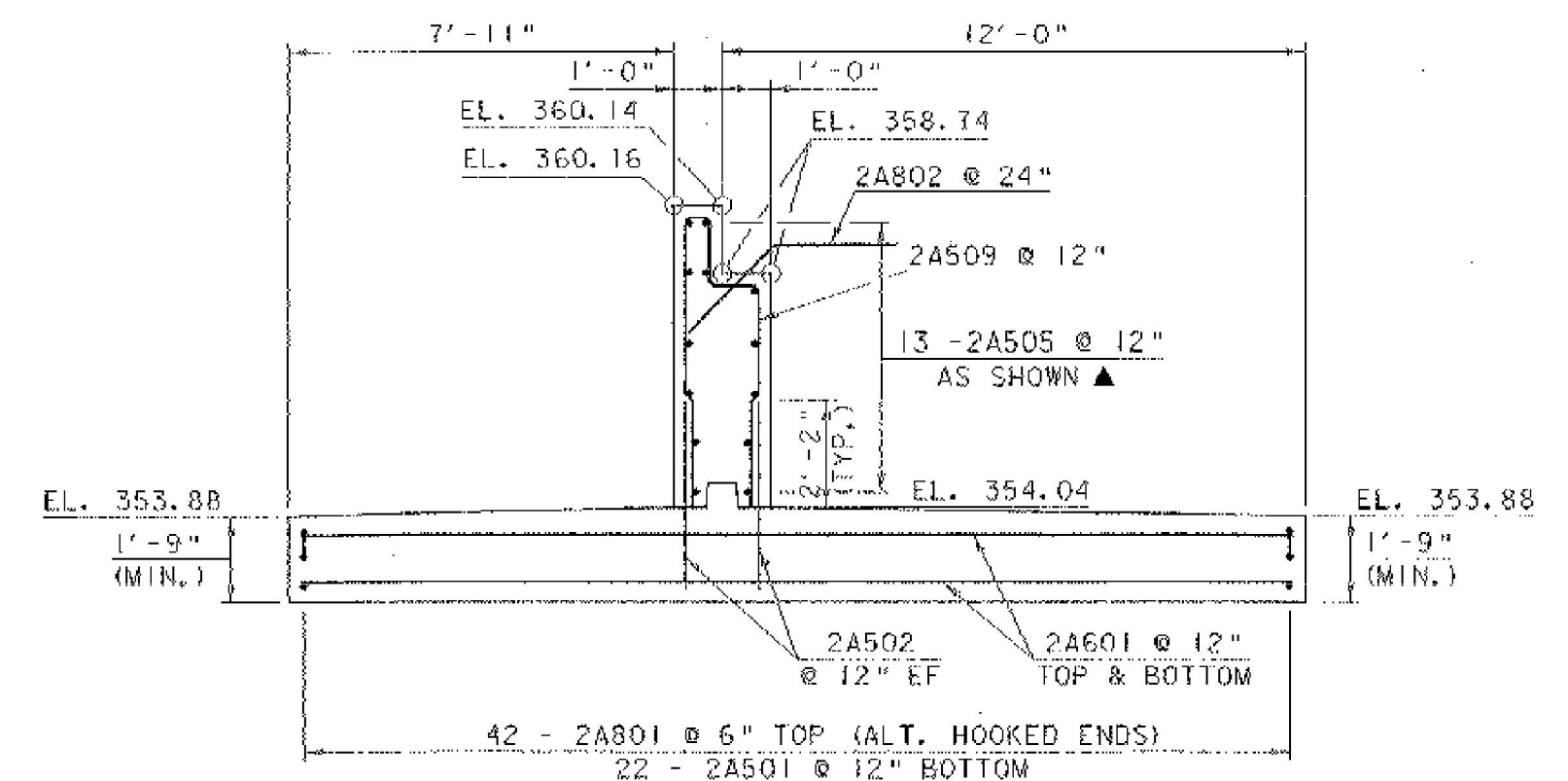
* 6" MINIMUM FROM WP TO EDGE OF
6" DIA. PVC SLEEVE THROUGH STEM

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



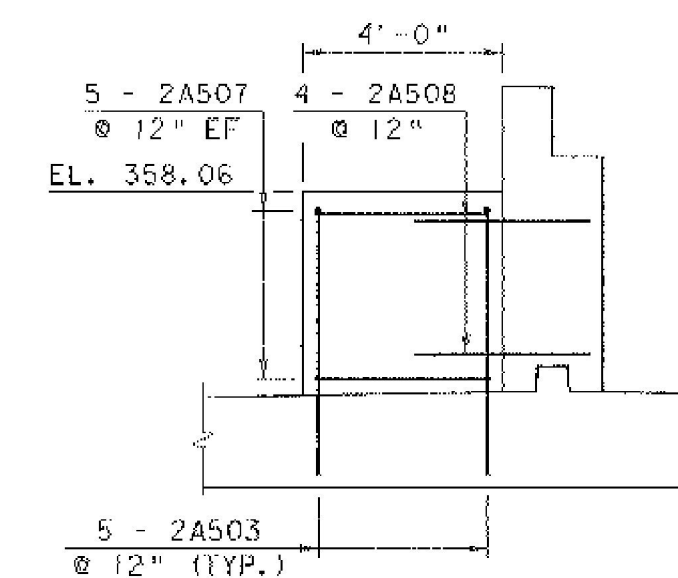
ABUTMENT NO. 2 ELEVATION

SCALE: $\frac{3}{8}$ " = 1'-0"



ABUTMENT NO. 2 TYPICAL SECTION

SCALE: $\frac{3}{8}$ " = 1'-0"



SECTION B-B

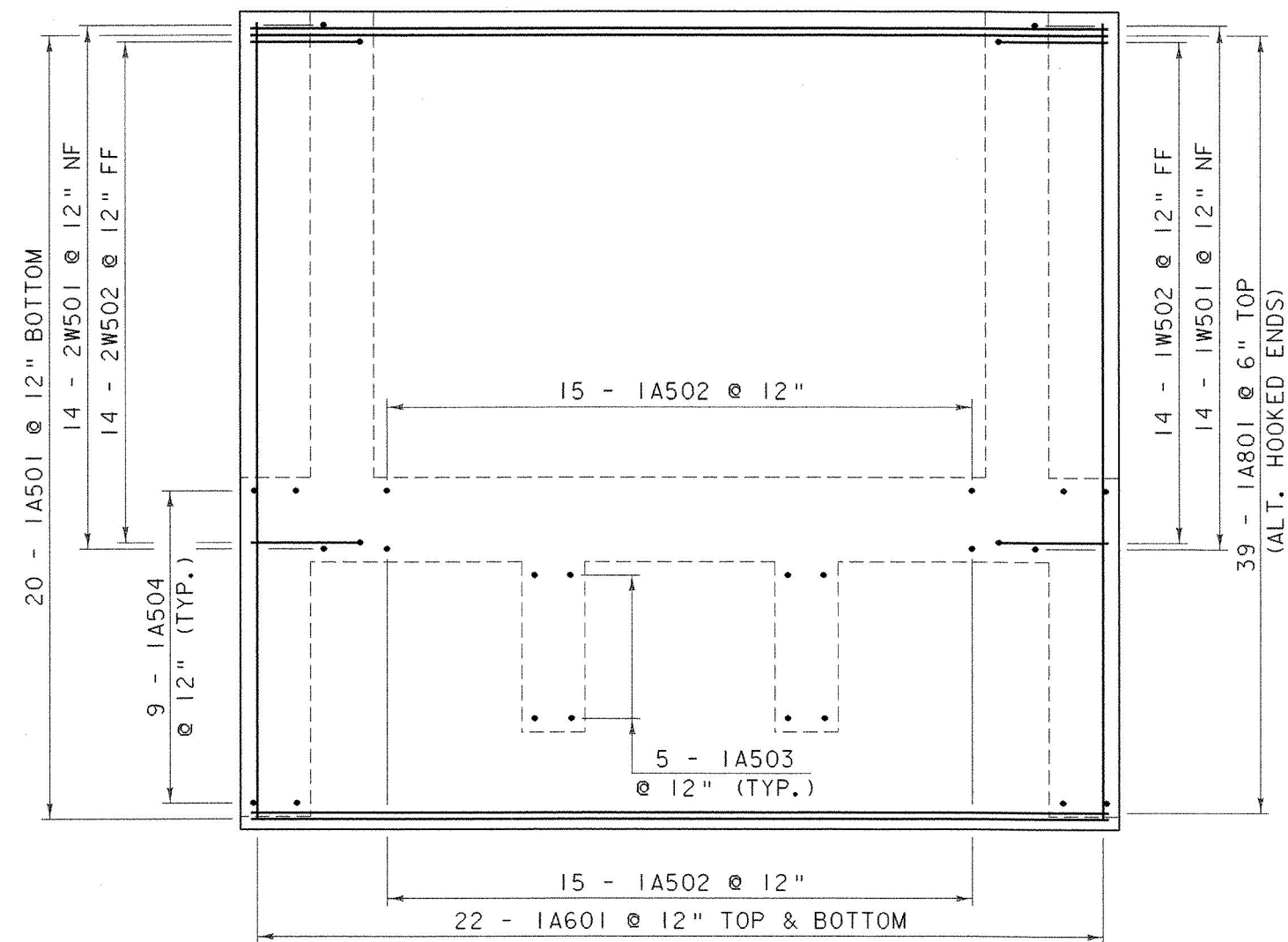
SCALE: $\frac{3}{8}$ " = 1'-0"

NOTE:

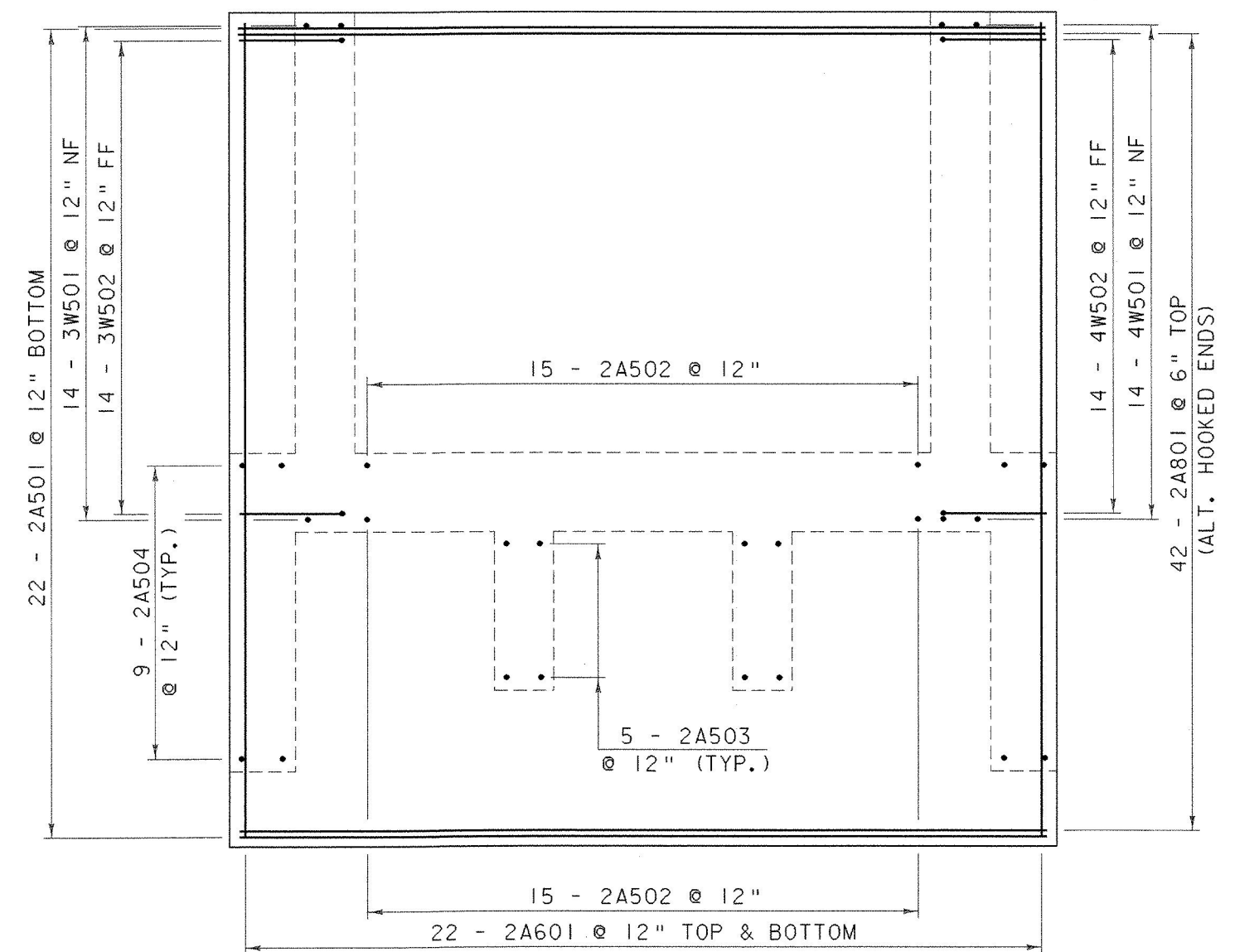
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ABUTMENT NO. 2 DETAILS

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	871137\Structures\B370b2.1	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	29 OF 51
DESIGNED BY:	T. SUMNER		



ABUTMENT NO. 1 FOOTING
REINFORCING PLAN
 SCALE: $\frac{3}{8}$ " = 1'-0"



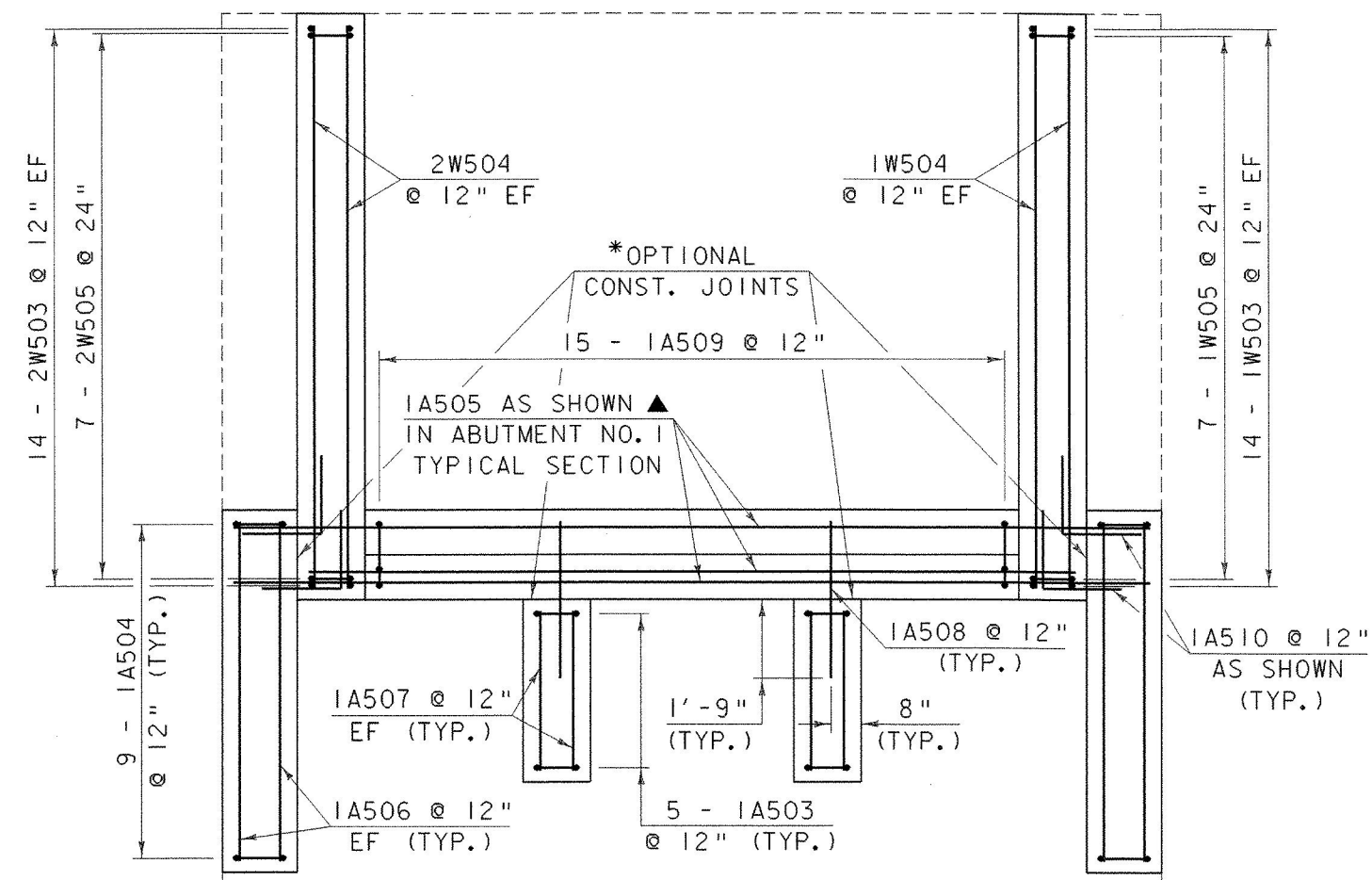
ABUTMENT NO. 2 FOOTING
REINFORCING PLAN
 SCALE: $\frac{3}{8}$ " = 1'-0"

NOTE:

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

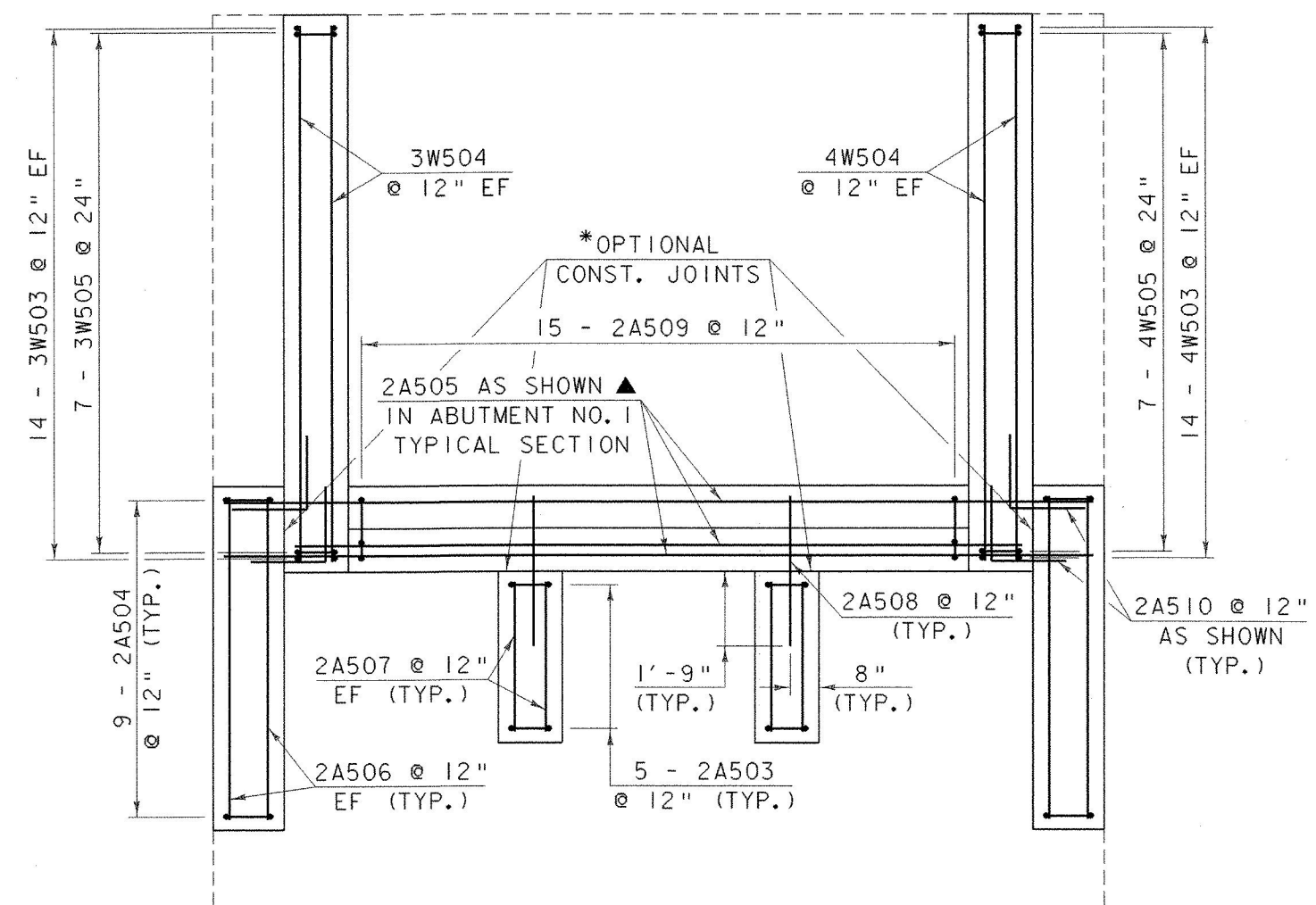
FOOTING REINFORCING DETAILS

PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137frd.i	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	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: $\frac{3}{8}$ " = 1'-0"



**ABUTMENT NO. 2 STEM
REINFORCING PLAN**

SCALE: $\frac{3}{8}$ " = 1'-0"

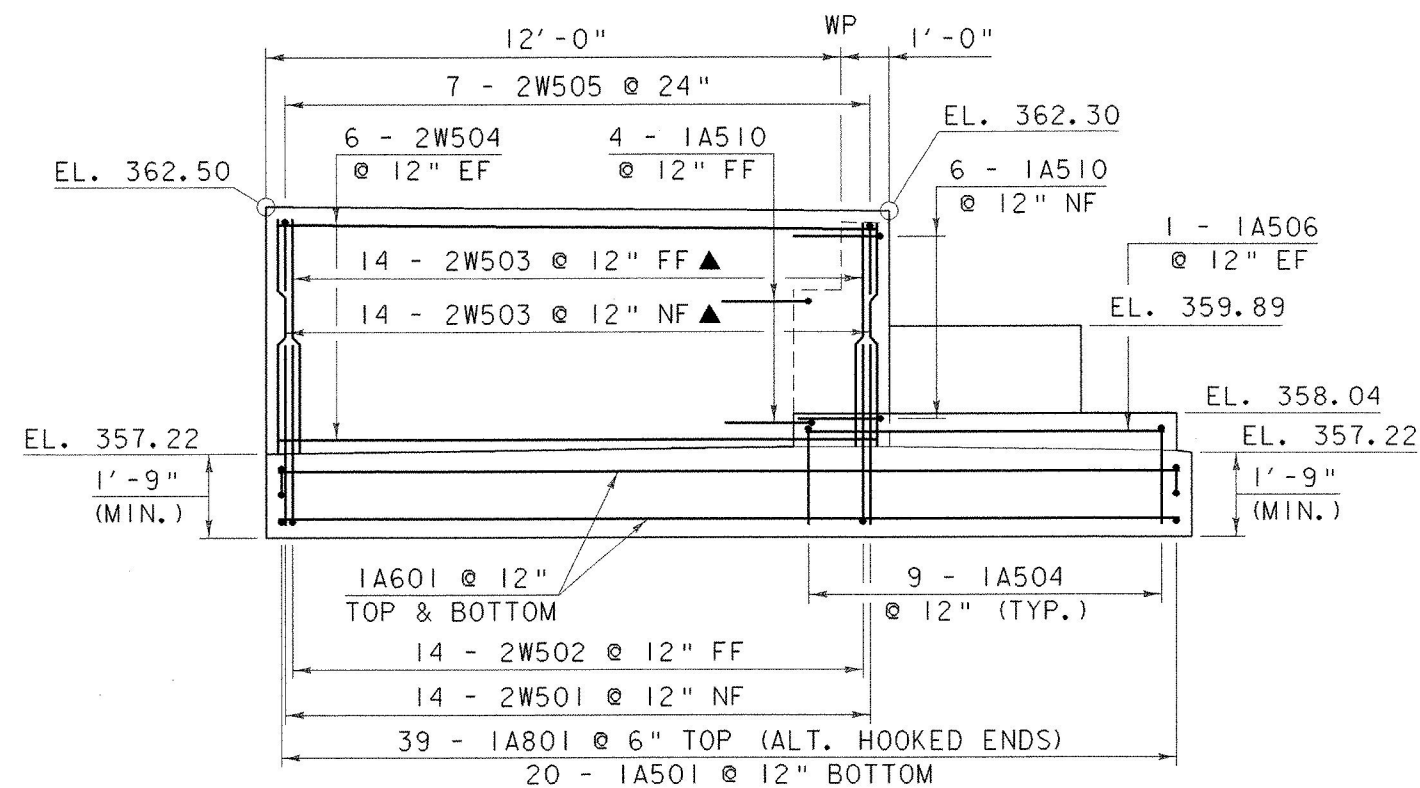
* THE CONSTRUCTION JOINT KEY MAY BE ELIMINATED
FOR THESE VERTICAL CONSTRUCTION JOINTS ONLY.

NOTE:

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

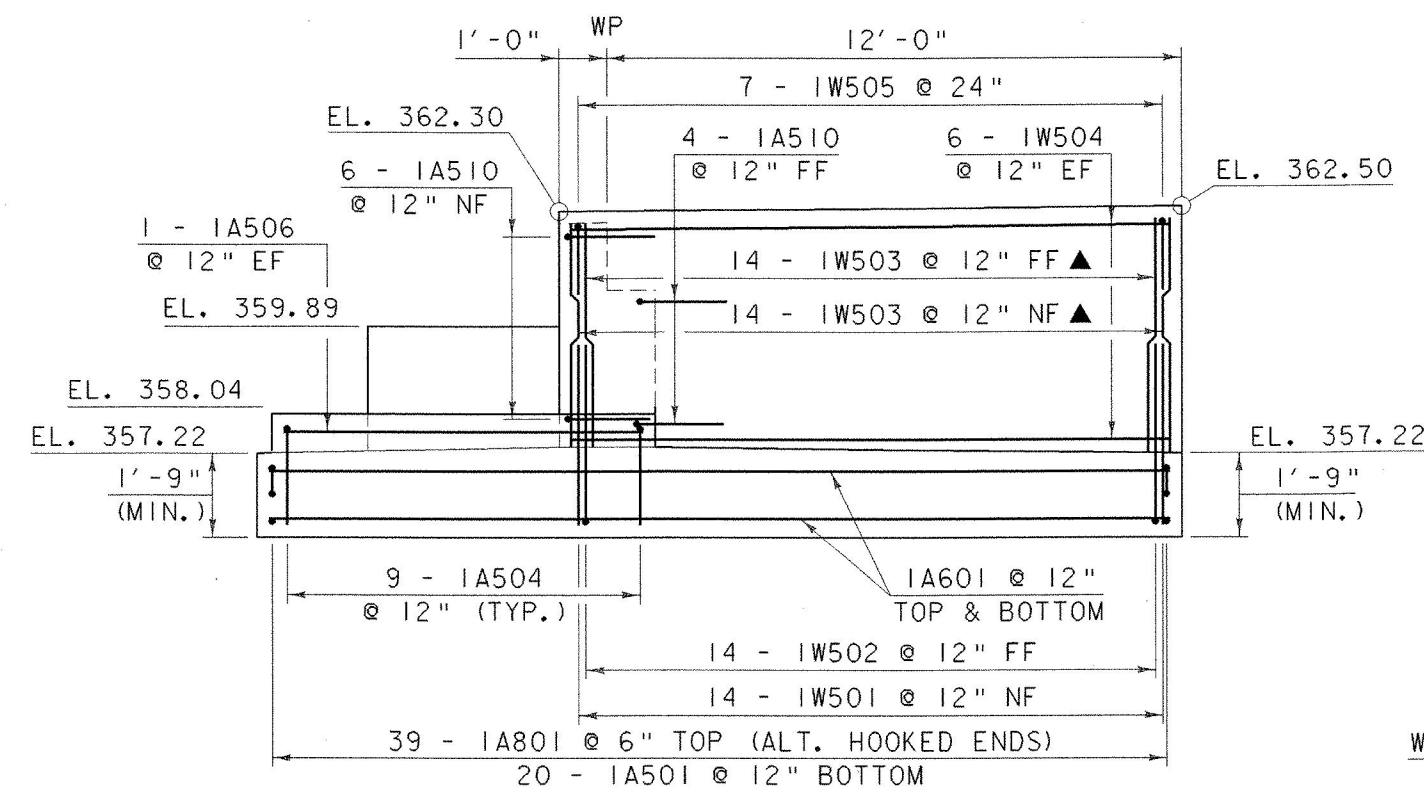
STEM REINFORCING DETAILS

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME:	87j137\Structures\sj137srd.i
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



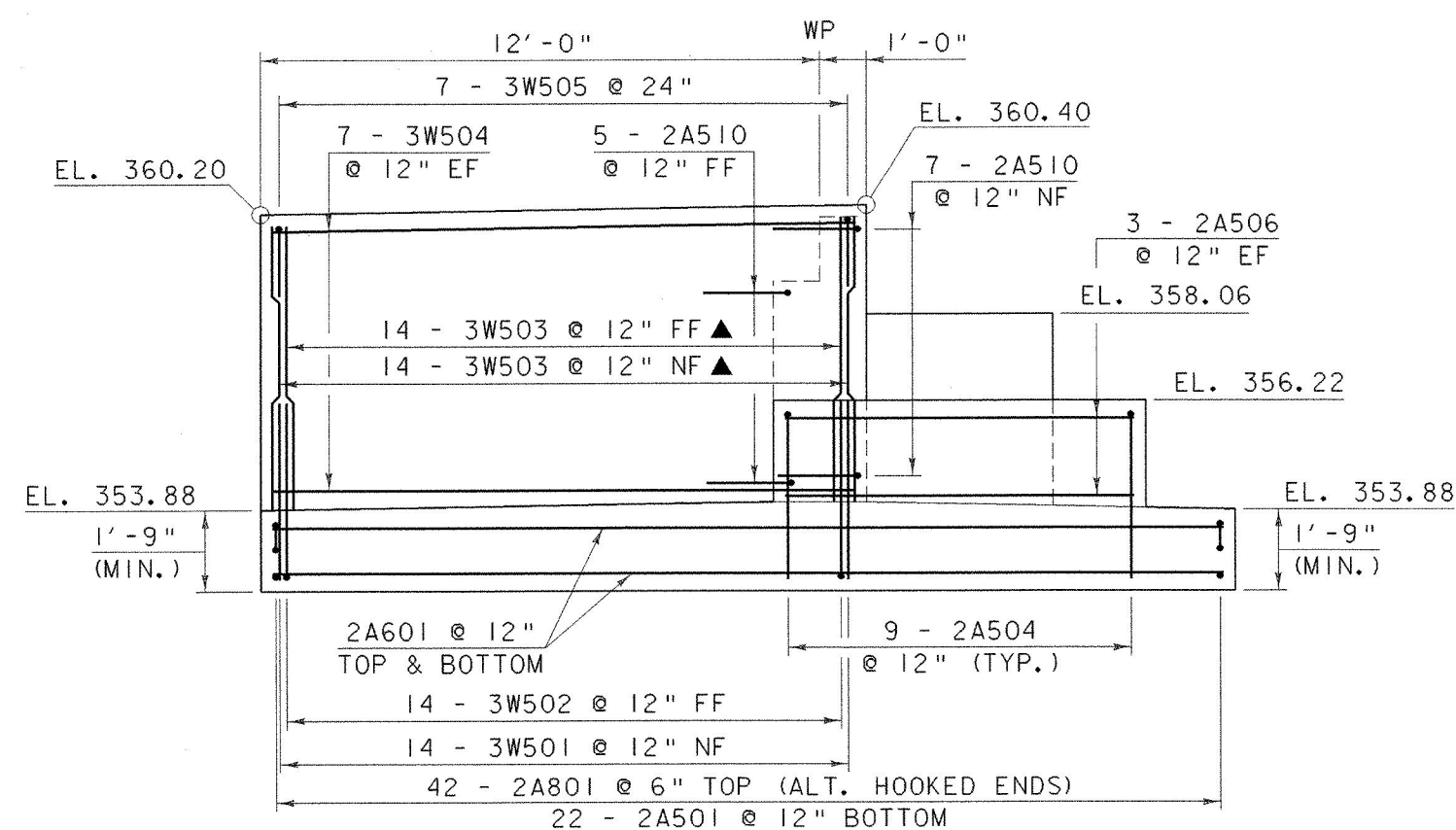
WINGWALL NO.2 ELEVATION

SCALE: $\frac{3}{8}$ " = 1'-0"



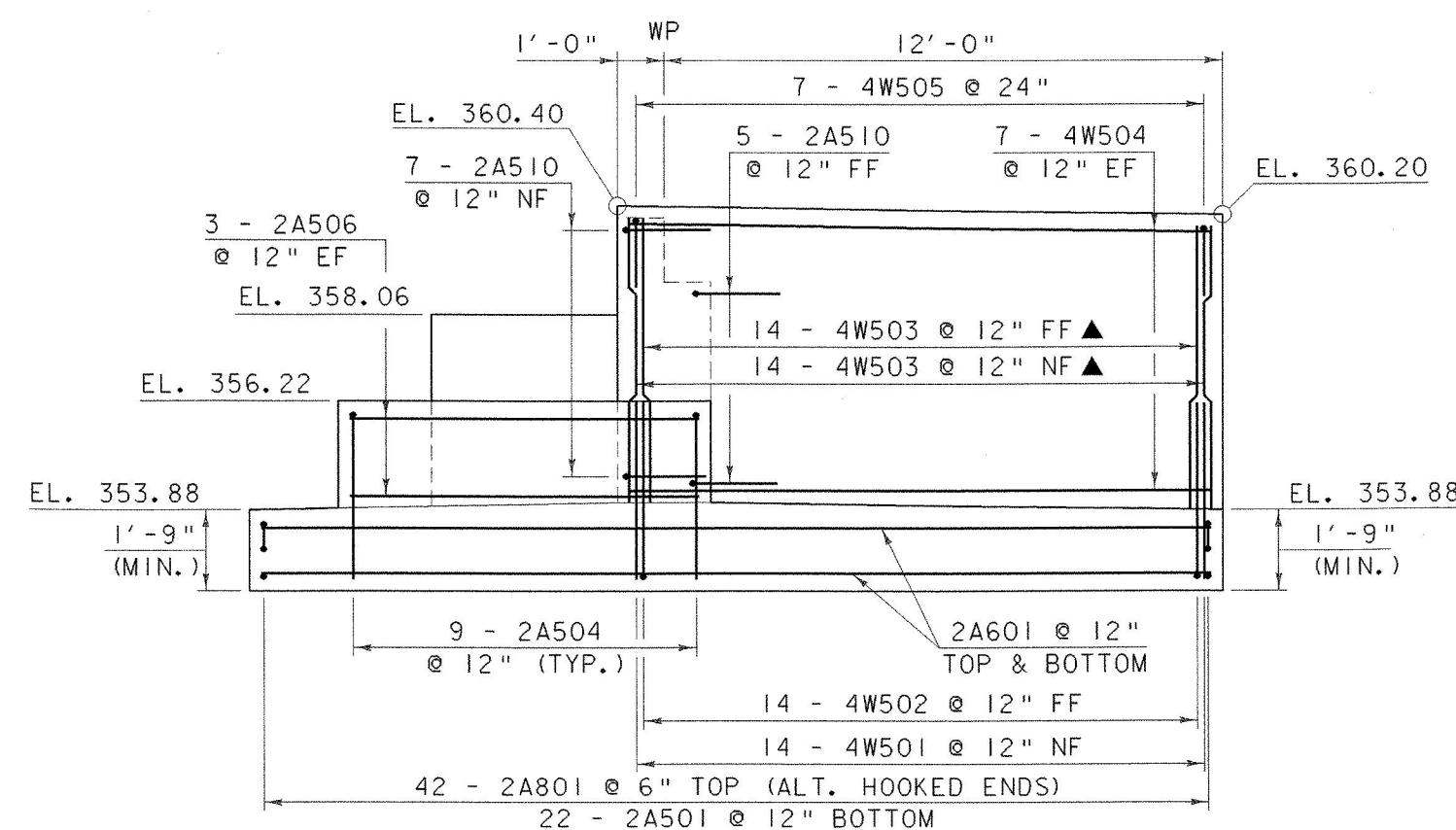
WINGWALL NO.1 ELEVATION

SCALE: $\frac{3}{8}$ " = 1'-0"



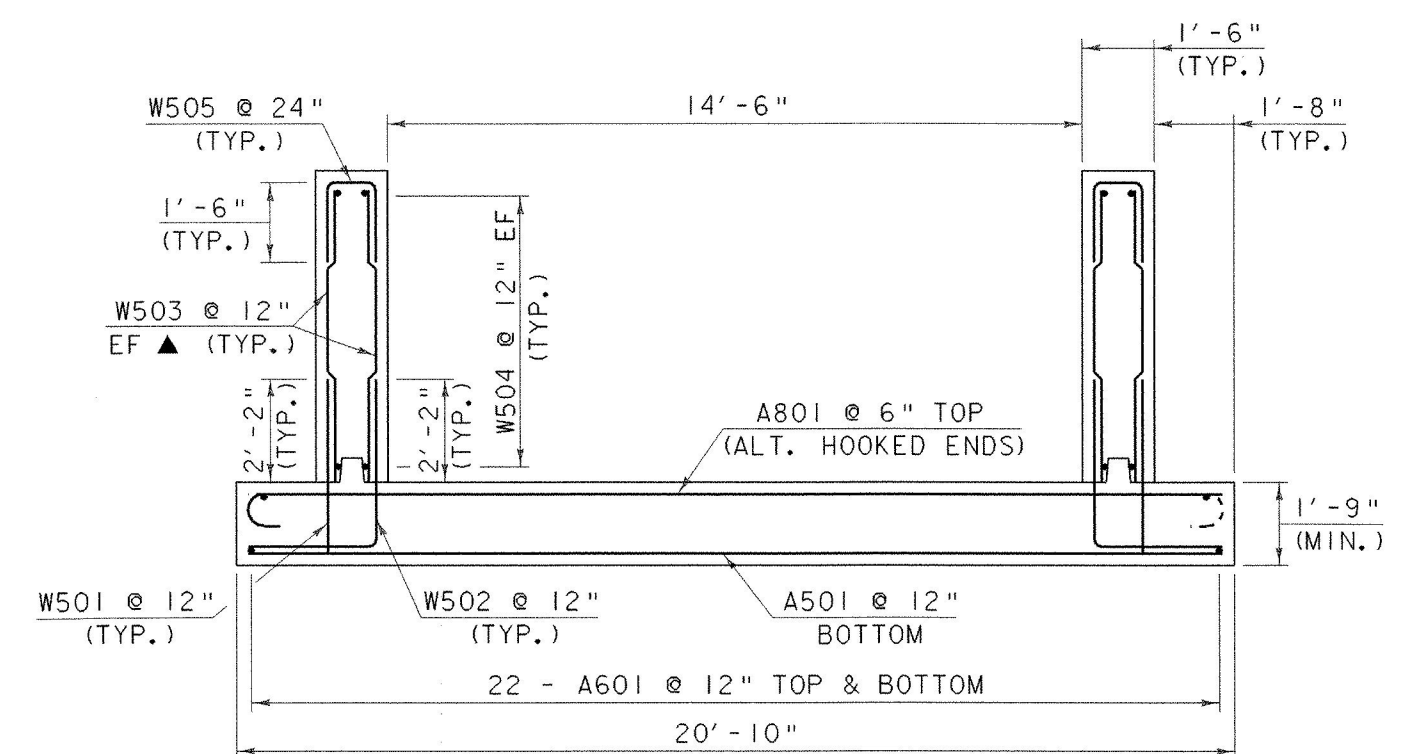
WINGWALL NO.3 ELEVATION

SCALE: $\frac{3}{8}$ " = 1'-0"



WINGWALL NO.4 ELEVATION

SCALE: $\frac{3}{8}$ " = 1'-0"



WINGWALL TYPICAL SECTION

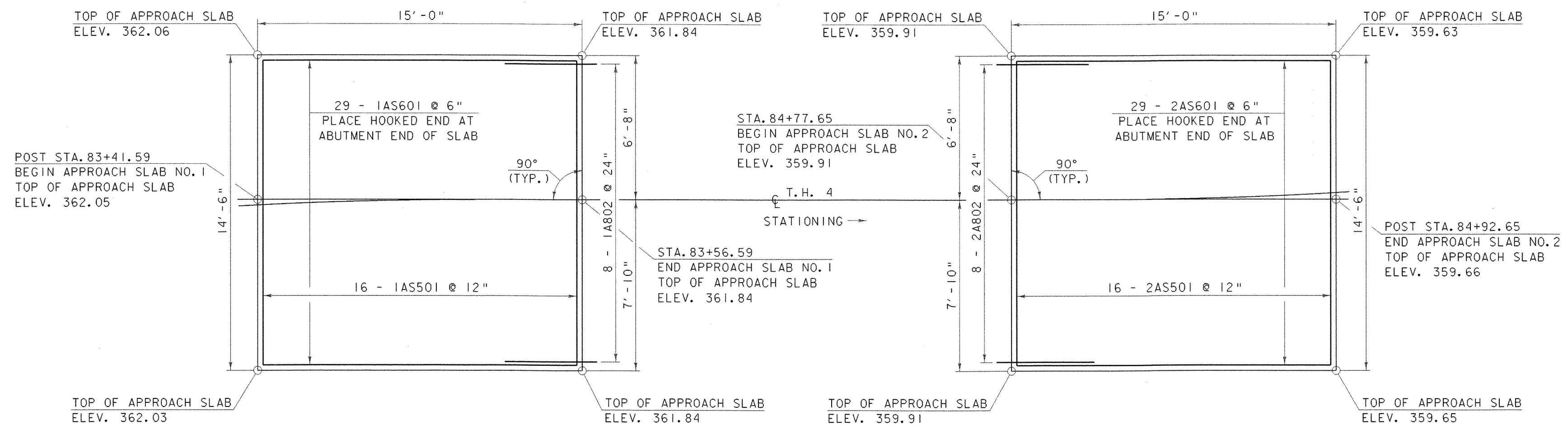
SCALE: $\frac{3}{8}$ " = 1'-0"

NOTE:

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

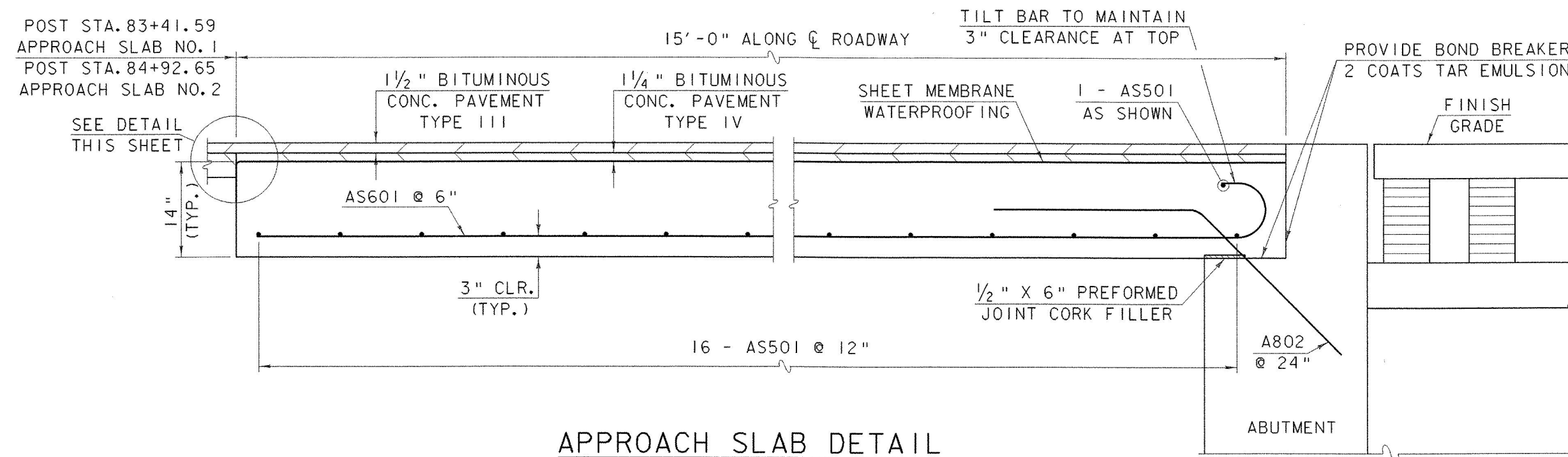
WINGWALL DETAILS

PROJECT NAME:	BRANDON	FILE NAME:	87J37\Structures\sj37wwd.i	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	32 OF 51



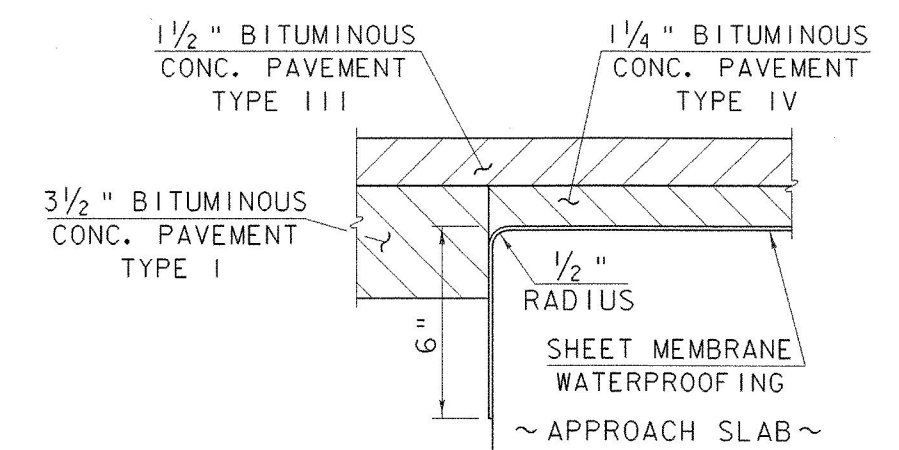
APPROACH SLAB PLAN

SCALE: $\frac{3}{8}" = 1'-0"$



APPROACH SLAB DETAIL

SCALE: 1" = 1'-0"

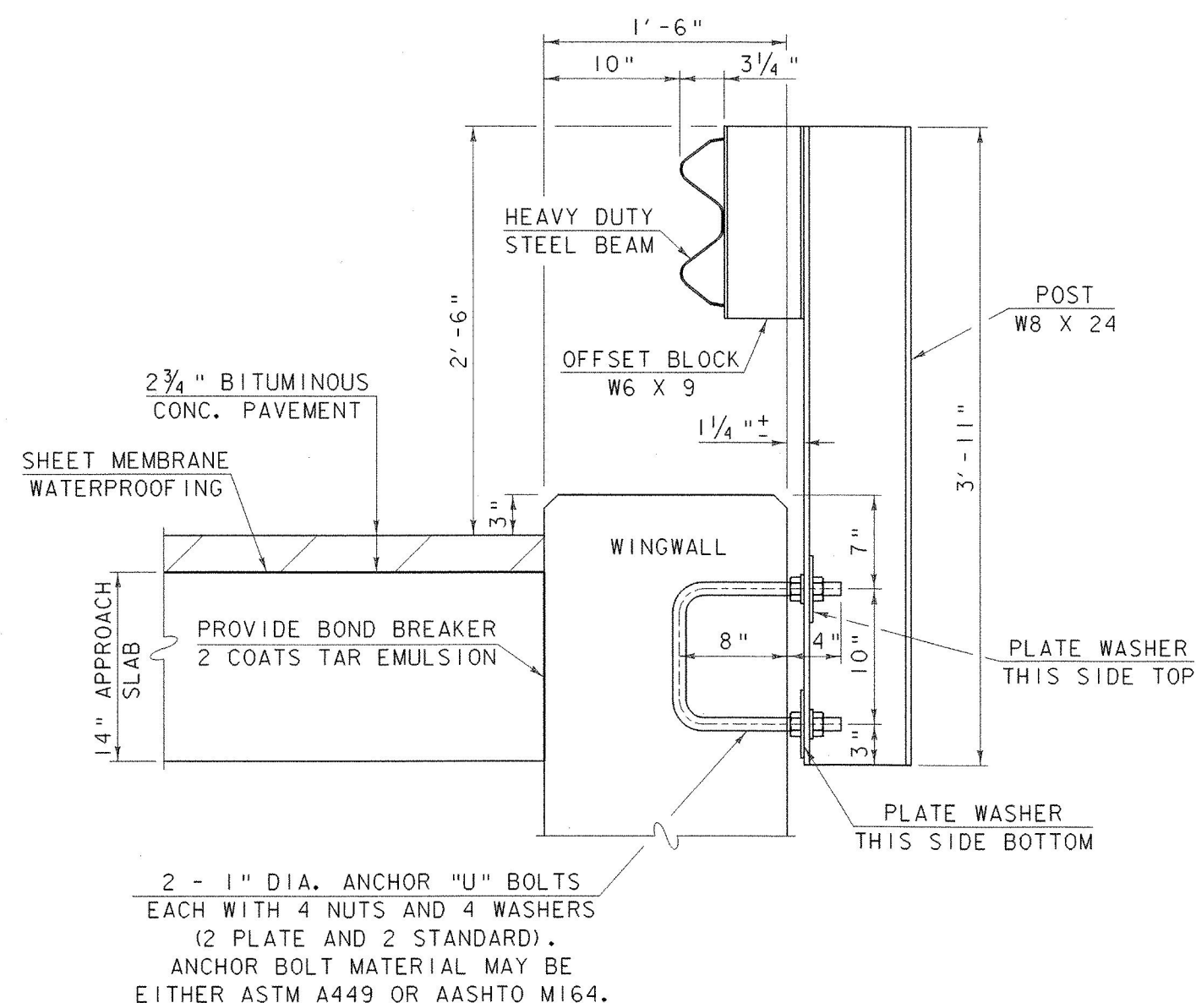


DETAIL FOR SHEET MEMBRANE AT APPROACH SLAB END

SCALE: 3" = 1'-0"

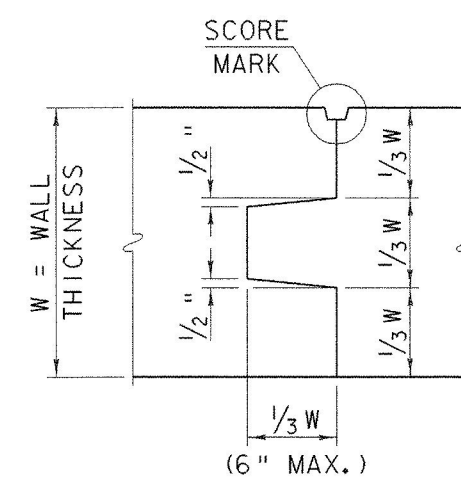
APPROACH SLAB DETAILS

PROJECT NAME:	BRANDON
PROJECT NUMBER:	BHZ 1443 (22)
FILE NAME:	87J137\Structures\sj137asd.1
PROJECT MANAGER:	R. R. WHITCOMB
DESIGNED BY:	T. SUMNER
PLOT DATE:	16-MAY-2002
DRAWN BY:	G. ROY
CHECKED BY:	T. SUMNER
SHEET	33 OF 51



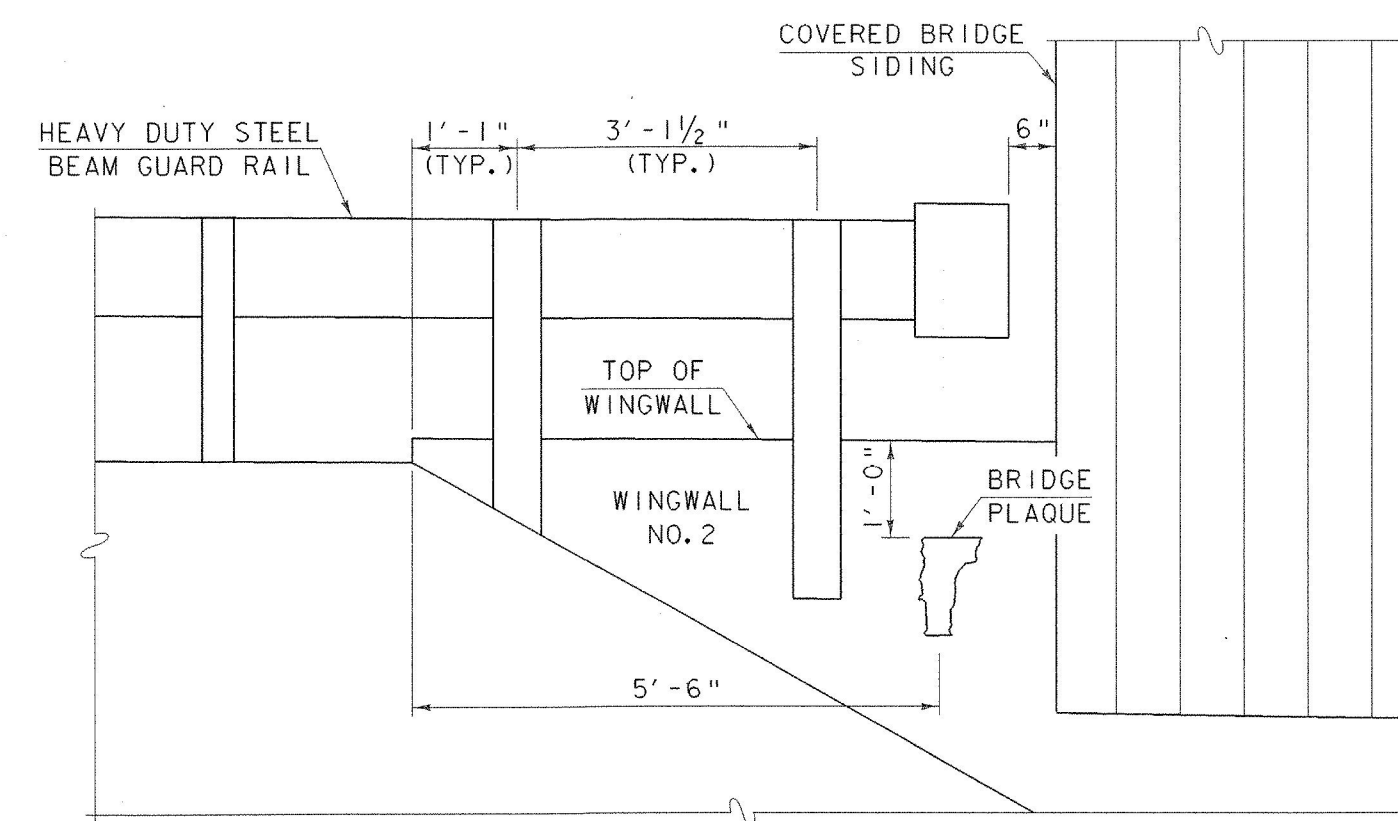
WINGWALL RAIL DETAIL

SCALE: 1 1/2" = 1'-0"



TYPICAL CONCRETE CONSTRUCTION JOINT

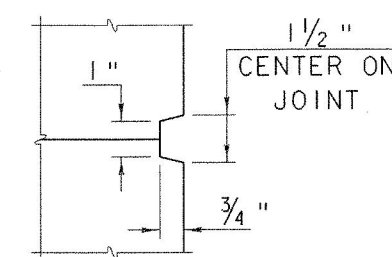
NOT TO SCALE



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	FILE NAME:	87J137\Structures\sj137mpd.i	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	34 OF 51

REINFORCING STEEL SCHEDULE

~ 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-S1). 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 SIGNA- TION	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: \87137\Structures\87137.r.xls

PLOT DATE: 9/27/01

PROJECT MANAGER: R. R. WHITCOMB

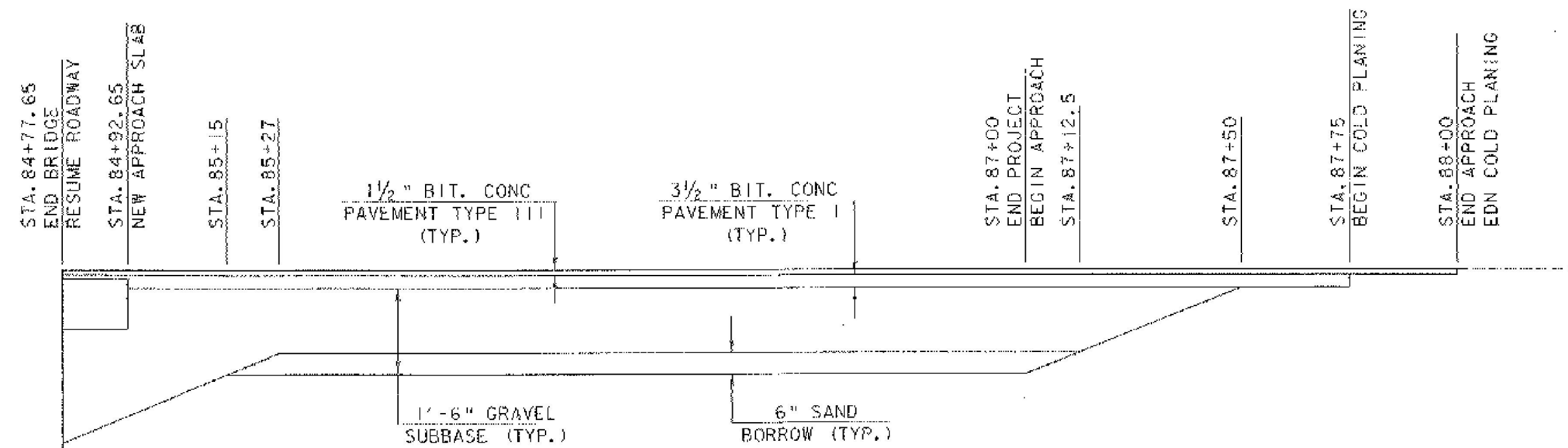
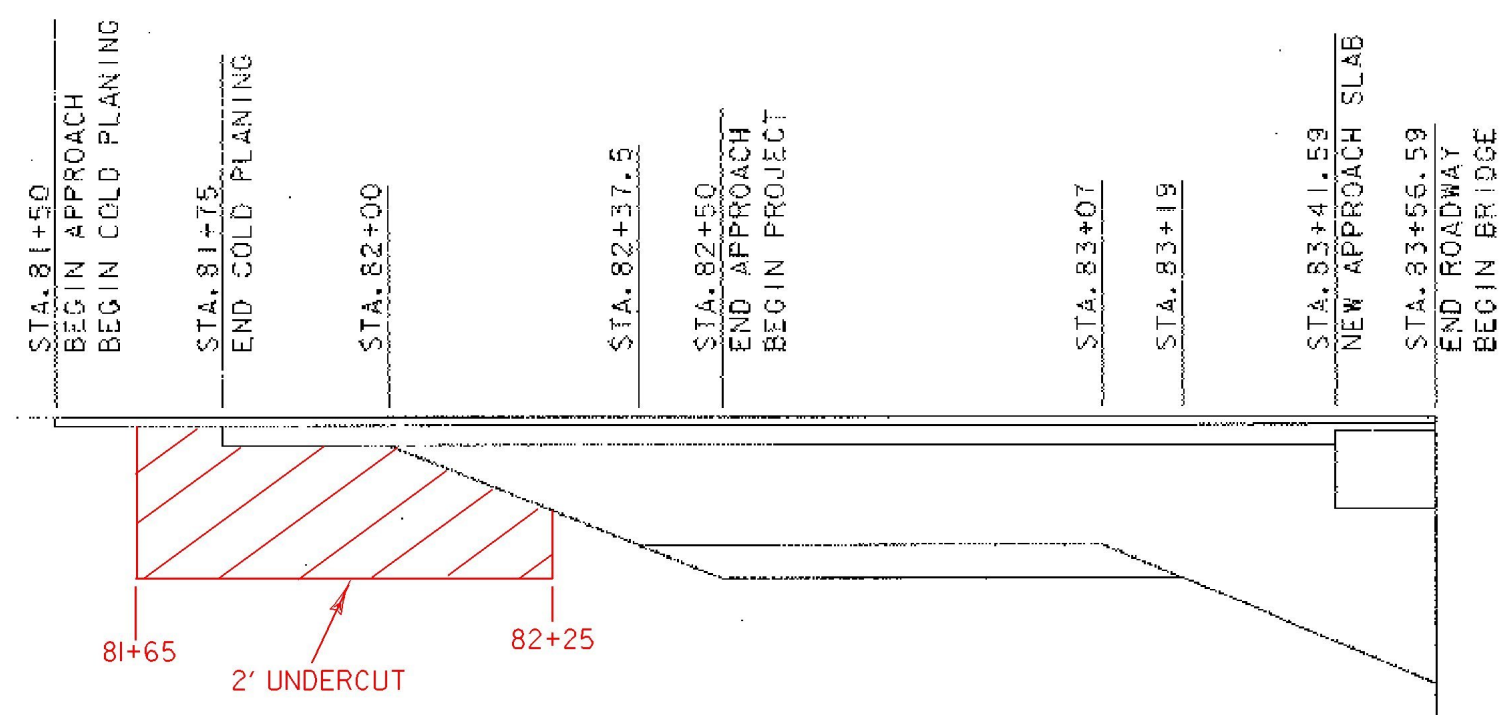
DRAWN BY: G. ROY

DESIGNED BY: T. SUMNER

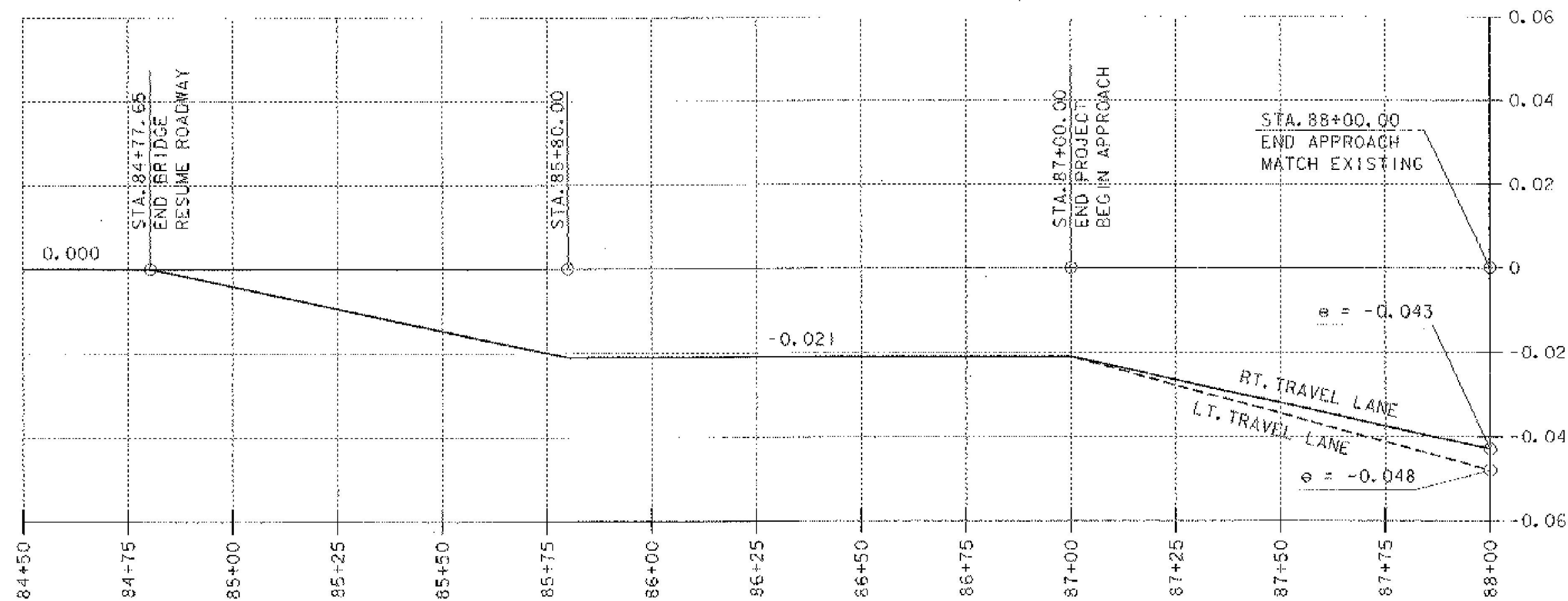
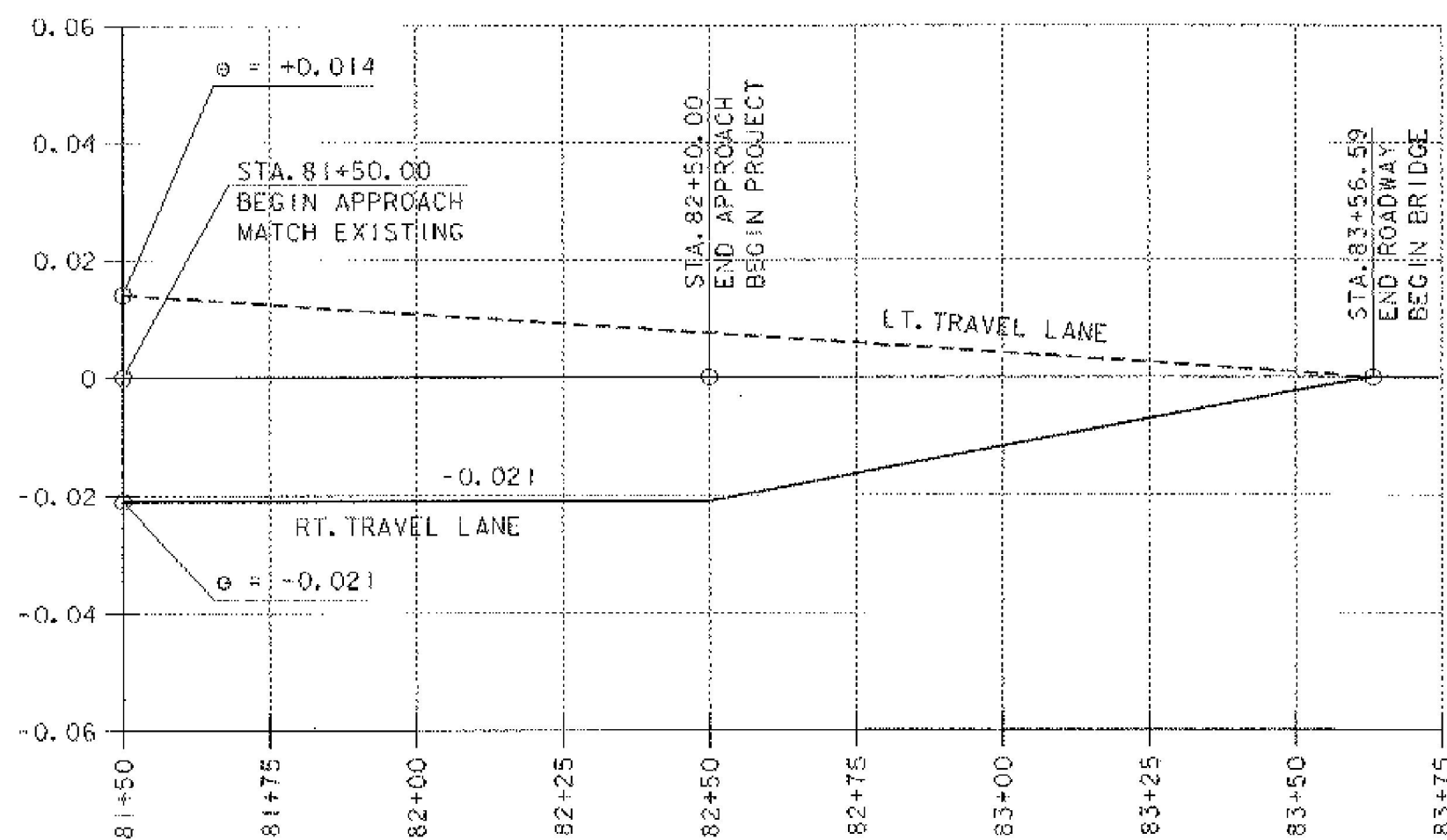
CHECKED BY: T. SUMNER

REINFORCING STEEL SCHEDULE SHEET #1

SHEET 35 OF 51



MATERIAL TRANSITION DETAIL
NOT TO SCALE

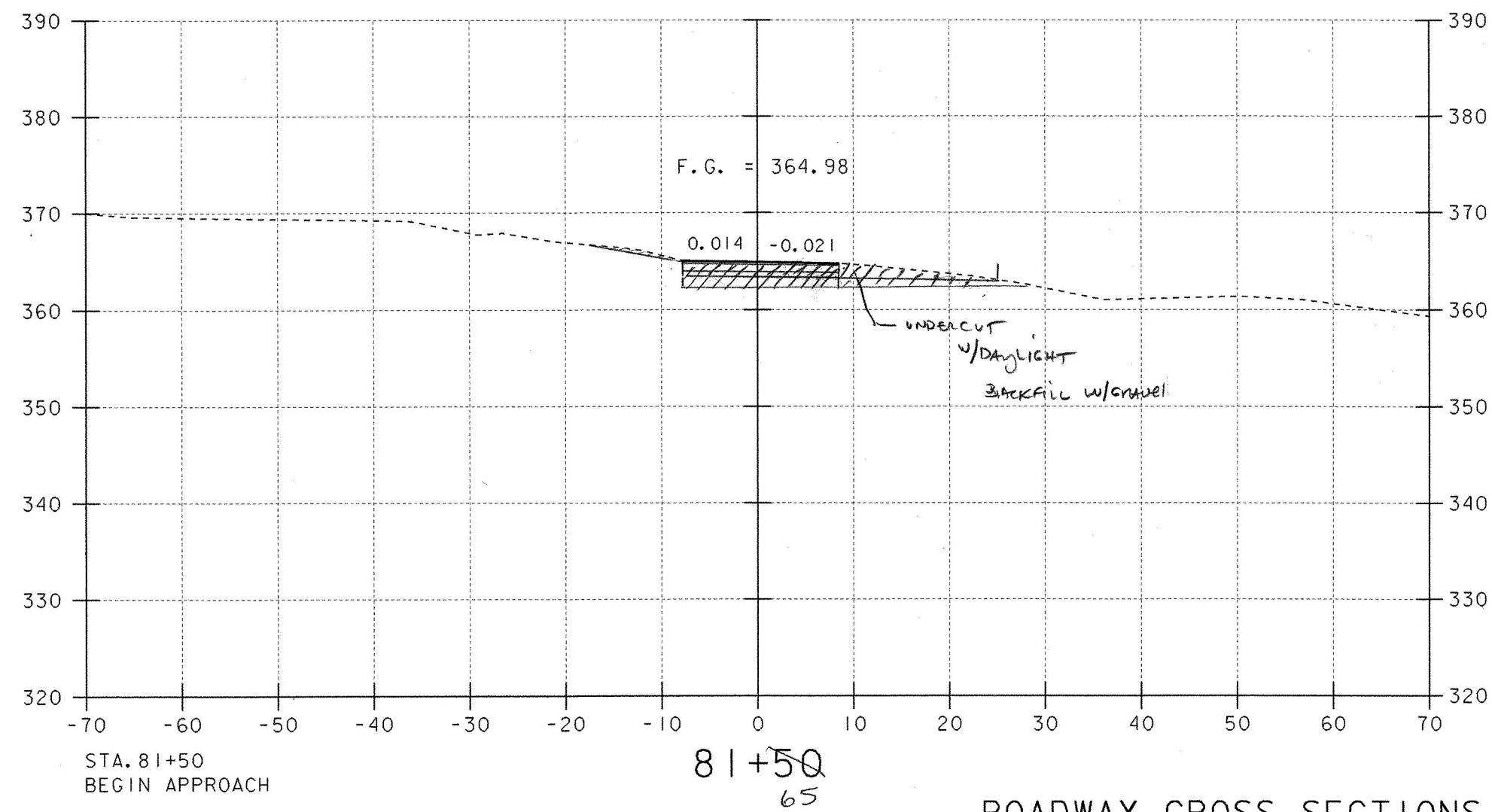
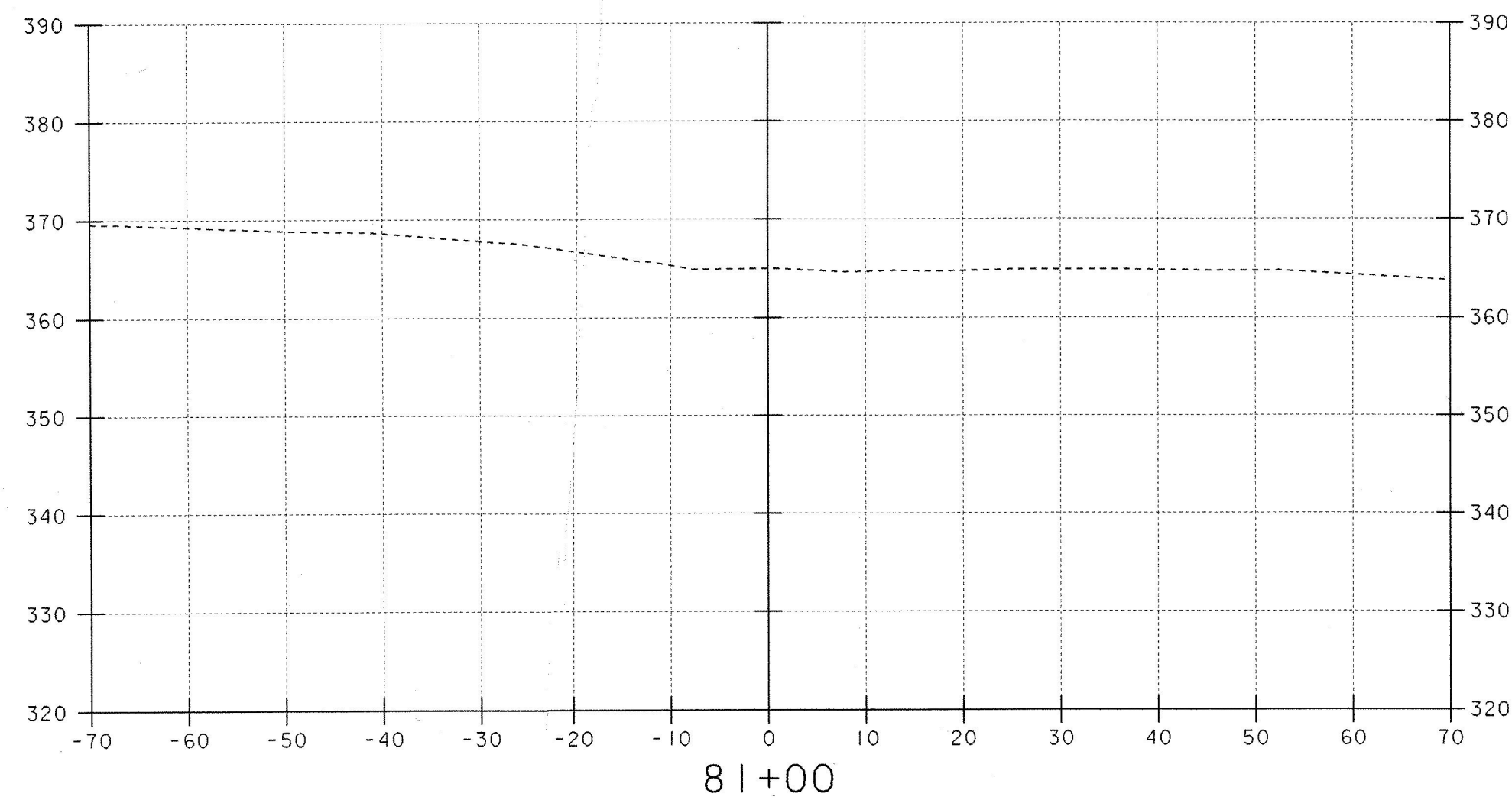
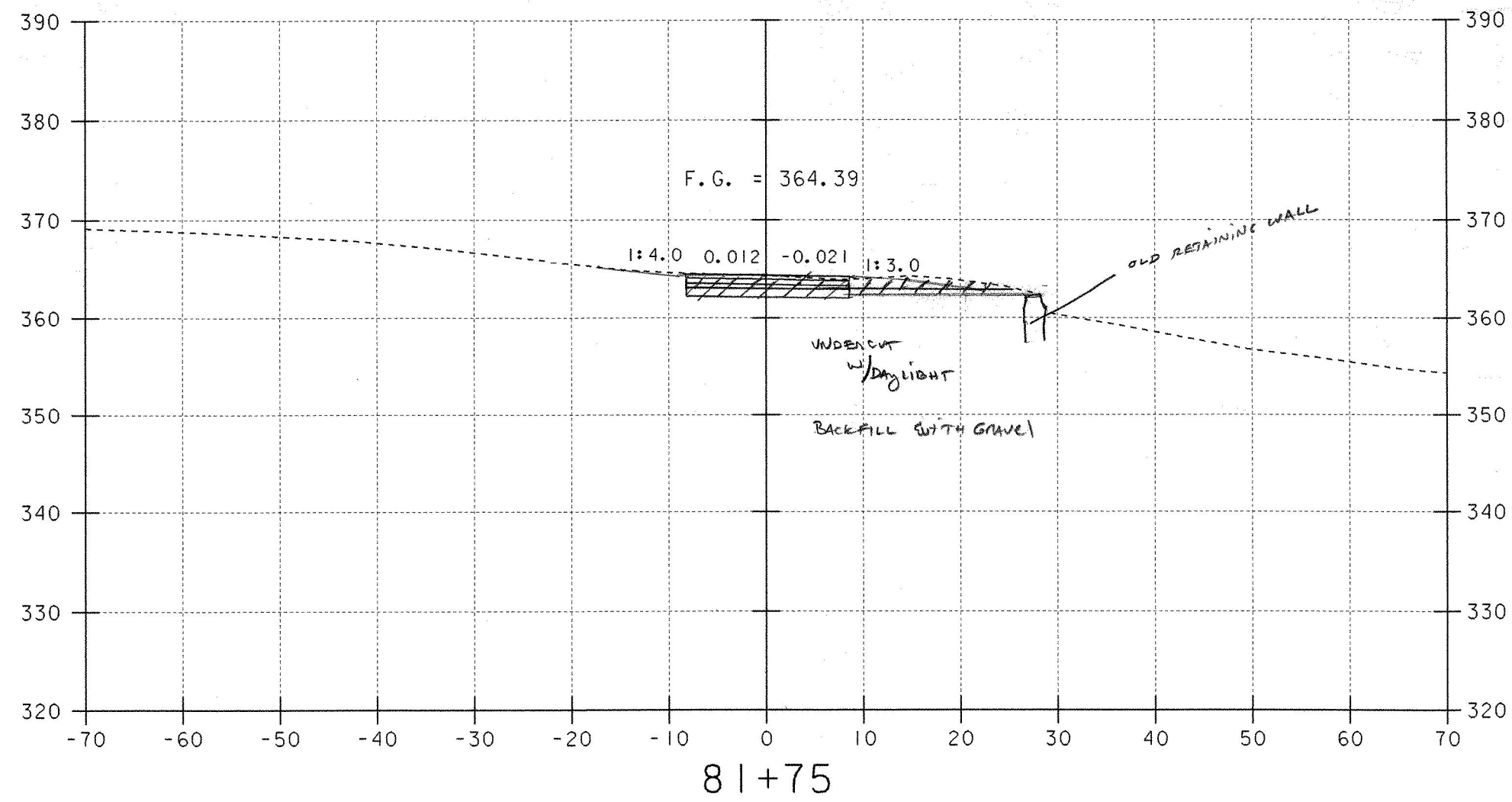
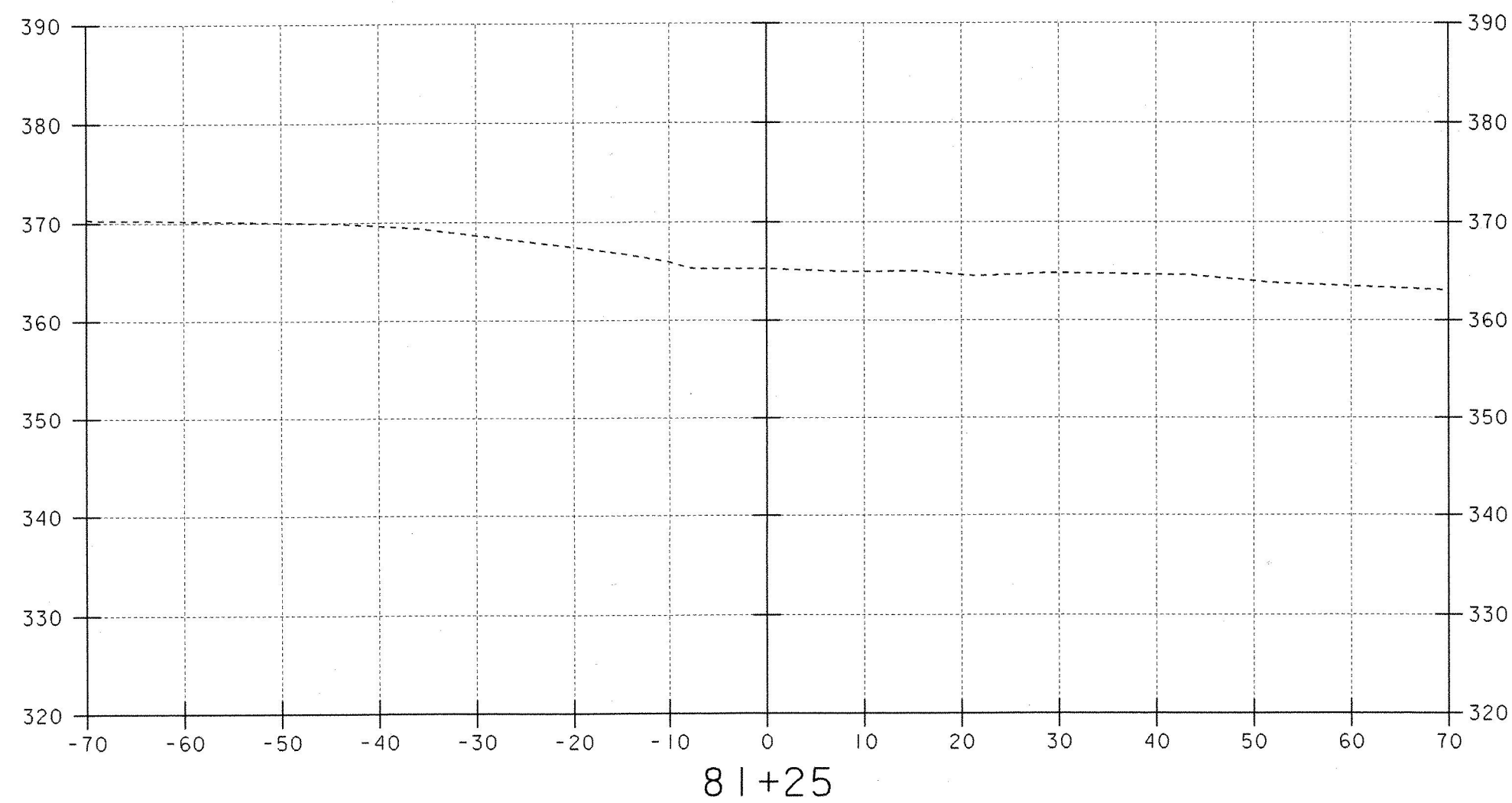


BANKING DIAGRAM

SCALE: HORIZ. 1" = 20' - 0"
SCALE: VERT. 1" = 0.02' - 0"

MATERIAL TRANSITION DETAIL
& BANKING DIAGRAM

PROJECT NAME: BRANDON	FILE NAME: 87337\structures\8737mot1	PLOT DATE: 16-MAY-2002
PROJECT NUMBER: BHZ 1443 (22)	PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: G. ROY
	DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
		SHEET 36 OF 51

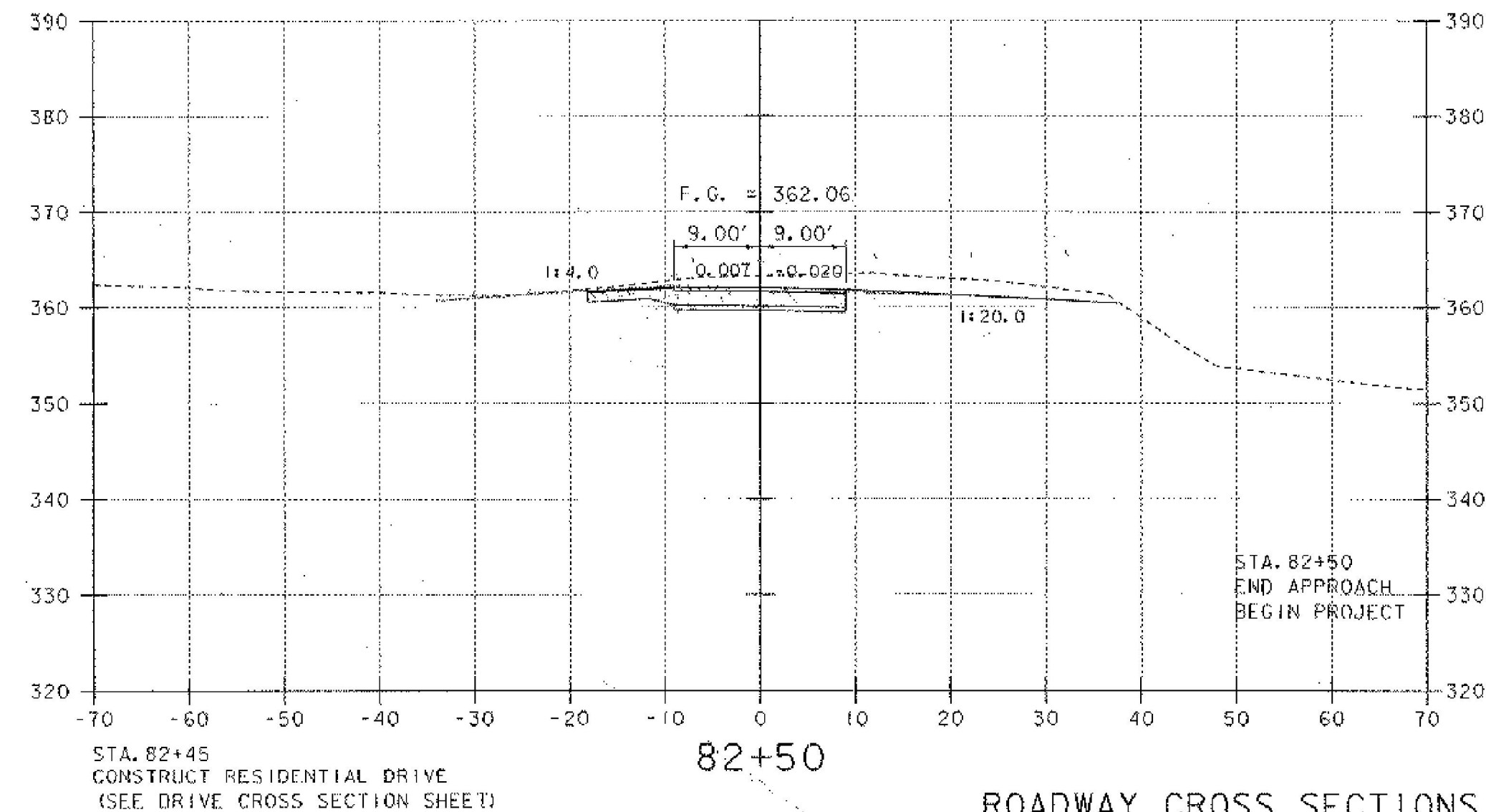
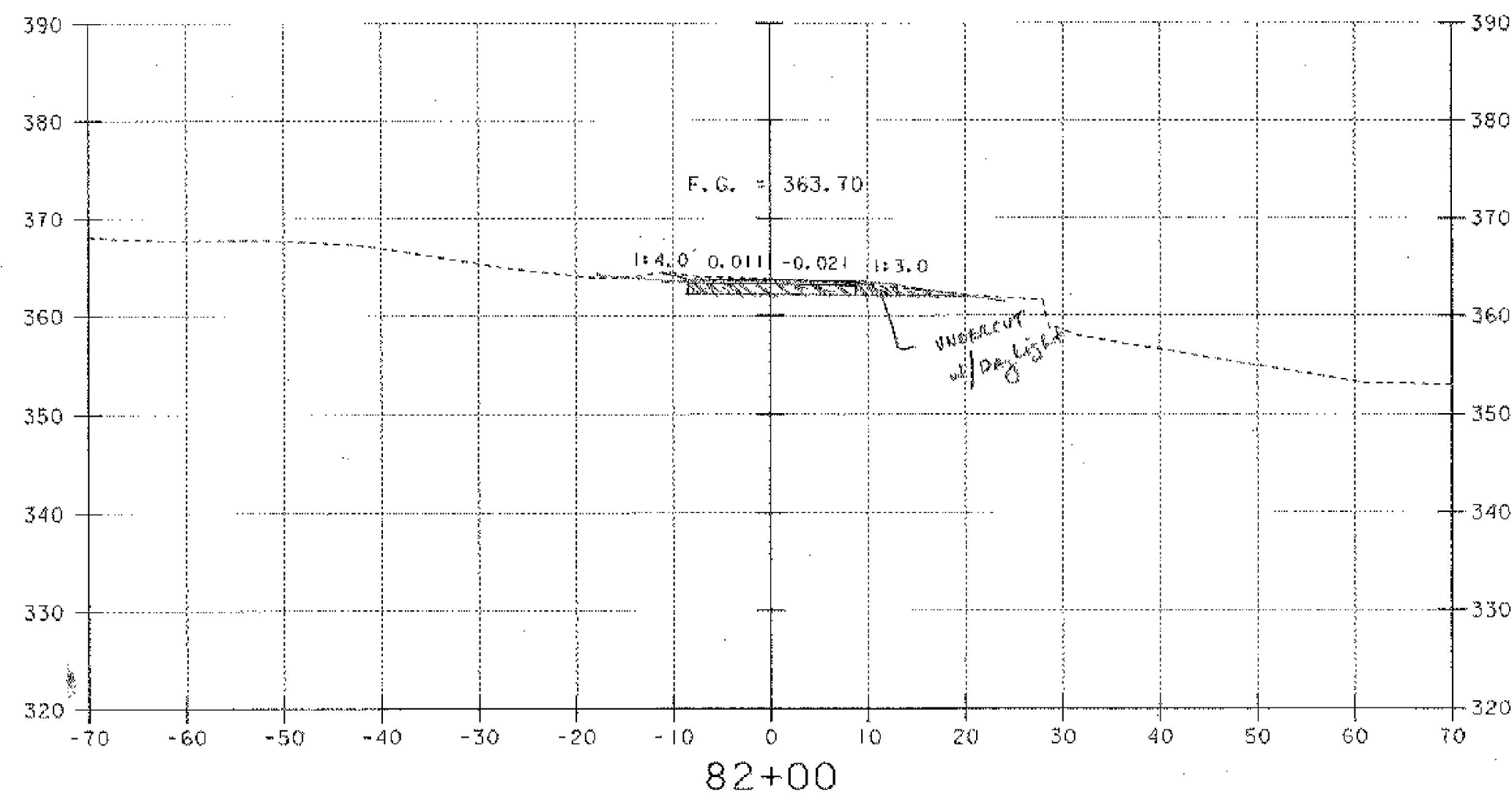
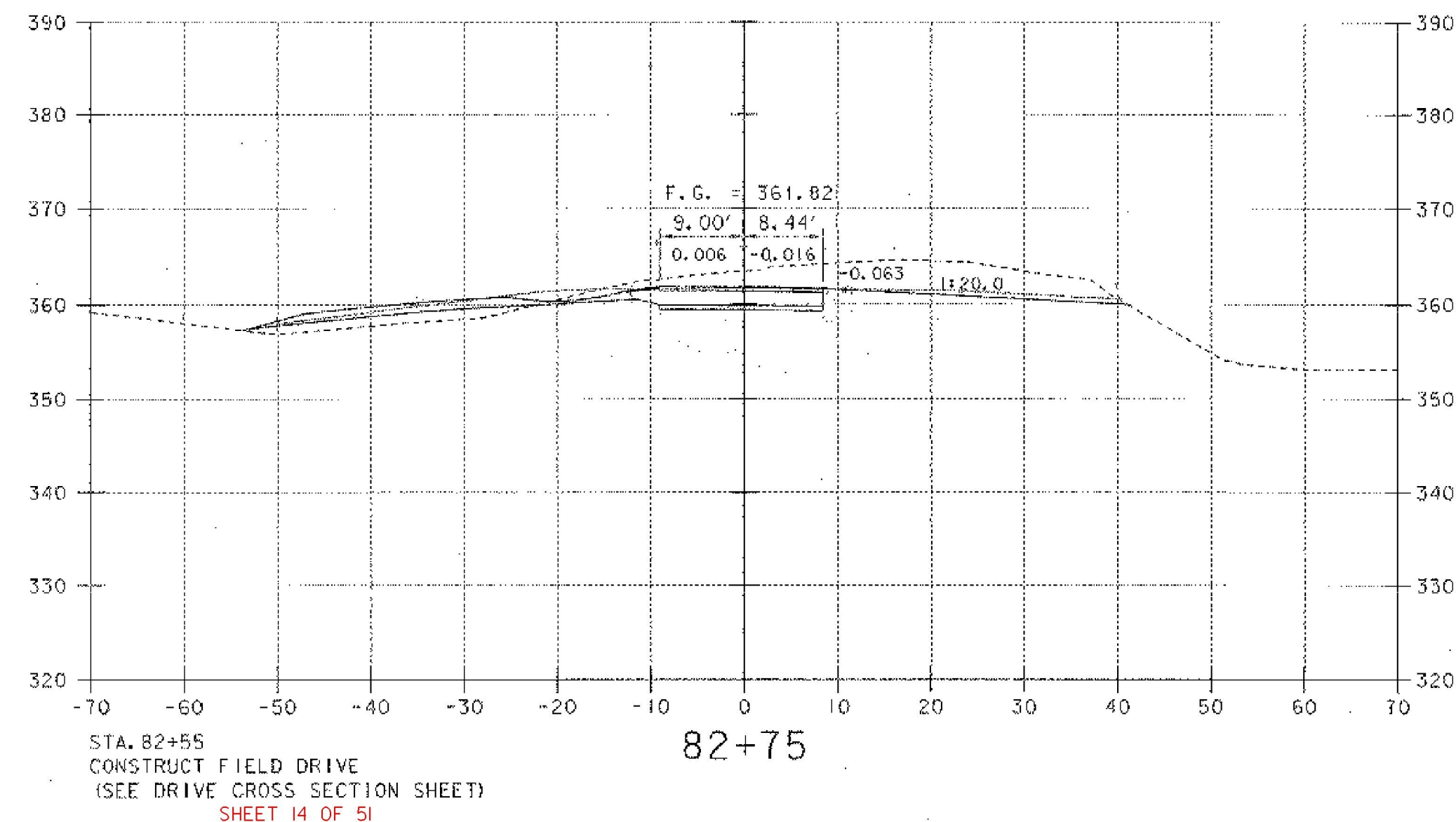
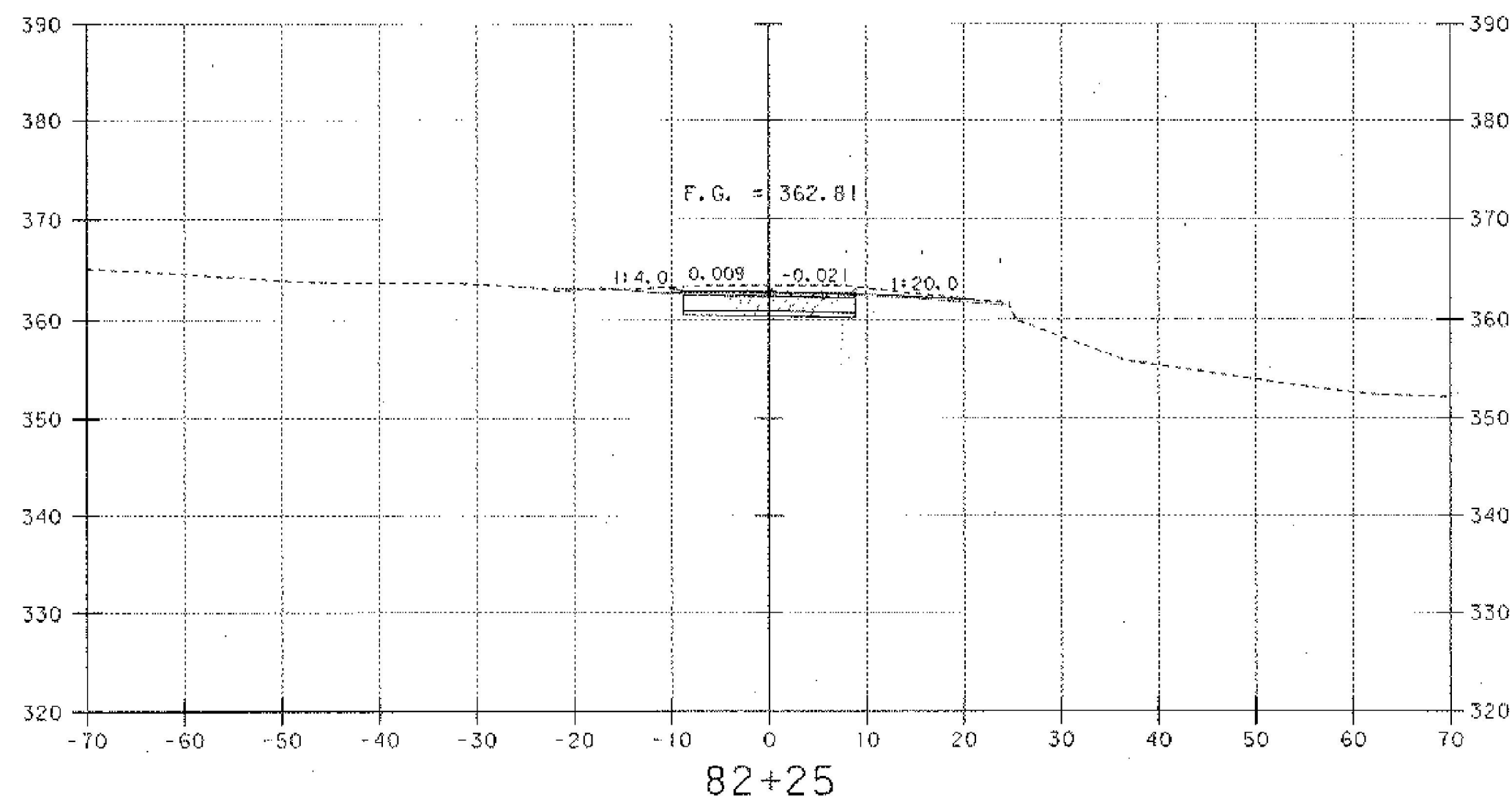


SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (1)

PROJECT NAME: BRANDON	PLOT DATE: 16-MAY-2002
PROJECT NUMBER: BHZ 1443 (22)	DRAWN BY: G. ROY
FILE NAME: 87J137\Structures\87J137m01.1	CHECKED BY: T. SUMNER
PROJECT MANAGER: R. R. WHITCOMB	SHEET 37 OF 51
DESIGNED BY: T. SUMNER	

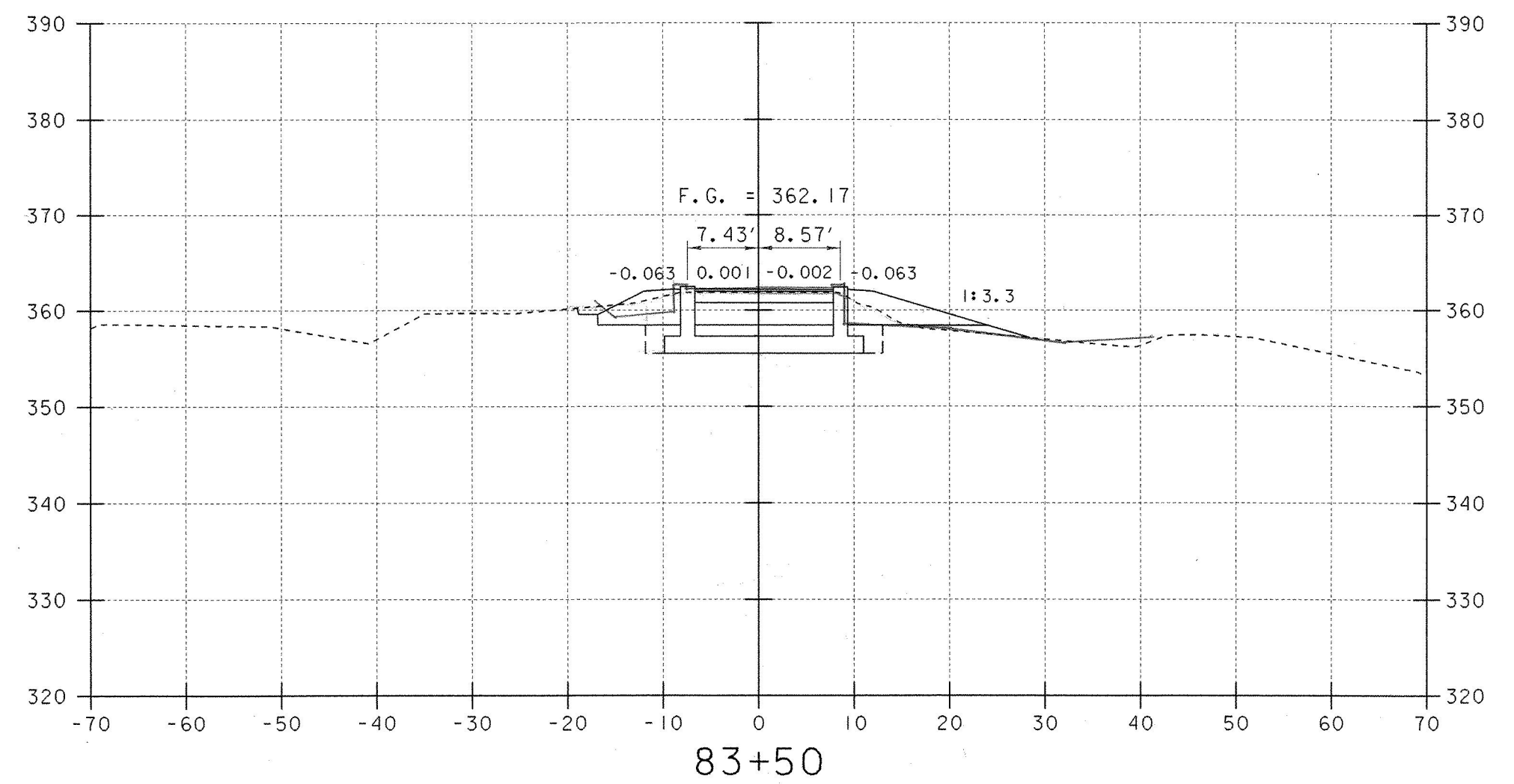
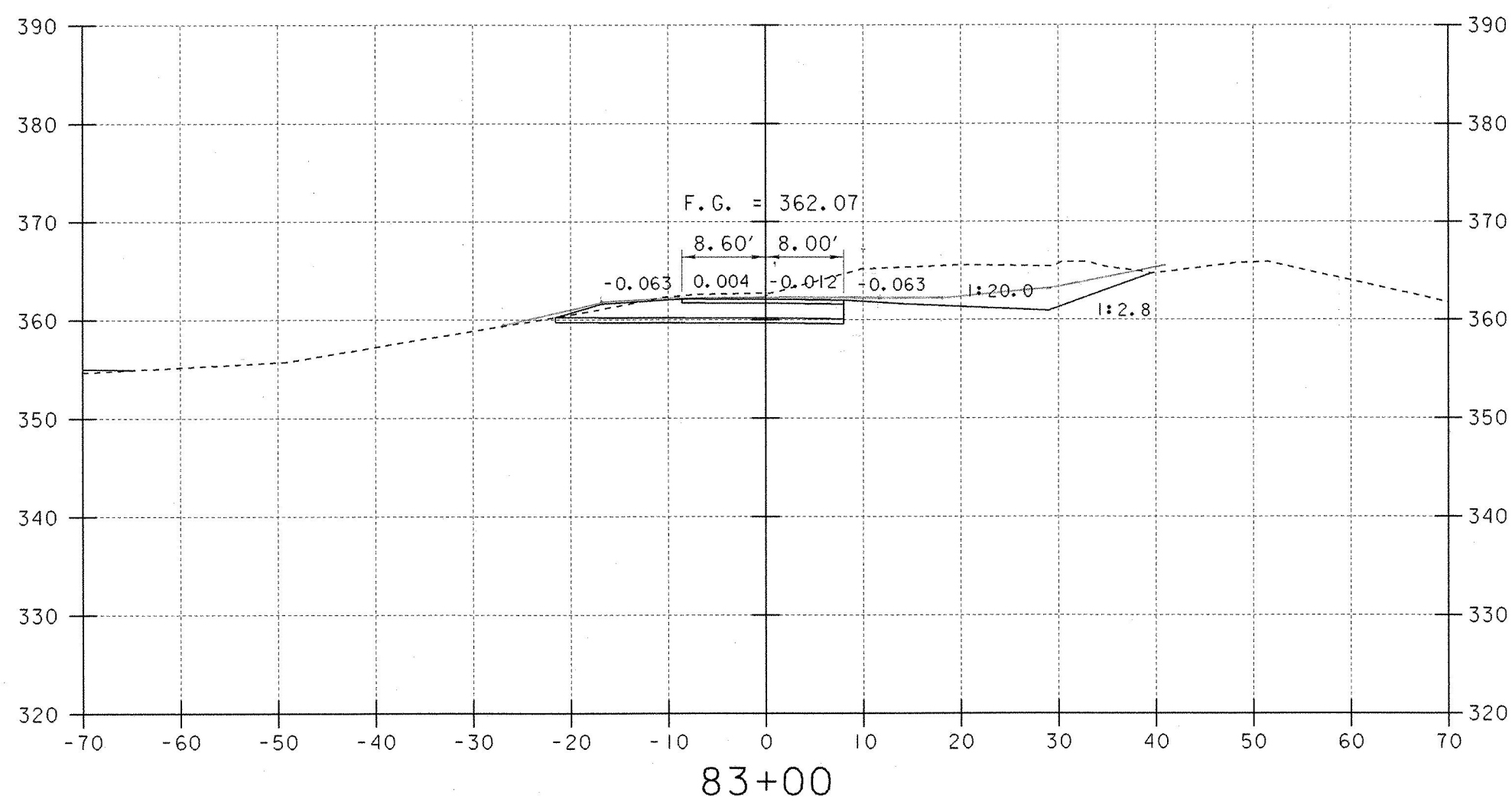
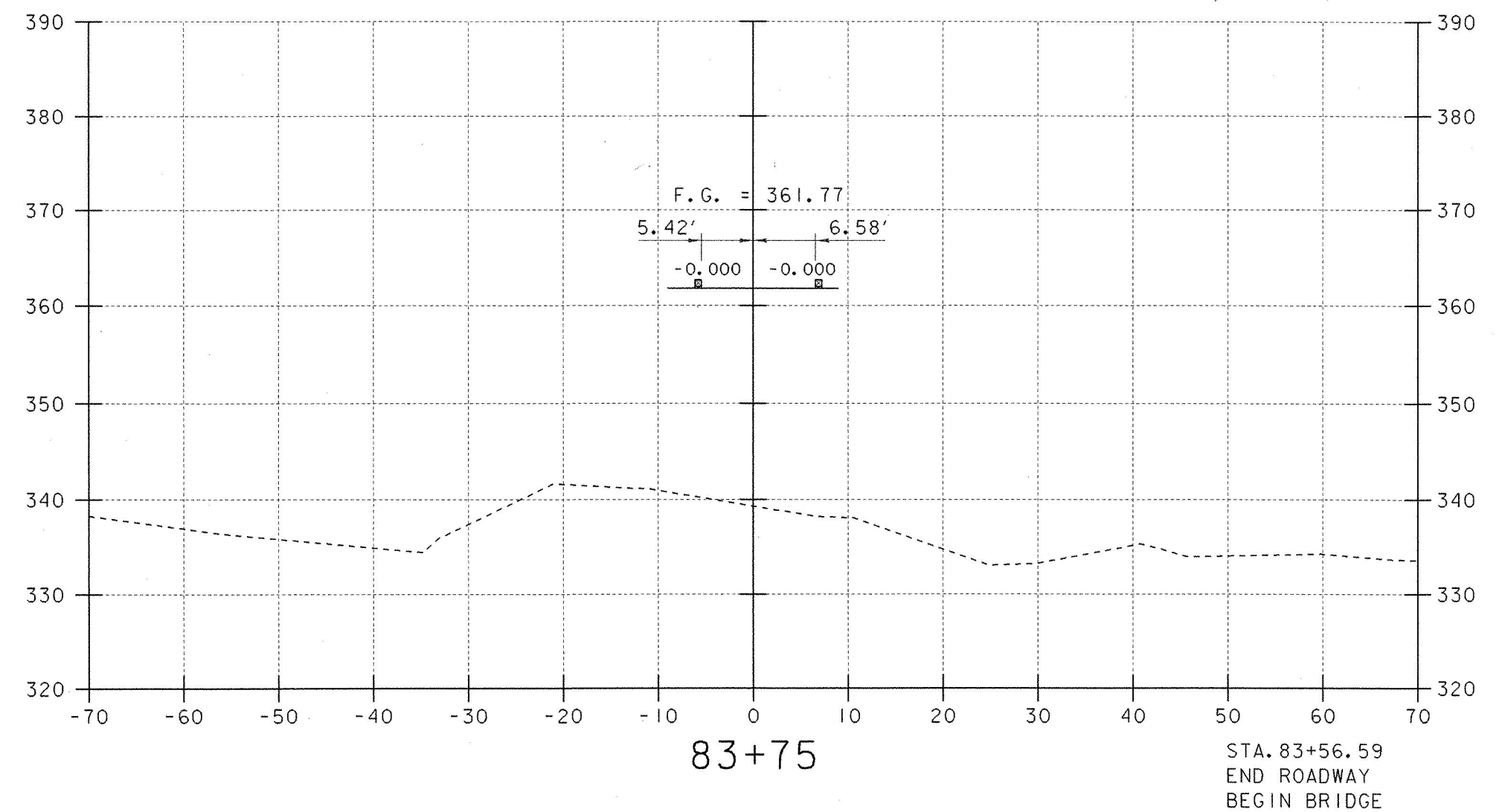
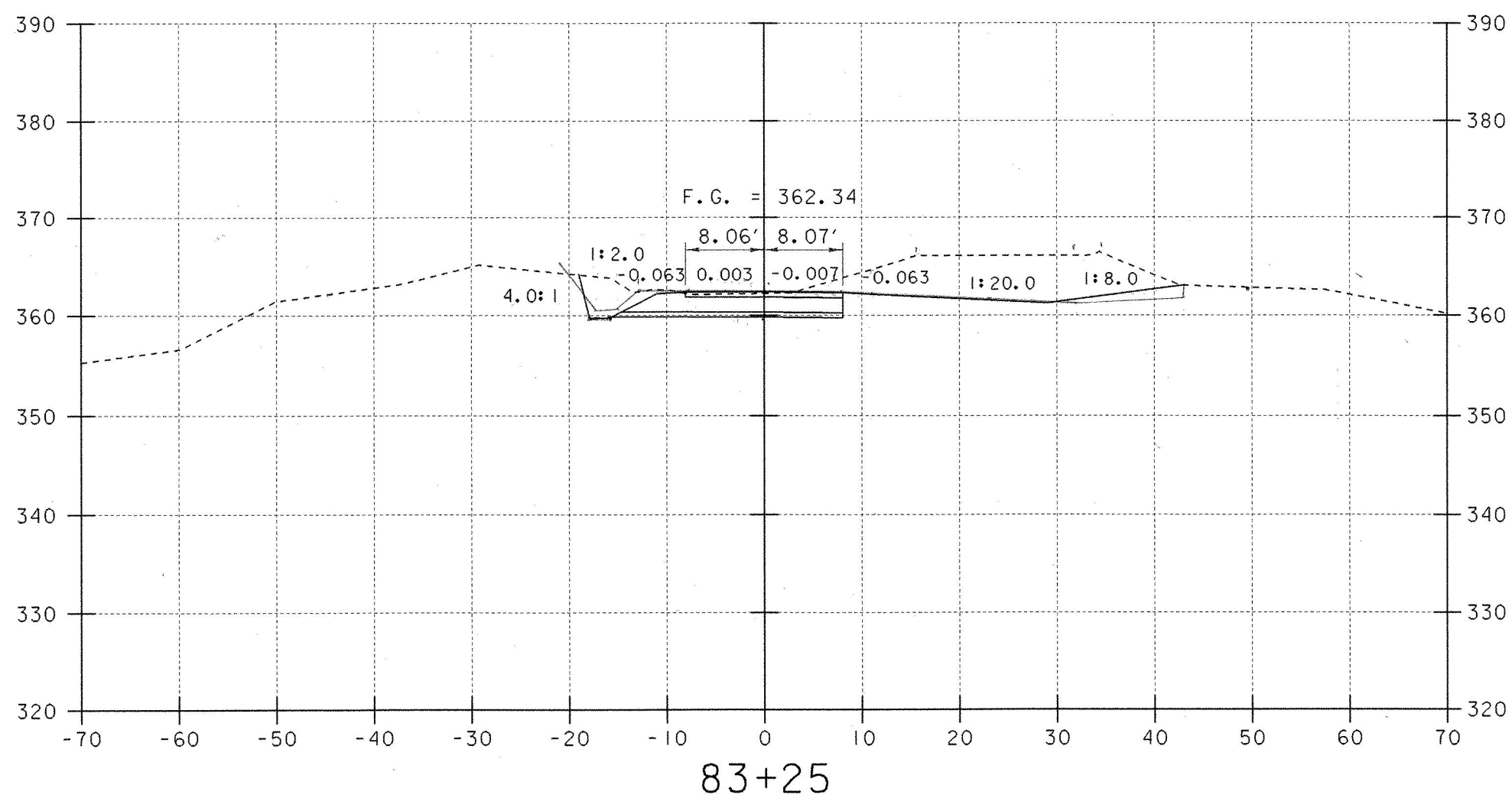
5/12/02
5/12/02



SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (2)

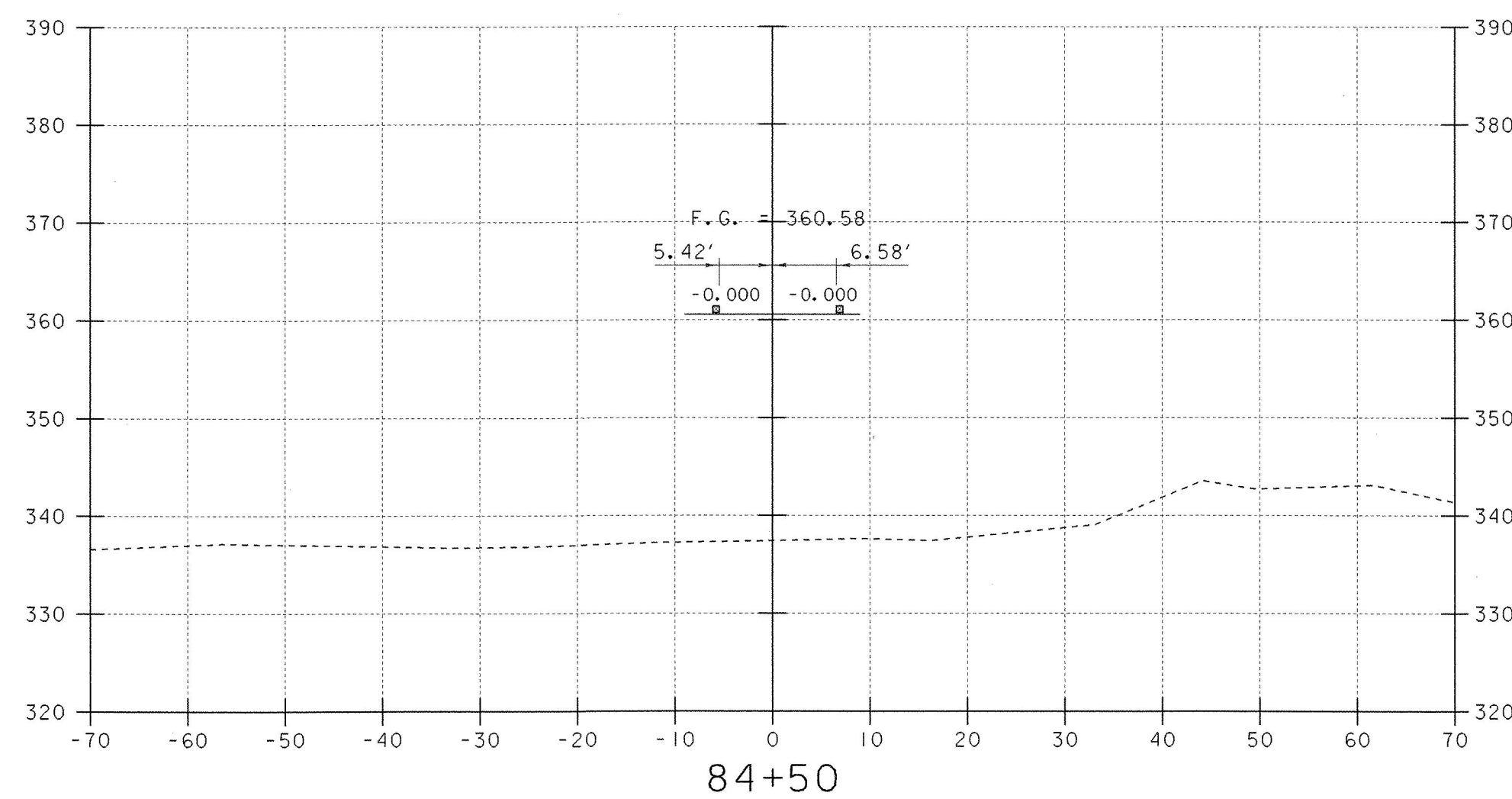
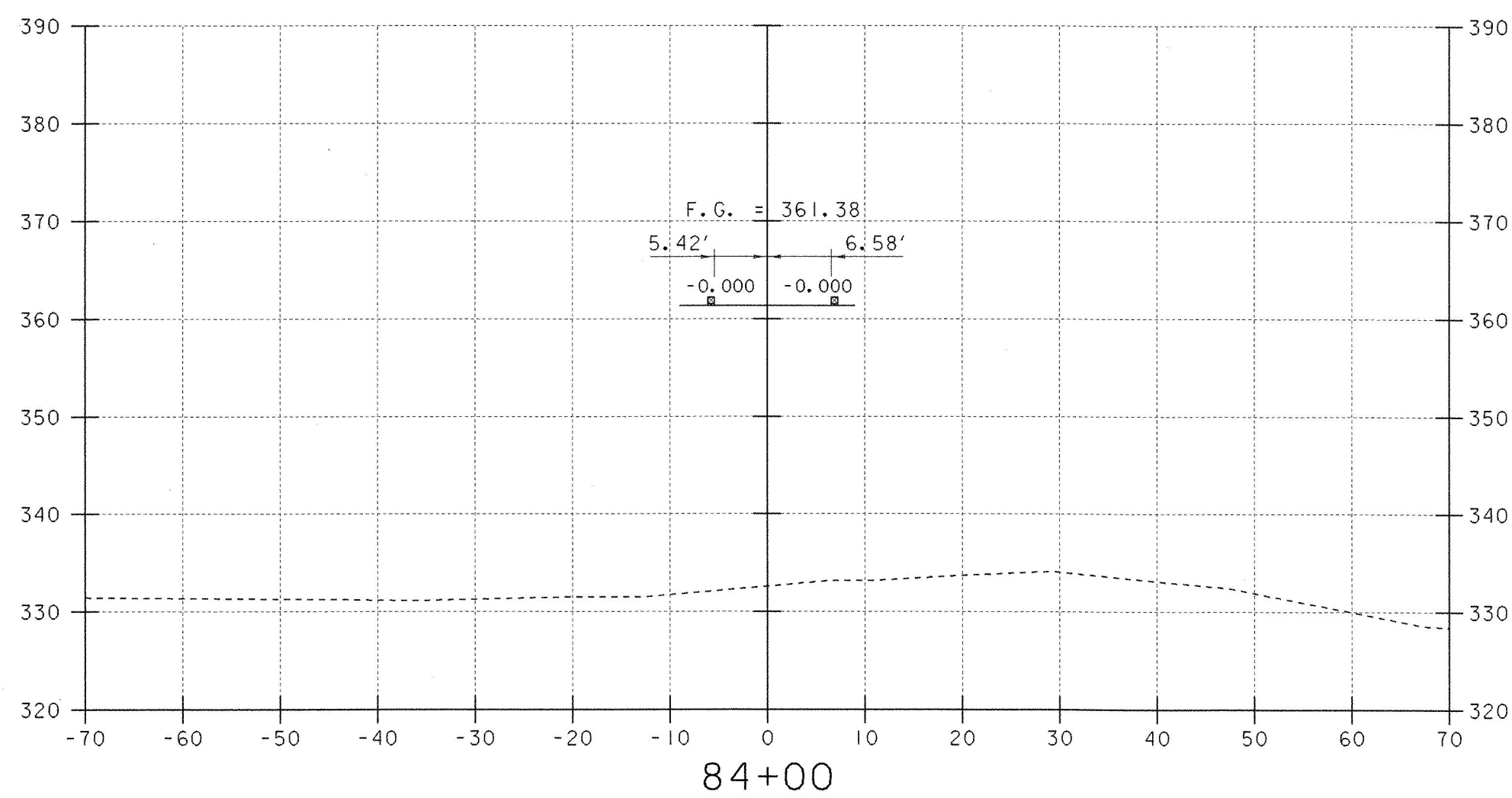
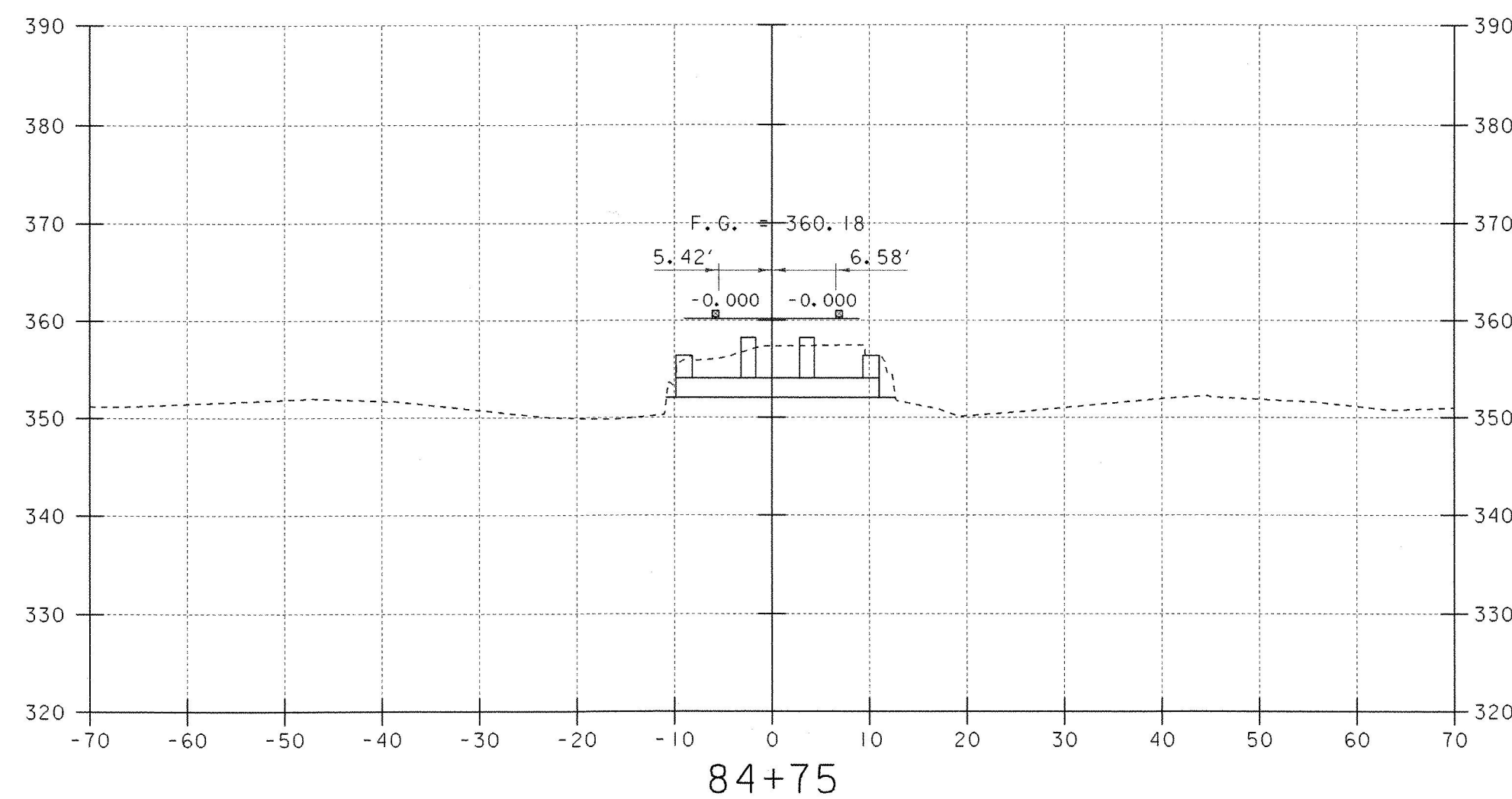
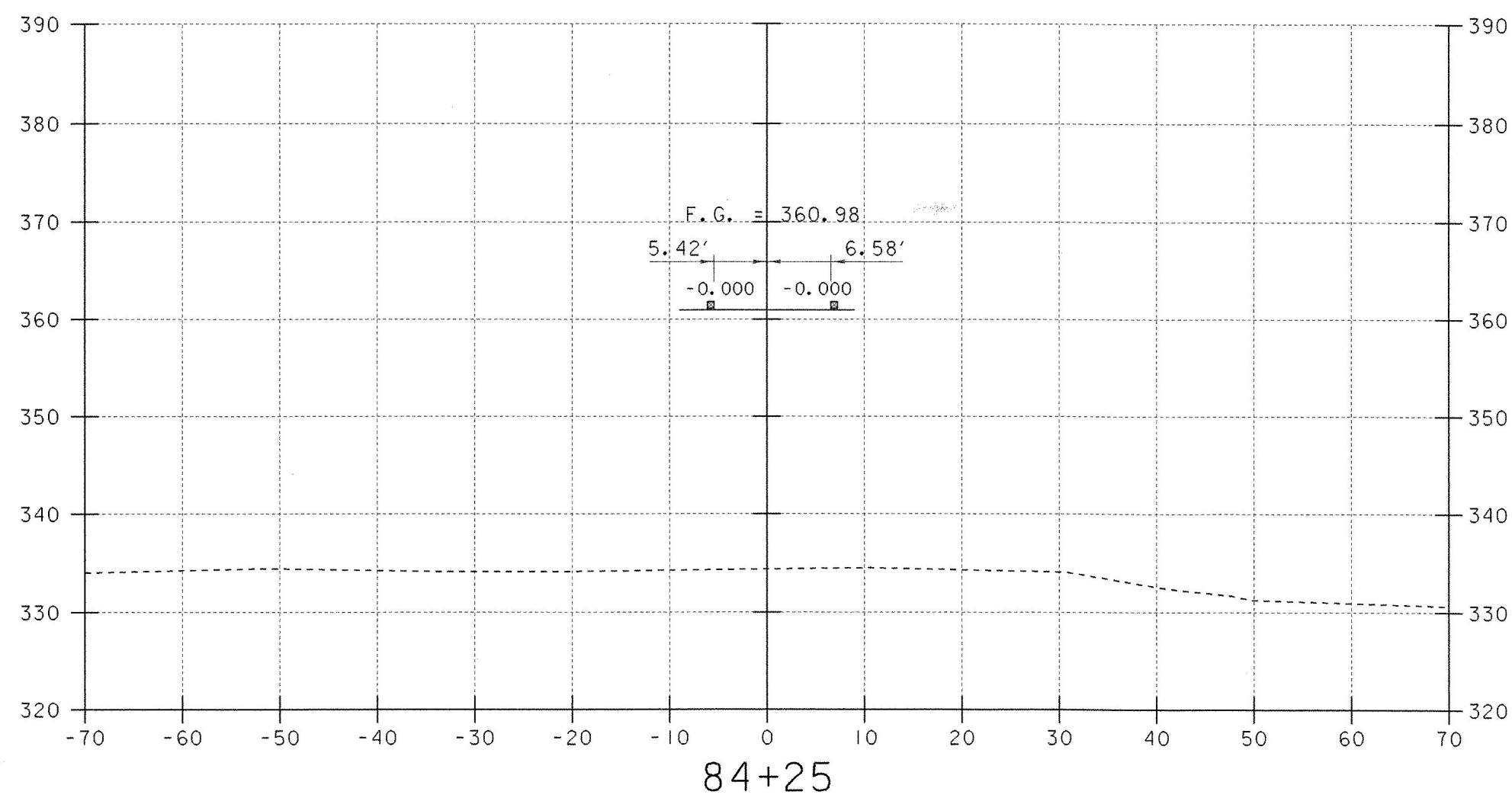
PROJECT NAME:	BRANDON	FILE NAME:	87137\Structures\137m02.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	38 OF 51



SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (3)

PROJECT NAME:	BRANDON	1458
PROJECT NUMBER:	BHZ 1443 (22)	
FILE NAME:	87j137\Structures\sj137m03.1	PLOT DATE: 16-MAY-2002
PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY:	T. SUMNER	CHECKED BY: T. SUMNER
		SHEET 39 OF 51

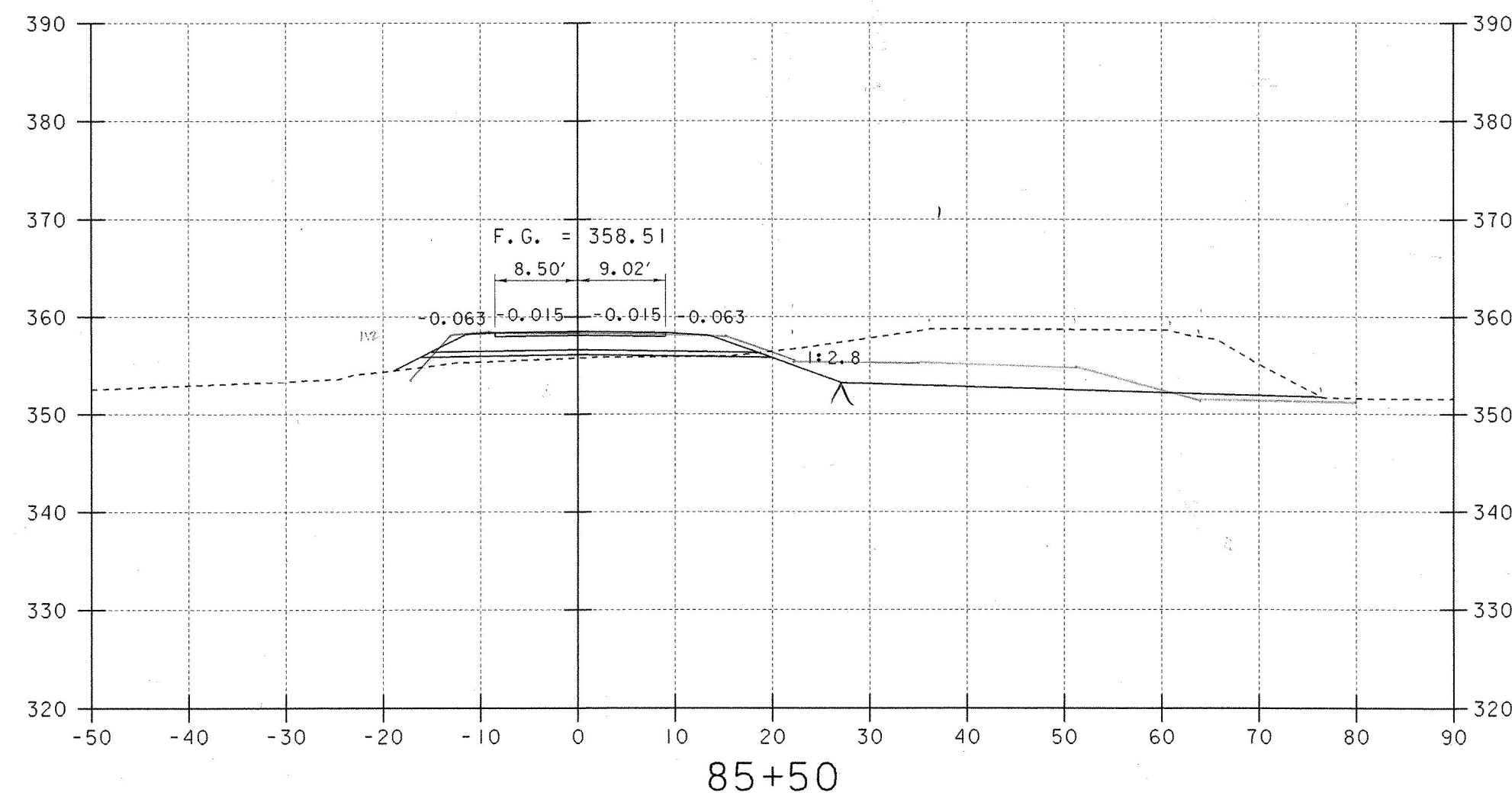
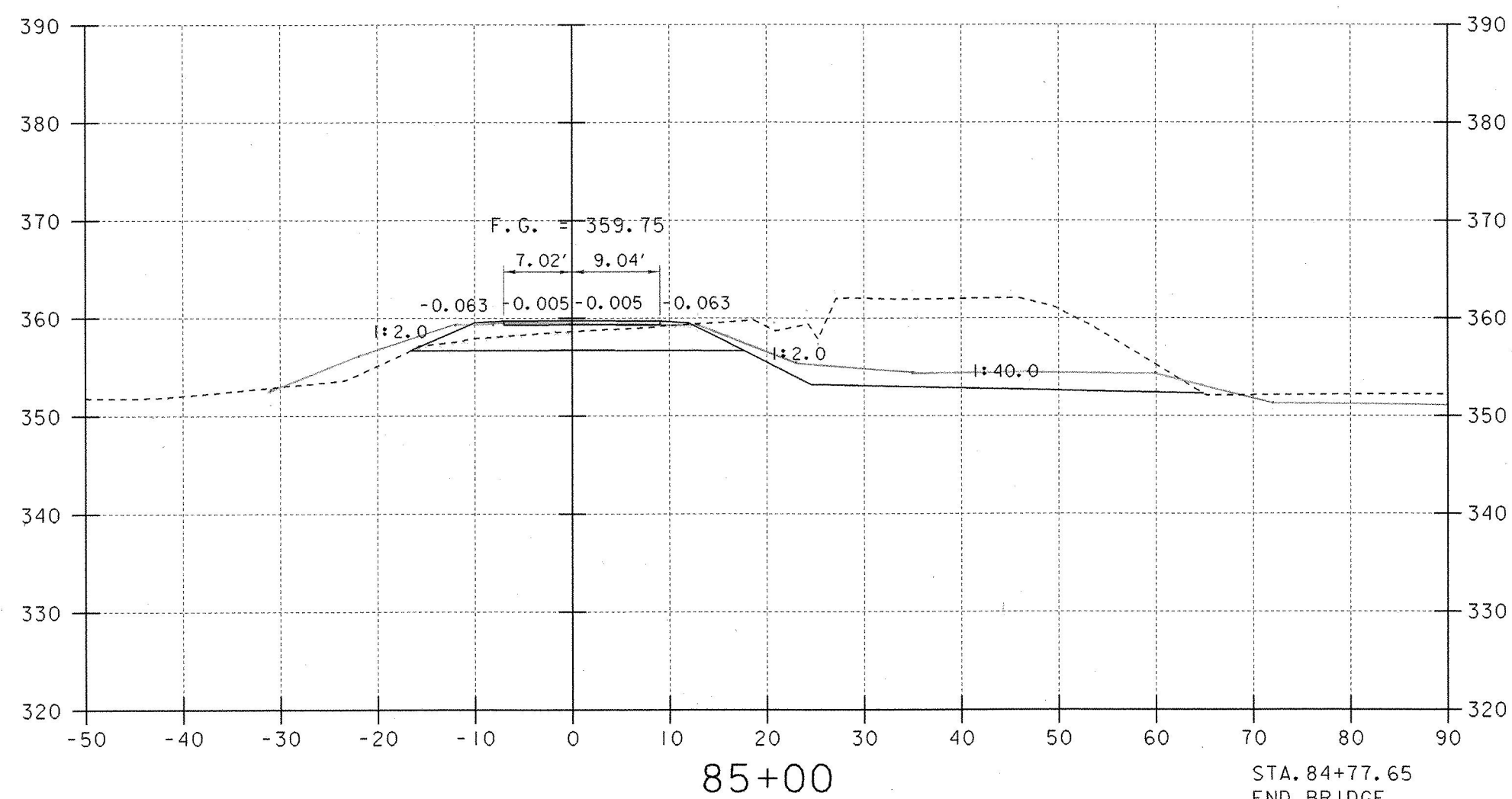
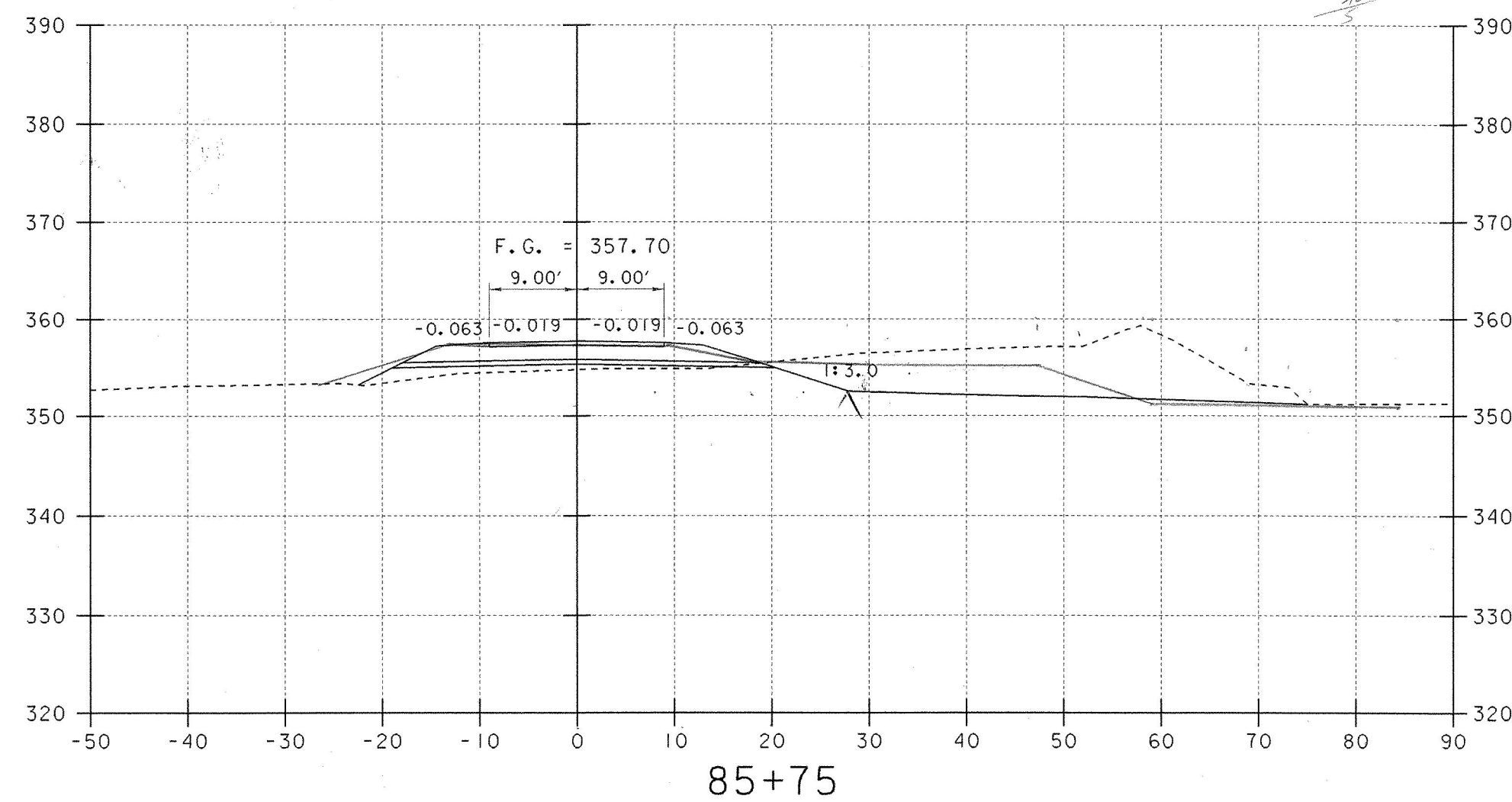
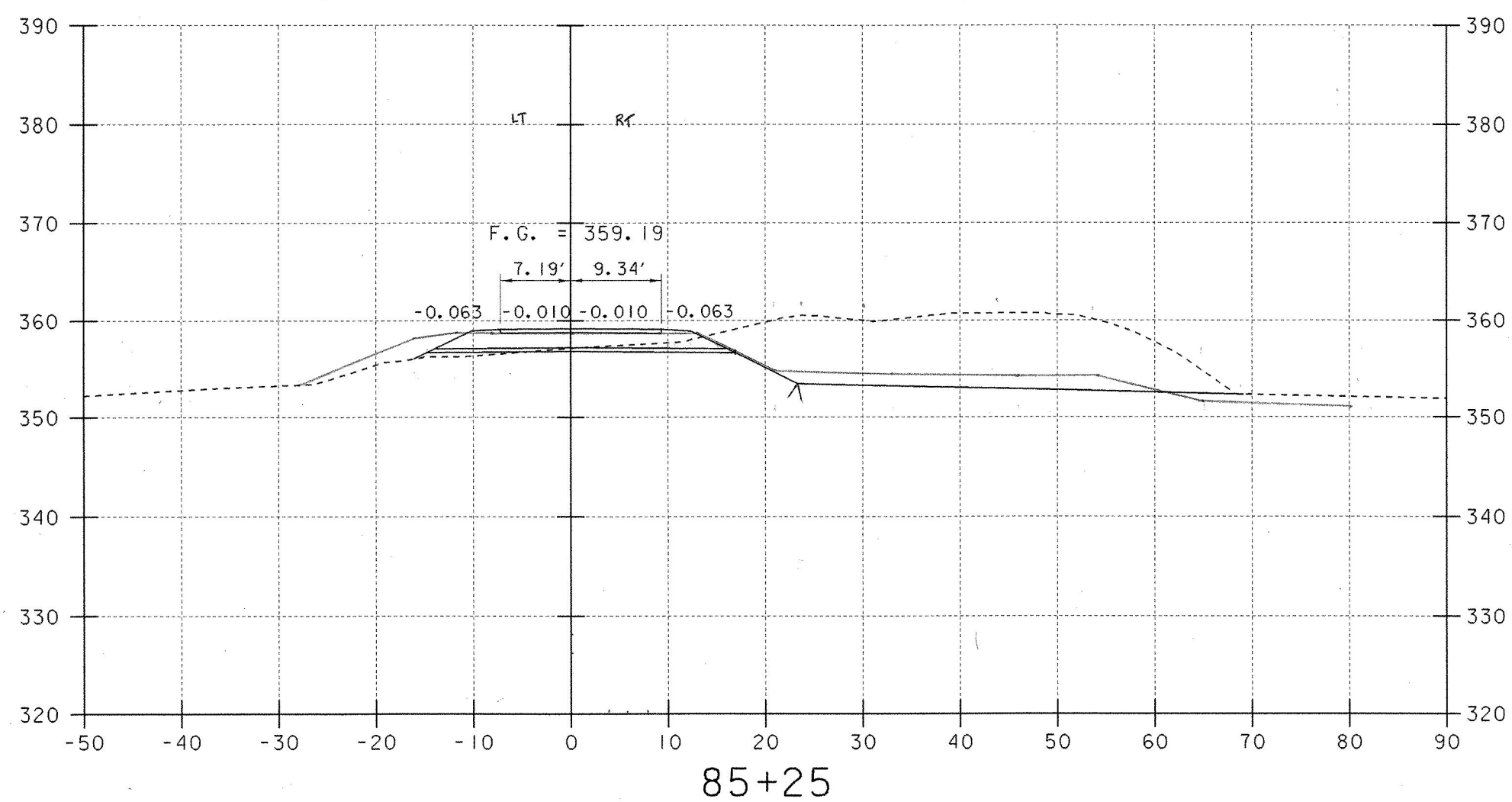


SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (4)

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87j137\Structures\sj137m04.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	40 OF 51
DESIGNED BY:	T. SUMNER		

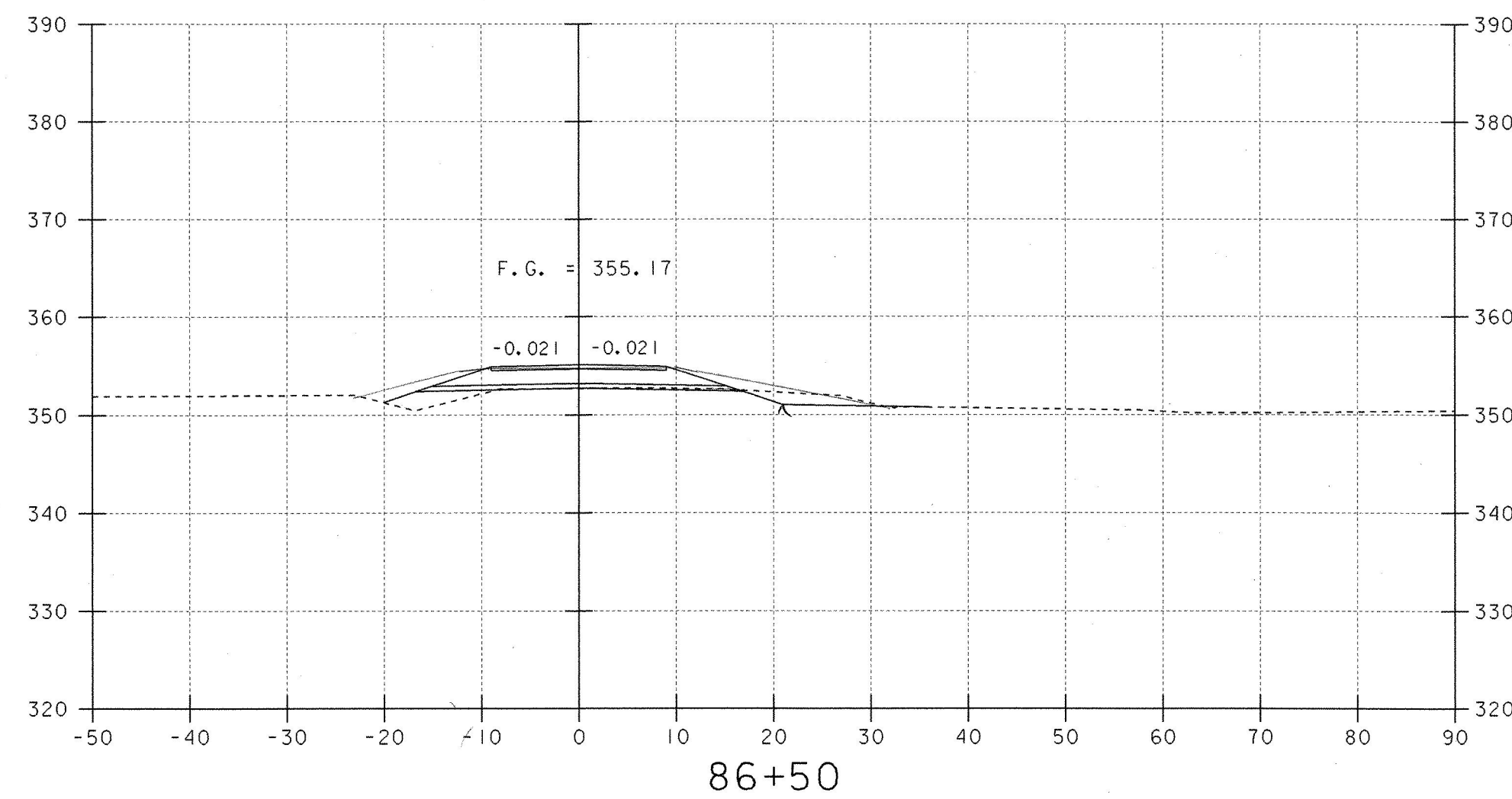
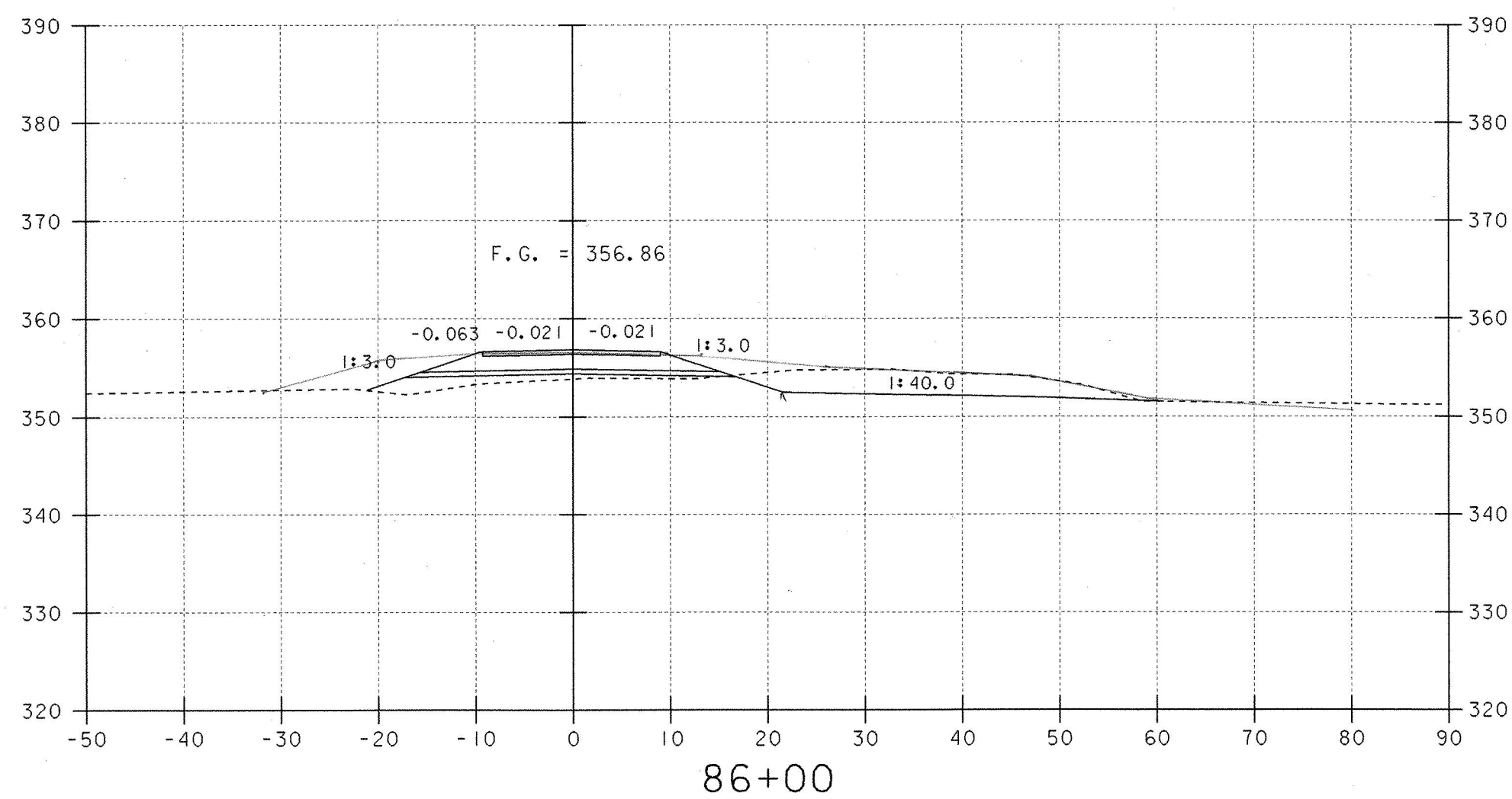
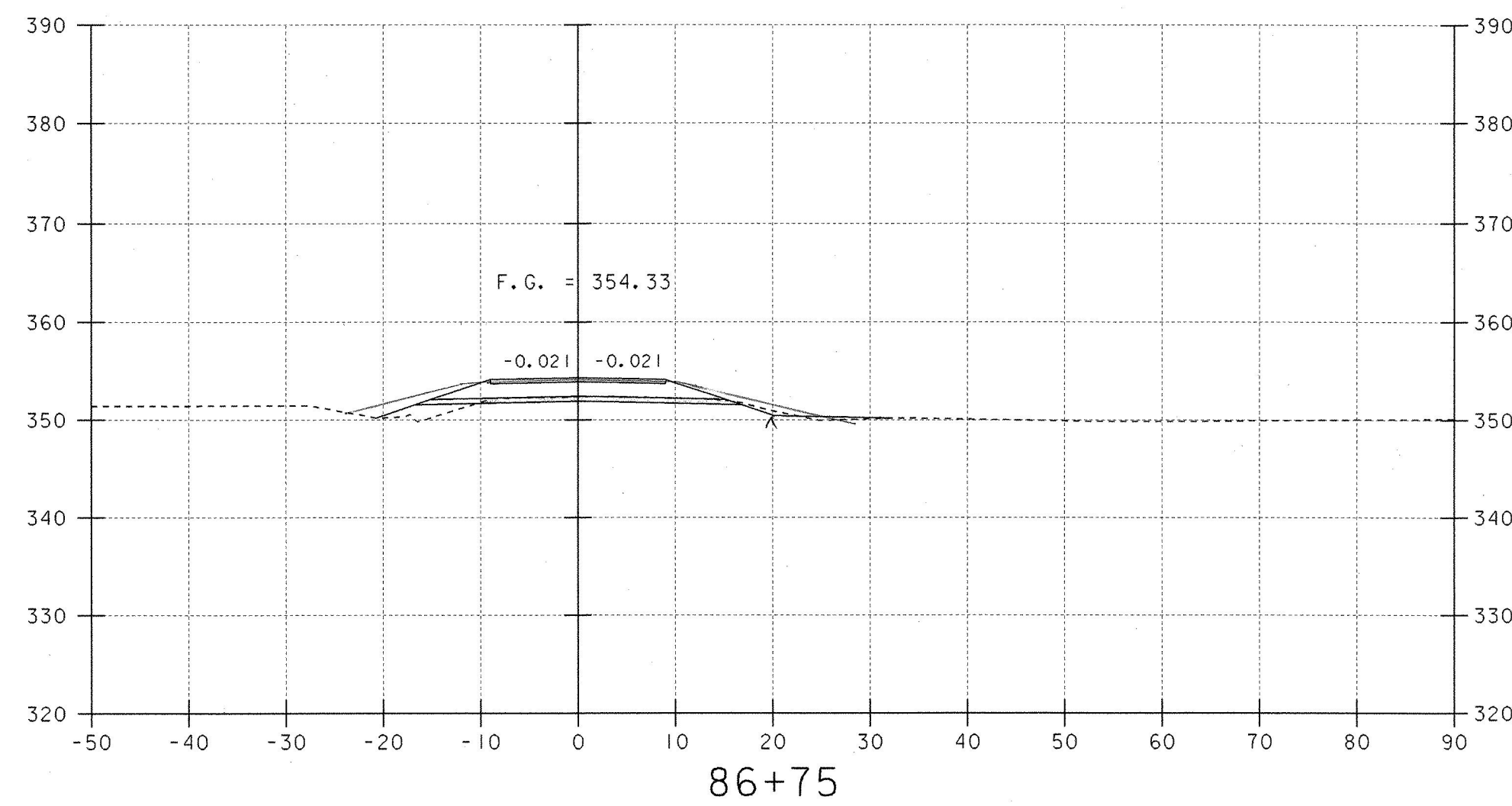
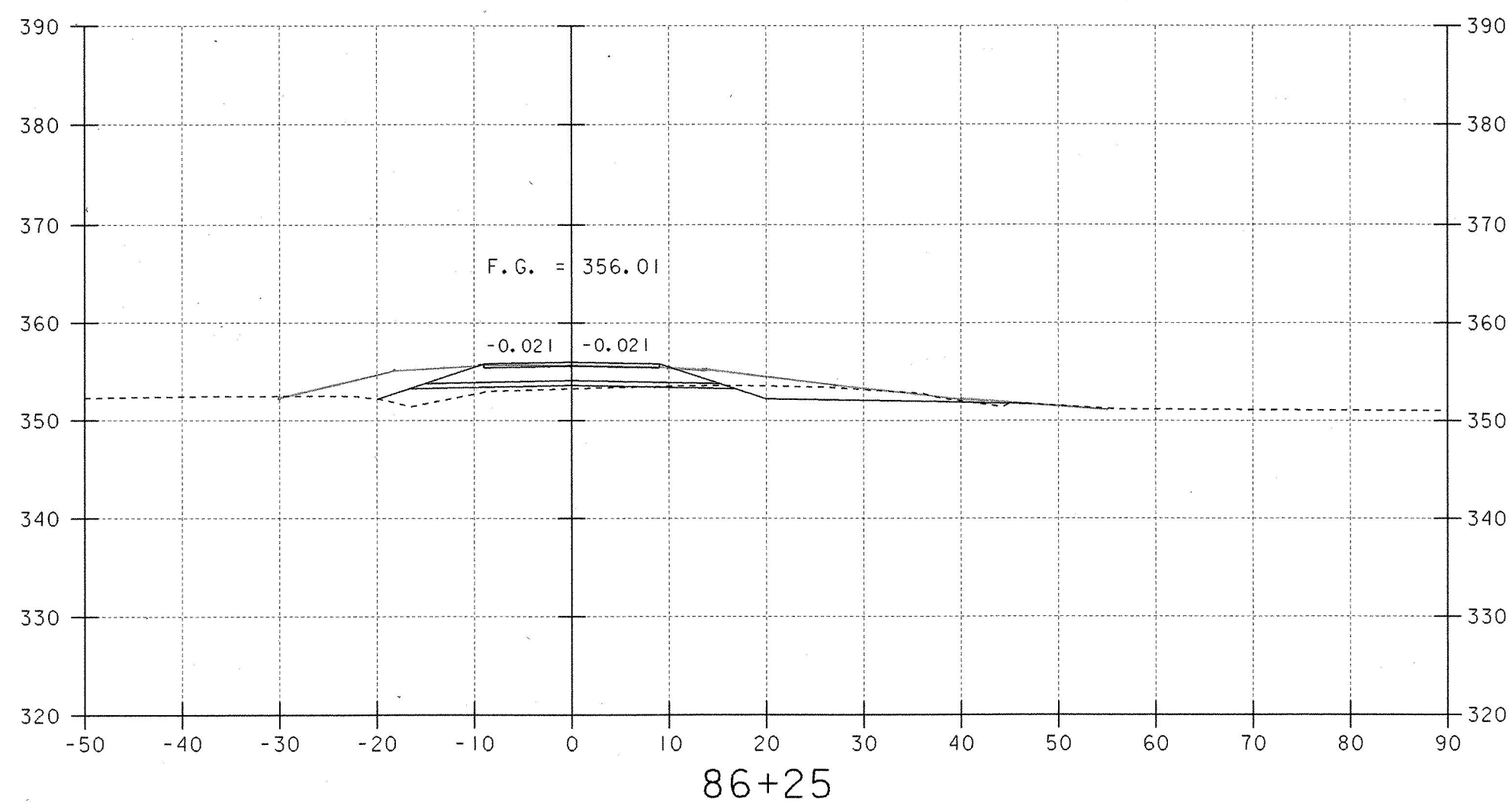
84+77.65
 22.25
 84+77.5
 85+20.5 - 1.54.5
 85+20
 50'
 2.6'
 1.5
 1.1



SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (5)

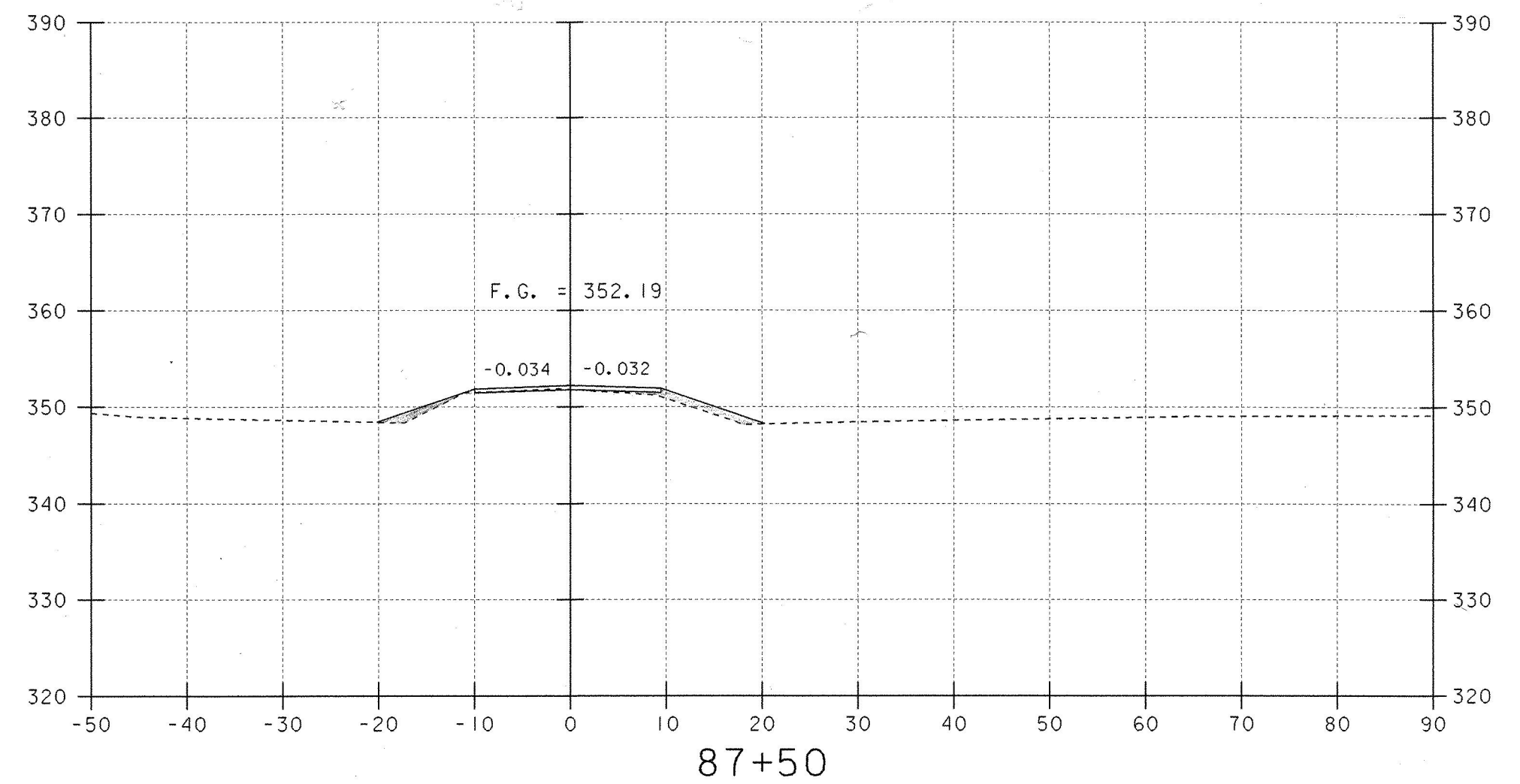
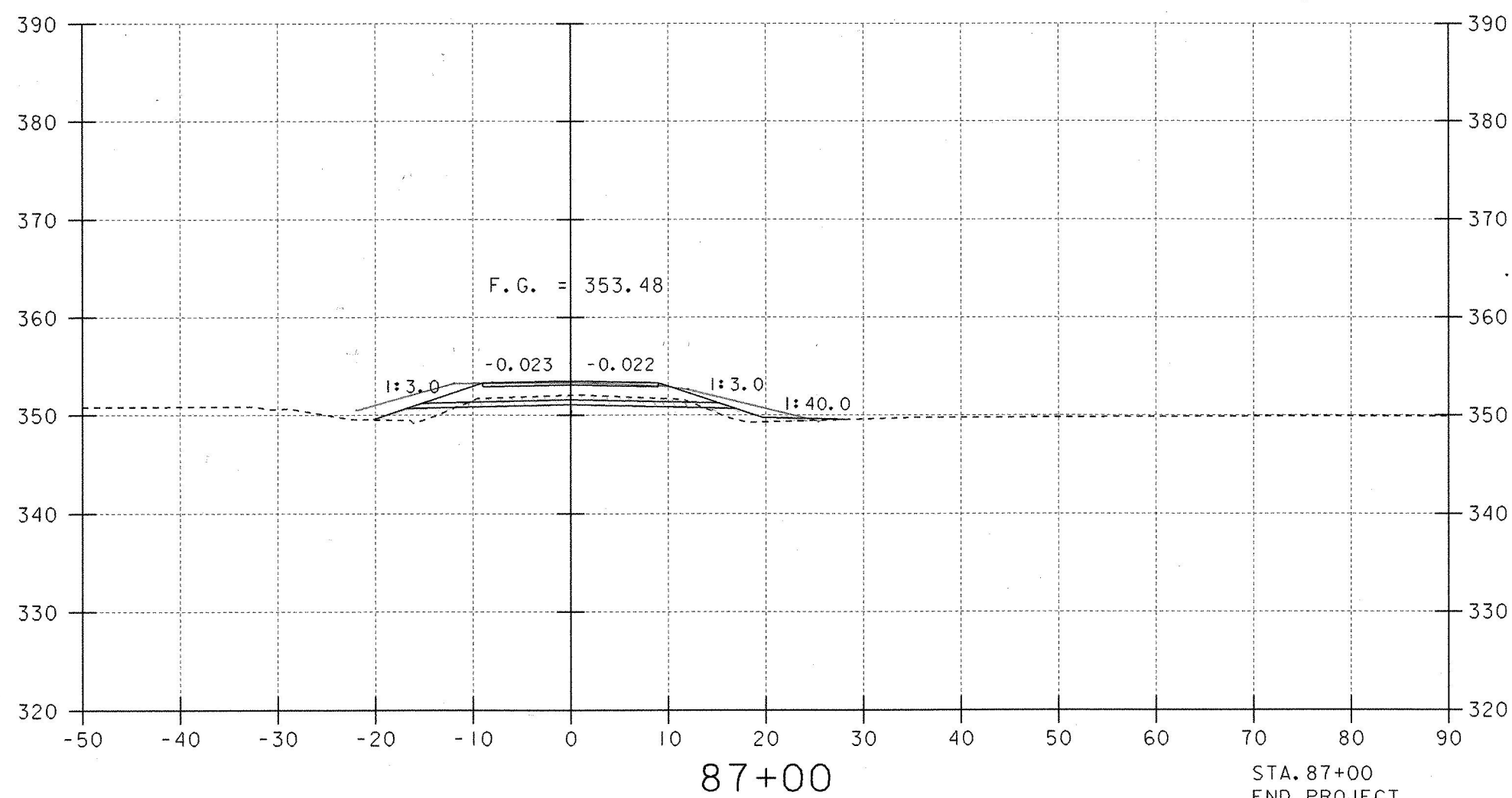
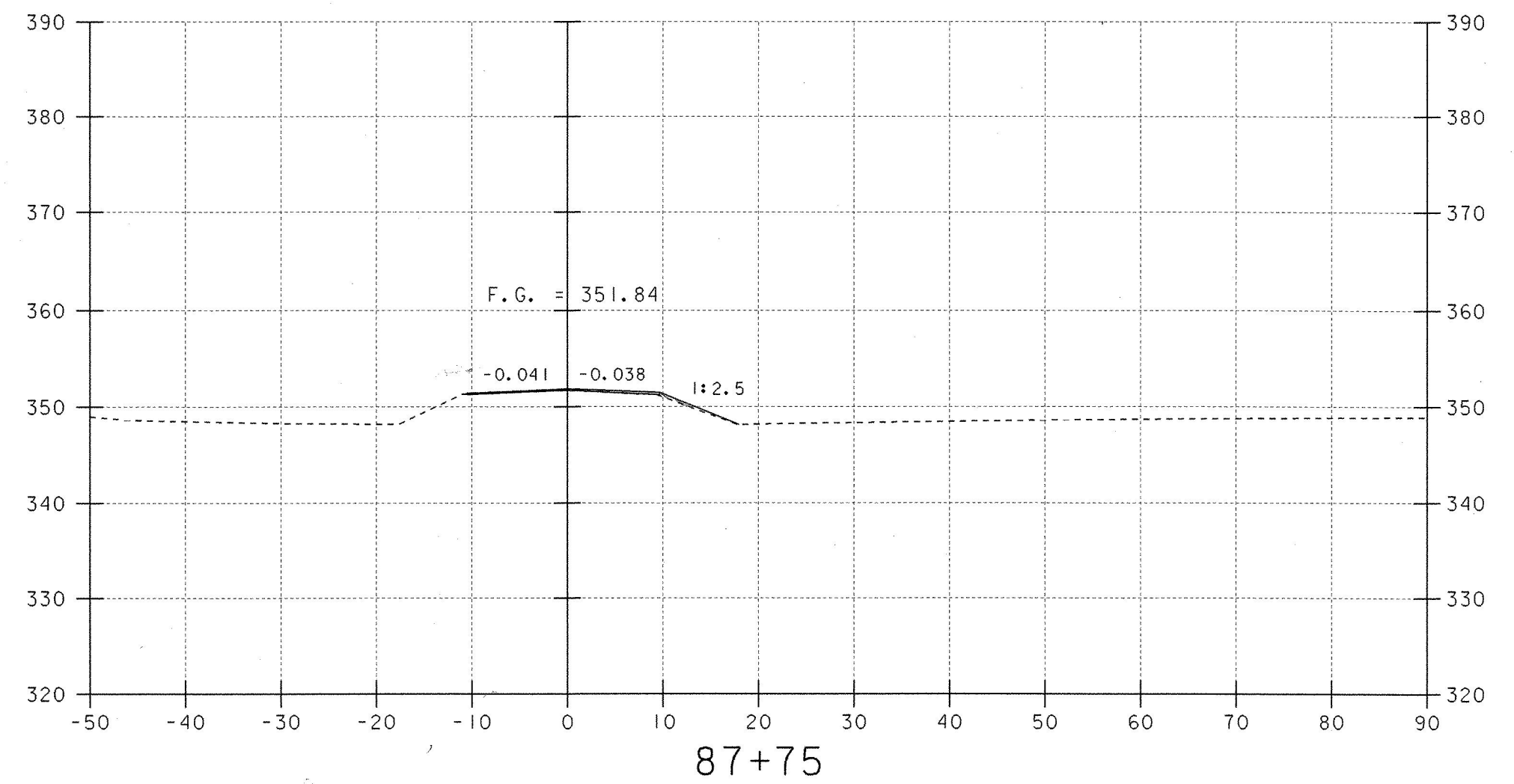
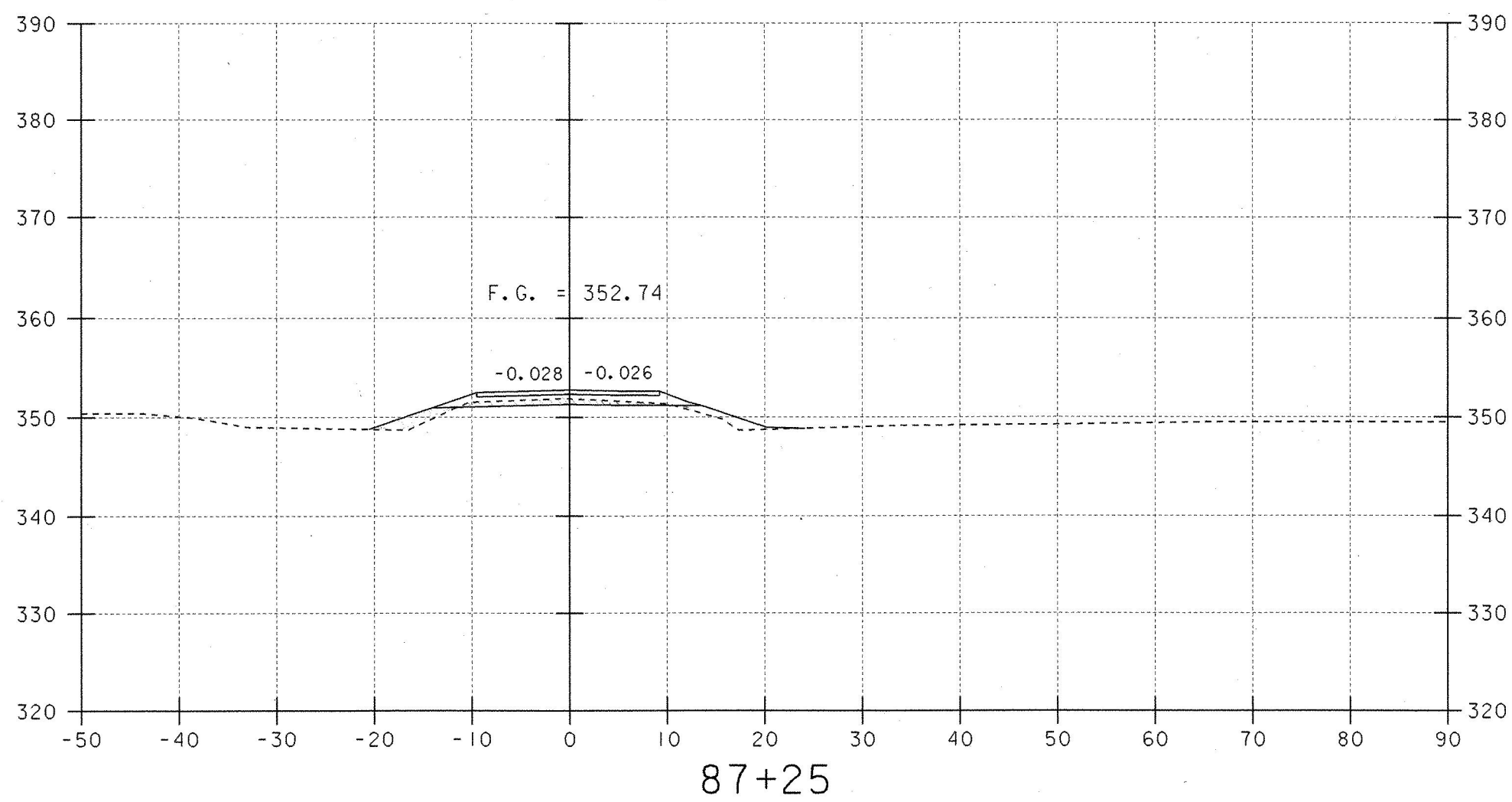
PROJECT NAME:	BRANDON	FILE NAME:	87j137\Structures\sj137m05.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	41 OF 51



SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (6)

PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\87J137m06.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	42 OF 51

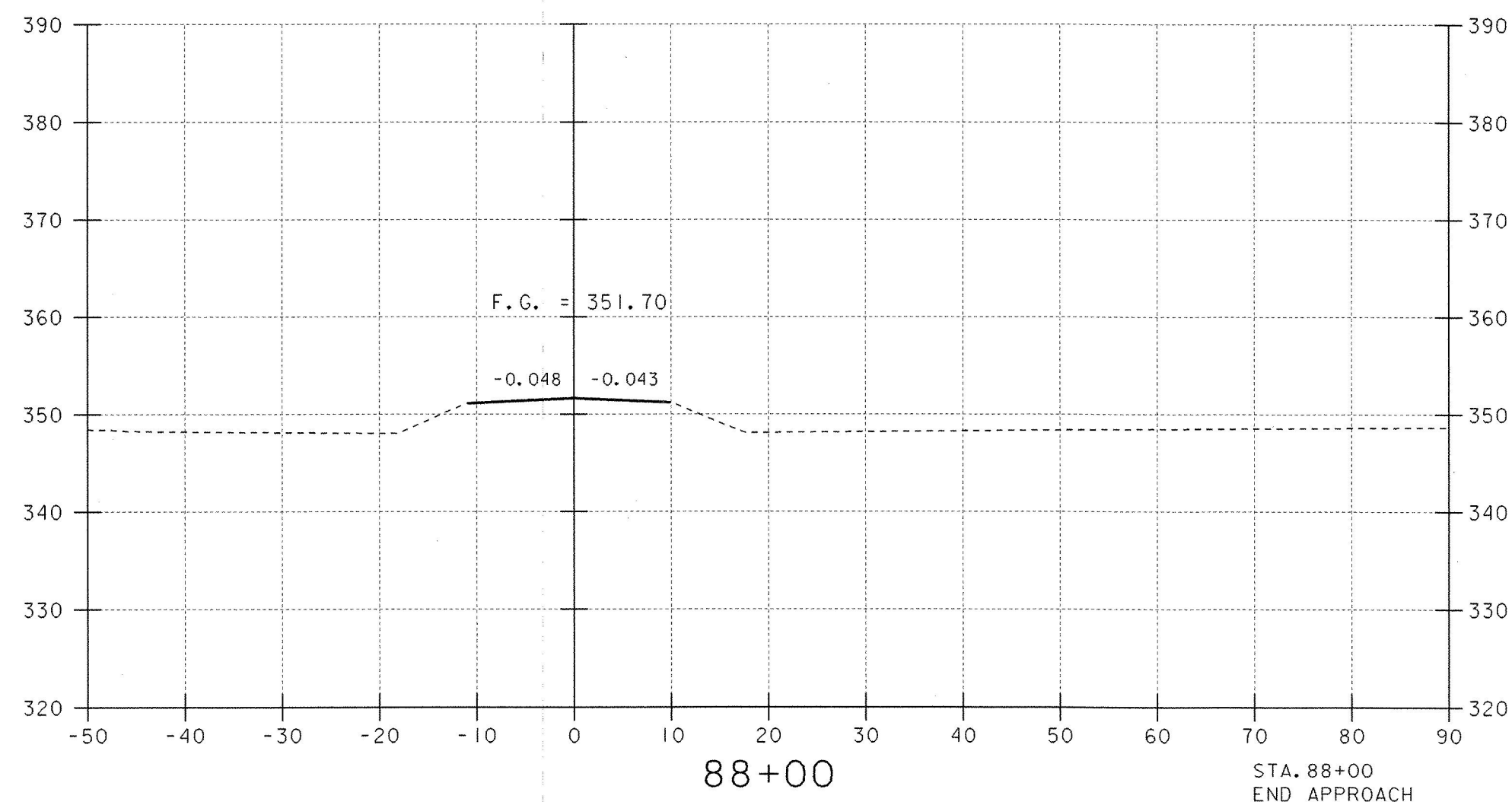
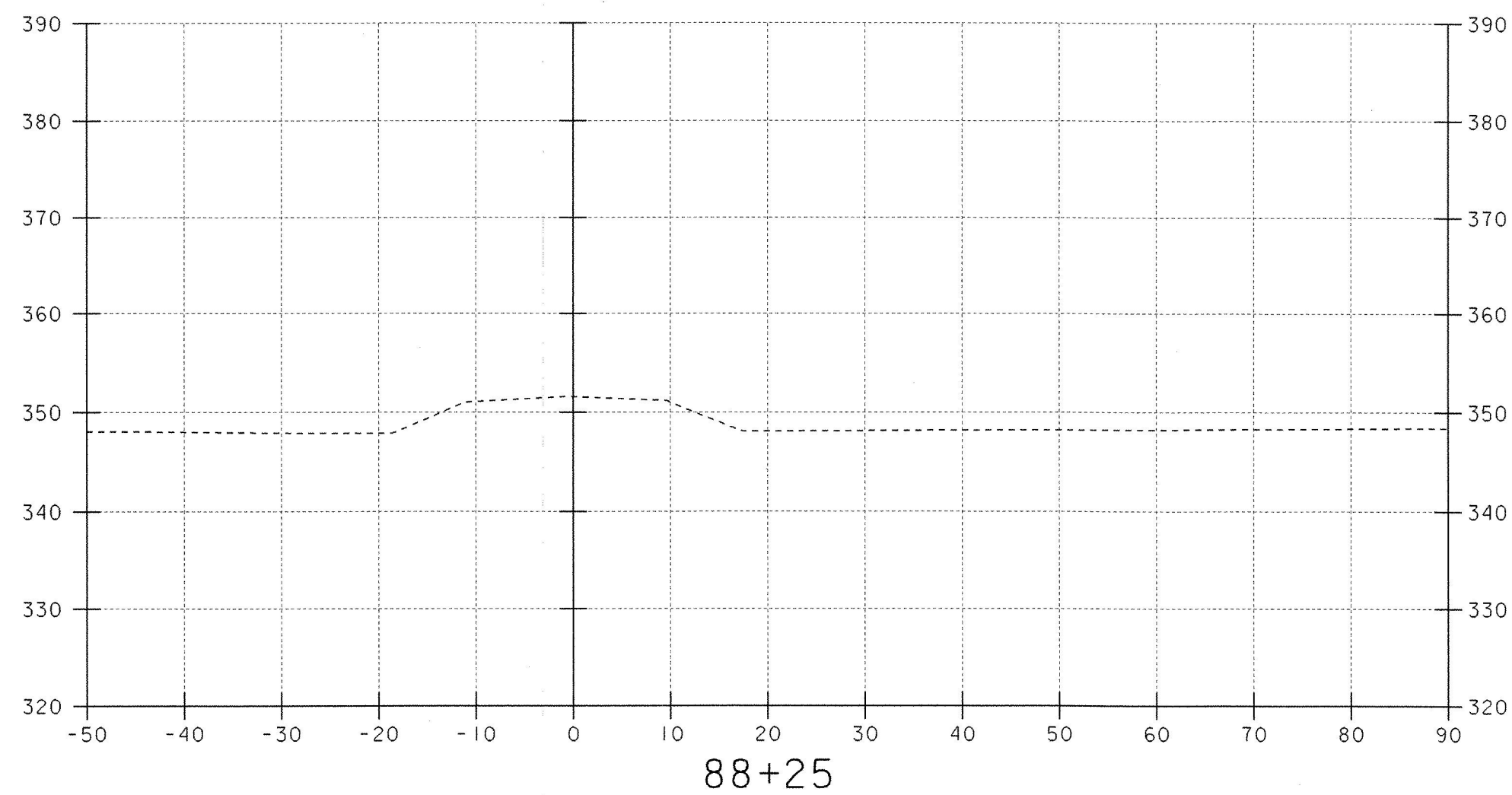


STA. 87+00
END PROJECT
BEGIN APPROACH

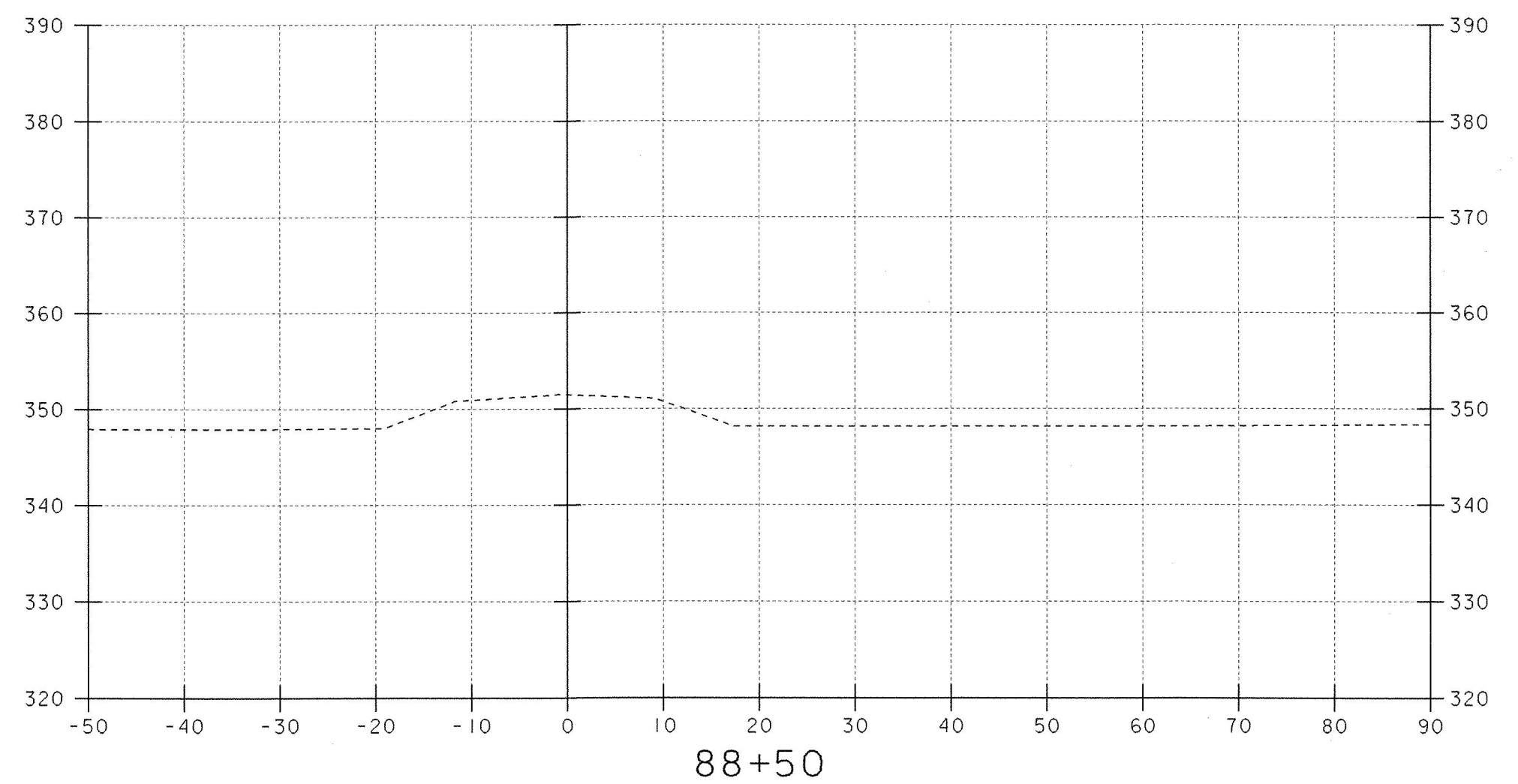
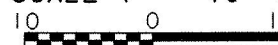
SCALE 1" = 10'-0"

ROADWAY CROSS SECTIONS (7)

PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137m07.1	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	43 OF 51
DESIGNED BY:	T. SUMNER		

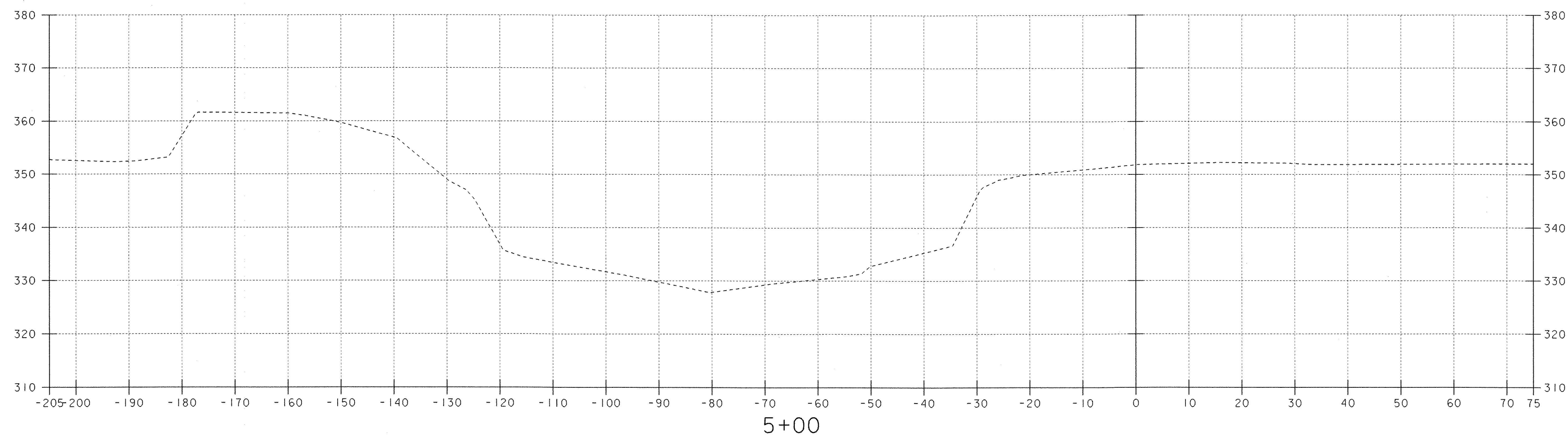
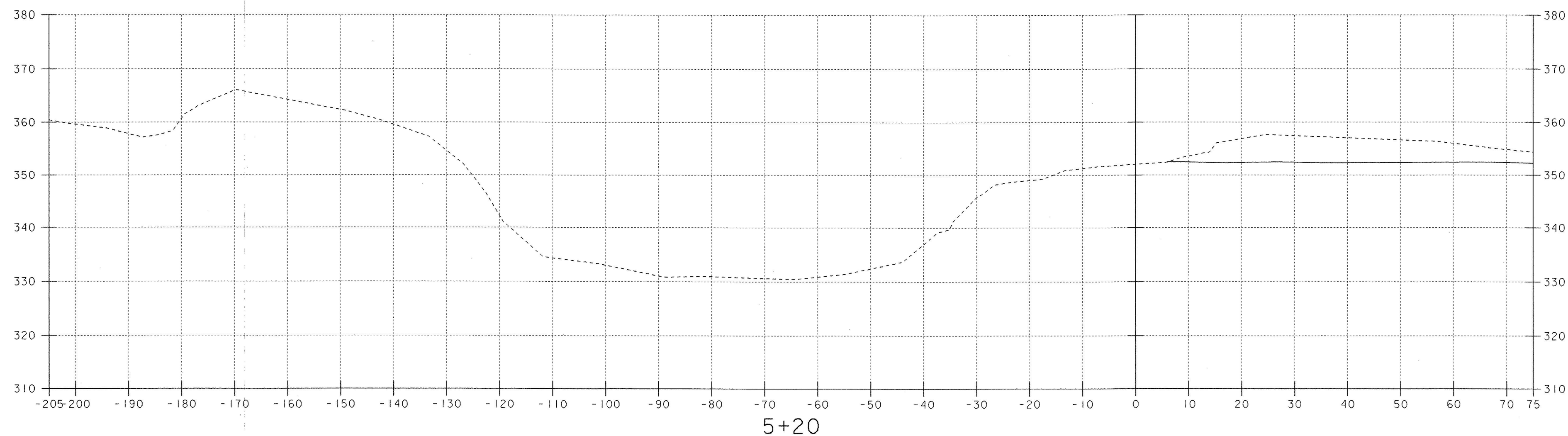


SCALE 1" = 10'-0"



ROADWAY CROSS SECTIONS (8)

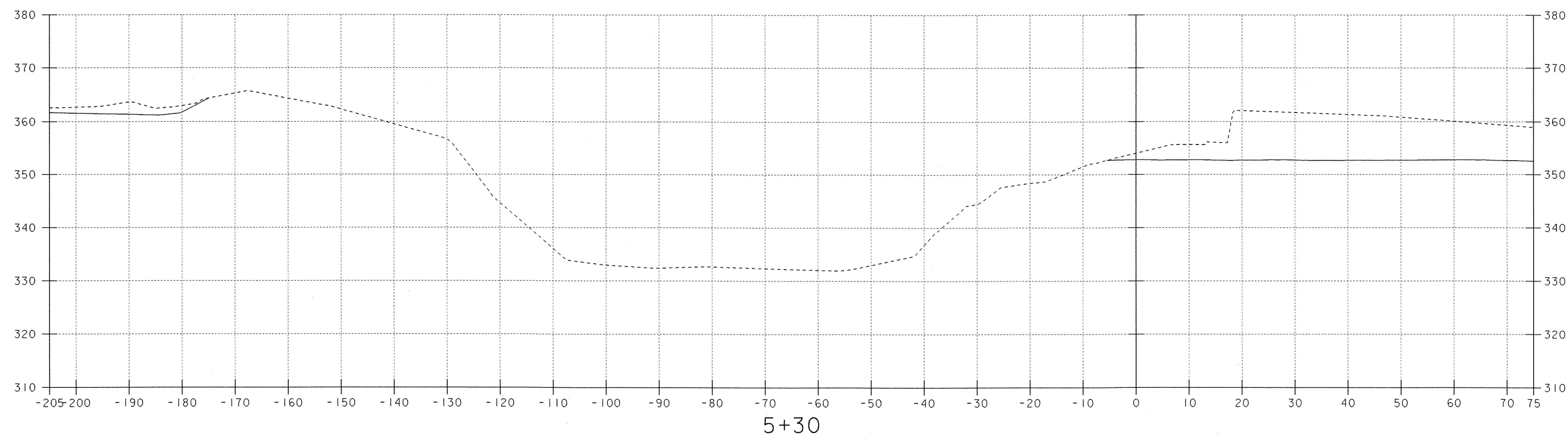
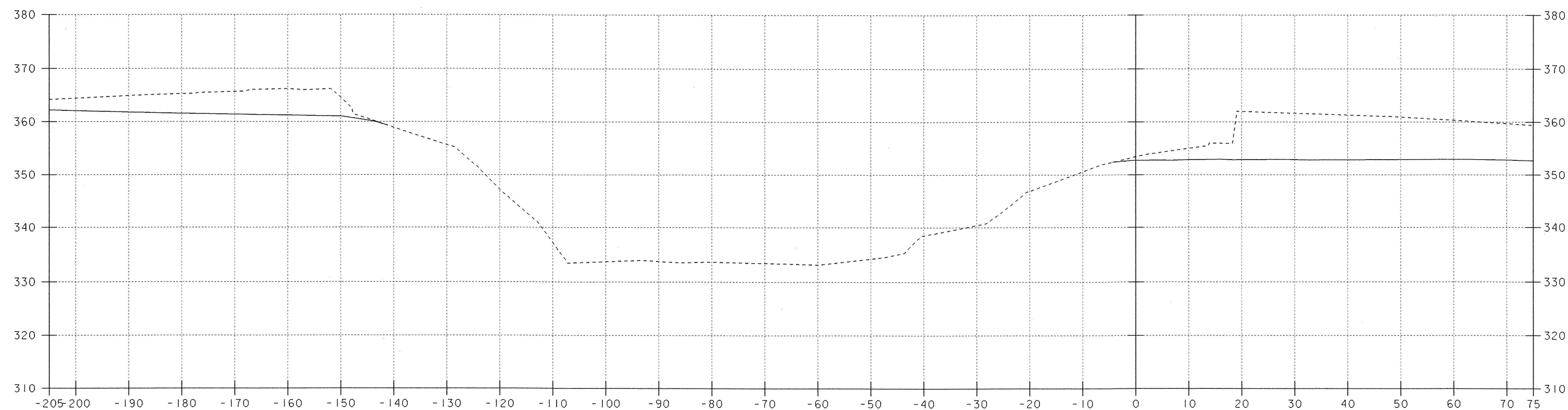
PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137m08.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	44 OF 51



SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (I)

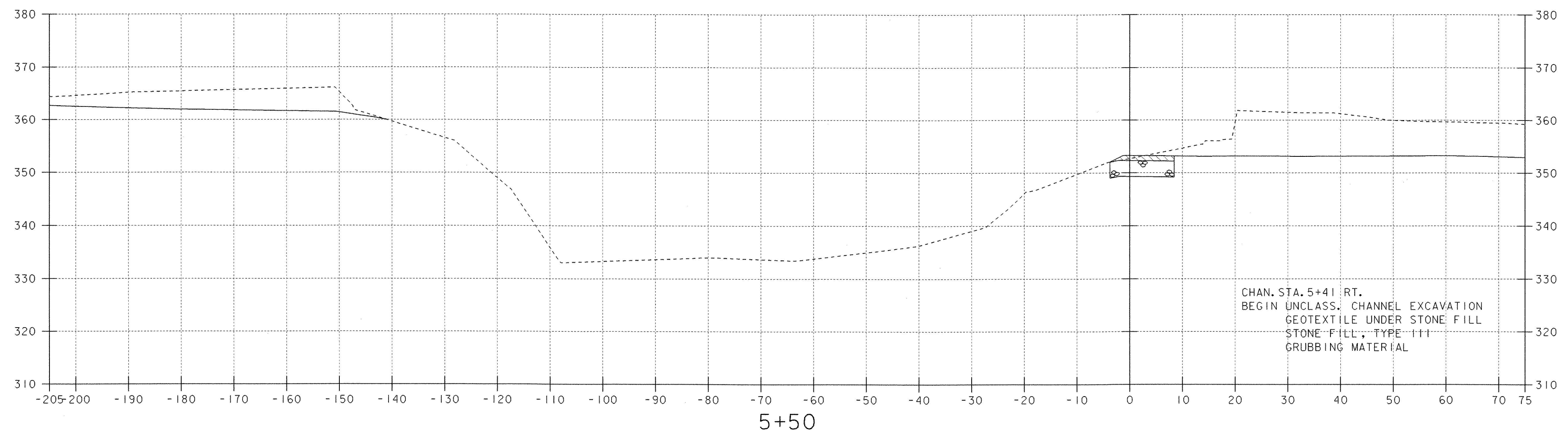
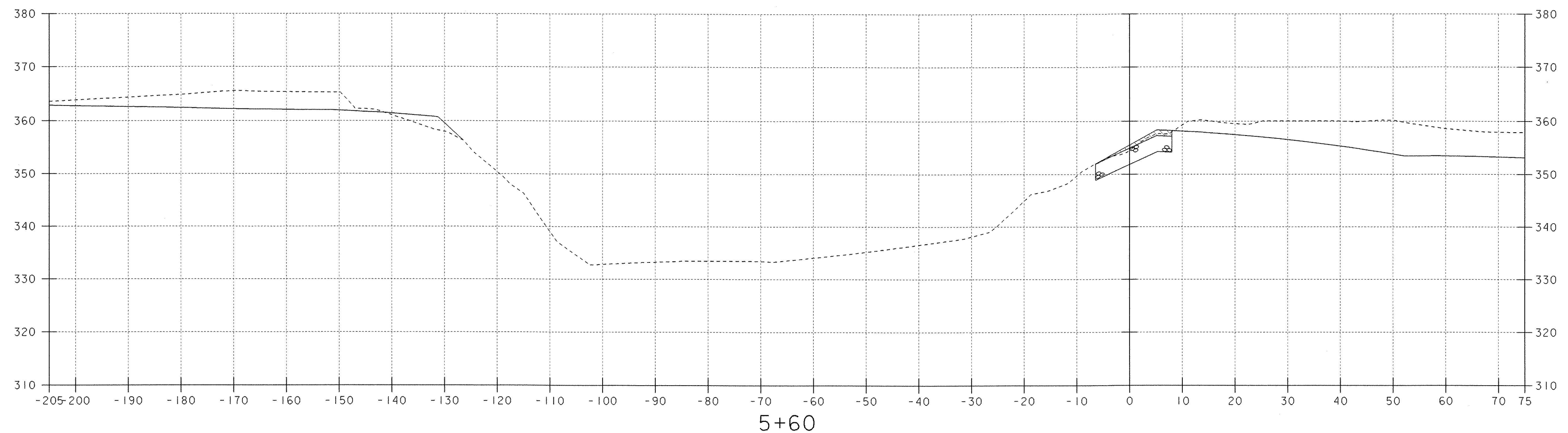
PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J37\Structures\sj37c01.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	45 OF 51
DESIGNED BY:	T. SUMNER		



SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (2)

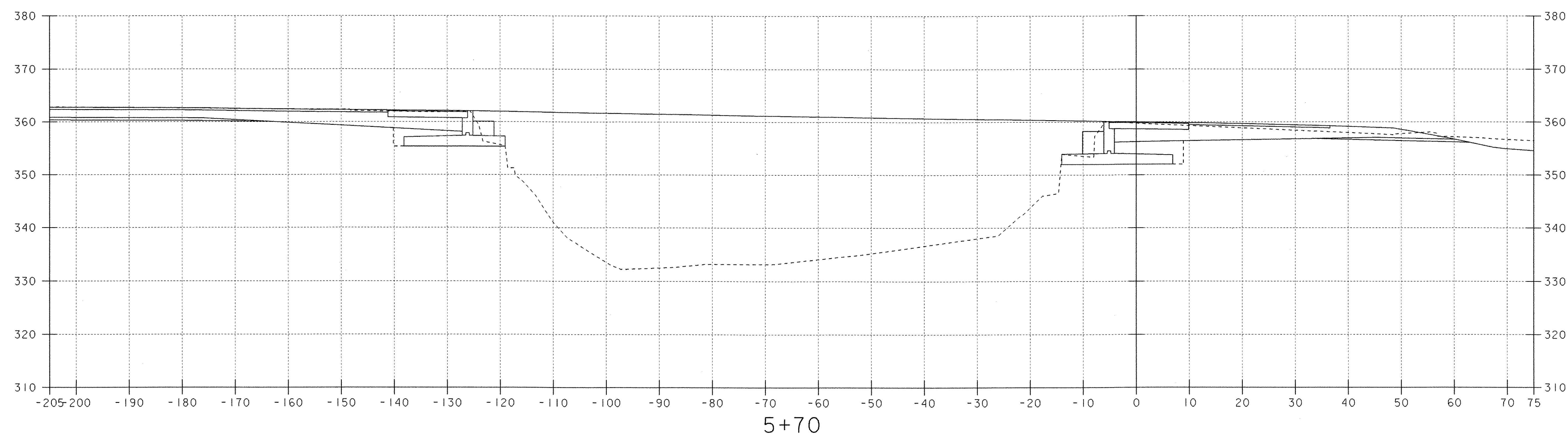
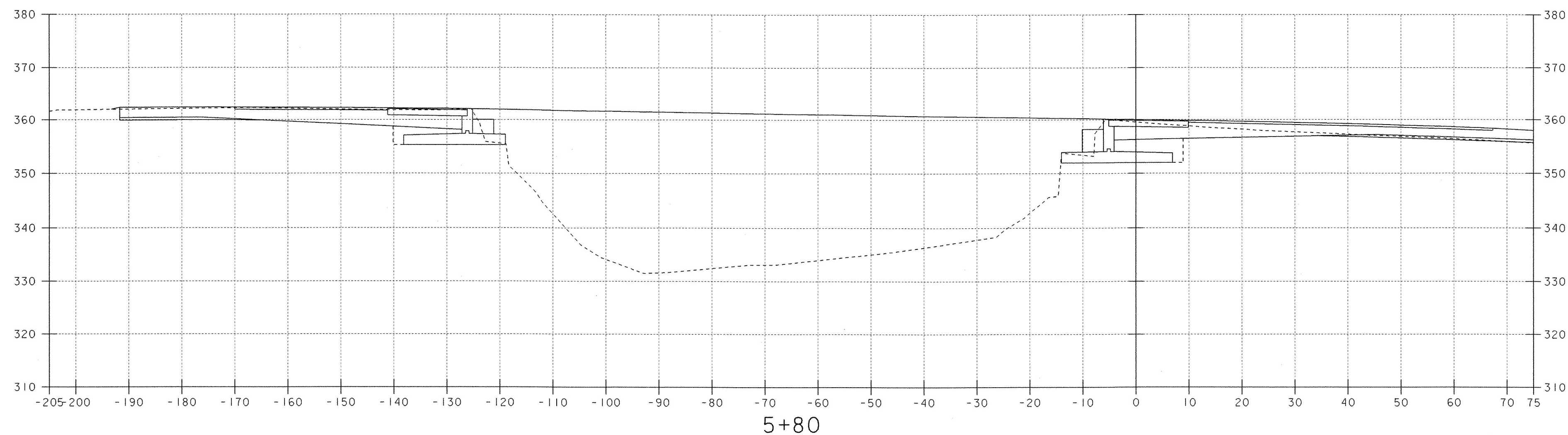
PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J137\Structures\sj137c02.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	46 OF 51
DESIGNED BY:	T. SUMNER		



SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (3)

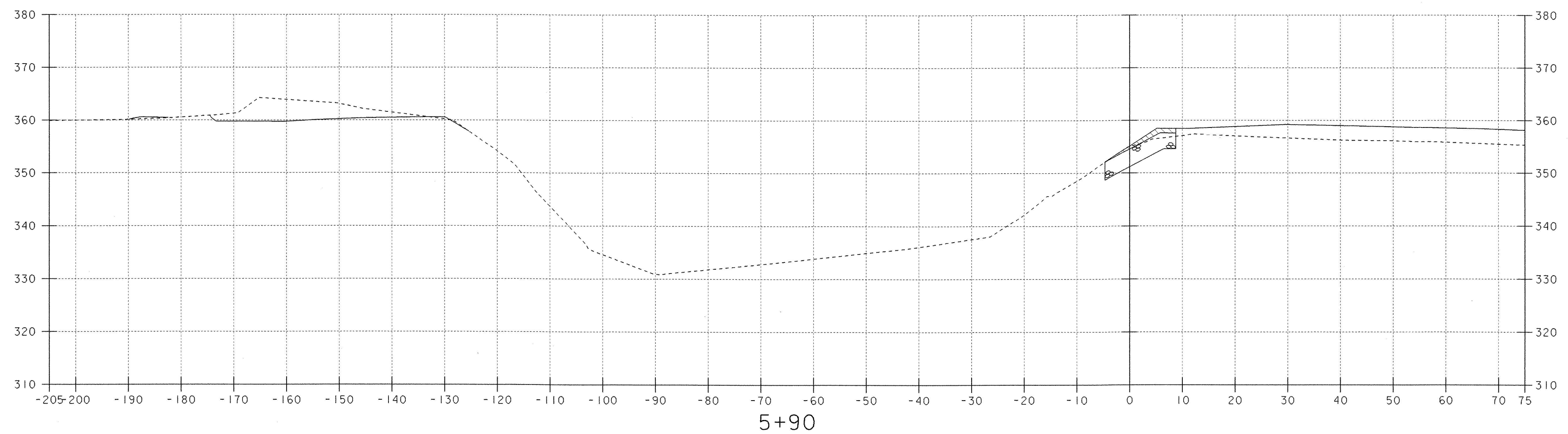
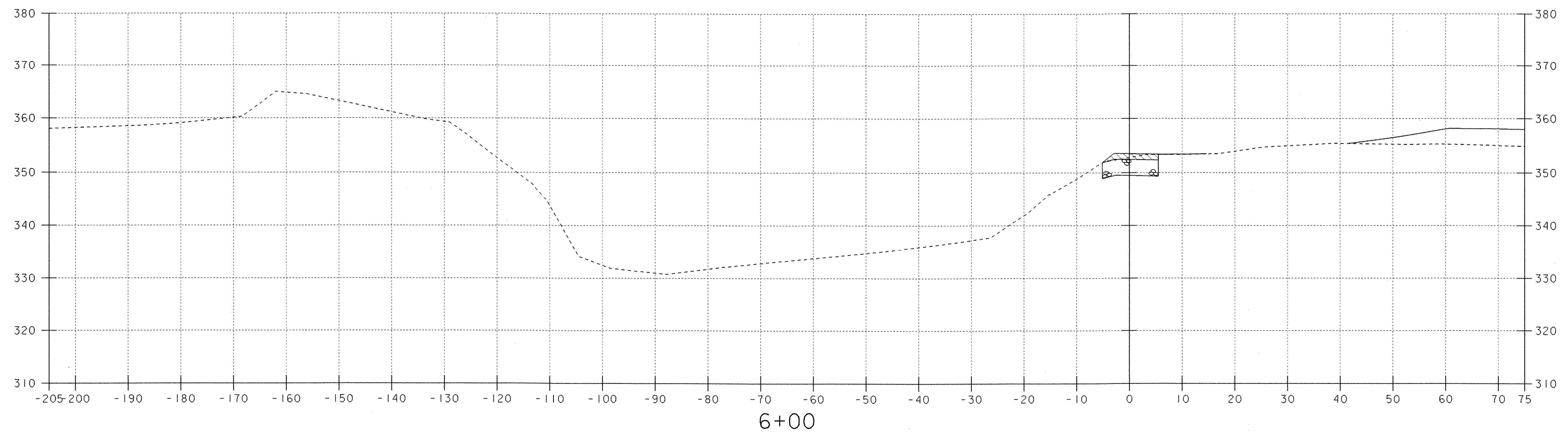
PROJECT NAME:	BRANDON	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	DRAWN BY:	G. ROY
FILE NAME:	87J37\Structures\sj37c03.i	CHECKED BY:	T. SUMNER
PROJECT MANAGER:	R. R. WHITCOMB	SHEET	47 OF 51
DESIGNED BY:	T. SUMNER		



SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (4)

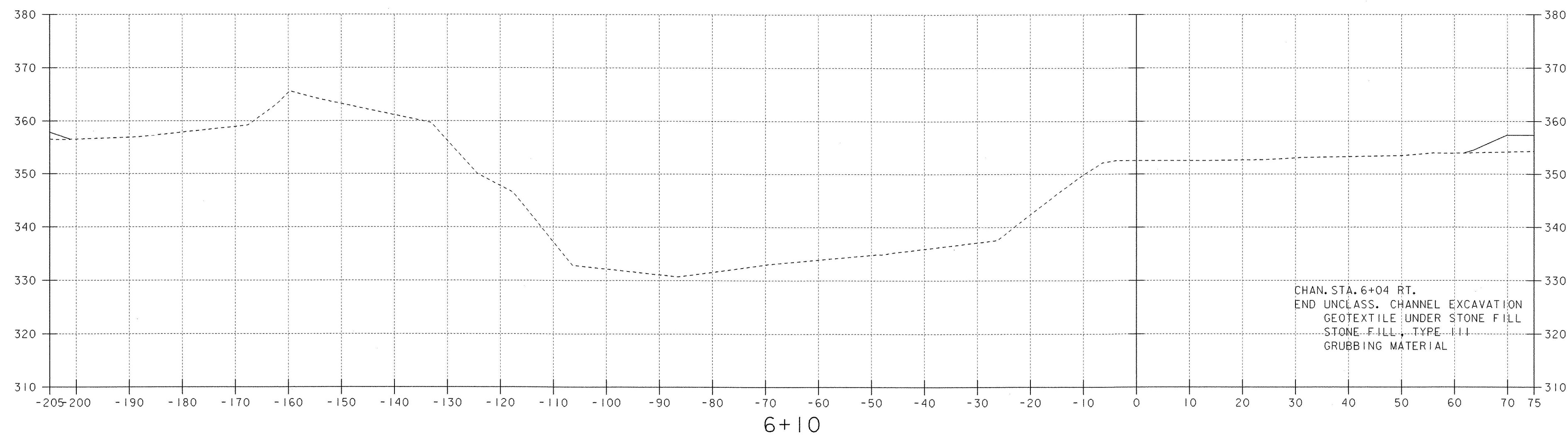
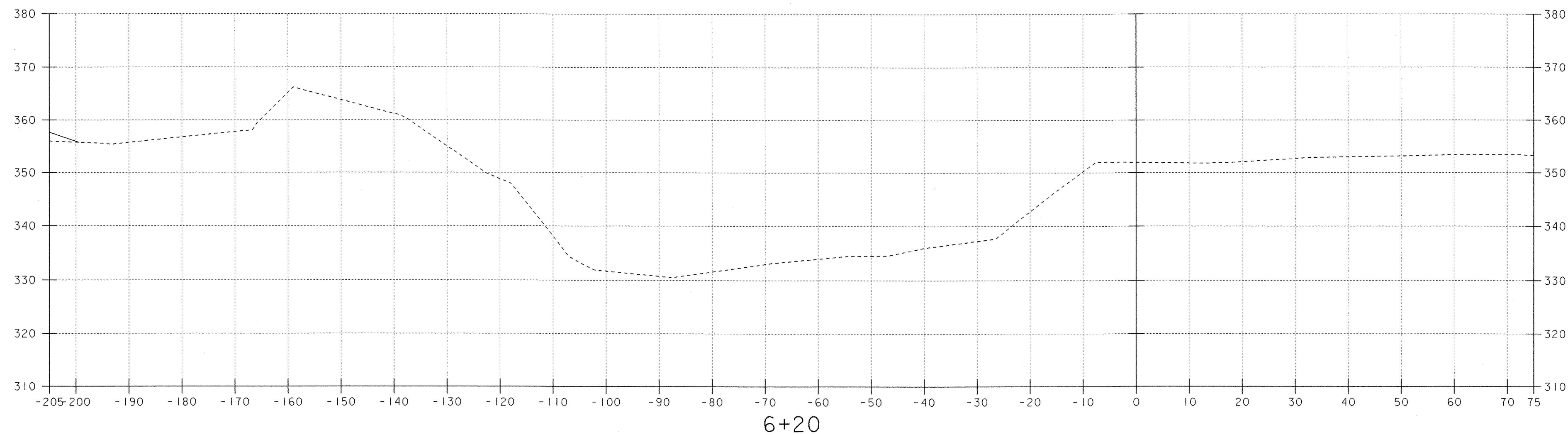
PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137c04.I	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	48 OF 51



SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (5)

PROJECT NAME:	BRANDON	FILE NAME:	87J137\Structures\sj137c05.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	49 OF 51

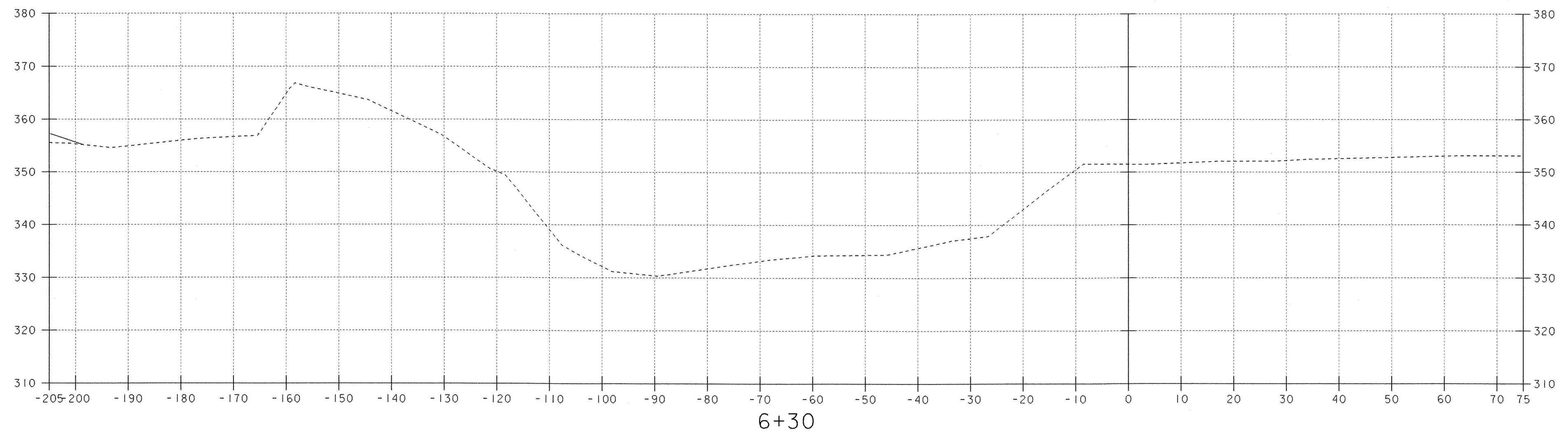
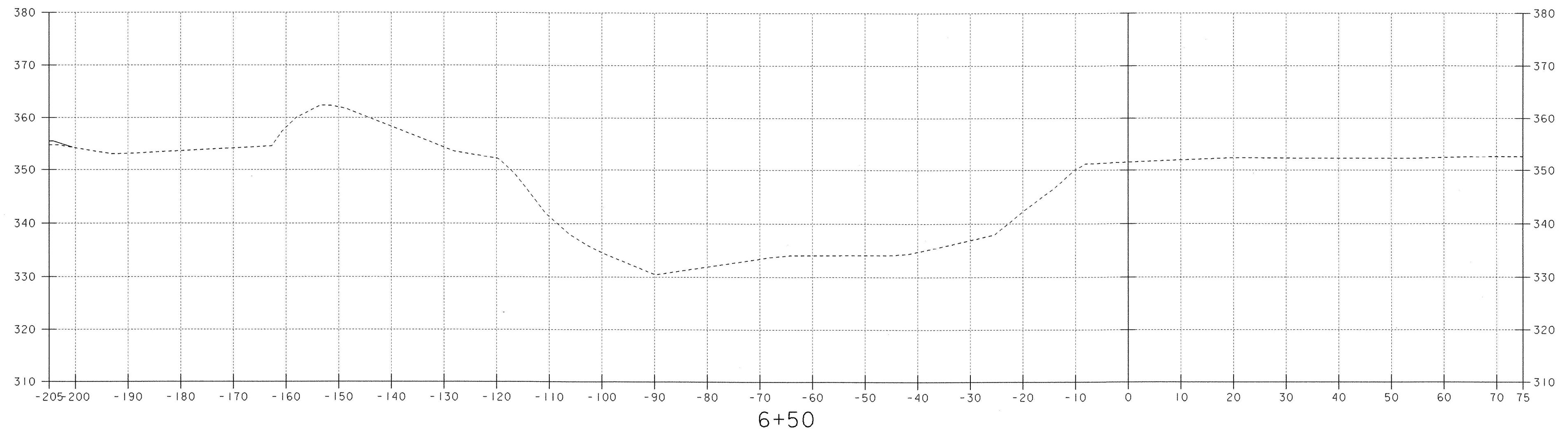


CHAN. STA. 6+04 RT.
END UNCLASS. CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL TYPE III
GRUBBING MATERIAL

CHANNEL CROSS SECTIONS (6)

SCALE 1" = 10'-0"

PROJECT NAME:	BRANDON	FILE NAME:	87J37\Structures\sj37c06.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	50 OF 51



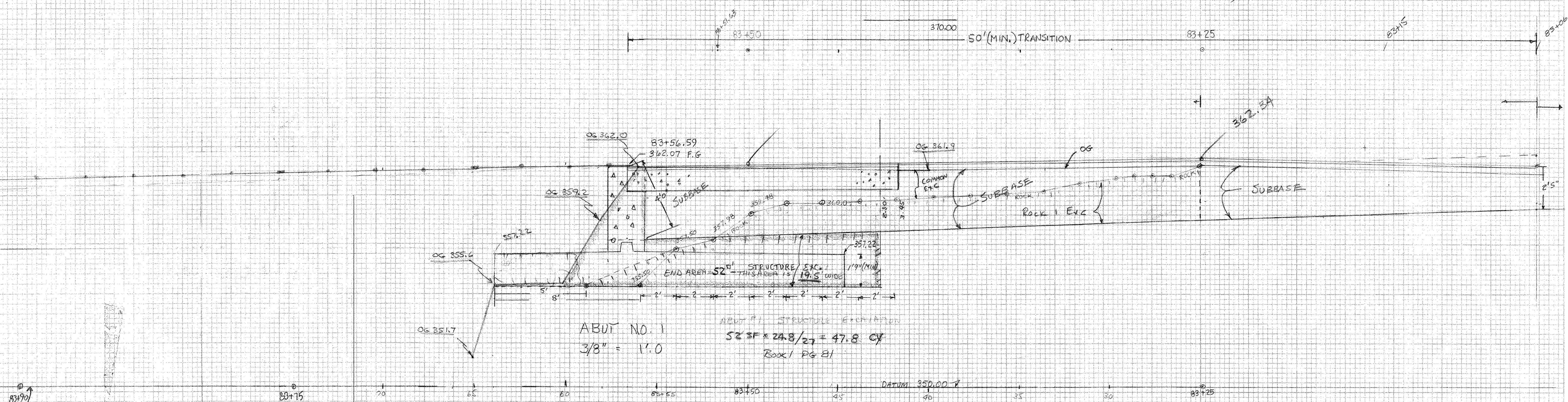
SCALE 1" = 10'-0"

CHANNEL CROSS SECTIONS (7)

PROJECT NAME:	BRANDON	FILE NAME:	87J37\Structures\sj37c07.1	PLOT DATE:	16-MAY-2002
PROJECT NUMBER:	BHZ 1443 (22)	PROJECT MANAGER:	R. R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	T. SUMNER	CHECKED BY:	T. SUMNER
				SHEET	51 OF 51

BRANDON 1443(22)

STRUCTURE SHEET # 1



ABUTMENT # 1 W/APPR & SUBBASE DETAIL

