

SEE SHEET 2 FOR INDEX OF SHEETS

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

TOWN OF WEATHERSFIELD

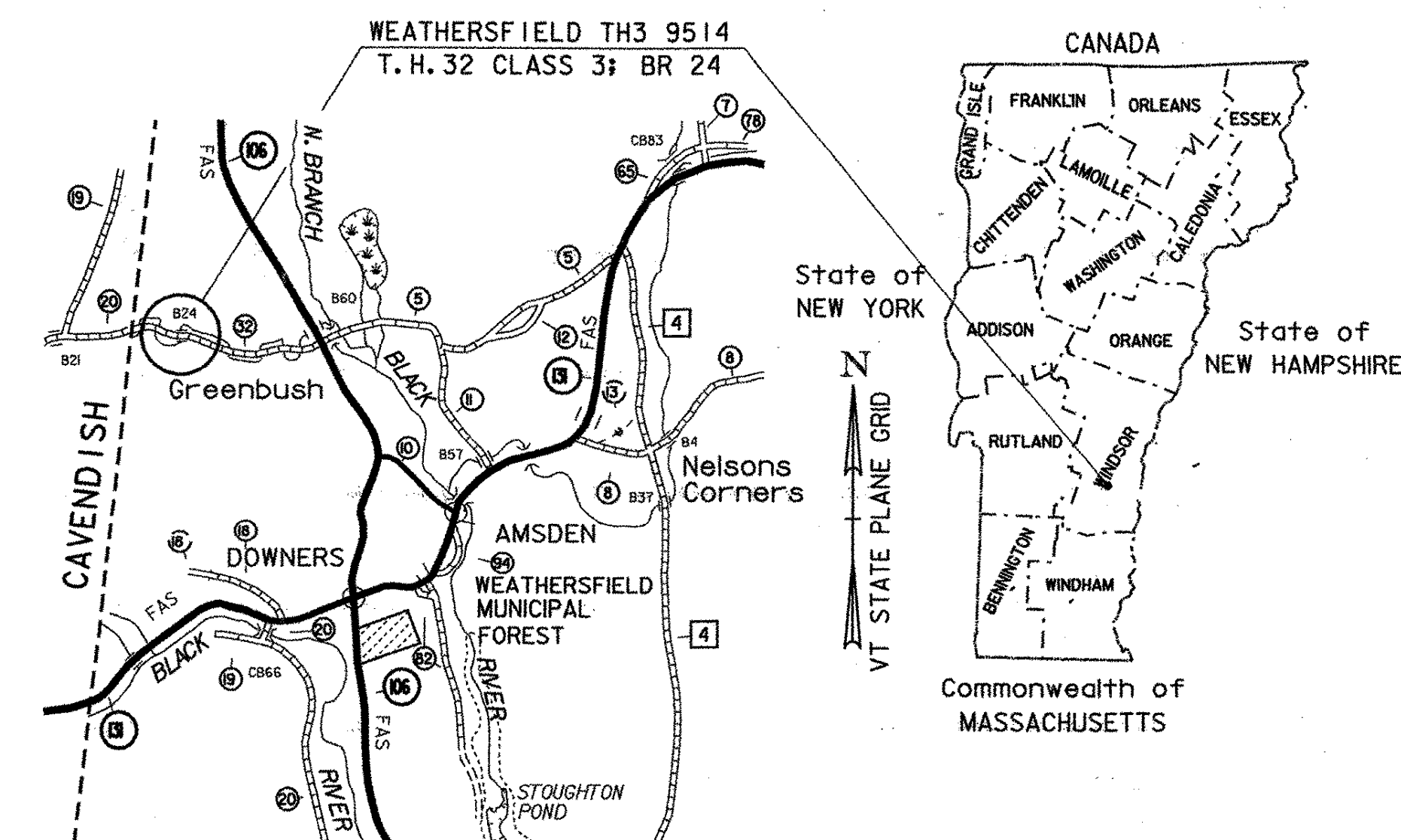
COUNTY OF WINDSOR

ROUTE NO : T.H. 32 CLASS 3 BRIDGE NO : 24

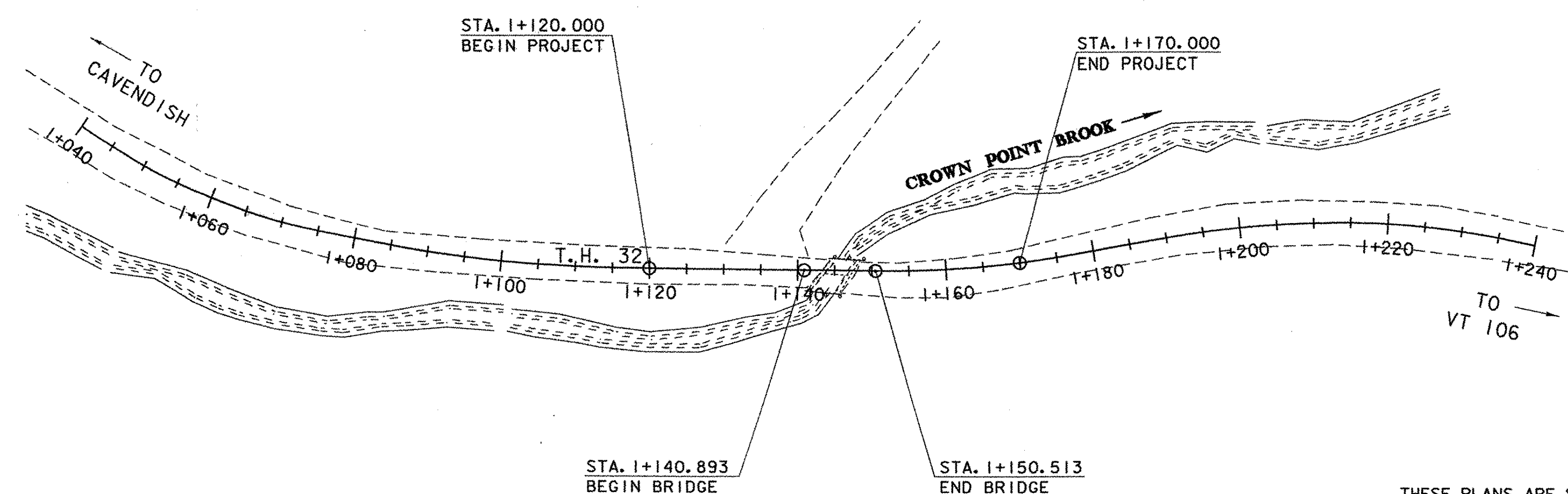
PROJECT LOCATION : BEGINNING AT A POINT APPROXIMATELY 1.29 KM FROM THE INTERSECTION OF
VT 106 AND T.H. 32 AND PROCEEDING EASTERLY 0.07 KM ALONG T.H. 32.

PROJECT DESCRIPTION : REPLACEMENT OF EXISTING BRIDGE WITH A NEW STRUCTURE, INCLUDING
ASSOCIATED CHANNEL AND ROADWAY APPROACH WORK.

LENGTH OF STRUCTURE : 9.620 METERS.
LENGTH OF ROADWAY : 40.380 METERS.
LENGTH OF PROJECT : 50.000 METERS.



LOCATION MAP



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 : R. GILMAN
SURVEYED DATE : 03/96

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83 (92)

0 10 20 30
SCALE 1:500



RECORD PLANS

CONTRACTOR: MILLER CONSTRUCTION - WINDSOR, VT

RESIDENT ENGINEER: BUTCH COLBY

CONSTRUCTION BEGAN: MAY 11, 2004

CONSTRUCTION COMPLETE: OCTOBER 4, 2004

RECORD PLANS BY: BUTCH COLBY

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

BY RESIDENT ENGINEER

DATE 7/7/05

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.

Metric

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

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

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 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.

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED DATE 2/10/04

PROJECT MANAGER : ROGER R. WHITCOMB

PROJECT NAME : WEATHERSFIELD

PROJECT NUMBER : TH3 9514

SHEET 1 OF 31 SHEETS

PRELIMINARY INFORMATION SHEET



FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: 9/30/99

DRAINAGE AREA : 3.6 sq. km

CHARACTER OF TERRAIN : Hilly

STREAM CHARACTERISTICS : Small, steep, flashy stream

NATURE OF STREAMBED : Cobbles, gravel, and boulders

PEAK FLOW DATA

Q 2.33 = 2.8 cms

Q 10 = 5.1 cms

Q 25 = 6.8 cms

Q 50 = 8.2 cms

Q 100 = 9.6 cms

Q 500 = 15.0 cms

DATE OF FLOOD RECORD : Unknown

ESTIMATED DISCHARGE: Unknown

WATER SURFACE ELEV.: Unknown

NATURAL STREAM VELOCITY : @ Q25 = 3.3 mps

ICE CONDITIONS : Moderate

DEBRIS: Moderate to Heavy

DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? Yes

IS ORDINARY RISE RAPID? Yes

IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No

IF YES, DESCRIBE:

WATERSHED STORAGE: 4%

HEADWATERS: UNIFORM: X

IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Concrete slab bridge

YEAR BUILT: 1978

CLEAR SPAN(NORMAL TO STREAM): 2.4 m

VERTICAL CLEARANCE ABOVE STREAMBED: 1.2 m

WATERWAY OF FULL OPENING: 2.9 sq. m

DISPOSITION OF STRUCTURE: Remove

TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown

WATER SURFACE ELEVATIONS AT:

Q2.33 = 256.2 m

Q10 = 256.7 m

Q25 = 256.9 m

Q50 = 257.1 m

Q100 = 257.2 m

VELOCITY = 3.3 mps

" 3.9 mps

" 4.2 mps

" 4.3 mps

" 4.3 mps

LONG TERM STREAMBED CHANGES: None noted.

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes

FREQUENCY: approximately Q15

RELIEF ELEVATION: 256.8

DISCHARGE OVER ROAD @Q100: 2.0 cms

UPSTREAM STRUCTURE

TOWN: Cavendish

HIGHWAY #: T.H. 20

CLEAR SPAN: 2.4 m

YEAR BUILT: 1973

STRUCTURE TYPE: CGMPPA

DISTANCE: 850 m

STRUCTURE #: 21

CLEAR HEIGHT: 1.8 m

FULL WATERWAY: 3.7 sq. m

DOWNSTREAM STRUCTURE

TOWN: Weathersfield

HIGHWAY #: VT 106

CLEAR SPAN: 4.3 m

YEAR BUILT: 1924

STRUCTURE TYPE: Concrete slab bridge

DISTANCE: 975 m

STRUCTURE #: 9

CLEAR HEIGHT: 1.2 m

FULL WATERWAY: 5.2 sq. m

LOAD FACTOR LOAD RATING (METRIC TONNES)							
LOADING LEVELS	TRUCK						
	M	MS	3S2	6 AXLE	3A. STR.	4A. STR.	SA SEMI
INVENTORY	29	48					
POSTED	41	67	85		50	51	85
OPERATING		80	101	92	59	61	

TRAFFIC DATA					
YEAR	ADT	DHV	% D	% T	ADTT
2000	150	20	60	7	10
2020	200	30	60	7	15

20 year ESAL for flexible pavement

40 year ESAL for flexible pavement

Design Speed : 40 km/h

2000 to 2020 : 117,000

2000 to 2040 : 266,000

PROPOSED STRUCTURE

STRUCTURE TYPE: Concrete slab bridge

CLEAR SPAN(NORMAL TO STREAM): 5.8 m

VERTICAL CLEARANCE ABOVE STREAMBED: 1.7 m

WATERWAY OF FULL OPENING: 8.3 sq. m

WATER SURFACE ELEVATIONS AT:

Q2.33 = 256.1 m

Q10 = 256.3 m

Q25 = 256.4 m

Q50 = 256.5 m

Q100 = 256.6 m

VELOCITY= 3.0 mps

" 3.5 mps

" 3.8 mps

" 4.0 mps

" 4.1 mps

IS THE ROADWAY OVERTOPPED BELOW Q100: No

FREQUENCY: > Q100

RELIEF ELEVATION: 256.9

DISCHARGE OVER ROAD @Q100: None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 257.3 at inlet

VERTICAL CLEARANCE: @ Q100 = 0.7 m

SCOUR: 0.6 m total scour, due mostly to the channel alingment, up to a Q100

REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

PERMIT INFORMATION

AVERAGE DAILY FLOW: 0.1 cms

ORDINARY LOW WATER: 0.03 cms

ORDINARY HIGH WATER: 1.2 cms

DEPTH OR ELEVATION: 0.1 m

0.3 m

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: Town highway 32 will be closed to thru traffic during construction.

CLEAR SPAN (NORMAL TO STREAM):

VERTICAL CLEARANCE ABOVE STREAMBED:

WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

THE PEDESTRIAN BRIDGE SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 0.7 METERS AND ABUTMENTS SHALL BE LOCATED ABOVE ORDINARY HIGH WATER. THE BRIDGE SHALL PROVIDE A MINIMUM WATERWAY AREA OF 2.0 SQ. METERS.

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO MS 22.5

2. DESIGN SPAN 8.984m

3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 250 kPa

ON LEDGE N/A

4. ALLOWABLE LOAD FOR PILING N/A

TYPE N/A

ESTIMATED LENGTH N/A

5. STRUCTURAL STEEL AASHTO GRADE N/A

6. REINFORCING STEEL GRADE 420

7. CONCRETE CLASS A (HPC-A) f'c : 30 Mpa

CONCRETE CLASS B (HPC-B) f'c : 25 Mpa

8. SOIL UNIT WEIGHT 22 kN/m³

9. DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL 250 kPa

TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED? NO

IF YES, ON EXISTING STRUCTURE N/A

OR ON TEMPORARY BRIDGE N/A

2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY PEDESTRIAN

TRAFFIC CONTROL SIGNALS REQUIRED N/A

MINIMUM CLEAR SPAN (NORMAL TO STREAM): N/A

WATERWAY OF FULL OPENING: N/A

VERTICAL CLEARANCE ABOVE STREAMBED: N/A

ARE SIDEWALKS REQUIRED? NO

IF SO, ON WHAT SIDE? N/A

STRUCTURE TYPE: N/A

PROJECT NAME: WEATHERSFIELD

PROJECT NUMBER: TH3 9514

FILE NAME: 195\284\Structures\1284.pl.xls

PROJECT LEADER: ROGER WHITCOMB

DESIGNED BY: J.LACROIX

PRELIMINARY INFORMATION SHEET

PLOT DATE: 11/25/2003

DRAWN BY: G.ROY

CHECKED BY: T.A.SUMNER

SHEET 2 OF 31

1. TITLE SHEET

2. PRELIMINARY INFORMATION SHEET

3. BRIDGE AND ROADWAY TYPICAL

4-5. QUANTITY SHEETS

6. ROW SHEET

7. TIE SHEET

8. LAYOUT

9. PROFILE

10-11. BORING

12. PLAN AND ELEVATION

13. EROSION CONTROL

14. RESOURCE & EXISTING SITE CONDITION SHEET

15. PROJECT NOTES

16. SLAB TYPICAL SECTION

17. CURB TYPICAL SECTION

18. ABUTMENT #1 DETAILS

19. ABUTMENT #2 DETAILS

20. WINGWALL DETAILS

21. FOOTING REINFORCING PLAN

22. REINFORCING STEEL SCHEDULE

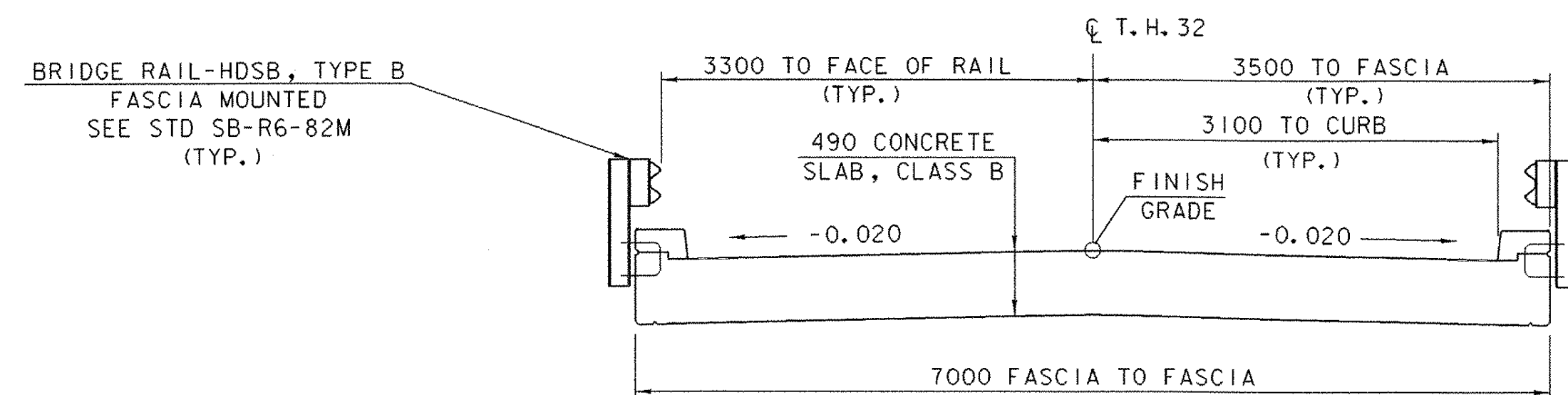
23. MATERIAL TRANSITION DETAILS

24-28. ROADWAY CROSS SECTIONS

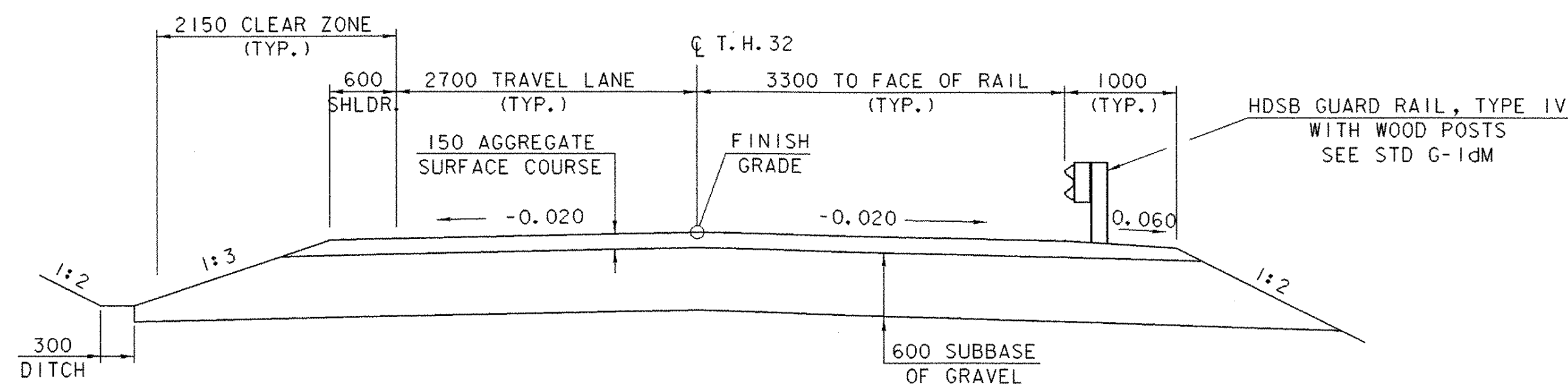
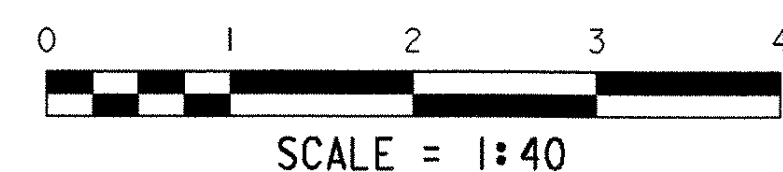
29-31. CHANNEL CROSS SECTIONS

LIST OF STANDARDS

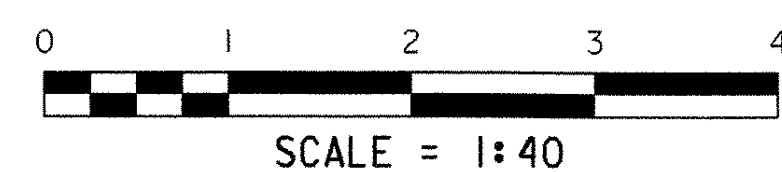
B-5M	SLOPE GRADING, EMBANKMENTS, MUCK	1/3/2000
B-71M	RESIDENTIAL AND COMMERCIAL DRIVES	3/1/2001
E-100M	CONSTRUCTION APPROACH SIGNS	5/30/2003
E-102M	CONSTRUCTION SIGN DETAILS	6/30/2003
E-106M	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	6/13/1997
E-107M	DELINEATION, BARRICADES AND DETOURS FOR U-TURNS ON DIVIDED HIGHWAY	6/30/2003
E-107AM	BREAKAWAY BARRICADE DETAILS	6/13/1997
G-1M	STEEL BEAM GUARDRAIL (50MPH & OVER) HEAVY DUTY STEEL BEAM GUARDRAIL TWISTED END TERMINAL ANCHOR FOR STEEL BEAM RAIL	1/3/2000
G-1DM	STEEL BEAM GUARDRAIL (40MPH & LESS) HEAVY DUTY STEEL BEAM GUARDRAIL STEEL BEAM MEDIAN BARRIER ANCHOR FOR STEEL BEAM RAIL	1/3/2000
SB-R6-82M	BRIDGE RAILING - HEAVY DUTY STEEL BEAM	7/10/1997
T-1M	TEMPORARY EROSION CONTROL DETAILS	6/13/1997
T-2M	TEMPORARY EROSION CONTROL DETAILS	6/13/1997



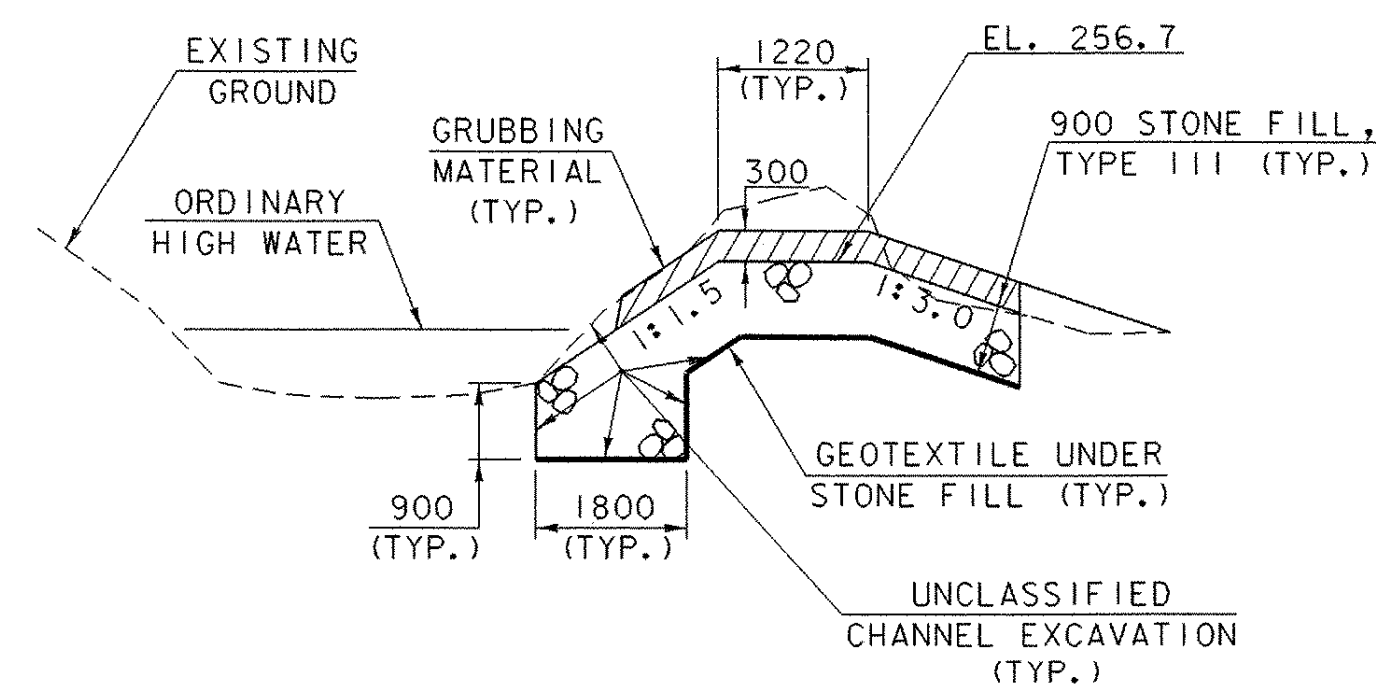
SLAB TYPICAL SECTION



ROADWAY TYPICAL SECTION

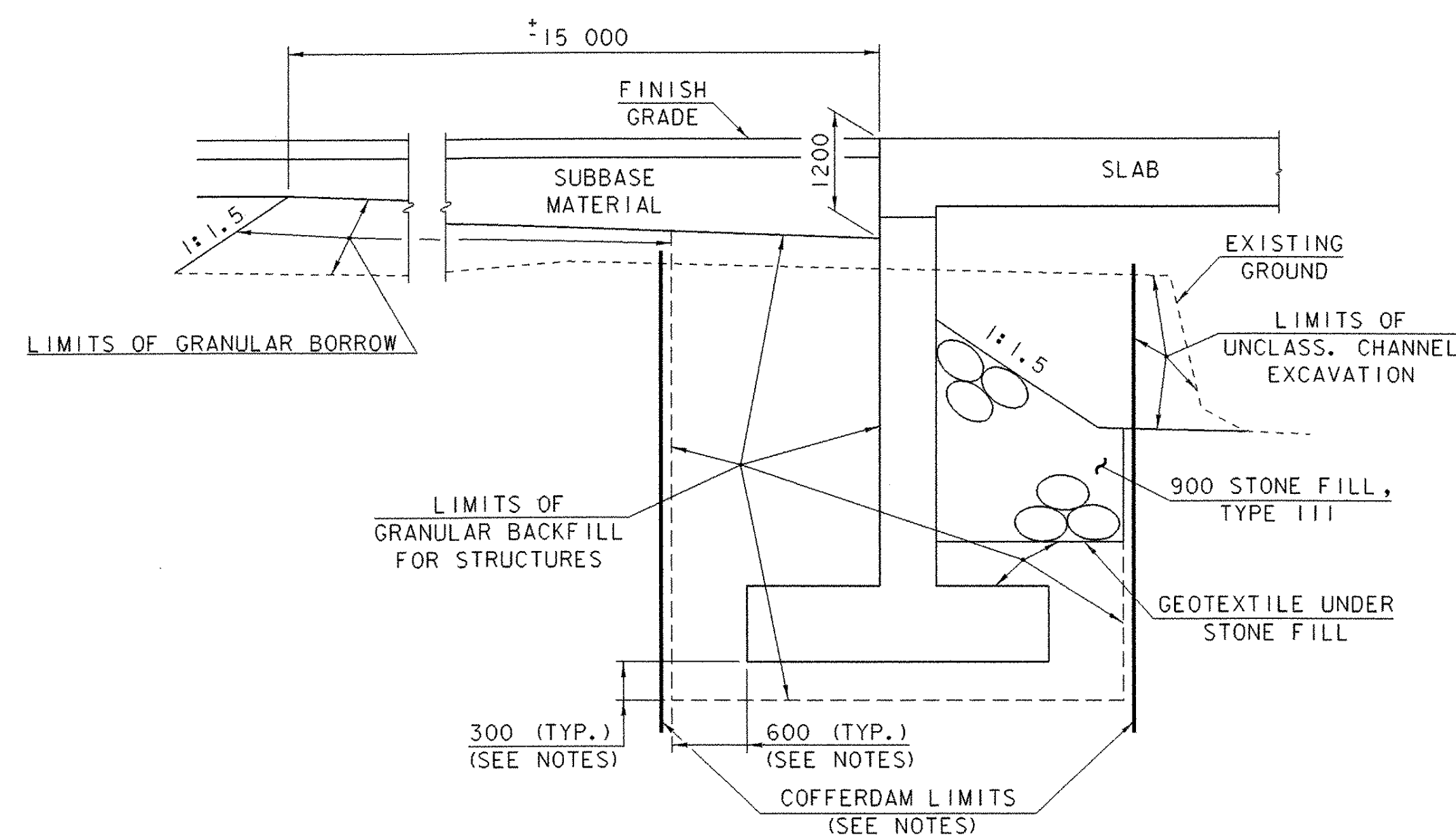


MATERIAL ITEM	TOLERANCE
AGGREGATE SURFACE COURSE	± 10 mm
SUBBASE	± 30 mm



TYPICAL BERM EARTHWORK SECTION

(NOT TO SCALE)

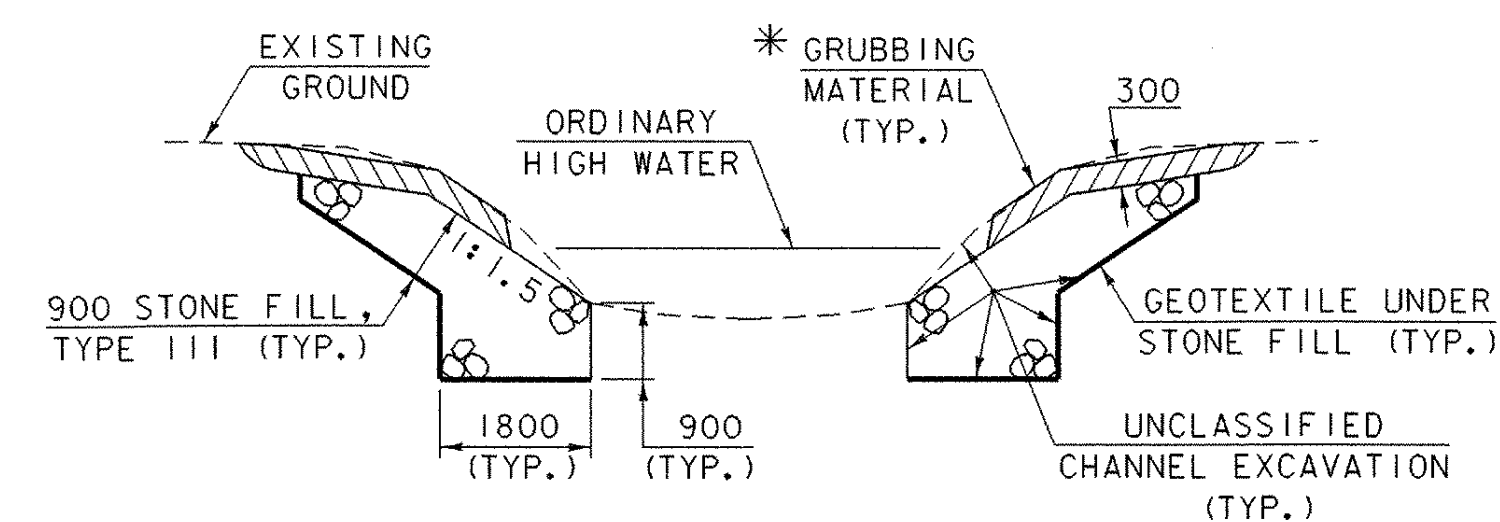


ABUTMENT EARTHWORK TYPICAL SECTION

(NOT TO SCALE)

NOTES

1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH AND "COFFERDAM EXCAVATION, ROCK "SHALL BE 600 OUTSIDE THE PERIMETER OF THE FOOTING, UP TO THE EXISTING GROUND OR BOTTOM OF SUBBASE,WHICH EVER IS LOWER
3. 300 UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.
5. SEE PROJECT NOTES (SHEET 14) FOR ADDITIONAL INFORMATION



CHANNEL TYPICAL 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.

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /str3/95j284/sj284pts.1
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
PROJECT TYPICAL SECTIONS

PLOT DATE: 12-FEB-2004
DRAWN BY: J. LACROIX
CHECKED BY: J. LACROIX
SHEET 3 OF 31

STATE OF VERMONT AGENCY OF TRANSPORTATION																QUANTITY SHEET										Metric							
SUMMARY OF ESTIMATED QUANTITIES																TOTALS			DESCRIPTIONS					DETAILED SUMMARY OF QUANTITIES									
		FULL E&C		EROSION CONTROL		ROADWAY		CHANNEL		ABUTMENT NO.2		ABUTMENT NO.1		SLAB		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										
						520												520			CM	COMMON EXCAVATION	203.15										
								110								110		110			CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27			* TEMPORARY EROSION CONTROL ITEMS * (INCLUDED IN EROSION CONTROL QUANTITY)							
				10		40												50			CM	TRENCH EXCAVATION OF EARTH	204.20										
										100		150				250		250			CM	GRANULAR BACKFILL FOR STRUCTURES	204.30	10	CM	TRENCH EXCAVATION OF EARTH							
										90		100				190		190			CM	COFFERDAM EXCAVATION, EARTH	208.30	20	CM	SUBBASE OF GRAVEL							
										90		100				190		190			CM	COFFERDAM EXCAVATION, ROCK	208.35	5	HR	ALL PURPOSE EXCAVATOR, RENTAL							
												1				1		1			LS	COFFERDAM (STA. 1 + 140.893)	208.40	20	SM	GEOTEXTILE FOR SILT FENCE							
										1						1		1			LS	COFFERDAM (STA. 1 + 150.513)	208.40	120	SM	GEOTEXTILE FOR FILTER CURTAIN							
				20		530												550			CM	SUBBASE OF GRAVEL	301.15	5	KG	SEED-WINTER RYE							
						140												140			CM	AGGREGATE SURFACE COURSE	401.10	10	EACH	HAY BALES FOR EROSION CONTROL							
														2		2		2			CM	CONCRETE, HIGH PERFORMANCE CLASS A	501.33	20	SM	EROSION MATTING							
										46		53		35		134		134			CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34			* 50/50 MIX OF ANNUAL RYEGRASS (LOLIUM - MULTIFLORUM) AND CEREAL (WINTER) RYE ITEM NUMBERS NOT SHOWN.							
										2780		3180				5960		5960			KG	REINFORCING STEEL	507.15										
														3930		3930		3930			KG	EPOXY COATED REINFORCING STEEL	507.17										
										10		10		30		50		50			L	WATER REPELLENT	514.10										
														23		23		23			M	BRIDGE RAILING - HD STEEL BEAM/FASCIA MOUNTED, TYPE B	525.41										
														1		1		1			LS	TEMPORARY PEDESTRIAN BRIDGE	528.12										
														1		1		1			EACH	REMOVAL OF STRUCTURE	529.15										
																					**** BEGIN PIPE OPTIONS ****												
						18												18			M	375 mm CSP 1.63(68 mm * 12 mm)	601.0010										
						18												18			M	375 mm RCP CLASS III	601.0610										
						18												18			M	375 mm CPEP(SL)	601.2610										
																					**** END PIPE OPTIONS ****												
				5														5			HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25										
						0.2												0.2			T	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15										
				10														10			CM	STONE FILL, TYPE I	613.10										
								190								190		190			CM	STONE FILL, TYPE III	613.12										
																		180			M	SNOW FENCE	620.70										
						49												49			M	HEAVY DUTY STEEL BEAM GUARD RAIL (TYPE IV w/ WOOD POSTS)	621.21										
						3												3			EACH	ANCHOR FOR STEEL BEAM RAIL	621.60										
		1																1			LS	TESTING EQUIPMENT - CONCRETE	631.16										
		1																1			LU	FIELD OFFICE TELEPHONE (MOD.)	631.25										
						1												1			LS	MOBILIZATION	635.10										
								210								210		210			SM	GEOTEXTILE UNDER STONE FILL	649.31										
				20														20			SM	GEOTEXTILE FOR SILT FENCE	649.51										
				120														120			SM	GEOTEXTILE FOR FILTER CURTAIN	649.61										
				5														5			KG	SEED	651.15										
				5														5			KG	SEED-WINTER RYE	651.17										
				30														30			KG	FERTILIZER	651.18										
				0.2														0.2			T	AGRICULTURAL LIMESTONE	651.20										
				0.2														0.2			T	HAY MULCH	651.25										
				50														50			EACH	HAY BALES FOR EROSION CONTROL	651.26										
																						PROJECT NAME: WEATHERSFIELD						PROJECT NUMBER: TH3 9514					
																						FILE NAME: 95J284						PLOT DATE: 2/9/2004					
																						PROJECT LEADER: R. WHITCOMB						DRAWN BY: S. SCRIBNER					
																						DESIGNED BY: J. LACROIX						CHECKED BY: J. LACROIX					
																						QUANTITY SHEET #1						SHEET 4 OF 31					

PROJECT NAME:		WEATHERSFIELD	
PROJECT NUMBER:		TH3 9514	
FILE NAME:	95J284	PLOT DATE:	2/5/2004
PROJECT LEADER:	R. WHITCOMB	DRAWN BY:	S. SCRIBNER
DESIGNED BY:	J. LACROIX	CHECKED BY:	J. LACROIX
QUANTITY SHEET #2		SHEET	5 OF 31

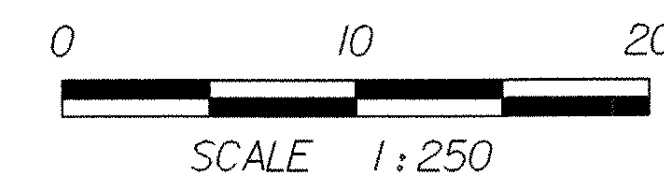


**END R.O.W. PROJECT
STATION 1+170.734
7.097 m LT.**

**BEGIN R.O.W. PROJECT
STATION 1+112.081
7.544 m RT.**

EXISTING BRIDGE DATA

CONCRETE SLAB DECK SUPPORTED BY
CONCRETE FACED LAID-UP STONE ABUTMENTS
BRIDGE LENGTH: 4.1m
BRIDGE WIDTH: 4.5m

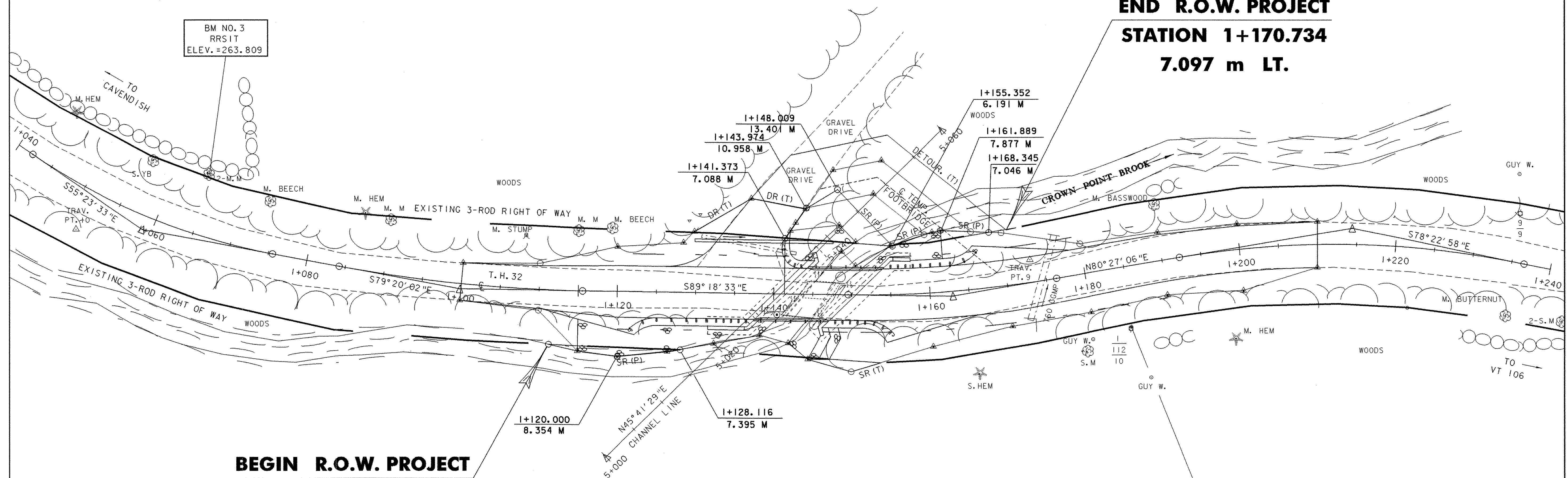


**THIS SHEET FOR
ROW PURPOSES
ONLY**

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /str3/95j284/sj284row.1
PROJECT LEADER:
DESIGNED BY:
RIGHT-OF-WAY PLAN

PLOT DATE: 12-FEB-2004
DRAWN BY:
CHECKED BY:
SHEET 6 OF 31



GPS CONTROL POINTS

WEATHER TEMP 1

STATION MARK IS A METAL ROD DRIVEN INTO THE GROUND.

APPROX. LATITUDE: 432500 N
APPROX. LONGITUDE: 0723037 W
APPROX. ELEVATION: 610 FT

LOCATION:

WEATHERSFIELD, VT

TO REACH FROM THE JUNCTION OF VT ROUTE 106 AND VT ROUTE 131 PROCEED NORTHERLY ALONG ROUTE 106 FOR 1.3 MI (2.1 KM) TO THE JUNCTION OF LITTLE ASCUTNEY ROAD ON THE RIGHT. PROCEED ALONG LITTLE ASCUTNEY ROAD FOR 0.4 MI. (0.6 KM) TO THE MARK ON THE RIGHT. THE MARK IS LOCATED 53.1 FT (16.2 M) SSE FROM A 6 INCH POPLAR TREE, 48.2 FT (14.7 m) SOUTH OF A 6 INCH POPLAR TREE AND 21.6 FT (6.6 M) SW OF THE CENTER OF LITTLE ASCUTNEY ROAD.

WEATHER TEMP 2

STATION MARK IS A METAL ROD DRIVEN INTO THE GROUND.

APPROX. LATITUDE: 432502 N
APPROX. LONGITUDE: 0723106 W
APPROX. ELEVATION: 610 FT

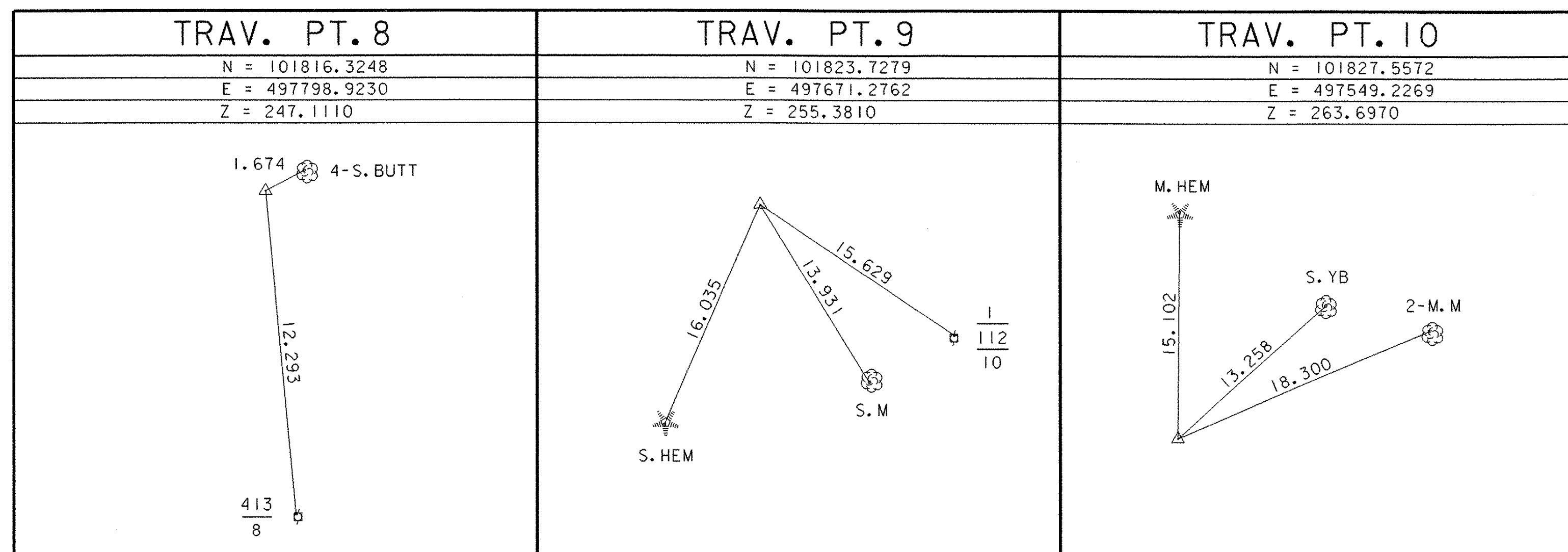
LOCATION:

WEATHERSFIELD, VT

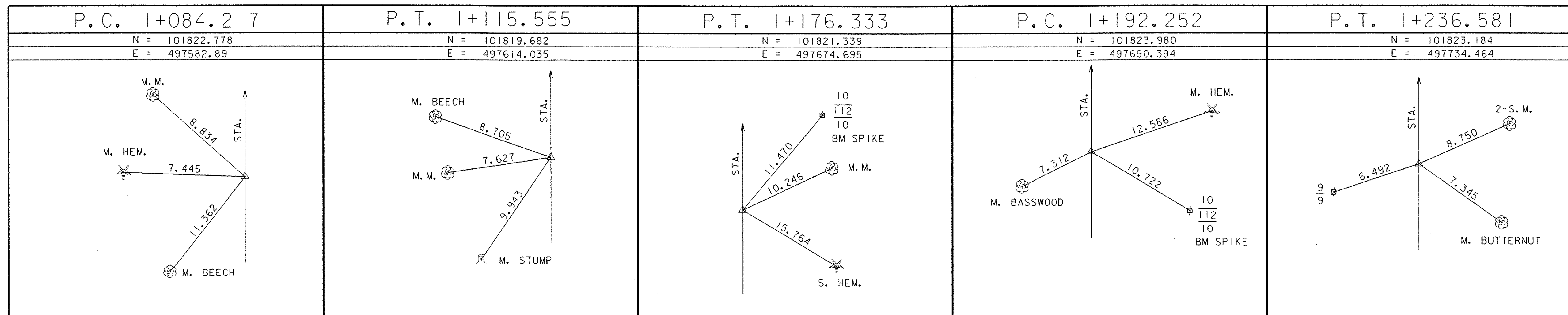
TO REACH FROM THE JUNCTION OF VT ROUTE 106 AND VT ROUTE 131 PROCEED NORTHERLY ALONG ROUTE 106 FOR 1.3 MI (2.1 KM) TO THE MARK ON THE RIGHT. THE MARK IS LOCATED 39.4 FT (12.0 M) NNW OF THE CENTER OF LITTLE ASCUTNEY ROAD, 22.0 FT (6.7 M) EAST OF THE CENTERLINE OF ROUTE 106, 20.0 FT (6.1 M) NW OF A LEGAL LOAD LIMIT SIGN WITH MILEMARKER 1060/1420/0556, 6.2 FT (1.9 M) SE OF THE SOUTHERLY END OF A SGR WITH WOOD POSTS.



TRAVERSE TIES



ALIGNMENT TIES

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (92)PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514FILE NAME: /str3/95j284/sj284tie.i
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
TIE SHEETPLOT DATE: 8/31/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 7 OF 31

**HEAVY DUTY STEEL BEAM GUARD RAIL,
TYPE IV w/ WOOD POSTS**

STA 1+121.62 RT. - 1+136.49 RT.
STA 1+141.00 LT. - 1+143.49 LT.
STA 1+147.91 RT. - 1+155.00 RT.
STA 1+155.05 LT. - 1+166.38 LT.

ANCHOR FOR STEEL BEAM RAIL

STA 1+125.05 RT.
STA 1+151.72 RT.
STA 1+162.84 LT.

BRIDGE RAILING, HEAVY DUTY STEEL BEAM/FASCIA MOUNTED, TYPE B

STA 1+136.49 RT. - 1+147.91 RT.
STA 1+143.49 LT. - 1+155.05 LT.

CONSTRUCT GRAVEL DRIVE

STA 1+135.20 LT.



CURVE NO. 1 DATA

$\Delta = 23^\circ 56' 29''$ LT.
R = 80.000
T = 16.962
L = 33.428
E = 1.778
2T-L = 0.496
BANKING = N.C.

CURVE NO. 2 DATA

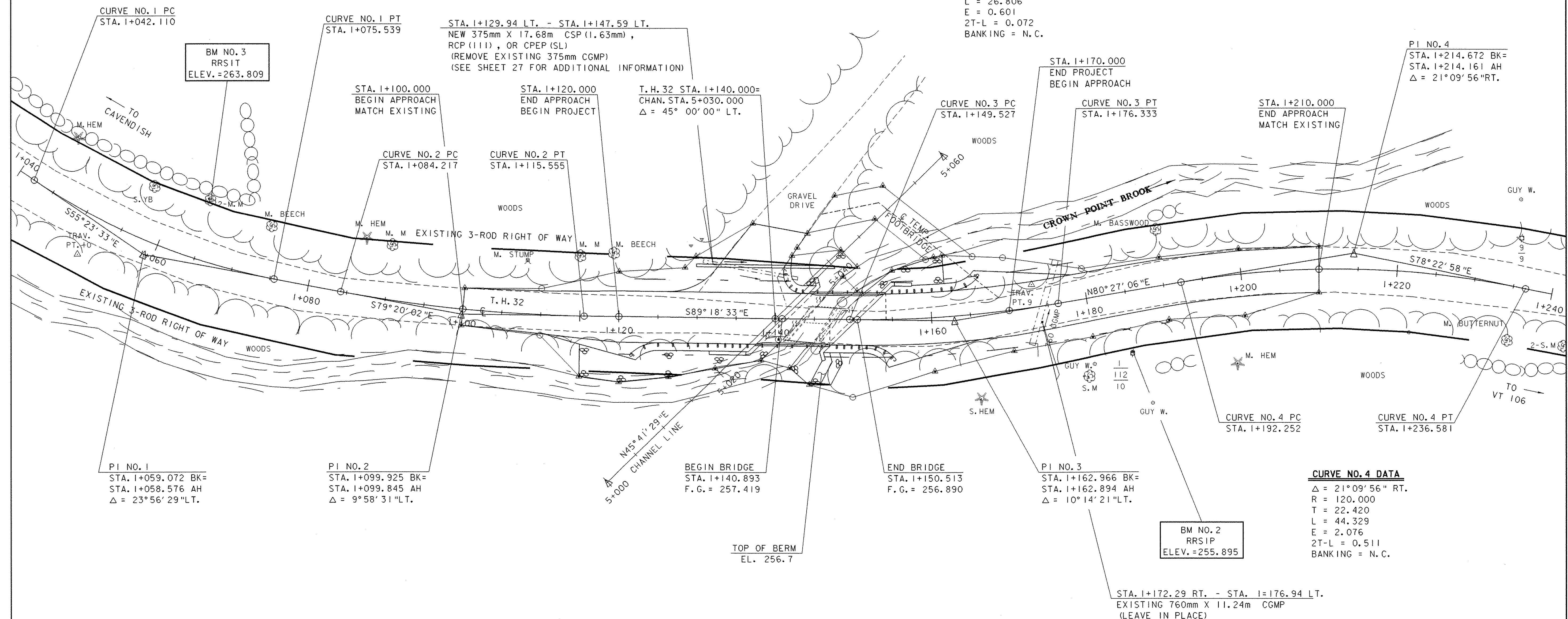
$\Delta = 9^\circ 58' 31''$ LT.
R = 180.000
T = 15.709
L = 31.338
E = 0.684
2T-L = 0.080
BANKING = N.C.

CURVE NO. 3 DATA

$\Delta = 10^\circ 14' 21''$ LT.
R = 150.000
T = 13.439
L = 26.806
E = 0.601
2T-L = 0.072
BANKING = N.C.

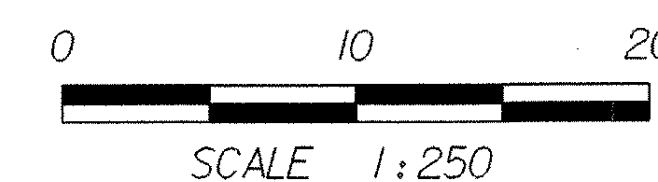
CURVE NO. 4 DATA

$\Delta = 21^\circ 09' 56''$ RT.
R = 120.000
T = 22.420
L = 44.329
E = 2.076
2T-L = 0.511
BANKING = N.C.



EXISTING BRIDGE DATA

CONCRETE SLAB DECK SUPPORTED BY
CONCRETE FACED LAID-UP STONE ABUTMENTS
BRIDGE LENGTH: 4.1m
BRIDGE WIDTH: 4.5m

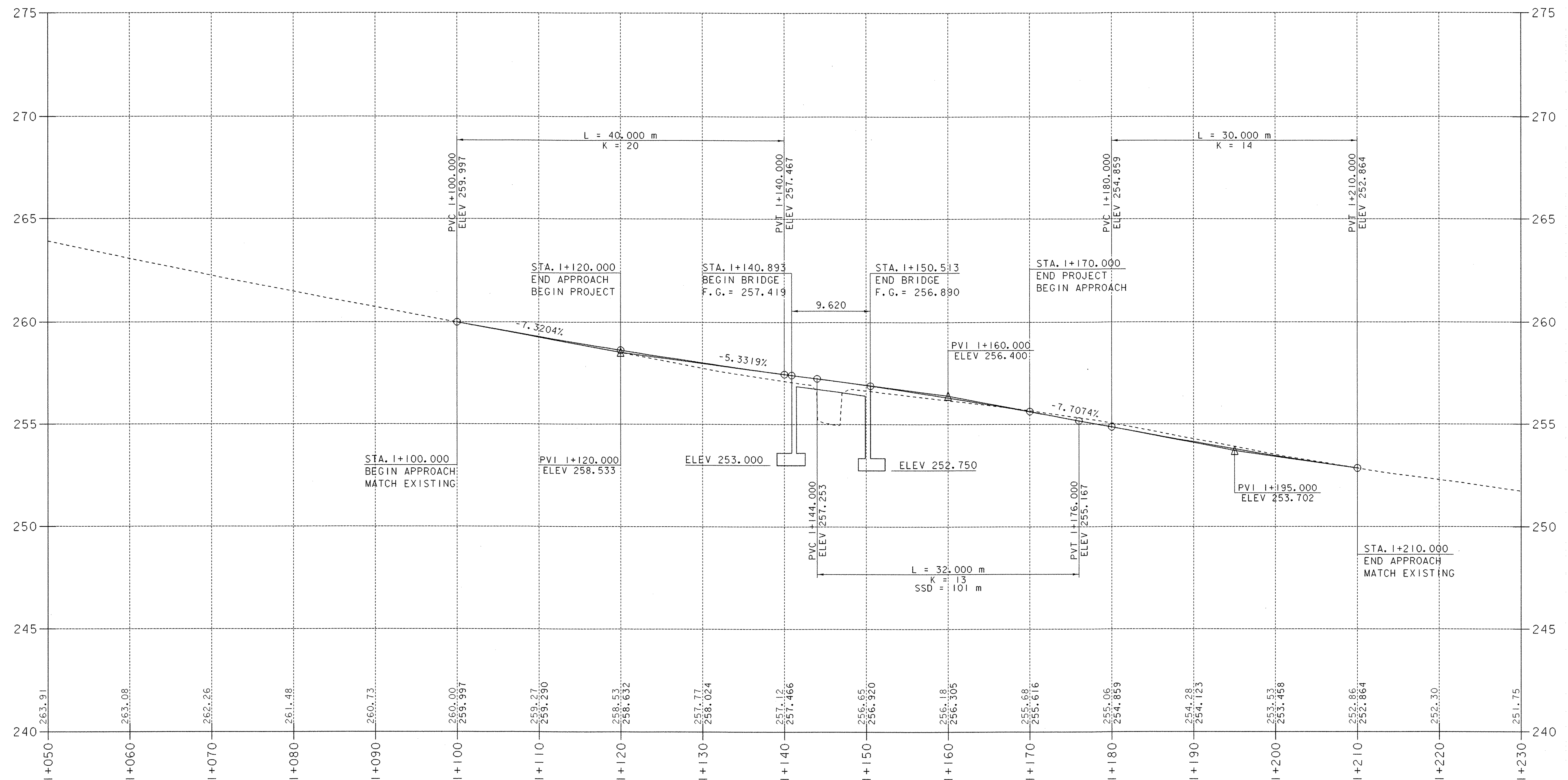


PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

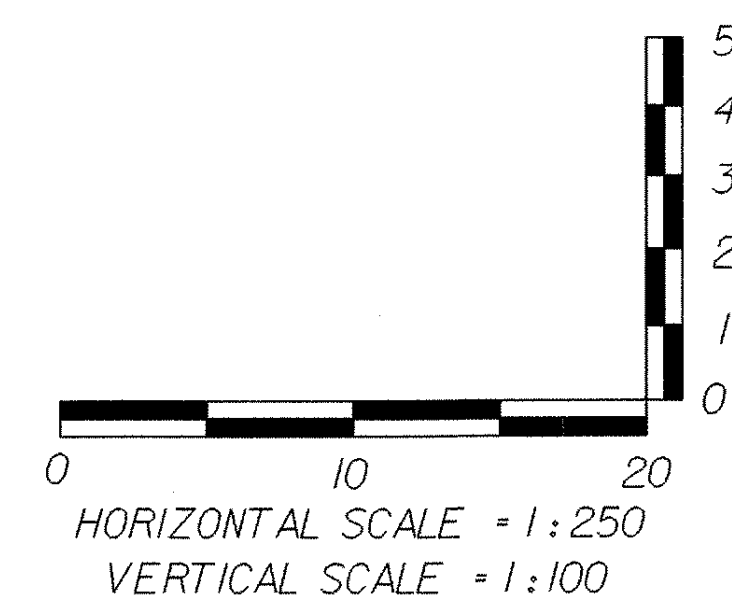
FILE NAME: /str3/95j284/sj284i01.i
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: T. A. SUMNER
LAYOUT SHEET

PLOT DATE: 12-FEB-2004
DRAWN BY: G. ROY
CHECKED BY: T. A. SUMNER
SHEET 8 OF 31

Profile Along T.H. 32



NOTE:
ELEVATIONS TO THE NEAREST HUNDREDTH ARE EXISTING GROUND ALONG PROPOSED CENTERLINE.
ELEVATIONS TO THE NEAREST THOUSANDTH ARE FINISH GRADE ALONG PROPOSED CENTERLINE.



PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /str3/95j284/sj284pfl1
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
PROFILE SHEET

PLOT DATE: 12-FEB-2004
DRAWN BY: G. ROY
CHECKED BY: T. A. SUMNER
SHEET 9 OF 31

SOIL CLASSIFICATION

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

ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

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

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

COMMONLY USED SYMBOLS

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

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

DEFINITIONS (AASHTO)

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

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

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

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

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

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

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

VARVED - Alternate layers of silt and clay.

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

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

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

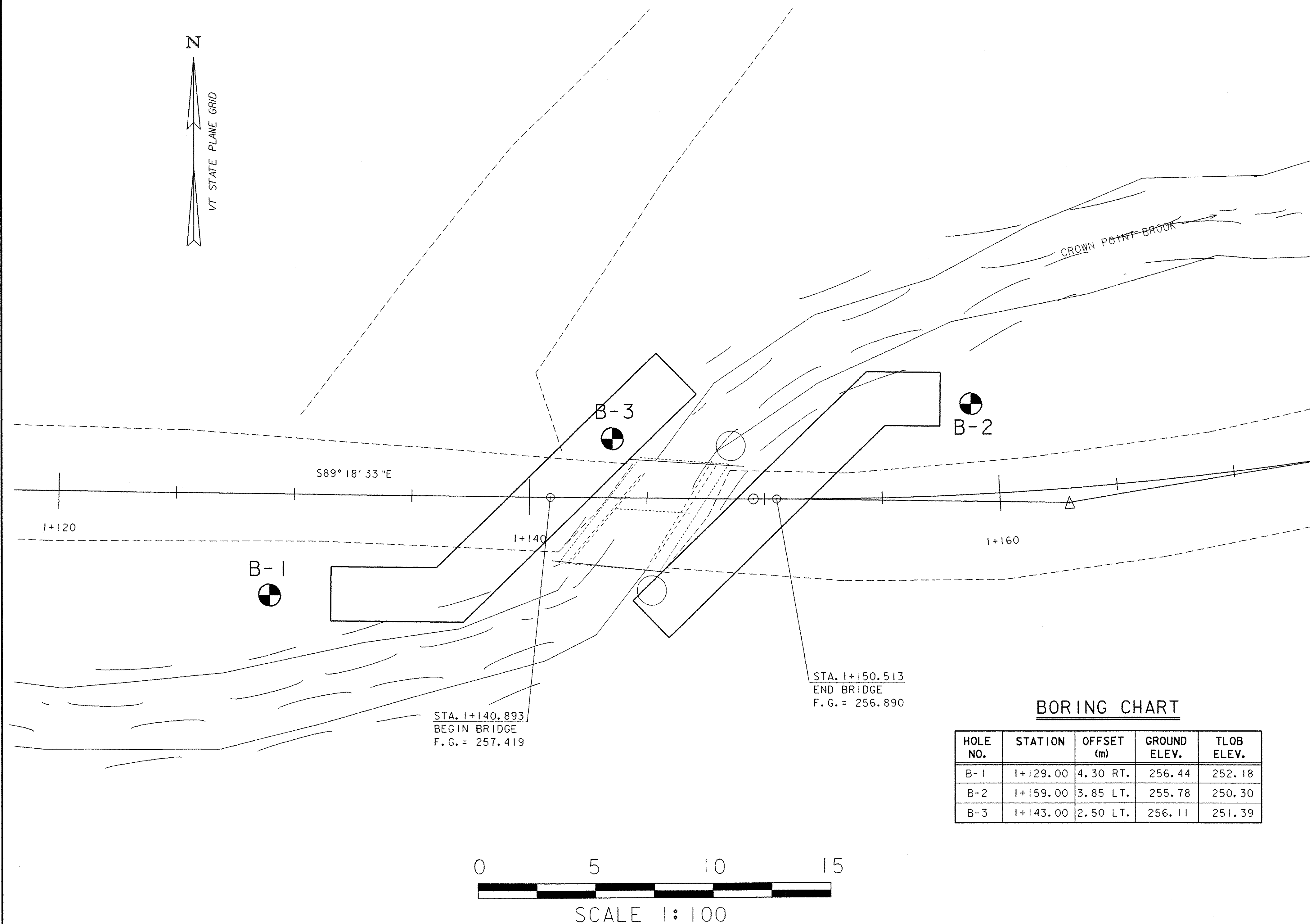
FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

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

DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

- The subsurface explorations shown herein were made between 11-3-99 11-8-99
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.



BORING CHART

HOLE NO.	STATION	OFFSET (m)	GROUND ELEV.	TLOB ELEV.
B-1	I+129.00	4.30 RT.	256.44	252.18
B-2	I+159.00	3.85 LT.	255.78	250.30
B-3	I+143.00	2.50 LT.	256.11	251.39

PROJECT:	WEATHERSFIELD	PROJECT NO.:	TH3 9514
DESIGN FILE NAME:	IPARM FILE NAME: m:\284\Structures\284b01\IPL0T DATE: 12-FEB-2004		
BORING LAYOUT SHEET	SHEET: 10 OF 31		

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION					HOLE NO.: B-1 SHEET 1 OF 1 DATE STARTED: 11/5/99 DATE COMPLETED: 11/8/99				
PROJECT NAME: WEATHERSFIELD SITE NAME: BR 24 STATION: H129.00 GROUND EL.: 256.44					PROJECT NUMBER: TH3-9514 SITE NO.: TH 32 OFFSET: 4.30 G.W. DEPTH:				
BORING CREW CREW CHIEF: MCGLYNN DRILLER: YOUNG LOGGER: CHABOT ADDITIONAL CREW:					BORING RIG: TRUCK BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL				
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		No sample, in Boulder	R						
		BXDC, 2.55m-2.95m, Boulder	R	12.5	52.1	40	7.9		
		A-I-a, SaGr, gry, Moist, Rec. = 0.25m	R						
		Run #1: BXMDC, 4.26m-5.78m, Rec. = 1.28m, See Geologist's Report.	RUN 1	Top of REC% 84	bedrock ROD% 60	4.26m Dip° -			
		Run #2: BXMDC, 5.78m-7.30m, Rec. = 1.44m, See Geologist's Report.	2	95	95	-			
Hole stopped @ 7.30m									
GEOLOGISTS REPORT: Run#1: Light gray to white granitic dike. Hard. Unweathered. Competent. Run#2: 5.78 m to 6.84 m: Same as Run#1. Competent. 6.84 m to 7.30 m: Silver-gray garnet schist. Moderately Hard. Unweathered. Competent.									

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION					HOLE NO.: B-2 SHEET 1 OF 1 DATE STARTED: 11/3/99 DATE COMPLETED: 11/5/99				
PROJECT NAME: WEATHERSFIELD SITE NAME: BR 24 STATION: H159.00 GROUND EL.: 255.78					PROJECT NUMBER: TH3-9514 SITE NO.: TH 32 OFFSET: -3.85 G.W. DEPTH: 254.28				
BORING CREW CREW CHIEF: MCGLYNN DRILLER: YOUNG LOGGER: CHABOT ADDITIONAL CREW:					BORING RIG: TRUCK BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL				
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	P
		No sample, Boulder							
		No sample, Boulder							
		A-l-b, GrSs, brn, Moist, Rec. = 0.30m	48	12.9	43.9	46.1	10		
		No sample, Stone in sampler BXDC, 4.60m-5.44m, Boulders	R						
		Run #1: BXMDC, 5.48m-6.63m, Rec. = 0.90m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
		Run #2: BXMDC, 6.63m-7.52m, Rec. = 0.79m, See Geologist's Report.	1	78	69	-			
		Run #3: BXMDC, 7.52m-8.73m, Rec. = 0.82m, See Geologist's Report.	2	89	75	-			
			3	68	58	-			
			Hole stopped @ 8.73m						
		Ground water = 1.50m							
GEOLOGISTS REPORT:									
Run#1: Light gray to white granitic dike. Hard. Unweathered. Competent.									
Run#2: Same as Run #1. Competent.									
Run#3: 7.52 m to 8.10 m: Same as Run#1. Competent.									
8.10 m to 8.73 m: Silver-gray garnet schist. Moderately Hard. Unweathered. Competent.									

STATE OF VERMONT

AGENCY OF TRANSPORTATION

MATERIALS & RESEARCH DIVISION

SUBSURFACE INFORMATION

PROJECT NAME: WEATHERSFIELD

SITE NAME: BR 24

STATION: 14143.50

GROUND EL.: 256.11

BORING CREW

CREW CHIEF: MCGLYNN

DRILLER: CHABOT

LOGGER: YOUNG

ADDITIONAL CREW:

HOLE NO.: B-3

SHEET 1 OF 1

DATE STARTED: 11/8/99

DATE COMPLETED: 11/8/99

PROJECT NUMBER: TH3-9514

SITE NO.: TH 32

OFFSET: -2.50

G.W. DEPTH:

BORING RIG: TRUCK

BORING TYPE: WASH BORE

SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
5		Run #1: BXMDC, 4.72m-5.02m, Rec. = 0.32m, See Geologist's Report.	1	87	53	-			
		Run #2: BXMDC, 5.02m-6.39m, Rec. = 1.27m, See Geologist's Report.	2	93	93	-			
		Run #3: BXMDC, 6.39m-7.60m, Rec. = 0.72m, See Geologist's Report.	3	60	50	-			
		Hole stopped @ 7.60m							
10									

GEOLOGIST'S REPORT:

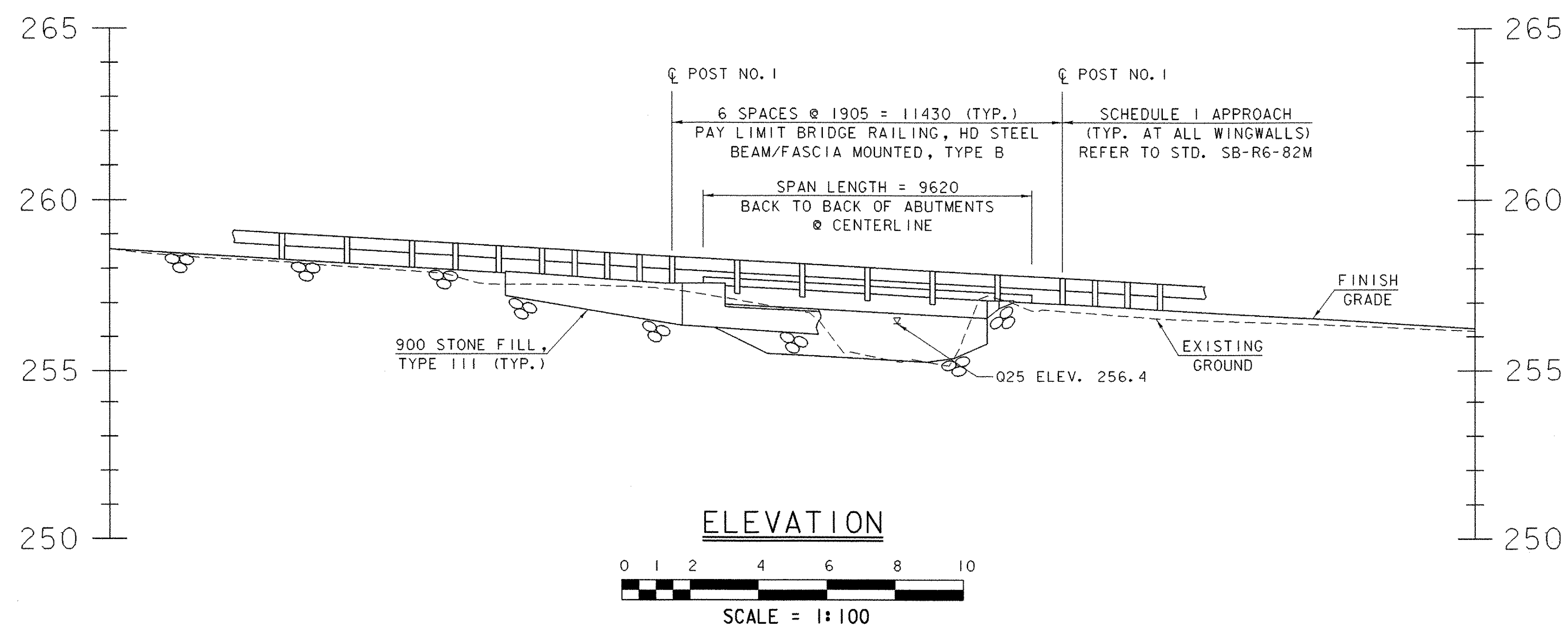
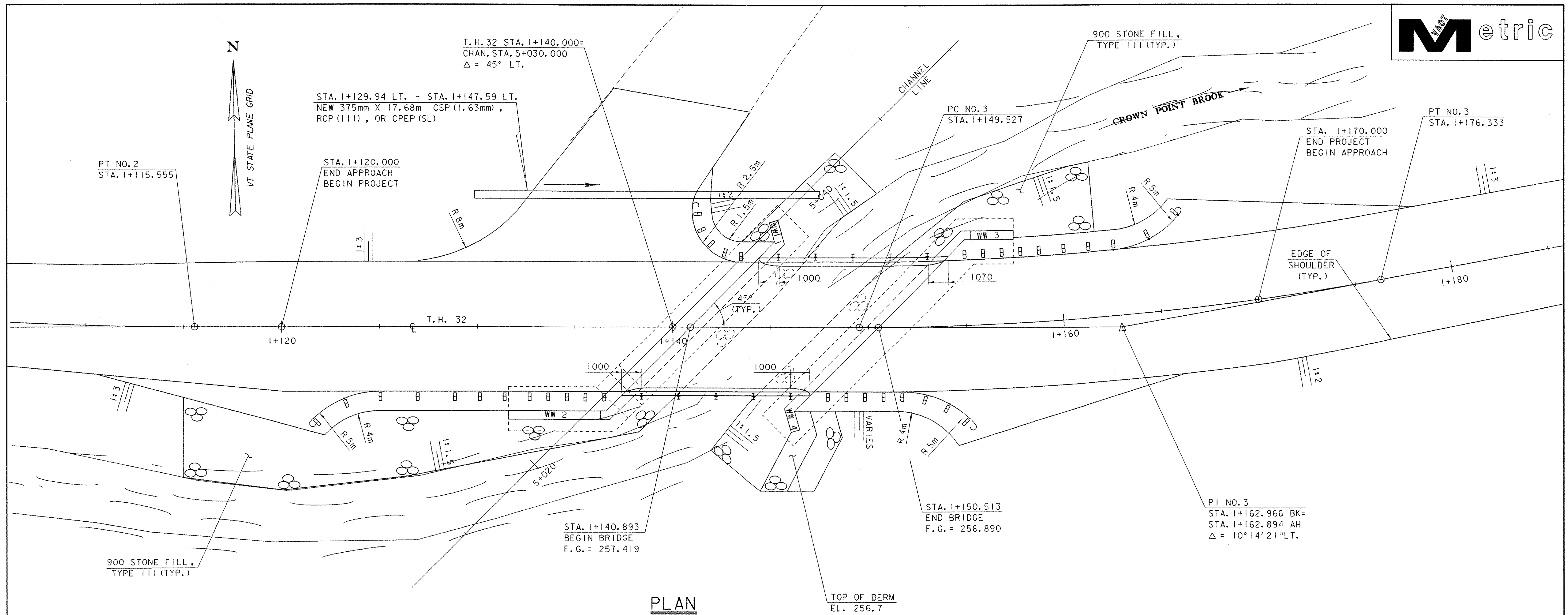
Run#1: Light gray to white granitic dike. Hard. Unweathered. Competent.

Run#2: Same as Run #1. Competent.

Run#3: Same as Run #1. Competent.

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	TH3 9514

FILE NAME: /str3/95j284/sj284b02.i	PLOT DATE: 12-FEB-2004
PROJECT LEADER: R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: J. LACROIX	CHECKED BY: T. SUMNER
BORING LOG SHEET	SHEET 11 OF 31



PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	TH3 9514
FILE NAME:	/str3/95j284/sj284pe.i
PROJECT LEADER:	R. WHITCOMB
DESIGNED BY:	J. LACROIX
PLAN AND ELEVATION SHEET	
PLOT DATE:	12-FEB-2004
DRAWN BY:	J. LACROIX
CHECKED BY:	J. LACROIX
SHEET	12 OF 31

EROSION PREVENTION AND SEDIMENT CONTROL NARRATIVE FOR THE
WEATHERSFIELD TH 3 9514 BRIDGE REPLACEMENT PROJECT

THE PURPOSE OF THIS PROJECT IS TO REPLACE AN EXISTING BRIDGE LOCATED ON A GRAVEL CLASS 3 TOWN HIGHWAY LOCALLY KNOWN AS THE TARBELL HILL ROAD. THE BRIDGE IS LOCATED APPROXIMATELY 1.29 KM WESTERLY OF THE TOWN HIGHWAYS INTERSECTION WITH VT106. THE ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION WITH A PEDESTRIAN BRIDGE PROVIDED JUST DOWNSTREAM OF THE NEW BRIDGE CONSTRUCTION. THE NEW BRIDGE WILL BE CONSTRUCTED ON THE SAME HORIZONTAL ALIGNMENT AS THE EXISTING BRIDGE AND THE ROADWAY AND BRIDGE FINISH GRADE WILL BE APPROXIMATELY 0.3 METERS HIGHER THAN EXISTING IN THE IMMEDIATE AREA OF THE BRIDGE AND WILL TAPER BACK TO THE EXISTING ROAD GRADE WITHIN 50 METERS EACH SIDE OF THE BRIDGE. THE NEW BRIDGE WILL BE APPROXIMATELY 2.5 METERS WIDER THAN THE EXISTING BRIDGE. THE TOTAL AREA OF DISTURBANCE NECESSARY TO CONSTRUCT THIS PROJECT IS ESTIMATED TO BE 1400 SQ. METERS (0.14 HECTARES), THE MAJORITY BEING IN THE RESHAPING OF THE GRAVEL ROAD SURFACE WITH APPROXIMATELY 200 SQ. METERS OF IMPERVIOUS AREA BEING ADDED TO THE EXISTING GRAVELED AREA.

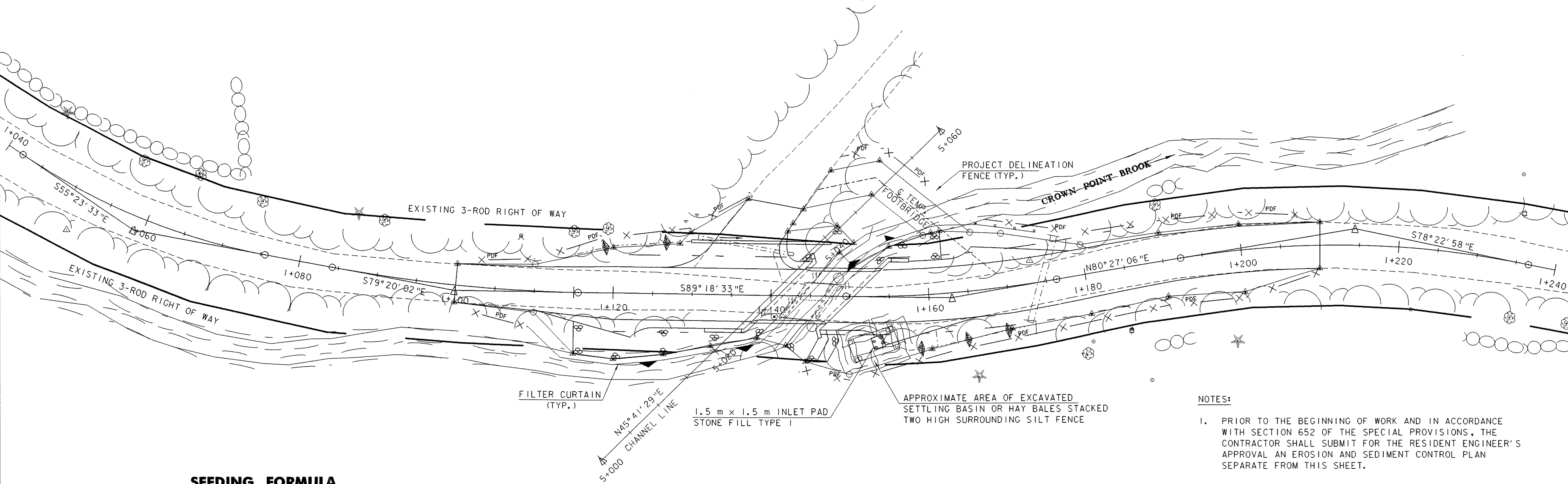
THE PROJECT IS SITED IN A FAIRLY NARROW VALLEY WITH STEEP HEAVILY FORESTED SLOPES TO THE SOUTH AND NORTHEAST AND A GRAVEL DRIVE TO THE NORTHWEST. THE SOILS ARE DESCRIBED AS A MARLOW FINE SANDY LOAM ON THE SOIL SURVEY MAP DISTRIBUTED BY THE WINDSOR COUNTY NATURAL RESOURCES CONSERVATION SERVICE AND LIE ON 35 TO 60% SLOPES. BORINGS TAKEN FOR THE PROJECT INDICATE SANDY GRAVELLY SOILS MIXED WITH BOULDERS. IF VEGETATION IS REMOVED, THE TYPE AND SLOPE OF THESE SOILS PRESENT A HIGH EROSION POTENTIAL.

CROWN POINT BROOK PARALLELS THE ROAD WEST OF THE BRIDGE TURNING ABRUPTLY AT THE BRIDGE CROSSING AND DIVERGES FROM THE ROAD AS IT FLOWS TO THE EAST. BOTH THE ROAD AND THE STREAM IN THE PROJECT AREA ARE ON RELATIVELY STEEP GRADIENTS OF APPROXIMATELY 7%. CROWN POINT BROOK IS LISTED AS A CLASS B STREAM BY THE VERMONT AGENCY OF NATURAL RESOURCES WATER QUALITY DIVISION AND FLOWS YEAR ROUND WITH AN AVERAGE DAILY FLOW OF 0.1 CUBIC METERS PER SECOND.

VEGETATION IN THE PROJECT AREA IS MOSTLY GRASSES AND A FEW SAPPLINGS IN THE 3 INCH CALIPER RANGE. ALL OF THE DISTURBED AREAS OUTSIDE THE LIMITS OF THE BRIDGE AND ROADWAY WILL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED IN ACCORDANCE WITH THE SEED FORMULA LISTED IN THE PLANS. BECAUSE OF THE CONFINED AREA, THE TREES WILL NOT BE REPLACED.

SENSITIVE RESOURCES IDENTIFIED IN THE PRELIMINARY STAGES OF THIS PROJECT ARE THE BROOK TROUT POPULATION IN THE CROWN POINT BROOK AND A DEER WINTERING RANGE ALONG THE NORTHERN EDGE OF TH3.

THE ONLY PERMANENT EROSION AND SEDIMENT CONTROL MEASURES REQUIRED ARE THE LINING OF THE CHANNEL SLOPES IN THE IMMEDIATE VICINITY OF THE BRIDGE WITH STONE FILL AND GRUBBING MATERIAL AND THE NORMAL SEEDING AND MULCHING OF THESE AND OTHER DISTURBED AREAS.



SEEDING FORMULA
RURAL AREAS

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

GENERAL NOTES

- SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
- FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).
- AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.
- HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.
- TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

LEGEND

- FILTER CURTAIN
- SILT FENCE
- HAY BALES
- DITCH WITH STONE CHECK DAMS
- PROJECT DELINEATION FENCE



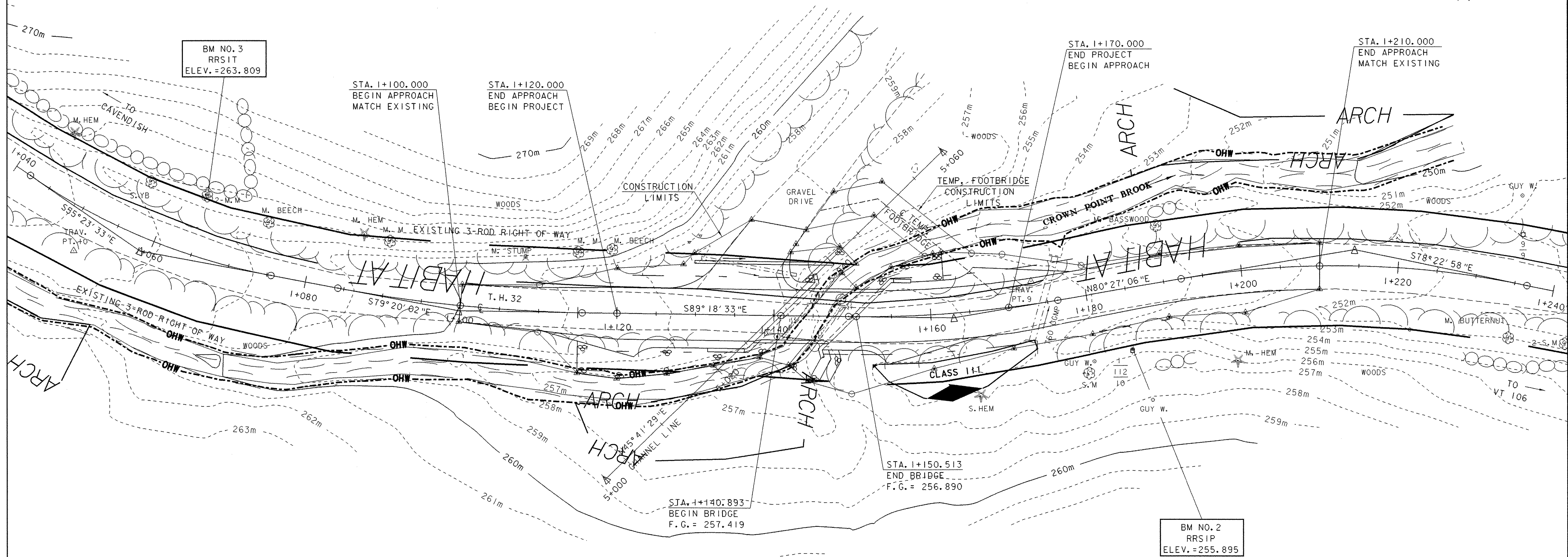
NOTES:

- PRIOR TO THE BEGINNING OF WORK AND IN ACCORDANCE WITH SECTION 652 OF THE SPECIAL PROVISIONS, THE CONTRACTOR SHALL SUBMIT FOR THE RESIDENT ENGINEER'S APPROVAL AN EROSION AND SEDIMENT CONTROL PLAN SEPARATE FROM THIS SHEET.
- SPECIAL CONSIDERATION MUST BE GIVEN TO THE FIRST PUMP-DOWN OF THE COFFERDAMS. THIS WILL CONTAIN THE GREATEST VOLUME OF WATER WITH A HIGH SEDIMENT LOAD. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL SEDIMENT TRAPS WITHIN THE RIGHT-OF-WAY OR CONTROL THE RATE OF DRAW-DOWN. ADDITIONAL SEDIMENT TRAPS MUST BE APPROVED BY THE RESIDENT ENGINEER.
- AS SOON AS POSSIBLE FOLLOWING COMPLETION OF THE SUBSTRUCTURE, THE SEDIMENT IN THE TRAPS SHALL BE REMOVED AND THE GROUND RESTORED TO ITS ORIGINAL SLOPES OR GRADED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- 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.

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /str3/95j284/sj284ec.i
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
EROSION CONTROL SHEET

PLOT DATE: 12-FEB-2004
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 13 OF 31

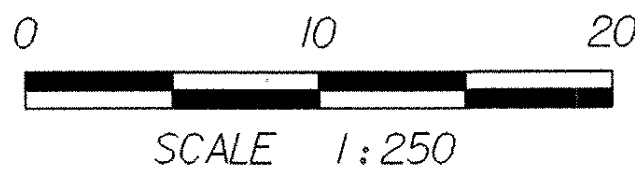


EXISTING BRIDGE DATA

CONCRETE SLAB DECK SUPPORTED BY
CONCRETE FACED LAID-UP STONE ABUTMENTS
BRIDGE LENGTH: 4.1m
BRIDGE WIDTH: 4.5m

LEGEND

- WETLAND RESOURCE
- ARCHEAOLOGICAL RESOURCE
- CRITICAL HABITAT
- ORDINARY HIGH WATER LINE



PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /s/r3/95j284/sj285rsl
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: T. SUMNER
RESOURCE & EXISTING SITE CONDITION SHEET

PLOT DATE: 9/4/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 14 OF 31

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS OF CONSTRUCTION DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
2. TOWN HIGHWAY NO. 32 WILL BE CLOSED TO THROUGH VEHICULAR TRAFFIC DURING CONSTRUCTION. THE TOWN SHALL BE RESPONSIBLE FOR SELECTING, SIGNING AND MAINTAINING A DETOUR ROUTE. THE CONTRACTOR SHALL NOTIFY THE TOWN CLERK AT (802) 368-7390 A MINIMUM OF TWO WEEKS PRIOR TO CLOSING TOWN HIGHWAY NO. 32.
3. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED ON A TEMPORARY PEDESTRIAN BRIDGE DOWNSTREAM. CONSTRUCTION FENCING SHALL BE ERECTED ON THE APPROACHES TO THE BRIDGE TO DIRECT PEDESTRIANS THROUGH THE PROJECT AND SEPARATE THEM FROM THE WORK AREA. THE FENCE SHALL BE PAID FOR AS ITEM 620.70, SNOW FENCE.
4. ALL ON-PROJECT SIGNS AND BARRICADES AS REQUIRED BY THE RESIDENT ENGINEER AND "ROAD CLOSED" SIGNS AT THE INTERSECTIONS OF CAVENDISH TH20 AND TH19 AND AT THE INTERSECTION OF WEATHERSFIELD TH32 AND VT106 WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE ITEM 635.10 "MOBILIZATION." ALL OTHER OFF-PROJECT SIGNING SHALL BE THE RESPONSIBILITY OF THE TOWN.
5. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
6. ALL DIMENSIONS SHOWN ON THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELCIUS.

EARTHWORK AND RELATED ITEMS

7. THE "STONE FILL, TYPE I" SHALL BE USED AS SHOWN ON THE DRAWINGS AND AT THE DISCRETION OF THE RESIDENT ENGINEER TO PREVENT EROSION BEHIND THE WINGWALLS.
8. REMOVAL OF THE EXISTING SUPERSTRUCTURE AND THOSE PORTIONS OF THE EXISTING SUBSTRUCTURE NOT REMOVED UNDER ITEM 208.35 "COFFERDAM EXCAVATION, ROCK" OR ITEM 203.27, "UNCLASSIFIED CHANNEL EXCAVATION" SHALL BE PAID FOR UNDER ITEM 529.15, "REMOVAL OF STRUCTURE".
9. THE HEIGHT OF FILL BEHIND THE ABUTMENTS SHALL BE LIMITED TO THE BRIDGE SEAT ELEVATION UNTIL THE SLAB HAS BEEN POURED AND CURED.

CONCRETE AND REINFORCING STEEL

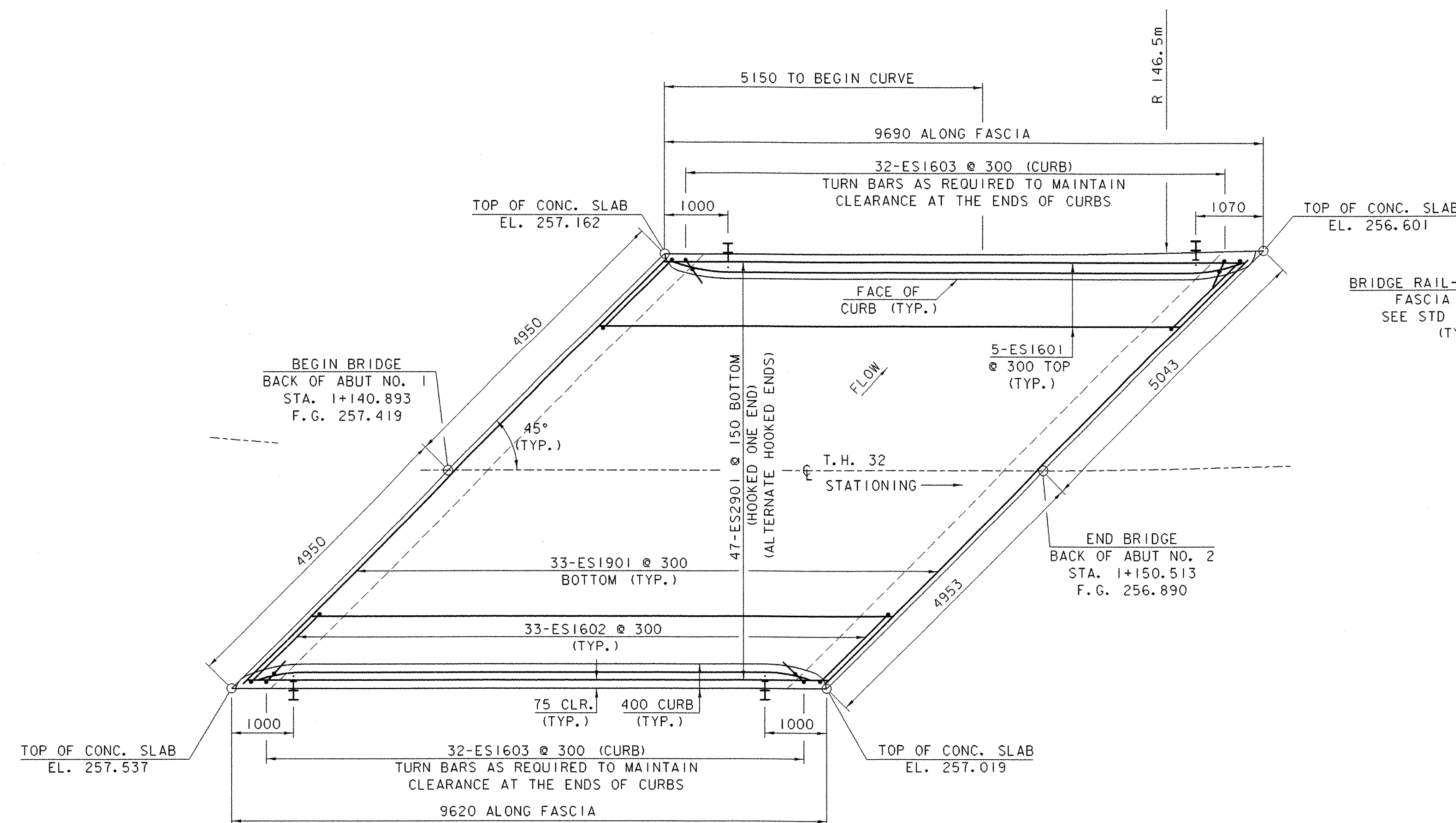
10. ALL DECK AND SUBSTRUCTURE CONCRETE SHALL BE CLASS B (HPC-B) AND SHALL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B". THE CURBS SHALL BE CLASS A (HPC-A) AND SHALL BE PAID FOR UNDER ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A ."
11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 MILLIMETERS X 25 MILLIMETERS.
12. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE RESIDENT ENGINEER.
13. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED SUBSTRUCTURE SURFACES AND TO THE DECK FASCIA, THE CURBS AND THE UNDERSIDE OF THE DECK OUTSIDE THE DRIP NOTCHES.
14. THE KEY-IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
15. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 50 MILLIMETERS ALONG BACK FACES OF WALLS AGAINST EARTH AND 75 MILLIMETERS ELSEWHERE, UNLESS INDICATED OTHERWISE ON THE PLANS.
16. REINFORCING PLACEMENT TOLERANCES SHALL BE:

SPACING: +/- 25 MILLIMETERS

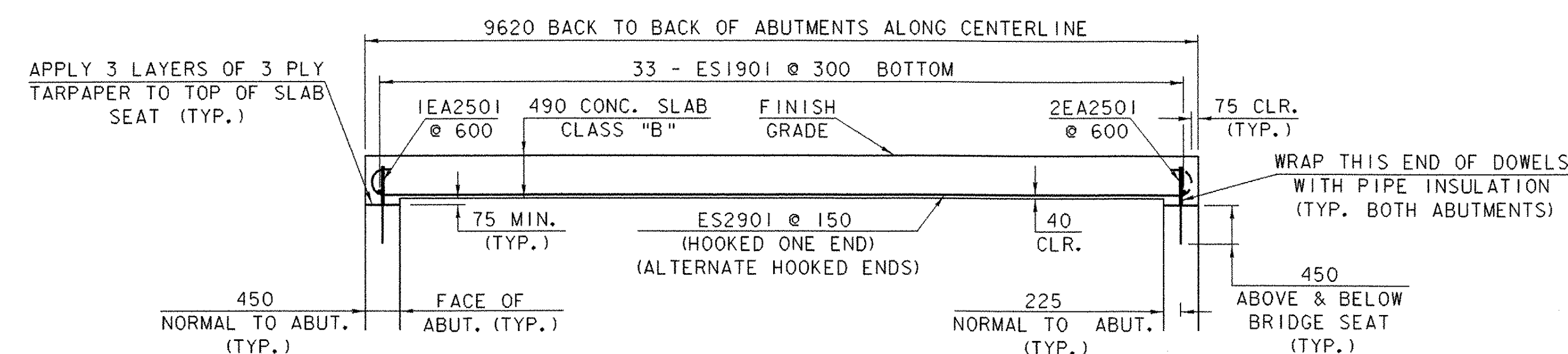
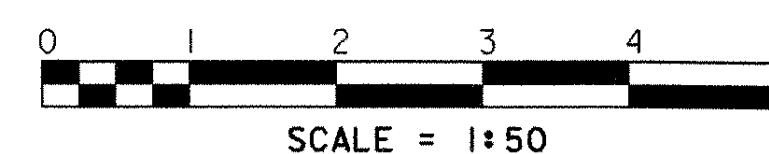
CLEARANCE: +/- 6 MILLIMETERS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

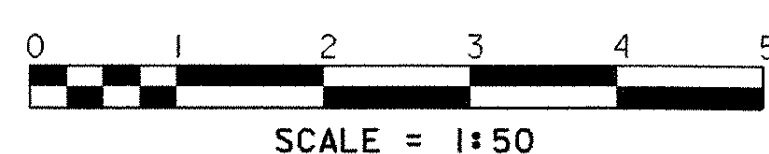
Town Of	WEATHERSFIELD	Bridge No.	24
Highway No.	T.H. 32	Log Sta.	
		Surv. Sta.	
T.H. 32 OVER CROWN POINT BROOK			
PROJECT NOTES			
Designed By	J.LACROIX	Drawn By	S.SCRIBNER
Checked By	Date	Project Manager	
	T.A.SUMNER 9/5/01	R.WHITCOMB	Date 9/5/01
PROJECT	WEATHERSFIELD	PROJECT NO.	TH3 9514
I.G.C. Info. str3/95j284/sj284pndgn		sj284pnd	
Bridge Sheet No.		Sheet	15 of 31



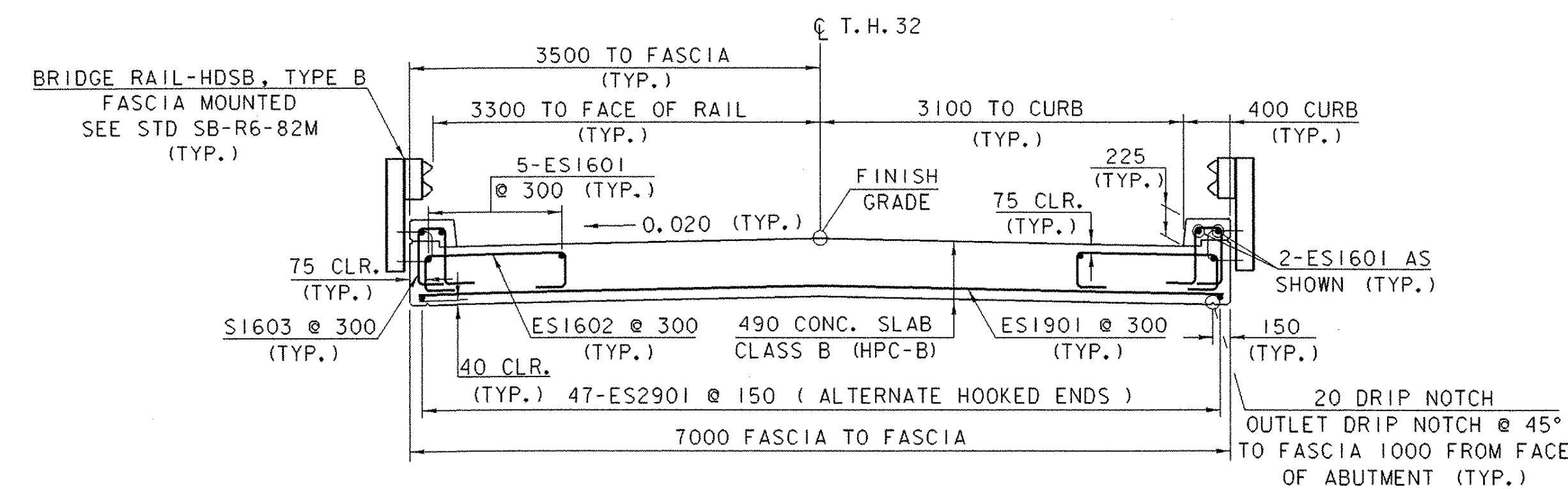
SLAB REINFORCING PLAN



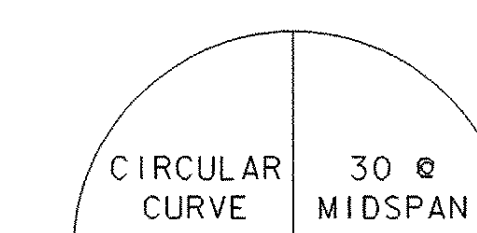
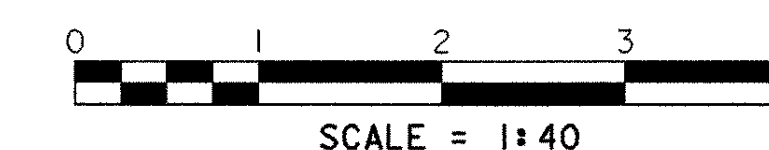
ELEVATION ALONG CENTERLINE



NOTE:
PAYMENT FOR TARPAPER AND PIPE INSULATION SHALL BE MADE SUBSIDIARY TO ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B".



BRIDGE TYPICAL SECTION



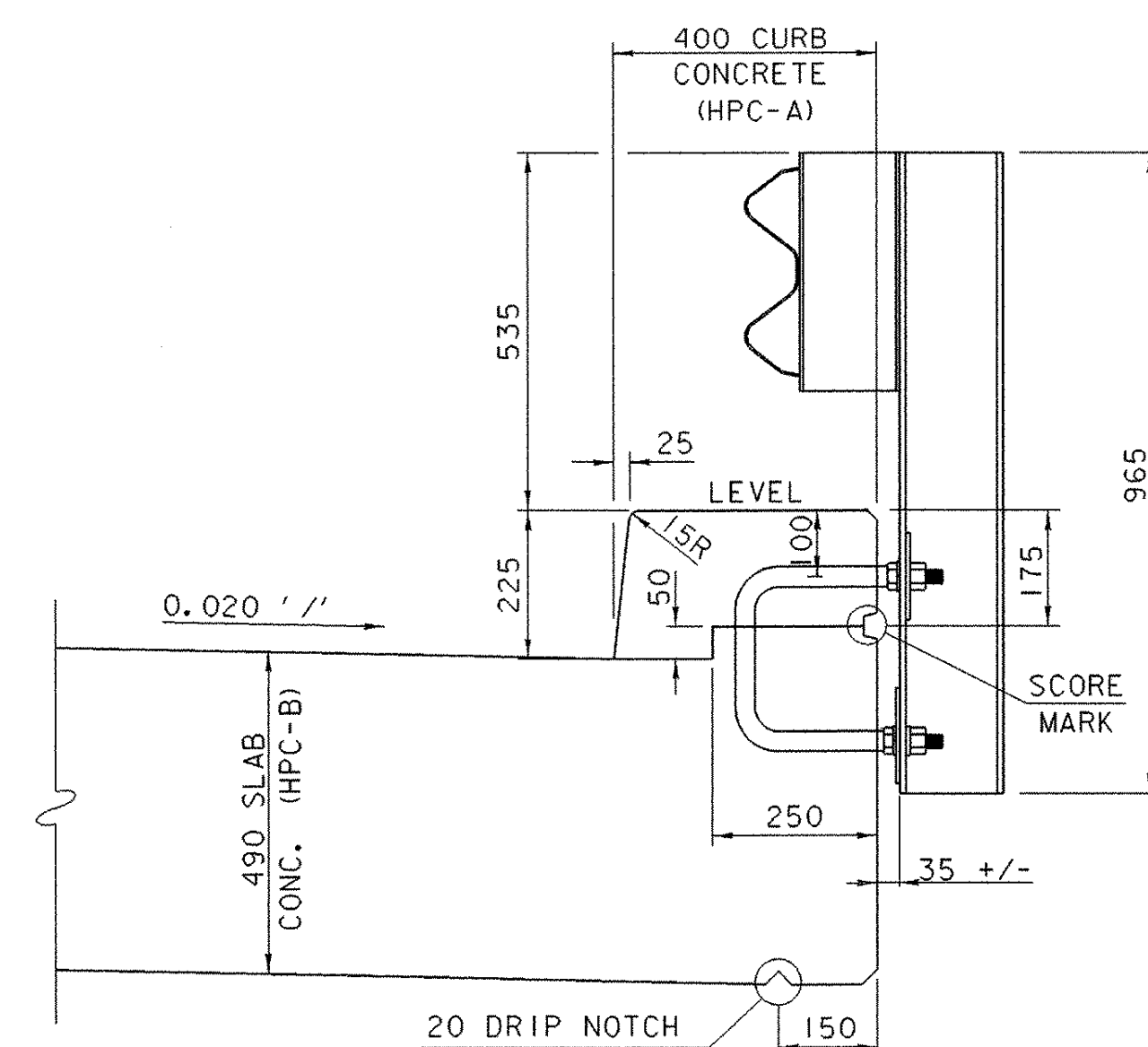
SET CONSTRUCTION FORMS TO THIS CAMBER

CAMBER DIAGRAM

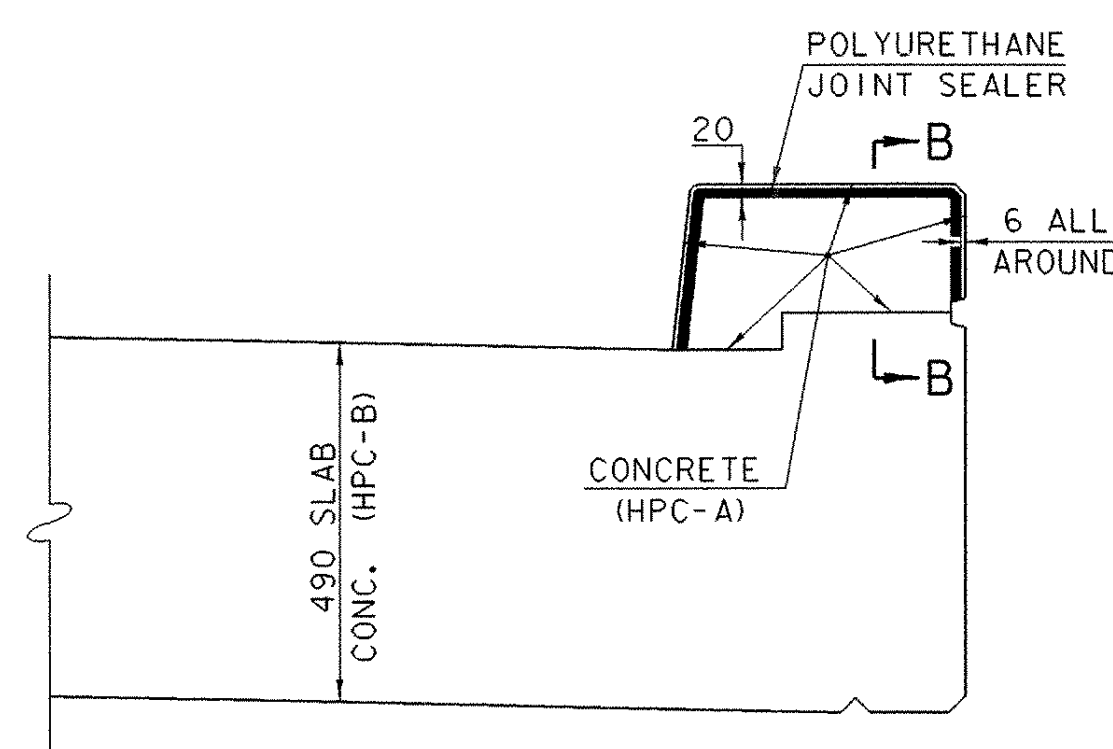
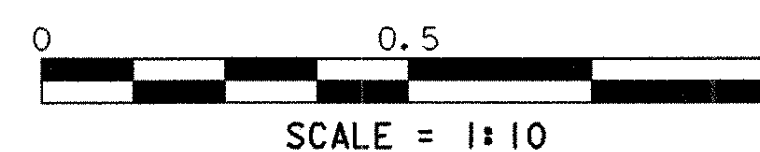
NTS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

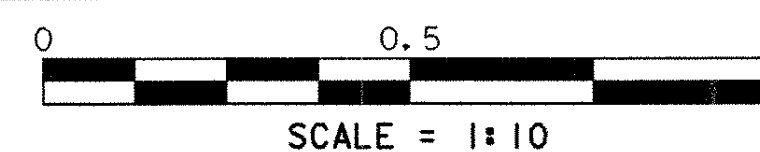
Town Of	WEATHERSFIELD	Bridge No.	24
Highway No.	T.H. 32	Log Sta.	
		Surv. Sta.	
T.H. 32 OVER CROWN POINT BROOK			
SLAB DETAILS			
Designed By	J. LACROIX	Drawn By	J. LACROIX
Checked By		Date	
	S. SCRIBNER	8-21-01	R. WHITCOMB
PROJECT	WEATHERSFIELD	PROJECT NO.	TH3 9514
I.G.C. Info.	str3/951284/sj284slb.dgn		sj284slb.l
Bridge Sheet No.		Sheet	16 of 31



CURB AND RAIL DETAIL

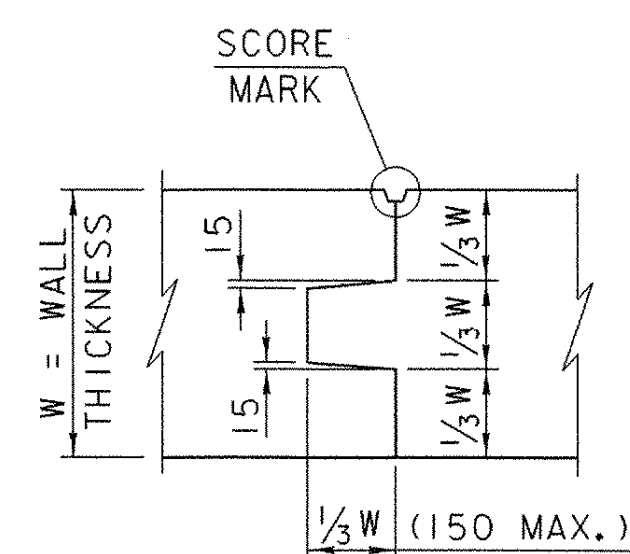


TYPICAL SECTION THROUGH
CONCRETE CURB CONSTRUCTION JOINT

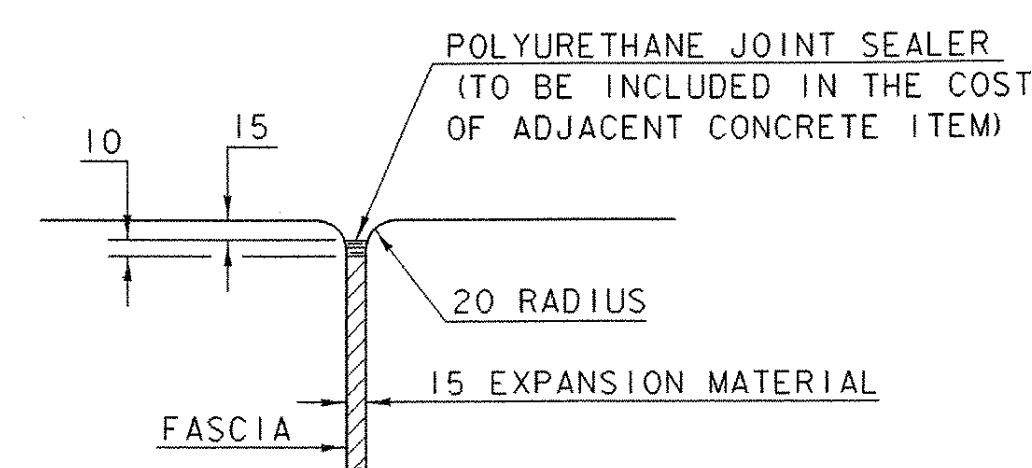


NOTES

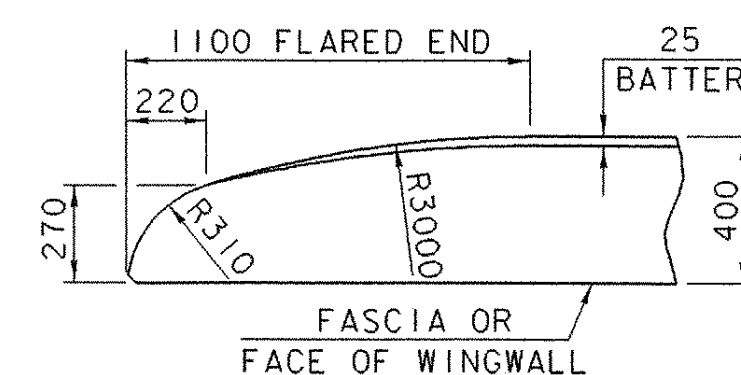
1. CONCRETE CURBS MAY BE PLACED WITHOUT JOINTS. IF THE ENGINEER REQUIRES THEM OR THE CONTRACTOR CHOOSES TO USE JOINTS, THE CONSTRUCTION JOINTS THROUGH CONCRETE CURBS SHALL BE SPACED A MAXIMUM OF 4500 CENTER TO CENTER AND SHALL BE 550 MINIMUM FROM THE CENTER OF THE NEAREST BRIDGE RAIL POST. CONCRETE SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
2. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CONSTRUCTION JOINTS. CURB REINFORCING STIRRUP BARS SHALL BE TURNED AS REQUIRED TO FIT FLARED ENDS.



TYPICAL CONCRETE
CONSTRUCTION JOINT
NOT TO SCALE

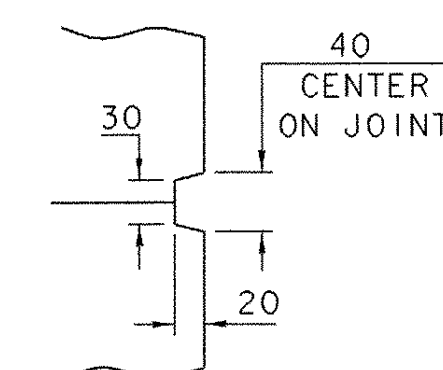


JOINT BETWEEN FASCIA
AND WINGWALL
NOT TO SCALE

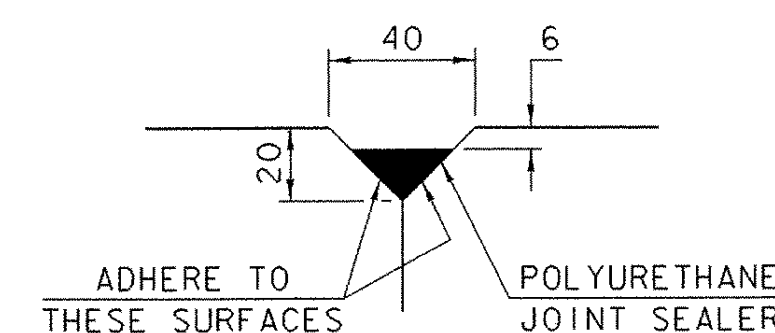


FLARED END FOR 400 CURB

NOT TO SCALE
BARS SHALL BE TURNED AS
REQUIRED TO FIT FLARED ENDS

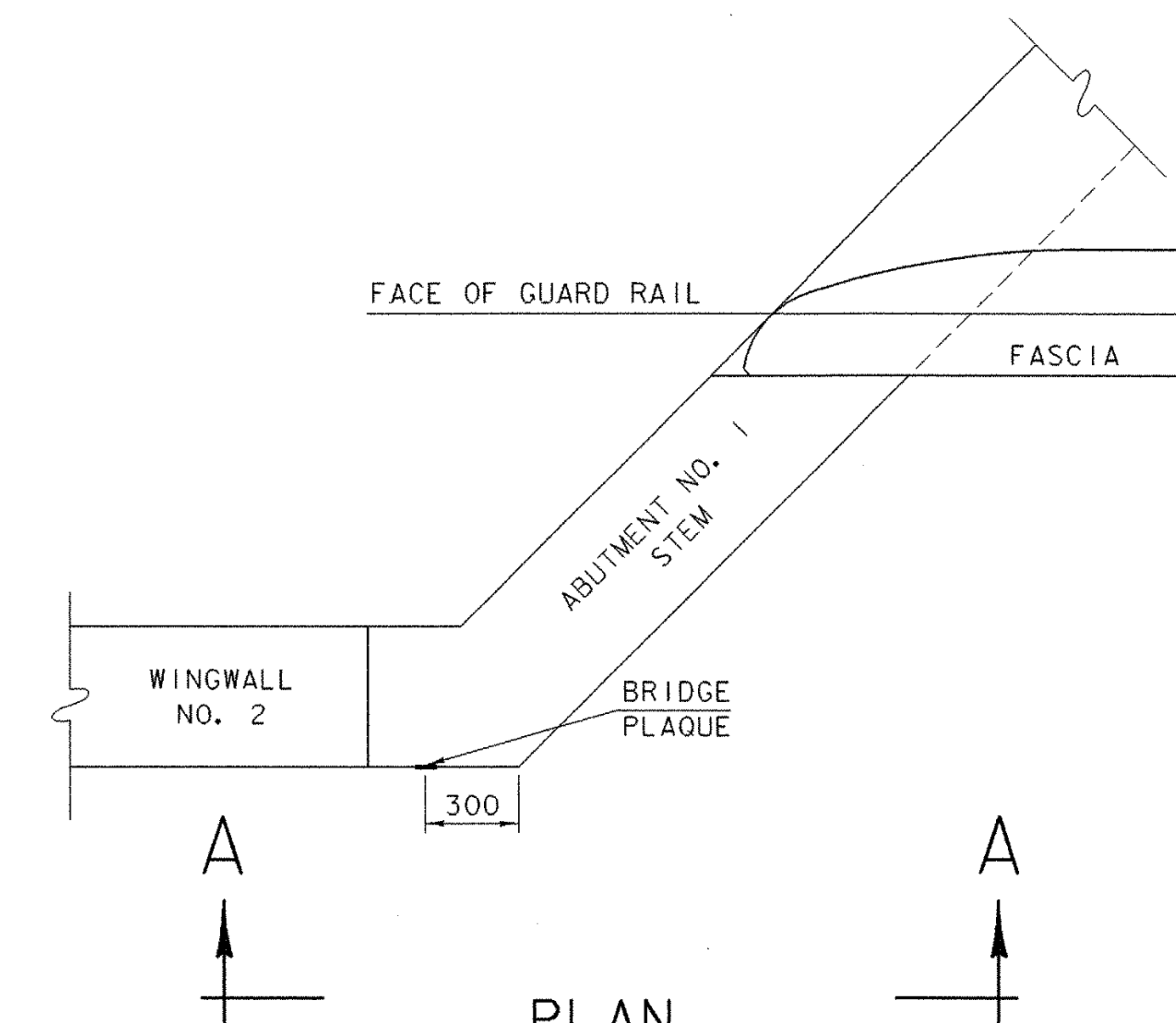


SCORE MARK DETAIL
NOT TO SCALE



DETAIL "C"
NOT TO SCALE

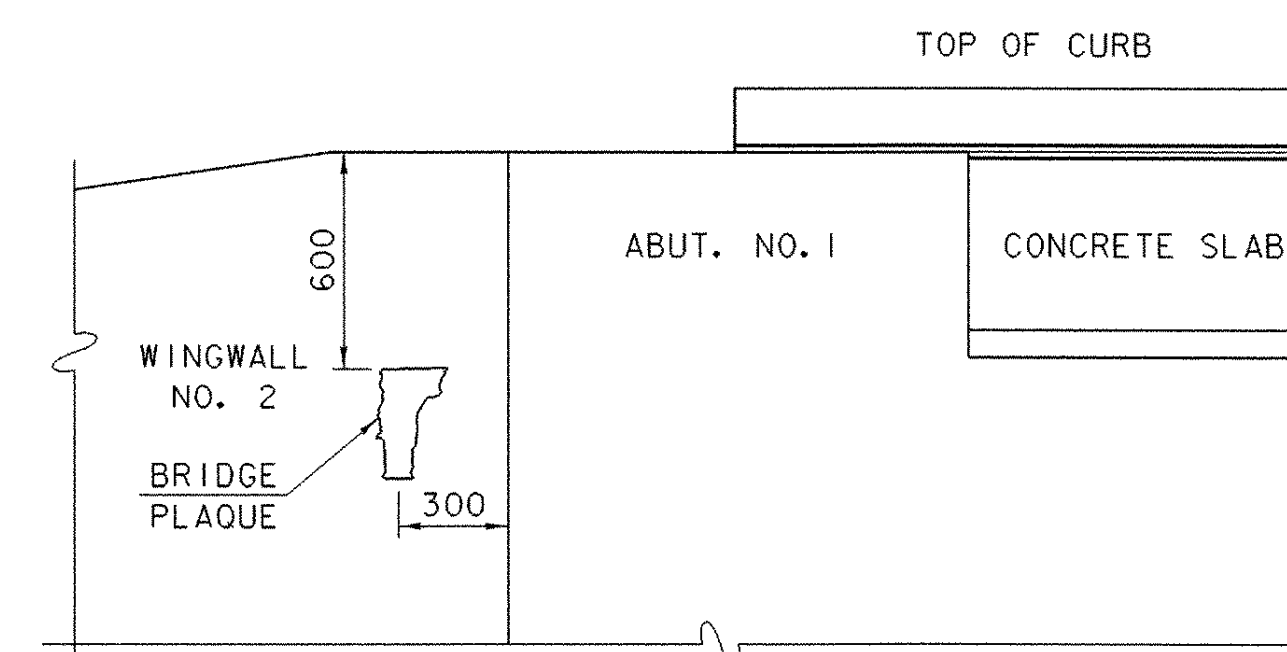
POLYURETHANE JOINT SEALER PER SUBSECTION 524.06 (d). COLOR TO MATCH CONCRETE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A".



VIEW "A - A"
BRIDGE PLAQUE

NOT TO SCALE

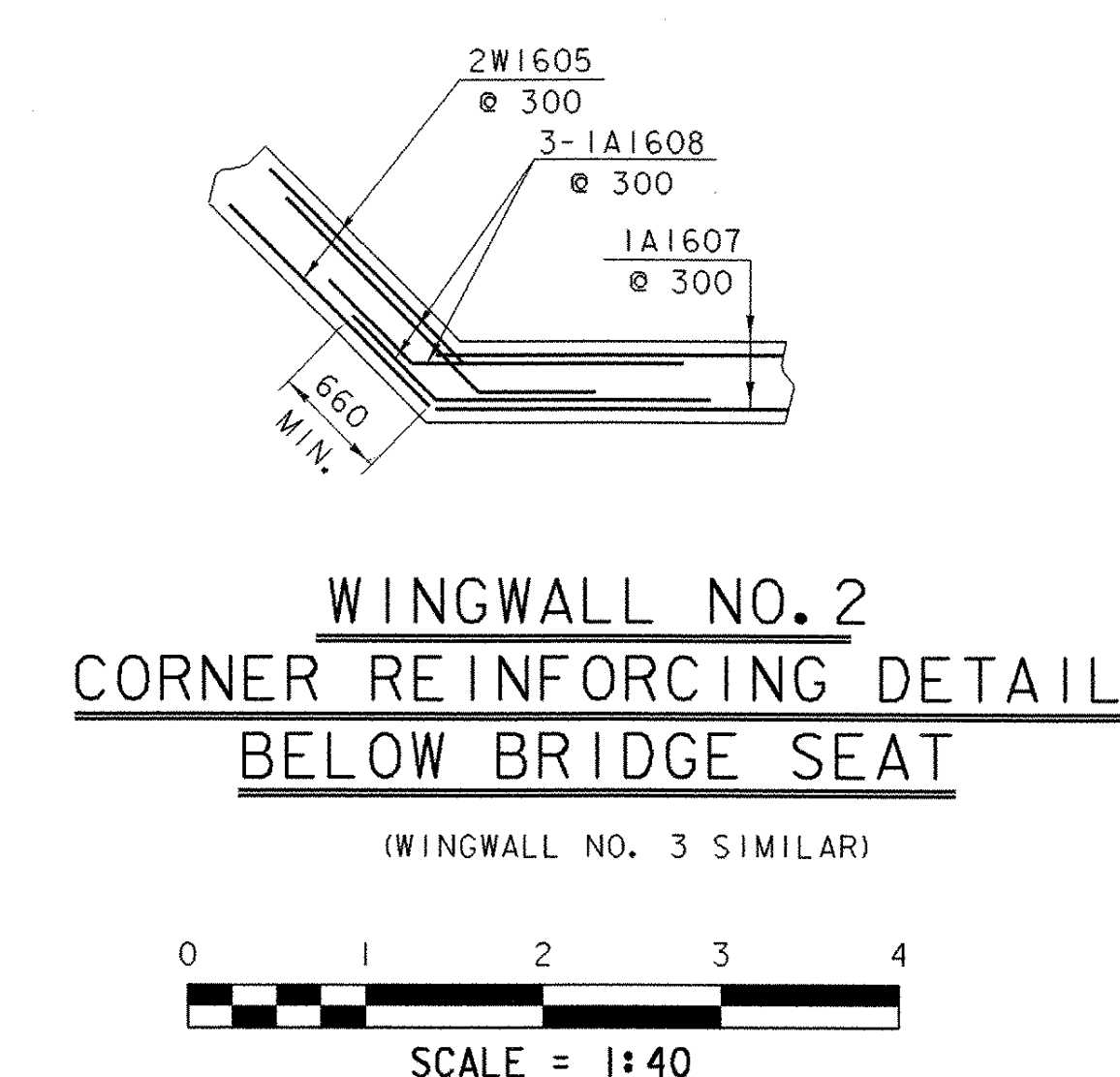
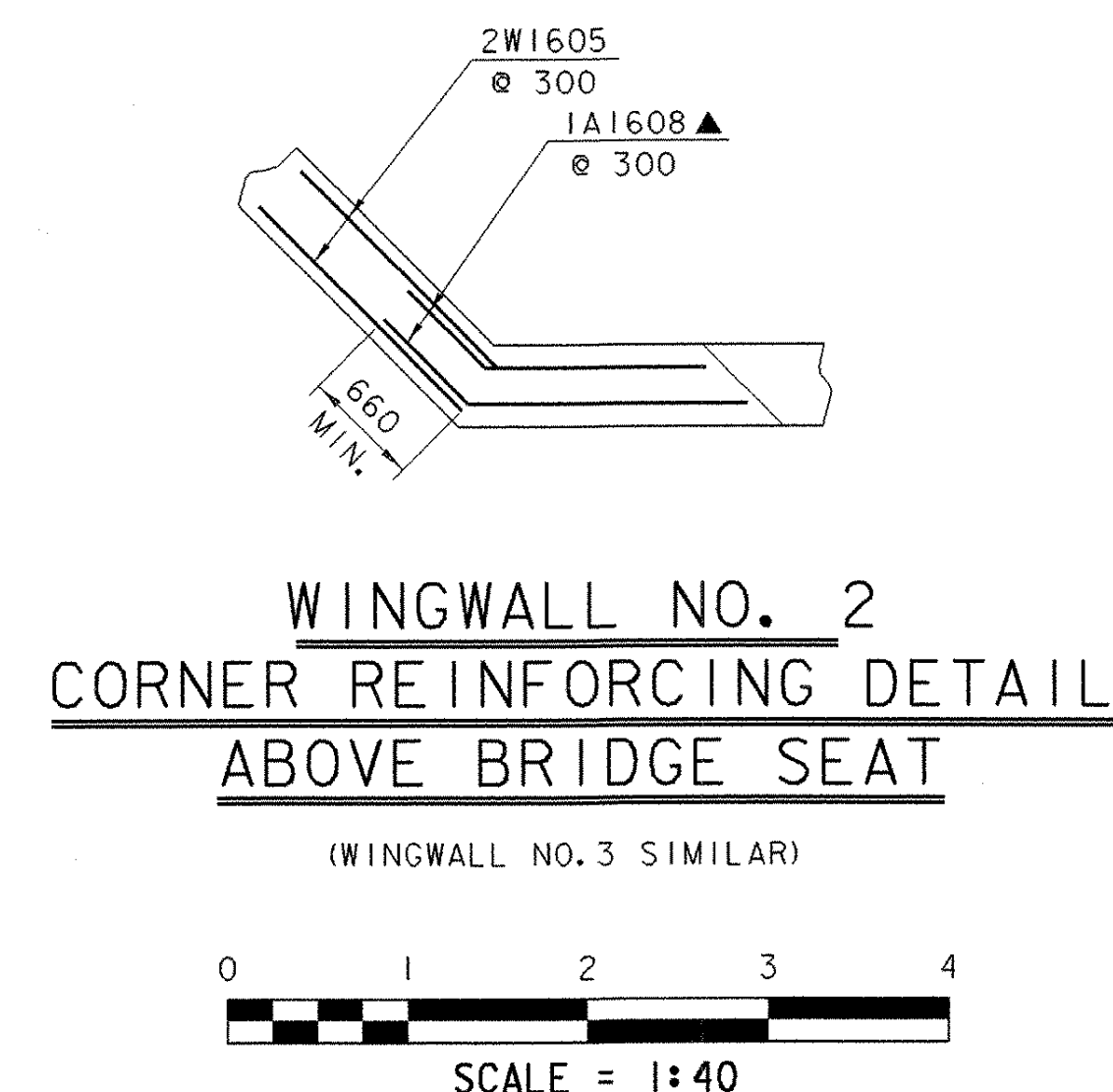
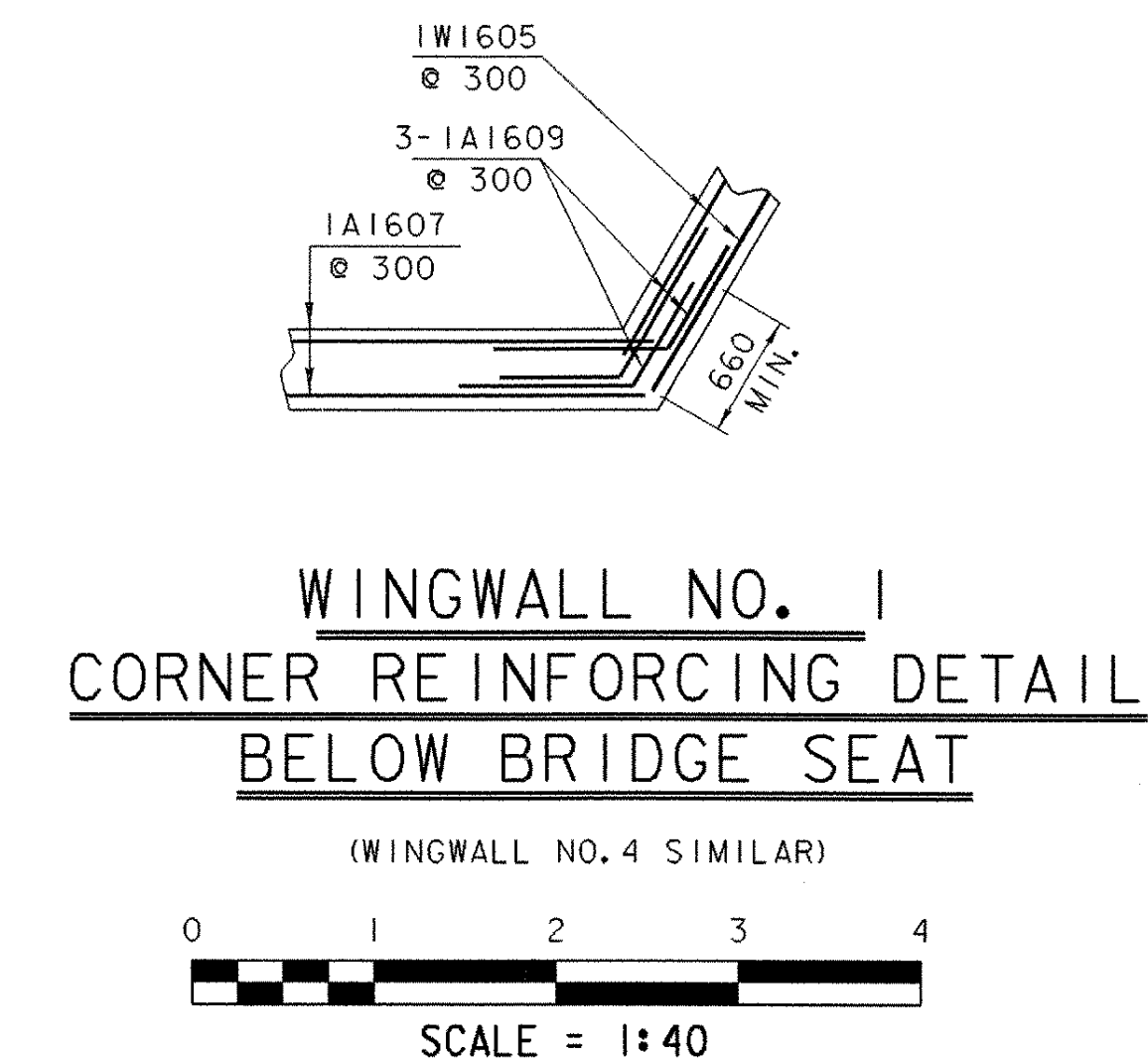
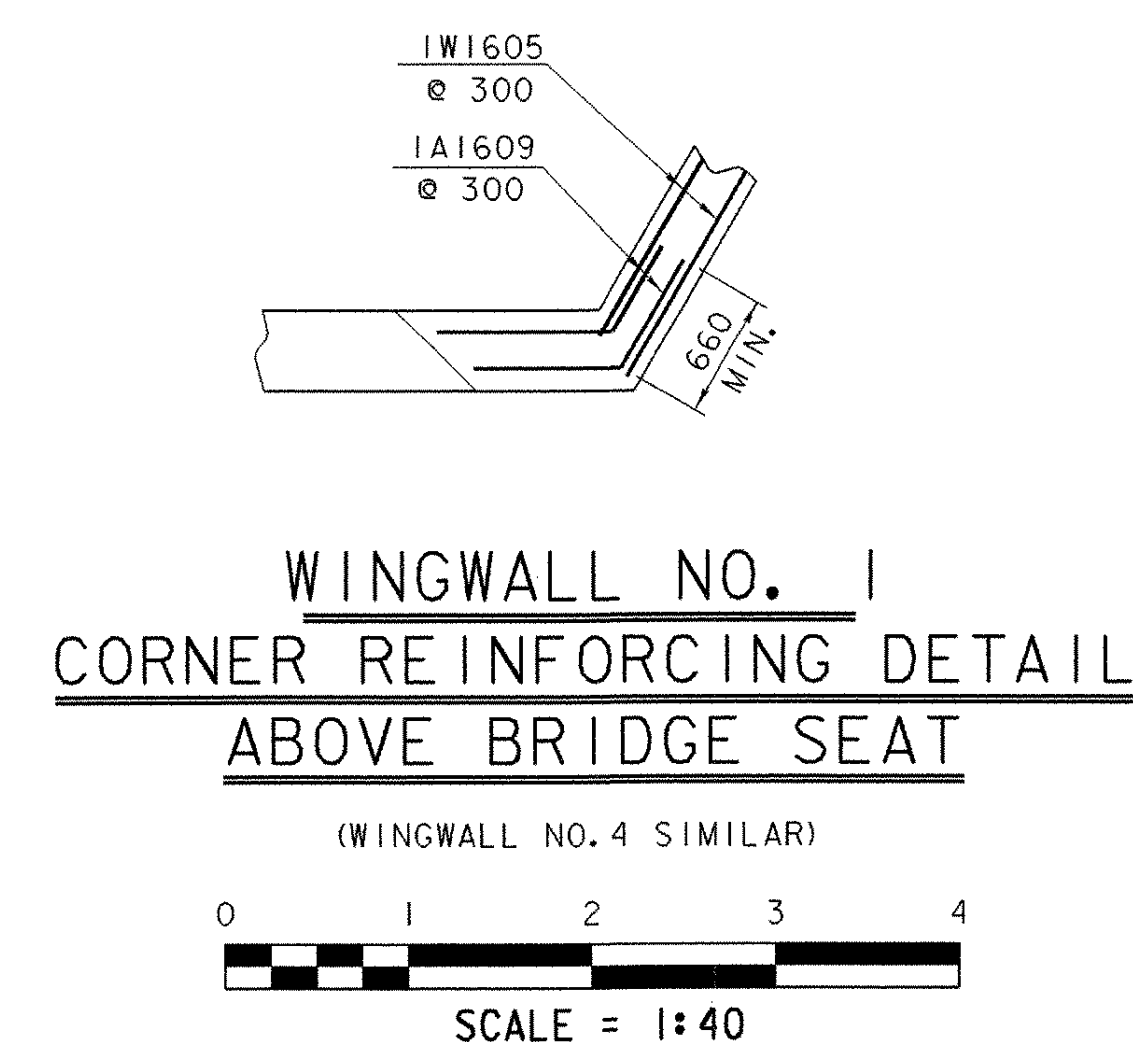
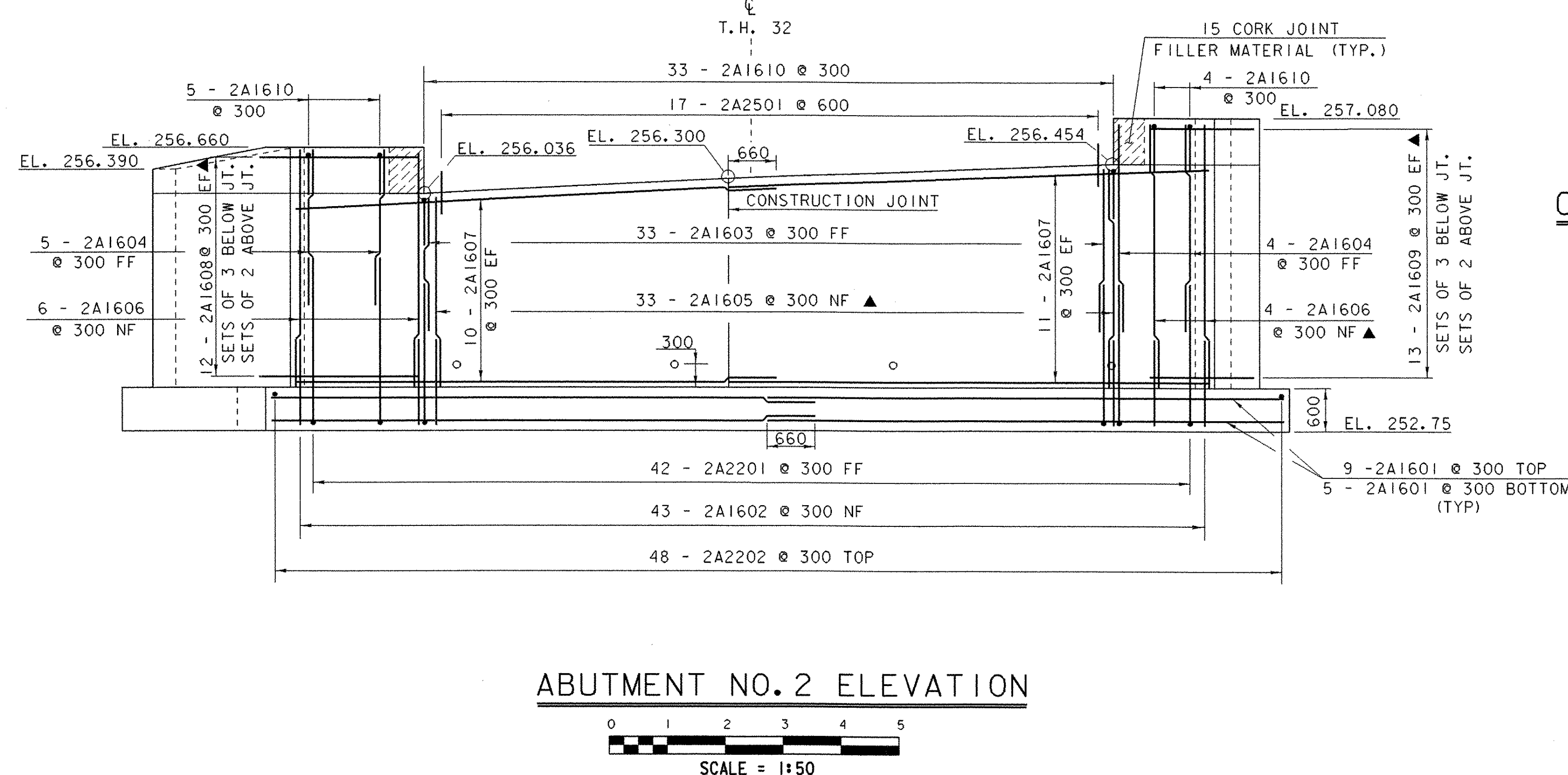
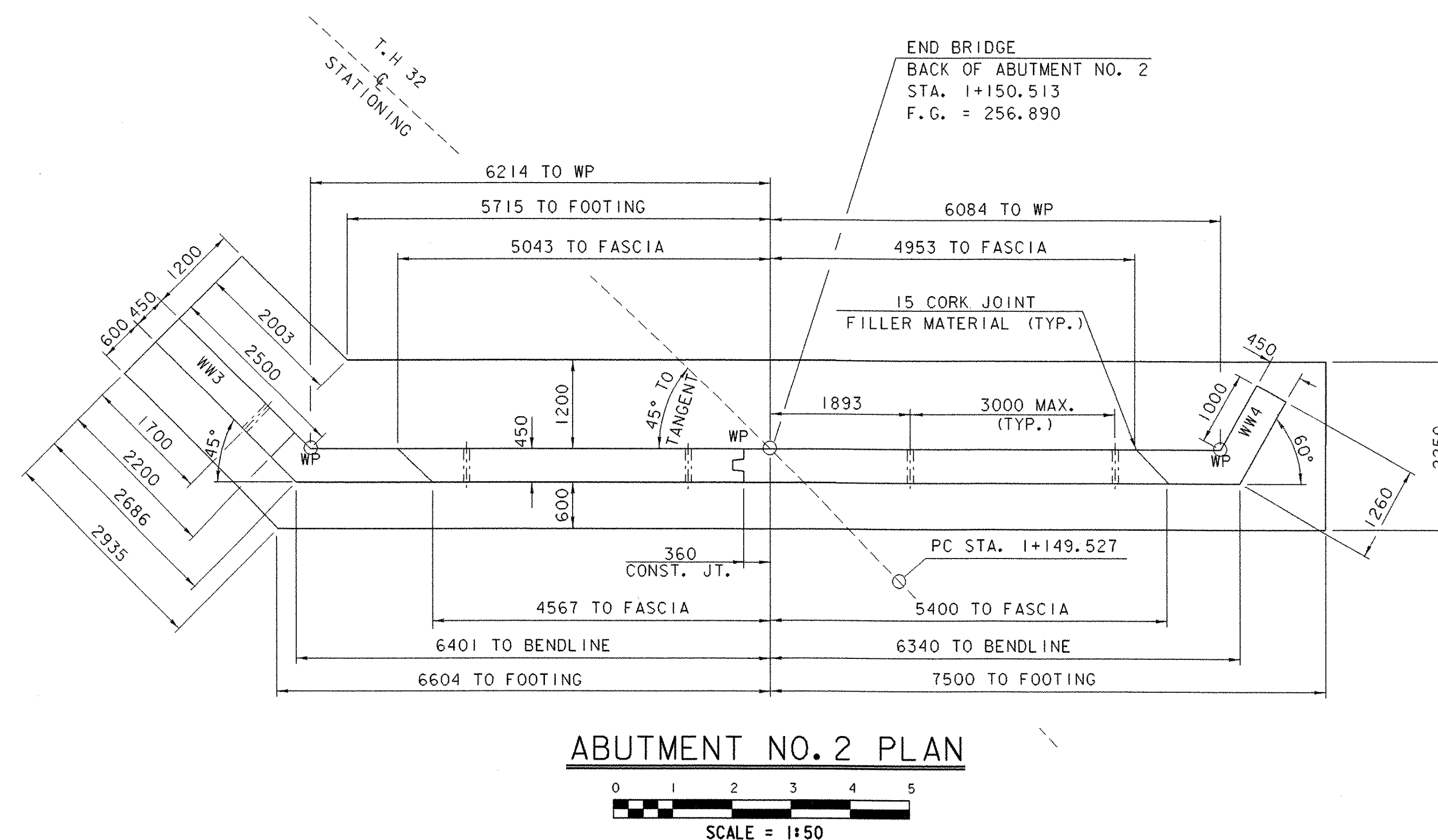
THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE VERMONT AGENCY OF TRANSPORTATION. IT SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT NO. 1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER.



STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of WEATHERSFIELD	Bridge No. 24
Highway No. T.H. 32	Log Sta. Surv. Sta.
T.H. 32 OVER CROWN POINT BROOK CURB AND RAIL DETAILS	
Designed By J. LACROIX	Drawn By J. LACROIX
Checked By S. SCRIBNER	Date 9/4/01
R. WHITCOMB Date	
PROJECT WEATHERSFIELD	PROJECT NO. TH3 9514
I.G.C. Info. str3/95/sj284slb/dgn sj284crb	
Bridge Sheet No. Sheet	17 of 31

Town Of	WEATHERSFIELD		Bridge No.	24
Highway No.	T.H. 32		Log Sta.	
			Surv. Sta.	
T.H. 32 OVER CROWN POINT BROOK				
ABUTMENT NO. 1 DETAILS				
Designed By	J. LACROIX		Drawn By	J. LACROIX
Checked By	Date		Project Manager	
	T.A. SUMNER 9/10/01		R. WHITCOMB Date 9/10/01	
PROJECT			PROJECT NO.	
WEATHERSFIELD			TH. 32 95/4	
I.G.C. Info. str3\95\j284\s\j284ab.dgn			s\j284ab\1	
Bridge Sheet No.			Sheet 18 of 31	



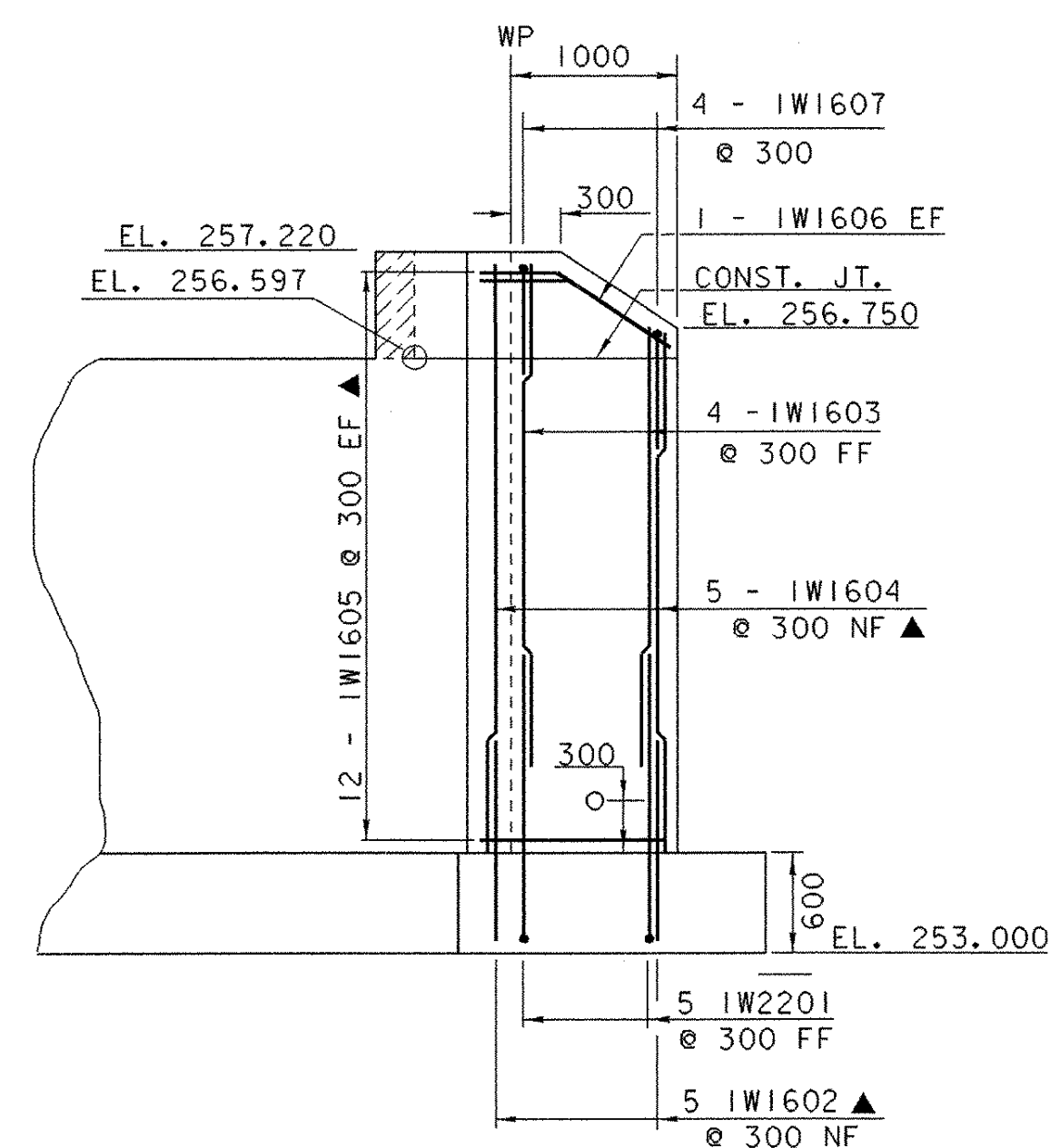
NOTE:

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

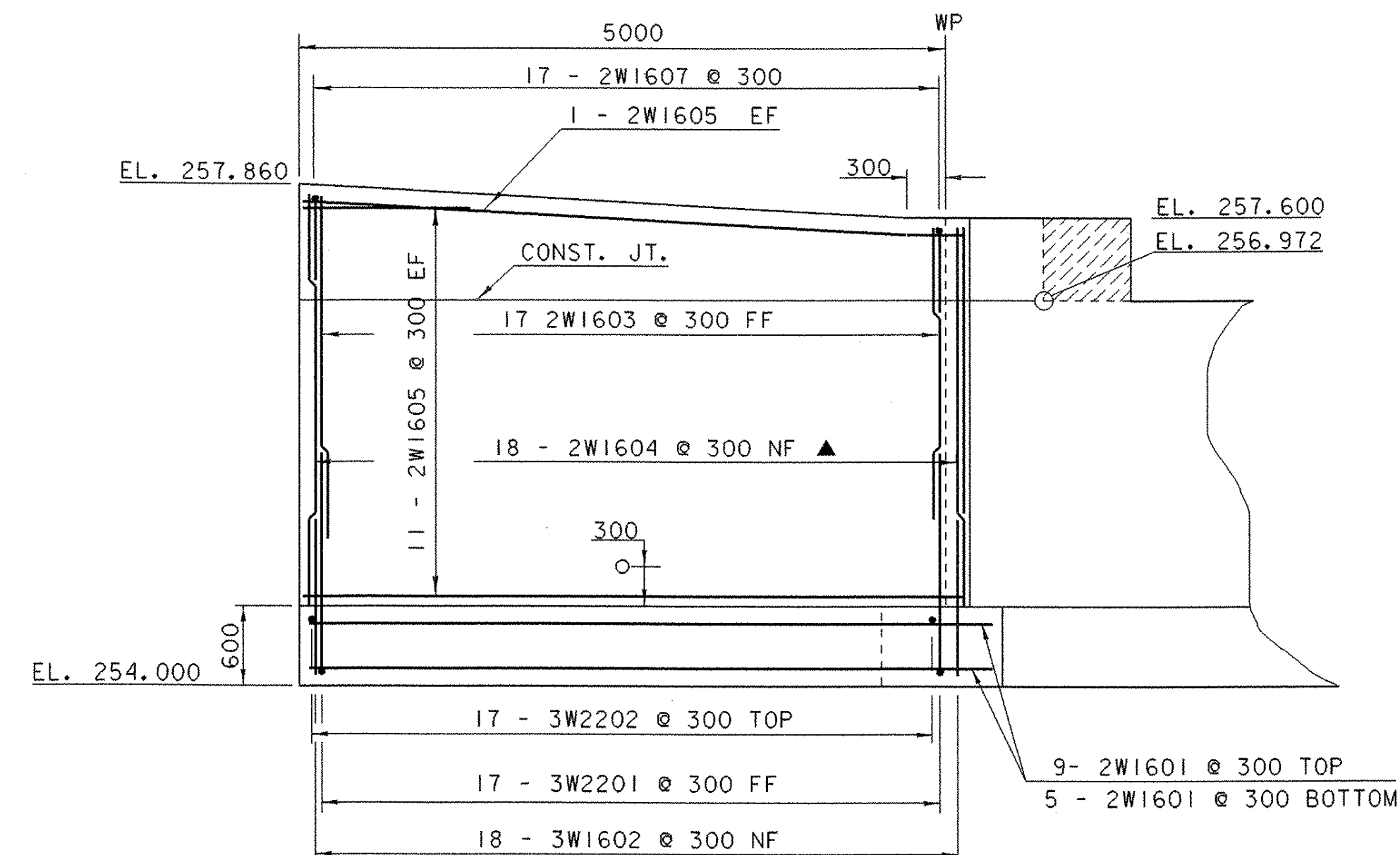
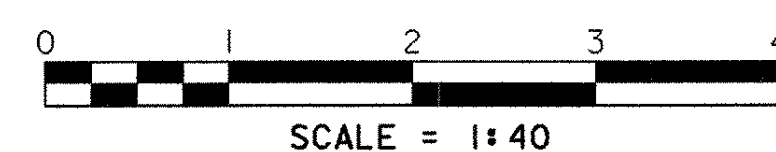
80 CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

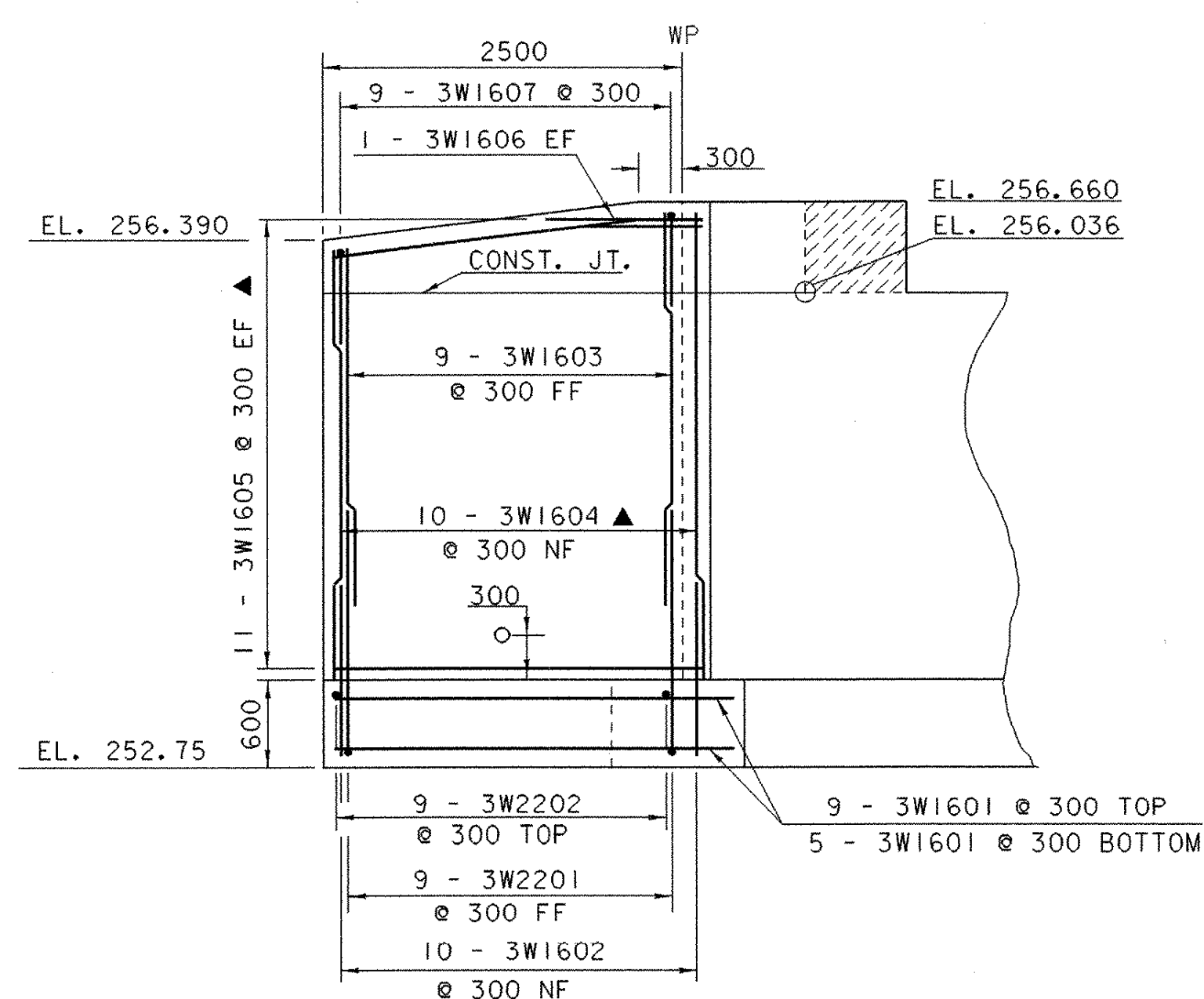
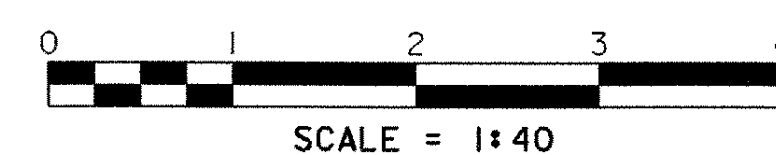
Town Of	WEATHERSFIELD	Bridge No.	24
Highway No.	T.H. 32	Log Sta.	
		Surv. Sta.	
T.H. 32 OVER CROWN POINT BROOK			
ABUTMENT NO. 2 DETAILS			
Designed By	J. LACROIX	Drawn By	J. LACROIX
Checked By	T.A. SUMNER	Project Manager	R. WHITCOMB
	9/10/01		9/10/01
PROJECT	WEATHERSFIELD	PROJECT NO.	TH3 9514
L.G.C. Info. str.3/95/284/sj284abdg		s/284ab2.1	
Bridge Sheet No.		Sheet 19 of 31	



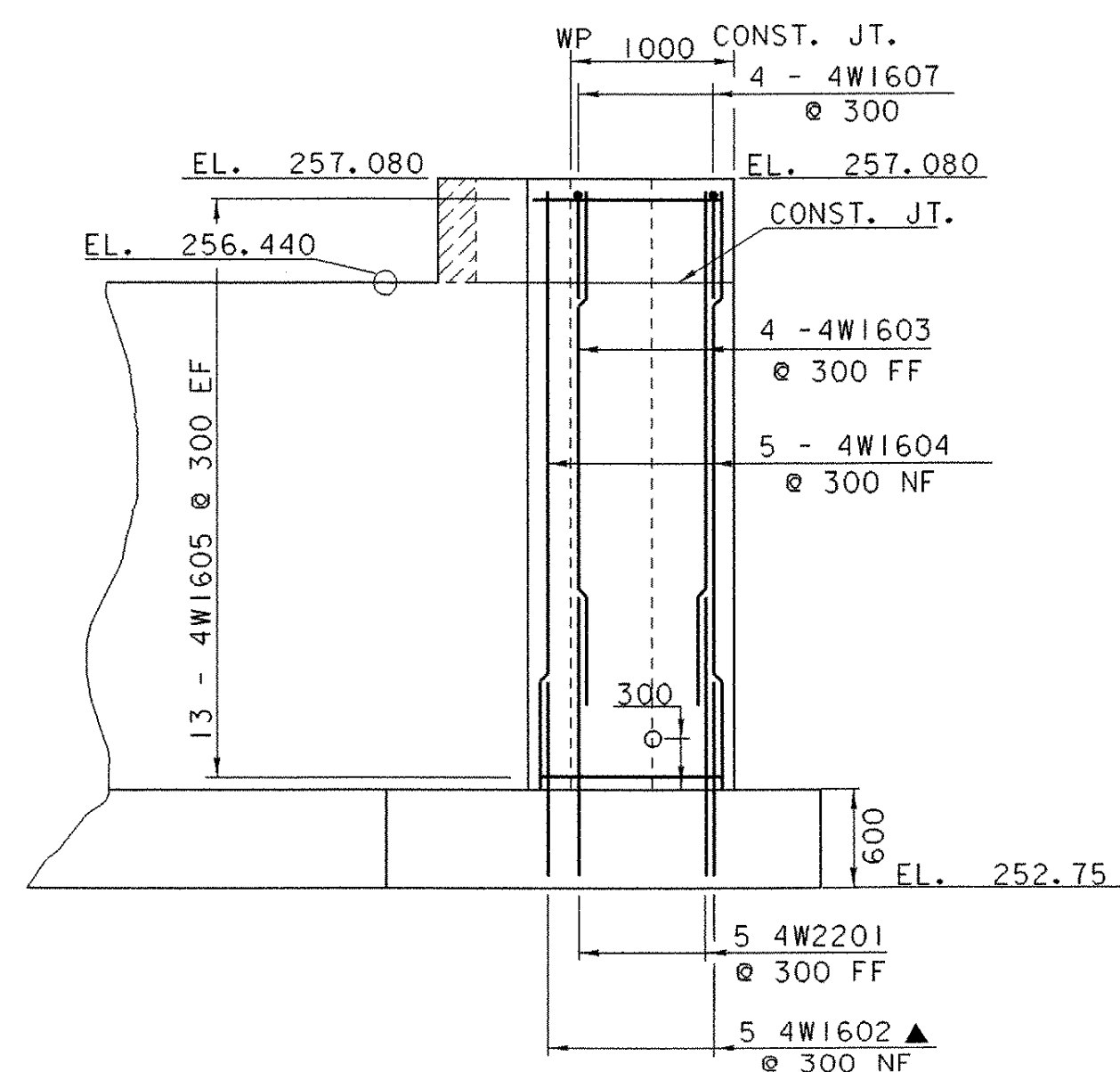
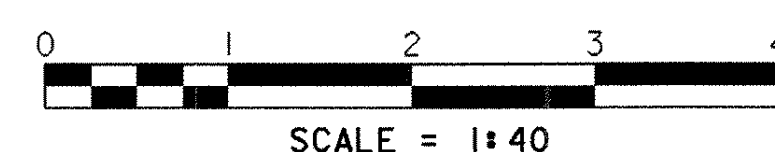
WINGWALL NO. 1 ELEVATION



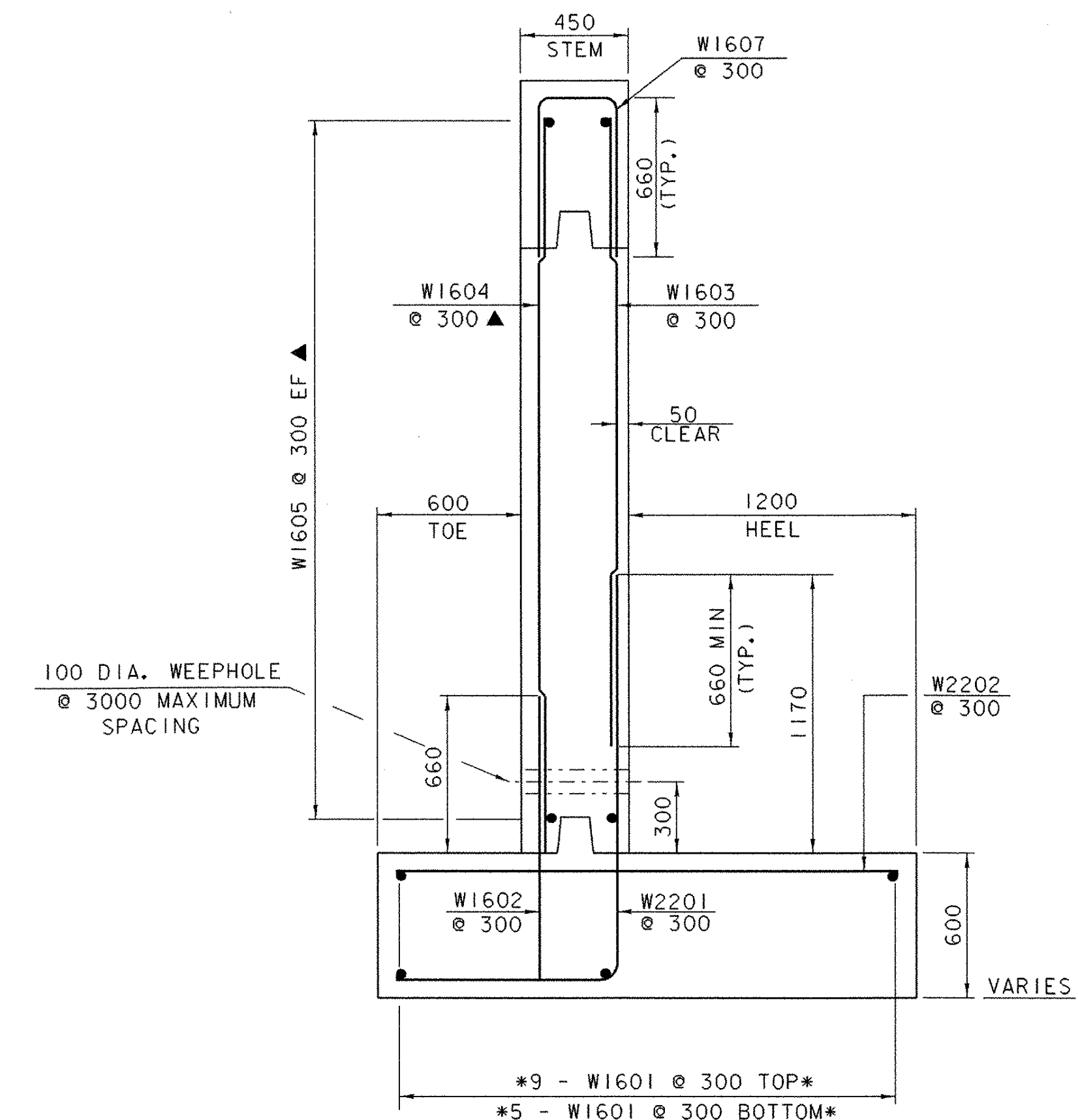
WINGWALL NO. 2 ELEVATION



WINGWALL NO. 3 ELEVATION

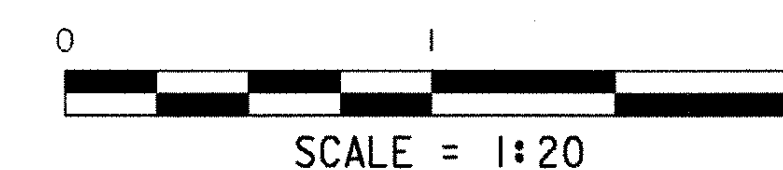


WINGWALL NO. 4 ELEVATION



* BARS NOT USED FOR WINGWALLS 1 & 4

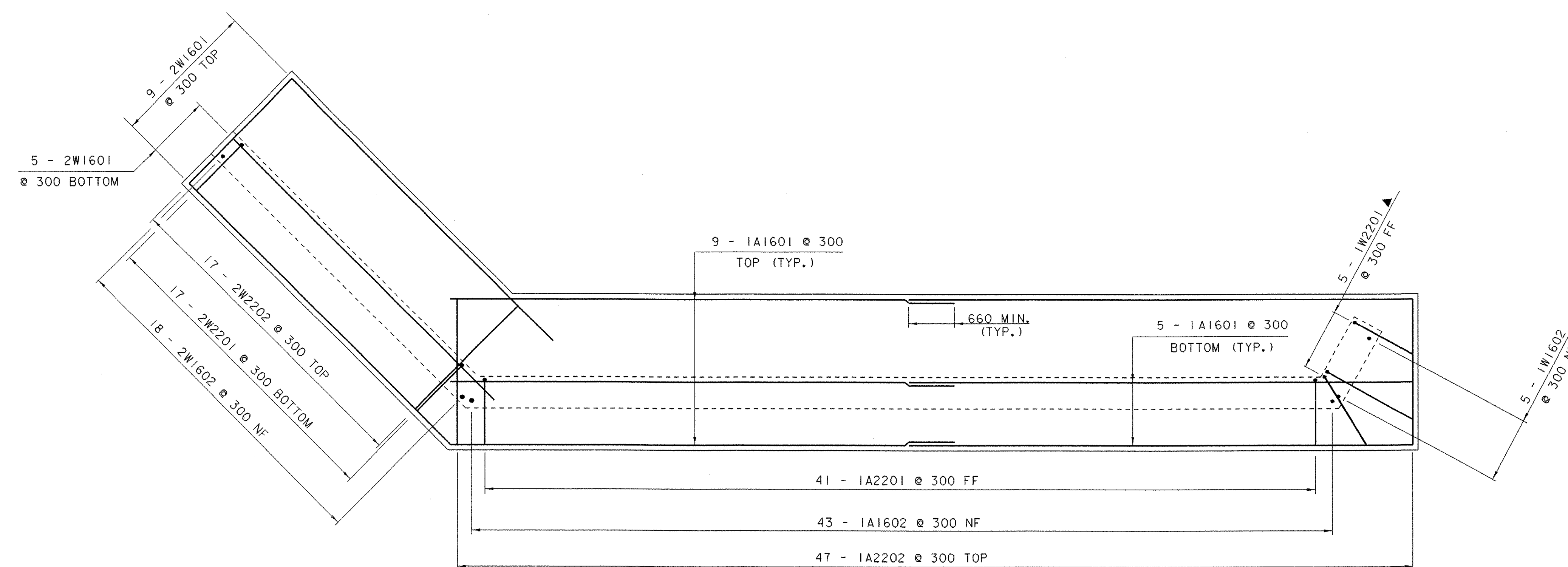
WINGWALL TYPICAL



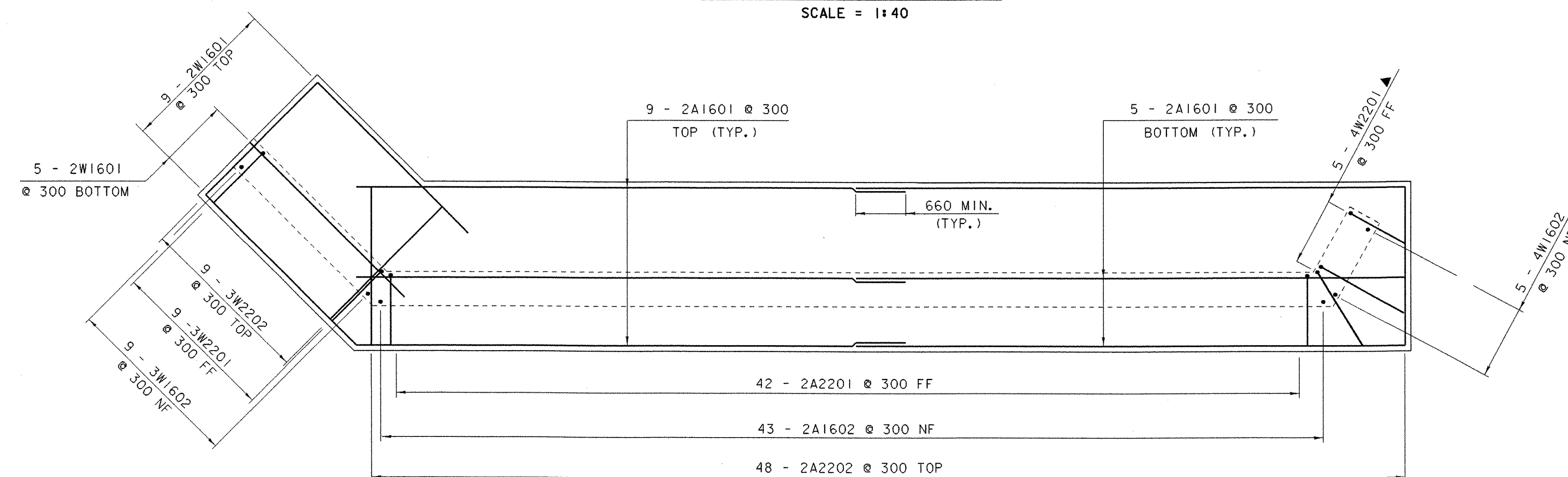
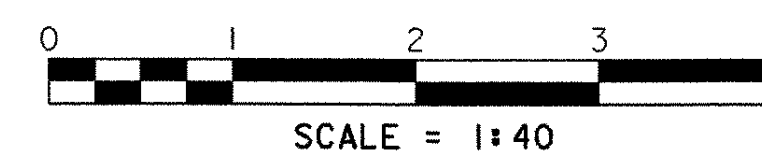
NOTE:

NF = NEAR FACE
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EF = EACH FACE
▲ = CUT TO FIT IN FIELD
80 CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

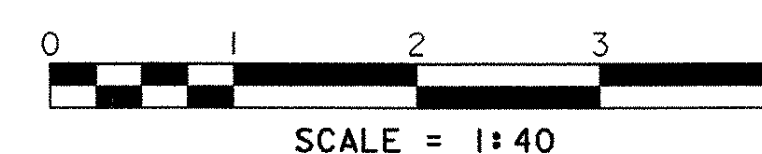
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of WEATHERSFIELD		Bridge No. 24	
Highway No. T.H. 32		Log Sta. 	
T.H. 32 OVER CROWN POINT BROOK		Surv. Sta. 	
WINGWALL DETAILS			
Designed By J. LACROIX		Drawn By J. LACROIX	
Checked By T.A. SUMNER		Project Manager 	
PROJECT WEATHERSFIELD		PROJECT NO. TH3 9514	
I.G.C. Info. str3/95/284/sj284ab.dgn		s/284wwj	
Bridge Sheet No. 		Sheet 20 of 31	



ABUTMENT NO. 1 FOOTING REINFORCING PLAN



ABUTMENT NO. 2 FOOTING REINFORCING PLAN



NOTE:

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

80 CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

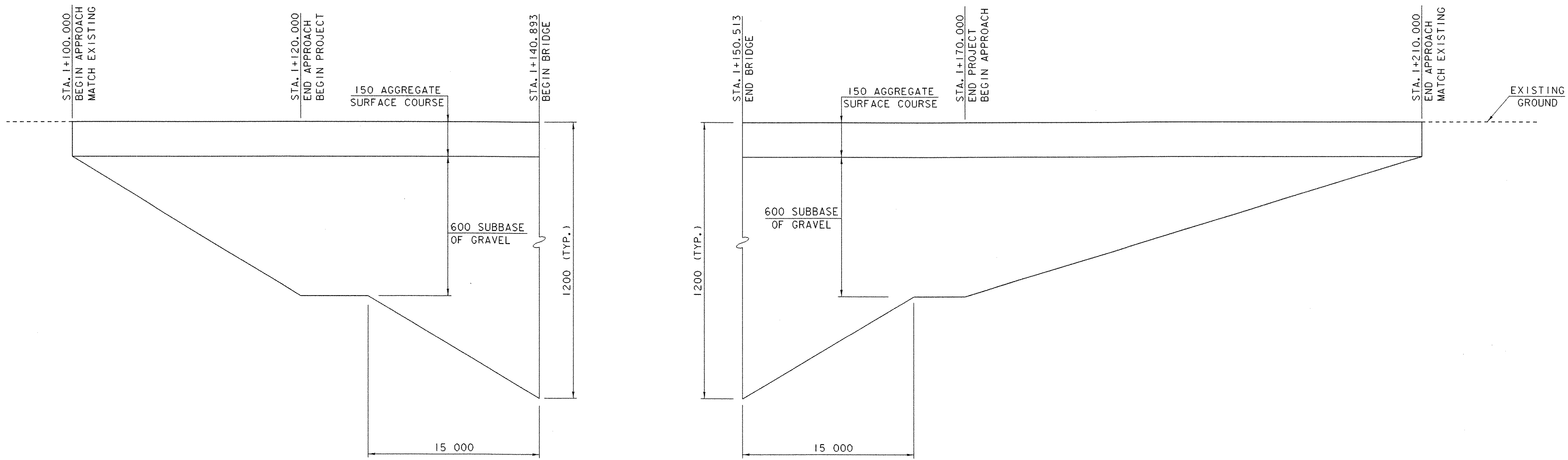
Town Of	WEATHERSFIELD	Bridge No.	24
Highway No.	T.H. 32	Log Sta.	
		Surv. Sta.	
T.H. 32 OVER CROWN POINT BROOK			
FOOTING REINFORCING DETAILS			
Designed By	J. LACROIX	Drawn By	J. LACROIX
Checked By	T. A. SUMNER	Project Manager	R. WHITCOMB
Date	9/10/01	Date	9/10/01
PROJECT	WEATHERSFIELD	PROJECT NO.	TH3 9514
I.G.C. Info.	str3/95j284/sj284ab.dgn		sj284ftgJ
Bridge Sheet No.		Sheet	21 of 31

~ NOTES ~

- | | | | | | | | | | |
|---|--|----|--|----|--|----|--|-----|--|
| 1 | | 10 | | 17 | | S2 | | S10 | |
| 2 | | 11 | | 18 | | S3 | | S11 | |
| 3 | | 12 | | 19 | | S4 | | T1 | |
| 4 | | 13 | | 20 | | S5 | | T2 | |
| 5 | | 14 | | 21 | | S6 | | T3 | |
| 6 | | 15 | | 22 | | S7 | | T4 | |
| 7 | | 16 | | 23 | | S8 | | | |
| 8 | | 17 | | 24 | | S9 | | | |
| 9 | | 18 | | 25 | | | | | |
| | | 19 | | 26 | | | | | |
| | | 20 | | 27 | | | | | |
| | | 21 | | 28 | | | | | |
| | | 22 | | 29 | | | | | |
| | | 23 | | 30 | | | | | |
| | | 24 | | 31 | | | | | |
| | | 25 | | 32 | | | | | |
| | | 26 | | 33 | | | | | |
| | | 27 | | 34 | | | | | |
| | | 28 | | 35 | | | | | |
| | | 29 | | 36 | | | | | |
| | | 30 | | 37 | | | | | |
| | | 31 | | 38 | | | | | |
| | | 32 | | 39 | | | | | |
| | | 33 | | 40 | | | | | |

ASTM STANDARD REINFORCING BARS				
BAR SIZE	NOMINAL MASS (kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm ²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME:	WEATHERSFIELD		
PROJECT NUMBER:	TH3 9514		
FILE NAME:	1951284\structures\sj284rs.xls	PLOT DATE:	24/2004
PROJECT LEADER:	R. WHITCOMB	DRAWN BY:	J. LACROIX
DESIGNED BY:	J. LACROIX	CHECKED BY:	T.A. SUMNER
REINFORCING STEEL SCHEDULE SHEET #1		SHEET	22 OF 31

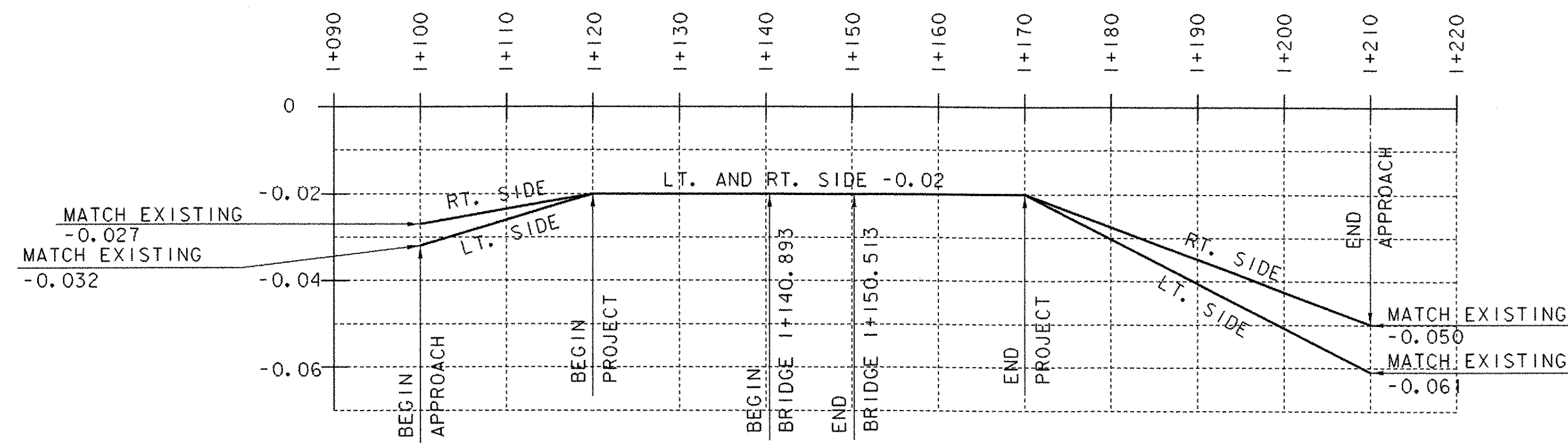


MATERIAL TRANSITION DETAIL

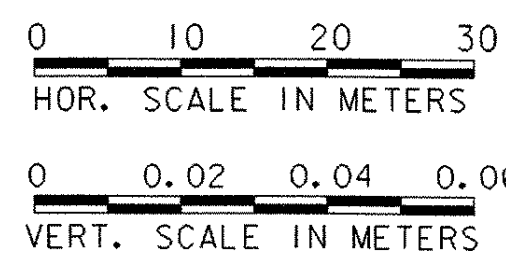


NOTES:

1. SEE ROADWAY CROSS SECTIONS TO DETERMINE CUT OR FILL.
2. SEE PROJECT TYPICAL SECTIONS SHEET FOR ADDITIONAL ABUTMENT EARTHWORK DETAILS.



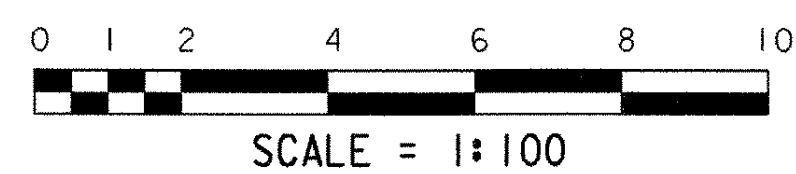
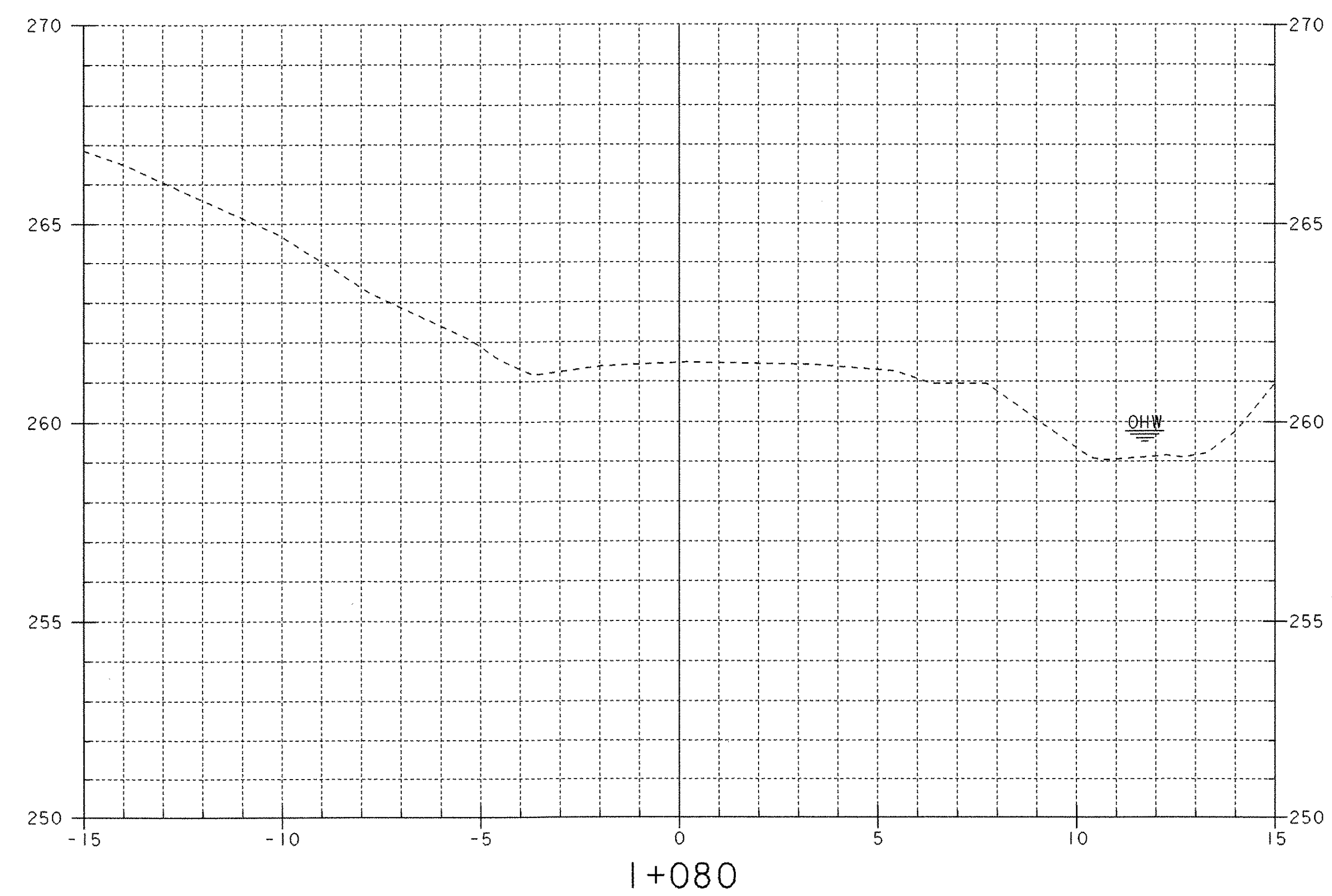
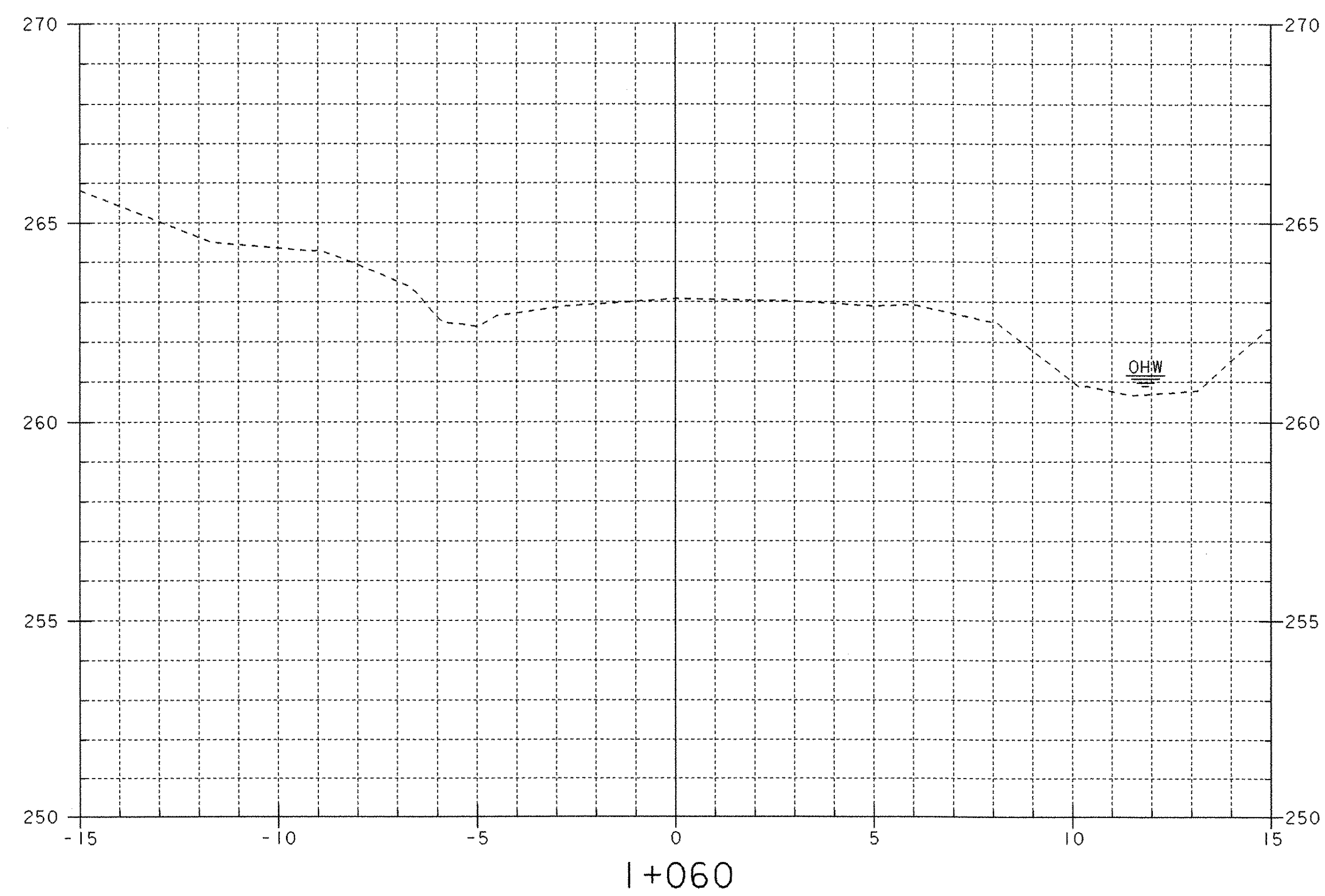
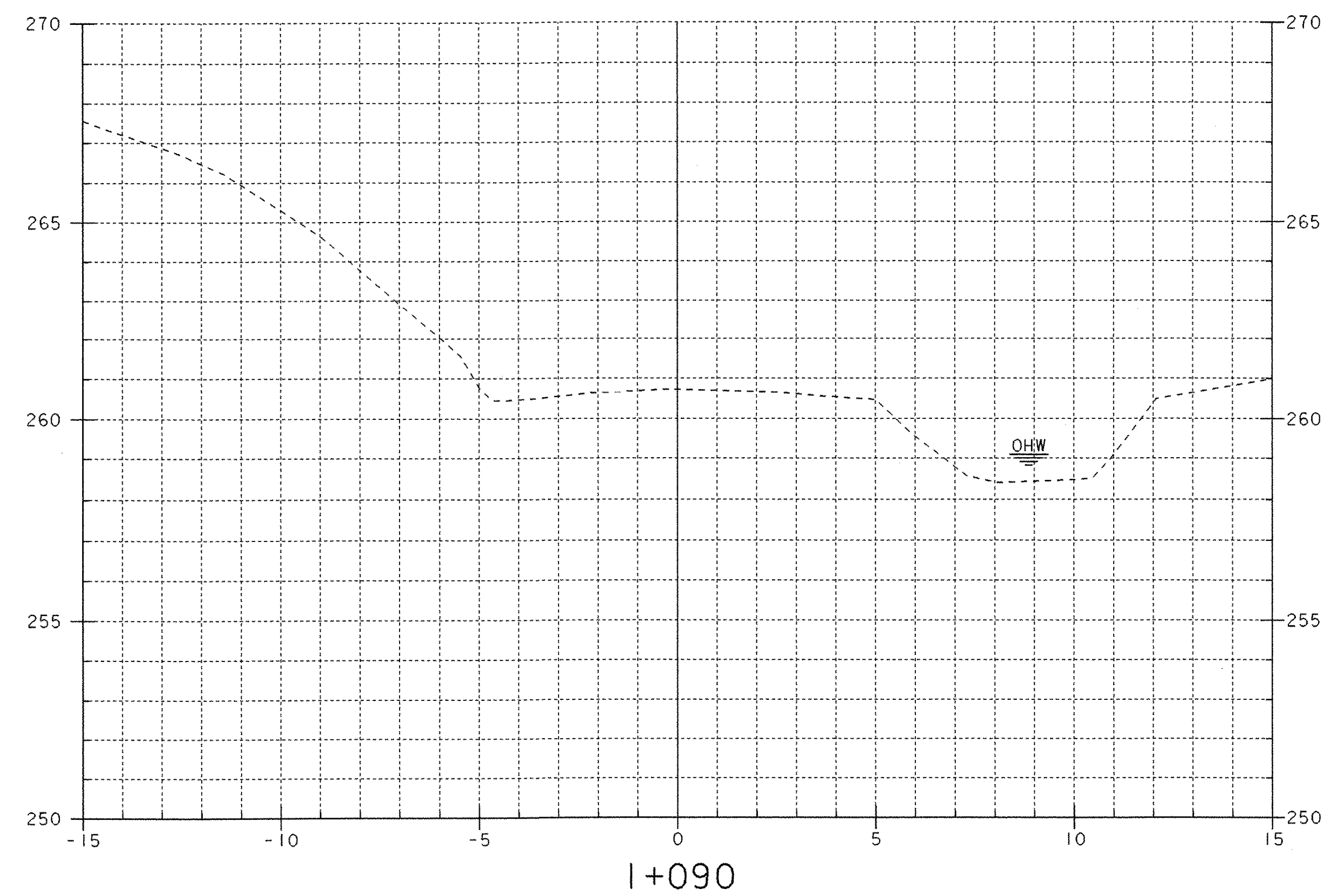
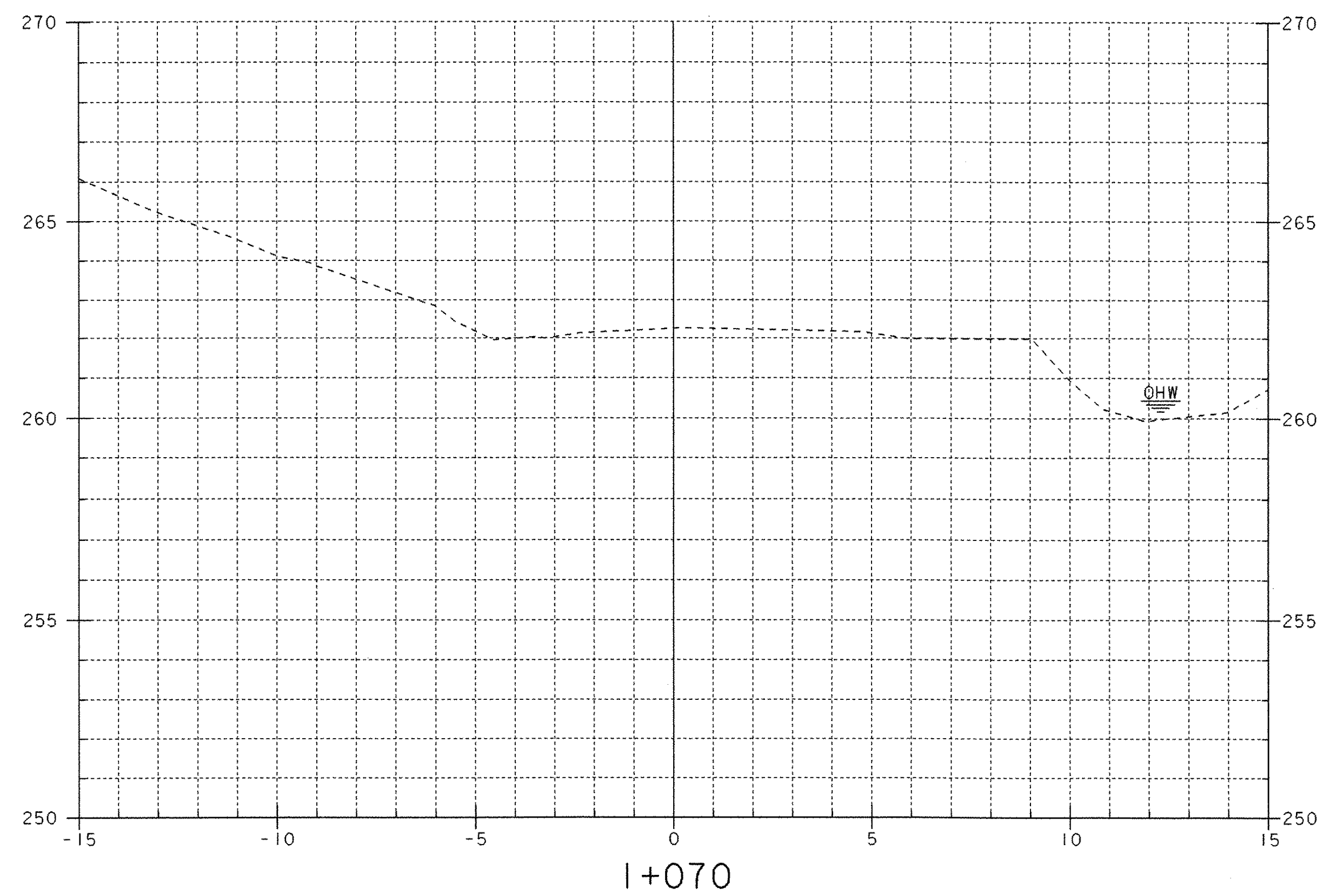
BANKING TRANSITION DETAIL



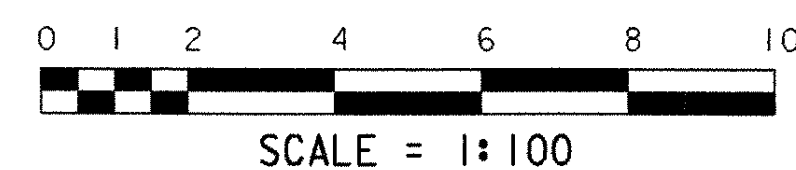
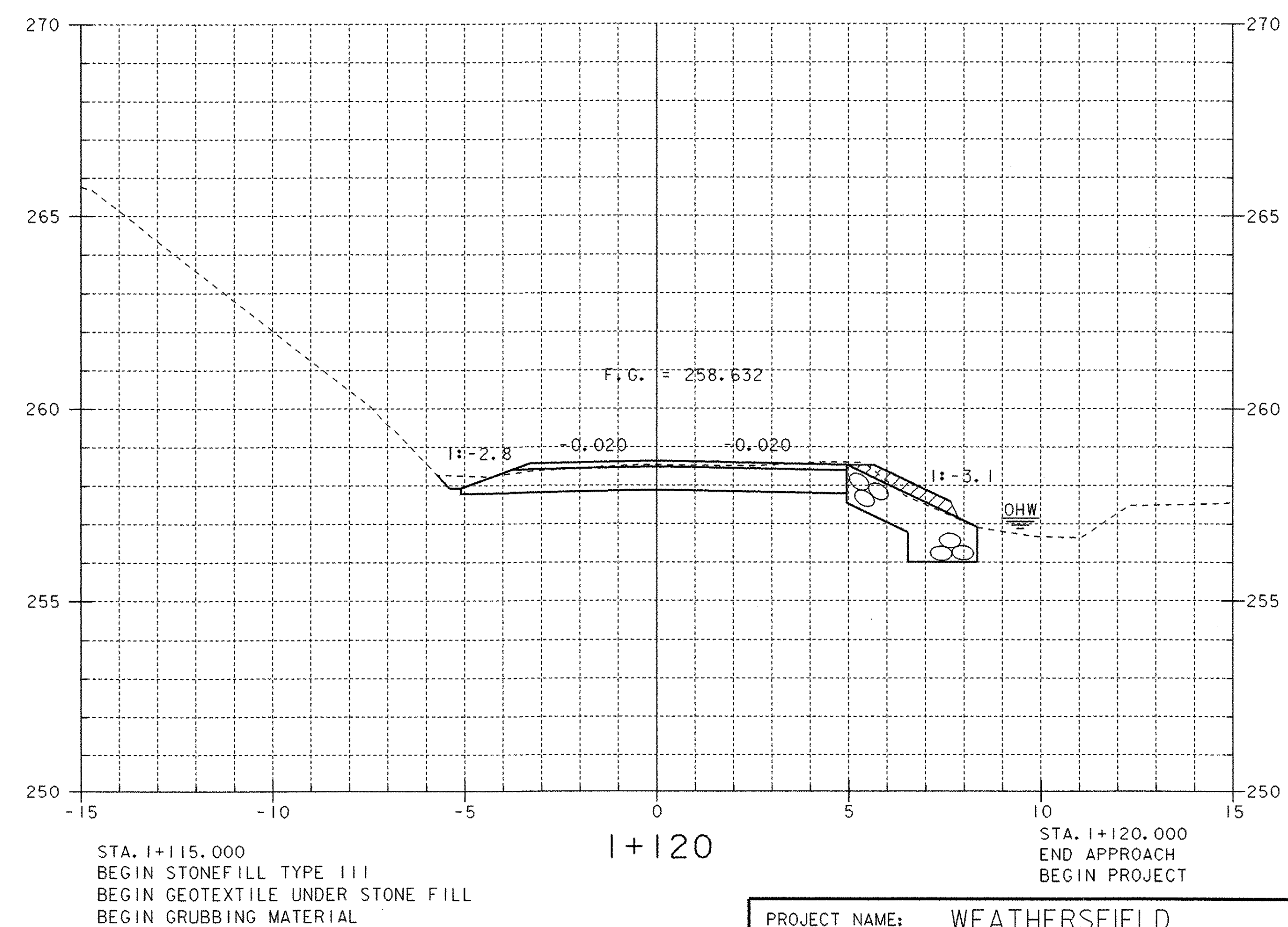
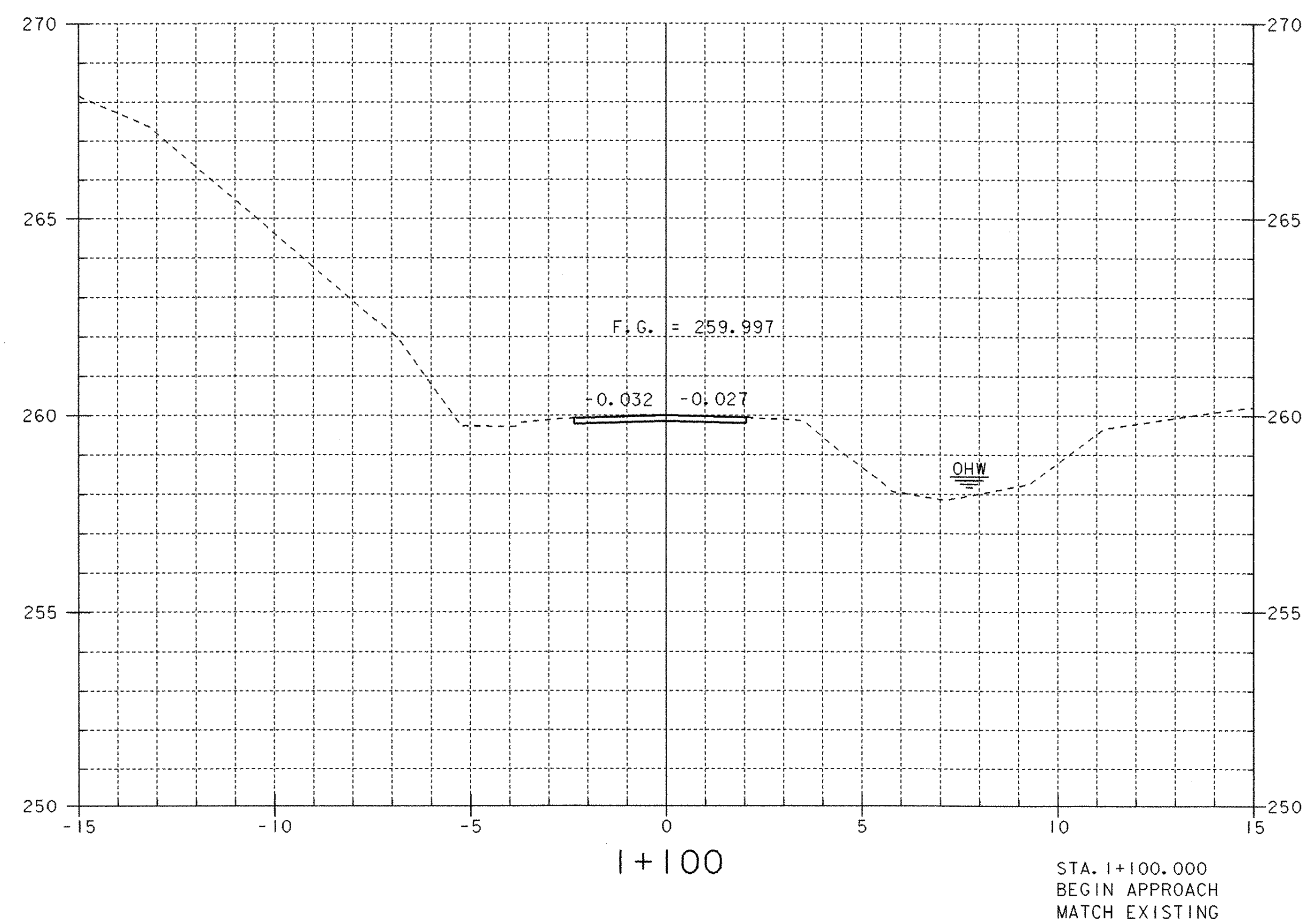
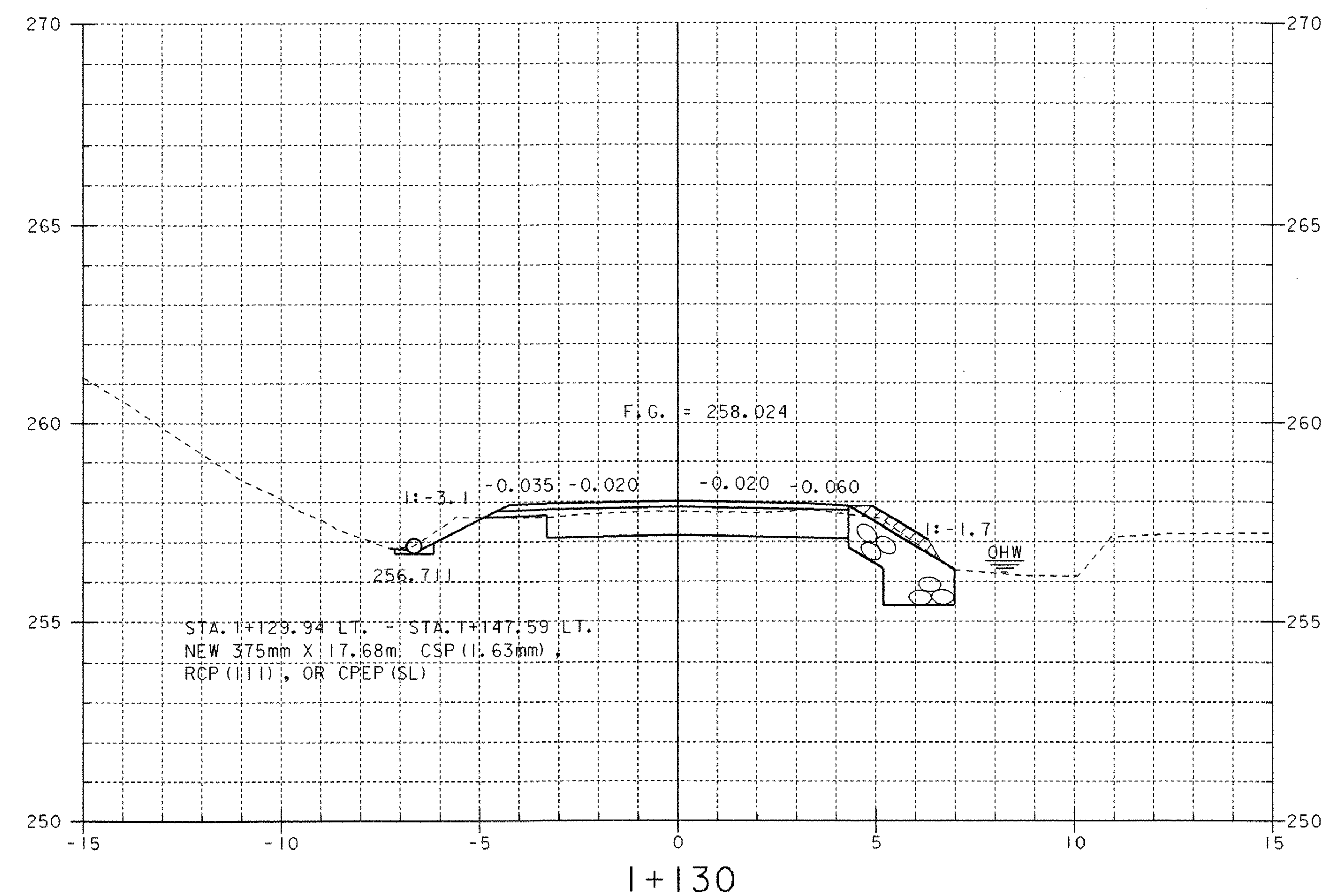
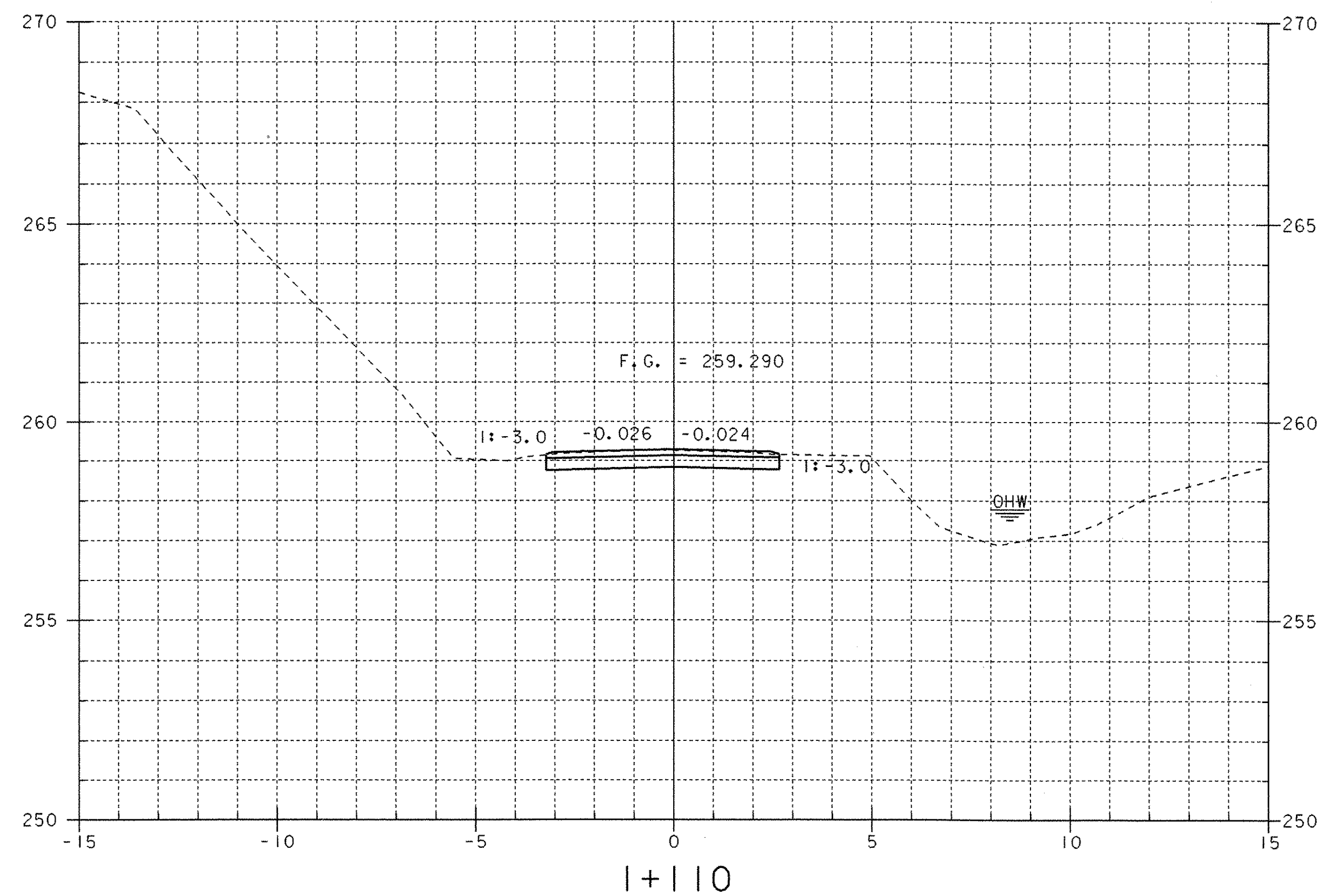
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /s/r3/95j284/sj284mat.l
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
MATERIAL TRANSITION DETAILS

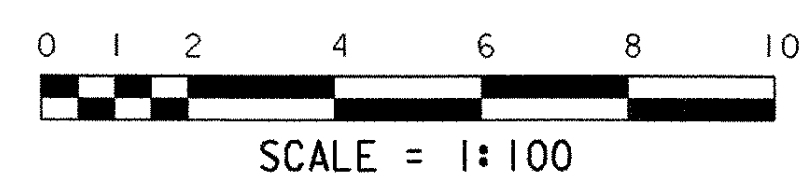
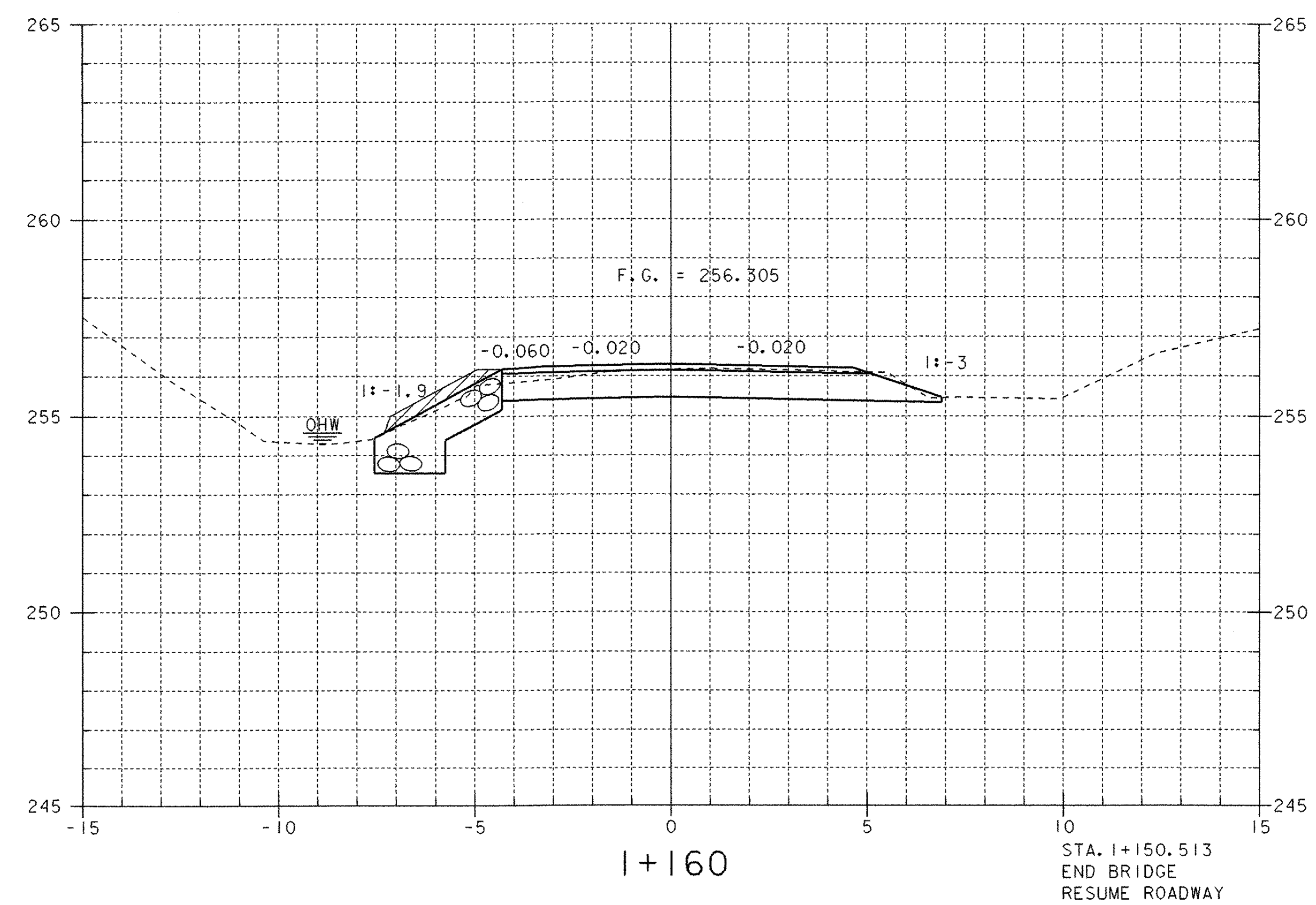
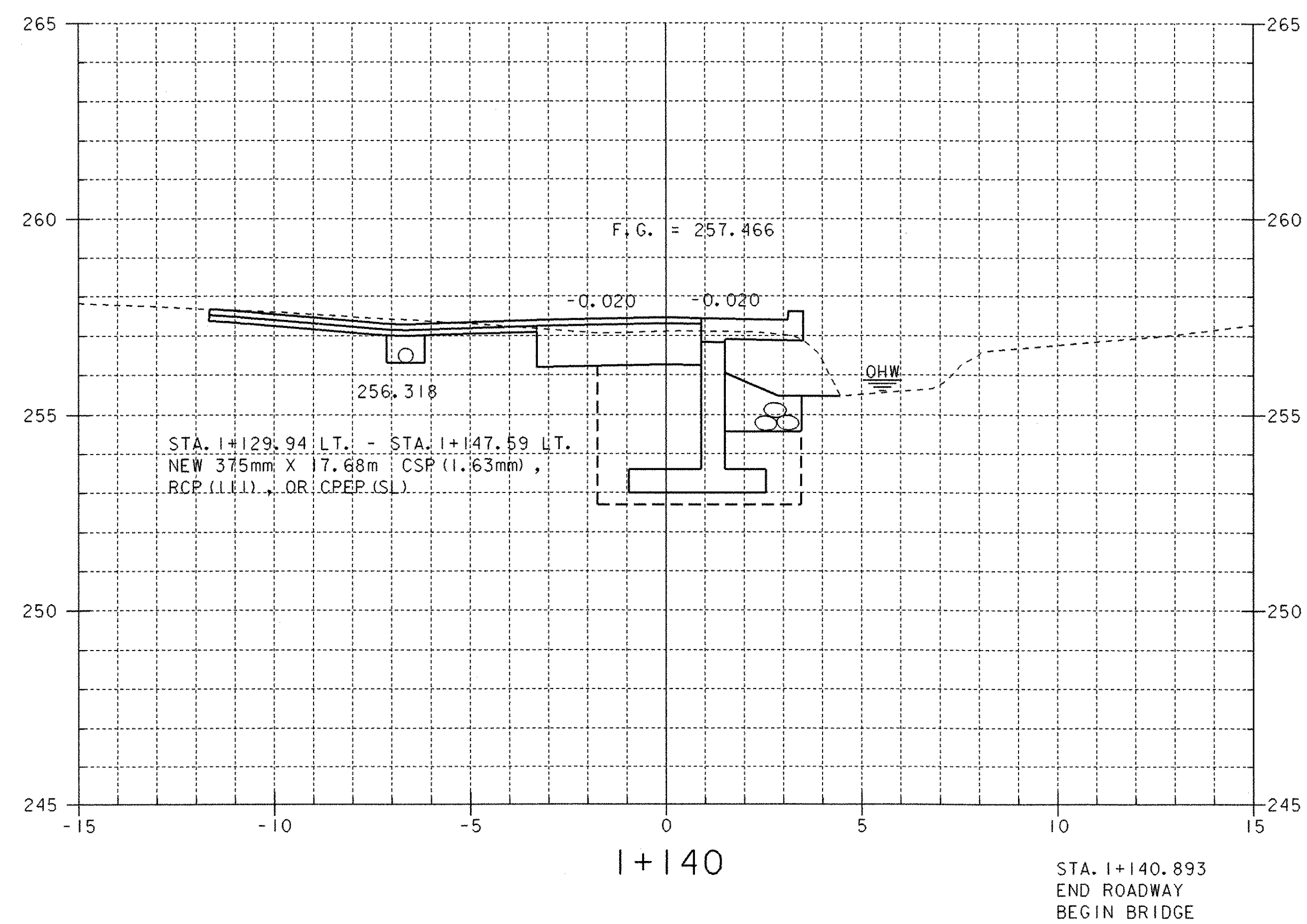
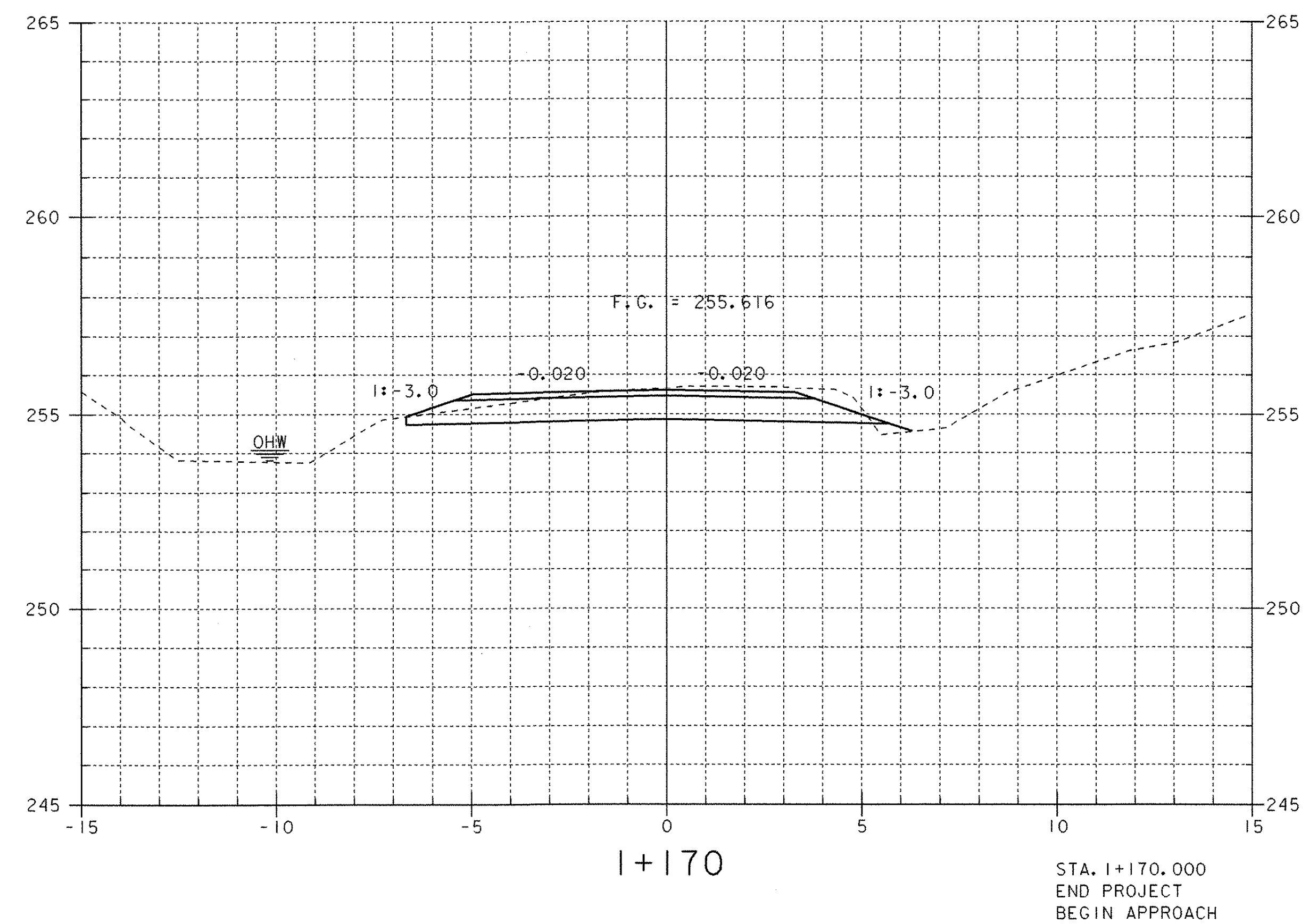
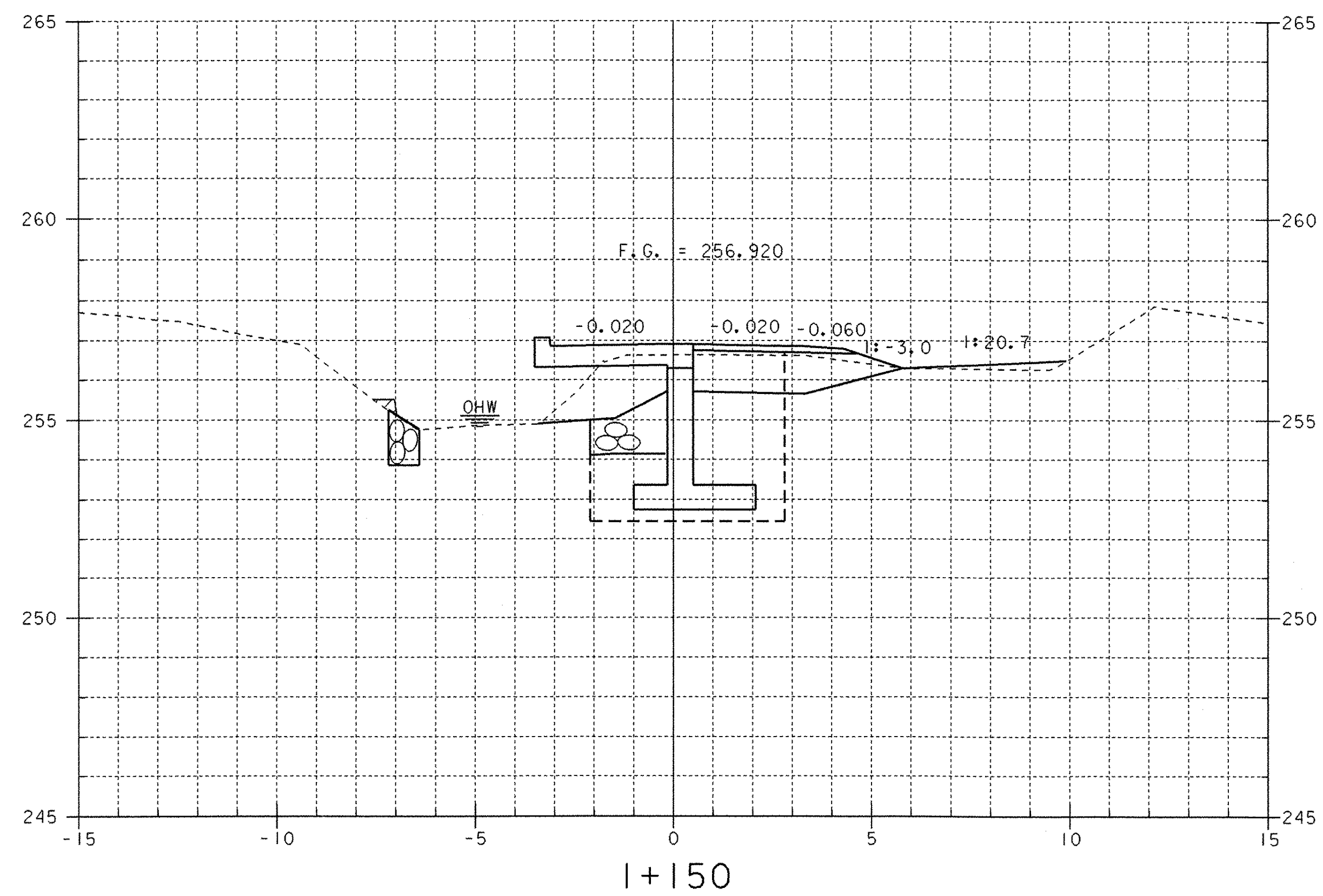
PLOT DATE: 8/31/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 23 OF 31



PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	TH3 9514
FILE NAME:	/s+r3/95j284/sj284m01.i
PROJECT LEADER:	R. WHITCOMB
DESIGNED BY:	J. LACROIX
ROADWAY CROSS SECTION	
PLOT DATE:	8/31/01
DRAWN BY:	J. LACROIX
CHECKED BY:	S. SCRIBNER
SHEET	24 OF 31



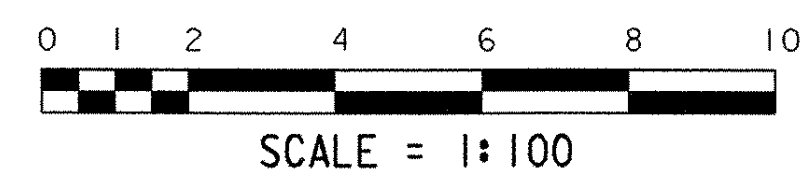
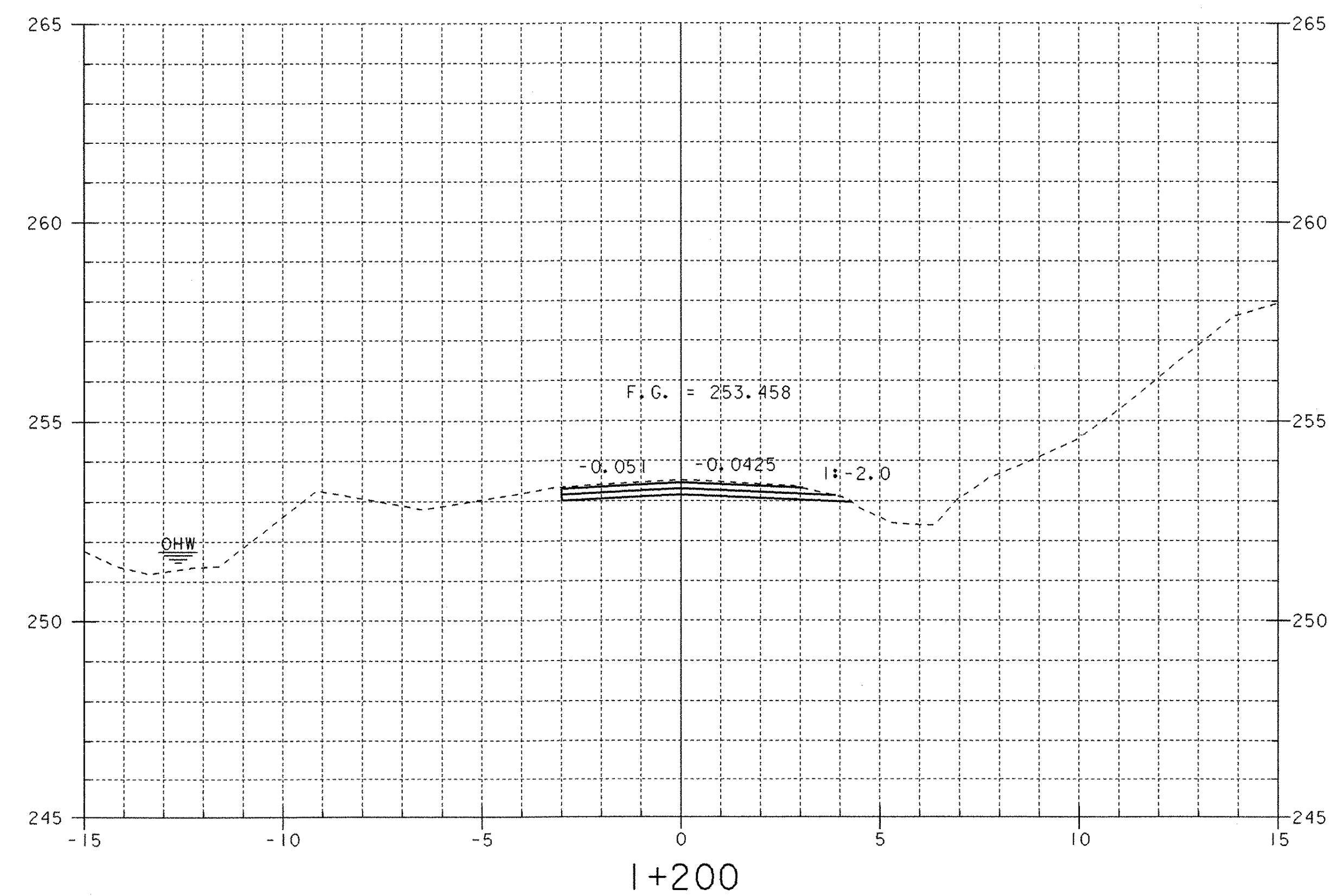
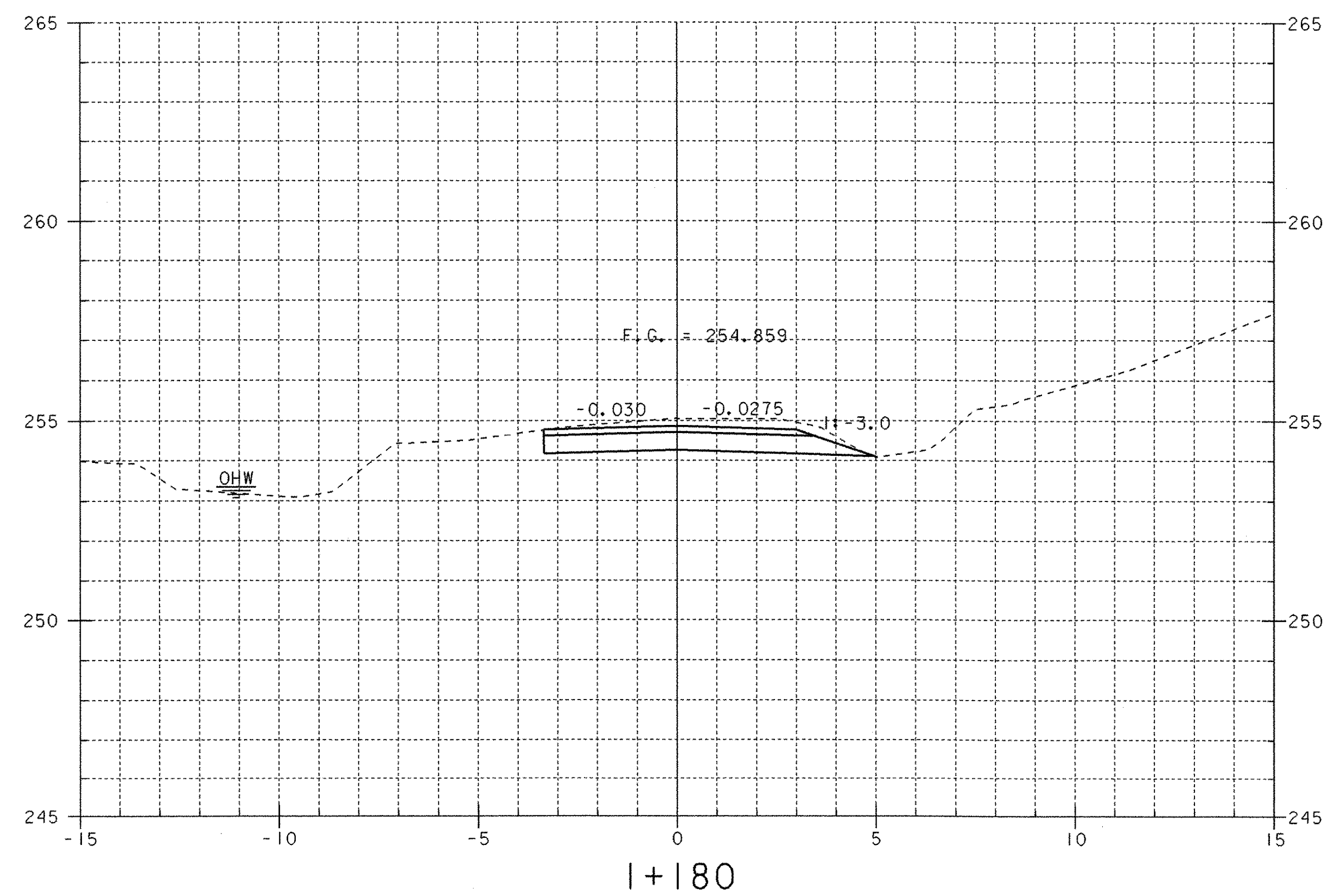
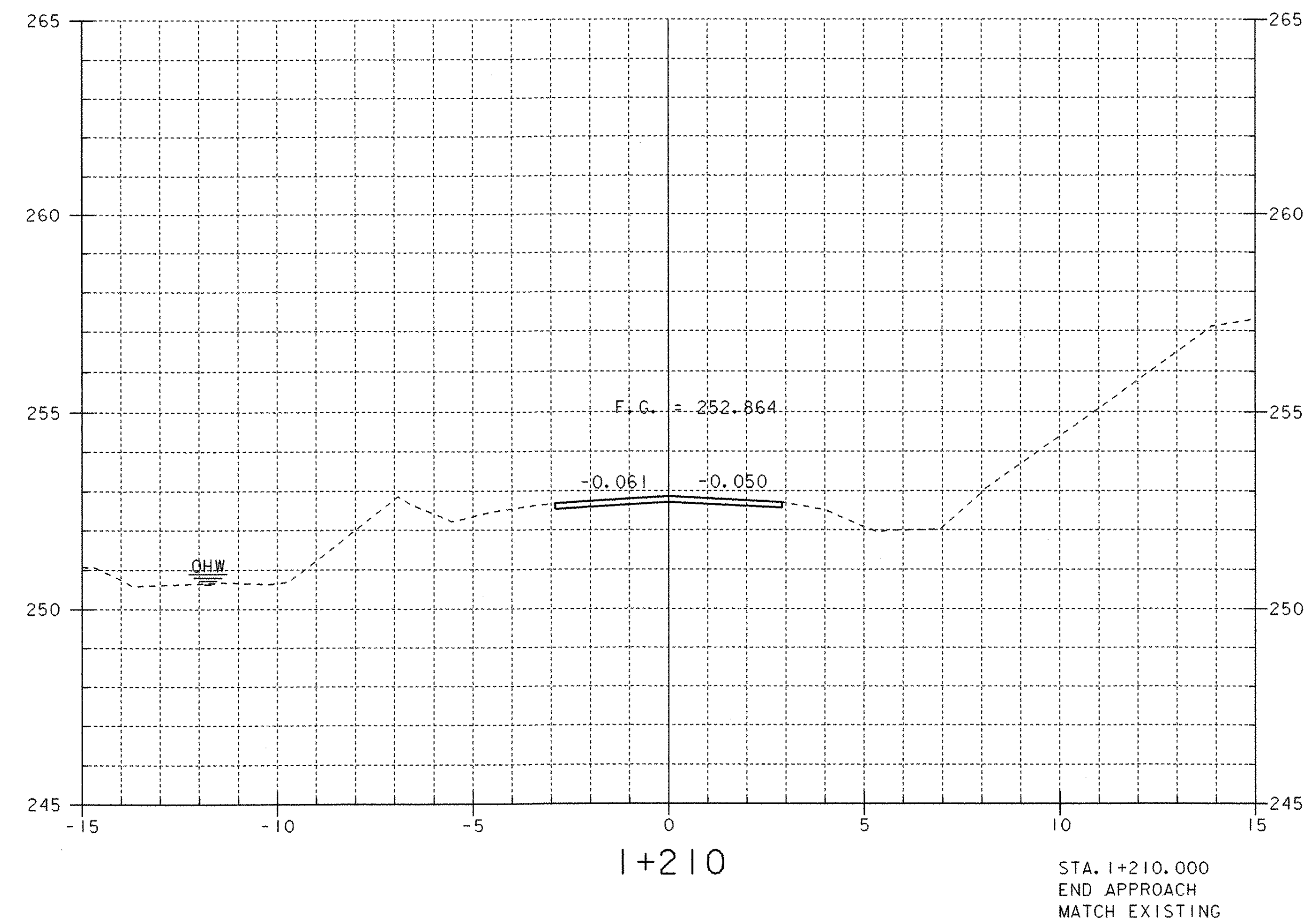
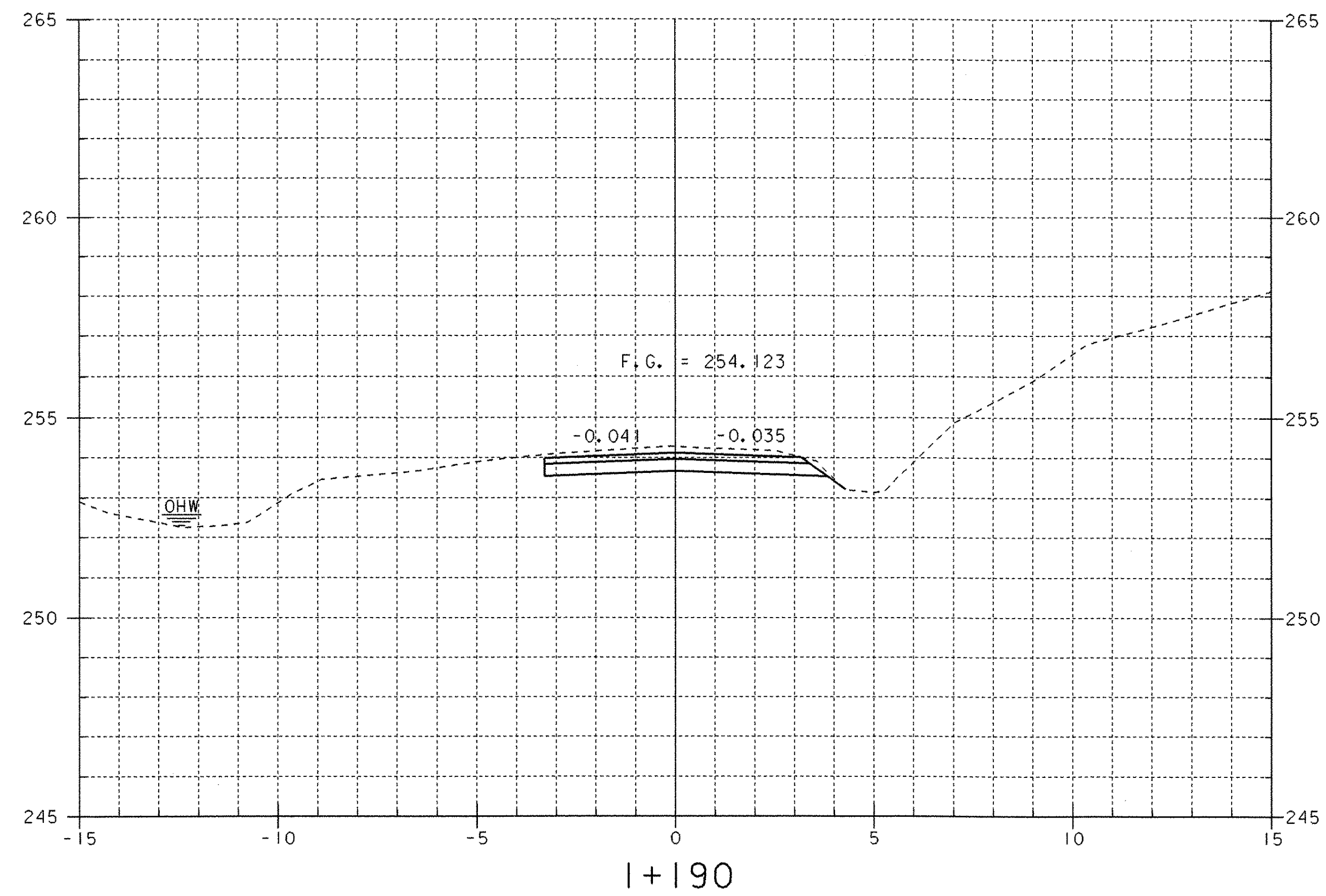
PROJECT NAME:	WEATHERSFIELD		
PROJECT NUMBER:	TH3 9514		
FILE NAME:	/s+r3/95j284/sj284m02.1	PLOT DATE:	8/31/01
PROJECT LEADER:	R. WHITCOMB	DRAWN BY:	J. LACROIX
DESIGNED BY:	J. LACROIX	CHECKED BY:	S. SCRIBNER
ROADWAY CROSS SECTION		SHEET 25	OF 31



PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /s/r3/95j284/sj284m03.1
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
ROADWAY CROSS SECTION

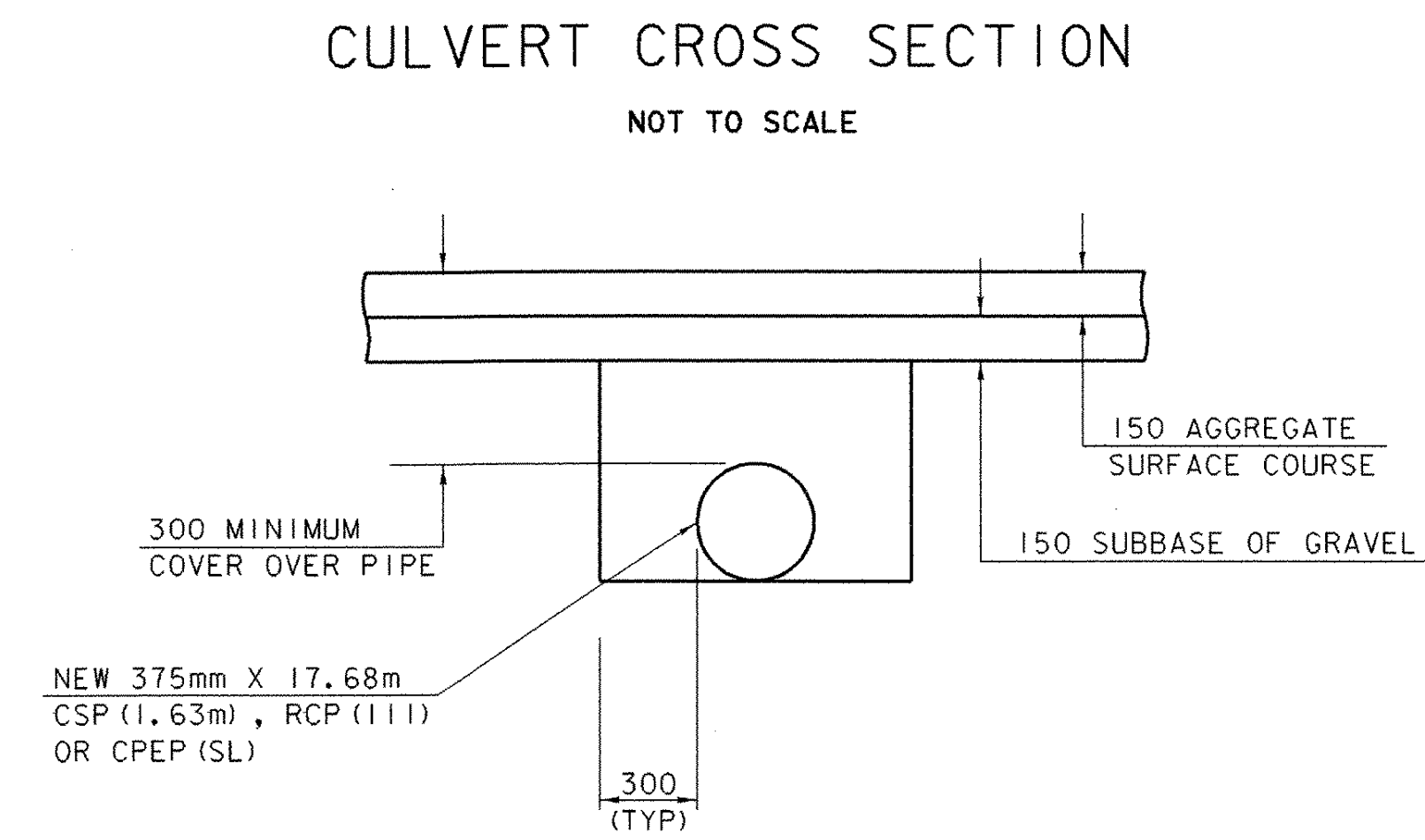
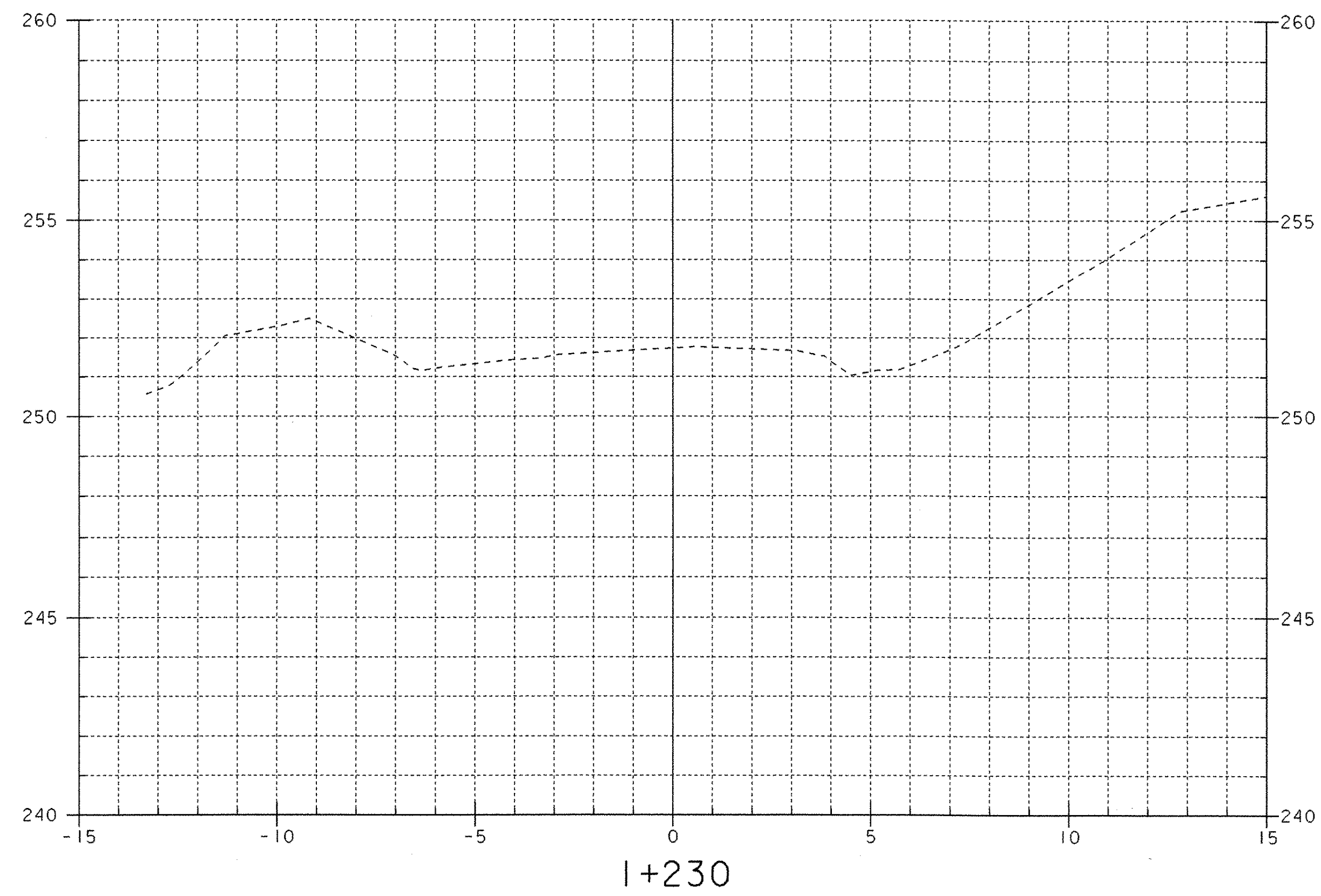
PLOT DATE: 8/31/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 26 OF 31



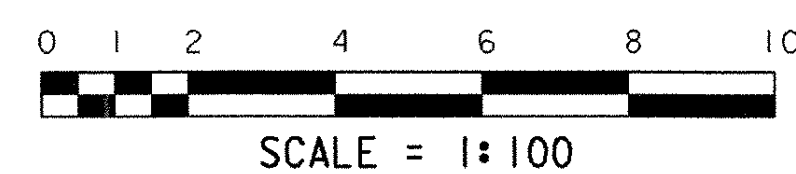
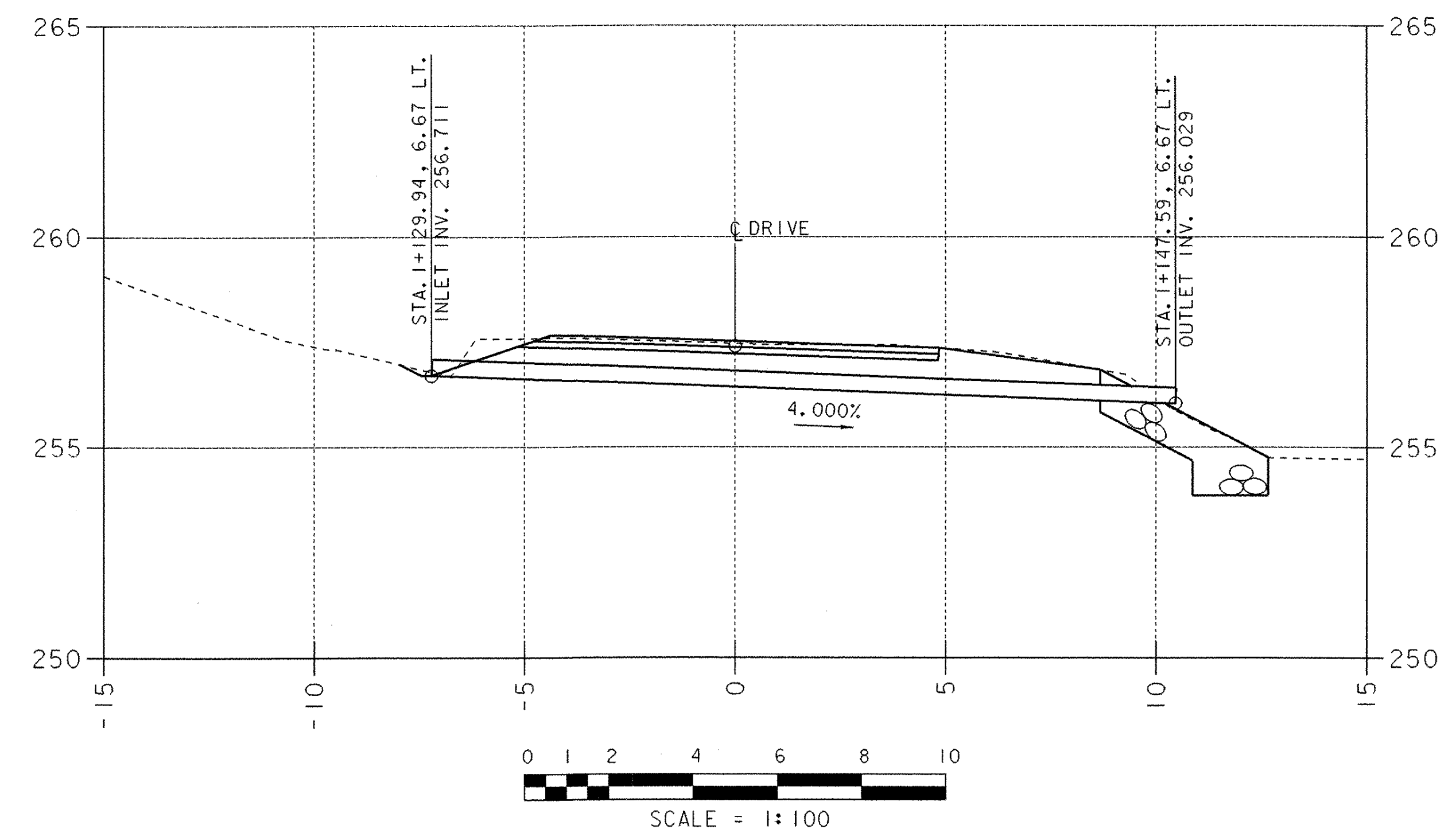
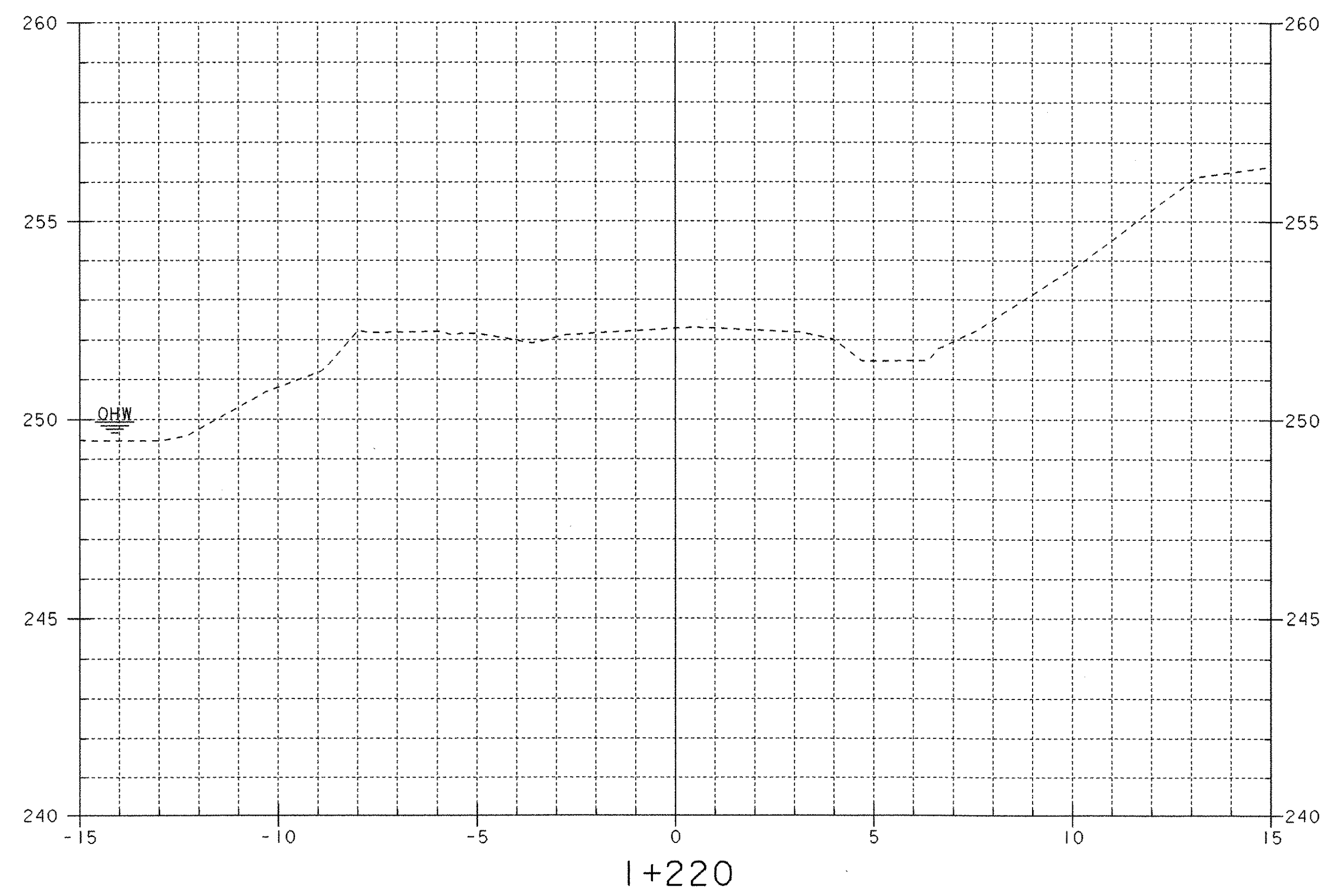
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /s+r3/95j284/sj284m04.1
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
ROADWAY CROSS SECTION

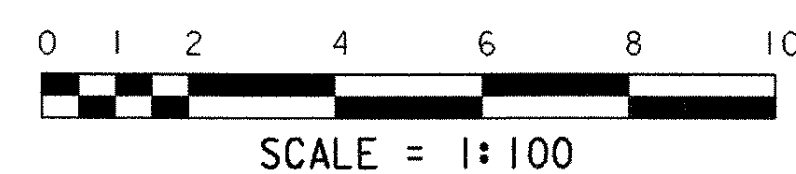
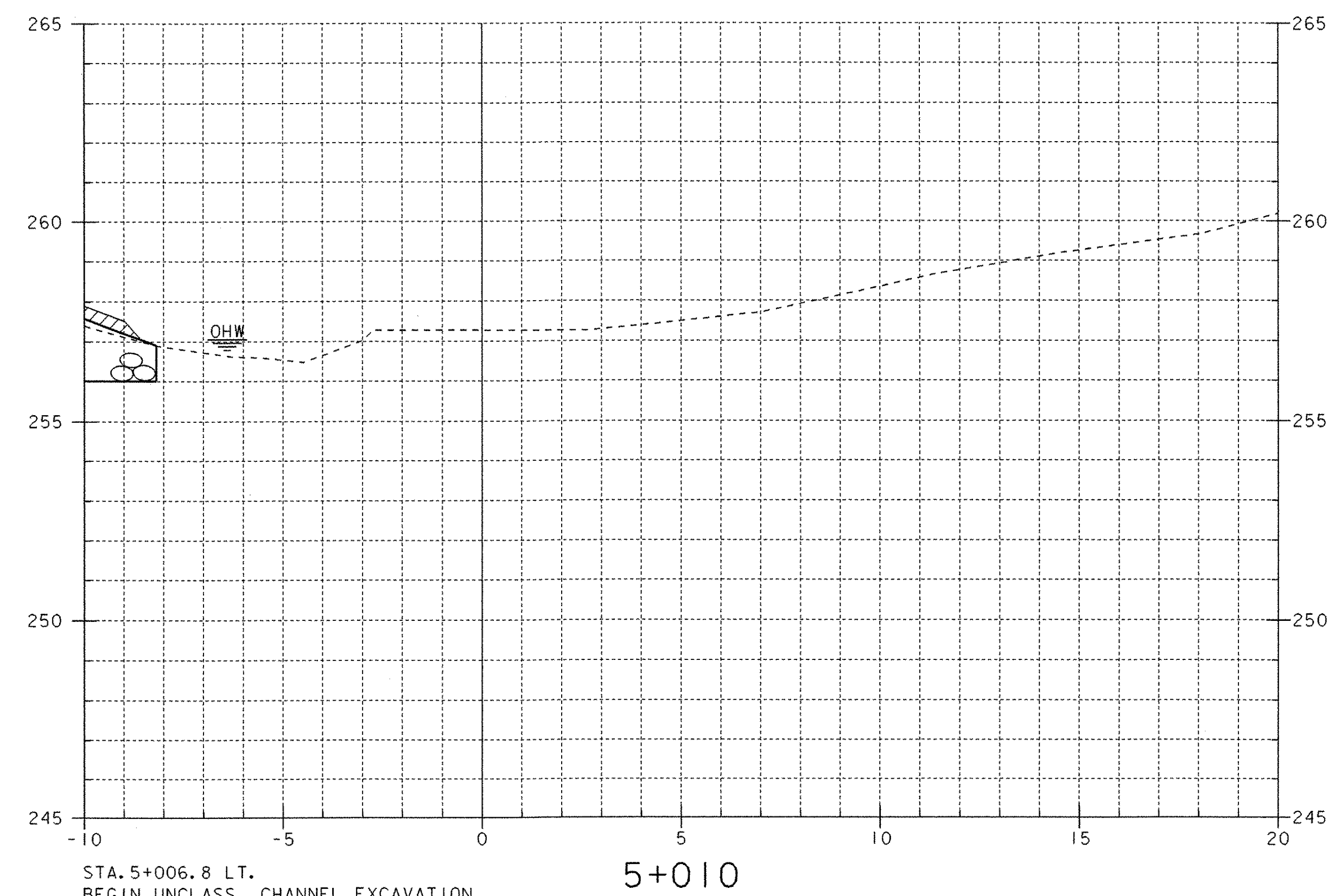
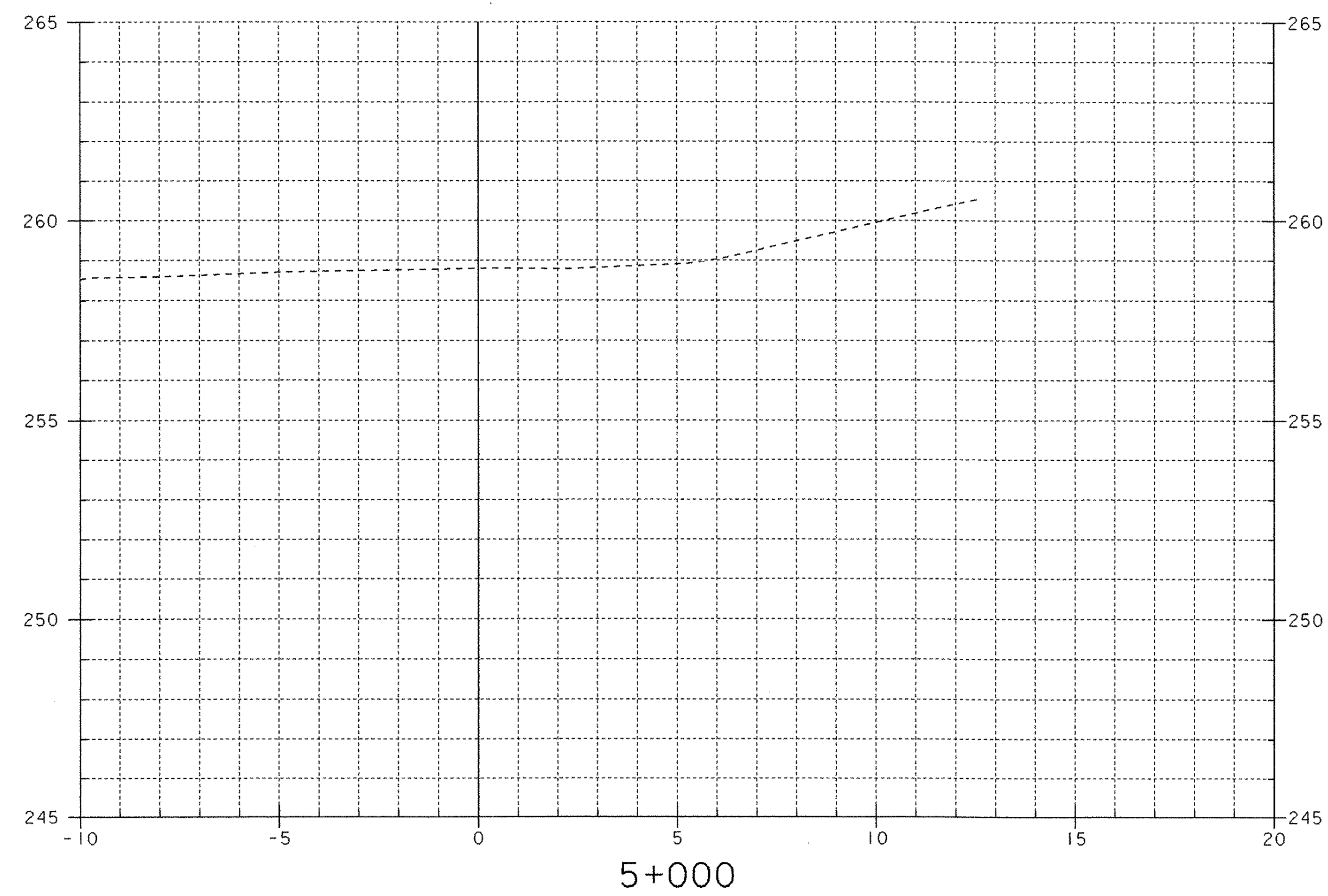
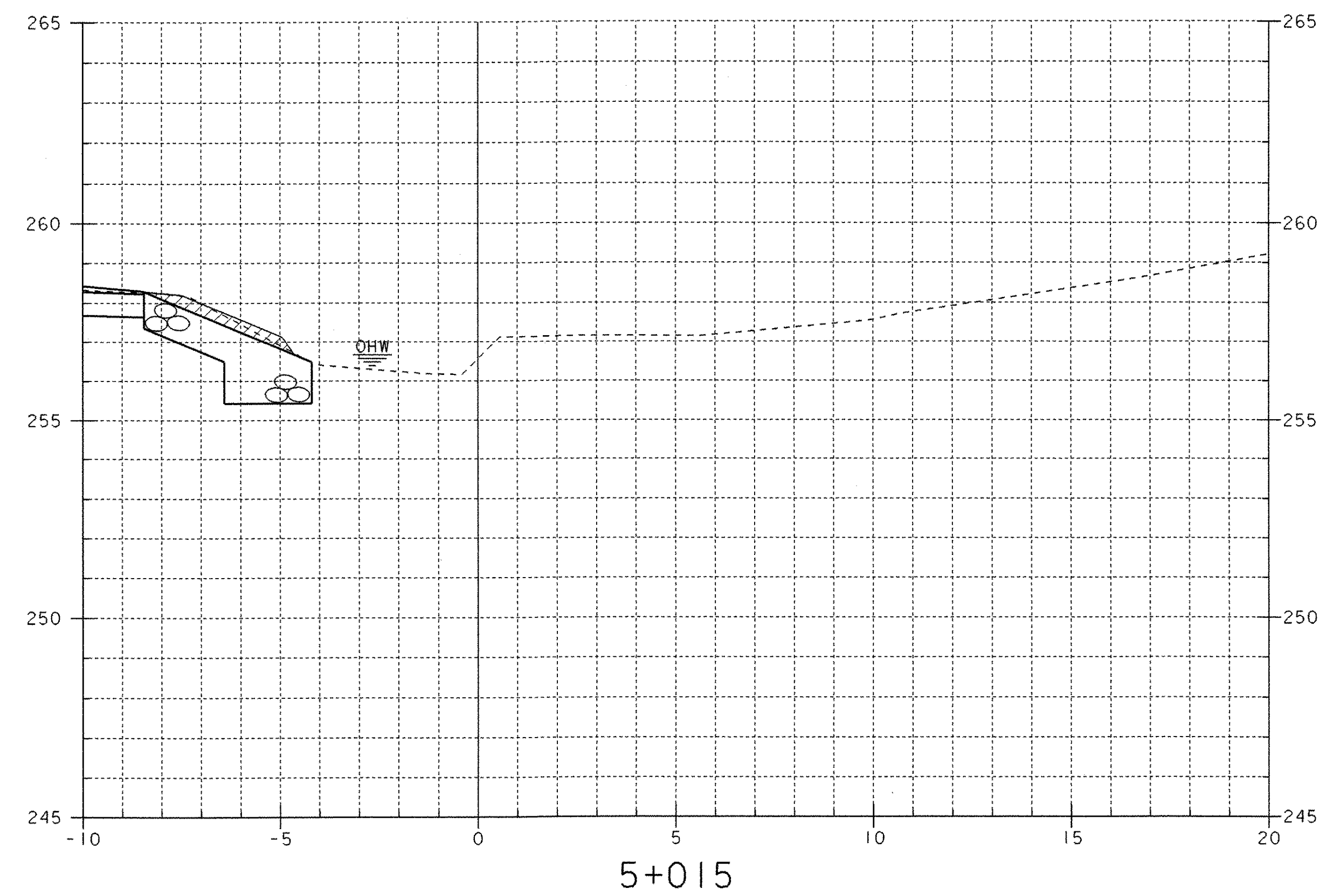
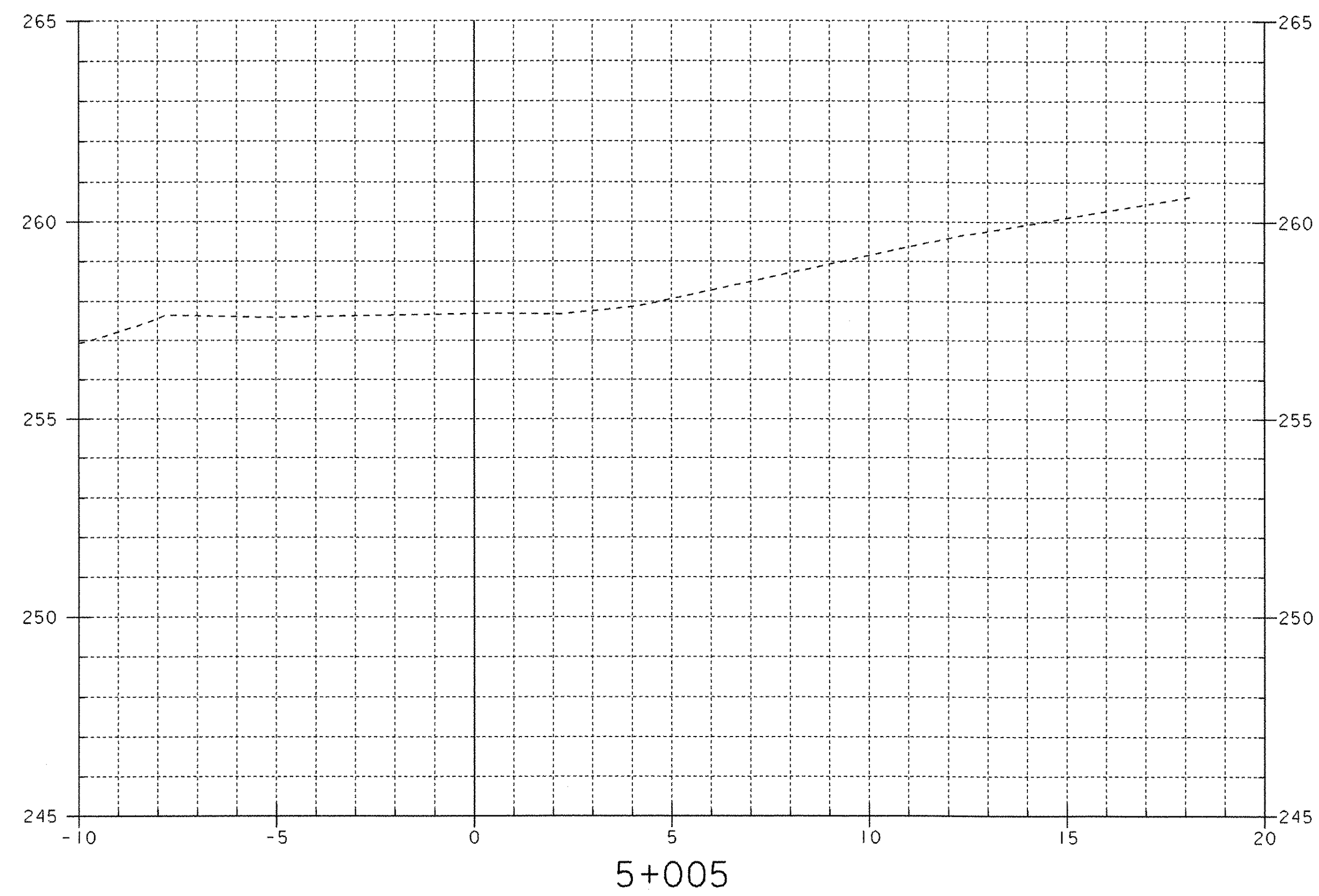
PLOT DATE: 8/31/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 27 OF 31



CULVERT CROSS PROFILE
STA. I+129.94 LT. - STA. I+147.59 LT.



PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	TH3 9514
FILE NAME:	/s+r3/95j284/sj284m05.i
PROJECT LEADER:	R. WHITCOMB
DESIGNED BY:	J. LACROIX
ROADWAY CROSS SECTION	
PLOT DATE:	8/31/01
DRAWN BY:	J. LACROIX
CHECKED BY:	S. SCRIBNER
SHEET	28 OF 31

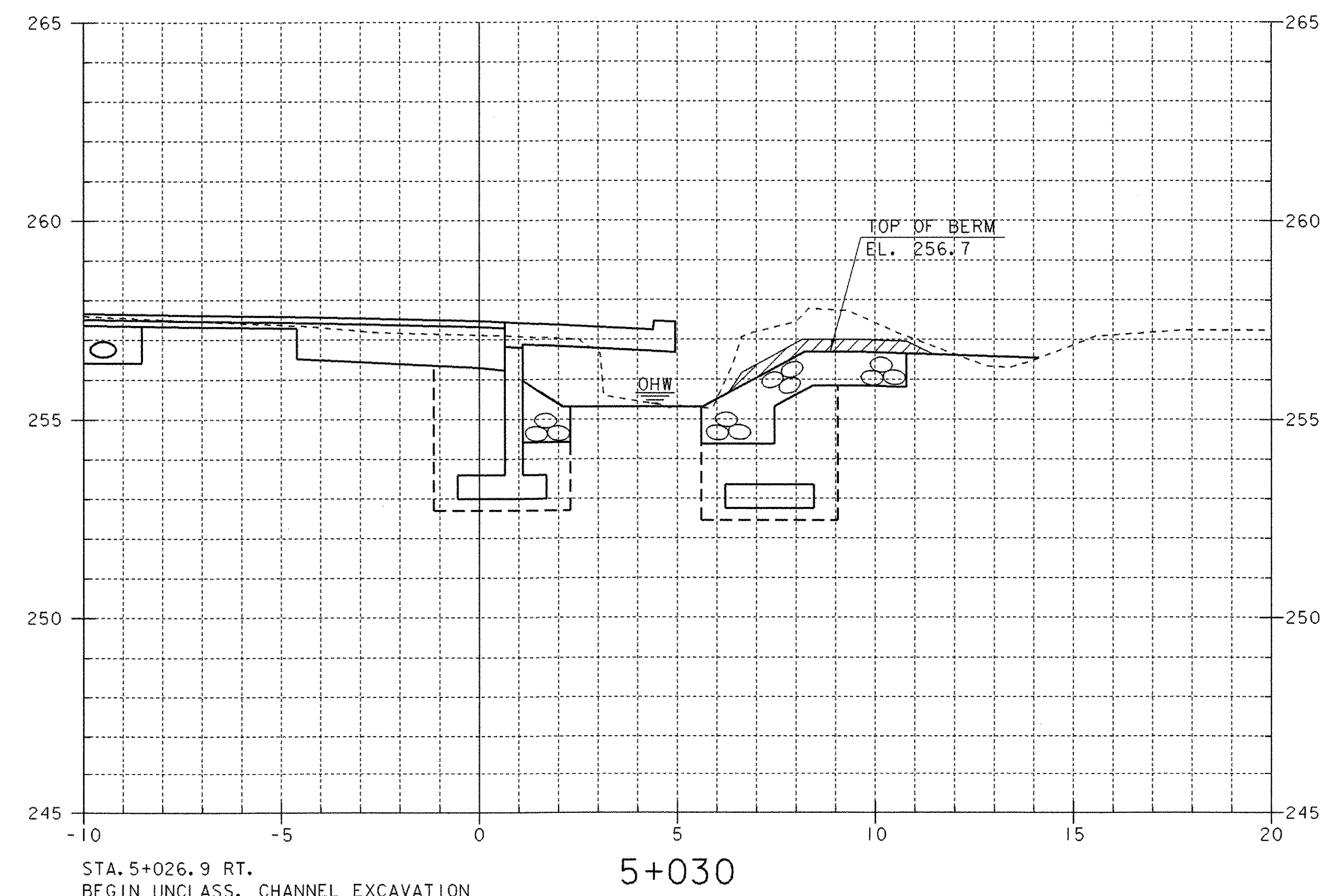
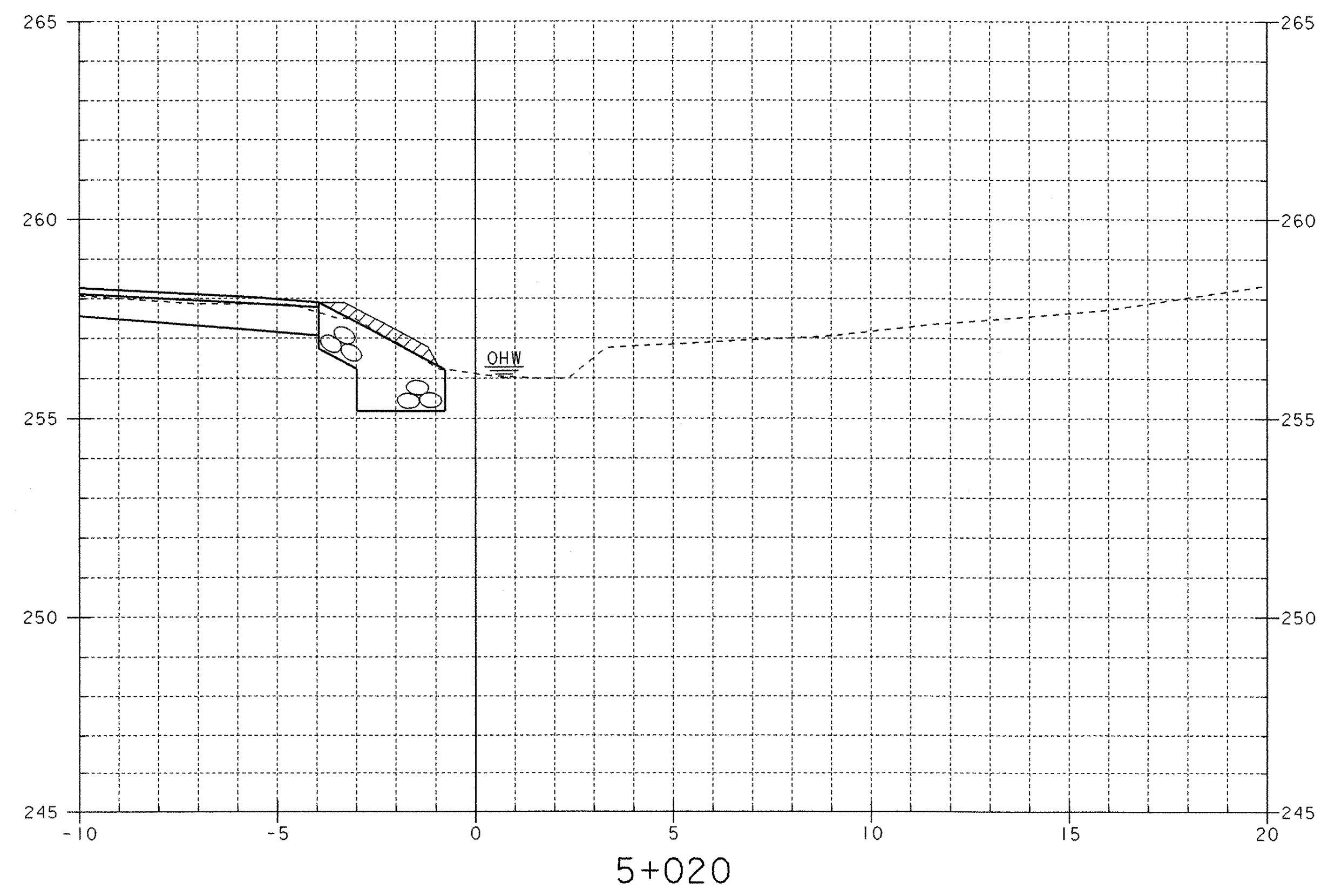
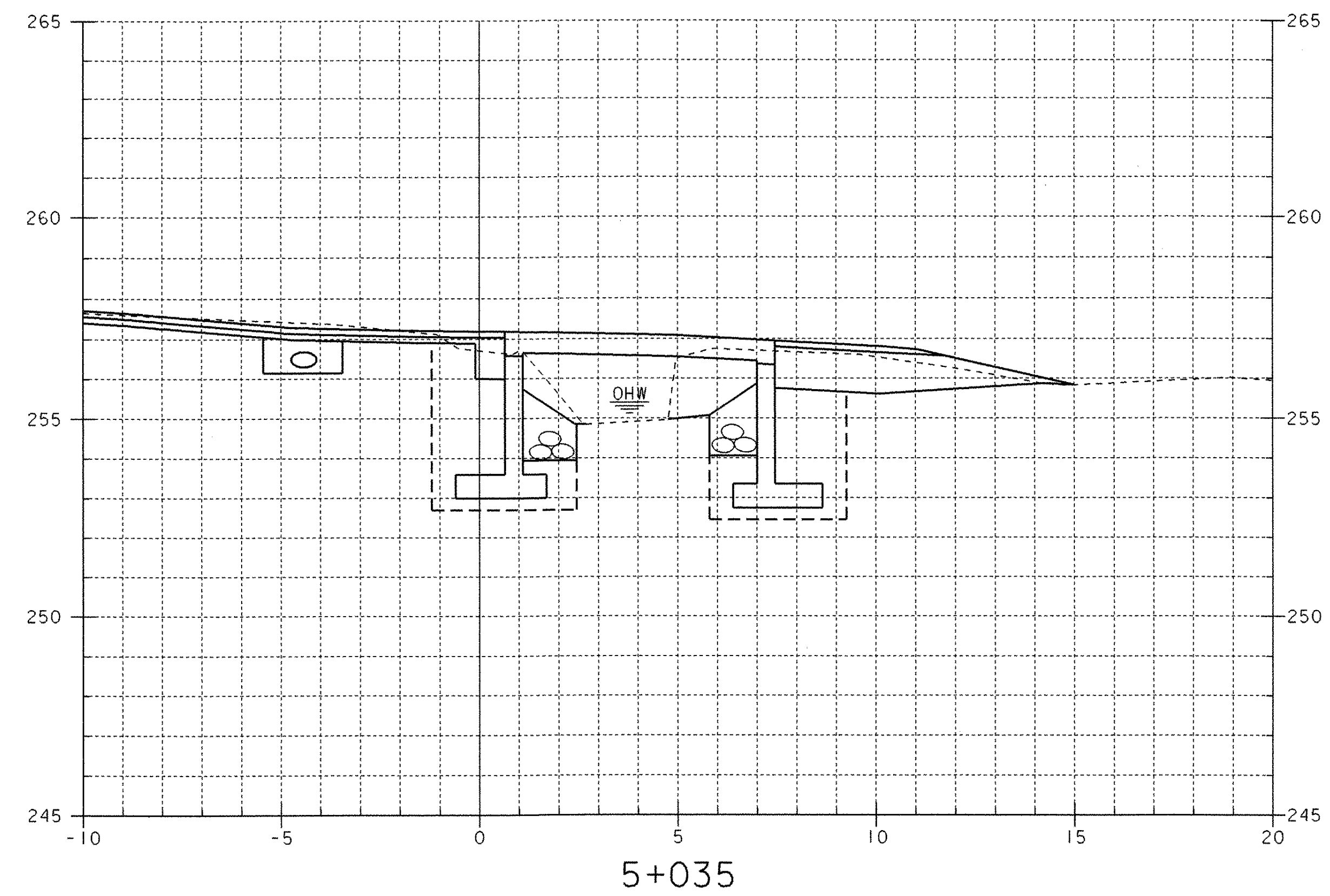
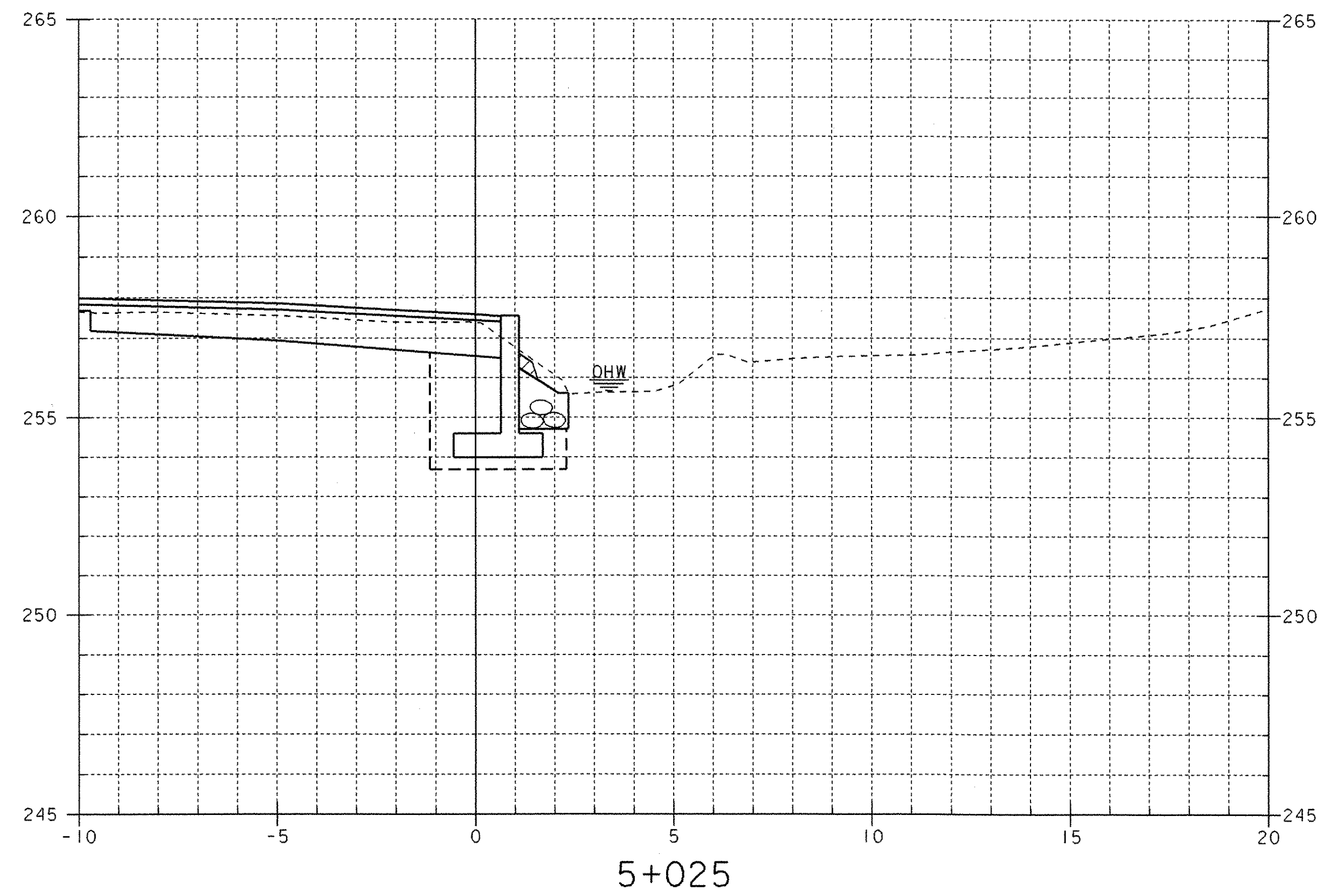


STA. 5+006.8 LT.
 BEGIN UNCLASS. CHANNEL EXCAVATION
 GEOTEXTILE UNDER STONE FILL
 STONE FILL, TYPE III
 GRUBBING MATERIAL

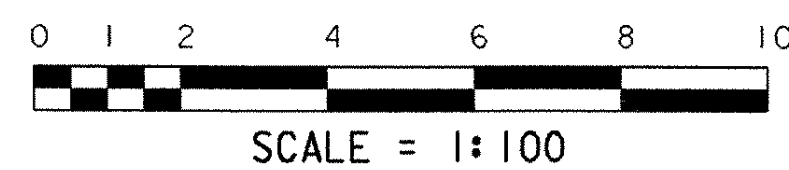
PROJECT NAME: WEATHERSFIELD
 PROJECT NUMBER: TH3 9514

FILE NAME: /s/r3/95j284/sj284c01.t
 PROJECT LEADER: R. WHITCOMB
 DESIGNED BY: J. LACROIX
 CHANNEL CROSS SECTION

PLOT DATE: 8/31/01
 DRAWN BY: J. LACROIX
 CHECKED BY: S. SCRIBNER
 SHEET 29 OF 31



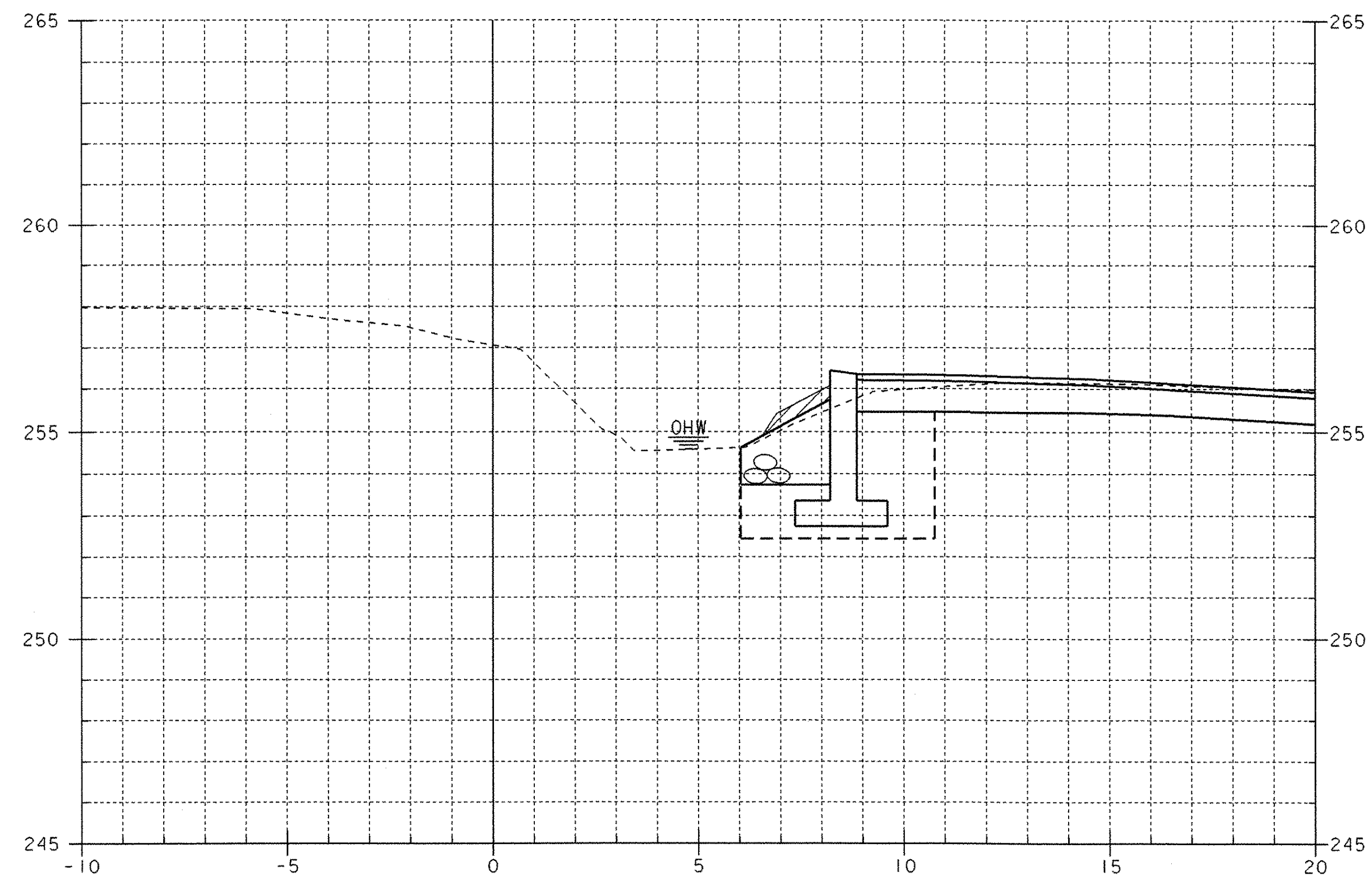
STA. 5+026.9 RT.
 BEGIN UNCLASS. CHANNEL EXCAVATION
 GEOTEXTILE UNDER STONE FILL
 STONE FILL, TYPE III
 GRUBBING MATERIAL



PROJECT NAME: WEATHERSFIELD
 PROJECT NUMBER: TH3 9514

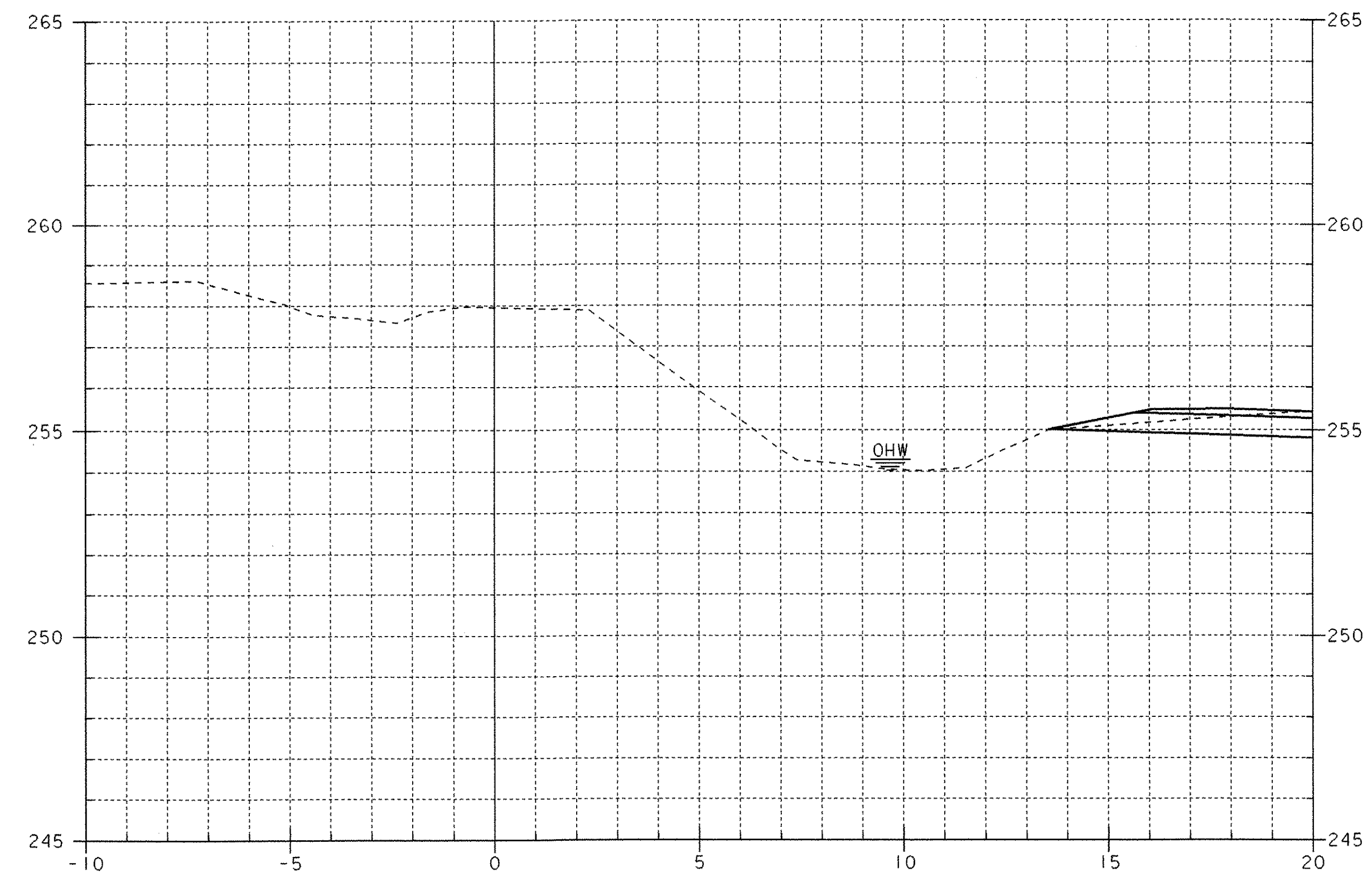
FILE NAME: /str3/95j284/sj284c02.1
 PROJECT LEADER: R. WHITCOMB
 DESIGNED BY: J. LACROIX
 CHANNEL CROSS SECTION

PLOT DATE: 8/31/01
 DRAWN BY: J. LACROIX
 CHECKED BY: S. SCRIBNER
 SHEET 30 OF 31



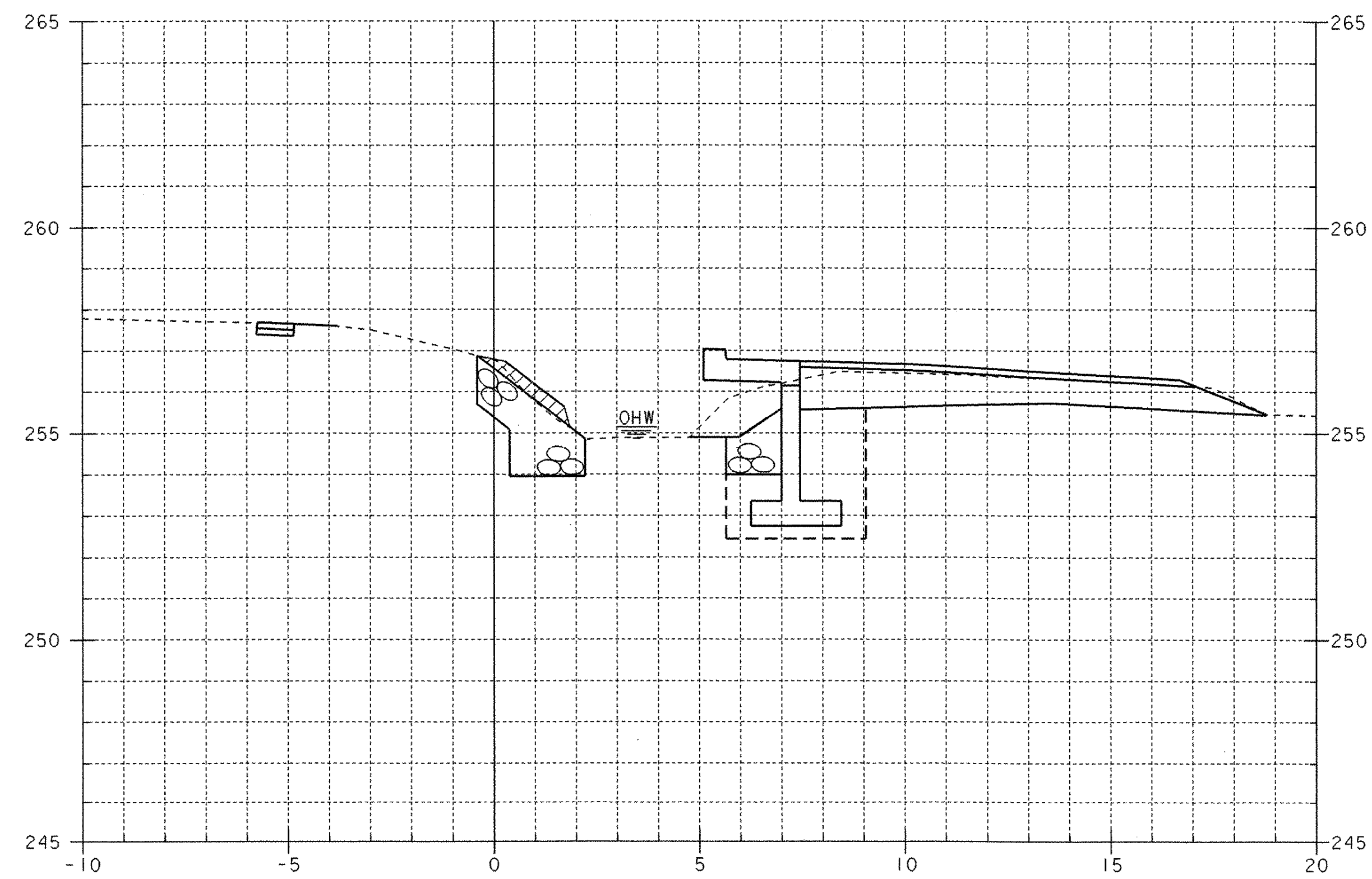
STA. 5+042.1 LT.
END UNCLASS. CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III
GRUBBING MATERIAL

5+045

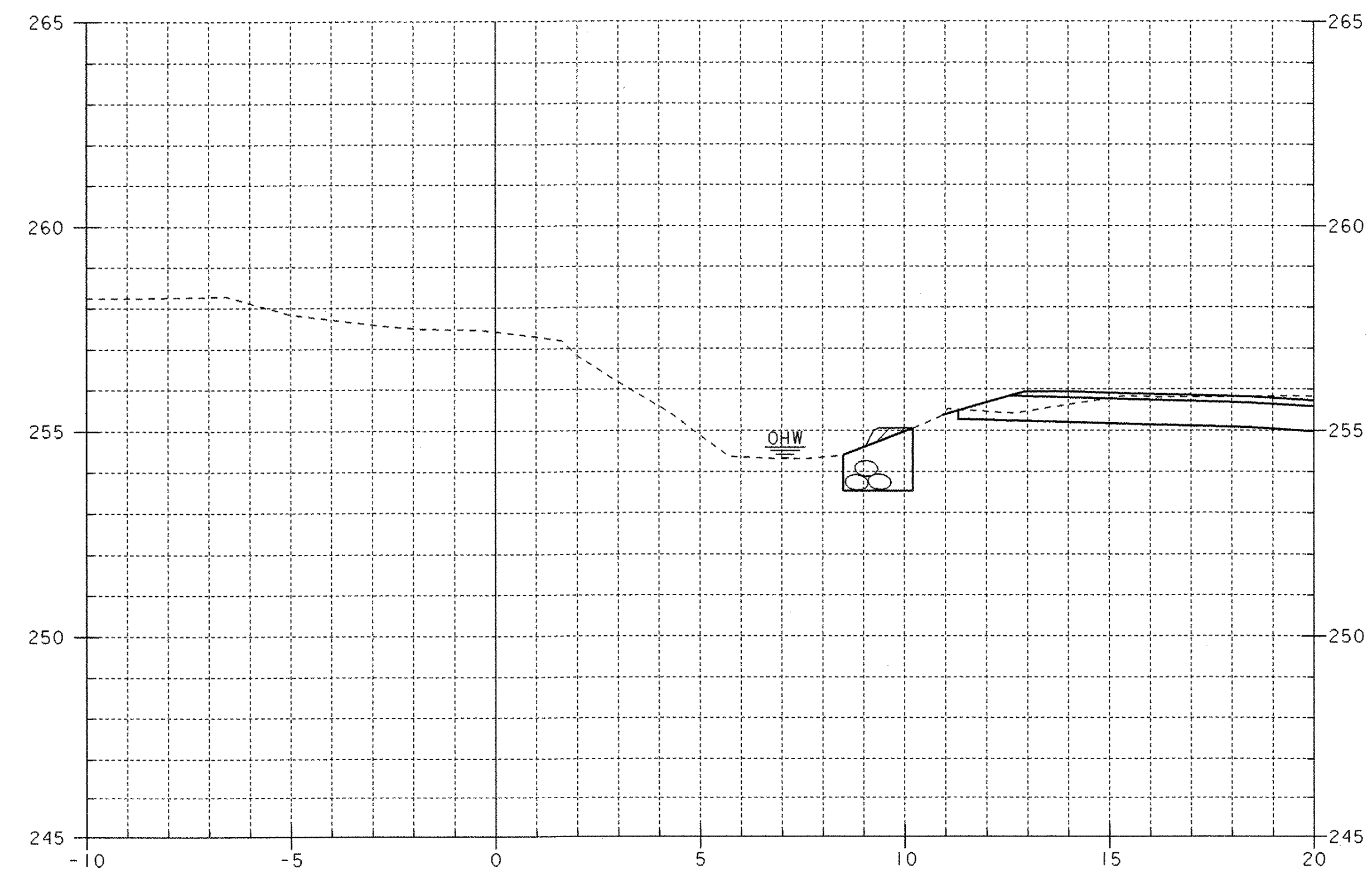


STA. 5+050.9 RT.
END UNCLASS. CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III
GRUBBING MATERIAL

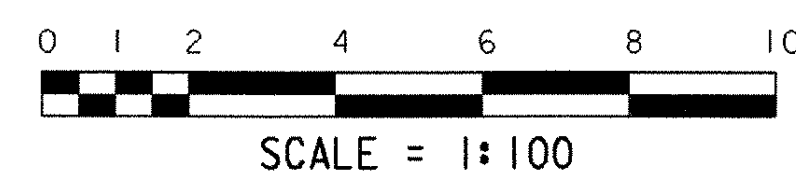
5+055



5+040



5+050



PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: TH3 9514

FILE NAME: /s+r3/95j284/sj284c03.1
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: J. LACROIX
CHANNEL CROSS SECTION

PLOT DATE: 8/31/01
DRAWN BY: J. LACROIX
CHECKED BY: S. SCRIBNER
SHEET 31 OF 31