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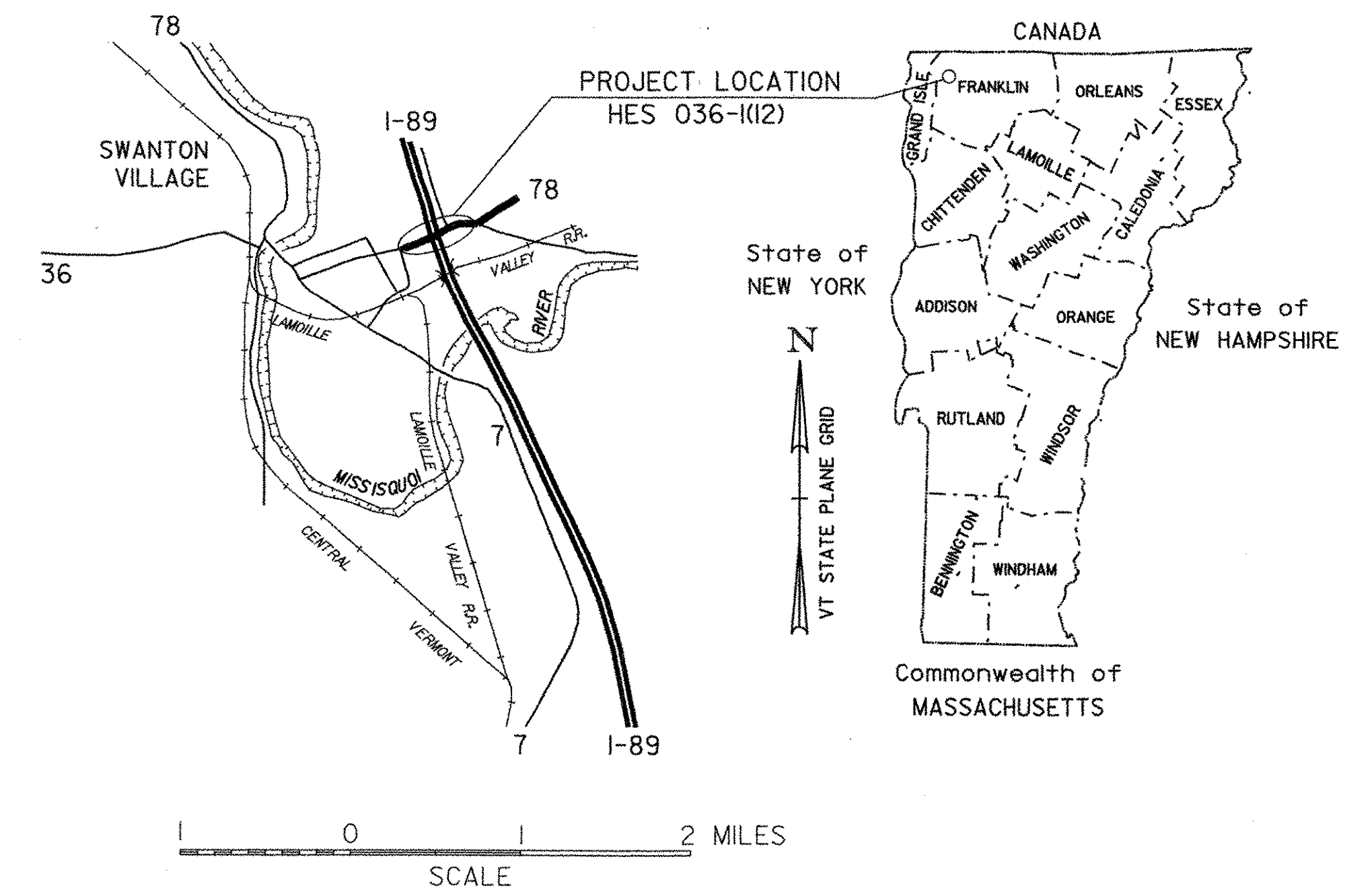
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- E-106 03/01/04
- E-107 06/30/03
- E-108 08/18/95
- E-145A 12/23/94
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- E-192 10/12/00
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STATE OF VERMONT AGENCY OF TRANSPORTATION

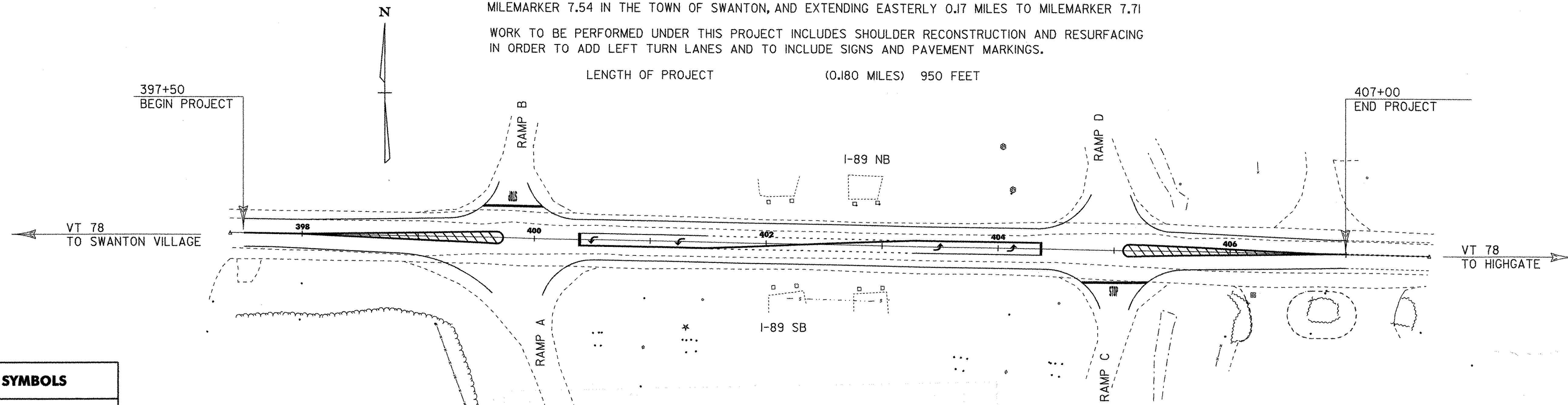


PROPOSED IMPROVEMENT TOWN OF SWANTON COUNTY OF FRANKLIN VT. ROUTE 78 (MAJOR COLLECTOR)



BEGINNING AT A POINT ON VT. ROUTE 78, WEST OF I-89 AT
MILEMARKER 7.54 IN THE TOWN OF SWANTON, AND EXTENDING EASTERLY 0.17 MILES TO MILEMARKER 7.71
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SHOULDER RECONSTRUCTION AND RESURFACING
IN ORDER TO ADD LEFT TURN LANES AND TO INCLUDE SIGNS AND PAVEMENT MARKINGS.

LENGTH OF PROJECT (0.180 MILES) 950 FEET



CONVENTIONAL SYMBOLS

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

SURVEYED BY : L. ORVIS
SURVEYED DATE : 21-SEPT-2005

DATUM
VERTICAL NAVD88
HORIZONTAL ASSUMED

RECORD PLANS

CONTRACTOR: A.C. PAVING - SO. BURLINGTON, VT
RESIDENT ENGINEER: JEREMY REED
CONSTRUCTION BEGAN: APRIL 19, 2007
CONSTRUCTION COMPLETE: JUNE 7, 2007
RECORD PLANS BY: JEREMY REED
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
BY *Jeremy Reed* RESIDENT ENGINEER
DATE February 25, 2008

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



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF 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.
10-AUG-2006 +04b212nui.dgn +b21211t.j

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Richard J. Stewart</i>	DATE 8-22-06
PROJECT MANAGER : B. NYQUIST	
PROJECT NAME :	SWANTON
PROJECT NUMBER :	HES 036-1(12)
SHEET 1 OF 16 SHEETS	

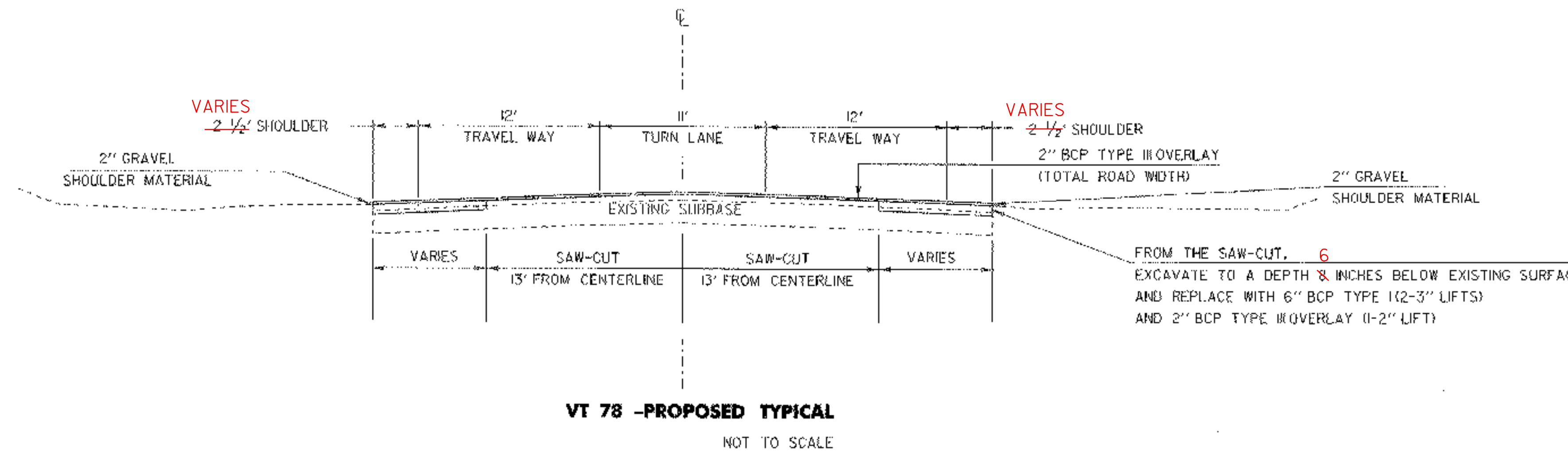
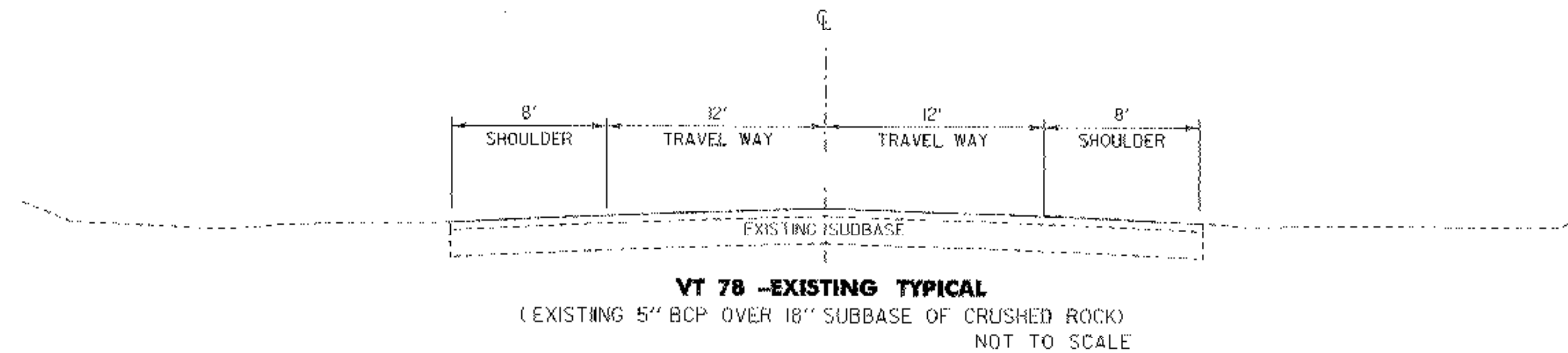
MATERIAL TOLERANCES

MATERIAL ITEM	THICKNESS (TOTAL DEPTH)
PAVEMENT	+/- 1/4"
SUBBASE	+/- 1"

TYPICAL SECTION

2" BITUMINOUS CONCRETE PAVEMENT, TYPE III (PG 58-34) (1-2" LIFTS)

6" BITUMINOUS CONCRETE PAVEMENT, TYPE I (PG 58-34) (2-3" LIFTS)



**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	BIRDFOOT TREFOL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

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).

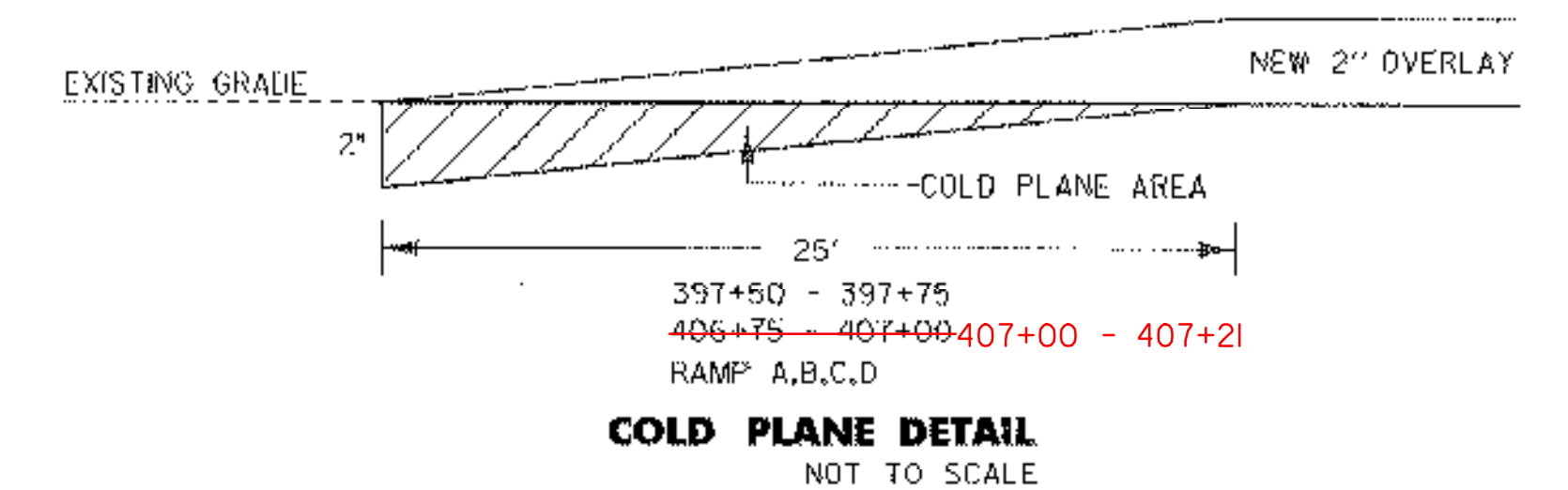
AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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.

TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.015 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER.

• THE PAVEMENT DEPTHS AND SUBBASE ARE FROM RECORD PLANS 1-89-3 (7) AND VAOT ROUTE LOGS.



PROJECT NAME:	SWANTON
PROJECT NUMBER:	HES 036-1(12)
FILE NAME: y04d212hul.dgn	PLOT DATE: 14-SEP-2006
PROJECT LEADER: B. NYQUIST	DRAWN BY: s hisman
DESIGNED BY: S. HISMAN	CHECKED BY: traffic
fd212+yp.1	SHEET 2 OF 16

QUANTITY SHEET

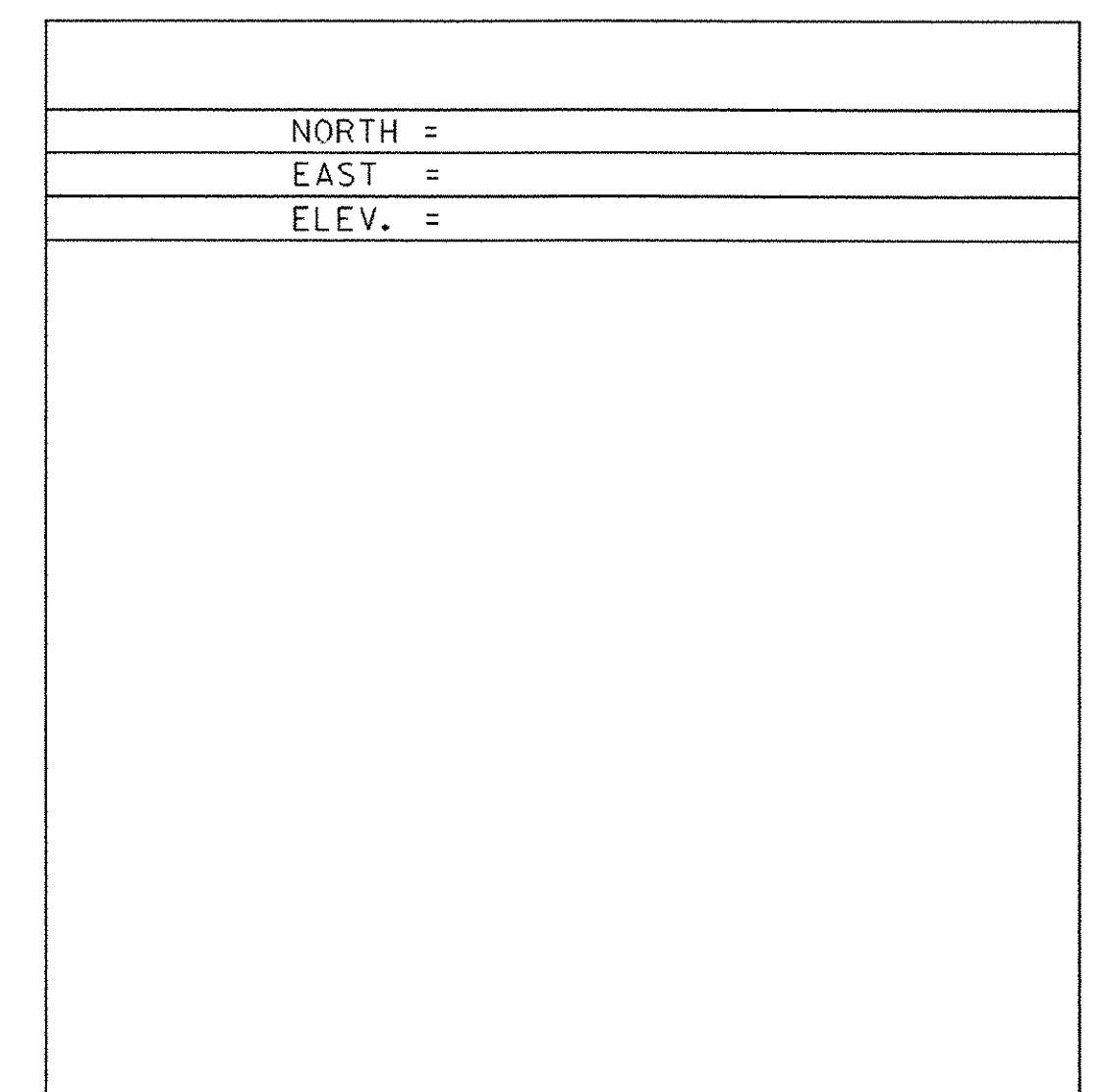
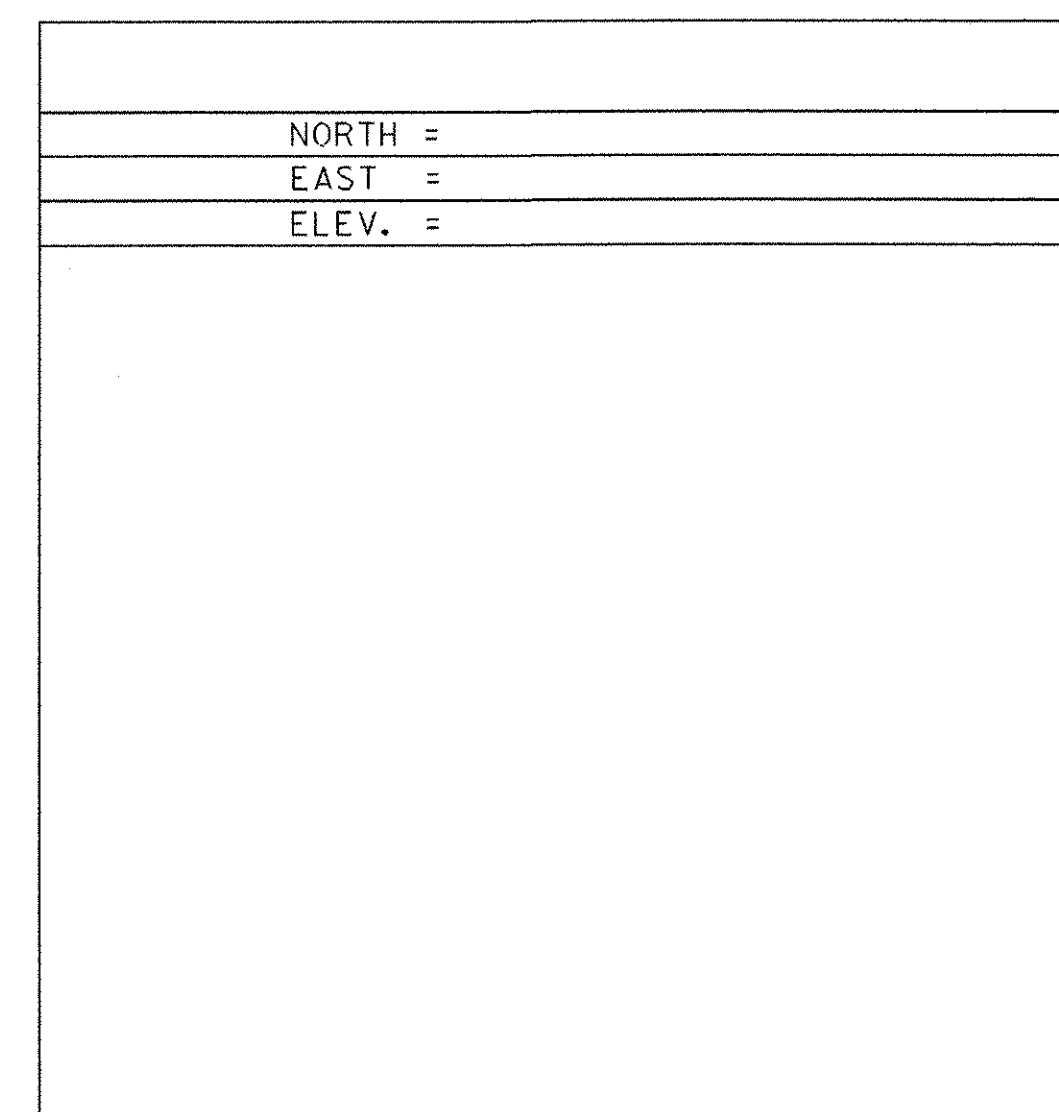
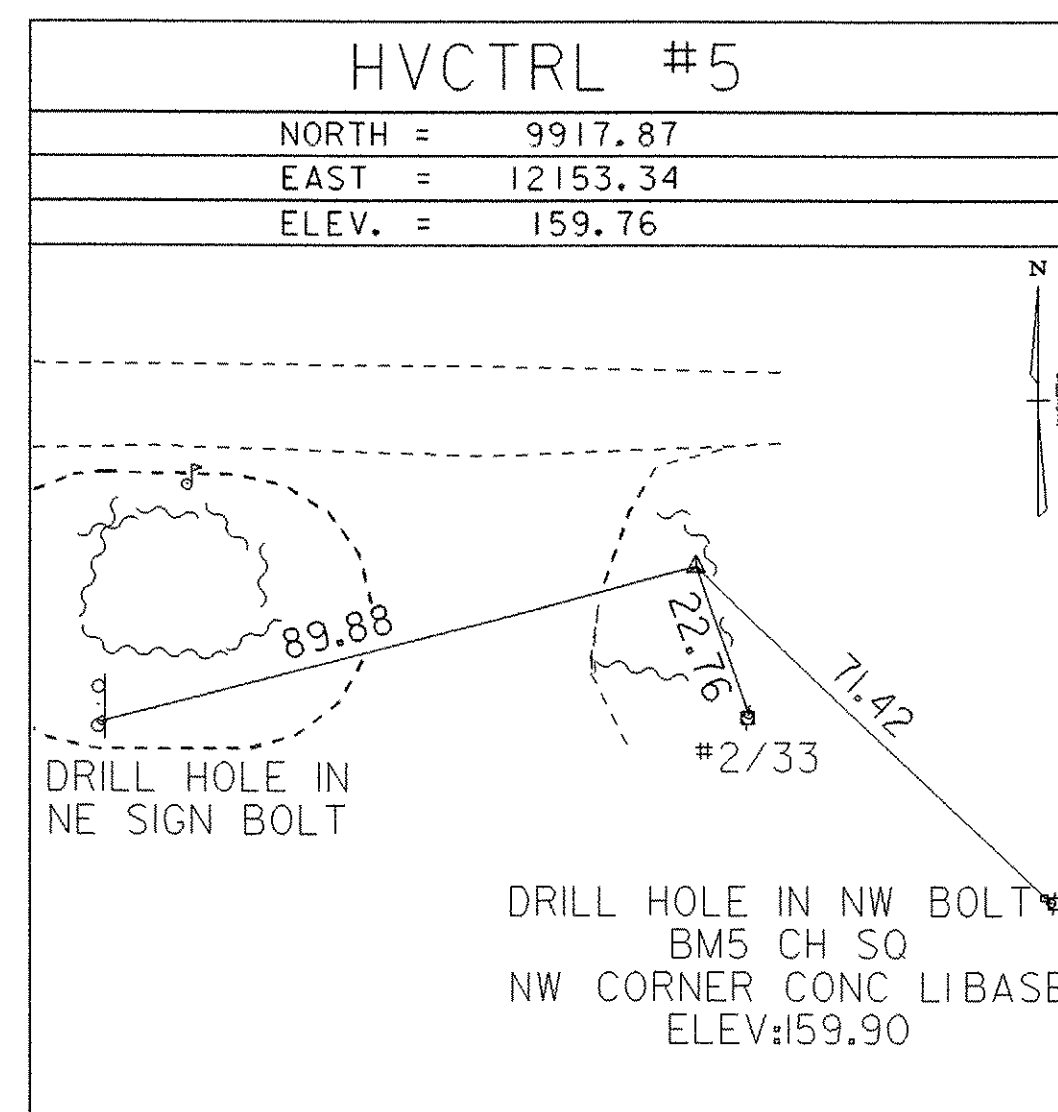
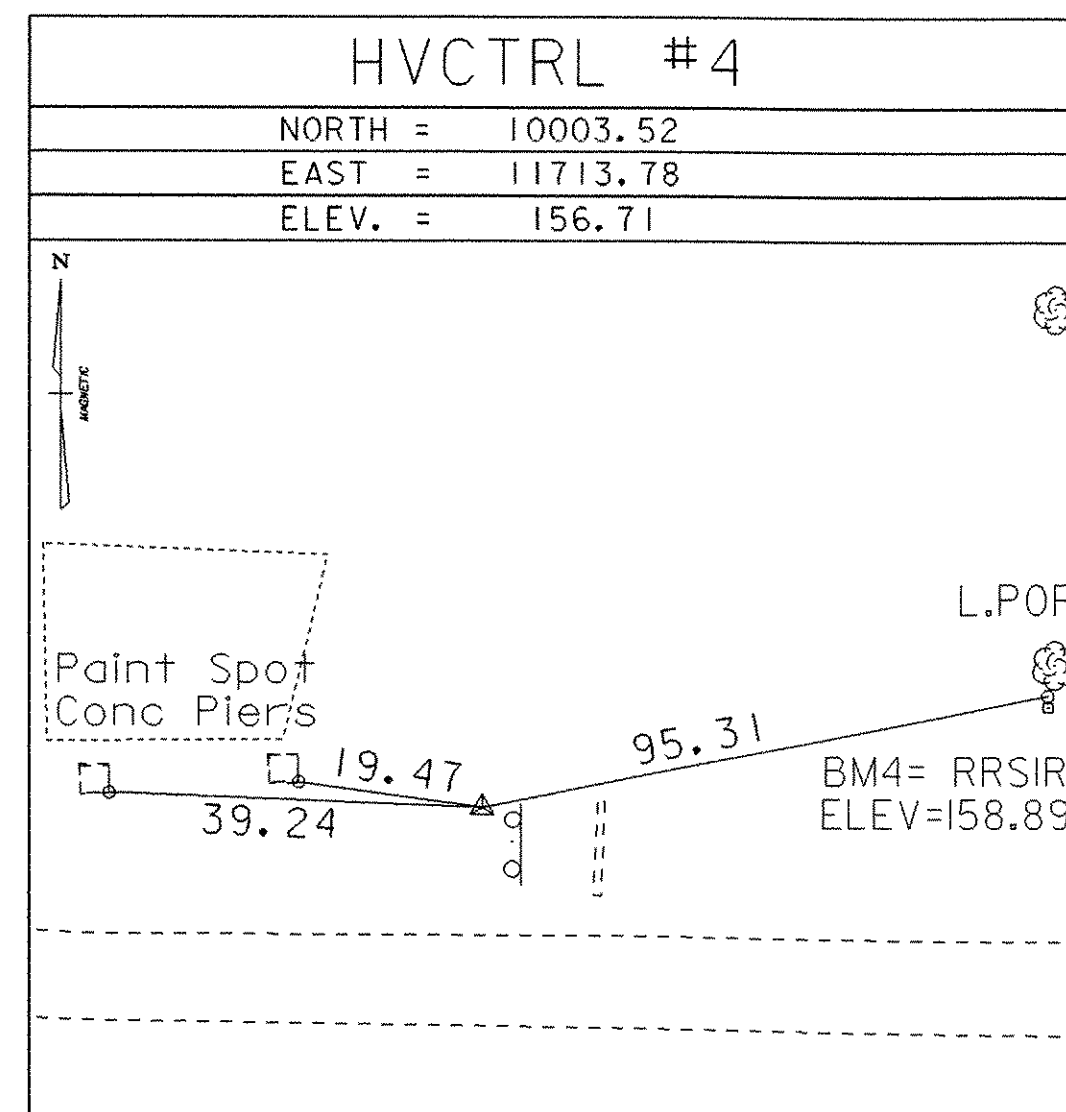
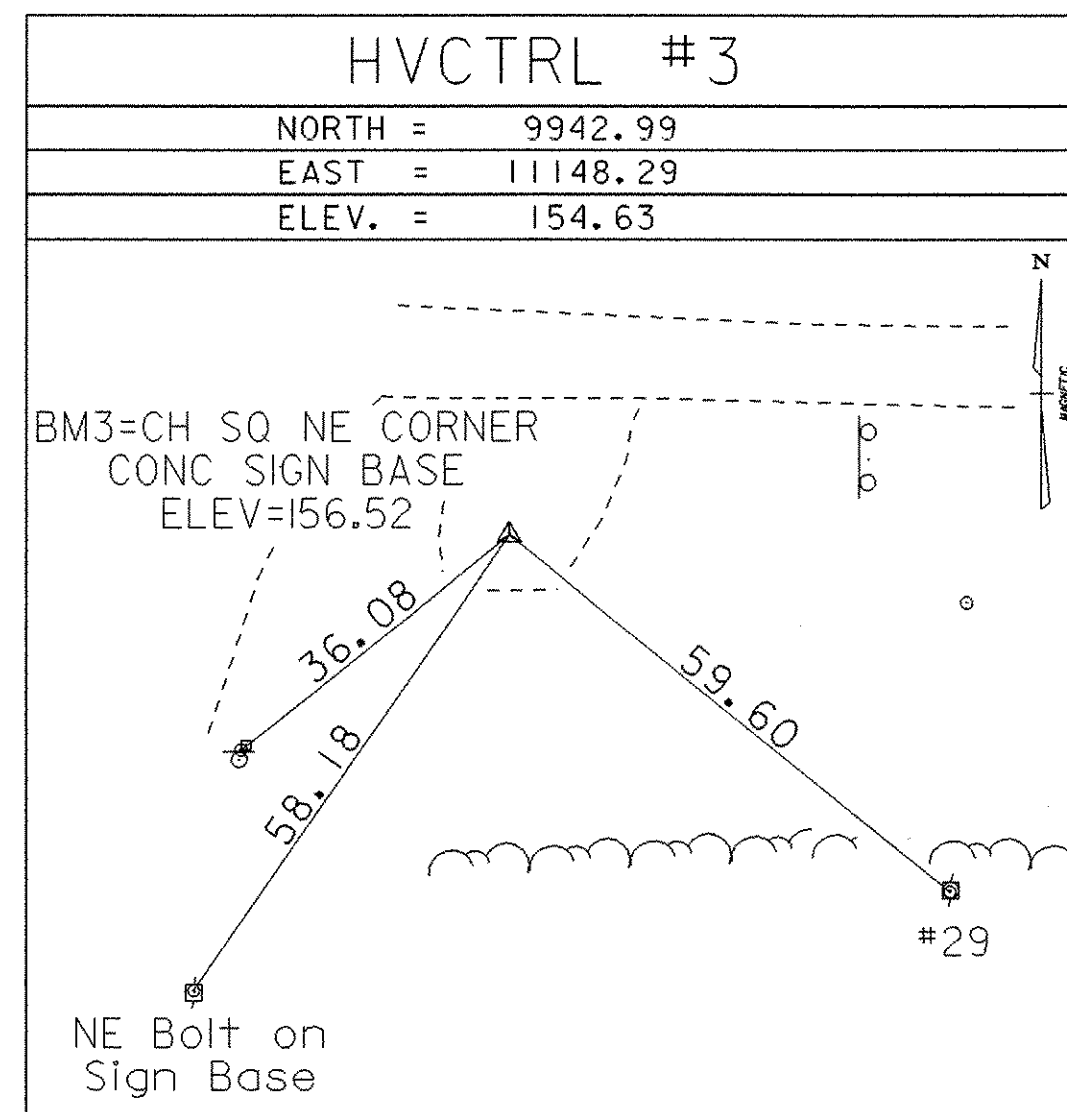
SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
								ROADWAY	EROSION CONTROL	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								325			325		CY	COMMON EXCAVATION	203.15				
								1275			1275		SY	COLD PLANING-BIT.PAVEMENT	210.10				
								700			700		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35				
								25			25		TON	AGGREGATE SHOULDERS	402.12				
								7			7		CWT	EMULSIFIED ASPHALT	404.65				
								1185			1185		TON	BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	406.25				
								20			20		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25				
								5			5		HR	POWER BROOM RENTAL	608.30				
								10			10		HR	TRUCK RENTAL	608.37				
								80			80		HR	UNIFORMED TRAFFIC OFFICERS	630.10				
								80			80		HR	FLAGGERS	630.15				
										1	1		LS	FIELD OFFICE-ENGINEERS	631.10				
										1	1		LS	TESTING EQUIPMENT - BITUMINOUS	631.17				
										1	1		LU	FIELD OFFICE - TELEPHONE (N.A.B.I.)	631.25				
								1			1		LS	MOBILIZATION / DEMOBILIZATION	635.11				
								1			1		LS	TRAFFIC CONTROL	641.10				
								2350			2350		LF	DURABLE 4" WHITE LINE (THERMOPLASTIC)	646.40				
								2500			2500		LF	DURABLE 4" YELLOW LINE (THERMOPLASTIC)	646.41				
								210			210		LF	DURABLE 8" YELLOW LINE (THERMOPLASTIC)	646.43				
								135			135		LF	DURABLE 24" STOP BAR (THERMOPLASTIC)	646.46				
								12			12		EACH	DURABLE LETTER OR SYMBOL (THERMOPLASTIC)	646.50				
								2350			2350		LF	TEMPORARY 4" WHITE LINE (PAINT)	646.60				
								2950			2950		LF	TEMPORARY 4" WHITE LINE (TAPE, TYPE II)	646.60				
								2500			2500		LF	TEMPORARY 4" YELLOW LINE (PAINT)	646.61				
								2900			2900		LF	TEMPORARY 4" YELLOW LINE (TAPE, TYPE II)	646.61				
								135			135		LF	TEMPORARY 24" STOP BAR (PAINT)	646.66				
								12			12		EACH	TEMPORARY LETTERS OR SYMBOLS (PAINT)	646.70				
								570			570		SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85				
								25			25		SY	GEOTEXTILE FOR SILT FENCE	649.51				
								30			30		LB	SEED	651.15				
								120			120		LB	FERTILIZER	651.18				
								1			1		TON	AGRICULTURAL LIMESTONE	651.20				
								1			1		TON	HAYMULCH	651.25				
								10			10		CY	TOPSOIL	651.35				
								1			1		LS	EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.10				
								5			5		HR	MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.20				
								1			1		LU	MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN (N.A.B.I.)	652.30				
								13			13		SF	TRAFFIC SIGNS, TYPE A	675.20				
								18			18		LF	FLANGED CHANNEL SIGN POST	675.301				
								1			1		EACH	REMOVING SIGNS	675.50				

PROJECT NAME: **SWANTON**
 PROJECT NUMBER: **HES 036-1(12)**
 FILE NAME: 04b212con.xls PLOT DATE: 09/18/2006
 PROJECT MANAGER: NYQUIST DRAWN BY: JFG/SHE
 DESIGNED BY: JFG CHECKED BY: traffic
 QUANTITY SHEET #1 SHEET 3 OF 16

GPS CONTROL POINTS

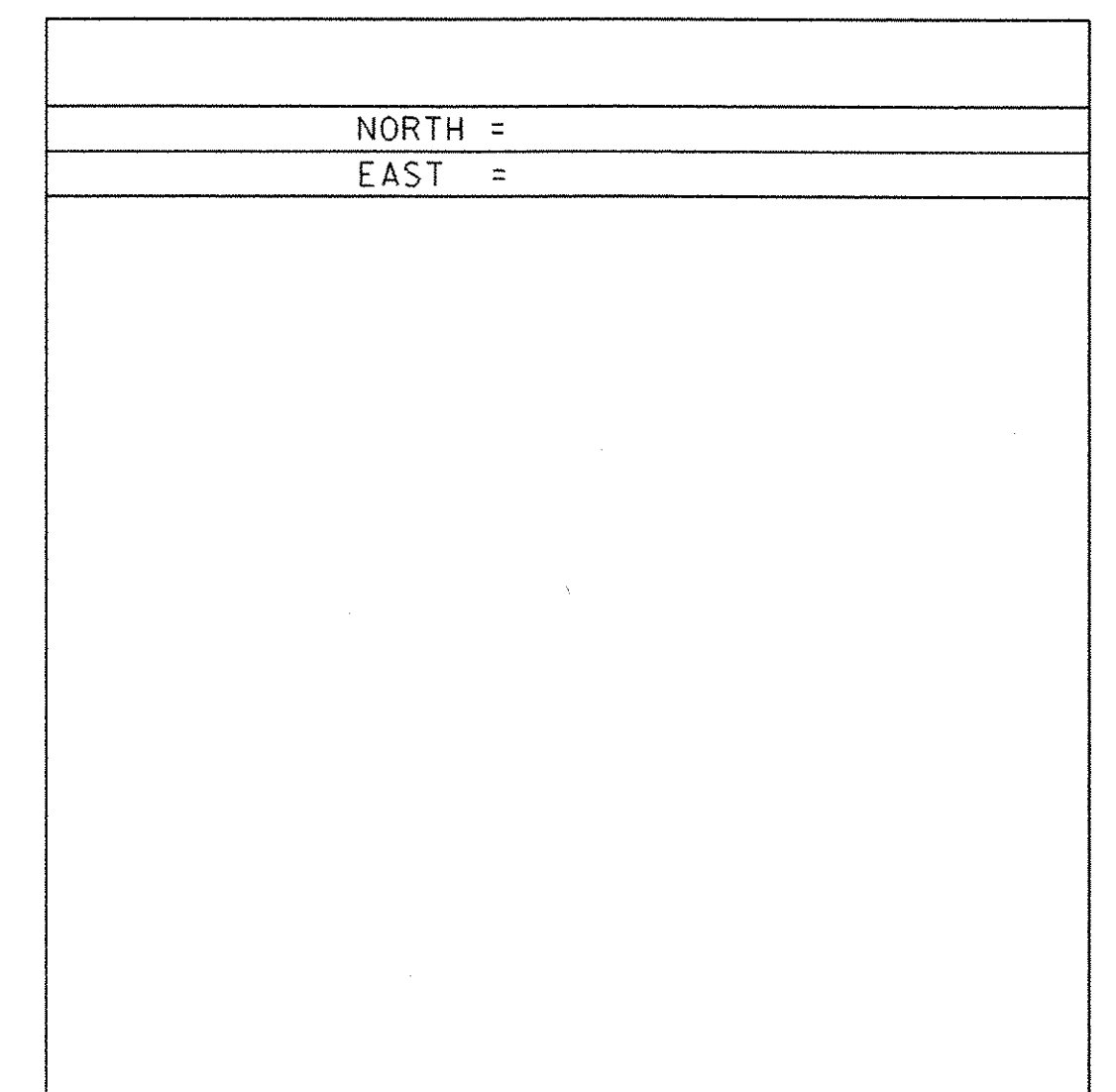
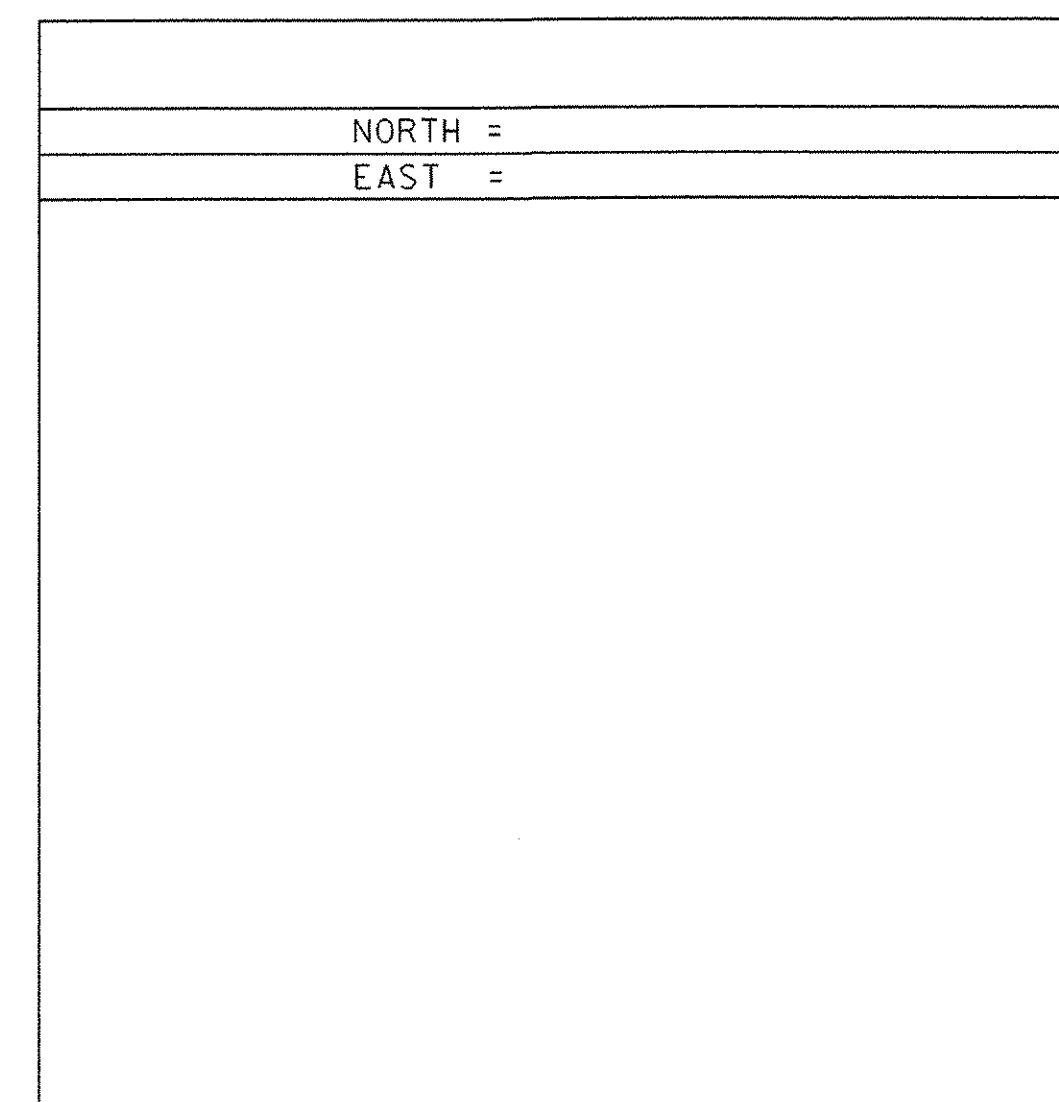
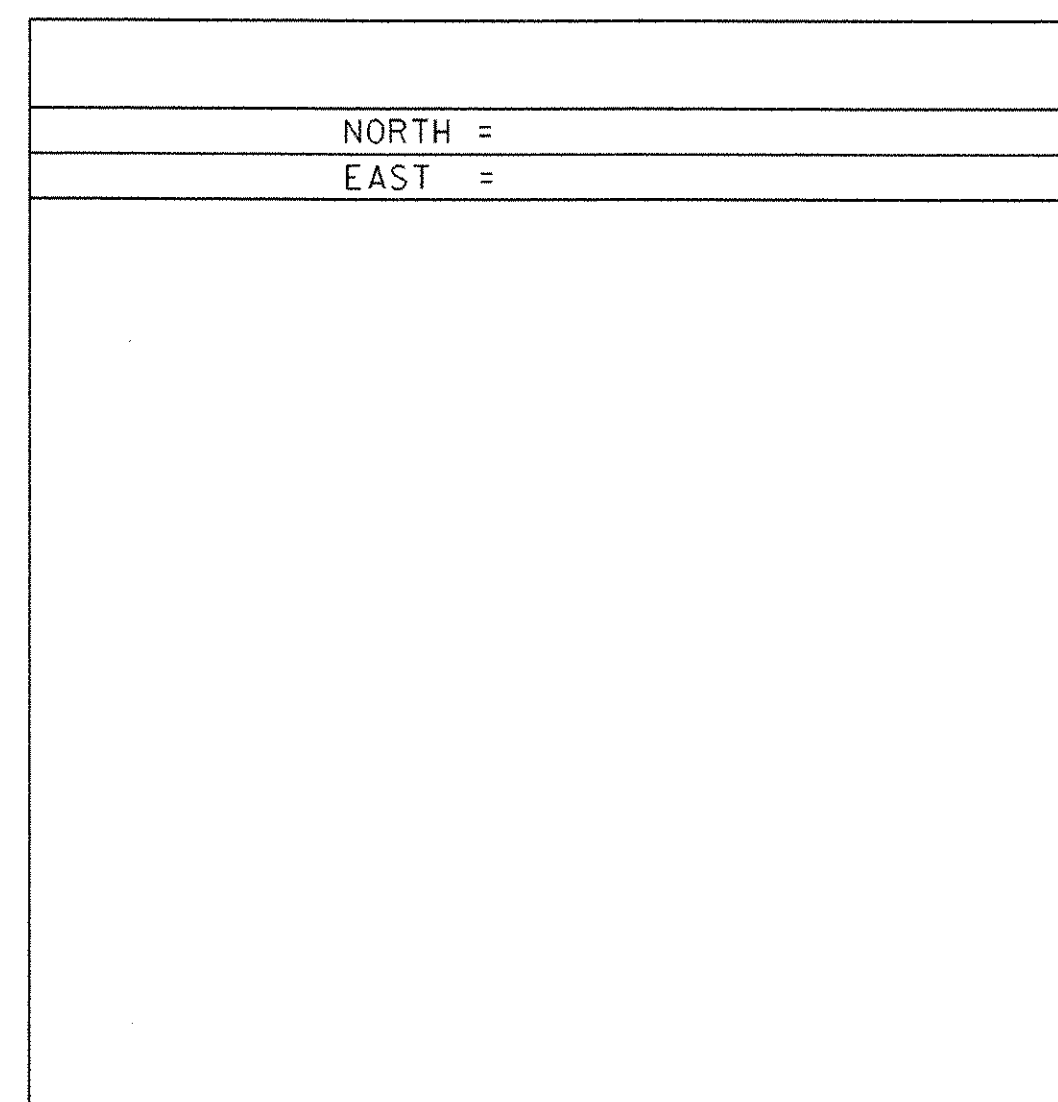
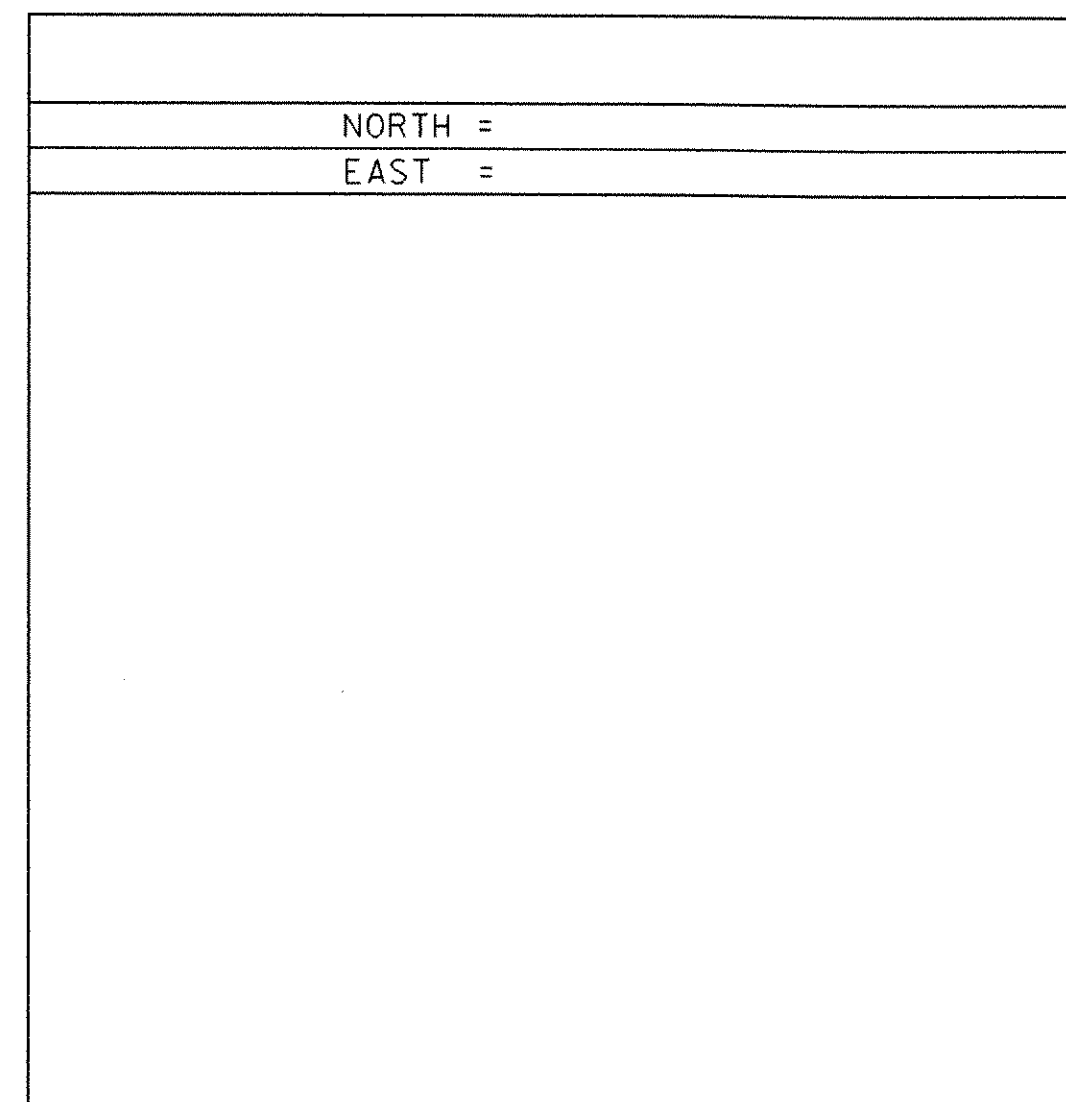
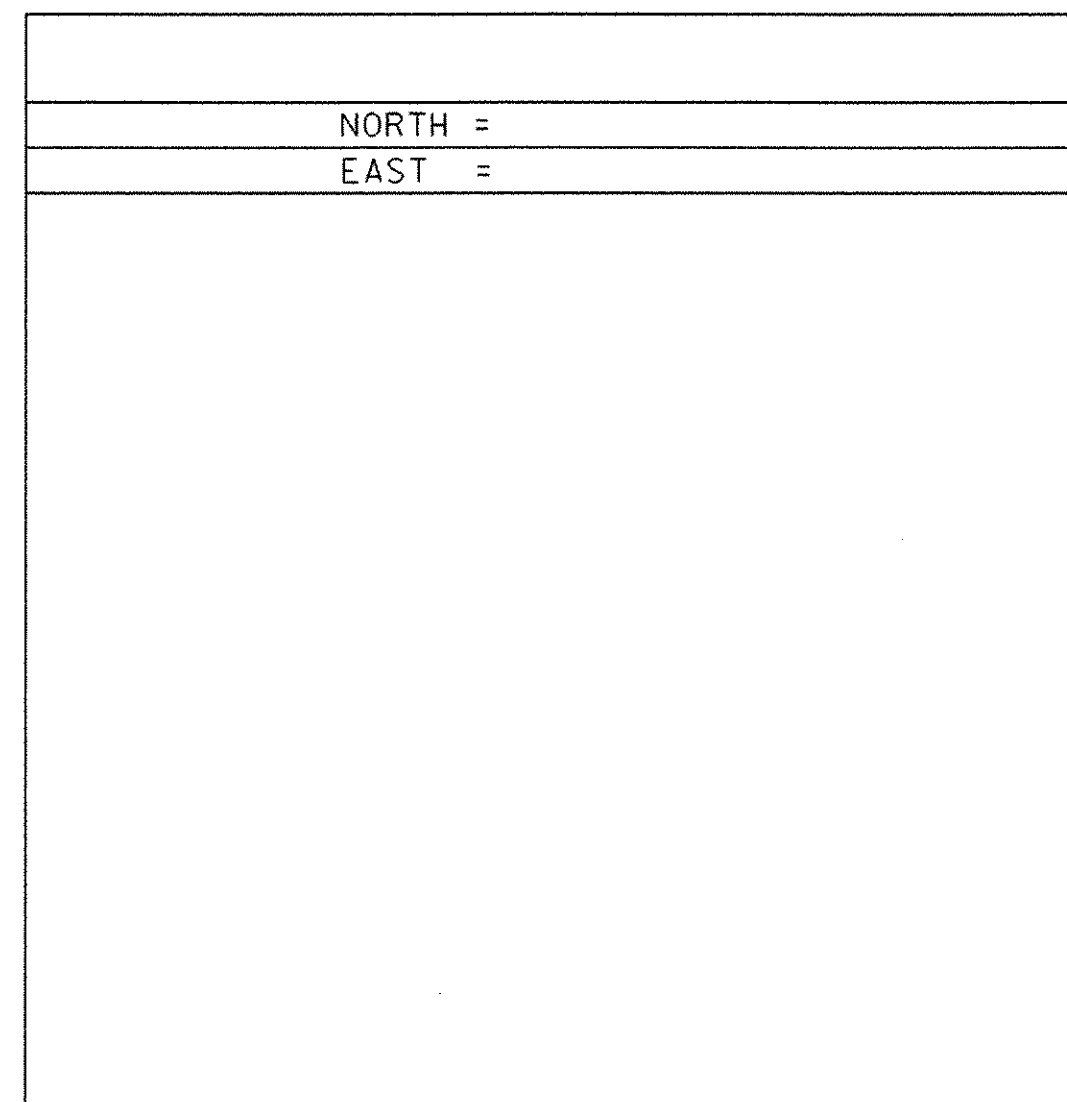
NO GPS Control
Coordinates are Assumed

TRAVERSE TIES



* Main Traverse Completed 09/21/05 by L.Orvis P.C. & R.Bullock & C.Jolly

ALIGNMENT TIES

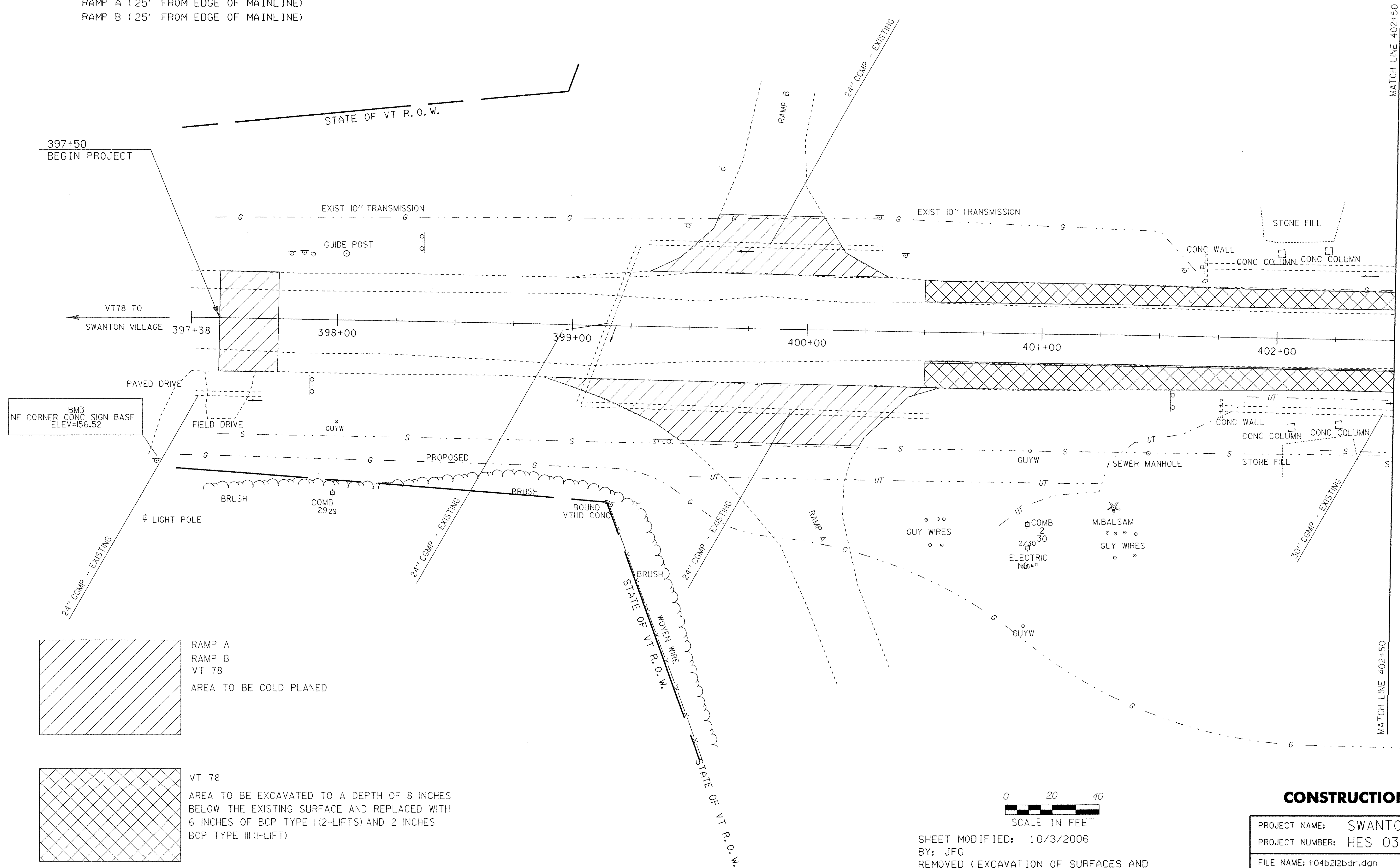


DATUM	
VERTICAL	NAVD 88
HORIZONTAL	ASSUMED
ADJUSTMENT	NONE

PROJECT NAME:	Swanton
PROJECT NUMBER:	HES 036-1(12)
FILE NAME:	04b212\survey\04b212+1.dgn
PROJECT LEADER:	nyquist
DESIGNED BY:	bullock
	tb212+1e.1
PLOT DATE:	14-SEP-2006
DRAWN BY:	R. Bullock
CHECKED BY:	bullock
SHEET	5 OF 16

**COLD PLANING -
BITUMINOUS CONCRETE
PAVEMENT**

397+50 - 400+50
RAMP A (25' FROM EDGE OF MAINLINE)
RAMP B (25' FROM EDGE OF MAINLINE)



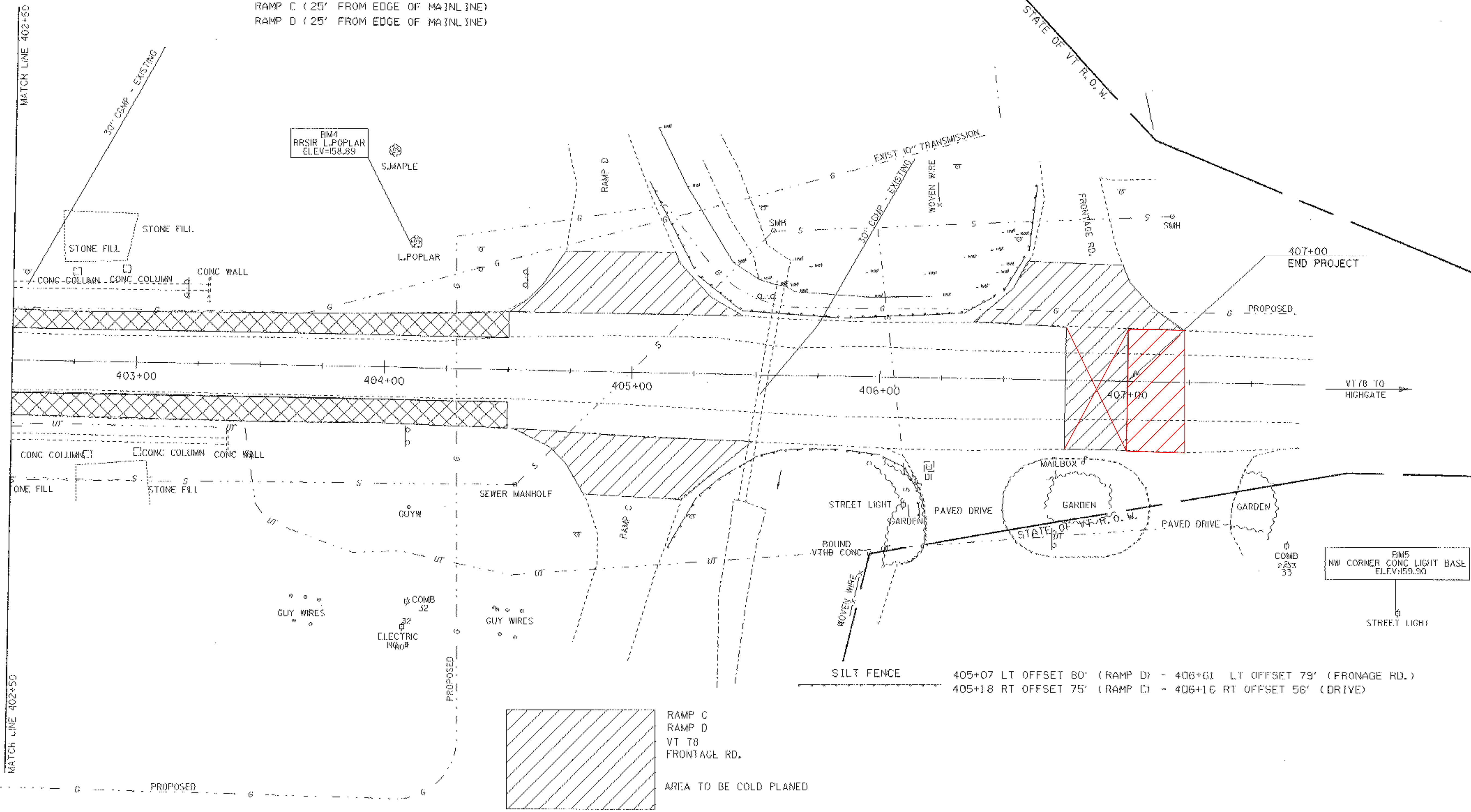
CONSTRUCTION LAYOUT SHEET

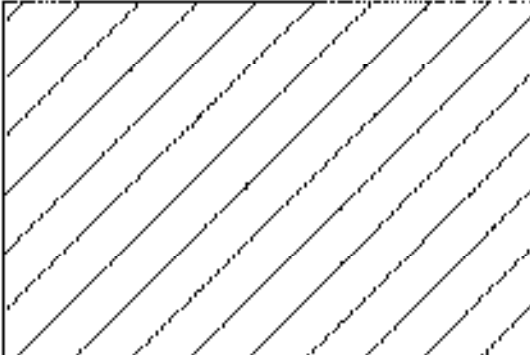
PROJECT NAME:	SWANTON	FILE NAME:	+04b212bdr.dgn	PLOT DATE:	03-OCT-2006
PROJECT NUMBER:	HES 036-1(12)	PROJECT LEADER:	B. NYQUIST	DRAWN BY:	S. HISMAN
		DESIGNED BY:	S. HISMAN	CHECKED BY:	traffic
			+d212101	SHEET	6 OF 16

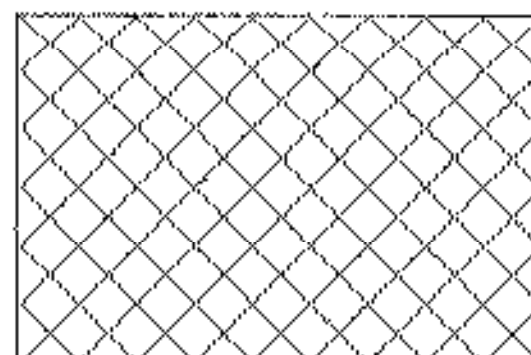
SHEET MODIFIED: 10/3/2006
BY: JFG
REMOVED (EXCAVATION OF SURFACES AND PAVEMENT) NOTE

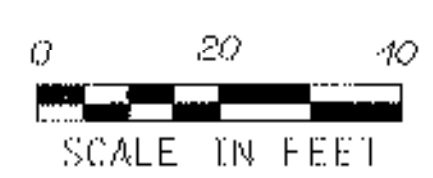
**COLD PLANING -
BITUMINOUS CONCRETE
PAVEMENT**

~~404+50 - 407+00~~ 407+00 - 407+21
RAMP C (25' FROM EDGE OF MAINLINE)
RAMP D (25' FROM EDGE OF MAINLINE)



 RAMP C
RAMP D
VT 78
FRONTAGE RD.
AREA TO BE COLD PLANED

 VT 78
AREA TO BE EXCAVATED TO A DEPTH OF 8 INCHES
BELOW THE EXISTING SURFACE AND REPLACED WITH
6 INCHES OF BCP TYPE (12-LIFT) AND 2 INCHES
BCP TYPE (11-LIFT)



CONSTRUCTION LAYOUT SHEET

SHEET MODIFIED: 10/3/2006
BY: JFG
REMOVED (EXCAVATION OF SURFACES AND
PAVEMENT) NOTE

PROJECT NAME: SWANTON	PLOT DATE: 03-OCT-2006
PROJECT NUMBER: HES 036-1(12)	DRAWN BY: S. HISMAN
FILE NAME: +04b212bdr.dgn	CHECKED BY: traffic
PROJECT LEADER: B. NYQUIST	SHEET 7 OF 16
DESIGNED BY: S. HISMAN	
+d212102	

DURABLE 4" WHITE LINE - (THERMOPLASTIC)

397+50 LT (12.0) - 398+00 LT (12.0)	397+50 RT (12.0) - 397+75 RT (12.0)
398+00 LT (12.0) - 399+27 LT (16.2)	397+75 RT (12.0) - 398+84 RT (15.0)
399+27 LT (16.2) - 399+69 LT (RAMP B) R=45'	398+84 RT (15.0) - 399+65 RT (RAMP A) R=125'
399+93 LT (RAMP B) R=45' - 400+36 (17.5) LT	400+08 RT (RAMP A) - 400+51 RT (17.5)
400+36 LT (17.5) - 404+33 LT (17.5)	400+51 RT (17.5) - 404+42 RT (17.5)
401+38 LT (5.5) - 401+48 LT (5.5)	401+48 RT (5.5) - 403+28 RT (5.5)
401+48 LT (5.5) - 403+28 LT (4.8) (DOTTED)	403+28 RT (5.5) - 404+38 RT (5.5) (DOTTED)
404+33 (17.5) LT - 404+79 LT (RAMP D) R=50'	404+42 RT (17.5) - 404+89 RT (RAMP C) R=50'
405+15 LT (RAMP D) R=35' - 405+49 (16.5) LT	405+13 RT (RAMP C) R=50' - 405+60 RT (16.0)
405+49 (16.5) LT - 407+00 (12.0) LT	405+60 RT (16.0) - 407+00 RT (12.0)

TEMPORARY 4" WHITE LINE - (PAINT)

397+50 LT (12.0) - 398+00 LT (12.0)	397+50 RT (12.0) - 397+75 RT (12.0)
398+00 LT (12.0) - 399+27 LT (16.2)	397+75 RT (12.0) - 398+84 RT (15.0)
399+27 LT (16.2) - 399+69 LT (RAMP B) R=45'	398+84 RT (15.0) - 399+65 RT (RAMP A) R=125'
399+93 LT (RAMP B) R=45' - 400+36 (17.5) LT	400+08 RT (RAMP A) - 400+51 RT (17.5)
400+36 LT (17.5) - 404+33 LT (17.5)	400+51 RT (17.5) - 404+42 RT (17.5)
401+38 LT (5.5) - 401+48 LT (5.5)	401+48 RT (5.5) - 403+28 RT (5.5)
401+48 LT (5.5) - 403+28 LT (4.8) (DOTTED)	403+28 RT (5.5) - 404+38 RT (5.5) (DOTTED)
404+33 (17.5) LT - 404+79 LT (RAMP D) R=50'	404+42 RT (17.5) - 404+89 RT (RAMP C) R=50'
405+15 LT (RAMP D) R=35' - 405+49 (16.5) LT	405+13 RT (RAMP C) R=50' - 405+60 RT (16.0)
405+49 (16.5) LT - 407+00 (12.0) LT	405+60 RT (16.0) - 407+00 RT (12.0)

DURABLE 4" YELLOW LINE - (THERMOPLASTIC)

397+50 CL - 398+10 CL (DBL)
398+10 CL - 399+73 CL (DBL) (ISLAND)
400+39 CL - 404+37 CL (DBL)
405+17 CL - 406+72 CL (DBL) (ISLAND)
406+72 CL - 407+00 CL

TEMPORARY 4" YELLOW LINE - (PAINT)

397+50 CL - 398+10 CL (DBL)
398+10 CL - 399+73 CL (DBL) (ISLAND)
400+39 CL - 404+37 CL (DBL)
405+17 CL - 406+72 CL (DBL) (ISLAND)
406+72 CL - 407+00 CL

DURABLE 8" YELLOW LINE (DIAGONAL) (THERMOPLASTIC)

398+10 CL - 399+73 CL (ISLAND)
405+17 CL - 406+72 CL (ISLAND)

DURABLE LETTER OR SYMBOL - (THERMOPLASTIC)

399+80 LT (RAMP B)	STOP
400+50 CL	↩
401+25 CL	↩
403+50 CL	↩
404+12 CL	↩
405+00 RT (RAMP C)	STOP

TEMPORARY LETTER OR SYMBOL - (PAINT)

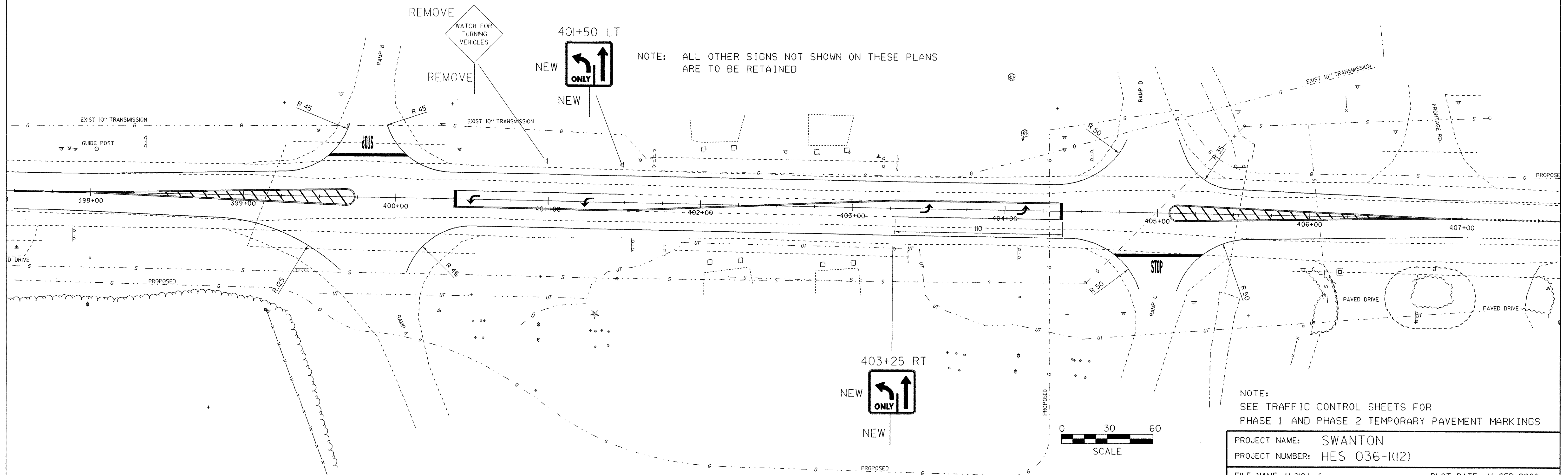
399+80 LT (RAMP B)	STOP
400+50 CL	↩
401+25 CL	↩
403+50 CL	↩
404+12 CL	↩
405+00 RT (RAMP C)	STOP

DURABLE 24" STOP BAR - (THERMOPLASTIC)

399+54 LT - 400+07 LT (RAMP B)
400+39 RT - LT (LEFT TURN LANE)
404+37 RT - LT (LEFT TURN LANE)
404+72 RT - 405+30 RT (RAMP C)

TEMPORARY 24" STOP BAR - (PAINT)

399+54 LT - 400+07 LT (RAMP B)
400+39 RT - LT (LEFT TURN LANE)
404+37 RT - LT (LEFT TURN LANE)
404+72 RT - 405+30 RT (RAMP C)

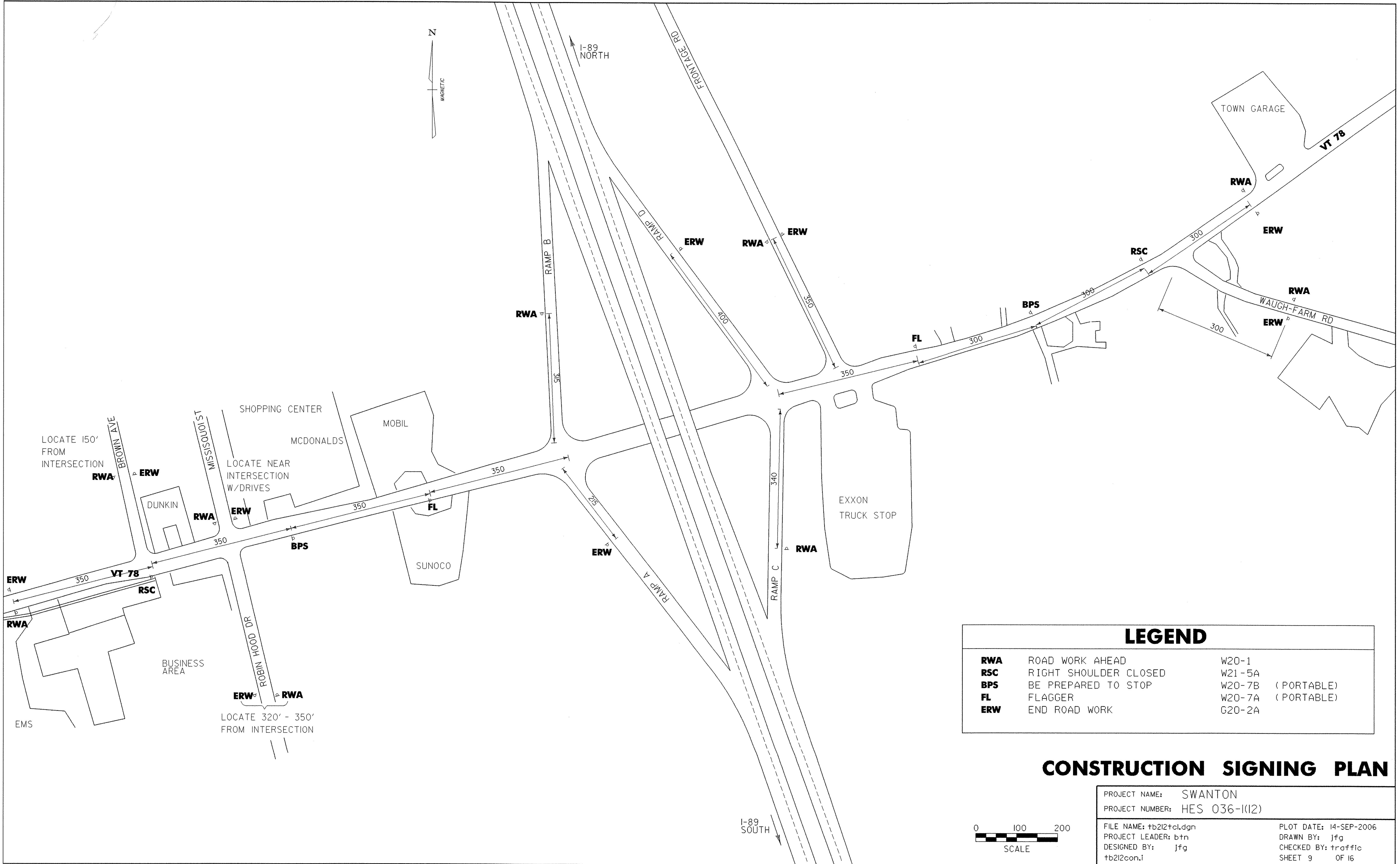


NOTE: ALL OTHER SIGNS NOT SHOWN ON THESE PLANS ARE TO BE RETAINED

NOTE:
SEE TRAFFIC CONTROL SHEETS FOR
PHASE 1 AND PHASE 2 TEMPORARY PAVEMENT MARKINGS

PROJECT NAME: SWANTON	PLOT DATE: 14-SEP-2006
PROJECT NUMBER: HES 036-1(12)	DRAWN BY: jfg
FILE NAME: tb212trf.dgn	CHECKED BY: traffic
PROJECT LEADER: nyquist	SHEET 8 OF 16
DESIGNED BY: traffic	
td212pm.1	

PAVEMENT MARKING AND SIGN SHEET

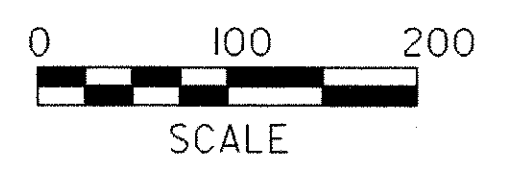


LEGEND

RWA	ROAD WORK AHEAD	W20-1
RSC	RIGHT SHOULDER CLOSED	W21-5A
BPS	BE PREPARED TO STOP	W20-7B (PORTABLE)
FL	FLAGGER	W20-7A (PORTABLE)
ERW	END ROAD WORK	G20-2A

CONSTRUCTION SIGNING PLAN

PROJECT NAME:	SWANTON	PLOT DATE:	14-SEP-2006
PROJECT NUMBER:	HES 036-1(12)	DRAWN BY:	jfg
FILE NAME:	tb212tcl.dgn	CHECKED BY:	traffic
PROJECT LEADER:	btn	SHEET	9 OF 16
DESIGNED BY:	jfg		
	tb212con.1		



DESCRIPTION OF PROJECT

THIS PROJECT INVOLVES THE CONSTRUCTION OF A CENTER LEFT TURN LANE ALONG VT 78 THAT IS LOCATED AT THE INTERSECTIONS OF I-89 (EXIT-21) AND VT 78 IN THE TOWN OF SWANTON.

IT IS ANTICIPATED THIS PROJECT WILL LAST ONE SEASON.

TOTAL DISTURBED AREA IS 1.05 ACRES.

SITE INVENTORY & ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS:

INSIDE OF THE STATE RIGHT-OF-WAY AND THE PROPERTIES SURROUNDING THE PROJECT CONSIST OF ESTABLISHED VEGETATION OF GRASSES AND WOODED AREAS.

DRAINAGE, WATERWAYS, BODIES OF WATER:

AREA DRAINAGE IS CONVEYED VIA GRASS SURFACE AND CULVERTS TO THE WESTERN AND TO THE EASTERN ENDS OF THE PROJECT AREA. ON THE EASTERN SIDE A CULVERT CROSSES VT 78. THIS DRAINAGE FOLLOWS A WATER COURSE OUTSIDE OF THE STATE RIGHT-OF-WAY AND THROUGH GRASS AND WOODED AREAS FOR 2850 FEET EMPTYING INTO THE MISSISSOUI RIVER. ON THE WEST SIDE THE DRAINAGE IS TRANSFERRED VIA SWALES FOR 700 FEET TO ANOTHER DRAINAGE SWALE. THIS EVENTUALLY EMPTIES INTO THE MISSISSOUI ALSO, BUT WHERE HAS NOT BEEN DETERMINED. ONSITE, NO WETLANDS ARE IDENTIFIED OR IMPACTED.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

THE GENERAL TOPOGRAPHY IN THE AREA OF THE SITE IS FLAT. THERE ARE NO DEFINED STREAMS OR WATERWAYS. THE ONLY BUILDING IN THE AREA, OUTSIDE OF R.O.W AND PROJECT LIMITS, HOUSES A TRUCK STOP AND GAS STATION.

EXISTING ROADS: I-89, VT 78, RAMPS A,B,C, AND D, AND FRONTAGE ROAD ARE BITUMINOUS SURFACED.

VEGETATION:

VEGETATION ALONG ALL OF THE ROADWAYS CONSISTS OF A VARIETY OF CREEPING RED FESCUE, TALL FESCUE, RED TOP, BIRDSFOOT TREEFOIL AND ANNUAL RYEGRASS.

SOILS:

NO DESCRIPTION OF THE SOIL TYPES EXPECTED TO BE ENCOUNTERED IN THE PROJECT AREA IS INCLUDED IN THE PROJECT PLAN.

THE MAJORITY OF THIS PROJECT IS WITHIN THE ROAD TYPICAL, MINIMAL SHOULDER DISTURBANCE IS ANTICIPATED.

SENSITIVE RESOURCE AREAS:

NO 'THREATENED & ENDANGERED SPECIES' HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS AND THERE WILL BE NO ADVERSE EFFECT TO HISTORIC OR ARCHAEOLOGICAL FEATURES. THERE ARE NO IDENTIFIED WETLANDS ADJOINING THE PROJECT.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:

SOME EXCAVATION WILL OCCUR IN THE PROXIMITY OF SWALE UNDER VT 78.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

GENERAL EROSION CONTROL PLANS ARE INTENDED AS A GUIDE FOR PREVENTING SOIL EROSION AND CONTROLLING SEDIMENT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE DURATION OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF THE RECEIVING WATERS.

AN ALTERNATE TEMPORARY EROSION CONTROL PLAN WILL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE AGENCY OF TRANSPORTATION.

THE CONTRACTOR WILL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL DEVICES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105.23 OF THE 2001 VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ASSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS EROSION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION ACTIVITIES PROCEED.

THE RESIDENT ENGINEER MAY DIRECT THE INSTALLATION OF CERTAIN EROSION CONTROL MEASURES IN ORDER TO AVOID POTENTIAL EROSION PROBLEMS, OR TO RESPOND TO STORM EVENTS OR DAMAGE BY CONSTRUCTION OPERATIONS.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES (CONTINUED)

THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SEQUENCED ON THE EROSION CONTROL SHEET, OR AS DIRECTED BY THE RESIDENT ENGINEER. THE TYPE, SIZE, AND LOCATION OF ANY EROSION CONTROL DEVICES SHALL NOT BE CHANGED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE RESIDENT ENGINEER. ANY APPROVED CHANGES SHALL BE NOTED ON THE EROSION CONTROL PLANS AND DISCUSSED IN THE WEEKLY REPORT. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RAINFALL EVENT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED EROSION CONTROL MEASURES IMMEDIATELY. ALL EROSION CONTROL MEASURES THAT TRAP SEDIMENT, SUCH AS SEDIMENT BASINS, SHALL BE CLEANED OUT WHEN THEIR CAPACITY REACHES 50%.

THE RESIDENT ENGINEER'S APPROVAL SHALL BE OBTAINED PRIOR TO INSTALLING ANY EROSION CONTROL NOT SPECIFIED IN THE EROSION CONTROL PLANS. HOWEVER, IN EMERGENCY SITUATIONS WHERE THE RESIDENT ENGINEER IS NOT IMMEDIATELY AVAILABLE, THE CONTRACTOR SHOULD REPAIR OR INSTALL THE EROSION CONTROLS AS HE/SHE DEEMS NECESSARY AND REPORT THE INCIDENT TO THE RESIDENT ENGINEER AS SOON AS PRACTICAL.

THE CONTRACTOR SHALL CONTROL ALL SEDIMENT-LADEN RUNOFF GENERATED WITHIN THE PROJECT SITE.

IN GENERAL, PRESERVE EXISTING VEGETATION, SHRUBS, AND TREES WHENEVER POSSIBLE.

IF USED, SILT FENCE SHALL BE PLACED AT THE TOES OF ALL FILL SLOPES AND SHALL BE CONSTRUCTED SO THAT FLOWS CANNOT BYPASS THE ENDS. AREAS DIRECTLY BELOW (DOWNHILL) OF THE SILT FENCES MUST BE UNDISTURBED AND VEGETATED.

AS CONSTRUCTION PROGRESSES, IMPLEMENTATION OF ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE ON-SITE COORDINATOR AND AS APPROVED BY THE RESIDENT ENGINEER.

THE PROJECT COMPLETION DATE HAS BEEN SET FOR JUNE 2007. IF THIS PROJECT STARTS IN THE AUTUMN OF 2006, ALL EROSION CONTROL METHODS WILL BE MAINTAINED THROUGH THE WINTER PERIOD OF 2006/2007.

INFORMATION REQUIRED BY THE CONTRACTOR PRIOR TO CONSTRUCTION

MUCH OF THE INFORMATION SHOWN ON THE EROSION CONTROL PLANS AND DESCRIBED IN THIS NARRATIVE IS GENERAL IN NATURE. MORE SITE SPECIFIC INFORMATION IS NOT YET AVAILABLE AS A CONTRACTOR HAS NOT YET BEEN SELECTED. THE FOLLOWING LIST OUTLINES SOME OF THE SPECIFIC INFORMATION THAT IS NOT INCLUDED IN THE EROSION CONTROL PLANS AND DESCRIBED IN THIS NARRATIVE:

LOCATION OF WASTE, BORROW AND STAGING AREAS, MATERIAL STOCKPILES, REFUELING AND MAINTENANCE AREAS (ATTACH MAP IF NECESSARY)

DISCUSSION AND ADDITIONAL DETAILS NEEDED FOR PROTECTION AND STABILIZATION OF ABOVE

PROPOSED MODIFICATIONS AS/ IF REQUIRED TO THESE EROSION AND SEDIMENT CONTROL PLANS

PROPOSED DATES ASSOCIATED WITH JOB MILESTONES AS INDICATED ON THE SEQUENCE CONSISTENT WITH PROJECT CPM SCHEDULE

NARRATIVE (RE: TEMPORARY SEEDING AND MULCHING / STABILIZATION)

NAME, ADDRESS, PHONE NUMBER AND BASIC QUALIFICATIONS OF "ON-SITE COORDINATOR"

GUIDELINES

PERIMETER EROSION CONTROLS

ALL CONSTRUCTION IS WITHIN THE STATE RIGHT-OF-WAY AND NO DEMARCATION FENCING WILL BE USED.

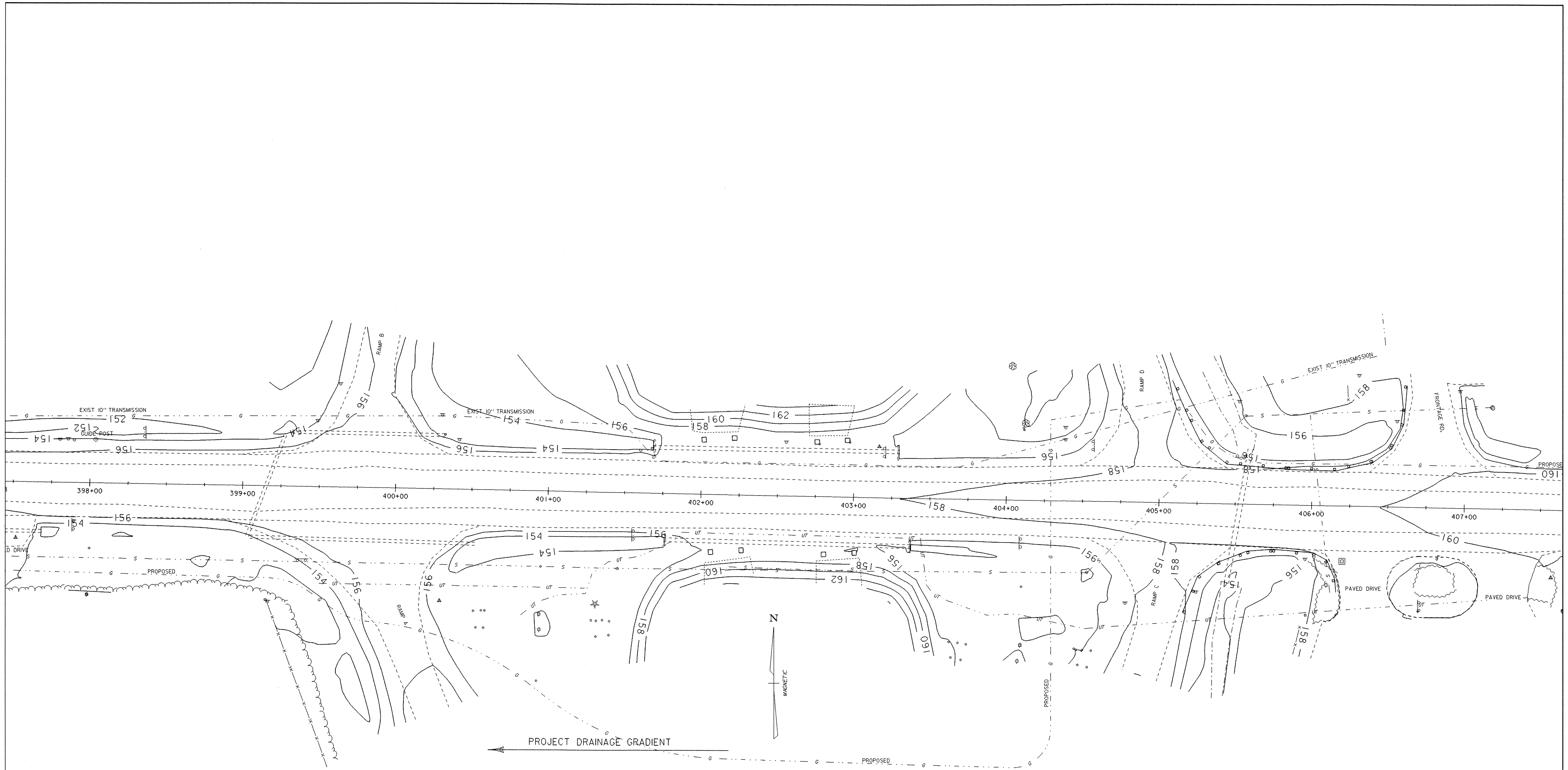
ROADWAY EROSION CONTROLS

ALL EXPOSED SOILS WILL BE STABILIZED WITH STRAW MATTING OR SEEDED AND MULCHED.

EROSION CONTROL NARRATIVE

PROJECT NAME: SWANTON
PROJECT NUMBER: HES 036-1(12)

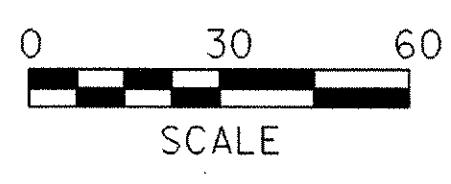
FILE NAME: 04b212/tb212ero.dgn	PLOT DATE: 14-SEP-2006
PROJECT LEADER: b.nyquist	DRAWN BY: j.gruchacz
DESIGNED BY: j.gruchacz	CHECKED BY: traffic
tb240ecn.i	SHEET 12 OF 16



SILT FENCE 

405+18 RT OFFSET 75' (RAMP C) - 406+16 RT OFFSET 56' (DRIVE)
 405+07 LT OFFSET 80' (RAMP D) - 406+61 LT OFFSET 79' (FRONTAGE RD.)

EROSION CONTROL SHEET



PROJECT NAME: SWANTON	PLOT DATE: 14-SEP-2006
PROJECT NUMBER: HES 036-1(12)	DRAWN BY: jfg
FILE NAME: tb212ero.dgn	CHECKED BY: traffic
PROJECT LEADER: nyquist	SHEET 13 OF 16
DESIGNED BY: traffic	
td212ecl.i	

SILT FENCE

APPLICATION NOTES:

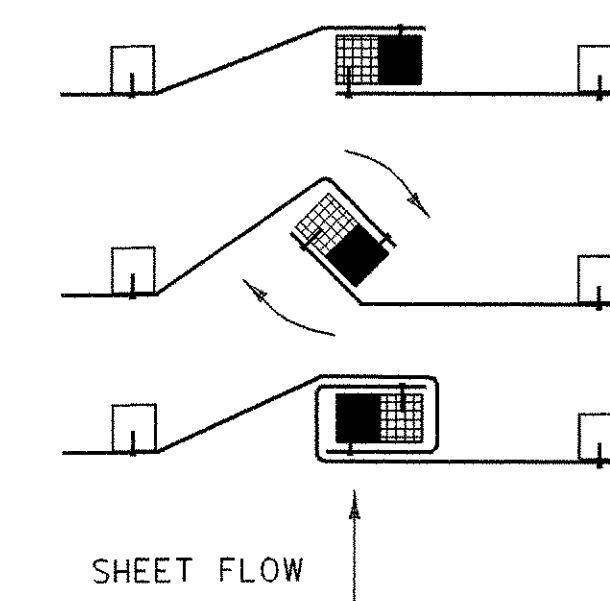
- A. THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.
- B. SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.
- C. SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

GENERAL NOTES:

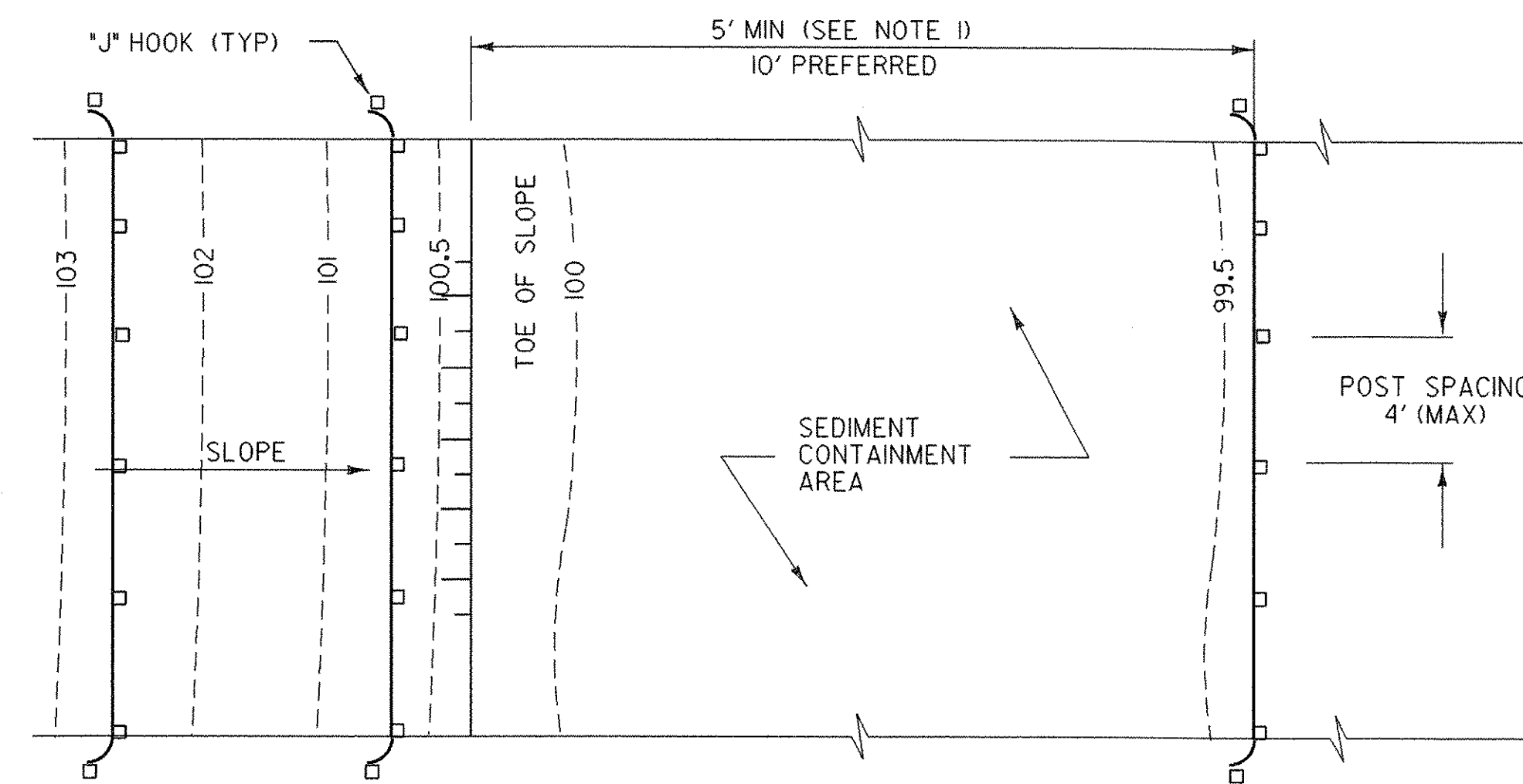
- 1. SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 5 FEET BEYOND TOE OF SLOPE, 10 FEET PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
- 2. ALL ENDS SHALL BE "J" HOOKED TO TRAP SEDIMENT.
- 3. IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
- 4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6 INCHES BELOW GROUND, AND KEYED IN 4 INCHES. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
- 5. MAXIMUM DRAINAGE AREA TRIBUTARY TO 100 FEET OF SILT FENCE SHALL BE 0.25 ACRES.
- 6. THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS FOR THESE MEASURES:

CONSTRUCTED SLOPE	SLOPE LENGTH (LS) FT	HORIZONTAL LENGTH (LH) FT
3 : 1	80	75
4 : 1	130	125
5 : 1	200	200
> 5 : 1	250	250

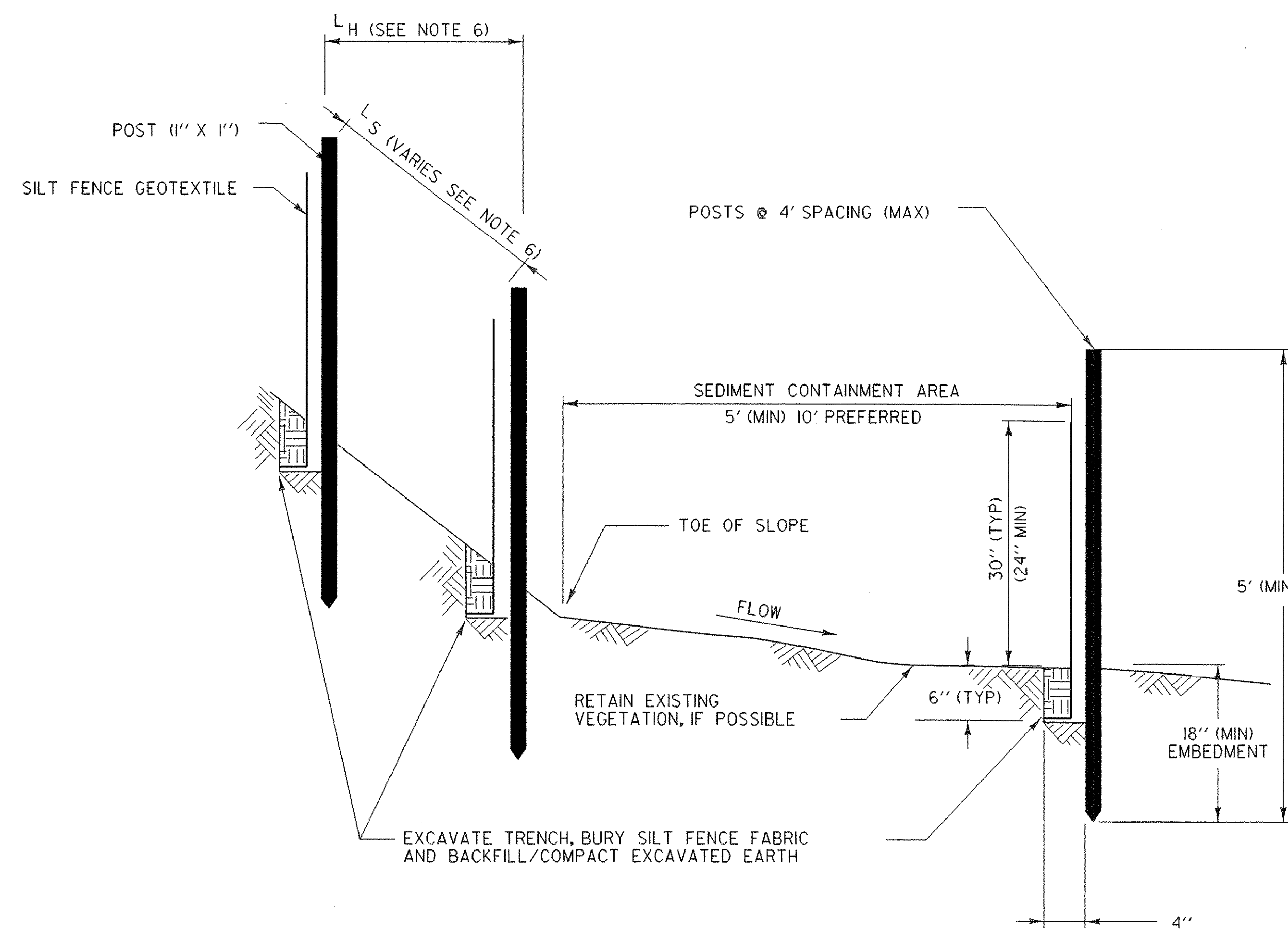
- 7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- 8. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- 9. SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
- 10. PAYMENT FOR INSTALLATION AND REMOVAL OF SILT FENCE SHALL BE MADE UNDER THE GEOTEXTILE FOR SILT FENCE ITEM.
- 11. PAYMENT FOR MONITORING SILT FENCE SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- 12. PAYMENT FOR MAINTAINING SILT FENCE SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



SPLICING DETAIL



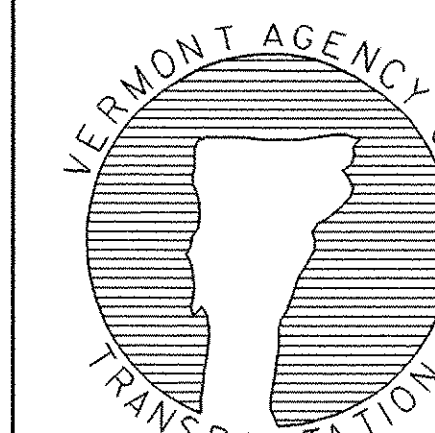
PLAN



SECTION
SILT FENCE - TEMPORARY

REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBICK

EROSION PREVENTION & SEDIMENT CONTROL DETAILS SILT FENCE



DETAIL EPSC-1

tb212ep1.1

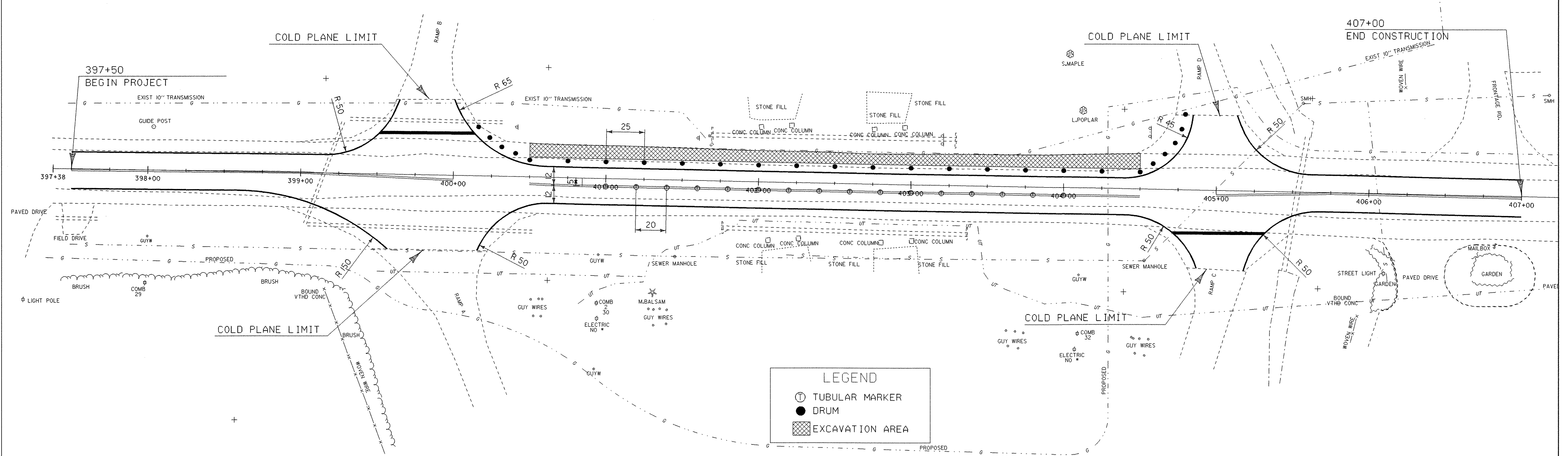
TRAFFIC CONTROL - PHASE 1

TEMPORARY PAVEMENT MARKINGS - (TYPE II TAPE)

4" WHITE (EDGE LINE)	
LEFT	RIGHT
397+50 - 399+64	397+50 - 399+58
400+00 - 404+84	400+16 - 404+88
405+13 - 407+00	405+18 - 407+00

4" YELLOW (CENTER LINE - DOUBLE)	
397+50 OFF 0.00	- 399+00 OFF 0.00
399+00 OFF 0.00	- 400+00 OFF 3.10 RT
400+50 OFF 4.65 RT	- 400+61 OFF 5.00 RT
400+61 OFF 5.00 RT	- 404+50 OFF 5.00 RT
405+00 OFF 3.25 RT	- 405+75 OFF 0.00
405+75 OFF 0.00	- 407+00 OFF 0.00

TEMPORARY 24" STOP BAR - (PAINT)	
399+54 LT	- 400+07 LT (RAMP B)
404+72 RT	- 405+30 RT (RAMP C)



LEGEND

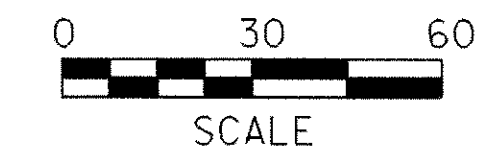
- ⊕ TUBULAR MARKER
- DRUM
- ▨ EXCAVATION AREA

PRIOR TO THE TRAFFIC CONTROL SET-UP, INSTALL THE WORK ZONE SIGN PACKAGE IN ACCORDANCE WITH VERMONT STANDARD E-100.

PHASE 1 SEQUENCE:

1. REMOVE EXISTING PAVEMENT MARKINGS FROM 397+50 TO 407+00 (INCLUDES EDGE AND CENTER LINE).
2. INSTALL TEMPORARY PAVEMENT MARKINGS FROM 397+50 TO 407+00.
3. INSTALL TUBULAR MARKERS (AT 20 FOOT INTERVALS) ON THE TEMPORARY CENTER LINE FROM 401+00 TO 404+00.
4. INSTALL DRUMS AT 25 FOOT INTERVALS FROM 400+00 LT TO 404+75 LT (10 FOOT INTERVALS AT RADII).
5. PROCEED WITH SHOULDER CONSTRUCTION.

NOTE: SEE THE MUTCD (SECTION 6F.55) CHANNELIZING DEVICES FOR STANDARDS AND SPECIFICATIONS.



TRAFFIC CONTROL - PHASE 1

PROJECT NAME: SWANTON	PLOT DATE: 14-SEP-2006
PROJECT NUMBER: HES 036-1(12)	DRAWN BY: jfg
FILE NAME: tb212+cl.dgn	CHECKED BY: traffic
PROJECT LEADER: nyquist	SHEET 15 OF 16
DESIGNED BY: jfg	
tb212+cl.i	

TRAFFIC CONTROL - PHASE 2

REMOVE TEMPORARY 4" PAVEMENT MARKINGS

WHITE (EDGE LINE)

LEFT
400+00 - 404+79

RIGHT
400+10 - 404+94

YELLOW (CENTER LINE - DOUBLE)

399+00 - 405+75

TEMPORARY PAVEMENT MARKINGS - (TYPE II TAPE)

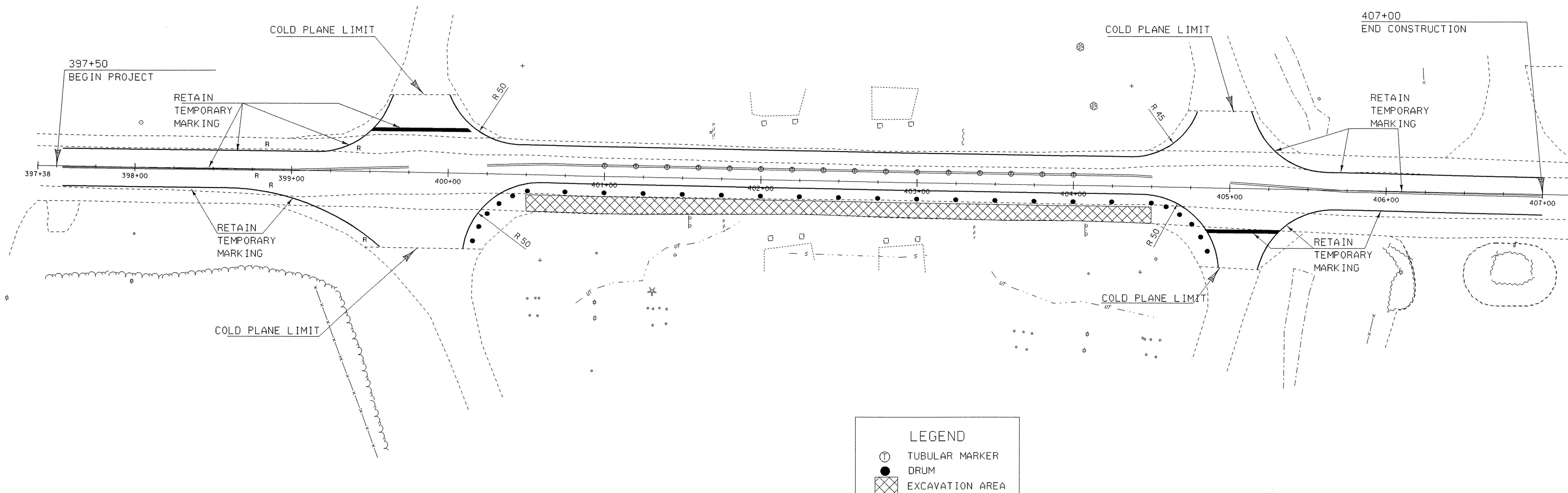
4" WHITE (EDGE LINE)

LEFT
400+00 - 404+79

RIGHT
400+10 - 404+94

4" YELLOW (CENTER LINE - DOUBLE)

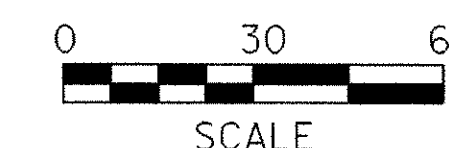
399+00 OFF 0.00 - 399+75 OFF 3.25 LT
400+25 OFF 5.40 LT - 400+61 OFF 7.00 LT
400+61 OFF 7.00 LT - 404+39 OFF 7.00 LT
404+39 OFF 7.00 LT - 404+50 OFF 6.40 LT
405+00 OFF 3.60 LT - 405+75 OFF 0.00



PHASE 2 SEQUENCE:

1. REMOVE TEMPORARY CENTER LINE.
2. REMOVE TEMPORARY EDGE LINES.
3. INSTALL TEMPORARY CENTER LINE.
4. INSTALL TEMPORARY EDGE LINES.
5. INSTALL TUBULAR MARKERS (AT 20 FOOT INTERVALS) ON THE TEMPORARY CENTER LINE FROM 401+00 TO 404+00.
6. INSTALL DRUMS AT 25 FOOT INTERVALS FROM 400+00 RT TO 404+75 RT (10 FOOT INTERVALS AT RADII).
7. PROCEED WITH SHOULDER CONSTRUCTION.

NOTE: SEE THE MUTCD (SECTION 6F.55) CHANNELIZING DEVICES FOR STANDARDS AND SPECIFICATIONS.



TRAFFIC CONTROL - PHASE 2

PROJECT NAME: SWANTON
PROJECT NUMBER: HES 036-1(12)

FILE NAME: tb212tcl.dgn
PROJECT LEADER: nyquist
DESIGNED BY: jfg
212trcntr121

PLOT DATE: 14-SEP-2006
DRAWN BY: jfg
CHECKED BY: traffic
SHEET 16 OF 16