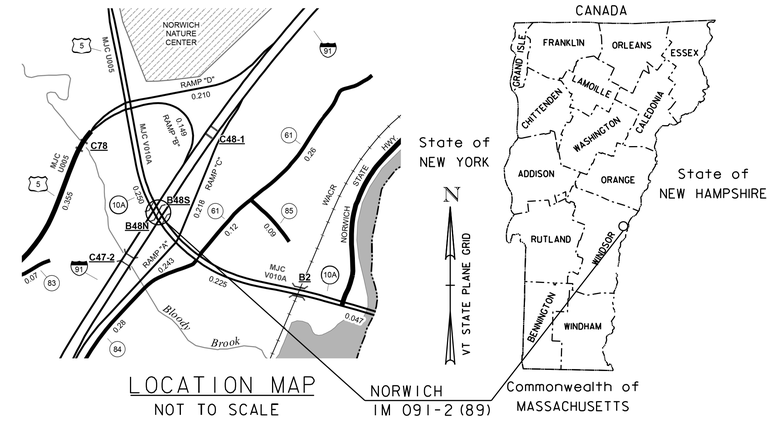
REVIEWER NOTES:

1. CROSSOVERS EARTH FILL TO REMAIN IN PLACE AFTER BRIDGE CONSTRUCTION.
2. TEMPORARY TRAFFIC CROSSOVER PLANS SHOW EXISTING PAVEMENT MARKINGS TO THE EXTENT PROVIDED BY SURVEYOR.
3. THE INSTALLATION OF THE GUARDRAIL POSTS BEHIND THE MSE WALLS SHALL BE COMPLETED BY THE MEANS AND METHODS OF THE CONTRACTOR. ON PAST PROJECTS THE CONTRACTOR HAS MOCKED UP THE GUARDRAIL POSTS IN THE VICINITY OF THE BRIDGE TRANSITION TO ENSURE THE WALL STRAPS CLEARED.
4. SITE SPECIFIC TRAFFIC CONTROL TO BE PROVIDED BY GENERAL CONTRACTOR.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



LOCATION MAP
NOT TO SCALE

PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF NORWICH
COUNTY OF WINDSOR

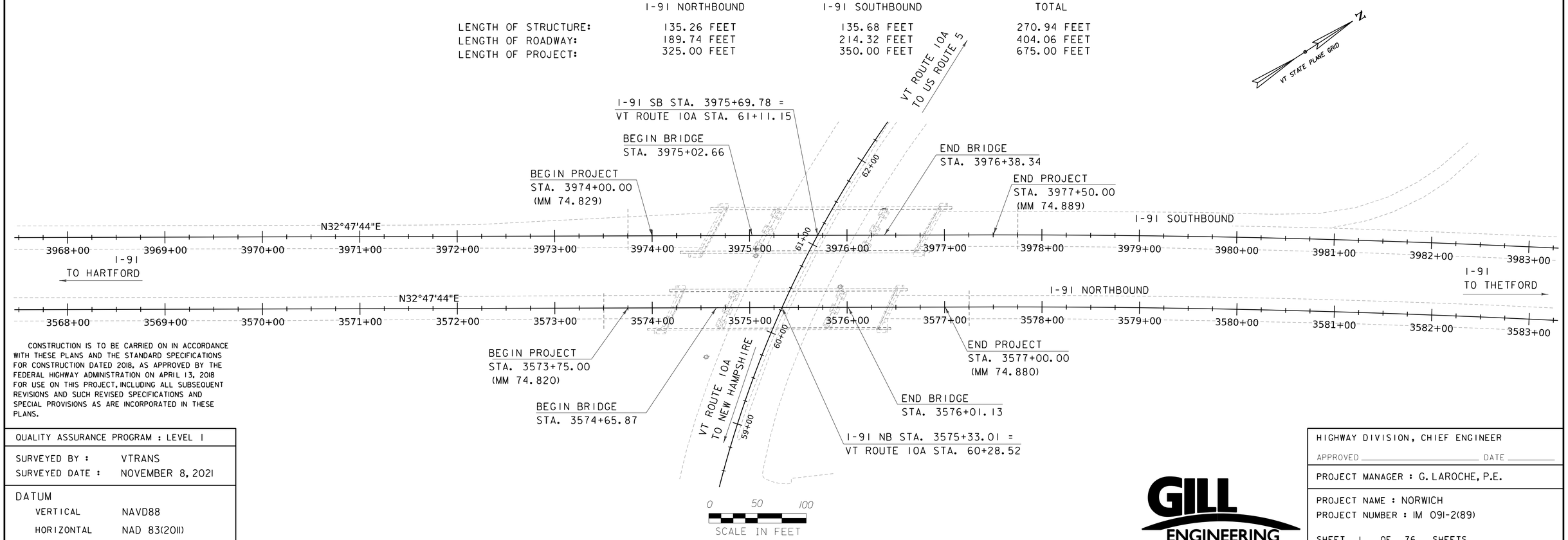
ROUTE NO: I-91, PRINCIPAL ARTERIAL-NHS, BRIDGES 48N AND 48S OVER VT ROUTE 10A

PRELIMINARY PLANS
8/1/2023

PROJECT LOCATION: BRIDGE 48 N&S ARE LOCATED ON I-91 AT THE INTERCHANGE OF EXIT 13 (M.M. 74.8) AND OVER VT ROUTE 10A IN THE TOWN OF NORWICH.

PROJECT DESCRIPTION: REMOVAL AND REPLACEMENT OF BRIDGES 48 N&S WITH RELATED APPROACH WORK.

	I-91 NORTHBOUND	I-91 SOUTHBOUND	TOTAL
LENGTH OF STRUCTURE:	135.26 FEET	135.68 FEET	270.94 FEET
LENGTH OF ROADWAY:	189.74 FEET	214.32 FEET	404.06 FEET
LENGTH OF PROJECT:	325.00 FEET	350.00 FEET	675.00 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 1

SURVEYED BY : VTRANS
SURVEYED DATE : NOVEMBER 8, 2021

DATUM
VERTICAL NAVD88
HORIZONTAL NAD 83(2011)

GILL ENGINEERING

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____

PROJECT MANAGER : G. LAROCHE, P.E.

PROJECT NAME : NORWICH
PROJECT NUMBER : IM 091-2(89)

SHEET 1 OF 76 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version 2018.12.18.10

LRFD

INDEX OF SHEETS

PLAN SHEETS

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3	TYPICAL ROADWAY SECTIONS
4	SOUTHBOUND TYPICAL SECTION
5	NORTHBOUND TYPICAL SECTION
6	EARTHWORK SECTIONS
7	LEGEND SHEET
8	SURVEY TIE SHEET
9 - 12	LAYOUT SHEETS 1-4
13	PROFILE SHEET
14	TRAFFIC CONTROL NOTES AND SECTIONS
15	TRAFFIC CONTROL PHASING PLAN
16 - 22	TRAFFIC CONTROL PHASE 2 - SHEETS 1-7
23 - 29	NORTHBOUND CROSSOVER CROSS SECTIONS 1-7
30 - 36	TRAFFIC CONTROL PHASE 4 - SHEETS 1-7
37 - 42	SOUTHBOUND CROSSOVER CROSS SECTIONS 1-6
43	BORING LAYOUT
44	PLAN AND ELEVATION
45 - 47	SIGNS, MARKINGS, AND DRAINAGE 1-3
48 - 51	NORTHBOUND CROSS SECTIONS 1-4
52 - 55	SOUTHBOUND CROSS SECTIONS 1-4
56 - 57	EPSC PLAN NARRATIVE 1-2
58 - 61	EPSC EXISTING SITE PLAN 1-4
62 - 65	EPSC CONSTRUCTION SITE PLAN 1-4
66 - 69	EPSC FINAL SITE PLAN 1-4
70	EPSC DETAIL SHEET

DETAIL SHEETS

STANDARDS LIST

FINAL HYDRAULIC REPORT

TRAFFIC MAINTENANCE NOTES

1. TRAFFIC MAINTAINED BY INTERSTATE CROSS OVER
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	2.5 INCH
3. DESIGN SPAN	L:	125.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	- - -
5. PRESTRESSING STRAND	f_y:	- - -
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	- - -
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	- - -
8. HIGH PERFORMANCE CONCRETE, CLASS PCD	f'_c:	4.0 KSI
9. HIGH PERFORMANCE CONCRETE, CLASS PCS	f'_c:	3.5 KSI
10. CONCRETE HIGH PERFORMANCE, CLASS PSS	f'_c:	- - -
11. CONCRETE, CLASS C	f'_c:	- - -
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270 (WEATHERING)	f_y:	50 KSI
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	- - -
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	- - -
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
18. PILE RESISTANCE FACTOR	ϕ:	- - -
19. LATERAL PILE DEFLECTION	Δ:	- - -
20. BASIC WIND SPEED	V_{3s}:	- - -
21. MINIMUM GROUND SNOW LOAD	p_g:	- - -
22. SEISMIC DATA PGA: - - -	S_s:	- - -
	S_1:	- - -
23.		
24.		- - -
25.		- - -

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEM
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:							

TRAFFIC DATA - NORTHBOUND

YEAR	ADT	DHV	%D	%T	ADTT	
2024	6000	750	100	9.8	800	20 year ESAL for flexible pavement from 2024 to 2044 : 4023000
2044	6600	810	100	17.1	1500	40 year ESAL for flexible pavement from 2024 to 2064 : 9691000
						Design Speed : 70 mph

TRAFFIC DATA - SOUTHBOUND

YEAR	ADT	DHV	% D	% T	ADTT	
2024	10000	1200	100	9.1	1300	20 year ESAL for flexible pavement from 2024 to 2044 : 6637000
2044	10900	1300	100	15.8	2400	40 year ESAL for flexible pavement from 2024 to 2064 : 15989000
						Design Speed : 70 mph

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

PROJECT NAME: **NORWICH**

PROJECT NUMBER: **IM 091-2(89)**

FILE NAME: **z12a568forms.dgn**
PROJECT LEADER: **P.HUCKABEE**
DESIGNED BY: **F.BERLUS**
PRELIMINARY INFORMATION SHEET

PLOT DATE: 8/1/2023
DRAWN BY: **N.NELSON**
CHECKED BY: **A.SPERA**

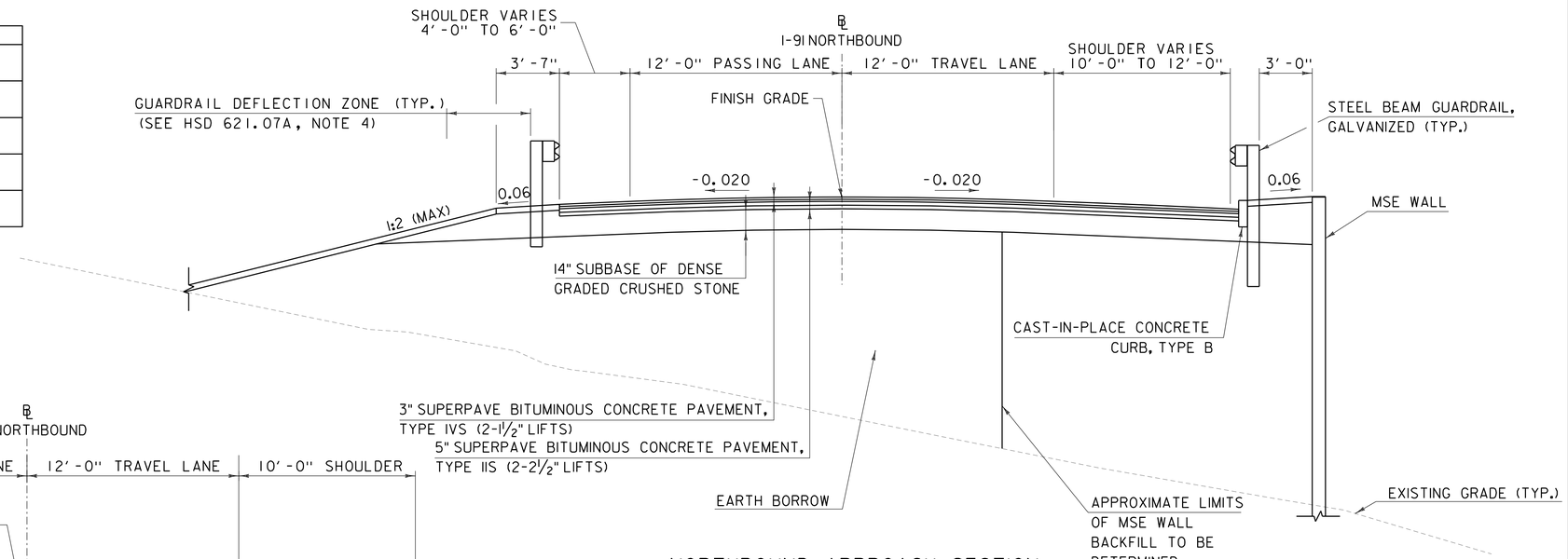
MATERIAL REQUIREMENTS

	THICKNESS	DESCRIPTION
WEARING COURSE	3"	SPECIAL PROVISIONS (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IVS)
INTERMEDIATE COURSE	5"	SPECIAL PROVISIONS (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IIS)
SURFACE COURSE	4"	AGGREGATE SURFACE COURSE
SUBBASE	14"	SUBBASE OF DENSE GRADED CRUSHED STONE
TOPSOIL	4"	TOPSOIL, SEED, AND MULCH

BINDER	58-34	PERFORMANCE GRADE ASPHALT BINDER
GYRATION	100	DESIGN NUMBER OF GYRATIONS

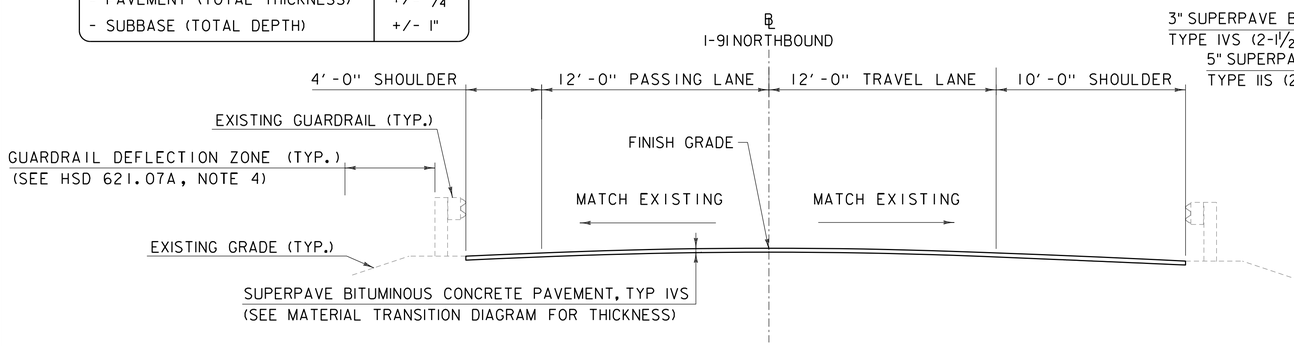
MATERIAL TOLERANCES

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



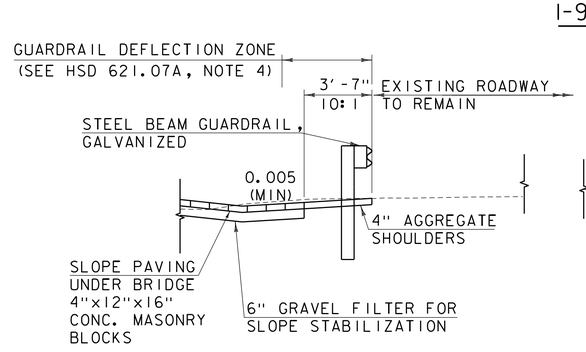
NORTHBOUND APPROACH SECTION

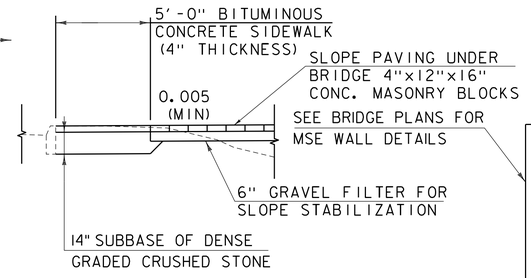
SCALE: 1/4"=1'-0"



I-91 NORTHBOUND - MILL/OVERLAY

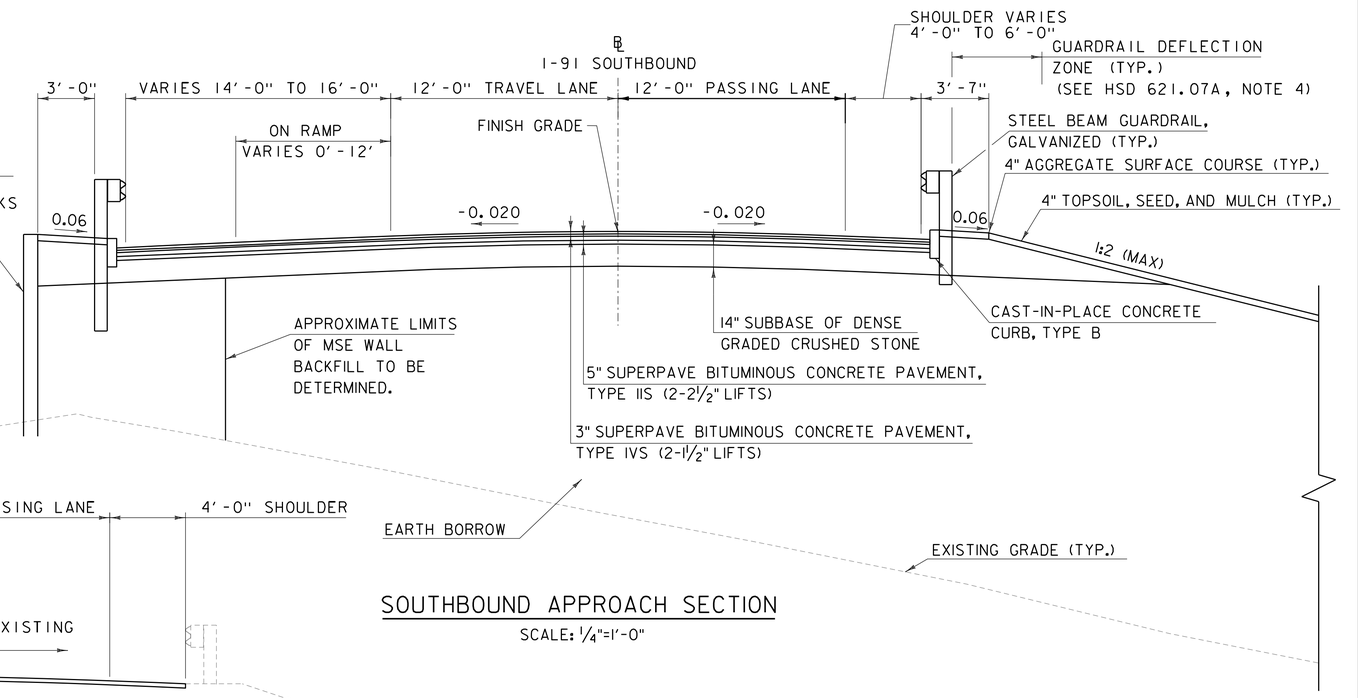
SCALE: 1/4"=1'-0"





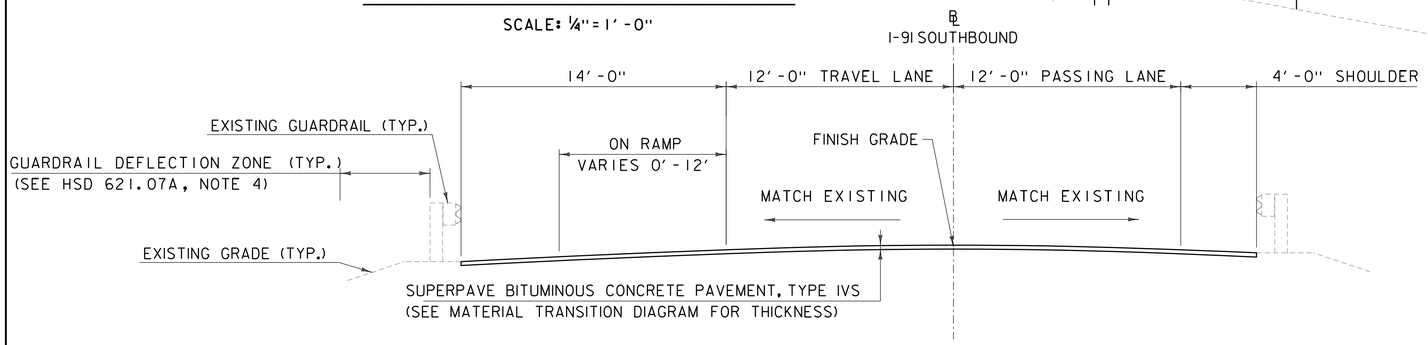
TYPICAL SECTION ALONG 10A

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



SOUTHBOUND APPROACH SECTION

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

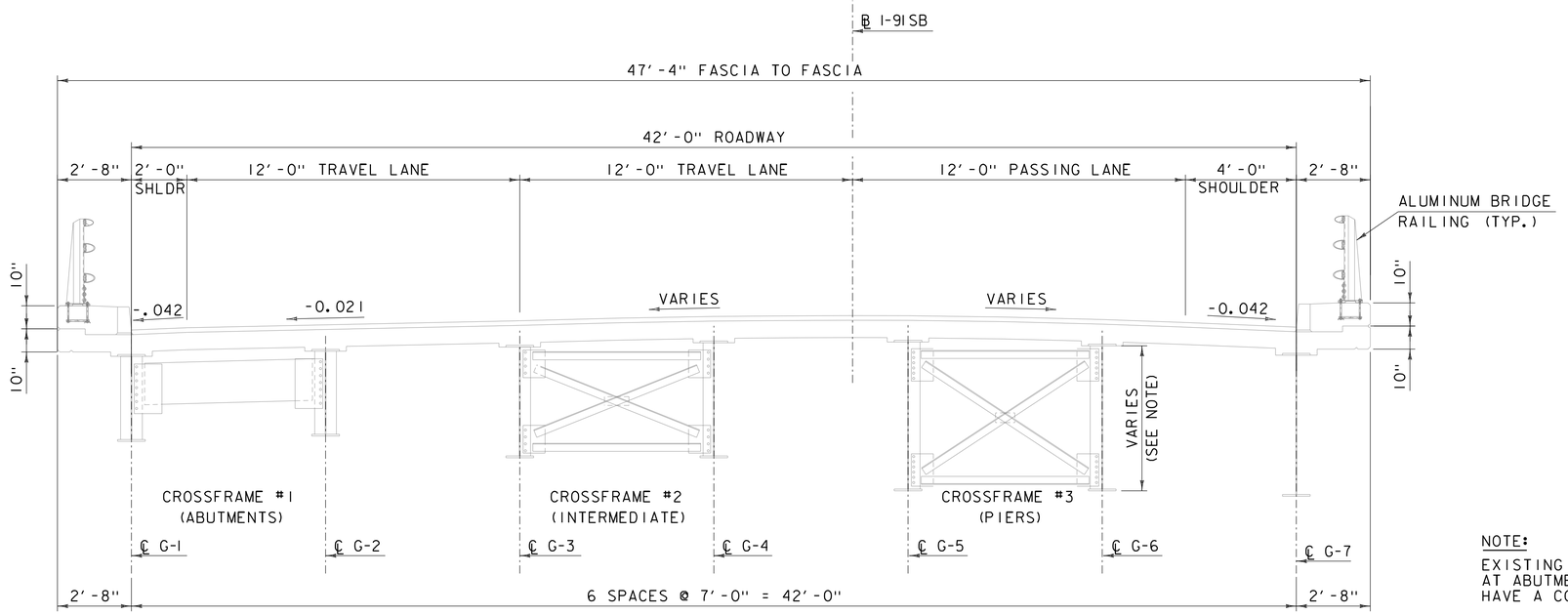


I-91 SOUTHBOUND - MILL/OVERLAY

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

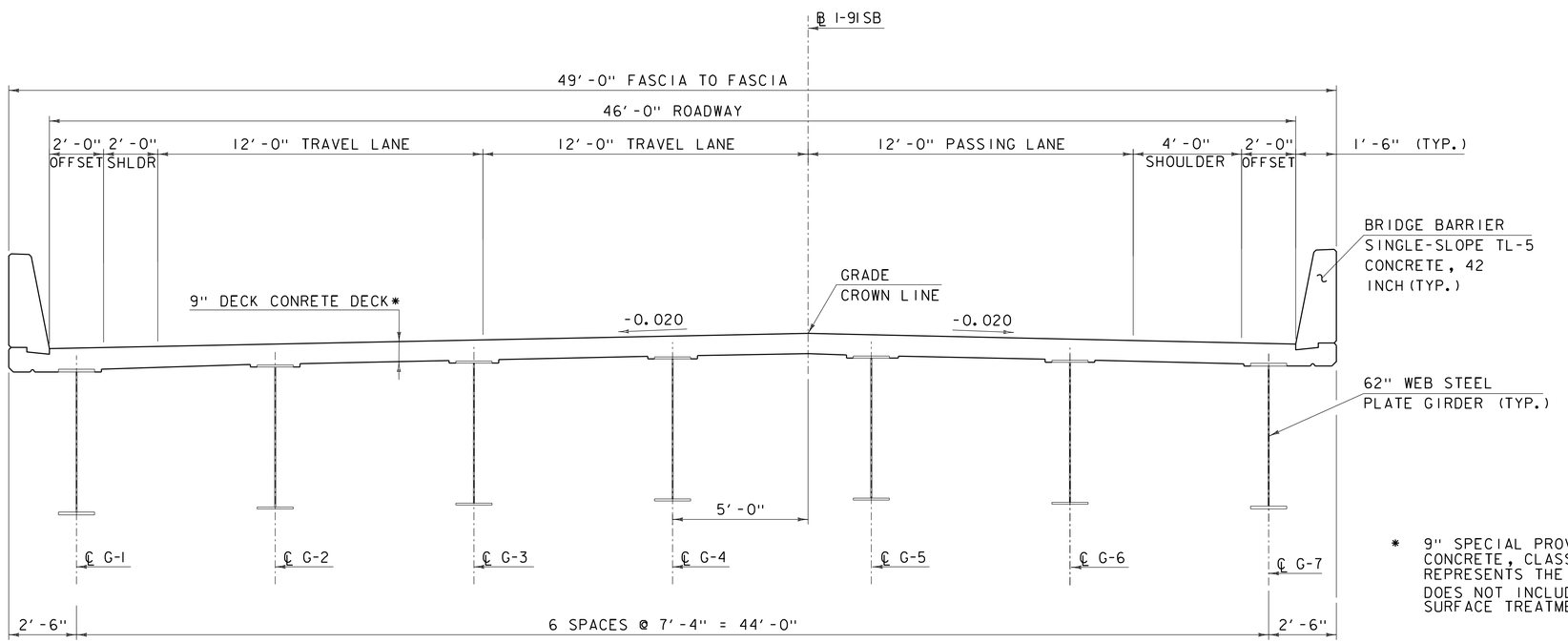
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568typ.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TYPICAL ROADWAY SECTIONS	SHEET 3 OF 76



NOTE:
EXISTING GIRDER DEPTHS VARY FROM 3'-1½" AT ABUTMENTS TO 5'-4¼" AT PIERS THEN HAVE A CONSTANT WEB DEPTH BETWEEN PIERS

EXISTING



* 9" SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD). DIMENSION SHOWN REPRESENTS THE FINISHED CONDITION AND DOES NOT INCLUDE THE ¾" OVERPOUR FOR DECK SURFACE TREATMENT

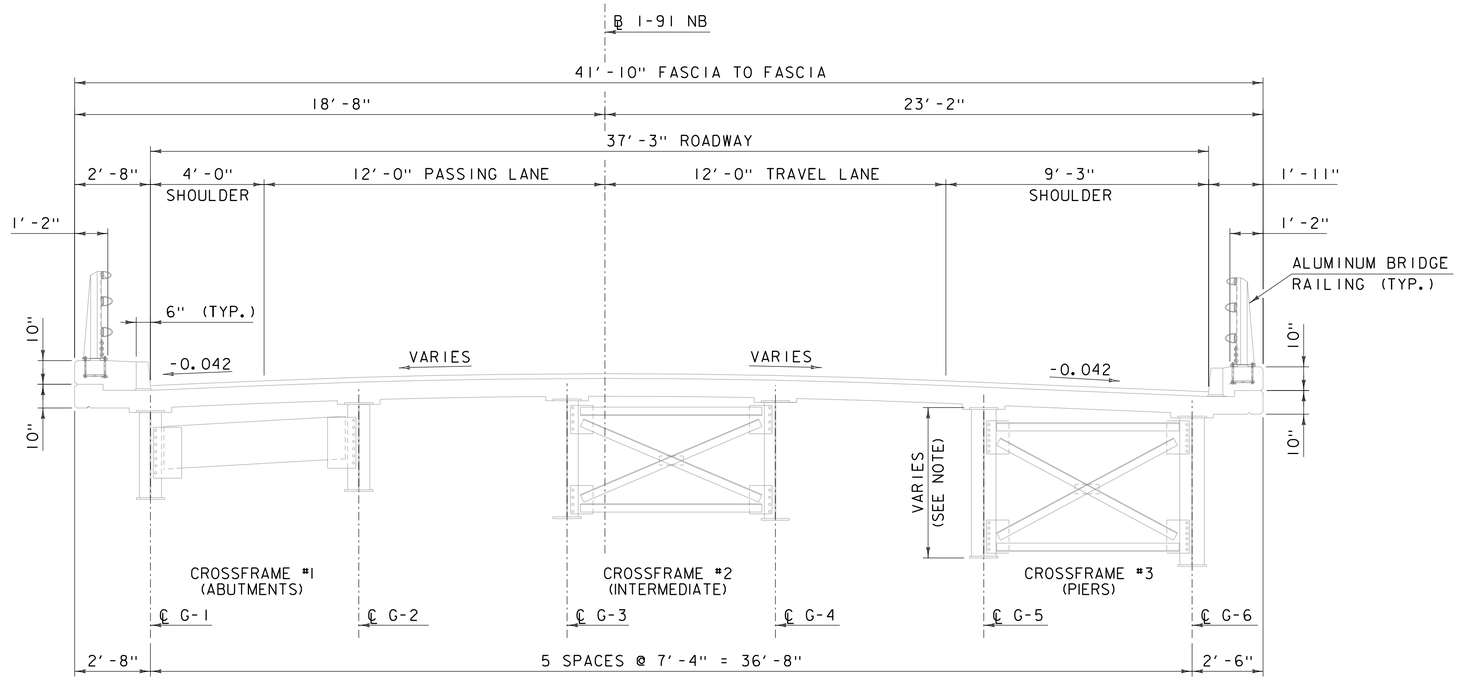
PROPOSED

SOUTHBOUND TYPICAL SECTION

SCALE ⅜" = 1'-0"

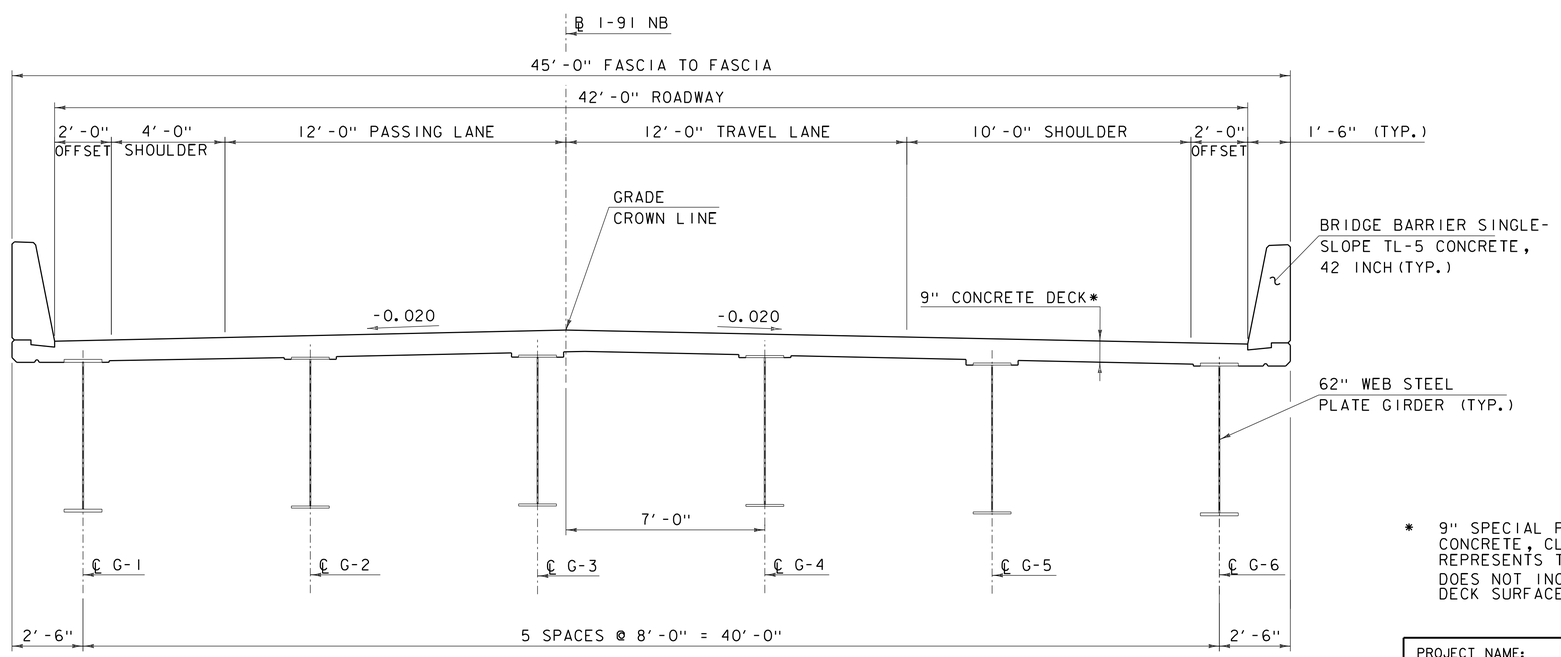
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568typ.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: K.COLEMAN
DESIGNED BY: F.BERLUS	CHECKED BY: L.CECCHI
SOUTHBOUND TYPICAL SECTION	SHEET 4 OF 76



EXISTING

NOTE:
EXISTING GIRDER DEPTHS VARY FROM 3'-1½" AT ABUTMENTS TO 5'-4¼" AT PIERS THEN HAVE A CONSTANT WEB DEPTH BETWEEN PIERS



PROPOSED

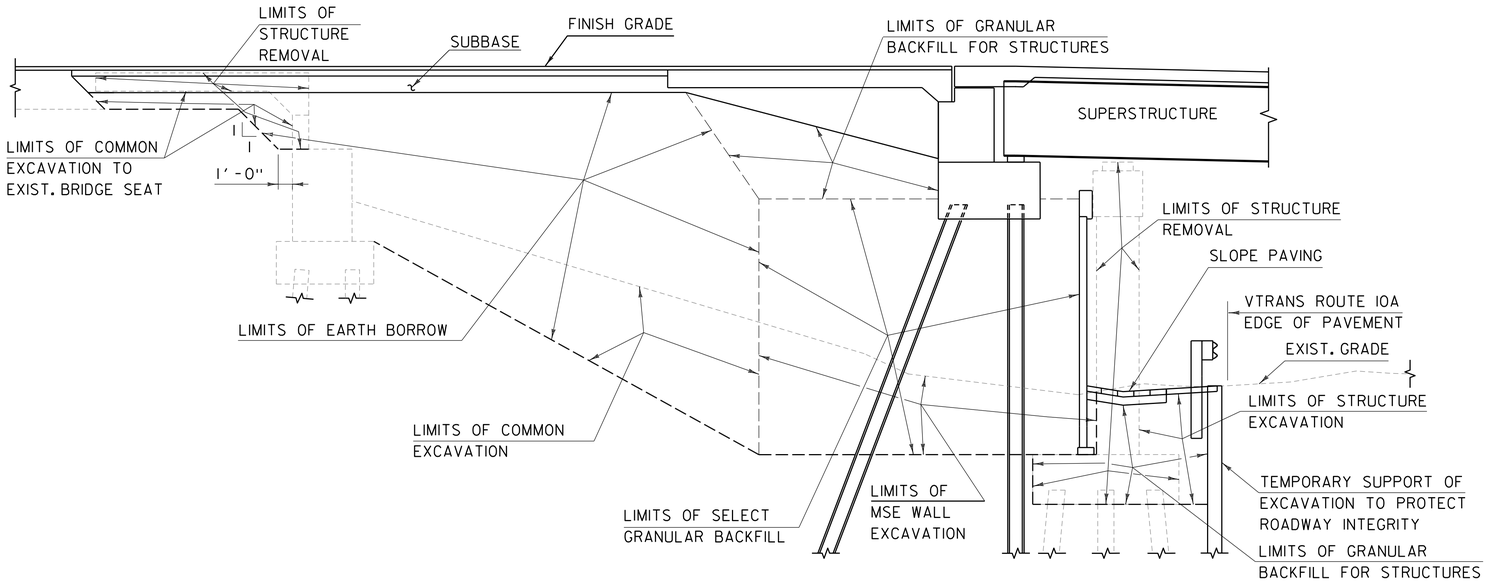
* 9" SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD). DIMENSION SHOWN REPRESENTS THE FINISHED CONDITION AND DOES NOT INCLUDE THE ¾" OVERPOUR FOR DECK SURFACE TREATMENT

NORTHBOUND TYPICAL SECTION

SCALE ⅜" = 1'-0"

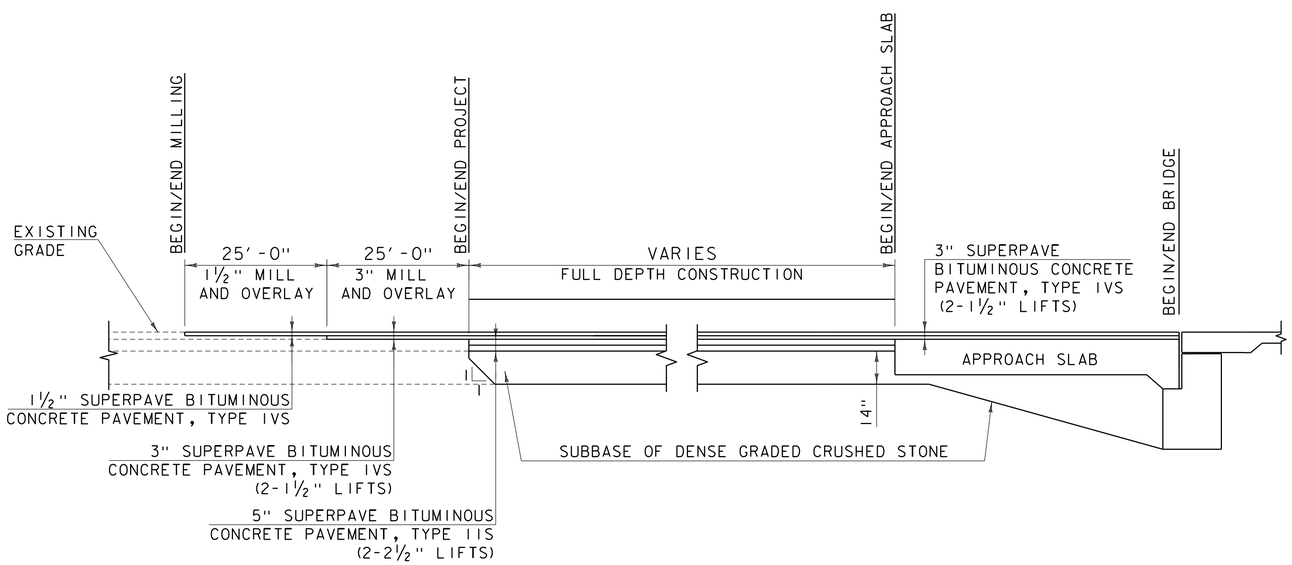
GILL ENGINEERING

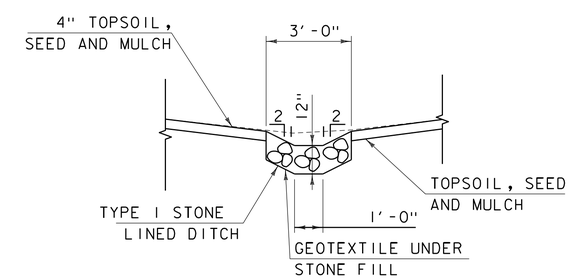
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568typ.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: K.COLEMAN
DESIGNED BY: F.BERLUS	CHECKED BY: L.CECCHI
NORTHBOUND TYPICAL SECTION	SHEET 5 OF 76



TYPICAL ABUTMENT EARTHWORK SECTION

(NOT TO SCALE)





STONE DITCH TYPICAL SECTION

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

	BEGIN/END MILLING	BEGIN/END PROJECT	BEGIN/END APPROACH	BEGIN/END BRIDGE
NORTHBOUND				
SOUTH APPROACH	3573+25.00	3573+75.00	3574+45.69	3574+65.87
NORTH APPROACH	3577+50.00	3577+00.00	3576+21.31	3576+01.13
SOUTHBOUND				
SOUTH APPROACH	3973+50.00	3974+00.00	3974+82.47	3975+02.66
NORTH APPROACH	3978+00.00	3977+50.00	3977+58.53	3976+38.34

MATERIAL TRANSITION DIAGRAM

(NOT TO SCALE)

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: z12a568typ.dgn
PROJECT LEADER: P. HUCKABEE
DESIGNED BY: F. BERLUS
EARTHWORKS SECTIONS

PLOT DATE: 8/1/2023
DRAWN BY: K. COLEMAN
CHECKED BY: L. CECCHI
SHEET 6 OF 76

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

POINT	CODE	DESCRIPTION
	BF	BARRIER FENCE
	CH	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	PDF	PROJECT DEMARCATION FENCE
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	R.T.& I.	RIGHT, TITLE, AND INTEREST
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⊡	BNDNS	BOUND TO BE SET
◎	IPNF	IRON PIN FOUND
●	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
	APL	BOUND APPARENT LOCATION
	BM	BENCHMARK
	BND	BOUND
	CB	CATCH BASIN
	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
	EL	ELECTRIC POWER POLE
	FPOLE	FLAGPOLE
	GASFIL	GAS FILLER
	GP	GUIDE POST
	GSO	GAS SHUT OFF
	GUY	GUY POLE
	GUYW	GUY WIRE
	GV	GATE VALVE
	H	TREE HARDWOOD
	HCTRL	CONTROL HORIZONTAL
	HVCTRL	CONTROL HORIZ. & VERTICAL
	HYD	HYDRANT
	IP	IRON PIN
	IPIPE	IRON PIPE
	LI	LIGHT - STREET OR YARD
	MB	MAILBOX
	MH	MANHOLE (MH)
	MM	MILE MARKER
	PM	PARKING METER
	PMK	PROJECT MARKER
	POST	POST STONE/WOOD
	RRSIG	RAILROAD SIGNAL
	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
	SAT	SATELLITE DISH
	SHRUB	SHRUB
	SIGN	SIGN
	STUMP	STUMP
	TEL	TELEPHONE POLE
	TIE	TIE
	TSIGN	SIGN W/DOUBLE POST
	VCTRL	CONTROL VERTICAL
	WELL	WELL
	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADIUS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE
CB	CHORD BEARING

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

UGU	UTILITY (GENERIC-UNKNOWN)
UT	TELEPHONE
UE	ELECTRIC
UC	CABLE (TV)
UEC	ELECTRIC+CABLE
UET	ELECTRIC+TELEPHONE
UCT	CABLE+TELEPHONE
UECT	ELECTRIC+CABLE+TELEPHONE
G	GAS LINE
W	WATER LINE
S	SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

AGU	UTILITY (GENERIC-UNKNOWN)
T	TELEPHONE
E	ELECTRIC
C	CABLE (TV)
EC	ELECTRIC+CABLE
ET	ELECTRIC+TELEPHONE
AER E&T	ELECTRIC+TELEPHONE
CT	CABLE+TELEPHONE
ECT	ELECTRIC+CABLE+TELEPHONE
	UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

CZ	CLEAR ZONE
	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

	TOP OF CUT SLOPE
	TOE OF FILL SLOPE
	STONE FILL
	BOTTOM OF DITCH ℄
	CULVERT PROPOSED
	STRUCTURE SUBSURFACE
PDF	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
	TREE PROTECTION ZONE (TPZ)
	STRIPING LINE REMOVAL
	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

TOWN LINE	TOWN BOUNDARY LINE
COUNTY LINE	COUNTY BOUNDARY LINE
STATE LINE	STATE BOUNDARY LINE
	PROPOSED STATE R.O.W. (LIMITED ACCESS)
	PROPOSED STATE R.O.W.
	STATE ROW (LIMITED ACCESS)
	STATE ROW
	TOWN ROW
	PERMANENT EASEMENT LINE (P)
	TEMPORARY EASEMENT LINE (T)
	SURVEY LINE
P/L	PROPERTY LINE (P/L)
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

	FILTER CURTAIN
	SILT FENCE
	SILT FENCE WOVEN WIRE
	CHECK DAM
	DISTURBED AREAS REQUIRING RE-VEGETATION
	EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

	WETLAND BOUNDARY
	RIPARIAN BUFFER ZONE
	WETLAND BUFFER ZONE
	SOIL TYPE BOUNDARY
T&E	THREATENED & ENDANGERED SPECIES
HAZ	HAZARDOUS WASTE AREA
AG	AGRICULTURAL LAND
HABITAT	FISH & WILDLIFE HABITAT
FLOOD PLAIN	FLOOD PLAIN
OHW	ORDINARY HIGH WATER (OHW)
	STORM WATER
	USDA FOREST SERVICE LANDS
	WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

ARCH	ARCHEOLOGICAL BOUNDARY
HISTORIC DIST	HISTORIC DISTRICT BOUNDARY
HISTORIC	HISTORIC AREA
H	HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

	ROAD EDGE PAVEMENT
	ROAD EDGE GRAVEL
	DRIVEWAY EDGE
	DITCH
	FOUNDATION
	FENCE (EXISTING)
	FENCE WOOD POST
	FENCE STEEL POST
	GARDEN
	ROAD GUARDRAIL
	RAILROAD TRACKS
	CULVERT (EXISTING)
	STONE WALL
	WALL
	WOOD LINE
	BRUSH LINE
	HEDGE
	BODY OF WATER EDGE
	LEDGE EXPOSED

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: z12a568legend.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: VTRANS
LEGEND SHEET

PLOT DATE: 8/1/2023
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 7 OF 76

GPS CONTROL

CONTROL WAS ESTABLISHED VIA A CLOSED LOOP TRAVERSE USING
EXISTING VTRANS CONTROL HVCTRL#1 AND HVCTRL#250 FROM X20T119.

HVCTRL #1
BENCHMARK DISK

PID:	BBBW52
DESIGNATION:	PION
STAMPING:	PION 2001
NORTHING:	439839.1100
EASTING:	1691507.8100
ELEVATION:	481.7200

DESCRIPTION:
THE MARK IS SET ABOUT 200M NORTHWEST OF THE INTERSRATE 91 BRIDGE OVER VT ROUTE 10A (TRESCOTT RD) AT EXIT 13. IT IS SET IN THE TOP OF THE NORTHEAST CORNER OF A 1.4M SQUARE CONCRETE DROP INLET IN THE GRASSY MEDIAN ISLAND WITH GRANITE CURB. IT IS 45CM EAST OF THE CENTER OF THE 60CM SQUARE METAL GRATE, 1.9M WEST OF THE EAST EDGE OF THE ISLAND, 2.7M EAST OF THE WEST EDGE OF THE ISLAND, AND 9.5M WEST OF THE CENTER OF ANOTHER 60CM DROP INLET.

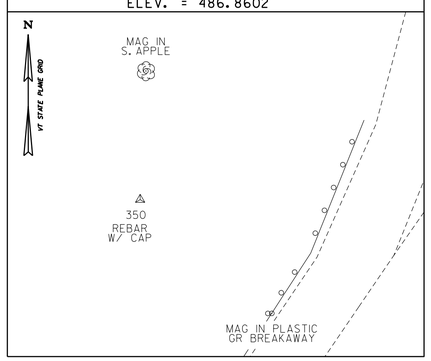
HVCTRL #250
REBAR WITH RED CAP STAMPED "VTRANS CONTROL"

NORTHING:	440385.8962
EASTING:	1691480.1349
ELEVATION:	493.0707

TRAVERSE TIES

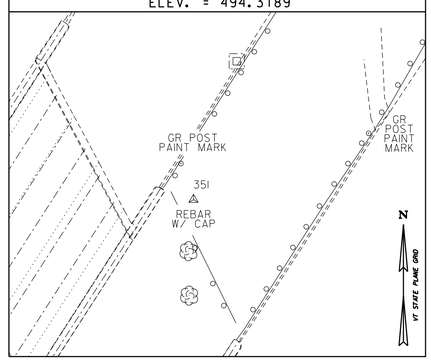
HVCTRL#350

NORTH = 440029.7866
EAST = 1691825.6422
ELEV. = 486.8602



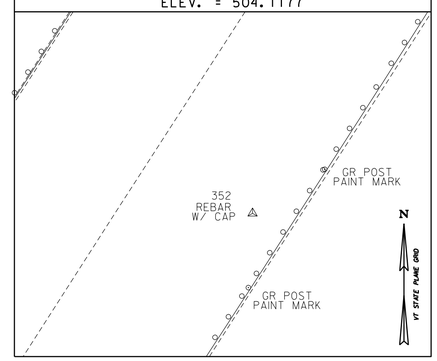
HVCTRL#351

NORTH = 439654.7682
EAST = 1691698.3652
ELEV. = 494.3189



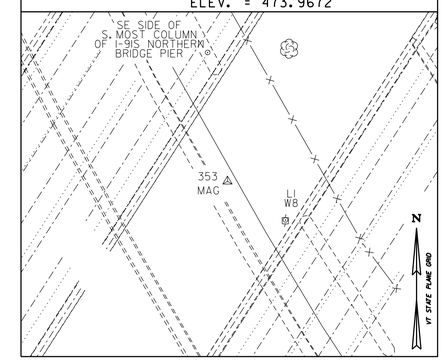
HVCTRL#352

NORTH = 439210.8726
EAST = 1691436.7506
ELEV. = 504.1177



HVCTRL#353

NORTH = 439571.4719
EAST = 1691654.8303
ELEV. = 473.9672



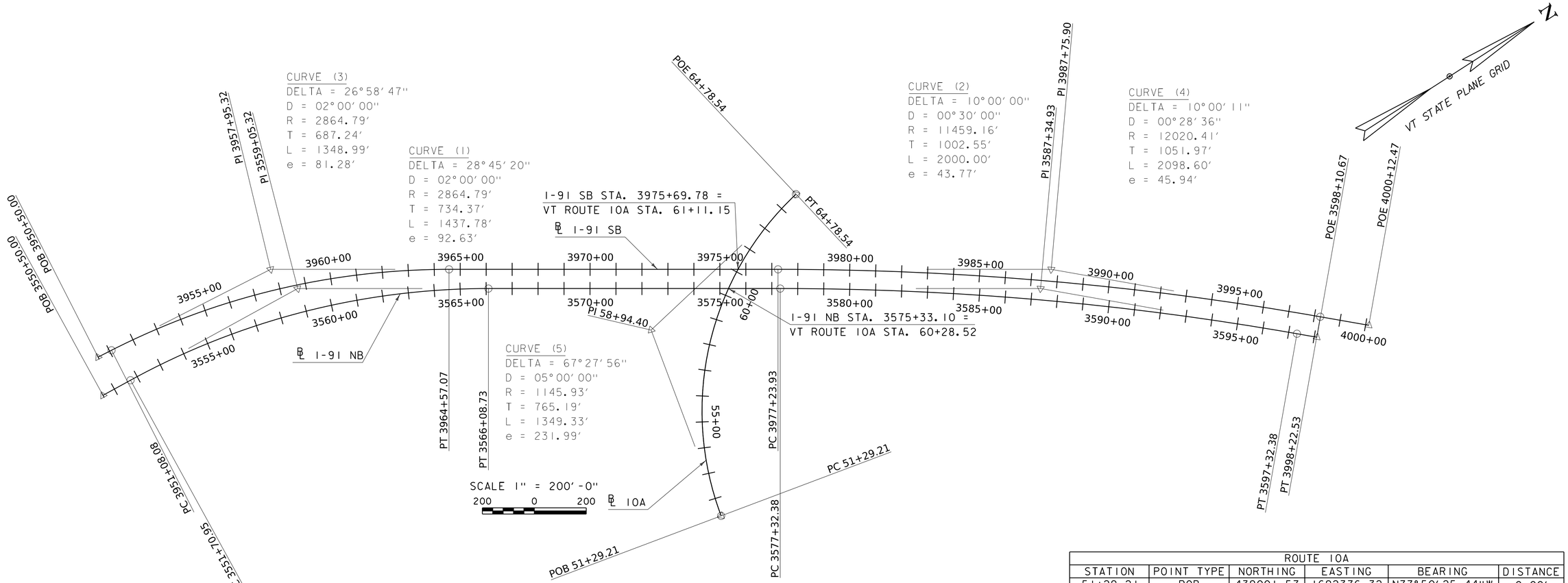
TRAVERSE TIES

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (2011)
ADJUSTMENT	L.SQUARES

GILL ENGINEERING

PROJECT NAME:	NORWICH
PROJECT NUMBER:	IM 091-2(89)

FILE NAME: x13a250ti.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: J.WANTUCH	DRAWN BY: J.WANTUCH
DESIGNED BY: VHB	CHECKED BY: R.CLOUTIER
SURVEY TIE SHEET	SHEET 8 OF 76

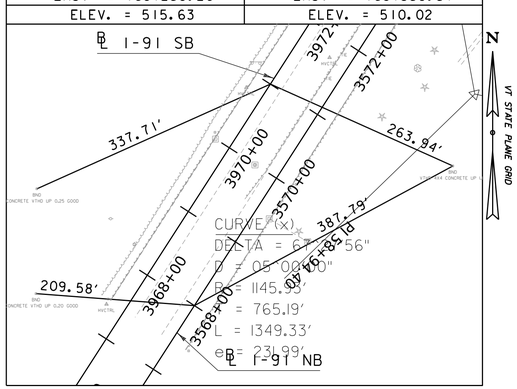


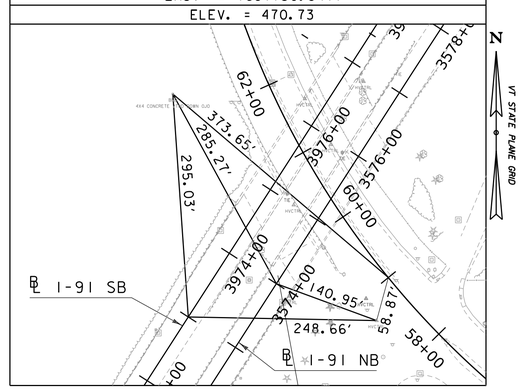
ALIGNMENT TIES

NB - 3574+00	SB - 3973+00
NORTH = 439343.94	NORTH = 439387.88
EAST = 1691466.84	EAST = 1691583.18
ELEV. = 500.15	ELEV. = 504.97

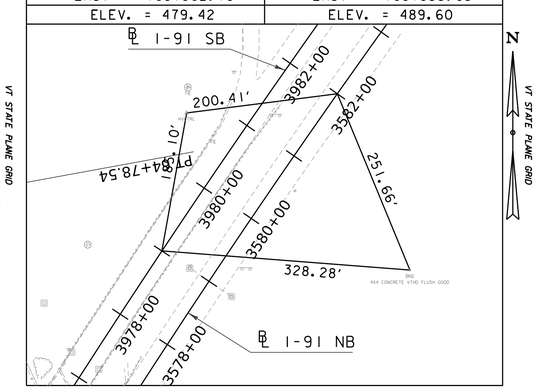
10A - 59+00
NORTH = 439395.9580
EAST = 1691730.9417
ELEV. = 470.73

NB - 3568+00	SB - 3971+00
NORTH = 438883.52	NORTH = 439175.82
EAST = 1691258.20	EAST = 1691358.51
ELEV. = 515.63	ELEV. = 510.02





NB - 3582+00	SB - 3979+00
NORTH = 440095.28	NORTH = 439807.52
EAST = 1691962.18	EAST = 1691855.03
ELEV. = 479.42	ELEV. = 489.60



SCALE 1" = 100'-0"
100 0 100

ROUTE 10A					
STATION	POINT TYPE	NORTHING	EASTING	BEARING	DISTANCE
51+29.21	POB	439001.57	1692376.32	N77°50'25.44"W	0.00'
51+29.21	PC	439001.57	1692376.32	-	1349.33'
58+94.40	PI	439162.74	1691628.30	-	1349.33'
64+78.54	POE	439915.42	1691490.50	N10°22'29.09"W	0.00'

I-91 SB					
STATION	POINT TYPE	NORTHING	EASTING	BEARING	DISTANCE
3950+50.00	POB	437316.18	1690562.51	N05°48'56.75"E	58.08'
3951+08.08	PC	437373.96	1690568.40	-	1348.99'
3957+95.32	PI	438057.67	1690638.03	-	1348.99'
3964+57.07	PT	438635.37	1691010.27	N32°47'44.00"E	1266.86'
3977+23.93	PC	439700.30	1691696.46	-	2098.60'
3987+75.90	PI	440584.60	1692266.25	-	2098.60'
3998+22.53	PT	441356.48	1692980.99	N42°47'55.03"E	189.94'
4000+12.47	POE	441495.85	1693110.04	-	-

I-91 NB					
STATION	POINT TYPE	NORTHING	EASTING	BEARING	DISTANCE
3550+50.00	POB	437252.22	1690696.57	N04°02'23.88"E	120.95'
3551+70.95	PC	437372.87	1690705.09	-	1437.78'
3559+05.32	PI	438105.41	1690756.83	-	1437.78'
3566+08.73	PT	438722.73	1691154.60	N32°47'44.00"E	1123.65'
3577+32.38	PC	439667.28	1691763.21	-	2000.00'
3587+34.93	PI	440510.03	1692306.24	-	2000.00'
3597+32.38	PT	441245.68	1692987.35	N42°47'44.00"E	78.29'
3598+10.67	POE	441303.13	1693040.54	-	-

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

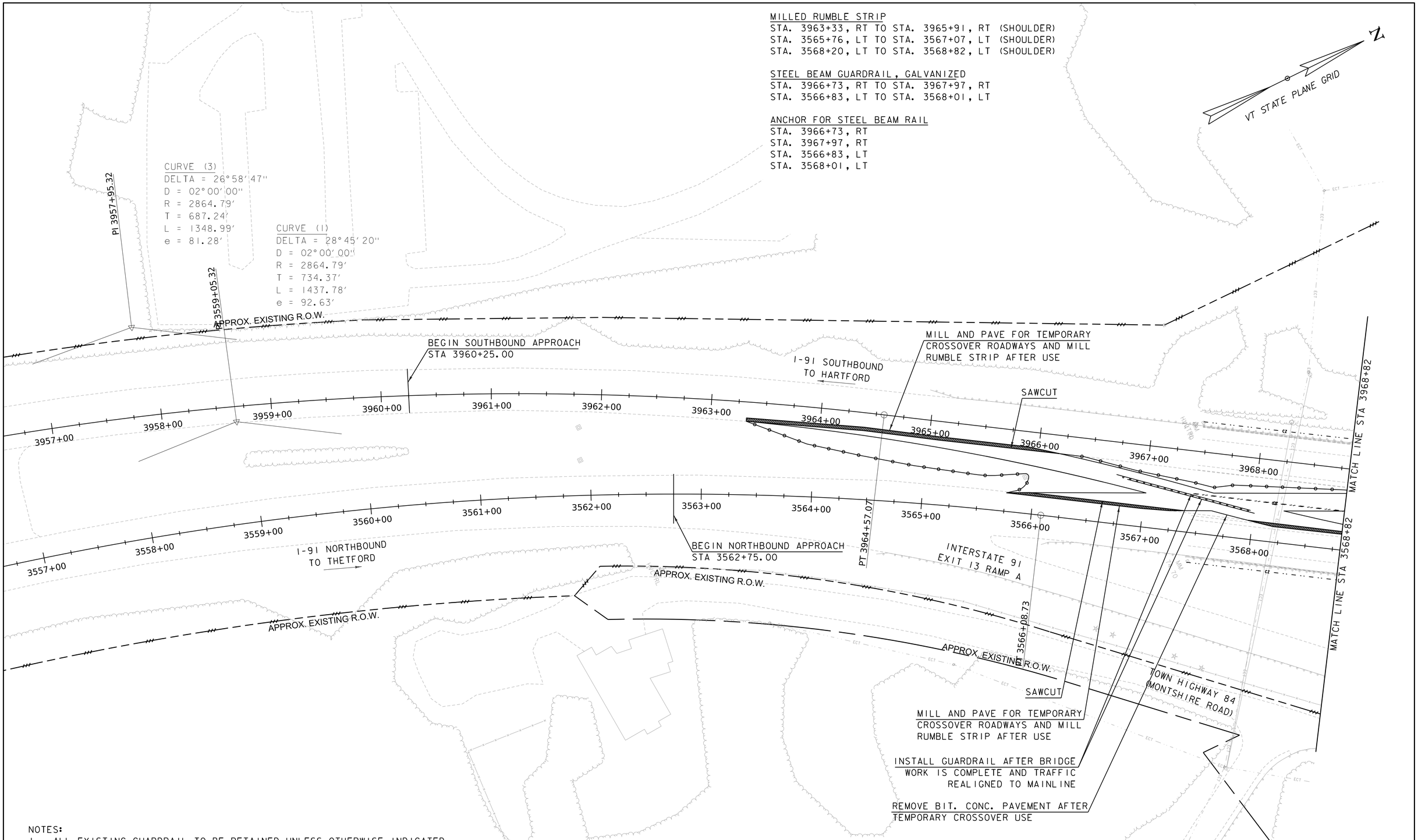
FILE NAME: zi2a568alignmenttie.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: A.LEENHOUTS
ALIGNMENT DATA

PLOT DATE: 8/1/2023
DRAWN BY: A.LEENHOUTS
CHECKED BY: L.CECCHI
SHEET 9 OF 76

MILLED RUMBLE STRIP
STA. 3963+33, RT TO STA. 3965+91, RT (SHOULDER)
STA. 3565+76, LT TO STA. 3567+07, LT (SHOULDER)
STA. 3568+20, LT TO STA. 3568+82, LT (SHOULDER)

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 3966+73, RT TO STA. 3967+97, RT
STA. 3566+83, LT TO STA. 3568+01, LT

ANCHOR FOR STEEL BEAM RAIL
STA. 3966+73, RT
STA. 3967+97, RT
STA. 3566+83, LT
STA. 3568+01, LT



NOTES:
1. ALL EXISTING GUARDRAIL TO BE RETAINED UNLESS OTHERWISE INDICATED.
2. ALL SIGNS ARE TO BE RETAINED UNLESS OTHERWISE INDICATED.
3. DELINEATORS WITHIN CONSTRUCTION LIMITS SHALL BE REPLACED PER VTRANS STANDARD DRAWINGS T-40 AND T-43. DELINEATORS MAY BE SALVAGED AT THE DISCRETION OF THE RESIDENT ENGINEER.

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568bdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
LAYOUT SHEETS 1	SHEET 10 OF 76

REMOVAL OF EXISTING FENCE
STA. 3974+61 TO STA. 3974+62, LT
STA. 60+12 TO STA. 61+99, RT

CHAIN LINK FENCE
STA. 3974+61 TO STA. 3974+62, LT
STA. 60+12 TO STA. 60+23, RT
STA. 61+87 TO STA. 61+99, RT

CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 3974+99, LT TO STA. 3975+14, LT
STA. 3974+73, RT TO STA. 3974+88, RT
STA. 3976+58, LT TO STA. 3977+33, LT
STA. 3976+32, RT TO STA. 3977+32, RT
STA. 3574+55, LT TO STA. 3574+70, LT
STA. 3574+36, RT TO STA. 3574+51, RT
STA. 3576+14, LT TO STA. 3576+29, LT
STA. 3575+94, RT TO STA. 3576+50, RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 3973+93 TO STA. 3974+18 (TRANSITION HSD-621.07F), LT
STA. 3974+18 TO STA. 3974+51 (HSD-621.07A), LT
STA. 3974+51 TO STA. 3974+96 (HSD-621.07A) 8 FOOT POSTS, LT
STA. 3974+96 TO STA. 3975+14 (STANDARD S-351C), LT
STA. 3974+28 TO STA. 3974+53 (TRANSITION HSD-621.07F), RT
STA. 3974+53 TO STA. 3974+70 (HSD-621.07A), RT
STA. 3974+70 TO STA. 3974+88 (STANDARD S-351C), RT
STA. 3976+58 TO STA. 3976+76 (STANDARD S-351C), LT
STA. 3976+76 TO STA. 3977+17 (HSD-621.07A) 8 FOOT POSTS, LT
STA. 3977+17 TO STA. 3978+01 (HSD-621.07A), LT
STA. 3978+01 TO STA. 3978+26 (TRANSITION HSD-621.07F), LT
STA. 3976+32 TO STA. 3976+50 (STANDARD S-351C), RT
STA. 3976+50 TO STA. 3980+83 (HSD-621.07A), RT
STA. 59+68 TO STA. 59+93 (TRANSITION HSD-621.07F), LT
STA. 59+93 TO STA. 61+12 (HSD-621.07A), LT
STA. 61+12 TO STA. 61+37 (TRANSITION HSD-621.07F), LT

ANCHOR FOR STEEL BEAM RAIL
STA. 3577+56, RT
STA. 3579+70, LT

MTS, MGS, TANGENT, TL-3
STA. 3569+54 TO STA. 3570+04, LT

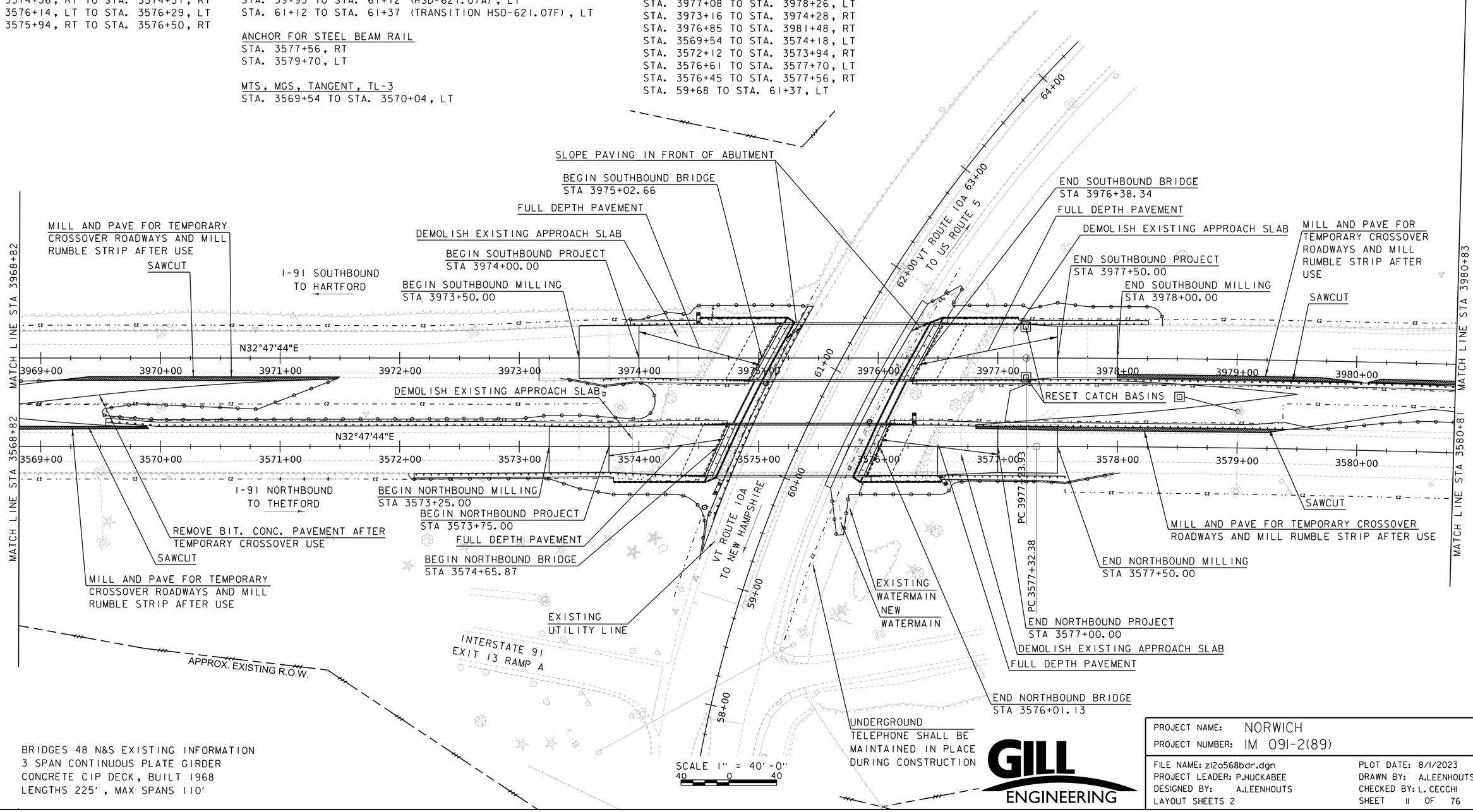
STEEL BEAM GUARDRDAIL, GALVANIZED (CONTINUED)
STA. 3570+04 TO STA. 3574+52 (HSD-621.07A), LT
STA. 3574+52 TO STA. 3574+70 (STANDARD S-351C), LT
STA. 3572+12 TO STA. 3572+37 (TRANSITION HSD-621.07F), RT
STA. 3572+37 TO STA. 3573+79 (HSD-621.07A), RT
STA. 3573+79 TO STA. 3574+33 (HSD-621.07A) 8 FOOT POSTS, RT
STA. 3574+33 TO STA. 3574+51 (STANDARD S-351C), RT
STA. 3576+14 TO STA. 3576+32 (STANDARD S-351C), LT
STA. 3576+32 TO STA. 3579+70 (HSD-621.07A), LT
STA. 3575+94 TO STA. 3576+12 (STANDARD S-351C), RT
STA. 3576+12 TO STA. 3576+53 (HSD-621.07A) 8 FOOT POSTS, RT
STA. 3576+53 TO STA. 3577+56 (HSD-621.07A), RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 3973+93 TO STA. 3974+60, LT
STA. 3977+08 TO STA. 3978+26, LT
STA. 3973+16 TO STA. 3974+28, RT
STA. 3976+85 TO STA. 3981+48, RT
STA. 3569+54 TO STA. 3574+18, LT
STA. 3572+12 TO STA. 3573+94, RT
STA. 3576+61 TO STA. 3577+70, LT
STA. 3576+45 TO STA. 3577+56, RT
STA. 59+68 TO STA. 61+37, LT

MILLED RUMBLE STRIP (SHOULDER)
STA. 3568+82, LT TO STA. 3569+90, LT
STA. 3969+30, RT TO STA. 3971+50, RT
STA. 3973+50, RT TO STA. 3979+70, RT
STA. 3573+25, LT TO STA. 3579+27, LT
STA. 3980+24, RT TO STA. 3980+83, RT

REMOVE AND RESET LIGHT POLE
STA. 60+74, RT
STA. 60+64, LT
STA. 59+39, LT TO 59+53, LT

BITUMINOUS CONCRETE SIDEWALK
STA. 60+07 TO STA. 61+88, RT



BRIDGES 48 N&S EXISTING INFORMATION
3 SPAN CONTINUOUS PLATE GIRDER
CONCRETE CIP DECK, BUILT 1968
LENGTHS 225', MAX SPANS 110'

GILL ENGINEERING

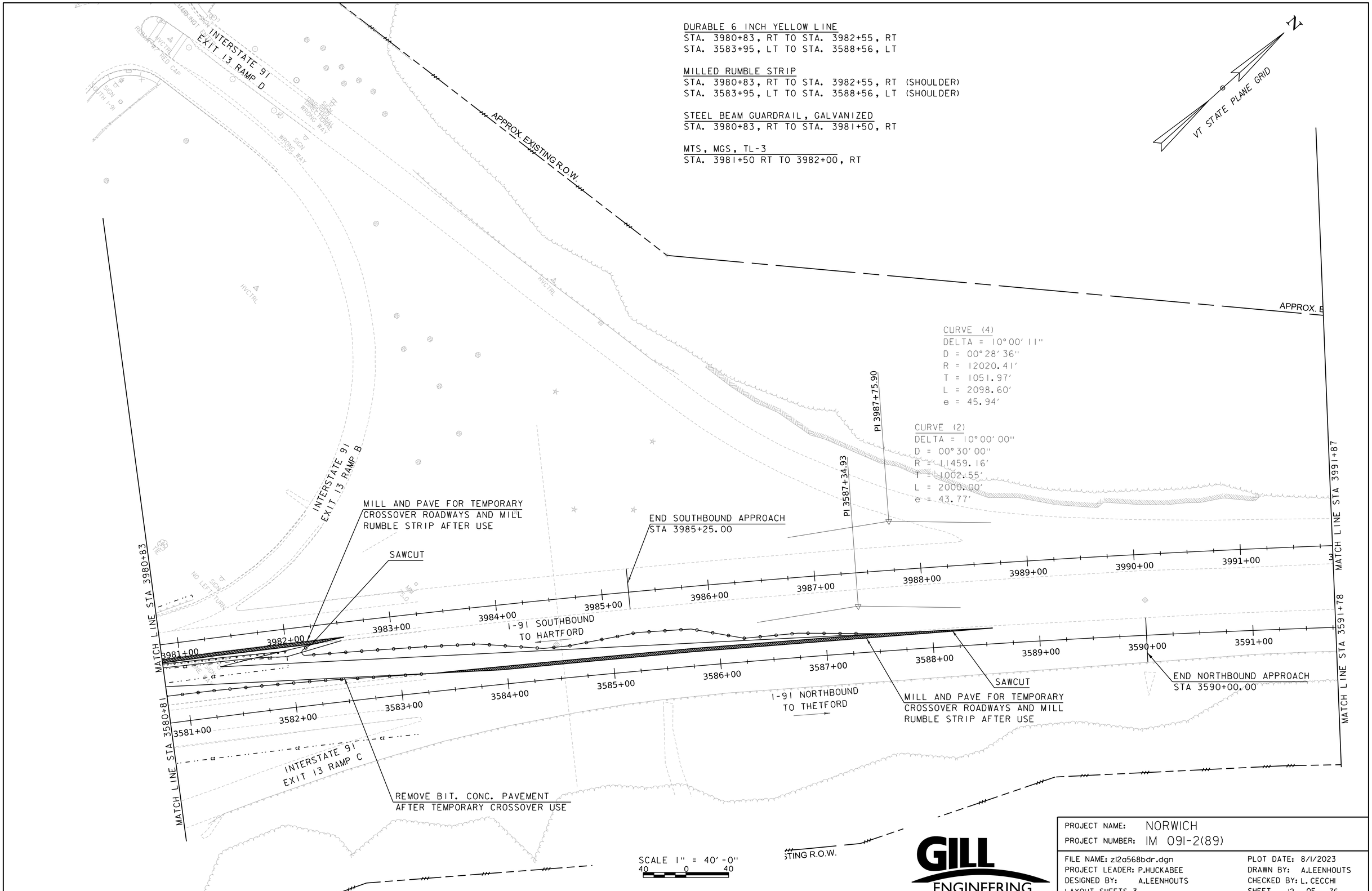
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568bdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
LAYOUT SHEETS 2	SHEET 11 OF 76

DURABLE 6 INCH YELLOW LINE
STA. 3980+83, RT TO STA. 3982+55, RT
STA. 3583+95, LT TO STA. 3588+56, LT

MILLED RUMBLE STRIP
STA. 3980+83, RT TO STA. 3982+55, RT (SHOULDER)
STA. 3583+95, LT TO STA. 3588+56, LT (SHOULDER)

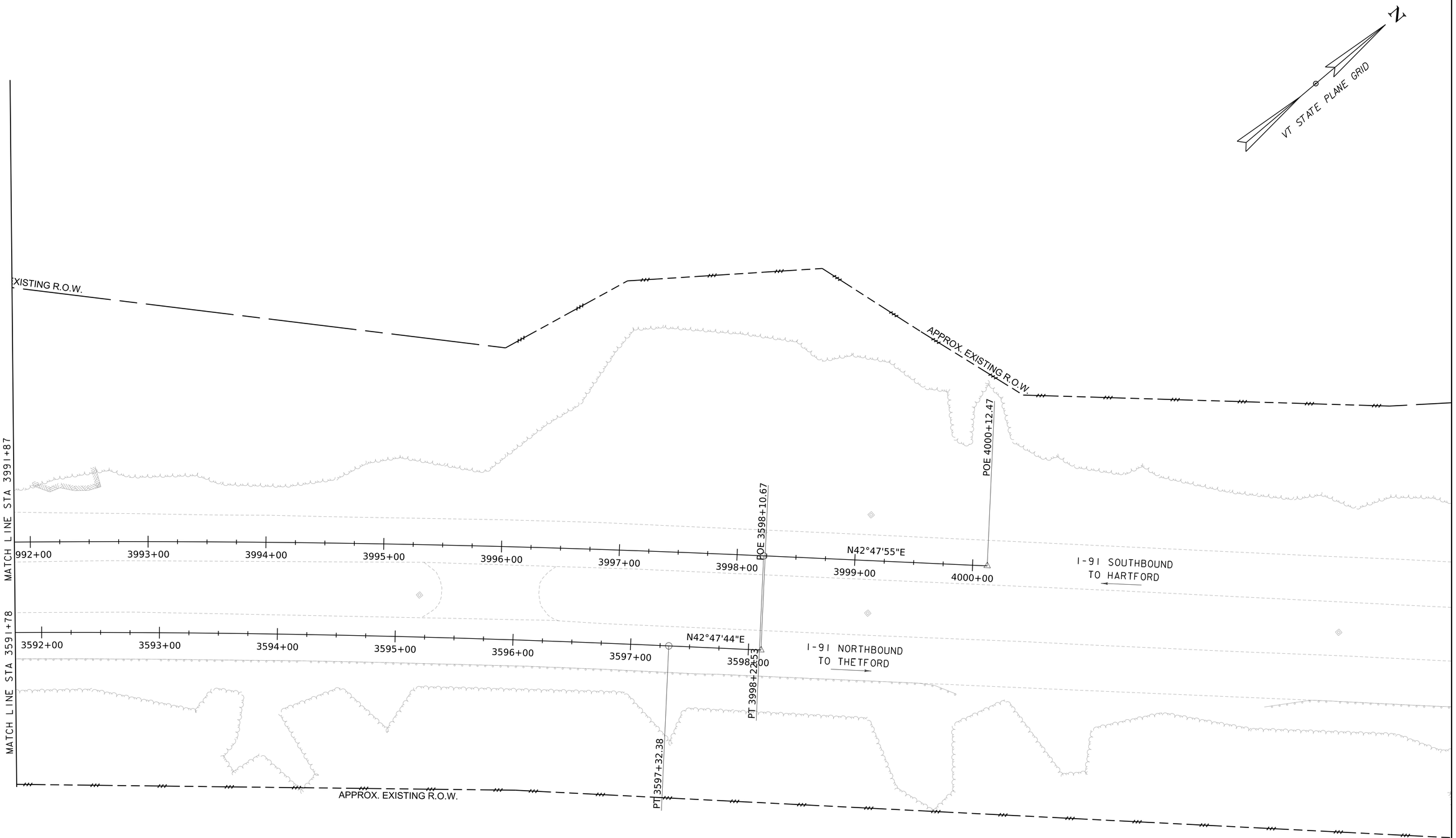
STEEL BEAM GUARDRAIL, GALVANIZED
STA. 3980+83, RT TO STA. 3981+50, RT

MTS, MGS, TL-3
STA. 3981+50 RT TO 3982+00, RT



GILL ENGINEERING

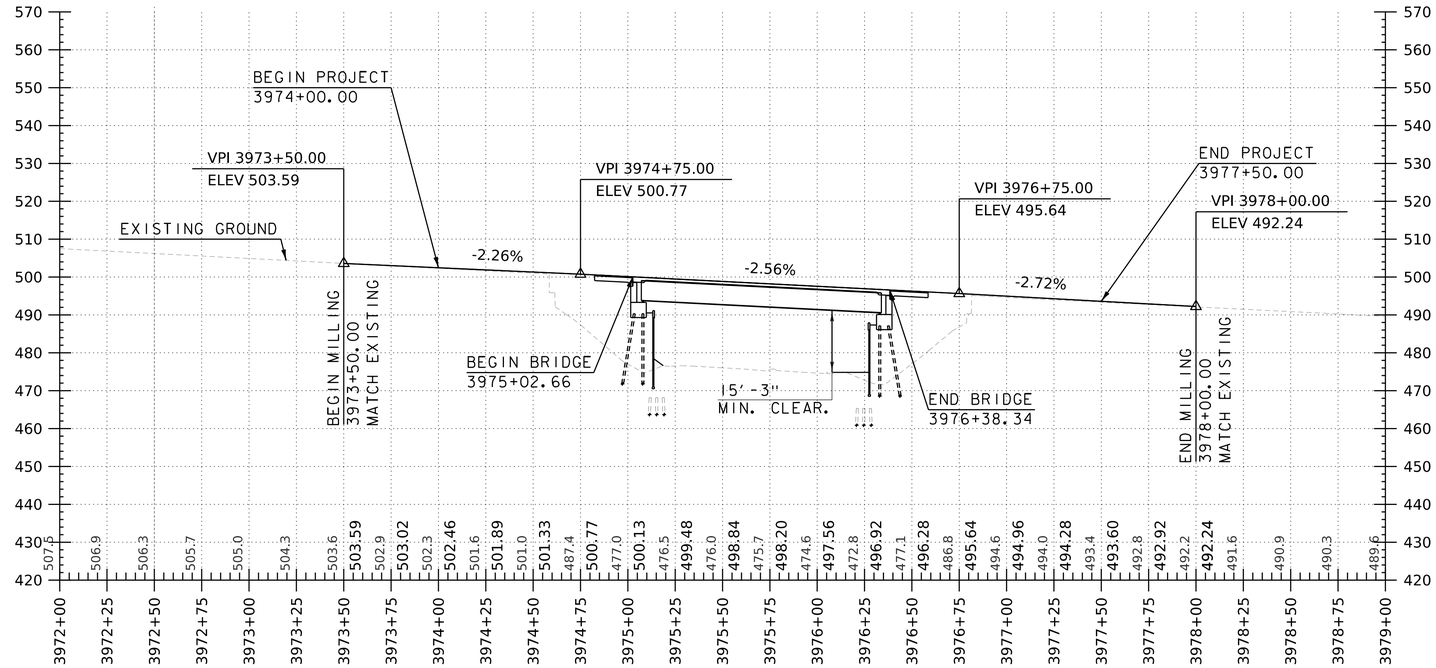
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568bdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
LAYOUT SHEETS 3	SHEET 12 OF 76



SCALE 1" = 40'-0"
40 0 40

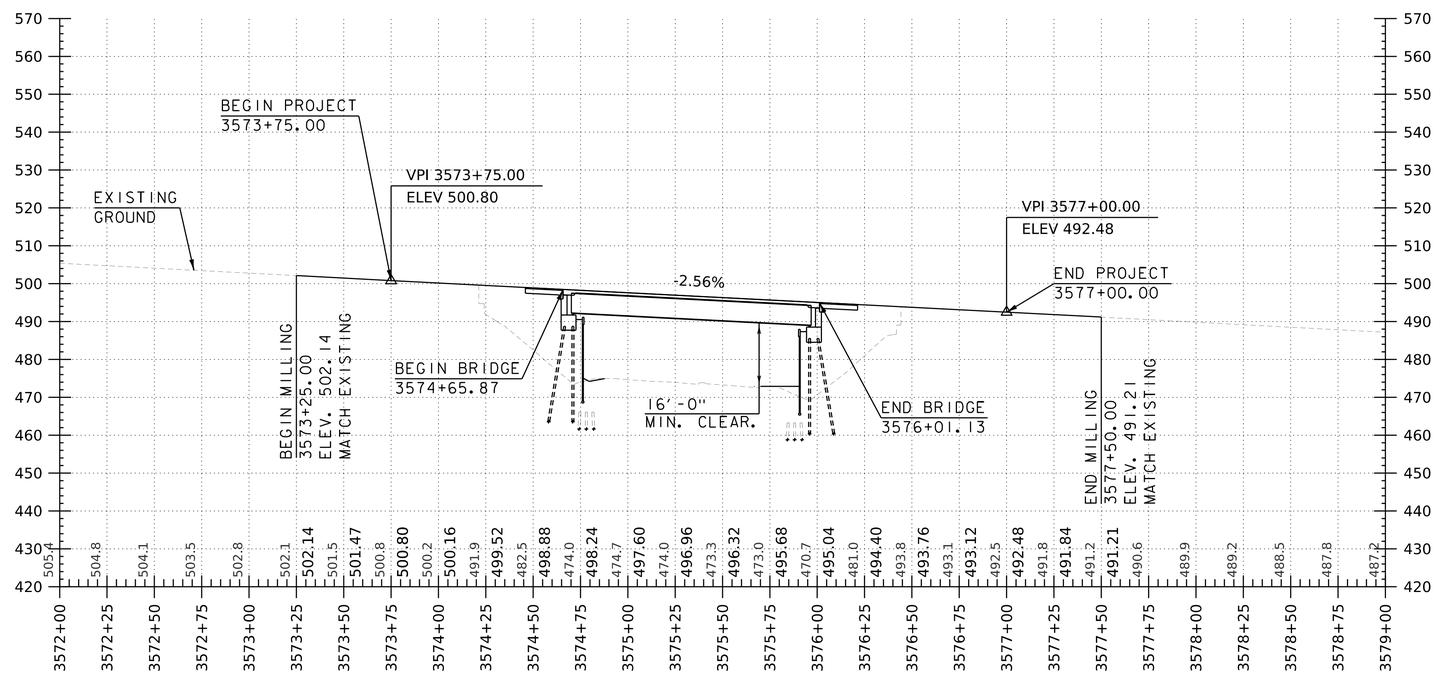
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568bdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
LAYOUT SHEETS 4	SHEET 13 OF 76



I-91 SOUTHBOUND PROFILE

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'



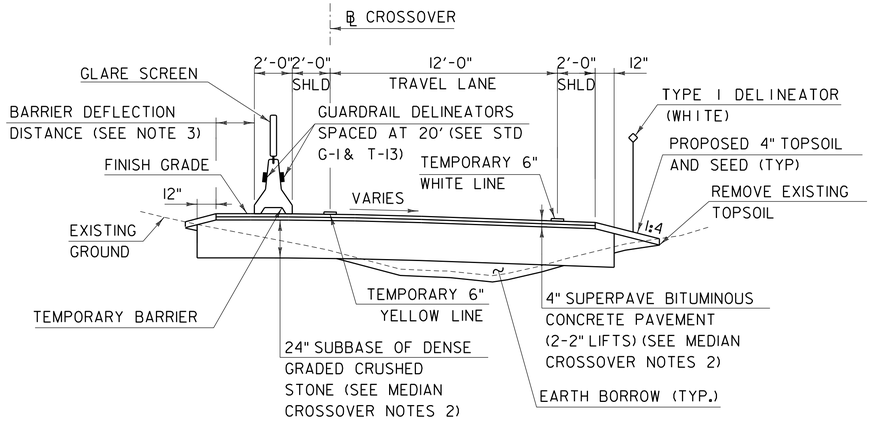
I-91 NORTHBOUND PROFILE

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'

NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

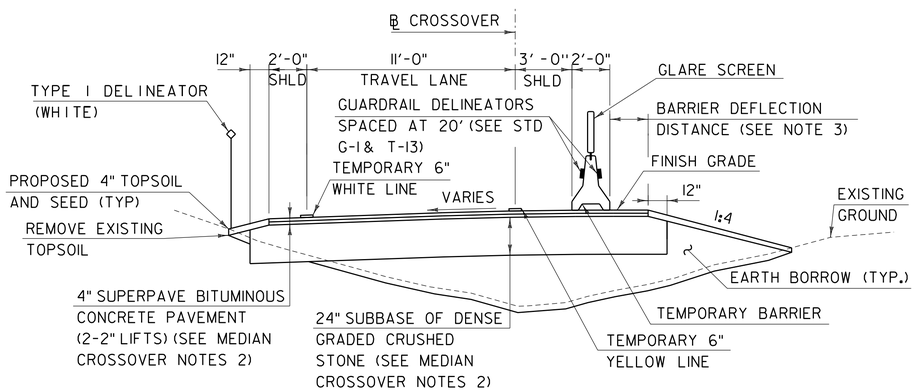
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568profile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
PROFILE SHEET	SHEET 14 OF 76



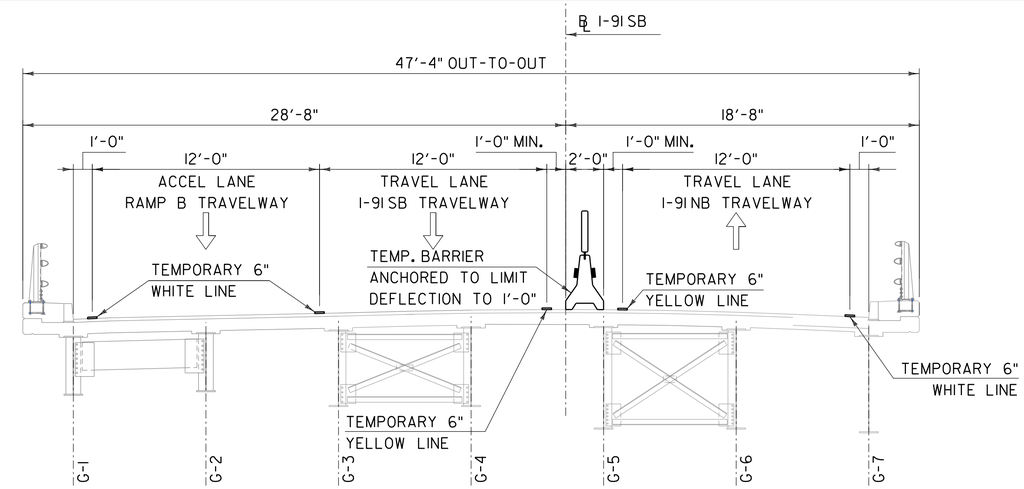
NORTHBOUND MEDIAN CROSSOVER TYPICAL

NOT TO SCALE



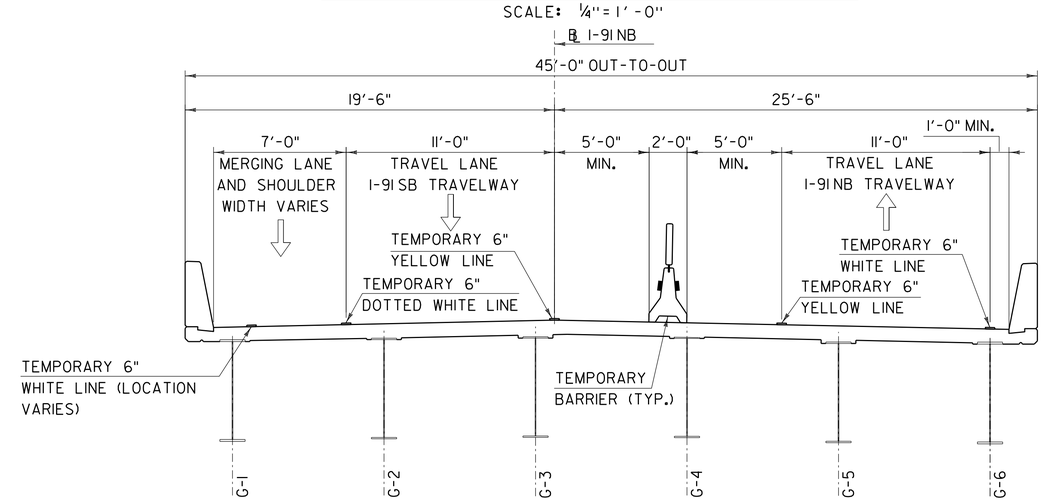
SOUTHBOUND MEDIAN CROSSOVER TYPICAL

NOT TO SCALE



NORTHBOUND CROSSOVER TYPICAL - SB BRIDGE

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



SOUTHBOUND CROSSOVER TYPICAL - NB BRIDGE

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

MEDIAN CROSSOVER NOTES

1. REFLECTORS SHALL BE YELLOW FOR THE LEFT-HAND SIDE AND WHITE FOR THE RIGHT-HAND SIDE OF THE CROSSOVERS. REFLECTORS SHALL BE INCIDENTAL TO ITEM 621.90 TEMPORARY TRAFFIC BARRIER. REFLECTORS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. REFLECTORS SHALL BE MOUNTED EVERY 20 FEET ALONG THE SIDE OF THE BARRIER EXPOSED TO TRAFFIC, WITH YELLOW ON THE DRIVER'S LEFT AND WHITE ON THE DRIVER'S RIGHT.

2. BITUMINOUS CONCRETE PAVEMENT, EXCAVATION, FILL MATERIALS AND SUBBASE MATERIALS REQUIRED TO CONSTRUCT TEMPORARY MEDIAN CROSSOVER SHALL BE PAID FOR AS ITEM 900.645 SPECIAL PROVISION (TEMPORARY ROADWAY) (NORTHBOUND CROSSOVER) OR ITEM 900.645 SPECIAL PROVISION (TEMPORARY ROADWAY) (SOUTHBOUND CROSSOVER).

3. LEVEL AREA BEHIND BARRIER MUST BE AT LEAST THE DEFLECTION DISTANCE OF THE BARRIER SYSTEM BASED ON NCHRP 350 OR MASH TESTING. DEFLECTION OF THE TEMPORARY BARRIER MUST NOT ENCROACH INTO ONCOMING LANE, ANCHORING MAY BE NECESSARY.

4. TEMPORARY BARRIER SHALL BE ADEQUATELY ANCHORED TO LIMIT DEFLECTION TO THE AVAILABLE SHOULDER WIDTH. ANCHORS IN THE BRIDGE DECKS SHALL BE LOCATED TO AVOID DECK REINFORCEMENT. FILL ANCHORAGE HOLES WITH AN APPROVED GROUT AFTER THE BARRIER IS REMOVED.

5. THE RUMBLE STRIPS SHALL BE MILLED A DEPTH OF 1 1/2", PAVED IN WITH TYPE IV SUPERPAVE AND THEN NEW RUMBLE STRIPS INSTALLED AFTER THE BRIDGE WORK IS COMPLETE.

LEFT	PLEASE
LANE	MERGE
CLOSED	EARLY

PCMS - MESSAGES

PCMS NOTE:
PORTABLE CHANGEABLE MESSAGE BOARDS TO BE LOCATED 1.5 MILES PRIOR TO MERGING TAPERS.

PORTABLE SIGN NOTE:
PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE 5' ABOVE THE ROADWAY.

GENERAL TRAFFIC CONTROL NOTES

1. THE EXISTING SPEED LIMIT ON I-91 IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 55 MPH IN THE WORK ZONE FOR THIS PROJECT. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED. ALL OTHER EXISTING SIGNS IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL CONDITIONS SHALL BE REMOVED OR COMPLETELY COVERED. A RESUME SPEED LIMIT SIGN SHALL BE POSTED AT THE END OF THE WORK ZONE.

   SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE. ALSO THE SIGN COVER SHALL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED.

   CONSTRUCTION SIGN COVERS SHALL CONSIST OF A PANEL, PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDBOARD, OR ANY OTHER MATERIAL SATISFACTORY TO THE ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANELS SHALL BE DONE IN SUCH AS WAY AS TO NOT DAMAGE THE SIGN FACE MATERIAL.

2. ANY CONTRACTOR PROPOSED CHANGES TO THIS PROJECT SPECIFIC TRAFFIC CONTROL PLAN (TCP) SHALL BE SUBMITTED TO THE RESIDENT ENGINEER AND THE PROFESSIONAL ENGINEER WHO PREPARED THE TCP PLANS FOR APPROVAL.

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568tsnotes.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
TRAFFIC CONTROL NOTES AND SECTIONS

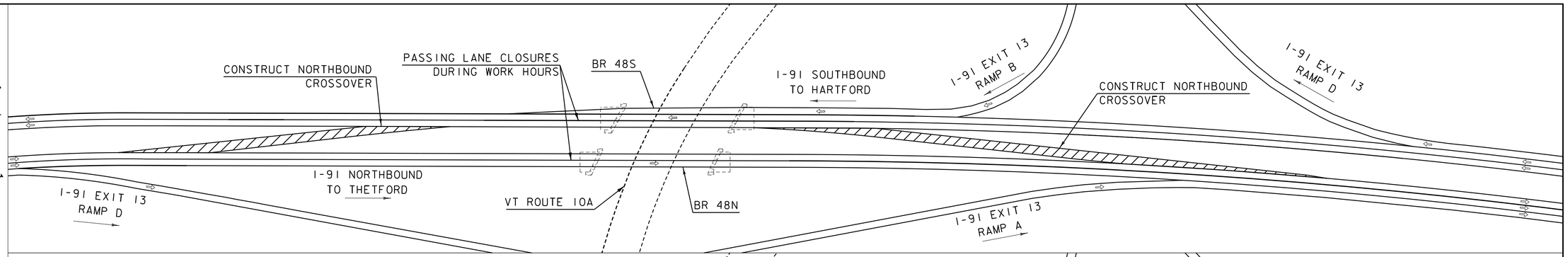
PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: L. CECCHI
SHEET 15 OF 76

PHASE 1

NORTHBOUND CROSSOVERS

- WITH PASSING LANE CLOSURES DURING WORK HOURS CONSTRUCT NORTHBOUND CROSSOVERS.

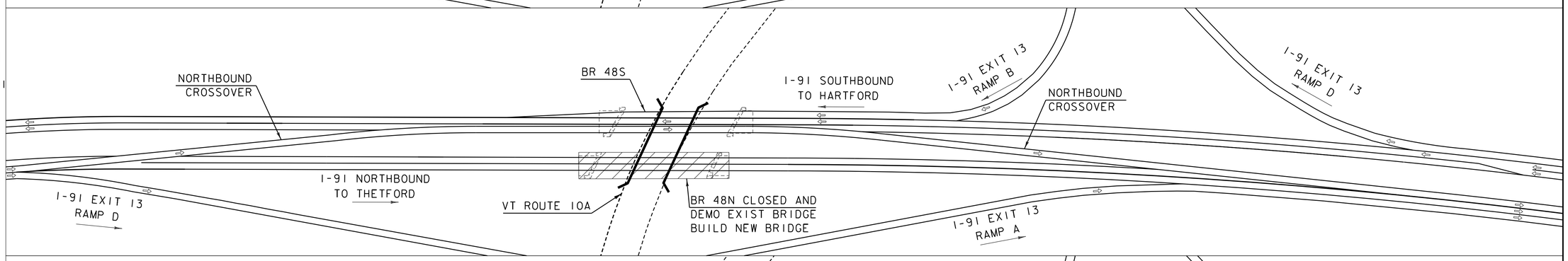
NOTE: FILL SECTIONS TO REMAIN IN PLACE AT COMPLETION OF WORK. RECOMMEND COMPLETING FILL FOR PHASE 1 AND PHASE 3 IN ONE OPERATION.



PHASE 2

BRIDGE 48N DEMOLITION & CONSTRUCTION

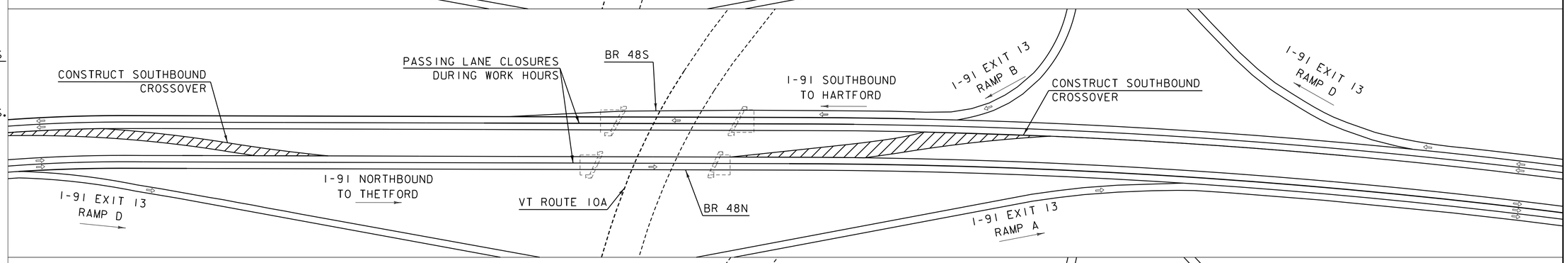
- WITH TRAFFIC ON I-91 NORTHBOUND MEDIAN CROSSOVERS CONSTRUCT NEW BRIDGE 48N.



PHASE 3

SOUTHBOUND CROSSOVERS

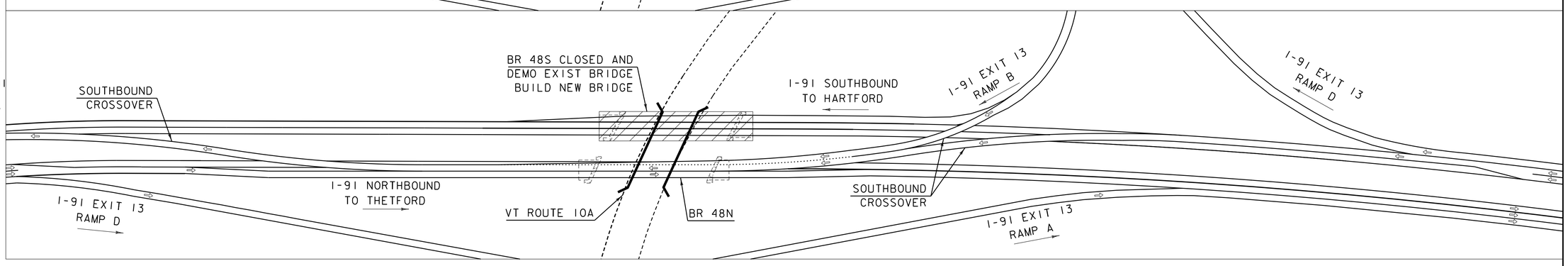
- WITH PASSING LANE CLOSURES DURING WORK HOURS CONSTRUCT SOUTHBOUND CROSSOVERS.



PHASE 4

BRIDGE 48S DEMOLITION & CONSTRUCTION

- WITH TRAFFIC ON I-91 SOUTHBOUND MEDIAN CROSSOVERS CONSTRUCT NEW BRIDGE 48S.



PHASE 5

CROSSOVER REMOVAL AND PAVEMENT MARKINGS

- WITH PASSING LANE CLOSURES DURING WORK HOURS REMOVE SOUTHBOUND CROSSOVER PAVEMENT, INSTALL MEDIAN GUARDRAIL, RUMBLE STRIPS, REINSTALL DELINEATORS, TURF ESTABLISHMENT, AND PAVEMENT MARKINGS.

GENERAL PHASING NOTES

- THIS PHASING PLAN IS SCHEMATIC ONLY AND SHOULD BE USED AS A REFERNCE. SCHEMATIC NOT DRAWN TO SCALE. SEE TRAFFIC CONTROL PLANS FOR MORE DETAILS.

LEGEND

AREA OF CONSTRUCTION ACTIVITY

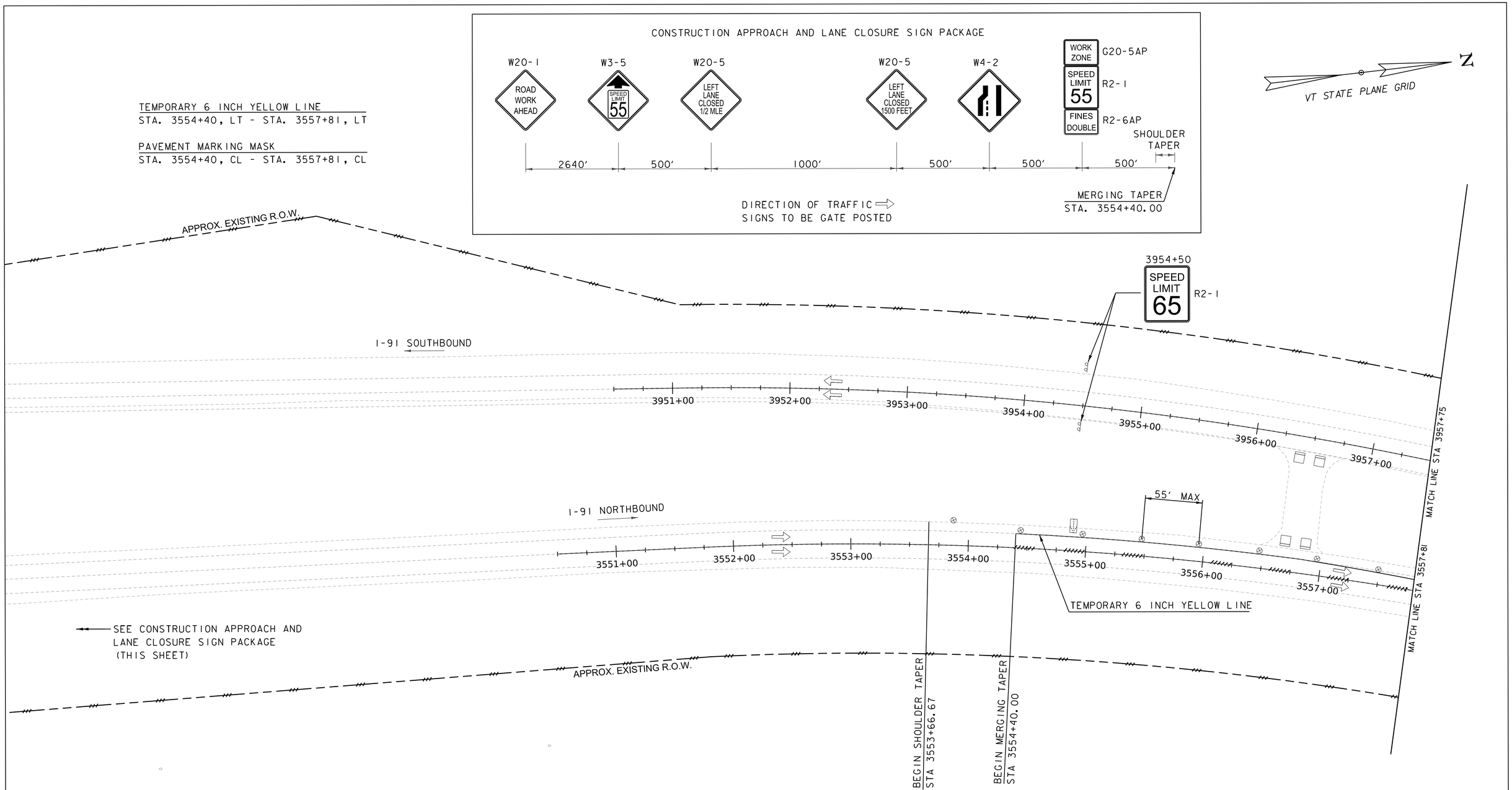
DIRECTION OF TRAVEL

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568tsphasing.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
TRAFFIC CONTROL PHASING PLAN	SHEET 16 OF 76

TEMPORARY 6 INCH YELLOW LINE
STA. 3554+40, LT - STA. 3557+81, LT

PAVEMENT MARKING MASK
STA. 3554+40, CL - STA. 3557+81, CL



LEGEND:

- TEMPORARY TRAFFIC BARRIER
- PORTABLE ARROW BOARD
- RETROREFLECTIVE PLASTIC DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC
- TYPE I DELINEATOR (YELLOW)
- TYPE I DELINEATOR (WHITE)

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568NBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 1	SHEET 17 OF 76

TEMPORARY BARRIER
STA. 3968+50, RT - STA. 3968+82, RT

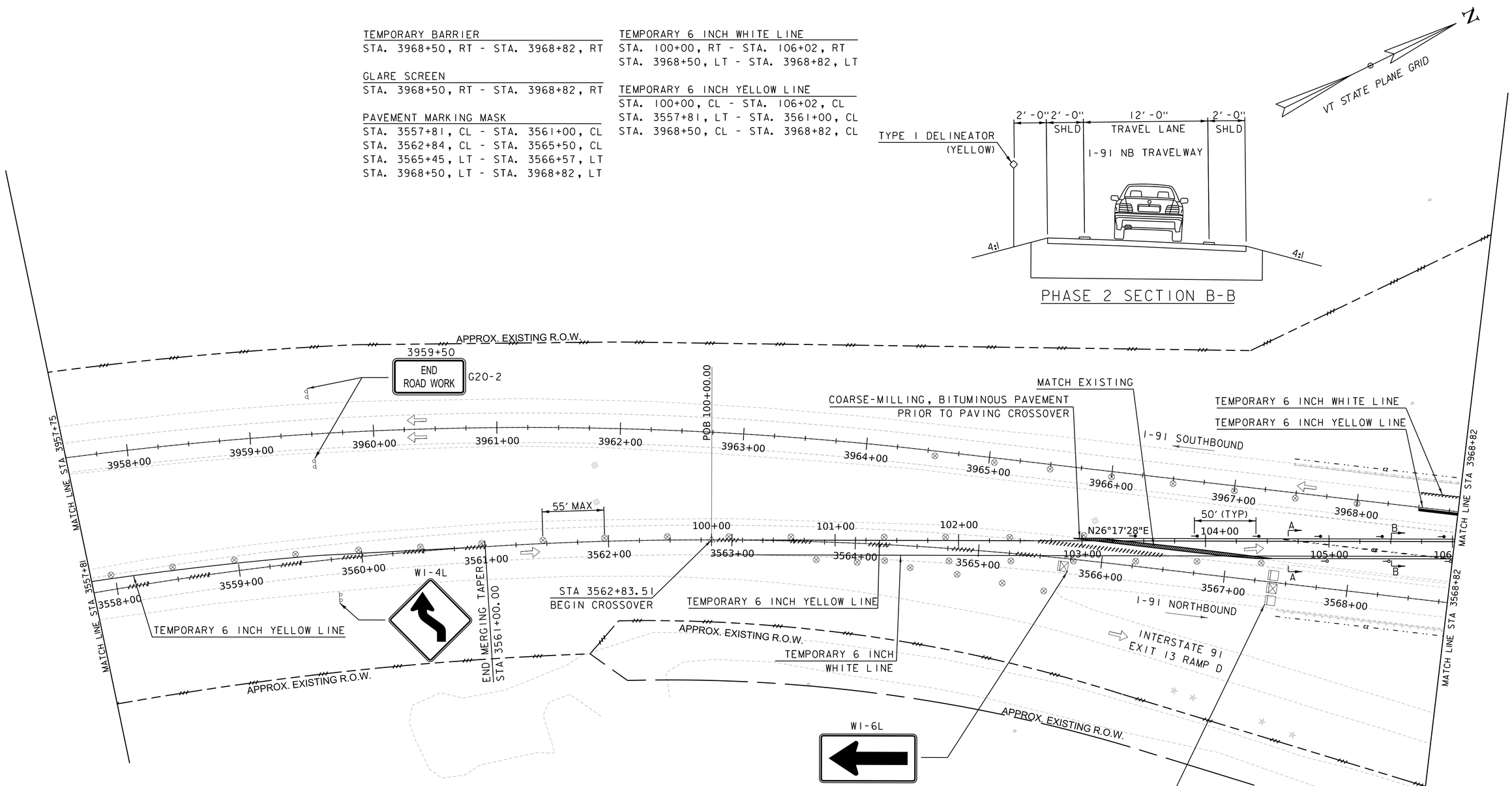
GLARE SCREEN
STA. 3968+50, RT - STA. 3968+82, RT

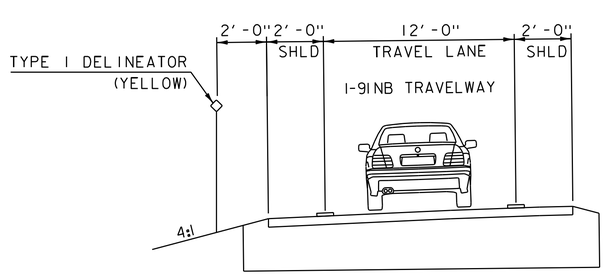
PAVEMENT MARKING MASK
STA. 3557+81, CL - STA. 3561+00, CL
STA. 3562+84, CL - STA. 3565+50, CL
STA. 3565+45, LT - STA. 3566+57, LT
STA. 3968+50, LT - STA. 3968+82, LT

TEMPORARY 6 INCH WHITE LINE
STA. 100+00, RT - STA. 106+02, RT
STA. 3968+50, LT - STA. 3968+82, LT

TEMPORARY 6 INCH YELLOW LINE
STA. 100+00, CL - STA. 106+02, CL
STA. 3557+81, LT - STA. 3561+00, CL
STA. 3968+50, CL - STA. 3968+82, CL

PHASE 2 SECTION B-B





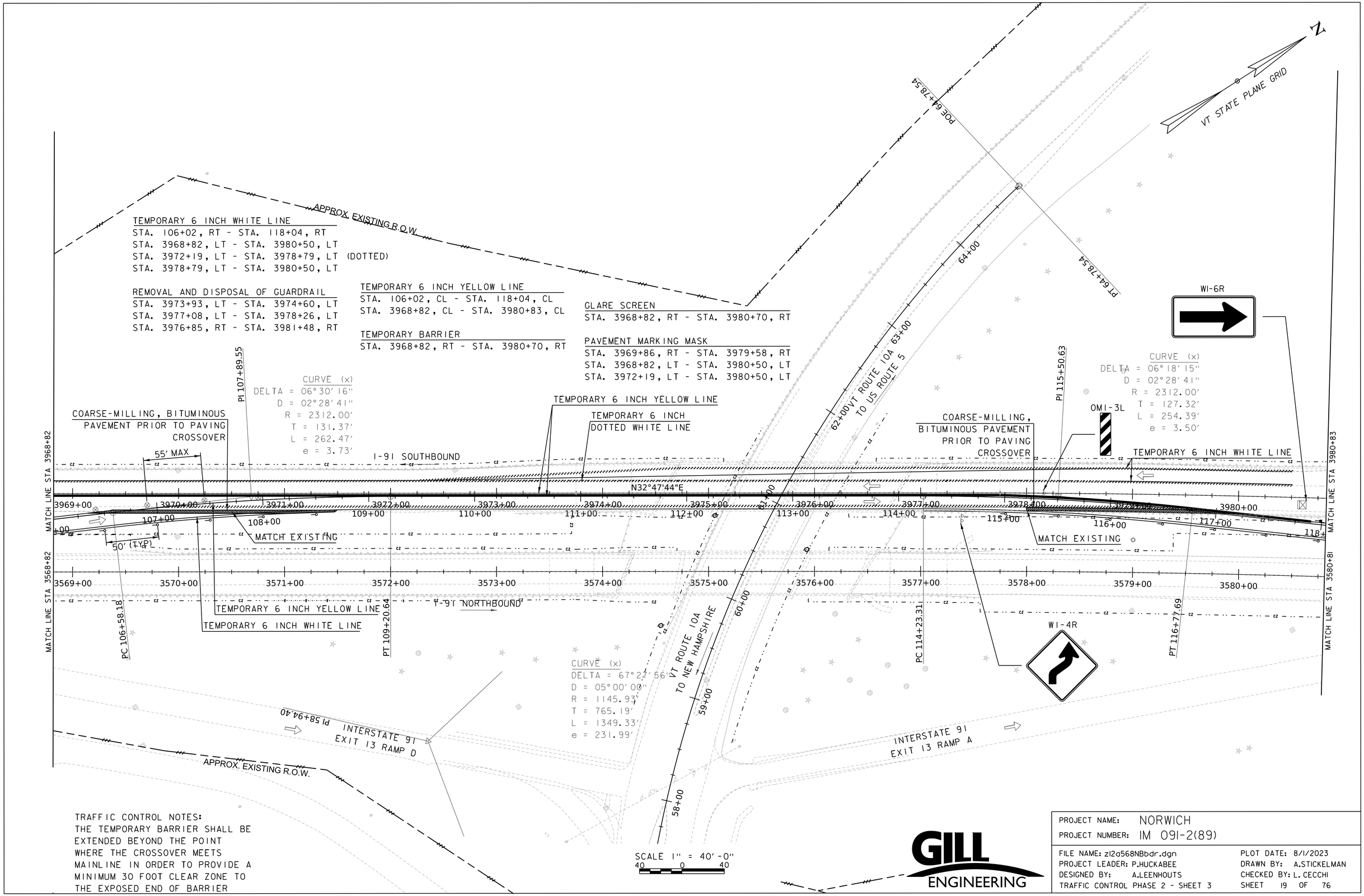
PHASE 2 SECTION A-A

TRAFFIC CONTROL NOTES:
THE TEMPORARY BARRIER SHALL BE EXTENDED BEYOND THE POINT WHERE THE CROSSOVER MEETS MAINLINE IN ORDER TO PROVIDE A MINIMUM 30 FOOT CLEAR ZONE TO THE EXPOSED END OF BARRIER

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

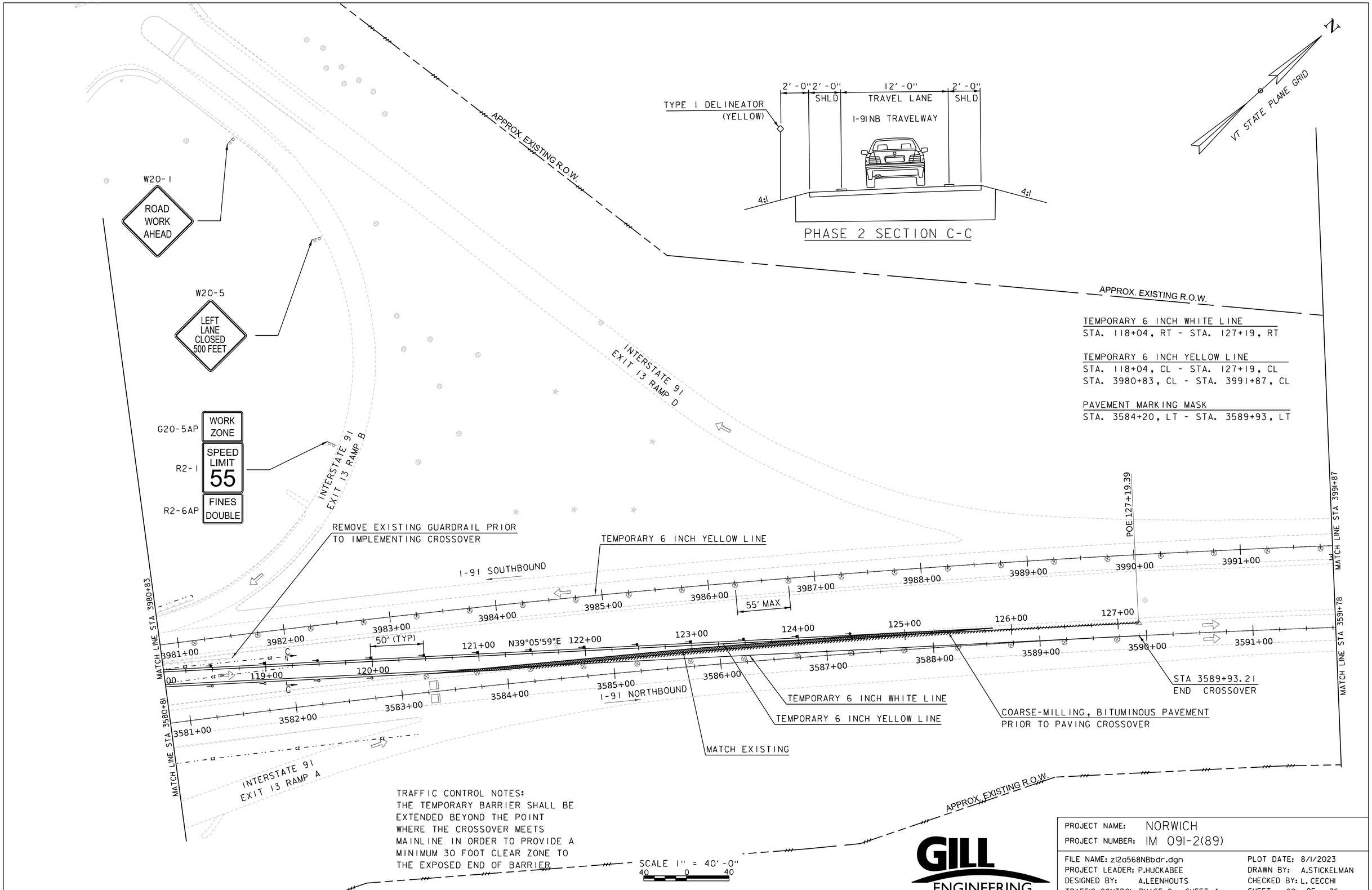
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568NBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 2	SHEET 18 OF 76



TRAFFIC CONTROL NOTES:
THE TEMPORARY BARRIER SHALL BE EXTENDED BEYOND THE POINT WHERE THE CROSSOVER MEETS MAINLINE IN ORDER TO PROVIDE A MINIMUM 30 FOOT CLEAR ZONE TO THE EXPOSED END OF BARRIER

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568NBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 3	SHEET 19 OF 76



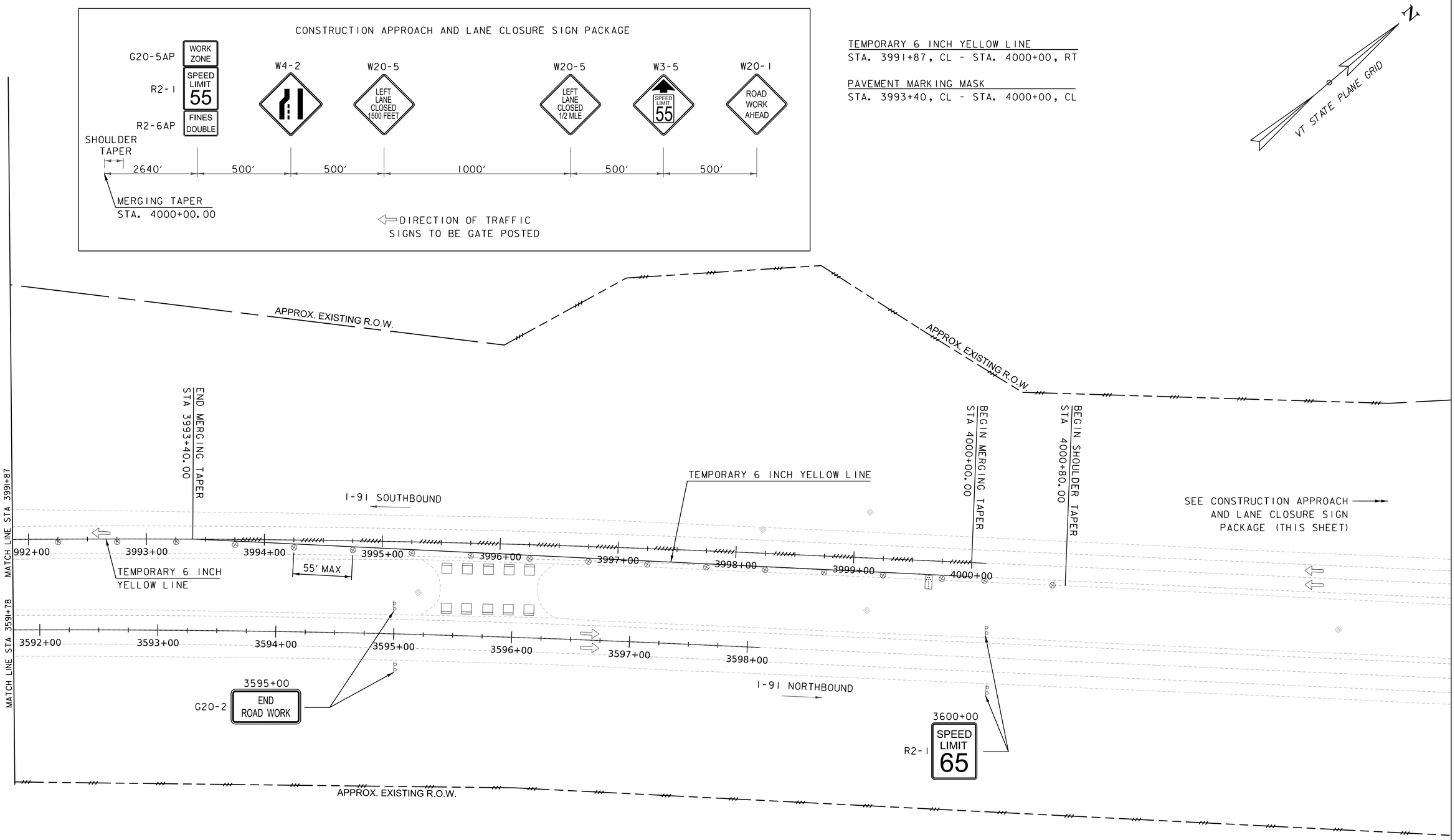
TRAFFIC CONTROL NOTES:
THE TEMPORARY BARRIER SHALL BE EXTENDED BEYOND THE POINT WHERE THE CROSSOVER MEETS MAINLINE IN ORDER TO PROVIDE A MINIMUM 30 FOOT CLEAR ZONE TO THE EXPOSED END OF BARRIER

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568NBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 4	SHEET 20 OF 76

TEMPORARY 6 INCH YELLOW LINE
STA. 3991+87, CL - STA. 4000+00, RT

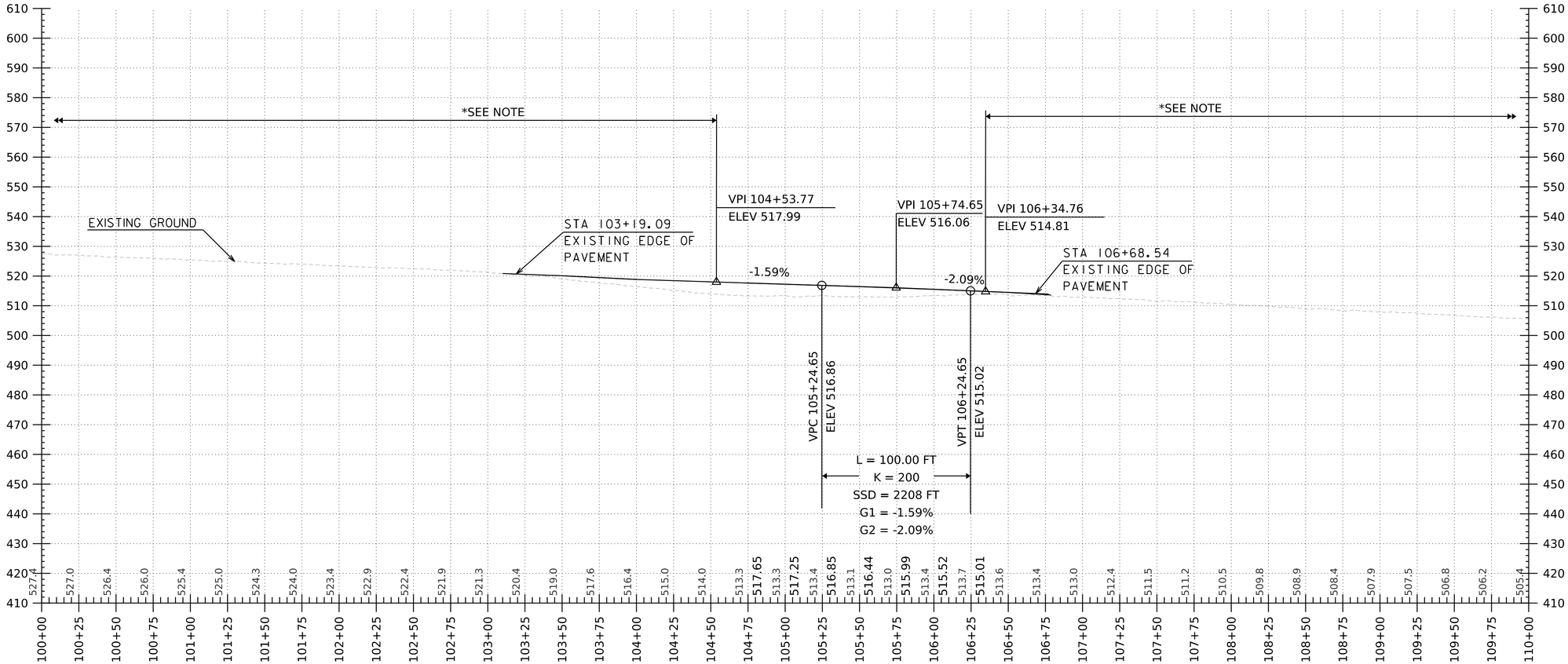
PAVEMENT MARKING MASK
STA. 3993+40, CL - STA. 4000+00, CL



SCALE 1" = 40'-0"
40 0 40

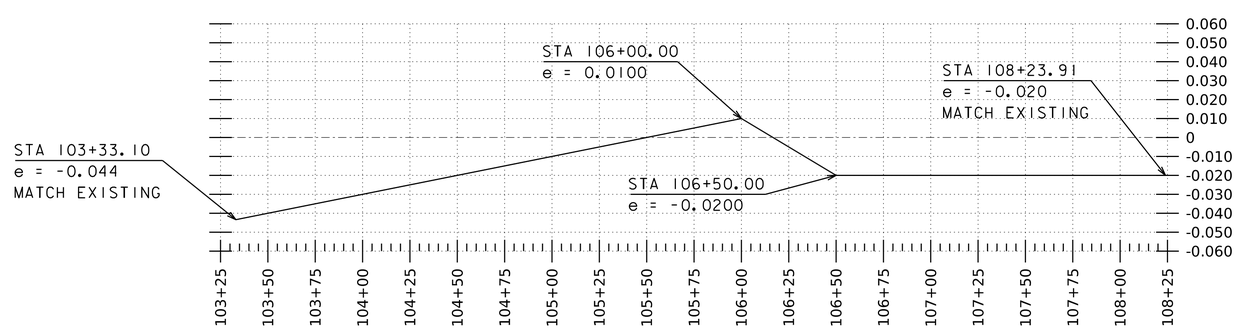
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568NBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 5	SHEET 21 OF 76



I-91 NORTHBOUND CROSSOVER PROFILE (SOUTH)

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'



I-91 NORTHBOUND CROSSOVER BANKING DIAGRAM (SOUTH)

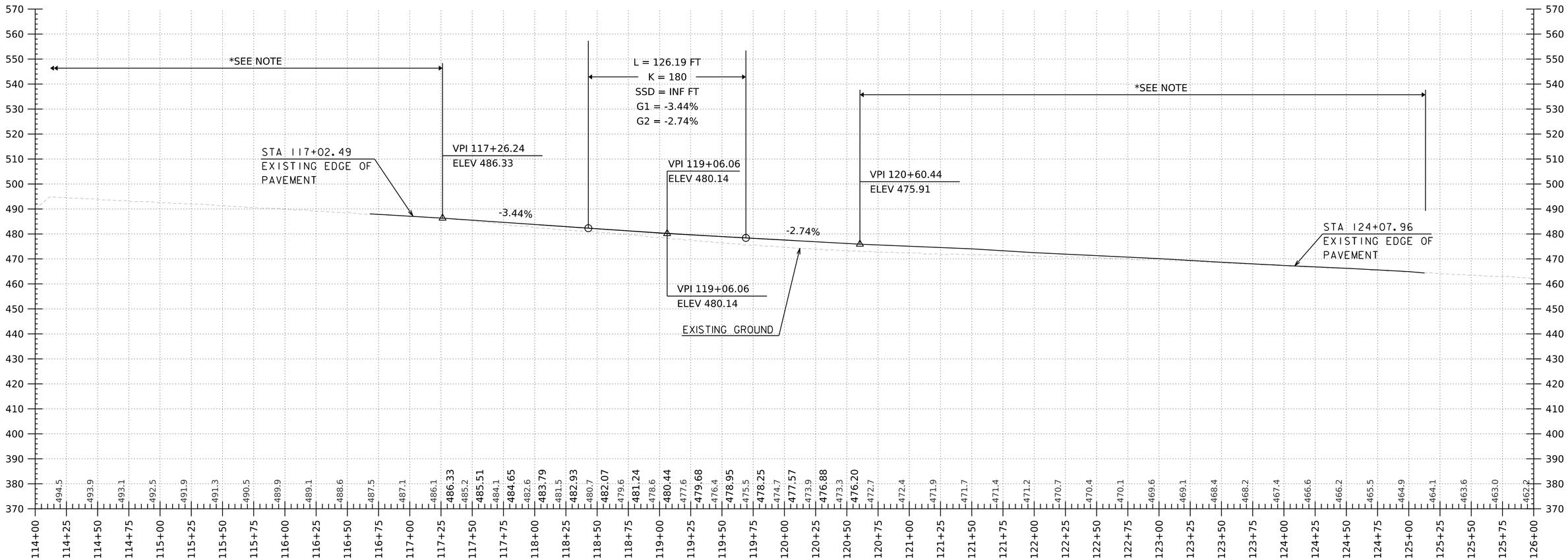
HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'

NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

* PROFILE IS SHOWN FOR GRAPHICAL PURPOSES. TEMPORARY ROADWAY SHALL MEET EXISTING PAVEMENT. ℄ ESTABLISHED BY CROSS SLOPE FROM EXISTING ELEVATION.

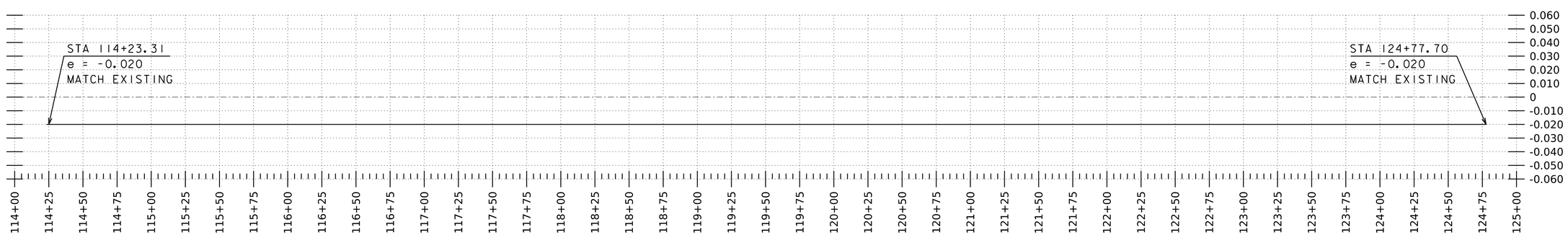
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568CrossoverProfile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 6	SHEET 22 OF 76



I-91 NORTHBOUND CROSSOVER PROFILE (NORTH)

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'



I-91 NORTHBOUND CROSSOVER BANKING DIAGRAM (NORTH)

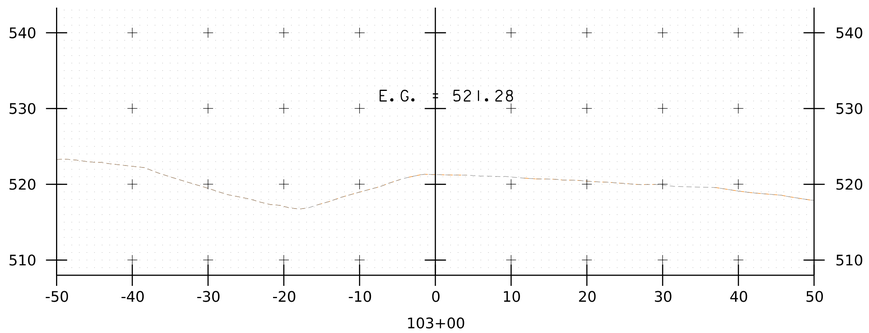
HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"= 0.040 (4.00%)

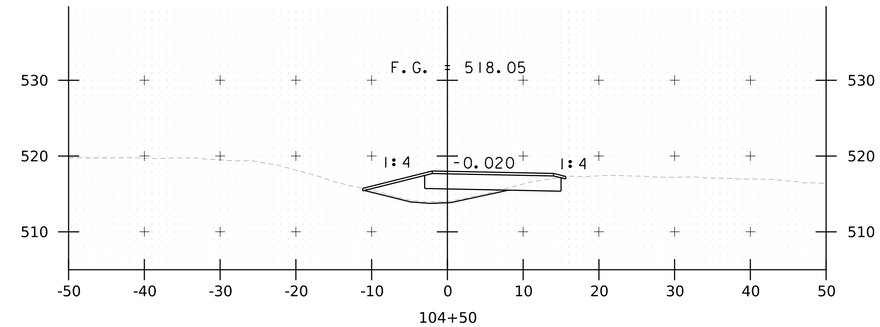
NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

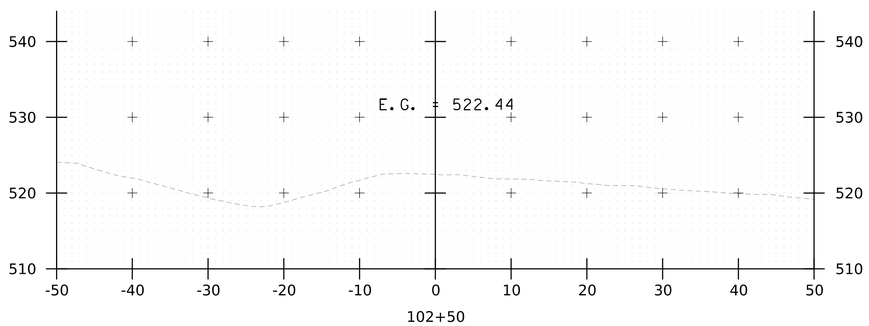
* PROFILE IS SHOWN FOR GRAPHICAL PURPOSES. TEMPORARY ROADWAY SHALL MEET EXISTING PAVEMENT. ℄ ESTABLISHED BY CROSS SLOPE FROM EXISTING ELEVATION.

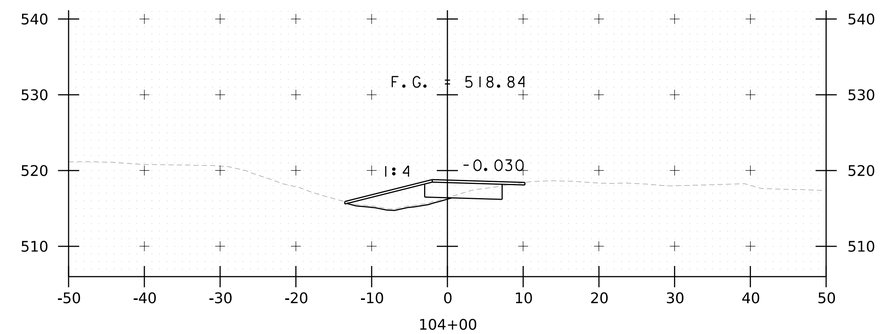
GILL ENGINEERING

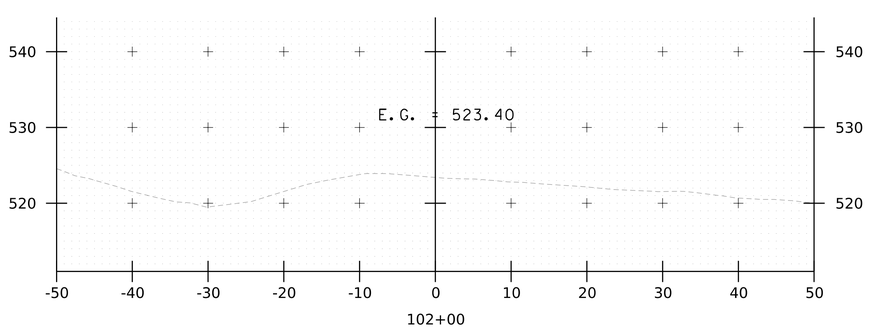
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568CrossoverProfile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 2 - SHEET 7	SHEET 23 OF 76

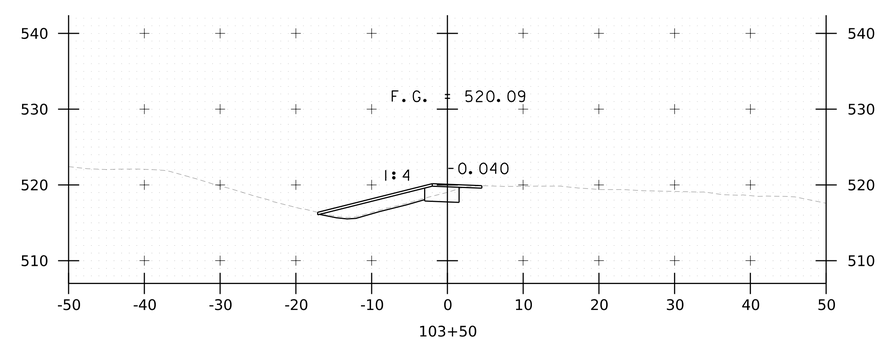








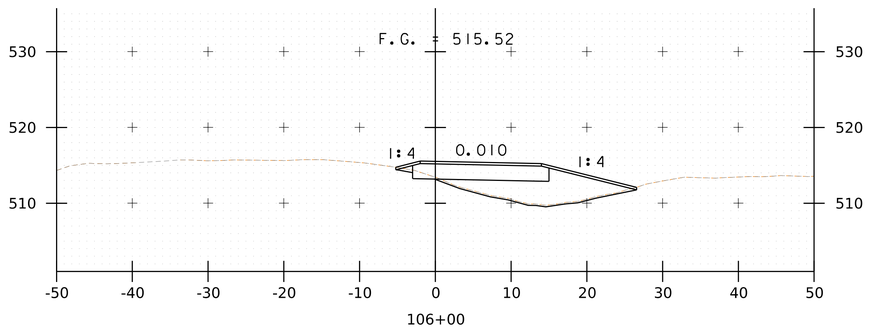


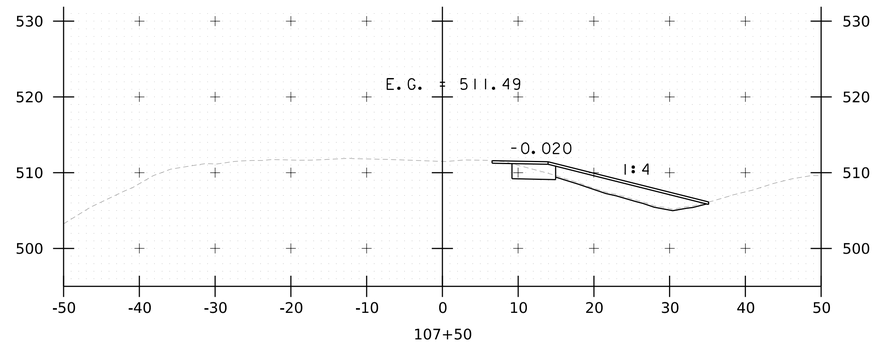


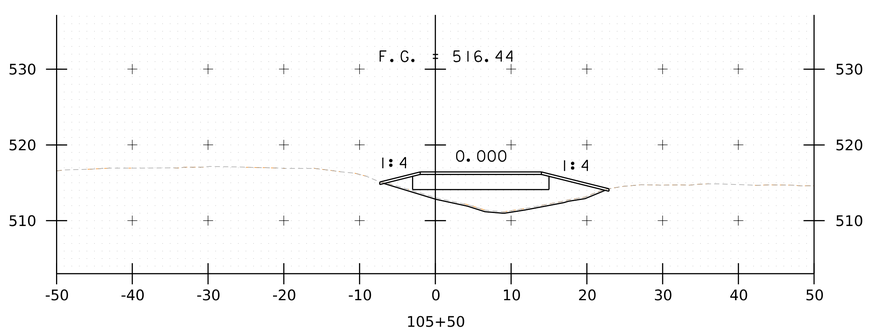
STA. 102+00 TO STA. 104+50

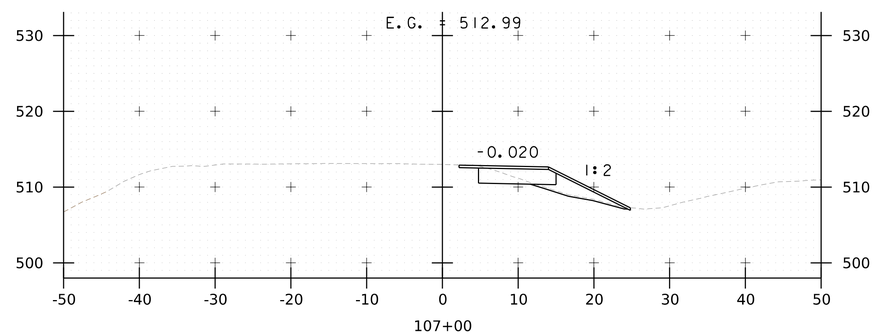
GILL ENGINEERING

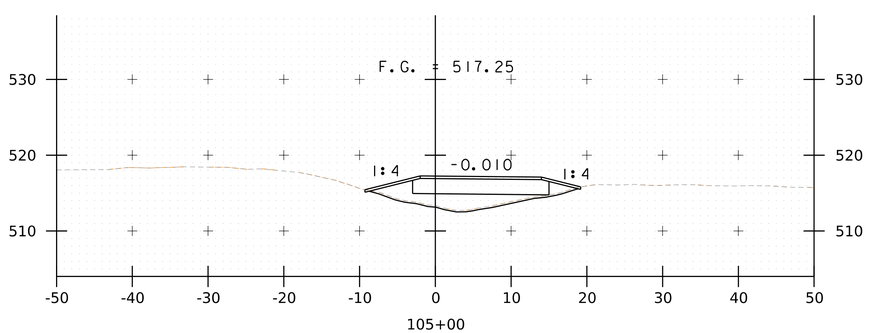
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS I	SHEET 24 OF 76

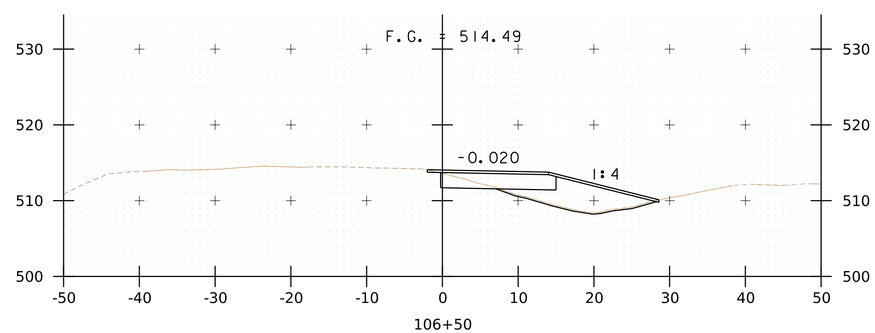








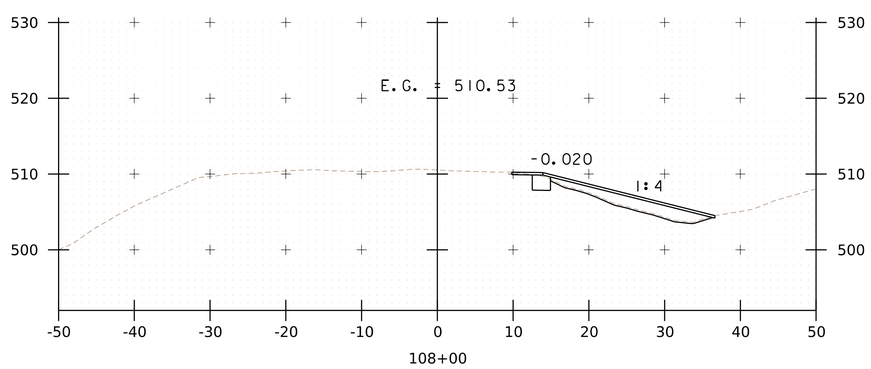




STA. 105+00 TO STA. 107+50

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS 2	SHEET 25 OF 76



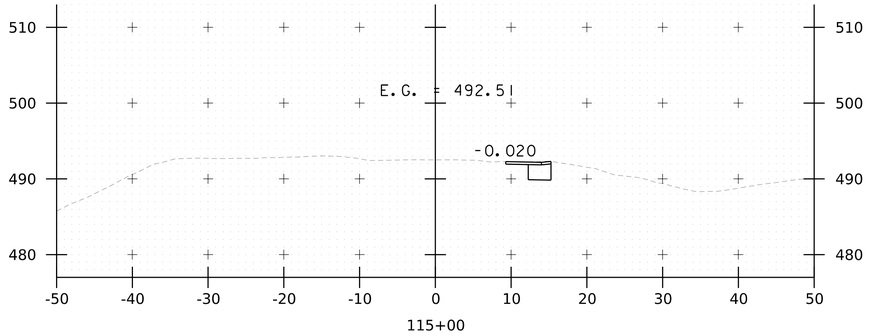
STA. 108+00 TO STA. 108+00

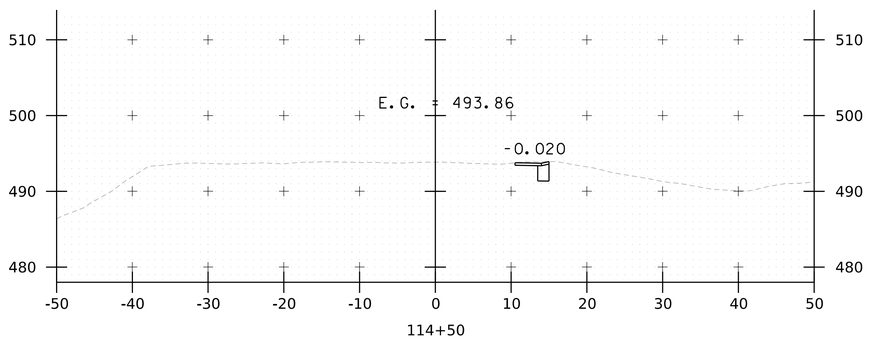
GILL ENGINEERING

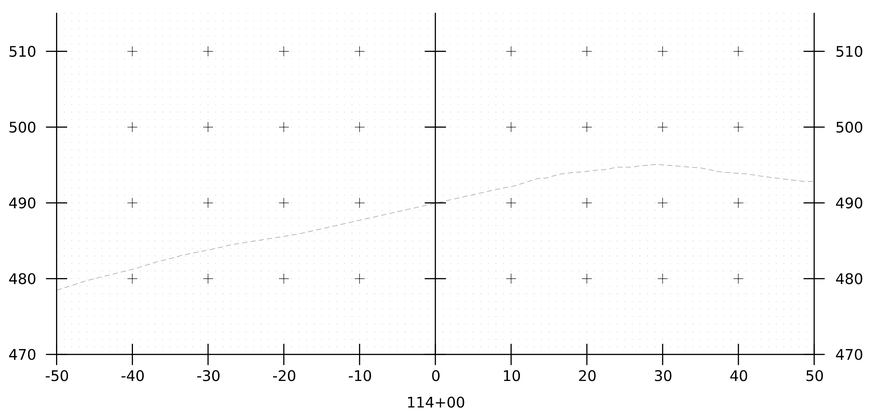
PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

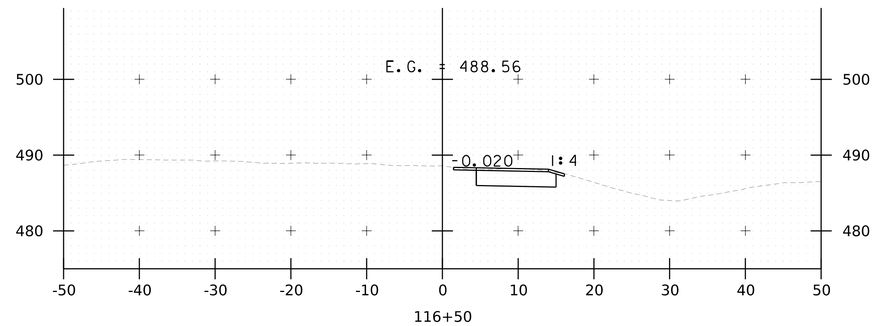
FILE NAME: z12a568xs-NBxover.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: A.LEENHOUTS
NORTHBOUND CROSSOVER CROSS SECTIONS 3

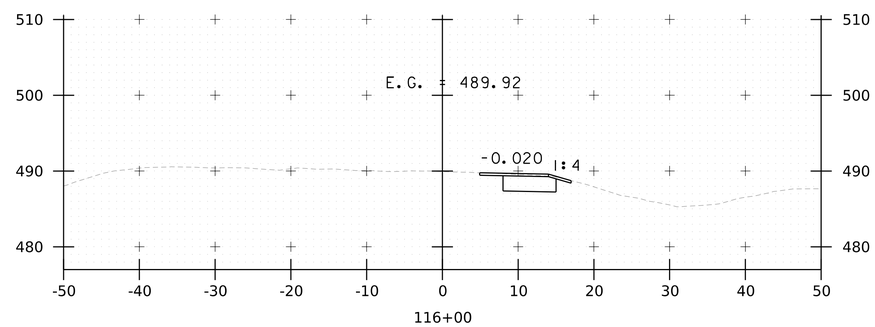
PLOT DATE: 8/1/2023
DRAWN BY: A.LEENHOUTS
CHECKED BY: L. CECCHI
SHEET 26 OF 76

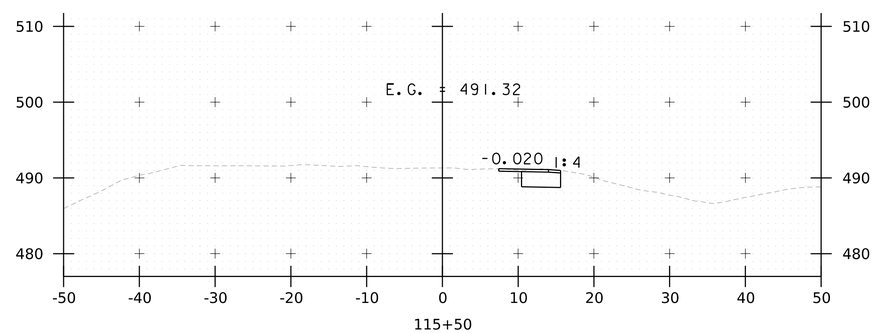








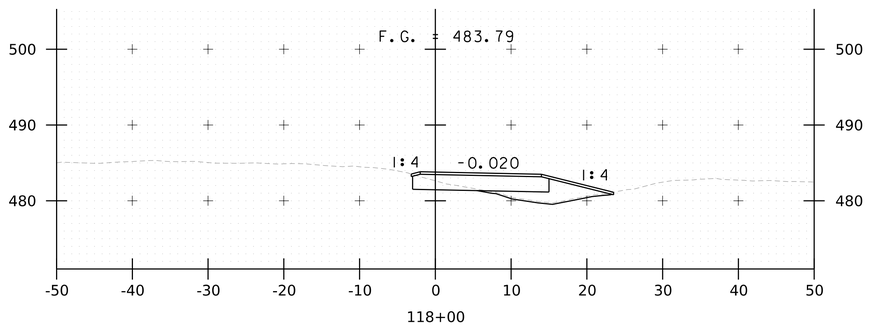


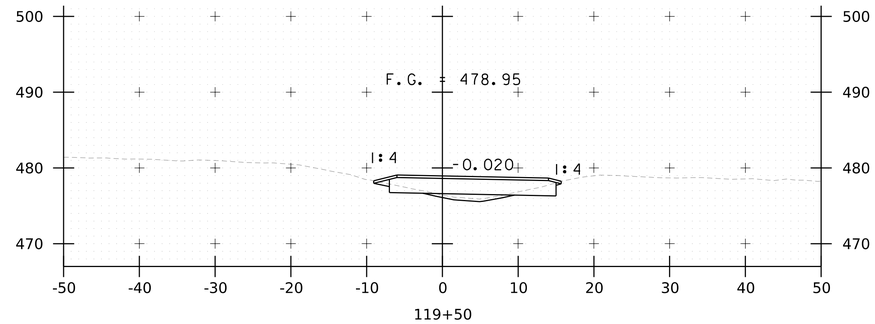


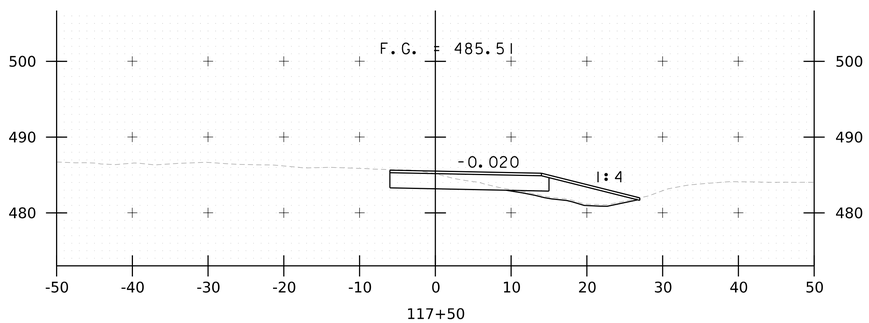
STA. 114+00 TO STA. 116+50

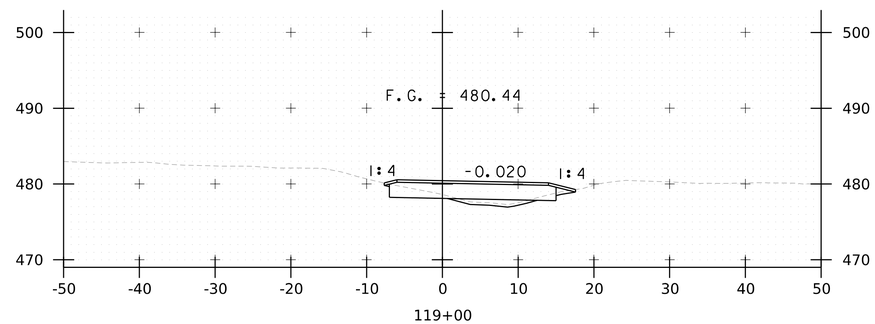
GILL ENGINEERING

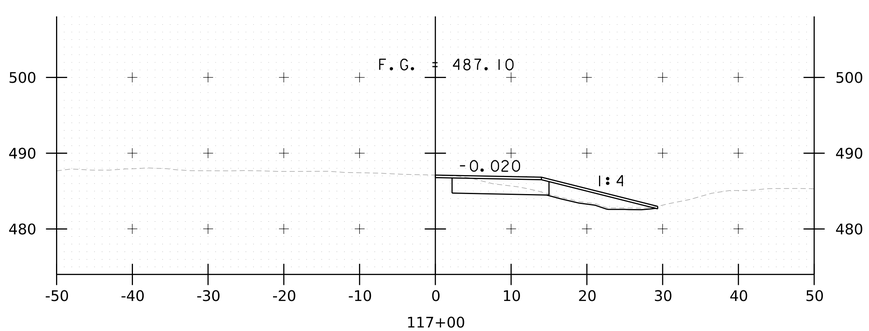
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS 4	SHEET 27 OF 76

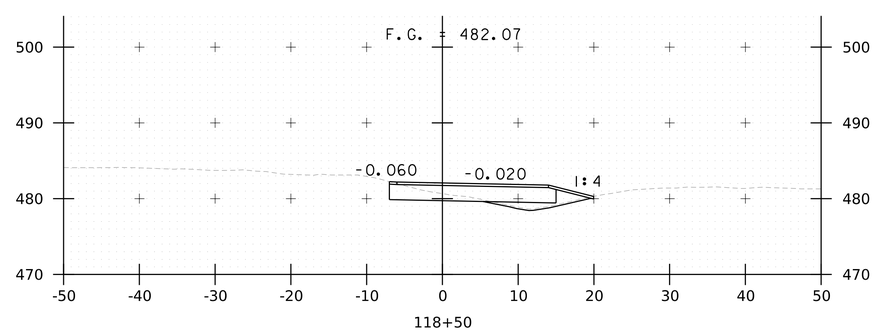








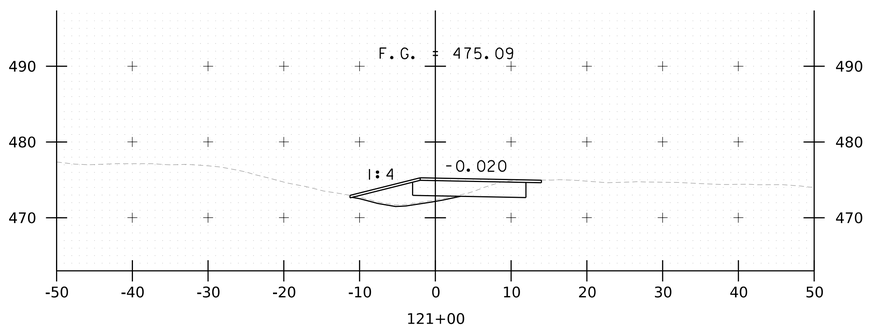


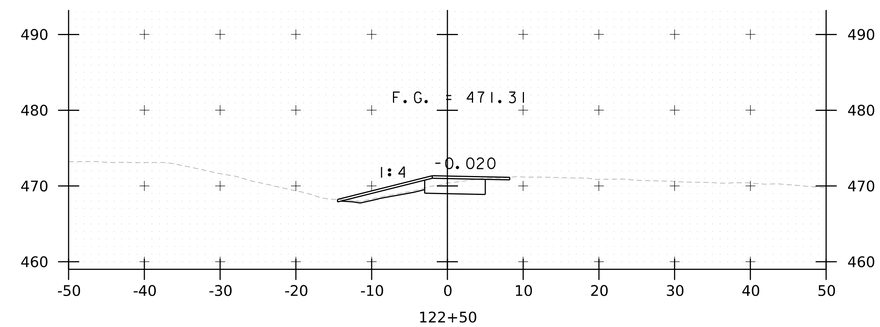


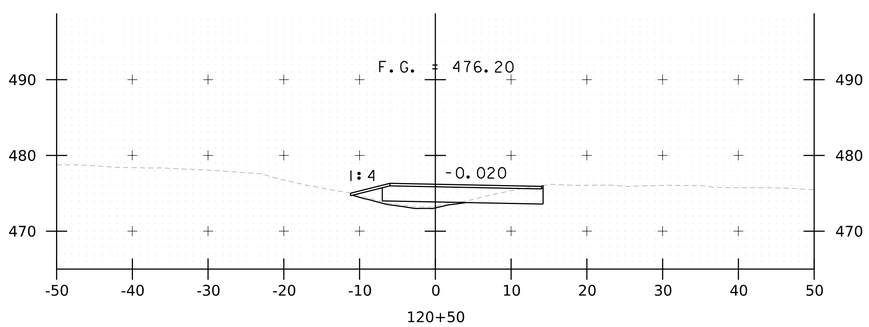
STA. 117+00 TO STA. 119+50

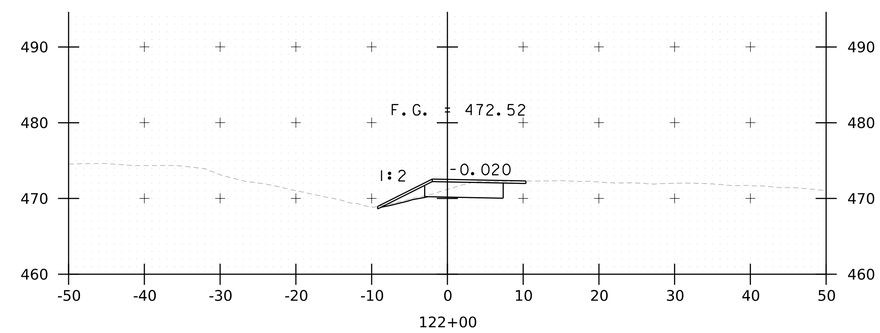
GILL ENGINEERING

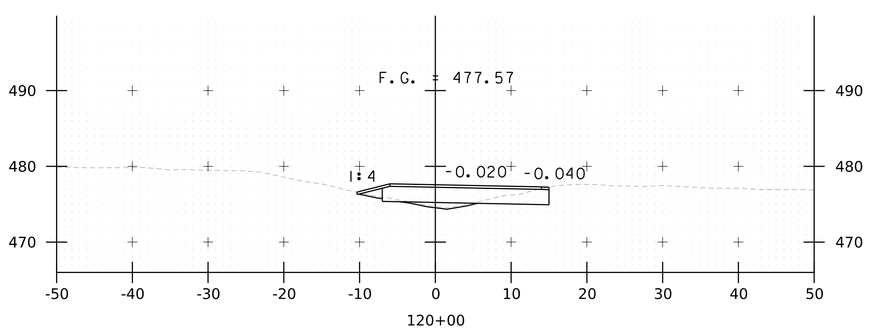
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS 5	SHEET 28 OF 76

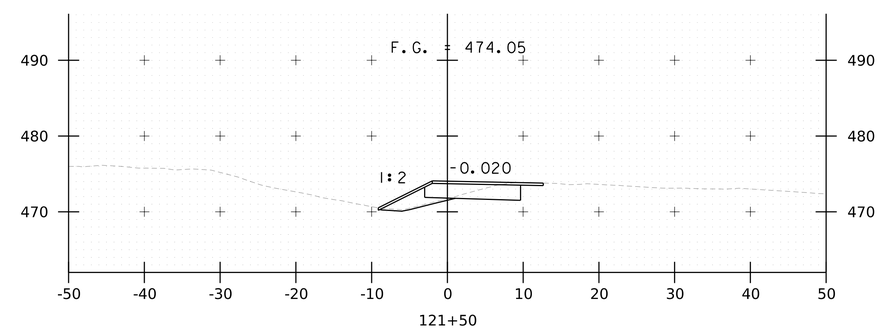








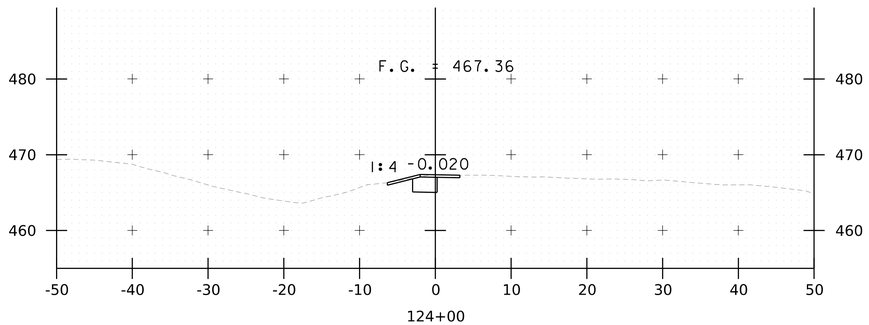


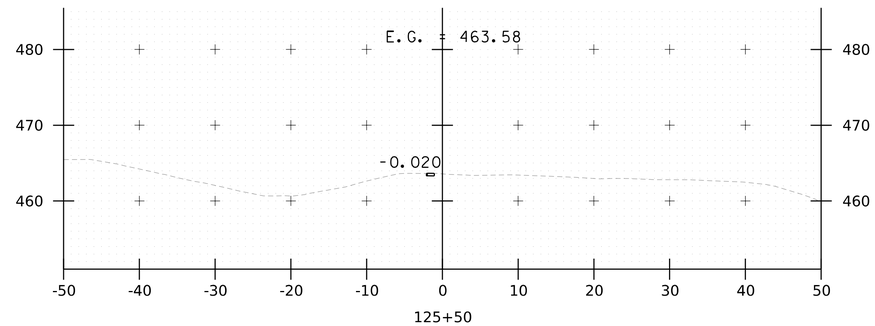


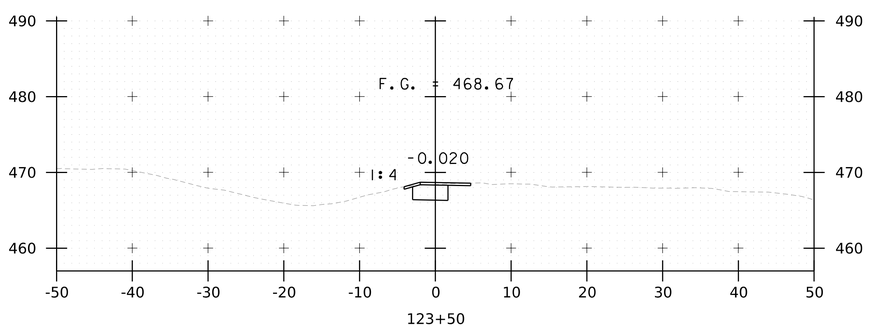
STA. 120+00 TO STA. 122+50

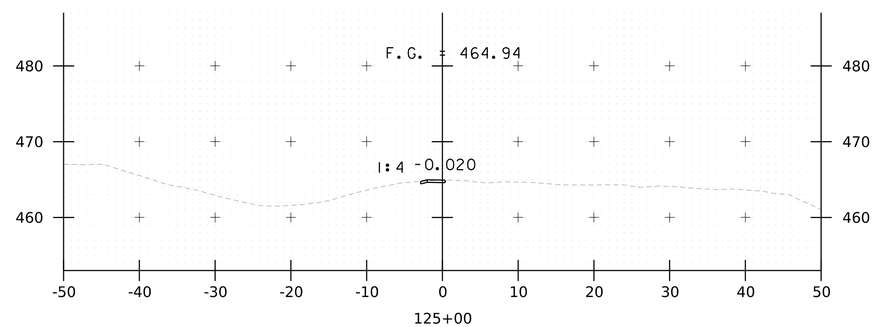
GILL ENGINEERING

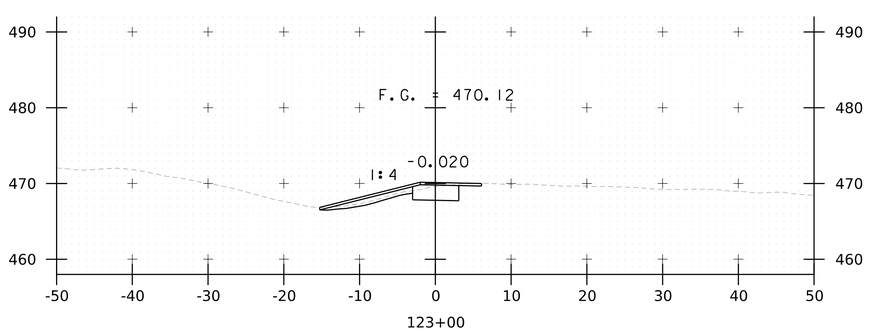
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS 6	SHEET 29 OF 76

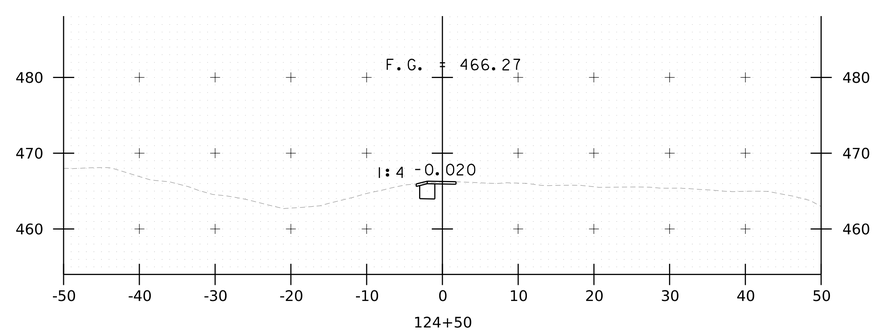










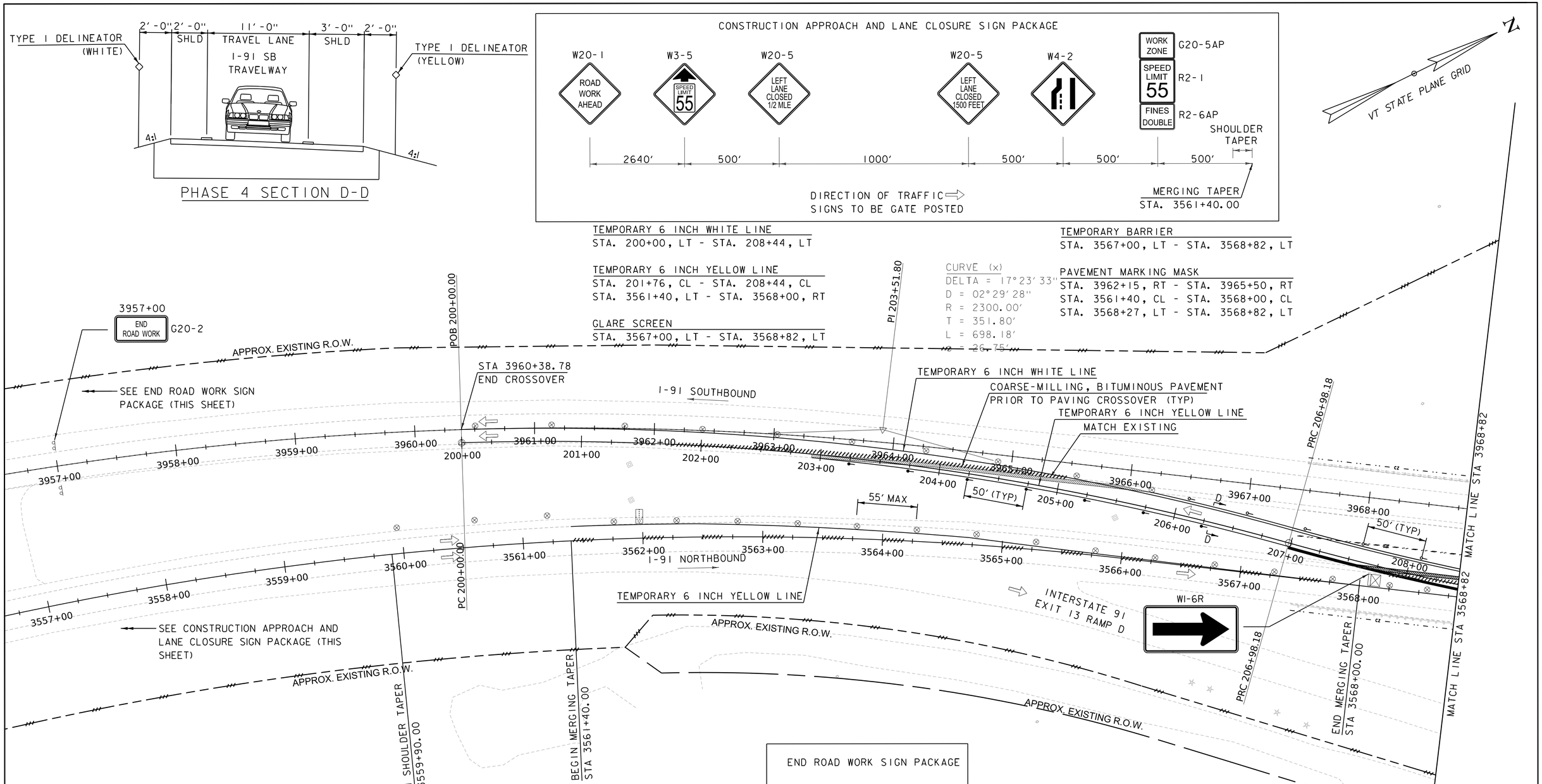


STA. 123+00 TO STA. 125+50

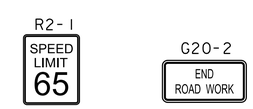
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-NBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
NORTHBOUND CROSSOVER CROSS SECTIONS 7	SHEET 30 OF 76

PHASE 4 SECTION D-D



END ROAD WORK SIGN PACKAGE



THE TEMPORARY BARRIER SHALL BE EXTENDED BEYOND THE POINT WHERE THE CROSSOVER MEETS MAINLINE IN ORDER TO PROVIDE A MINIMUM 30 FOOT CLEAR ZONE TO THE EXPOSED END OF BARRIER

LEGEND:

- TEMPORARY TRAFFIC BARRIER
- PORTABLE ARROW BOARD
- RETROREFLECTIVE PLASTIC DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC
- TYPE I DELINEATOR (YELLOW)
- TYPE I DELINEATOR (WHITE)

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568SBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 1	SHEET 31 OF 76

TEMPORARY 6 INCH WHITE LINE
STA. 208+44, LT - STA. 220+46, LT
STA. 212+21, LT - STA. 218+87, LT (DOTTED)
STA. 218+87, LT - STA. 220+46, LT
STA. 319+31, CL - STA. 320+51, CL
STA. 3569+25, RT - STA. 3579+30, RT

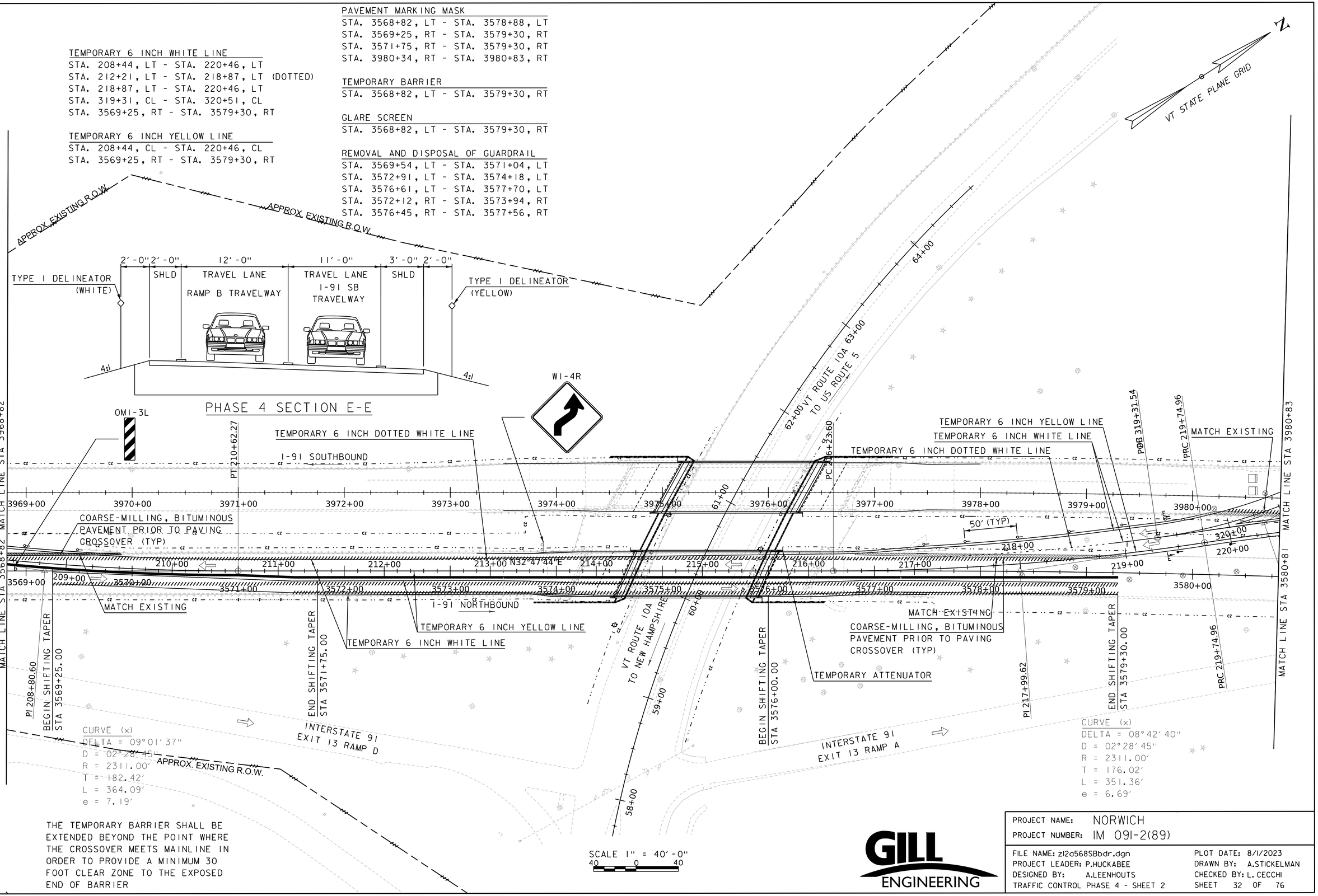
TEMPORARY 6 INCH YELLOW LINE
STA. 208+44, CL - STA. 220+46, CL
STA. 3569+25, RT - STA. 3579+30, RT

PAVEMENT MARKING MASK
STA. 3568+82, LT - STA. 3578+88, LT
STA. 3569+25, RT - STA. 3579+30, RT
STA. 3571+75, RT - STA. 3579+30, RT
STA. 3980+34, RT - STA. 3980+83, RT

TEMPORARY BARRIER
STA. 3568+82, LT - STA. 3579+30, RT

GLARE SCREEN
STA. 3568+82, LT - STA. 3579+30, RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 3569+54, LT - STA. 3571+04, LT
STA. 3572+91, LT - STA. 3574+18, LT
STA. 3576+61, LT - STA. 3577+70, LT
STA. 3572+12, RT - STA. 3573+94, RT
STA. 3576+45, RT - STA. 3577+56, RT



THE TEMPORARY BARRIER SHALL BE EXTENDED BEYOND THE POINT WHERE THE CROSSOVER MEETS MAINLINE IN ORDER TO PROVIDE A MINIMUM 30 FOOT CLEAR ZONE TO THE EXPOSED END OF BARRIER

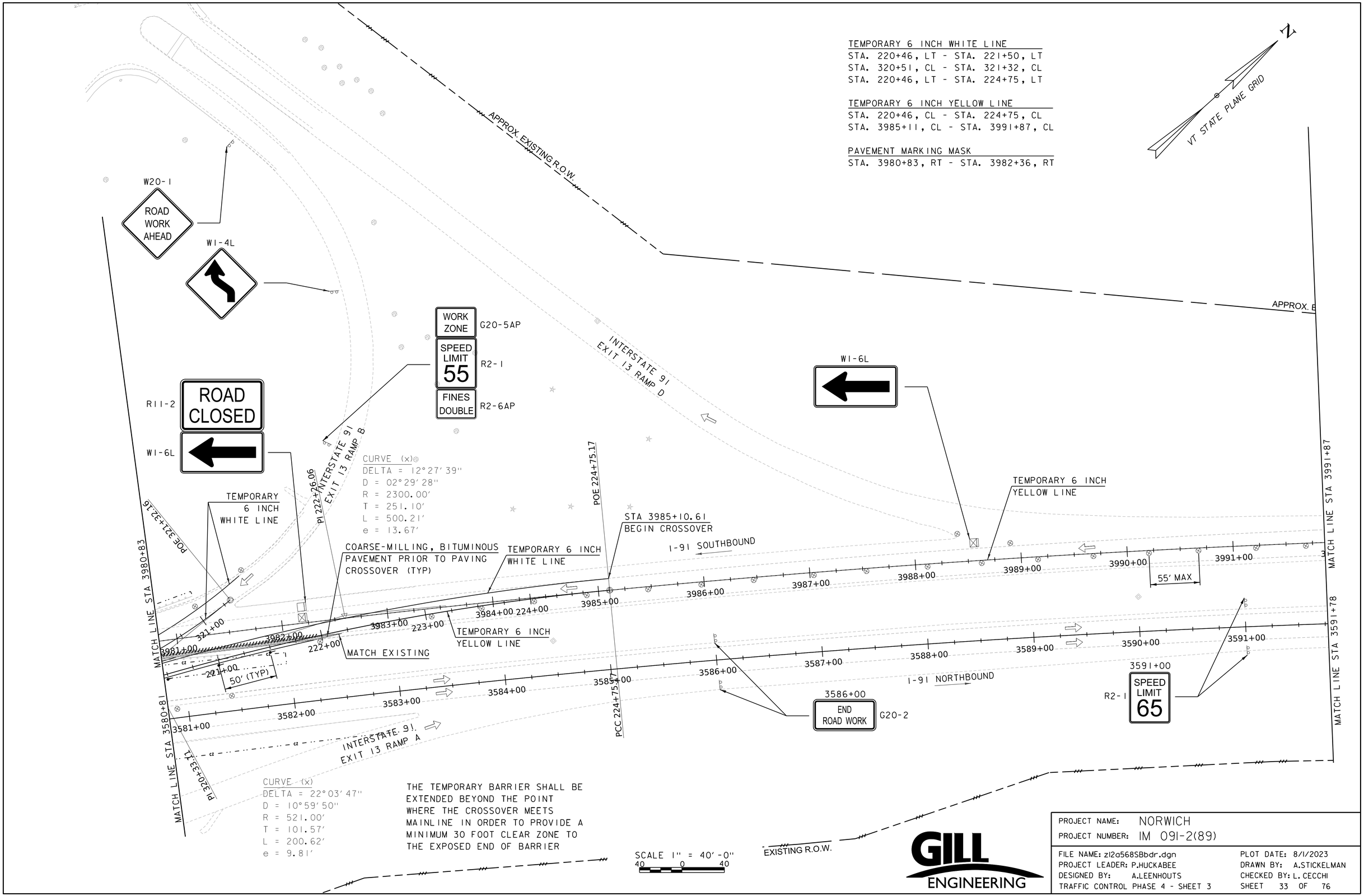
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568SBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 2	SHEET 32 OF 76

TEMPORARY 6 INCH WHITE LINE
STA. 220+46, LT - STA. 221+50, LT
STA. 320+51, CL - STA. 321+32, CL
STA. 220+46, LT - STA. 224+75, LT

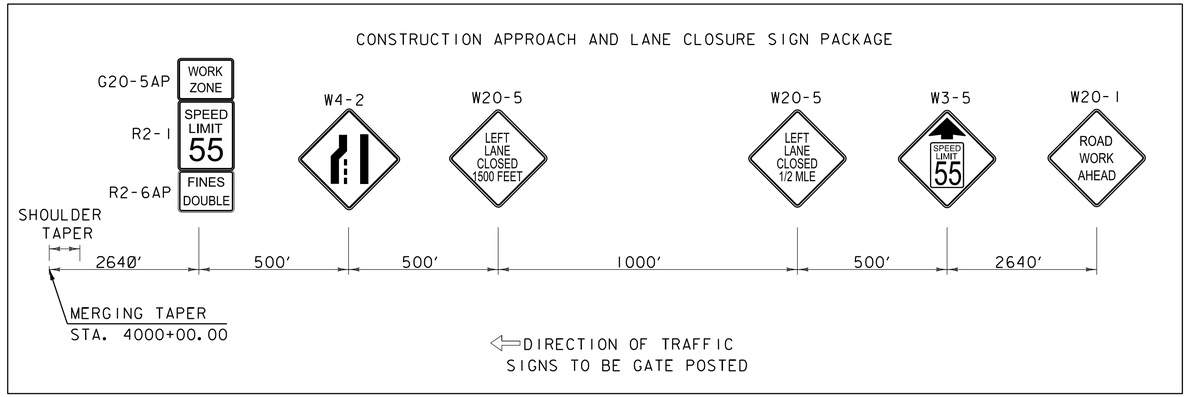
TEMPORARY 6 INCH YELLOW LINE
STA. 220+46, CL - STA. 224+75, CL
STA. 3985+11, CL - STA. 3991+87, CL

PAVEMENT MARKING MASK
STA. 3980+83, RT - STA. 3982+36, RT



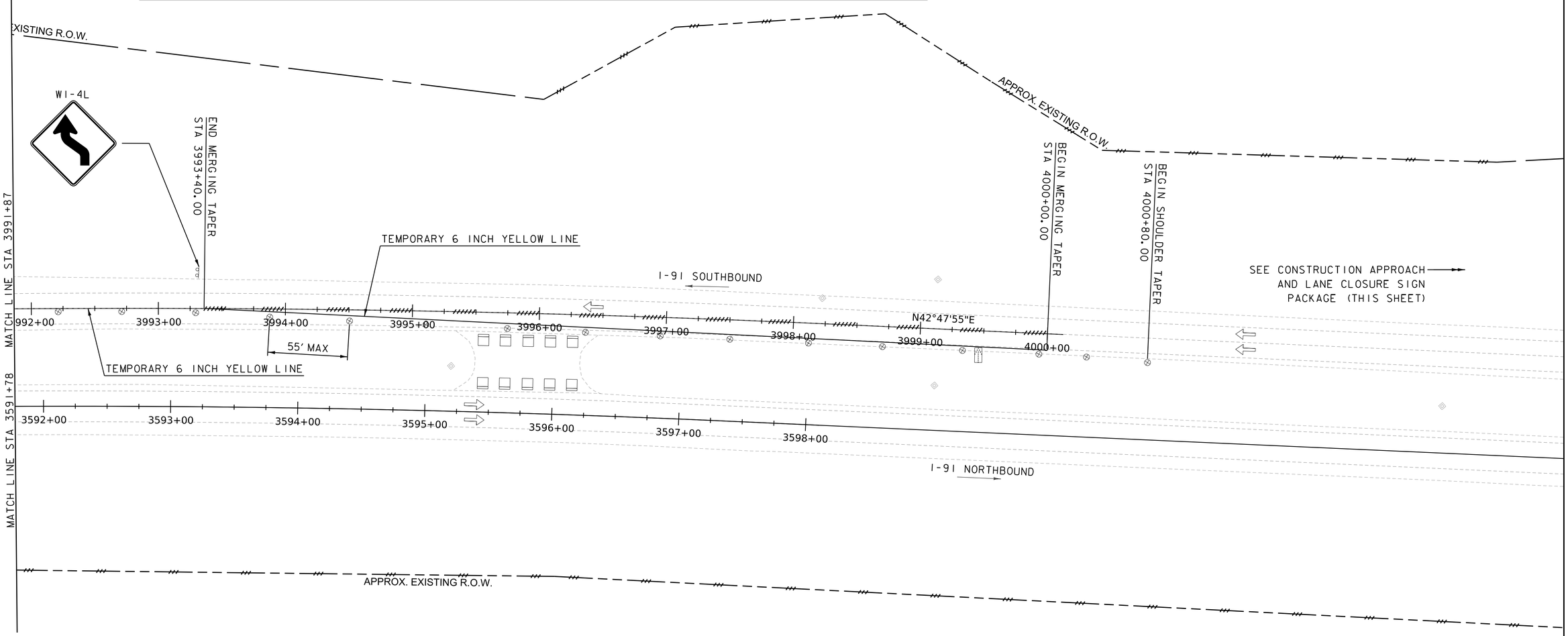
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568SBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 3	SHEET 33 OF 76



TEMPORARY 6 INCH YELLOW LINE
STA. 3991+87, CL - STA. 4000+00, RT

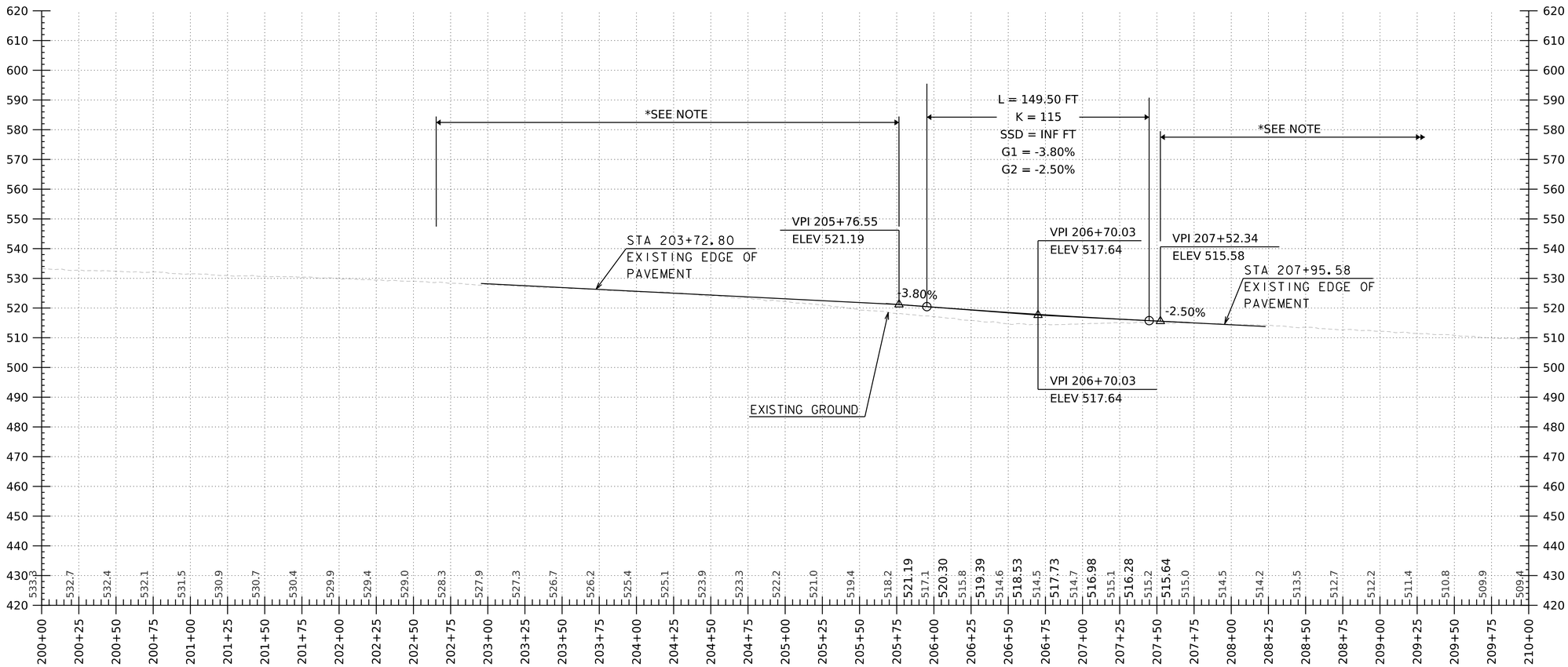
PAVEMENT MARKING MASK
STA. 3993+40, CL - STA. 4000+00, CL



SCALE 1" = 40'-0"
40 0 40

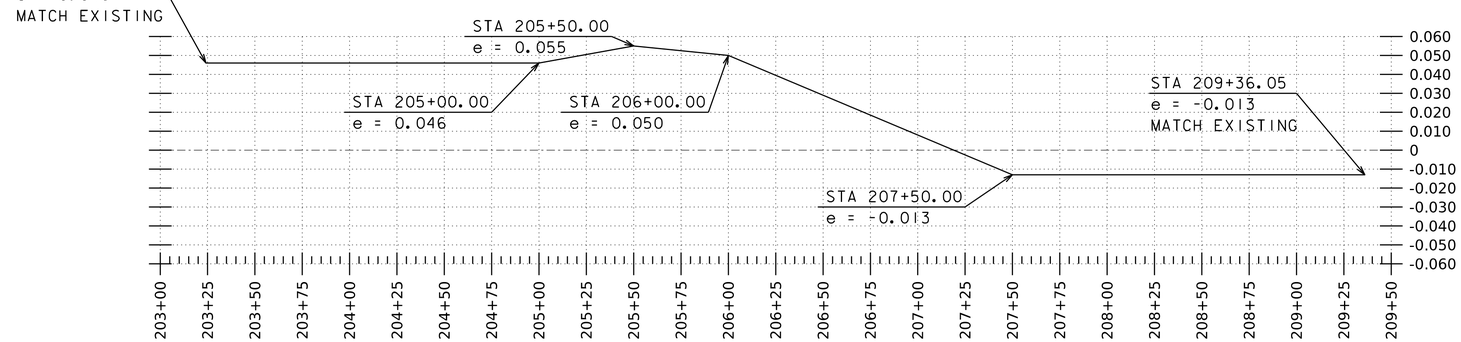
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568SBbdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 4	SHEET 34 OF 76



I-91 SOUTHBOUND CROSSOVER PROFILE (SOUTH)

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'



I-91 SOUTHBOUND CROSSOVER BANKING DIAGRAM (SOUTH)

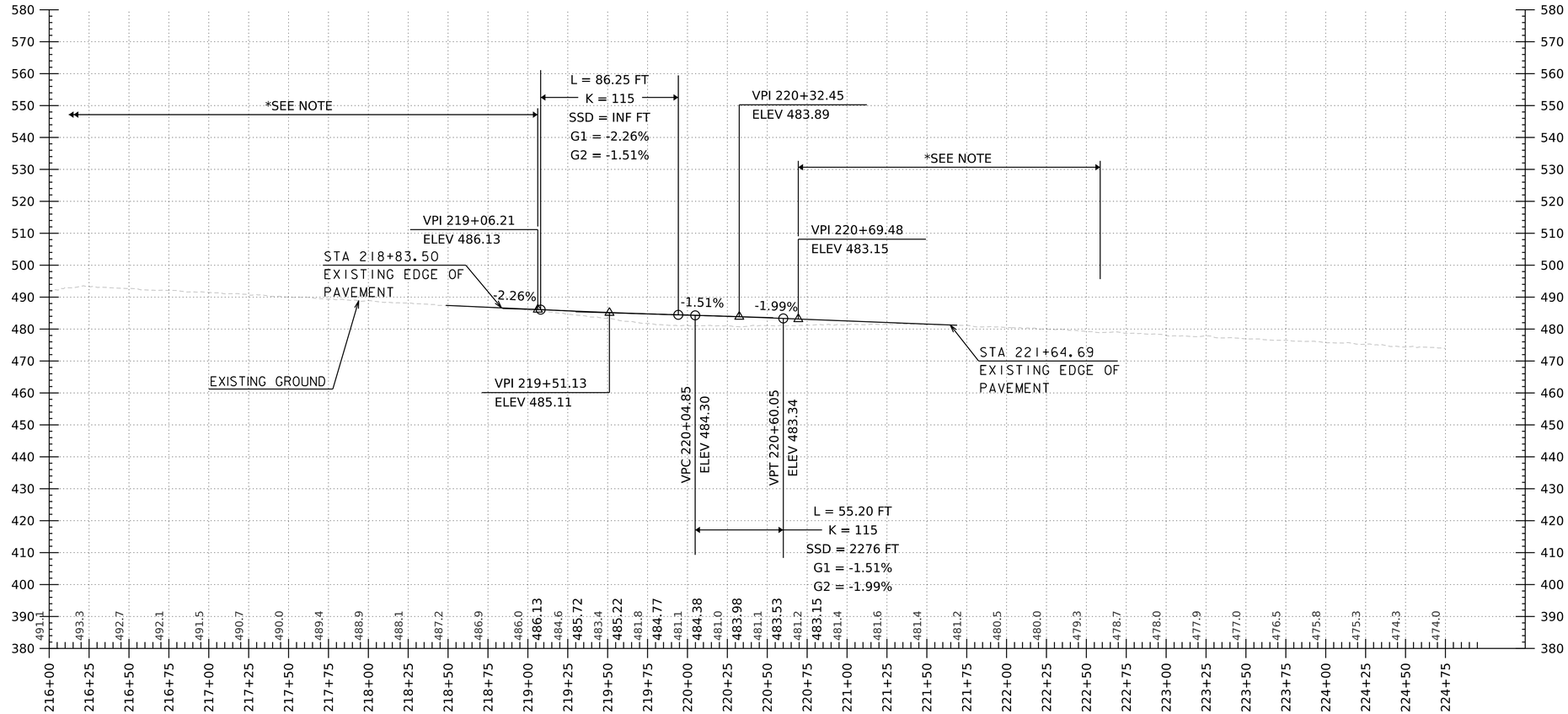
HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"= 0.040 (4.00%)

NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

* PROFILE IS SHOWN FOR GRAPHICAL PURPOSES. TEMPORARY ROADWAY SHALL MEET EXISTING PAVEMENT. ℄ ESTABLISHED BY CROSS SLOPE FROM EXISTING ELEVATION.

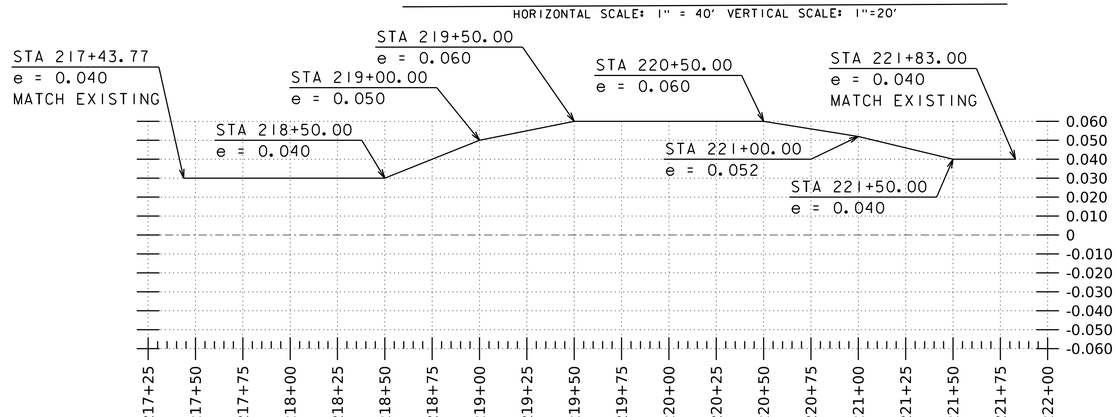
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568CrossoverProfile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 5	SHEET 35 OF 76



I-91 SOUTHBOUND CROSSOVER PROFILE (NORTH)

HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'



I-91 SOUTHBOUND CROSSOVER BANKING DIAGRAM (NORTH)

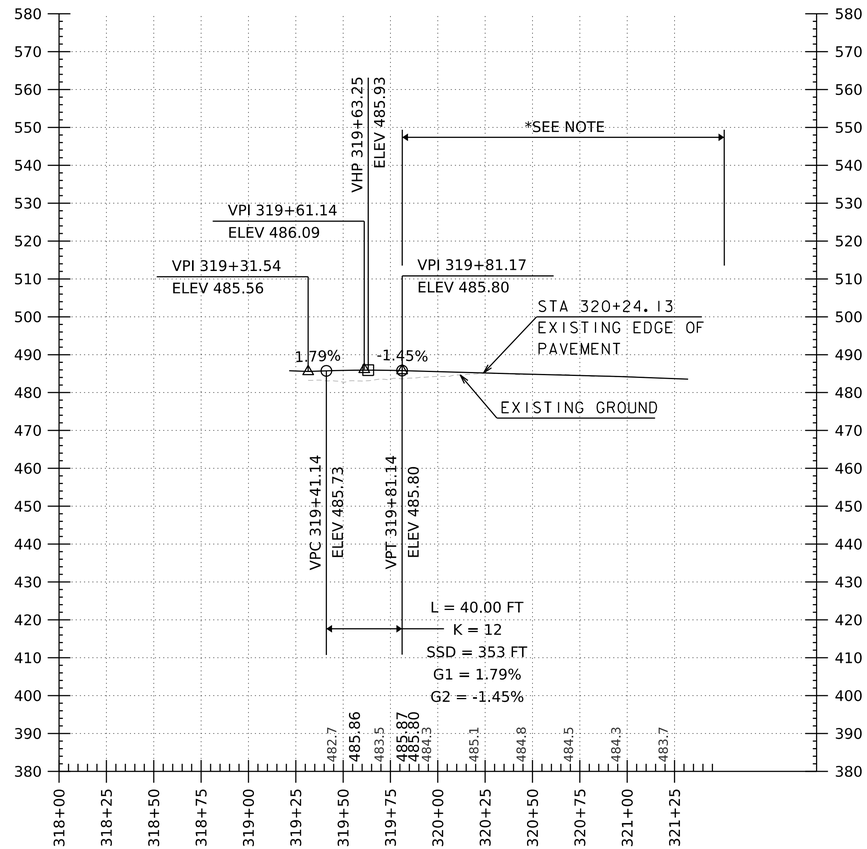
HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"= 0.040 (4.00%)

NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

* PROFILE IS SHOWN FOR GRAPHICAL PURPOSES. TEMPORARY ROADWAY SHALL MEET EXISTING PAVEMENT. ℄ ESTABLISHED BY CROSS SLOPE FROM EXISTING ELEVATION.

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568CrossoverProfile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 6	SHEET 36 OF 76



I-91 SOUTHBOUND CROSSOVER ON RAMP PROFILE (NORTH)

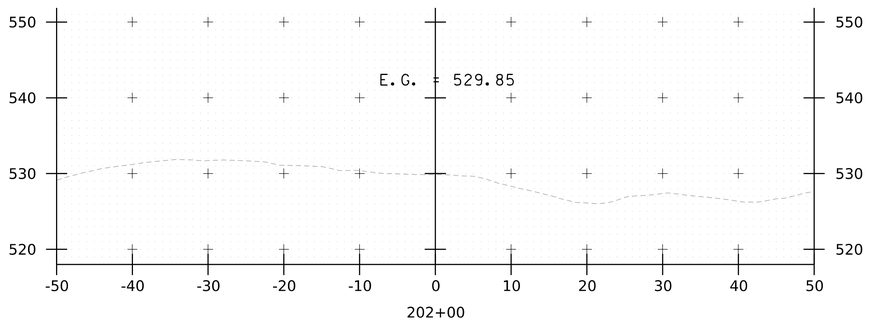
HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1"=20'

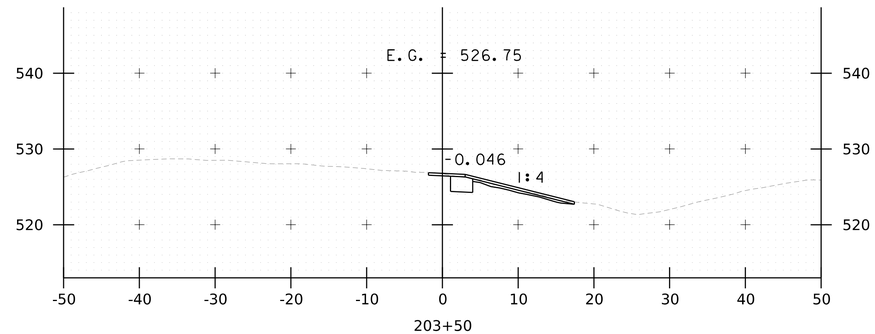
NOTES:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG ℄

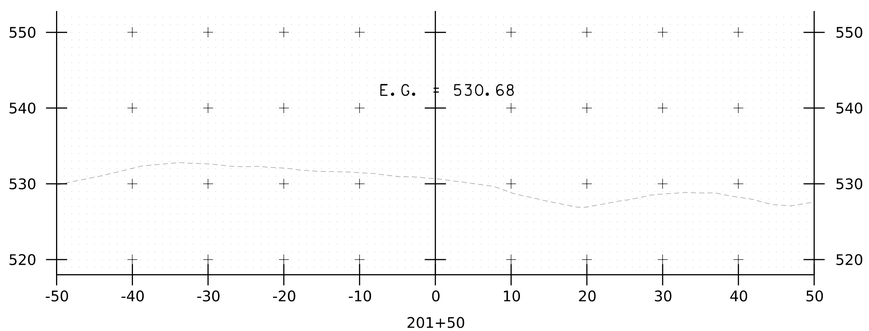
* PROFILE IS SHOWN FOR GRAPHICAL PURPOSES. TEMPORARY ROADWAY SHALL MEET EXISTING PAVEMENT. ℄ ESTABLISHED BY CROSS SLOPE FROM EXISTING ELEVATION.

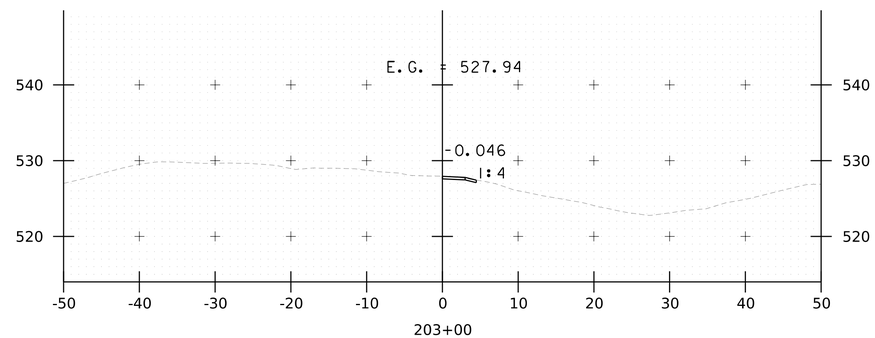
GILL ENGINEERING

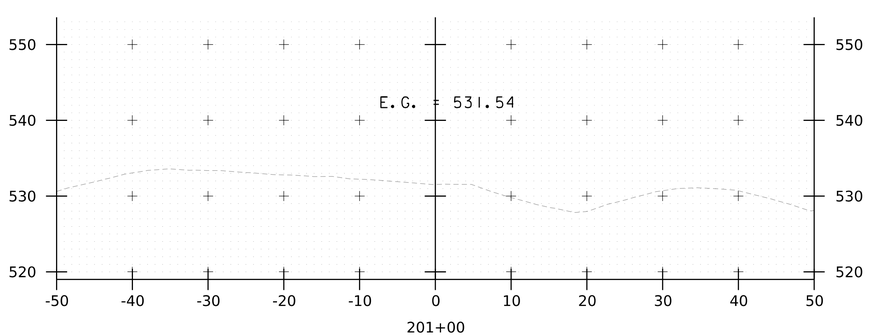
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568CrossoverProfile.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
TRAFFIC CONTROL PHASE 4 - SHEET 7	SHEET 37 OF 76

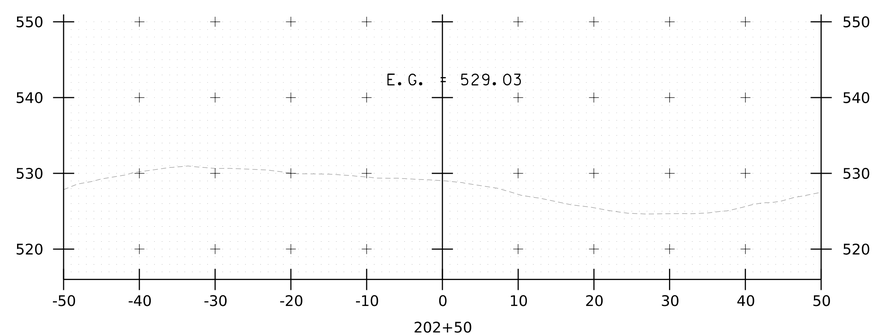








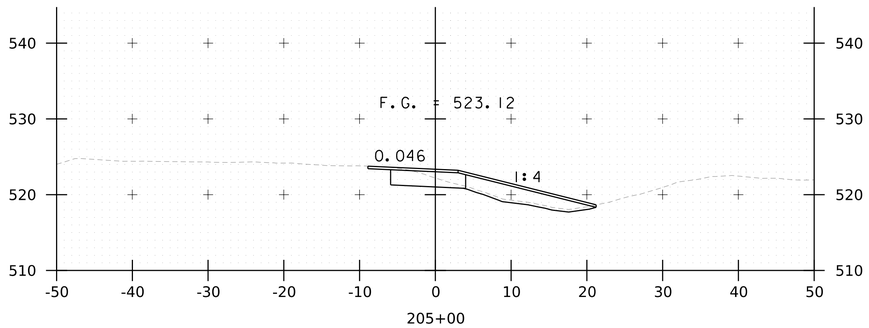


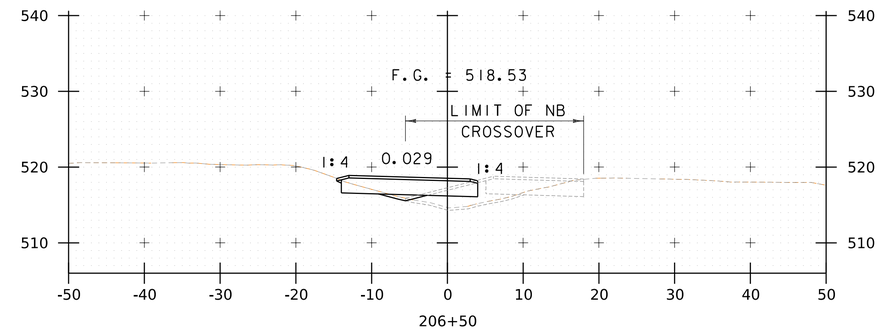


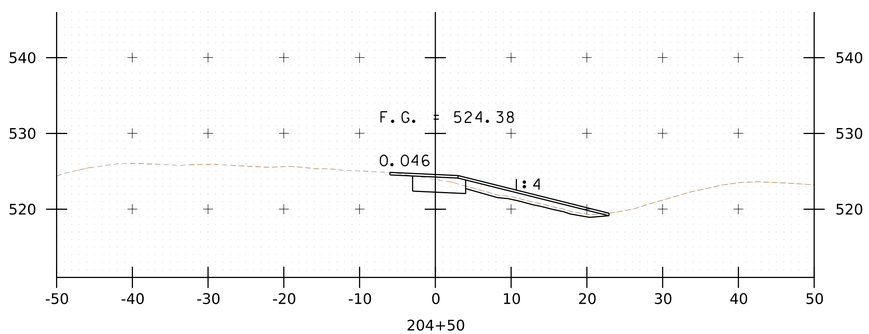
STA. 201+00 TO STA. 203+50

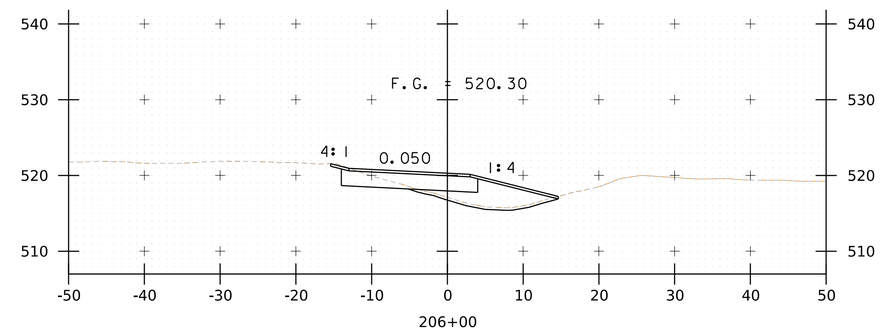
GILL ENGINEERING

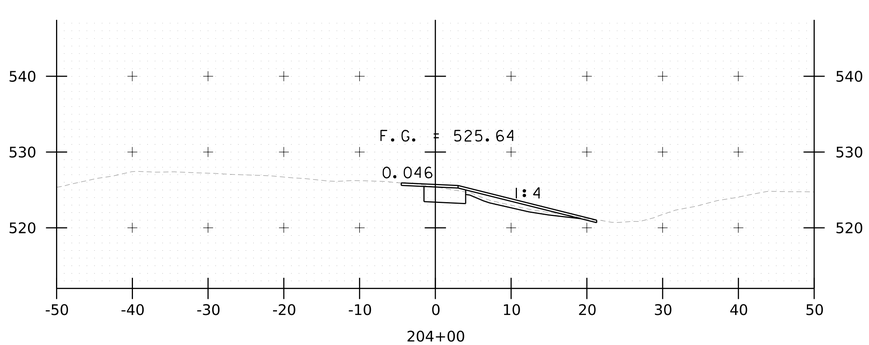
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS I	SHEET 38 OF 76

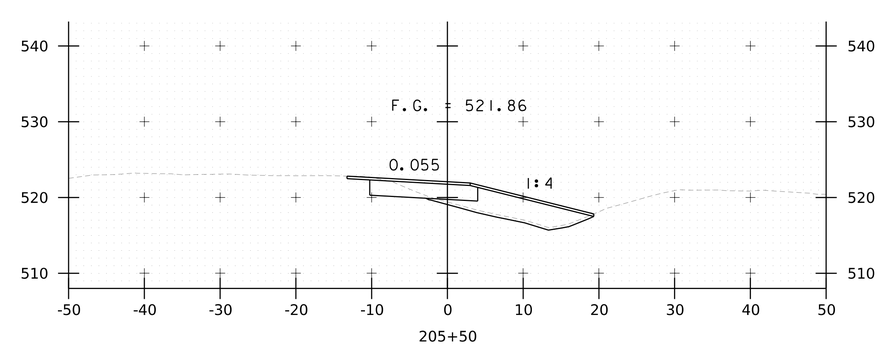








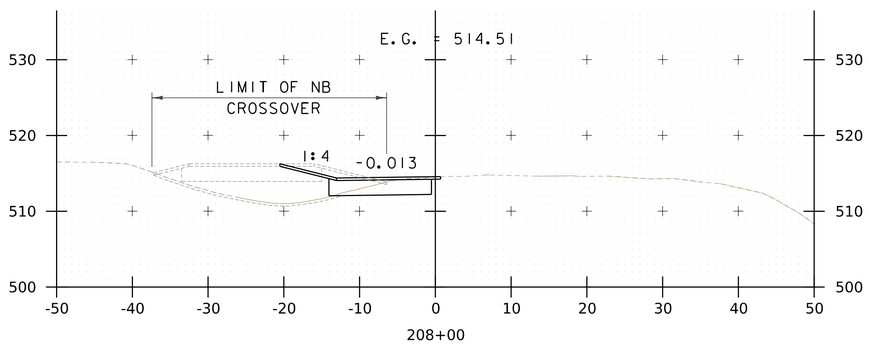


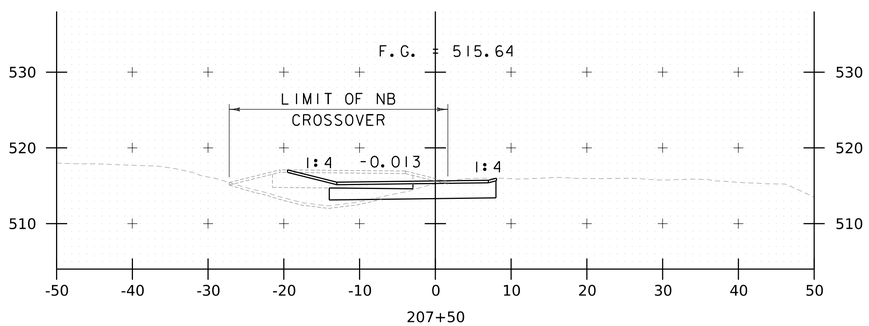


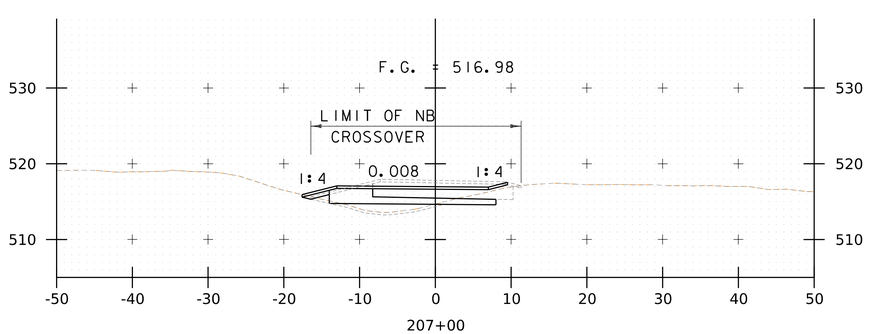
STA. 204+00 TO STA. 206+50

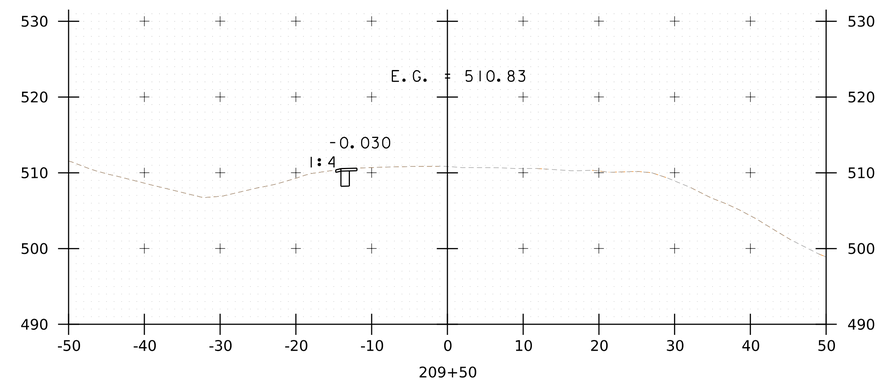
GILL ENGINEERING

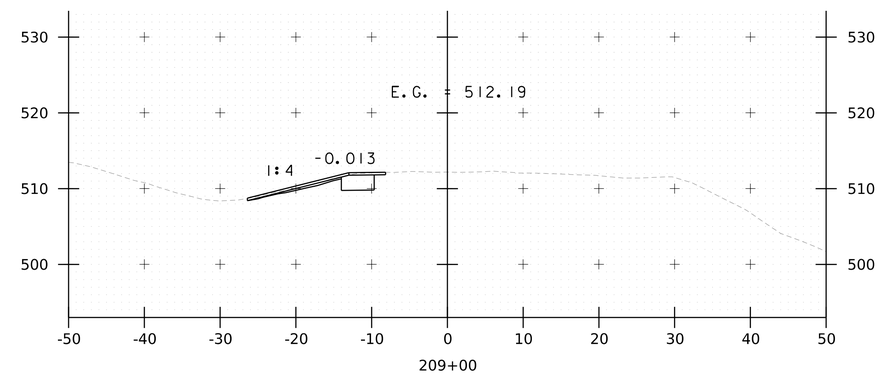
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS 2	SHEET 39 OF 76

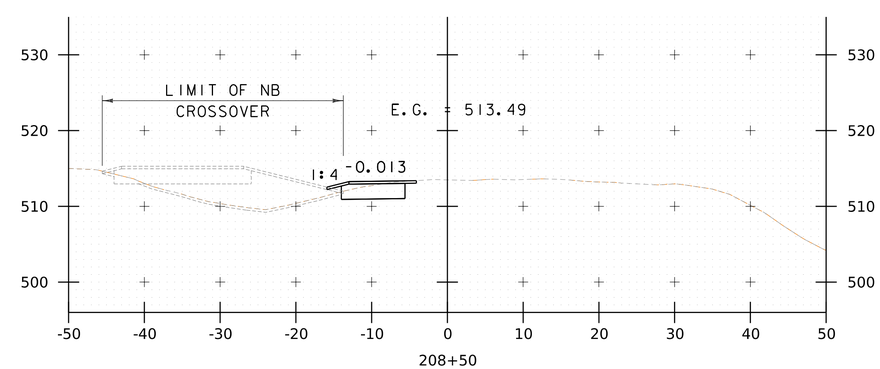








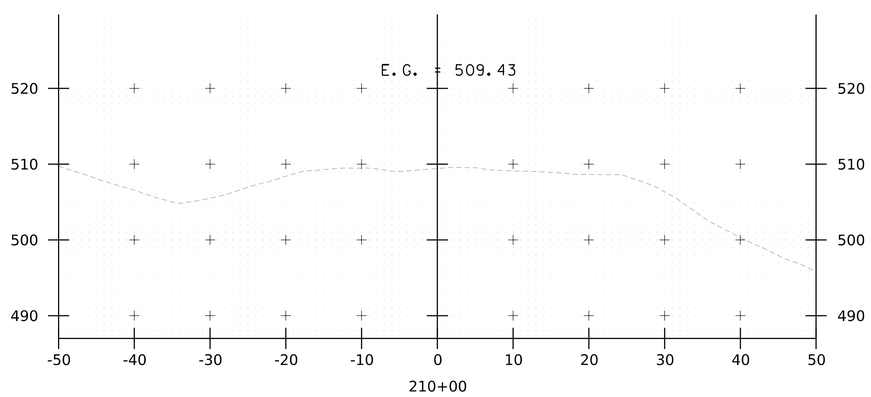




STA. 207+00 TO STA. 209+50

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS 3	SHEET 40 OF 76



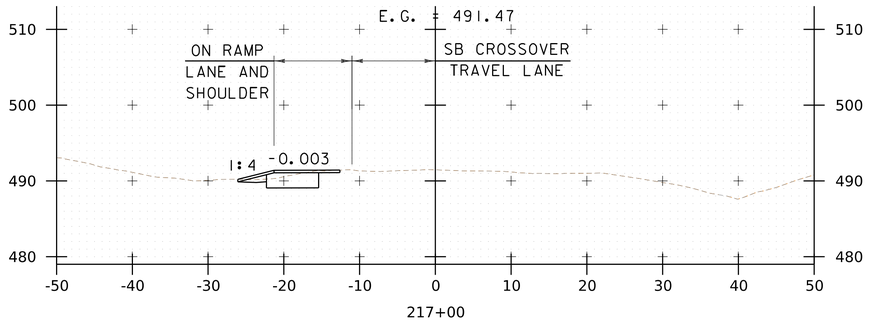
STA. 210+00 TO STA. 210+00

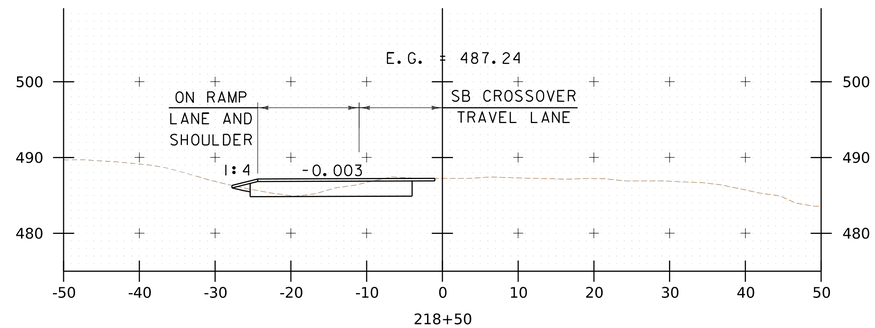
GILL ENGINEERING

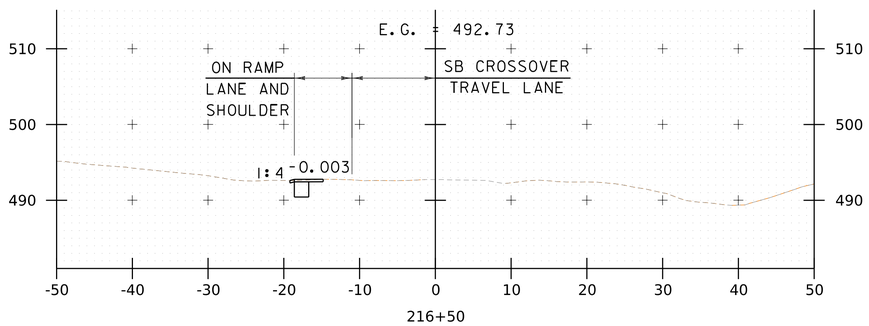
PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

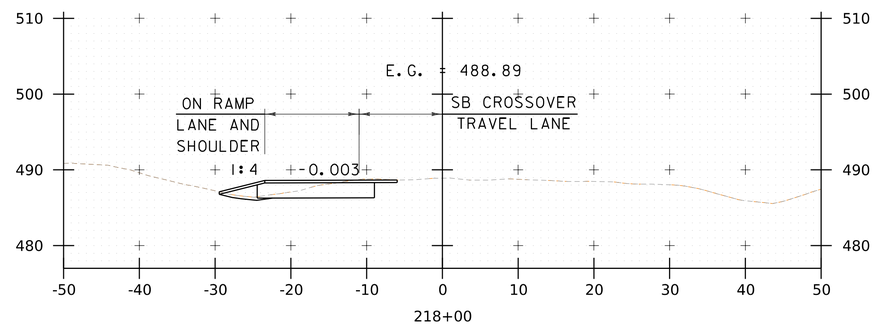
FILE NAME: z12a568xs-SBxover.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: A.LEENHOUTS
SOUTHBOUND CROSSOVER CROSS SECTIONS 4

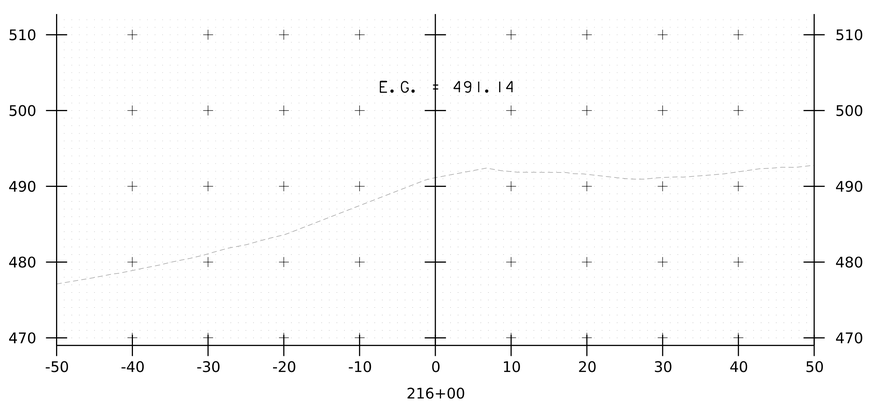
PLOT DATE: 8/1/2023
DRAWN BY: A.LEENHOUTS
CHECKED BY: L. CECCHI
SHEET 41 OF 76

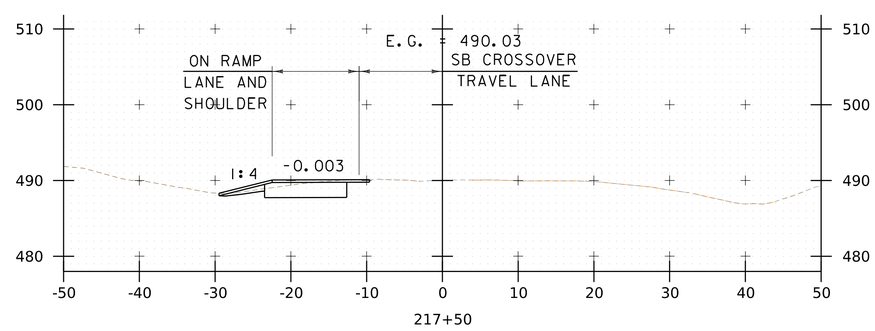








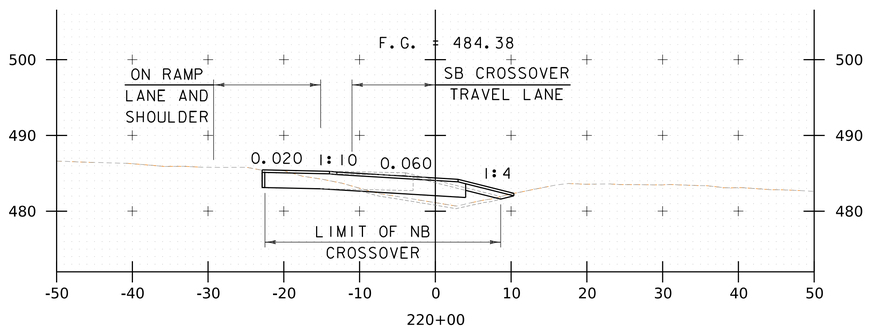


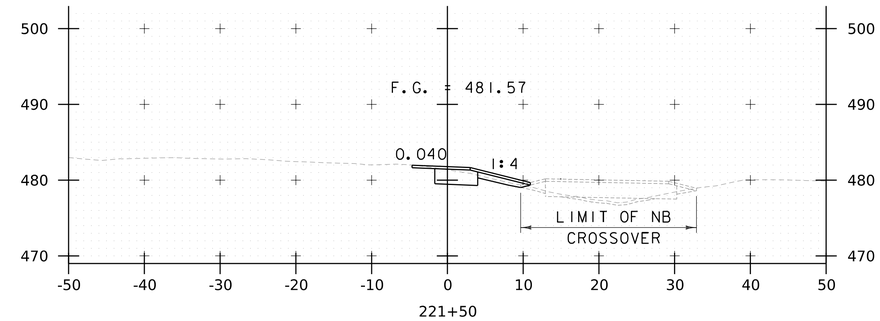


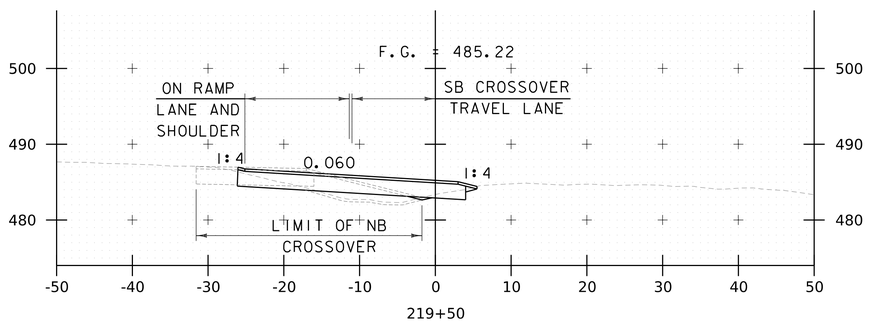
STA. 216+00 TO STA. 218+50

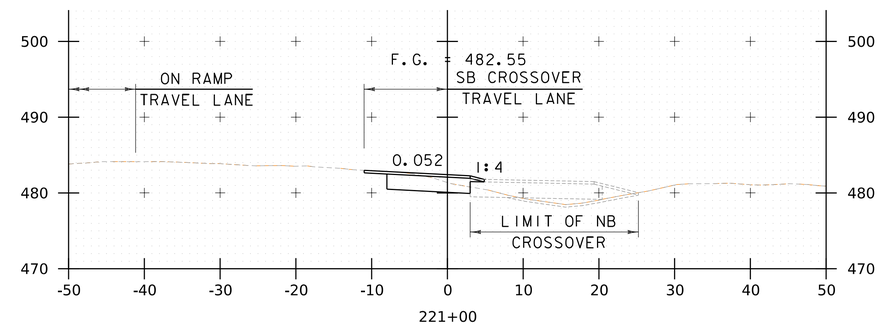
GILL ENGINEERING

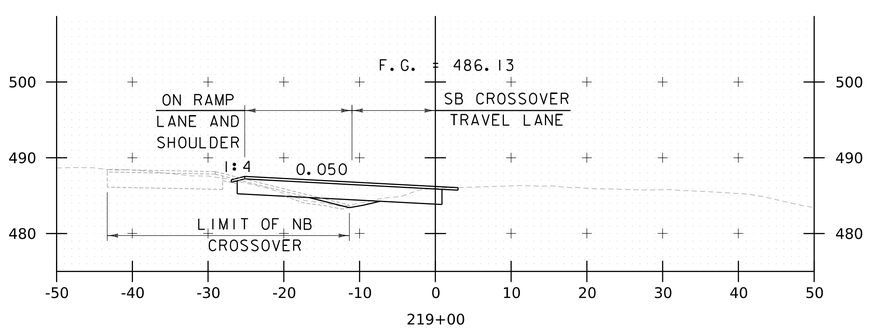
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS 5	SHEET 42 OF 76

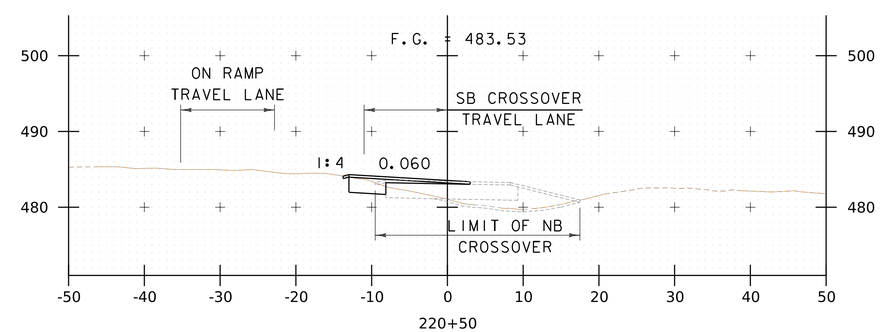








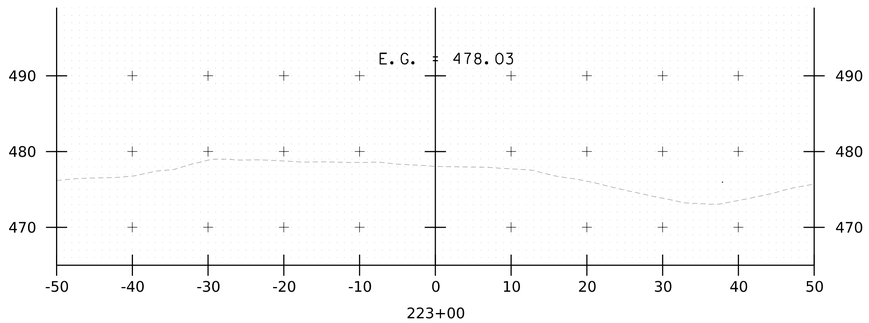


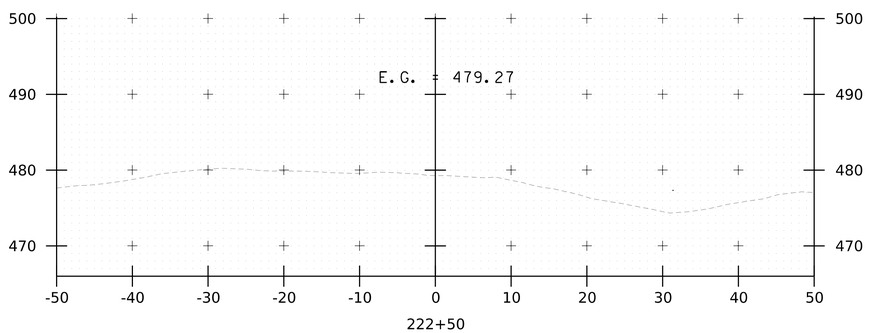


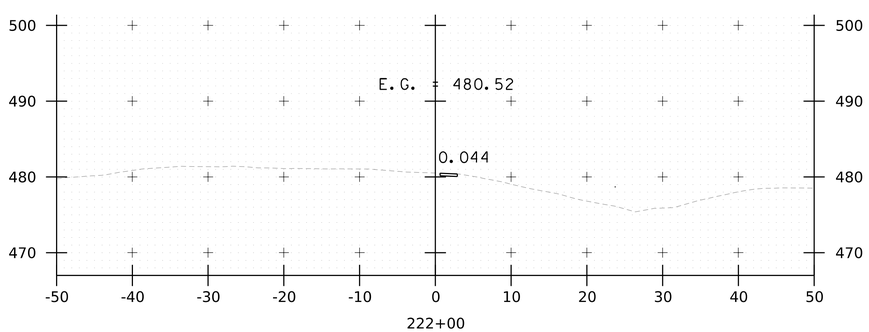
STA. 219+00 TO STA. 221+50

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS 6	SHEET 43 OF 76





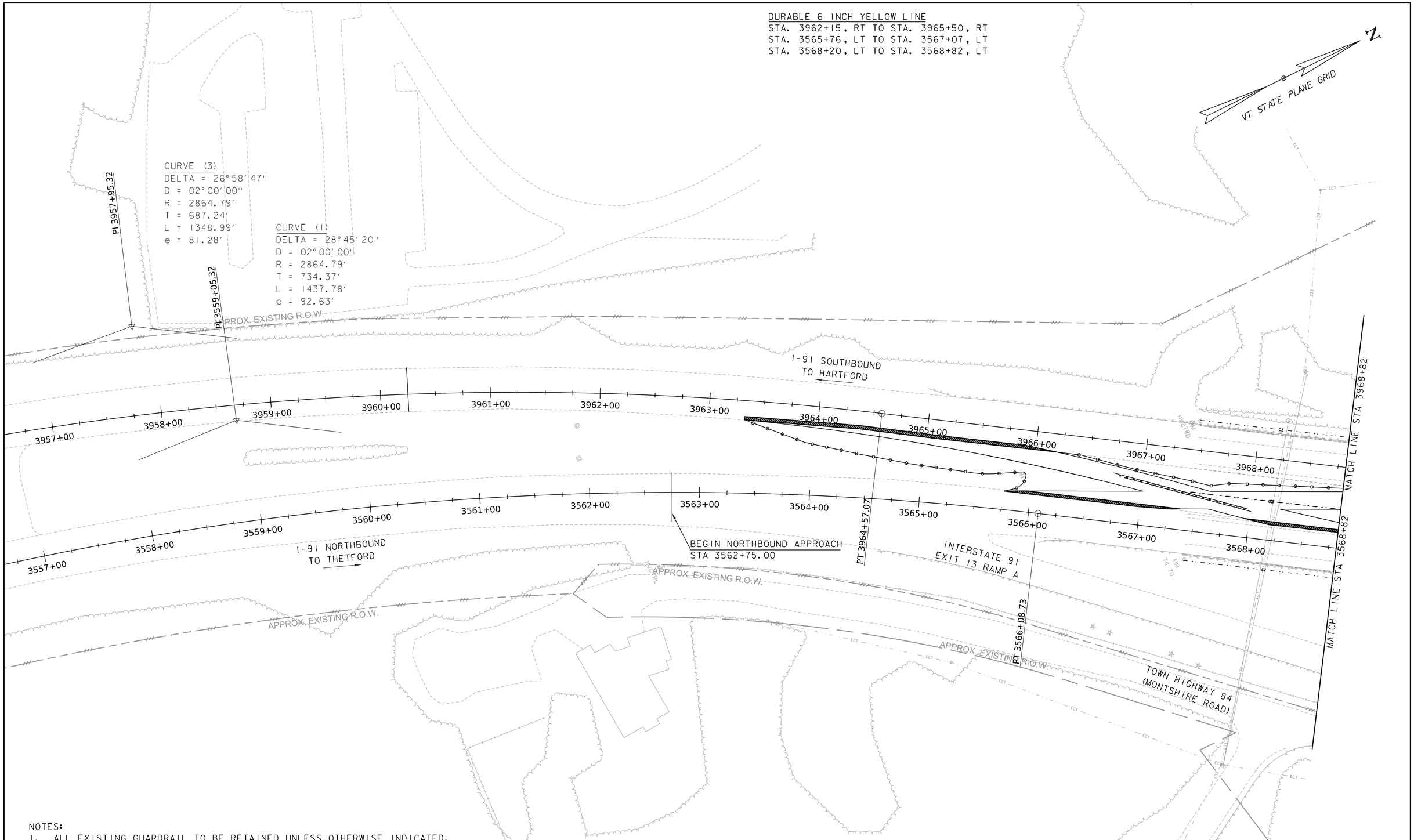


STA. 222+00 TO STA. 223+00

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568xs-SBxover.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L. CECCHI
SOUTHBOUND CROSSOVER CROSS SECTIONS 7	SHEET 44 OF 76

DURABLE 6 INCH YELLOW LINE
STA. 3962+15, RT TO STA. 3965+50, RT
STA. 3565+76, LT TO STA. 3567+07, LT
STA. 3568+20, LT TO STA. 3568+82, LT



NOTES:
1. ALL EXISTING GUARDRAIL TO BE RETAINED UNLESS OTHERWISE INDICATED.
2. ALL SIGNS ARE TO BE RETAINED UNLESS OTHERWISE INDICATED.
3. DELINEATORS WITHIN CONSTRUCTION LIMITS SHALL BE REPLACED PER VTRANS STANDARD DRAWINGS T-40 AND T-43. DELINEATORS MAY BE SALVAGED AT THE DISCRETION OF THE RESIDENT ENGINEER.

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568signs.dgn	PLOT DATE: 1-AUG-2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SIGNS, MARKINGS, AND DRAINAGE 1	SHEET 45 OF 76

DURABLE 6 INCH WHITE LINE
STA. 3973+50, LT TO STA. 3978+00, LT
STA. 3973+50, LT TO STA. 3978+00, LT (DASHED)
STA. 3973+50, LT TO STA. 3978+00, LT (DOTTED)
STA. 3573+25, RT TO STA. 3577+50, RT
STA. 3573+25, RT TO STA. 3577+50, RT (DASHED)

DURABLE 6 INCH YELLOW LINE
STA. 3568+82, LT TO STA. 3569+90, LT
STA. 3969+40, RT TO STA. 3971+50, RT
STA. 3973+50, RT TO STA. 3979+70, RT
STA. 3573+25, LT TO STA. 3579+27, LT
STA. 3980+22, RT TO STA. 3980+83, RT

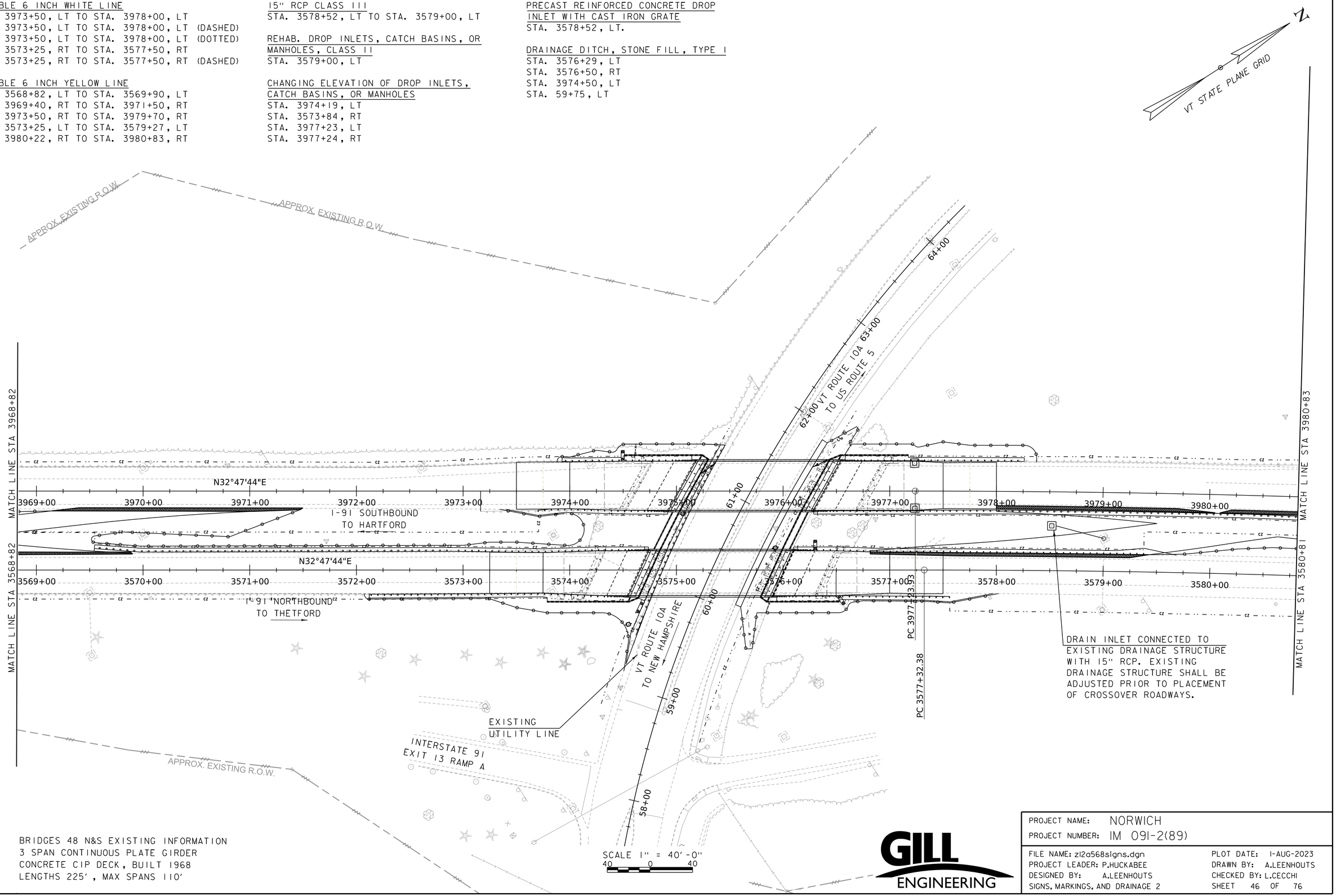
15" RCP CLASS III
STA. 3578+52, LT TO STA. 3579+00, LT

REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II
STA. 3579+00, LT

CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES
STA. 3974+19, LT
STA. 3573+84, RT
STA. 3977+23, LT
STA. 3977+24, RT

PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE
STA. 3578+52, LT.

DRAINAGE DITCH, STONE FILL, TYPE I
STA. 3576+29, LT
STA. 3576+50, RT
STA. 3974+50, LT
STA. 59+75, LT



BRIDGES 48 N&S EXISTING INFORMATION
3 SPAN CONTINUOUS PLATE GIRDER
CONCRETE CIP DECK, BUILT 1968
LENGTHS 225', MAX SPANS 110'

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568signs.dgn	PLOT DATE: 1-AUG-2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SIGNS, MARKINGS, AND DRAINAGE 2	SHEET 46 OF 76

DURABLE 6 INCH YELLOW LINE
STA. 3980+83, RT TO STA. 3982+55, RT
STA. 3583+95, LT TO STA. 3588+56, LT

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

INTERSTATE 91
EXIT 13 RAMP D

INTERSTATE 91
EXIT 13 RAMP B

INTERSTATE 91
EXIT 13 RAMP C

REMOVE EXISTING SIGN FOR TEMPORARY CROSSOVER ROADWAY. REPLACE SIGN AFTER TEMPORARY CROSSOVER USE.

REMOVE EXISTING SIGN FOR TEMPORARY CROSSOVER ROADWAY. REPLACE SIGN AFTER TEMPORARY CROSSOVER USE (APPROX LOCATION)

CURVE (4)
DELTA = 10°00'11"
D = 00°28'36"
R = 12020.41'
T = 1051.97'
L = 2098.60'
e = 45.94'

CURVE (2)
DELTA = 10°00'00"
D = 00°30'00"
R = 11459.16'
T = 1002.55'
L = 2000.00'
e = 43.77'

PI 3987+75.90

PI 3587+34.93

MATCH LINE STA 3980+83

MATCH LINE STA 3580+81

MATCH LINE STA 3991+87

MATCH LINE STA 3591+78

3981+00 3982+00 3983+00 3984+00 3985+00 3986+00 3987+00 3988+00 3989+00 3990+00 3991+00

3581+00 3582+00 3583+00 3584+00 3585+00 3586+00 3587+00 3588+00 3589+00 3590+00 3591+00

I-91 SOUTHBOUND
TO HARTFORD

I-91 NORTHBOUND
TO THETFORD

SCALE 1" = 40'-0"
40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568signs.dgn	PLOT DATE: 1-AUG-2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SIGNS, MARKINGS, AND DRAINAGE 3	SHEET 47 OF 76

SOIL CLASSIFICATION

AASHTO

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

ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)

N	DESCRIPTIVE TERM
<5	Very Loose
5-10	Loose
11-24	Med. Dense
25-50	Dense
>50	Very Dense

CONSISTENCY (COHESIVE SOILS)

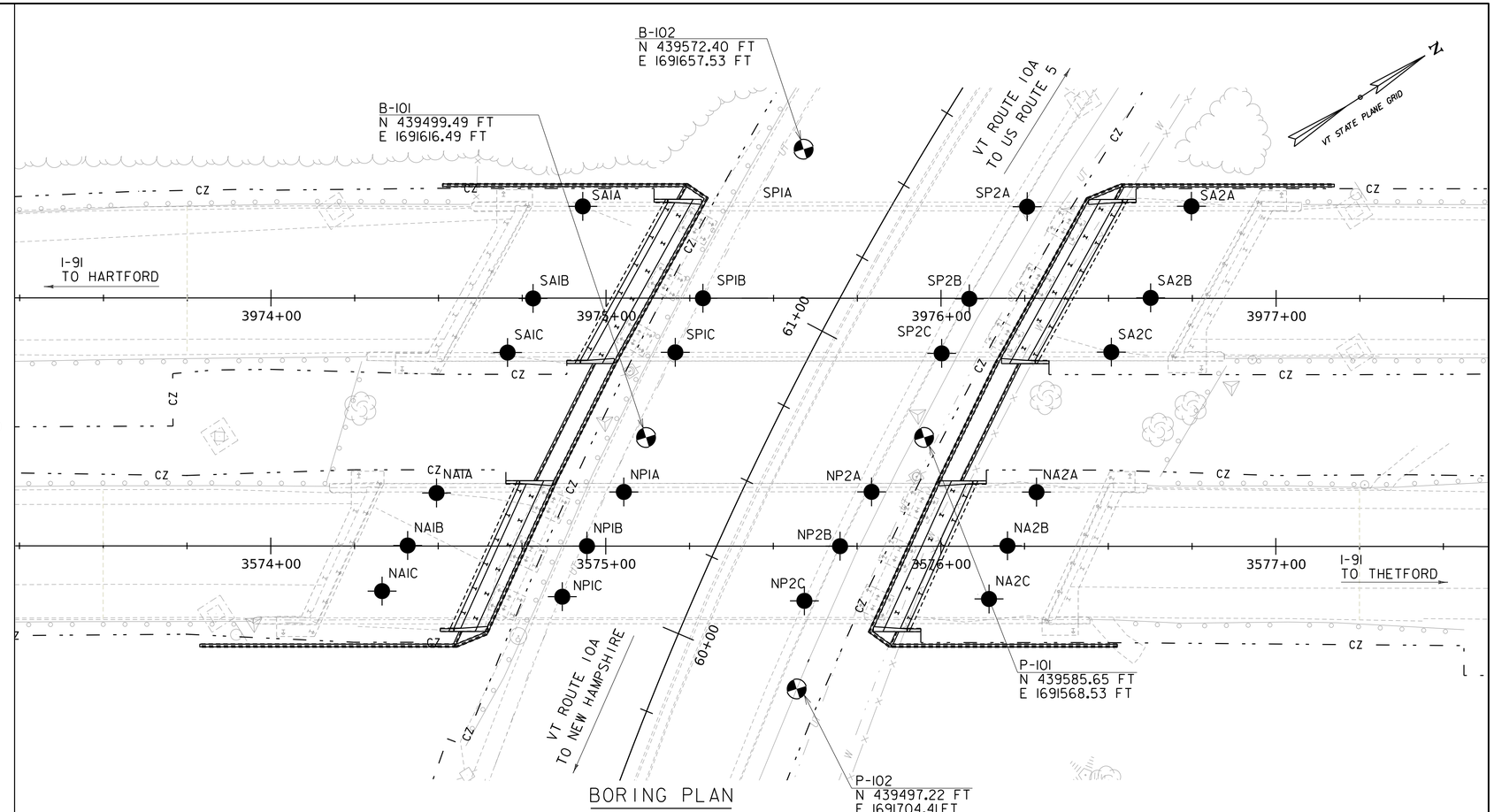
N	DESCRIPTIVE TERM
<2	Very Soft
2-4	Soft
5-8	Med. Stiff
9-15	Stiff
16-30	Very Stiff
31-60	Hard
>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
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 1 1/8"
BX	Core Size 1 5/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

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		



BORING PLAN

SCALE 1" = 20'-0"

BORING NO.	SOUTHBOUND STATION	SOUTHBOUND OFFSET	NORTHBOUND STATION	NORTHBOUND OFFSET	GROUND ELEV.	BEDROCK ELEV.
B-101	3975+11.98	41.60	3575+12.03	-32.40	475.43	445.03
P-101	3975+94.98	41.52	3575+95.03	-32.48	473.78	450.28
B-102	3975+58.98	-44.48	-	-	477.64	442.14
P-102	-	-	3575+57.03	42.62	471.82	428.32

DEFINITIONS (AASHTO)

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

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

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

VARVED - Alternate layers of silt and clay.

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

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

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

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

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

DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The subsurface explorations shown herein were made between March 10, 2023 and March 22, 2023 by the Vermont Agency of Transportation.
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Vermont Agency of Transportation and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
3. 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.
4. Engineering judgment 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 judgment by the Contractor.
5. 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.
6. 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.
7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

NOTES:

✚ BORING INFORMATION TAKEN FROM THE OCTOBER 1965 RECORD PLANS. APPROXIMATE LOCATIONS SHOWN, FOR INFORMATION ONLY.

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: z12a568bor.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
BORING LAYOUT

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: L.CECCHI
SHEET 48 OF 76

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Norwich
IM 091-2(89)
IM 91 Bridge 48 N/S VT Route 10A

Boring No.: B-101
Page No.: 1 of 1
Pin No.: 12A568
Checked By: AJA

Boring Crew: McGinley, Monette, Brochu, Arles
Date Started: 3/10/23 Date Finished: 3/13/23
VTSPG NAD83: N 439499.49 ft E 1691616.49 ft
SB Station: 3975+11.98 Offset: 41.6 RT
NB Station: 3575+12.03 Offset: 32.4 LT
Ground Elevation: 475.43 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
03/13/23	20.7	WT After Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note, ASPHALT 0.0'-1.05'								
		A-1-b, gry/brn, MTD, Rec. = 1.0 ft, GRAVEL and SAND, little silt. Field Note: Gravel in end of sampler				15-21-21-22 (42)	5.7	42.1	42.7	15.2
		A-2-4, gry/brn, MTD, Rec. = 2.0 ft, SAND, some gravel, little silt. Field Note: Broken rock/gravel within sample				29-33-54-38 (87)	7.8	22.0	58.1	19.9
5		A-2-4, brn, Dry, Rec. = 1.3 ft, SAND, some silt, some gravel				44-24-19-13 (43)	6.5	20.7	52.0	27.3
		A-2-4, brn, Moist, Rec. = 1.9 ft, SAND, some silt, trace gravel				5-5-5-11 (10)	9.3	7.2	72.8	20.0
10		A-2-4, brn, MTD, Rec. = 2.0 ft, SAND, some silt, little gravel				14-14-16-16 (30)	11.0	11.5	68.2	20.3
15		A-1-a, gry, MTW, Rec. = 0.5 ft, GRAVEL, some sand, trace silt. Rollercone cleanout 19.4'-20.0'				15-10-10-9 (20)	16.1	57.7	33.9	8.4
20		A-4, brn, Moist, Rec. = 0.95 ft, SILT and GRAVEL, some sand. Field Note: Sample transition to poorly graded, fine, SAND in last 0.4 ft of sample				21-18-10-7 (28)	3.3	38.0	24.3	37.7
25		A-4, brn, MTW, Rec. = 0.6 ft, SILT, little gravel, trace sand				25-18-9-10 (27)	29.6	11.6	7.7	80.7
30		Field Note, Rec. = 0.0 ft, Refusal @ 30.4', 50 blows per 6"				R@4" (R)				
		30.4 ft - 35.4 ft, Dark-gray hornblende-plagioclase-iotite-mica-chlorite SCHIST, interlayed with thin bands of white LIMESTONE. Fine grained. Natural breaks are slightly rust colored and dull. At 0.8-1.3', TUFF with phyllite pieces. Very close to close spacing. Hard, Very slightly weathered, Poor rock, NX, Slightly rough condition. RMR = 34	R-1 (55)	68 (0)	2 1 2 6 4	Top of Bedrock @ 30.4 ft				
35		35.4 ft - 40.4 ft, Greenish-dark-gray hornblende-plagioclase-biotite-mica-chlorite SCHIST interlayed with thin bands of white LIMESTONE. Fine-grained. Natural breaks are slightly rust colored and dull. Close spacing. Slightly rough condition. Hard, Very slightly weathered, Poor rock, NX, RMR = 39	R-2 (55)	80 (16)	6 6 8 18 9					
40		Hole stopped @ 40.4 ft								
45		Remarks: Hole Collapse @ 30.0' Boring was advanced in the shoulder of VT Route 10A. Stationing and offset based on I-91 alignment.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. "bgs" is used as the shorthand stand in for "Below Ground Surface".

BORING LOG NORWICH IM 091-2(89).GPJ VERMONT AOT.GDT 5/2/23

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Norwich
IM 091-2(89)
IM 91 Bridge 48 N/S VT Route 10A

Boring No.: B-102
Page No.: 1 of 1
Pin No.: 12A568
Checked By: AJA

Boring Crew: McGinley, Brochu, Zottola
Date Started: 3/20/23 Date Finished: 3/22/23
VTSPG NAD83: N 439572.40 ft E 1691657.53 ft
SB Station: 3975+58.98 Offset: 44.5 LT
Ground Elevation: 477.64 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
03/22/23	30.7	WT After Drilling
03/22/23		No WT Before Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-b, brn, MTD, Rec. = 1.3 ft, SAND, little gravel, little silt				8-4-4-4 (8)	6.6	17.9	68.8	13.3
		A-1-b, brn, MTD, Rec. = 0.9 ft, SAND, some gravel, little silt				4-5-6-10 (11)	5.2	22.3	66.8	10.9
		A-2-4, brn, MTD, Rec. = 1.9 ft, SAND, little gravel, little silt				10-16-20-22 (36)	9.8	16.9	67.1	16.0
		A-2-4, brn, MTD, Rec. = 1.5 ft, SAND, little gravel, little silt				22-19-15-12 (34)	7.0	19.4	64.5	16.1
10		A-2-4, brn, MTD, Rec. = 1.5 ft, SAND, some silt, little gravel. Rollercone cleanout 12.0'-13.0'				17-14-12-10 (26)	9.2	14.1	65.8	20.1
		Field Note, Rec. = 0.0 ft, No recovery. Rollercone cleanout 17.5'-18.0'				3-2-1-2 (3)				
20		A-4, brn, MTW, Rec. = 1.0 ft, SILT and SAND, little gravel. Rollercone cleanout 21.5'-23.0'				6-9-5-4 (14)	24.0	12.9	46.7	40.4
		A-4, brn, MTW, Rec. = 1.3 ft, SILT, trace sand, trace gravel				4-6-6-6 (12)	29.6	4.5	6.6	88.9
30		A-4, brn, MTW, Rec. = 1.2 ft, SILT, trace sand. Rollercone Cleanout 32.5'-33.0'				4-6-7-7 (13)	30.5		5.3	94.7
		Field Note, Rec. = 0.0 ft, Refusal @ 33.7', 50 blows per 6". Rollercone cleanout 33.0'-33.7'. Advanced casing to 35.0'. Rollercone cleanout to 35.5'				31-R@2" (R)				
		35.5 ft - 40.5 ft, Dark-gray hornblende-plagioclase-biotite-mica-chlorite SCHIST with small inclusions of limestone and quartz. Fine-grained. Very slightly weathered. Natural breaks have rust colored minerals and dulled in color. Close spacing. Slightly rough condition. Hard, Very slightly weathered, Poor rock, NX, RMR = 39	R-1 (65)	70 (13)	2 4 3 4 4	Top of Bedrock @ 35.5 ft				
40		40.5 ft - 45.5 ft, Dark-gray hornblende-plagioclase-biotite-mica-chlorite SCHIST with small inclusions of limestone and quartz. Fine-grained. Natural breaks are slightly rust colored and dulled in color. Close spacing. Slightly rough condition. Hard, Very slightly weathered, Fair rock, NX, RMR = 44	R-2 (65)	100 (39)	4 4 4 3 4					
		Hole stopped @ 45.5 ft								
50		Remarks: Hole Collapse @ 36.8' Boring was advanced in the shoulder of VT Route 10A. Stationing and offset based on I-91 alignment.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. "bgs" is used as the shorthand stand in for "Below Ground Surface".

BORING LOG NORWICH IM 091-2(89).GPJ VERMONT AOT.GDT 5/2/23

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568bor.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
BORING LOGS I

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: L.CECCHI
SHEET 49 OF 76

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Norwich
IM 091-2(89)
IM 91 Bridge 48 N/S VT Route 10A

Boring No.: P-101
Page No.: 1 of 1
Pin No.: 12A568
Checked By: AJA

Boring Crew: McGinley, Monette, Zottola
Date Started: 3/13/23 Date Finished: 3/16/23
VTSPG NAD83: N 439585.65 ft E 1691568.53 ft
SB Station: 3975+94.98 Offset: 41.5 RT
NB Station: 3575+95.03 Offset: 32.5 LT
Ground Elevation: 473.78 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
03/16/23	15.9	WT After Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note, Casing advanced to bedrock without sampling								
5										
10										
15										
20										
25		23.5 ft – 28.5 ft, Greenish-gray hornblende-plagioclase-biotite-mica-chlorite SCHIST interlayed with thin bands of white LIMESTONE. Fine-grained. Natural breaks are slightly rust colored and dull. Drilling marks on outside of core. Very close spacing. Hard, Very slightly weathered, Poor rock, NX, Slightly rough condition. RMR = 30	R-1 (40)	34 (0)	7 1 1 1 4		Top of Bedrock @ 23.5 ft			
30		28.5 ft – 33.5 ft, Greenish-gray hornblende-plagioclase-biotite-mica-chlorite SCHIST interlayed with thin bands of white LIMESTONE. Fine-grained. Natural breaks are slightly rust colored and dull. 0.4' – 0.95' rust stained, folliated. Close spacing. Hard, Very slightly weathered, Poor rock, NX, Slightly rough condition. RMR = 39	R-2 (55)	82 (16)	5 4 9 7 7					
35		Hole stopped @ 33.5 ft								

Remarks:
Hole Collapse @ 28.0'
Boring was advanced in the shoulder of VT Route 10A. Stationing and offset based on I-91 alignment.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. "bgs" is used as the shorthand stand in for "Below Ground Surface".

BORING LOG NORWICH IM 091-2(89).GPJ VERMONT AOT.GDT 5/2/23

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Norwich
IM 091-2(89)
IM 91 Bridge 48 N/S VT Route 10A

Boring No.: P-102
Page No.: 1 of 1
Pin No.: 12A568
Checked By: AJA

Boring Crew: McGinley, Monette, Brochu, Zottola
Date Started: 3/17/23 Date Finished: 3/20/23
VTSPG NAD83: N 439497.22 ft E 1691704.41 ft
NB Station: 3575+57.03 Offset: 42.6 RT
Ground Elevation: 471.82 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
03/17/23	10.3	WT After Drilling
03/20/23		No WT After Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note, Casing advanced to bedrock without sampling								
10										
20										
30										
40										
50		43.5 ft – 48.5 ft, Dark-gray plagioclase-mica SCHIST and silver-greenish-gray plagioclase-mica-hornblende-biotite-chlorite PHYLLITE with small inclusions of limestone. Fine-grained. Natural breaks are dull. Very close spacing.Slightly rough condition. Hard, Very slightly weathered, Poor rock, NX, RMR = 33	R-1 (75)	28 (0)	6 7 4 3 5		Top of Bedrock @ 43.5 ft			
		48.5 ft – 53.5 ft, Silver-greenish-gray plagioclase-mica-hornblende-biotite-chlorite PHYLLITE with small inclusions of limestone and quartz veins. Fine-grained. Natural breaks are slightly rust colored and dull. Close spacing. Slightly rough condition. Hard, Very slightly weathered, Fair rock, NX, RMR = 42	R-2 (75)	100 (42)	5 4 3 3 3					
60		Hole stopped @ 53.5 ft								

Remarks:
Hole Collapse @ 44.8'
Boring was advanced in the shoulder of VT Route 10A. Stationing and offset based on I-91 alignment.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. "bgs" is used as the shorthand stand in for "Below Ground Surface".

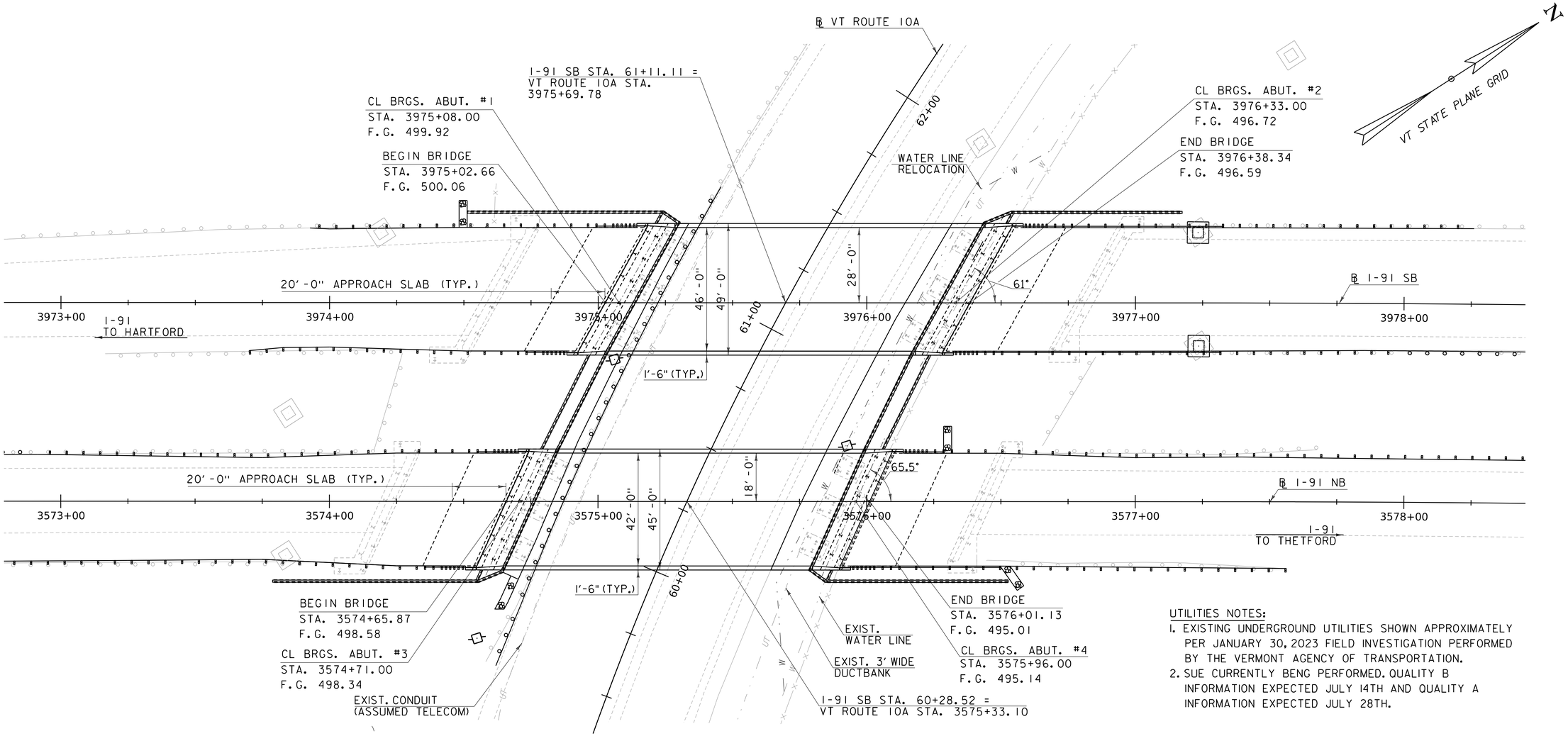
BORING LOG NORWICH IM 091-2(89).GPJ VERMONT AOT.GDT 5/2/23

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568bor.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
BORING LOGS 2

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: L.CECCHI
SHEET 50 OF 76



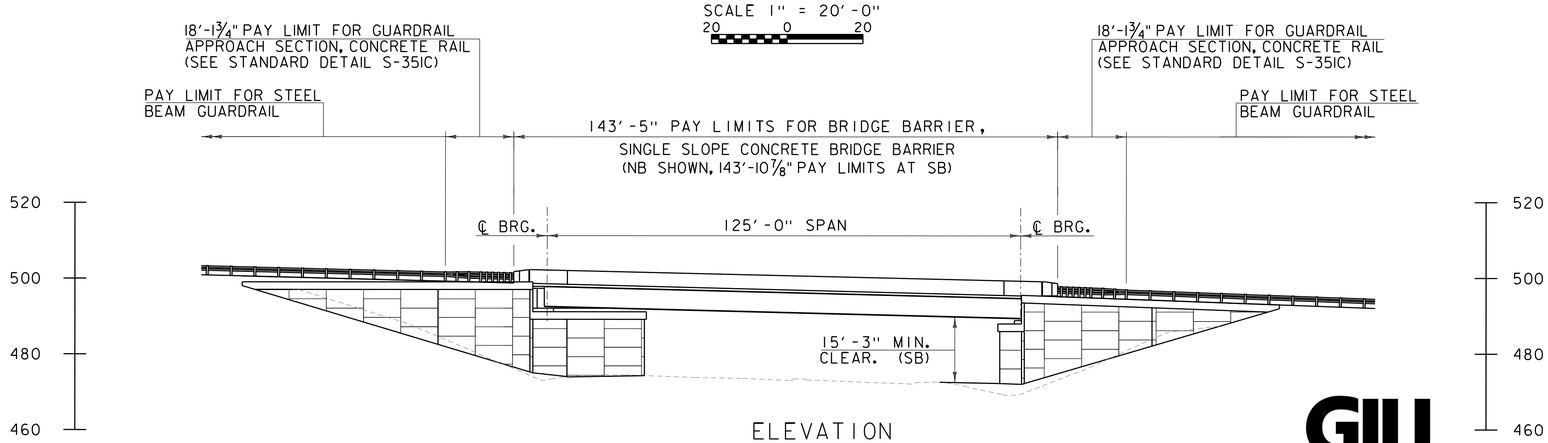
PLAN

SCALE 1" = 20'-0"

20 0 20

UTILITIES NOTES:

1. EXISTING UNDERGROUND UTILITIES SHOWN APPROXIMATELY PER JANUARY 30, 2023 FIELD INVESTIGATION PERFORMED BY THE VERMONT AGENCY OF TRANSPORTATION.
2. SUE CURRENTLY BENG PERFORMED. QUALITY B INFORMATION EXPECTED JULY 14TH AND QUALITY A INFORMATION EXPECTED JULY 28TH.



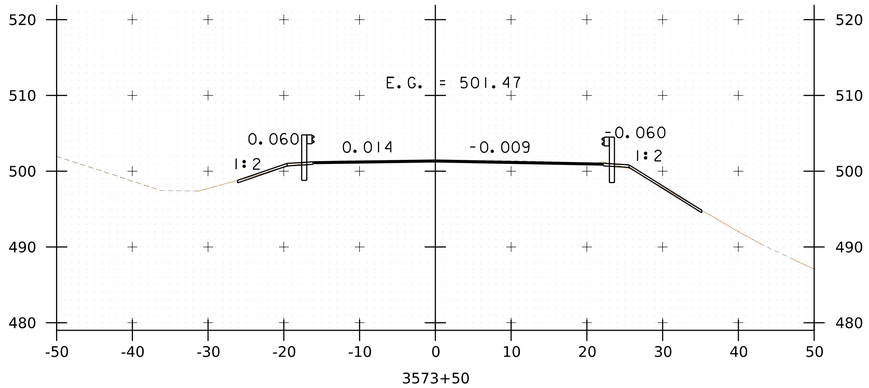
ELEVATION

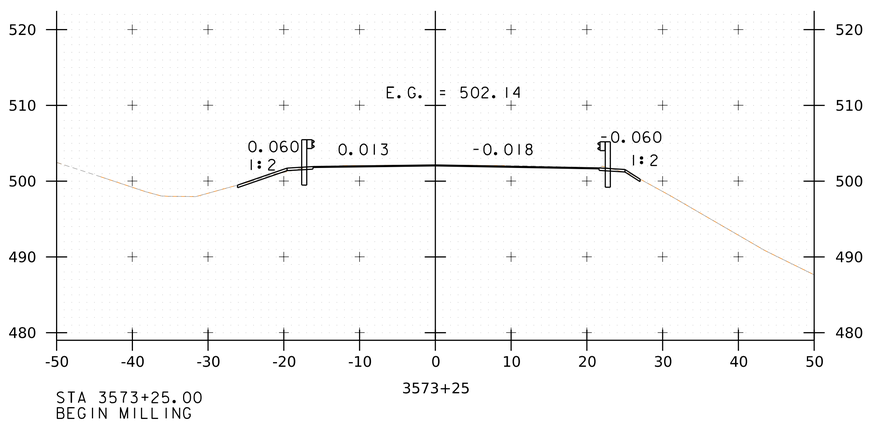
SCALE 1" = 20'-0"

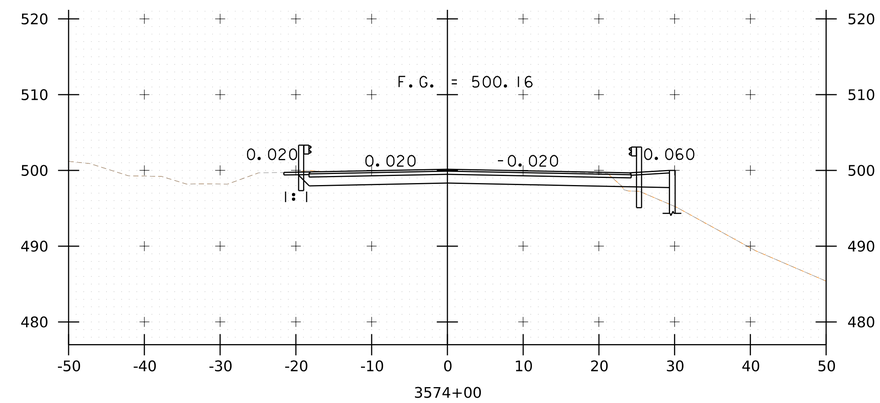
20 0 20

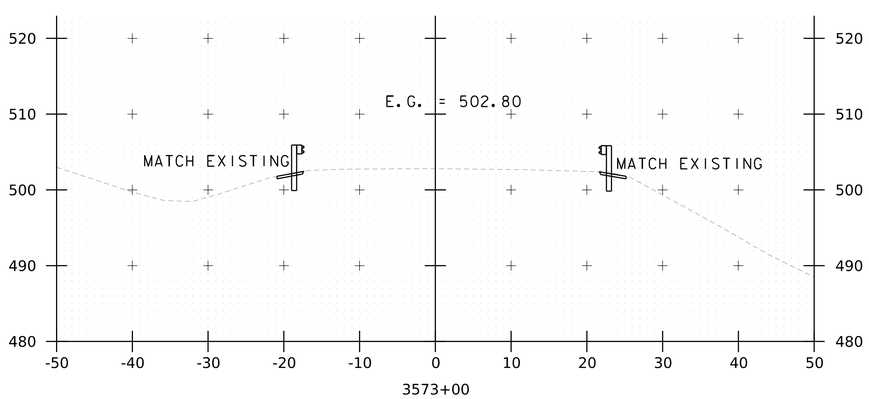
GILL ENGINEERING

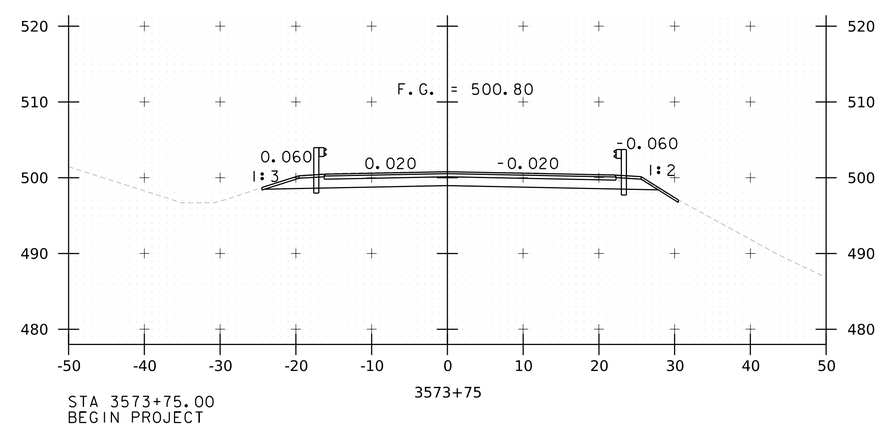
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568pe.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: L. CECCHI
PLAN & ELEVATION	SHEET 51 OF 76







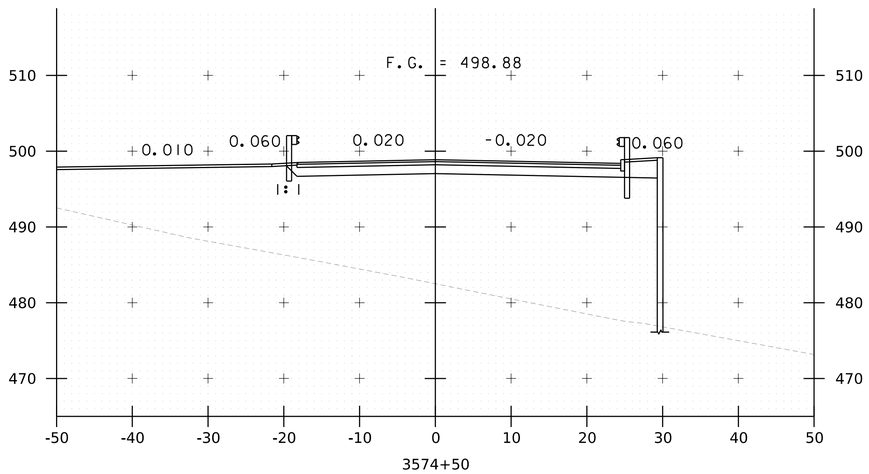




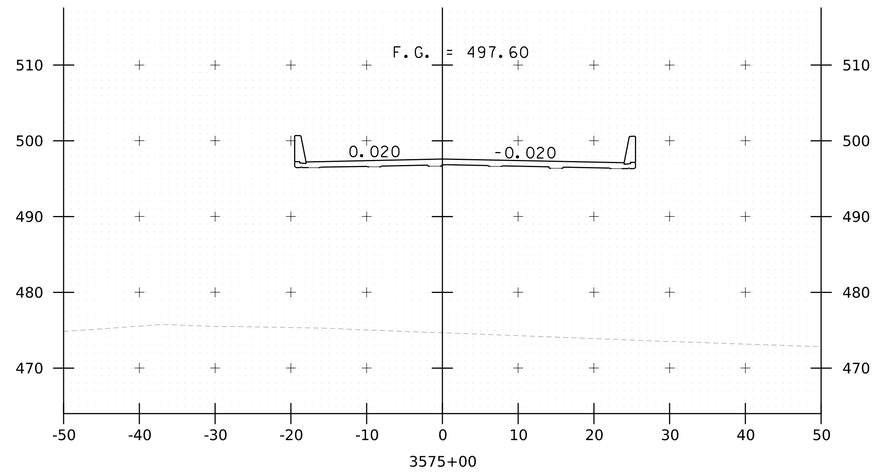
STA. 3573+00 TO STA. 3574+00

GILL ENGINEERING

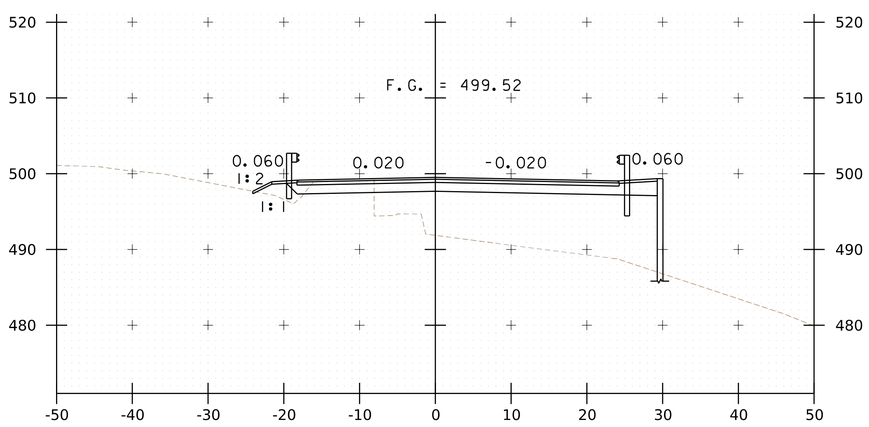
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-19INB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
NORTHBOUND CROSS SECTIONS 1	SHEET 52 OF 76



3574+50



3575+00



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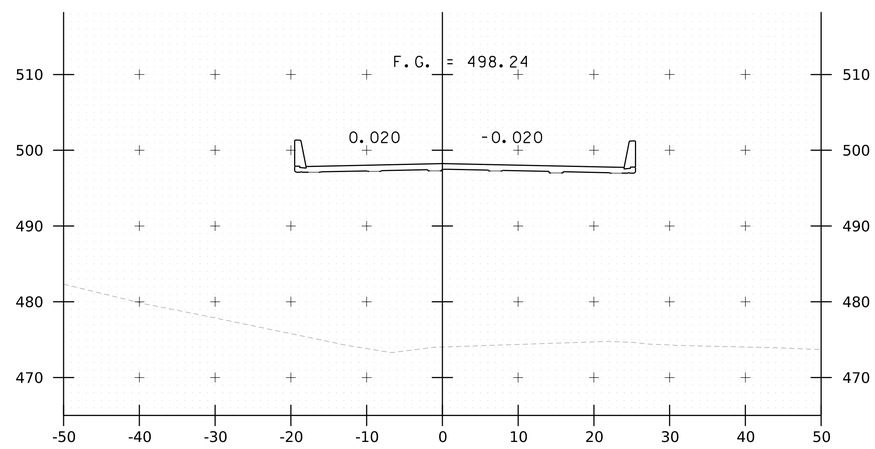


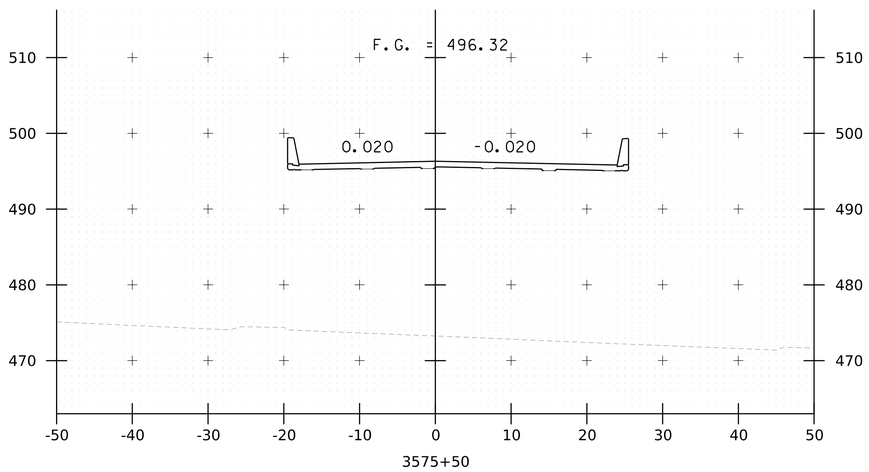
STA 3574+65.87
BEGIN BRIDGE

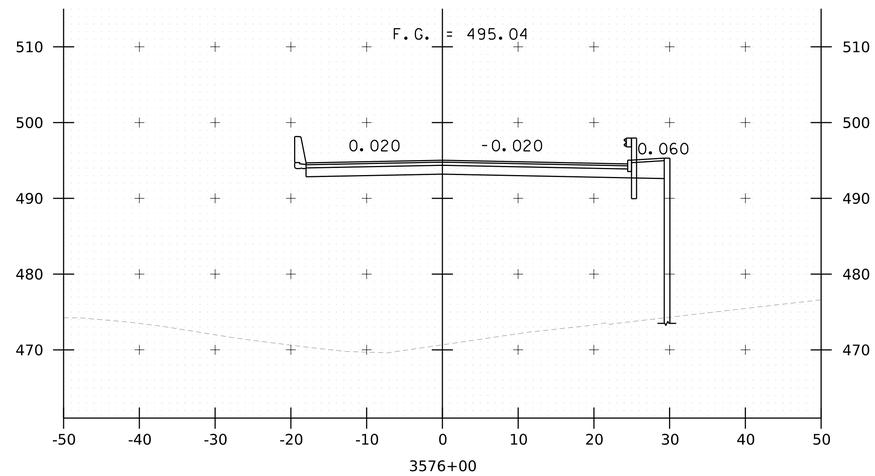
3574+75

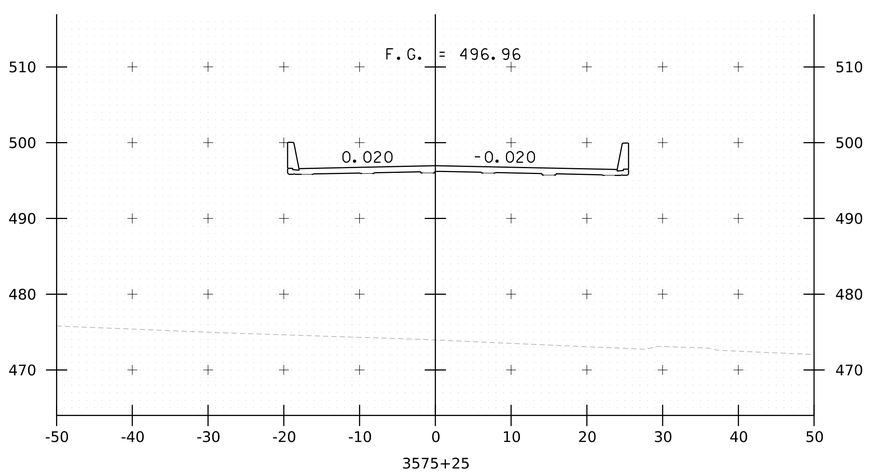
STA. 3574+25 TO STA. 3575+00

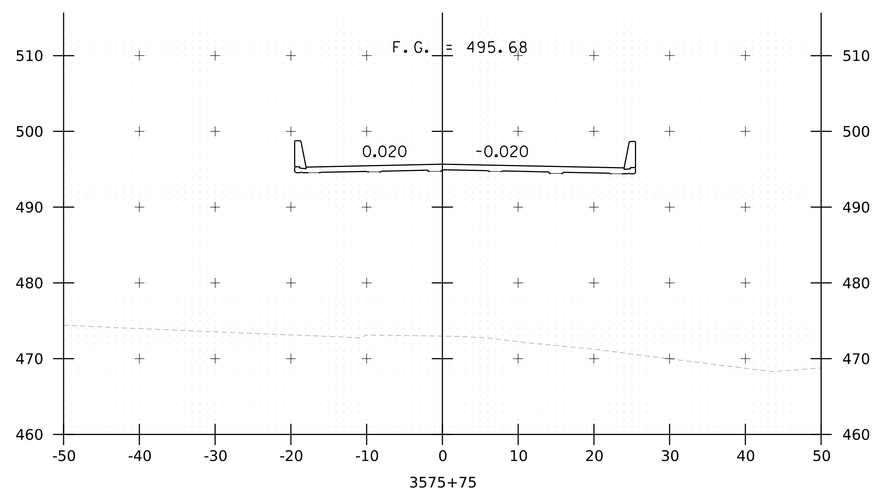
GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-19INB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
NORTHBOUND CROSS SECTIONS 2	SHEET 53 OF 76





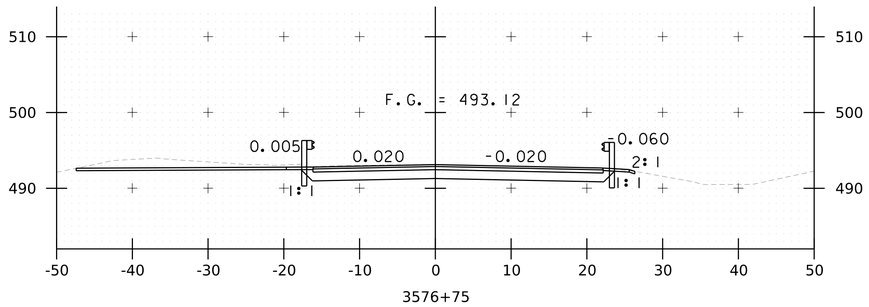


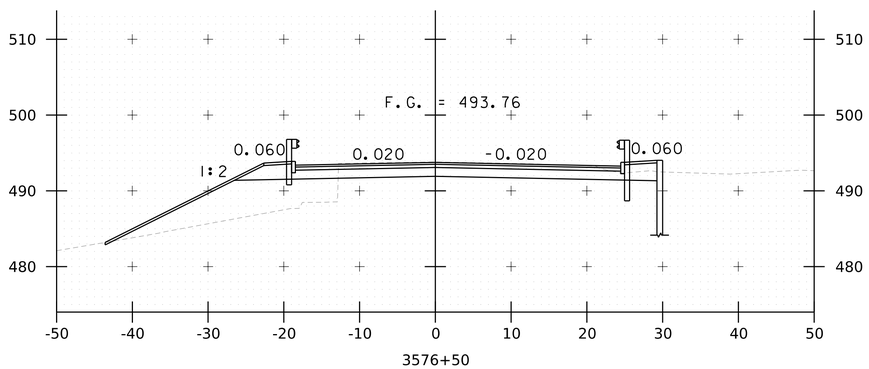


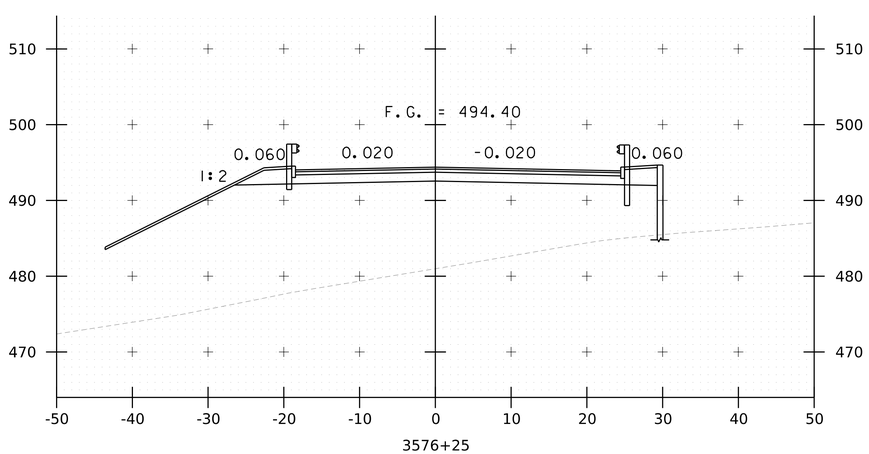
STA. 3575+25 TO STA. 3576+00

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-I91NB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
NORTHBOUND CROSS SECTIONS 3	SHEET 54 OF 76







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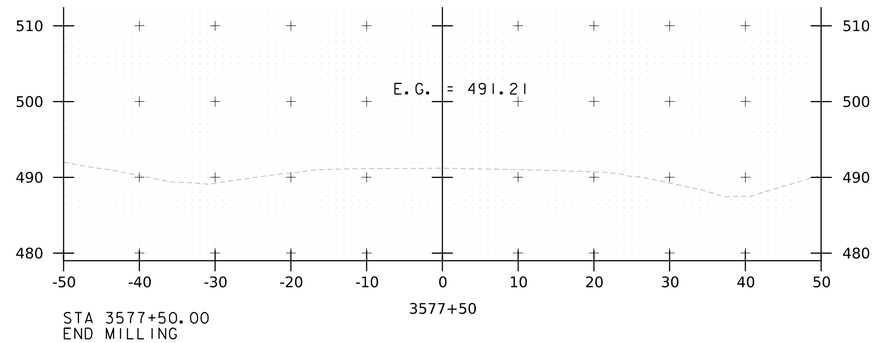

STA 3577+50.00
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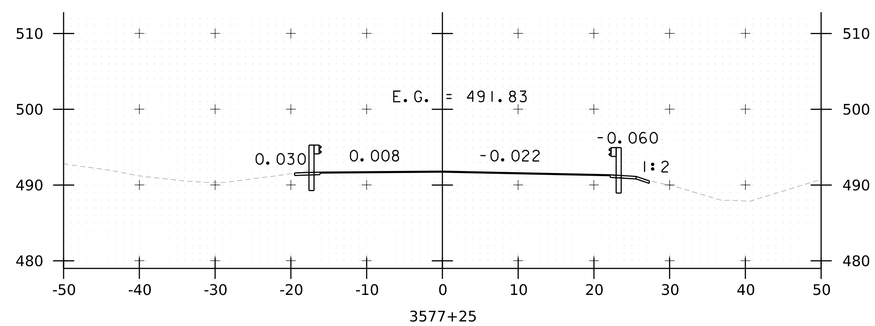
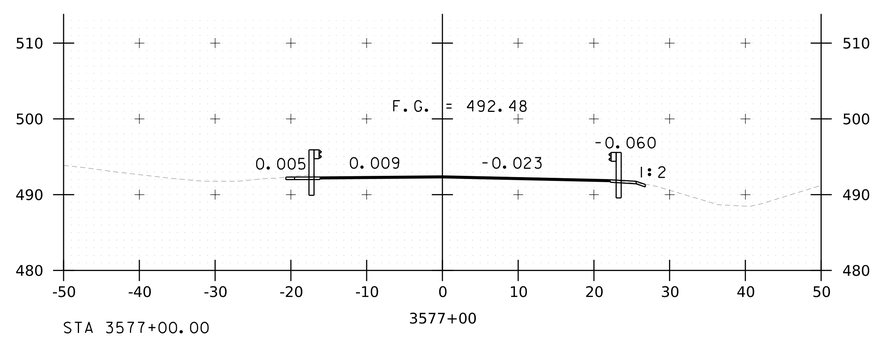


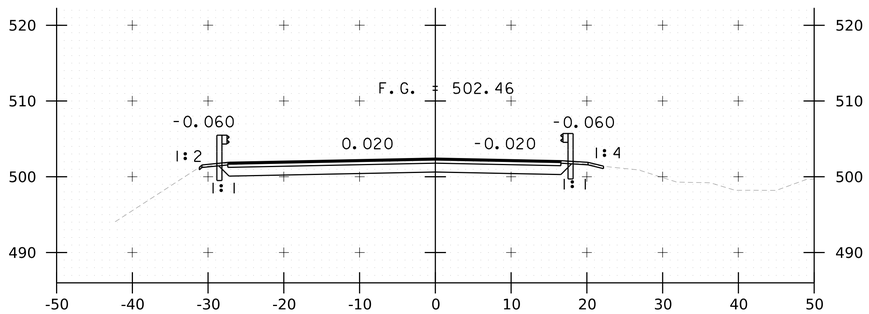


STA 3577+00.00
END PROJECT

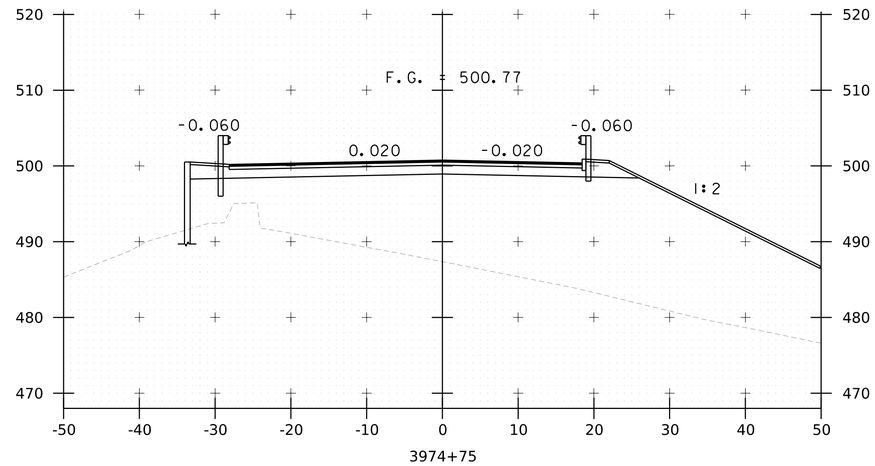
STA. 3576+25 TO STA. 3577+50

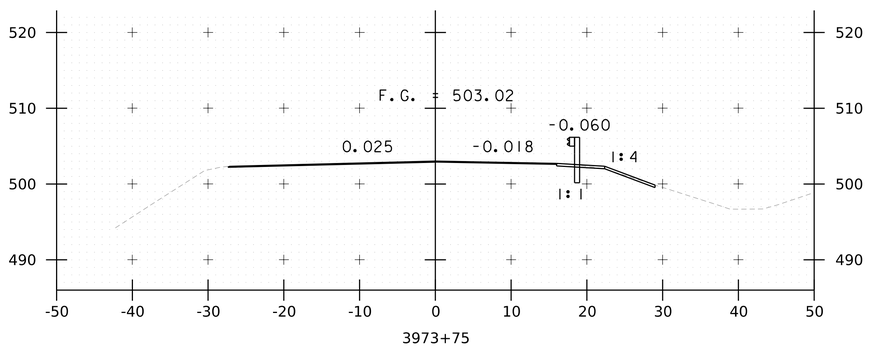
GILL ENGINEERING

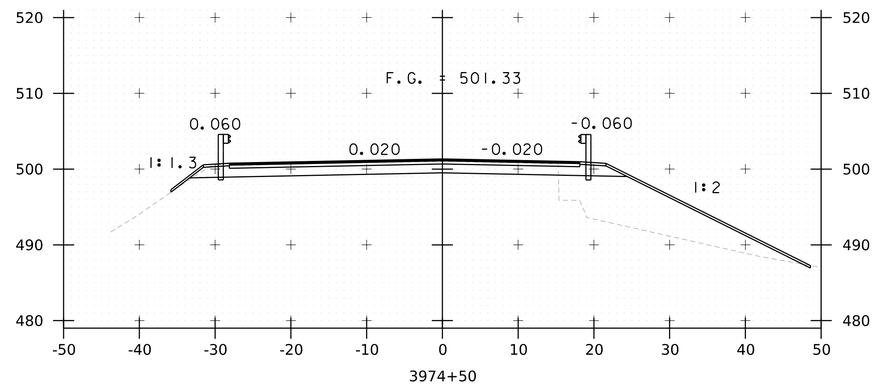
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-19INB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
NORTHBOUND CROSS SECTIONS 4	SHEET 55 OF 76

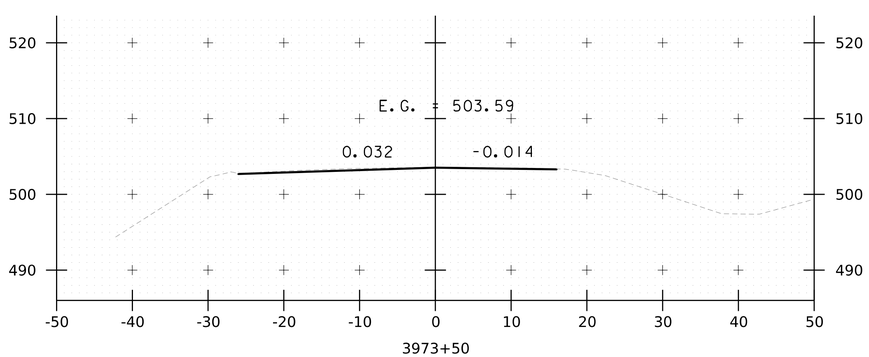


STA 3974+00.00
BEGIN PROJECT

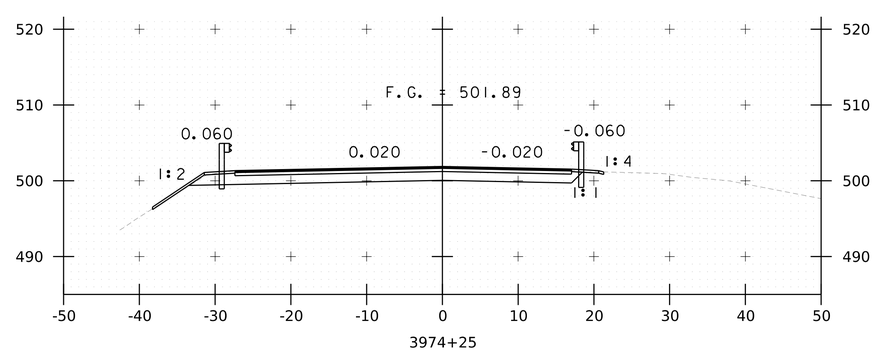








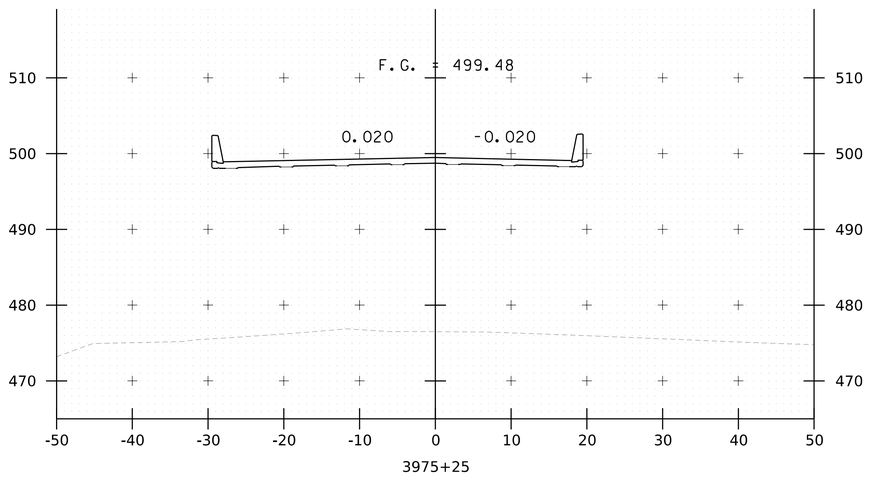
STA 3973+50.00
BEGIN MILLING

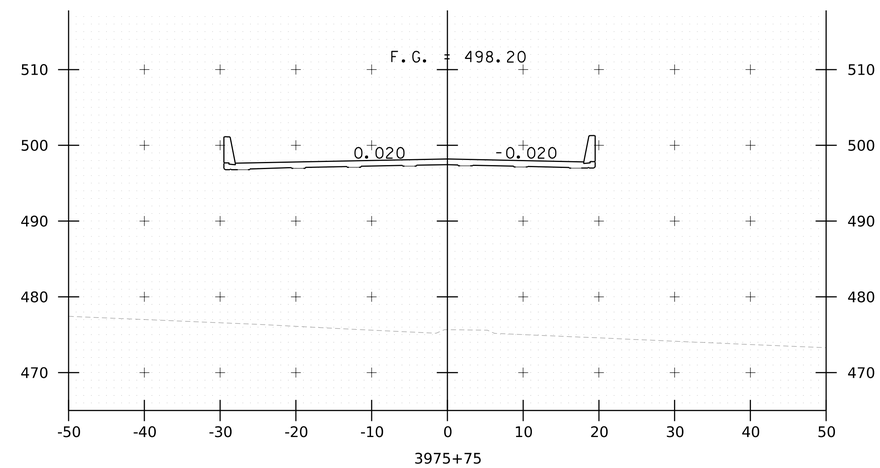


STA. 3973+50 TO STA. 3974+75

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-191SB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SOUTHBOUND CROSS SECTIONS 1	SHEET 56 OF 76





STA 3975+02.66
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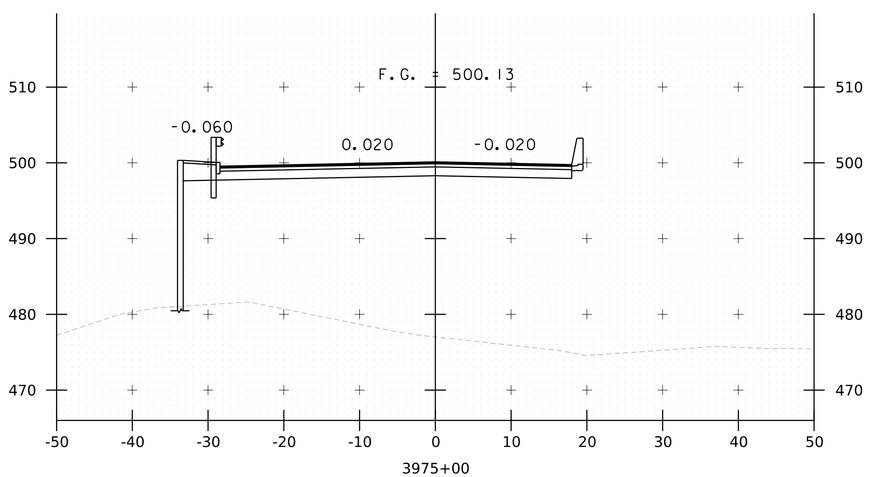
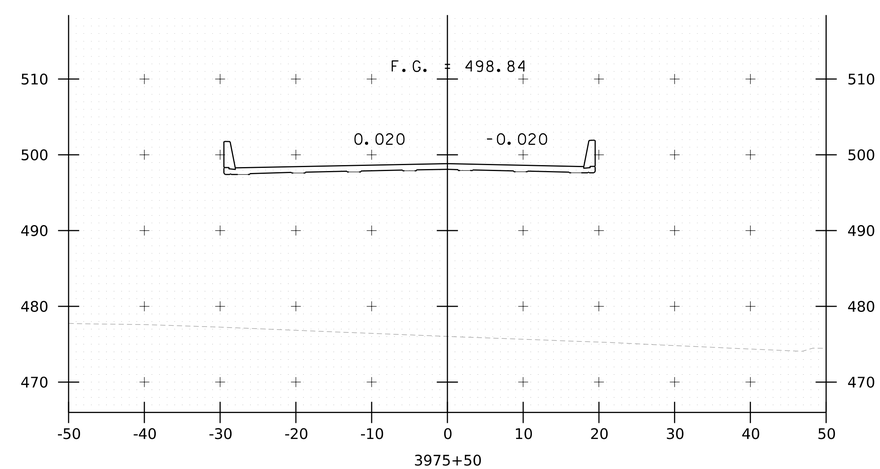
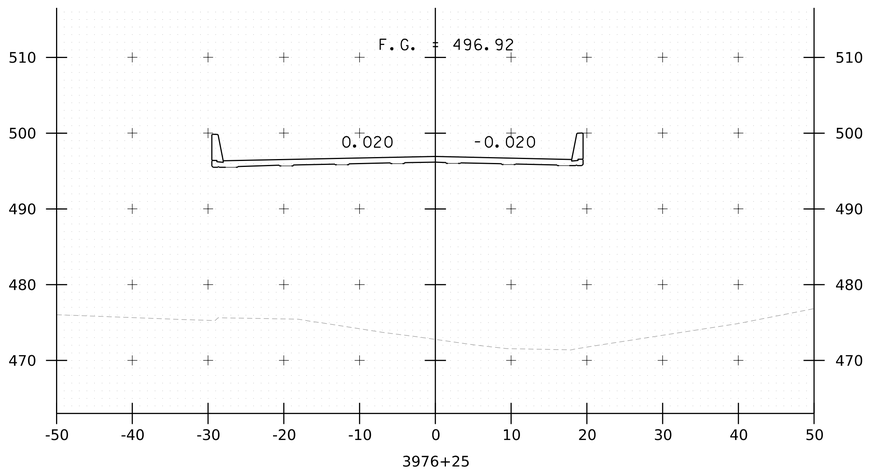




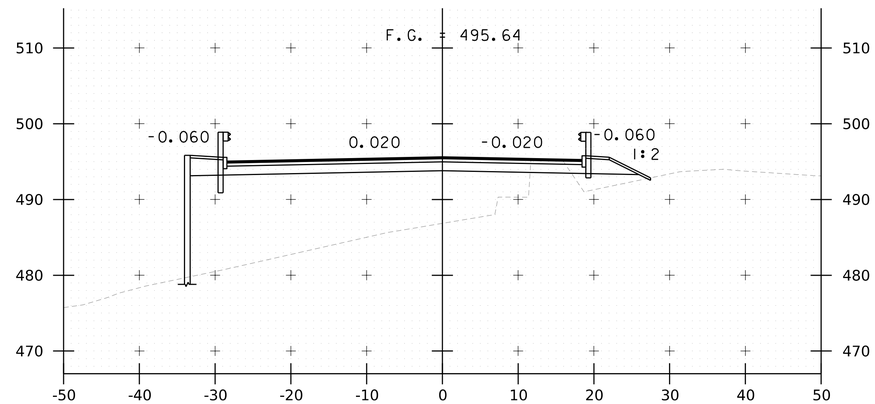
STA. 3975+00 TO STA. 3975+75

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-191SB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SOUTHBOUND CROSS SECTIONS 2	SHEET 57 OF 76



3976+25



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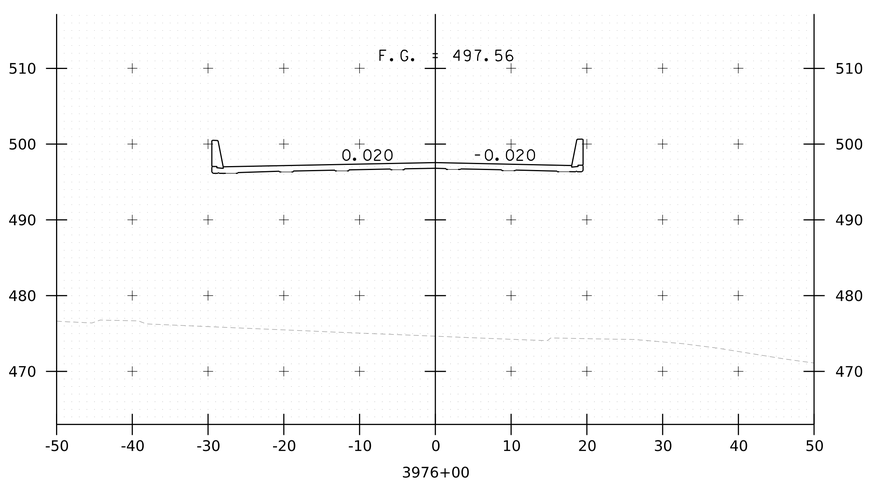
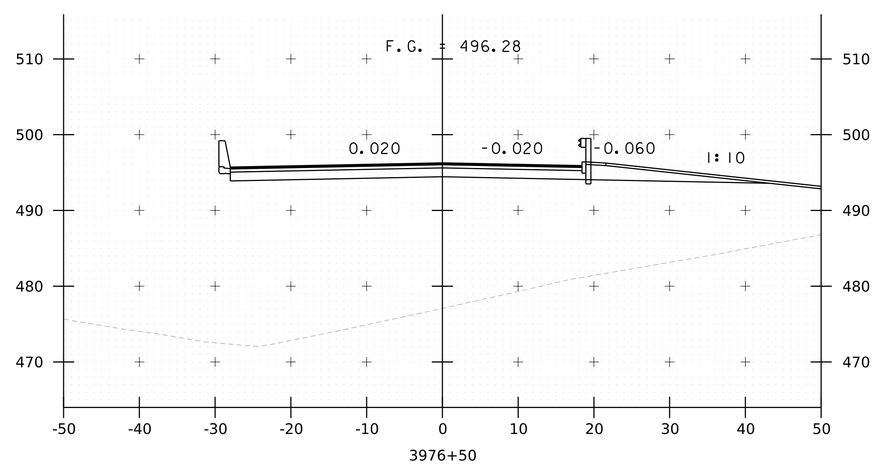


3976+00



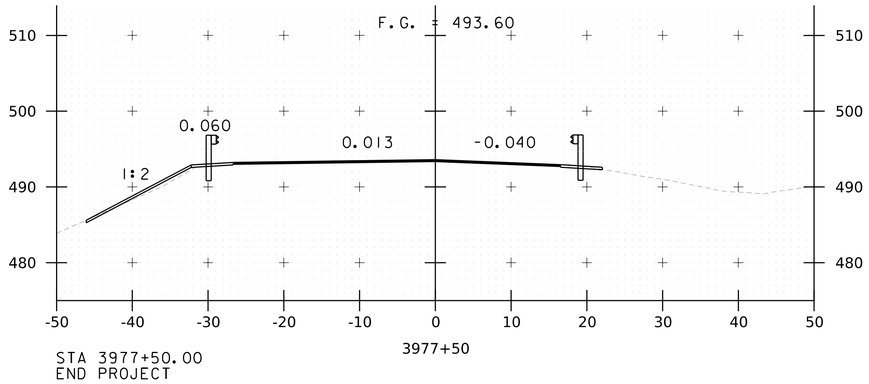
3976+50

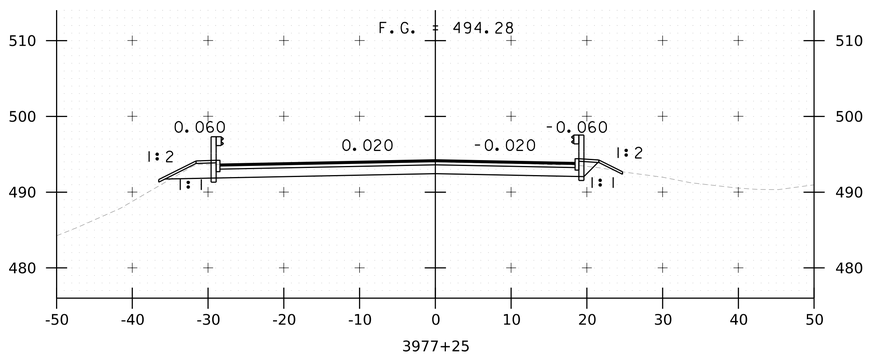
STA 3976+38.34
END BRIDGE

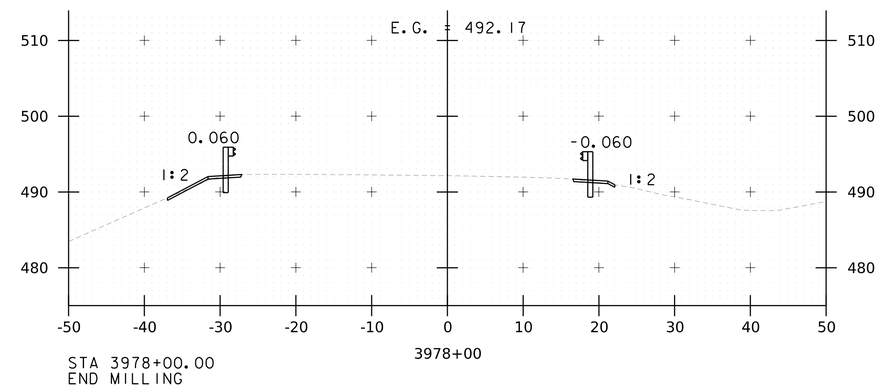
STA. 3976+00 TO STA. 3976+75

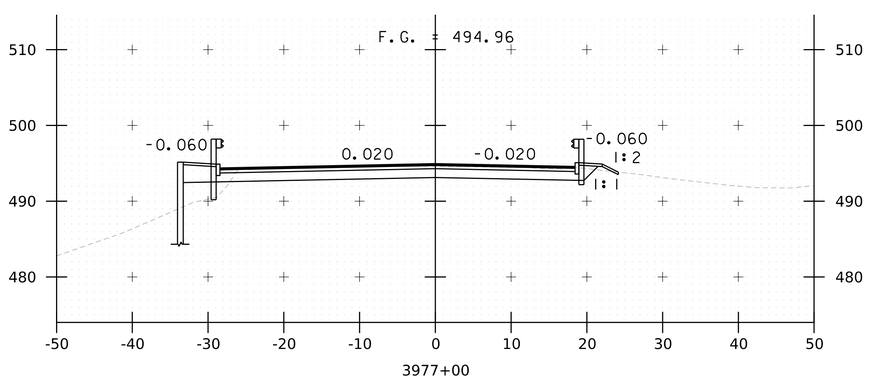
GILL ENGINEERING

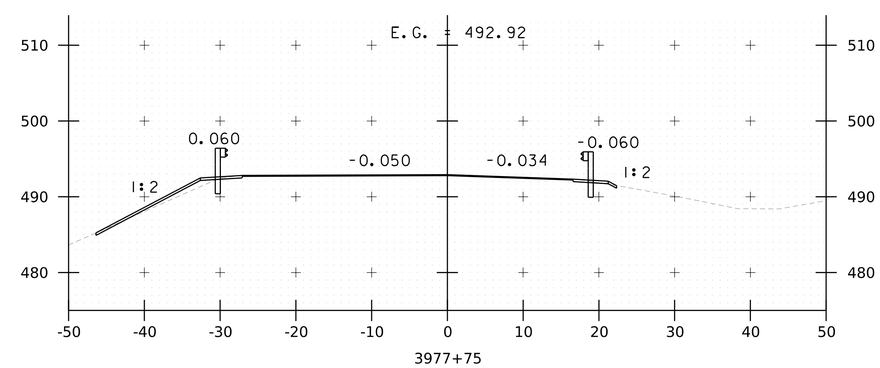
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-191SB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SOUTHBOUND CROSS SECTIONS 3	SHEET 58 OF 76







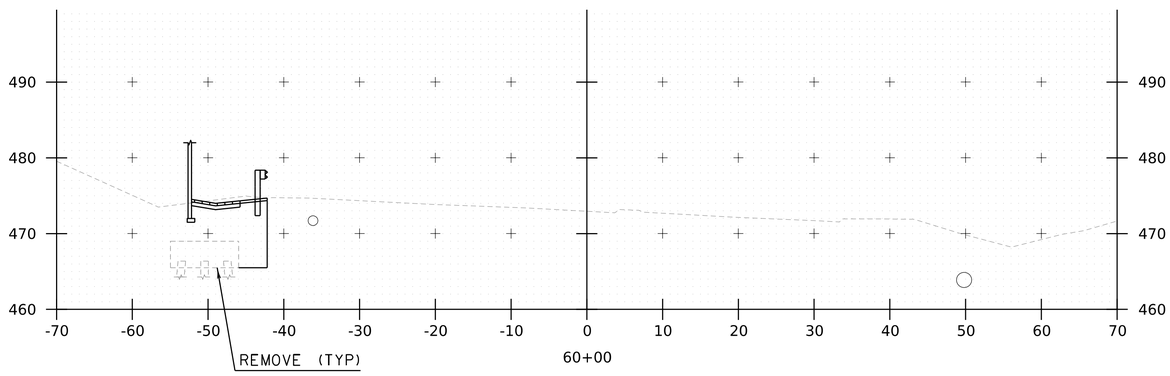


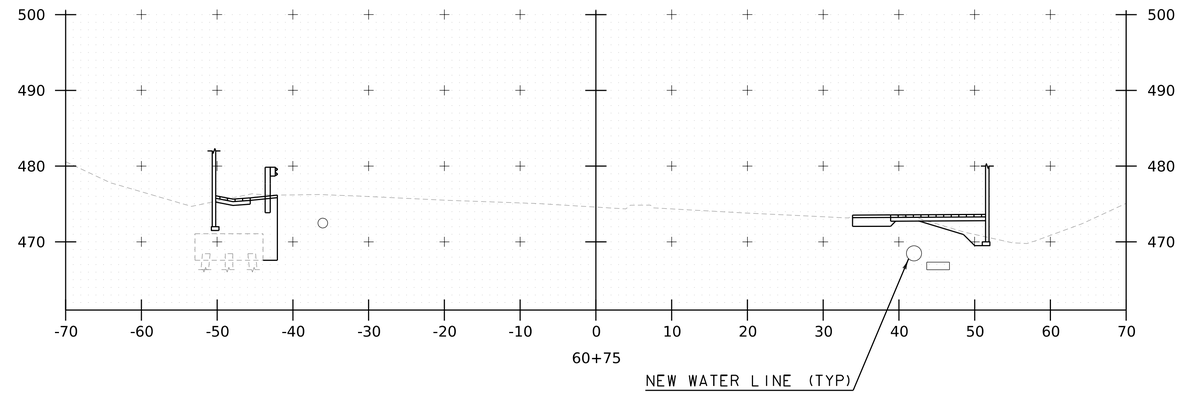


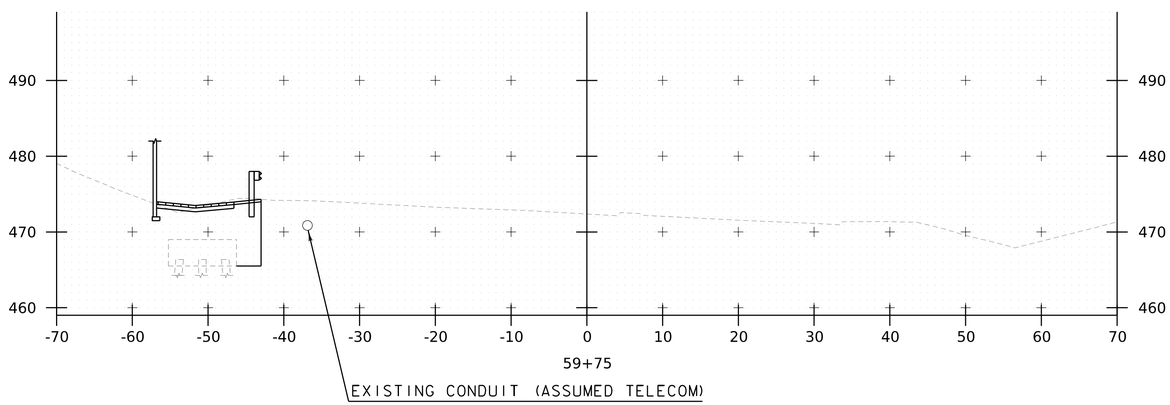
STA. 3977+00 TO STA. 3978+00

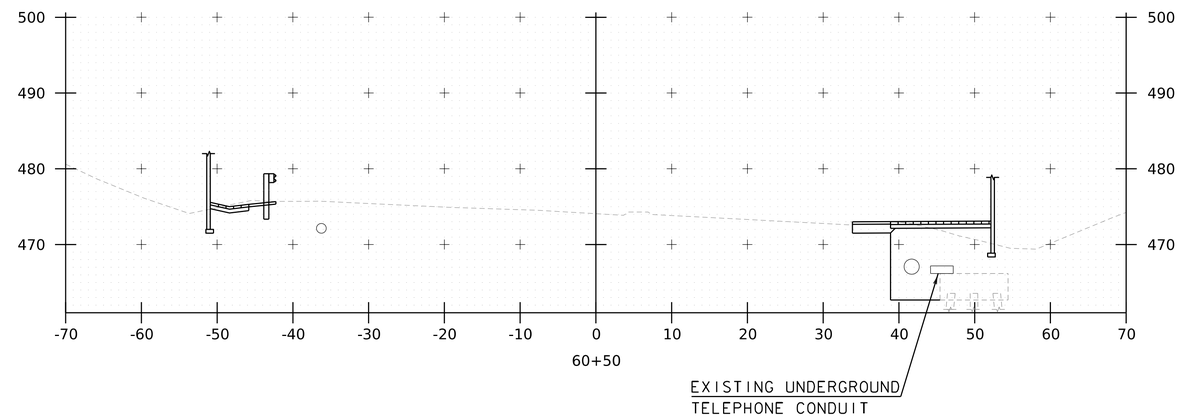
GILL ENGINEERING

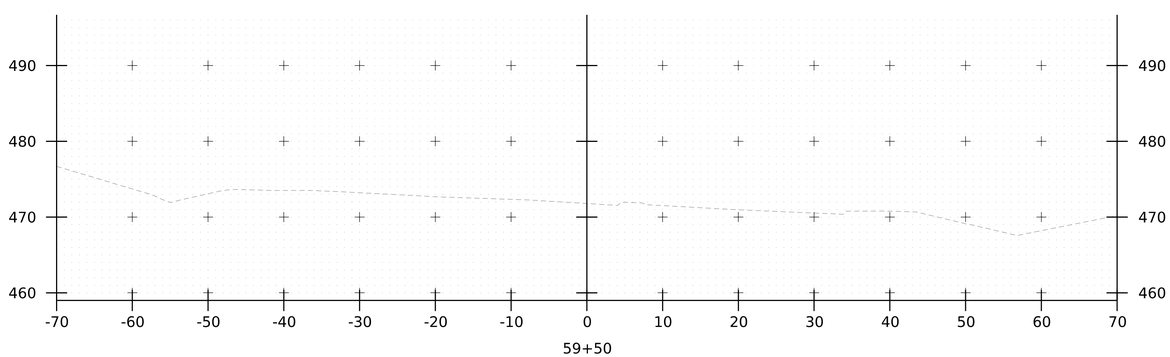
PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-191SB.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.LEENHOUTS
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
SOUTHBOUND CROSS SECTIONS 4	SHEET 59 OF 76

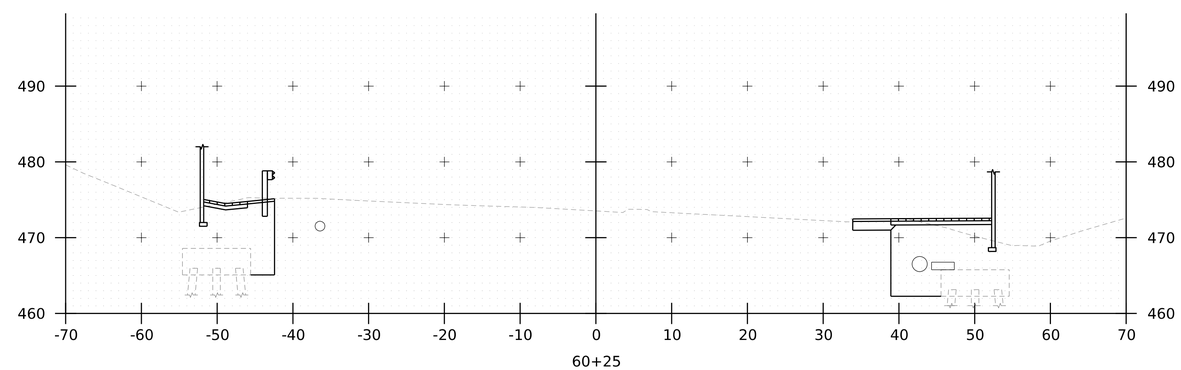








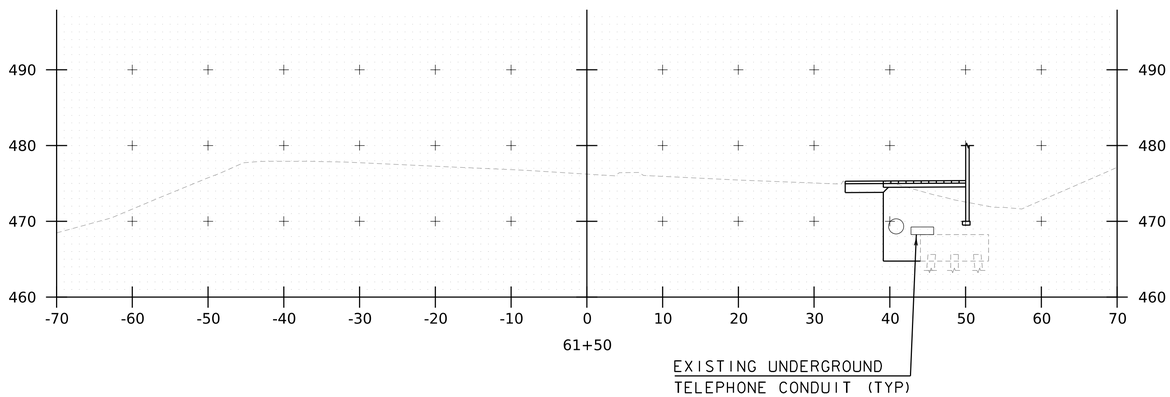


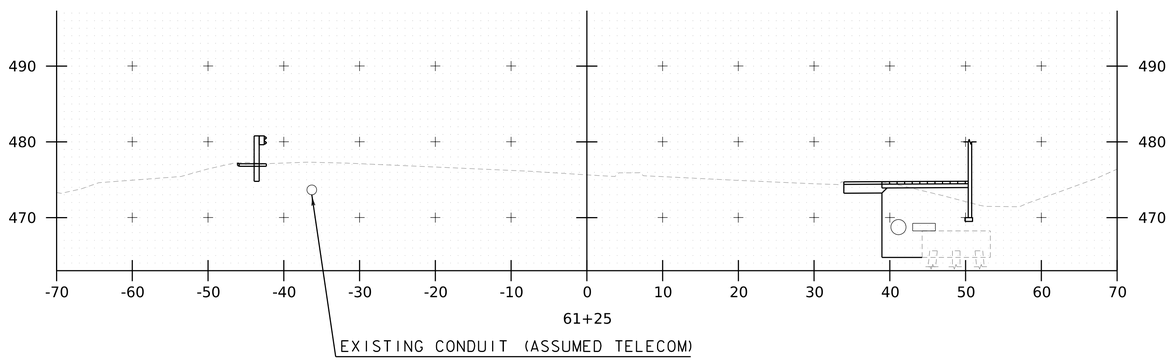


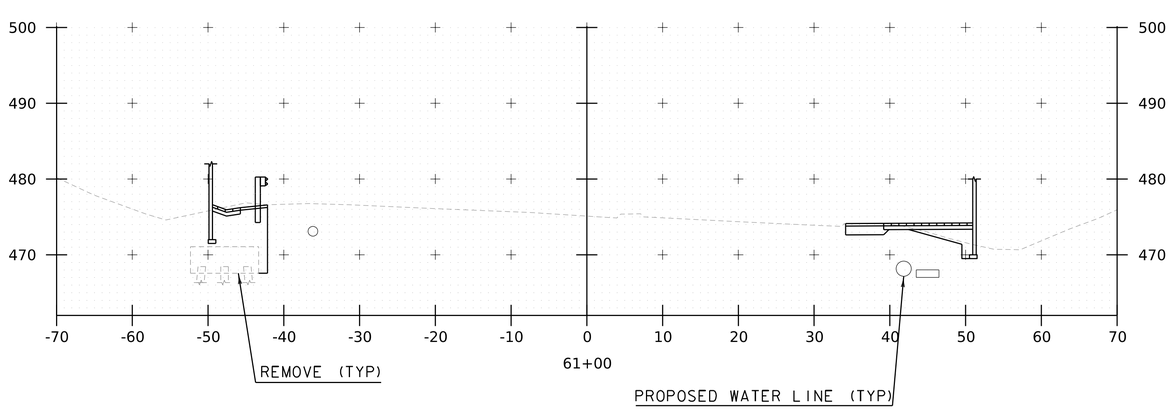
STA. 59+50 TO STA. 60+75

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-10A.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
ROUTE 10A CROSS SECTIONS 1	SHEET 60 OF 76







STA. 61+00 TO STA. 61+50

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568xs-10A.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: A.STICKELMAN
DESIGNED BY: A.LEENHOUTS	CHECKED BY: L.CECCHI
ROUTE 10A CROSS SECTIONS 2	SHEET 61 OF 76

EPSC PLAN NARRATIVE

1. PROJECT DESCRIPTION

THIS PROJECT INVOLVES NEW BRIDGE AND APPROACH CONSTRUCTION TO BRIDGES 48N AND 48S OVER VT ROUTE 10A, LOCATED ON I-91 AT THE INTERCHANGE OF EXIT 3 (M.M.74.8) IN THE TOWN OF NORWICH. THE PROJECT ALSO INCLUDES CONSTRUCTION OF TEMPORARY CROSSOVER ROADWAYS ON EITHER END OF THE BRIDGES TO SHIFT TRAFFIC FROM ONE BRIDGE TO THE OTHER WHILE EACH BRIDGE IS BEING CONSTRUCTED.

IT IS ANTICIPATED THAT CONSTRUCTION WILL LAST TWO CONSTRUCTION SEASONS.

2. AMOUNT OF DISTURBANCE & RISK EVALUATION

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 3.77 ACRES.

THE MAXIMUM CONCURRENT EARTH DISTURBANCE USED TO SCORE THIS PROJECT IN APPENDIX A RISK ASSESSMENT 2.00 ACRES.

THIS PROJECT REQUIRES COVERAGE UNDER GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS.

ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

3. MAJOR COMPONENTS & SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME.

4. SITE DESCRIPTION
4.1 VEGETATED BUFFERS

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE IMPLEMENTED WHEREVER POSSIBLE.

THIS PROJECT DOES NOT RELY ON VEGETATED BUFFERS AS A MITIGATING RISK FACTOR.

4.2 STREAM CROSSINGS

THIS PROJECT DOES NOT INCLUDE ANY PROPOSED STREAM CROSSINGS. BLOODY BROOK IS CONVEYED BY A DEEP CULVERT BELOW THE INTERSTATE, IMPACTS ARE NOT ANTICIPATED.

4.3 WETLANDS

THERE ARE NO WETLANDS OR WETLAND BUFFERS BEING IMPACTED WITHIN THE PROJECT LIMITS.

4.4 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS SLOPING GROUND CONSISTING OF TYPICAL INTERSTATE HIGHWAYS WITH PAVED ROADWAYS AND GRASSY MEDIANS AND SIDESLOPES SURROUNDED BY UNDEVELOPED AREAS OF FOREST. THERE ARE COMMERCIAL PROPERTIES AND SMALL RESIDENTIAL AREAS ADJACENT TO THE PROJECT AREA.

4.5 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS MOSTLY OF MOWED GRASS IN THE MEDIANS WITH OTHER MODERATE VEGETATION SURROUNDING THE EXISTING BRIDGE ABUTMENTS. IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE PROJECT. UPON COMPLETION, THE DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES AS DESCRIBED IN THE TURF ESTABLISHMENT DETAIL, UNLESS NOTED OTHERWISE.

4.6 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ON THE PROJECT SITE INCLUDE:

BELGRADE SILT LOAM, 3% TO 8" SLOPES, "K FACTOR" = 0.43
HITCHCOCK SILT LOAM, 3% TO 8% SLOPES, "K FACTOR" = 0.49
HITCHCOCK SILT LOAM, 25% TO 50% SLOPES, "K FACTOR" = 0.49
UDORTHENTS AND UDIPSAMMENTS, "K FACTOR" = 0.10
GLOVER-VERSHIRE COMPLEX, 3% TO 15% SLOPES

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

4.7 OTHER SENSITIVE RESOURCES

CRITICAL HABITATS: NONE
HISTORICAL OR ARCHAELOGICAL AREAS: NONE
PRIME AGRICULTURAL LAND: NONE
THREATENED & ENDANGERED SPECIES: FEDERALLY THREATENED NORTHERN LONG-EARED BATS ARE THE ONLY LISTED SPECIES IN THE PROJECT AREA. THE BRIDGE DOES NOT PROVIDE USEFUL ROOSTING HABITAT AND THEREFORE RESTRICTIONS CAUSED BY THIS ANIMAL ARE UNLIKELY.
WATER RESOURCE: NONE
WETLANDS: NONE

5. DRAINAGE
5.1 RECEIVING WATERS

BLOODY BROOK IS THE ONLY WATER SOURCE NEAR THE PROJECT SITE. THE BROOK IS CLASSIFIED AS SINUOUS WITH A VERY BROAD CHANNEL AT THE SITE. THE STREAM BED CONSISTS OF GRAVEL. BLOODY BROOK DRAINS AN 18.6 MILES^2 WATERSHED.

5.2 DISCHARGE POINTS

SOME WATER FROM THE PROJECT AREA DRAINS TOWARDS THE BROOK.

5.3 CONVEYANCE/FLOW PATH FROM PROJECT TO WATERS

THE MAJORITY OF THE PROJECT AREA HAS RUNOFF DRAINS OVERLAND ACROSS ADJACENT VEGETATED SIDE SLOPES BEFORE REACHING THE RECEIVING WATER. THERE ARE ALSO A NUMBER OF DROP INLETS ON SITE THAT COLLECT ROADWAY RUNOFF AND DRAIN TO THE BROOK.

6. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

THE MEASURES INCLUDED IN THIS PLAN ARE PROVIDED AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. IT IS EXPECTED THAT THE CONTRACTOR MAY USE THIS PLAN, WITH ADJUSTMENTS AS NECESSARY, BASED ON THEIR SPECIFIC MEANS AND METHODS OF CONSTRUCTION.

APPLYING THESE MEASURES THROUGHOUT CONSTRUCTION IS CRITICAL TO THEIR SUCCESS IN MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. REFER TO THE DETAILS INCLUDED IN THESE PLANS AND THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR SPECIFIC GUIDANCE.

6.1 IDENTIFY LIMITS OF DISTURBANCE

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

6.2 LIMIT CONCURRENT DISTURBANCE

LIMITING THE AMOUNT OF SOIL EXPOSED AT ONE TIME REDUCES THE POTENTIAL EROSION ON SITE. CONCURRENT EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY AND EMPLOYING STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE.

6.3 STABILIZE DISTURBED AREAS
6.3.1 ACCESS POINTS/ENTRANCE/EXITS

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES ARE ANTICIPATED ON THIS PROJECT AND SHALL BE LOCATED AS SHOWN ON THIS EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

6.3.2 TEMPORARY MEASURES FOR EXPOSED AREAS DURING CONSTRUCTION

ALL AREAS OF EARTH DISTURBANCE MUST HAVE STABILIZATION IN PLACE WITHIN 14 DAYS OF INITIAL DISTURBANCE. AFTER THIS TIME, DISTURBED AREAS MUST BE STABILIZED IN ADVANCE OF ANY RUNOFF PRODUCING EVENT.

SURFACE ROUGHENING OF EXPOSED SLOPES, SEEDING OF TEMPORARY SLOPES, AND STOCKPILES, AND STANDARD MULCHING PRACTICES DESCRIBED IN SPECIFICATION SECTION 653.07 SHALL BE UTILIZED TO TEMPORARILY STABILIZE DISTURBED AREAS.

6.3.3 PERMANENT STABILIZATION AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, ROLLED EROSION CONTROL PRODUCT, TYPE I SHALL BE USED INSTEAD OF MULCH.

6.4 DIVERT UPLAND RUNOFF

THE I-91 SOUTHERN APPROACH DRAINS TOWARDS THE PROJECT AREA. RUNOFF FROM THESE AREAS MAY NEED TO BE DIVERTED AWAY FROM THE PROJECT AREA. THE CONTRACTOR SHALL REFER TO THE LOW RISK HANDBOOK FOR GUIDANCE.

6.5 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED ON THE DOWNHILL SIDE OF CONSTRUCTION ACTIVITIES, PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED ALONG THE CONTOURS AND AS PROPOSED ON THE EPSC PLAN.

6.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

EXISTING MEDIAN DRAINAGE TO REMAIN, THEREFORE IT IS NOT ANTICIPATED THAT CHECK STRUCTURES WILL BE REQUIRED FOR THIS PROJECT.

7. CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

PERMANENT STORMWATER TREATMENT DEVICES ARE NOT ANTICIPATED TO BE NEEDED FOR THIS PROJECT.

8. DEWATERING

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS. DEWATERED STORMWATER OR GROUNDWATER MUST BE FILTERED AND ROUTED IN A MANNER THAT DOES NOT RESULT IN VISIBLY TURBID DISCHARGES TO WATERS.

DEWATERING ACTIVITIES ARE NOT ANTICIPATED FOR THIS PROJECT.

9. OFF-SITE AREAS

OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE AREAS THAT ARE NEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 105.25 – 105.28. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED AND MULCHED.

ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.

10. WINTER CONSTRUCTION

CONSTRUCTION ACTIVITIES MAY CONTINUE INTO THE WINTER CONSTRUCTION SEASON, DEPENDING ON ACTUAL FIELD AND WEATHER CONDITIONS. IF ACTIVITIES ARE ON-GOING BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
  - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
  - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- AREAS OF DISTURBANCE WITHIN 100 FT OF A WATERBODY MUST HAVE REINFORCED (WOVEN WIRE) SILT FENCE INSTALLED ACROSS THE SLOPE, DOWNGRADIENT OF THE EARTH DISTURBANCE. ALTERNATIVELY, REGULAR, NON-WOVEN WIRE SILT FENCE MAY BE USED IF COMBINED WITH EROSION CONTROL BERM, EROSION LOG, OR STRAW WATTLE.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED AHEAD OF FROZEN GROUND.
- MULCH TO BE APPLIED AT A MINIMUM OF 2 INCHES DEPTH WITH 80-90% COVERAGE.
- AREAS OF DISTURBED SOILS MUST BE STABILIZED PRIOR TO ANY RUNOFF-PRODUCING EVENT, WITH THE FOLLOWING EXCEPTION:
  - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH NO OUTLET AND A DEPTH OF 2 FT OR GREATER (OPEN UTILITY TRENCHES), PROVIDED THAT ANY DEWATERING, IF NECESSARY, IS CONDUCTED AS REQUIRED.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1" THICKNESS.
- USE STONE TO STABILIZE AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED.

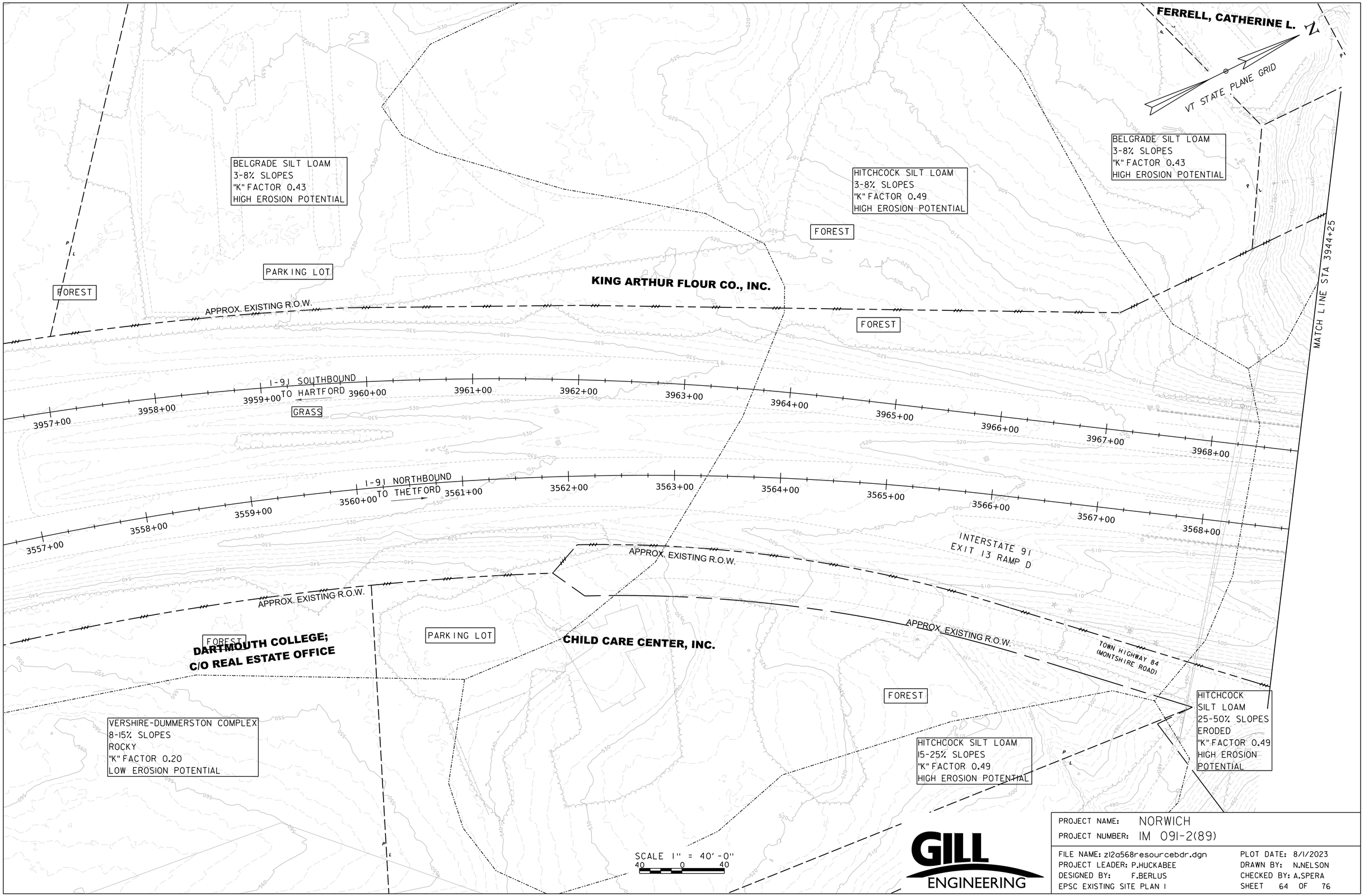
11. INSPECTION & MAINTENANCE

INSPECTION AND MONITORING OF THE PROJECT'S EPSC MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION 653.04 MONITORING EROSION PREVENTION AND SEDIMENT CONTROL PLAN, ALONG WITH PERMIT SPECIFIC INSPECTION REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE A COPY OF THEIR INSPECTION FORM AS PART OF THEIR EPSC PLAN.

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

TEMPORARY STABILIZATION MEASURES INCLUDE MINIMIZING THE EXPOSED AREA OF DISTURBANCE THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY STABILIZATION PRACTICES THROUGH INCREMENTAL STAGES AS CONSTRUCTION PHASES CHANGE. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AS DIRECTED BY THE ENGINEER.

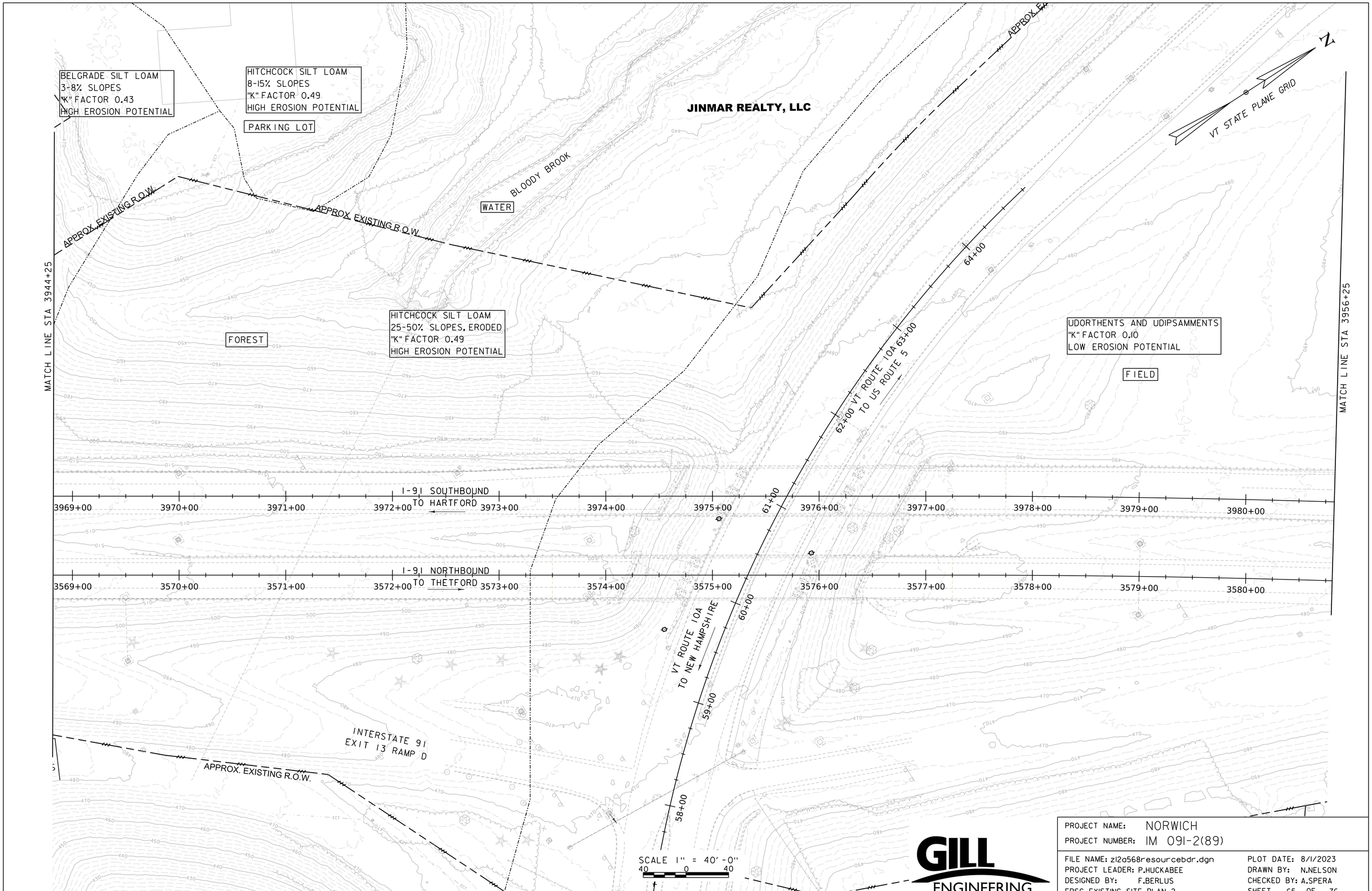


GILL ENGINEERING

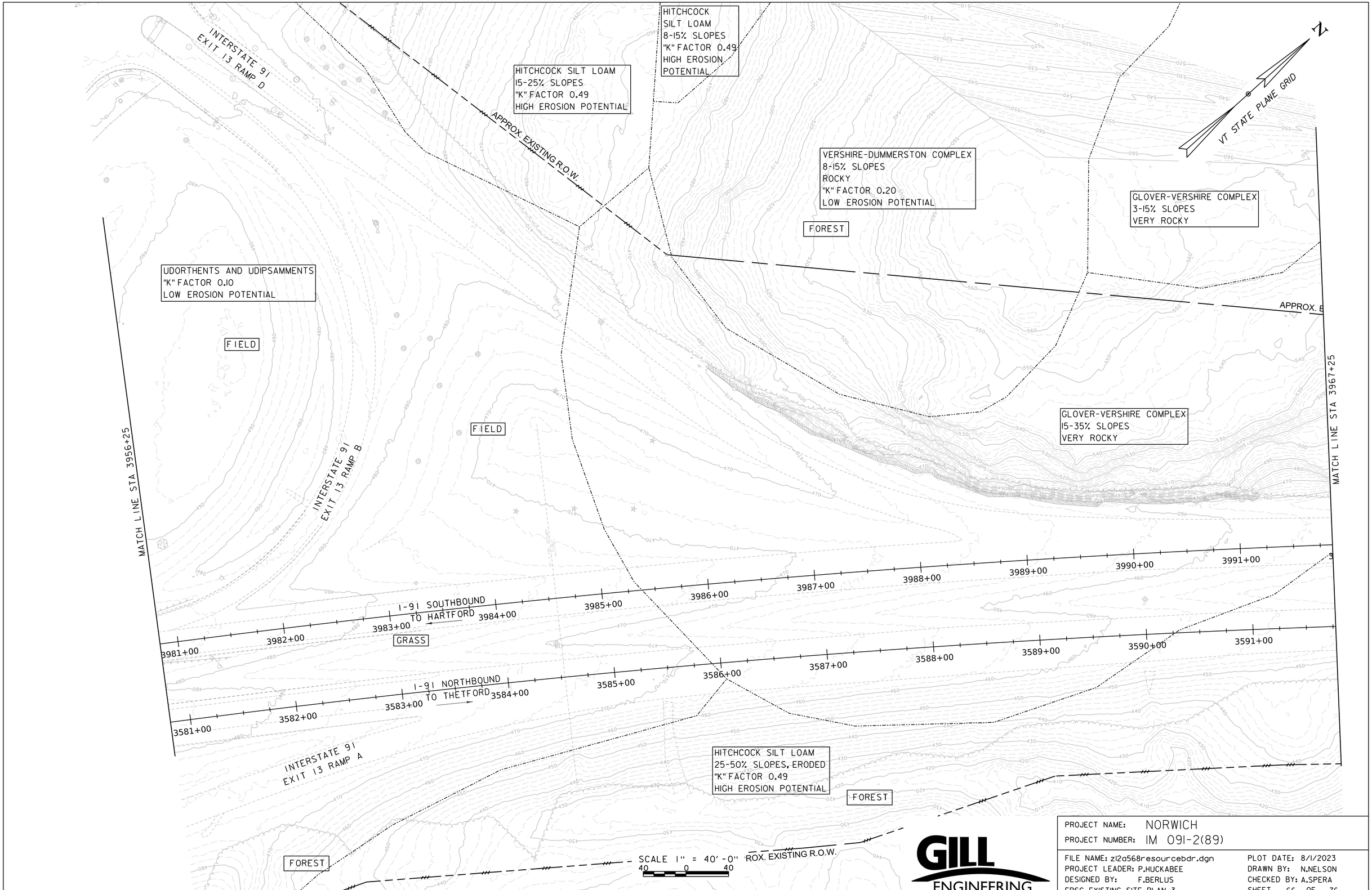
PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568resourcebdr.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
EPSC EXISTING SITE PLAN 1

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: A.SPERA
SHEET 64 OF 76

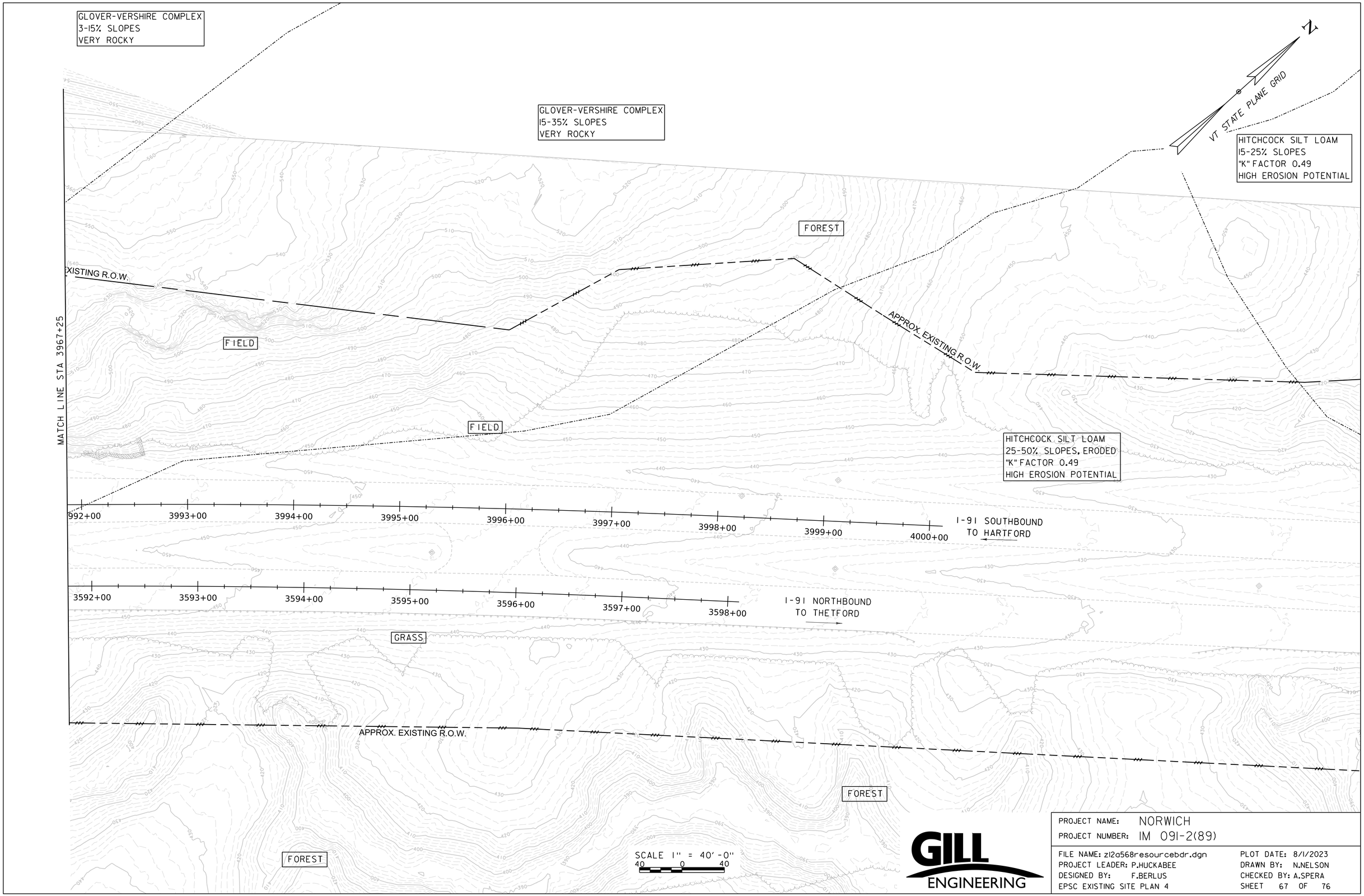


PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC EXISTING SITE PLAN 2	SHEET 65 OF 76



GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC EXISTING SITE PLAN 3	SHEET 66 OF 76



GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC EXISTING SITE PLAN 4	SHEET 67 OF 76

FERRELL, CATHERINE

VT STATE PLANE GRID

N

FOREST

PARKING LOT

KING ARTHUR FLOUR CO., INC.

APPROX. EXISTING R.O.W.

FOREST

FOREST

MATCH LINE STA 3944+25

SOUTHBOUND CROSSOVER

I-91 SOUTHBOUND TO HARTFORD

3957+00 3958+00 3959+00 3960+00 3961+00 3962+00 3963+00 3964+00 3965+00 3966+00 3967+00 3968+00

GRASS

PDF

PDF

I-91 NORTHBOUND TO THETFORD

3557+00 3558+00 3559+00 3560+00 3561+00 3562+00 3563+00 3564+00 3565+00 3566+00 3567+00 3568+00

DROP INLET PROTECTION DEVICE, TYPE I (TYP.)

INTERSTATE 91 EXIT 13 RAMP D

NORTHBOUND CROSSOVER

APPROX. EXISTING R.O.W.

APPROX. EXISTING R.O.W.

APPROX. EXISTING R.O.W.

DARTMOUTH COLLEGE; C/O REAL ESTATE OFFICE

PARKING LOT

CHILD CARE CENTER, INC.

TOWN HIGHWAY 84 (MONTSHIRE ROAD)

FOREST

LEGEND

- DROP INLET PROTECTION DEVICE, TYPE I
- DROP INLET PROTECTION DEVICE, TYPE II
- DISTURBED AREA
- FLOW DIRECTION
- SILT FENCE
- EXISTING DROP INLET
- EXISTING PIPE

SCALE 1" = 40'-0"

40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH

PROJECT NUMBER: IM 091-2(89)

FILE NAME: z12a568resourcebdr.dgn

PROJECT LEADER: P.HUCKABEE

DESIGNED BY: F.BERLUS

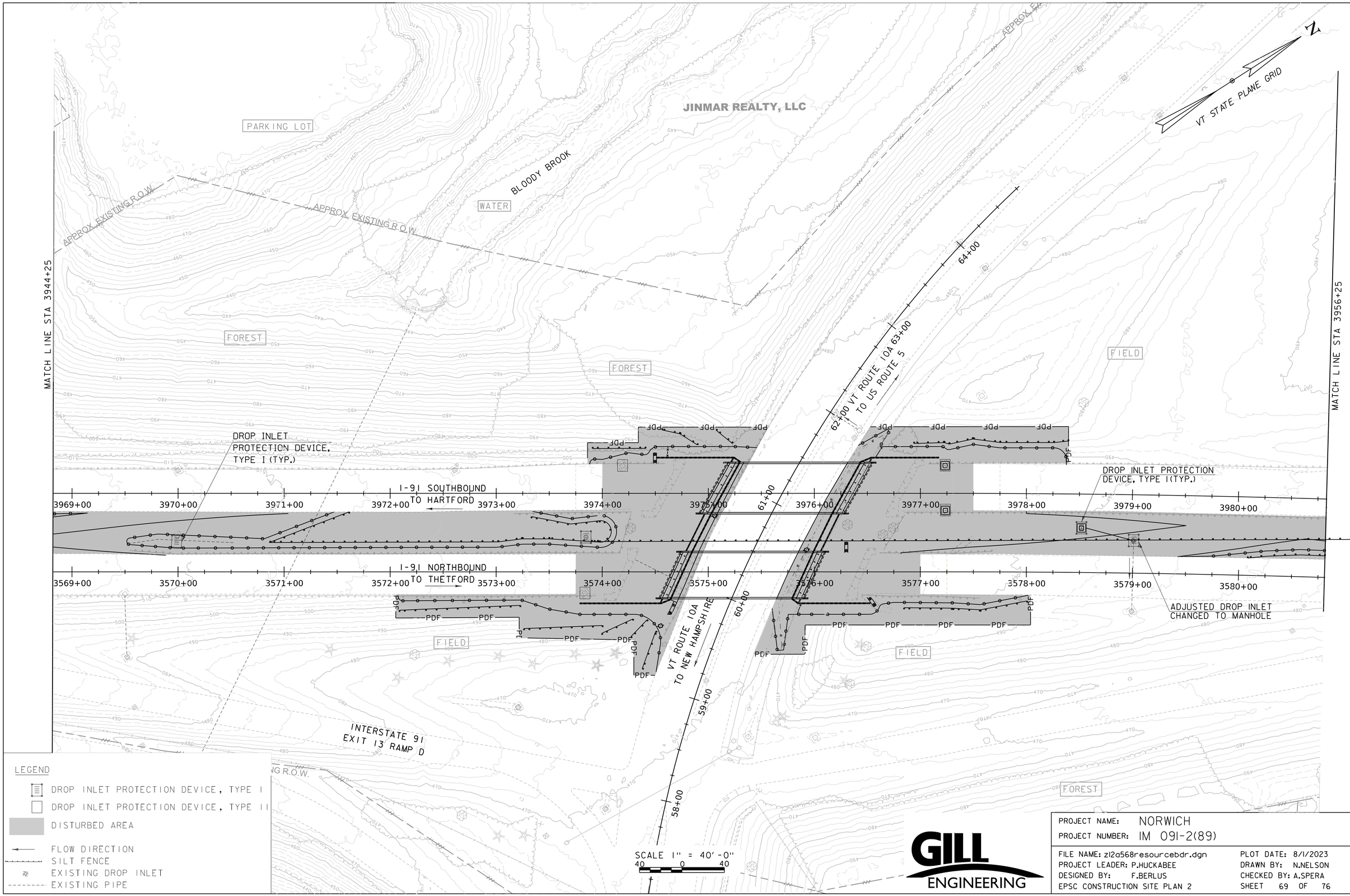
EPSC CONSTRUCTION SITE PLAN 1

PLOT DATE: 8/1/2023

DRAWN BY: N.NELSON

CHECKED BY: A.SPERA

SHEET 68 OF 76



LEGEND

- DROP INLET PROTECTION DEVICE, TYPE I
- DROP INLET PROTECTION DEVICE, TYPE II
- DISTURBED AREA
- FLOW DIRECTION
- SILT FENCE
- EXISTING DROP INLET
- EXISTING PIPE

GILL ENGINEERING

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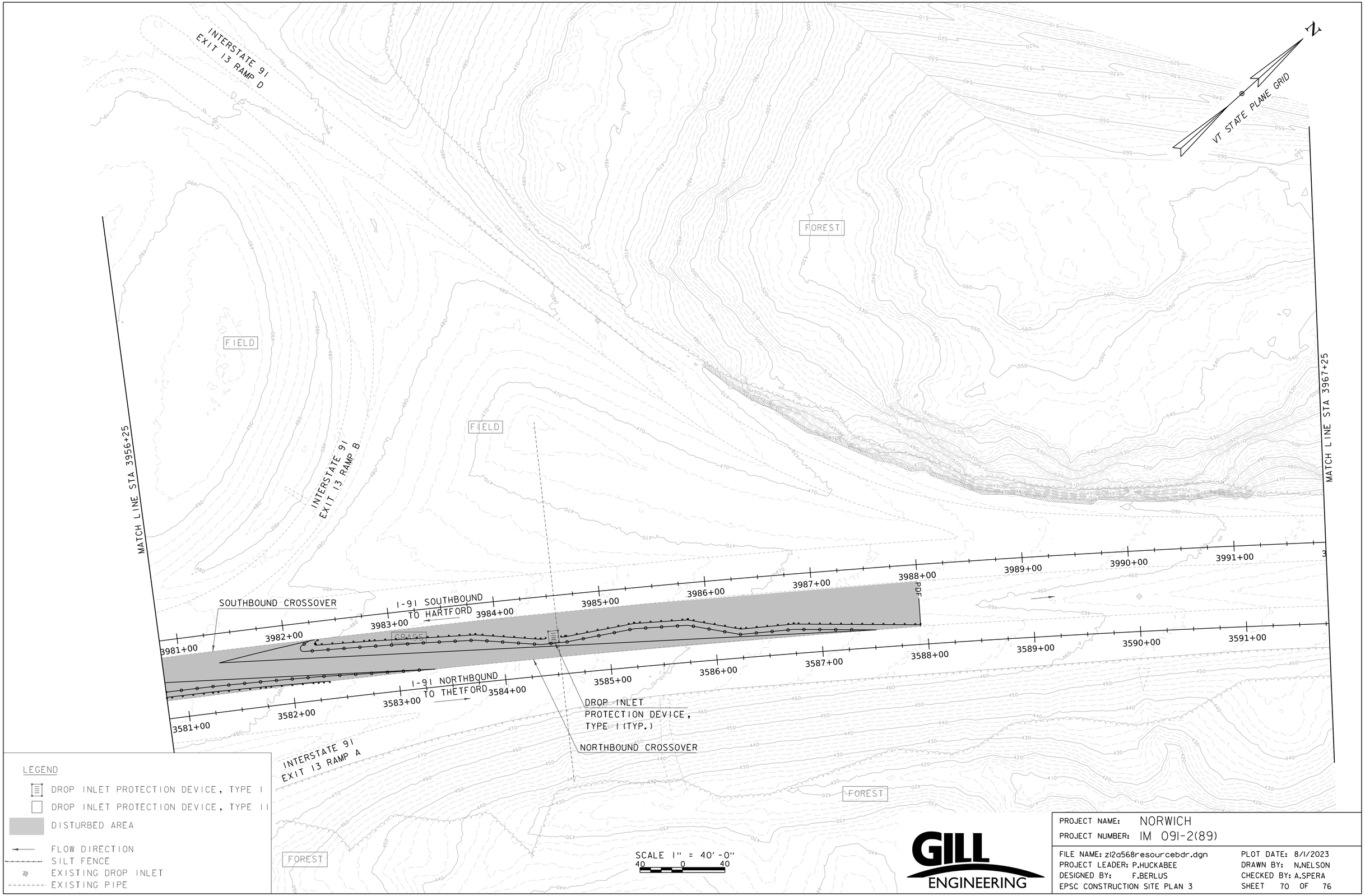
FILE NAME: z12a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC CONSTRUCTION SITE PLAN 2	SHEET 69 OF 76



GILL ENGINEERING

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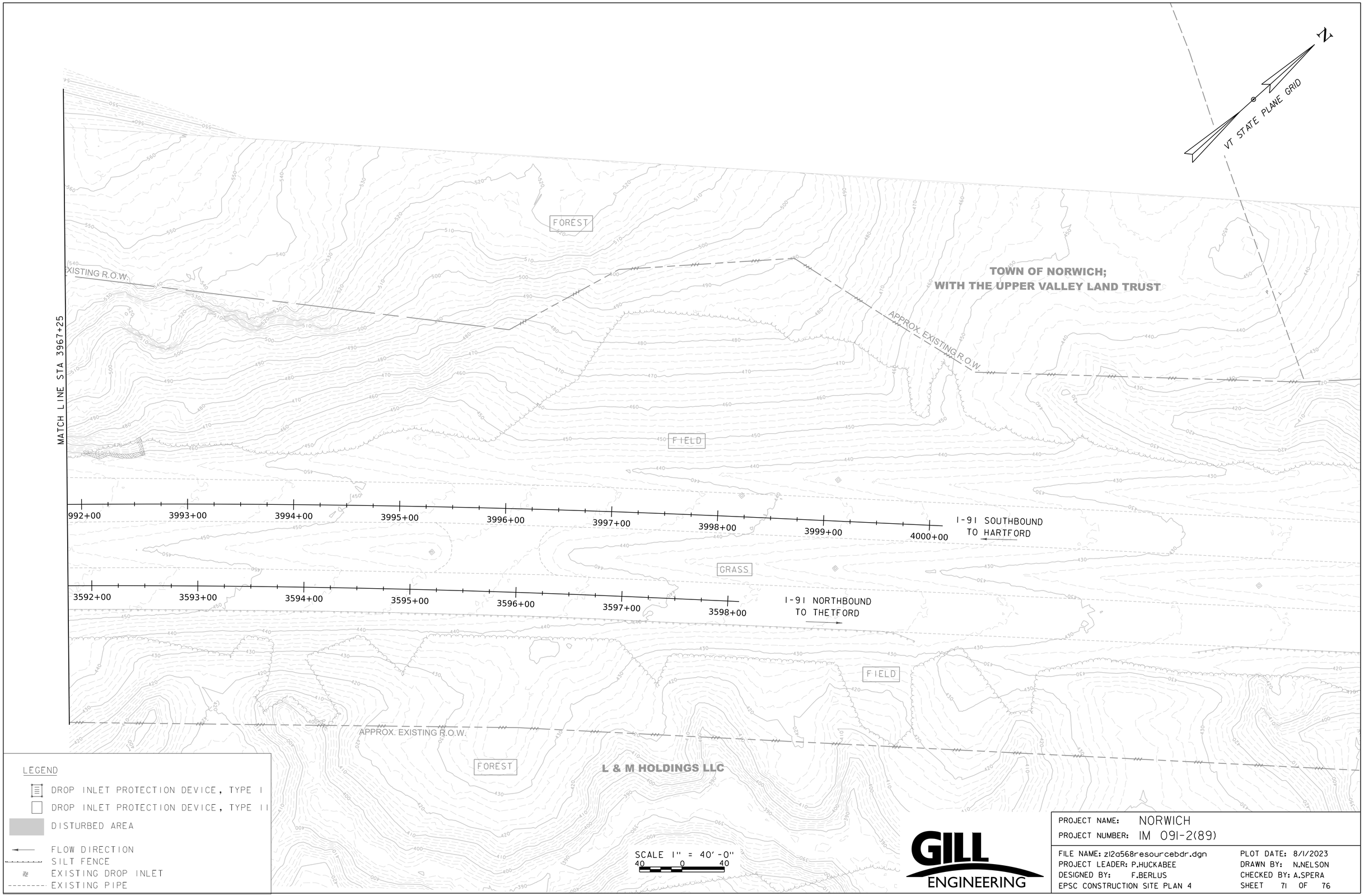
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: z12a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC CONSTRUCTION SITE PLAN 3	SHEET 70 OF 76



PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568resourcebdr.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
EPSC CONSTRUCTION SITE PLAN 4

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: A.SPERA
SHEET 71 OF 76

FERRELL, CATHERINE

VT STATE PLANE GRID

N

FOREST

KING ARTHUR FLOUR CO., INC.

PARKING LOT

FOREST

APPROX. EXISTING R.O.W.

FOREST

REMOVE CROSSOVER PAVEMENT

MATCH LINE STA 3944+25

I-91 SOUTHBOUND TO HARTFORD

3957+00 3958+00 3959+00 3960+00 3961+00 3962+00 3963+00 3964+00 3965+00 3966+00 3967+00 3968+00

GRASS

I-91 NORTHBOUND TO THETFORD

3557+00 3558+00 3559+00 3560+00 3561+00 3562+00 3563+00 3564+00 3565+00 3566+00 3567+00 3568+00

INTERSTATE 91 EXIT 13 RAMP D

APPROX. EXISTING R.O.W.

APPROX. EXISTING R.O.W.

APPROX. EXISTING R.O.W.

DARTMOUTH COLLEGE; C/O REAL ESTATE OFFICE

FOREST

PARKING LOT

CHILD CARE CENTER, INC.

TOWN HIGHWAY 84 (MONTSHIRE ROAD)

FOREST

LEGEND

TOPSOIL AND SEED

FLOW DIRECTION

EXISTING DROP INLET

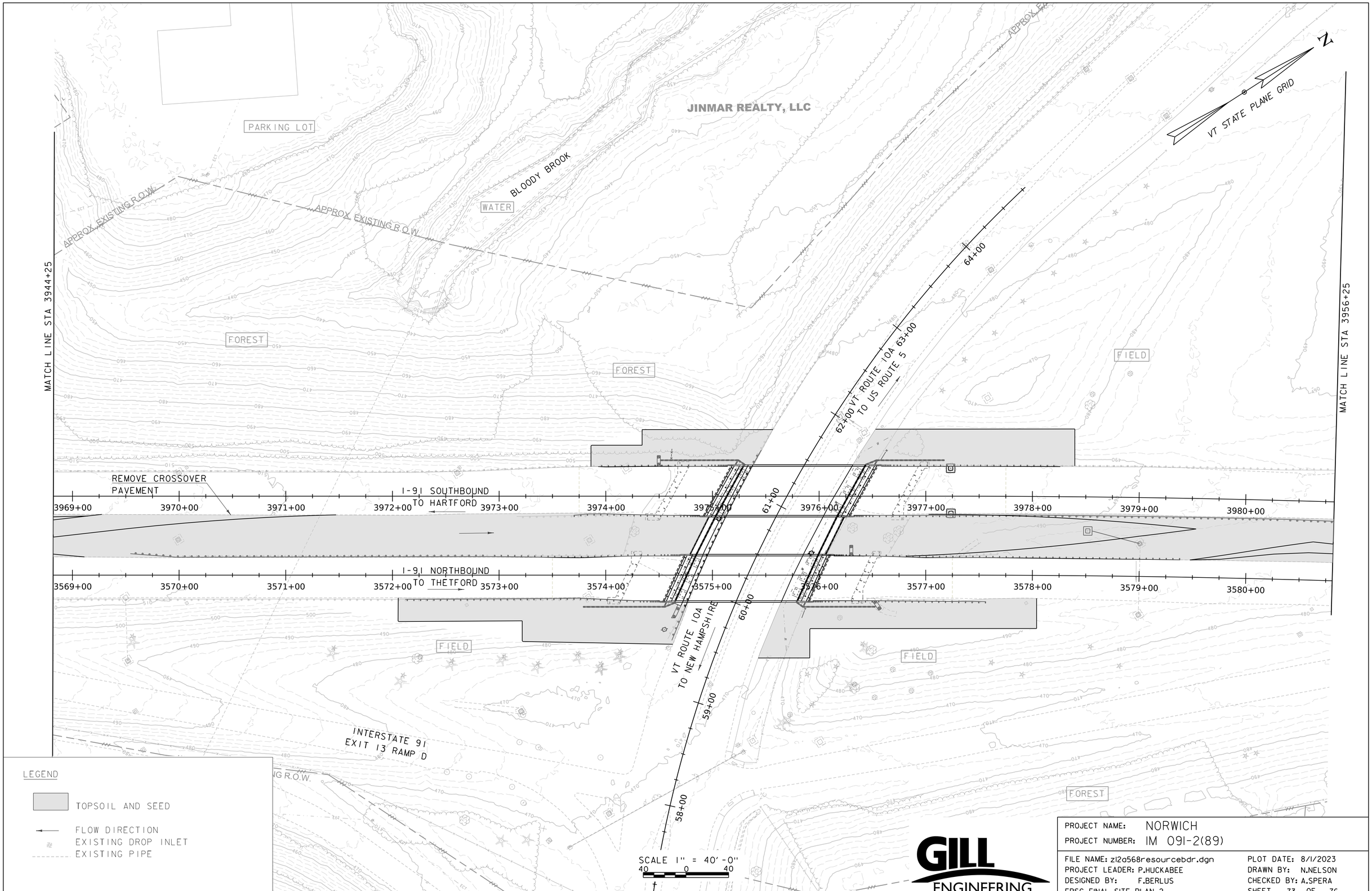
EXISTING PIPE

SCALE 1" = 40'-0"

40 0 40

GILL ENGINEERING

PROJECT NAME: NORWICH	
PROJECT NUMBER: IM 091-2(89)	
FILE NAME: zl2a568resourcebdr.dgn	PLOT DATE: 8/1/2023
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC FINAL SITE PLAN 1	SHEET 72 OF 76



PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568resourcebdr.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
EPSC FINAL SITE PLAN 2

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: A.SPERA
SHEET 73 OF 76

INTERSTATE 91
EXIT 13 RAMP D

APPROX. EXISTING R.O.W.

TOWN OF NORWICH;
WITH THE UPPER VALLEY LAND TRUST

FOREST

VT STATE PLANE GRID

N

APPROX. E

MATCH LINE STA 3967+25

MATCH LINE STA 3956+25

FIELD

FIELD

INTERSTATE 91
EXIT 13 RAMP B

REMOVE CROSSOVER
PAVEMENT

I-91 SOUTHBOUND
TO HARTFORD

GRASS

3981+00 3982+00 3983+00 3984+00 3985+00 3986+00 3987+00 3988+00 3989+00 3990+00 3991+00

I-91 NORTHBOUND
TO THETFORD

3581+00 3582+00 3583+00 3584+00 3585+00 3586+00 3587+00 3588+00 3589+00 3590+00 3591+00

INTERSTATE 91
EXIT 13 RAMP A

FOREST

HANEY, ELIZABETH A.

FOREST

APPROX. EXISTING R.O.W.

AUTUMNWOOD HEIGHTS
INVESTMENT 1, LLC

SCALE 1" = 40'-0"
40 0 40

LEGEND

TOPSOIL AND SEED

FLOW DIRECTION
EXISTING DROP INLET
EXISTING PIPE

GILL ENGINEERING

PROJECT NAME: NORWICH	
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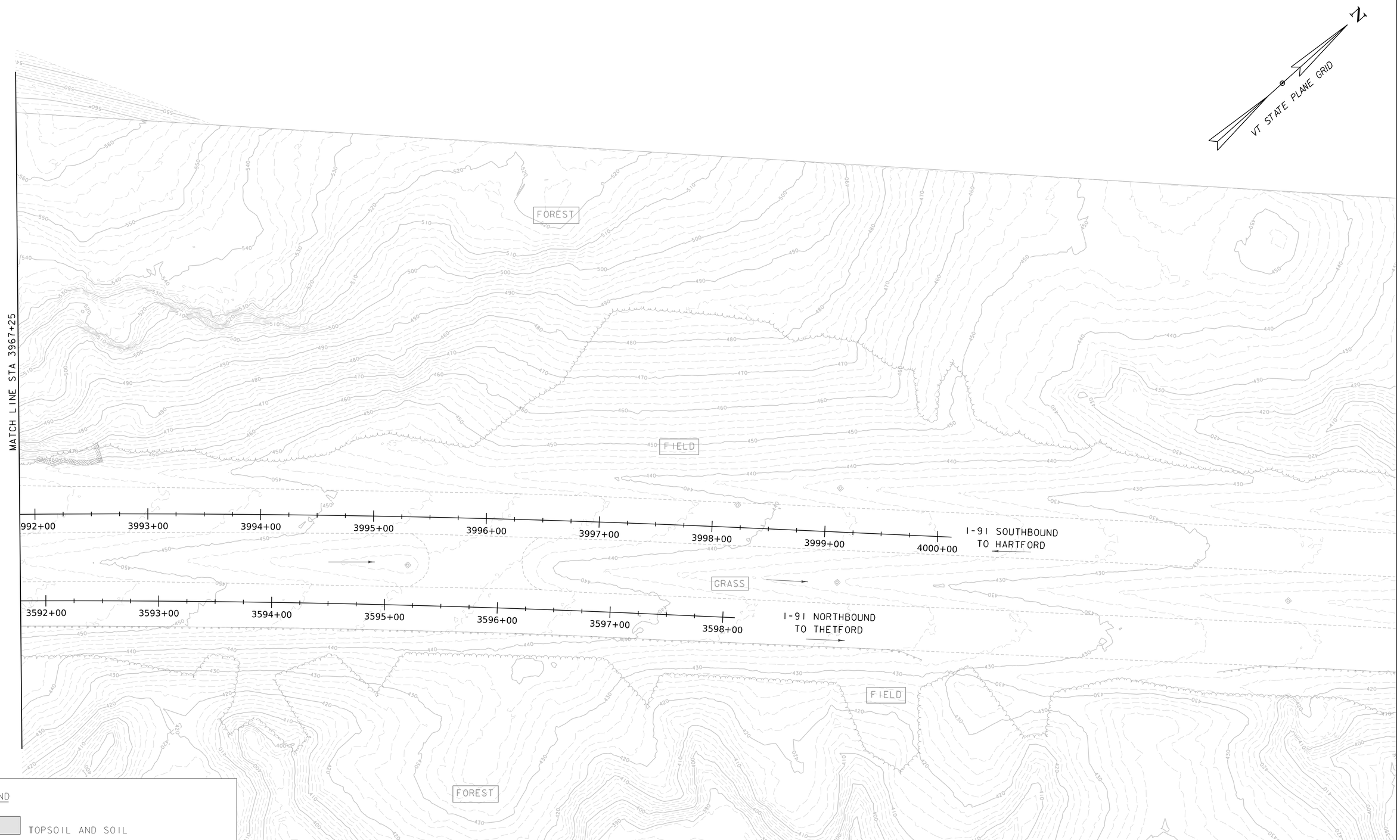
PROJECT LEADER: P.HUCKABEE	DRAWN BY: N.NELSON
DESIGNED BY: F.BERLUS	CHECKED BY: A.SPERA
EPSC FINAL SITE PLAN 3	SHEET 74 OF 76



LEGEND

TOPSOIL AND SOIL

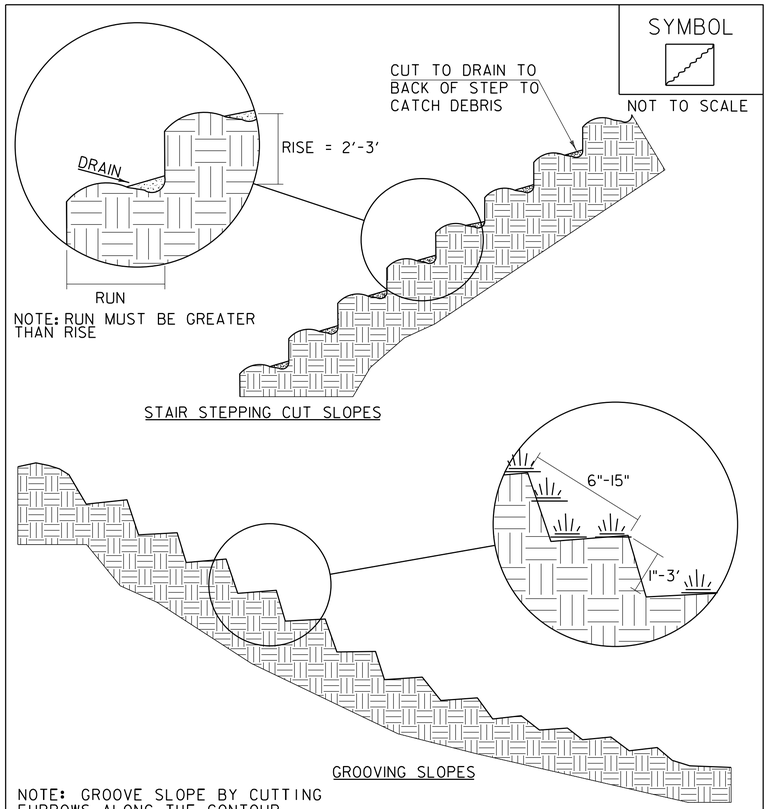
FLOW DIRECTION
EXISTING DROP INLET
EXISTING PIPE

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: zl2a568resourcebdr.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
EPSC FINAL SITE PLAN 4

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: A.SPERA
SHEET 75 OF 76



NOTE: GROOVE SLOPE BY CUTTING FURROWS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND RETAIN LIME, FERTILIZER AND SEED.

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

SURFACE ROUGHENING

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

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF

VAOT LOW GROW/FINE FESCUE MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

GENERAL AMENDMENT GUIDANCE

FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

CONSTRUCTION GUIDANCE

1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF

GILL ENGINEERING

PROJECT NAME: NORWICH
PROJECT NUMBER: IM 091-2(89)

FILE NAME: z12a568erodetails.dgn
PROJECT LEADER: P.HUCKABEE
DESIGNED BY: F.BERLUS
EPSC DETAILS SHEET

PLOT DATE: 8/1/2023
DRAWN BY: N.NELSON
CHECKED BY: A.SPERA
SHEET 76 OF 76