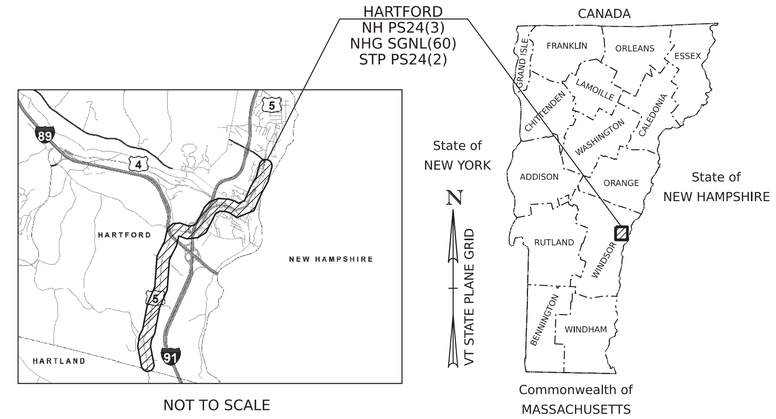
STATE OF VERMONT
AGENCY OF TRANSPORTATION



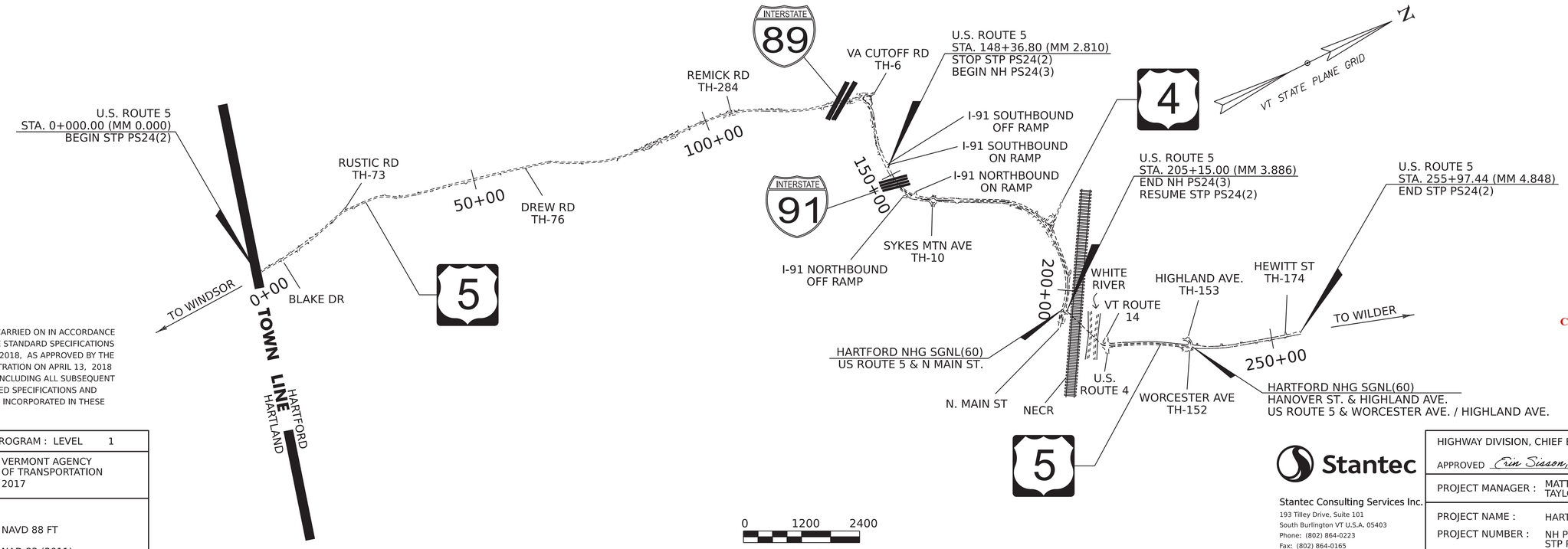
NOT TO SCALE

PROPOSED IMPROVEMENT
TOWN OF HARTFORD
COUNTY OF WINDSOR
U.S. ROUTE 5 (MAJOR COLLECTOR-MINOR ARTERIAL)

HARTFORD
NH PS24(3)
U.S. ROUTE 5
SEE SHEET 23

HARTFORD
NHG SGNL(60)
SEE SHEET 62

HARTFORD
STP PS24(2)
U.S. ROUTE 5
SEE SHEET 82



0 1200 2400
SCALE IN 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 :	VERMONT AGENCY OF TRANSPORTATION
SURVEYED DATE :	2017
DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83 (2011)

CONTRACT
C03171

Stantec
Stantec Consulting Services Inc.
193 Tilley Drive, Suite 101
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
Fax: (802) 864-0165
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HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED Erin Sisson, P.E. DATE Nov. 16, 2023

PROJECT MANAGER :	MATT BOGACZYK, P.E. TAYLOR SISSON, P.E.
PROJECT NAME :	HARTFORD
PROJECT NUMBER :	NH PS24(3), NHG SGNL(60) & STP PS24(2)

SHEET 1 OF 210 SHEETS

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Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_index.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE INDEX OF SHEETS

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 2 OF 210

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 — PDF — PROJECT DEMARCATION FENCE
- BF — 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 SR SR — SLOPE RIGHTS
- 6f — 6f — 6F PROPERTY BOUNDARY
- 4f — 4f — 4F PROPERTY BOUNDARY
- HAZ — 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 — 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

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_legend.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
CONVENTIONAL SYMBOLOGY LEGEND SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 3 OF 210

HARTFORD NH PS24(3)

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	4,671,000
DESIGN NUMBER OF GYRATIONS	80

TRAFFIC DATA

LOCATION	AADT		DHV		%T		%D		ADTT		ESALS	
	2024	2044	2024	2044	2024	2044	2024	2044	2024	2044	2024	2044
U.S. ROUTE 5												
BEGIN PROJECT (STA. 148+36.80) TO SYKES AVE.	12,500	13,700	1,500	1,600	5.5	7.2	60	60	1,000	1,500	7,785,000	18,181,000
SYKES AVE. TO US 4	8,400	9,200	970	1,100	5.9	7.2	55	55	750	1,100	4,194,000	8,911,000
US 4 TO END PROJECT	8,900	9,800	1,000	1,100	2.9	4.0	52	52	550	840	3,700,000	8,826,000

POSTED SPEED = 35 MPH

HARTFORD STP PS24(2)

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	3,245,000
DESIGN NUMBER OF GYRATIONS	80

TRAFFIC DATA

LOCATION	AADT		DHV		%T		%D		ADTT		ESALS	
	2024	2044	2024	2044	2024	2044	2024	2044	2024	2044	2024	2044
U.S. ROUTE 5												
BEGIN PROJECT TO VA CUTOFF ROAD	4,600	5,000	530	570	3.6	4.5	70	70	560	770	4,635,000	9,966,000
VA CUTOFF ROAD TO VETERAN'S DRIVE	6,400	7,000	890	980	5.5	7.2	52	52	810	1200	5,517,000	12,926,000
VETERAN'S DRIVE TO STOP PROJECT (STA. 148+36.80)	8,500	9,400	1,100	1,200	5.5	6.7	59	59	700	940	4,303,000	9,155,000
RESUME PROJECT (STA. 204+60 TO US 4/VT 14)	8,700	9,500	1,000	1,100	3.5	4.8	57	57	550	840	3,609,000	8,584,000
US 4/VT 14 TO HANOVER ST/WORCHESTER AVE	7,800	8,500	910	980	3.3	4.5	52	52	460	680	2,891,000	6,846,000
HANOVER ST/WORCHESTER AVE TO END PROJECT	7,500	8,300	880	960	1.7	2.3	54	54	530	790	3,314,000	7,912,000

POSTED SPEED = 45 MPH

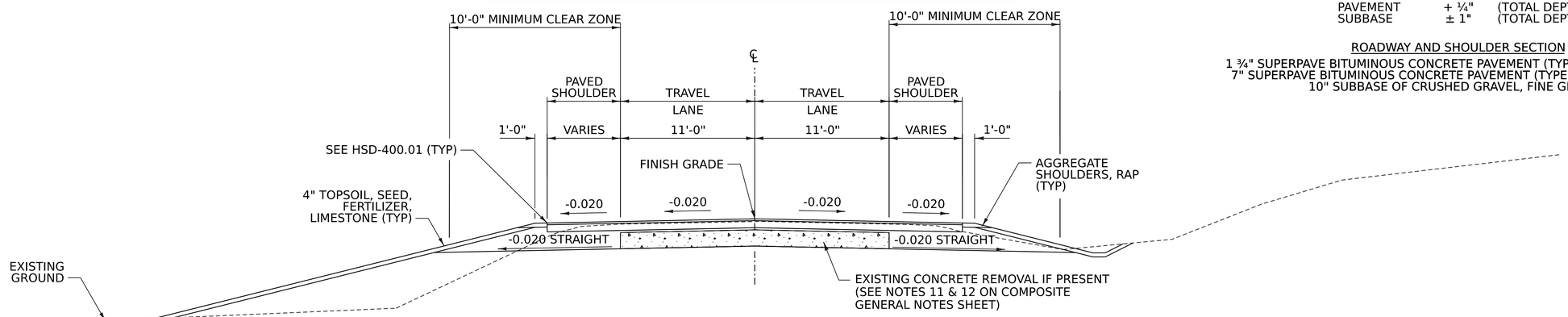
Stantec

PROJECT NAME: HARTFORD
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NH PS24(3)/STP PS24(2) COMPOSITE TYPICAL SECTIONS



MATERIAL THICKNESS TOLERANCES

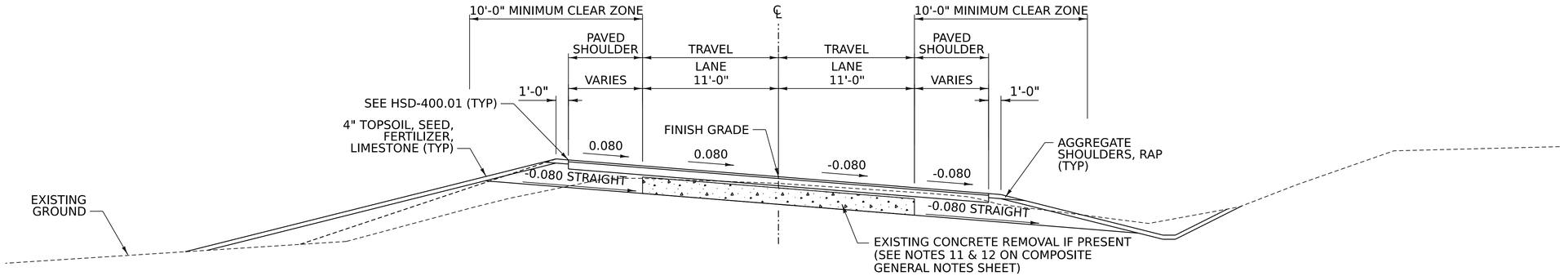
PAVEMENT	+ ¼"	(TOTAL DEPTH)
SUBBASE	± 1"	(TOTAL DEPTH)

ROADWAY AND SHOULDER SECTION

1 ¾" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIIS) (1 - 1 ¾" LIFT)
7" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIS) (2 - 3 ½" LIFTS)
10" SUBBASE OF CRUSHED GRAVEL, FINE GRADED

U.S. ROUTE 5 - NORMAL SECTION
PARTIAL DEPTH CONCRETE REMOVAL PAVEMENT RECONSTRUCTION

STA. 0+00 TO 152+58



U.S. ROUTE 5 - MAXIMUM BANKED SECTION 0.080
PARTIAL DEPTH CONCRETE REMOVAL PAVEMENT RECONSTRUCTION

STA. 0+00 TO 152+58

HARTFORD NH PS24(3)/ STP PS24(2)									
CONCRETE SLAB REMOVAL LIMITS - GEOTECH REPORT									
APPROXIMATE BEGIN MM	APPROXIMATE BEGIN STATION	APPROXIMATE END MM	APPROXIMATE END STATION	APPROXIMATE LENGTH OF REMOVAL (FT)	ASSUMED WIDTH OF SLABS	AREA (SF)	ASSUMED AVERAGE SLAB DEPTH (IN)	ASSUMED AVERAGE SLAB DEPTH (FT)	VOLUME (CY)
HARTFORD STP PS24(2) - NORTHBOUND									
0.00	0+00	0.15	7+92	792	18	14256	6.5	0.54	285.1
0.18	9+50	0.54	28+51	1901	18	34218	6.5	0.54	684.4
0.60	31+68	0.87	45+94	1426	18	25668	6.5	0.54	513.4
0.99	52+27	2.30	121+44	6917	18	124506	6.5	0.54	2490.1
2.48	130+94	2.53	133+58	264	18	4752	6.5	0.54	95
2.54	134+11	2.57	135+70	159	18	2862	6.5	0.54	57.2
2.60	137+28	2.81	148+36.80	1109	18	19958.4	6.5	0.54	399.2
HARTFORD NH PS24(3) - NORTHBOUND									
2.81	148+36.80	2.89	152+59	422	18	7599.6	6.5	0.54	152
HARTFORD STP PS24(2) - SOUTHBOUND									
0.00	0+00	0.18	9+50	950	18	17100	6.5	0.54	342
0.27	14+26	0.55	29+04	1478	18	26604	6.5	0.54	532.1
0.58	30+62	0.61	32+21	159	18	2862	6.5	0.54	57.2
0.64	33+79	0.66	34+85	106	18	1908	6.5	0.54	38.2
0.68	35+90	2.81	148+36.80	11247	18	202442.4	6.5	0.54	4048.8
HARTFORD NH PS24(3) - SOUTHBOUND									
2.81	148+36.80	2.89	152+59	422	18	7599.6	6.5	0.54	152
								Subtotal =	**9846.7**

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

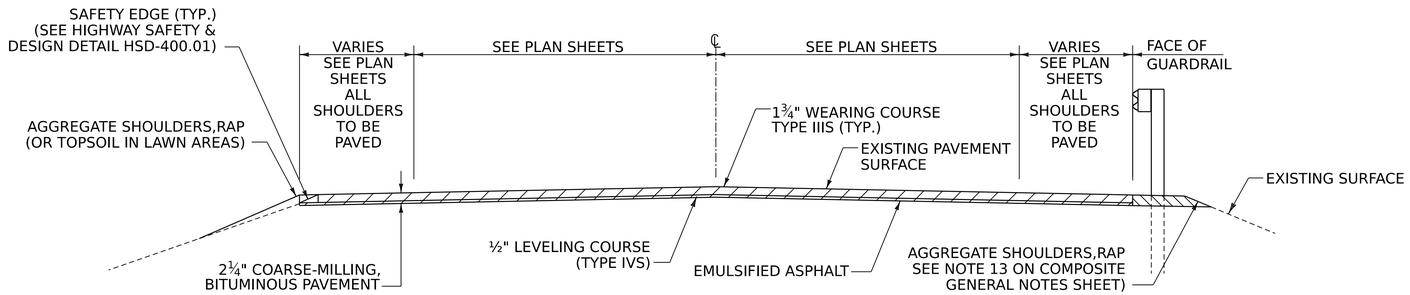
FILE NAME:z19v443_typ.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE TYPICAL SECTION SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 5 OF 210

NH PS24(3)/STP PS24(2) COMPOSITE TYPICAL SECTIONS

MATERIAL THICKNESS TOLERANCES

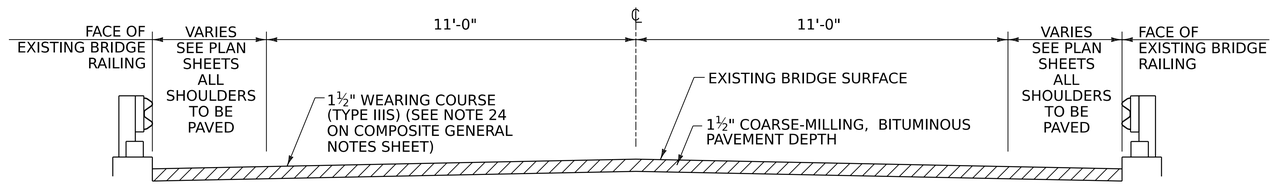
PAVEMENT	+ ¼"	(TOTAL DEPTH)
SUBBASE	± 1"	(TOTAL DEPTH)



COARSE-MILLING TYPICAL SECTION

(SEE STP PS24(2) DETAIL SHEET 1 BRIDGE TRANSITION DETAIL)

STA. 152+58 TO STA. 203+40 - DIVIDED HIGHWAY W/ BIKE LANES
STA. 203+40 TO STA. 205+48 - HIGHWAY W/ BIKE LANES
STA. 213+77 TO STA. 232+55 - DIVIDED HIGHWAY W/BIKE LANES
STA. 232+55 TO STA. 255+97.44 - HIGHWAY W/ BIKE LANES



BRIDGE MILLING TYPICAL

STA. 205+48 TO 213+77 BR #73

NOTE

1. THE CONTRACTOR IS ADVISED TO USE CAUTION WHEN DETERMINING LIMITS OF REMOVAL OF HISTORIC ROADWAY SLABS IN THE VICINITY OF EXISTING BRIDGES. BRIDGE 73 IS CONSTRUCTED WITH AT-GRADE APPROACH SLABS LOCATED WITHIN 25 FEET FROM THE ENDS OF THE BRIDGE AND THESE SLABS ARE ANTICIPATED TO BE WITHIN THREE TO SIX INCHES OF THE PAVEMENT SURFACE. WHEN PRESENT, THESE AT-GRADE APPROACH SLABS ARE TO REMAIN IN PLACE AND THE CONTRACTOR SHALL USE CARE NOT TO DAMAGE THE SLAB SURFACE WHEN REMOVING BITUMINOUS PAVEMENT.

NOT TO SCALE

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3), NHG SGNL(60) & STP PS24(2)
FILE NAME: z19v443_typ.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
COMPOSITE TYPICAL SECTION SHEET 2	SHEET 6 OF 210

NH PS24(3)/STP PS24(2) ORDER OF OPERATIONS

STEP	DESCRIPTION	PAYMENT ITEM(S)
1	INSTALL DRAINAGE PIPES, DRAINAGE STRUCTURES, AND UNDERDRAIN.	ITEM 605.10 UNDERDRAIN PIPE, 6 INCHES ~~(NOT ON NH PS24(3))~~ 2 ITEM 204.20 TRENCH EXCAVATION OF EARTH ~~(NOT ON NH PS24(3))~~ ITEM 204.21 TRENCH EXCAVATION OF ROCK ~~(NOT ON NH PS24(3))~~ MISC. DRAINAGE PIPE AND STRUCTURE ITEMS PER PLANS
2	LEDGE REMOVAL	ITEM 203.16 SOLID ROCK EXCAVATION
3	STABILIZE SIDE SLOPES	ITEM 613.10 STONE FILL, TYPE I ITEM 651.40 GRUBBING MATERIAL (6") ITEM 651.40 GRUBBING MATERIAL (2") RENTAL ITEMS
4	COARSE-MILLING EXISTING BITUMINOUS CONCRETE PAVEMENT - DEPTH VARIES	ITEM 210.10 COARSE-MILLING, BITUMINOUS PAVEMENT
5	REMOVE EXISTING CONCRETE SLAB, EXCAVATE ADJACENT AREAS	ITEM 203.15 COMMON EXCAVATION ITEM 203.16 SOLID ROCK EXCAVATION
6	IN UNDERCUT AREAS, EXCAVATE TO APPROPRIATE DEPTH, INSTALL GEOTEXTILE FOR ROADBED SEPARATOR, AND REPLACE WITH SUBBASE OF DENSE GRADED CRUSHED STONE	ITEM 203.15 COMMON EXCAVATION ~~(NOT ON NH PS24(3))~~ 2 ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED ~~(NOT ON NH PS24(3))~~ ITEM 301.35 SUBBASE OF DENSE GRADED CRUSHED STONE ~~(NOT ON NH PS24(3))~~ ITEM 649.11 GEOTEXTILE FOR ROADWAY SEPARATOR ~~(NOT ON NH PS24(3))~~
7	REPAIR EXISTING SHOULDERS AS DIRECTED BY THE ENGINEER	ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I
8	CORRECT SUPERELEVATION DEFICIENCIES	ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED
9	PLACE SUBBASE OF CRUSHED GRAVEL, FINE GRADED	ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED - LOCATIONS VARY (SEE PAVEMENT REQUIREMENT TABLE ON TYPICAL SECTION SHEETS)
10	PLACE TYPE IIS BASE COURSE	ITEM 404.65 EMULSIFIED ASPHALT ITEM 406.35 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (1) LIFT TYPE IIS BASE COURSE (SEE PAVEMENT REQUIREMENT TABLE ON TYPICAL SECTION SHEETS)
11	PLACE TYPE IIS INTERMEDIATE COURSE	ITEM 404.65 EMULSIFIED ASPHALT ITEM 406.35 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (1) LIFT TYPE IIS INTERMEDIATE COURSE (SEE PAVEMENT REQUIREMENT TABLE ON TYPICAL SECTION SHEETS)
12	PLACE TYPE IIIS WEARING COURSE	ITEM 404.65 EMULSIFIED ASPHALT ITEM 406.35 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT LIFT TYPE IIIS WEARING COURSE

THE REMAINING LIST OF PROCEDURES FOR REHABILITATING THE EXISTING ROADBED ARE PRESENTED FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL PREPARE THEIR OWN SCHEDULE OF OPERATIONS TO COMPLETE THE PROPOSED WORK UTILIZING THE APPROPRIATE PAY ITEMS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

~~THE INSTALLATION OF UNDERDRAIN AND UNDERCUTTING IS NOT ANTICIPATED ON NH PS24(3)~~ 2

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/3/2024	NOTES REVISED	MCF

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_typ.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE ORDER OF OPERATIONS

PLOT DATE: 3-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: M. FOISY

COMPOSITE GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

2. APPROXIMATE WETLAND AND OTHER RESOURCE LOCATIONS HAVE BEEN IDENTIFIED. SEE PROJECT PLAN SHEETS FOR APPROXIMATE LOCATIONS. THE PROJECT SHALL BE CONSTRUCTED AS DESIGNED AND WITHIN THE LIMITS ESTABLISHED BY THE CROSS SECTIONS. IF IT IS DEEMED NECESSARY BY THE CONTRACTOR TO WORK BEYOND THOSE LIMITS IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE ANY NECESSARY STATE AND/OR FEDERAL PERMITS.

3. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY.

4. ALL WORK SHALL BE PERFORMED WITHIN THE STATE RIGHT OF WAY AND CURRENT EASEMENTS.

5. AREAS SHOWN FOR DOUBLE SIDED SIGNS ON THE TRAFFIC SIGN SUMMARY SHEETS HAVE BEEN MULTIPLIED BY A PAY FACTOR OF 1.5 AS REQUIRED PER SUBSECTION 675.10. THE ACTUAL PHYSICAL DIMENSIONS ARE GIVEN ON THE SIGN DETAIL SHEETS. THE QUANTITY SHEET TOTALS FOR ITEM 675.20 TRAFFIC SIGN, TYPE A ALSO INCORPORATE THE PAY FACTOR OF 1.5 FOR DOUBLE SIDED SIGNS.

NH PS24(3)/STP PS24(2) COMPOSITE GENERAL NOTES

6. QUANTITIES FOR ITEM 653.50 BARRIER FENCE AND ITEM 653.60 EROSION LOG HAVE BEEN INCLUDED FOR USE ADJACENT TO THE ENVIRONMENTALLY SENSITIVE AREAS IDENTIFIED IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

7. ITEMS 653.20 ROLLED EROSION CONTROL PRODUCT, TYPE I, 653.40 INLET PROTECTION DEVICE, TYPE I, 653.41 INLET PROTECTION DEVICE, TYPE II, 653.475 SILT FENCE, TYPE I, 653.55 PROJECT DEMARCATION FENCE, 653.25 CHECK DAM, TYPE I (STP PS24(2) ONLY) ARE ESTIMATED AND SHALL BE USED AT THE DISCRETION OF THE ENGINEER.

8. COARSE-MILLING, BITUMINOUS PAVEMENT TO BE COMPLETED ACCORDING TO TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. THIS SHALL BE PAID AS ITEM 210.10 COARSE MILLING, BITUMINOUS PAVEMENT AS INDICATED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE BEGINNING AND END OF THE PROJECT AND ALL PAVED SIDE ROAD APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER. SAW CUTTING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL. SEE DETAILS ON COMPOSITE DETAIL SHEETS.

9. ITEM 609.15 DUST AND ICE CONTROL WITH CALCIUM CHLORIDE SHALL BE APPLIED FOR DUST CONTROL ON ALL GRANULAR SURFACES PRIOR TO OPENING THEM TO TRAFFIC WITH TWO APPLICATIONS AT THE RATE OF 8.5 TONS PER MILE OR AS DIRECTED BY THE ENGINEER.

10. ALL COARSE-MILLED, BITUMINOUS PAVEMENT SURFACES SHALL HAVE SURFACE PREPARATION BEFORE PAVING CONSISTING OF POTHOLE PATCHING AND PATCHING OF ALL LARGE CRACKS THAT ARE AT LEAST ONE INCH IN WIDTH. THIS WILL BE PAID UNDER ITEM 406.45 BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION SEE DETAIL ON COMPOSITE DETAIL SHEET 1.

11. GEOTECH REPORT BORING DATA INDICATES BITUMINOUS CONCRETE PAVEMENT VARIES 6.5 - 23 INCHES. AN AVERAGE DEPTH OF 8 INCHES. COARSE MILLING THROUGH THE CONCRETE REMOVAL SECTION SHALL BE PAID UNDER ITEM 210.10 COARSE MILLING, BITUMINOUS PAVEMENT. ITEM 203.15 COMMON EXCAVATION SHALL BE USED BEYOND THE WIDTH OF EXISTING CONCRETE PCC SLABS. REMOVAL OF ANY MATERIAL REMAINING OVER THE EXISTING SLABS WILL BE CONSIDERED INCIDENTAL TO ITEM 203.16 PER NOTE 12 BELOW.

12. EXISTING CONCRETE SLAB TO BE REMOVED UNDER ITEM 203.16 SOLID ROCK EXCAVATION AND REPLACED WITH ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED. THICKNESS OF EXISTING CONCRETE SLAB IS ESTIMATED AT 8 INCHES. WIDTH OF EXISTING SLAB IS ESTIMATED AT 9 FT PER LANE, AND 20' LONG BASED ON VISIBLE CRACKS IN BITUMINOUS PAVEMENT. ASSUME REINFORCING STEEL IN ALL SLABS AND ALL LATERAL AND LONGITUDINAL JOINTS ARE DOWELED.

13. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDERS, RAP AS DIRECTED BY THE ENGINEER AND WILL BE PAID FOR UNDER AGGREGATE SHOULDERS, RAP EXCEPT IN LAWN AREAS WHERE ITEM 651.35 TOPSOIL SHALL BE USED.

14. AN ESTIMATED QUANTITY OF ITEM 608.15, POWER GRADER RENTAL HAS BEEN INCLUDED FOR THE EXCAVATION OF UNPAVED SHOULDERS AND REMOVING BUILT UP, SAND, ETC., ADJACENT TO THE SHOULDERS IN NON-GUARDRAIL AREAS, TO ALLOW FREE DRAINAGE OFF THE SHOULDER, ITEM 613.10 STONE FILL, TYPE I, ITEM 651.40 GRUBBING MATERIAL (6"), ITEM 653.20 ROLLED EROSION CONTROL PRODUCT, TYPE I, AND ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I HAVE BEEN INCLUDED FOR AREAS WITH PROPOSED SIDE SLOPES OF 1:1.5 TO PROVIDE FOR REPAIR OF EXISTING STONE LINED DRAINAGE OUTLETS OR WASHOUTS LOCATED ALONG THE ROADWAY SIDE SLOPES AS DIRECTED BY THE ENGINEER.

15. ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED, ITEM 651.40 GRUBBING MATERIAL (2"), AND ITEM 653.20 ROLLED EROSION CONTROL PRODUCT, TYPE I HAVE BEEN INCLUDED FOR AREAS WITH PROPOSED SIDE SLOPES FLATTER THAN 1:1.5 BUT STEEPER THAN 1:2 AS DIRECTED BY THE ENGINEER.

16. QUANTITIES FOR ITEM 604.412 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I, ITEM 604.415 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II AND ITEM 604.418 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III HAVE BEEN INCLUDED TO BE USED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

    IN THE AREAS OF CONCRETE REMOVAL, THERE IS PROVISION TO PAY FOR THE STRUCTURES IN TWO STAGES AS FOLLOWS. THE FIRST PAYMENT WILL USE ONE OF THE REHAB. ITEMS (604.412, CLASS I, 604.415, CLASS II OR 604.418, CLASS III) TO SET THE STRUCTURES TO THE ELEVATION AT THE TOP OF THE PAVEMENT BASE COURSE. THE SECOND PAYMENT WILL BE PAID AS ITEM 604.40 CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES TO ADJUST THE STRUCTURE ELEVATIONS TO THE FINISHED GRADE OF THE WEARING COURSE.

    ALL DI'S SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS EVEN WITH THE SURROUNDING TERRAIN. DRAINAGE STRUCTURES HAVE BEEN DISTRIBUTED BETWEEN ITEMS 604.40, 604.412, 604.415 AND 604.418 FOR ESTIMATING PURPOSES.

    DAMAGE CAUSED BY THE CONTRACTOR TO ANY DROP INLETS, CROSS CULVERTS OR OTHER DRAINAGE FEATURES IS THE LIABILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

17. NEW DRAINAGE AND UNDERDRAIN SHALL BE KEPT FIVE FEET OR MORE FROM EXISTING UTILITY POLES. OWNERS OF THE POLES (SEE SPECIAL PROVISIONS) SHALL BE CONTACTED TO TEMPORARILY SUPPORT POLES IF EXCAVATIONS ARE LESS THAN FIVE FEET FROM EXISTING UTILITY POLES. ANY COST FOR TEMPORARY POLE SUPPORT WILL BE INCIDENTAL TO ASSOCIATED DRAINAGE AND UNDERDRAIN ITEMS.

18. AN ADDITIONAL QUANTITY OF ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED HAS BEEN INCLUDED TO CORRECT SUPERELEVATION AND GRADATION DEFICIENCIES.

19. ALL RESIDENTIAL AND COMMERCIAL DRIVES AND PULL-OUTS SHALL RECEIVE A FOUR FOOT PAVED APRON, AND ALL FIELD DRIVES SHALL RECEIVE A TWO FOOT PAVED APRON. PAYMENT WILL BE MADE UNDER ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES UNLESS OTHERWISE DIRECTED BY THE ENGINEER (FOR DETAILS, SEE DRIVE DETAIL SHEETS). ALL OTHER BITUMINOUS MATERIALS PLACED WITHIN THE PROJECT LIMITS BY MECHANICAL METHODS SHALL BE PAID AS ITEM 406.35 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.

20. EDGES OF NEW PAVEMENT WITHIN UNCURBED AND NON-GUARDRAIL SECTIONS SHALL INCLUDE A SAFETY EDGE AS DIRECTED BY THE ENGINEER. SEE VTRANS HIGHWAY SAFETY & DESIGN DETAIL HSD-400.01 SAFETY EDGE DETAILS.

NH PS24(3)/STP PS24(2) COMPOSITE GENERAL NOTES (CONTINUED)

21. NEW GUARDRAIL INSTALLATIONS SHALL BE MASH COMPLIANT AND ADOPT THE MGS STANDARDS AS APPLICABLE. A 3' - 7" BACKING IS REQUIRED BEHIND THE FACE OF GUARDRAIL WITH 6 FOOT POSTS. IF THIS CANNOT BE OBTAINED THE EIGHT FOOT POSTS SHALL BE USED. PAYMENT WILL BE MADE UNDER ITEM 621.20 STEEL BEAM GUARDRAIL, GALVANIZED OR ITEM 621.205 STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS.

22. CULVERT EXTENSIONS, CULVERT REPLACEMENTS AND OTHER EXCAVATION OR GUARDRAIL INSTALLATION WORK NEAR AN EXISTING UNDERGROUND UTILITY STRUCTURE OR UTILITY POLE SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY TWO WEEKS IN ADVANCE. UTILITY REPRESENTATIVES SHALL BE PRESENT DURING THE WORK. THIS INCLUDES TOWN OF HARTFORD WATER/SEWER, CONSOLIDATED COMMUNICATIONS, GREEN MOUNTAIN POWER, EC FIBER, COMCAST, FIRSTLIGHT FIBER, VERMONT TELEPHONE, VERIZON, CHARTER COMMUNICATIONS, AND AT&T.

23. A QUANTITY HAS BEEN INCLUDED FOR ITEM 201.31 THINNING AND TRIMMING FOR SIGNS SEE COMPOSITE DETAIL SHEET 1.

STP PS24(2) GENERAL NOTES

24. THE CONTRACTOR SHALL USE CAUTION WHEN COARSE-MILLING AND PAVING OPERATIONS OCCUR ON BRIDGE DECKS. SHOULD ANY DAMAGE OCCUR TO THE DECK, MEMBRANE, AND/OR SCUPPERS / DRAINAGE AS A RESULT OF THESE OPERATIONS THE ENGINEER SHALL CONTACT THE VTRANS CONSTRUCTION STRUCTURES ENGINEER TO PROVIDE AN ASSESSMENT OF THE DAMAGE AND RECOMMEND ANY NECESSARY REPAIRS. THE CONSTRUCTION STRUCTURES ENGINEER WILL ALSO DETERMINE IF THE DAMAGE WAS AVOIDABLE. IF THE CONTRACTOR IS DETERMINED BY THE ENGINEER TO BE AT FAULT, THE RECOMMENDED REPAIRS SHALL BE COMPLETED AT NO COST TO THE STATE.

25. AN ESTIMATED QUANTITY OF ITEM 580.17 RAPID SETTING CONCRETE REPAIR MATERIAL HAS BEEN INCLUDED FOR USE ON BRIDGE REPAIRS AS DIRECTED BY THE ENGINEER.

26. ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS, HAS BEEN INCLUDED TO REMOVE VEGETATION, PARTIAL AND FULL TREE REMOVAL, AND ASSOCIATED GRUBBING WITHIN THE ASSUMED 3-ROD RIGHT-OF-WAY OR GREATER WHEN NECESSARY, WHEN THE RIGHT-OF-WAY HAS BEEN CONFIRMED BEYOND THE ASSUMED 3 RODS. THE ENGINEER MAY EXCLUDE REMOVAL IN SOME AREAS WHERE DEEMED NECESSARY AND APPROPRIATE OR NECESSITATED BY PERMIT REQUIREMENTS PER THE CONSTRUCTION ENVIRONMENTAL ENGINEER'S RECOMMENDATIONS.

27. ADDITIONAL QUANTITIES FOR PAY ITEMS 653.475 SILT FENCE, TYPE I, 651.15 SEED, 651.18 FERTILIZER, 651.20 AGRICULTURAL LIMESTONE, 653.20 ROLLED EROSION CONTROL PRODUCT, TYPE I HAVE BEEN INCLUDED FOR STONE FILL SLOPE STABILIZATION AREAS TO BE PLACED ON GRUBBING MATERIAL.

28. AN ESTIMATED QUANTITY OF ITEM 204.21 TRENCH EXCAVATION OF ROCK HAS BEEN INCLUDED IN CASE LEDGE IS ENCOUNTERED DURING THE INSTALLATION OF UNDERDRAIN.

29. A QUANTITY OF ITEM 601.995 CLEANING CULV. PIPE, IN-PLACE (0 TO 24 IN., INCL.) AND ITEM 601.996 CLEANING CULV. PIPE, IN-PLACE (GREATER THAN 24 IN.) HAS BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER.

30. AN ESTIMATED QUANTITY OF ITEM 619.17 YIELDING MARKER POSTS HAS BEEN INCLUDED TO DELINEATE PIPE INLETS, PIPE OUTLETS, UNDERDRAIN OUTLETS, AND DROP INLETS LOCATED OUTSIDE THE PAVEMENT SURFACE OR AS DIRECTED BY THE ENGINEER.

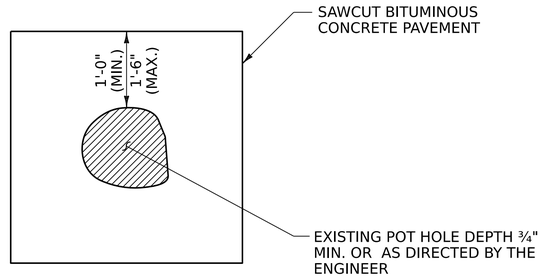
31. A QUANTITY HAS BEEN INCLUDED FOR ITEMS 617.10 RELOCATE MAILBOX, SINGLE SUPPORT AND ITEM 617.12 RELOCATE MAILBOX, MULTIPLE SUPPORT, TO BE USED AS DETERMINED BY THE ENGINEER.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_notes.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE GENERAL NOTES SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: M. FOISY



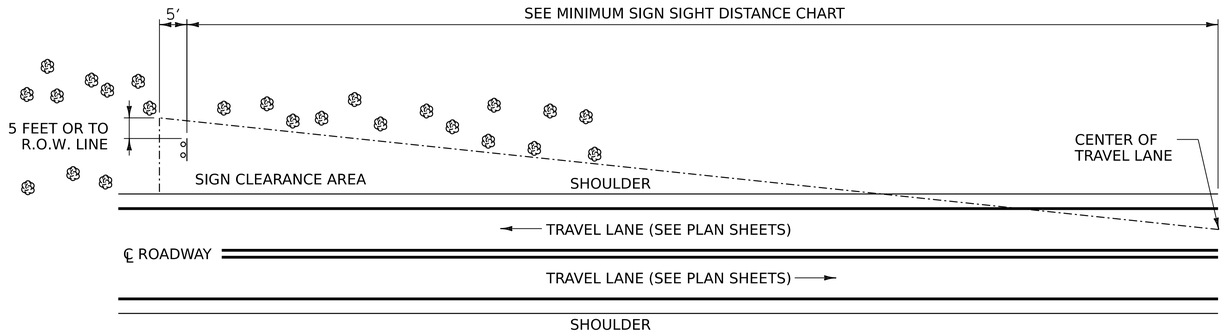
TYPICAL - POT HOLE REPAIR

SEE NOTE 10 ON COMPOSITE GENERAL NOTES SHEET

NOTES:

1. EMULSIFIED ASPHALT SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 0.5 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 406.45 BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION

2. SAWCUT AND REMOVAL OF BITUMINOUS CONCRETE PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.45 BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION.



THINNING AND TRIMMING FOR SIGNS ON CONVENTIONAL ROADS

SEE PLAN SHEETS FOR LOCATIONS

MINIMUM SIGN SIGHT DISTANCE CHART

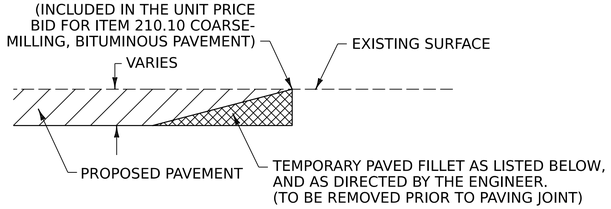
APPROACH SPEED (mph)	SIGHT DISTANCE (feet)
30 OR LESS	300
35	350
40	400
45	450
50	500
55	550

NOTES:

1. THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS, AND TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA DOWN TO GROUND LEVEL OR AT LEAST 10 FEET BELOW THE BOTTOM OF THE SIGN, WHICHEVER IS LESS.

2. PAYMENT WILL BE AS ITEM 201.31 THINNING AND TRIMMING FOR SIGNS AND PAID FOR PER EACH LOCATION.

3. NO CHEMICALS (POISONS OR DEFOLIANTS) WILL BE ALLOWED.

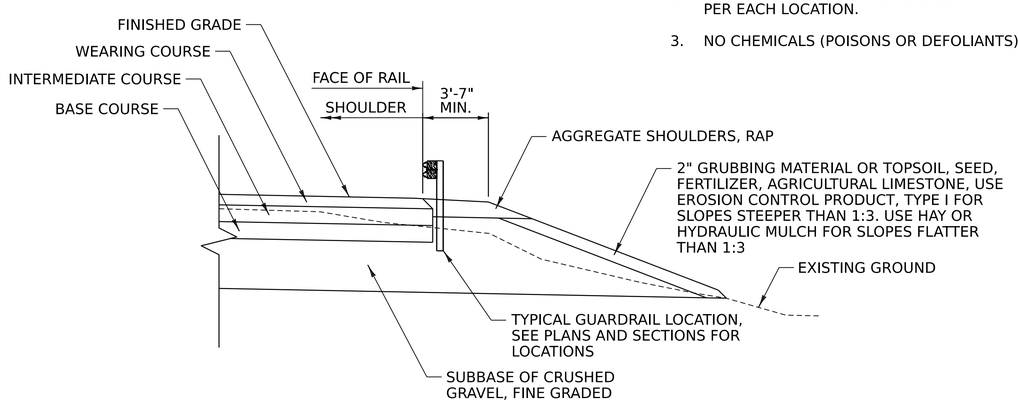


DETAIL AT VERTICAL COARSE-MILLING JOINTS

NOTE: THIS DETAIL SHALL BE USED AT THE LOCATIONS LISTED BELOW AS DIRECTED BY THE ENGINEER.

HARTFORD NH PS24(3)
U.S. ROUTE 5
BEGIN APPROACH SECTION
STA. 155+20, RT (I-91 NORTHBOUND OFF RAMP)
STA. 156+64, LT (I-91 NORTHBOUND ON RAMP)
STA. 160+70, RT (SYKES MOUNTAIN AVE, TH-10)
STA. 165+65, RT (AIRPORT RD, TH-101)
STA. 186+01, LT (U.S. ROUTE 4, WOODSTOCK RD)
STA. 196+17, LT (LANTERN LN)
STA. 203+85, RT (N MAIN ST)

HARTFORD STP PS24(2)
US. ROUTE 5
STA. 215+69, RT (U.S. ROUTE 4, MAPLE ST, TH-1)
STA. 215+72, LT (VT ROUTE 14, MAPLE ST, TH-1)
STA. 233+02, LT (HIGHLAND AVE, TH-153)
STA. 233+06, RT (WORCESTER AVE, TH-152)
STA. 234+37, LT (HEBARD AVE, TH-112)
STA. 239+50, LT (SAUNDERS AVE, TH-149)
STA. 243+66, LT (PIERCE ST, TH-148)
STA. 246+69, RT (GOUDREAU ST, TH-150)
STA. 249+45, RT (DEVIN ST, TH-151)
STA. 252+72, RT (ADVENT LN, TH-185)
STA. 252+99, LT (HEWITT ST, TH-174)
STA. 255+97.44 (END PROJECT)



FILL SLOPE DETAIL

FOR SLOPES 1:1.5 OR FLATTER

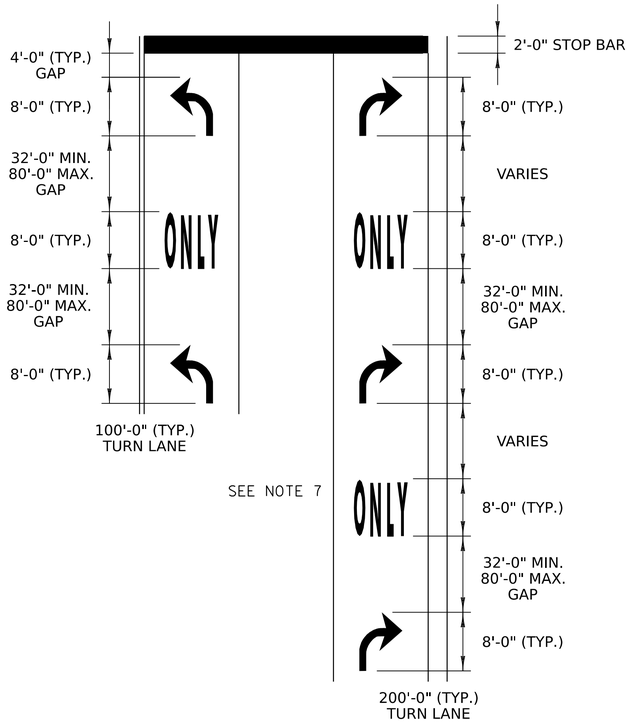
NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE DETAIL SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 9 OF 210

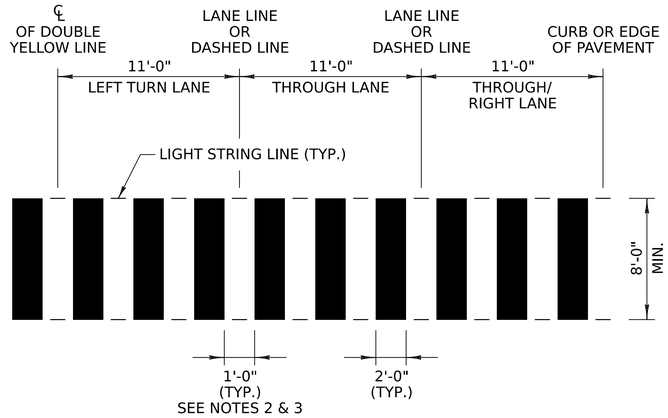


TYPICAL MARKINGS FOR TURN LANES

SEE PLAN SHEETS FOR LOCATIONS

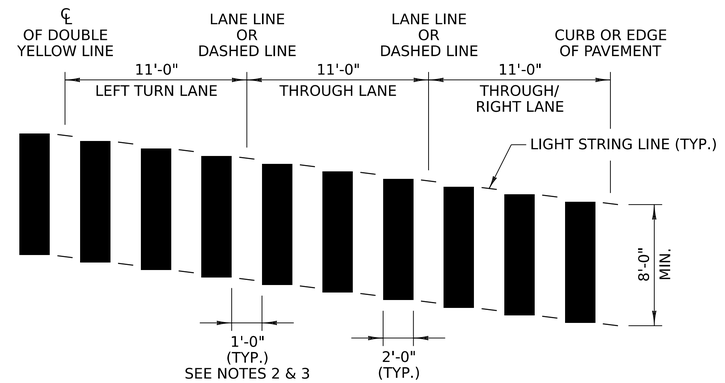
NOTES

1. TURN ARROWS AND WORD MARKINGS SHALL BE PLACED AT THE BEGINNING AND END OF THE LEFT OR RIGHT TURN LANE AND IN THE MIDDLE IF THE LANE LENGTH EXCEEDS 200'-0".
2. IF LANE LENGTH IS LESS THAN 50'-0", ONLY ONE TURN ARROW PLACED AT THE BEGINNING OF THE SOLID LANE LINE IS REQUIRED.
3. THE "ONLY" WORD MARKINGS SHALL BE USED TO SUPPLEMENT LANE-USE ARROW MARKINGS.
4. THE LONGITUDINAL SPACE BETWEEN WORD OR SYMBOL MESSAGE MARKINGS SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS UNDER ANY CONDITIONS.
5. STOP BARS ARE INSTALLED ONLY WHERE A STOP SIGN OR TRAFFIC SIGNAL ARE LOCATED.
6. EXCLUSIVE TURN LANES (LEFT OR RIGHT) LANE LINES SHALL BE SOLID AND EXTEND BACK FROM THE STOP LINE TO THE POINT OF FULL LANE WIDTH OF THE TURN LANE.
7. A SECOND "ONLY" IS REQUIRED WHEN SPACE PERMITS; ARROW MARKINGS START AT THE BEGINNING OF THE SOLID LANE LINE.



BLOCK PATTERN CROSSWALK DETAIL

SEE PLAN SHEETS FOR LOCATIONS.
MAY VARY WITH 11'-0" OR 12'-0" LANE



SKEWED BLOCK PATTERN CROSSWALK DETAIL

SEE PLAN SHEETS FOR LOCATIONS.
MAY VARY WITH 11'-0" OR 12'-0" LANE

NOTES

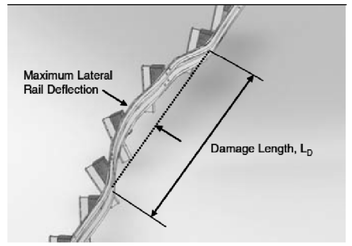
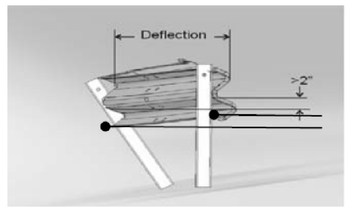
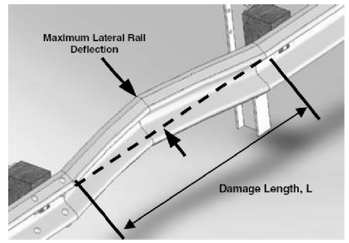
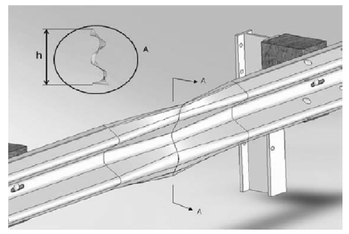
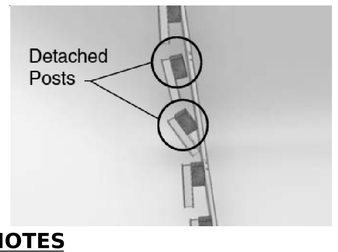
1. THIS DETAIL IS CONFIGURED FOR AN 11'-0" LANE.
2. THIS SPACING WILL INCREASE TO 2'-0" FOR A 12'-0" LANE.
3. ADJUST SPACING TO AVOID WHEEL PATHS AS DIRECTED BY THE ENGINEER.

NOT TO SCALE

Stantec

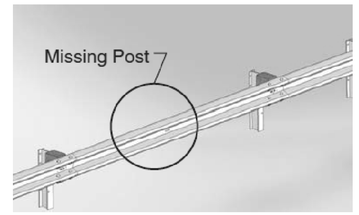
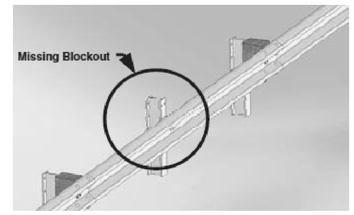
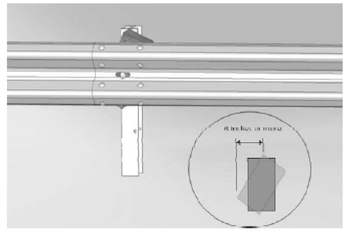
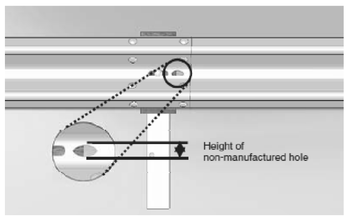
PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3), NHG SGNL(60) & STP PS24(2)
FILE NAME:z19v443_comp_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BARRETT	CHECKED BY: M. FOISY
COMPOSITE DETAIL SHEET 2	SHEET 10 OF 210

NH PS24(3)/STP PS24(2) COMPOSITE DETAILS
GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • MORE THAN 9 INCHES LATERAL DEFLECTION ANYWHERE OVER A 25 FOOT LENGTH OF RAILTOP OF RAIL • HEIGHT 2 OR MORE INCHES LOWER THAN ORIGINAL TOP OF RAIL HEIGHT	HIGH	
	6-9 INCHES LATERAL DEFLECTION ANYWHERE OVER A 25 FOOT LENGTH OF RAIL	MEDIUM	
	LESS THAN 6 INCHES OF LATERAL DEFLECTION OVER A 25 FOOT LENGTH OF RAIL	LOW	 (WEAK POST W-BEAM SHOWN ONLY FOR CLARITY. EACH MEASUREMENT TAKEN AT THE RAIL'S MIDDLE FOLD)
RAIL DEFLECTION ONLY	6-9 INCHES OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS. NOTE: FOR DEFLECTION OVER 9 INCHES, USE POST/RAIL DEFLECTION GUIDELINES	MEDIUM	
	LESS THAN 6 INCHES OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS	LOW	
RAIL FLATTENING	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • RAIL CROSS SECTION HEIGHT LESS THAN 17 INCHES (SUCH AS MAY OCCUR IF RAIL IS FLATTENED) • RAIL CROSS SECTION HEIGHT LESS THAN 9 INCHES (SUCH AS A DENT TO TOP EDGE)	MEDIUM	
	RAIL CROSS SECTION HEIGHT BETWEEN 9 AND 17 INCHES	LOW	
POSTS SEPARATED FROM RAIL	• 2 OR MORE POSTS WITH BLOCKOUT ATTACHED WITH POST/RAIL SEPARATION LESS THAN 3 INCHES • ONE OR MORE POSTS WITH POST/RAIL SEPARATION WHICH EXCEEDS 3 INCHES.	MEDIUM	
	• ONE POST, WITH BLOCKOUT ATTACHED, WITH POST/RAIL SEPARATION LESS THAN 3 INCHES	LOW	

NOTES

1. IF THE BLOCKOUT IS NOT FIRMLY ATTACHED TO THE POST USE THE MISSING BLOCKOUT GUIDELINES.
2. DAMAGE SHOULD ALSO BE EVALUATED AGAINST POST/RAIL DEFLECTION GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE POSTS: • MISSING • CRACKED ACROSS THE GRAIN • BROKEN • ROTTED • WITH METAL TEARS	HIGH	
MISSING BLOCKOUT	ANY BLOCKOUTS: • MISSING • CRACKED ACROSS THE GRAIN • CRACKED FROM TOP OR BOTTOM OF BLOCK OUT • ROTTED	MEDIUM	
TWISTED BLOCKOUTS	ANY MISALIGNED BLOCKOUTS, TOP EDGE OF BLOCK 6 INCHES OR MORE FROM BOTTOM EDGE NOTE: REPAIRS OF TWISTED BLOCKOUT ARE RELATIVELY QUICK AND INEXPENSIVE	LOW	
DAMAGE AT A RAIL SPLICE	MORE THAN ONE SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • ROTTED	HIGH	
	ONE SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • TORN THROUGH RAIL	MEDIUM	
	• MORE THAN 2 HOLES LESS THAN ONE INCH HEIGHT IN A 12.5 FOOT LENGTH OF RAIL • ANY HOLES GREATER THAN ONE INCH IN HEIGHT • ANY HOLE WHICH INTERSECTS EITHER THE TOP OR BOTTOM EDGE OF THE RAIL	HIGH	
	1-2 HOLES LESS THAN ONE INCH IN HEIGHT IN A 12.5 FOOT LENGTH OF RAIL	MEDIUM	

NOTES

1. THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDAIL AS DIRECTED BY THE ENGINEER.
2. GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.
3. WHEN GUARDRAIL IS TO BE REMOVED AND RESET, PANELS WITH A RAIL CROSS SECTION HEIGHT OF 15 INCHES OR GREATER SHALL BE REPLACED.

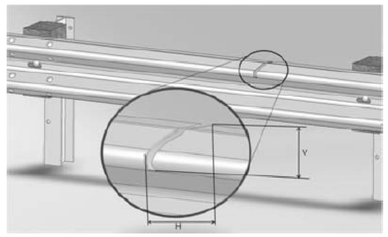
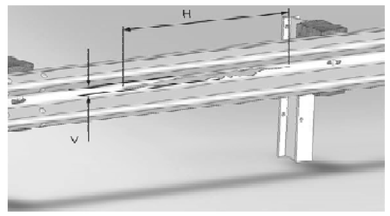
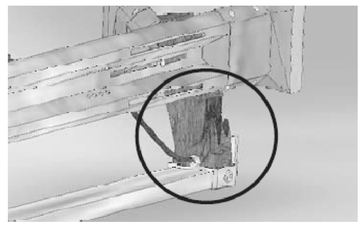
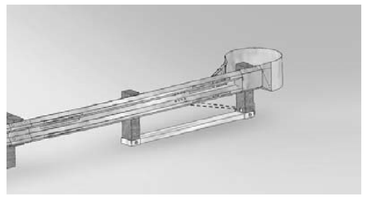
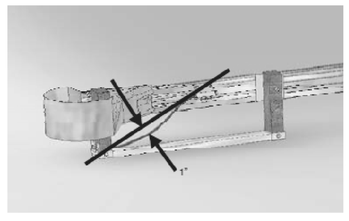
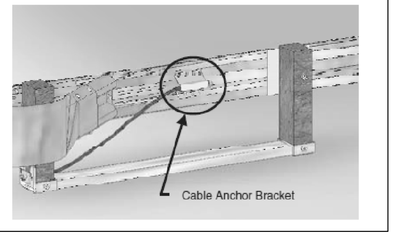
Stantec

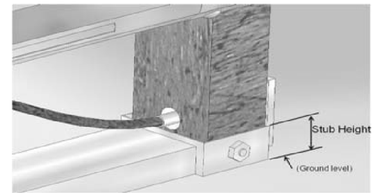
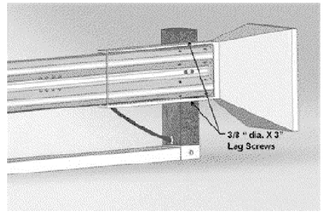
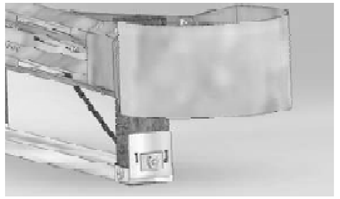
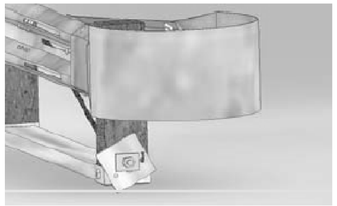
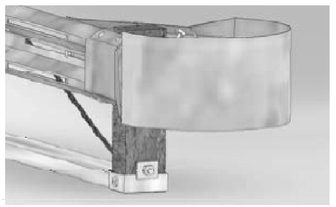
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE DETAIL SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

NH PS24(3)/STP PS24(2) COMPOSITE DETAILS
GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
VERTICAL TEAR	ANY LENGTH VERTICAL (TRANSVERSE) TEAR	HIGH	
HORIZONTAL TEAR	HORIZONTAL (LONGITUDINAL) GREATER THAN 12 INCH LONG AND GREATER THAN 0.5 INCH WIDE NOTE: FOR HORIZONTAL TEARS LESS THAN 12 INCH IN LENGTH OR LESS THAN 0.5 INCH IN HEIGHT, USE THE NON-MANUFACTURED HOLES GUIDELINES	MEDIUM	
DAMAGED END POST	NOT FUNCTIONAL (SHEARED, ROTTED CRACKED ACROSS THE GRAIN)	HIGH	
ANCHOR CABLE	MISSING	HIGH	
ANCHOR CABLE	LOOSE - MORE THAN ONE INCH OF MOVEMENT WHEN PUSHED DOWN BY HAND	MEDIUM	
CABLE ANCHOR BRACKET	LOOSE OR NOT FIRMLY SEATED IN RAIL	MEDIUM	

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
STUB HEIGHT	HEIGHT WHICH EXCEEDS 4 INCHES	MEDIUM	
LAG SCREWS (ENERGY ABSORBING TERMINALS ONLY)	HEIGHT WHICH EXCEEDS 4 INCHES	MEDIUM	
BEARING PLATE	LOOSE OR MISALIGNED	MEDIUM	 (CORRECT BEARING PLATE)  (MISALIGNED BEARING PLATE)
	MISSING BEARING PLATE	HIGH	 (MISSING BEARING PLATE)

NOTES

1. THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDAIL AS DIRECTED BY THE ENGINEER.
2. GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.
3. WHEN GUARDRAIL IS TO BE REMOVED AND RESET, PANELS WITH A RAIL CROSS SECTION HEIGHT OF 15 INCHES OR GREATER SHALL BE REPLACED.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE DETAIL SHEET 4

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

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

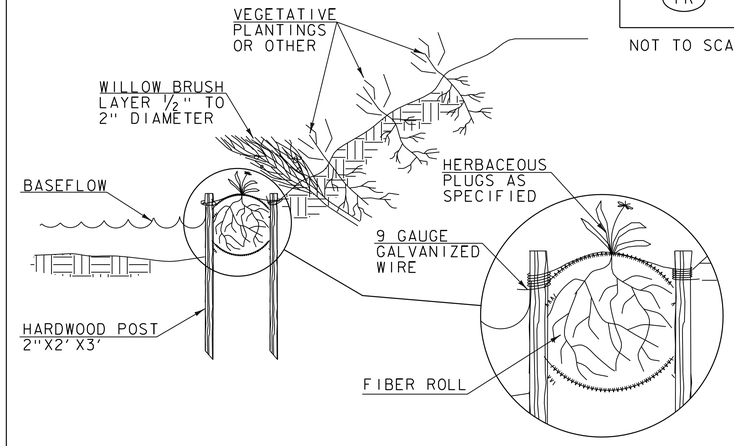
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF

SYMBOL

FR

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"X2" POSTS PLACED ON BOTH SIDES FO THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANTWITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

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

FIBER ROLL (EROSION LOG)

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 PERFORMED IN ACCORDANCE WITH SECTION 653 FOR EROSION LOG (PAY ITEM 653.60)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 13, 2009	WHF

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE EPSC DETAIL SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

PRIMARY CONTROL

HVCTRL #1HART NB REST
NORTH = 409150.4250
EAST =1681279.2100
ELEV. = 563.4300

DESCRIBED BY VERMONT GEODETIC SURVEY (CHR)
GENERAL LOCATION, HARTFORD, VT. THE MARK IS LOCATED IN THE NORTHEAST TIP OF THE GRASSY REGION FORMED BY THE I-91 NORTHBOUND SOUTHEAST EDGE OF PAVEMENT AND THE PAVED TRUCK INSPECTION PARKING AREA AT THE I-91 NORTH BOUND HARTFORD REST AREA, ADJACENT TO MILE MARKER 68.40. THE MARK IS SET ABOUT 1FT ABOVE THE GROUND SURFACE IN THE TOP OF A MASSIVE SLOPING ROCK OUTCROP WHICH PROJECTS ABOUT 3.3 FT ABOVE GROUND SURFACE ON THE SOUTHEAST SIDE. IT IS 30.8 FT SOUTHEAST OF AND ABOUT 4.9 FT LOWER THAN THE I-91 NORTHBOUND SOUTHEAST EDGE OF PAVEMENT, 23.3 FT WEST NORTHWEST OF THE TRUCK INSPECTION PARKING AREA WEST NORTHWEST EDGE OF PAVEMENT, 49.5 FT SOUTHWEST OF LUMEN #10, 57 FT SOUTHWEST OF THE CENTER OF A 24" SQUARE METAL DRAIN, 107.9 FT NORTH NORTHEAST OF LUMEN #9, AND 6.6 FT NORTHWEST OF A FIBERGLASS WITNESS POST.

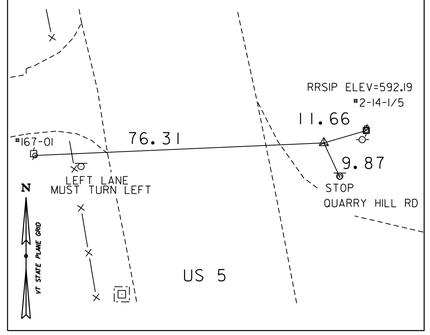
HVCTRL #2 HART NB RST AZ MK
NORTH = 407787.9730
EAST = 1680681.1100
ELEV. = 571.5500

DESCRIBED BY VERMONT GEODETIC SURVEY (CHR)
GENERAL LOCATION, HARTFORD, VT. TO REACH FROM THE I-91 SOUTHBOUND BRIDGE OVER I-89 SOUTHBOUND AT EXIT 10 (I-91), GO SOUTH ALONG I-91 SOUTHBOUND FOR 1.5 MI. TO THE SITE OF THE MARK ON THE LEFT IN THE MEDIAN, ABOUT 0.1 MI. SOUTHWEST OF THE I-91 SOUTHBOUND HARTFORD REST AREA. THE MARK IS SET 4" BELOW GROUND SURFACE IN THE TOP OF A 12" DIAMETER CONCRETE MONUMENT. IT IS 45.6 FT EAST OF AND ABOUT 3.3 FT HIGHER THAN THE I-91 SOUTHBOUND EAST EDGE OF PAVEMENT, 88.6 FT WEST NORTHWEST OF THE I-91 NORTHBOUND WEST-NORTHWEST EDGE OF PAVEMENT, 327.8 FT SOUTH SOUTHWEST OF THE CENTER OF THE EAST (OUTLET) END OF A 24" DIAMETER CONCRETE CULVERT, AND 1FT WEST OF A FIBERGLASS WITNESS POST.

SECONDARY CONTROL

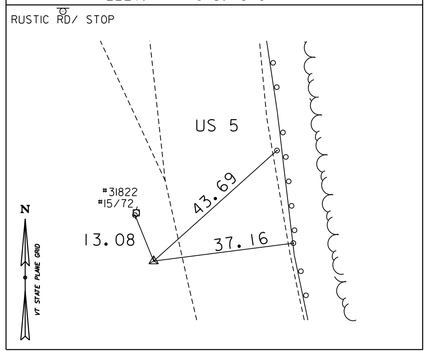
HVCTRL #23

NORTH = 405885.3328
EAST = 1679029.3110
ELEV. = 592.9110



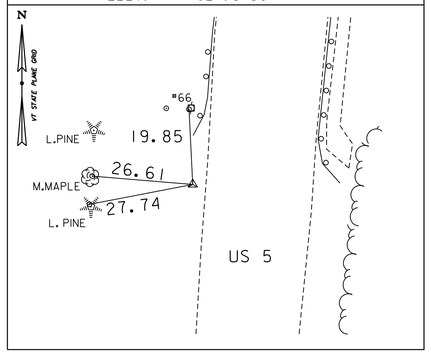
HVCTRL #22

NORTH = 406981.1590
EAST = 1678714.1220
ELEV. = 615.1810



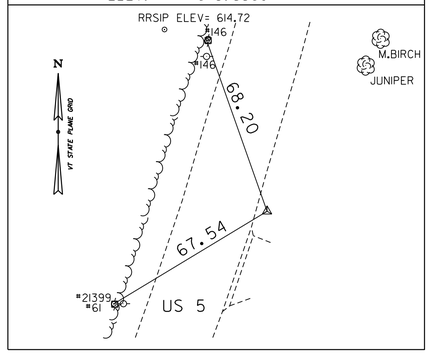
HVCTRL #21

NORTH = 407694.3848
EAST = 1678738.5101
ELEV. = 627.8450



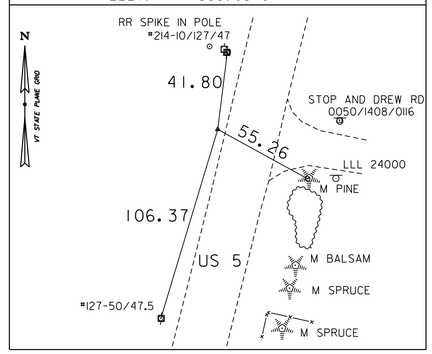
HVCTRL #20

NORTH = 408332.4967
EAST = 1679032.0886
ELEV. = 613.5560



HVCTRL #5

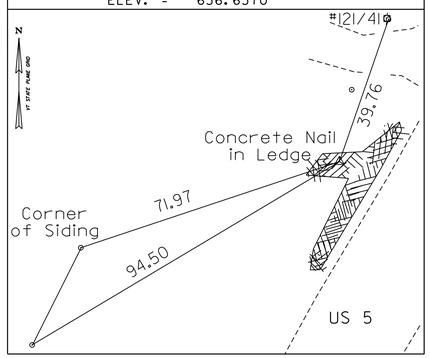
NORTH = 410827.4200
EAST = 1679557.4300
ELEV. = 599.6510



ALIGNMENT TIES

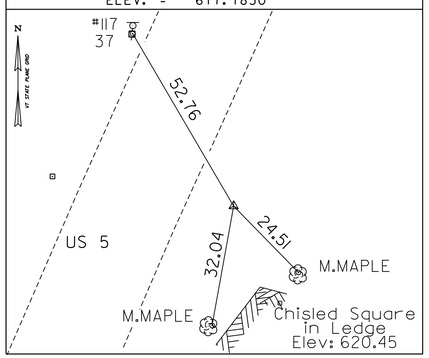
HVCTRL #6

NORTH = 411595.3900
EAST = 1679826.2000
ELEV. = 636.6370



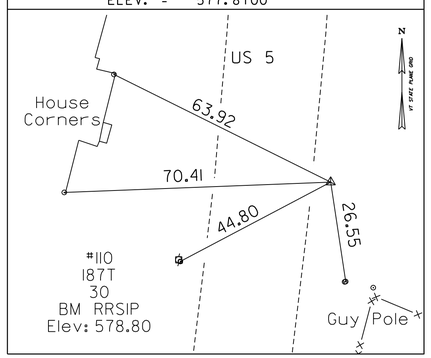
HVCTRL #7

NORTH = 412026.3600
EAST = 1680083.0100
ELEV. = 617.1830



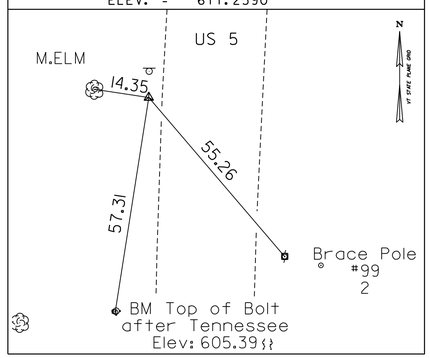
HVCTRL #8

NORTH = 412878.9300
EAST = 1680306.5800
ELEV. = 577.8100



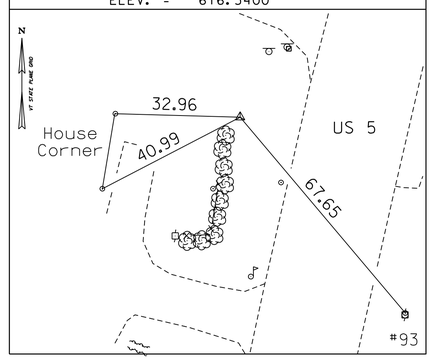
HVCTRL #9

NORTH = 414359.1000
EAST = 1680338.0700
ELEV. = 611.2590



HVCTRL #10

NORTH = 415097.7300
EAST = 1680421.7000
ELEV. = 616.3400



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD83 (2011)
ADJUSTMENT COMPASS

* POINTS (#1,2,5-13) * 04A026 AND TRANSLATED TO NAD 83(2011) 8/2021 MAIN TRAVERSE COMPLETED 12/13/06 by R.GILMAN P.C. & S.HISMAN
* POINTS (#31,32,34-40)•17T048 MAIN TRAVERSE COMPLETED BY B.HERRING AND T.CATTANEO ON 11/16/2017
* POINTS (#46,47,51) •20T298A MAIN TRAVERSE COMPLETED BY R.GILMAN H.MCGOWAN ON 3/22/2021
* POINTS (#50)* 20T298B MAIN TRAVERSE COMPLETED BY R.GILMAN J.WANTUCH ON 3/29/2021
* POINTS (#20-23,25,14,33,41-45) 19V443 TRAVERSE COMPLETED ON 8/2021 BY R.GILMAN H.MCGOWAN

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: X19V443TI.DGN
PROJECT LEADER: M.BOGACZYK
DESIGNED BY: VTRANS
COMPOSITE TIE SHEET 1
PLOT DATE: 3-AUG-2023
DRAWN BY: H.MCGOWAN
CHECKED BY: R. GILMAN
SHEET 14 OF 210

PRIMARY CONTROL

HVCTRL #25 = 14 SKS USGS
NORTH = 407188.0570
EAST =1678697.5800
ELEV. = 612.4700

GENERAL LOCATION, HARTFORD, VT.
TO REACH FROM THE I-89 SOUTHBOUND BRIDGE OVER US ROUTE 5, GO SOUTH ALONG US ROUTE 5 FOR 2.0 MI (3.22 KM) TO THE SITE OF THE MARK ON THE RIGHT, JUST NORTH OF THE INTERSECTION OF RUSTIC ROAD RIGHT.
THE MARK IS SET IN THE TOP OF THE SOUTH END OF A 2.8 M (9.2 FT) X 0.2 M (0.7 FT) CONCRETE HEADWALL FOR A 60 CM (24 INCH) CONCRETE CULVERT.
IT IS 6.7 M (22.0 FT) WEST OF AND ABOUT 3 M (9.8 FT) LOWER THAN THE CENTERLINE OF US ROUTE 5, 10.1 M (33.1 FT) EAST OF THE CENTERLINE OF RUSTIC ROAD, 24.9 M (81.7 FT) NORTH OF POLE NO 71, AND 0.4 M (1.3 FT) NORTH OF THE SOUTH END OF THE HEADWALL.
NOTE, TABLET MAY HAVE BEEN RESET FROM ITS ORIGINAL LOCATION, CONCRETE HEADWALL APPEARS TO BE LESS THAN FIFTY YEARS OLD.NGS DESCRIPTION SEEMS TO BE A TRUE REPRESENTATION OF THE CURRENT SETTING.

HVCTRL 31 = E 56
NORTH = 418205.7610
EAST = 1683404.0100
ELEV = 573.9800

GENERAL LOCATION HARTFORD VT.

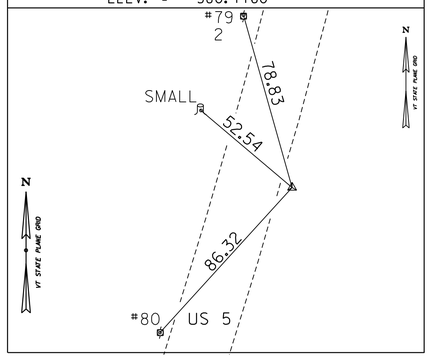
ABOUT 700 FEET NORTH ALONG U.S. HIGHWAY 91 FROM ITS OVERPASS OVER THE CENTER LINE OF U.S. HIGHWAY 5, SET IN THE HIGHEST POINT OF A 12 FOOT BY 18 FOOT ROCK OUTCROP, 88 FEET NORTHEAST OF A METAL DRAINAGE TRAP, 35 FOOT NORTH-NORTHWEST OF THE SUPPORT FOR A MERGE SIGN, AND 57 FEET NORTHWEST OF THE CENTER LINE OF THE SOUTHBOUND LANES OF THE HIGHWAY. THIS BENCHMARK HAS BEEN DESIGNATED A BASIC NET A LEVEL LINE JUNCTION MARK.

RECOVERY NOTE BY VERMONT AGENCY OF TRANSPORTATION 1993
RECOVERED AS PREVIOUSLY DESCRIBED, EXCEPT NOTE, MARK IS NORTHWEST OF THE 191 SOUTHBOUND LANE SO ACCESS IS EASIER FROM EITHER 191 SOUTHBOUND OR THE WHITE RIVER 191 SOUTHBOUND ON-RAMP. MARK IS 3.8 FT (1.2 M) EAST OF A FIBERGLASS WITNESS POST.

SECONDARY CONTROL

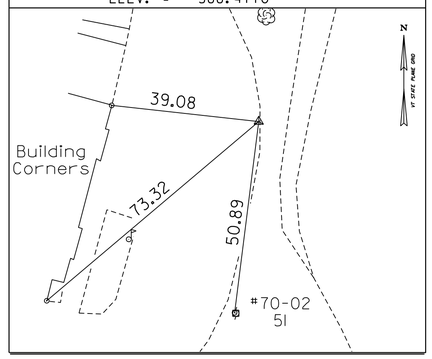
HVCTRL #11

NORTH = 416644.3700
EAST = 1681131.5600
ELEV. = 580.1160



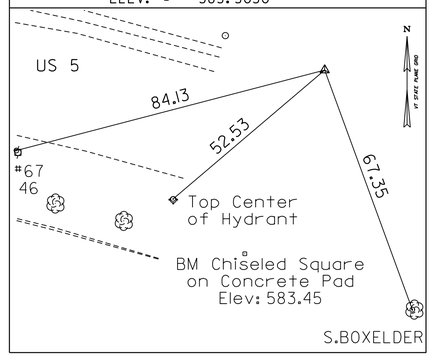
HVCTRL #12

NORTH = 417724.7600
EAST = 1681331.2000
ELEV. = 588.4770



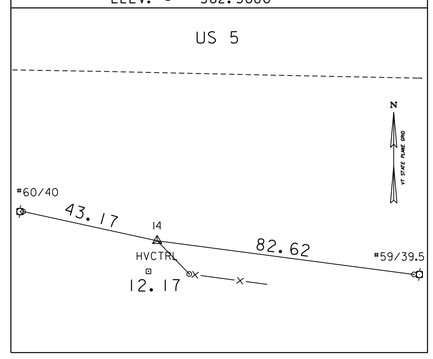
HVCTRL #13

NORTH = 417753.5700
EAST = 1681835.3500
ELEV. = 583.5050



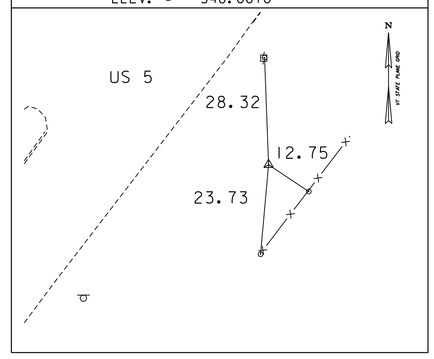
HVCTRL #14

NORTH = 417455.3052
EAST = 1682745.0241
ELEV. = 562.5080



HVCTRL #32

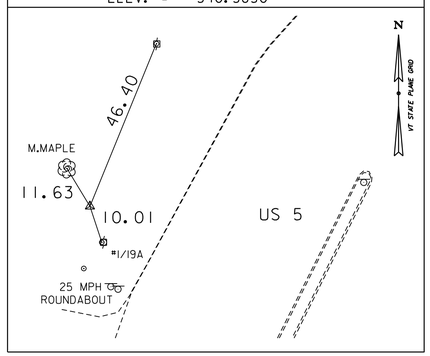
NORTH = 417675.4890
EAST = 1683734.1020
ELEV. = 548.0610



ALIGNMENT TIES

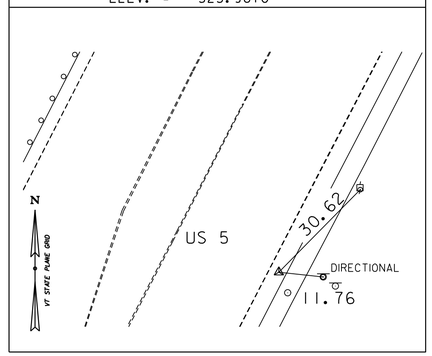
HVCTRL #33

NORTH = 418445.6120
EAST = 1684044.8560
ELEV. = 540.3850



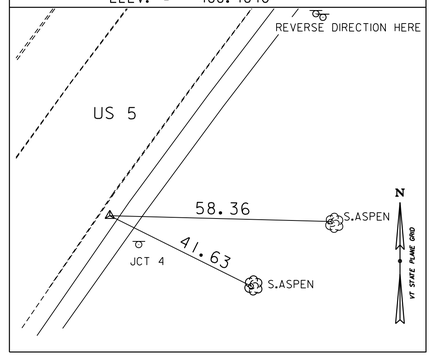
HVCTRL #34

NORTH = 418861.3530
EAST = 1684377.8570
ELEV. = 523.9670



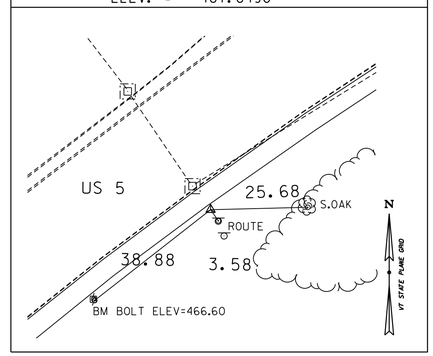
HVCTRL #35

NORTH = 419385.6790
EAST = 1684661.3320
ELEV. = 488.4640



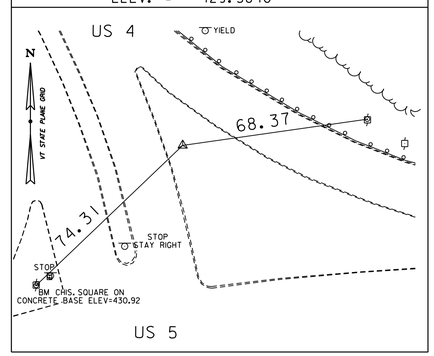
HVCTRL #36

NORTH = 419674.4901
EAST = 1684950.1491
ELEV. = 461.6490



HVCTRL # 37

NORTH = 420031.6532
EAST = 1685500.3545
ELEV. = 429.5840



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD83 (2011)
ADJUSTMENT COMPASS

* POINTS (#1,2,5-13) * 04A026 AND TRANSLATED TO NAD 83(2011) 8/2021 MAIN TRAVERSE
* POINTS (#31,32,34-40)•17T048 MAIN TRAVERSE COMPLETED BY B.HERRING AND T.CATTANEO ON 11/16/2017
* POINTS (#46,47,51) •20T298A MAIN TRAVERSE COMPLETED BY R.GILMAN H.MCGOWAN ON 3/22/2021
* POINTS (#50)* 20T298B MAIN TRAVERSE COMPLETED BY R.GILMAN J.WANTUCH ON 3/29/2021
* POINTS (#20-23,25,14,33,41-45) 19V443 TRAVERSE COMPLETED ON 8/2021 BY R.GILMAN H.MCGOWAN

COMPLETED 12/13/06 by R.GILMAN P.C. & S.HISMAN

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: X19V443TI.DGN
PROJECT LEADER: M.BOGACZYK
DESIGNED BY: VTRANS
COMPOSITE TIE SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: H.MCGOWAN
CHECKED BY: R. GILMAN
SHEET 15 OF 210

PRIMARY CONTROL

HVCTRL 40
NORTH = 419477.5440
EAST = 1687224.0690
ELEV = 393.3870

GENERAL LOCATION HARTFORD VT.

TO REACH FROM THE I-91 NORTHBOUND BRIDGE OVER US ROUTE 4 IN HARTFORD GO 0.1 MI(0.2 KM) SOUTH ALONG US ROUTE 4 TO ITS INTERSECTION WITH US ROUTE 5. TURN LEFT AND GO EAST ALONG US ROUTES 4 AND 5 FOR 0.3 MI (0.5 KM) TO THE INTERSECTION OF US ROUTES 4 AND 5 LEFT AND MAIN STREET STRAIGHT AND THE SITE OF THE MARK IN THE EAST QUADRANT OF THE INTERSECTION.

THE MARK IS A 3/4 INCH (19 MM) IRON ROD WITH RED PLASTIC CAP STAMPED VTRANS TRAV PT.IT IS SET FLUSH WITH PAVEMENT IN A PAVED TRIANGLE FORMED BY MAIN ST. AND US ROUTES 4 AND 5.IT IS 14.5 FT (4.4 M) NORTH OF THE SOUTH POINT OF THE TRIANGLE, 20.0 FT (6.1 M) SOUTHWEST OF THE NORTHEAST POINT OF THE TRIANGLE AND 22.9 FT (7.0 M) SOUTHEAST OF THE WEST POINT OF THE TRIANGLE.

HVCTRL 46
NORTH = 422144.9660
EAST = 1689354.6890
ELEV = 489.7500

TO REACH FROM THE I-91 BRIDGES OVER BUGBEE STREET AT EXIT 12, GO SOUTHEAST ALONG BUGBEE STREET FOR 0.3 MI (0.5 KM) TO THE T-INTERSECTION OF US ROUTE 5. TURN RIGHT AND GO SOUTH ON ROUTE 5 FOR 0.45 MI (0.72 KM) TO THE SITE OF THE MARK ON THE LEFT ACROSS FROM THE "GOOD BUY" STORE.

THE MARK IS A 3/4 INCH (19 MM) REBAR WITH RED PLASTIC CAP SET FLUSH WITH THE GROUND SURFACE.

IT IS 7.8 M (25.6 FT) SOUTHEAST OF THE CENTERLINE OF ROUTE 5, 8.4 M (27.6 FT) NORTHWEST OF POLE 31, 0.5 M (1.6 FT) NORTHWEST OF THE NORTHWEST EDGE OF CONCRETE SIDEWALK, 5.7 M (18.7 FT) SOUTHWEST OF THE CENTERLINE OF A PAVED DRIVEWAY AND 11.0 M (36.1 FT) WEST-SOUTHWEST OF THE SOUTHWEST CORNER OF A BUS STOP SHELTER. DERIVED FROM GNSS.

HVCTRL #47= E58
NORTH = 424407.4190
EAST =1689959.8840
ELEV. = 493.7200

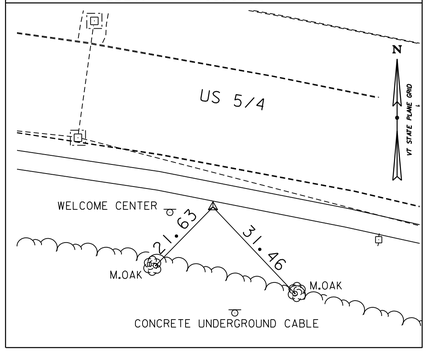
TO REACH FROM THE I-91 BRIDGES OVER BUGBEE STREET AT EXIT 12, GO SOUTHEASTALONG BUGBEE STREET FOR 0.3 MI (0.5 KM) TO THE T-INTERSECTION OF US ROUTE5 (HARTFORD AVENUE). TURN LEFT AND GO NORTH ALONG US ROUTE 5 FOR 0.05 MI(0.1 KM) TO THE MOST NORTHERLY ENTRANCE TO SAINT ANTHONY'S CEMETERY ON THE RIGHT AND THE SITE OF THE MARK ON THE RIGHT.

THE MARK IS SET 5 CM (2 INCHES) BELOW GROUND SURFACE AND IS ENCASED IN A 10 CM(4 INCH) DIAMETER PVC PIPE WITH SCREW CAP, WHICH IS FLUSH WITH THE GROUND SURFACE. IT IS 7.5 M (24.6 FT) EAST-SOUTHEAST OF AND ABOUT 0.1 M (0.3 FT)HIGHER THAN THE CENTERLINE OF THE NORTHBOUND LANE OF US ROUTE 5, 4.8 M (15.7 FT)NORTH-NORTHEAST OF THE CENTERLINE OF THE PAVED ENTRANCE DRIVE TO THE CEMETERY, 5.3 M (17.4 FT) SOUTH-SOUTHWEST OF POLE NO 397431/35/17, 14.3 M (46.9 FT) SOUTH-SOUTHEAST OF A SIGN IN THE MEDIAN WITH MILE MARKER 0050/1408/0500, 11.6 M (38.1 FT) NORTH OF THE NORTHEAST CORNER OF THE MORRIS GRAVESTONE, 0.65 M (2.1 FT) EAST-SOUTHEAST OF THE EAST-SOUTHEAST EDGE OF A CONCRETE SIDEWALK AND 0.25 M (0.8 FT) WEST-NORTHWEST OF A FIBERGLASS WITNESS POST.

SECONDARY CONTROL

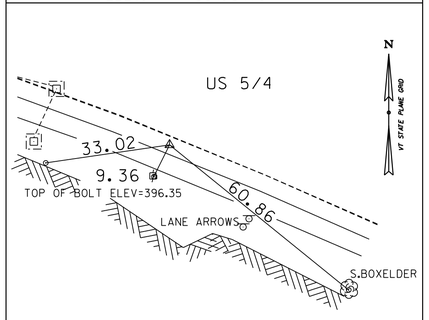
HVCTRL #38

NORTH = 419858.0289
EAST = 1686357.0684
ELEV. = 405.9750



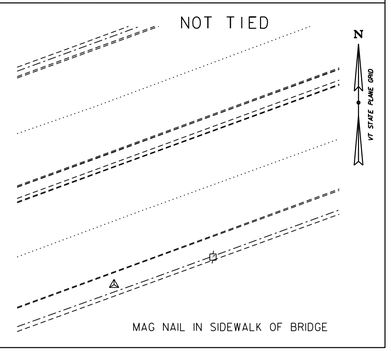
HVCTRL #39

NORTH = 419789.6215
EAST = 1686627.5670
ELEV. = 394.8470



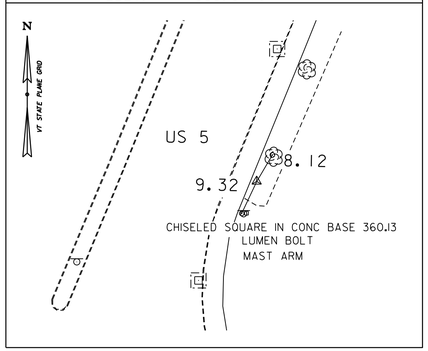
HVCTRL #41

NORTH = 419677.7651
EAST = 1687718.3706
ELEV. = 386.2810



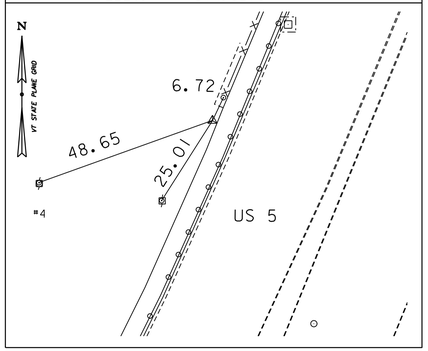
HVCTRL #42

NORTH = 420031.1048
EAST = 1688289.3809
ELEV. = 358.0770



HVCTRL #43

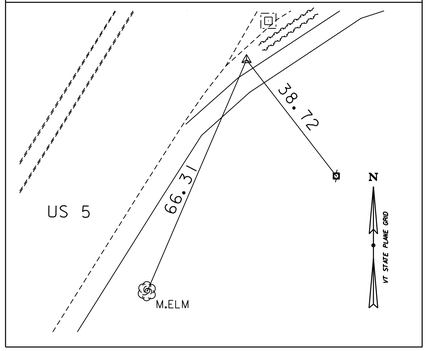
NORTH = 420455.9819
EAST = 1688383.0205
ELEV. = 374.6270



ALIGNMENT TIES

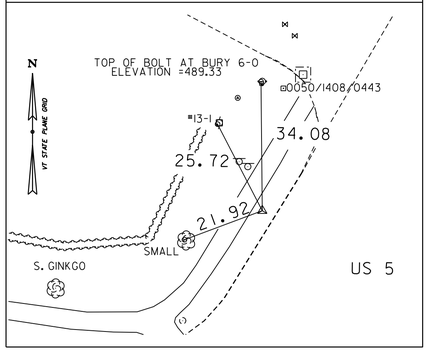
HVCTRL #44

NORTH = 421280.1389
EAST = 1688908.6398
ELEV. = 478.1600



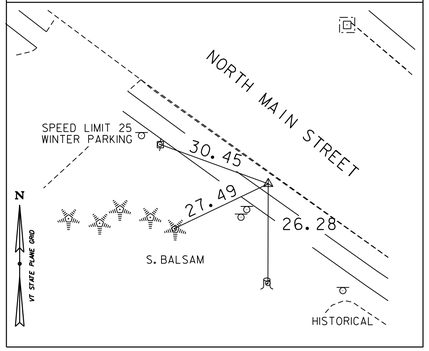
HVCTRL #45

NORTH = 421590.5960
EAST = 1689016.2136
ELEV. = 488.6810



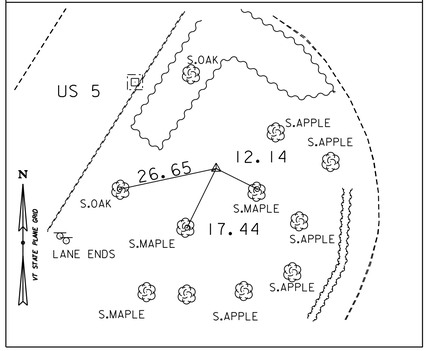
HVCTRL #50

NORTH = 419259.7765
EAST = 1687373.6805
ELEV. = 385.0960



HVCTRL #51

NORTH = 421414.9984
EAST = 1689021.1537
ELEV. = 488.1940



NORTH =
EAST =
ELEV. =

DATUM

VERTICAL	NAVD 88
HORIZONTAL	NAD83 (2011)
ADJUSTMENT	COMPASS

* POINTS (#1,2,5-13) * 04A026 AND TRANSLATED TO NAD 83(2011) 8/2021 MAIN TRAVERSE
* POINTS (#31,32,34-40)*17T048 MAIN TRAVERSE COMPLETED BY B.HERRING AND T.CATTANEO ON 11/16/2017
* POINTS (#46,47,51) *20T298A MAIN TRAVERSE COMPLETED BY R.GILMAN H.MCGOWAN ON 3/22/2021
* POINTS (#50)* 20T298B MAIN TRAVERSE COMPLETED BY R.GILMAN J.WANTUCH ON 3/29/2021
* POINTS (#20-23,25,14,33,41-45) 19V443 TRAVERSE COMPLETED ON 8/2021 BY R.GILMAN H.MCGOWAN

COMPLETED 12/13/06 by R.GILMAN P.C. & S.HISMAN

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: X19V443TI.DGN	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M.BOGACZYK	DRAWN BY: H.MCGOWAN
DESIGNED BY: VTRANS	CHECKED BY: R. GILMAN
COMPOSITE TIE SHEET 3	SHEET 16 OF 210

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Tangent	POB	0+00.00	404879.195	1679088.08				
	PC	1+39.55	405018.345	1679077.508				
Arc	PC	1+39.55	405018.345	1679077.508				
	PI	1+66.47	405045.185	1679075.469	6500	53.83	00°28'28.31"	Right
Arc	PCC		405510.745	1685558.831				
	PT	1+93.39	405072.041	1679073.653				
Tangent	PT	1+93.39	405072.041	1679073.653				
	PC	6+07.40	405485.108	1679045.71				
Arc	PC	6+07.40	405485.108	1679045.71				
	PI	8+05.60	405682.86	1679032.332	3110	395.87	07°17'35.55"	Left
Arc	PCC		405275.205	1675942.801				
	PT	10+03.27	405877.315	1678993.959				
Tangent	PT	10+03.27	405877.315	1678993.959				
	PC	10+61.96	405934.889	1678982.597				
Arc	PC	10+61.96	405934.889	1678982.597				
	PI	11+18.90	405990.76	1678971.572	4000	113.89	01°37'52.78"	Right
Arc	PCC		406709.308	1682906.916				
	PT	11+75.84	406046.921	1678962.142				
Tangent	PT	11+75.84	406046.921	1678962.142				
	PC	13+18.67	406187.775	1678938.49				
Arc	PC	13+18.67	406187.775	1678938.49				
	PI	14+82.65	406349.489	1678911.336	3000	327.63	06°15'26.17"	Left
Arc	PCC		405690.985	1675979.909				
	PT	16+46.30	406507.28	1678866.718				
Tangent	PT	16+46.30	406507.28	1678866.718				
	PC	20+70.39	406915.367	1678751.324				
Arc	PC	20+70.39	406915.367	1678751.324				
	PI	21+47.32	406989.398	1678730.391	680	153.21	12°54'34.56"	Right
Arc	PCC	22+23.60	407066.233	1678726.526				
	PI	22+97.17	407139.713	1678722.83	1350	147	06°14'19.95"	Right
Arc	PCC		407134.053	1680074.821				
	PT	23+70.60	407213.159	1678727.141				
Tangent	PT	23+70.60	407213.159	1678727.141				
	PC	28+65.51	407707.214	1678756.141				
Arc	PC	28+65.51	407707.214	1678756.141				
	PI	30+10.97	407852.427	1678764.665	590	285.24	27°41'59.52"	Right
Arc	PCC		407672.642	1679345.128				
	PT	31+50.74	407977.036	1678839.713				
Tangent	PT	31+50.74	407977.036	1678839.713				
	PC	32+67.43	408076.992	1678899.913				
Arc	PC	32+67.43	408076.992	1678899.913				
	PI	33+42.57	408141.361	1678938.68	1000	150	08°35'39.72"	Left
Arc	PCC	34+17.43	408210.799	1678967.393				
	PI	36+09.99	408388.749	1679040.974	1950	383.88	11°16'45.57"	Left
Arc	PCC		408955.926	1677165.37				
	PT	38+01.31	408577.653	1679078.328				
Tangent	PT	38+01.31	408577.653	1679078.328				
	PC	41+38.46	408908.402	1679143.731				
Arc	PC	41+38.46	408908.402	1679143.731				
	PI	43+65.09	409130.724	1679187.693	15000	453.22	01°43'52.21"	Right
Arc	PCC		405998.614	1693858.796				
	PT	45+91.68	409351.616	1679238.352				
Tangent	PT	45+91.68	409351.616	1679238.352				
	PC	48+54.47	409607.757	1679297.095				
Arc	PC	48+54.47	409607.757	1679297.095				
	PI	50+34.43	409783.164	1679337.322	20000	359.91	01°01'51.85"	Left
Arc	PCC		414078.427	1659803.17				
	PT	52+14.38	409959.266	1679374.386				
Tangent	PT	52+14.38	409959.266	1679374.386				
	PC	54+09.26	410149.963	1679414.522				
Arc	PC	54+09.26	410149.963	1679414.522				
	PI	56+10.45	410346.843	1679455.96	10250	402.34	02°14'56.36"	Right
Arc	PCC		408038.893	1689444.771				
	PT	58+11.59	410541.946	1679505.091				
Tangent	PT	58+11.59	410541.946	1679505.091				
	PC	59+29.00	410655.802	1679533.763				
Arc	PC	59+29.00	410655.802	1679533.763				
	PI	59+82.01	410707.204	1679546.707	30000	106.01	00°12'08.89"	Left
Arc	PCC		417981.81	1650442.018				
	PT	60+35.02	410758.652	1679559.47				

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Tangent	PT	60+35.02	410758.652	1679559.47				
	PC	65+00.66	411210.594	1679671.583				
Arc	PC	65+00.66	411210.594	1679671.583				
	PI	66+51.61	411357.104	1679707.928	940	299.35	18°14'45.97"	Right
Arc	PCC		410984.268	1680583.93				
	PRC	68+00.01	411484.869	1679788.318				
Arc	PI	69+86.33	411642.574	1679887.546	2570	372	08°17'36.23"	Left
	PCC		412853.534	1677613.081				
Arc	PT	71+72.01	411812.943	1679962.989				
	PT	71+72.01	411812.943	1679962.989				
Tangent	PC	76+43.87	412244.398	1680154.047				
	PC	76+43.87	412244.398	1680154.047				
Arc	PI	77+38.09	412330.548	1680192.196	800	187.57	13°26'02.15"	Left
	PCC		412568.317	1679422.558				
Arc	PT	78+31.44	412423.203	1680209.287				
	PT	78+31.44	412423.203	1680209.287				
Tangent	PC	81+82.15	412768.09	1680272.902				
	PC	81+82.15	412768.09	1680272.902				
Arc	PI	82+78.64	412862.982	1680290.405	1500	192.72	07°21'40.82"	Left
	PCC		413040.179	1678797.786				
Arc	PT	83+74.87	412959.334	1680295.605				
	PT	83+74.87	412959.334	1680295.605				
Tangent	PC	93+66.32	413949.35	1680349.042				
	PC	93+66.32	413949.35	1680349.042				
Arc	PI	94+21.26	414004.201	1680352.009	2000	109.84	03°08'47.65"	Left
	PCC		414057.382	1678351.962				
Arc	PT	94+76.16	414059.133	1680351.961				
	PT	94+76.16	414059.133	1680351.961				
Tangent	PC	95+83.23	414166.203	1680351.867				
	PC	95+83.23	414166.203	1680351.867				
Arc	PI	97+86.86	414369.832	1680351.689	4000	406.91	05°49'42.67"	Right
	PCC		414169.704	1684351.865				
Arc	PT	99+90.14	414572.427	1680372.19				
	PT	99+90.14	414572.427	1680372.19				
Tangent	PC	101+67.48	414748.871	1680390.045				
	PC	101+67.48	414748.871	1680390.045				
Arc	PI	103+16.77	414897.401	1680405.076	2200	298.12	07°45'50.84"	Right
	PCC		414527.373	1682578.867				
Arc	PT	104+65.60	415042.539	1680440.034				
	PT	104+65.60	415042.539	1680440.034				
Tangent	PC	106+06.91	415179.913	1680473.123				
	PC	106+06.91	415179.913	1680473.123				
Arc	PI	108+54.87	415420.981	1680531.187	1950	493.28	14°29'37.23"	Right
	PCC		414723.289	1682368.906				
Arc	PT	111+00.18	415639.844	1680647.736				
	PT	111+00.18	415639.844	1680647.736				
Tangent	PC	111+84.88	415714.607	1680687.549				
	PC	111+84.88	415714.607	1680687.549				
Arc	PI	112+25.60	415750.542	1680706.685	25000	81.43	00°11'11.81"	Left
	PCC		427465.324	1658621.27				
Arc	PT	112+66.31	415786.54	1680725.704				
	PT	112+66.31	415786.54	1680725.704				
Tangent	PC	116+25.95	416104.521	1680893.708				
	PC	116+25.95	416104.521	1680893.708				
Arc	PI	117+60.79	416223.747	1680956.701	2730	269.47	05°39'19.62"	Left
	PCC		417379.845	1678479.904				
Arc	PT	118+95.41	416348.6	1681007.637				
	PT	118+95.41	416348.6	1681007.637				
Tangent	PC	119+41.37	416391.15	1681024.997				
	PC	119+41.37	416391.15	1681024.997				
Arc	PI	122+05.10	416635.346	1681124.622	3010	526.13	10°00'53.73"	Left
	PCC		417528.164	1678238.009				
Arc	PT	124+67.50	416893.146	1681180.262				
	PT	124+67.50	416893.146	1681180.262				
Tangent	PC	130+56.19	417468.593	1681304.459				

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Arc	PC	130+56.19	417468.593	1681304.459				
	PI	131+16.77	417527.806	1681317.239	360	120.03	19°06'11.11"	Right
Arc	PCC	131+76.22	417579.576	1681348.693				
	PI	134+32.57	417798.654	1681481.802	375	449.72	68°42'44.08"	Right
Arc	PCC	136+25.94	417754.164	1681734.258				
	PI	137+01.12	417741.116	1681808.299	1000	150.08	08°35'56.34"	Right
Arc	PCC		416769.34	1681560.705				
	PT	137+76.02	417717.145	1681879.556				
Tangent	PT	137+76.02	417717.145	1681879.556				
	PC	141+30.88	417603.998	1682215.89				
Arc	PC	141+30.88	417603.998	1682215.89				
	PI	143+71.99	417527.12	1682444.416	1500	478.13	18°15'47.99"	Left
Arc	PCC		419025.705	1682694.167				
	PT	146+09.01	417525.73	1682685.524				
Tangent	PT	146+09.01	417525.73	1682685.524				
		148+36.80	END STP PS24(2)/BEGIN NH PS24(3)					
Arc	PC	149+89.43	417523.538	1683065.931				
	PC	149+89.43	417523.538	1683065.931				
	POE	152+58.00	END OF FULL DEPTH CONCRETE REMOVAL					
	PI	153+86.41	417521.251	1683462.91	940	751.25	45°47'27.72"	Left

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE HORIZONTAL ALIGNMENT SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 17 OF 210

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
POB	0+00.00	589.913
VPC	0+23.50	590.943
Tangent Grade:	0.044	
Tangent Length:	23.5	
Element: Symmetrical Parabola		
VPC	0+23.50	590.943
VPI	1+30.00	595.611
VPT	2+36.50	595.963
Length:	213	
Entrance Grade:	0.044	
Exit Grade:	0.003	
r = 100 * (g2 - g1) / L:	-1.9	
K = l / (g2 - g1):	52.56	
Middle Ordinate:	-1.08	
Element: Linear		
VPT	2+36.50	595.963
VPC	2+40.00	595.975
Tangent Grade:	0.003	
Tangent Length:	3.5	
Element: Symmetrical Parabola		
VPC	2+40.00	595.975
VPI	3+00.00	596.173
VPT	3+60.00	596.069
VHP	3+18.79	596.105
Length:	120	
Entrance Grade:	0.003	
Exit Grade:	-0.002	
r = 100 * (g2 - g1) / L:	-0.42	
K = l / (g2 - g1):	238.29	
Middle Ordinate:	-0.08	
Element: Linear		
VPT	3+60.00	596.069
VPC	3+96.00	596.007
Tangent Grade:	-0.002	
Tangent Length:	36	
Element: Symmetrical Parabola		
VPC	3+96.00	596.007
VPI	4+35.00	595.94
VPT	4+74.00	596.172
VLP	4+13.58	595.992
Length:	78	
Entrance Grade:	-0.002	
Exit Grade:	0.006	
r = 100 * (g2 - g1) / L:	0.98	
K = l / (g2 - g1):	101.66	
Middle Ordinate:	0.07	
Element: Linear		
VPT	4+74.00	596.172
VPC	4+79.00	596.201
Tangent Grade:	0.006	
Tangent Length:	5	
Element: Symmetrical Parabola		
VPC	4+79.00	596.201
VPI	4+94.00	596.29
VPT	5+09.00	596.283
VHP	5+06.63	596.283
Length:	30	
Entrance Grade:	0.006	
Exit Grade:	-0.001	
r = 100 * (g2 - g1) / L:	-2.15	
K = l / (g2 - g1):	46.49	
Middle Ordinate:	-0.02	
Element: Linear		
VPT	5+09.00	596.283
VPC	6+87.00	596.192
Tangent Grade:	-0.001	
Tangent Length:	178	
Element: Symmetrical Parabola		
VPC	6+87.00	596.192
VPI	7+57.00	596.156
VPT	8+27.00	595.946
Length:	140	
Entrance Grade:	-0.001	
Exit Grade:	-0.003	
r = 100 * (g2 - g1) / L:	-0.18	
K = l / (g2 - g1):	562.13	
Middle Ordinate:	-0.04	

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
VPT	8+27.00	595.946
VPC	10+80.00	595.187
Tangent Grade:	-0.003	
Tangent Length:	253	
Element: Symmetrical Parabola		
VPC	10+80.00	595.187
VPI	11+90.00	594.857
VPT	13+00.00	597.378
VLP	11+05.47	595.149
Length:	220	
Entrance Grade:	-0.003	
Exit Grade:	0.023	
r = 100 * (g2 - g1) / L:	1.18	
K = l / (g2 - g1):	84.91	
Middle Ordinate:	0.71	
Element: Linear		
VPT	13+00.00	597.378
VPC	14+58.84	601.017
Tangent Grade:	0.023	
Tangent Length:	158.84	
Element: Symmetrical Parabola		
VPC	14+58.84	601.017
VPI	15+33.84	602.735
VPT	16+08.84	603.982
Length:	150	
Entrance Grade:	0.023	
Exit Grade:	0.017	
r = 100 * (g2 - g1) / L:	-0.42	
K = l / (g2 - g1):	238.67	
Middle Ordinate:	-0.12	
Element: Linear		
VPT	16+08.84	603.982
VPC	16+18.77	604.147
Tangent Grade:	0.017	
Tangent Length:	9.94	
Element: Symmetrical Parabola		
VPC	16+18.77	604.147
VPI	17+68.77	606.641
VPT	19+18.77	609.711
Length:	300	
Entrance Grade:	0.017	
Exit Grade:	0.02	
r = 100 * (g2 - g1) / L:	0.13	
K = l / (g2 - g1):	780.91	
Middle Ordinate:	0.14	
Element: Linear		
VPT	19+18.77	609.711
VPC	19+43.27	610.212
Tangent Grade:	0.02	
Tangent Length:	24.5	
Element: Symmetrical Parabola		
VPC	19+43.27	610.212
VPI	21+05.77	613.538
VPT	22+68.27	617.77
Length:	325	
Entrance Grade:	0.02	
Exit Grade:	0.026	
r = 100 * (g2 - g1) / L:	0.17	
K = l / (g2 - g1):	582.99	
Middle Ordinate:	0.23	
Element: Linear		
VPT	22+68.27	617.77
VPC	22+99.77	618.591
Tangent Grade:	0.026	
Tangent Length:	31.5	
Element: Symmetrical Parabola		
VPC	22+99.77	618.591
VPI	23+49.77	619.893
VPT	23+99.77	621.74
Length:	100	
Entrance Grade:	0.026	
Exit Grade:	0.037	
r = 100 * (g2 - g1) / L:	1.09	
K = l / (g2 - g1):	91.75	
Middle Ordinate:	0.14	

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
VPT	23+99.77	621.74
VPC	24+53.77	623.735
Tangent Grade:	0.037	
Tangent Length:	54	
Element: Symmetrical Parabola		
VPC	24+53.77	623.735
VPI	25+33.77	626.69
VPT	26+13.77	627.811
Length:	160	
Entrance Grade:	0.037	
Exit Grade:	0.014	
r = 100 * (g2 - g1) / L:	-1.43	
K = l / (g2 - g1):	69.77	
Middle Ordinate:	-0.46	
Element: Linear		
VPT	26+13.77	627.811
VPC	26+54.77	628.385
Tangent Grade:	0.014	
Tangent Length:	41	
Element: Symmetrical Parabola		
VPC	26+54.77	628.385
VPI	27+54.77	629.786
VPT	28+54.77	627.886
VHP	27+39.65	628.979
Length:	200	
Entrance Grade:	0.014	
Exit Grade:	-0.019	
r = 100 * (g2 - g1) / L:	-1.65	
K = l / (g2 - g1):	60.59	
Middle Ordinate:	-0.83	
Element: Linear		
VPT	28+54.77	627.886
VPC	33+40.77	618.652
Tangent Grade:	-0.019	
Tangent Length:	486	
Element: Symmetrical Parabola		
VPC	33+40.77	618.652
VPI	34+75.77	616.087
VPT	36+10.77	611.628
Length:	270	
Entrance Grade:	-0.019	
Exit Grade:	-0.033	
r = 100 * (g2 - g1) / L:	-0.52	
K = l / (g2 - g1):	192.44	
Middle Ordinate:	-0.47	
Element: Linear		
VPT	36+10.77	611.628
VPC	36+36.77	610.769
Tangent Grade:	-0.033	
Tangent Length:	26	
Element: Symmetrical Parabola		
VPC	36+36.77	610.769
VPI	38+36.77	604.163
VPT	40+36.77	599.963
Length:	400	
Entrance Grade:	-0.033	
Exit Grade:	-0.021	
r = 100 * (g2 - g1) / L:	0.3	
K = l / (g2 - g1):	332.52	
Middle Ordinate:	0.6	
Element: Linear		
VPT	40+36.77	599.963
VPC	42+74.77	594.964
Tangent Grade:	-0.021	
Tangent Length:	238	
Element: Symmetrical Parabola		
VPC	42+74.77	594.964
VPI	45+49.77	589.189
VPT	48+24.77	588.658
Length:	550	
Entrance Grade:	-0.021	
Exit Grade:	-0.002	
r = 100 * (g2 - g1) / L:	0.35	
K = l / (g2 - g1):	288.41	
Middle Ordinate:	1.31	

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
VPT	48+24.77	588.658
VPC	52+88.77	587.762
Tangent Grade:	-0.002	
Tangent Length:	464	
Element: Symmetrical Parabola		
VPC	52+88.77	587.762
VPI	53+83.77	587.579
VPT	54+78.77	588.908
VLP	53+11.81	587.74
Length:	190	
Entrance Grade:	-0.002	
Exit Grade:	0.014	
r = 100 * (g2 - g1) / L:	0.84	
K = l / (g2 - g1):	119.33	
Middle Ordinate:	0.38	
Element: Linear		
VPT	54+78.77	588.908
VPC	57+73.77	593.035
Tangent Grade:	0.014	
Tangent Length:	295	
Element: Symmetrical Parabola		
VPC	57+73.77	593.035
VPI	59+73.77	595.834
VPT	61+73.77	603.834
Length:	400	
Entrance Grade:	0.014	
Exit Grade:	0.04	
r = 100 * (g2 - g1) / L:	0.65	
K = l / (g2 - g1):	153.79	
Middle Ordinate:	1.3	
Element: Linear		
VPT	61+73.77	603.834
VPC	62+08.77	605.234
Tangent Grade:	0.04	
Tangent Length:	35	
Element: Symmetrical Parabola		
VPC	62+08.77	605.234
VPI	63+08.77	609.234
VPT	64+08.77	613.737
Length:	200	
Entrance Grade:	0.04	
Exit Grade:	0.045	
r = 100 * (g2 - g1) / L:	0.25	
K = l / (g2 - g1):	397.15	
Middle Ordinate:	0.13	
Element: Linear		
VPT	64+08.77	613.737
VPC	67+38.81	628.601
Tangent Grade:	0.045	
Tangent Length:	330.03	
Element: Symmetrical Parabola		
VPC	67+38.81	628.601
VPI	69+53.81	638.283
VPT	71+68.81	630.329
VHP	69+74.88	633.917
Length:	430	
Entrance Grade:	0.045	
Exit Grade:	-0.037	
r = 100 * (g2 - g1) / L:	-1.91	
K = l / (g2 - g1):	52.42	
Middle Ordinate:	-4.41	
Element: Linear		
VPT	71+68.81	630.329
VPC	71+97.85	629.255
Tangent Grade:	-0.037	
Tangent Length:	29.05	
Element: Symmetrical Parabola		
VPC	71+97.85	629.255
VPI	73+12.85	625
VPT	74+27.85	616.953
Length:	230	
Entrance Grade:	-0.037	
Exit Grade:	-0.07	
r = 100 * (g2 - g1) / L:	-1.43	
K = l / (g2 - g1):	69.74	
Middle Ordinate:	-0.95	

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
VPT	74+27.85	616.953
VPC	78+34.10	588.526
Tangent Grade:	-0.07	
Tangent Length:	406.24	
Element: Symmetrical Parabola		
VPC	78+34.10	588.526
VPI	80+34.10	574.53
VPT	82+34.10	577.132
VLP	81+71.40	576.724
Length:	400	
Entrance Grade:	-0.07	
Exit Grade:	0.013	
r = 100 * (g2 - g1) / L:	2.07	
K = l / (g2 - g1):	48.2	
Middle Ordinate:	4.15	
Element: Linear		
VPT	82+34.10	577.132
VPC	85+03.25	580.633
Tangent Grade:	0.013	
Tangent Length:	269.15	
Element: Symmetrical Parabola		
VPC	85+03.25	580.633
VPI	85+78.25	581.608
VPT	86+53.25	583.855
Length:	150	
Entrance Grade:	0.013	
Exit Grade:	0.03	
r = 100 * (g2 - g1) / L:	1.13	
K = l / (g2 - g1):	88.51	
Middle Ordinate:	0.32	
Element: Linear		
VPT	86+53.25	583.855
VPC	88+69.33	590.327
Tangent Grade:	0.03	
Tangent Length:	216.09	
Element: Symmetrical Parabola		
VPC	88+69.33	590.327
VPI	89+74.33	593.473
VPT	90+79.33	596.289
Length:	210	
Entrance Grade:	0.03	
Exit Grade:	0.027	
r = 100 * (g2 - g1) / L:	-0.15	
K = l / (g2 - g1):	670.23	
Middle Ordinate:	-0.08	
Element: Linear		
VPT	90+79.33	596.289
VPC	93+50.92	603.573
Tangent Grade:	0.027	
Tangent Length:	271.59	
Element: Symmetrical Parabola		
VPC	93+50.92	603.573
VPI	94+48.42	606.188
VPT	95+45.92	608.047
Length:	195	
Entrance Grade:	0.027	
Exit Grade:	0.019	
r = 100 * (g2 - g1) / L:	-0.4	
K = l / (g2 - g1):	251.43	
Middle Ordinate:	-0.19	
Element: Linear		
VPT	95+45.92	608.047
VPC	96+22.40	609.505
Tangent Grade:	0.019	
Tangent Length:	76.48	

ELEMENT / POINT TYPE	Station	Elevation
Element: Symmetrical Parabola		
VPC	96+22.40	609.505
VPI	96+82.40	610.649
VPT	97+42.40	610.948
Length:	120	
Entrance Grade:	0.019	
Exit Grade:	0.005	
r = 100 * (g2 - g1) / L:	-1.17	
K = l / (g2 - g1):	85.21	
Middle Ordinate:	-0.21	
Element: Linear		
VPT	97+42.40	610.948
VPC	97+50.36	610.988
Tangent Grade:	0.005	
Tangent Length:	7.96	
Element: Symmetrical Parabola		
VPC	97+50.36	610.988
VPI	97+85.36	611.162
VPT	98+20.36	611.547
Length:	70	
Entrance Grade:	0.005	
Exit Grade:	0.011	
r = 100 * (g2 - g1) / L:	0.86	
K = l / (g2 - g1):	116.24	
Middle Ordinate:	0.05	
Element: Linear		
VPT	98+20.36	611.547
VPC	98+35.32	611.712
Tangent Grade:	0.011	
Tangent Length:	14.96	
Element: Symmetrical Parabola		
VPC	98+35.32	611.712
VPI	98+75.32	612.152
VPT	99+15.32	612.352
Length:	80	
Entrance Grade:	0.011	
Exit Grade:	0.005	
r = 100 * (g2 - g1) / L:	-0.75	
K = l / (g2 - g1):	133.26	
Middle Ordinate:	-0.06	
Element: Linear		
VPT	99+15.32	612.352
VPC	99+94.27	612.747
Tangent Grade:	0.005	
Tangent Length:	78.95	
Element: Symmetrical Parabola		
VPC	99+94.27	612.747
VPI	100+69.27	613.122
VPT	101+44.27	613.947
Length:	150	
Entrance Grade:	0.005	
Exit Grade:	0.011	
r = 100 * (g2 - g1) / L:	0.4	
K = l / (g2 - g1):	250.06	
Middle Ordinate:	0.11	
Element: Linear		
VPT	101+44.27	613.947
VPC	101+50.27	614.013
Tangent Grade:	0.011	
Tangent Length:	6.01	

Stantec

PROJECT NAME: HARTFORD

PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE VERTICAL ALIGNMENT SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY

ELEMENT / POINT TYPE	Station	Elevation
Element: Symmetrical Parabola		
VPC	101+50.27	614.013
VPI	102+40.27	615.003
VPT	103+30.27	613.292
VHP	102+16.25	614.376
Length:	180	
Entrance Grade:	0.011	
Exit Grade:	-0.019	
r = 100 * (g2 - g1) / L:	-1.67	
K = l / (g2 - g1):	59.97	
Middle Ordinate:	-0.68	
Element: Linear		
VPT	103+30.27	613.292
VPC	103+78.29	612.379
Tangent Grade:	-0.019	
Tangent Length:	48.01	
Element: Symmetrical Parabola		
VPC	103+78.29	612.379
VPI	104+58.29	610.858
VPT	105+38.29	607.578
Length:	160	
Entrance Grade:	-0.019	
Exit Grade:	-0.041	
r = 100 * (g2 - g1) / L:	-1.37	
K = l / (g2 - g1):	72.78	
Middle Ordinate:	-0.44	
Element: Linear		
VPT	105+38.29	607.578
VPC	108+23.33	595.893
Tangent Grade:	-0.041	
Tangent Length:	285.04	
Element: Symmetrical Parabola		
VPC	108+23.33	595.893
VPI	108+88.33	593.228
VPT	109+53.33	591.733
Length:	130	
Entrance Grade:	-0.041	
Exit Grade:	-0.023	
r = 100 * (g2 - g1) / L:	1.38	
K = l / (g2 - g1):	72.23	
Middle Ordinate:	0.29	
Element: Linear		
VPT	109+53.33	591.733
VPC	109+60.34	591.572
Tangent Grade:	-0.023	
Tangent Length:	7.01	
Element: Symmetrical Parabola		
VPC	109+60.34	591.572
VPI	110+60.34	589.272
VPT	111+60.34	589.172
Length:	200	
Entrance Grade:	-0.023	
Exit Grade:	-0.001	
r = 100 * (g2 - g1) / L:	1.1	
K = l / (g2 - g1):	90.92	
Middle Ordinate:	0.55	
Element: Linear		
VPT	111+60.34	589.172
VPC	111+87.37	589.145
Tangent Grade:	-0.001	
Tangent Length:	27.03	
Element: Symmetrical Parabola		
VPC	111+87.37	589.145
VPI	112+62.37	589.07
VPT	113+37.37	589.145
VLP	112+62.37	589.107
Length:	150	
Entrance Grade:	-0.001	
Exit Grade:	0.001	
r = 100 * (g2 - g1) / L:	0.13	
K = l / (g2 - g1):	750.14	
Middle Ordinate:	0.04	
Element: Linear		
VPT	113+37.37	589.145
VPC	116+50.00	589.457
Tangent Grade:	0.001	
Tangent Length:	312.63	

ELEMENT / POINT TYPE	Station	Elevation
Element: Symmetrical Parabola		
VPC	116+50.00	589.457
VPI	117+25.00	589.532
VPT	118+00.00	587.929
VHP	116+56.70	589.461
Length:	150	
Entrance Grade:	0.001	
Exit Grade:	-0.021	
r = 100 * (g2 - g1) / L:	-1.49	
K = l / (g2 - g1):	67.01	
Middle Ordinate:	-0.42	
Element: Linear		
VPT	118+00.00	587.929
VPC	119+19.57	585.372
Tangent Grade:	-0.021	
Tangent Length:	119.57	
Element: Symmetrical Parabola		
VPC	119+19.57	585.372
VPI	120+24.57	583.126
VPT	121+29.57	582.421
Length:	210	
Entrance Grade:	-0.021	
Exit Grade:	-0.007	
r = 100 * (g2 - g1) / L:	0.7	
K = l / (g2 - g1):	143.18	
Middle Ordinate:	0.39	
Element: Linear		
VPT	121+29.57	582.421
VPC	125+04.93	579.899
Tangent Grade:	-0.007	
Tangent Length:	375.36	
Element: Symmetrical Parabola		
VPC	125+04.93	579.899
VPI	125+29.93	579.731
VPT	125+54.93	579.765
VLP	125+46.48	579.759
Length:	50	
Entrance Grade:	-0.007	
Exit Grade:	0.001	
r = 100 * (g2 - g1) / L:	1.62	
K = l / (g2 - g1):	61.85	
Middle Ordinate:	0.05	
Element: Linear		
VPT	125+54.93	579.765
VPC	126+59.78	579.908
Tangent Grade:	0.001	
Tangent Length:	104.85	
Element: Symmetrical Parabola		
VPC	126+59.78	579.908
VPI	127+09.78	579.977
VPT	127+59.78	580.47
Length:	100	
Entrance Grade:	0.001	
Exit Grade:	0.01	
r = 100 * (g2 - g1) / L:	0.85	
K = l / (g2 - g1):	117.65	
Middle Ordinate:	0.11	
Element: Linear		
VPT	127+59.78	580.47
VPC	127+85.49	580.724
Tangent Grade:	0.01	
Tangent Length:	25.71	
Element: Symmetrical Parabola		
VPC	127+85.49	580.724
VPI	128+00.49	580.871
VPT	128+15.49	580.965
Length:	30	
Entrance Grade:	0.01	
Exit Grade:	0.006	
r = 100 * (g2 - g1) / L:	-1.2	
K = l / (g2 - g1):	83.33	
Middle Ordinate:	-0.01	
Element: Linear		
VPT	128+15.49	580.965
VPC	129+55.29	581.841
Tangent Grade:	0.006	
Tangent Length:	139.8	

ELEMENT / POINT TYPE	Station	Elevation
Element: Symmetrical Parabola		
VPC	129+55.29	581.841
VPI	129+95.29	582.092
VPT	130+35.29	582.724
Length:	80	
Entrance Grade:	0.006	
Exit Grade:	0.016	
r = 100 * (g2 - g1) / L:	1.19	
K = l / (g2 - g1):	83.88	
Middle Ordinate:	0.1	
Element: Linear		
VPT	130+35.29	582.724
VPC	130+82.37	583.468
Tangent Grade:	0.016	
Tangent Length:	47.08	
Element: Symmetrical Parabola		
VPC	130+82.37	583.468
VPI	131+16.37	584.005
VPT	131+50.37	583.797
VHP	131+31.35	583.855
Length:	68	
Entrance Grade:	0.016	
Exit Grade:	-0.006	
r = 100 * (g2 - g1) / L:	-3.23	
K = l / (g2 - g1):	31	
Middle Ordinate:	-0.19	
Element: Linear		
VPT	131+50.37	583.797
VPC	132+41.91	583.235
Tangent Grade:	-0.006	
Tangent Length:	91.54	
Element: Symmetrical Parabola		
VPC	132+41.91	583.235
VPI	132+61.91	583.112
VPT	132+81.91	582.921
Length:	40	
Entrance Grade:	-0.006	
Exit Grade:	-0.01	
r = 100 * (g2 - g1) / L:	-0.85	
K = l / (g2 - g1):	117.33	
Middle Ordinate:	-0.02	
Element: Linear		
VPT	132+81.91	582.921
VPC	133+46.21	582.308
Tangent Grade:	-0.01	
Tangent Length:	64.29	
Element: Symmetrical Parabola		
VPC	133+46.21	582.308
VPI	133+51.21	582.26
VPT	133+56.21	582.266
VLP	133+55.05	582.265
Length:	10	
Entrance Grade:	-0.01	
Exit Grade:	0.001	
r = 100 * (g2 - g1) / L:	10.79	
K = l / (g2 - g1):	9.26	
Middle Ordinate:	0.01	
Element: Linear		
VPT	133+56.21	582.266
VPC	134+36.37	582.366
Tangent Grade:	0.001	
Tangent Length:	80.16	
Element: Symmetrical Parabola		
VPC	134+36.37	582.366
VPI	134+61.37	582.397
VPT	134+86.37	582.629
Length:	50	
Entrance Grade:	0.001	
Exit Grade:	0.009	
r = 100 * (g2 - g1) / L:	1.6	
K = l / (g2 - g1):	62.55	
Middle Ordinate:	0.05	
Element: Linear		
VPT	134+86.37	582.629
VPC	135+39.37	583.118
Tangent Grade:	0.009	
Tangent Length:	53	

ELEMENT / POINT TYPE	Station	Elevation
Element: Symmetrical Parabola		
VPC	135+39.37	583.118
VPI	135+51.87	583.234
VPT	135+64.37	583.172
VHP	135+55.62	583.193
Length:	25	
Entrance Grade:	0.009	
Exit Grade:	-0.005	
r = 100 * (g2 - g1) / L:	-5.69	
K = l / (g2 - g1):	17.58	
Middle Ordinate:	-0.04	
Element: Linear		
VPT	135+64.37	583.172
VPC	135+91.89	583.035
Tangent Grade:	-0.005	
Tangent Length:	27.52	
Element: Symmetrical Parabola		
VPC	135+91.89	583.035
VPI	136+21.89	582.885
VPT	136+51.89	583.086
VLP	136+17.51	582.971
Length:	60	
Entrance Grade:	-0.005	
Exit Grade:	0.007	
r = 100 * (g2 - g1) / L:	1.94	
K = l / (g2 - g1):	51.5	
Middle Ordinate:	0.09	
Element: Linear		
VPT	136+51.89	583.086
VPC	136+95.10	583.374
Tangent Grade:	0.007	
Tangent Length:	43.21	
Element: Symmetrical Parabola		
VPC	136+95.10	583.374
VPI	137+75.10	583.908
VPT	138+55.10	582.068
VHP	137+31.09	583.494
Length:	160	
Entrance Grade:	0.007	
Exit Grade:	-0.023	
r = 100 * (g2 - g1) / L:	-1.86	
K = l / (g2 - g1):	53.91	
Middle Ordinate:	-0.59	
Element: Linear		
VPT	138+55.10	582.068
VPC	139+18.83	580.602
Tangent Grade:	-0.023	
Tangent Length:	63.74	
Element: Symmetrical Parabola		
VPC	139+18.83	580.602
VPI	139+48.83	579.912
VPT	139+78.83	578.777
Length:	60	
Entrance Grade:	-0.023	
Exit Grade:	-0.038	
r = 100 * (g2 - g1) / L:	-2.47	
K = l / (g2 - g1):	40.53	
Middle Ordinate:	-0.11	
Element: Linear		
VPT	139+78.83	578.777
VPC	140+52.05	576.009
Tangent Grade:	-0.038	
Tangent Length:	73.22	
Element: Symmetrical Parabola		
VPC	140+52.05	576.009
VPI	140+72.05	575.253
VPT	140+92.05	574.704
Length:	40	
Entrance Grade:	-0.038	
Exit Grade:	-0.027	
r = 100 * (g2 - g1) / L:	2.59	
K = l / (g2 - g1):	38.58	
Middle Ordinate:	0.05	

ELEMENT / POINT TYPE	Station	Elevation
Element: Linear		
VPT	140+92.05	574.704
VPC	141+88.68	572.053
Tangent Grade:	-0.027	
Tangent Length:	96.63	
Element: Symmetrical Parabola		
VPC	141+88.68	572.053
VPI	142+28.68	570.955
VPT	142+68.68	570.362
Length:	80	
Entrance Grade:	-0.027	
Exit Grade:	-0.015	
r = 100 * (g2 - g1) / L:	1.58	
K = l / (g2 - g1):	63.44	
Middle Ordinate:	0.13	
Element: Linear		
VPT	142+68.68	570.362
VPC	144+18.21	568.144
Tangent Grade:	-0.015	
Tangent Length:	149.53	
Element: Symmetrical Parabola		
VPC	144+18.21	568.144
VPI	144+38.21	567.848
VPT	144+58.21	566.851
Length:	40	
Entrance Grade:	-0.015	
Exit Grade:	-0.05	
r = 100 * (g2 - g1) / L:	-8.75	
K = l / (g2 - g1):	11.43	
Middle Ordinate:	-0.18	
Element: Linear		
VPT	144+58.21	566.851
VPC	144+63.54	566.585
Tangent Grade:	-0.05	
Tangent Length:	5.34	
Element: Symmetrical Parabola		
VPC	144+63.54	566.585
VPI	145+01.04	564.716
VPT	145+38.54	563.793
Length:	75	
Entrance Grade:	-0.05	
Exit Grade:	-0.025	
r = 100 * (g2 - g1) / L:	3.36	
K = l / (g2 - g1):	29.74	
Middle Ordinate:	0.24	
Element: Linear		
VPT	145+38.54	563.793
VPC	148+55.06	556.001
Tangent Grade:	-0.025	
Tangent Length:	316.52	
Element: Symmetrical Parabola		
VPC	148+55.06	556.001
VPI	150+17.06	552.013
VPT	151+79.06	550.412
Length:	324	
Entrance Grade:	-0.025	
Exit Grade:	-0.01	
r = 100 * (g2 - g1) / L:	0.45	
K = l / (g2 - g1):	219.81	
Middle Ordinate:	0.6	
Element: Linear		
VPT	151+79.06	550.412
POE	152+59.34	549.619
Tangent Grade:	-0.01	
Tangent Length:	80.28	

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE VERTICAL ALIGNMENT SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 19 OF 210

Superelevation Table				
Station	Left Lanes		Right Lanes	
	Slope	Point Type	Slope	Point Type
0+00.00	-0.70%	Normal Crown	-4.20%	Normal Crown
0+50.00	-2.00%	Normal Crown In	-2.00%	Normal Crown In
0+71.00	-2.00%	Normal Crown	-2.00%	Normal Crown
1+12.50	0.00%	Super runoff in	-2.00%	Normal Crown
1+54.00	2.00%	Full Super	-2.00%	Normal Crown
1+60.00	2.00%	Full Super	-2.00%	Full Super
1+73.00	2.00%	Full Super	-2.00%	Full Super
1+79.00	2.00%	Full Super	-2.00%	Full Super
2+20.50	0.00%	Super runoff out	-2.00%	Normal Crown
2+62.00	-2.00%	Normal Crown	-2.00%	Normal Crown
5+65.00	-2.00%	Normal Crown	-2.00%	Normal Crown
6+07.00	-2.00%	Normal Crown	0.00%	Super runoff in
6+49.00	-2.00%	Normal Crown	2.00%	Reverse Crown
6+70.00	-3.00%	Full Super	3.00%	Full Super
9+75.00	-3.00%	Full Super	3.00%	Full Super
10+87.00	2.40%	Full Super	-2.40%	Full Super
12+25.00	2.40%	Full Super	-2.40%	Full Super
13+41.00	-3.10%	Full Super	3.10%	Full Super
16+24.00	-3.10%	Full Super	3.10%	Full Super
16+47.10	-2.00%	Normal Crown	2.00%	Reverse Crown
16+89.00	-2.00%	Normal Crown	0.00%	Super runoff out
17+31.00	-2.00%	Normal Crown	-2.00%	Normal Crown
19+39.00	-2.00%	Normal Crown	-2.00%	Normal Crown
19+80.30	0.00%	Super runoff in	-2.00%	Normal Crown
20+21.50	2.00%	Reverse Crown	-2.00%	Normal Crown
21+04.00	6.00%	Full Super	-6.00%	Full Super
21+72.00	6.00%	Full Super	-6.00%	Full Super
22+46.00	4.70%	Full Super	-4.70%	Full Super
23+27.00	4.70%	Full Super	-4.70%	Full Super
23+83.40	2.00%	Reverse Crown	-2.00%	Normal Crown
24+25.20	0.00%	Super runoff out	-2.00%	Normal Crown
24+67.00	-2.00%	Normal Crown	-2.00%	Normal Crown
27+10.00	-2.00%	Normal Crown	-2.00%	Normal Crown
27+51.60	0.00%	Super runoff in	-2.00%	Normal Crown
27+93.20	2.00%	Reverse Crown	-2.00%	Normal Crown
29+18.00	8.00%	Full Super	-8.00%	Full Super
30+60.00	8.00%	Full Super	-8.00%	Full Super
33+38.00	-5.40%	Full Super	5.40%	Full Super
33+80.00	-5.40%	Full Super	5.40%	Full Super
34+48.00	-4.40%	Full Super	4.40%	Full Super
37+69.00	-4.40%	Full Super	4.40%	Full Super
38+19.20	-2.00%	Normal Crown	2.00%	Reverse Crown
38+61.10	-2.00%	Normal Crown	0.00%	Super runoff out
39+03.00	-2.00%	Normal Crown	-2.00%	Normal Crown
41+38.00	-2.00%	Full Super	-2.00%	Full Super
45+91.00	-2.00%	Full Super	-2.00%	Full Super
48+54.00	-2.00%	Full Super	-2.00%	Full Super
52+14.00	-2.00%	Full Super	-2.00%	Full Super
54+09.00	-2.00%	Full Super	-2.00%	Full Super
58+11.00	-2.00%	Full Super	-2.00%	Full Super
59+29.00	-2.00%	Full Super	-2.00%	Full Super
60+35.00	-2.00%	Full Super	-2.00%	Full Super
63+61.00	-2.00%	Normal Crown	-2.00%	Normal Crown
64+02.60	0.00%	Super runoff in	-2.00%	Normal Crown
64+44.10	2.00%	Reverse Crown	-2.00%	Normal Crown
65+48.00	7.00%	Full Super	-7.00%	Full Super
66+78.00	7.00%	Full Super	-7.00%	Full Super
68+98.00	-3.60%	Full Super	3.60%	Full Super
71+46.00	-3.60%	Full Super	3.60%	Full Super
71+79.40	-2.00%	Normal Crown	2.00%	Reverse Crown
72+21.20	-2.00%	Normal Crown	0.00%	Super runoff out
72+63.00	-2.00%	Normal Crown	-2.00%	Normal Crown
74+94.00	-2.00%	Normal Crown	-2.00%	Normal Crown

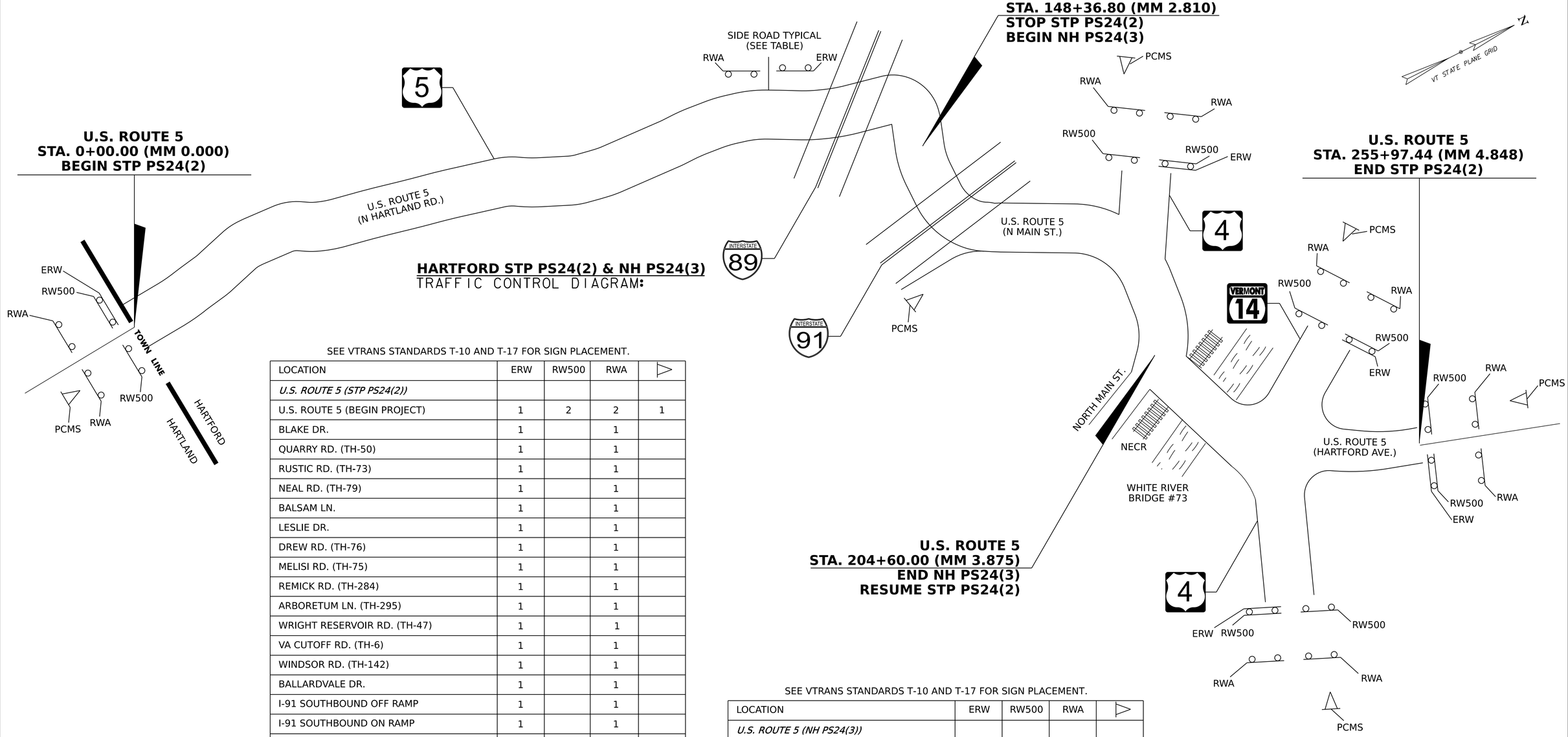
Superelevation Table				
Station	Left Lanes		Right Lanes	
	Slope	Point Type	Slope	Point Type
75+35.60	-2.00%	Normal Crown	0.00%	Super runoff in
75+77.20	-2.00%	Normal Crown	2.00%	Reverse Crown
76+77.00	-6.80%	Full Super	6.80%	Full Super
78+00.00	-6.80%	Full Super	6.80%	Full Super
80+34.00	-2.10%	Full Super	2.10%	Full Super
82+01.00	-2.10%	Full Super	2.10%	Full Super
82+72.00	-5.50%	Full Super	5.50%	Full Super
83+36.00	-5.50%	Full Super	5.50%	Full Super
84+08.80	-2.00%	Normal Crown	2.00%	Reverse Crown
84+50.40	-2.00%	Normal Crown	0.00%	Undefined
84+92.00	-2.00%	Normal Crown	-2.00%	Normal Crown
92+63.00	-2.00%	Normal Crown	-2.00%	Normal Crown
93+04.90	-2.00%	Normal Crown	0.00%	Super runoff in
93+46.80	-2.00%	Normal Crown	2.00%	Reverse Crown
93+95.00	-4.30%	Full Super	4.30%	Full Super
94+45.00	-4.30%	Full Super	4.30%	Full Super
96+68.00	3.40%	Full Super	-3.40%	Full Super
98+85.00	3.40%	Full Super	-3.40%	Full Super
101+82.00	3.60%	Full Super	-3.60%	Full Super
104+55.00	3.60%	Full Super	-3.60%	Full Super
106+50.00	4.40%	Full Super	-4.40%	Full Super
110+54.00	4.40%	Full Super	-4.40%	Full Super
111+04.20	2.00%	Reverse Crown	-2.00%	Normal Crown
111+46.10	0.00%	Super runoff out	-2.00%	Normal Crown
111+88.00	-2.00%	Normal Crown	-2.00%	Normal Crown
112+56.00	-2.00%	Full Super	-2.00%	Full Super
114+01.00	-2.00%	Full Super	-2.00%	Full Super
115+00.00	-2.00%	Normal Crown	-2.00%	Normal Crown
115+41.10	-2.00%	Normal Crown	0.00%	Super runoff in
115+82.20	-2.00%	Normal Crown	2.00%	Reverse Crown
116+11.00	-3.40%	Full Super	3.40%	Full Super
118+49.00	-3.40%	Full Super	3.40%	Full Super
119+52.00	-2.00%	Full Super	2.00%	Full Super
124+00.00	-2.00%	Full Super	2.00%	Full Super
124+56.00	-2.00%	Full Super	2.00%	Full Super
124+91.50	-2.00%	Normal Crown	0.00%	Level Crown
125+27.00	-2.00%	Normal Crown	-2.00%	Normal Crown
129+49.00	-2.00%	Normal Crown	-2.00%	Normal Crown
129+84.50	0.00%	Level Crown	-2.00%	Normal Crown
130+20.00	2.00%	Reverse Crown	-2.00%	Normal Crown
130+91.00	6.00%	Full Super	-6.00%	Full Super
131+41.00	6.00%	Full Super	-6.00%	Full Super
135+91.00	6.00%	Full Super	-6.00%	Full Super
136+56.00	5.00%	Full Super	-5.00%	Full Super
137+46.00	5.00%	Full Super	-5.00%	Full Super
137+99.57	2.00%	Reverse Crown	-2.00%	Normal Crown
138+35.29	0.00%	Level Crown	-2.00%	Normal Crown
138+71.00	-2.00%	Normal Crown	-2.00%	Normal Crown
141+56.00	-2.00%	Normal Crown	-2.00%	Normal Crown
141+91.56	-2.00%	Normal Crown	0.00%	Level Crown
142+27.11	-2.00%	Normal Crown	2.00%	Reverse Crown
142+52.00	-3.40%	Full Super	3.40%	Full Super
145+89.00	-3.40%	Full Super	3.40%	Full Super
146+13.89	-2.00%	Normal Crown	2.00%	Reverse Crown
146+49.44	-2.00%	Normal Crown	0.00%	Level Crown
146+85.00	-2.00%	Normal Crown	-2.00%	Normal Crown
148+92.00	-2.00%	Normal Crown	-2.00%	Normal Crown
149+27.56	-2.00%	Normal Crown	0.00%	Level Crown
149+63.11	-2.00%	Normal Crown	2.00%	Reverse Crown
150+20.00	-5.20%	Full Super	5.20%	Full Super
152+03.00	-5.20%	Full Super	5.20%	Full Super
152+58.00	-8.30%	End Point	7.90%	End Point

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: z19v443_comp_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
COMPOSITE SUPERELEVATION TABLE SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 20 OF 210



HARTFORD STP PS24(2) & NH PS24(3)
TRAFFIC CONTROL DIAGRAM:

SEE VTRANS STANDARDS T-10 AND T-17 FOR SIGN PLACEMENT.

LOCATION	ERW	RW500	RWA	▷
U.S. ROUTE 5 (STP PS24(2))				
U.S. ROUTE 5 (BEGIN PROJECT)	1	2	2	1
BLAKE DR.	1		1	
QUARRY RD. (TH-50)	1		1	
RUSTIC RD. (TH-73)	1		1	
NEAL RD. (TH-79)	1		1	
BALSAM LN.	1		1	
LESLIE DR.	1		1	
DREW RD. (TH-76)	1		1	
MELISI RD. (TH-75)	1		1	
REMICK RD. (TH-284)	1		1	
ARBORETUM LN. (TH-295)	1		1	
WRIGHT RESERVOIR RD. (TH-47)	1		1	
VA CUTOFF RD. (TH-6)	1		1	
WINDSOR RD. (TH-142)	1		1	
BALLARDVALE DR.	1		1	
I-91 SOUTHBOUND OFF RAMP	1		1	
I-91 SOUTHBOUND ON RAMP	1		1	
VT ROUTE 14 (MAPLE ST)	1	2	2	1
U.S. ROUTE 4 (MAPLE ST)	1	2	2	1
WORCESTER AVE. (TH-152)	1		1	
HIGHLAND AVE. (TH-153)	1		1	
HEBARD AVE. (TH-112)	1		1	
SAUNDERS AVE. (TH-149)	1		1	
PIERCE ST. (TH-148)	1		1	
GOUDREAU ST. (TH-150)	1		1	
DEVIN ST. (TH-151)	1		1	
ADVENT LN. (TH-185)	1		1	
HEWITT ST. (TH-174)	1		1	
U.S. ROUTE 5 (END PROJECT)	1	2	2	1
TOTALS	29	8	33	4

SEE VTRANS STANDARDS T-10 AND T-17 FOR SIGN PLACEMENT.

LOCATION	ERW	RW500	RWA	▷
U.S. ROUTE 5 (NH PS24(3))				
I-91 NORTHBOUND OFF RAMP	1		1	1
I-91 NORTHBOUND ON RAMP	1		1	
SYKES MTN AVE. (TH-10)	1		1	
AIRPORT RD. (TH-101)	1		1	
U.S. ROUTE 4 (WOODSTOCK RD.)	1	2	2	1
LANTERN LN. (TH-102)	1		1	
NORTH MAIN ST. (TH-2)	1		1	
NH TOTALS	7	2	8	2
STP TOTALS	29	8	33	4
TOTALS	36	10	41	6

LEGEND

RWA	=	ROAD WORK AHEAD
RW100	=	ROAD WORK 100 FT
ERW	=	END ROAD WORK
▷	=	PORTABLE CHANGEABLE MESSAGE SIGN

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME: z19v443_comp_tc.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
COMPOSITE TRAFFIC CONTROL SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 21 OF 210

TRAFFIC CONTROL NOTES:

1. THE OBJECTIVE OF THIS PLAN IS TO MINIMIZE IMPACT ON THE TRAFFIC FLOW WHILE PROVIDING A SAFE PASSAGE FOR VEHICLES, BICYCLIST AND PEDESTRIANS DURING AND AFTER CONSTRUCTION WORK HOURS.

2. THE FOLLOWING TRAFFIC CONTROL INFORMATION IS INTENDED TO BE A GENERAL OUTLINE FOR HOW THE WORK COULD PROCEED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SITE SPECIFIC DETAILS TO THE PAVEMENT DESIGN UNIT VIA THE ENGINEER TO ADDRESS SPECIFIC SITUATIONS. THIS RESPONSIBILITY INCLUDES PROVIDING A PLAN DETAILING THE USE AND PLACEMENT OF SIGNS, CHANNELING DEVICES, ARROW PANELS, FLAGGERS, AND UNIFORMED TRAFFIC OFFICERS (UTO'S) DURING LANE CLOSURES. THE CONTRACTOR SHALL SUBMIT A PLAN TO THE PAVEMENT DESIGN UNIT VIA THE ENGINEER. THE CONTRACTOR MUST ALLOW AT LEAST FOUR WEEKS FOR REVIEW AND APPROVAL OF THE COMPREHENSIVE PLAN AND TWO WEEKS FOR REVIEW AND APPROVAL OF MINOR CHANGES/DETAILS. ALL TRAFFIC CONTROL DETAILS MUST BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE MUTCD AND VTRANS STANDARDS T-1, T-10, T-17, T-24, T-28, T-29, T-30, T-31, T-35 AND T-36. WHERE CONFLICTS EXIST, THE MUTCD SHALL GOVERN.

3. THE 2009 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LATEST REVISIONS SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC DEVICES ARE ERECTED OR PLACED, OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED, THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.

4. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH SECTION 6 OF THE 2009 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ITS LATEST REVISIONS AND CURRENT STATE STANDARDS.

5. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR APPROVAL BY THE PROJECT MANAGER PER SECTION 105.03 OF THE VTRANS SPECIFICATIONS. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.11 TRAFFIC CONTROL, ALL-INCLUSIVE (STP PS24(2)), (NH PS24(3)) & (NHG SGNL(60)). THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VTRANS STANDARDS AND THE 2009 EDITION OF THE MUTCD. WHERE CONFLICTS EXIST, THE MUTCD SHALL GOVERN.

6. THE BID PRICE FOR ITEM 641.11 TRAFFIC CONTROL, ALL-INCLUSIVE (STP PS24(2)) & (NH PS24(3)) SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH, ON AND OFF PROJECT CONSTRUCTION SIGNING, PORTABLE FLASHING ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED.

7. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WILL BE PROVIDED FOR USE ALONG THIS PROJECT AND ARE TO BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL POSITION PORTABLE CHANGEABLE MESSAGE SIGNS WARNING MOTORISTS OF THE EXPECTED ROADWAY CONDITIONS AHEAD. THE MESSAGE TO BE DISPLAYED SHALL BE SUBMITTED TO THE ENGINEER IN ADVANCE FOR APPROVAL. MESSAGES SHOULD AVOID REPEATING THOSE COVERED BY STATIC SIGNS AND SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS. THE COST OF PROVIDING THESE MESSAGE SIGNS SHALL BE PAID UNDER ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.

8. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VTRANS STANDARDS.

9. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS. ALL VEGETATION THAT INTERFERES WITH THE VISIBILITY OF THE SIGNS SHALL BE REMOVED.

10. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED, THE PAYMENT FOR WHICH WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.11 TRAFFIC CONTROL, ALL-INCLUSIVE. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE AND THE SIGN COVER SHALL NOT BE ALLOWED TO DETERIORATE FOR THE DURATION THAT THE SIGN NEEDS COVERING.

11. DIAMOND SHAPED SIGNS SHALL BE 48" X 48" WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.

12. SEE VTRANS STANDARDS T-1, T-10, AND T-17 FOR ADDITIONAL SIGN PLACEMENT DETAILS.

13. AS THE PAVING OPERATION MOVES, FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THAN 500 FEET FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY FROM TRAFFIC WHEN FLAGGING OPERATIONS CEASE FOR LONGER THAN 15 MINUTES.

14. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES OR COORDINATE EMERGENCY ROUTES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES DURING BUSINESS HOURS AND COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL COMMERCIAL AND MUNICIPAL ACCESSES SHALL BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UNIFORMED TRAFFIC OFFICERS OR FLAGGERS AS REQUIRED BY THE ENGINEER. ACCESS TO ALL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK WILL BE COORDINATED WITH THE OWNER.

15. ACCOMMODATIONS FOR POSTAL DELIVERY, NEWSPAPER ROUTES, TRASH SERVICES, AND/OR OTHER DELIVERY SERVICES INTERRUPTED BY THE PROJECT OR DETOUR SHOULD BE COMMUNICATED WITH THE PROPER CONTACTS.

TRAFFIC CONTROL NOTES (CONT.):

16. CONES SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORKSPACE ALONG ITS ENTIRE LENGTH.

17. WHEN LANE WIDTHS ARE REDUCED TO 10 FEET DMV SHALL BE NOTIFIED TO REROUTE SUPER LOADS PERMITS. IT SHOULD BE NOTED THAT ONCE A PERMIT IS ISSUED, THE APPLICANT/HAULER HAS 10 DAYS TO MOVE THEIR LOAD. THIS REQUIRES ADDITIONAL NOTICE TIME TO CAPTURE THAT 10-DAY WINDOW. WITH THE NARROWING OF LANES TO 10 FEET IT IS RECOMMENDED THAT FLAGGER PERSONNEL HOLD RIDERS TO THE END OF THE QUEUE, SO THEY ARE NOT COMPETING FOR LANE SPACE TO ENSURE THEIR SAFETY.

18. IF LONGITUDINAL DROP-OFFS ARE TO BE LEFT DURING THE OVERNIGHT HOURS, THEY SHALL BE CONSTRUCTED USING THE HSD-400.01 SAFETY EDGE DETAIL AND CONFORM TO VTRANS STANDARD T-36.

19. WHEN MILLED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VTRANS STANDARD T-17, SHALL BE PROVIDED.

20. THIS PROJECT TAKES PLACE WHEN SCHOOL IS IN SESSION; SCHOOL BUS STOP AND PEDESTRIAN ACCOMMODATIONS ARE REQUIRED. BUS STOP AND PEDESTRIAN LOCATIONS SHALL BE COORDINATED WITH THE LOCAL SCHOOL TRANSPORTATION COORDINATOR. ADDITIONAL FLAGGERS WILL BE STATIONED AT THESE LOCATIONS DURING TYPICAL MORNING PICK-UP AND AFTERNOON DROP-OFF TIME PERIODS WHILE WORK IS BEING PERFORMED IN THESE AREAS.

21. SIGNS SHALL ONLY BE VISIBLE TO MOTORISTS AT THE TIMES WHEN THE MESSAGE IS PERTINENT, I.E. A "FLAGGER AHEAD" SIGN SHALL ONLY BE VISIBLE TO MOTORISTS WHEN THE FLAGGER IS ACTUALLY PRESENT AND PERFORMING THEIR DUTIES.

22. RETROREFLECTIVE SHEETING SHALL BE AS NOTED ON VTRANS STANDARD T-1 AND IN SUBSECTION 750.08.

23. WHERE TEMPORARY SIGNS ARE PLACED BEHIND GUARDRAIL, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOMS OF THE SIGNS ARE ABOVE THE TOP OF GUARDRAIL.

24. TRAFFIC SHALL NOT BE CHANGED FROM ONE TRAFFIC PATTERN TO THE NEXT TRAFFIC PATTERN UNTIL ALL TEMPORARY MARKINGS, SIGNING AND SIGNAL WORK ARE COMPLETED. ANY CONFLICTING MARKINGS SHALL BE REMOVED.

25. ALL NON-OPERATING SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS SHALL BE REMOVED OR COMPLETELY COVERED AS DIRECTED BY THE ENGINEER.

26. CONSTRUCTION OPERATIONS SHALL BE ADJUSTED OR SUSPENDED DURING PEAK HOUR TRAFFIC AND SPECIAL EVENTS AS OUTLINED IN THE SPECIAL PROVISIONS.

27. PLEASE NOTE THAT THE UNIFORMED TRAFFIC OFFICER (UTO'S), UNDER AUTHORITY GRANTED BY LAW (TITLE 23 VSA) MAY DIRECT AND CONTROL TRAFFIC. SUITABLE EXAMPLES IN WORK MIGHT INCLUDE THE DIRECTION AND CONTROLS OF TRAFFIC AT INTERSECTIONS WHERE SIGNALS ARE NOT FUNCTIONING OR ARE MALFUNCTIONING. IN THESE CASES, THE PRESENCE OF A VEHICLE WITH A BLUE LIGHT MAY NOT BE SUITABLE OR NECESSARY. THE WEARING OF DEPARTMENTALLY REQUIRED AND APPROVED REFLECTIVE GARMENTS IS REQUIRED. UTO VEHICLE TO BE PARKED WHERE IT DOES NOT PROMOTE BACK LIGHTING OF THE FLAGGER/UTO STATION BLINDING APPROACHING TRAFFIC AND WASHING OUT THE VISIBILITY OF THE UTO/FLAGGER STANDING THERE. FOR LANE CLOSURE WITH WORK ACTIVITY AREA LESS THAN 1 MILE FROM THE MERGING TAPER THE POLICE VEHICLE SHOULD BE POSITIONED UPSTREAM OF THE LAST ADVANCE WARNING SIGN. VEHICLE SHOULD FACE IN THE DIRECTION MUTUALLY AGREED UPON BY THE HIGHWAY AND ENFORCEMENT AGENCY.

28. SIGNALIZED INTERSECTIONS SHALL EITHER BE TURNED OFF OR PROGRAMMED TO BE IN RED FLASH MODE AND MUST BE CONTROLLED BY UNIFORMED TRAFFIC OFFICERS WHEN LANES ARE NOT IN NORMAL OPERATION.

29. WHEN NIGHT WORK OCCURS, A LIGHTING PLAN THAT MEETS THE REQUIREMENTS OF NCHRP REPORT 476 IS REQUIRED AND SHALL INCLUDE THE FOLLOWING:

    - LAYOUT SHOWING LOCATION OF LIGHT TOWERS, INCLUDING SPACING, LATERAL PLACEMENT AND MOUNTING HEIGHT, AND CLEARLY SHOW THE LOCATION OF ALL LIGHTS NECESSARY FOR ALL WORK TO BE DONE AT NIGHT.
    - DESCRIPTION OF LIGHT TOWERS TO BE USED AND ELECTRICAL POWER SOURCE.
    - SPECIFIC TECHNICAL DATA ON ALL LIGHTING EQUIPMENT, INCLUDING BRAND NAMES, MODEL NUMBERS, POWER RATING, AND PHOTOMETRIC DATA.
    - DETAILS OF ANY HOODS, LOUVERS, SHIELDS, OR OTHER MEANS TO BE USED TO CONTROL GLARE.
    - ATTACHMENT AND MOUNTING DETAILS FOR LIGHTING TO BE ATTACHED TO EQUIPMENT.
    - LIGHTING CALCULATIONS CONFIRMING THAT THE ILLUMINATION REQUIREMENTS WILL BE MET BY THE LAYOUT.

    - THE PLAN SHOULD CONSIDER HOW THOSE LIGHT SOURCES ARE GOING TO BE POWERED (SITE POWER FROM THE GRID OR FROM GENERATORS). IF THEY ARE LIGHT TOWERS, IS THERE A CLEAR PATH TO REACH THEM FOR REFUELING? CONSIDERATIONS SHOULD ALSO BE FACTORED IN FOR OVERLAPPING THE BEAMS FROM DIFFERENT LIGHT SOURCES TO ELIMINATE SHADOWING FROM THE WORKERS THEMSELVES.

30. PER THE VTRANS BICYCLE CORRIDOR PRIORITY MAP, U.S. ROUTE 5 IN (HARTFORD) IS CONSIDERED A HIGH USE/PRIORITY ROUTE. BICYCLE ACCOMMODATIONS SHOULD BE TAKEN TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH INTO THE BICYCLE PATH OF TRAVEL. IT IS IMPORTANT THAT CYCLIST'S ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLIST CRASHES.

31. FARMLAND BORDERS SEGMENTS OF THIS ROUTE; COORDINATION WITH HARVEST TIME WITH LOCAL FARMERS SHOULD BE CONSIDERED.

PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) FOR REVIEW AND WRITTEN APPROVAL BY THE AGENCY A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC.

2. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART 6.

3. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES, COMMERCIAL PROPERTIES AND TRANSIT STOPS. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.

4. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE MUST BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE FIRM, STABLE AND SLIP-RESISTANT AND CONTINUOUS WITH A MINIMUM 80 INCHES OVERHEAD CLEARANCE FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.

5. WHEN TEMPORARY CROSSWALKS ARE UTILIZED FOR THE TPAR, TEMPORARY DETECTABLE WARNINGS SHALL BE PLACED AT EACH END OF THE TEMPORARY CROSSWALKS. THE TEMPORARY CROSSWALK SHALL BE DELINEATED WITH TEMPORARY PAVEMENT MARKINGS OR TAPE. THE MARKINGS SHALL BE PARALLEL 12-INCH-WIDE WHITE LINES PLACE 7 FEET ON CENTER APART. IT SHOULD BE NOTED THAT CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 20 FEET IN ADVANCE OF MIDBLOCK CROSSWALKS. TEMPORARY CROSSWALK SIGNS SHALL BE PROVIDED FOR THE CROSSWALK.

6. IF THERE IS WORK OCCURRING OVER AN OPEN SIDEWALK, PROTECTIVE OVERHEAD COVERING MUST BE PROVIDED AS NECESSARY TO ENSURE PROTECTION FROM FALLING OBJECTS AND DRIPPING FROM OVERHEAD STRUCTURES. COVERED WALKWAYS SHOULD BE STURDILY CONSTRUCTED AND ADEQUATELY LIGHTED FOR NIGHTTIME USE.

7. INDIVIDUAL CHANNELIZING DEVICES, TAPE, OR ROPE USED TO CONNECT INDIVIDUAL DEVICES AND OTHER DISCONTINUOUS BARRIERS AND DEVICES, PAVEMENT MARKINGS ARE NOT DETECTABLE BY PERSONS WITH VISUAL DISABILITIES. THESE MEASURES DO NOT PROVIDE ACCEPTABLE PATH GUIDANCE ON TEMPORARY OR RE-ALIGNED SIDEWALKS OR OTHER PEDESTRIAN FACILITIES. PEDESTRIAN CHANNELIZING DEVICES SHALL INCLUDE A CONTINUOUSLY DETECTABLE BOTTOM AND TOP EDGE THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT IT CAN BE FOLLOWED BY PEDESTRIANS USING LONG CANES FOR GUIDANCE.

8. CHANNELIZING DEVICES ON BOTH SIDES OF THE TPAR SHALL INCLUDE A CONTINUOUS SOLID TOP AND BOTTOM RAILS. THE TOP EDGE OF THE TOP RAIL SHALL BE BETWEEN 32 INCHES AND 38 INCHES ABOVE THE GROUND LEVEL. THE BOTTOM RAIL SHALL BE AT LEAST 6 INCHES WIDE, WITH THE BOTTOM EDGE OF THE BOTTOM RAIL SURFACE NO HIGHER THAN 2 INCHES ABOVE THE GROUND.

9. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROPOFFS, THEN CRASHWORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE 2009 MUTCD SHALL BE USED.

10. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.

11. PROVISION OF THE TPAR AND ALL ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY CURB RAMPS, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES IS TO BE PAID FOR INCIDENTAL TO ITEM 641.11 TRAFFIC CONTROL, ALL- INCLUSIVE.

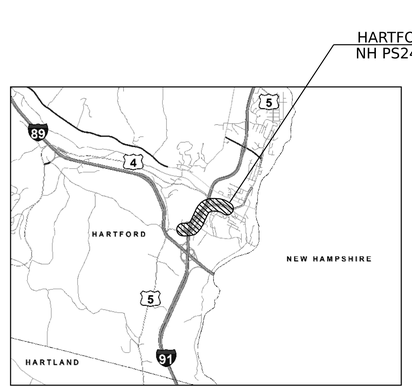
12. THE CONTRACTOR SHALL REVIEW AND USE THE "VERMONT BICYCLE AND PEDESTRIAN WORK ZONE TRAFFIC CONTROL GUIDE", AVAILABLE ON VTRANS WEBSITE TO DESIGN AND IMPLEMENT TRAFFIC CONTROL FOR BICYCLE AND PEDESTRIAN INTO THEIR SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION.

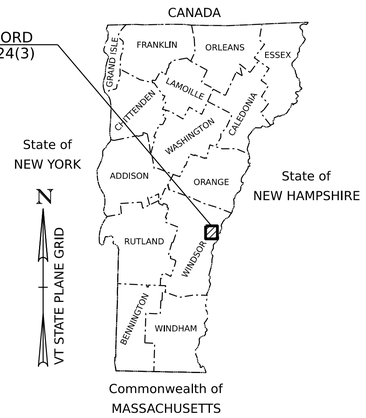
Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3), NHG SGNL(60) & STP PS24(2)

FILE NAME:z19v443_comp_tc.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BARRETT	CHECKED BY: M. FOISY
COMPOSITE TRAFFIC CONTROL SHEET 2	SHEET 22 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION



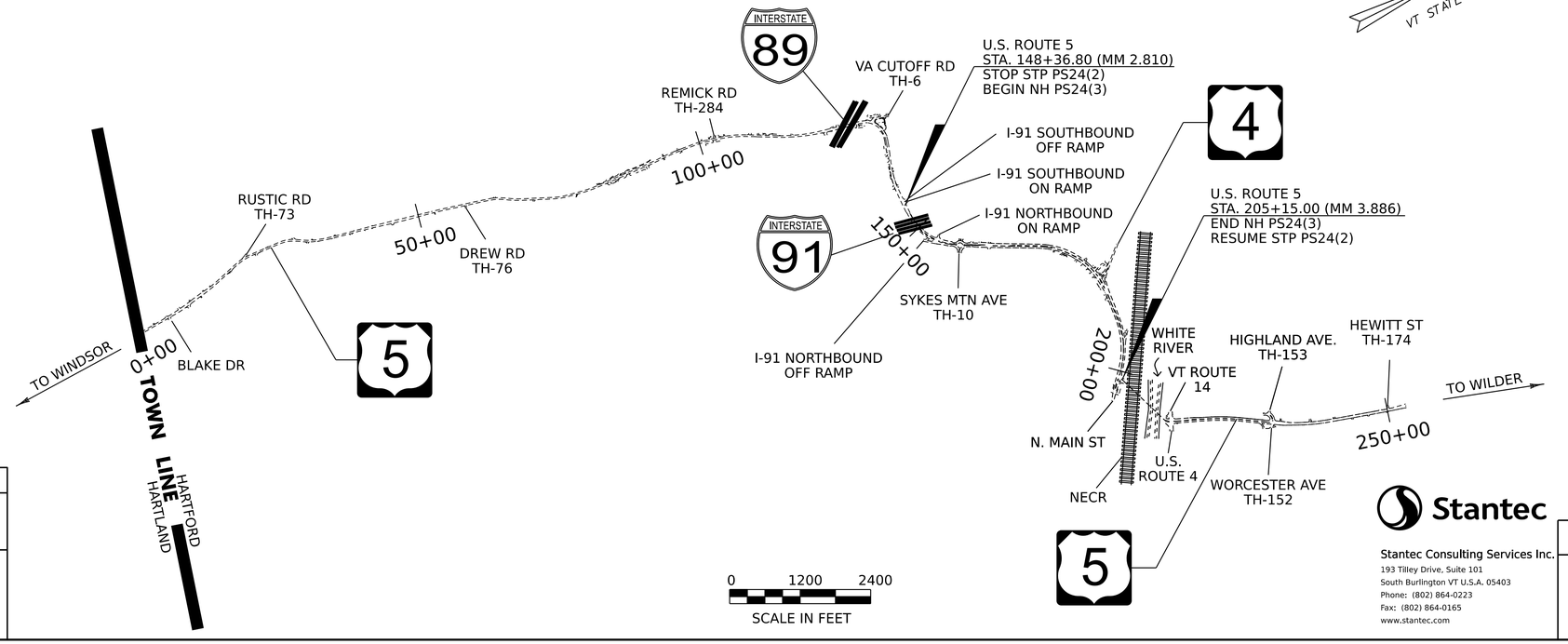


PROPOSED IMPROVEMENT
TOWN OF HARTFORD
COUNTY OF WINDSOR
U.S. ROUTE 5 (MAJOR COLLECTOR-MINOR ARTERIAL)

BEGINNING IN THE TOWN OF HARTFORD ON U.S. ROUTE 5 AT 148+36.80 (MM 2.810) AND EXTENDING NORTHERLY ALONG U.S. ROUTE 5 FOR A DISTANCE OF 5,678.20 FEET (1.075 MILES) STOPPING AT STA. 205+15.00 (MM 3.886).

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES: COARSE-MILLING BITUMINOUS PAVEMENT WITH A SHORT SECTION OF CONCRETE SUBSURFACE SLAB REMOVAL INCLUDING SUBBASE, CORRECTING SUPERELEVATION DEFICIENCIES AND FULL DEPTH PAVEMENT RECONSTRUCTION, GUARDRAIL, PAVEMENT MARKINGS, SIGNAGE, STORM DRAINAGE IMPROVEMENTS, CULVERT REPLACEMENTS, AND OTHER HIGHWAY RELATED ITEMS.

PROJECT DATA:	LENGTH (FEET)	LENGTH (MILES)
TOWN OF HARTFORD		
U.S. ROUTE 5		
STA. 148+36.80 TO STA. 205+15.00	5,678.20	
MM 2.810 TO MM 3.886		1.075
TOTAL LENGTH OF PROJECT:	5,678.20	1.075
TOTAL LENGTH OF ROADWAY:	5,678.20	1.075



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 :	VERMONT AGENCY OF TRANSPORTATION
SURVEYED DATE :	2017
DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83 (2011)

Stantec

Stantec Consulting Services Inc.
193 Tilley Drive, Suite 101
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
Fax: (802) 864-0165
www.stantec.com

PROJECT MANAGER :	MATT BOGACZYK, P.E.
PROJECT NAME :	HARTFORD
PROJECT NUMBER :	NH PS24(3)

SHEET 23 OF 210 SHEETS

CHANGING ELEVATION OF DI'S, CB'S, OR MH'S			
(ITEM 604.40)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
160+91	RT	1	UMH
163+75	LT	1	UMH
165+48	RT	1	UMH
187+59	LT	1	DI

CHANGING ELEVATION OF DI'S, CB'S, OR MH'S			
(TO BE ADJUSTED BY OTHERS)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
160+92	LT	1	TMH

REHAB. DI'S, CB'S, OR MH'S CLASS I, II or III			
(ITEM 604.412, 604.415 or 604.418)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
154+89	RT	1	DI
157+04	LT	1	DI
157+23	LT	1	DI
158+23	LT	1	DI
158+46	RT	1	DI
158+71	RT	1	DI
158+95	RT	1	DI
158+96	RT	1	DI
159+00	LT	1	DI
159+70	RT	1	DI
160+24	LT	1	DI
161+21	LT	1	DI
161+37	RT	1	DI
161+99	RT	1	DI
162+22	LT	1	DI
162+73	RT	1	DI
163+17	RT	1	DI
163+23	LT	1	DI
163+50	RT	1	DI
166+16	RT	1	DI
166+31	LT	1	DI
168+30	RT	1	DI
170+52	LT	1	DI
170+52	RT	1	DI
172+79	LT	1	DI
172+79	RT	1	DI
174+93	RT	1	DI
177+99	RT	1	DI
178+02	RT	1	DI
178+06	RT	1	DI
180+01	RT	1	DI
180+02	RT	1	DI
182+02	LT	1	DI
182+02	RT	1	DI
184+31	RT	1	DI
184+32	LT	1	DI
185+68	RT	1	DI
185+70	LT	1	DI
187+52	RT	1	DI
187+60	LT	1	DI
188+02	RT	1	DI
190+02	RT	1	DI
192+52	RT	1	DI
194+57	CL	1	DI
194+57	RT	1	DI
197+49	RT	1	DI
197+53	LT	1	DI
200+60	LT	1	DI
200+60	RT	1	DI
203+57	CL	1	DI
204+46	LT	1	DI
204+72	RT	1	DI

CHANGING ELEVATION OF SEWER MANHOLES			
(ITEM 604.42)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
153+23	RT	1	SMH
161+04	LT	1	SMH
165+46	RT	1	SMH
182+46	RT	1	SMH
184+87	RT	1	SMH
189+79	RT	1	SMH

ADJUST ELEVATION OF VALVE BOX			
(ITEM 629.20)			
US ROUTE 5			
HARTFORD			
160+09	RT	1	WSO
160+69	RT	1	WSO
160+71	RT	1	WSO
162+57	RT	1	WSO
162+86	RT	1	WSO
162+89	RT	1	WSO
162+91	RT	1	WSO

NOTE:

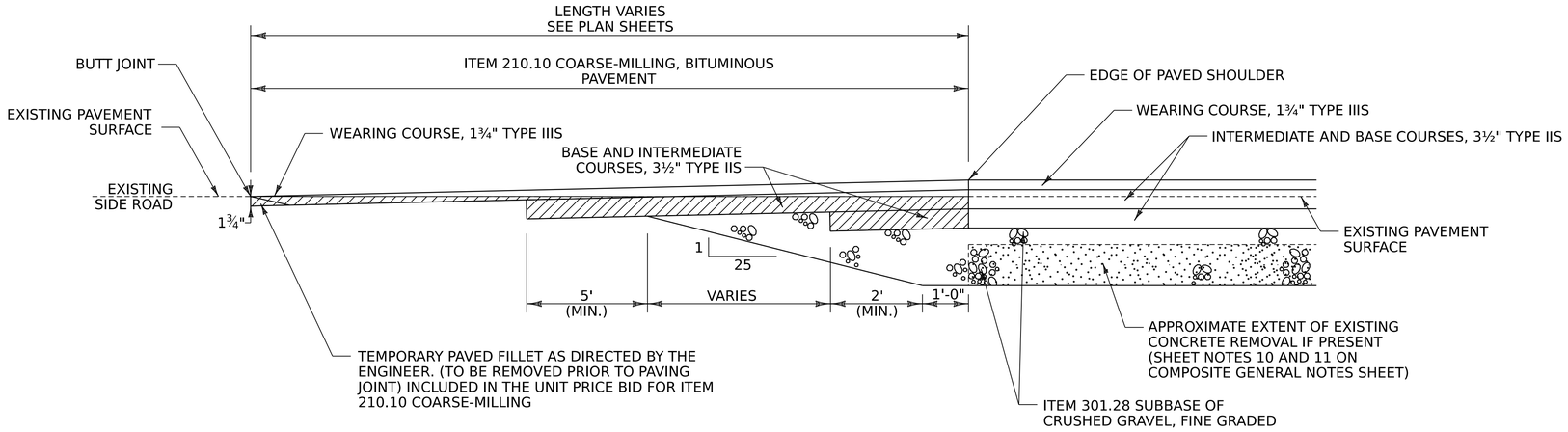
1. PRIOR TO MAKING ANY ADJUSTMENTS OR ALTERATIONS TO THESE STRUCTURES, THE CONTRACTOR SHALL REQUEST THAT THE ENGINEER NOTIFY THE TOWN OF HARTFORD PUBLIC WORKS DEPARTMENT TO PROVIDE THEM THE OPPORTUNITY TO REVIEW THIS WORK. A WEEKLY NOTICE OF ANTICIPATED STRUCTURE SCHEDULE IS REQUIRED.

Stantec

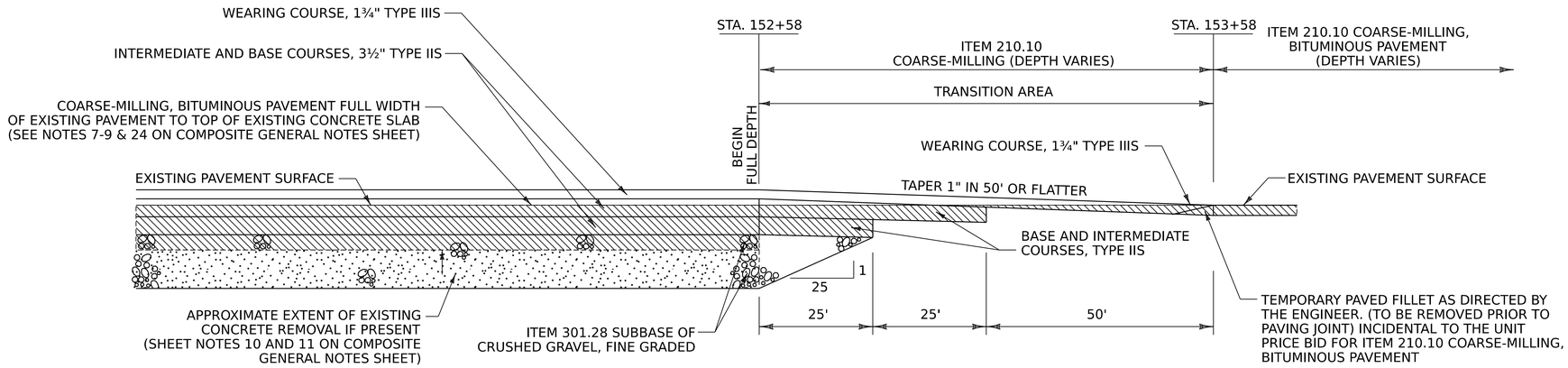
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
STRUCTURE INVENTORY SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

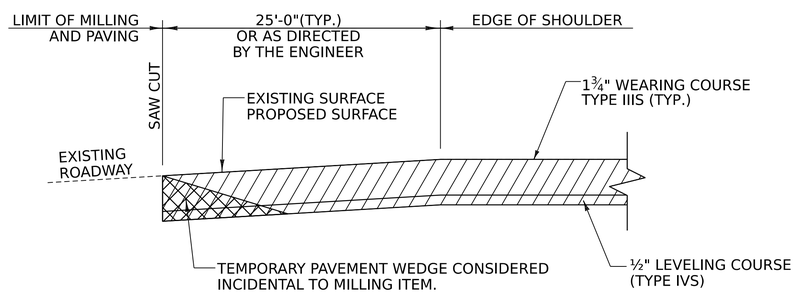


PARTIAL DEPTH CONCRETE REMOVAL AREA SIDE ROAD TRANSITION DETAIL



PARTIAL DEPTH CONCRETE REMOVAL TO COARSE-MILLING TRANSITION DETAIL

FULL ROADWAY WIDTH

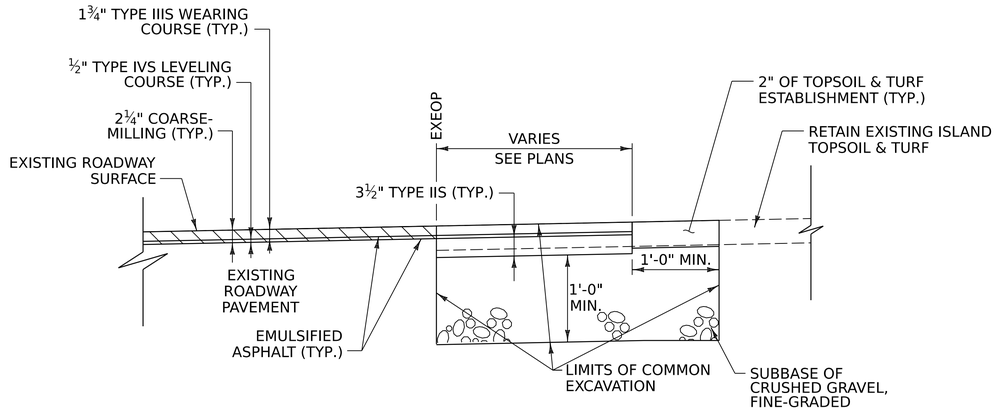


SIDE ROAD TRANSITION

NOT TO SCALE

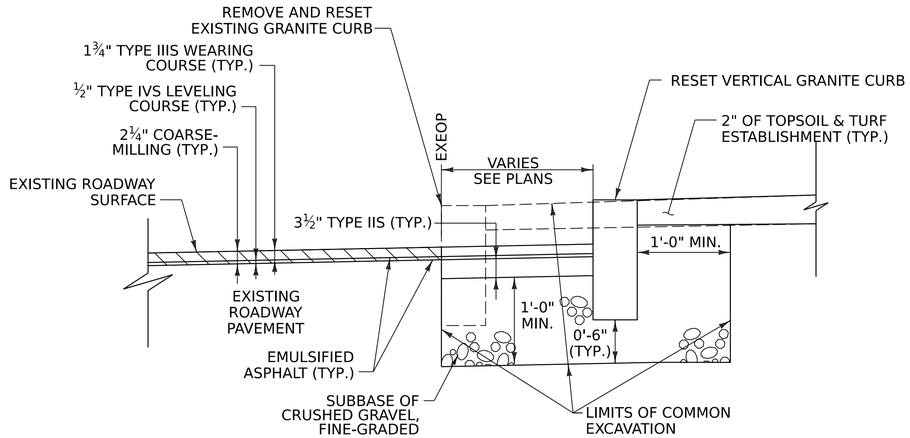
Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BARRETT	CHECKED BY: M. FOISY
DETAIL SHEET 1	SHEET 25 OF 210



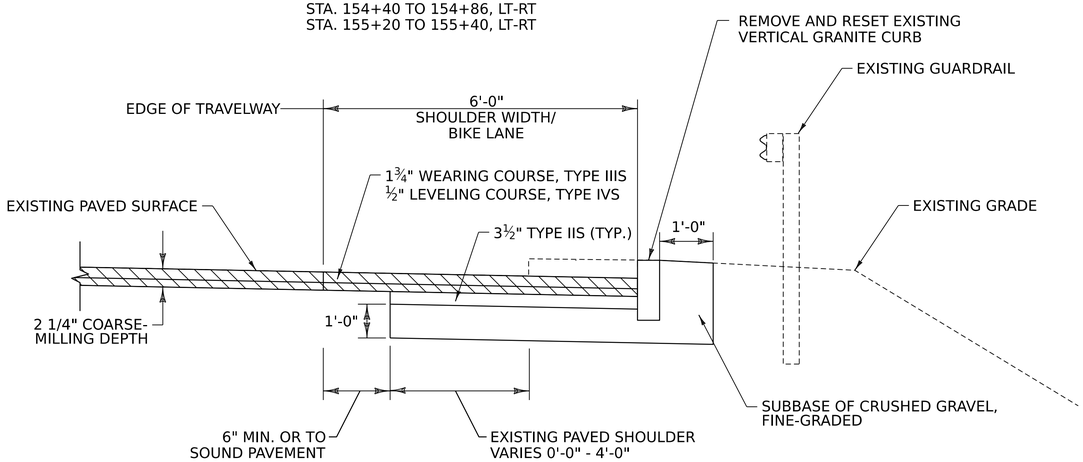
ROADWAY I-91 NB OFF-RAMP ISLAND WIDENING DETAIL

STA. 155+20 TO 155+95, RT (I-91 NB OFF-RAMP)



ROADWAY MEDIAN WIDENING DETAIL

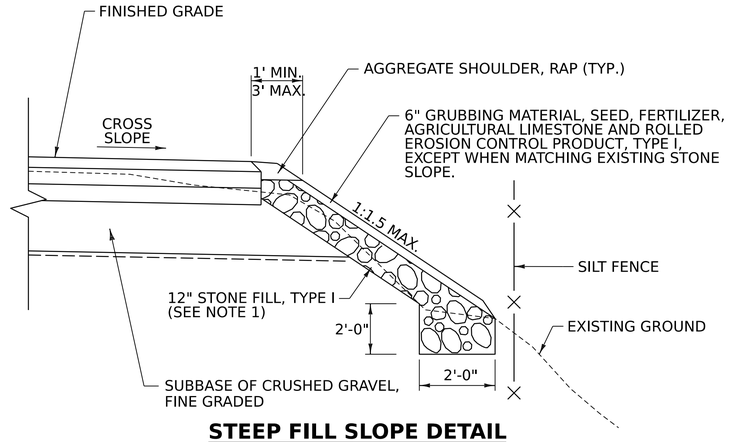
STA. 168+32 TO 176+80, RT-LT
STA. 154+40 TO 154+86, LT-RT
STA. 155+20 TO 155+40, LT-RT



ROADWAY SHOULDER WIDENING DETAIL

STA. 173+93 TO 185+15, LT

NOT TO SCALE

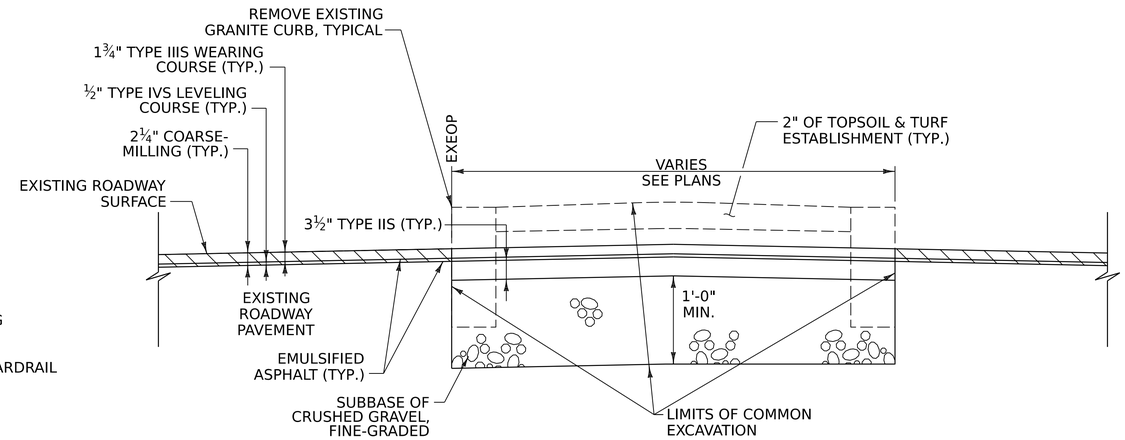


STEEP FILL SLOPE DETAIL

FOR SLOPES STEEPER THAN 1:1.5
SEE PLANS AND SECTIONS FOR LOCATIONS

NOTES

1. ANY EXCAVATION REQUIRED TO INSTALL STONE FILL SHALL BE PAID FOR UNDER ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I.



ISLAND REMOVAL DETAIL

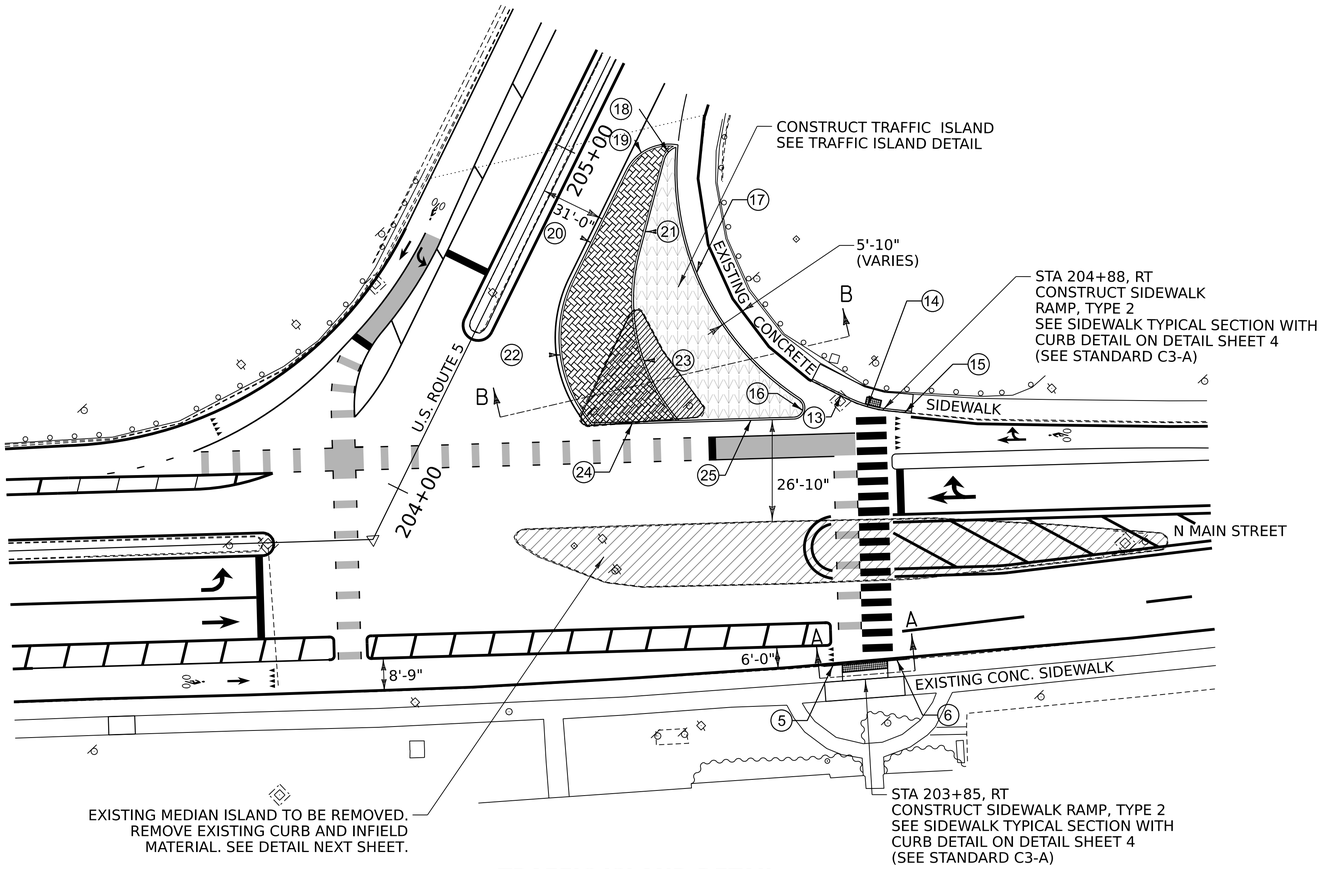
STA. 204+00 TO 204+79, RT

NOTE:

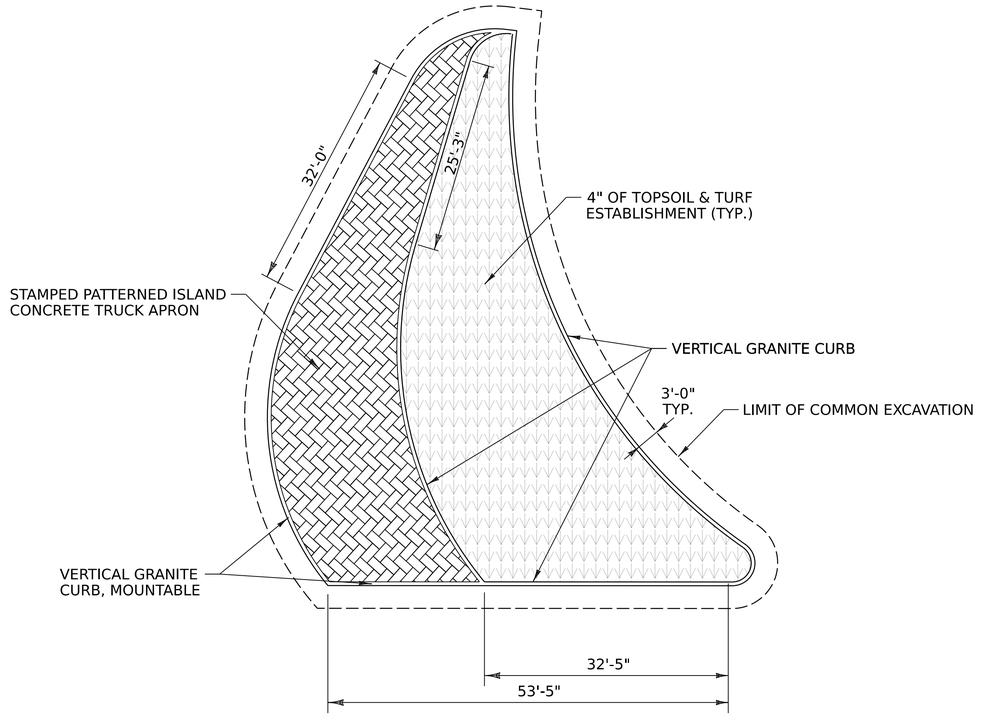
1. PRIOR TO PAVING, ANY EXISTING SHOULDER OR MEDIAN MATERIAL DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED TO A DEPTH OF TWELVE INCHES. EXCAVATION SHALL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED. EXCAVATED MATERIAL SHALL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE COMPLETED PRIOR TO PAVING. ANY SOIL SPREAD ON SIDE SLOPE SHALL HAVE TURF ESTABLISHMENT AS DIRECTED BY THE ENGINEER. THE FOLLOWING ITEMS WERE ESTIMATED FOR TURF ESTABLISHMENT: 651.15 SEED, 651.18 FERTILIZER, 651.20 AGRICULTURAL LIMESTONE AND 651.25 HAY MULCH.

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:	z19v443_det.dgn
PROJECT LEADER:	M. FOISY
DESIGNED BY:	G. BARRETT
DETAIL SHEET 2	
PLOT DATE:	3-AUG-2023
DRAWN BY:	G. BARRETT
CHECKED BY:	M. FOISY
SHEET	26 OF 210



TRAFFIC ISLAND DETAIL



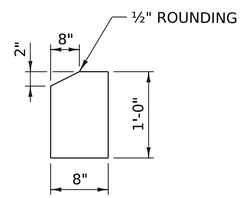
TRAFFIC ISLAND ENLARGED DETAIL

CAST-IN-PLACE CONCRETE CURB, TYPE B

SEE TRAFFIC & PEDESTRIAN REFUGE ISLAND DETAIL - DETAIL SHEET 3

CURB ID	BEGIN LOCATION		END LOCATION		LENGTH (FT)	RADII CENTER POINT LOCATION			RADIUS (FT)
	NORTHING	EASTING	NORTHING	EASTING		NORTHING	EASTING	STATION	
5	419393.53	1687204.29	419390.40	1687208.19	5.00	--	--	--	--
6	419382.87	1687217.56	419379.73	1687221.45	5.00	--	--	--	--
13	419443.19	1687256.14	419440.05	1687257.25	3.33	--	--	--	--
14	419440.05	1687257.25	419430.01	1687263.05	11.67	419434.76	1687259.69	STA. 301+31.64, LT. 31.71'	32.00
15	419430.01	1687263.05	419425.44	1687266.95	6.01	--	--	--	--
16	419445.75	1687243.46	419448.65	1687248.39	7.60	419445.39	1687246.99	STA. 301+15.08, LT. 31.10'	3.00
17	419519.23	1687271.39	419448.65	1687248.39	77.80	419487.13	1687250.09	STA. 205+80.29, RT. 49.15'	72.00
18	419519.60	1687271.06	419520.84	1687263.91	7.73	419521.58	1687267.62	STA. 206+08.60, RT. 22.83'	5.50
19	419519.60	1687271.06	419523.81	1687256.74	15.10	419524.18	1687264.17	STA. 206+06.25, RT. 19.21'	12.50
20	419523.81	1687256.74	419512.81	1687226.73	31.97	--	--	--	--
21	419520.84	1687263.91	419507.68	1687242.39	25.23	--	--	--	--
22	419512.81	1687226.73	419481.52	1687203.81	41.11	419500.63	1687210.54	STA. 205+47.79, RT. 22.86'	35.00
23	419507.68	1687242.39	419468.47	1687219.02	48.13	419490.69	1687225.69	STA. 205+58.60, RT. 37.41'	49.00
24	419481.52	1687203.81	419467.83	1687218.99	20.44	--	--	--	--
25	419467.83	1687218.99	419445.75	1687243.46	33.00	--	--	--	--

NOT TO SCALE



VERTICAL GRANITE CURB, MOUNTABLE

LEGEND

AREA OF NEW PAVEMENT/
MEDIAN ISLAND REMOVAL

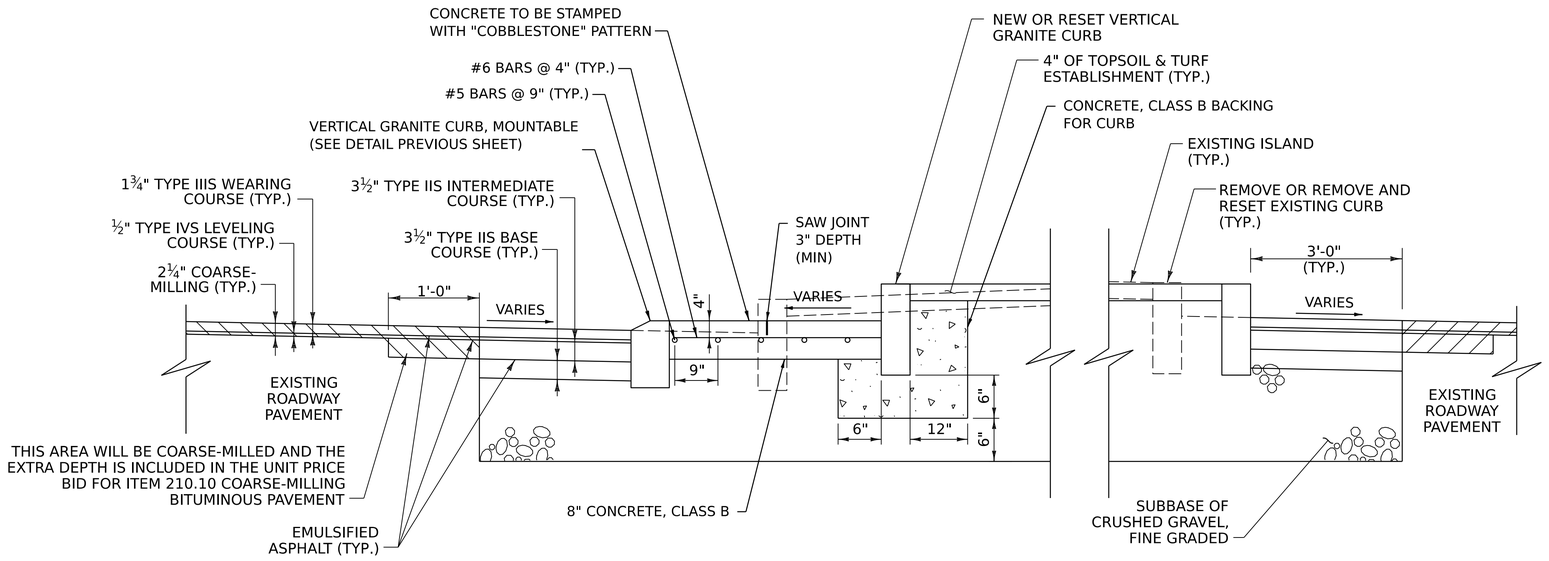
GRASS ISLAND AREA
PROPOSED 4" OF TOPSOIL &
TURF ESTABLISHMENT (TYP.)

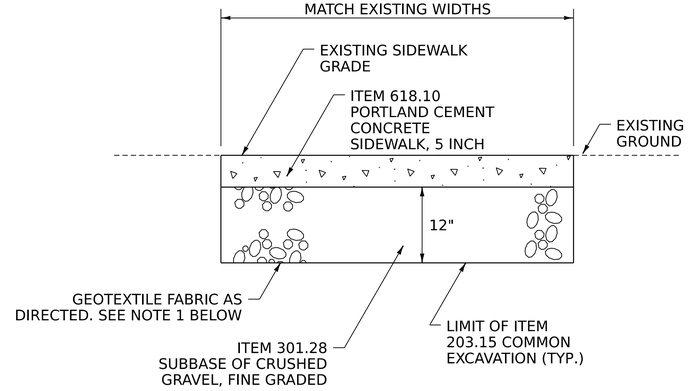
Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
DETAIL SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: M. FOISY
SHEET 27 OF 210





SECTION A-A
5 INCH SIDEWALK DETAIL

SEE PLAN SHEETS FOR LOCATIONS

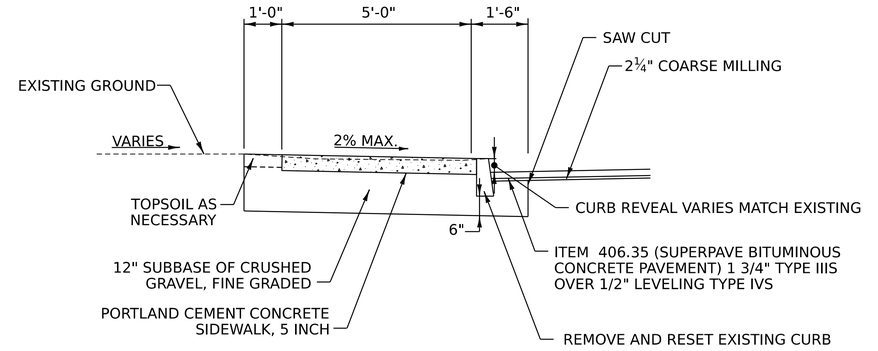
SPECIAL PROVISION (STAMPED CONCRETE APRON, 8 INCH) DETAIL

NOTES

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL BE PAID FOR UNDER CONTRACT ITEM 900.675 SPECIAL PROVISION (STAMPED CONCRETE APRON, 8 INCH).

3. CONCRETE, CLASS B BACKING FOR CURB SHALL BE PAID FOR UNDER CONTRACT ITEM 900.675 SPECIAL PROVISION (STAMPED CONCRETE APRON, 8 INCH).

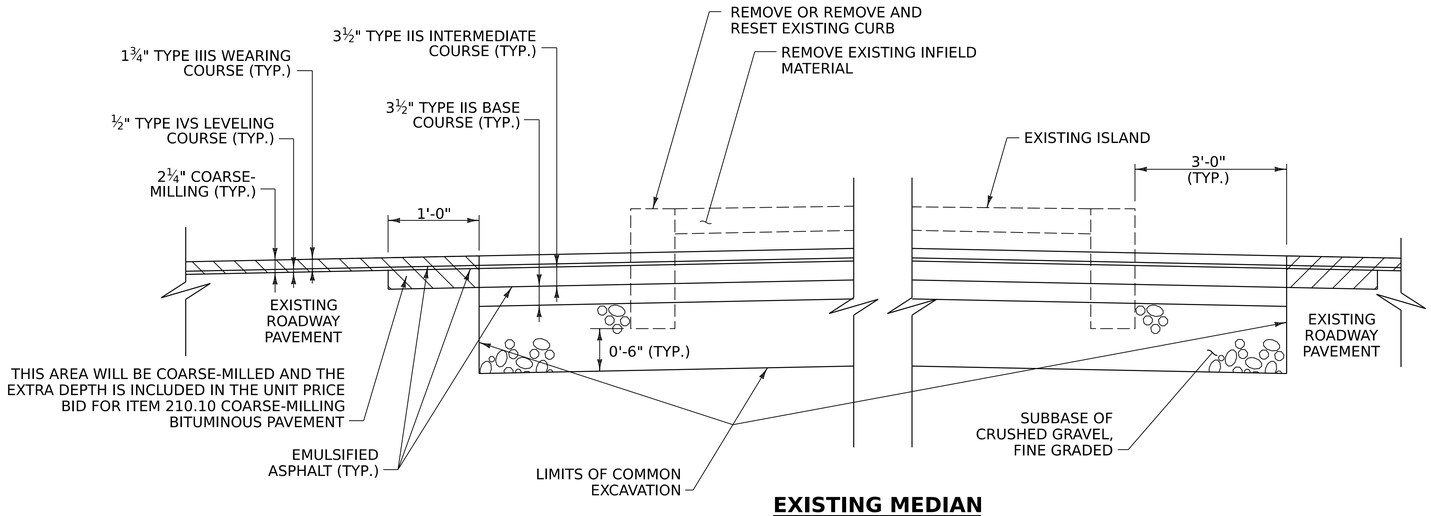
2. CONCRETE APRON AND CURBS SHALL HAVE A 2" CHAMFER AT THE ENDS TO AVOID SHARP EDGES.



SIDEWALK TYPICAL SECTION WITH CURB

SIDEWALK DETAILS NOTES

1. A GEOTEXTILE FABRIC SHALL BE USED AS DIRECTED BY THE ENGINEER WHERE POOR SUB-GRADE CONDITIONS ARE ENCOUNTERED. THE GEOTEXTILE FABRIC TO BE USED MUST BE CHOSEN FROM THE CURRENT VTRANS APPROVED PRODUCT LIST. AN ESTIMATED QUANTITY HAS BEEN INCLUDED FOR APPROXIMATELY HALF OF THE NEW SIDEWALK AREAS, AND WILL BE PAID AS ITEM 649.31 GEOTEXTILE UNDER STONE FILL.

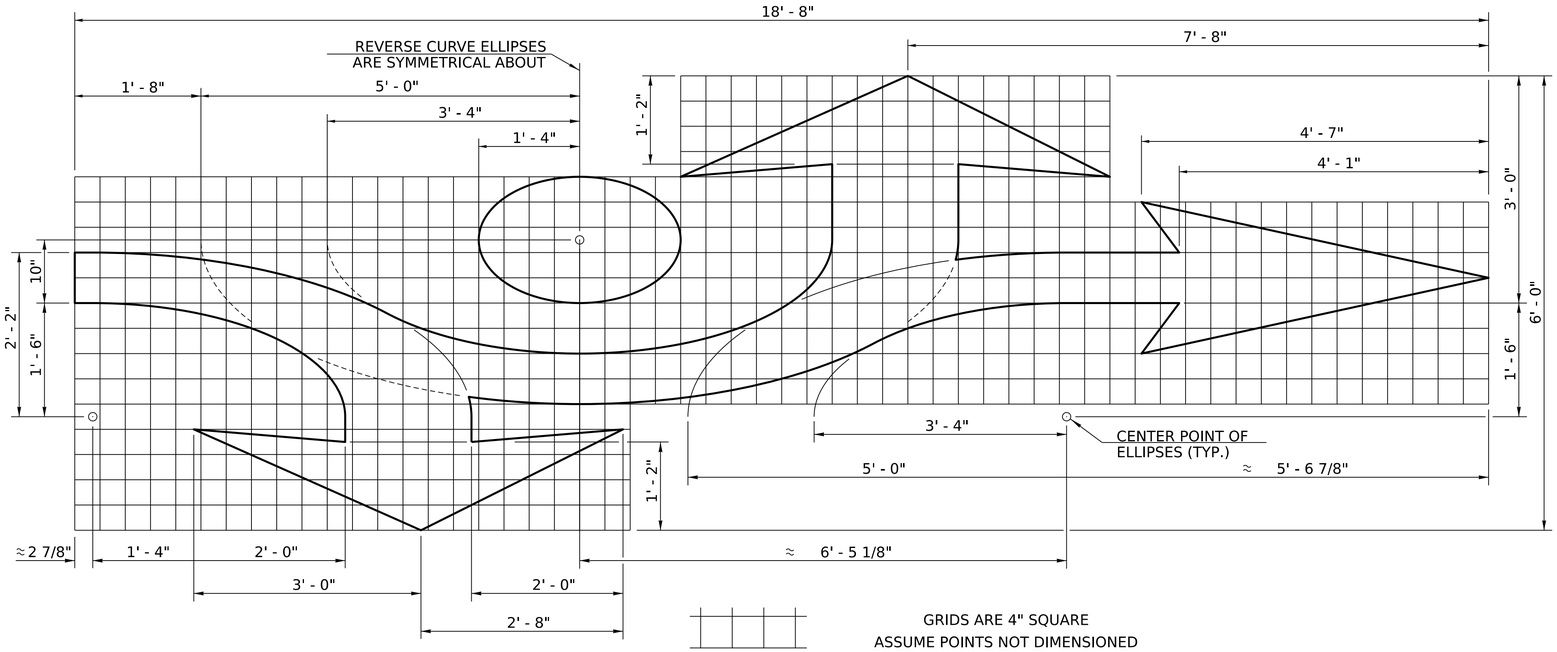


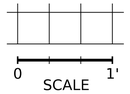
EXISTING MEDIAN REMOVAL

NOT TO SCALE

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
DETAIL SHEET 4	SHEET 28 OF 210

Stantec

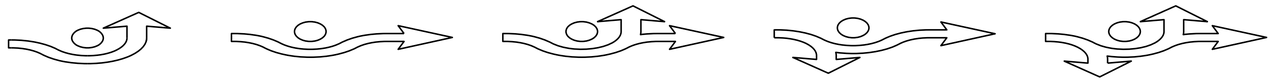




GRIDS ARE 4" SQUARE

ASSUME POINTS NOT DIMENSIONED
TO BE COINCIDENT WITH GRID LINES

DETAIL



TYPE LC
18.07 SQ.FT.

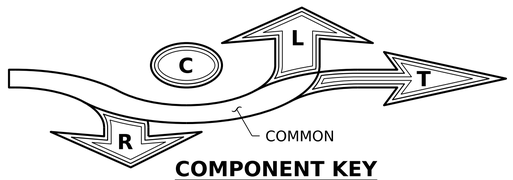
TYPE TC
18.56 SQ.FT.

TYPE LTC
24.19 SQ.FT.

TYPE TRC
23.07 SQ.FT.

TYPE LTRC
28.70 SQ.FT.

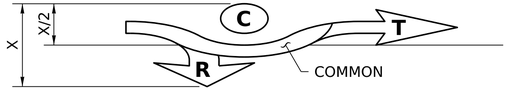
PAVEMENT MARKING ~ ROUNDABOUT TRAFFIC ARROW



COMPONENT KEY

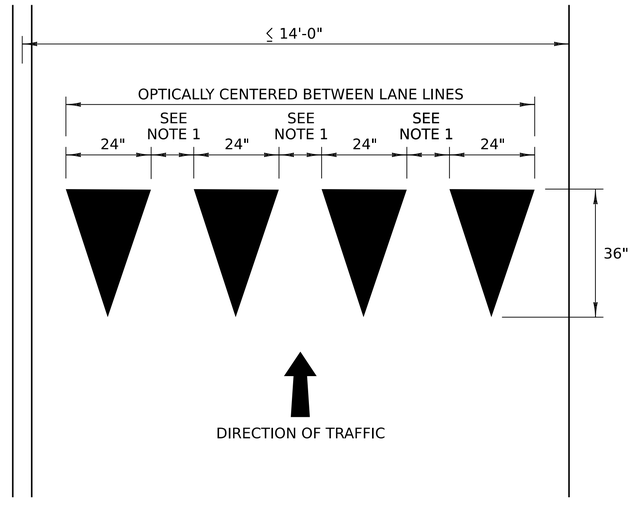
THE LABELED AREAS ABOVE CORRESPOND TO THE PORTIONS NEEDED FOR EACH TYPE OF ROUNDABOUT TRAFFIC ARROW.

FOR EXAMPLE: THE ROUNDABOUT TRAFFIC ARROW TYPE TRC REQUIRES THE "COMMON", "T", "R", AND "C" AREAS.



ROUNDABOUT TRAFFIC ARROW TYPE TRC

CENTER THE ARROW ON THE LANE CENTERLINE BETWEEN THE LATERAL EXTREMITIES OF THAT ARROW TYPE.



YIELD LINE DETAIL

SEE PLAN SHEETS FOR LOCATIONS

NOTES

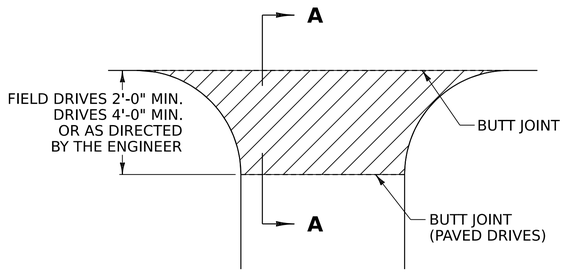
1. THE SPACE BETWEEN THE TRIANGLES SHOULD BE 3 TO 12 INCHES AND WITH CONSISTENT SPACING DEPENDING ON ROAD WIDTH.
2. WILL BE PAID AS ONE DURABLE LETTER OR SYMBOL, (OPTION ITEMS) PER TRIANGLE.

NOT TO SCALE

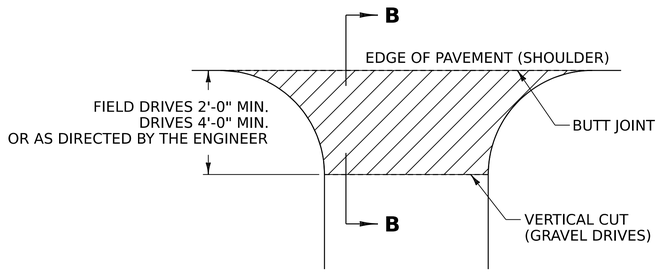
Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BARRETT	CHECKED BY: M. FOISY
DETAIL SHEET 5	SHEET 29 OF 210

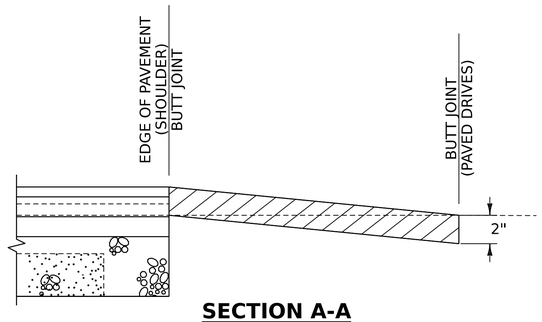
Town/Station	Position	Apron Length	406.38	
			Drive Area (sq ft)	Drive Area (sq yds)
HARTFORD				
162+60	RT	6	209	23
162+63	LT	11	333	37
163+64	RT	55	236	26
164+07	RT	50	206	23
164+16	LT	49	175	19
165+71	LT	59	288	32
in Jughandle	RT	44	265	29
182+37	LT	56	307	34
184+58	LT	87	348	39
190+16	RT	26	67	7
			Subtotal =	**269**



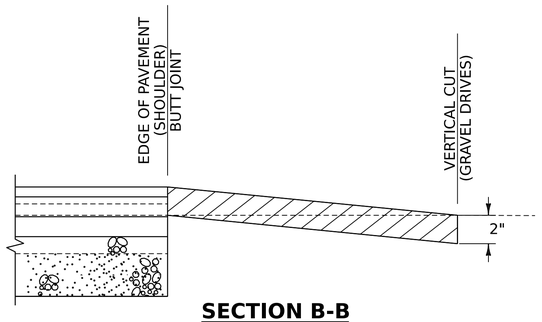
PLAN
(PAVED DRIVES)



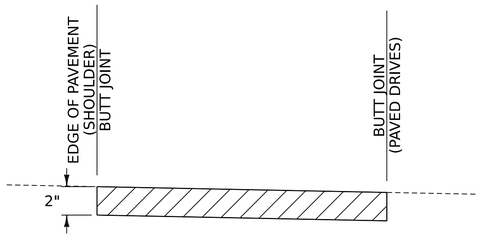
PLAN
(GRAVEL DRIVES)



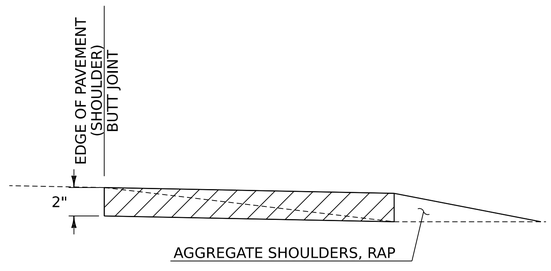
SECTION A-A
HANDWORK DETAILS FOR PAVED DRIVES
WITHIN CONCRETE REMOVAL AREAS



SECTION B-B
HANDWORK DETAILS FOR GRAVEL DRIVES
WITHIN CONCRETE REMOVAL AREAS



SECTION A-A
HANDWORK DETAILS FOR PAVED DRIVES
WITHIN MILLED AREAS



SECTION B-B
HANDWORK DETAILS FOR GRAVEL DRIVES
WITHIN MILLED AREAS

NOTES:

1. PAVING LIFT NOT TO EXCEED 2.0 INCHES.
2. THE COST OF PROVIDING AND PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES AT LEAST 24 HOURS BEFORE PAVING, WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.
3. EXCAVATION NEEDED TO ACHIEVE PROPER DRIVE AND TOWN HIGHWAY SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.
4. MILLING FOR DRIVES AND TOWN HIGHWAYS WILL MEET THE REQUIREMENTS OF SECTION 210 AS APPLICABLE. PAYMENT FOR MILLING AREAS REQUIRED FOR DRIVES AND TOWN HIGHWAYS WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.

NOT TO SCALE

LEGEND

ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
DRIVE DETAIL SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 30 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION
1			
1550			
200			
50			
1			
42700			
2300			
26			
440			
1			
1			
1			
1			
7100			
275			
100			
1			
7200			
4			
42			
5			
5			
6			
2			
5			
10			
10			
20			
10			
2			
2			
20			
200			
110			
2600			
1050			
60			
84			
225			
90			

TOTALS

GRAND TOTAL	FINAL
1	
1550	
200	
50	
1	
42700	
2300	
26	
440	
1	
1	
1	
1	
7100	
275	
100	
1	
7200	
4	
42	
5	
5	
6	
2	
5	
10	
10	
20	
10	
2	
2	
20	
200	
110	
2600	
1050	
60	
84	
225	
90	

DESCRIPTIONS

UNIT	ITEMS		ROUND
EACH	THINNING AND TRIMMING FOR SIGNS	201.31	-
CY	COMMON EXCAVATION	203.15	31
CY	SOLID ROCK EXCAVATION	203.16	11
CY	EARTH BORROW	203.30	-
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST
SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	540
TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.28	73.2
TON	AGGREGATE SHOULDERS, RAP	402.13	1
CWT	EMULSIFIED ASPHALT	404.65	10
LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-
LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	406.29	-
LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	406.30	-
LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	406.31	-
TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	406.35	111
SY	HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES	406.38	6
TON	BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION	406.45	EST
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
TON	MATERIAL TRANSFER VEHICLE	410.10	100
EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II	604.415	-
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III	604.418	-
EACH	CHANGING ELEVATION OF SEWER MANHOLES	604.42	-
HR	POWER GRADER RENTAL	608.15	EST
HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST
HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE II	608.26	EST
HR	POWER BROOM RENTAL, TYPE I	608.30	EST
HR	POWER BROOM RENTAL, TYPE II	608.31	EST
HR	TRUCK RENTAL	608.37	EST
HR	LOADER RENTAL, TYPE I	608.40	EST
TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	-
CY	STONE FILL, TYPE I	613.10	3
LF	VERTICAL GRANITE CURB	616.21	3
LF	VERTICAL GRANITE CURB, MOUNTABLE	616.215	4
LF	REMOVING AND RESETTING CURB	616.40	20
LF	REMOVAL OF EXISTING CURB	616.41	8
SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	6
SF	DETECTABLE WARNING SURFACE	618.30	4
LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	10.5
EACH	TRAFFIC BARRIER DELINEATOR	621.218	4

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COARSE-MILLING, BITUMINOUS PAVEMENT
39,915	SY	U.S. ROUTE 5 MAINLINE
2,245	SY	U.S. ROUTE 5 SIDE ROADS
540	SY	ROUNDING
42,700	SY	TOTAL
		SUBBASE OF CRUSHED GRAVEL, FINE GRADED
1613.5	TON	ROADWAY SHIMMING AND SHOULDERS
83.8	TON	I-91 NB OFF RAMP WIDENING
291.2	TON	TRUCK LANE WIDENING
29.4	TON	U.S. ROUTE 4 SLIP RAMP
182.5	TON	REMOVAL OF EXIST. MEDIAN ISLAND & NEW REFUGE ISLAND
26.4	TON	SIDEWALK
73.2	TON	ROUNDING
2300	TON	TOTAL
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
711	TON	U.S. ROUTE 5 MAINLINE (BASE TYPE IIS)
782	TON	U.S. ROUTE 5 MAINLINE (INTERMEDIATE TYPE IIS)
4119	TON	U.S. ROUTE 5 MAINLINE (WEARING TYPE IIIS)
1083	TON	U.S. ROUTE 5 MAINLINE (LEVELING TYPE IVS)
229	TON	U.S. ROUTE 5 SIDE ROADS (WEARING TYPE IIIS)
65	TON	U.S. ROUTE 5 SIDE ROADS (LEVELING TYPE IVS)
111	TON	ROUNDING
7100	TON	TOTAL

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 31 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS		ROUND	QUANTITIES	UNIT	ITEMS
1				1		EACH	MANUFACTURED TERMINAL SECTION, TANGENT	621.51	-			
1				1		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-			
66				66		EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	EST			
33				33		EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	EST			
387.5				387.5		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	-			
7				7		EACH	ADJUST ELEVATION OF VALVE BOX	629.20	-			
1100				1100		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST			
3500				3500		HR	FLAGGERS	630.15	EST			
		1		1		LS	FIELD OFFICE, ENGINEERS (NH PS24(3))	631.10	-			
		1		1		LS	TESTING EQUIPMENT, CONCRETE (NH PS24(3))	631.16	-			
		1		1		LS	TESTING EQUIPMENT, BITUMINOUS (NH PS24(3))	631.17	-			
		1500		1500		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26	EST			
4				4		EACH	CPM SCHEDULE	633.10	-			
	520			520		HR	EMPLOYEE TRAINEESHIP	634.10	-			
1				1		LS	MOBILIZATION/DEMOBILIZATION (NH PS24(3))	635.11	-			
1				1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (NH PS24(3))	641.11	-			
2				2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
54500				54500		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	712			
24600				24600		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	286			
760				760		LF	TEMPORARY 6 INCH WHITE LINE, PAINT	646.622	6			
380				380		LF	TEMPORARY 6 INCH YELLOW LINE, PAINT	646.632	2			
1350				1350		LF	TEMPORARY 8 INCH YELLOW LINE, PAINT	646.652	14			
500				500		LF	TEMPORARY 12 INCH WHITE LINE, PAINT	646.662	4			
370				370		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	6			
460				460		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	2			
7900				7900		EACH	LINE STRIPING TARGETS	646.76	88			
8				8		SY	GEOTEXTILE UNDER STONE FILL	649.31	-			
65				65		LB	SEED	651.15	EST			
200				200		LB	FERTILIZER	651.18	EST			
1				1		TON	AGRICULTURAL LIMESTONE	651.20	EST			
220				220		CY	TOPSOIL	651.35	EST			
40				40		SY	GRUBBING MATERIAL (6")	651.40	4			
200				200		SY	GRUBBING MATERIAL (2")	651.40	6			
35				35		TON	HAY MULCH	653.10	EST			
90				90		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20	4			
45				45		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35	EST			
5				5		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-			
47				47		EACH	INLET PROTECTION DEVICE, TYPE II	653.41	-			
100				100		LF	SILT FENCE, TYPE I	653.475	17			
250				250		LF	BARRIER FENCE	653.50	EST			

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 32 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
						1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS		ROUND	QUANTITIES	UNIT	ITEMS
						2600				2600		LF	PROJECT DEMARCATION FENCE	653.55	EST			
						250				250		LF	EROSION LOG	653.60	EST			
						325				325		SF	TRAFFIC SIGN, TYPE A	675.20	6.3			
						740				740		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	5			
						104				104		EACH	REMOVING SIGNS	675.50	-			
						24				24		EACH	RESETTING SIGNS	675.60	-			
						8				8		EACH	DELINEATOR WITH STEEL POST	676.10	-			
						2				2		EACH	REMOVAL OF EXISTING DELINEATOR AND POST	676.12	-			
						1				1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
						1				1		EACH	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION EQUIPMENT)	900.620	-			
						1				1		LS	SPECIAL PROVISION (GNSS MACHINE CONTROL GRADING NH PS24(3))	900.645	-			
						1				1		LS	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION SURFACE MODELS NH PS24(3))	900.645	-			
						370				370		SY	SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)	900.675	11			
						130				130		SY	SPECIAL PROVISION (STAMPED CONCRETE APRON, 8 INCH)	900.675	5			
													BEGIN OPTION DURABLE 24 INCH STOP BAR, THERMOPLASTIC					
									190	190		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	8			
													END OPTION DURABLE 24 INCH STOP BAR, THERMOPLASTIC					
													BEGIN OPTION DURABLE 24 INCH STOP BAR, EPOXY PAINT					
									190	190		LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	8			
													END OPTION DURABLE 24 INCH STOP BAR, EPOXY PAINT					
													BEGIN OPTION DURABLE 24 INCH STOP BAR, POLYUREA					
									190	190		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	8			
													END OPTION DURABLE 24 INCH STOP BAR, POLYUREA					
													BEGIN OPTION DURABLE CROSSWALK MARKING, THERMOPLASTIC					
									290	290		LF	DURABLE CROSSWALK MARKING, THERMOPLASTIC	646.502	4			
													END OPTION DURABLE CROSSWALK MARKING, THERMOPLASTIC					
													BEGIN OPTION DURABLE CROSSWALK MARKING, EPOXY PAINT					
									290	290		LF	DURABLE CROSSWALK MARKING, EPOXY PAINT	646.503	4			
													END OPTION DURABLE CROSSWALK MARKING, EPOXY PAINT					
													BEGIN OPTION DURABLE CROSSWALK MARKING, POLYUREA					
									290	290		LF	DURABLE CROSSWALK MARKING, POLYUREA	646.504	4			
													END OPTION DURABLE CROSSWALK MARKING, POLYUREA					
													BEGIN OPTION DURABLE LETTER OR SYMBOL, THERMOPLASTIC					
									283	283		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-			
													END OPTION DURABLE LETTER OR SYMBOL, THERMOPLASTIC					
													BEGIN OPTION DURABLE LETTER OR SYMBOL, EPOXY PAINT					
									283	283		EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-			
													END OPTION DURABLE LETTER OR SYMBOL, EPOXY PAINT					

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 33 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 4

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
							1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS		ROUND	QUANTITIES	UNIT	ITEMS
														BEGIN OPTION DURABLE LETTER OR SYMBOL, POLYUREA					
										283	283		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-			
														END OPTION DURABLE LETTER OR SYMBOL, POLYUREA					
														BEGIN OPTION EPOXY PAINT ITEMS					
										27200	27200		LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	306			
										12500	12500		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	343			
										380	380		LF	DURABLE 6 INCH WHITE LINE, EPOXY PAINT	646.423	3			
										190	190		LF	DURABLE 6 INCH YELLOW LINE, EPOXY PAINT	646.433	1			
										170	170		LF	DURABLE 8 INCH WHITE LINE, EPOXY PAINT	646.443	-			
										680	680		LF	DURABLE 8 INCH YELLOW LINE, EPOXY PAINT	646.453	12			
										250	250		LF	DURABLE 12 INCH WHITE LINE, EPOXY PAINT	646.463	2			
														END OPTION EPOXY PAINT ITEMS					
														BEGIN OPTION POLYUREA ITEMS					
										27200	27200		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	306			
										12500	12500		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	343			
										380	380		LF	DURABLE 6 INCH WHITE LINE, POLYUREA	646.424	3			
										190	190		LF	DURABLE 6 INCH YELLOW LINE, POLYUREA	646.434	1			
										170	170		LF	DURABLE 8 INCH WHITE LINE, POLYUREA	646.444	-			
										680	680		LF	DURABLE 8 INCH YELLOW LINE, POLYUREA	646.454	12			
										250	250		LF	DURABLE 12 INCH WHITE LINE, POLYUREA	646.464	2			
														END OPTION POLYUREA ITEMS					

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME: z19v443_frm.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: D. YOULEN	CHECKED BY: M. FOISY
QUANTITY SHEET 4	SHEET 34 OF 210

ITEM DETAIL SUMMARY SHEET

LOCATION			GUARDRAIL							MISCELLANEOUS														REMARKS
			621.20	621.218	621.51	621.60	621.76	621.77	621.80	203.15	203.30	301.28	613.10	616.21	616.215	616.40	616.41	618.10	618.30	651.40	653.20	676.10	676.12	
BEGIN STA.	END STA.	POS	S.B. G.R., GALV.	TRAFFIC BARRIER DELIN.	MAN. TERM. END SECTION, TANGENT	ANCHOR FOR STEEL BEAM RAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	REMOV. & DISPOSAL OF G.R.	COMMON EXCAVATION	EARTH BORROW	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	STONE FILL, TYPE I	VERTICAL GRANITE CURB	VERTICAL GRNT. CURB, MOUNTABLE	REMOVING & RESETTING CURB	REMOVAL OF EXISTING CURB	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	DETECTABLE WARNING SURFACE	GRUBBING MATERIAL (6")	ROLLED EROSION CONTROL PRODUCT, TYPE I	DELINEATOR WITH STEEL POST	REM. EXIST. DEL. AND POST	
			LF	EACH	EA	EACH	EACH	EACH	LF	CY	CY	TON	CY	LF	LF	LF	LF	SY	SF	SY	SY	EACH	EACH	
US ROUTE 5																								
148+36	204+60			86			66	33		451		1613.5										6		MISCELLANEOUS ITEMS CARRIED FORWARD
US ROUTE 5																								
HARTFORD																								
148+36.8	149+00	LT											16.7							35.9	36.0			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON
																								DETAIL SHEET 2
150+25	152+59	LT														233								REMOVING AND RESETING CURB
154+41	154+91	RT-LT								11.8		12.1				70								REMOVING AND RESETING CURB
155+21	155+38	RT-LT								9.9		10.3				43								REMOVING AND RESETING CURB
155+13.0	157+71	RT								306.9							199							I-91 NB OFF RAMP REMOVAL
165+31	165+39	RT								0.9		0.9						3.0	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 165+34, EXAMPLE 2 (SEE STANDARD C3-
165+91	166+00	RT								1.0		0.9						3.1	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 165+96, EXAMPLE 2 (SEE STANDARD C3-
168+32	176+80	RT-LT										151.4				848								REMOVING AND RESETING CURB - MEDIAN
173+93	185+15	LT										139.8				1029								REMOVING AND RESETING CURB
174+70	182+11	LT								79.8														US ROUTE 5 SOUTHBOUND WIDENING
176+71	176+76	RT								0.7		0.7						2.2	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 176+73, EXAMPLE 2 (SEE STANDARD C3-
176+95	177+00	RT								0.7		0.7						2.2	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 176+98, EXAMPLE 2 (SEE STANDARD C3-
178+36	178+41	RT								0.9		0.9						2.8	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 178+40, EXAMPLE 2 (SEE STANDARD C3-
178+75	178+88	RT								1.6		1.6				5		5.3	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 178+83, EXAMPLE 1 (SEE STANDARD C3-
182+64	184+17	LT								23.0														US ROUTE 5 SOUTHBOUND WIDENING
184+96	185+14	LT								2.0														US ROUTE 5 SOUTHBOUND WIDENING
186+26.0	189+52.5	LT														193	237							REMOVE SLIP RAMP CURB & RESET STA 187+64 - 189+52.5 (CLOSING ENTRANCE)
186+26.0	189+52.5	LT								316.3														EXCAVATE EXISTING SLIP RAMP PAVING AND SUBBASE
186+28.0	186+48.0	LT			1				387.5		25										25.0	1	1	CONNECT TO EXISTING SBGR STA 186+28.0
186+29	187+64	LT										29.4				75	102							REMOVE SLIP RAMP CURB AND RESET STA 187+26 TO 186+36 (CLOSING EXIT)
186+35	186+86	LT								28.5		61.4				41	50							REMOVE RAMP CURB AND RESET STA. 186+30 TO 186+81 (WIDEN RADIUS)
187+34.5	189+52.5	LT	214.5			1					25										25.0	1	1	INSTALL ANCHOR STA. 187+34.5; CONNECT TO EXISTING STA 189+52.5
203+14	203+21	RT								1.2		2.3						3.9						CONSTRUCT SIDEWALK
204+00	204+54	RT								143.6		147.7					353							REMOVE MEDIAN ISLAND AND CONSTRUCT NEW PEDESTRIAN REFUGE ISLAND
204+07	204+19	RT								5.6		10.5				22		18.1	24					INSTALL NEW SW RAMP, TYPE 2 IN EXISTING SIDEWALK (SEE STANDARD C3-A)
204+37	204+71	RT								33.7		34.8												REMOVE EXISTING TRAFFIC ISLAND
204+47	205+14	RT								94.2				197	106		101							REPLACE EXISTING TRAFFIC ISLAND
204+74	204+82	RT								6.4		7.9				21		13.6	8					INSTALL NEW SW RAMP TYPE 2 IN EXISTING SIDEWALK (SEE STANDARD C3-A)
SUBTOTALS			214.5	86	1	1	66	33	387.5	1519.4	50	2226.8	16.7	197	106	2580	1042	54.2	80	35.9	86	8	2	
ROUNDING			10.5	4	-	-	-	-	-	30.6	-	73.2	3.3	3	4	20	8	5.8	4	4.1	4	-	-	
TOTALS			225	90	1	1	66	33	387.5	1550	50	2300	20	200	110	2600	1050	60	84	40	90	8	2	*25 CY 203.30 AND 25 SY 653.20 PER GUARDRAIL ANCHOR

* ITEM CARRIED FORWARD TO QUANTITIY SHEETS, DETAILED SUMMARY OF QUANTITIES.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
ITEM DETAIL SUMMARY SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 35 OF 210

STONE FILL, TYPE I
STA. 148+36.80 TO 149+00, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 148+36.80 TO 150+00, SOLID LT & RT (EDGE LINES)
STA. 148+36.80 TO 149+31, SOLID LT (BIKE LANE)
STA. 148+36.80 TO 150+00, SOLID LT (LANE LINE)
STA. 148+36.80 TO 149+05 DOTTED LT (LANE LINE)
STA. 148+36.80 TO 150+00, SOLID RT (BIKE LANE)
STA. 148+36.80 TO 150+00, SOLID RT (DIAGONALS)
STA. 149+31 TO 150+00, DOTTED LT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 148+36.80 TO 150+00, DOUBLE SOLID LT & RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. 148+36.80 TO 150+00, SOLID RT (DIAGONALS)

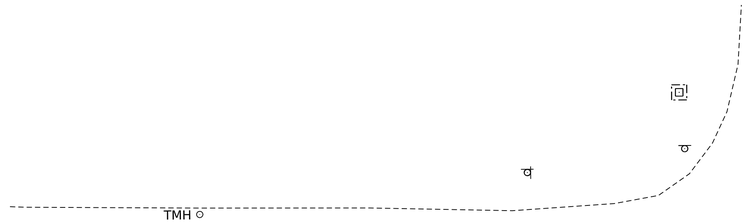
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 148+40, LT ARROW
STA. 148+59, LT BIKE LANE ARROW
STA. 148+71, LT BIKE LANE SYMBOL
STA. 148+80, LT "ONLY"
STA. 149+30, LT ARROW

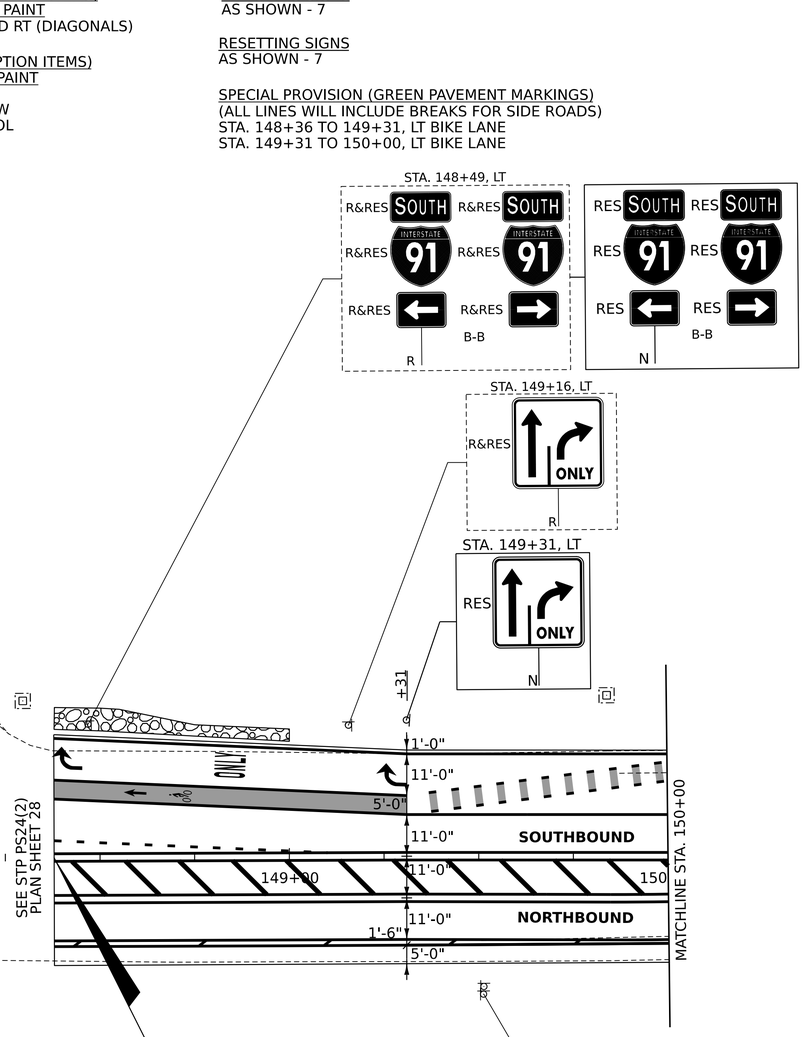
REMOVING SIGNS
AS SHOWN - 7

RESETTING SIGNS
AS SHOWN - 7

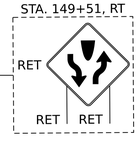
SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 148+36 TO 149+31, LT BIKE LANE
STA. 149+31 TO 150+00, LT BIKE LANE

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.





U.S. ROUTE 5
STA. 148+36.80 (MM 2.810)
STOP STP PS24(2)
BEGIN NH PS24(3)
CONTINUE PARTIAL DEPTH CONCRETE REMOVAL



GENERAL LEGEND

DWS = DETECTABLE WARNING SURFACE
SMH = EXISTING SEWER MANHOLE
DMH = EXISTING DRAINAGE MANHOLE
TMH = EXISTING TELEPHONE MANHOLE
UMH = EXISTING UNKNOWN MANHOLE
EMH = EXISTING ELECTRIC MANHOLE
= SINGLE SIGN POST - MULTIPLE SIGNS
= EXISTING TRAFFIC SIGNAL
PB = EXISTING LIGHTING PULL BOX
JB = EXISTING TRAFFIC SIGNAL JUNCTION BOX
CT = EXISTING TRAFFIC SIGNAL CONTROLLER BOX
= EXISTING TRUNCATED DOMES
= PROPOSED TRUNCATED DOMES
= STONE FILL SLOPE STABILIZATION
= PROPOSED SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
= HELMETED BICYCLIST SYMBOL SEE MUTCD 2009 EDITION: PART 9, SECTION 9C.04 PAGE 806 & 809

SIGN LEGEND

N = NEW
R = REMOVE
R&RES = REMOVE & RESETTING
RES = RESETTING SIGN
RET = RETAIN
B-B = BACK TO BACK
R① = REMOVE AND RETURN TO TOWN OF HARTFORD

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 36 OF 210

REMOVING AND RESETTING CURB
STA. 150+25 TO 152+59, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 150+00 TO 154+25, SOLID LT & RT (EDGE LINES)
STA. 150+00 TO 150+25, DOTTED LT (2)
STA. 150+00 TO 152+75, SOLID LT (LANE LINE)
STA. 150+00 TO 154+25, SOLID RT (BIKE LANE)
STA. 150+00 TO 154+25, SOLID RT (DIAGONALS)
STA. 150+25 TO 154+25, SOLID LT (DIAGONALS)
STA. 150+25 TO 154+25, SOLID LT (BIKE LANE)
STA, 152+75 TO 154+25, DOTTED LT (LANE LINE)
STA, 154+00 TO 154+25, DOTTED RT (LANE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 150+00 TO 154+25, SOLID LT & RT
STA. 150+00 TO 152+74, SOLID LT
STA. 150+00 TO 153+66, SOLID RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 150+00 TO 153+50, SOLID RT (DIAGONALS)

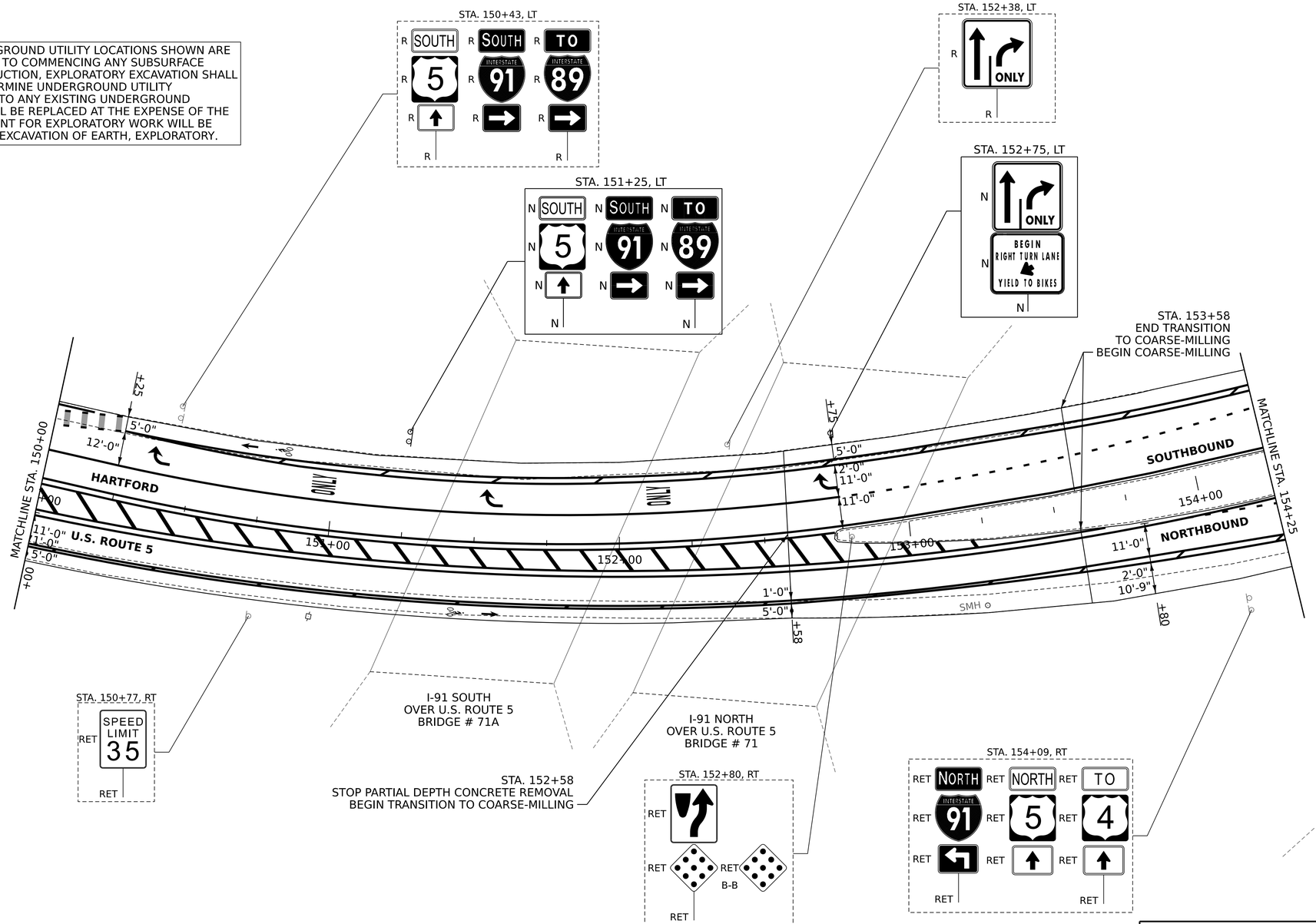
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 150+40, LT ARROW
STA. 150+69, LT BIKE LANE ARROW
STA. 150+81, LT BIKE LANE SYMBOL
STA. 150+97, LT "ONLY"
STA. 151+45, RT BIKE LANE SYMBOL
STA. 151+56, LT ARROW
STA. 151+57, RT BIKE LANE ARROW
STA. 152+13, LT "ONLY"
STA. 152+71, LT ARROW

REMOVING SIGNS
AS SHOWN - 10

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 150+00 TO 150+25, LT BIKE LANE

N
VT STATE PLANE GRID

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 37 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

REMOVAL OF EXISTING CURB
STA. 155+30 TO 156+14, RT
STA. 156+72 TO 157+71, RT

REMOVING AND RESETTING CURB
STA. 154+41 TO 154+91, RT-LT
STA. 155+21 TO 155+38, RT-LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 154+25 TO 155+70, DOTTED LT (LANE LINE)
STA. 154+25 TO 156+19, SOLID LT (BIKE LANE)
STA. 154+25 TO 156+19, SOLID LT (EDGE LINE)
STA. 154+25 TO 156+19, SOLID LT (DIAGONALS)
STA. 154+25 TO 155+00, SOLID RT (BIKE LANE)
STA. 154+25 TO 155+00, SOLID RT (EDGE LANE)
STA. 154+25 TO 155+27, DOTTED RT (LANE LINE)
STA. 155+05 TO 155+88, DOTTED RT (2)
STA. 155+27 TO 156+46, SOLID RT (LANE LINE)
STA. 155+94 TO 158+50, SOLID RT (EDGE LINE)
STA. 156+27 TO 156+91, DOTTED LT (2)
STA. 156+86 TO 157+32, DOUBLE SOLID LT (ISLAND)
STA. 157+00 TO 158+00, SOLID LT (BIKE LANE) (2)
STA. 157+00 TO 158+00, SOLID LT (DIAGONALS) (2)
STA. 157+00 TO 158+00, SOLID LT (LANE LINE)
STA. 157+05 TO 158+50, DOTTED RT (LANE LINE)
STA. 157+32 TO 158+00, SOLID LT (LANE LINE)
STA. 157+32 TO 158+00, SOLID LT (EDGE LINE)
STA. 158+00 TO 158+50, DOTTED LT (LANE LINE)
STA. 158+06 TO 158+49, DOTTED LT (BIKE LANE) (2)
STA. 158+49 TO 158+50, SOLID LT (EDGE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 154+25 TO 154+83, SOLID LT & RT
STA. 155+30 TO 156+16, SOLID LT & RT
STA. 156+96 TO 158+50, SOLID LT & RT

DURABLE 6 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 155+20, SOLID RT (EDGE LINE, I-91 NB OFF RAMP)
STA. 155+20, SOLID RT (LANE LINE, I-91 NB OFF RAMP)
STA. 156+86 TO 157+32, SOLID LT (DIAGONALS)
STA. 156+64, SOLID LT (EDGE LINE, I-91 NB ON RAMP)

DURABLE 6 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 155+20, SOLID RT (EDGE LINE, I-91 NB OFF RAMP)
STA. 156+64, SOLID LT (EDGE LINE, I-91 NB ON RAMP)

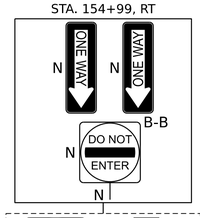
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 155+20, RT (I-91 NB OFF RAMP)

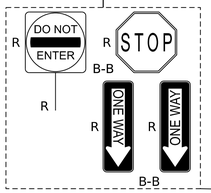
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 155+20, RT AROWS (2)
STA. 155+20, RT "STOP" (2)
STA. 155+20, RT "AHEAD" (2)
STA. 155+20, RT "STOP" (2)
STA. 155+31, RT ARROW
STA. 155+77, RT "ONLY"
STA. 155+94, LT BIKE LANE ARROW
STA. 155+98, RT BIKE LANE SYMBOL
STA. 156+06, LT BIKE LANE SYMBOL
STA. 156+10, RT BIKE LANE ARROW
STA. 156+20, RT ARROW
STA. 156+91, LT YIELD BARS (4)
STA. 157+01, LT ARROW
STA. 157+43, LT BIKE LANE ARROW
STA. 157+46, LT "ONLY"
STA. 157+55, LT BIKE LANE SYMBOL
STA. 157+96, LT ARROW

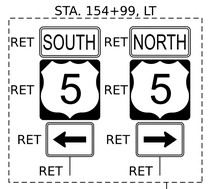
REMOVING SIGNS
AS SHOWN - 27

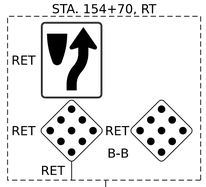
RESETTING SIGNS
AS SHOWN - 7

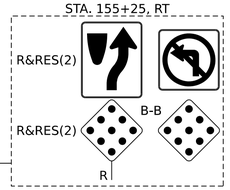
SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 155+05 TO 155+88, RT BIKE LANE
STA. 156+27 TO 156+91, LT BIKE LANE
STA. 157+00 TO 158+00, LT BIKE LANE
STA. 158+06 TO 158+49, LT BIKE LANE

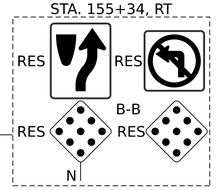


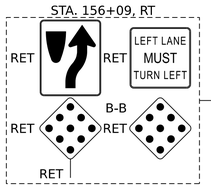


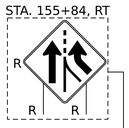


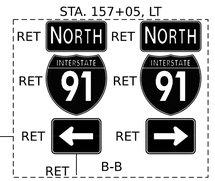


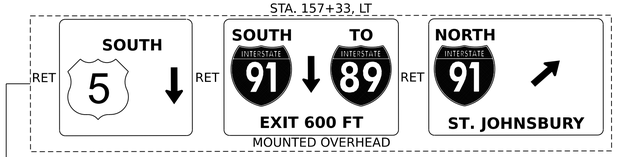


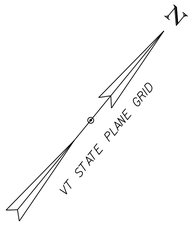


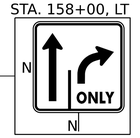






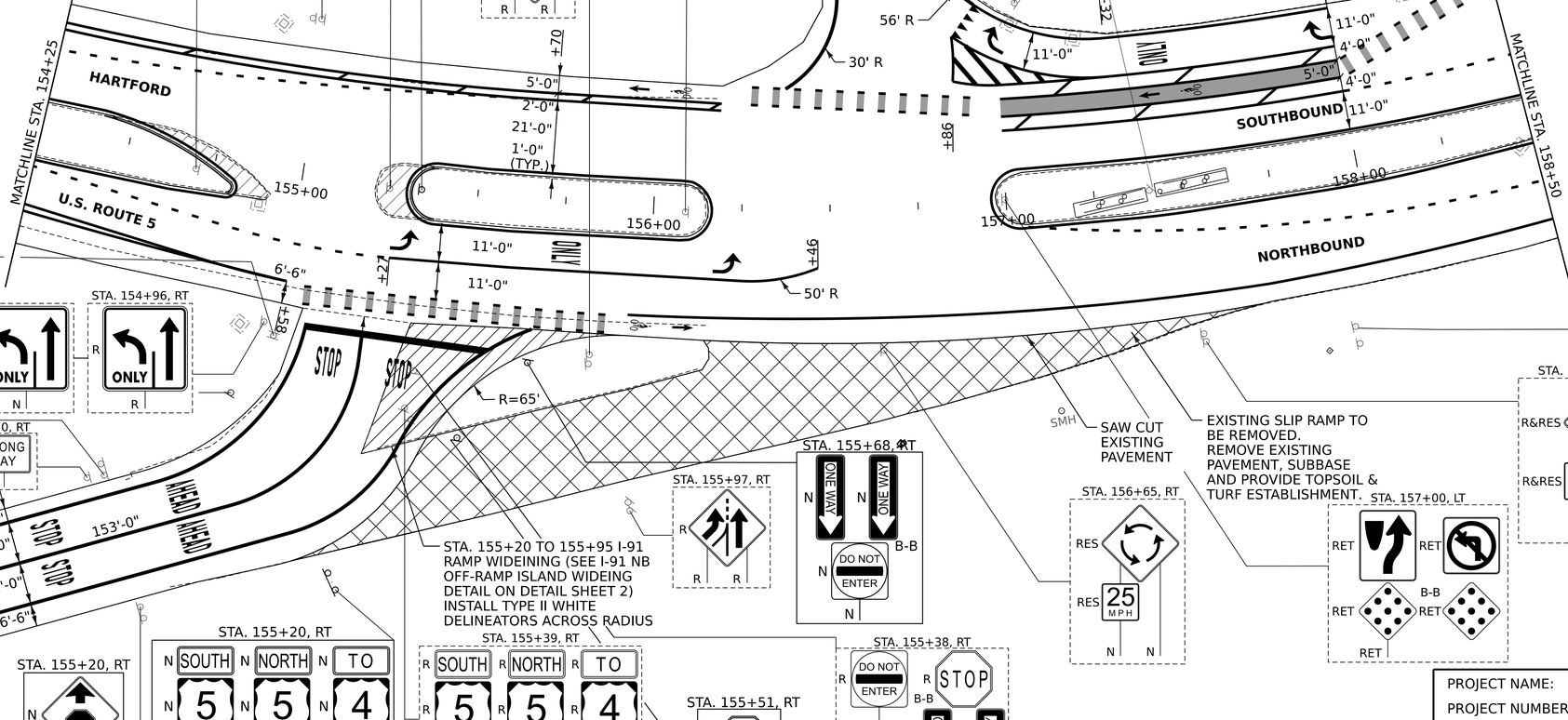


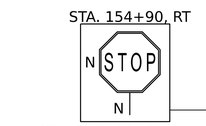


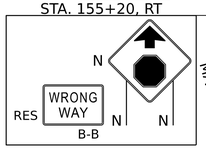


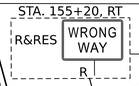
I-91
NORTHBOUND
ON RAMP
MM 2.967 = STA. 156+64
(PAVED)

LIMIT OF WORK







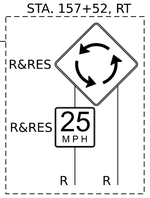


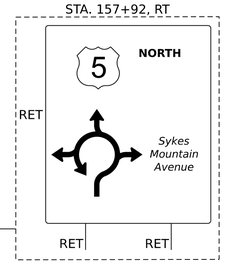
I-91
NORTHBOUND OFF RAMP
MM 2.939 = STA. 155+20
(PAVED)

MATCHLINE - SEE PLAN SHEET 3B

4'-0"
12'-0"
153'-0"
AHEAD
STOP

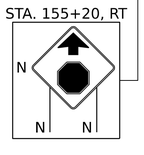
STA. 155+20 TO 155+95 I-91 RAMP WIDEINING (SEE I-91 NB OFF-RAMP ISLAND WIDEING DETAIL ON DETAIL SHEET 2)
INSTALL TYPE II WHITE DELINEATORS ACROSS RADIUS

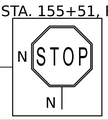




SAW CUT EXISTING PAVEMENT

EXISTING SLIP RAMP TO BE REMOVED.
REMOVE EXISTING PAVEMENT, SUBBASE AND PROVIDE TOPSOIL & TURF ESTABLISHMENT.





NOTES:
1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL
AREA OF PAVEMENT REMOVAL, TYPICAL

0 20 40
SCALE IN FEET

Stantec

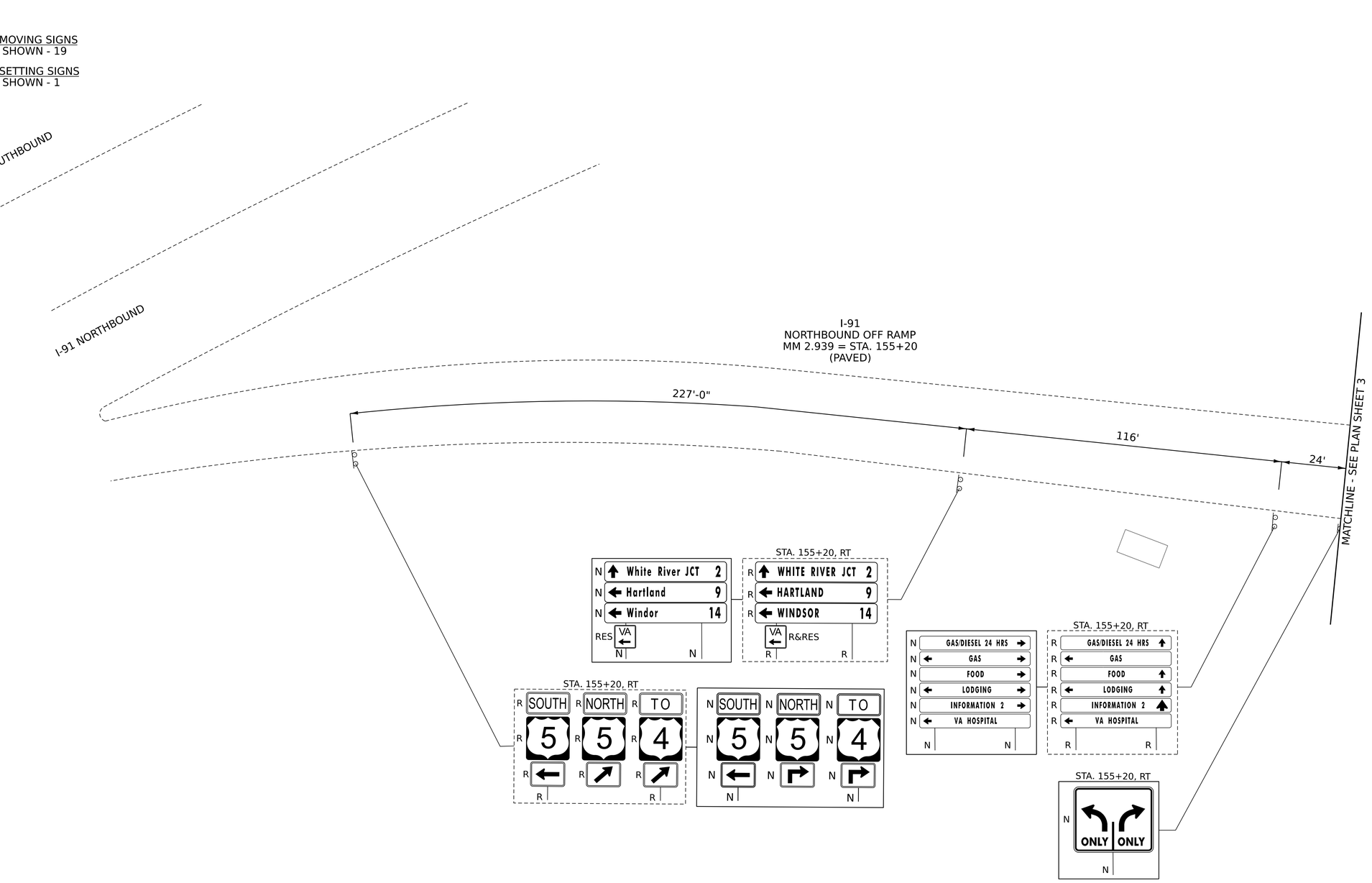
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 38 OF 210

REMOVING SIGNS
AS SHOWN - 19

RESETTING SIGNS
AS SHOWN - 1



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_bdr.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
PLAN SHEET 3B	SHEET 39 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 158+50 TO 163+50, SOLID LT & RT (EDGE LINES)
STA. 158+50 TO 158+72, DOTTED RT (LANE LINE)
STA. 158+50 TO 159+74, DOTTED LT (LANE LINE)
STA. 158+72 TO 160+20, SOLID RT (LANE LINE)
STA. 161+31 TO 163+22, SOLID LT (LANE LINE)
STA. 162+60 TO 163+50, SOLID RT (BIKE LANE)
STA. 162+60 TO 163+50, SOLID RT (DIAGONALS)
STA. 163+22 TO 163+50, DASHED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 158+50 TO 160+18, SOLID LT
STA. 158+50 TO 160+11, SOLID RT
STA. 161+35 TO 163+50, SOLID LT & RT (ISLAND)

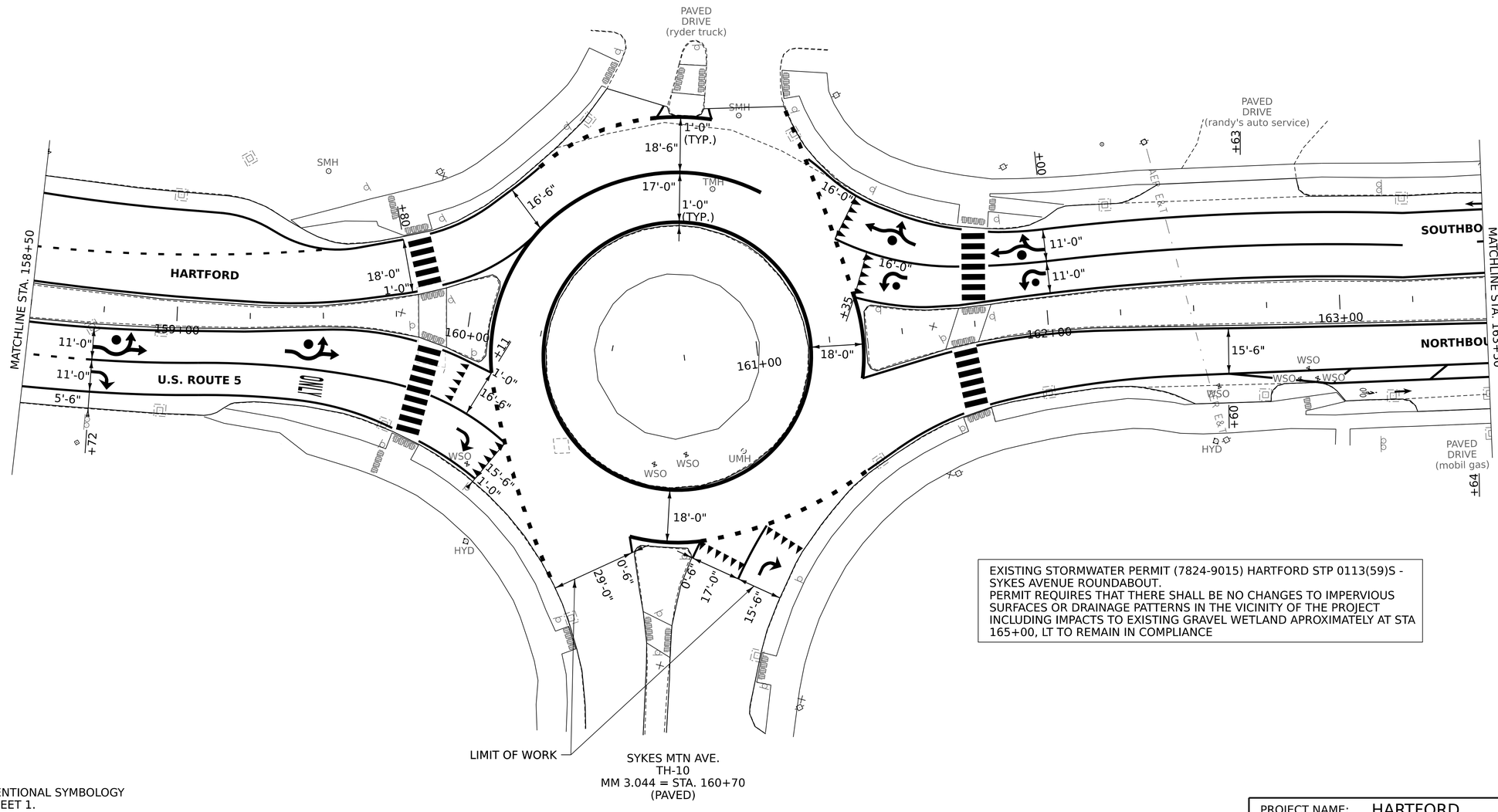
DURABLE 8 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 8 INCH WHITE LINE, PAINT
STA. 160+08 TO 161+36, SOLID LT & RT
(EDGE/LANE LINES, ROUNDABOUT)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. 160+26 TO 161+18, SOLID LT & RT (CENTER CIRCLE, ROUNDABOUT)

DURABLE 12 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 12 INCH WHITE LINE, PAINT
STA. 160+11 TO 160+46, DOTTED RT (EDGE LINE)
STA. 160+13 TO 160+49, DOTTED LT (EDGE LINE)
STA. 160+73 TO 161+33, DOTTED RT (EDGE LINE)
STA. 161+19 TO 161+35, DOTTED LT (EDGE LINE)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 158+75, RT ARROW
STA. 158+80, RT, TYPE LTC ROUNDABOUT TRAFFIC ARROW
STA. 159+45, RT "ONLY"
STA. 159+45, RT, TYPE LTC ROUNDABOUT TRAFFIC ARROW
STA. 160+00, RT YIELD (5)
STA. 160+04, RT ARROW
STA. 160+17, RT YIELD (5)
STA. 160+78, RT YIELD (6)
STA. 160+95, RT ARROW
STA. 161+02, RT YIELD (5)
STA. 161+35, LT YIELD (5)
STA. 161+38, LT YIELD (5)
STA. 161+49, LT, TYPE LTC ROUNDABOUT TRAFFIC ARROW
STA. 161+50, LT, TYPE LC ROUNDABOUT TRAFFIC ARROW
STA. 161+93, LT, TYPE LTC ROUNDABOUT TRAFFIC ARROW
STA. 161+97, LT, TYPE LC ROUNDABOUT TRAFFIC ARROW
STA. 163+09, RT BIKE LANE SYMBOL
STA. 163+21, RT BIKE LANE ARROW
STA. 163+47, LT BIKE LANE ARROW

DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 159+84, LT (MAINLINE)
STA. 159+85, RT (MAINLINE)
STA. 161+72, LT (MAINLINE)
STA. 161+76, RT (MAINLINE)



EXISTING STORMWATER PERMIT (7824-9015) HARTFORD STP 0113(59)S - SYKES AVENUE ROUNDABOUT.
PERMIT REQUIRES THAT THERE SHALL BE NO CHANGES TO IMPERVIOUS SURFACES OR DRAINAGE PATTERNS IN THE VICINITY OF THE PROJECT INCLUDING IMPACTS TO EXISTING GRAVEL WETLAND APROXIMATELY AT STA 165+00, LT TO REMAIN IN COMPLIANCE

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

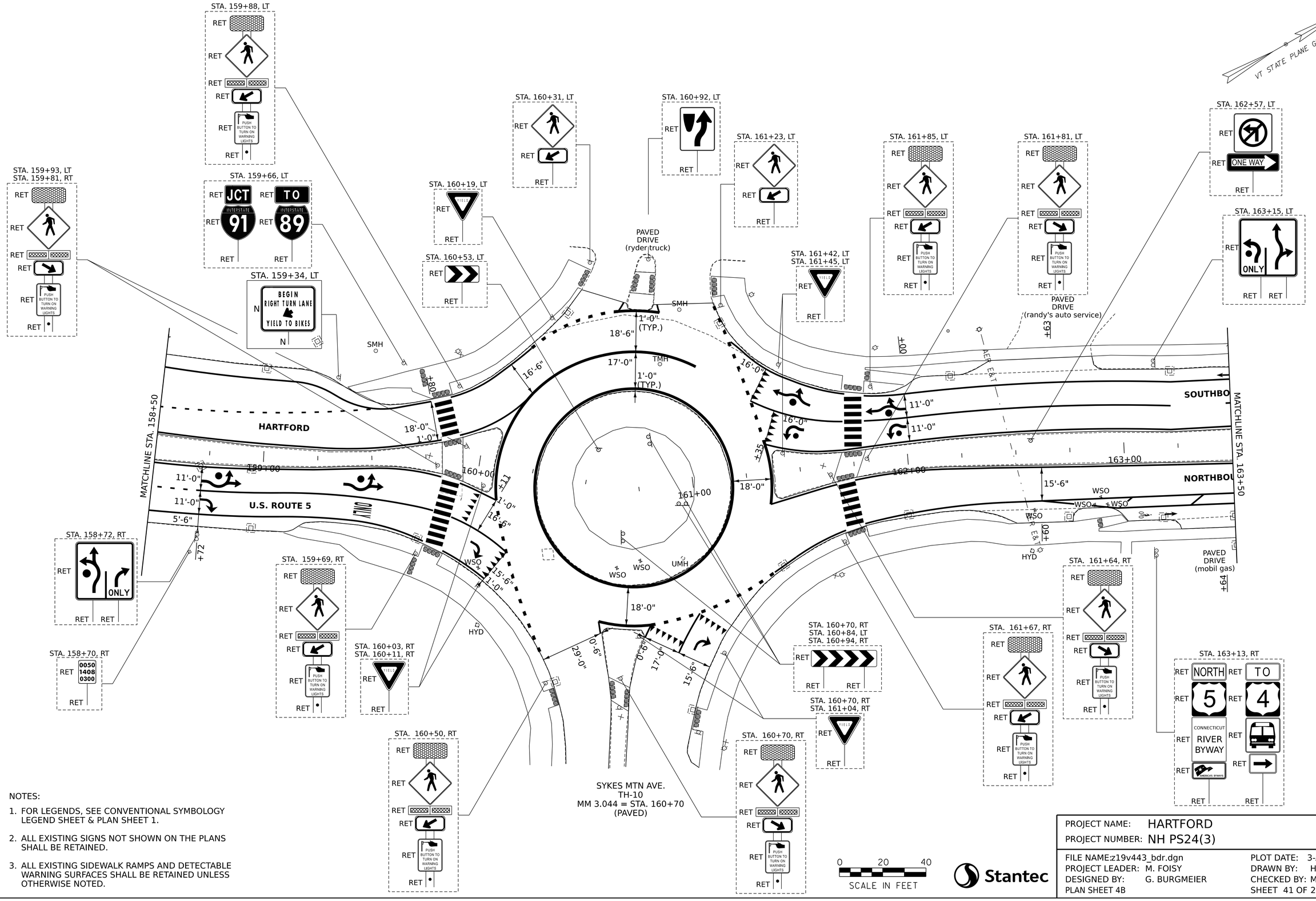
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 4

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 40 OF 210



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 4B

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 41 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA. 165+31 TO 165+39, RT
STA. 165+91 TO 166+00, RT

REMOVING AND RESETTING CURB
STA. 168+32 TO 169+00, RT (MEDIAN)

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 163+50 TO 169+00, SOLID LT & RT (EDGE LINES)
STA. 163+50 TO 169+00, DASHED LT
STA. 163+50 TO 165+20, SOLID RT (BIKE LANE)
STA. 163+50 TO 165+20, SOLID RT (DIAGONALS)
STA. 163+69 TO 164+53, DOTTED RT (LANE LINE)
STA. 164+53 TO 165+45, SOLID RT (LANE LINE)
STA. 165+24 TO 166+12, DOTTED RT (2)
STA. 165+65, SOLID RT (EDGE LINES AIRPORT RD. TH-101)
STA. 166+04 TO 167+51, SOLID LT (LANE LINE)
STA. 166+18 TO 169+00, SOLID RT (BIKE LANE)
STA. 166+18 TO 169+00, SOLID RT (DIAGONALS)
STA. 167+51 TO 169+00, DOTTED LT (LANE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 163+50 TO 164+99, SOLID LT & RT (ISLAND)
STA. 165+65, DOUBLE SOLID RT (AIRPORT RD. TH-101)
STA. 166+02 TO 169+00, SOLID RT (ISLAND) (2)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 165+65, RT (AIRPORT ST. TH-101)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 163+59, LT BIKE LANE SYMBOL
STA. 163+50 TO 164+99, SOLID LT & RT (ISLAND)
STA. 164+56, RT ARROW
STA. 165+11, RT ARROW
STA. 165+65, RT "STOP" (AIRPORT RD. TH-101)
STA. 166+10, LT ARROW
STA. 166+27, RT BIKE LANE SYMBOL
STA. 166+39, RT BIKE LANE ARROW
STA. 166+59, LT BIKE LANE ARROW
STA. 166+71, LT BIKE LANE SYMBOL
STA. 166+78, LT "ONLY"
STA, 167+48, LT ARROW

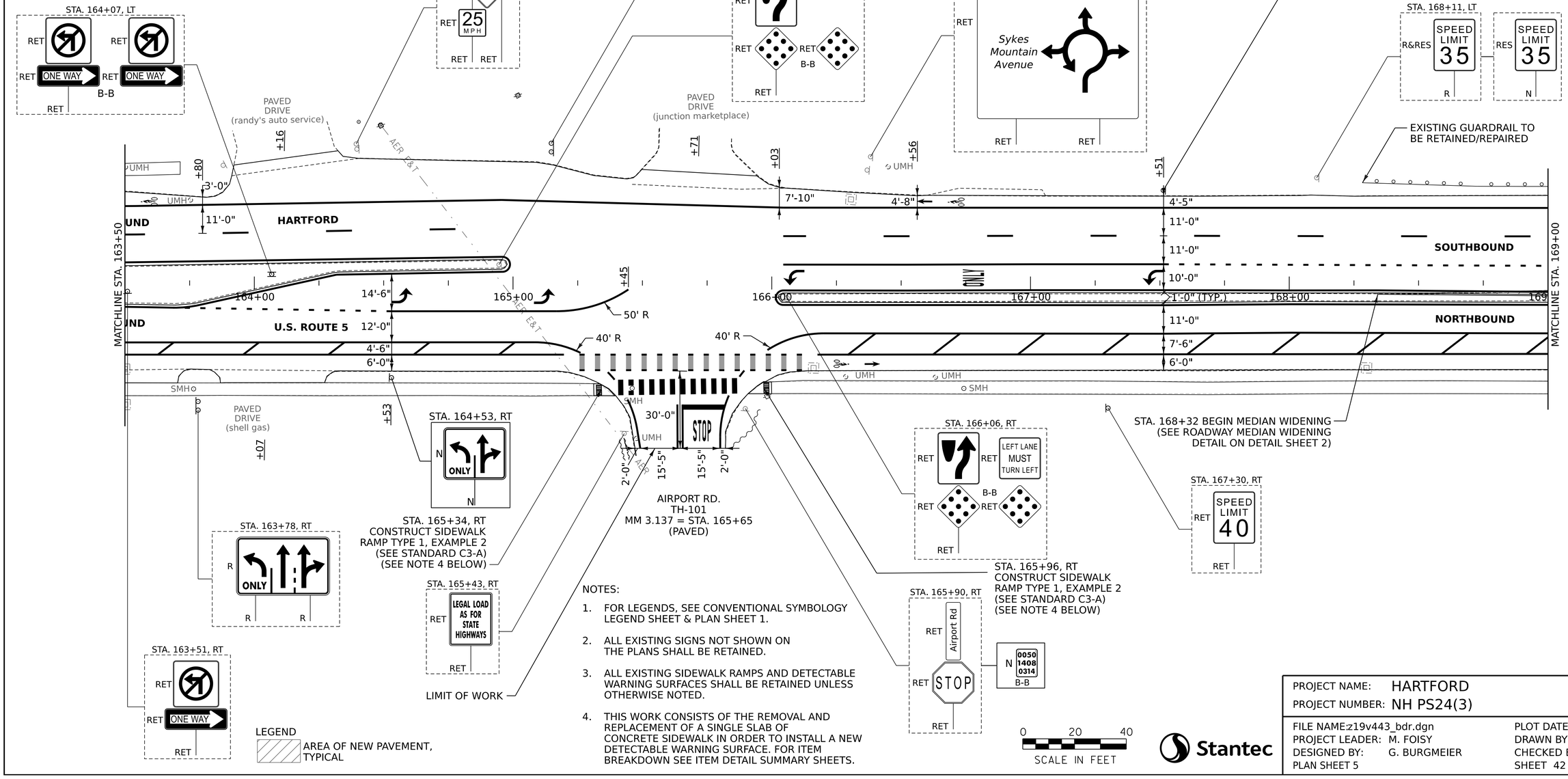
DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 165+65, RT (AIRPORT RD. TH-101)

REMOVING SIGNS
AS SHOWN - 2

RESETTING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 165+24 TO 166+12, RT BIKE LANE

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.
4. THIS WORK CONSISTS OF THE REMOVAL AND REPLACEMENT OF A SINGLE SLAB OF CONCRETE SIDEWALK IN ORDER TO INSTALL A NEW DETECTABLE WARNING SURFACE. FOR ITEM BREAKDOWN SEE ITEM DETAIL SUMMARY SHEETS.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 5

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 42 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

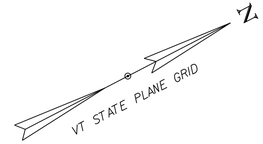
REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

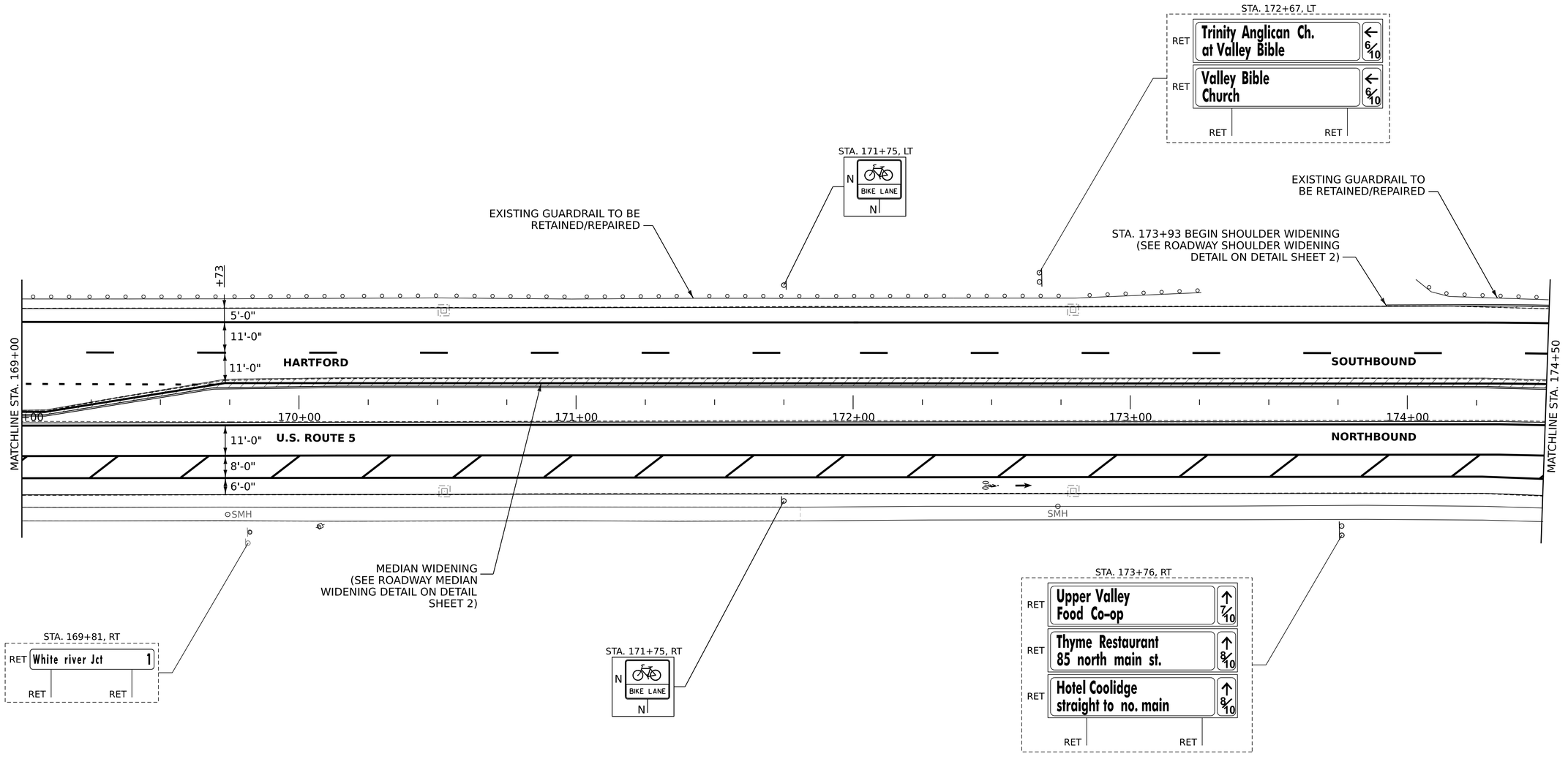
REMOVING AND RESETTING CURB
STA. 169+00 TO 174+50, RT-LT (MEDIAN)
STA. 173+93 TO 174+50, LT (SHOULDER)

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 169+00 TO 174+50, SOLID LT & RT (EDGE LINES)
STA. 169+00 TO 174+50, DASHED LT
STA. 169+00 TO 174+50, SOLID RT (BIKE LANE)
STA. 169+00 TO 174+50, SOLID RT (DIAGONALS)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 169+00 TO 174+50, SOLID LT & RT

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 172+50, RT BIKE LANE SYMBOL
STA. 172+62, RT BIKE LANE ARROW





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 6

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA. 176+71 TO 176+76, RT
STA. 176+95 TO 177+00, RT
STA. 178+36 TO 178+41, RT
STA. 178+75 TO 178+88, RT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

REMOVING AND RESETTING CURB
STA. 174+50 TO 176+80, LT (MEDIAN)
STA. 174+50 TO 180+25, LT (SHOULDER)
STA. 178+83 TO 178+88, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 174+50 TO 180+25, SOLID LT & RT (EDGE LINES)
STA. 174+50 TO 180+25, SOLID RT (DIAGONALS)
STA. 174+50 TO 180+25, SOLID RT (BIKE LANE)
STA. 174+50 TO 180+25, DASHED LT
STA. 176+71 TO 176+98, DOTTED RT (2)
STA. 176+77 TO 178+57, SOLID RT (EDGE LINE) (JUG HANDLE)
STA. 176+83 TO 177+36, DOTTED LT
STA. 177+36 TO 180+00, SOLID LT (LANE LINE)
STA. 178+41 TO 178+80, DOTTED RT (2)
STA. 180+00 TO 180+25, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 174+50 TO 176+86, SOLID LT & RT (ISLAND)
STA. 176+94 TO 178+43, SOLID RT (JUG HANDLE)
STA. 177+33 TO 180+25, SOLID LT & RT (ISLAND)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 178+42, RT (JUG HANDLE)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 175+63, LT BIKE LANE ARROW
STA. 175+75, LT BIKE LANE SYMBOL
STA. 176+84, RT ARROW (JUGHANDLE)
STA. 177+41, LT ARROW
STA. 178+06, LT "ONLY"
STA. 178+42, RT "STOP" (JUGHANDLE)
STA. 178+69, LT ARROW
STA. 179+00, RT BIKE LANE SYMBOL
STA. 179+12, RT BIKE LANE ARROW
STA. 179+30, LT "ONLY"
STA. 179+96, LT ARROW

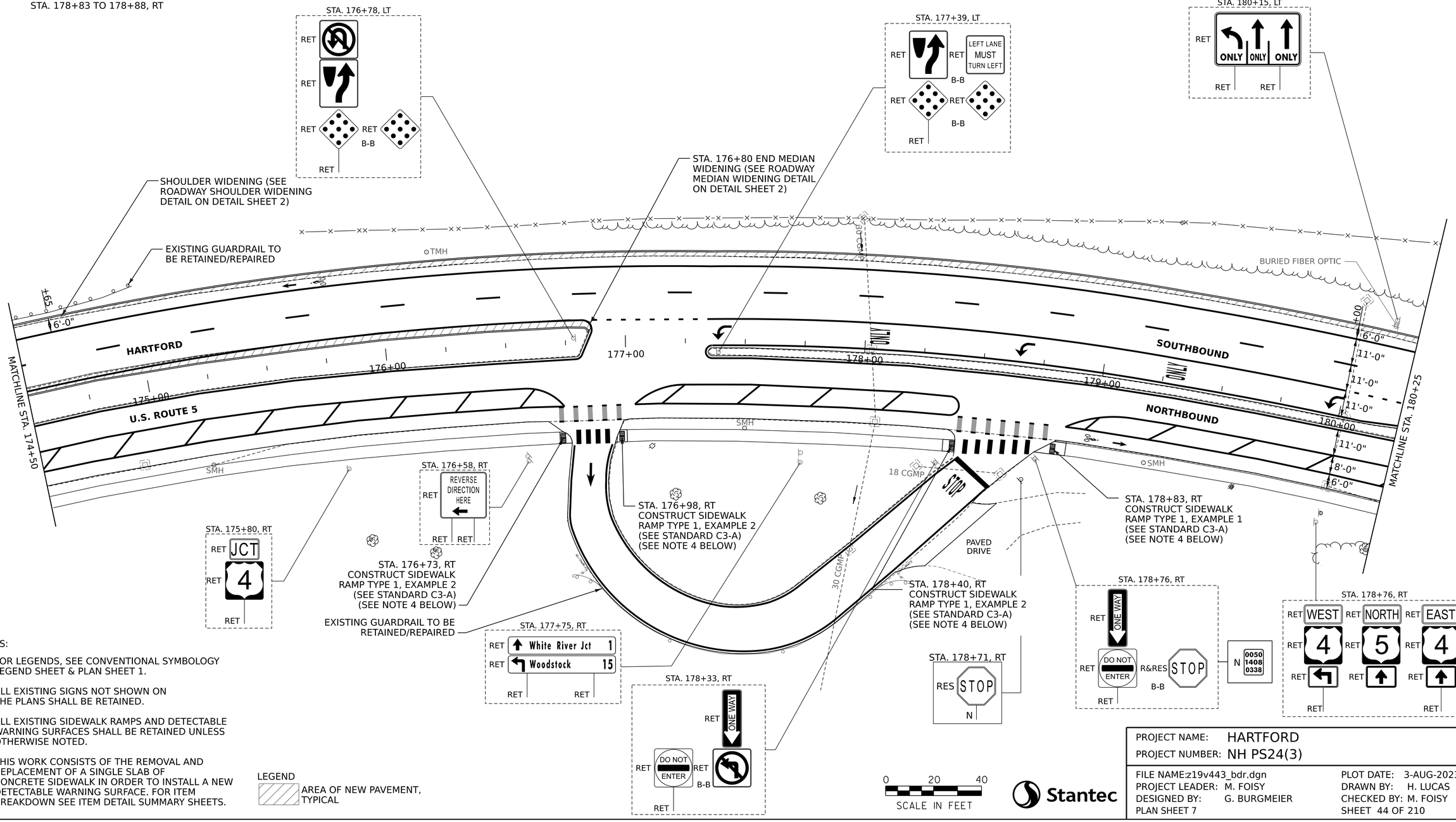
DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 176+78 TO 176+93, RT (JUGHANDLE)
STA. 178+43 TO 178+75, RT (JUGHANDLE)

REMOVE SIGNS
AS SHOWN - 1

RESETTING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 176+71 TO 176+98, RT BIKE LANE
STA. 178+41 TO 178+80, RT BIKE LANE

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.
4. THIS WORK CONSISTS OF THE REMOVAL AND REPLACEMENT OF A SINGLE SLAB OF CONCRETE SIDEWALK IN ORDER TO INSTALL A NEW DETECTABLE WARNING SURFACE. FOR ITEM BREAKDOWN SEE ITEM DETAIL SUMMARY SHEETS.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 7

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 44 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

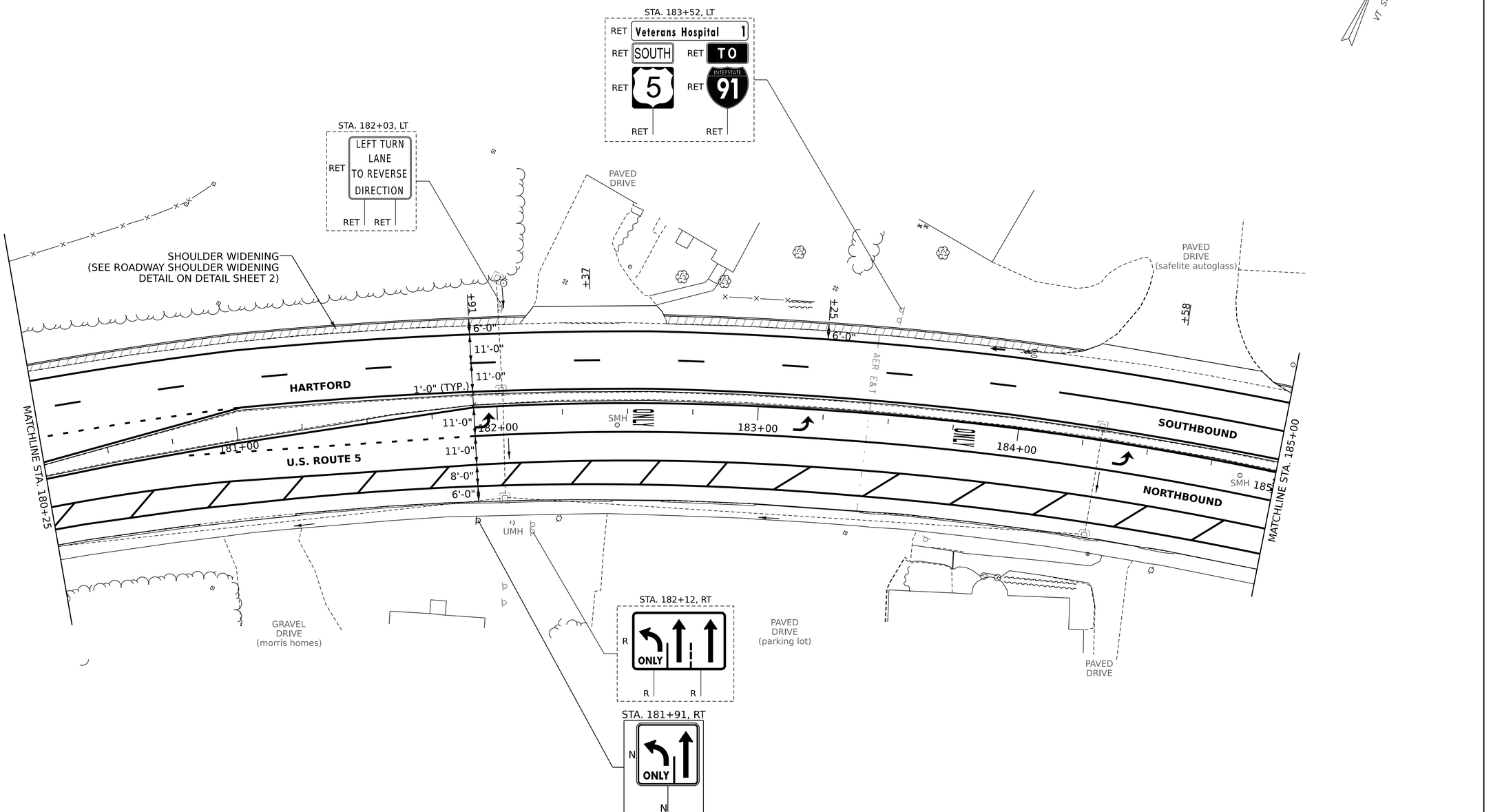
REMOVING AND RESETTING CURB
STA. 180+25 TO 185+00, LT (SHOULDER)

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 180+25 TO 185+00, SOLID LT & RT (EDGE LINES)
STA. 180+25 TO 181+01, DOTTED LT (LANE LINE)
STA. 180+25 TO 184+14, DASHED LT
STA. 184+14 TO 185+00, SOLID LT (LANE LINE)
STA. 180+25 TO 185+00, SOLID RT (BIKE LANE)
STA. 180+25 TO 185+00, SOLID RT (DIAGONALS)
STA. 180+77 TO 181+91, DOTTED RT (LANE LINE)
STA. 181+91 TO 185+00, SOLID RT (LANE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 180+25 TO 185+00, SOLID LT & RT (ISLAND)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 181+94, RT ARROW
STA. 182+56, RT "ONLY"
STA. 183+16, RT ARROW
STA. 183+79, RT "ONLY"
STA. 183+88, LT BIKE LANE ARROW
STA. 184+00, LT BIKE LANE SYMBOL
STA. 184+40, RT ARROW

REMOVING SIGNS
AS SHOWN - 1



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 8

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 187+34.5 TO 189+52.5, LT

MANUFACTURED TERMINAL SECTION, TANGENT
STA. 186+28 TO 186+48, LT

ANCHOR FOR STEEL BEAM RAIL
STA. 187+34.5, LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 186+28 TO 189+52.5, LT

REMOVING AND RESETTING CURB
STA. 185+00 TO 185+15, LT (SHOULDER)
STA. 186+26 TO 189+52.5, LT
STA. 186+29 TO 187+64, LT
STA. 186+35 TO 186+36, LT

REMOVAL OF EXISTING CURB
STA. 186+26 TO 189+52.5, LT
STA. 186+29 TO 187+64, LT
STA. 186+35 TO 186+86, LT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 185+00 TO 190+00, SOLID LT & RT (EDGE LINES)
STA. 185+00 TO 185+72, SOLID RT (LANE LINE)
STA. 185+00 TO 186+05, SOLID LT (LANE LINE)
STA. 185+00 TO 190+00, SOLID RT (BIKE LANE)
STA. 185+00 TO 190+00, SOLID RT (DIAGONALS)
STA. 185+17 TO 185+29, DOTTED LT (2)
STA. 185+24 TO 186+03, SOLID LT (BIKE LANE)
STA. 185+24 TO 186+02, SOLID LT (DIAGONALS)
STA. 186+01, SOLID LT (EDGE LINES, WOODSTOCK RD.)
STA. 186+01, SOLID LT (DIAGONALS, WOODSTOCK RD.)
STA. 186+03 TO 186+43, DOTTED LT (2)
STA. 186+43 TO 188+17, SOLID LT (BIKE LANE) (2)
STA. 188+17 TO 189+34, DOTTED LT (2)
STA. 189+34 TO 190+00, SOLID LT (2) (BIKE LANE)
STA. 189+34 TO 190+00, SOLID LT (LANE LINE)
STA. 189+34 TO 190+00, SOLID LT (DIAGONALS)

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT (CONT.)
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 186+01, SOLID LT (DIAGONALS, WOODSTOCK RD.)
STA. 186+05 TO 186+42, DOTTED LT (2)
STA. 186+35 TO 189+29, SOLID LT (EDGE LINE)
STA. 186+43 TO 190+00, SOLID LT (BIKE LANE) (2)
STA. 186+45 TO 187+84, SOLID LT (LANE LINE)
STA. 187+84 TO 189+60, DOTTED LT
STA. 189+34 TO 190+00, SOLID LT (DIAGONALS)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 185+00 TO 185+72, SOLID LT & RT
STA. 186+01, DOUBLE SOLID LT (WOODSTOCK RD.)
STA. 186+01, SOLID LT (DIAGONALS, WOODSTOCK RD.)
STA. 186+28 TO 187+32, SOLID LT
STA. 186+28 TO 188+11, SOLID RT
STA. 187+32 TO 188+47, DOUBLE SOLID LT
STA. 188+11 TO 188+47, DOUBLE SOLID RT
STA. 189+32 TO 190+00, SOLID LT & RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. 187+32 TO 188+47, RT (DIAGONALS)

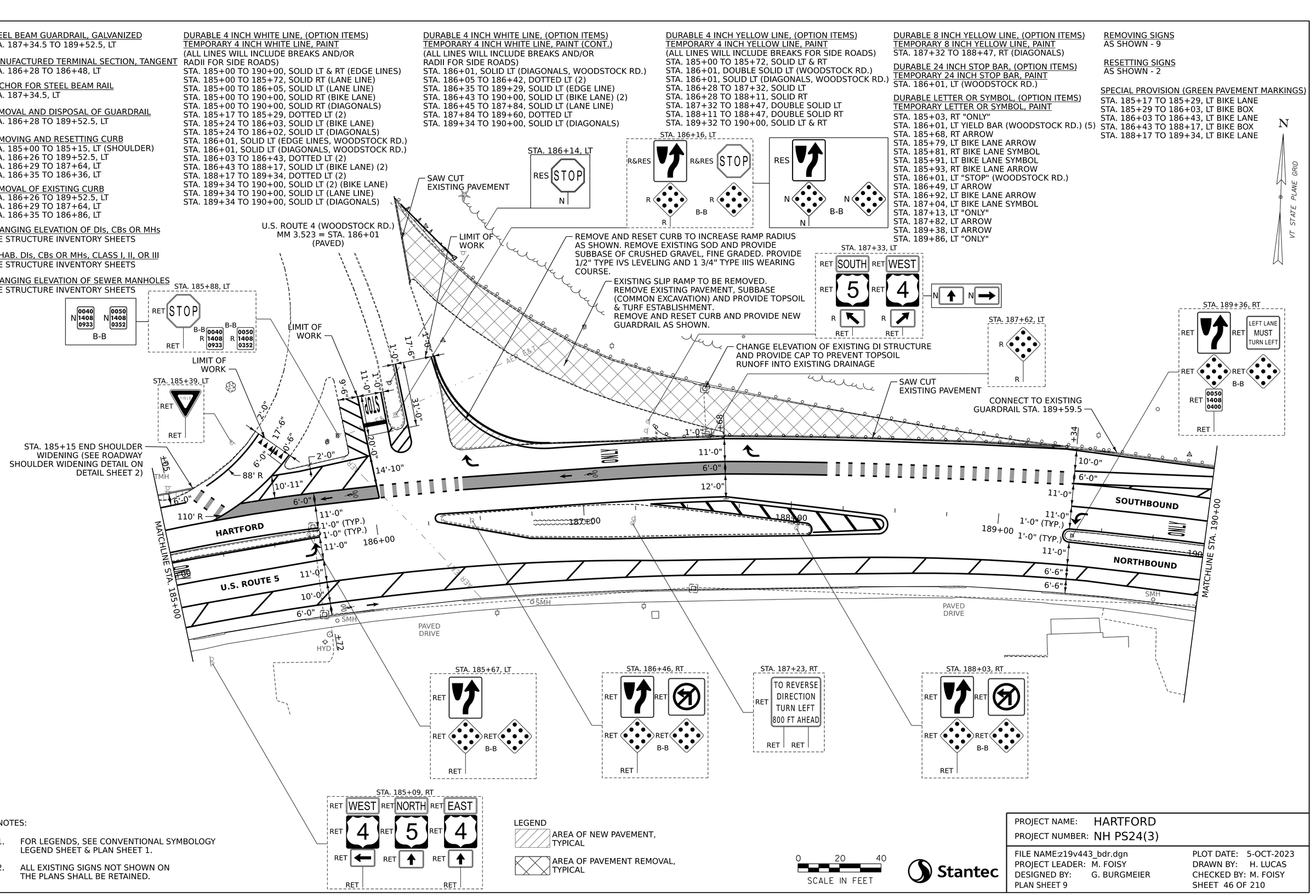
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 186+01, LT (WOODSTOCK RD.)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 185+03, RT "ONLY"
STA. 186+01, LT YIELD BAR (WOODSTOCK RD.) (5)
STA. 185+68, RT ARROW
STA. 185+79, LT BIKE LANE ARROW
STA. 185+81, RT BIKE LANE SYMBOL
STA. 185+91, LT BIKE LANE SYMBOL
STA. 185+93, RT BIKE LANE ARROW
STA. 186+01, LT "STOP" (WOODSTOCK RD.)
STA. 186+49, LT ARROW
STA. 186+92, LT BIKE LANE ARROW
STA. 187+04, LT BIKE LANE SYMBOL
STA. 187+13, LT "ONLY"
STA. 187+82, LT ARROW
STA. 189+38, LT ARROW
STA. 189+86, LT "ONLY"

REMOVING SIGNS
AS SHOWN - 9

RESETTING SIGNS
AS SHOWN - 2

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 185+17 TO 185+29, LT BIKE LANE
STA. 185+29 TO 186+03, LT BIKE BOX
STA. 186+03 TO 186+43, LT BIKE LANE
STA. 186+43 TO 188+17, LT BIKE BOX
STA. 188+17 TO 189+34, LT BIKE LANE



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

LEGEND
AREA OF NEW PAVEMENT, TYPICAL
AREA OF PAVEMENT REMOVAL, TYPICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 9

PLOT DATE: 5-OCT-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

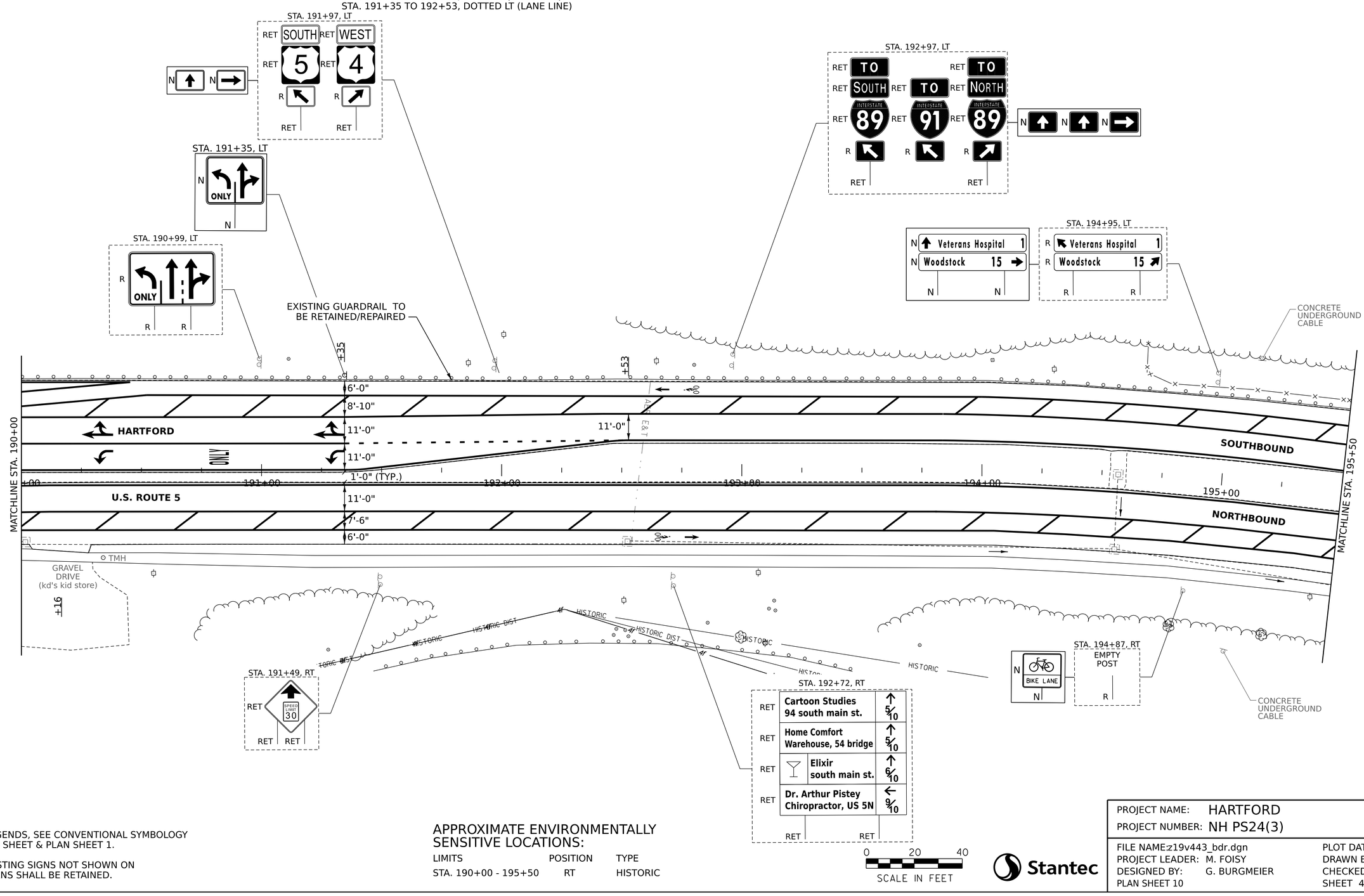
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 190+00 TO 195+50, SOLID LT & RT (EDGE LINES)
STA. 190+00 TO 195+50, SOLID LT & RT (BIKE LANES)
STA. 190+00 TO 195+50, SOLID LT & RT (DIAGONALS)
STA 190+00 TO 190+45, SOLID LT (LANE LINE)
STA 190+00 TO 190+45, SOLID LT (BIKE LANE)
STA. 190+00 TO 191+35, SOLID LT (LANE LINE)
STA. 191+35 TO 192+53, DOTTED LT (LANE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 190+00 TO 195+50, SOLID LT & RT (ISLAND)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 190+35, LT ARROW (3)
STA. 190+82, LT "ONLY"
STA. 191+31, LT ARROW (3)
STA. 192+67, LT BIKE LANE ARROW
STA. 192+67, RT BIKE LANE SYMBOL
STA. 192+79, RT BIKE LANE ARROW
STA. 192+79, LT BIKE LANE SYMBOL

REMOVING SIGNS
AS SHOWN - 9

N
VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 190+00 - 195+50	RT	HISTORIC

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_bdr.dgn	PLOT DATE: 5-OCT-2023
PROJECT LEADER: M. FOISY	DRAWN BY: H. LUCAS
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
PLAN SHEET 10	SHEET 47 OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 195+50 TO 196+02, SOLID LT (EDGE LINE)
STA. 195+50 TO 196+02, SOLID LT (BIKE LANE)
STA. 195+50 TO 196+02, SOLID LT (DIAGONALS)
STA. 195+50 TO 201+00, SOLID RT (BIKE LANE)
STA. 195+50 TO 201+00, SOLID RT (DIAGONALS)
STA. 195+50 TO 201+00, SOLID RT (EDGE LINE)
STA. 196+07 TO 196+27, DOTTED LT (2)
STA. 196+07 TO 198+60, DOTTED RT (LANE LINE)
STA. 196+17, SOLID LT (EDGE LINES)(LANTERN LN)
STA. 196+33 TO 197+92, SOLID LT (EDGE LINE)
STA. 196+33 TO 197+92, SOLID LT (BIKE LANE)
STA. 196+33 TO 197+92, SOLID LT (DIAGONALS)
STA. 197+25 TO 197+69, SOLID LT (GORE AND DIAGONALS)
STA. 197+35 TO 198+66, SOLID LT (EDGE LINE)
STA. 197+69 TO 198+86, DOTTED LT
STA. 197+94 TO 198+94, DOTTED LT (2)
STA. 198+60 TO 201+00, SOLID RT (LANE LINE)
STA. 198+96 TO 201+00, SOLID LT (EDGE LINE)
STA. 198+96 TO 201+00, SOLID LT (BIKE LANE)
STA. 198+96 TO 201+00, SOLID LT (DIAGONALS)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 195+50 TO 201+00, SOLID LT & RT

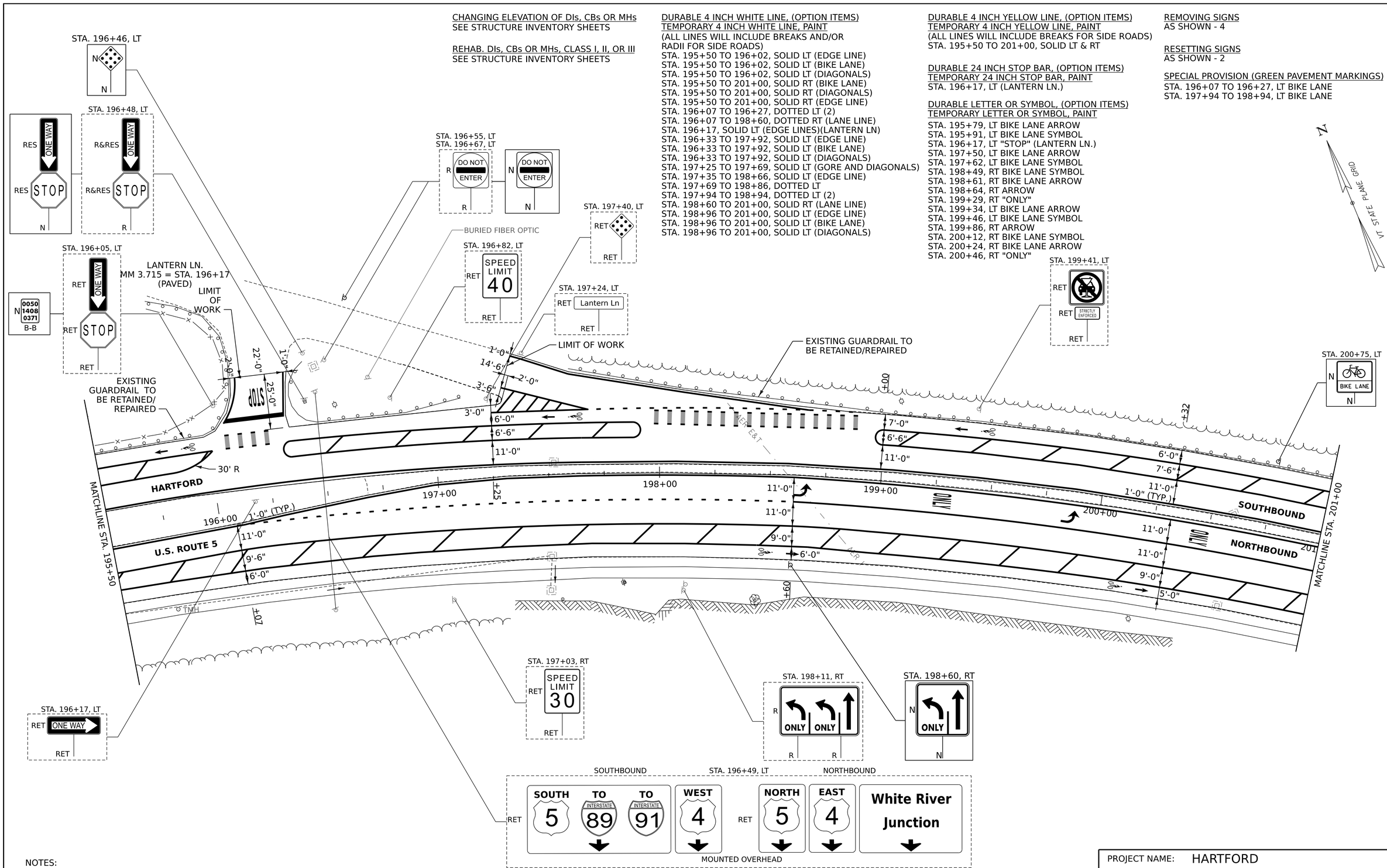
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 196+17, LT (LANTERN LN.)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 195+79, LT BIKE LANE ARROW
STA. 195+91, LT BIKE LANE SYMBOL
STA. 196+17, LT "STOP" (LANTERN LN.)
STA. 197+50, LT BIKE LANE ARROW
STA. 197+62, LT BIKE LANE SYMBOL
STA. 198+49, RT BIKE LANE SYMBOL
STA. 198+61, RT BIKE LANE ARROW
STA. 198+64, RT ARROW
STA. 199+29, RT "ONLY"
STA. 199+34, LT BIKE LANE ARROW
STA. 199+46, LT BIKE LANE SYMBOL
STA. 199+86, RT ARROW
STA. 200+12, RT BIKE LANE SYMBOL
STA. 200+24, RT BIKE LANE ARROW
STA. 200+46, RT "ONLY"

REMOVING SIGNS
AS SHOWN - 4

RESETTING SIGNS
AS SHOWN - 2

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 196+07 TO 196+27, LT BIKE LANE
STA. 197+94 TO 198+94, LT BIKE LANE



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 200+33 - 201+00	RT	HISTORIC

SCALE IN FEET 0 20 40

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:z19v443_bdr.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: H. LUCAS
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
PLAN SHEET 11	SHEET 48 OF 210

THINNING AND TRIMMING FOR SIGNS
STA. 204+91, LT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

VERTICAL GRANITE CURB
STA. 204+47 TO 205+14, RT

VERTICAL GRANITE CURB, MOUNTABLE
STA. 204+37 TO 205+14, RT

REMOVING AND RESETTING CURB
STA. 204+07 TO 204+19, RT
STA. 204+74 TO 204+78, RT

REMOVAL OF EXISTING CURB
STA. 204+00 TO 204+79, RT
STA. 204+37 TO 204+71, RT

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA. 203+17, RT (N MAIN ST.)
STA. 204+11, RT (N MAIN ST.)
STA. 204+75, RT (N MAIN ST.)

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 201+00 TO 203+54, SOLID RT (LANE LINE)
STA. 201+00 TO 203+74, SOLID RT (EDGE LINE)
STA. 201+00 TO 203+74, SOLID RT (DIAGONALS)
STA. 201+00 TO 203+74, SOLID RT (BIKE LANE)
STA. 201+00 TO 203+59, SOLID LT (EDGE LINE)
STA. 201+00 TO 203+59, SOLID LT (DIAGONALS)
STA. 201+00 TO 203+59, SOLID LT (BIKE LANE)
STA. 202+97 TO 204+92, SOLID LT (EDGE LINE)
STA. 203+15 TO 203+38, DOTTED LT
STA. 203+38 TO 204+64, SOLID LT (BIKE LANE)
STA. 203+40 TO 204+49, DOTTED LT TO RT (2)
STA. 203+78, DOTTED LT & RT (2)
STA. 203+85, DOTTED RT (2) (N MAIN ST.)
STA. 203+85, SOLID RT (EDGE LINES) (N MAIN ST.)
STA. 203+85, SOLID RT (DIAGONALS) (N MAIN ST.)
STA. 203+85, SOLID RT (BIKE LANE) (N MAIN ST.)
STA. 203+83 TO 204+18, SOLID RT (EDGE LINE)
STA. 203+83 TO 204+18, SOLID RT (DIAGONALS)
STA. 203+83 TO 204+18, SOLID RT (BIKE LANE)
STA. 204+12 TO 205+15, SOLID LT (EDGE LINE)
STA. 204+12 TO 205+15, SOLID LT (DIAGONALS)
STA. 204+12 TO 205+15, SOLID LT (BIKE LANE)
STA. 204+43 TO 204+67, SOLID RT (BIKE BOX)(2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 201+00 TO 203+59, SOLID LT & RT (ISLAND)
STA. 203+85, DOUBLE SOLID RT (N MAIN ST.) (ISLAND)
STA. 203+85, DOUBLE SOLID RT (N MAIN ST.) (ISLAND)
STA. 203+85, SOLID RT (DIAGONALS) (N MAIN ST.) (ISLAND)
STA. 204+45 TO 205+15, SOLID LT & RT (ISLAND)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 203+55, RT
STA. 203+85, RT (N MAIN ST.)
STA. 204+62, LT
STA. 204+31, LT (BIKE LANE)
STA. 204+45, RT (BIKE LANE)

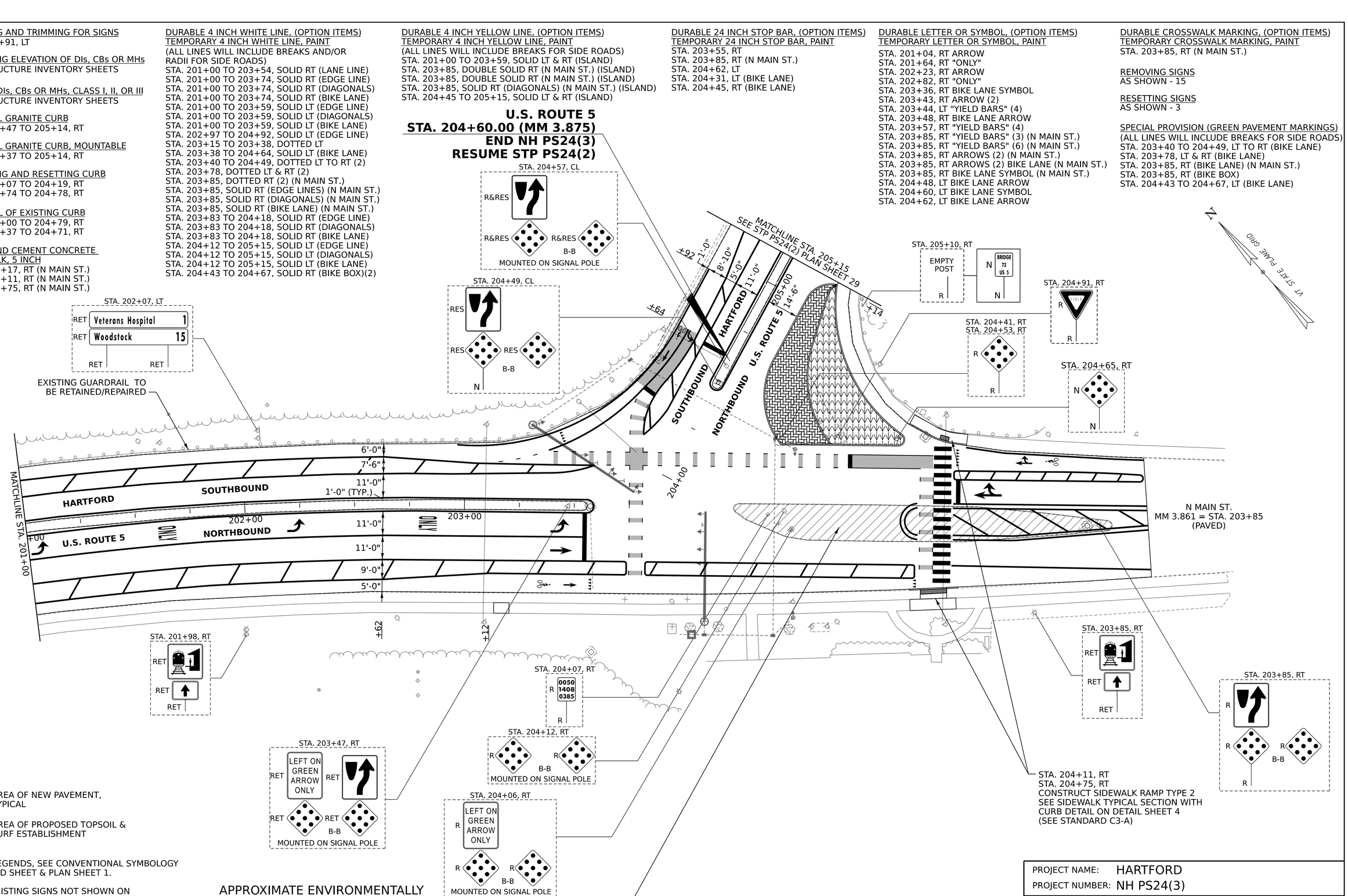
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 201+04, RT ARROW
STA. 201+64, RT "ONLY"
STA. 202+23, RT ARROW
STA. 202+82, RT "ONLY"
STA. 203+36, RT BIKE LANE SYMBOL
STA. 203+43, RT ARROW (2)
STA. 203+44, LT "YIELD BARS" (4)
STA. 203+48, RT BIKE LANE ARROW
STA. 203+57, RT "YIELD BARS" (4)
STA. 203+85, RT "YIELD BARS" (3) (N MAIN ST.)
STA. 203+85, RT "YIELD BARS" (6) (N MAIN ST.)
STA. 203+85, RT ARROWS (2) (N MAIN ST.)
STA. 203+85, RT ARROWS (2) BIKE LANE (N MAIN ST.)
STA. 203+85, RT BIKE LANE SYMBOL (N MAIN ST.)
STA. 204+48, LT BIKE LANE ARROW
STA. 204+60, LT BIKE LANE SYMBOL
STA. 204+62, LT BIKE LANE ARROW

DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 203+85, RT (N MAIN ST.)

REMOVING SIGNS
AS SHOWN - 15

RESETTING SIGNS
AS SHOWN - 3

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 203+40 TO 204+49, LT TO RT (BIKE LANE)
STA. 203+78, LT & RT (BIKE LANE)
STA. 203+85, RT (BIKE LANE) (N MAIN ST.)
STA. 203+85, RT (BIKE BOX)
STA. 204+43 TO 204+67, LT (BIKE LANE)



LEGEND

AREA OF NEW PAVEMENT, TYPICAL

AREA OF PROPOSED TOPSOIL & TURF ESTABLISHMENT

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

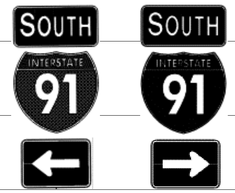
APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 201+00 - 203+90	RT	HISTORIC

0 20 40
SCALE IN FEET

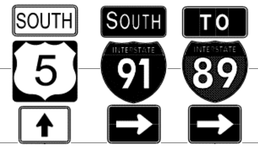
Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NH PS24(3)
FILE NAME:	z19v443_bdr.dgn
PROJECT LEADER:	M. FOISY
DESIGNED BY:	G. BURGMEIER
PLAN SHEET	12
PLOT DATE:	3-AUG-2023
DRAWN BY:	G. BARRETT
CHECKED BY:	M. FOISY
SHEET	49 OF 210

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	148+49, LT										1	1				1			X							MOUNT SALVAGED SIGNS BACK TO BACK			
											1	1																
											1	1																
											1	1																
											1	1																
											1	1																
	149+31, LT										1	1				1		X											

SIGN SUMMARY SHEET	SHEET TOTALS	0.00	0.00	0	7	7	0	0	0	2	30.0		0	0.0	0.0	0.0	0.0										
		SF	SF	EA	EA	EA	EA	EA	EA	EA	FT		EA	LB	LB	LB	LB										
VERMONT AGENCY OF TRANSPORTATION	TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49	735.0		0	0.0													

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**
FILE NAME: **z19v443 TSSS.xlsm** PLOT DATE: **8/2/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 1 SHEET **50** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	151+25, LT		M3-3	24	12	BLK WHT		2.00								2		X							3A		X		
			M1-4	24	24	BLK WHT		4.00																			X		
			M6-3	21	15	BLK WHT		2.19																			X		
			M3-3	24	12	WHT BLU		2.00																		X		
			M1-1	24	24	WHT BLU		4.00																			X		
			M6-1	21	15	WHT BLU		2.19																			X		
			M4-5	24	12	WHT BLU		2.00																			X		
			M1-1	24	24	WHT BLU		4.00																			X		
			M6-1	21	15	WHT BLU		2.19																			X		
	152+75, LT		VR-921	30	30	BLK WHT		6.25								1		X										E-145A	
			R4-4	36	30	BLK WHT		7.50																			X		
	154+90, RT		R1-1	30	30			6.25								1		X									X		
	154+96, RT		VR-921	36	30	BLK WHT		7.50								1		X										E-145A	
							SHEET TOTALS	52.07	0.00	0	0	0	0	0	0	5		75.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0	0.0								

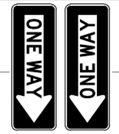
SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

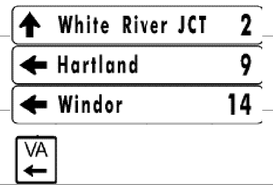
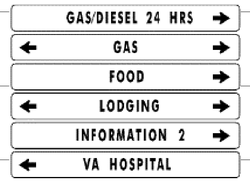
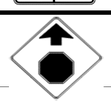
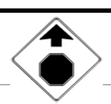
PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**

FILE NAME: **z19v443 TSSS.xlsm** PLOT DATE: **8/2/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**

TRAFFIC SIGN SUMMARY SHEET 2

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	154+99, RT		R6-1R	36	12			3.00								1			X								INSTALL 90 DEGREES TO SIGN R5-1	X		
			R6-1L	36	12			3.00																			INSTALL BACK TO BACK 90 DEGREES TO SIGN R5-1	X		
			R5-1	30	30			6.25																				X		
	155+20, RT		M3-3	24	12	BLK WHT		2.00								2		X							3A	REPLACE EXISTING SIGN STRUCTURES ON OFF-RAMP	X		
			M1-4	24	24	BLK WHT		4.00																				X		
			M6-1	21	15	BLK WHT		2.19																				X		
			M3-1	24	12	BLK WHT		2.00																				X		
			M1-4	24	24	BLK WHT		4.00																				X		
			M5-1	21	15	BLK WHT		2.19																				X		
			M4-5	24	12	BLK WHT		2.00																				X		
			M1-4	24	24	BLK WHT		4.00																				X		
			M5-1	21	15	BLK WHT		2.19																				X		
SIGN SUMMARY SHEET							SHEET TOTALS	36.82	0.00	0	0	0	0	0	0	3		45.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**
FILE NAME: **z19v443 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/2/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 3
SHEET **52** OF **210**

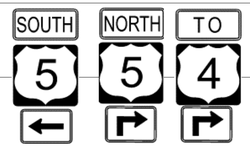
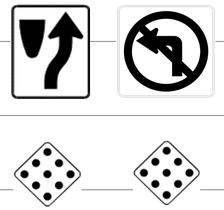
DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB/FT) 1.88	SQUARE STEEL (IN) 2.00 (LB/FT) 2.42	SQUARE STEEL (IN) 2.50 (LB/FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB/FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB/FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB/FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB/FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	155+20, RT		VD1-1A	72	12			6.00								2		X								REPLACE EXISTING SIGN STRUCTURES ON OFF-RAMP			T-93
			VD1-1A	72	12			6.00																					T-93
			VD1-1A	72	12			6.00																					T-93
											1	1																	
	155+20, RT		E SERIES	54	7.5	WHT BLU		2.82								2		X								REPLACE EXISTING SIGN STRUCTURES ON OFF-RAMP			E-133
			E SERIES	54	7.5	WHT BLU		2.82																					E-133
			E SERIES	54	7.5	WHT BLU		2.82																					E-133
			E SERIES	54	7.5	WHT BLU		2.82																					E-133
			E SERIES	54	7.5	WHT BLU		2.82																					E-133
	155+20, RT		VR-921	36	30			7.50								1		X											E-145A
	155+20, RT		W3-1	48	48			16.00								2		X								MOUNT ON RIGHT SIDE OF RAMP			
	155+20, RT		W3-1	48	48			16.00								2		X								MOUNT ON LEFT SIDE OF RAMP			
											1	1														MOUNT SALVAGED SIGN BACK TO BACK			
							SHEET TOTALS	74.42	0.00	0	2	2	0	0	0	9		135.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0	0.0								

SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**

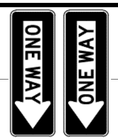
FILE NAME: **z19v443 TSSS.xlsm** PLOT DATE: **8/2/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	155+20, RT		M3-3	24	12	BLK WHT		2.00								2		X							3A		X		
			M1-4	24	24	BLK WHT		4.00																			X		
			M6-1	21	15	BLK WHT		2.19																			X		
			M3-1	24	12	BLK WHT		2.00																			X		
			M1-4	24	24	BLK WHT		4.00																			X		
			M5-1	21	15	BLK WHT		2.19																			X		
			M4-5	24	12	BLK WHT		2.00																			X		
			M1-4	24	24	BLK WHT		4.00																			X		
			M5-1	21	15	BLK WHT		2.19																			X		
	155+34, RT										1	1				1		X								MOUNT SALVAGED SIGNS BACK TO BACK			
											1	1																	
											1	1																	
											1	1																	
	155+51, RT		R1-1	30	30			6.25								1		X									X		
SIGN SUMMARY SHEET							SHEET TOTALS	30.82	0.00	0	4	4	0	0	0	4		60.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0		0.0							

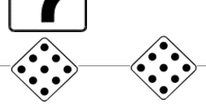
PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**

FILE NAME: **z19v443 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/2/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

TRAFFIC SIGN SUMMARY SHEET 5

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	155+68, RT		R6-1R	36	12			3.00								1			X								INSTALL 90 DEGREES TO SIGN R5-1	X		
			R6-1L	36	12			3.00																			INSTALL BACK TO BACK 90 DEGREES TO SIGN R5-1	X		
			R5-1	30	30			6.25																				X		
	156+65, RT										1	1				2		X									MOUNT SALVAGED SIGNS ON NEW POSTS			
											1	1																		
	158+00, LT		VR-921	30	30			6.25								1		X											E-145A
	159+34, LT		R4-4	36	30			7.50								1		X										X		
	164+53, RT		VR-922	36	30			7.50								1		X											E-145A
	165+90, RT		VD-700	6	10			0.42																			MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
	167+51, LT		VR-935	48	30			10.00								2		X											E-145A
	168+11, LT										1	1				1		X									MOUNT SALVAGED SIGN ON NEW POST			
	171+75, RT		R3-17	24	18			3.00								1		X										X		
	171+75, LT		R3-17	24	18			3.00								1		X										X		
	178+71, RT										1	1				1		X									REMOVE SIGN R1-1 FROM STA. 178+76 AND INSTALL ON NEW POST HERE			
SIGN SUMMARY SHEET							SHEET TOTALS	49.92	0.00	0	4	4	0	0	0	12		180.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**
FILE NAME: **z19v443 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/2/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 6
SHEET **55** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	178+76, RT		VD-700	6	10			0.42																		MOUNT SIGN VD-700 BELOW SIGN R5-1 ON EXISITNG POST			T-44
	181+91, RT		VR-921	30	30			6.25								1		X									E-145A
	185+88, LT		VD-700	6	10		 	0.42																		MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
			VD-700	6	10			0.42																					T-44
	186+14, LT										1	1				1		X								REMOVE R1-1 FROM STA. 186+16 AND INSTALL HERE. SLEEVE REQUIRED PER T-45			
	186+16, LT										1	1				1		X											
			OM1-1	18	18			2.25																		MOUNT BACK TO BACK	X		
			OM1-1	18	18			2.25																		MOUNT BACK TO BACK	X		
	187+33, LT		M6-3	21	15	BLK WHT		2.19																		MOUNT ON EXISTING POSTS	X		
			M6-1	21	15	BLK WHT		2.19																		MOUNT ON EXISTING POSTS	X		
	191+35, LT		VR-922	36	30			7.50								1		X										E-145A
	191+97, LT		M6-3	21	15	BLK WHT		2.19																		MOUNT ON EXISTING POSTS	X		
			M6-1	21	15	BLK WHT		2.19																		MOUNT ON EXISTING POSTS	X		
							SHEET TOTALS	28.27	0.00	0	2	2	0	0	0	4		60.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0	0.0								

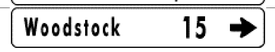
SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**

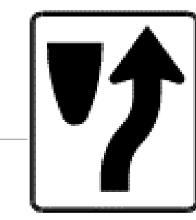
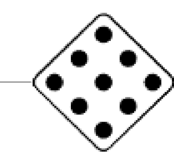
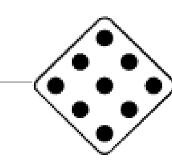
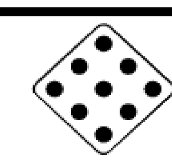
FILE NAME: **z19v443 TSSS.xlsm** PLOT DATE: **8/2/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**

TRAFFIC SIGN SUMMARY SHEET 7

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	192+97, LT		M6-3	21	15	WHT BLU		2.19																			MOUNT ON EXISTING POSTS	X		
			M6-3	21	15	WHT BLU		2.19																			MOUNT ON EXISTING POSTS	X		
			M6-1	21	15	WHT BLU		2.19																			MOUNT ON EXISTING POSTS	X		
	194+87, RT		R3-17	24	18			3.00								1		X									X		
	194+95, LT		VD1-1A	72	12			6.00								2		X											T-93
			VD1-1A	72	12			6.00																					T-93
	196+05, LT		VD-700	6	10			0.42																			MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
	196+48, LT										1	1															MOUNT SALVAGED SIGNS ON NEW POST			
											1	1																	
	196+55, LT		R5-1	30	30			6.25								1		X									X		
	196+67, LT		R5-1	30	30			6.25								1		X									X		
	198+60, RT		VR-921	30	30			6.25								1		X											E-145A
	200+75, LT		R3-17	24	18			3.00								1		X									X		
SIGN SUMMARY SHEET							SHEET TOTALS	43.74	0.00	0	2	2	0	0	0	7		105.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	318.7	0.0	0	24	24	0	0	0	49		735.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **NH PS24(3)**
FILE NAME: **z19v443 TSSS.xlsm** PLOT DATE: **8/2/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 8 SHEET **57** OF **210**

SIGN SUMMARY SHEET

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																			"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	204+49, CL										1	1				1		X								SLEEVE REQUIRED PER T-45			
							 				1	1														MOUNT BACK TO BACK			
											1	1														MOUNT BACK TO BACK			
	204+65, RT		OM1-1	18	18			2.25								1		X									X		
	205+10, RT		VD-701	6	10			0.42								1	X												T-42
SHEET TOTALS								2.67	0.00	0	3	3	0	0	0	3	45.0			0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA	FT			EA	LB	LB	LB	LB					
TOWN DIRECTIONAL TOTALS								318.7	0.0	0	24	24	0	0	0	49	735.0			0	0.0								

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443 TSSS.xlsm
PROJECT MANAGER: M. FOISY
DESIGNED BY: D. DRAPER
TRAFFIC SIGN SUMMARY SHEET 9

PLOT DATE: 8/2/2023
DRAWN BY: D. DRAPER
CHECKED M. FOISY

TOTAL SIGN SUMMARY SHEET

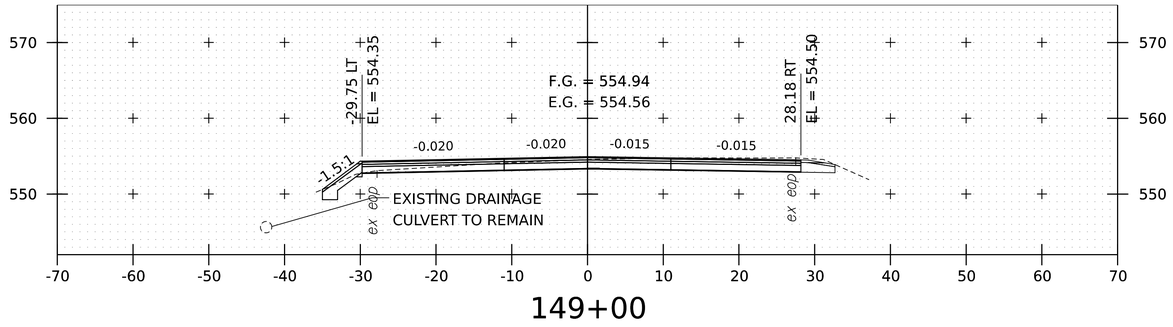
SHEET NUMBER	NEW SIGNS (SF)		EXISTING SIGNS (EA)				EXIST POST (EA)		SQUARE STEEL (IN)					TUBULAR STEEL ø (IN)				
									1.75	2.00	2.50							
									(LB / FT)									
	"A"	"B"	RETAIN	RESET FROM	RESET TO	REMOVE	RETAIN	REMOVE	1.88	2.42	3.35	TOTAL POSTS	SQUARE TUBE SIGN POST AND ANCHOR (LF)	FOUNDATION	3.00	3.50	4.00	5.00
															(LB / FT)			
															7.60	9.00	10.80	14.60
50	0.00			7	7				0	1	1	2	30					
51	52.07			0	0				0	5	0	5	75					
52	36.82			0	0				0	2	1	3	45					
53	74.42			2	2				0	9	0	9	135					
54	30.82			4	4				0	4	0	4	60					
55	49.92			4	4				0	11	1	12	180					
56	28.27			2	2				0	4	0	4	60					
57	43.74			2	2				0	7	0	7	105					
58	2.67			3	3				1	2	0	3	45					
SUBTOTALS	**318.73**	**0**	**0**	**24**	**24**	**0**	**0**	**0**	**1**	**45**	**3**	**49**	**735**	**0**	**0**	**0**	**0**	**0**
ROUNDING	**6.27**												**5**					
TOTALS	**325**	**0**	**0**	**24**	**24**	**0**	**0**	**0**	**1**	**45**	**3**	**49**	**740**	**0**	**0**	**0**	**0**	**0**

Stantec

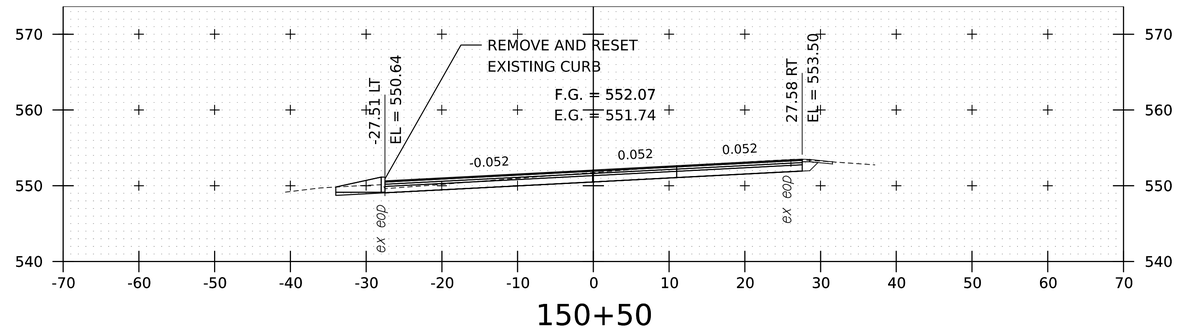
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. DRAPER
TRAFFIC SIGN SUMMARY SHEET 7

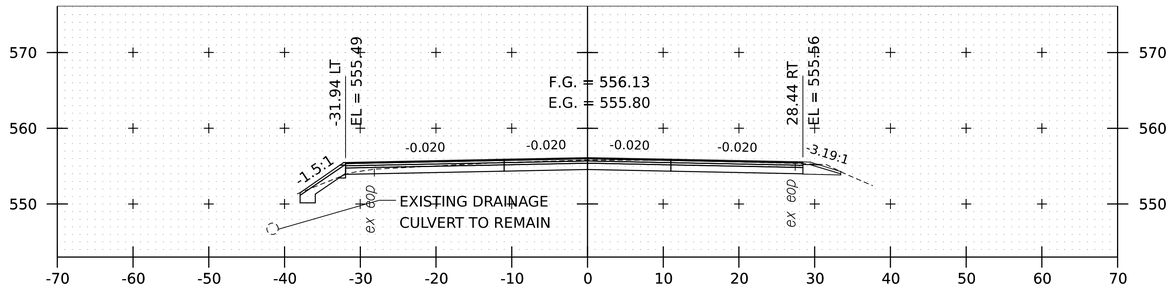
PLOT DATE: 3-AUG-2023
DRAWN BY: D. DRAPER
CHECKED BY: M. FOISY
SHEET 59 OF 210



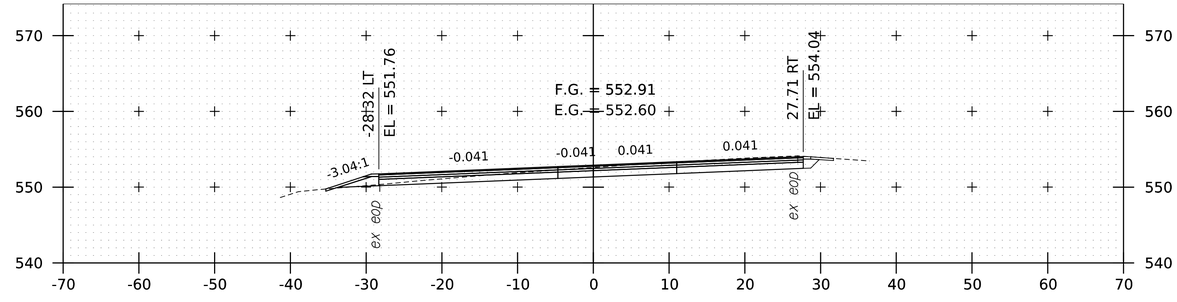
149+00



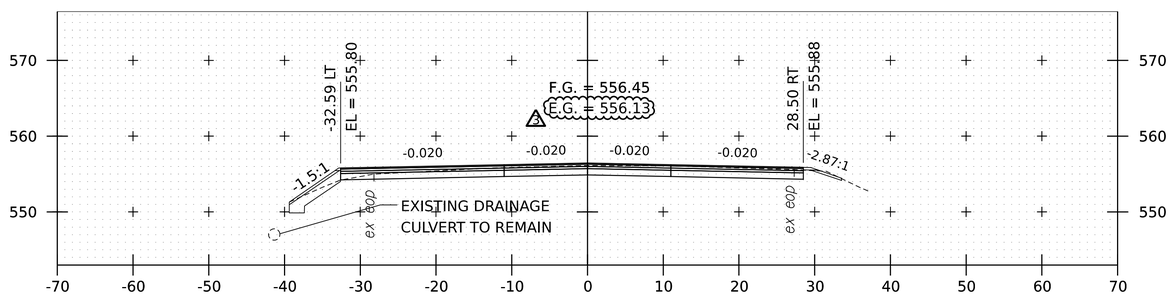
150+50



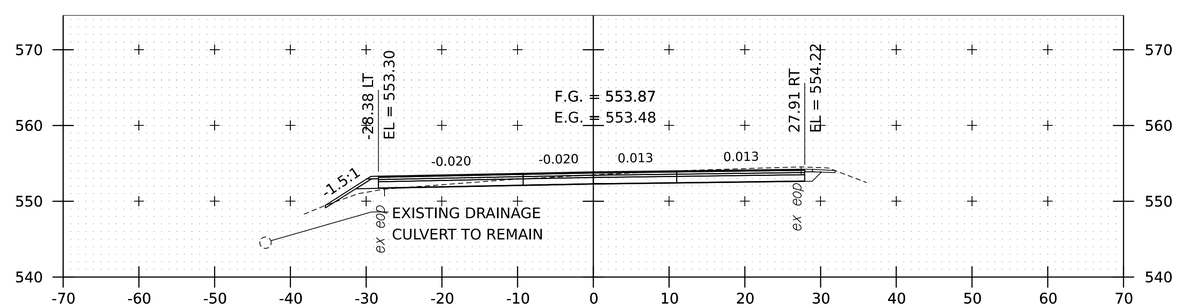
148+50



150+00



148+36.80



149+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

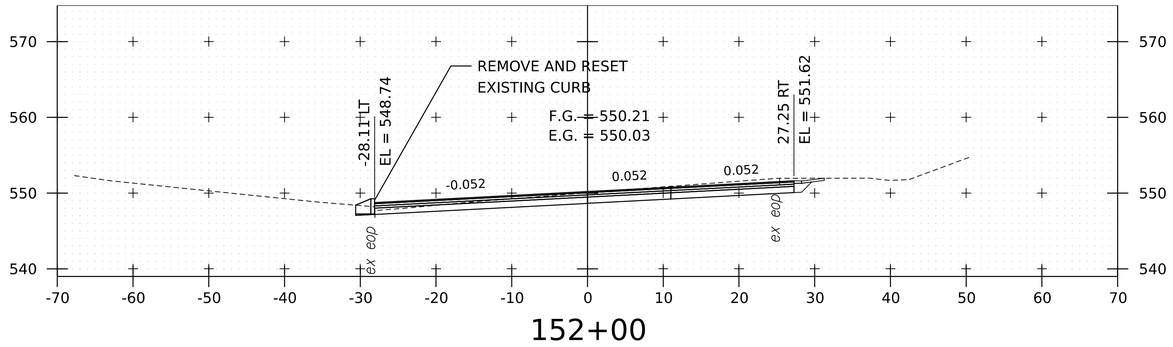
0 10 20
SCALE IN FEET

Stantec

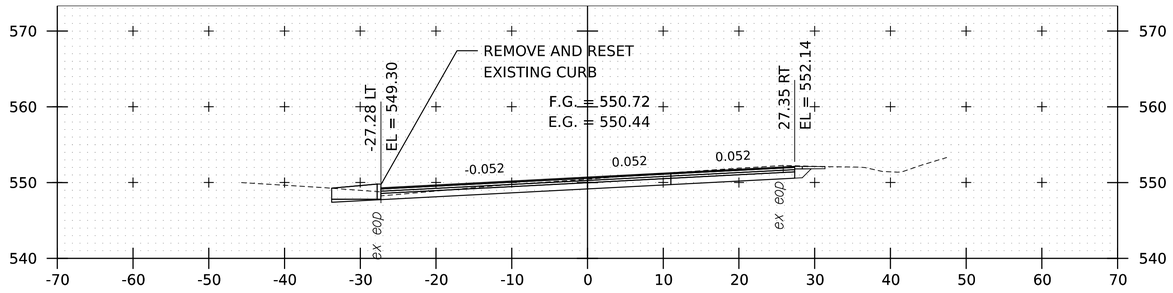
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: $FILES$
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 1

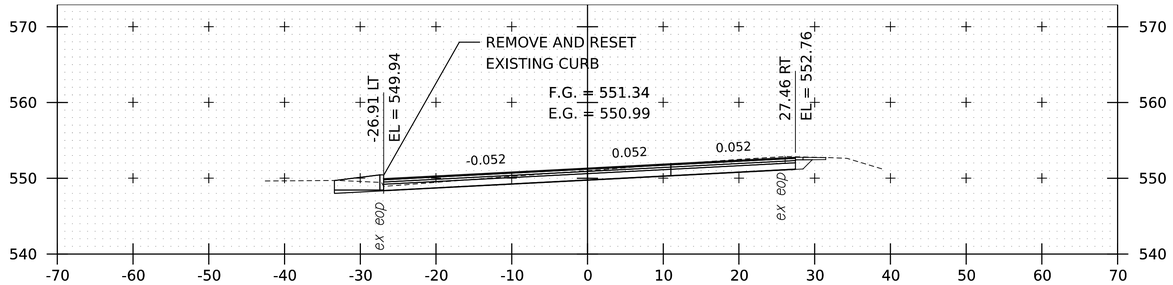
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BUURGMEIER
CHECKED BY: G. SANTY
SHEET 60 OF 210



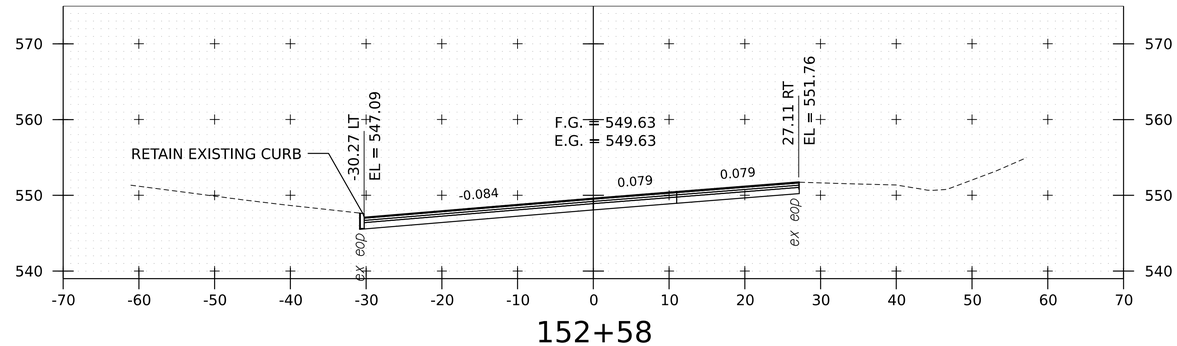
152+00



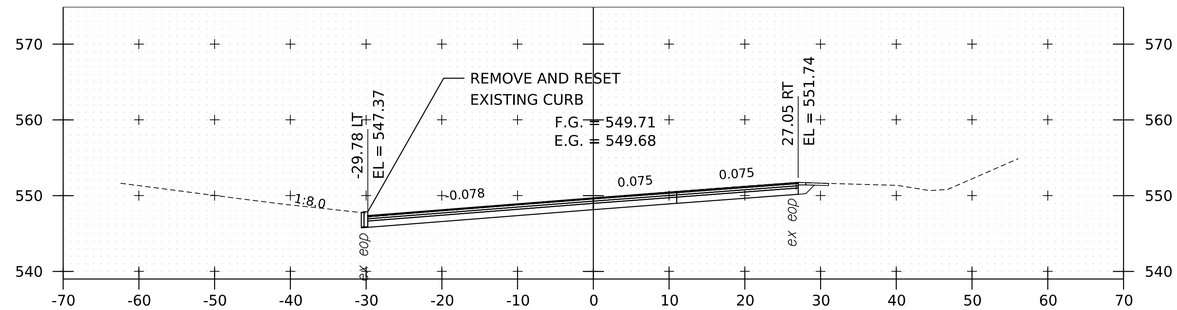
151+50



151+00



152+58



152+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

0 10 20
SCALE IN FEET

Stantec

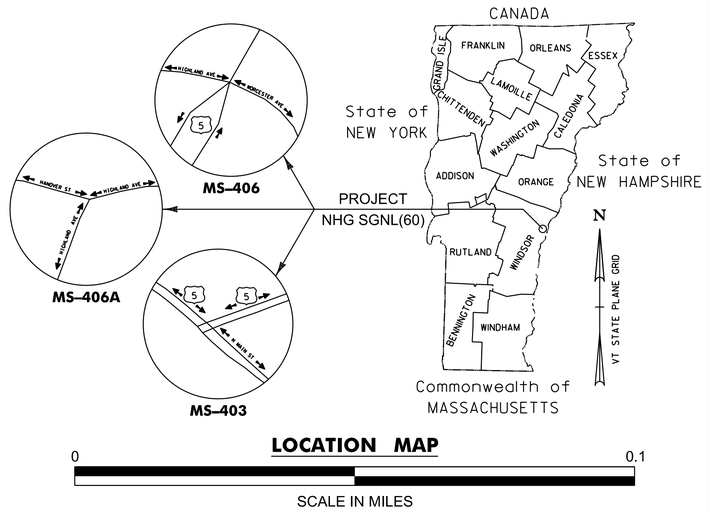
PROJECT NAME: HARTFORD
PROJECT NUMBER: NH PS24(3)

FILE NAME: $FILES$
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 2

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BUURGMEIER
CHECKED BY: G. SANTY
SHEET 61 OF 210

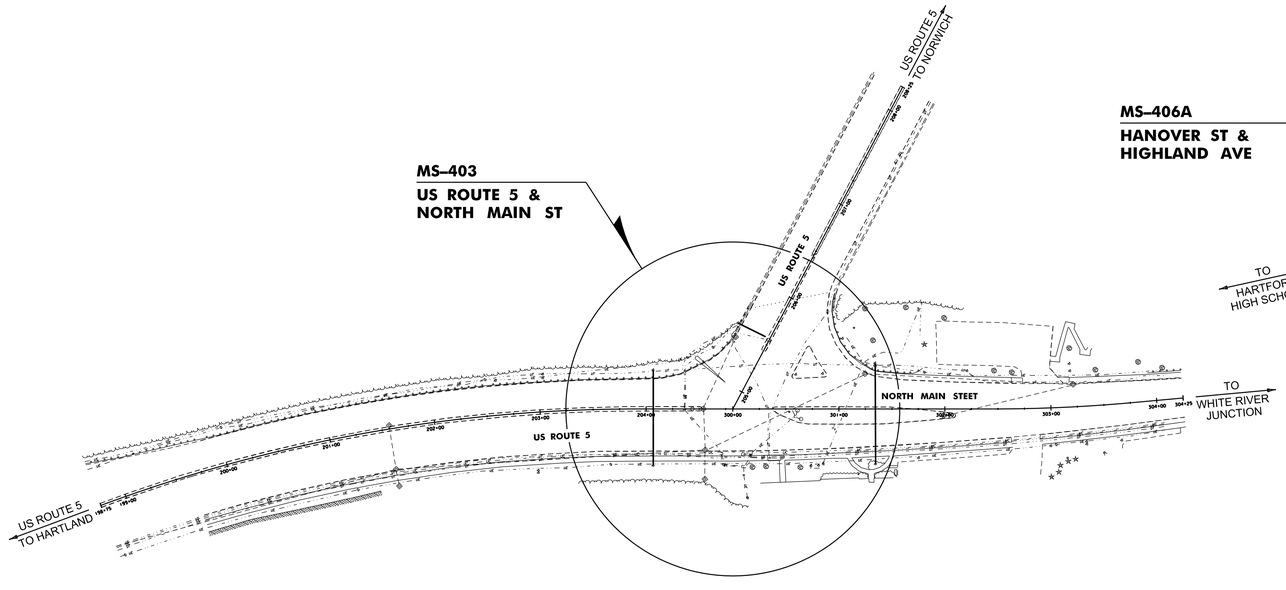
STATE OF VERMONT
AGENCY OF TRANSPORTATION

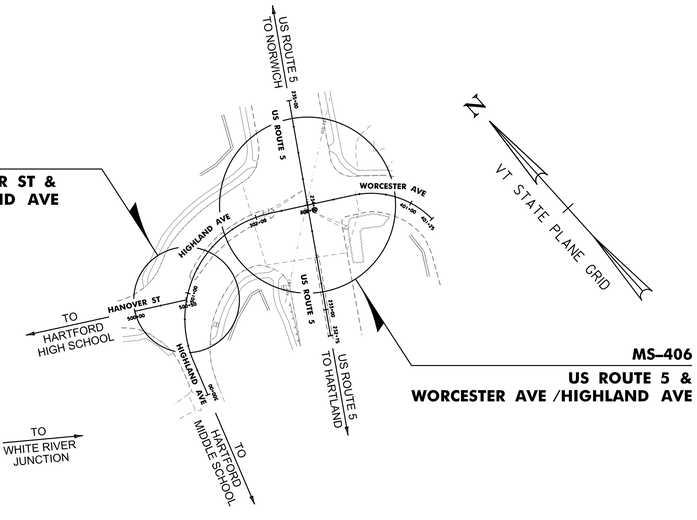
PROPOSED IMPROVEMENT
TOWN OF HARTFORD
COUNTY OF WINDSOR
US ROUTE 5 (MAJOR COLLECTOR) (NHS)



PROJECT LOCATION: IN THE TOWN OF HARTFORD AT THE INTERSECTIONS OF US ROUTE 5 & NORTH MAIN STREET (MS-403), US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE (MS-406), AND HANOVER ST & HIGHLAND AVE (MS-406A).

PROJECT DESCRIPTION: WORK SHALL CONSIST OF THE REPLACEMENT AND REHABILITATION OF EXISTING TRAFFIC SIGNAL SYSTEMS, INSTALLATION OF BICYCLE & PEDESTRIAN INFRASTRUCTURE, AND OTHER HIGHWAY RELATED ITEMS.





0 100 200
SCALE IN FEET

CONTRACT PLANS
AUGUST 8, 2023

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 : MARCH 2021

DATUM
VERTICAL : NAVD 88
HORIZONTAL : NAD 83 (2011)

APPROVED _____ DATE _____

PROJECT MANAGER : TAYLOR SISSON, P.E.

PROJECT NAME : HARTFORD
PROJECT NUMBER : NHG SGNL(60)
SHEET 62 OF 210 SHEETS

PRIMARY CONTROL

HVCTRL I= E 56
NORTH = 418205.7610
EAST = 1683404.0100
ELEV = 573.9800

GENERAL LOCATION HARTFORD VT.

ABOUT 700 FEET NORTH ALONG U.S. HIGHWAY 91 FROM ITS OVERPASS OVER THE CENTER LINE OF U.S. HIGHWAY 5, SET IN THE HIGHEST POINT OF A 12 FOOT BY 18 FOOT ROCK OUTCROP, 88 FEET NORTHEAST OF A METAL DRAINAGE TRAP, 35 FOOT NORTH-NORTHWEST OF THE SUPPORT FOR A MERGE SIGN, AND 57 FEET NORTHWEST OF THE CENTER LINE OF THE SOUTHBOUND LANES OF THE HIGHWAY. THIS BENCHMARK HAS BEEN DESIGNATED A BASIC NET A LEVEL LINE JUNCTION MARK.

RECOVERY NOTE BY VERMONT AGENCY OF TRANSPORTATION 1993
RECOVERED AS PREVIOUSLY DESCRIBED, EXCEPT NOTE, MARK IS NORTHWEST OF THE 191 SOUTHBOUND LANE SO ACCESS IS EASIER FROM EITHER 191 SOUTHBOUND OR THE WHITE RIVER 191 SOUTHBOUND ON-RAMP. MARK IS 3.8 FT (1.2 M) EAST OF A FIBERGLASS WITNESS POST.

HVCTRL 2
NORTH = 417675.4890
EAST = 1683734.1020
ELEV = 548.0610

GENERAL LOCATION HARTFORD VT.

TO REACH FROM THE INTERSECTION OF US ROUTE 5 AND SYKES MOUNTAIN AVENUE IN HARTFORD, PARK VEHICLE AND WALK ABOUT 450 FT (137.2 M) SOUTHWEST ALONG US ROUTE 5 TO THE SITE OF THE MARK ON THE LEFT IN A GRASS STRIP BETWEEN US ROUTE 5 AND THE RIGHT-OF-WAY FENCE.

THE MARK IS A 3/4 INCH (19 MM) IRON ROD, 0.2 FT (6 CM) BELOW GROUND SURFACE WITH A RED PLASTIC CAP STAMPED VTRANS TRAV PT.
IT IS 26.1 FT (8.0 M) SOUTHEAST OF AND 3 FT (0.9 M) LOWER THAN THE SOUTHEAST EDGE OF PAVEMENT OF US ROUTE 5, 28.6 FT (8.7 M) SOUTH OF A LUMEN AND 12.7 FT (3.9 M) NORTHWEST OF THE RIGHT-OF-WAY CHAIN LINK FENCE.

MAIN TRAVERSE COMPLETED BY B.HERRING AND T.CATTANEO ON 11/16/2017 PROJECT X17T048 SECONDARY TRAVERSE RUN BY R.GILMAN J.WANTUCH ON 3/29/2021

PRIMARY CONTROL

HVCTRL 10
NORTH = 419477.5440
EAST = 1687224.0690
ELEV = 393.3870

GENERAL LOCATION HARTFORD VT.

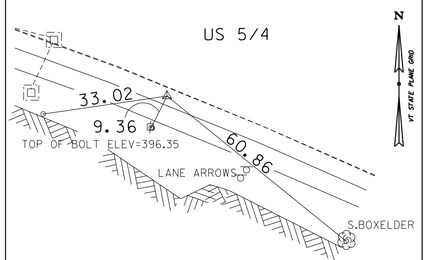
TO REACH FROM THE I-91 NORTHBOUND BRIDGE OVER US ROUTE 4 IN HARTFORD GO 0.1 MI (0.2 KM) SOUTH ALONG US ROUTE 4 TO ITS INTERSECTION WITH US ROUTE 5. TURN LEFT AND GO EAST ALONG US ROUTES 4 AND 5 FOR 0.3 MI (0.5 KM) TO THE INTERSECTION OF US ROUTES 4 AND 5 LEFT AND MAIN STREET STRAIGHT AND THE SITE OF THE MARK IN THE EAST QUADRANT OF THE INTERSECTION.

THE MARK IS A 3/4 INCH (19 MM) IRON ROD WITH RED PLASTIC CAP STAMPED VTRANS TRAV PT.
IT IS SET FLUSH WITH PAVEMENT IN A PAVED TRIANGLE FORMED BY MAIN ST. AND US ROUTES 4 AND 5.
IT IS 14.5 FT (4.4 M) NORTH OF THE SOUTH POINT OF THE TRIANGLE, 20.0 FT (6.1 M) SOUTHWEST OF THE NORTHEAST POINT OF THE TRIANGLE AND 22.9 FT (7.0 M) SOUTHEAST OF THE WEST POINT OF THE TRIANGLE.

SECONDARY CONTROL

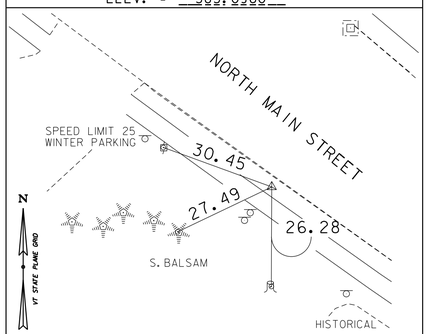
HVCTRL 9

NORTH = 419789.6215
EAST = 1686627.5670
ELEV. = 394.8470



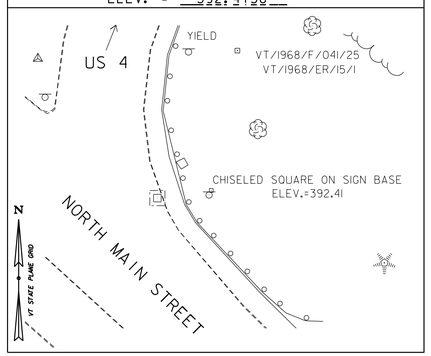
HVCTRL 20

NORTH = 419259.7765
EAST = 1687373.6805
ELEV. = 385.0960



BM 5918

NORTH = 419442.7460
EAST = 1687269.8593
ELEV. = 392.4138



_____HVCTRL_____

NORTH = _____
EAST = _____
ELEV. = _____

_____HVCTRL_____

NORTH = _____
EAST = _____
ELEV. = _____

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: tie 1.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TIE SHEET 1

PLOT DATE: 8/3/2023
DRAWN BY: H. MCGOWAN
CHECKED BY: R. GILMAN
SHEET 63 OF 210

PRIMARY CONTROL

HVCTRL #1 E58
NORTH = 424407.4190
EAST = 1689959.8840
ELEV. = 493.7200

TO REACH FROM THE I-91 BRIDGES OVER BUGBEE STREET AT EXIT 12, GO SOUTHEAST ALONG BUGBEE STREET FOR 0.3 MI (0.5 KM) TO THE T-INTERSECTION OF US ROUTE 5 (HARTFORD AVENUE). TURN LEFT AND GO NORTH ALONG US ROUTE 5 FOR 0.05 MI (0.1 KM) TO THE MOST NORTHERLY ENTRANCE TO SAINT ANTHONY'S CEMETERY ON THE RIGHT AND THE SITE OF THE MARK ON THE RIGHT.

THE MARK IS SET 5 CM (2 INCHES) BELOW GROUND SURFACE AND IS ENCASED IN A 10 CM (4 INCH) DIAMETER PVC PIPE WITH SCREW CAP, WHICH IS FLUSH WITH THE GROUND SURFACE.

IT IS 7.5 M (24.6 FT) EAST-SOUTHEAST OF AND ABOUT 0.1 M (0.3 FT) HIGHER THAN THE CENTERLINE OF THE NORTHBOUND LANE OF US ROUTE 5, 4.8 M (15.7 FT) NORTH-NORTHEAST OF THE CENTERLINE OF THE PAVED ENTRANCE DRIVE TO THE CEMETERY, 5.3 M (17.4 FT) SOUTH-SOUTHWEST OF POLE NO 397431/35/17, 14.3 M (46.9 FT) SOUTH-SOUTHEAST OF A SIGN IN THE MEDIAN WITH MILE MARKER 0050/1408/0500, 11.6 M (38.1 FT) NORTH OF THE NORTHEAST CORNER OF THE MORRIS GRAVESTONE, 0.65 M (2.1 FT) EAST-SOUTHEAST OF THE EAST-SOUTHEAST EDGE OF A CONCRETE SIDEWALK AND 0.25 M (0.8 FT) WEST-NORTHWEST OF A FIBERGLASS WITNESS POST.

HVCTRL #2
NORTH = 422144.9660
EAST = 1689354.6890
ELEV. = 489.7500

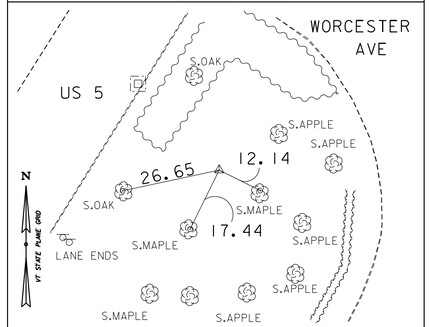
TO REACH FROM THE I-91 BRIDGES OVER BUGBEE STREET AT EXIT 12, GO SOUTHEAST ALONG BUGBEE STREET FOR 0.3 MI (0.5 KM) TO THE T-INTERSECTION OF US ROUTE 5. TURN RIGHT AND GO SOUTH ON ROUTE 5 FOR 0.45 MI (0.72 KM) TO THE SITE OF THE MARK ON THE LEFT ACROSS FROM THE "GOOD BUY" STORE.

THE MARK IS A 3/4 INCH (19 MM) REBAR WITH RED PLASTIC CAP SET FLUSH WITH THE GROUND SURFACE.

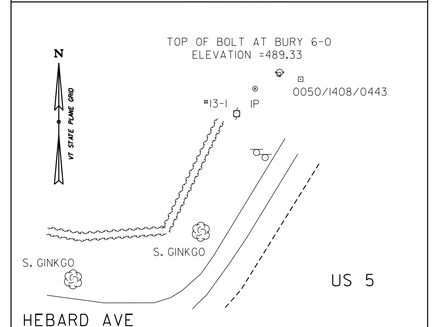
IT IS 7.8 M (25.6 FT) SOUTHEAST OF THE CENTERLINE OF ROUTE 5, 8.4 M (27.6 FT) NORTHWEST OF POLE 31, 0.5 M (1.6 FT) NORTHWEST OF THE NORTHWEST EDGE OF CONCRETE SIDEWALK, 5.7 M (18.7 FT) SOUTHWEST OF THE CENTERLINE OF A PAVED DRIVEWAY AND 11.0 M (36.1 FT) WEST-SOUTHWEST OF THE SOUTHWEST CORNER OF A BUS STOP SHELTER. DERIVED FROM GNSS.

SECONDARY CONTROL

HVCTRL #3 REBAR
NORTH = 421414.9984
EAST = 1689021.1537
ELEV. = 488.1940



BM #1267
NORTH = 421624.1701
EAST = 1689016.0353
ELEV. = 489.3254



NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

*TRAVERSE COMPLETED ON 3/22/2021 BY R.GILMAN H.MCGOWAN

ALIGNMENT TIES

NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

NORTH = _____
EAST = _____
ELEV. = _____

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD83 (2011)
ADJUSTMENT COMPASS

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: tie 2.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TIE SHEET 2

PLOT DATE: 8/3/2023
DRAWN BY: H. MCGOWAN
CHECKED BY: R. GILMAN

BORING INFORMATION SHEET

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A2	Silty or Clayey Gravel and Sand
A3	Fine 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)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

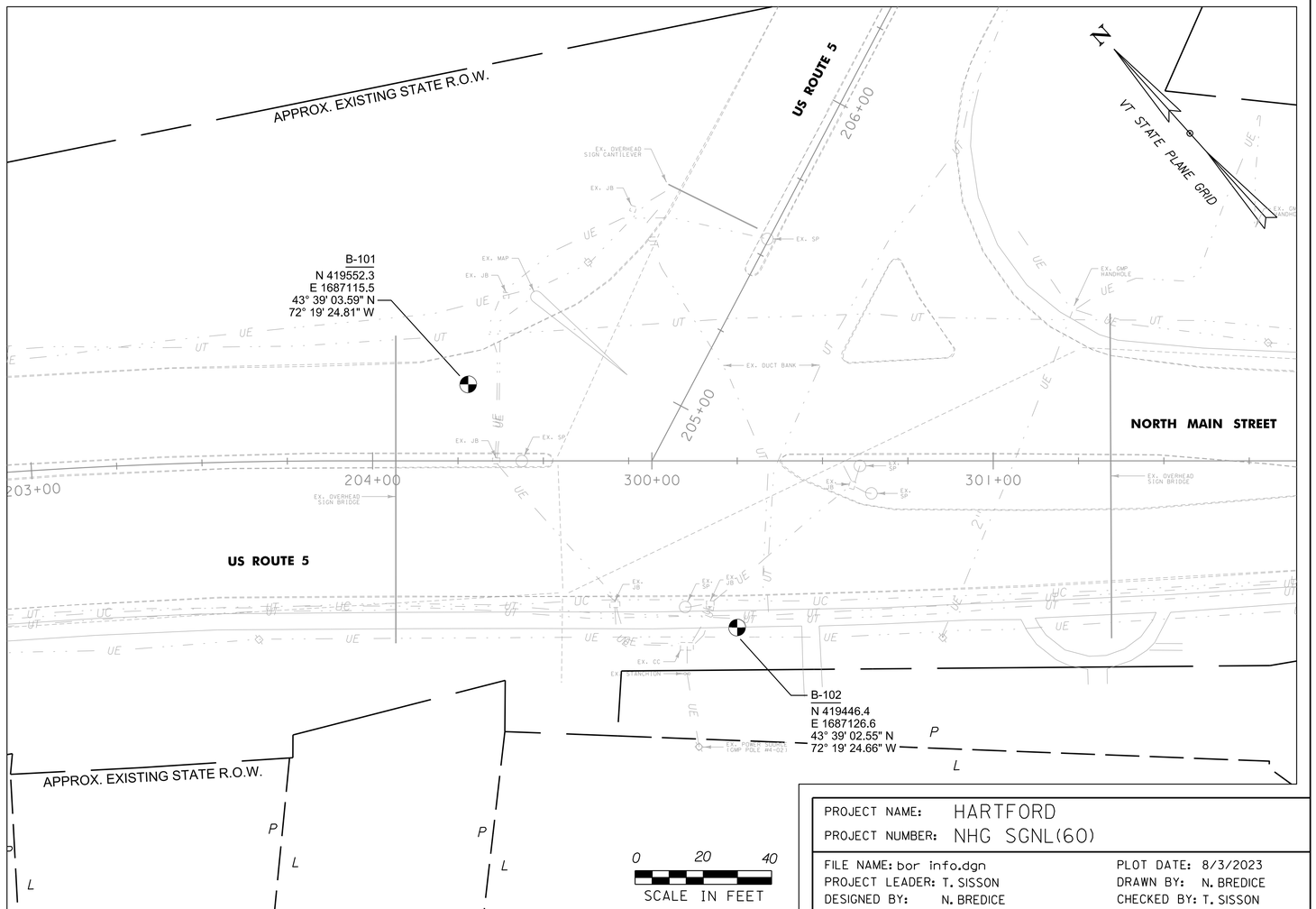
COLOR			
blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

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

GENERAL NOTES

1. The subsurface explorations shown herein were made between 1/10/2023 and 1/11/2023 by the Agency of Transportation.
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
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 judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.
5. Pictorial structure details shown on the boring plan layout or soils profiles are for illustrative purposes only and may not accurately portray final contract details.
6. Terminology used on the 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 Plan Grid North American Datum 1983 in meters and survey feet.



DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.
BOULDER - A rock fragment with an average dimension of > 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 graded 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.

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NHG SGNL(60)
FILE NAME: bor info.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: N. BREDICE
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
BORING INFORMATION SHEET	SHEET 65 OF 210

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

BORING LOG

Hartford
NHG SGNL(60)
US RT 5

Boring No.: **B-102**
Page No.: 1 of 1
Pin No.: 20t298
Checked By: END

Boring Crew: McGinley, Monette, Zottola
Date Started: 1/10/23 Date Finished: 1/11/23
VTSPG NAD83: N 419446.40 ft E 1687126.60 ft
Station: 300+25.00 Offset: 48.80
Ground Elevation: 394.3 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	3 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	Diedrich D25	C_E = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
01/10/23		No WT to Depth
01/11/23		No WT to Depth

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note:, SAND and Silt trace organics, brn, Moist, Rec. = 1.5 ft	4-3-3-5 (6)				
		A-2-4, GrSiSa, brn, Moist, Rec. = 1.1 ft	5-4-3-4 (7)	12.8	23.8	46.1	30.1
5		Field Note:, SAND and Silt trace Gravel, Dk/brn, Moist, Rec. = 1.6 ft	2-2-3-6 (5)				
		Field Note:, SAND and Silt, brn, Moist, Rec. = 1.2 ft	3-5-5-6 (10)				
		Field Note:, SAND and Silt, brn, Moist, Rec. = 1.6 ft	3-3-5-5 (8)				
10		Field Note:, SAND and Silt, brn, Moist, Rec. = 1.5 ft	4-5-6-8 (11)				
		Field Note:, SAND little Silt little Gravel, brn, MTD, Rec. = 1.0 ft	7-7-7-7 (14)				
15							
20		A-1-a, SaGr, brn, MTD, Rec. = 1.2 ft	10-13-16-25 (29)	5.0	53.2	37.2	9.7
25		A-2-4, SiSa, brn, MTD, Rec. = 1.4 ft	4-5-7-9 (12)	5.2	7.2	70.4	22.4
		Hole stopped @ 26.0 ft					

Remarks:
1. Moved boring 3' towards roadway to avoid tree.
2. Hole Collapsed @ 15.9'.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E 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.

2010 COPY HARTFORD SGNL(5).GPJ VERMONT AOT.GDT 2/1/23

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

BORING LOG

Hartford
NHG SGNL(60)
US RT 5

Boring No.: **B-101**
Page No.: 1 of 1
Pin No.: 20t298
Checked By: END

Boring Crew: McGinley, Monette, Zottola
Date Started: 1/10/23 Date Finished: 1/10/23
VTSPG NAD83: N 419552.30 ft E 1687115.50 ft
Station: 204+28.00 Offset: -22.40
Ground Elevation: 393.9 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	3 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	Diedrich D25	C_E = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
01/10/23		No WT to depth

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note:, Asphalt 0.0-0.5'					
		Field Note:, SAND and Gravel, brn, Dry, Rec. = 1.3 ft	24-44-29-21 (73)				
		Field Note:, SAND little Silt, brn, MTD, Rec. = 0.8 ft	15-11-12-10 (23)				
5		A-4, SaSi, brn, Moist, Rec. = 1.8 ft	8-6-5-6 (11)	20.0	11.0	23.0	66.1
		Field Note:, SAND and Silt, brn, MTD, Rec. = 1.0 ft	5-6-5-5 (11)				
		Field Note:, SAND some Silt trace Gravel, brn, MTD, Rec. = 1.6 ft	4-3-3-4 (6)				
10		A-2-4, Sa, brn, MTD, Rec. = 1.3 ft	3-3-3-4 (6)	6.3	5.6	77.1	17.2
		A-1-a, SaGr, Lt/brn-gry, Dry, Rec. = 1.5 ft	13-18-21-24 (39)	1.6	50.4	41.1	8.6
15							
20		Field Note:, SAND and Gravel, Lt brn, Dry, Rec. = 0.8 ft	9-6-5-6 (11)				
25		Field Note:, SAND, brn, Dry, Rec. = 1.3 ft	6-6-6-9 (12)				
		Hole stopped @ 26.0 ft					

Remarks:
1. Moved boring 14.3' into roadway due to access issues.
2. Hole Collapsed @ 12.8'.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E 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.

2010 COPY HARTFORD SGNL(5).GPJ VERMONT AOT.GDT 1/25/23

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: bor.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
BORING LOG SHEET

PLOT DATE: 8/3/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 66 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1051 - EROSION CONTROL	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
1			1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	--			
600			600		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
1200			1200		HR	FLAGGERS	630.15	EST.			
		1	1		LS	TESTING EQUIPMENT, CONCRETE (NHG SGNL(60))	631.16	--			
1			1		LS	MOBILIZATION/DEMOBILIZATION (NHG SGNL(60))	635.11	--			
1			1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (NHG SGNL(60))	641.11	--			
4			4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	--			
	20		20		LB	SEED	651.15	--			
	50		50		LB	FERTILIZER	651.18	--			
	0.1		0.1		TON	AGRICULTURAL LIMESTONE	651.20	--			
	7		7		CY	TOPSOIL	651.35	1			
	0.1		0.1		TON	HAY MULCH	653.10	--			
33			33		SF	TRAFFIC SIGN, TYPE A	675.20	--			
1			1		EACH	TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (US ROUTE 5 & NORTH MAIN STREET)	678.15	--			
1			1		EACH	TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (US ROUTE 5 & WORCESTER AVE/HIGHLAND AVE)	678.15	--			
1			1		EACH	TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (HANOVER ST & HIGHLAND AVE)	678.15	--			
1900			1900		LF	WIRED CONDUIT (2")(PVC)(SCH. 80)	678.23	63			
1150			1150		LF	WIRED CONDUIT (3")(PVC)(SCH. 80)	678.23	37			
1			1		EACH	REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM (US ROUTE 5 & NORTH MAIN STREET)	678.45	--			
1			1		EACH	REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM (US ROUTE 5 & WORCESTER AVE/HIGHLAND AVE)	678.45	--			
1			1		EACH	REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM (HANOVER ST & HIGHLAND AVE)	678.45	--			
1			1		EACH	REMOVE STREET LIGHT ASSEMBLY	679.24	--			
3			3		EACH	STREET LIGHT ASSEMBLY	679.46	--			
2			2		EACH	BRACKET ARM	679.47	--			
2			2		EACH	LUMINAIRE	679.50	--			
4			4		EACH	SPECIAL PROVISION (JUNCTION BOX, HEAVY DUTY)	900.620	--			
160			160		LF	SPECIAL PROVISION (HORIZONTAL DIRECTIONAL DRILLING)(12" I.D. HDPE CASING PIPE)	900.640	8			

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: quant.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
QUANTITY SHEET

PLOT DATE: 11/21/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 67 OF 210

NOTES:

1. CONTRACTOR SHALL LOCATE EXISTING TRAFFIC SIGNAL CONDUIT AND POTENTIAL UTILITY CONFLICTS PRIOR TO ORDERING SIGNAL EQUIPMENT. WORK REQUIRED TO PERFORM THIS ACTIVITY SHALL BE PAID FOR UNDER CONTRACT ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.

2. WHERE EXISTING SIGNAL EQUIPMENT IS REMOVED, CONTRACTOR SHALL RESTORE TO GRADE AND ESTABLISH TURF TO SATISFACTION OF THE ENGINEER. WORK REQUIRED TO PERFORM THIS ACTIVITY SHALL BE PAID FOR CONTRACT ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.

3. TRAFFIC ITEM LOCATIONS LISTED ARE APPROXIMATE AND MAY BE MODIFIED BY THE ENGINEER IN THE FIELD.

4. POWER DROP STANCHION SHALL BE CONSTRUCTED SUCH THAT THE METER FACE IS ORIENTED FACING AWAY FROM THE ROADWAY.

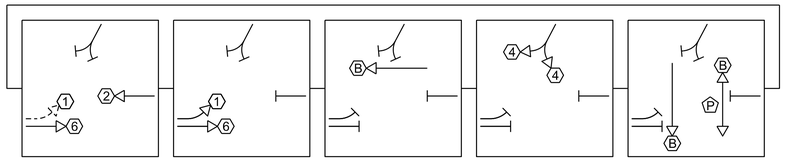
5. PUSH BUTTON FACE SHALL BE PARALLEL WITH THE CROSSWALK, AND WITHIN 10 INCHES OF AN ACCESSIBLE SURFACE FOR ADA COMPLIANCE. PUSH BUTTON MOUNTING HEIGHT SHALL BE BETWEEN 42 AND 48 INCHES.

6. EXISTING MAST ARM POLE AND PEDESTAL POLE FOUNDATIONS SHALL HAVE THE TOP TWO FEET REMOVED AND FILLED IN. CONDUIT SHALL BE ABANDONED IN PLACE AND CAPPED. WORK REQUIRED TO PERFORM THIS ACTIVITY SHALL BE PAID FOR UNDER CONTRACT ITEM 678.45 REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM.

7. EXISTING STREET LIGHT POLE FOUNDATIONS SHALL HAVE THE TOP TWO FEET REMOVED AND FILLED IN. CONDUIT SHALL BE ABANDONED IN PLACE AND CAPPED. WORK REQUIRED TO PERFORM THIS ACTIVITY SHALL BE PAID FOR UNDER CONTRACT ITEM 679.24 REMOVE STREET LIGHT ASSEMBLY.

PHASING DIAGRAM

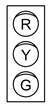
US ROUTE 5 & NORTH MAIN STREET



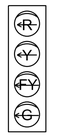
PHASES 2 & 6 (PERMITTEED PHASE 1: FLASHING YELLOW ARROW) | PHASES 1 & 6 | PHASE 10 (EXCLUSIVE BIKE) | PHASE 4 | PHASE 9 (EXCLUSIVE BIKE & PED)

*PEDESTRIAN/BIKE PHASE SHALL ONLY BE ACTUATED BY PEDESTRIAN/BIKE PUSH BUTTONS.

PROPOSED SIGNAL FACE ARRANGEMENTS



FACES 2,4,6
12" LED LENSES



FACE 1
12" LED LENSES



FACE B
12" LED LENSES

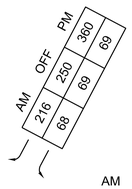


FACE P
16" LED LENSES

NOTE:
FLASHING YELLOW ARROW SHALL NOT BE DISPLAYED WHEN OPERATING IN PROTECTED ONLY MODE.

2017 PEAK HOUR VOLUMES

US ROUTE 5 & NORTH MAIN STREET



AM	OFF	PM
303	329	359
114	145	127

AM	OFF	PM
108	148	193
65	102	166

MAST ARM MOUNTED SIGNS



Ⓐ SEE DETAIL SHEET R10-101



Ⓑ MUTCD R3-1 LED BLANK OUT (36"×36")



Ⓒ R10-10b

POLE MOUNTED SIGNS



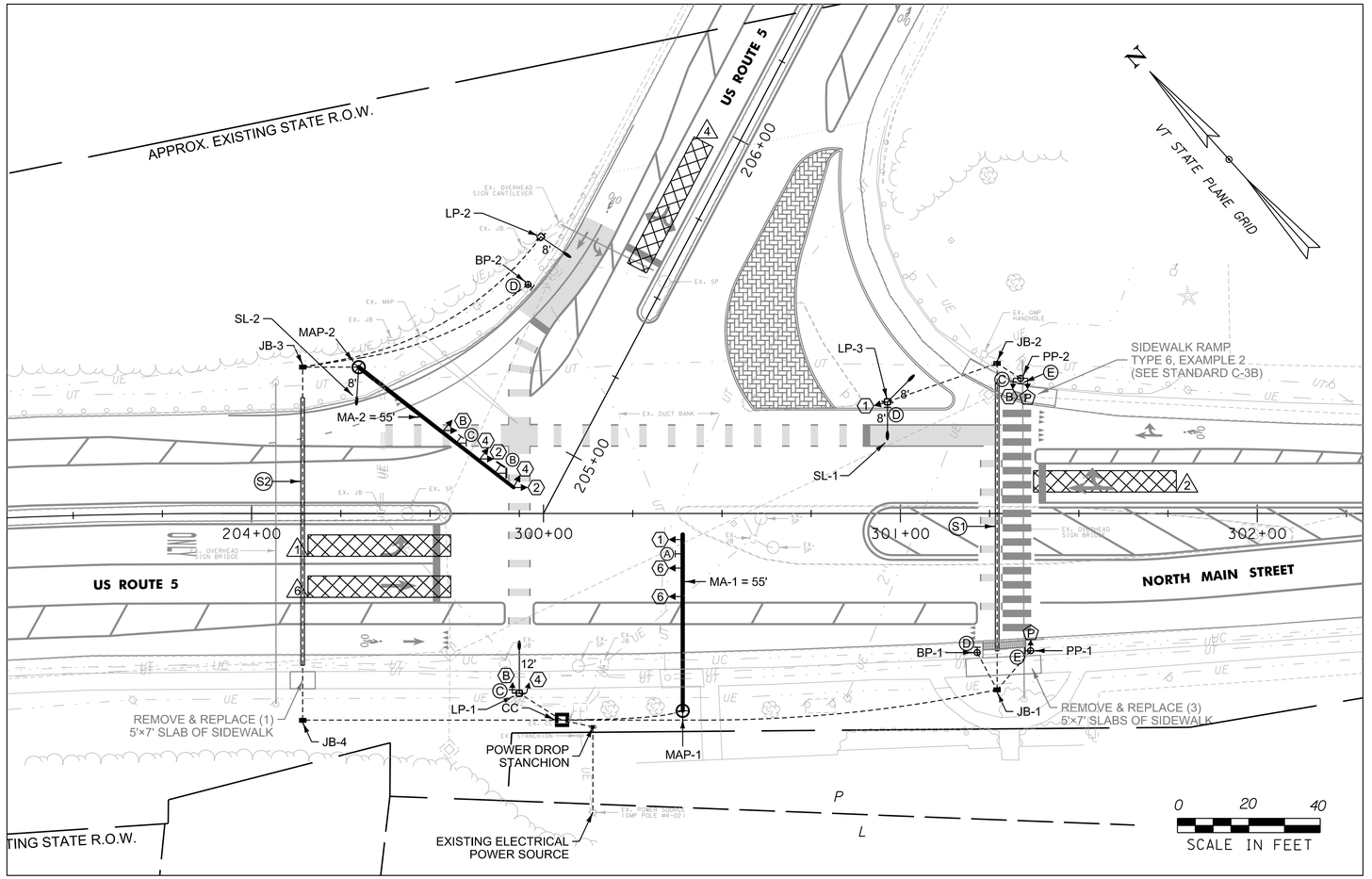
Ⓒ R10-10b



Ⓓ MUTCD R10-24



Ⓔ MUTCD R10-3e



TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (US ROUTE 5 & NORTH MAIN ST)

SEE LIST OF MAJOR EQUIPMENT (TRAFFIC SIGNAL INFORMATION SHEET 1)

CONTROLLER CABINET (GROUND-MOUNTED)

STA. 300+19.24, RT. 57.85'

MAST ARM POLES

MAP-1 = STA. 300+39.00, RT. 55.30'
MAP-2 = STA. 204+30.00, LT. 41.00'

PEDESTAL POLE FOUNDATION

PP-1 = STA. 301+36.48, RT. 38.46'
PP-2 = STA. 301+33.68, LT. 37.86'
BP-1 = STA. 301+21.54, RT. 38.98'
BP-2 = STA. 205+36.54, LT. 33.77'

PEDESTRIAN SIGNAL HEAD

STA. 301+36.48, RT. 38.46' (PP-1)
STA. 301+33.68, LT. 37.86' (PP-2)

BICYCLE SIGNAL HEAD

STA. 204+75.00, RT. 50.38' (LP-1)
STA. 301+33.68, LT. 37.86' (PP-2)
STA. 204+53.75, LT. 23.27' (MA-2)
STA. 204+53.75, LT. 23.27' (MA-2)

POWER DROP STANCHION

STA. 300+13.83, RT. 59.83'

REMOVAL OF EXISTING TRAFFIC CONTROL SYSTEM (US ROUTE 5 & NORTH MAIN STREET)

SEE NOTES 1 & 8, THIS SHEET

SQUARE TUBE SIGN POST AND ANCHOR

SEE TRAFFIC SIGN SUMMARY SHEET

TRAFFIC SIGNS, TYPE A

SEE TRAFFIC SIGN SUMMARY SHEET

679.46 - STREET LIGHT ASSEMBLY

LP-1 = STA. 204+75.00, RT. 50.38'
LP-2 = STA 205+49.38, LT. 36.86'
LP-3 = STA. 300+96.38, LT. 31.27'

679.08 - REMOVE STREET LIGHT ASSEMBLY

STA. 205+24.50, LT. 43.64'

BRACKET ARM

STA. 300+96.38, LT. 31.27' (LP-3 MOUNTED)
STA. 204+30.00, LT. 41.00' (MAP-2 MOUNTED)

LUMINAIRE

SL-1 = STA. 300+96.38, LT. 23.27'
SL-2 = STA. 204+29.50, LT. 33.02'

SPECIAL PROVISION (HORIZ. DIRECTIONAL DRILLING) (12" I.D. HDPE CASING PIPE)

Ⓢ1 STA. 204+14.30, LT. 32.46' - STA. 204+14.30, RT. 42.58' (76')

Ⓢ2 STA. 301+27.11, LT. 36.57' - STA. 301+27.11, RT. 38.50' (76')

WIRED CONDUIT

SEE CONDUIT SCHEDULE (TRAFFIC SIGNAL INFORMATION SHEET 1)

SPECIAL PROVISION (JUNCTION BOX, HEAVY DUTY)

JB-4 = STA. 204+14.30, RT. 57.92'
JB-1 = STA. 301+27.11, RT. 49.39'
JB-2 = STA. 301+27.11, LT. 42.05'
JB-3 = STA. 204+14.30, LT. 41.00'

LEGEND

- MAST ARM & POLE (MAP)
- CC — CONTROLLER CABINET
- JB — JUNCTION BOX, HEAVY DUTY
- (2) — SIGNAL HEAD WITH PHASE NO.
- (P) — PEDESTRIAN SIGNAL HEAD
- (B) — BICYCLE SIGNAL HEAD
- WIRED CONDUIT
- WIRED CONDUIT IN ELECTRICAL CONDUIT SLEEVE
- STOP BAR DETECTION AREA & LABEL
- (A) — POLE/MAST ARM MOUNTED SIGN & LABEL
- PP — PEDESTAL POLE
- BP — PEDESTAL POLE (FOR BICYCLE PUSH BUTTON ONLY)
- LIGHT POLE WITH BREAKAWAY FEATURE
- LUMINAIRE WITH BRACKET ARM

MS-403: US ROUTE 5 & NORTH MAIN STREET

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: sig layout 1.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGNAL LAYOUT SHEET 1

PLOT DATE: 11/21/2023
DRAWN BY: J. BLOOMER
CHECKED BY: T. SISSON
SHEET 68 OF 210

LIST OF MAJOR EQUIPMENT

678.15 – TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (US ROUTE 5 & NORTH MAIN STREET)	QUANTITY	REMARKS
STEEL MAST ARM SIGNAL POLE	2	FLAT BLACK
55-FOOT STEEL SIGNAL MAST ARM (MA-1, MA-2)	2	FLAT BLACK
NEMA P44 BASE-MOUNTED CONTROLLER CABINET (NEMA TS2, TYPE 1) WITH 15-INCH EXTENDED BASE ON A NEW CONCRETE FOUNDATION INCLUDING TRAFFIC SIGNAL CONTROLLER, BIU, SMART MALFUNCTIONING MONITORING UNIT (MMU), CONTROLLER IDENTIFICATION PLAQUE, POWER GENERATOR TRANSFER SWITCH, AND GPS CLOCK	1	FLAT BLACK ECONOLITE CABINET WITH ANCILLARY EQUIPMENT, CONSTRUCTED SUCH THAT THE ACCESS DOOR IS ORIENTED FACING AWAY FROM THE ROADWAY. TRAFFIC SIGNAL CONTROLLER SHALL BE ECONOLITE COBALT (NEMA TS2, TYPE 2), MMU SHALL BE ECONOLITE MMU2-16LEip, BIU SHALL BE ECONOLITE BIU-64.
STOP BAR DETECTOR ASSEMBLY	3	WAVETRONIX SMARTSENSOR MATRIX
ADVANCE DETECTOR ASSEMBLY	3	WAVETRONIX SMARTSENSOR ADVANCE (EXTENDED RANGE)
VEHICLE DETECTION PROCESSOR	1	WAVETRONIX CLICK 656
ACCESSIBLE PEDESTRIAN PUSH BUTTON ASSEMBLY	2	LOCATOR TONE, R10-3E SIGN
BICYCLE PUSH BUTTON ASSEMBLY	3	LOCATOR TONE, R10-24 SIGN, INCLUDE EXTENSION ARM ASSEMBLY FOR PUSH BUTTON AT BP-2.
COUNTDOWN PEDESTRIAN SIGNAL HEADS	2	
PEDESTAL POLE ON NEW FOUNDATION	2	
PUSH BUTTON PEDESTAL POLE ON NEW FOUNDATION	2	
ONE WAY, 3-SECTION, 12-INCH POLYCARBONATE LED TRAFFIC-SIGNAL HEAD WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 2-INCH RETROREFLECTIVE TAPE BORDER	10	ALL PIECES TO BE FLAT BACK
ONE WAY, 4-SECTION, 12-INCH POLYCARBONATE LED TRAFFIC-SIGNAL HEAD WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATESWITH 2-INCH RETROREFLECTIVE TAPE BORDER	2	ALL PIECES TO BE FLAT BACK
OPTICAL PREEMPTION DETECTORS	3	GTT OPTICOM
OPTICAL PREEMPTION SIGNAL PROCESS CARD & CAGE	3	
PREEMPTION AC STROBE - RED	3	
SIGNAL HEAD BRACKETS AND ANCILLARY EQUIPMENT	12	
POWER DROP STANCHION WITH DISCONNECTS	1	SEE NOTE 5 ON PREVIOUS SHEET
MIOVISION CORE DCM COMMUNICATION DEVICE	1	
MIOVISION SMARTVIEW 360	1	

CONDUIT SCHEDULE

LOCATION	SIZE		DESCRIPTION
	2″	3″	
EX. POWER TO STANCHION	30'	--	POWER
STANCHION TO CC	15'	--	POWER
CC TO JB-1	129'	--	SIGNAL/LIGHTING
CC TO JB-1	129'	--	DETECTION
CC TO JB-1	129'	--	PEDESTRIAN
CC TO JB-1	129'	--	BICYCLE
CC TO JB-1	129'	--	FUTURE USE
CC TO MAP-1	41'	--	SIGNAL
CC TO MAP-1	41'	--	DETECTION
CC TO MAP-1	41'	--	FUTURE USE
JB-1 TO BP-1	18'	--	BICYCLE
JB-1 TO BP-1	18'	--	FUTURE USE
JB-1 TO PP-1	21'	--	PEDESTRIAN
JB-1 TO PP-1	21'	--	FUTURE USE
JB-1 TO JB-2	--	98'	SIGNAL/LIGHTING
JB-1 TO JB-2	--	98'	DETECTION
JB-1 TO JB-2	--	98'	BICYCLE
JB-1 TO JB-2	--	98'	PEDESTRIAN
JB-1 TO JB-2	--	98'	FUTURE USE
JB-1 TO JB-2	--	98'	FUTURE USE
JB-2 TO PP-2	14'	--	BICYCLE
JB-2 TO PP-2	14'	--	PEDESTRIAN
JB-2 TO PP-2	14'	--	FUTURE USE
JB-2 TO LP-3	39'	--	SIGNAL/LIGHTING
JB-2 TO LP-3	39'	--	BICYCLE
JB-2 TO LP-3	39'	--	FUTURE USE
JB-3 TO MAP-2	22'	--	SIGNAL/LIGHTING
JB-3 TO MAP-2	22'	--	DETECTION
JB-3 TO MAP-2	22'	--	BICYCLE
JB-3 TO MAP-2	22'	--	FUTURE USE
JB-3 TO BP-2	75'	--	BICYCLE
JB-3 TO BP-2	75'	--	FUTURE USE
JB-3 TO LP-2	85'	--	LIGHTING
JB-3 TO LP-2	85'	--	FUTURE USE
JB-3 TO JB-4	--	105'	SIGNAL/LIGHTING
JB-3 TO JB-4	--	105'	DETECTION
JB-3 TO JB-4	--	105'	BICYCLE
JB-3 TO JB-4	--	105'	FUTURE USE
JB-3 TO JB-4	--	105'	FUTURE USE
CC TO JB-4	79'	--	SIGNAL/LIGHTING
CC TO JB-4	79'	--	DETECTION
CC TO JB-4	79'	--	BICYCLE
CC TO JB-4	79'	--	FUTURE USE
CC TO LP-1	21'	--	SIGNAL/LIGHTING
CC TO LP-1	21'	--	BICYCLE
CC TO LP-1	21'	--	FUTURE USE
SUBTOTAL	**1837'**	**1113'**	
ROUNDING	**63'**	**37'**	
TOTAL	**1900'**	**1150'**	

CONTROLLER TIMING CHART

PHASE	1	2	3	4	5	6	7	8	9
IN USE	X	X		X		X			
MIN. GREEN	5	5		5		5			
MAX 1 - GREEN	27	27		40		54			
MAX 2 - GREEN	30	36		40		66			
MAX 3 - GREEN	31	39		55		70			
YELLOW	4.0	4.0		4.0		4.0			
ALL RED	2.0	2.0		2.0		2.0			
VEHICLE EXT	2.0	2.0		2.0		2.0			
RECALL MODE	SOFT	NONE		SOFT		SOFT			
WALK/BIKE									7
PED CLR/BIKE									20

PREEMPTION TIMINGS

	PREEMPTOR		
	1	2	3
HOLD PHASE	1 & 6	4	2
DET LOCK	YES	YES	YES
DURATION TIME	18	18	18
MIN GREEN	8	8	8
HOLD GREEN	12	12	12
HOLD YELLOW	4	4	4
HOLD RED	2	2	2

ACTION PLAN

PLAN	PATTERN	REFERENCE
1	1	MAX 1
2	2	MAX 2
3	3	MAX 3
99	254-FREE	FREE
100	255-FLASH	FLASH

DAY PLAN 1

EVENT	ACTION PLAN	STEP BEGINS
1	99	00:00
2	1	06:00
3	2	10:00
4	3	15:00
5	99	18:00

DAY PLAN 2

EVENT	ACTION PLAN	STEP BEGINS
1	99	00:00

SCHEDULE PLAN

DAY PLAN	DAYS	DATES
1	MON-FRI	1-31
2	SAT-SUN	1-31

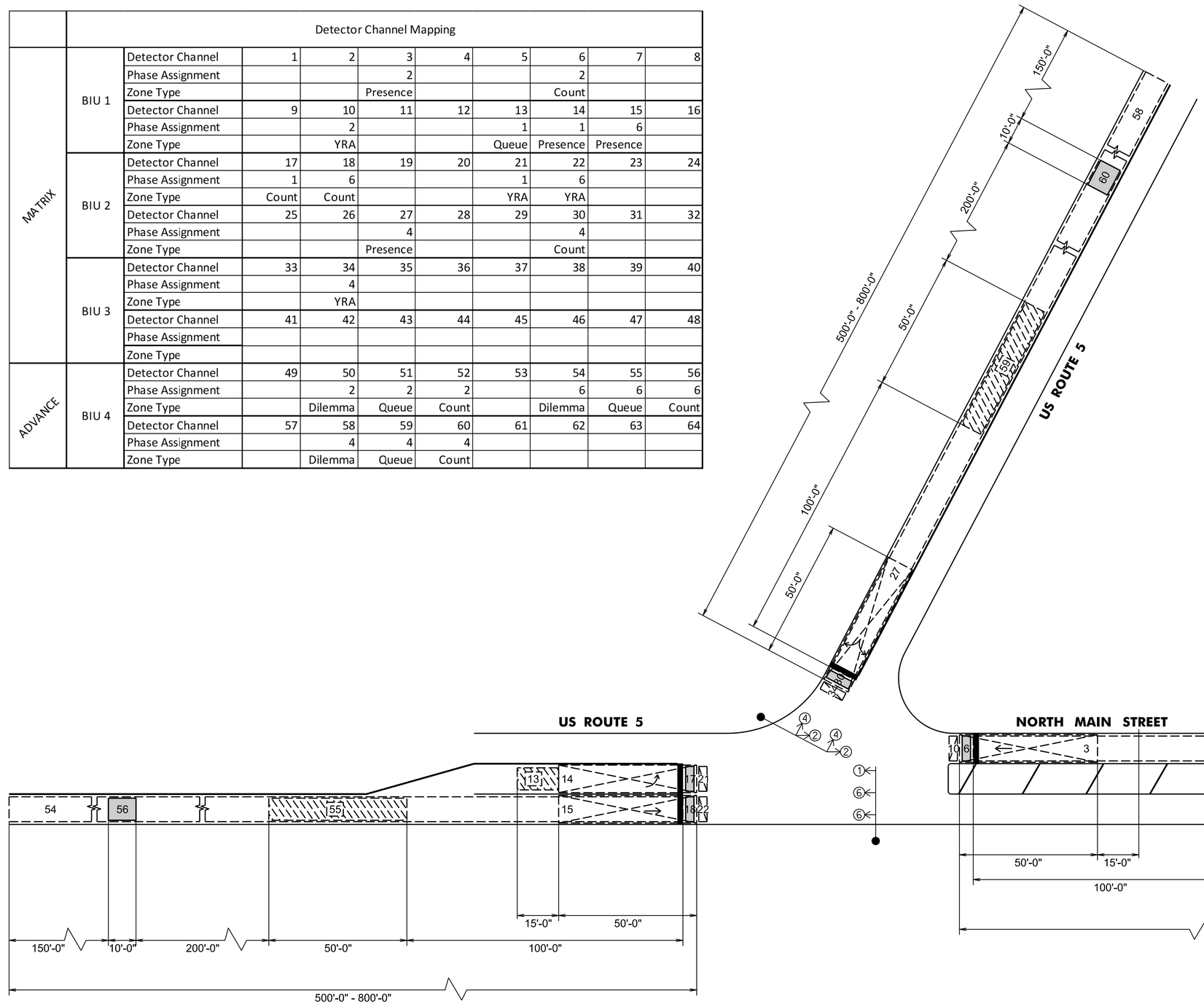
MS–403: US ROUTE 5 & NORTH MAIN STREET

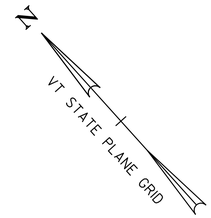
PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: sig info 1.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGNAL INFORMATION SHEET 1

PLOT DATE: 8/3/2023
DRAWN BY: J. BLOOMER
CHECKED BY: T. SISSON
SHEET 69 OF 210

		Detector Channel Mapping								
MATRIX	BIU 1	Detector Channel	1	2	3	4	5	6	7	8
		Phase Assignment			2			2		
		Zone Type			Presence			Count		
		Detector Channel	9	10	11	12	13	14	15	16
		Phase Assignment		2			1	1	6	
		Zone Type		YRA			Queue	Presence	Presence	
	BIU 2	Detector Channel	17	18	19	20	21	22	23	24
		Phase Assignment	1	6			1	6		
		Zone Type	Count	Count			YRA	YRA		
		Detector Channel	25	26	27	28	29	30	31	32
		Phase Assignment			4			4		
		Zone Type			Presence			Count		
	BIU 3	Detector Channel	33	34	35	36	37	38	39	40
		Phase Assignment		4						
		Zone Type		YRA						
		Detector Channel	41	42	43	44	45	46	47	48
		Phase Assignment								
		Zone Type								
ADVANCE	BIU 4	Detector Channel	49	50	51	52	53	54	55	56
		Phase Assignment		2	2	2		6	6	6
		Zone Type		Dilemma	Queue	Count		Dilemma	Queue	Count
		Detector Channel	57	58	59	60	61	62	63	64
		Phase Assignment		4	4	4				
		Zone Type		Dilemma	Queue	Count				





PROTECTED PERMITTED ATSPM CONFIGURATIONS

①	= TRAFFIC SIGNAL PHASE ASSIGNMENT
2	= DETECTOR CHANNEL MAP ASSIGNMENT BY ZONE
YRA	= YELLOW & RED ACTUATION ZONE
COUNT	= TURNING MOVEMENT COUNT ZONE
DETECTOR	= STOPBAR DETECTION ZONE
QUEUE	= QUEUE DETECTION ZONE
SPM	= SIGNAL PERFORMANCE MEASURE ZONE
DILEMMA	= DYNAMIC DILEMMA ZONE

NOTE:

1. DETECTOR CHANNEL ASSIGNMENTS ARE FIXED AND SHOULD NOT BE ASSIGNED TO ANOTHER PHASE OR LANE.

NOT TO SCALE

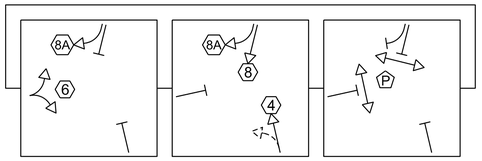
MS–403: US ROUTE 5 & NORTH MAIN STREET

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NHG SGNL(60)
FILE NAME: detect 1.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: N. BREDICE
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
DETECTOR CHANNEL ASSIGNMENT SHEET 1	SHEET 70 OF 210

NOTES:

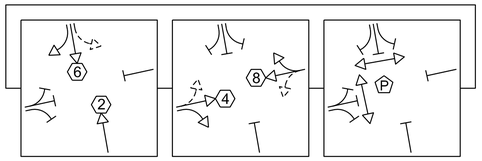
1. CONTRACTOR TO LOCATE EXISTING TRAFFIC SIGNAL CONDUIT AND POTENTIAL UTILITY CONFLICTS PRIOR TO ORDERING SIGNAL EQUIPMENT. WORK REQUIRED TO PERFORM THIS ACTIVITY SHALL BE PAID FOR UNDER CONTRACT ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.
2. TRAFFIC ITEMS LISTED ARE APPROXIMATE LOCATIONS AND MAY BE MODIFIED BY THE ENGINEER IN THE FIELD.
3. PUSH BUTTON FACE SHALL BE PARALLEL WITH THE CROSSWALK AND WITHIN 10 INCHES OF AN ACCESSIBLE SURFACE FOR ADA COMPLIANCE. PUSH BUTTON MOUNTING HEIGHT SHALL BE BETWEEN 42 AND 48 INCHES.
4. ELECTRICAL WIRING FOR SIGNALS NOT IN NEW WIRED CONDUIT SHALL BE PAID INCIDENTAL TO CONTRACT ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.
5. EXISTING LED BLANK OUT SIGNS SHALL BE PROGRAMMED SUCH THAT THEY ONLY COME ON WHEN PEDESTRIAN PHASE IS ACTIVATED AND SHALL REMAIN ON FOR THE DURATION OF THE WALK INTERVAL.
6. POWER DROP STANCHION SHALL BE CONSTRUCTED SUCH THAT THE METER FACE IS ORIENTED FACING AWAY FROM THE ROADWAY AND SHALL HAVE SEPARATE BREAKERS FOR MS-406 AND MS-406A.

PHASING DIAGRAM
HANOVER ST & HIGHLAND AVE



PHASES 6 & 8A | PHASES 4, 8, & 8A | EXCL. PED PHASE

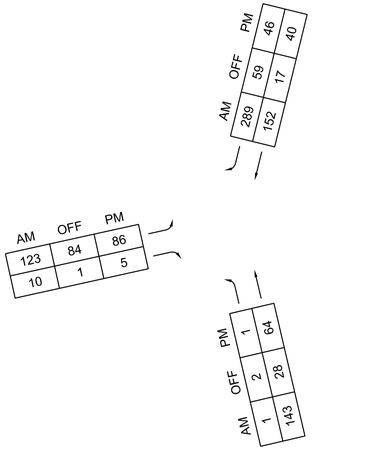
PHASING DIAGRAM
US ROUTE 5 & WORCESTER AVE



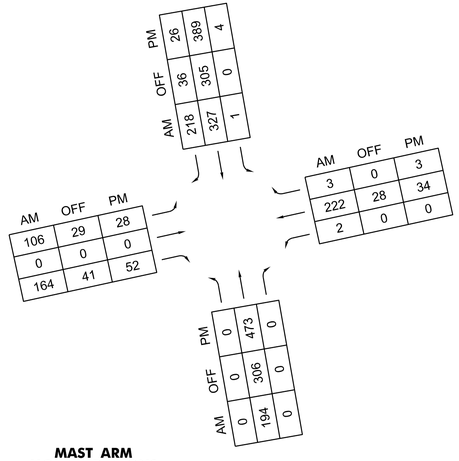
PHASES 2 & 6 | PHASES 4 & 8 | EXCL. PED PHASE

*PEDESTRIAN PHASE SHALL ONLY BE ACTUATED BY PEDESTRIAN BUTTONS

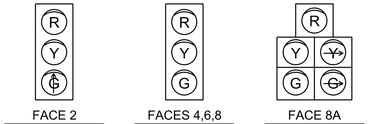
2017 PEAK HOUR VOLUMES
HANOVER ST & HIGHLAND AVE



2017 PEAK HOUR VOLUMES
US ROUTE 5 & WORCESTER AVE



PROPOSED SIGNAL FACES



FACE 2 — 12" LED LENSES | FACES 4,6,8 — 12" LED LENSES | FACE 8A — 12" LED LENSES

FACE P — 16" LED LENSES

MAST ARM MOUNTED SIGNS

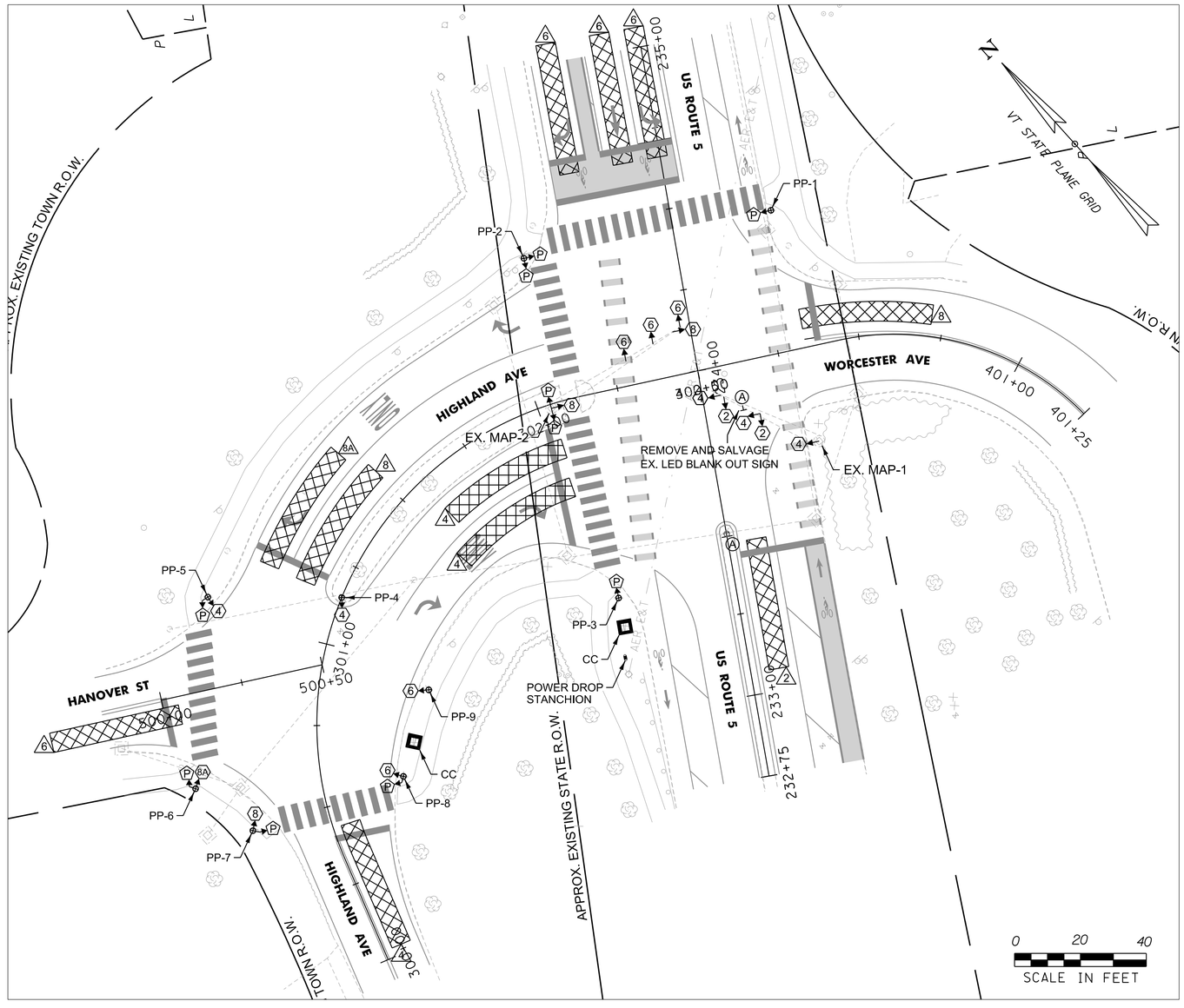


Ⓐ MUTCD R3-18

GROUND MOUNTED SIGNS



Ⓐ MUTCD R3-18



LEGEND

CC	CONTROLLER CABINET
②→	SIGNAL HEAD WITH PHASE NO.
Ⓟ→	PEDESTRIAN SIGNAL HEAD
⊠ A	STOP BAR DETECTION AREA & LABEL
⊕ PP	PEDESTAL POLE

TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION
(HANOVER ST & HIGHLAND AVE)
SEE LIST OF MAJOR EQUIPMENT
(TRAFFIC SIGNAL INFORMATION SHEET 2)

CONTROLLER CABINET
(ON EXISTING FOUNDATION)
STA. 300+67.83, RT. 29.40' (CC)

PEDESTAL POLE
(ON EXISTING FOUNDATION)
PP-4 = STA. 301+14.86, CL.
PP-5 = STA. 500+20.52, LT. 27.56'
PP-6 = STA. 500+04.36, RT. 28.51'
PP-7 = STA. 300+48.84, LT. 23.67'
PP-8 = STA. 300+54.36, RT. 24.65'
PP-9 = STA. 300+90.95, RT. 33.20'

PEDESTRIAN SIGNAL HEAD
STA. 333+87.33, RT. 55.59' (PP-5)
STA. 333+87.33, RT. 55.59' (PP-6)
STA. 333+87.33, RT. 55.59' (PP-7)
STA. 333+87.33, RT. 55.59' (PP-8)

TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION
(US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE)
SEE LIST OF MAJOR EQUIPMENT
(TRAFFIC SIGNAL INFORMATION SHEET 2)

CONTROLLER CABINET
(ON EXISTING FOUNDATION)
STA. 233+27.14, LT. 35.20' (CC)

PEDESTAL POLE
(ON EXISTING FOUNDATION)
PP-1 = STA. 234+44.19, RT. 30.34'
PP-2 = STA. 234+42.83, LT. 46.09'
PP-3 = STA. 233+36.20, LT. 35.63'

PEDESTRIAN SIGNAL HEAD
STA. 233+96.46, LT. 45.77' (EX. MAP-2)
STA. 233+96.46, LT. 45.77' (EX. MAP-2)
STA. 234+44.19, RT. 30.34' (PP-1)
STA. 234+42.83, LT. 46.09' (PP-2)
STA. 233+36.20, LT. 35.63' (PP-3)

POWER DROP STANCHION
STA. 233+18.00, LT. 36.76'

REMOVAL OF EXISTING TRAFFIC CONTROL SYSTEM
(US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE)
SEE NOTE 1, THIS SHEET

REMOVAL OF EXISTING TRAFFIC CONTROL SYSTEM
(HANOVER ST & HIGHLAND AVE)
SEE NOTE 1, THIS SHEET

MS-406: US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE
MS-406A: HANOVER ST & HIGHLAND AVE

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: sig layout 2.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGNAL LAYOUT SHEET 2

PLOT DATE: 8/3/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 7I OF 2I0

MS–406: US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE

LIST OF MAJOR EQUIPMENT

678.15 – TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE)	QUANTITY	REMARKS
NEMA P44 BASE-MOUNTED CONTROLLER CABINET (NEMA TS2, TYPE 1) WITH 15-INCH EXTENDED BASE ON EXISTING CONCRETE FOUNDATION INCLUDING TRAFFIC SIGNAL CONTROLLER, BIU, SMART MALFUNCTIONING MONITORING UNIT (MMU), CONTROLLER IDENTIFICATION PLAQUE, AND GPS CLOCK	1	FLAT BLACK ECONOLITE CABINET WITH ANCILLARY EQUIPMENT, CONSTRUCTED SUCH THAT THE ACCESS DOOR IS ORIENTED FACING AWAY FROM THE ROADWAY. TRAFFIC SIGNAL CONTROLLER SHALL BE ECONOLITE COBALT (NEMA TS2, TYPE 2), MMU SHALL BE ECONOLITE MMU2-16LEip, BIU SHALL BE ECONOLITE BIU-64.
STOP BAR DETECTOR ASSEMBLY	4	WAVETRONIX SMARTSENSOR MATRIX
ADVANCE DETECTOR ASSEMBLY	2	WAVETRONIX SMARTSENSOR ADVANCE (EXTENDED RANGE)
VEHICLE DETECTION PROCESSOR	1	WAVETRONIX CLICK 656
ACCESSIBLE PEDESTRIAN PUSH BUTTON ASSEMBLY	3	LOCATOR TONE, R10-3E SIGN
COUNTDOWN PEDESTRIAN SIGNAL HEADS	6	
PEDESTRIAN PEDESTAL POLE ON EXISTING FOUNDATION	3	
ONE WAY, 3-SECTION, 12-INCH POLYCARBONATE MAST ARM MOUNTED LED TRAFFIC-SIGNAL HEAD WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 2-INCH RETROREFLECTIVE TAPE BORDER	10	ALL PIECES TO BE FLAT BACK
OPTICAL PREEMPTION DETECTORS	2	GTT OPTICOM
OPTICAL PREEMPTION SIGNAL PROCESS CARD & CAGE	2	GTT OPTICOM
PREEMPTION AC STROBE - RED	2	GTT OPTICOM
SIGNAL HEAD BRACKETS AND ANCILLARY EQUIPMENT	10	
MIOVISION CORE DCM COMMUNICATION DEVICE	1	
MIOVISION SMARTVIEW 360	1	
ELECTRICAL WIRING	1000'	
POWER DROP STANCHION WITH DISCONNECTS	1	SEE NOTE 7 ON PREVIOUS SHEET

CONTROLLER TIMING CHART

PHASE	1	2	3	4	5	6	7	8	9
IN USE		X		X		X		X	
MIN. GREEN		12		6		12		6	
MAX 1 - GREEN		35		28		35		28	
MAX 2 - GREEN		34		29		34		29	
MAX 3 - GREEN		33		30		33		30	
YELLOW		4.0		4.0		4.0		4.0	
ALL RED		2.0		2.0		2.0		2.0	
VEHICLE EXT		2.0		2.0		2.0		2.0	
RECALL MODE		SOFT		NONE		SOFT		NONE	NONE
COORDINATED				X				X	
WALK									8
PED CLR									25

PREEMPTION TIMINGS

	PREEMPTOR	
	1	2
DIRECTION	NB	SB
HOLD PHASE	2	6
DET LOCK	YES	YES
DURATION TIME	18	18
MIN GREEN	8	8
HOLD GREEN	12	12
HOLD YELLOW	4	4
HOLD RED	2	2

DAY PLAN 1

EVENT	ACTION PLAN	STEP BEGINS
1	99	00:00
2	1	06:00
3	99	09:00
4	2	14:00
5	3	16:00
6	99	18:00

DAY PLAN 2

EVENT	ACTION PLAN	STEP BEGINS
1	100	00:00
2	99	06:00

SCHEDULE PLAN

DAY PLAN	DAYS	DATES
1	MON-FRI	1-31
2	SAT-SUN	1-31

ACTION PLAN

PLAN	PATTERN	REFERENCE
1	1	MAX 1
2	2	MAX 2
3	3	MAX 3
99	254-FREE	FREE
100	255-FLASH	FLASH

MS–406: COORDINATION PATTERNS

PATTERN 1

CYCLE LENGTH	75	OFFSET	0	COS	111				
SPLITS	Ph1	0	Ph2	41	Ph3	0	Ph4	34	
	Ph5	0	Ph6	41	Ph7	0	Ph8	34	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

PATTERN 2

CYCLE LENGTH	75	OFFSET	0	COS	211				
SPLITS	Ph1	0	Ph2	40	Ph3	0	Ph4	35	
	Ph5	0	Ph6	40	Ph7	0	Ph8	35	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

PATTERN 3

CYCLE LENGTH	75	OFFSET	0	COS	311				
SPLITS	Ph1	0	Ph2	39	Ph3	0	Ph4	36	
	Ph5	0	Ph6	39	Ph7	0	Ph8	36	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

MS–406A: COORDINATION PATTERNS

PATTERN 1

CYCLE LENGTH	75	OFFSET	73	COS	111				
SPLITS	Ph1	0	Ph2	0	Ph3	0	Ph4	34	
	Ph5	0	Ph6	41	Ph7	0	Ph8	34	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

PATTERN 2

CYCLE LENGTH	75	OFFSET	73	COS	211				
SPLITS	Ph1	0	Ph2	0	Ph3	0	Ph4	35	
	Ph5	0	Ph6	40	Ph7	0	Ph8	35	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

PATTERN 3

CYCLE LENGTH	75	OFFSET	69	COS	311				
SPLITS	Ph1	0	Ph2	0	Ph3	0	Ph4	36	
	Ph5	0	Ph6	39	Ph7	0	Ph8	36	
	Ph9	0	Ph10	0	Ph11	0	Ph12	0	

MS–406A: HANOVER ST & HIGHLAND AVE

LIST OF MAJOR EQUIPMENT

678.15 – TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION (HIGHLAND AVE & HANOVER ST)	QUANTITY	REMARKS
NEMA P44 BASE-MOUNTED CONTROLLER CABINET (NEMA TS2, TYPE 1) WITH 15-INCH EXTENDED BASE ON EXISTING CONCRETE FOUNDATION INCLUDING TRAFFIC SIGNAL CONTROLLER, BIU, SMART MALFUNCTIONING MONITORING UNIT (MMU), CONTROLLER IDENTIFICATION PLAQUE, AND GPS CLOCK	1	FLAT BLACK ECONOLITE CABINET WITH ANCILLARY EQUIPMENT, CONSTRUCTED SUCH THAT THE ACCESS DOOR IS ORIENTED FACING AWAY FROM THE ROADWAY. TRAFFIC SIGNAL CONTROLLER SHALL BE ECONOLITE COBALT (NEMA TS2, TYPE 2), MMU SHALL BE ECONOLITE MMU2-16LEip, BIU SHALL BE ECONOLITE BIU-64.
ACCESSIBLE PEDESTRIAN PUSH BUTTON ASSEMBLY	4	LOCATOR TONE, R10-3E SIGN
COUNTDOWN PEDESTRIAN SIGNAL HEADS	4	
PEDESTRIAN PEDESTAL POLE ON EXISTING FOUNDATION	6	
ONE WAY, 3-SECTION, 12-INCH POLYCARBONATE MAST ARM MOUNTED LED TRAFFIC-SIGNAL HEAD WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 2-INCH RETROREFLECTIVE TAPE BORDER	5	ALL PIECES TO BE FLAT BACK
ONE WAY, 5-SECTION, 12-INCH POLYCARBONATE PEDESTAL POLE MOUNTED LED TRAFFIC-SIGNAL HEAD WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 2-INCH RETROREFLECTIVE TAPE BORDER	1	ALL PIECES TO BE FLAT BACK
SIGNAL HEAD BRACKETS AND ANCILLARY EQUIPMENT	6	
MIOVISION SMARTLINK COMMUNICATION DEVICE	1	
MIOVISION SMARTVIEW 360	1	
MIOVISION SMARTSENSE DETECTION PROCESSOR	1	

CONTROLLER TIMING CHART

PHASE	1	2	3	4	5	6	7	8	9
IN USE				X		X		X	
MIN. GREEN				6		12		6	
MAX 1 - GREEN				28		35		28	
MAX 2 - GREEN				29		34		29	
MAX 3 - GREEN				30		33		30	
YELLOW				4.0		4.0		4.0	
ALL RED				2.0		2.0		2.0	
VEHICLE EXT				2.0		2.0		2.0	
RECALL MODE				NONE		SOFT		NONE	NONE
COORDINATED				X				X	
WALK									8
PED CLR									15

DAY PLAN 1

EVENT	ACTION PLAN	STEP BEGINS
1	99	00:00
2	1	06:00
3	99	09:00
4	2	14:00
5	3	16:00
6	99	18:00

DAY PLAN 2

EVENT	ACTION PLAN	STEP BEGINS
1	100	00:00
2	99	06:00

SCHEDULE PLAN

DAY PLAN	DAYS	DATES
1	MON-FRI	1-31
2	SAT-SUN	1-31

ACTION PLAN

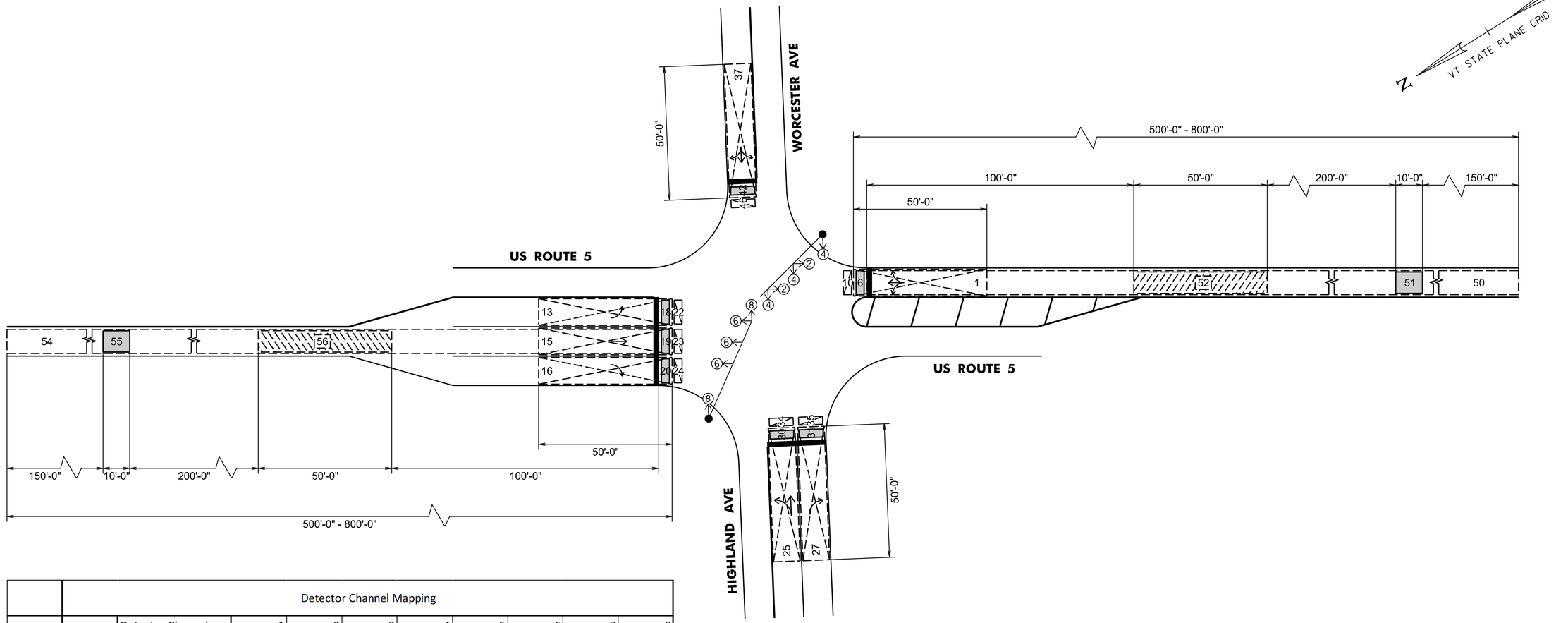
PLAN	PATTERN	REFERENCE
1	1	MAX 1
2	2	MAX 2
3	3	MAX 3
99	254-FREE	FREE
100	255-FLASH	FLASH

MS–406: US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE
MS–406A: HANOVER ST & HIGHLAND AVE

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: sig info 2.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGNAL INFORMATION SHEET 2

PLOT DATE: 8/3/2023
DRAWN BY: J. BLOOMER
CHECKED BY: T. SISSON
SHEET 72 OF 210



			Detector Channel Mapping							
MATRIX	BIU 1	Detector Channel	1	2	3	4	5	6	7	8
		Phase Assignment	2					2		
		Zone Type	Presence					Count		
		Detector Channel	9	10	11	12	13	14	15	16
		Phase Assignment		2			6		6	6
		Zone Type		YRA			Presence		Presence	Presence
	BIU 2	Detector Channel	17	18	19	20	21	22	23	24
		Phase Assignment		6	6	6		6	6	6
		Zone Type		Count	Count	Count		YRA	YRA	YRA
		Detector Channel	25	26	27	28	29	30	31	32
		Phase Assignment	4		4			4	4	
		Zone Type	Presence		Presence			Count	Count	
	BIU 3	Detector Channel	33	34	35	36	37	38	39	40
		Phase Assignment		4	4		8			
		Zone Type		YRA	YRA		Presence			
		Detector Channel	41	42	43	44	45	46	47	48
		Phase Assignment		8				8		
		Zone Type		Count				YRA		
ADVANCE	BIU 4	Detector Channel	49	50	51	52	53	54	55	56
		Phase Assignment		2	2	2		6	6	6
		Zone Type		Dilemma	Count	Queue		Dilemma	Count	Queue
		Detector Channel	57	58	59	60	61	62	63	64
		Phase Assignment								
		Zone Type								

NOT TO SCALE

PROTECTED PERMITTED ATSPM CONFIGURATIONS

①	= TRAFFIC SIGNAL PHASE ASSIGNMENT
2	= DETECTOR CHANNEL MAP ASSIGNMENT BY ZONE
YRA	= YELLOW & RED ACTUATION ZONE
COUNT	= TURNING MOVEMENT COUNT ZONE
DETECTOR	= STOPBAR DETECTION ZONE
QUEUE	= QUEUE DETECTION ZONE
SPM	= SIGNAL PERFORMANCE MEASURE ZONE
DILEMMA	= DYNAMIC DILEMMA ZONE

NOTE:

1. DETECTOR CHANNEL ASSIGNMENTS ARE FIXED AND SHOULD NOT BE ASSIGNED TO ANOTHER PHASE OR LANE.

MS–406: US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: detect 2.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
DETECTOR CHANNEL ASSIGNMENT SHEET 2

PLOT DATE: 8/3/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 73 OF 210

TRAFFIC SIGNAL SYSTEM NOTES

A. NEW TRAFFIC SIGNAL EQUIPMENT

1. ALL SIGNAL HEAD HOUSINGS SHALL BE 12" POLYCARBONATE. THE SIGNAL HEAD EQUIPMENT SHALL BE FLAT BLACK AND INCLUDE FLAT BLACK VISORS.
2. ALL SIGNAL HEADS SHALL HAVE FLAT BLACK LOUVERED BACK PLATES WITH A 2-INCH RETROREFLECTIVE TAPE BORDER.
3. ALL SIGNAL HEADS SHALL HAVE RED, YELLOW, AND GREEN L.E.D. INDICATORS WITH A VISIBLE SPREAD OF 80 DEGREES.
4. ALL SIGNAL HEADS SHALL BE MOUNTED ON THE BRACKET SUCH THAT THE MIDDLE ONE-THIRD OF THE SIGNAL HEAD ALIGNS WITH THE MAST ARM.
5. THE TRAFFIC SIGNAL CONTROLLER SHALL BE AN ECONOLITE COBALT (NEMA TS2, TYPE 2) WITH A CONNECTED VEHICLE COPROCESSOR (CVCP) MODULE IN AN ECONOLITE NEMA P44 TRAFFIC SIGNAL CONTROL CABINET WITH A 15-INCH BASE EXTENSION INSTALLED AT THE LOCATION SHOWN ON THE PLANS. THE CABINET AND BASE EXTENSIONS SHALL BE FLAT BLACK.
6. NEW CONCRETE CABINET FOUNDATION SHALL HAVE A 18"X12"OPENING FOR SIGNAL CONDUIT LOCATED IN THE CENTER.
7. NEW TRAFFIC SIGNAL CONTROL CABINETS SHALL BE ORIENTED SUCH THAT THE DOOR DOES NOT FACE THE ROADWAY.
8. RELATED TRAFFIC SIGNAL EQUIPMENT SUCH AS THE BUS INTERFACE UNIT (BIU) AND THE MALFUNCTION MANAGEMENT UNIT (MMU) SHALL BE ECONOLITE BRAND.
9. ALL SIGNAL EQUIPMENT AND SIGNS MOUNTED ON CANTILEVERED MAST ARMS SHALL HAVE SAFETY CABLES.
10. A DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R), LOCKED CABINET ON A STANCHION NEXT TO OR BELOW THE METER SOCKET. IF STREET LIGHTING IS PRESENT, THE TRAFFIC SIGNAL CIRCUITS MUST BE SEPARATE FROM THE STREET LIGHTING CIRCUITS. ALL METER DISCONNECTS SHALL HAVE BYPASS. METER SHALL FACE AWAY FROM TRAFFIC.

B. TRAFFIC SIGNAL OPERATIONS

1. SIGNAL TIMINGS SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC OBSERVATIONS AND/OR ADDITIONAL FIELD STUDIES.
2. SWITCH-OVER TO INSTALLED SIGNAL SYSTEM SHALL NOT OCCUR DURING PEAK TRAFFIC PERIODS. UNIFORMED TRAFFIC OFFICERS SHALL CONTROL TRAFFIC DURING THE SWITCH-OVER.
3. ALL SIGNALS SHALL DWELL ON US ROUTE 5 UNLESS OTHERWISE NOTED.
4. THE US ROUTE 5 THRU PHASE SHALL BE USED FOR THE START-UP PHASE FOLLOWING FLASH OPERATIONS.

C. VEHICLE DETECTION

1. STOP BAR AND ADVANCE VEHICLE DETECTOR LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE FOR THE TYPE OF DETECTOR SUPPLIED. THE CONTRACTOR SHALL SUBMIT PROPOSED MOUNTING LOCATIONS AND DOCUMENTATION OF CONFORMANCE WITH THE MANUFACTURER'S GUIDANCE TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. ALL VEHICLE DETECTORS SHALL BE PLACED SUCH THAT OCCLUSION IS MINIMIZED AND PHASING IS NOT NEGATIVELY AFFECTED.
3. STOP BAR VEHICLE DETECTION ZONES SHALL EXTEND 5 FEET PAST THE FINAL, PERMANENT STOP BAR.
4. ADVANCED VEHICLE DETECTION ZONES SHALL BE A MINIMUM OF 350 FEET UPSTREAM OF THE FINAL, PERMANENT STOP BAR.
5. DILEMMA ZONE DETECTION BY THE ADVANCED VEHICLE DETECTION SYSTEM SHALL PROVIDE DETECTION OF RANGE, SPEED AND ESTIMATED TIME OF ARRIVAL OF APPROACHING VEHICLES IN A CONTINUOUS RANGE OF 200 TO 900 FT FROM THE FINAL LOCATION OF THE DETECTOR UNIT.
6. THERE SHALL BE NO WIRING SPLICES BETWEEN THE VEHICLE DETECTORS AND THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT UNLESS IN A MANUFACTURER RECOMMENDED JUNCTION BOX.
7. EXCLUDING THE HANOVER ST & HIGHLAND AVE INTERSECTION (MS-406A), THE VEHICLE DETECTION SYSTEM SHALL BE WAVETRONIX SMARTSENSOR MATRIX AND WAVETRONIX SMARTSENSOR ADVANCE (EXTENDED RANGE).

D. MAST ARM POLE FOUNDATIONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOUNDATION DESIGN. FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE MREI 10-01 GUIDELINES. IN ADDITION TO FABRICATION DRAWINGS, THE BORING LOGS DESIGN CRITERIA, AND DESIGN CALCULATIONS SHALL BE SUBMITTED AS WORKING DRAWINGS IN ACCORDANCES WITH SECTION 105.03. ADDITIONAL REQUIREMENTS CAN BE FOUND IN THE TRAFFIC SIGNAL GENERAL NOTES.

E. TRAFFIC SIGNAL CONDUIT

1. WHEN CONDUIT IS PLACED BELOW THE ROADWAY OR ACROSS SIDE ROADS, IT SHALL BE PLACED IN A HDPE SLEEVE. SIZE AND PAYMENT METHOD ARE SHOWN IN THE LAYOUT SHEETS.
2. ALL CONDUIT SHALL BE FILLED WITH STEEL WOOL PRIOR TO BEING CAPPED.

F. COMMUNICATION EQUIPMENT

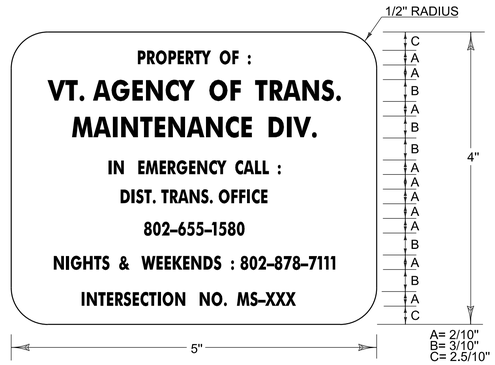
1. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR THE CONFIGURATION AND INSTALLATION OF THE SMARTLINK AND SMARTVIEW 360.

G. EMERGENCY PRE-EMPTION

1. EMERGENCY PRE-EMPTION RECEIVER AND STROBE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE, IF AVAILABLE. THE CONTRACTOR SHALL SUBMIT PROPOSED MOUNTING LOCATIONS AND DOCUMENTATION OF CONFORMANCE WITH THE MANUFACTURER'S GUIDANCE TO THE ENGINEER.
2. THE CONTRACTOR SHALL COORDINATE WITH LOCAL EMERGENCY RESPONDERS TO FIELD TEST AND VERIFY THAT EQUIPMENT WORKS PROPERLY. VERIFICATION OF EQUIPMENT WILL BE REQUIRED BEFORE THE END OF THE 30-DAY TEST PERIOD FOR EACH INTERSECTION.
3. EMERGENCY PREEMPTION EQUIPMENT SHALL BE OPTICOM GTT BRAND.

H. GENERAL

1. A UNIFORMED TRAFFIC OFFICER WITH A BLUE LIGHT SHALL BE PRESENT DURING ALL LANE CLOSURES, WHEN THE SIGNAL IS IN FLASH OPERATION, AND WHEN THE SIGNAL IS DARK.
2. WHERE WORK WOULD LEAVE HOLES IN EXISTING SIGNAL EQUIPMENT, INCLUDING POLES, THOSE HOLES SHALL BE PLUGGED/REPAIRED USING METHODS APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID INCIDENTAL TO ALL OTHER SIGNAL ITEMS.



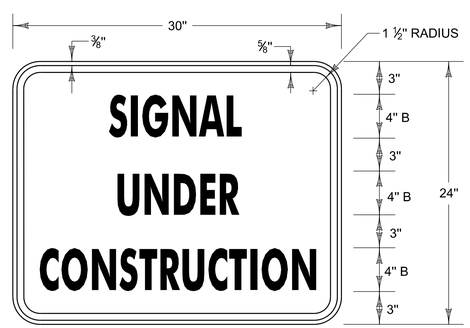
LEGEND: - BLACK (NON-REFL.) - STAMPED PRIOR TO PAINTING
BACKGROUND: NATURAL ALUMINUM OR BRASS SURFACE

CONTROLLER IDENTIFICATION PLAQUE

NOT TO SCALE

NOTES:

1. THE PLAQUE SHALL BE MOUNTED ON ALL TRAFFIC SIGNAL CONTROLLER CABINETS. IT SHALL BE FASTENED TO THECONTROLLER CABINET IN SUCH A MANNER AS TO BE NOT EASILY REMOVED, SUCH AS WELDED, RIVETED OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED OR STAMPED; SUCH STAMPING SHALL PENETRATE AT LEAST ½ THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF $\frac{1}{10}$".
4. THE FOLLOWING LOCATIONS WILL REQUIRE A CONTROLLER PLAQUE:
   - MS-403 (US ROUTE 5 & NORTH MAIN ST)
   - MS-406 (US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE)
   - MS-406A (HANOVER ST & HIGHLAND AVE)



MATERIALS: SEE STD. T-30
BACKGROUND - ORANGE (RETROREFLECTIVE SHEETING)
COLORS: TEXT & BORDER - BLACK

CONSTRUCTION SIGN DETAIL

NOT TO SCALE

NOTES:

1. TO BE INSTALLED ON ROAD WORK AHEAD SIGN POSTS.

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: system notes.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGNAL SYSTEM NOTES SHEET

PLOT DATE: 8/3/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 74 OF 210

TRAFFIC SIGNAL GENERAL NOTES

A. DESIGN GUIDANCE

1. OVERHEAD SIGNAL SUPPORTS SHALL CONFORM TO AASHTO'S "SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", DATED 2013.

B. DESIGN CALCULATION CRITERIA

1. THE DESIGN CALCULATIONS SHALL TAKE INTO ACCOUNT THE FOLLOWING CRITERIA:
   a. STRUCTURE CRITERIA
      - DESIGN LIFE AND RECURRANCE INTERVAL: 50 YEARS
      - WIND LOAD: 90 M.P.H.; REFER TO ASCE 7-05 TO VERIFY IF THE SITE IS WITHIN THE SPECIAL WIND REGION AND IF CONFIRMED, USE A WIND LOAD OF 120 MPH

   b. FATIGUE CRITERIA
      - FATIGUE CATEGORY: 2 FOR STRUCTURES LOCATED ON ROADWAYS WITH A SPEED LIMIT GREATER THAN 35 MPH, 3 FOR STRUCTURES LOCATED ON ROADWAYS WITH A SPEED LIMIT LESS THAN OR EQUAL TO 35 MPH.
      - VORTEX SHEDDING: NOT REQUIRED
      - NATURAL WIND GUSTS: INCLUDE
      - TRUCK INDUCED WIND GUSTS: INCLUDE FOR ROADWAYS WHERE THE POSTED SPEED LIMIT FOR THE MAINLINE APPROACHES ARE 40 M.P.H. OR GREATER
      - GALLOPING: DO NOT INCLUDE

   c. FOUNDATION CRITERIA
      - CONCRETE: CONCRETE, CLASS B, VTrans' "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2018, SECTION 541.
      - REINFORCING STEEL: REINFORCING STEEL, LEVEL I VTrans' "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2018, SECTION 507.
      - GEOTECHNICAL SOIL RESISTANCES TO BE DETERMINED BY CONTRACTOR.

C. ANCHOR BOLTS

1. GALVANIZED ANCHOR BOLTS WITH TWO HEXAGON NUTS AND TWO WASHERS PER BOLT SHALLBE FURNISHED WITH EACH POLE. ANCHOR BOLT PLATES, WHEN USED, SHALL ALSO BE GALVANIZED.

2. A MINIMUM OF EIGHT ANCHOR BOLTS SHALL BE PROVIDED AT EACH SINGLE UPRIGHT POLE FOUNDATION. ANCHOR BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 677.03.

3. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 714.09

4. AFTER INSTALLATION, A MINIMUM OF TWO THREADS ON THE TOP OF THE BOLT SHALL BE EXPOSED ABOVE THE NUT.

D. FLANGE BOLTS

1. ALL FLANGE BOLTS, HEX NUTS, AND WASHERS SHALL CONFORM TO SUBSECTION 714.05.

2. FLANGE BOLTS SHALL BE CAPABLE OF RESISTING 133% OF THE FULL DESIGN STRESS OF THE TUBE AT ITS YIELD STRENGTH STRESS.

3. FLANGE BOLTS SHALL BE TENSIONED IN ACCORDANCE WITH SUBSECTION 506.19. DIRECT TENSION INDICATORS ARE REQUIRED.

E. U-BOLTS

1. U-BOLTS AND ASSOCIATED HARDWARE SHALL CONFORM TO SUBSECTION 714.04 AND GALVANIZED IN ACCORDANCE WITH SUBSECTION 726.08.

F. STEEL FOR SIGNAL STRUCTURES

1. ALL MATERIAL GREATER THAN ½" THICK SHALL MEET THE CHARPY V-NOTCH IMPACT REQUIREMENTS FOR THE SPECIFIED MATERIAL. TESTING AND SAMPLING SHALL BE IN ACCORDANCE WITH AASHTO T 243.

2. PIPE AND TUBES SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

   a. CANTILEVER MAST ARM STRUCTURE:
      - ASTM A595, GRADE A: WELDED, ROUND, TAPERED STEEL TUBE
      - ASTM A1011, GRADE 50: WELDED, ROUND, TAPERED STEEL TUBE

   b. NON-CANTILEVERED OVERHEAD SIGNAL STRUCTURES
      - ASTM A500, GRADE B: WELDED AND SEAMLESS STEEL PIPE (ROUNDS ONLY)
      - API 5L GRADE X42: AMERICAN PETROLIUM INSTITUE SPECIFICAITON 5L

G. PROTECTIVE COATING

1. ALL STEEL COMPONENTS, EXCEPT CONCRETE REINFORCING, ARE TO BE HOT DIPPED GALVANIZED AND POWDER COATED AFTER FABRICATION. THE ASSEMBLIES SHALL BE DESIGNED AND FABRICATED TO PERMIT GALVANIZING ON ALL INTERIOR AND EXTERIOR SURFACES AND SHALL BE FREE OF POCKETS AND OTHER STRUCTURAL OBSTRUCTIONS THAT WILL NOT PERMIT PROPER DEPOSITION OF ZINC COATING.

2. GALVANIZING SHALL BE IN ACCORDANCE WITH SECTION 752.02. POWDER COATING SHALL BE IN ACCORDANCE WITH SECTION 753.07.

H. WELDING

1. ALL WELDING SHALL BE PERFORMED PER SUBSECTION 506.10.

2. ALL WELDS SHALL BE AT LEAST AS STRONG AS THE MATERIAL(S) BEING WELDED.

I. FOUNDATIONS

1. FOOTINGS SHALL BE DESIGNED IN ACCORDANCE WITH VTRANS MATERIALS & RESEARCH ENGINEERING INSTRUCTIONS (MREI) 10-01 "GEOTECHNICAL DESIGN PROCEDURES FOR MAST ARM AND OVERHEAD SIGN SUPPORT FOUNDATIONS" AVAILABLE ON THE AGENCY'S WEBSITE AT THE FOLLOWING ADDRESS:
   https://outside.vermont.gov/agency/vtrans/external/docs/construction/03GeotechEng/Engineering/Mast%20Arm%20and%20Overhead%20Sign%20Support%20Foundations%20MREI%2010-01%20Engineering.pdf

2. FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING NOTES:

   a. A MINIMUM EMBEDMENT DEPTH OF FIVE FEET SHALL BE USED FOR ALL SPREAD FOOTING FOUNDATIONS; MEASURED FROM THE GROUND SURFACE ELEVATION TO THE BOTTOM OF THE FOOTING ELEVATION.
   b. FOR DRILLED SHAFT FOUNDATIONS, CONCRETE SHALL BE POURED AGAINST UNDISTURBED SOIL UNLESS A PERMANENT CASING IS DESIGNED FOR AND APPROPRIATE SUPPORTING CALCULATIONS ARE PROVIDED. THE TOP TWO FEET OF SOIL SHALL BE NEGLECTED FOR DESIGN PURPOSES. A DISPOSABLE CIRCULAR CONCRETE FORM, IF USED, SHALL NOT BE PLACED DEEPER THAN TWO FEET, IN ORDER NOT TO REDUCE THE FRICTION BETWEEN THE SOIL AND THE CONCRETE.
   c. AS AN ALTERNATIVE TO THE DRILLED HOLES, FOOTINGS MAY BE POURED IN EXCAVATED HOLES USING THE PROPER FORMS, WHICH MUST BE REMOVED. THE EXCAVATED HOLES SHALL BE AT LEAST TWO FEET CLEAR OF THE FOUNDATION SIDES AND ONE FOOT DEEPER THAN THE FOUNDATION. CARE SHALL BE TAKEN TO AVOID EXCAVATING AROUND THE TOP OF THE FOUNDATION. THE BACKFILL MATERIAL SHALL BE COMPACTED AS DESCRIBED IN SUBSECTION 204.05. DESIGN LIMITS AS FOR AUGURED FOOTINGS APPLIES.
   d. ANY BACKFILL PLACED ADJACENT TO THE FOOTING SHALL BE GRANULAR MATERIAL MEETING THE REQUIREMENTS FOR GRANULAR BACKFILL FOR STRUCTURES, SUBSECTION 704.08. IT SHALL BE COMPACTED AS DESCRIBED IN SUBSECTION 204.05.
   e. CONCRETE FOR THE FOUNDATION SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE,SECTION 541 STRUCTURAL CONCRETE. IF DRILLED SHAFT FOUNDATIONS ARE REQUIRED, THE CONCRETE SPECIFICATIONS MAY NEED TO BE ADJUSTED FOR CONSTRUCTABILITY ISSUES. HOWEVER, IF REQUIRED, THE CONTRACTOR SHALL SUBMIT ANY CHANGES TO THE CONCRETE SPECIFICATION FOR REVIEW BY THE VTRANS PROJECT MANAGER.
   f. STEEL PILES IF USED, SHALL MEET THE REQUIREMENTS OF SECTION 505.
   g. WHEN THE DESIGN DEPTH OF A FOUNDATION CANNOT BE OBTAINED DUE TO UNFORSEEN FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR THE MANUFACTURER TO OBTAIN A REVISED FOUNDATION DESIGN. SUCH A REVISION SHALL BE SUBMITTED TO THE VTRANS PROJECT MANAGER AND MAY REQUIRE UP TO A FOUR-WEEK REVIEW PERIOD BY VTRANS.

3. WIRE CLOTH SHALL BE USED TO SEAL OPENING BETWEEN THE BASE PLATE AND FOUNDATION. MATERIAL SHALL BE IN CONFORMANCE WITH SUBSECTION 678.09.

J. GROUNDING

1. EACH OVERHEAD TRAFFIC SIGNAL SUPPORT SHALL BE GROUNDED. THE GROUND SHALL CONSIST OF THE FOLLOWING:
   a. AN INTERNAL GROUND LUG OPPOSITE THE HAND HOLE.
   b. A #6 (MIN.) SOFT DRAWN COPPER GROUNDING ELECTRODE CONDUCTOR.
   c. A 5/8" X 8' (MIN.) COPPER CLAD GROUNDING ELECTRODE.

2. THE RESISTANCE TO GROUND SHALL BE 25 OHMS OR LESS.

3. ADDITIONAL GROUNDING ELECTRODES MAY BE REQUIRED. MINIMUM SPACING BETWEEN ELECTRODES SHALL BE 6'.

4. WHEN A POWER SERVICE, METER AND DISCONNECT ARE ATTACHED TO A POLE, THERE SHALL BE A CONTINUOUS GROUND WIRE FROM THE METER AND DISCONNECT WITH MAY RUN INTERNAL TO THE UPRIGHT, THROUGH THE ½" FLEXIBLE TUBING IN THE CONCRETE BASE TO THE REQUIRED GROUNDING ELECTRODE(S). THE GROUND WIRE FROM THE POLE GROUNDING LUG, CONTROLLER CABINET AND/OR LUMINAIRE MAY ATTACH TO THIS CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FROM THE SERVICE METER AND DISCONNECT.

5. THE CONTRACTOR SHALL PERFORM A RESISTANCE TO GROUND TEST ON THE CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FROM THE SERVICE METER AND DISCONNECT AND PROVIDE A WRITTEN STATEMENT TO THE AREA ELECTRICAL INSPECTOR THAT THE GROUNDING ELECTRODE CONDUCTOR IS CONTINUOUS FROM THE SERVICE METER AND DISCONNECT AND THE RESISTANCE TO GROUND IS 25 OHMS OR LESS.

K. POLE DETAILS

1. HORIZONTAL MEMBERS SHALL BE CAMBERED AND THE VERTICAL POLES BACK RAKED, WHERE APPLICABLE, TO THE ANTICIPATED DEAD LOAD DEFLECTION PLUS THE CAMBER, IF ANY, SPECIFIED ON THE PLANS.

L. DESIGN CALCULATION SUBMITTALS

1. AN EQUIVALENT ALTERNATE DESIGN MAY BE SUBSTITUED FOR THE DETAILS AND MATERIALS SHOWN.

2. THE DETAILS OF DESIGN FOR THE STRUCTURE AND FOUNDATION ARE TO BE SUPPLIED BY THE CONTRACTOR AND/OR BY THE MANUFACTURER, THE STRUCTURE SHALL BE DESIGNED TO RESIST THE MAXIMUM LOADING AS OUTLINED IN THE AASHTO STANDARD SPECIFICATIONS LISTED. ALL DESIGN CALCULATIONS FOR THE STRUCTURE AND THE FOUNDATION SHALL BE CHECKED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VERMONT PRIOR TO SUBMITTAL OF THE FABRICATION DRAWINGS TO VTRANS.

3. THE CONTRACTOR SHALL SUBMIT ONE DIGITAL VERSION OF THE DESIGN CALCULATIONS TO VTRANS PROJECT MANAGER SHOWING THE FOLLOWING INFORMATION FOR EACH OF THE VERTICAL AND HORIZONTAL COMPONENTS OF THE STRUCTURE AND FOUNDATION:

   a. THE DESIGN AXIAL AND SHEAR FORCES AND BENDING AND TORSIONAL MOMENTS ACTING AT THE TOP OF THE FOUNDATION.
   b. THE DESIGN AXIAL, BENDING AND SHEAR STRESSES AND THE COMBINED STRESS RATIO.
   c. VIBRATION AND FATIGUE CALCULATIONS AS SET FORTH IN SECTION 11 OF THE AASHTO STANDARD LISTED.
   d. THE ALLOWABLE AXIAL, BENDING AND SHEAR STRESSES.
   e. ITEMS a, b AND d SHALL BE SHOWN FOR EACH OF THE GROUP LOADINGS (I, II, III) AND FOR THE BASIC WIND LOAD APPLIED TO THE TOW CASES OUTLINED IN THE AASHTO STANDARD LISTED, SECTION 1.2.5(D)(4)

4. FAILURE TO SUPPLY THE PROPER INFORMATION SHALL BE CAUSE FOR REJECTION OF THE STRUCTURE.

5. A MINIMUM OF TWO WEEKS SHALL BE REQUIRED FOR REVIEW BY VTRANS.

6. EVERY MEMBER AND CONNECTION IN A CANTILEVERED OVERHEAD TRAFFIC SIGNAL SUPPORT SHALL BE DESIGNED TO PROVIDE ADDITIONAL RESIDUAL CAPACITY FOR FUTURE MODIFICATION EQUIVALENT TO A 5-SECTION TRAFFIC SIGNAL HEAD WITH A 5-INCH LOUVERED BACKPLATE LOCATED ON THE OUTERMOST EXTENT OF THE MAST ARM. OVERHEAD SIGN STRUCTURES AND NON-CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED TO A MAXIMUM DESIGN RATIO OF 85% FOR EVERY MEMBER AND CONNECTION.

M. FABRICATION DRAWING SUBMITTALS

1. FABRICATION DRAWINGS IN A DIGITAL FORMAT SHALL BE SUBMITTED TO VTRANS PROJECT MANAGER FOR APPROVAL PRIOR TO FABRICATION. THE FABRICATION DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION:

   a. DETAILED DRAWING OF EACH COMPONENT OF THE STRUCTURE.
   b. MATERIAL SPECIFICATION FOR EACH COMPONENT OF THE STRUCTURE, EITHER BY COMPLETE SPECIFICATION OR REFERENCE TO THE APPLICABLE ASTM STANDARDS.
   c. NOTATION OF PROJECT NAME, PROJECT NUMBER, ROUTE NUMBER AND STRUCTURE STATIONING TO BE INCLUDED ON EACH SHEET.
   d. DETAILS FOR LOCATION OF SIGNS/SIGNALS AND ATTACHMENT HARDWARE FOR THE SUPPORT STRUCTURE.
   e. ALL ELEVATION AND DIMENSIONS NECESSARY TO PROVIDE A COMPLETE SET OF RECORD PLANS.
   f. DEAD LOAD DEFLECTION AND CAMBER INFORMATION.
   g. WELDING DETAILS AND PROCEDURES ARE REQUIRED FOR ALL WELDS. PROCEDURES SHALL BE SUBMITTED FOR APPROVAL WITH REFERENCE TO EACH WELD IDENTIFIED ON THE FABRICATION DRAWINGS. SEE SUBSECTION 506.10 FOR MORE INFORMATION.
   h. BOLT TENSIONING REQUIREMENTS.

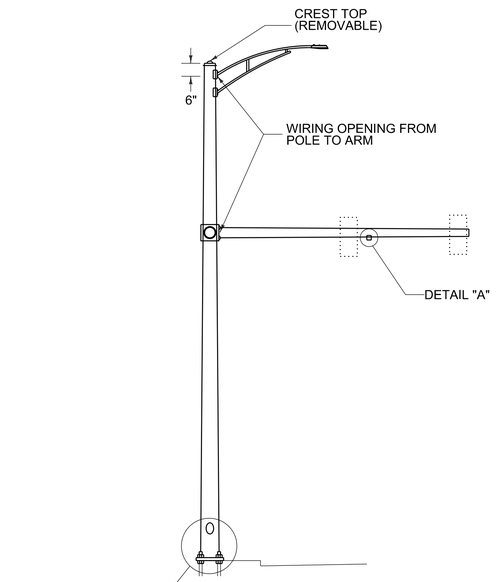
N. ADDITIONAL INFORMATION

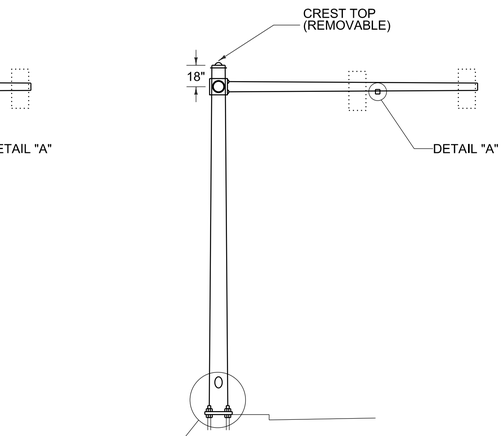
1. THE TRAFFIC SIGNALS SHALL BE MOUNTED TO THE ARM OR POLE USING A FIXED MOUNT SYSTEM, UNLESS OTHERWISE NOTED ON THE CROSS-SECTION SHEET.

2. BASE PLATES SHALL BE STAMPED WITH POLE INFORMATION INCLUDING: POLE DIAMETER, HEIGHT, YIELD STRENGTH, AND GAUGE; ARM INFORMATION SHALL INCLUDE: HORIZONTAL MEMBER DIAMETER, LENGTH, YIELD STRENGTH, AND GAUGE. THE INFORMATION SHALL BE STAMPED ON A METAL TAG RIVETED TO THE POLE NEAR THE HAND HOLE.

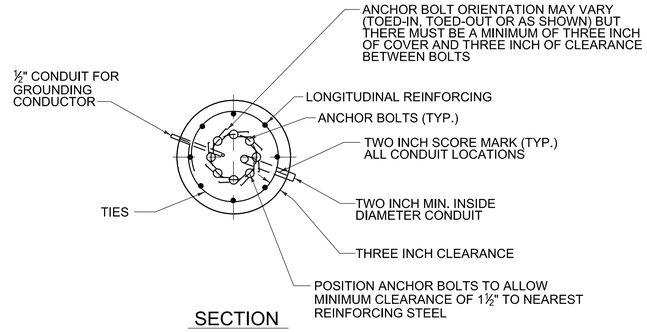
PROJECT NAME: HARTFORD	
PROJECT NUMBER: NHG SGNL(60)	
FILE NAME: generalnotes.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: N. BREDICE
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
TRAFFIC SIGNAL GENERAL NOTES SHEET	SHEET 75 OF 210

MAST ARM, POLE, & FOOTING DETAILS

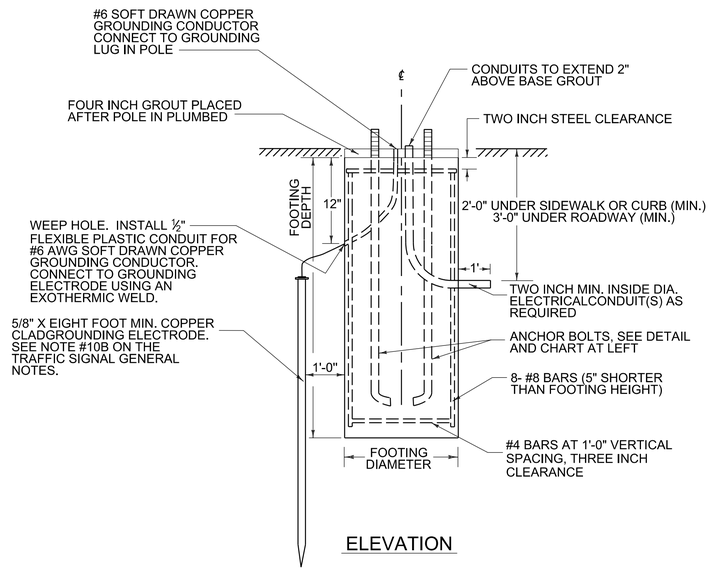




TYPE A MAST POLE & ARM DETAILS



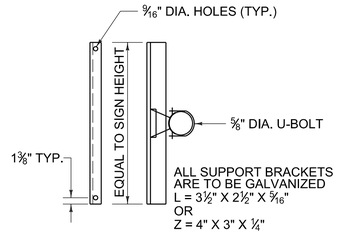
SECTION



ELEVATION

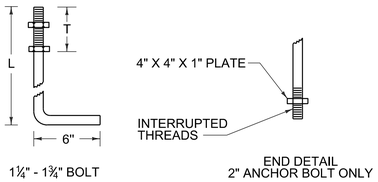
MAST POLE FOOTING DETAIL

(SPREAD FOOTINGS OR PILES ARE OPTIONAL)



SIGN ON SINGLE MAST ARM

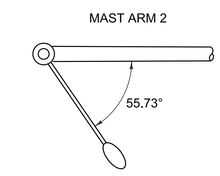
SIGN BRACKET DETAILS



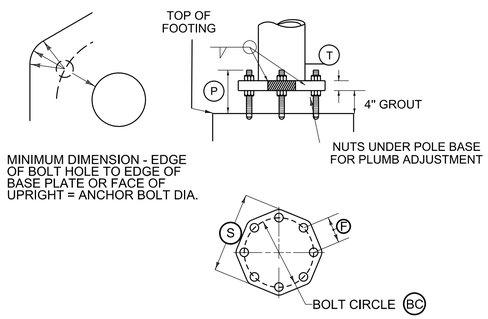
ANCHOR BOLT DETAIL

NOTE:

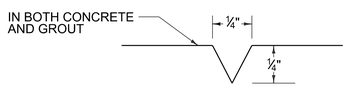
SEE TRAFFIC SIGNAL GENERAL NOTE 3C FOR MORE INFORMATION REGARDING BOLT TIGHTENING.



LUMINAIRE ORIENTATION

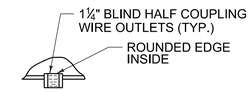


POLE BASE AND BASE PLATE DETAIL



2" SCORE MARK DETAIL

USED TO SHOW CONDUIT LOCATION. SEE MAST POLE FOOTING DETAIL, SECTION VIEW (ABOVE).



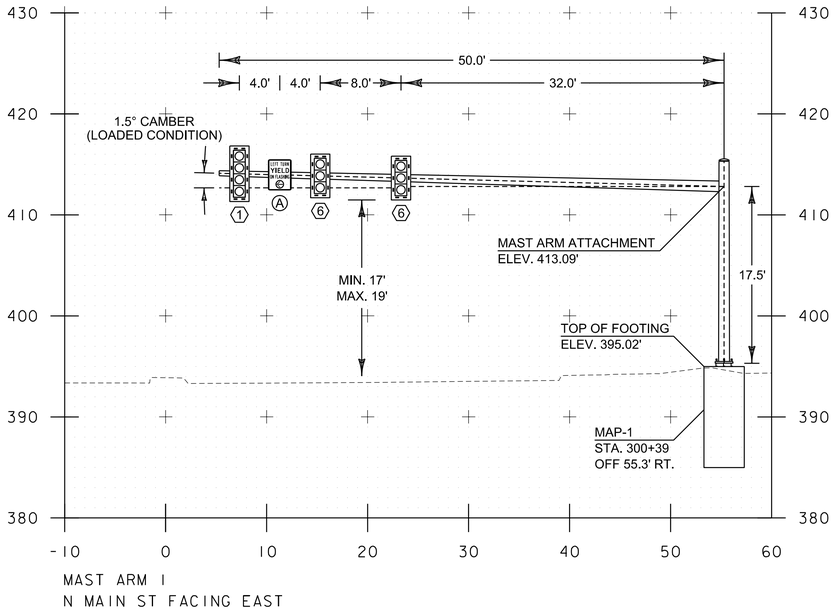
DETAIL "A"

NOTES:

1. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. MANUFACTURER TO DETERMINE TYPE OF STRUCTURE REQUIRED.
3. MONOTUBES SHALL NOT BE USED FOR SIGNS OVER 10' HIGH.
4. MINIMUM CLEARANCE FROM SIGNS TO ANY TRAVEL LANE SHALL BE 17'.
5. CONTRACTOR SHALL VERIFY ALL GROUND ELEVATIONS.

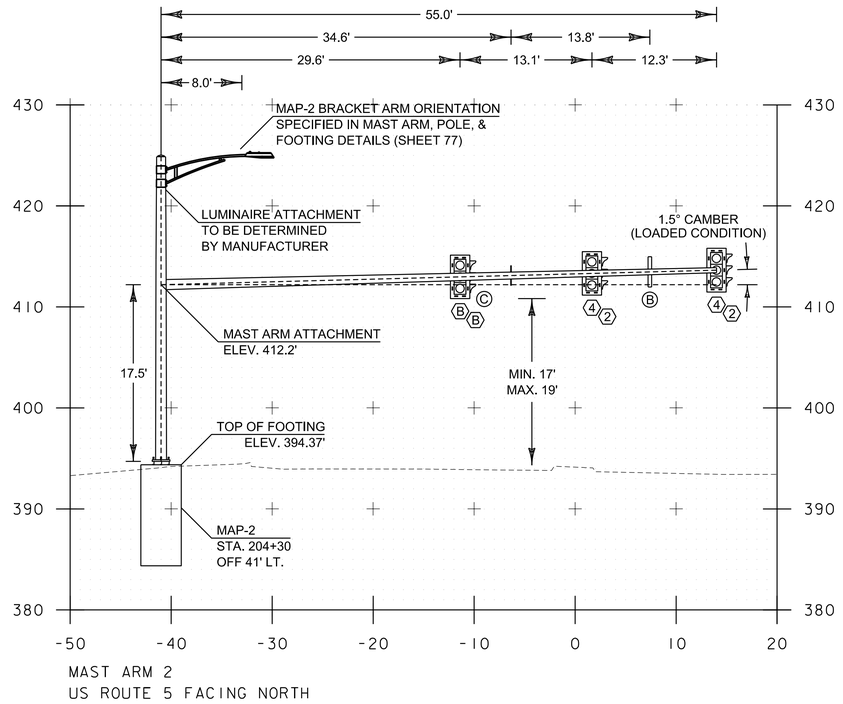
PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NHG SGNL(60)
FILE NAME: mast arm details.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: N. BREDICE
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
MAST ARM, POLE, & FOOTING DETAILS SHEET	SHEET 76 OF 210

MAST ARM CROSS SECTIONS



MAST ARM 1
N MAIN ST FACING EAST

MAP-1
STA. 300+39, RT. 55.3'



MAST ARM 2
US ROUTE 5 FACING NORTH

MAP-2
STA. 204+30, LT. 41'

NOTES:

1. ALL MAST ARM FOOTINGS SHALL INCLUDE A FOUR INCH REVEAL. ELEVATIONS SHOWN IN CROSS SECTIONS ARE APPROXIMATE FINAL GRADE ELEVATIONS FOR CONTRACTOR BIDDING PURPOSES ONLY. ACTUAL FOOTING ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR.
2. MAST ARM FOOTING SIZES ARE APPROXIMATE. FOOTING DESIGNS SHALL BE DETERMINED BY THE FABRICATOR IN ACCORDANCE WITH SOIL CONDITIONS AND ACTUAL MAST ARM LOADINGS TRANSMITTED TO THE TOP OF THE FOOTINGS.
3. REFER TO BORING LOG SHEETS FOR BORING INFORMATION.
4. SIGNAL HEADS SHALL BE MOUNTED ON THE VERTICAL CENTER OF THE MAST ARM.
5. SEE NOTE 14H OF TRAFFIC SIGNAL GENERAL NOTES SHEET REGARDING THE LOADING AT THE END OF THE MAST ARMS.
6. BRACKET ARM ATTACHMENT HEIGHT TO BE DETERMINED BY MANUFACTURER.

MS-403: US ROUTE 5 & NORTH MAIN STREET

PROJECT NAME: HARTFORD	
PROJECT NUMBER: NHG SGNL(60)	
FILE NAME: mast arm x-sec.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: N. BREDICE
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
MAST ARM CROSS SECTIONS SHEET	SHEET 77 OF 210

STREET LIGHTING GENERAL NOTES

1. BRACKET ARMS SHALL BE TRUSS-STYLE TYPE AND SHALL BE DESIGNED IN ACCORDANCE WITH THE 2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.

2. STREET LIGHT ASSEMBLIES SHALL BE PAINTED FLAT BLACK AND HAVE FLAT BLACK HOUSINGS. FINISHES SHALL BE PER SECTION 679 OF THE LATEST SPECIFICATIONS FOR CONSTRUCTION.

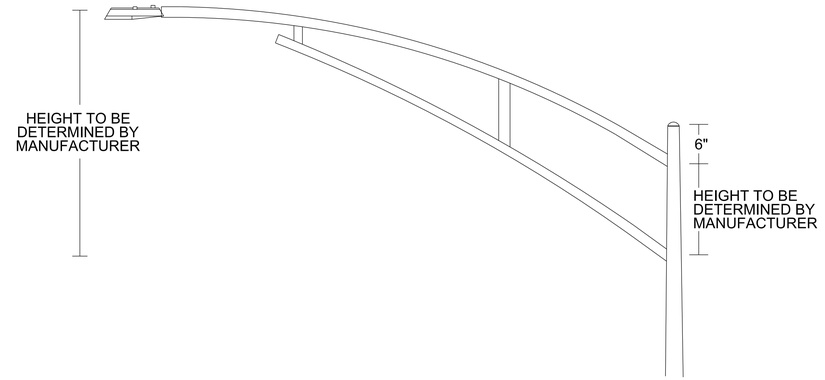
3. LUMINAIRES
   - A. LUMINAIRES SHALL BE CREE LEDWAY IP-SERIES ONLY.
   - B. NO SUBSTITUTIONS FOR LUMINAIRES SHALL BE ALLOWED.
   - C. ALL LUMINAIRE HOUSINGS SHALL BE EQUIPPED WITH BIRD SPIKES.

4. ANCHOR BOLTS
   - A. THE MAXIMUM DISTANCE BETWEEN THE TOP OF FOUNDATION AND BOTTOM OF BASE PLATE SHALL EQUAL THE NUT HEIGHT PLUS THE DIAMETER OF THE ANCHOR BOLT.
   - B. GALVANIZED ANCHOR BOLTS WITH TWO HEXAGON NUTS AND TWO WASHERS PER BOLT SHALL BE FURNISHED WITH EACH POLE. ANCHOR BOLT PLATES, WHEN USED, SHALL ALSO BE GALVANIZED.
   - C. AFTER INSTALLATION, A MINIMUM OF TWO THREADS ON THE TOP OF THE BOLT SHALL BE EXPOSED ABOVE THE NUT.

5. WIRING AND GROUNDING
   - A. CIRCUIT CONDUCTORS SHALL BE CLEARLY INDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES AT EVERY LIGHT POLE AND HANDHOLE.
   - B. ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUNDING CONDUCTOR.
   - C. THE GROUNDING CONDUCTOR SHALL BE CONTINUOUS.
   - D. ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

6. STREET LIGHTING CONTROL DEVICE
   - A. STREET LIGHTING CONTROL DEVICE SHALL BE A PHOTOCELL MOUNTED ON THE SIDE OF THE POWER STANCHION, FACING NORTH.
   - B. STREET LIGHTING EQUIPMENT SHALL BE WIRED SUCH THAT ONE CONTROL DEVICE COMMANDS THE FUNCTIONS ASSOCIATED WITH POWERING UP AND DOWN ALL LUMINAIRES.
   - C. THE RELAY SHALL HAVE A TIME DELAY TO AVOID OPERATION DUE TO LIGHTNING AND TRANSIENT LIGHT.
   - D. IN THE EVENT OF FAILURE, THE RELAY SHALL FAIL SAFE, THAT IS, THE LIGHTS ARE LEFT ON IN THE EVENT OF ANY FAILURE IN THE ELECTRONIC CIRCUIT.
   - E. A LIGHTNING ARRESTER SHALL BE INCLUDED AS PART OF THE DEVICE.

7. SEE STANDARD DRAWINGS T-133 AND T-134 FOR ADDITIONAL INFORMATION.



LUMINAIRE BRACKET ARM DETAIL
NOT TO SCALE

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NHG SGNL(60)
FILE NAME: lighting notes.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: J. BLOOMER
DESIGNED BY: J. BLOOMER	CHECKED BY: T. SISSON
STREET LIGHTING GENERAL NOTES SHEET	SHEET 78 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NO. OF POSTS	NEW SIGN POSTS																		REMARKS	SIGN DETAIL		
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE		FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			FOUND-ATION	TUBULAR STEEL Ø (in) lb/ft				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE	SIGN FRAME REQUIRED		SHSM	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
															1.75	2.0	2.5			3.0	4.0	4.0 MOD		3.0	3.5	4.0	5.0	24"	30"							
												1.12	2.0	3.0	1.88	2.42	3.35			1.3	1.7	1.7		7.6	9.0	10.8	14.6									
MS–403: US ROUTE 5 & NORTH MAIN STREET												OPTION ITEMS																								
MAST ARM MOUNTED																																				
MAST ARM 1		1	30	36	7.5																											BRACKET REQUIRED R10-101		81	
MAST ARM 2		2	18	24	3																											BRACKET REQUIRED R10-10b		81	
POLE MOUNTED																																				
LP-1 PP-2		2	18	24	3																											BRACKET REQUIRED R10-10b		81	
BP-1 LP-3 BP-2		3	9	15	.94																											BRACKET REQUIRED	R10-24		
PP-1 PP-2		2	9	15	.94																											BRACKET REQUIRED	R10-3e		
MS–406: US ROUTE 5 & WORCESTER AVE / HIGHLAND AVE																																				
MAST ARM MOUNTED																																				
EXISTING MAST ARM 1		1	24	24	4																											BRACKET REQUIRED	R3-18		
GROUND MOUNTED – US ROUTE 5 NORTH																																				
STA. 233+50		1	24	24	4																												R3-18		
	SF 33											FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB								
SHEET TOTALS	SF 33	SF	EA	SF								FT			FT				LB	EA			LB					EA	EA	LB					

SHSM = 2004 FHWA STANDARD HIGHWAY SIGNS & MARKINGS/2012 SUPP.

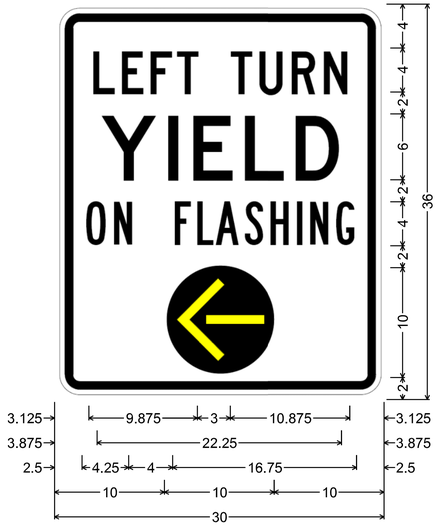
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

FILE NAME: tsss.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
TRAFFIC SIGN SUMMARY SHEET

PLOT DATE: 8/3/2023
DRAWN BY: J. BLOOMER
CHECKED BY: T. SISSON

MISCELLANEOUS DETAILS SHEET



1.875" Radius, 0.750" Border, 0.500" Indent, Black on White;
[LEFT] C 2K specified length;
[TURN] C 2K specified length;
[YIELD] D 2K specified length;
[ON] B 2K specified length;
[FLASHING] B 2K specified length;
Rounded Rectangle 5.000" Radius;

R10-101
NOT TO SCALE

LEFT TURN YIELD ON FLASHING YELLOW NOTE:

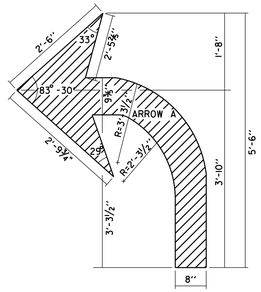
ARROW LINES SHALL BE YELLOW.

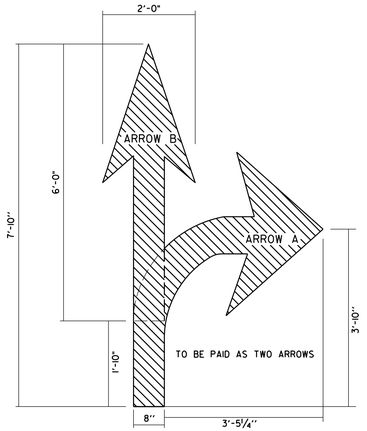


1.500" Radius, 0.625" Border, 0.375" Indent; Black on White (Retroreflective) Background
[SIGNAL] B 2K 80% spacing

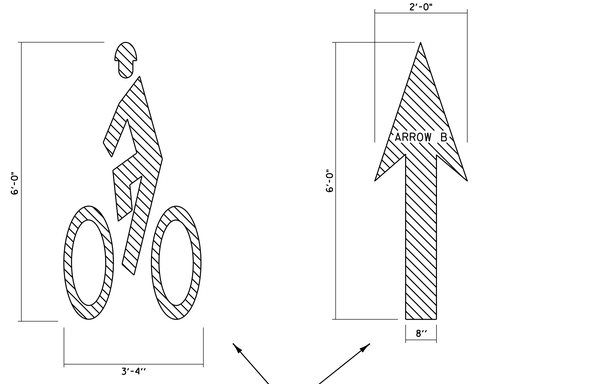
R10-10b
NOT TO SCALE

BICYCLE LANE PAVEMENT MARKINGS







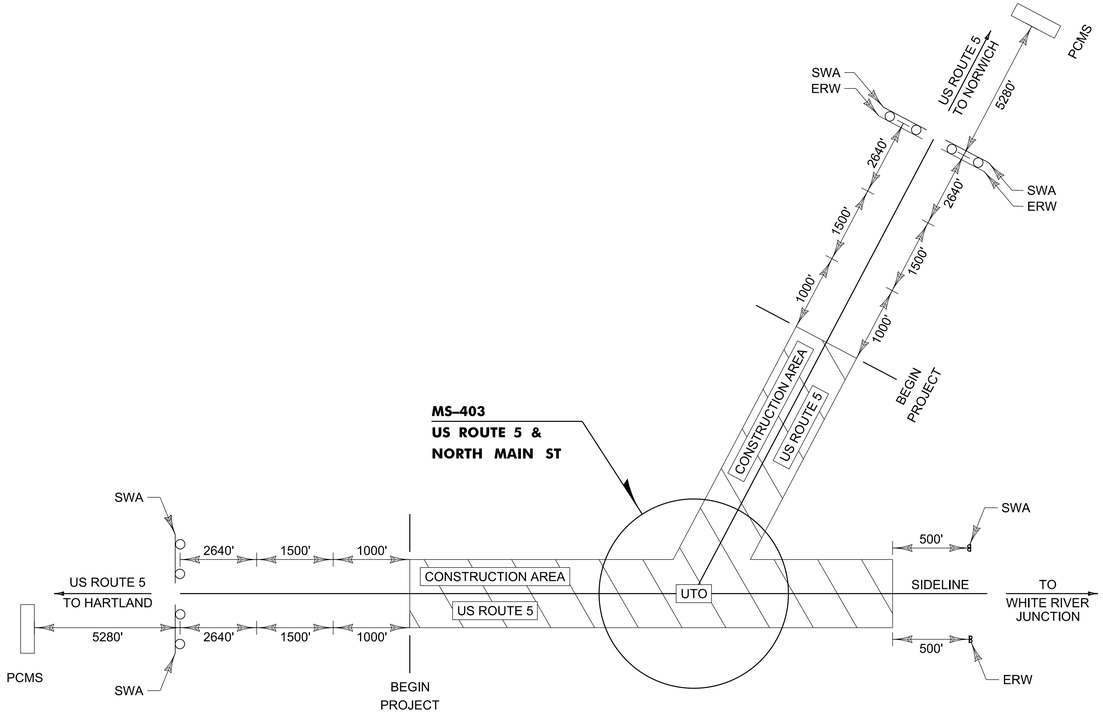


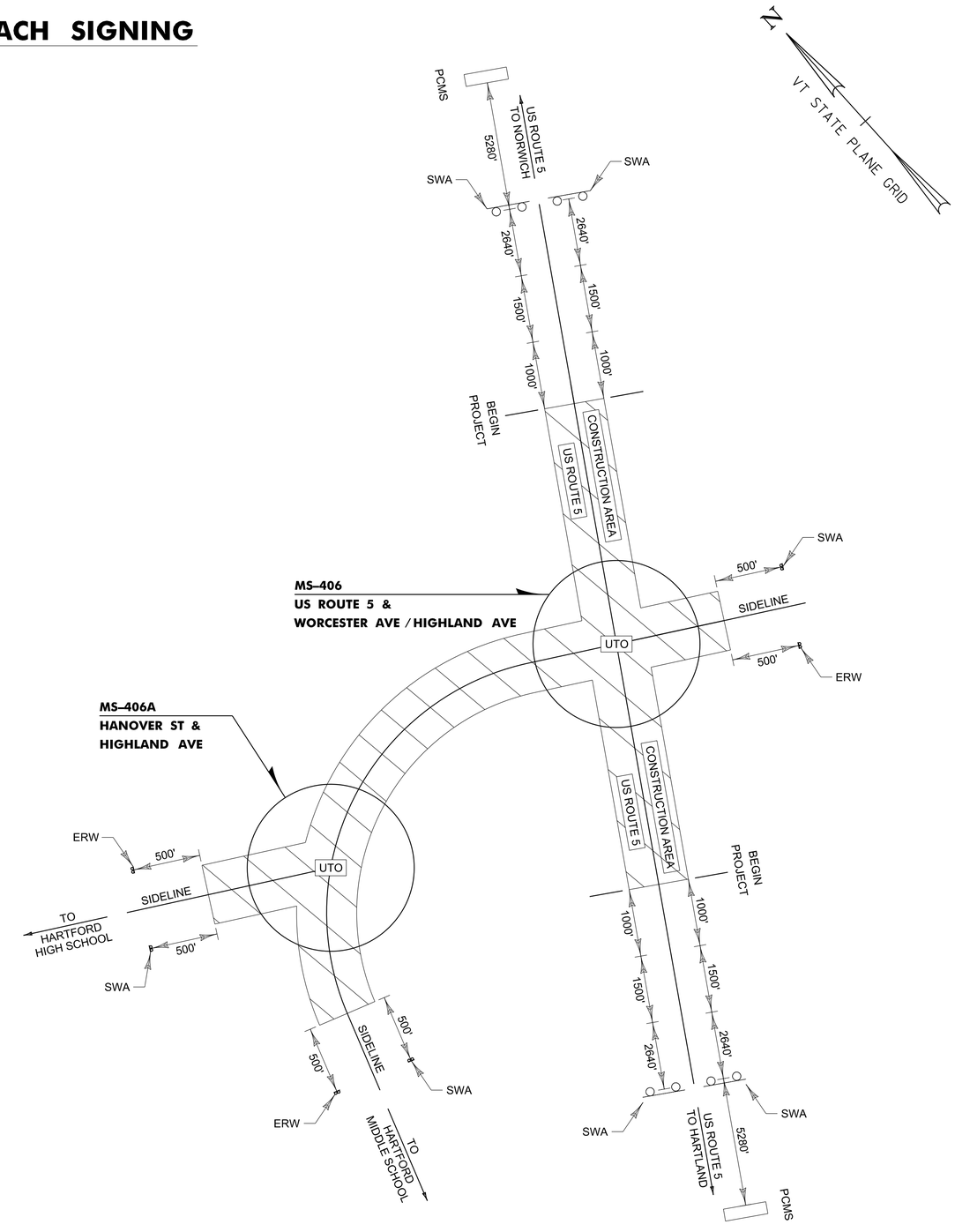
DIRECTION OF TRAVEL

NOT TO SCALE

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	NHG SGNL(60)
FILE NAME: detail.dgn	PLOT DATE: 8/3/2023
PROJECT LEADER: T. SISSON	DRAWN BY: J. BLOOMER
DESIGNED BY: N. BREDICE	CHECKED BY: T. SISSON
MISCELLANEOUS DETAILS SHEET	SHEET 80 OF 210

CONSTRUCTION APPROACH SIGNING





LEGEND

SWA = SIGNAL WORK AHEAD

48" X 48"
FLUORESCENT ORANGE BACKGROUND
BLACK TEXT, LEGEND AND BORDER

ERW = END ROAD WORK

NOT TO SCALE

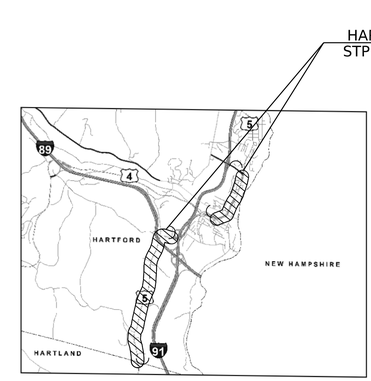
SEE STD T-10 AND T-11 FOR SIGN PLACEMENT
SIGNS MUST BE COVERED WHEN WORK IS NOT ACTIVE

PROJECT NAME: HARTFORD
PROJECT NUMBER: NHG SGNL(60)

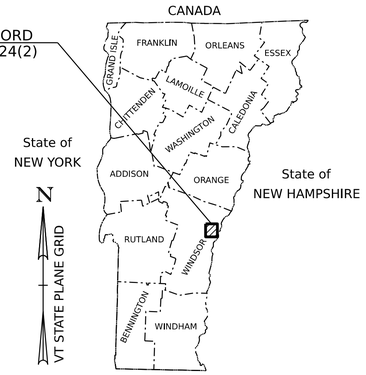
FILE NAME: tc notes.dgn
PROJECT LEADER: T. SISSON
DESIGNED BY: N. BREDICE
CONSTRUCTION APPROACH SIGNING SHEET

PLOT DATE: 8/3/2023
DRAWN BY: N. BREDICE
CHECKED BY: T. SISSON
SHEET 81 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION



NOT TO SCALE

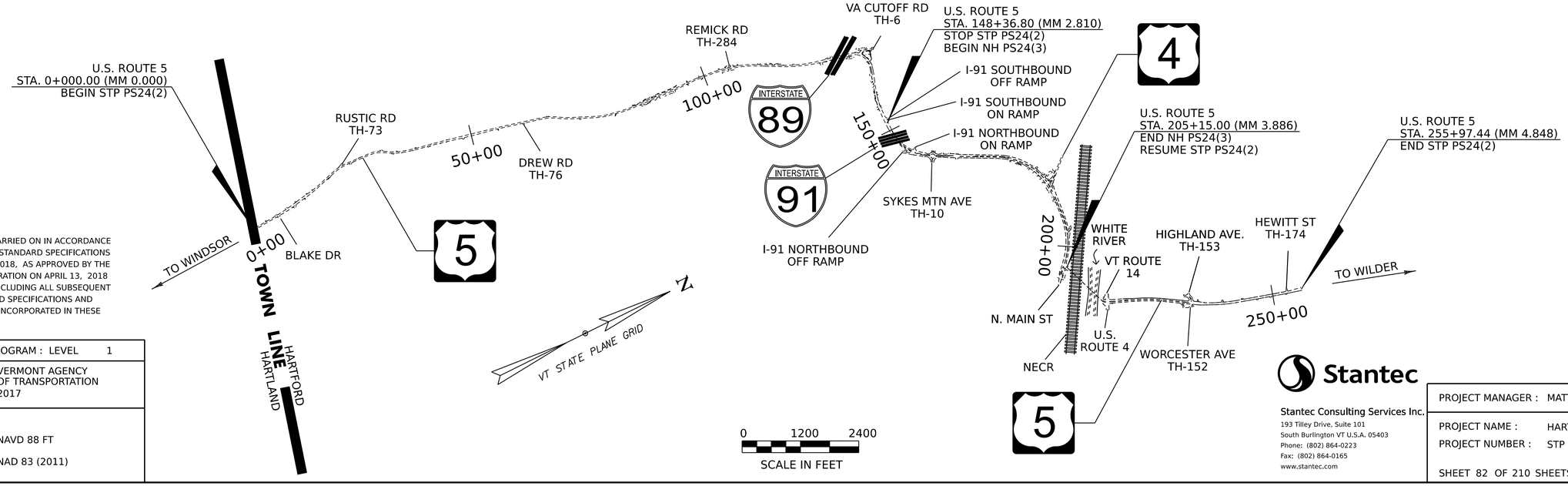


PROPOSED IMPROVEMENT
TOWN OF HARTFORD
COUNTY OF WINDSOR
U.S. ROUTE 5 (MAJOR COLLECTOR-MINOR ARTERIAL)

BEGINNING IN THE TOWN OF HARTFORD ON U.S. ROUTE 5 AT STA. 0+00.00 (MM 0.000) AND EXTENDING NORTHERLY ALONG U.S. ROUTE 5 FOR A DISTANCE OF 14,836.80 FEET (2.810 MILES) STOPPING AT STA. 148+36.80 (MM 2.810). RESUMING AT STA. 205+15.00 (MM 3.886) AND EXTENDING NORTHERLY ALONG U.S. ROUTE 5 FOR A DISTANCE OF 5,082.44 FEET (0.962 MILES) STOPPING AT STA. 255+97.44 (MM 4.848).

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES: PARTIAL CONCRETE SUBSURFACE SLAB REMOVAL INCLUDING SUBBASE, CORRECTING SUPERELEVATION DEFICIENCIES, FULL DEPTH PAVEMENT RECONSTRUCTION, COARSE-MILLING BITUMINOUS PAVEMENT, GUARDRAIL, PAVEMENT MARKINGS, SIGNAGE, STORM DRAINAGE IMPROVEMENTS, CULVERT REPLACEMENTS, AND OTHER HIGHWAY RELATED ITEMS.

PROJECT DATA:	LENGTH (FEET)	LENGTH (MILES)
TOWN OF HARTFORD		
U.S. ROUTE 5		
STA. 0+00.00 TO STA. 148+36.80	14,836.80	
MM 0.000 TO MM 2.810		2.810
STA. 205+15.00 TO STA. 255+97.44	5,082.44	
MM 3.886 TO MM 4.848		0.962
TOTAL LENGTH OF PROJECT:	19,919.24	3.773
TOTAL LENGTH OF ROADWAY:	19,919.24	3.773



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 :	VERMONT AGENCY OF TRANSPORTATION
SURVEYED DATE :	2017
DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83 (2011)

Stantec

Stantec Consulting Services Inc.
193 Tilley Drive, Suite 101
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
Fax: (802) 864-0165
www.stantec.com

PROJECT MANAGER :	MATT BOGACZYK, P.E.
PROJECT NAME :	HARTFORD
PROJECT NUMBER :	STP PS24(2)

SHEET 82 OF 210 SHEETS

CHANGING ELEVATION OF DI'S, CB'S, OR MH'S (ITEM 604.40)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
14+76	LT	1	UMH
144+92	RT	1	UMH
249+68	RT	1	UMH

CHANGING ELEVATION OF DI'S, CB'S, OR MH'S (TO BE ADJUSTED BY OTHERS)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
146+01	LT	1	TMH

REHAB. DI'S, CB'S, OR MH'S CLASS I, II or III (ITEM 604.412, 604.415 or 604.418)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
84+34	LT	1	DI
132+99	LT	1	DI
134+70	LT	1	DI
142+16	RT	1	DI
142+31	LT	1	DI
144+56	LT	1	DI
217+02	RT	1	DI
217+04	LT	1	DI
218+75	RT	1	DI
218+78	LT	1	DI
219+79	RT	1	DI
221+27	RT	1	DI
221+28	LT	1	DI
223+77	LT	1	DI
223+77	RT	1	DI
226+29	LT	1	DI
226+29	RT	1	DI
228+75	RT	1	DI
228+79	LT	1	DI
230+83	RT	1	DI
230+85	LT	1	DI
231+31	RT	1	DI
232+54	RT	1	DI
232+55	LT	1	DI
232+89	RT	1	DI
233+22	RT	1	DI
233+34	LT	1	DI
233+43	RT	1	DI
234+29	LT	1	DI
234+47	LT	1	DI
234+47	LT	1	DI
234+65	RT	1	DI
234+68	LT	1	DI
235+75	RT	1	DI
238+07	RT	1	DI
238+08	LT	1	DI
238+57	LT	1	DI
238+57	RT	1	DI
239+38	LT	1	DI
239+62	LT	1	DI
239+67	RT	1	DI
240+07	LT	1	DI

REHAB. DI'S, CB'S, OR MH'S CLASS I, II or III (ITEM 604.412, 604.415 or 604.418)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
241+68	LT	1	DI
241+68	RT	1	DI
243+55	LT	1	DI
243+79	LT	1	DI
243+98	LT	1	DI
243+99	RT	1	DI
246+57	RT	1	DI
246+77	LT	1	DI
246+79	RT	1	DI
247+00	RT	1	DI
248+56	RT	1	DI
248+57	LT	1	DI
249+38	RT	1	DI
249+56	RT	1	DI
249+71	LT	1	DI
250+56	LT	1	DI
250+58	RT	1	DI
251+28	RT	1	DI
251+34	LT	1	DI
252+62	RT	1	DI
252+81	RT	1	DI
252+96	RT	1	DI
253+22	LT	1	DI
255+48	RT	1	DI

CHANGING ELEVATION OF SEWER MANHOLES (ITEM 604.42)			
STATION	POSITION	QTY.	DESCRIPTION
US ROUTE 5			
HARTFORD			
49+41	RT	1	SMH
102+53	RT	1	SMH
105+00	RT	1	SMH
105+71	LT	1	SMH
128+27	RT	1	SMH
140+20	LT	1	SMH
144+02	LT	1	SMH
219+52	RT	1	SMH
220+57	RT	1	SMH
222+06	RT	1	SMH
224+78	RT	1	SMH
225+10	RT	1	SMH
230+98	RT	1	SMH
233+02	RT	1	SMH
234+52	RT	1	SMH
236+60	LT	1	SMH
239+41	RT	1	SMH
241+57	LT	1	SMH
242+87	RT	1	SMH
243+64	RT	1	SMH
246+58	CL	1	SMH
246+64	RT	1	SMH
249+56	LT	1	SMH
252+53	RT	1	SMH
252+86	RT	1	SMH
253+07	LT	1	SMH

NOTE:

1. PRIOR TO MAKING ANY ADJUSTMENTS OR ALTERATIONS TO THESE STRUCTURES, THE CONTRACTOR SHALL REQUEST THAT THE ENGINEER NOTIFY THE TOWN OF HARTFORD PUBLIC WORKS DEPARTMENT TO PROVIDE THEM THE OPPORTUNITY TO REVIEW THIS WORK. A WEEKLY NOTICE OF ANTICIPATED STRUCTURE SCHEDULE IS REQUIRED.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
STRUCTURE INVENTORY SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 83 OF 210

ADJUST ELEVATION OF VALVE BOX			
(ITEM 629.20)			
US ROUTE 5			
HARTFORD			
102+59	LT	1	WSO
106+65	RT	1	WSO
124+24	LT	1	WSO
125+99	LT	1	WSO
145+01	RT	1	WSO
218+98	RT	1	WSO
219+02	RT	1	WSO
219+06	RT	1	WSO
219+41	RT	1	WSO
219+44	RT	1	WSO
219+63	RT	1	WSO
223+54	RT	1	WSO
223+57	RT	1	WSO
223+60	RT	1	WSO
231+85	RT	1	WSO
231+87	RT	1	WSO
232+64	RT	1	WSO
232+72	RT	1	WSO
234+32	RT	1	WSO
234+36	RT	1	WSO
234+37	LT	1	WSO
234+38	LT	1	WSO
234+40	RT	1	WSO
236+24	RT	1	WSO
239+27	RT	1	WSO
239+48	RT	1	WSO
239+52	RT	1	WSO
239+56	RT	1	WSO
242+96	RT	1	WSO
243+56	RT	1	WSO
243+60	RT	1	WSO
243+62	LT	1	WSO
243+64	RT	1	WSO
246+45	RT	1	WSO
246+70	RT	1	WSO
246+74	RT	1	WSO
246+78	RT	1	WSO
249+39	RT	1	WSO
249+43	RT	1	WSO
249+46	RT	1	WSO
249+47	RT	1	WSO
249+51	RT	1	WSO
252+40	RT	1	WSO
252+75	RT	1	WSO
252+78	RT	1	WSO
252+87	RT	1	WSO

NOTE:

1. PRIOR TO MAKING ANY ADJUSTMENTS OR ALTERATIONS TO THESE STRUCTURES, THE CONTRACTOR SHALL REQUEST THAT THE ENGINEER NOTIFY THE TOWN OF HARTFORD PUBLIC WORKS DEPARTMENT TO PROVIDE THEM THE OPPORTUNITY TO REVIEW THIS WORK. A WEEKLY NOTICE OF ANTICIPATED STRUCTURE SCHEDULE IS REQUIRED.

Stantec

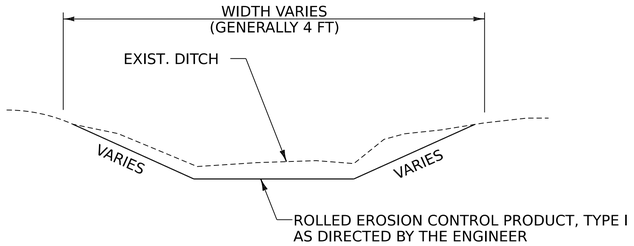
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
STRUCTURE INVENTORY SHEET 2

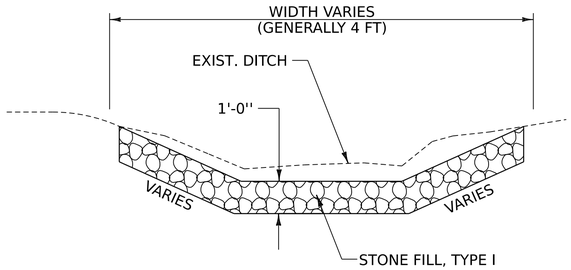
PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

DITCH CLEANING TABLE											
LOCATION				FEET OF DITCHING			MISCELLANEOUS ITEMS				REMARKS
							613.10	613.11	651.15	653.20	
SITE	STATION	STATION	POS.	PERCENT GRADE			STONE FILL, TYPE I	STONE FILL, TYPE II	SEED	ROLLED EROSION CNTRL PRODUCT, TYPE I	
				0-2.5	2.5-10	>10					
US ROUTE 5							CY	CY	LB	SY	
HARTFORD											
1	0+00	0+40	LT	40			0	0	1	18	
2	0+00	1+00	RT	100			0	0	1	44	
3	13+50	15+00	LT	150			0	0	2	67	
4	27+00	27+50	LT	50			0	0	1	22	
5	46+50	48+00	LT	150			0	0	2	67	
6	50+50	53+00	LT	250			0	0	2	111	
7	61+50	65+00	RT		350		52	0	0	0	
8	103+00	104+50	LT	150			0	0	2	67	
9	104+50	105+25	LT		75		11	0	0	0	
10	109+50	111+40	LT	190			0	0	2	84	
11	112+00	112+75	LT	75			0	0	1	33	
12	114+25	115+25	LT	100			0	0	1	44	
13	118+50	122+50	LT	400			0	0	3	178	
14	124+50	125+00	LT	50			0	0	1	22	
SUBTOTALS				1705	425	0	63	0	19	757	

NOTE:
ITEMS 613.10 STONE FILL, TYPE I AND 653.20 ROLLED EROSION LOG CONTROL PRODUCT, TYPE I SUBTOTALS ARE CARRIED FORWARD TO THE ITEM DETAIL SUMMARY SHEET.



DITCH DETAIL 0 TO 2.5 PERCENT



DITCH DETAIL ≥ 2.5 PERCENT TO 10 PERCENT

NOTES:

1. GRADES BETWEEN 0 AND 2.5 PERCENT SHALL USE ITEM 651.15, SEED AND ITEM 653.20, ROLLED EROSION CONTROL PRODUCT, TYPE I AS DIRECTED BY THE ENGINEER.
2. GRADES BETWEEN 2.5 PERCENT TO 10 PERCENT SHALL USE ITEM 613.10, STONE FILL TYPE I, AS DIRECTED BY THE ENGINEER.
3. ANY GRADE GREATER THAN 10 PERCENT SHALL USE ITEM 613.11 STONE FILL, TYPE II AS DIRECTED BY THE ENGINEER.
4. PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGHOUT THE PROJECT, SHALL BE PERFORMED AT LOCATIONS INDENTIFIED ON THIS SHEET AND AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE PAID UNDER THE APPLICABLE EQUIPMENT RENTAL ITEM(S).

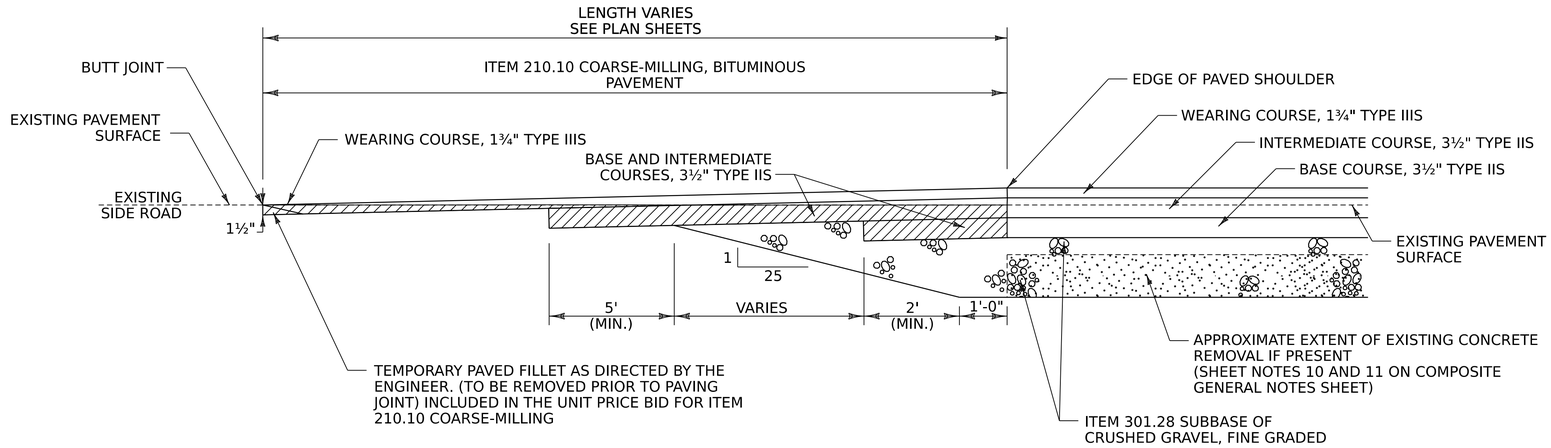
NOT TO SCALE

Stantec

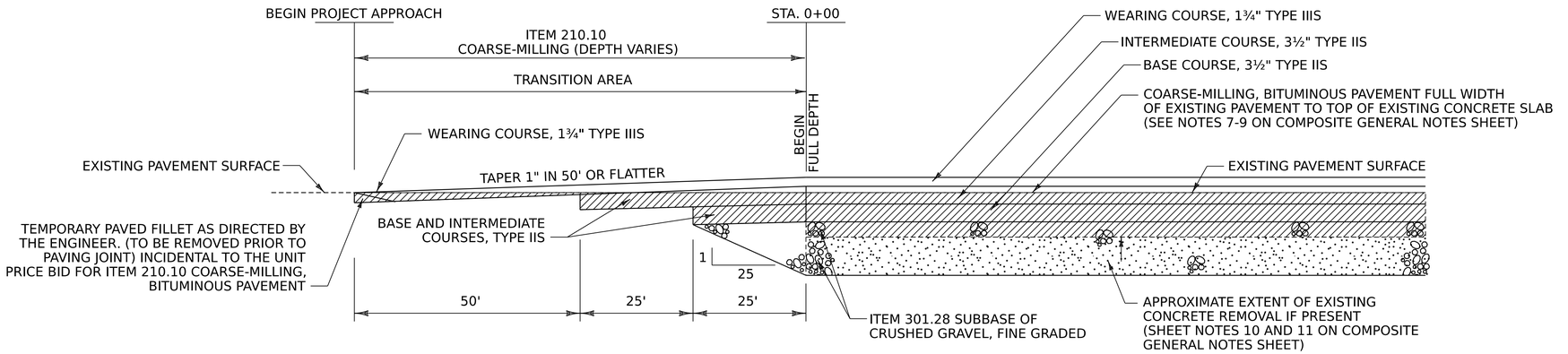
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
DITCH CLEANING DETAIL SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 85 OF 210

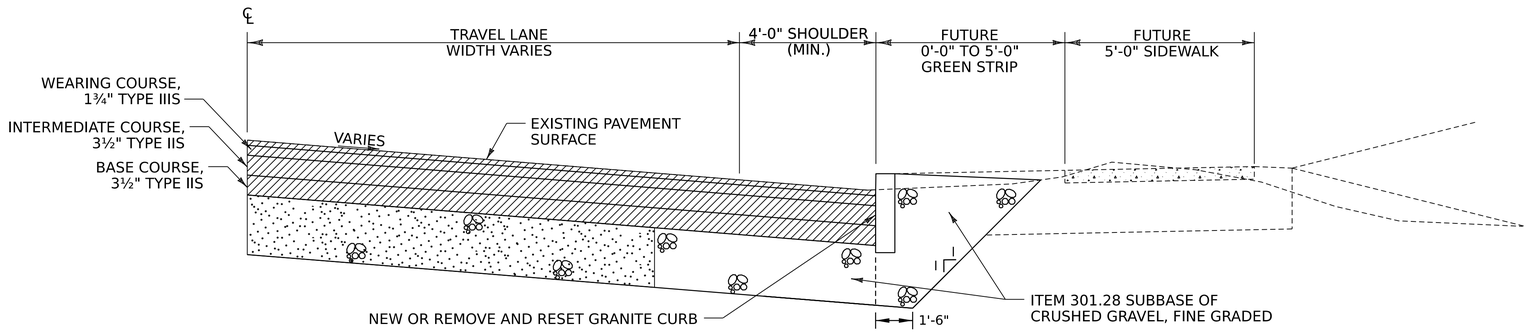


PARTIAL DEPTH CONCRETE REMOVAL AREA SIDE ROAD TRANSITION DETAIL



BEGIN PROJECT TRANSITION DETAIL

FULL ROADWAY WIDTH



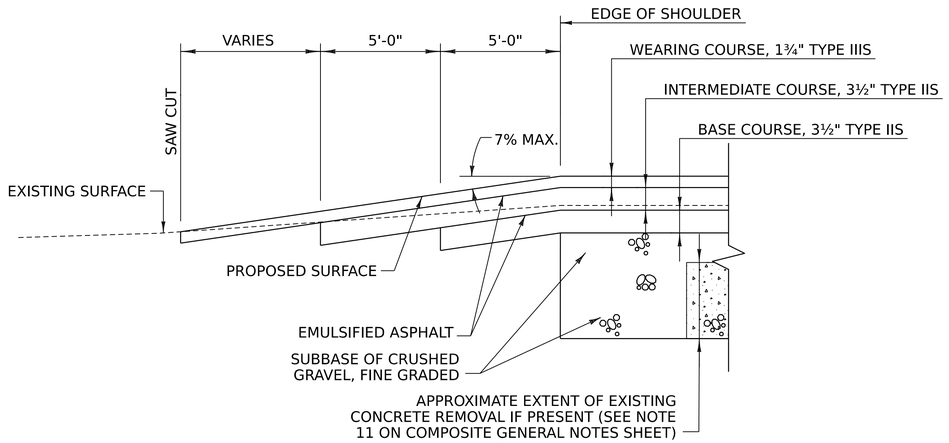
TYPICAL CURB SECTION ADJACENT FUTURE SIDEWALK PROJECT STP EH10(18)

STA. 126+55 TO 129+81, RT
STA. 130+36 TO 138+74, RT
STA. 139+22 TO 139+75, RT
STA. 140+50 TO 140+78, RT
STA. 141+24 TO 141+74, RT
STA. 142+08 TO 144+38, RT

NOT TO SCALE

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BARRETT	CHECKED BY: M. FOISY
DETAIL SHEET 1	SHEET 86 OF 210



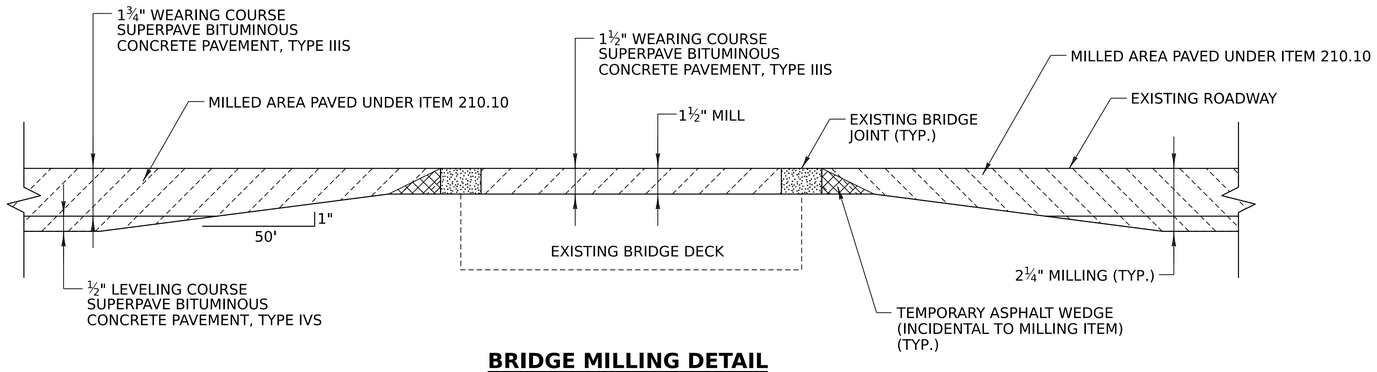
PULL-OFF TRANSITION

STA. 125+30 TO 126+50, LT

PAVED PULLOFF NOTES:

1. GRADE EXISTING GRAVEL PULL-OFF AS NECESSARY TO PROVIDE A SMOOTH SURFACE AND ADEQUATE DRAINAGE AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE MADE UNDER ITEM 608.15 POWER GRADER RENTAL. ANY EXCAVATION REQUIRED SHALL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS.

2. THE PULL-OFFS WILL BE MACHINE PAVED AND PAID UNDER ITEM 406.35 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.

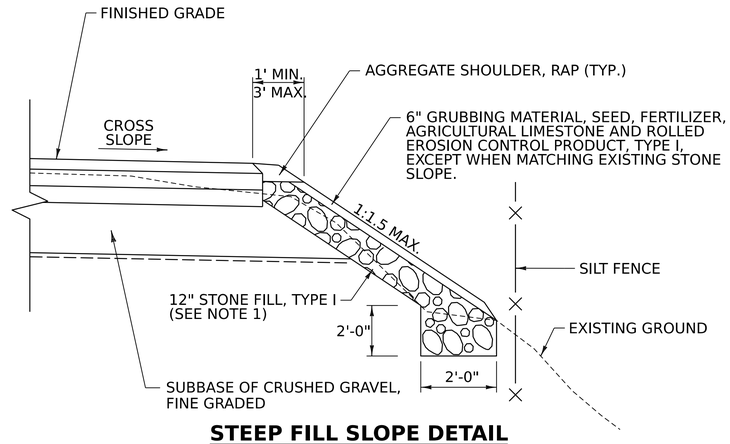


BRIDGE MILLING DETAIL

STA. 205+48 TO 213+77 BR #73

NOTE:

1. THE CONTRACTOR SHALL USE CAUTION WHEN MILLING AND PAVING OPERATIONS OCCUR ON BRIDGE DECKS. SHOULD ANY DAMAGE OCCUR TO THE DECK OR MEMBRANE AS A RESULT OF THESE OPERATIONS, THE ENGINEER SHALL CONTACT THE VTRANS CONSTRUCTION STRUCTURES ENGINEER TO PROVIDE AN ASSESSMENT OF THE DAMAGE AND RECOMMEND ANY NECESSARY REPAIRS. THE CONSTRUCTION STRUCTURES ENGINEER WILL ALSO DETERMINE IF THE DAMAGE WAS AVOIDABLE. IF THE CONTRACTOR IS DETERMINED BY THE ENGINEER TO BE AT FAULT FOR THE DAMAGE, THE RECOMMENDED REPAIRS SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE STATE.

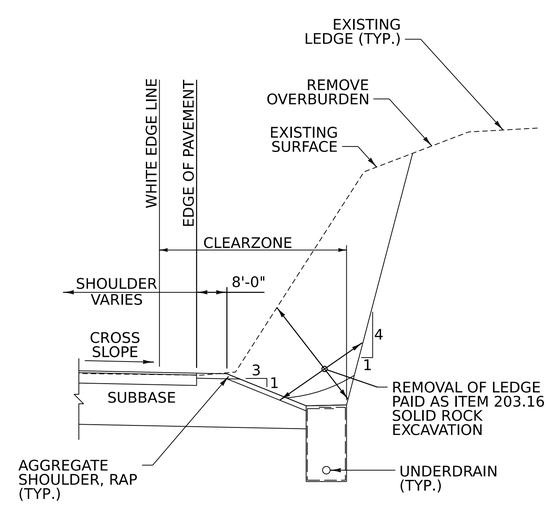


STEEP FILL SLOPE DETAIL

FOR SLOPES STEEPER THAN 1:1.5
SEE PLANS AND SECTIONS FOR LOCATIONS

NOTES

1. ANY EXCAVATION REQUIRED TO INSTALL STONE FILL SHALL BE PAID FOR UNDER ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I.



LEDGE CUT DETAIL

STA. 67+00 TO 67+60, RT
STA. 68+80 TO 69+60, LT
STA. 76+50 TO 78+20, LT
STA. 77+20 TO 77+80, RT

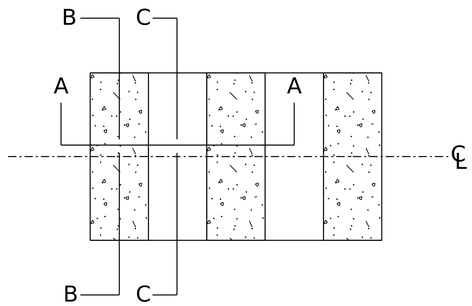
NOT TO SCALE

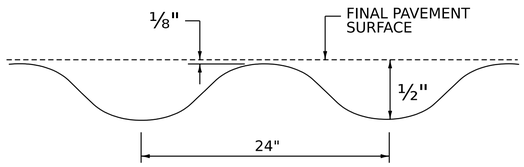
Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

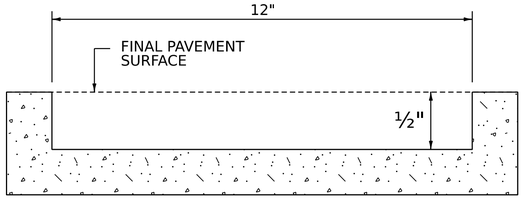
FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
DETAIL SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 87 OF 210

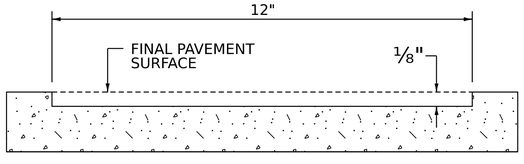




SECTION A-A



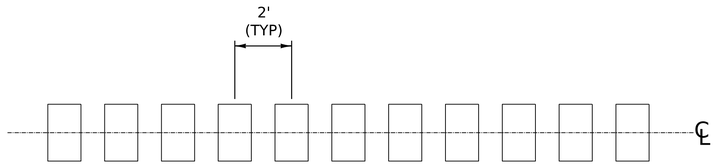
SECTION B-B



SECTION C-C

RUMBLE STRIP DETAIL

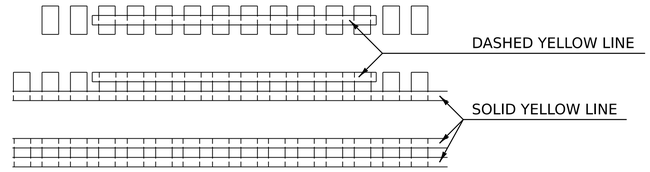
NOT TO SCALE



RUMBLE STRIP LAYOUT DETAIL

NOTE:

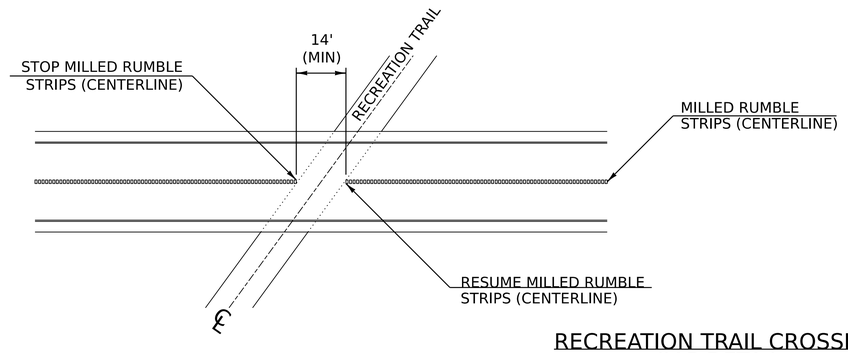
1. MILLED RUMBLE STRIPS (CENTERLINE) SHALL BE CENTERED ALONG THE CENTERLINE OF THE ROADWAY WITH A LATERAL TOLERANCE OF +/- TWO INCHES AND INSTALLED AT THE INTERVALS AS DETAILED.



PAVEMENT MARKING LAYOUT DETAIL

NOTES:

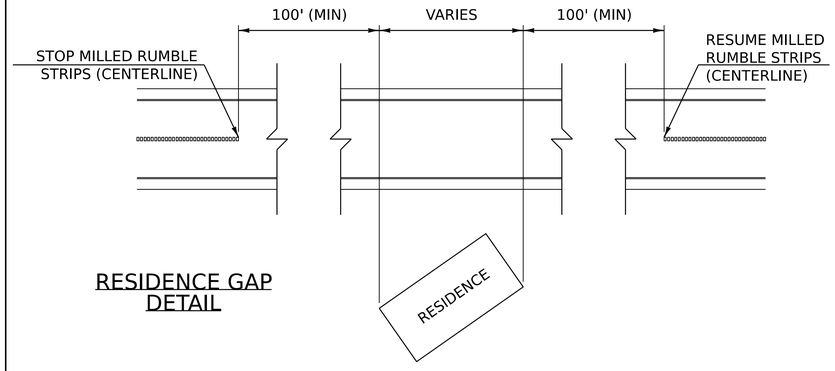
1. MILLED RUMBLE STRIPS (CENTERLINE) SHALL BE INSTALLED PRIOR TO FINAL CENTERLINE PAVEMENT MARKINGS.
2. ALL FINAL CENTERLINE PAVEMENT MARKINGS SHALL BE CENTERED ON THE MILLED RUMBLE STRIPS (CENTERLINE) WITH A LATERAL TOLERANCE OF +/- ONE INCH.
3. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CENTERLINE PAVEMENT MARKINGS SHALL BE POLYUREA.



RECREATION TRAIL CROSSING GAP DETAIL

NOTE:

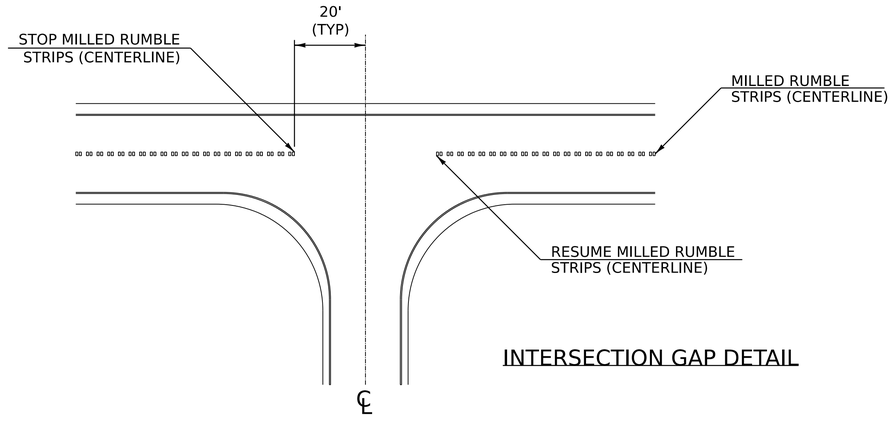
1. WIDTH OF GAP FOR RAIL TRAILS WILL VARY DEPENDENT ON THE SKEW OF THE TRAIL, WITH A 14 FOOT MINIMUM GAP.



RESIDENCE GAP DETAIL

NOTE:

1. MILLED RUMBLE STRIPS (CENTERLINE) SHALL BE GAPPED, AS DETAILED, WHEN ANY PORTION OF A RESIDENCE IS WITHIN 100 FEET OF THE ROADWAY CENTERLINE.



INTERSECTION GAP DETAIL

NOTE:

1. MILLED RUMBLE STRIPS (CENTERLINE) SHALL STOP 20 FEET PRIOR TO ALL INTERSECTIONS, IN BOTH DIRECTIONS OF TRAVEL.

GENERAL NOTES:

1. STATIONING SHOWN ON PLANS, FOR MILLED RUMBLE STRIPS (CENTERLINE), IS BASED ON LIMITED FIELD SURVEY, ALL GAPS SHALL BE FIELD VERIFIED PRIOR TO INSTALLATION.
2. THE LOCATIONS FOR MILLED RUMBLE STRIPS (CENTERLINE) DETAILED IN THE PLANS SHALL BE MARKED IN THE FIELD AND VERIFIED BY THE PROJECT MANAGER PRIOR TO MILLING. THE PROJECT MANAGER SHALL BE NOTIFIED A MINIMUM OF 14 CALENDAR DAYS PRIOR TO MILLING TO ALLOW FOR VERIFICATION OF THE LOCATIONS.

SINUSOIDAL MILLED RUMBLE STRIPS (CENTERLINE) DETAILS

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
DETAIL SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 88 OF 210

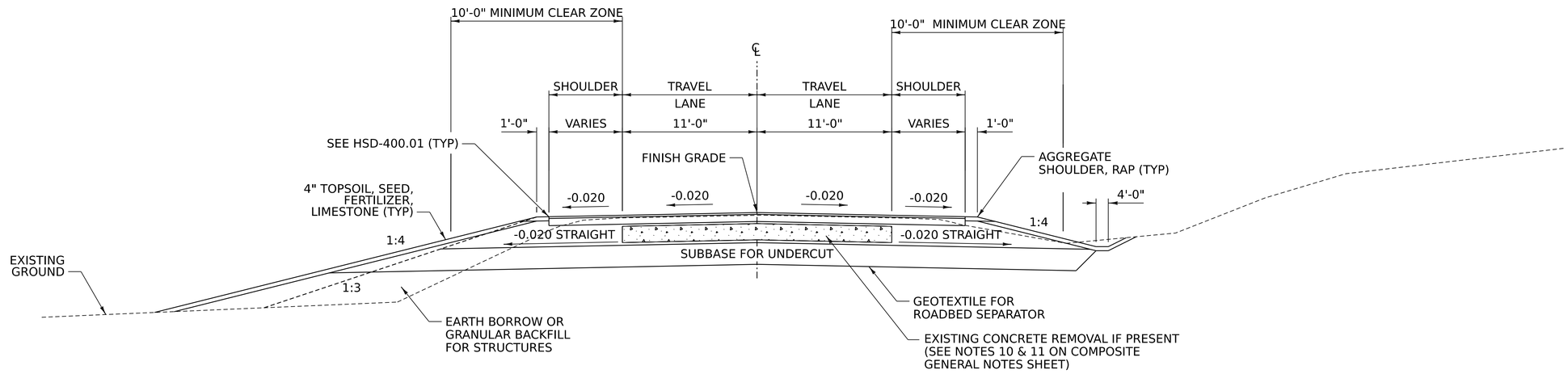
STP PS24(2) UNSUITABLE SUBBASE TYPICAL SECTIONS

ROADWAY AND SHOULDER SECTION

1 ¾" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIIS) (1 - 1 ¾" LIFT)
7" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIS) (2 - 3 ½" LIFTS)
12" SUBBASE CRUSHED GRAVEL, FINE GRADED
12" SUBBASE OF DENSE GRADED CRUSHED STONE, SEE NOTES BELOW

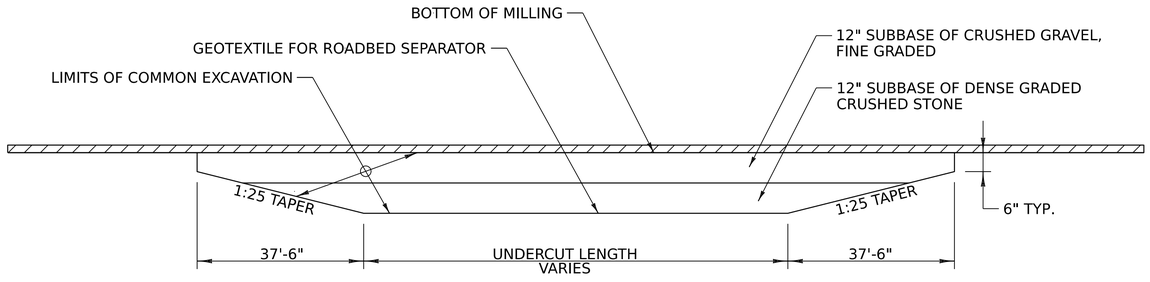
MATERIAL THICKNESS TOLERANCES

PAVEMENT	+ ¼"	(TOTAL DEPTH)
SUBBASE	± 1"	(TOTAL DEPTH)



U.S. ROUTE 5 - UNSUITABLE MATERIAL / UNDERCUT AREA

STA. 0+00 TO 148+36



UNSUITABLE SUBBASE MATERIAL TRANSITION DETAIL

NOTES

1. UNDERCUT CANDIDATE AREAS ENCOUNTERED DURING CONSTRUCTION TO BE REVIEWD BY THE RE AND APPROVED BY THE PROJECT MANAGER.
2. ALL UNDERCUTS SHALL BE FULL WIDTH.
3. GEOTEXTILE FOR ROADBED SEPERATOR TO BE USED ONLY BELOW DENSE GRADED CRUSHED STONE, BETWEEN 1:25 MATERIAL TRANSITION TAPERS.
4. AN ASSUMED DEPTH OF 12" WILL BE USED TO CALCULATE AN UNDERCUT EXCAVATION QUANTITY.
5. AN ASSUMED DEPTH OF 12" WILL BE USED TO CALCULATE ADDITIONAL SUBBASE OF DENSE GRADED CRUSHED STONE.

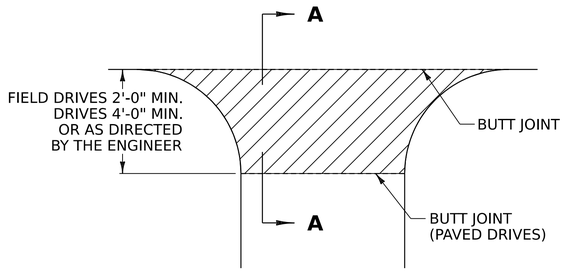
NOT TO SCALE

Stantec

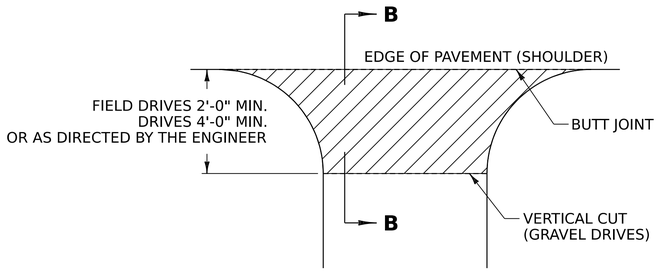
PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BARRETT
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
DETAIL SHEET 4	SHEET 89 OF 210

Town/Station	Position	Apron Length	406.38	
			Drive Area (sq ft)	Drive Area (sq yds)
3+00	LT		168	19
5+32	LT		352	39
8+01	LT		318	35
10+29	LT		155	17
12+25	RT		139	15
13+09	LT		216	24
14+53	LT		155	17
18+83	RT		615	68
24+20	RT		364	40
26+36	LT		207	23
34+38	LT		153	17
35+31	RT		242	27
38+28	LT		23	3
40+96	RT		504	56
41+53	LT		129	14
44+09	RT		1584	176
44+77	LT		113	13
55+60	RT		69	8
66+18	LT		352	39
72+84	RT		267	30
80+27	RT		149	17
84+20	LT		127	14
86+02	RT		455	51
86+09	LT		1123	125
87+90	RT		93	10
88+20	LT		107	12
89+13	LT		179	20
89+59	RT		509	57
93+13	RT		547	61
96+23	RT		151	17
96+30	LT		179	20
99+07	LT		292	32
99+50	RT		132	15
103+30	LT		171	19
104+64	LT		80	9
105+44	RT		362	40
106+12	LT		470	52
107+20	LT		132	15
111+59	LT		242	27
112+97	LT		185	21

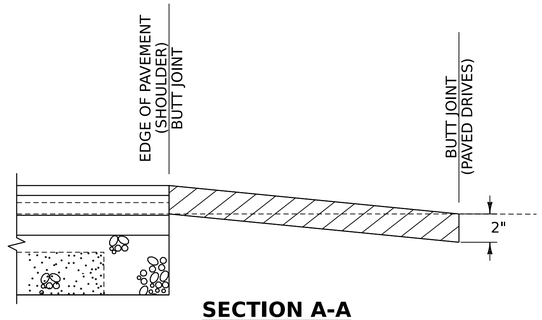
Town/Station	Position	Apron Length	406.38	
			Drive Area (sq ft)	Drive Area (sq yds)
114+06	LT		267	30
114+79	LT		161	18
116+63	LT		118	13
118+73	LT		209	23
130+08	RT		532	59
133+90	LT		234	26
134+88	LT		290	32
139+00	RT		226	25
140+11	RT		382	42
141+02	RT		352	39
141+82	LT		795	88
141+90	RT		206	23
234+65	RT	29	144	16
236+02	RT	40	209	23
237+00	LT	53	189	21
238+26	RT	27	128	14
238+28	LT	33	132	15
239+00	RT	29	142	16
240+22	RT	28	135	15
240+58	RT	13	85	9
240+64	LT	34	170	19
241+51	LT	27	142	16
241+88	RT	35	180	20
242+28	LT	26	125	14
243+63	RT	50	275	31
244+94	LT	32	157	17
245+31	LT	25	120	13
245+85	LT	27	131	15
247+06	LT	49	271	30
248+19	RT	36	185	21
248+20	LT	33	168	19
248+83	LT	32	162	18
249+45	LT	30	146	16
250+36	LT	32	161	18
251+60	LT	59	203	23
251+85	RT	46	243	27



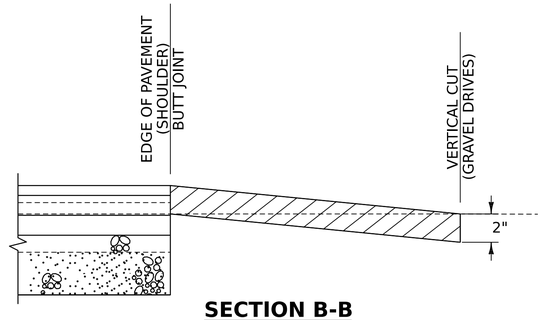
PLAN
(PAVED DRIVES)



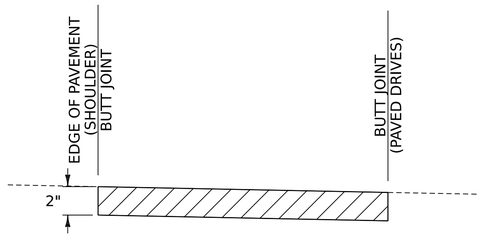
PLAN
(GRAVEL DRIVES)



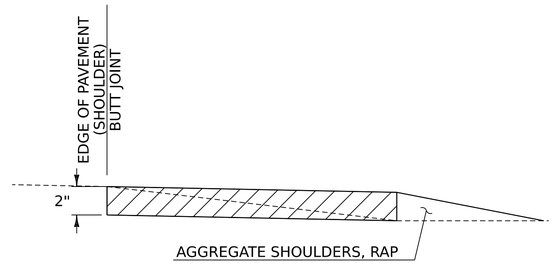
SECTION A-A
HANDWORK DETAILS FOR PAVED DRIVES
WITHIN CONCRETE REMOVAL AREAS



SECTION B-B
HANDWORK DETAILS FOR GRAVEL DRIVES
WITHIN CONCRETE REMOVAL AREAS



SECTION A-A
HANDWORK DETAILS FOR PAVED DRIVES
WITHIN MILLED AREAS



SECTION B-B
HANDWORK DETAILS FOR GRAVEL DRIVES
WITHIN MILLED AREAS

NOTES:

1. PAVING LIFT NOT TO EXCEED 2.0 INCHES.
2. THE COST OF PROVIDING AND PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES AT LEAST 24 HOURS BEFORE PAVING, WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.
3. EXCAVATION NEEDED TO ACHIEVE PROPER DRIVE AND TOWN HIGHWAY SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.
4. MILLING FOR DRIVES AND TOWN HIGHWAYS WILL MEET THE REQUIREMENTS OF SECTION 210 AS APPLICABLE. PAYMENT FOR MILLING AREAS REQUIRED FOR DRIVES AND TOWN HIGHWAYS WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES.

LEGEND

ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

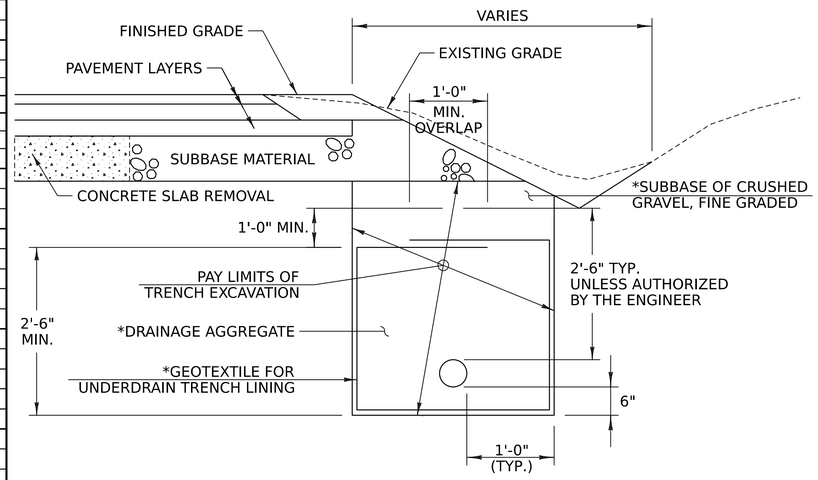
FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BARRETT
DRIVE DETAIL SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 90 OF 210

LOCATION					UNDERDRAIN				MISC. ITEMS				REMARKS
					204.20	204.21	605.10	619.17	SEE NOTE 1			900.620	
PIPE NO.	OUTLET INVERT	BEGIN STA.	END STA.	POS.	TRENCH EXCAVATION OF EARTH	TRENCH EXCAVATION OF ROCK	6 INCH UNDERDRAIN PIPE	YIELDING MARKER POSTS	DRAINAGE AGGREGATE	GEOTEXTILE FABRIC	SUBBASE OF CRUSHED GRAVEL	SPECIAL PROVISION (CONCRETE CORING)	
					CY	CY	LF	EA	CY	SY	TON		
	US ROUTE 5												
	HARTFORD												
UD-1	600.53'	15+10	20+00	LT	109	36	490	1	145	617	55		DAYLIGHT ON SLOPE
UD-2	603.00'	32+00	37+87	LT	131	44	587	1	174	740	66		DAYLIGHT ON SLOPE
UD-3	598.56'	38+39	40+40	LT	45	15	201	1	60	253	23		DAYLIGHT ON SLOPE
UD-4	586.00'	42+05	47+09	LT	112	37	504	1	150	635	57		DAYLIGHT ON SLOPE
UD-5	585.80'	47+26	48+75	LT	33	11	149	1	44	188	17		DAYLIGHT ON SLOPE
UD-6	585.10	50+55	53+40	LT	63	21	285	1	85	359	32		DAYLIGHT ON SLOPE
UD-7	602.01	61+61	64+99	RT	75	25	338	1	100	426	38		DAYLIGHT ON SLOPE
UD-8	620.02	66+00	69+40	RT	76	25	340	1	101	428	38		DAYLIGHT ON SLOPE
UD-9	605.20	69+00	75+44	LT	143	48	644	1	191	811	72		DAYLIGHT ON SLOPE
UD-10	629.01	69+50	71+00	RT	33	11	150	1	45	189	17		DAYLIGHT ON SLOPE
UD-11	575.25	75+55	80+00	LT	99	33	445	1	132	561	50		DAYLIGHT ON SLOPE
UD-12	584.00'	77+00	78+90	RT	42	14	190	1	56	239	21		DAYLIGHT ON SLOPE
UD-13	601.50'	93+10	96+00	LT	65	22	290	1	86	365	33		DAYLIGHT ON SLOPE
UD-14	608.09'	99+50	100+66	LT	26	9	116	1	34	146	13	1	OUTLET INTO PROPOSED DI 100
UD-15	609.09'	100+68	102+50	LT	40	13	182	1	54	229	20	1	OUTLET INTO PROPOSED DI 100
UD-16	610.90'	100+73	102+00	RT	28	9	127	1	38	160	14		DAYLIGHT ON SLOPE
UD-17	591.50'	107+50	108+73	LT	27	9	123	1	36	155	14		DAYLIGHT ON SLOPE
UD-18	586.20'	108+94	110+95	LT	45	15	201	1	60	253	23	1	OUTLET INTO PROPOSED DI 101
UD-19	579.10'	119+30	122+00	LT	60	20	270	1	80	340	30		DAYLIGHT ON SLOPE
SHEET SUBTOTALS					1252	417	5632	19	1671	7094	633	3	
ROUNDING					-	-	68	-	29	106	7	-	
UNDERDRAIN TOTALS					**1252**	**417**	**5700**	**19**	**1700**	**7200**	**640**	**3**	

NOTES:

1. ITEMS ARE INCLUDED IN THE UNIT PRICE FOR PAY ITEM 605.10 UNDERDRAIN PIPE, 6 INCHES
2. SUBTOTALS FOR ITEMS 204.20, 204.21 & 619.17 ARE CARRIED FORWARD TO THE QUANTITY SHEETS, DETAILED SUMMARY OF QUANTITIES



UNDERDRAIN DETAIL

NOTES

1. DRAINAGE AGGREGATE SHALL MEET THE REQUIREMENTS OF SUBSECTION 704.16.
2. MATERIALS ARE INCLUDED IN THE UNIT PRICE BID FOR PAY ITEM 605.10 6 INCH UNDERDRAIN PIPE.
3. GEOTEXTILE FOR UNDERDRAIN TRENCH LINING SHALL NOT BE PLACED AROUND UNDERDRAIN WHEN COVER ABOVE UNDERDRAIN IS LESS THAN ONE FOOT.
4. GEOTEXTILE FOR UNDERDRAIN TRENCH LINING, DRAINAGE AGGREGATE AND SUBBASE OF CRUSHED GRAVEL, FINE GRADED ARE INCLUDED IN THE UNIT BID PRICE FOR PAY ITEM 605.10 UNDERDRAIN PIPE, 6 INCH.
5. THE END OF THE UNDERDRAIN PIPE AT THE BEGINNING OF ALL UNDERDRAIN RUNS SHALL BE WRAPPED IN GEOTEXTILE FABRIC. PAYMENT FOR THIS WORK IS INCLUDED IN THE UNIT PRICE BID FOR ITEM 605.10 6 INCH UNDERDRAIN PIPE.

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
UNDERDRAIN DETAIL SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: M. FOISY
SHEET 91 OF 210

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

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O. D. Sampler 1 ⅜" 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 ⅛"
BX	Core Size 1 ⅝"
NX	Core Size 2 ⅛"
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		

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.

VERMONT AGENCY OF TRANSPORTATION
CONSTRUCTION & MATERIALS BUREAU
GEOTECHNICAL ENGINEERING SECTION
DRILLING NOTES

GEO DESIGN

PROJECT NAME: Hartford STP PS24(2) **GEODesign #:** 750-012.10 **Site:** US-5

BORING CREW: K. Smith (NEBC), J. Wimett (GEODesign) **Drilling Dates:** 11/19/21 through 11/23/21 **Reviewed by:** A. Baribault

BORING No.	DATE DRILLED	APPROX. MILE MARKER (MM)	CL OFFSET (FT)	NORTHING (FT)	EASTING (FT)	DEPTH (FT)	SAMPLE TYPE	FIELD DESCRIPTION COLOR, SOIL TYPE, MOISTURE (Burmeister)	LABORATORY RESULTS (AASTHO) % MOISTURE	AASHTO CLASS.	SOIL DES.	% GRAVEL	% SAND	% FINES
HARTFORD														
B-1 (DCP)	11/19/2021	0.0	5.75' NB	1679086	404958	0.0-0.73	6" Core	8.75" Asphalt						
						0.73-1.33	6" Core	6.25" Concrete						
						1.33-2.5	Auger	Brn w/ blk, f-m SAND, some Silt, trace(-) f Gravel, moist	17.5	A-2-4	SiSa	3.0	70.9	26.1
						2.5-5.0	Auger	Brn, f SAND, trace Silt, moist	4.6	A-3	Sa	0.0	92.7	7.2
B-2 (DCP)	11/19/2021	0.2	13.5' SB	1678961	406002	0.0-1.13	6" Core	13.5" Asphalt						
						1.13-2.0	Auger	Brn, f-c GRAVEL and f-c SAND, little(-) Silt, moist	2.4	A-1-a	SaGr	62.5	26.8	10.7
						2.0-3.5	Auger	Brn-Orng, f. SAND, little Silt, trace f. Gravel, moist	4.0	A-2-4	Sa	15.4	67.5	17.2
						3.5-5.0	Auger	Brn, f-m SAND, some Silt, trace f. Gravel, moist	15.0	A-2-4	SiSa	6.2	66.2	27.5
B-3	11/19/2021	0.4	7' NB	1678751	406929	0.0-0.71	6" Core	8.5" Asphalt						
						0.71-1.27	6" Core	6.75" Concrete						
						1.27-4.5	Auger	Brn, f-c SAND and f-c GRAVEL, little Silt, moist	12.2	A-1-b	SaGr	48.8	38.0	13.2
						4.5-5.0	Auger	Brn, f-c SAND, some(-) f. Gravel, little Silt, moist	9.2	A-1-b	GrSa	31.9	51.1	17.0
								Notes: 1) Roller bit advanced through concrete. 2) Driller noted less resistance below 4.5 feet deep when augering.						
B-4	11/23/2021	0.6	5.5' SB	1678866	408033	0.0-0.63	6" Core	7.5" Asphalt						
						0.63-1.04	6" Core	7" Concrete						
						1.04-2.0	Auger	Brn, f. SAND, somef-c Gravel, some(-) Silt, moist	12.1	A-2-4	GrSa	25.6	54.5	20.0
						2.0-5.0	Auger	Brn, f-m SAND, little Silt, little (-) f. Gravel, moist	9.2	A-2-4	Sa	19.4	62.0	18.6
								Notes: 1) Auger grinding at 1.5 feet deep.						

1. The subsurface explorations shown herein were made between 11/19/21 and 11/23/21 by the GEO Design.
2. Soil and rock classifications, properties, and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
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.

GENERAL NOTES

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.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_borings.dgn PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. BOGACZYK DRAWN BY: VTRANS
DESIGNED BY: VTRANS CHECKED BY: VTRANS
BORING LOG SHEET 1 SHEET 92 OF 210

BORING No.	DATE DRILLED	APPROX. MILE MARKER (MM)	CL OFFSET (FT)	NORTHING (FT)	EASTING (FT)	DEPTH (FT)	SAMPLE TYPE	FIELD DESCRIPTION	LABORATORY RESULTS (AASHTO)					
								COLOR, SOIL TYPE, MOISTURE (Burmeister)	% MOISTURE	AASHTO CLASS.	SOIL DES.	% GRAVEL	% SAND	% FINES
B-5 (DCP)	11/19/2021	0.8	4.5' NB	1679169	408979	0.0-0.56	6" Core	6.75" Asphalt						
						0.56-1.15	6" Core	7" Concrete						
						1.15-2.1	Auger	Brn, f-c SAND, some f. Gravel, trace Silt, moist	5.2	A-1-b	GrSa	29.2	64.8	6.0
						2.1-4.0	Auger	Brn, f-c SAND and f-c GRAVEL, little Silt, moist	4.6	A-1-b	SaGr	44.9	40.5	14.6
						4.0-5.0	Auger	Brn, f-c SAND, some Silt, little f-c Gravel, moist	13.3	A-2-4	GrSiSa	26.2	42.6	31.2
Notes: 1) Driller noted change / less resistance below 4 feet deep when augering. 2) Similar change observed during DCP testing.														
B-6 (DCP)	11/23/2021	1.0	9' SB	1679376	410006	0.0-0.83	6" Core	10" Asphalt						
						0.83-1.40	6" Core	6.75" Concrete w/ 1 piece of 3/8" rebar						
						1.40-2.0	Auger	Brn, f-c SAND, some f-c Gravel, little Silt, moist	11.7	A-1-b	GrSa	38.4	50.7	11.0
						2.0-5.0	Auger	Brn, f-c SAND and SILT, trace f. Gravel, very moist	16.4	A-4	SaSi	12.8	52.0	35.2
Notes: 1) Auger grinding at 1.5 feet deep.														
B-7	11/22/2021	1.2	3' NB	1679614	410955	0.0-0.60	6" Core	7.25" Asphalt						
						0.60-1.19	6" Core	7" Concrete						
						1.19-2.0	Auger	Brn, f-c SAND, some f-c Gravel, little Silt, moist	10.6	A-1-b	GrSa	39.2	47.4	13.5
						2.0-3.0	Auger	Brn, f-c SAND, some Silt, little f-c Gravel, moist	9.8	A-2-4	SiGrSa	29.4	49.0	21.6
						3.0-5.0	Auger	Brn, f-m SAND and SILT, trace f. Gravel, moist	14.0	A-4	SaSi	9.3	50.1	40.7
B-8	11/22/2021	1.4	4.5' SB	1680022	411969	0.0-0.56	6" Core	6.75" Asphalt						
						0.56-2.5	Auger	Brn, f-c SAND, some f-c Gravel, little Silt, moist	6.4	A-1-b	GrSa	39.7	48.0	12.3
						2.5-5.0	Auger	Brn-Gry, f-m SAND and SILT, trace f. Gravel, moist	18.4	A-4	SaSi	10.5	51.1	38.4
B-9 (DCP)	11/22/2021	1.6	6.5' NB	1680298	412919	0.0-0.60	6" Core	7.25" Asphalt						
						0.60-1.21	6" Core	7.25" Concrete						
						1.21-4.5	Auger	Brn, f-c SAND and f-c GRAVEL, little Silt, moist	10.0	A-1-a	SaGr	51.4	38.2	10.4
						4.5-5.0	Auger	Mottled Orng-Brn, f-c SAND and SILT, trace f. Gravel, moist	20.4	A-4	SaSi	8.6	52.1	39.3
Notes: 1) Core bit advanced through asphalt and concrete.														

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_borings.dgn
PROJECT LEADER: M. BOGACZYK
DESIGNED BY: VTRANS
BORING LOG SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: VTRANS
CHECKED BY: VTRANS

BORING No.	DATE DRILLED	APPROX. MILE MARKER (MM)	CL OFFSET (FT)	NORTHING (FT)	EASTING (FT)	DEPTH (FT)	SAMPLE TYPE	FIELD DESCRIPTION	LABORATORY RESULTS (AASTHO)					
								COLOR, SOIL TYPE, MOISTURE (Burmeister)	% MOISTURE	AASHTO CLASS.	SOIL DES.	% GRAVEL	% SAND	% FINES
B-10 (DCP)	11/22/2021	1.8	6' SB	1680344	414004	0.0-0.48	6" Core	5.75" Asphalt						
						0.48-1.02	6" Core	6.5" Concrete w/ 1 piece of 3/8" rebar						
						1.02-3.0	Auger	Brn, f-c GRAVEL and f-c SAND, trace Silt, moist	5.0	A-1-a	SaGr	61.0	31.5	7.5
						3.0-5.0	Auger	Brn, f-c SAND, some f-c Gravel, little Silt, moist	5.5	A-1-b	GrSa	38.1	44.4	17.5
B-11	11/22/2021	2.0	3' NB	1680444	415026	0.0-0.52	6" Core	6.25" Asphalt						
						0.52-1.08	6" Core	6.75" Concrete						
						1.08-2.0/3.0	Auger	Brn, f-c SAND, some Silt, little f-c Gravel, moist	15.5	A-2-4	SiSa	18.1	54.8	27.0
						2.0/3.0-5.0	Auger	Brn, f-m SAND, some Silt, trace f. Gravel, moist	12.3	A-2-4	SiSa	10.6	64.6	24.8
B-12	11/22/2021	2.2	4.5' SB	1680841	416019	0.0-0.50	6" Core	6" Asphalt						
						0.50-1.00	6" Core	6" Concrete w/ 2 pieces 3/8" rebar						
						1.00-2.0	Auger	Brn, f-c SAND, little f-c Gravel, trace Silt, moist	6.4	A-1-b	GrSa	27.3	63.6	9.1
						2.0-3.0	Auger	Brn, f-c SAND, little f-c Gravel, little Silt, moist	5.2	A-1-b	GrSa	27.8	58.5	13.8
						3.0-5.0	Auger	Brn-Orng, f-c SAND, some Silt, trace f. Gravel, moist	21.2	A-2-4	SiSa	18.7	61.2	20.1
Notes: 1) Auger grinding at 2.5 feet deep.														
B-13 (DCP)	11/22/2021	2.4	3.5' NB	1681249	417209	0.0-0.56	6" Core	6.75" Asphalt						
						0.56-0.9	Auger	Gry, f-c GRAVEL, trace f-c SAND, trace Silt	2.2	A-1-a	Gr	92.2	6.6	1.2
						0.9-3.3	Auger	Brn, f-c SAND, some f-c Gravel, little Silt, moist	5.9	A-1-b	SaGr	40.9	39.6	19.6
						3.3-5.0	Auger	Gry-brn, f-m SAND, some Silt, trace f. Gravel, trace Organics, wet	21.1	A-2-4	SiSa	7.5	71.0	21.5
B-14 (DCP)	11/22/2021	2.6	5' NB	1681850	417727	0.0-0.42	6" Core	5" Asphalt						
						0.42-1.04	6" Core	7.5" Concrete w/ 4 pieces 3/8" bi-directional rebar						
						1.04-2.5	Auger	Brn, f-m SAND,some Silt, trace f. Gravel, moist	12.4	A-2-4	SiSa	14.0	55.8	30.2
						2.5-5.0	Auger	Brn, f-m SAND, some Silt, wet	16.4	A-2-4	SiSa	9.2	67.0	23.8

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_borings.dgn
PROJECT LEADER: M. BOGACZYK
DESIGNED BY: VTRANS
BORING LOG SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: VTRANS
CHECKED BY: VTRANS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
							1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-			TRENCH EXCAVATION OF EARTH
							6				6		EACH	THINNING AND TRIMMING FOR SIGNS	201.31	-	571	CY	CULVERTS AND STRUCTURES
							17800				17800		CY	COMMON EXCAVATION	203.15	220.3	1252	CY	UNDERDRAIN
							7000				7000		CY	SOLID ROCK EXCAVATION	203.16	147	77	CY	ROUNDING
							400				400		CY	EARTH BORROW	203.30	17	1900	CY	TOTAL
							1900				1900		CY	TRENCH EXCAVATION OF EARTH	204.20	77			TRENCH EXCAVATION OF ROCK
							510				510		CY	TRENCH EXCAVATION OF ROCK	204.21	28	65	CY	CULVERTS AND STRUCTURES
							1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST	417	CY	UNDERDRAIN
							1220				1220		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	15	28	CY	ROUNDING
							87700				87700		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	916	510	CY	TOTAL
							6150				6150		LF	MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)	213.10	64			COARSE-MILLING, BITUMINOUS PAVEMENT
							33200				33200		TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.28	696	283	SY	BEGIN TRANSITION
							3350				3350		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	53	53399	SY	U.S. ROUTE 5 MAINLINE - 8" DEPTH
							500				500		TON	AGGREGATE SHOULDERS, RAP	402.13	16	24351	SY	U.S. ROUTE 5 MAINLINE - 2" DEPTH
							960				960		CWT	EMULSIFIED ASPHALT	404.65	15	4850	SY	U.S. ROUTE 5 BRIDGE #73 - 1 1/2" DEPTH
							1				1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-	3686	SY	U.S. ROUTE 5 SIDE ROADS - 9" DEPTH
							1				1		LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	406.29	-	215	SY	U.S. ROUTE 5 PULL OFF - 9" DEPTH
							1				1		LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	406.30	-	916	SY	ROUNDING
							1				1		LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	406.31	-	87700	SY	TOTAL
							32500				32500		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	406.35	355			SUBBASE OF CRUSHED GRAVEL, FINE GRADED
							2200				2200		SY	HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES	406.38	24	31547	TON	ROADWAY SHIMMING AND SHOULDERS
							100				100		TON	BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION	406.45	EST	480.8	TON	UNDERCUT AREAS
							1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-	472.7	TON	DRAINAGE CULVERTS
							32600				32600		TON	MATERIAL TRANSFER VEHICLE	410.10	100	3.5	TON	SIDEWALK REPAIRS
							10				10		CF	RAPID SETTING CONCRETE REPAIR MATERIAL	580.17	-	696	TON	ROUNDING
							5				5		LF	12" PCCSP .064 (2-2/3 X 1/2)	601.0405	-	33200	TON	TOTAL
							40				40		LF	18" RCP CLASS III	601.0815	18			SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
							20				20		LF	24" RCP CLASS III	601.0825	12	22170	TON	U.S. ROUTE 5 MAINLINE (BASE AND INTERMEDIATE TYPE IIS)
							325				325		LF	18" CPEP(SL)	601.2615	4	5557	TON	U.S. ROUTE 5 MAINLINE CONCRETE REMOVAL AREA
							460				460		LF	CLEANING CULVERT PIPE, IN-PLACE [0 TO 24 IN., INCL.]	601.995	5			(WEARING TYPE IIIS)
							7				7		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18	-	2520	TON	U.S. ROUTE 5 MAINLINE MILL AND FILL (WEARING TYPE IIIS)
							3				3		EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-	720	TON	U.S. ROUTE 5 MAINLINE MILL AND FILL (LEVELING TYPE IVS)
							42				42		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-	424	TON	BRIDGE (TYPE IIIS)
							12				12		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS II	604.415	-	280	TON	U.S. ROUTE 5 SIDE ROADS (BASE AND INTERMEDIATE TYPE IIS)
							12				12		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III	604.418	-	257	TON	U.S. ROUTE 5 SIDE ROADS CONCRETE REMOVAL AREA
							26				26		EACH	CHANGING ELEVATION OF SEWER MANHOLES	604.42	-			(WEARING TYPE IIIS)
							5700				5700		LF	UNDERDRAIN PIPE, 6 INCHES	605.10	68	119	TON	U.S. ROUTE 5 SIDE ROADS MILL AND FILL (WEARING TYPE IIIS)
							25				25		HR	POWER GRADER RENTAL	608.15	EST	34	TON	U.S. ROUTE 5 SIDE ROADS MILL AND FILL (LEVELING TYPE IVS)
							150				150		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST	42	TON	U.S. ROUTE 5 PULL-OFF (BASE AND INTERMEDIATE TYPE IIS)
							15				15		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE II	608.26	EST	22	TON	U.S. ROUTE 5 PULL-OFF (WEARING TYPE IIIS)
																	355	TON	ROUNDING
																	32500	TON	TOTAL

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 95 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION
15			
40			
300			
20			
30			
500			
1300			
800			
24			
1			
2			
20			
30			
325			
1825			
40			
12			
28			
14			
1885			
46			
3000			
10000			
		1	
		1	
		1	
		1500	
7			
	520		
1			
1			
4			
108000			
89400			
190			
150			
1550			
1660			
430			
32700			

TOTALS

GRAND TOTAL	FINAL
15	
40	
300	
20	
30	
500	
1300	
800	
24	
1	
2	
20	
30	
325	
1825	
40	
12	
28	
14	
1885	
46	
3000	
10000	
1	
1	
1	
1500	
7	
520	
1	
1	
4	
108000	
89400	
190	
150	
1550	
1660	
430	
32700	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
HR	POWER BROOM RENTAL, TYPE I	608.30	EST
HR	POWER BROOM RENTAL, TYPE II	608.31	EST
HR	TRUCK RENTAL	608.37	EST
HR	LOADER RENTAL, TYPE I	608.40	EST
TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	EST
CY	STONE FILL, TYPE I	613.10	44
LF	VERTICAL GRANITE CURB	616.21	29
LF	REMOVING AND RESETTING CURB	616.40	29
EACH	REMOVE AND RESET MAILBOX, SINGLE SUPPORT	617.10	-
EACH	REMOVE AND RESET MAILBOX, MULTIPLE SUPPORT	617.12	-
SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	-
SF	DETECTABLE WARNING SURFACE	618.30	4
EACH	YIELDING MARKER POSTS	619.17	1
LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	1
LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	12.5
EACH	TRAFFIC BARRIER DELINEATOR	621.218	5
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	EST
EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	EST
EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	EST
LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	2
EACH	ADJUST ELEVATION OF VALVE BOX	629.20	EST
HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
HR	FLAGGERS	630.15	EST
LS	FIELD OFFICE, ENGINEERS (STP PS24(2))	631.10	-
LS	TESTING EQUIPMENT, CONCRETE (STP PS24(2))	631.16	-
LS	TESTING EQUIPMENT, BITUMINOUS (STP PS24(2))	631.17	-
DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26	EST
EACH	CPM SCHEDULE	633.10	-
HR	EMPLOYEE TRAINEESHIP	634.10	-
LS	MOBILIZATION/DEMOBILIZATION (STP PS24(2))	635.11	-
LS	TRAFFIC CONTROL, ALL-INCLUSIVE (STP PS24(2))	641.11	-
EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	1082
LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	924
LF	TEMPORARY 6 INCH WHITE LINE, PAINT	646.622	6
LF	TEMPORARY 6 INCH YELLOW LINE, PAINT	646.632	10
LF	TEMPORARY 8 INCH YELLOW LINE, PAINT	646.652	16
LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	22
EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	6
EACH	LINE STRIPING TARGETS	646.76	387

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
							1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							10000				10000		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	109			
							1700				1700		LB	SEED	651.15	EST			
							5600				5600		LB	FERTILIZER	651.18	EST			
							12				12		TON	AGRICULTURAL LIMESTONE	651.20	EST			
							6000				6000		CY	TOPSOIL	651.35	31			
							1000				1000		SY	GRUBBING MATERIAL (6")	651.40	42			
							5450				5450		SY	GRUBBING MATERIAL (2")	651.40	78			
							12				12		TON	HAY MULCH	653.10	EST			
							2050				2050		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20	35			
							60				60		CY	CHECK DAM, TYPE I	653.25	4			
							180				180		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35	EST			
							12				12		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	EST			
							54				54		EACH	INLET PROTECTION DEVICE, TYPE II	653.41	EST			
							1000				1000		LF	SILT FENCE, TYPE I	653.475	EST			
							4000				4000		LF	BARRIER FENCE	653.50	EST			
							14300				14300		LF	PROJECT DEMARCATION FENCE	653.55	170			
							6200				6200		LF	EROSION LOG	653.60	70			
							510				510		SF	TRAFFIC SIGN, TYPE A	675.20	7.44			
							1550				1550		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	5			
							102				102		EACH	REMOVING SIGNS	675.50	-			
							17				17		EACH	RESETTING SIGNS	675.60	-			
							12				12		EACH	DELINEATOR WITH STEEL POST	676.10	-			
							12				12		EACH	REMOVAL OF EXISTING DELINEATOR AND POST	676.12	-			
							1				1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
							1				1		EACH	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION EQUIPMENT)	900.620	-			
							3				3		EACH	SPECIAL PROVISION (CORING CONCRETE)	900.620	-			
							1900				1900		LF	SPECIAL PROVISION (BARRIER FOR TEMPORARY TRAFFIC PROTECTION)	900.640	13			
							1				1		LS	SPECIAL PROVISION (GNSS MACHINE CONTROL GRADING)(STP PS24(2))	900.645	-			
							1				1		LS	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION SURFACE MODELS STP PS2	900.645	-			
							780				780		SY	SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)	900.675	7			
														BEGIN OPTION DURABLE 24 INCH STOP BAR, THERMOPLASTIC					
										850	850		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	31			
														END OPTION DURABLE 24 INCH STOP BAR, THERMOPLASTIC					
														BEGIN OPTION DURABLE 24 INCH STOP BAR, EPOXY PAINT					
										850	850		LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	31			
														END OPTION DURABLE 24 INCH STOP BAR, EPOXY PAINT					
														BEGIN OPTION DURABLE 24 INCH STOP BAR, POLYUREA					
										850	850		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	31			
														END OPTION DURABLE 24 INCH STOP BAR, POLYUREA					

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 97 OF 210

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 4

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
							1011 - ROADWAY	1031 - TRAINING	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
														BEGIN OPTION DURABLE CROSSWALK MARKING, THERMOPLASTIC					
										500	500		LF	DURABLE CROSSWALK MARKING, THERMOPLASTIC	646.502	7			
														END OPTION DURABLE CROSSWALK MARKING, THERMOPLASTIC					
														BEGIN OPTION DURABLE CROSSWALK MARKING, EPOXY PAINT					
										500	500		LF	DURABLE CROSSWALK MARKING, EPOXY PAINT	646.503	7			
														END OPTION DURABLE CROSSWALK MARKING, EPOXY PAINT					
														BEGIN OPTION DURABLE CROSSWALK MARKING, POLYUREA					
										500	500		LF	DURABLE CROSSWALK MARKING, POLYUREA	646.504	7			
														END OPTION DURABLE CROSSWALK MARKING, POLYUREA					
														BEGIN OPTION DURABLE LETTER OR SYMBOL, THERMOPLASTIC					
										280	280		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	8			
														END OPTION DURABLE LETTER OR SYMBOL, THERMOPLASTIC					
														BEGIN OPTION DURABLE LETTER OR SYMBOL, EPOXY PAINT					
										280	280		EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	8			
														END OPTION DURABLE LETTER OR SYMBOL, EPOXY PAINT					
														BEGIN OPTION DURABLE LETTER OR SYMBOL, POLYUREA					
										280	280		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	8			
														END OPTION DURABLE LETTER OR SYMBOL, POLYUREA					
														BEGIN OPTION EPOXY PAINT ITEMS					
										54000	54000		LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	541			
										45000	45000		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	762			
										100	100		LF	DURABLE 6 INCH WHITE LINE, EPOXY PAINT	646.423	8			
										75	75		LF	DURABLE 6 INCH YELLOW LINE, EPOXY PAINT	646.433	5			
										30	30		LF	DURABLE 8 INCH WHITE LINE, EPOXY PAINT	646.443	3			
										780	780		LF	DURABLE 8 INCH YELLOW LINE, EPOXY PAINT	646.453	13			
														END OPTION EPOXY PAINT ITEMS					
														BEGIN OPTION POLYUREA ITEMS					
										54000	54000		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	541			
										45000	45000		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	762			
										100	100		LF	DURABLE 6 INCH WHITE LINE, POLYUREA	646.424	8			
										75	75		LF	DURABLE 6 INCH YELLOW LINE, POLYUREA	646.434	5			
										30	30		LF	DURABLE 8 INCH WHITE LINE, POLYUREA	646.444	3			
										780	780		LF	DURABLE 8 INCH YELLOW LINE, POLYUREA	646.454	13			
														END OPTION POLYUREA ITEMS					

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. YOULEN
QUANTITY SHEET 4

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 98 OF 210

ITEM DETAIL SUMMARY SHEET

LOCATION			GUARDRAIL							MISCELLANEOUS												REMARKS
			621.20	621.205	621.218	621.60	621.76	621.77	621.80	203.15	203.30	301.28	613.10	616.21	616.40	618.10	618.30	651.40	653.20	676.10	676.12	
BEGIN STA.	END STA.	POS	S.B. G.R., GALV.	S.B. G.R., GALV.W./ 8' POST	TRAFFIC BARRIER DELIN.	ANCHOR FOR STEEL BEAM RAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM UNIT	REMOV. & DISPOSAL OF G.R.	COMMON EXCAVATION	EARTH BORROW	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	STONE FILL, TYPE I	VERTICAL GRANITE CURB	REMOVING & RESETTING CURB	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	DETECTABLE WARNING SURFACE	GRUBBING MATERIAL (6")	ROLLED EROSION CONTROL PRODUCT, TYPE I	DELINEATOR WITH STEEL POST	REMOVAL OF EXISTING DELINEATOR AND POST	
			LF	LF	EACH	EACH	EACH	EACH	LF	CY	CY	TON	CY	LF	LF	SY	SF	SY	SY	EACH	EACH	
US ROUTE 5																						
0+00	255+97.44				35		28	14		17576.8	83	32500.8	63.0						757			MISCELLANEOUS ITEMS CARRIED FORWARD
US ROUTE 5																						
HARTFORD																						
11+51	12+50	LT											24.0					50.0	50.0			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
20+09.5	24+09.5	RT	54.0	350.0		2			330.0		50								50.0	2	2	INSTALL ANCHORS @ STA.20+09.5 & 24+09.5
22+10	23+22	RT											60.0					155.1	155.1			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
22+68.0	25+18.0	LT	54.0	200.0		2			239.0		50								50.0	2	2	INSTALL ANCHORS @ STA. 22+68.0 & 25+18.0
22+97	24+54	LT											66.8					165.7	165.7			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
27+59.5	30+34.5	RT	54.0	225.0		2			176.0		50								50.0	2	2	INSTALL ANCHORS @ STA. 27+59.5 & 30+34.5
28+56.0	30+68.5	LT	54.0	162.5		2			201.0		50								50.0	2	2	INSTALL ANCHORS @ STA. 28+56.0 & 30+68.5
44+86.0	47+61.0	RT	54.0	225.0		2			265.0		50								50.0	2	2	INSTALL ANCHORS @ STA. 44+86.0 & 47+61.0
47+10	47+25	LT											4.7					10.7	10.7			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
48+43.0	55+18.0	RT	54.0	650.0		2			672.0		50								50	2	2	INSTALL ANCHORS @ STA. 48+43.0 & 55+18.0
79+00	79+40	RT											19.0					48.0	48.0			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
80+50	82+00	LT											56.4					135.9	135.9			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
108+60	110+50	RT											79.6					196.5	196.5			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
113+20	113+60	RT											18.7					47.2	47.2			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
113+45	113+50	LT											1.6					3.6	3.6			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
115+40	115+79	RT											21.1					54.7	54.7			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
126+55	129+81	RT												326								INSTALL NEW VERTICAL GRANITE CURB
130+36	138+74	RT												806								INSTALL NEW VERTICAL GRANITE CURB
132+96	133+71	LT													80							REMOVE AND RESET EXISTING CURB
134+12	134+69	LT													68							REMOVE AND RESET EXISTING CURB
135+06	136+01	LT													102							REMOVE AND RESET EXISTING CURB
139+22	139+75	RT												54								INSTALL NEW VERTICAL GRANITE CURB
140+50	140+78	RT												30								INSTALL NEW VERTICAL GRANITE CURB
141+24	141+74	RT												55								INSTALL NEW VERTICAL GRANITE CURB
142+08	144+38	RT													271							REMOVE AND RESET EXISTING CURB
142+28	144+40	LT													200							REMOVE AND RESET EXISTING CURB
142+28	142+36	LT								1.3		1.6				0.9	8					CONSTRUCT SIDEWALK RAMP TYPE 1 STA. 142+32, EXAMPLE 2 (SEE STANDARD C3-A)
145+03	145+38	RT													50							REMOVE AND RESET EXISTING CURB
146+00	147+25	RT											33.7					73.2	73.2			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
148+00	148+25	RT											7.6					17.1	17.1			INSTALL STONE SLOPE STABILIZATION, SEE STEEP FILL SLOPE DETAIL ON DETAIL SHEET 2
249+27	249+35	RT								1.6		1.9				1.1	8					INSTALL NEW SIDEWALK RAMP TYPE I, EXAMPLE 2 (SEE STANDARD C3-A)
PROJECT SUBTOTALS			324.0	1812.5	35	12	28	14	1883.0	17579.7	383	32504.3	456.2	1271	771	2.0	16	957.7	2014.7	12	12	
ROUNDING			1.0	12.5	5	-	-	-	2.0	220.3	17	695.7	43.8	29	29	-	4	42.3	85.3	-	-	
TOTALS			325	1825	40	12	28	14	1885	17800	400	33200	500	1300	800	2	20	1000	2100	12	12	*25 CY 203.30 AND 25 SY 653.20 PER GUARDRAIL ANCHOR

* ITEM CARRIED FORWARD TO QUANTITIY SHEETS, DETAILED SUMMARY OF QUANTITIES.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
ITEM DETAIL SUMMARY SHEET

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE DETAIL SHEET

STATION	STATION	POS.	PIPE ID	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW	ES	CB	PRCDI	DEPTH DI	CONC CLASS B	REINF STEEL	DI GRATE	CHAN ELEV	CRM	TRENCH EXCAVATION		COMM EXC	UNC CHAN EXC	STRUCT EXCAV	SUBBASE CR. GRAV., FINE GRAD.	GRAN BORR	EROS MATT	STONE FILL		MARKER POSTS		
				INLET	OUTLET	IN	OUT	SPAN	RISE	L	D	L	PCCSP	CAAP	RCP	CSP	CPEP	PCCSP PI										EARTH	ROCK									LT	RT	
								IN	IN	FT	IN	FT	TH	TH	CL	TH	SL	TH	NO. DEG.	EA	EA		FT	CY	LBS	TYPE	EA	CY	CY	CY	CY	CY	CY	SY	CY	TYPE	EA	EA	
HARTFORD																																							
50+02		LT	15039								18	10					X										14.6	1.6				8.4					1	1	EXTEND CULVERT WITH CPEP PIPE @ INLET
75+49		RT	15041								18	8			III												45.4	5.0				14.4					1	1	EXTEND CULVERT WITH RCP PIPE @ OUTLET
90+03	90+21	RT-LT	15045								18	48					X										63.1	7.0				26.0					1	1	INSTALL NEW CULVERT; REMOVE EX CULVERT AND HEADWALLS
100+67	100+68	LT-RT	15047								18	48					X					1				A			93.3	10.4				27.4						1	INSTALL NEW STRUCTURE D1, AND CULVERT; REMOVE EXISTING
108+84		LT	15051								24	8			III												42.6	4.7				19.4					1	1	EXTEND WITH RCP PIPE @ INLET; REMOVE EXISTING HEADWALL
110+98	110+99	LT	15052								18	4			III							1				A			24.2	2.7				2.9						1	INSTALL NEW STRUCTURE D2, EXTEND CULVERT; REMOVE EXISTING DI STRUCTURE
125+56	125+63	RT	P1								18	55					X					1				A			65.1	7.2				42.5							INSTALL NEW STRUCTURE D11, CAP OUTLET FOR FUTURE USE
129+28	129+50	RT	P3								18	30.2					X					1				D			52.9	7.2				24.6							INSTALL NEW STRUCTURE D12, CAP OUTLET FOR FUTURE USE
129+53	130+39	RT	P9								18	85					X					1				D			95.1	10.5				64.2							INSTALL NEW STRUCTURE D18 AND CULVERT
133+24	133+30	RT	P6								18	32.3					X					1				D			40.7	4.5				25.6							INSTALL NEW STRUCTURE D14, CAP OUTLET FOR FUTURE USE
138+64	138+69	RT	P10								12	5	0.064														4.1	0.5				1.8							EXTEND CULVERT WITH PCCSP PIPE @ OUTLET
138+71	138+81	RT	P7								18	13					X					1				D			29.9	3.3				12.9							INSTALL NEW STRUCTURE D15 AND CONNECT CULVERT TO EXISTING STRUCTURE AT OUTLET

Culvert Summary

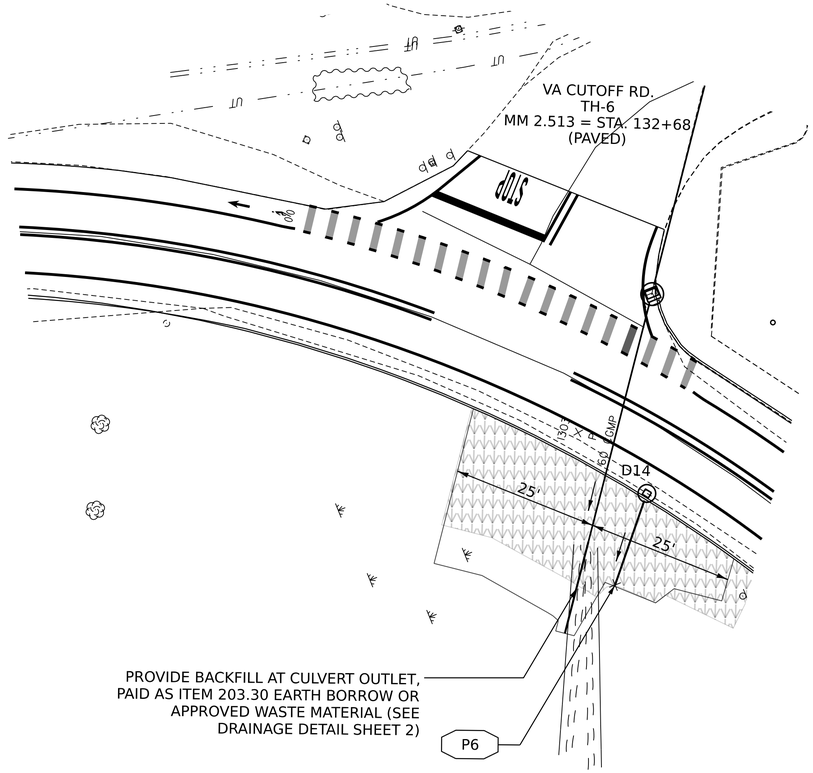
12 INCH PCCSP 0.064 (2-2/3X 1/2) =	5	LF
ROUNDING =	0	LF
TOTAL =	5	LF
18 INCH RCP CLASS III =	12	LF
ROUNDING =	18	LF
TOTAL =	40	LF
24 INCH RCP CLASS III =	8	LF
ROUNDING =	12	LF
TOTAL =	20	LF
18 INCH CPEP(SL) =	321	LF
ROUNDING =	4	LF
TOTAL =	325	LF

PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE TOTAL = 7 EACH

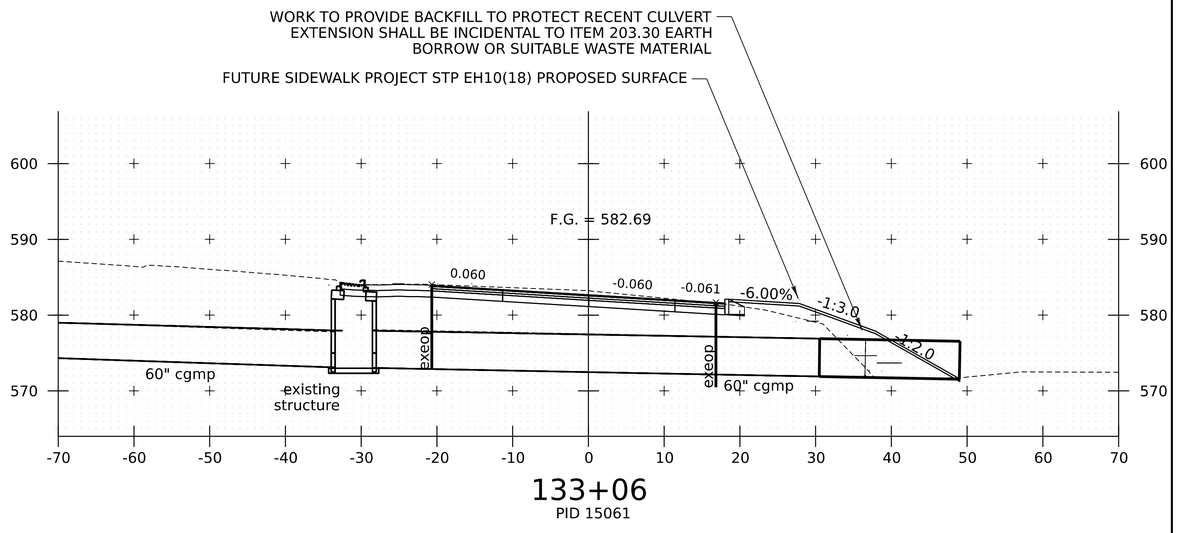
SUBTOTALS												346.0										7						570.8	64.6				270.1					4	6	
ROUNDING												34.0										-						-	-				-					-	-	TOTALS ARE CARRIED FORWARD TO THE QUANTITY SHEETS, DETAILED SUMMARY OF QUANTITIES ON QUANTITY SHEET 1
PROJECT TOTALS												390										7						570.8	64.6				270.1					4	6	

Stantec

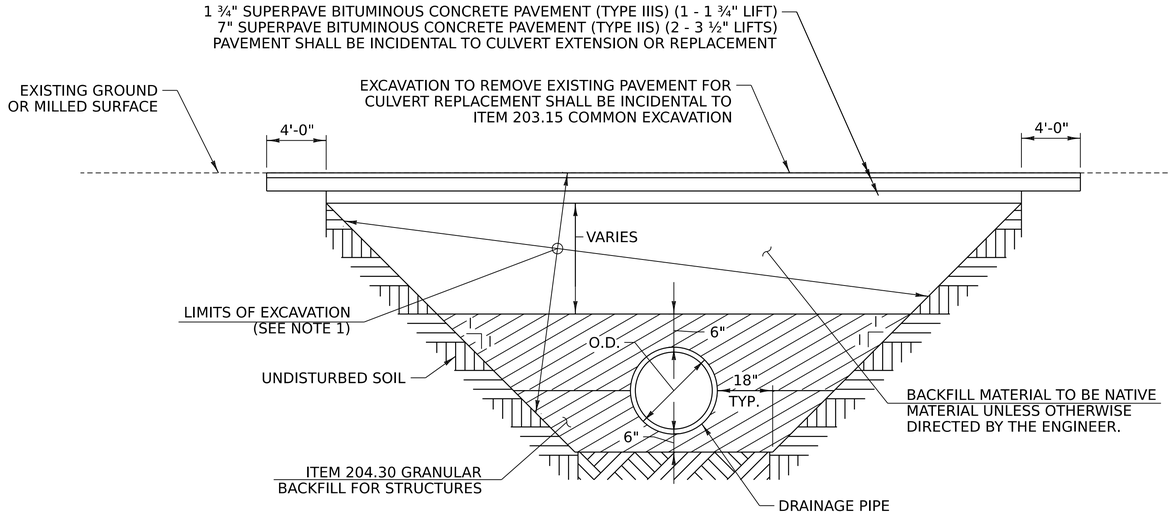
PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME: z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
DRAINAGE DETAIL SHEET 1	SHEET 100OF 210



CULVERT PID 15061 EMBANKMENT - PLAN VIEW



CULVERT PID 15061 EMBANKMENT - SECTION VIEW



CULVERT ROADWAY EXCAVATION DETAIL

SEE DRAINAGE DETAIL SHEET 1 FOR LOCATIONS

NOTES:

1. GRANULAR BACKFILL FOR STRUCTURES OR MATERIAL APPROVED BY BY THE ENGINEER SHALL BE PLACED IN SIX INCH LIFTS BENEATH THE PROPOSED LEVELING SURFACE.
2. EXCAVATING EXISTING BITUMINOUS PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 204.20 TRENCH EXCAVATIONOF EARTH.
3. THIS PROJECT INCLUDES CULVERTS THAT MAY REQUIRE EXCAVATION SUPPORT TO MEET SAFETY REGULATIONS. ALL COSTS ASSOCIATED WITH DESIGNING AND FURNISHING EXCAVATION SUPPORT SYSTEMS SHALL BE CONSIDERED INCIDENTAL TO ITEM 204.20 TRENCH EXCAVATION OF EARTH.
4. REFER TO CULVERT CROSS SECTION SHEETS TO ESTIMATE APPROXIMATE EXCAVATION DEPTHS.

NOT TO SCALE

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:z19v443_det.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
DRAINAGE DETAIL SHEET 2	SHEET 101OF 210

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. -1+00 TO 0+00 (APPROACH), SOLID LT & RT (EDGE LINES)
STA. 0+00 TO 3+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. -1+00 TO 0+00 (APPROACH), SOLID LT & RT
STA. 0+00 TO 3+50, SOLID LT & RT

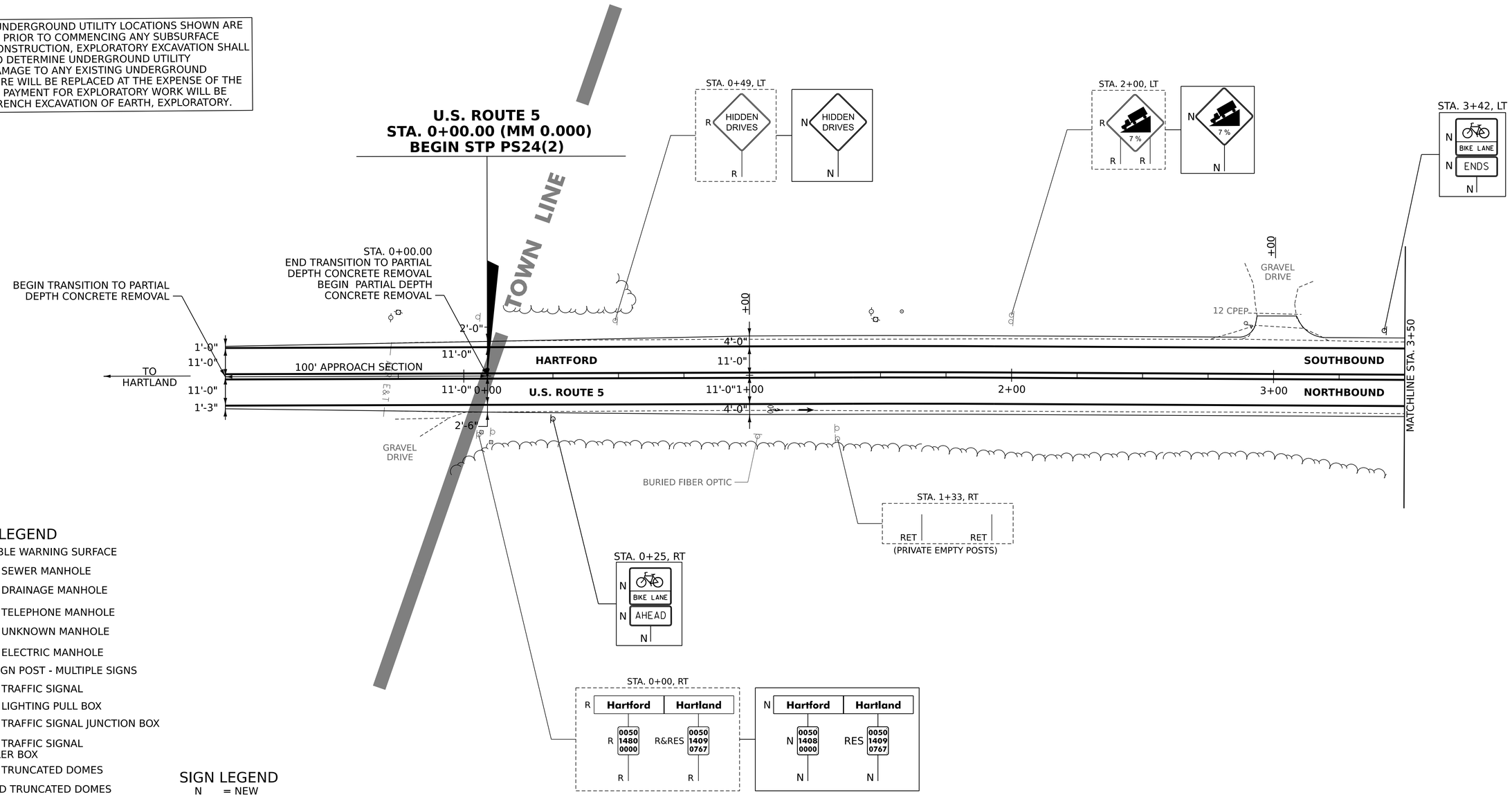
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 1+10, RT BIKE LANE SYMBOL
STA. 1+22, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 5

RESETTING SIGNS
AS SHOWN - 1

VT STATE PLANE GRID N

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



GENERAL LEGEND

DWS	= DETECTABLE WARNING SURFACE
SMH	= EXISTING SEWER MANHOLE
DMH	= EXISTING DRAINAGE MANHOLE
TMH	= EXISTING TELEPHONE MANHOLE
UMH	= EXISTING UNKNOWN MANHOLE
EMH	= EXISTING ELECTRIC MANHOLE
	= SINGLE SIGN POST - MULTIPLE SIGNS
	= EXISTING TRAFFIC SIGNAL
PB	= EXISTING LIGHTING PULL BOX
JB	= EXISTING TRAFFIC SIGNAL JUNCTION BOX
CT	= EXISTING TRAFFIC SIGNAL CONTROLLER BOX
	= EXISTING TRUNCATED DOMES
	= PROPOSED TRUNCATED DOMES
	= STONE FILL SLOPE STABILIZATION
	= PROPOSED SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
	= HELMETED BICYCLIST SYMBOL SEE MUTCD 2009 EDITION: PART 9, SECTION 9C.04 PAGE 806 & 809

SIGN LEGEND

N	= NEW
R	= REMOVE
R&RES	= REMOVE & RESETTING
RES	= RESETTING SIGN
RET	= RETAIN
B-B	= BACK TO BACK
R①	= REMOVE AND RETURN TO TOWN OF HARTFORD

NOTES:
1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 1

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 102OF 210

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 3+50 TO 7+50, SOLID LT & RT (EDGE LINES)
STA. 5+34 TO 6+14, DOTTED RT (2)
STA. 5+75, SOLID RT (EDGE LINES, BLAKE RD.)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 3+50 TO 7+50, SOLID LT & RT
STA. 5+75, DOUBLE SOLID RT (BLAKE RD.)

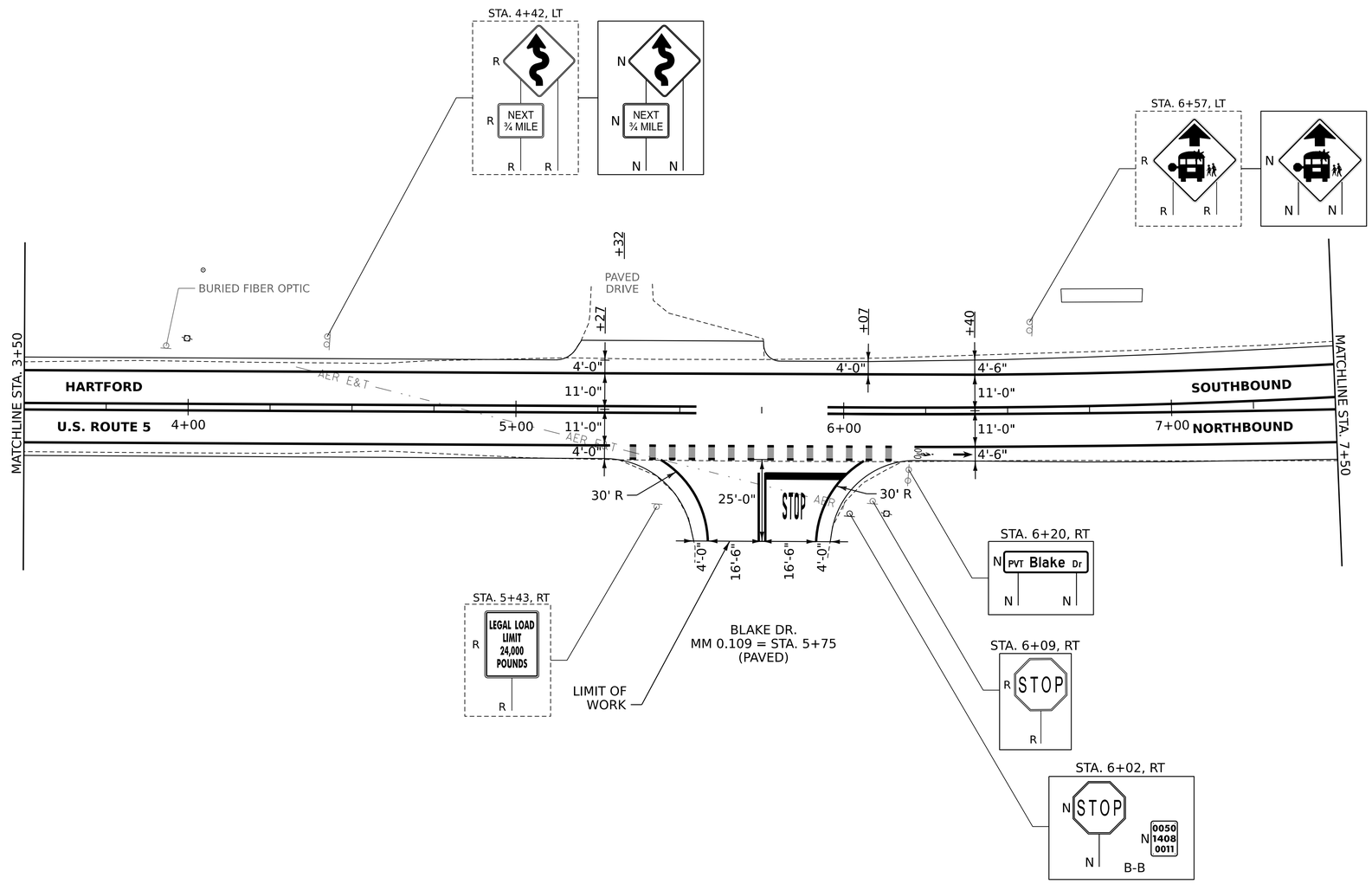
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 5+75, RT (BLAKE RD.)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 5+75, RT "STOP" (BLAKE RD.)
STA. 6+24, RT BIKE LANE SYMBOL
STA. 6+36, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 5

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 5+34 TO 6+14, BIKE LANE RT

N
VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 103OF 210

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 9+87 TO 12+75

STONE FILL, TYPE I
STA. 11+51 TO 12+50 ,LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 7+50 TO 12+75, SOLID LT & RT (EDGE LINES)
STA. 9+05 TO 10+09, DOTTED RT (2)
STA. 9+62, SOLID RT (EDGE LINES, QUARRY RD. TH-50)
STA. 9+66 TO 12+55, SOLID LT (LANE LINE)
STA. 12+55 TO 12+75, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 7+50 TO 7+57, SOLID LT & RT
STA. 7+57 TO 9+40, DOUBLE SOLID LT & RT (ISLAND)
STA. 9+62, DOUBLE SOLID RT (QUARRY RD. TH-50)
STA. 9+87 TO 12+75, DOUBLE SOLID RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 7+57 TO 9+40, SOLID LT & RT (DIAGONALS)

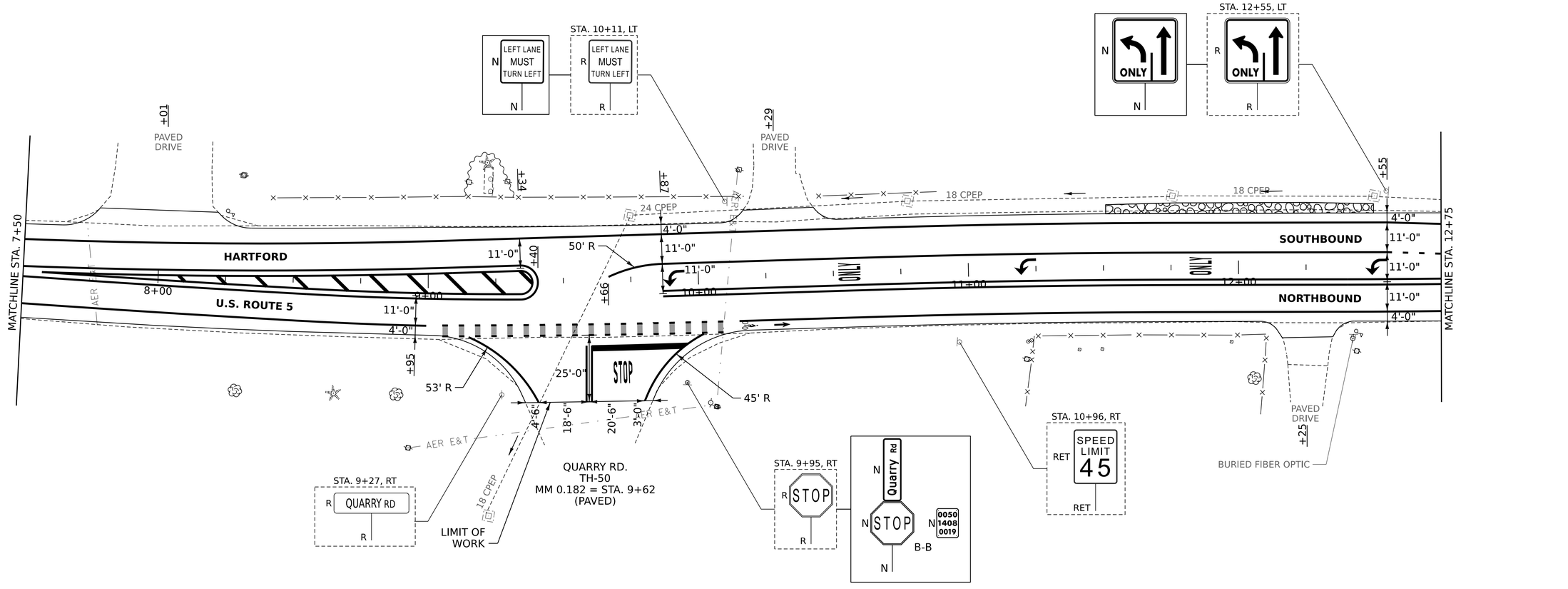
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 9+62, RT (QUARRY RD. TH-50)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 9+62, RT "STOP" (QUARRY RD. TH-50)
STA. 9+91, CL ARROW
STA. 10+19, RT BIKE LANE SYMBOL
STA. 10+31, RT BIKE LANE ARROW
STA. 10+56, CL "ONLY"
STA. 11+21, CL ARROW
STA. 11+86, CL "ONLY"
STA. 12+51, CL ARROW

REMOVING SIGNS
AS SHOWN - 4

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 9+05 TO 10+09, BIKE LANE RT

VT STATE PLANE GRID
N



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 3

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 104OF 210

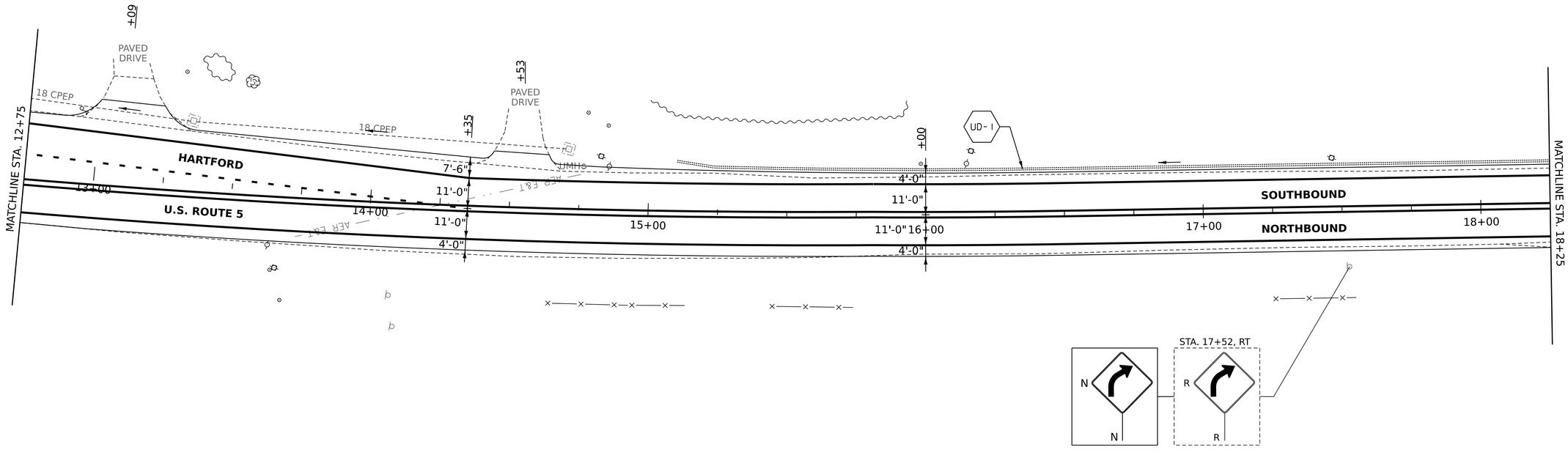
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 12+75 TO 18+15

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 12+75 TO 18+25, SOLID LT & RT (EDGE LINES)
STA. 12+75 TO 14+35, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 12+75 TO 18+25, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1

VT STATE PLANE GRID
N



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 4

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 105OF 210

STONE FILL, TYPE I
STA. 22+10 TO 23+22, RT
STA. 22+97 TO 24+25, LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 20+09.5 TO 20+34.5, RT
STA. 22+68.0 TO 22+93.0, LT
STA. 23+84.5 TO 24+09.5, RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 20+34.5 TO 23+84.5, RT
STA. 22+93.0 TO 24+25.0, LT

ANCHOR FOR STEEL BEAM RAIL
STA. 20+09.5, RT
STA. 22+68.0, LT
STA. 24+09.5, RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 20+89 TO 24+04, RT
STA. 22+68 TO 24+25, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 18+25 TO 24+25, SOLID LT & RT (EDGE LINES)
STA. 21+65 TO 22+62, DOTTED LT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 18+25 TO 24+25, SOLID LT & RT
STA. 22+13, DOUBLE SOLID LT (RUSTIC RD. TH-73)

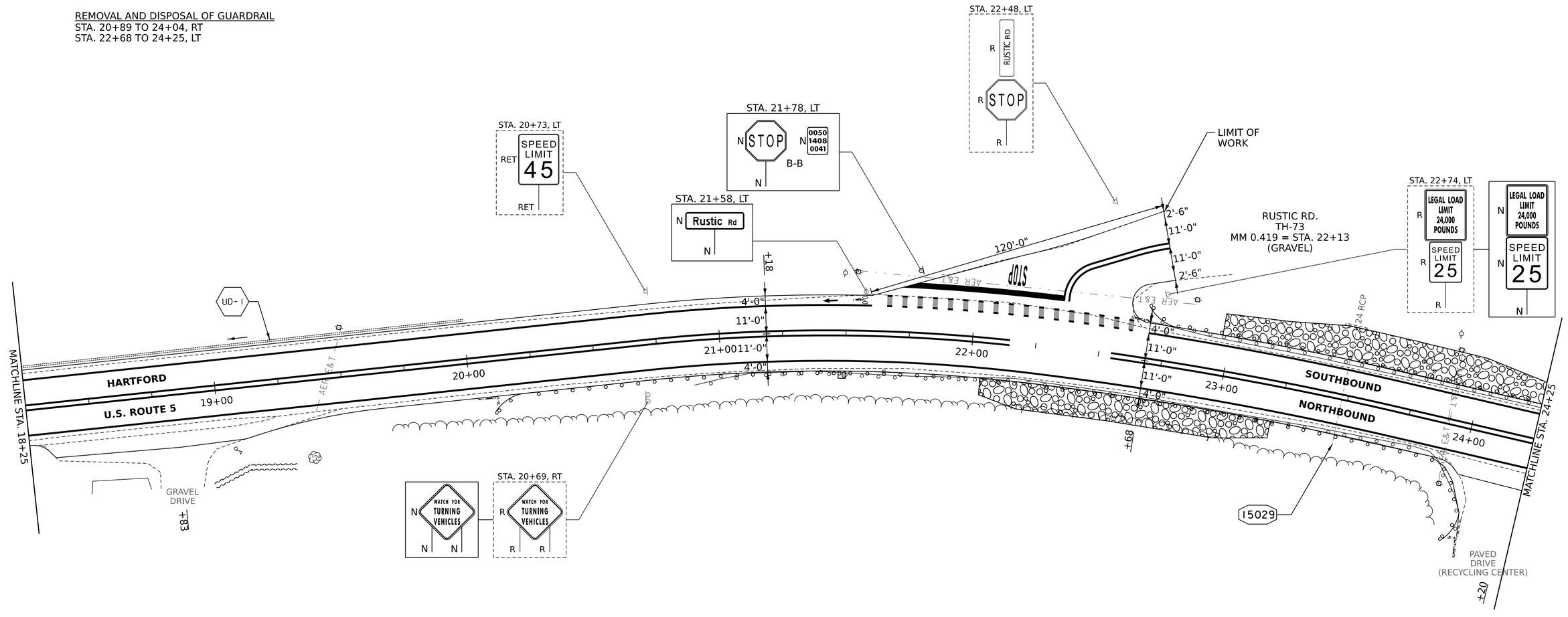
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 22+13, LT (RUSTIC RD. TH-73)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 21+44, LT BIKE LANE ARROW
STA. 21+56, LT BIKE LANE SYMBOL
STA. 22+13, LT "STOP" (RUSTIC RD. TH-73)

REMOVING SIGNS
AS SHOWN - 5

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 21+65 TO 22+62, BIKE LANE LT

VT STATE PLANE GRID N



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:
1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

EXISTING DRAINAGE

I5029 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 23+49, LT - RT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 5

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 106OF 210

STONE FILL, TYPE I
STA. 24+25 TO 24+54 ,LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 24+93.0 TO 25+18.0, LT
STA. 27+59.5 TO 27+84.5, RT
STA. 28+56.0 TO 28+81.0, LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 24+25.0 TO 24+93.0, LT
STA. 27+84.5 TO 29+75.0, RT
STA. 28+81.0 TO 29+75.0, LT

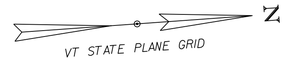
ANCHOR FOR STEEL BEAM RAIL
STA. 25+18.0, LT
STA. 27+59.5, RT
STA. 28+56.0, LT

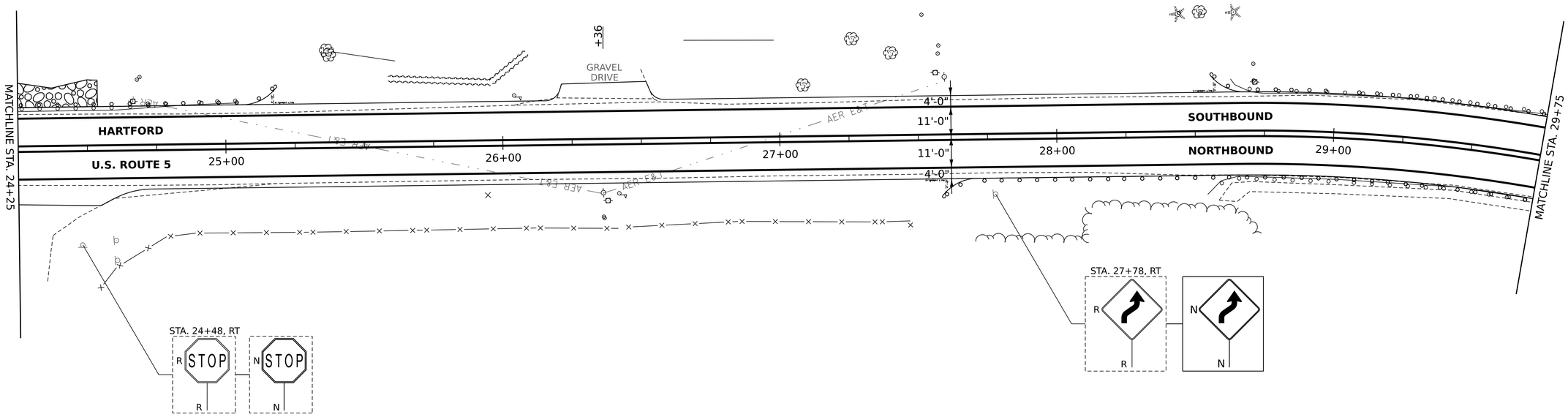
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 24+25 TO 25+05, LT
STA. 28+55 TO 29+75, RT
STA. 28+63 TO 29+75, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 24+25 TO 29+75, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 24+25 TO 29+75, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 2





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 6

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 107OF 210

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 33+65 TO 35+50

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 30+09.5 TO 30+34.5, RT
STA. 30+43.5 TO 30+68.5, LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 29+75.0 TO 30+09.5, RT
STA. 29+75.0 TO 30+43.5, LT

ANCHOR FOR STEEL BEAM RAIL
STA. 30+34.5, RT
STA. 30+68.5, LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 29+75 TO 30+32, RT
STA. 29+75 TO 30+56, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 29+75 TO 35+50, SOLID LT & RT (EDGE LINES)
STA. 30+77 TO 31+50, DOTTED LT (2)
STA. 33+09 TO 33+82, DOTTED RT (2)
STA. 33+45, SOLID RT (EDGE LINES, BALSAM LN.)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 29+75 TO 35+50, SOLID LT & RT
STA. 31+13, DOUBLE SOLID LT (NEAL RD. TH-79)
STA. 33+45, DOUBLE SOLID RT (BALSAM LN.)

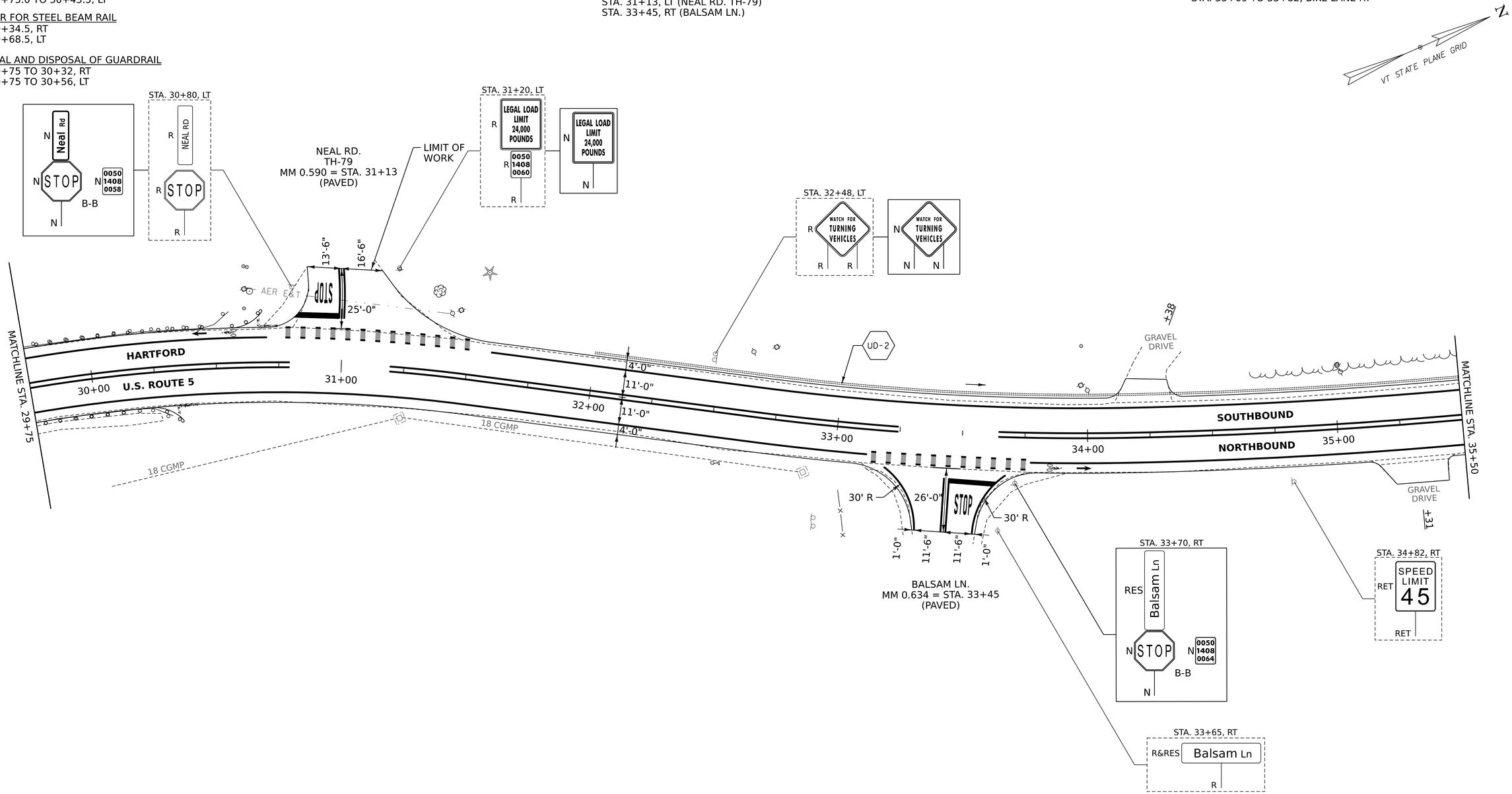
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 31+13, LT (NEAL RD. TH-79)
STA. 33+45, RT (BALSAM LN.)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 30+44, LT BIKE LANE ARROW
STA. 30+56, LT BIKE LANE SYMBOL
STA. 31+13, LT "STOP" (NEAL RD. TH-79)
STA. 33+45, RT "STOP" (BALSAM LN.)
STA. 33+87, RT BIKE LANE SYMBOL
STA. 33+99, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 6

RESETTING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 30+77 TO 31+50, BIKE LANE LT
STA. 33+09 TO 33+82, BIKE LANE RT



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 7

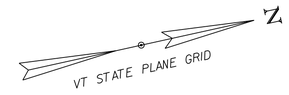
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 108OF 210

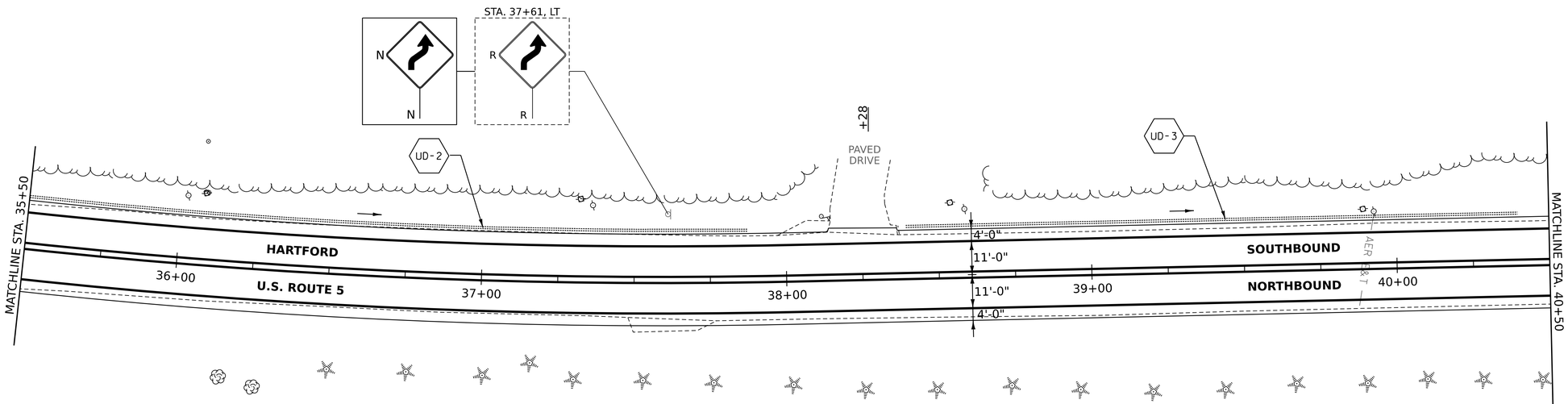
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 35+50 TO 40+50

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 35+50 TO 40+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 35+50 TO 40+50, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1





NOTES:

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0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 8

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 109OF 210

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 40+50 TO 46+00

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 44+86.0 TO 45+11.0, RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 45+11.0 TO 46+00.0, RT

ANCHOR FOR STEEL BEAM RAIL
STA. 44+86.0, RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 45+00 TO 46+00, RT

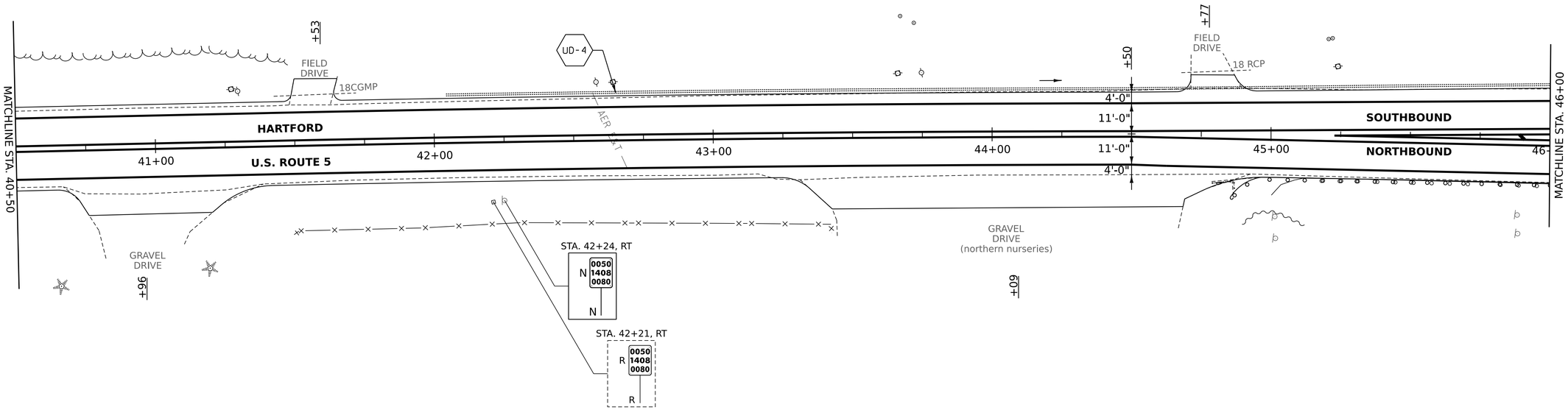
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 40+50 TO 46+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 40+50 TO 45+22, SOLID LT & RT
STA. 45+22 TO 46+00, DOUBLE SOLID LT & RT (ISLAND)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 45+22 TO 46+00, SOLID LT & RT (DIAGONALS)

REMOVING SIGNS
AS SHOWN - 1

N
VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 9

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 110OF 210

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 46+00 TO 51+25

STONE FILL, TYPE I
STA. 47+10 TO 47+45 ,LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 47+36.0 TO 47+61.0, RT
STA. 48+43.0 TO 48+68.0, RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 46+00.0 TO 47+36.0, RT
STA. 48+68.0 TO 51+25.0, RT

ANCHOR FOR STEEL BEAM RAIL
STA. 47+61.0, RT
STA. 48+43.0, RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 46+00 TO 47+61, RT
STA. 48+43 TO 51+25, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 46+00 TO 51+25, SOLID LT & RT (EDGE LINES)
STA. 47+92 TO 48+60, DOTTED RT (2)
STA. 48+27, SOLID RT (EDGE LINES, LESLE DR.)
STA. 48+33 TO 51+00, SOLID LT (LANE LINE)
STA. 51+00 TO 51+25, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 46+00 TO 48+07, DOUBLE SOLID LT & RT (ISLAND)
STA. 48+27, DOUBLE SOLID RT (LESLE DR.)
STA. 48+47 TO 51+25, DOUBLE SOLID RT

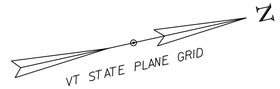
DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 46+00 TO 48+07, SOLID LT & RT (DIAGONALS)

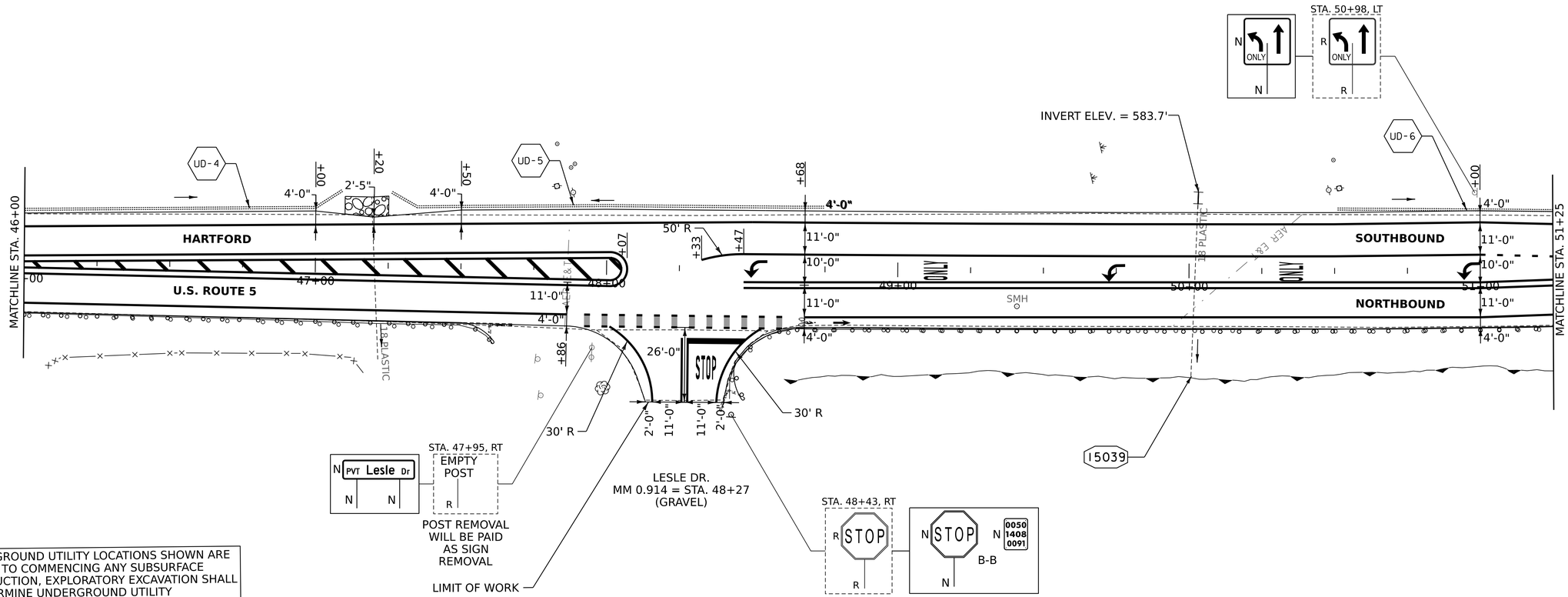
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 48+27, RT (LESLE DR.)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 48+27, RT "STOP" (LESLE DR.)
STA. 48+51, CL ARROW
STA. 48+69, RT BIKE LANE SYMBOL
STA. 48+81, RT BIKE LANE ARROW
STA. 49+13, CL "ONLY"
STA. 49+74, CL ARROW
STA. 50+35, CL "ONLY"
STA. 50+96, CL ARROW

REMOVING SIGNS
AS SHOWN - 3

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 47+92 TO 48+60, BIKE LANE RT





ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 48+61 - 51+25	RT	WETLAND

EXISTING DRAINAGE

15039 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 50+02, LT - RT

NEW DRAINAGE

PIPE ID	LOCATION	COMMENTS
15039	STA. 50+02, LT	EXTEND EXISTING 18" PIPE 18"X4' CPEP(SL), LT - 10' INCLUDED FOR CONNECTION

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 10

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 111OF 210

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 51+25 TO 57+25

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 54+93.0 TO 55+18.0, RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 51+25.0 TO 54+93.0, RT

ANCHOR FOR STEEL BEAM RAIL
STA. 55+18.0, RT

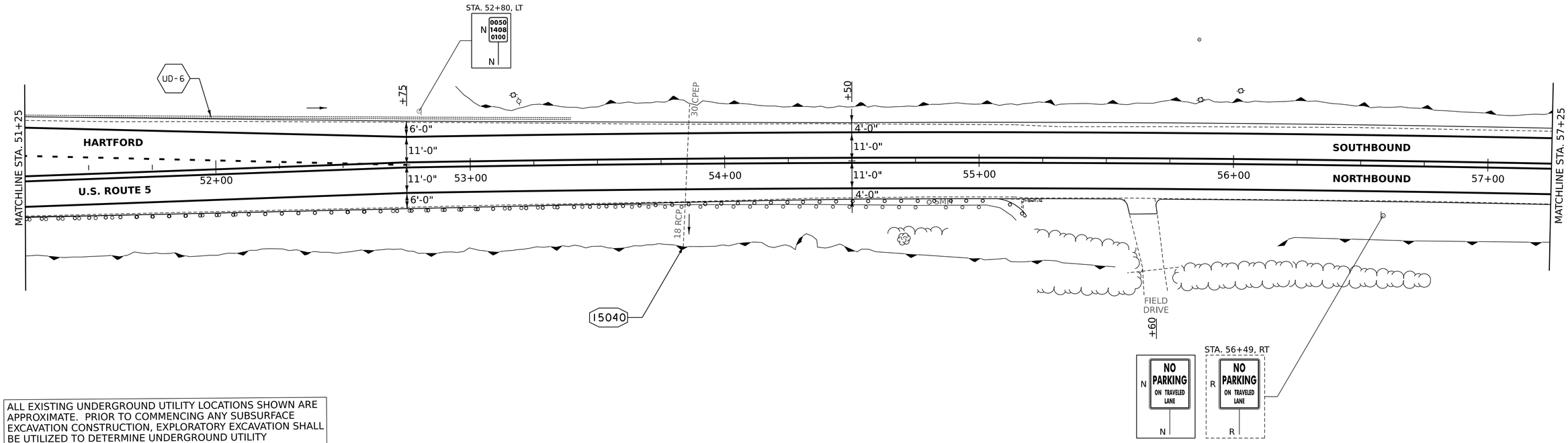
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 51+25 TO 55+15, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 51+25 TO 57+25, SOLID LT & RT (EDGE LINES)
STA. 51+25 TO 52+75, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 51+25 TO 52+75, DOUBLE SOLID RT
STA. 52+75 TO 57+25, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1

VT STATE PLANE GRID



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 51+25 - 55+54	RT	WETLAND
STA. 52+96 - 57+25	LT	WETLAND
STA. 56+19 - 57+25	RT	WETLAND

EXISTING DRAINAGE

15040 CLEANING CULV. PIPE IN-PLACE [GREATER THAN 24 IN.]
STA. 53+85, LT - RT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 11

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 112OF 210

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 57+25 TO 60+85
STA. 61+25 TO 63+00

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 57+25 TO 63+00, SOLID LT & RT (EDGE LINES)
STA. 60+70 TO 61+38, DOTTED RT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 57+25 TO 63+00, SOLID LT & RT

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 61+04, RT (DREW RD. TH-76)

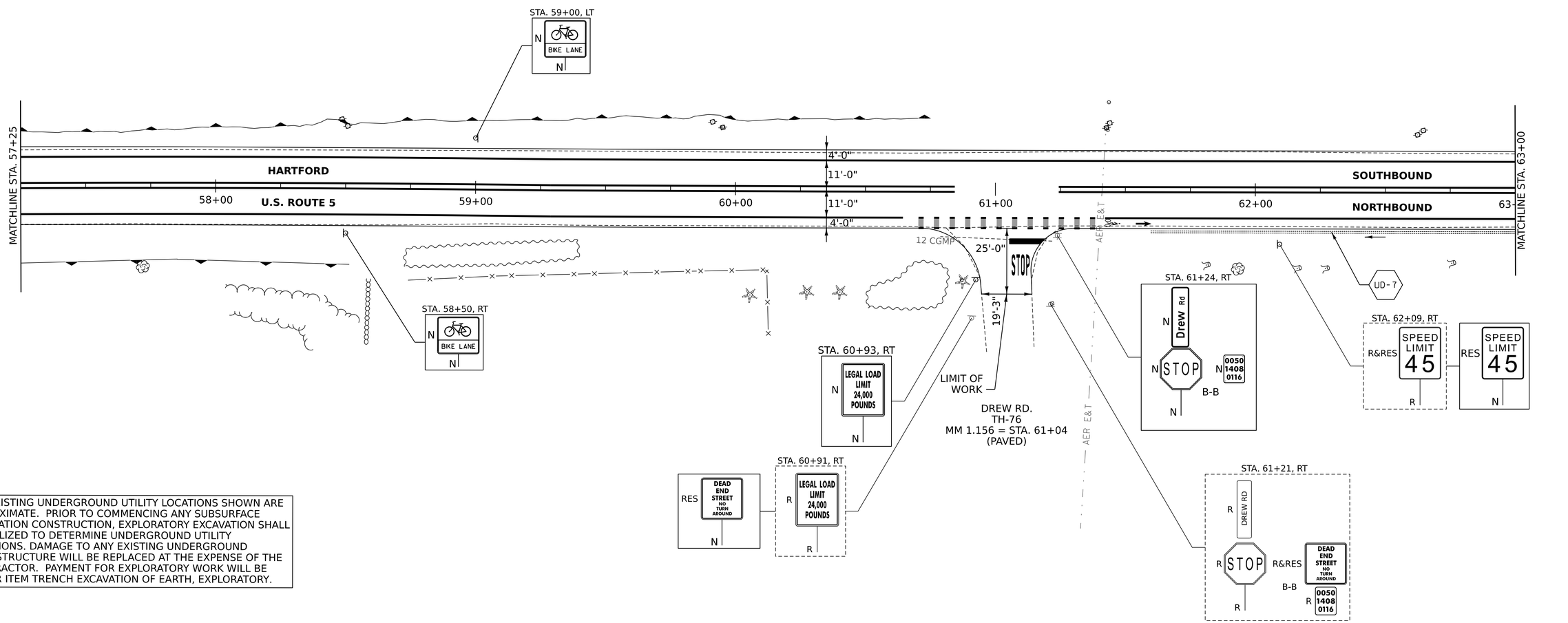
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 61+04, RT "STOP" (DREW RD. TH-76)
STA. 61+44, RT BIKE LANE SYMBOL
STA. 61+56, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 6

RESETTING SIGNS
AS SHOWN - 2

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 60+70 TO 61+38, BIKE LANE RT

VT STATE PLANE GRID



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 57+25 - 58+52	LT	WETLAND
STA. 57+25 - 60+75	RT	WETLAND

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 12

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 113OF 210

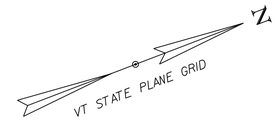
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 63+00 TO 67+30

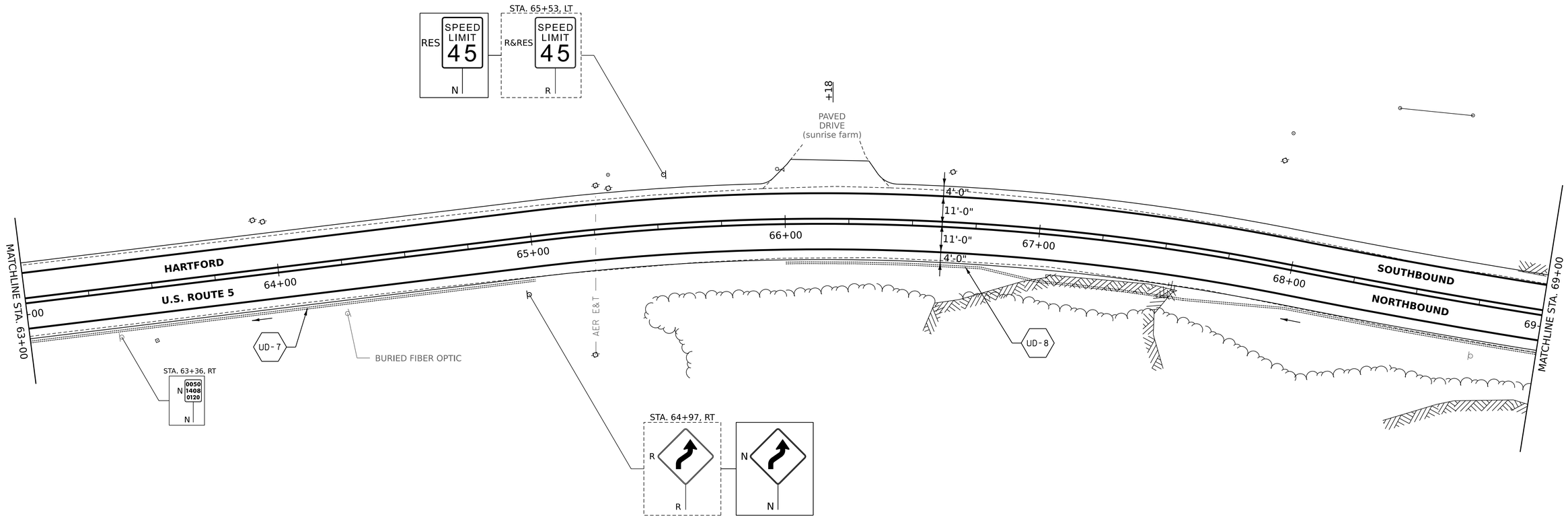
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 63+00 TO 69+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 63+00 TO 69+00, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 2

RESETTING SIGNS
AS SHOWN - 1





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
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0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 13

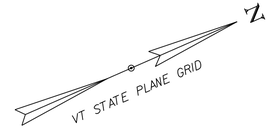
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 114OF 210

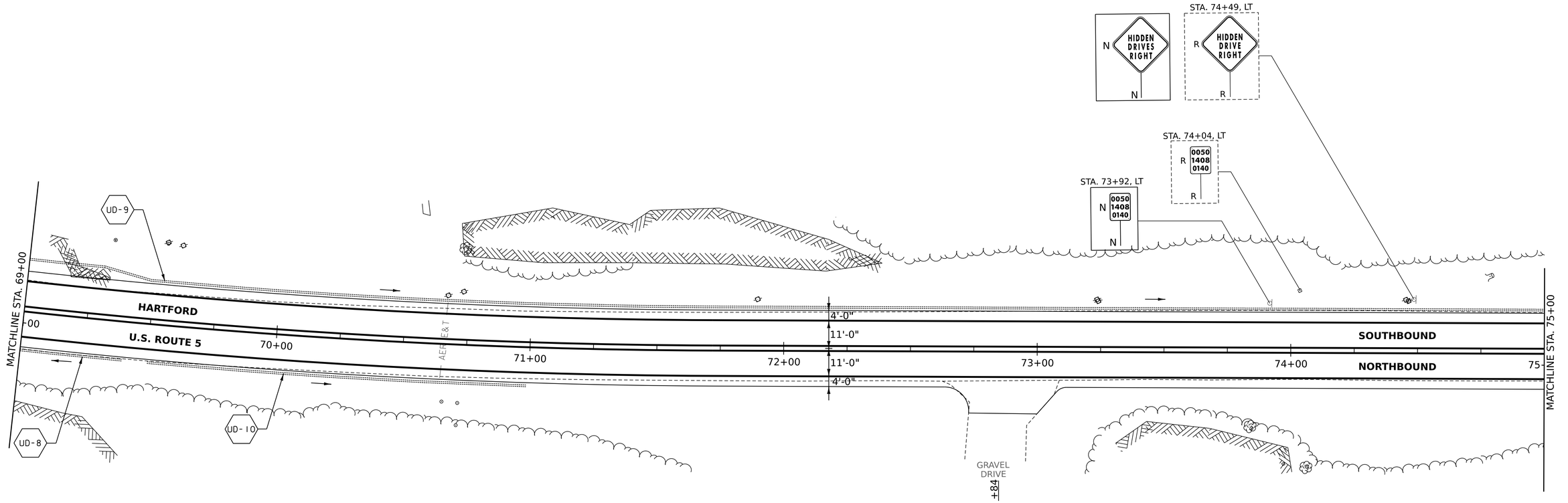
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 69+60 TO 75+00

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 69+00 TO 75+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 69+00 TO 75+00, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 2





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
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0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 14

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 115OF 210

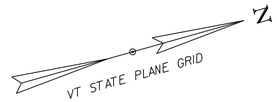
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 75+00 TO 80+50

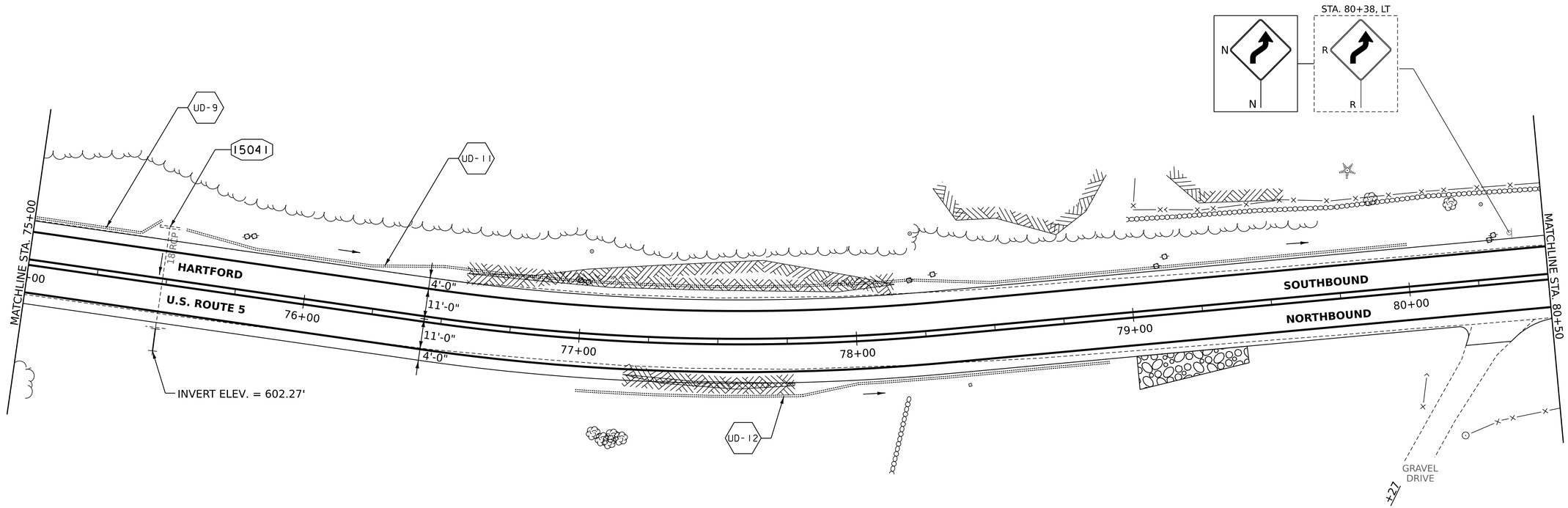
STONE FILL, TYPE I
STA. 79+00 TO 80+00, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 75+00 TO 80+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 75+00 TO 80+50, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1





ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

EXISTING DRAINAGE

15041 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 75+49, LT - RT

NEW DRAINAGE

PIPE ID	LOCATION	COMMENTS
15041	STA. 75+49, RT	EXTEND EXISTING 18" RCP 18"X8' RCP, RT - 20' INCLUDED FOR CONNECTION REMOVE EXISING HEADWALL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:	z19v443_bdr.dgn
PROJECT LEADER:	M. FOISY
DESIGNED BY:	G. BURGMEIER
PLAN SHEET	15
PLOT DATE:	3-AUG-2023
DRAWN BY:	H. LUCAS
CHECKED BY:	M. FOISY
SHEET	116 OF 210

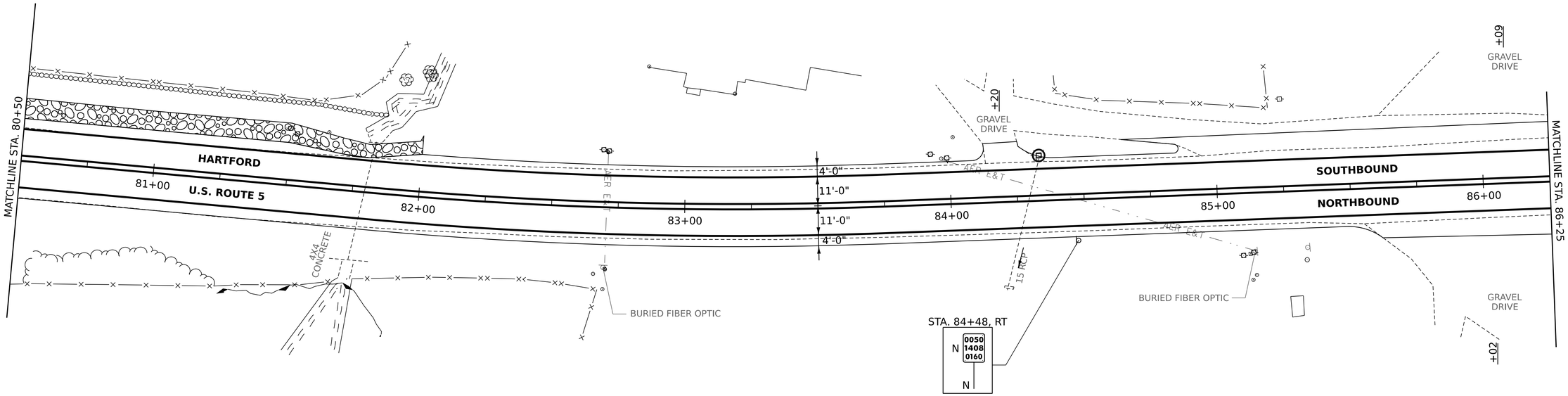
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 80+50 TO 81+84

STONE FILL, TYPE I
STA. 80+50 TO 82+00, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 80+50 TO 86+25, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 80+50 TO 86+25, SOLID LT & RT

N
VT STATE PLANE GRID



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 81+28 - 81+90	RT	WETLAND

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:z19v443_bdr.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: H. LUCAS
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
PLAN SHEET 16	SHEET 117OF 210

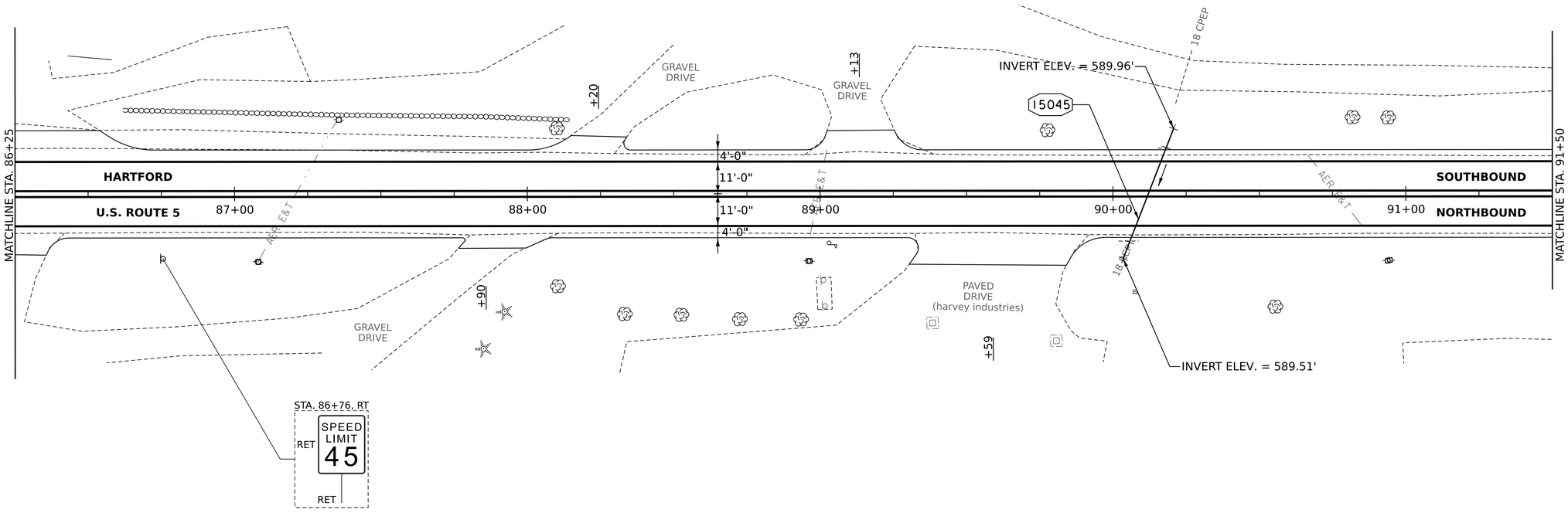
MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 88+30 TO 91+50

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 86+25 TO 91+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 86+25 TO 91+50, SOLID LT & RT

N

VT STATE PLANE GRID



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

NEW DRAINAGE

PIPE ID	LOCATION	COMMENTS
15045	STA. 90+03 OFFSET = 22.2', RT TO STA. 90+21 OFFSET = 22.2', LT	REMOVE EXISTING 18" RCP AND HEADWALLS NEW 18" CPEP(SL) X 48FT; INV. IN = 589.96'; INVERT OUT = 589.51'

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 17

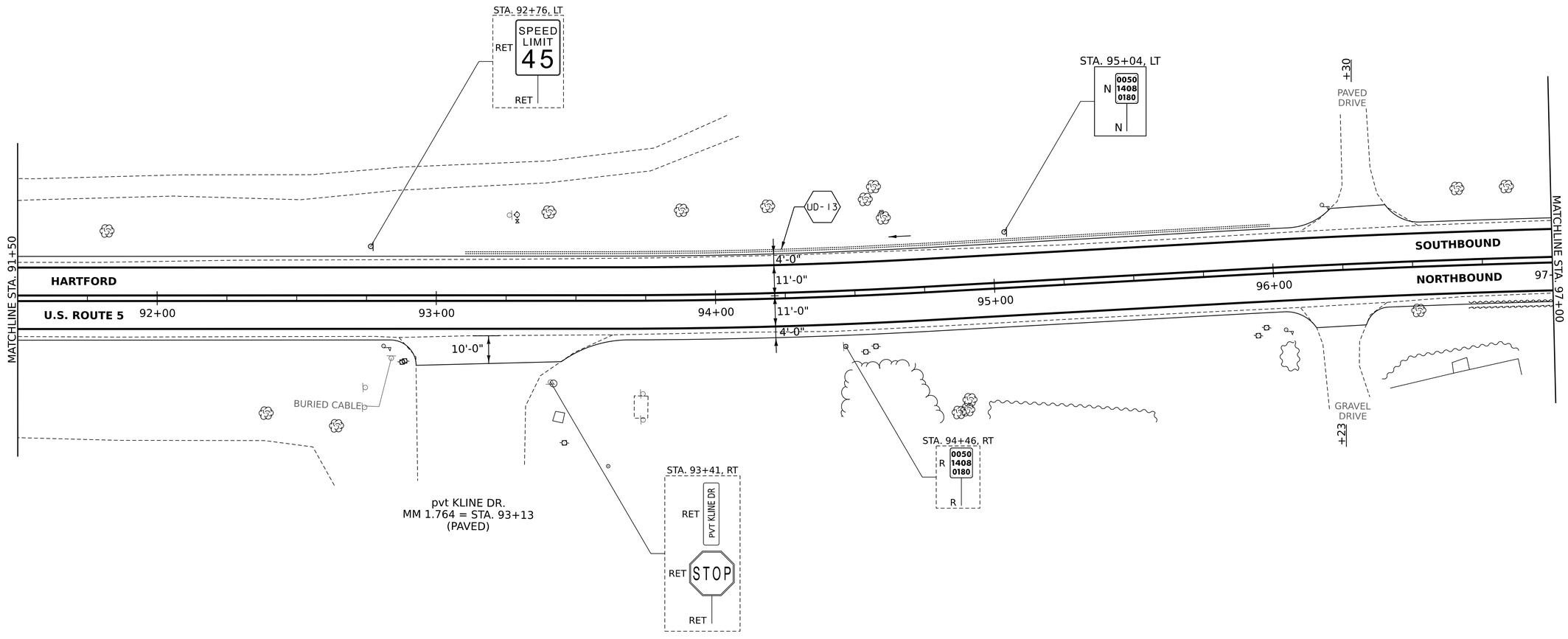
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 118OF 210

MILLED RUMBLE STRIPS (SINUSOIDAL CENTERLINE)
STA. 91+50 TO 95+39

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 91+50 TO 97+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 91+50 TO 97+00, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

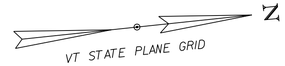
FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 18

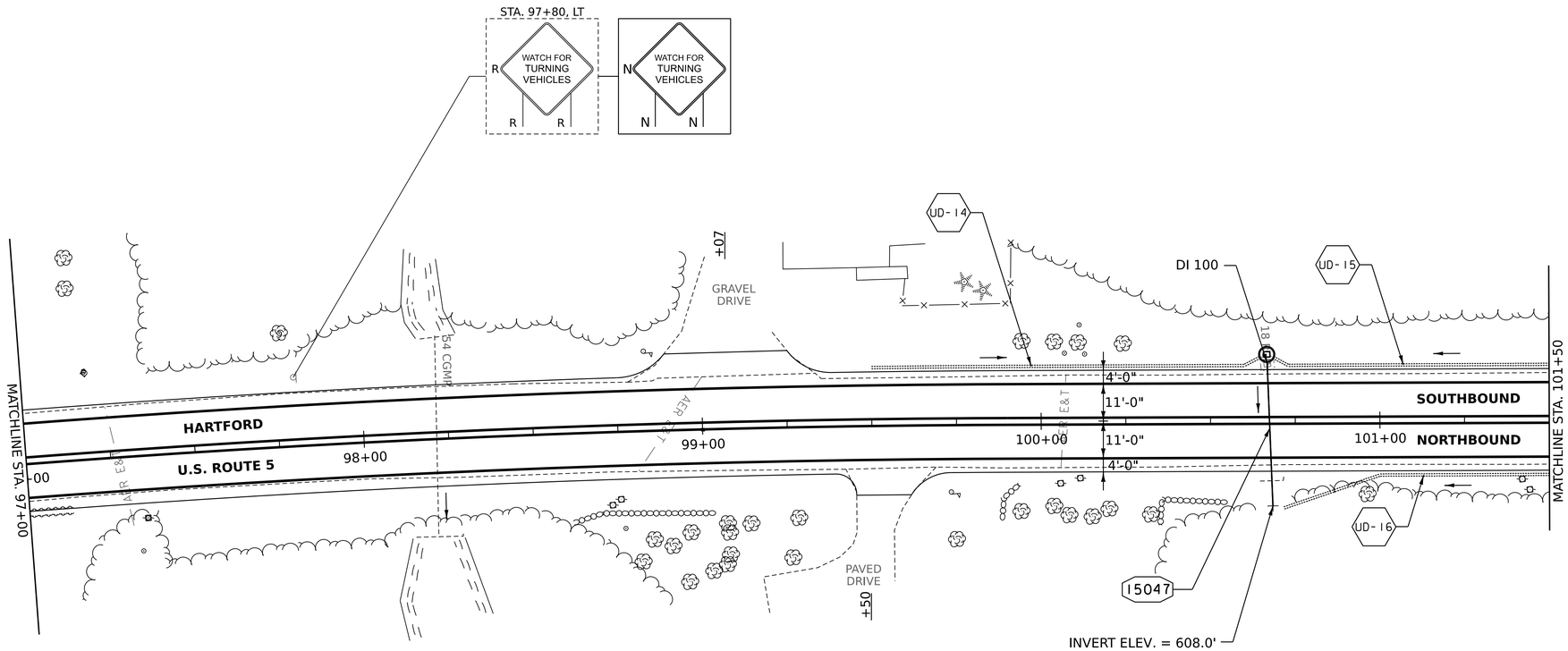
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 119OF 210

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 97+00 TO 101+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 97+00 TO 101+50, SOLID LT & RT

REMOVING SIGNS
AS SHOWN - 1





ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

NEW DRAINAGE

DI 100	STA 100+67, 19.5', LT	TYPE A GRATE, RIM ELEV. = 611.5'

PIPE ID	LOCATION	COMMENTS
15047	STA. 100+67 OFFSET = 17.5', RT TO STA. 100+68 OFFSET = 25.2', LT	REMOVE EXISTING STRUCTURE AND 18" RCP NEW 18" CPEP(SL) X 48FT; INV. IN = 609.00'; INVERT OUT = 608.00'

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 19

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 120OF 210

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 101+50 TO 107+50, SOLID LT & RT (EDGE LINES)
STA. 102+38 TO 102+76, DOTTED RT (2)
STA. 105+26 TO 105+82, DOTTED LT (2)

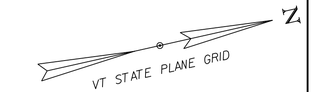
DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 101+50 TO 107+50, SOLID LT & RT
STA. 105+55, DOUBLE SOLID LT (REMICK RD., TH-284)

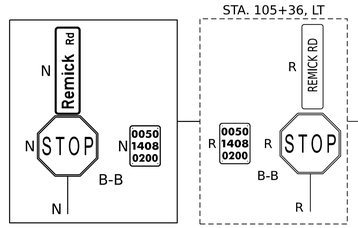
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 102+53, RT (MELISI RD., TH-295)
STA. 105+55, LT (REMICK RD., TH-284)

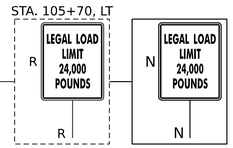
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 102+94, RT BIKE LANE SYMBOL
STA. 103+06, RT BIKE LANE ARROW
STA. 104+94, LT BIKE LANE ARROW
STA. 105+06, LT BIKE LANE SYMBOL
STA. 105+55, LT "STOP" (REMICK RD., TH-284)

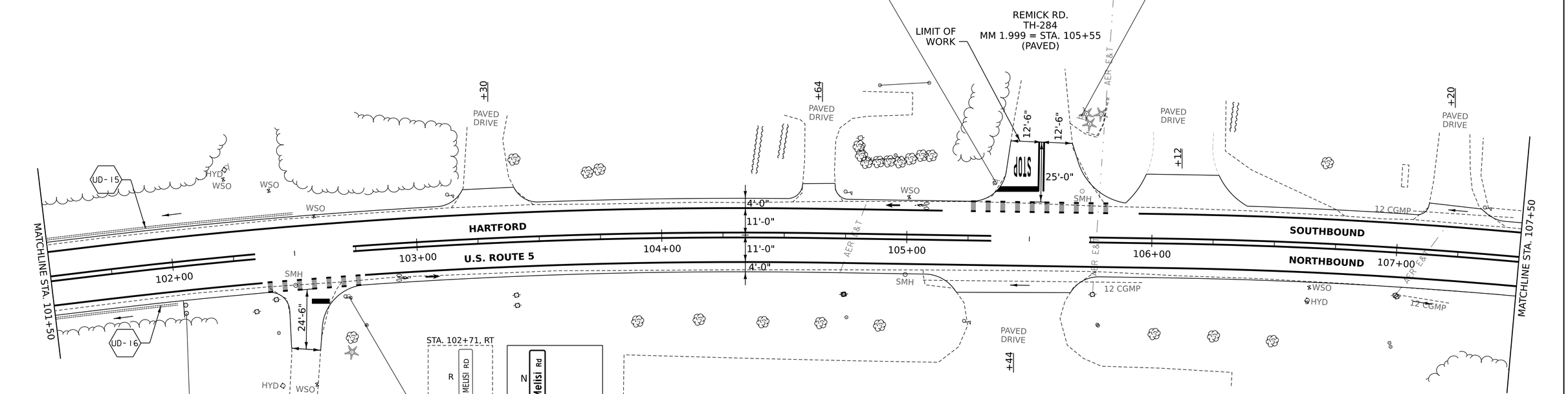
REMOVING SIGNS
AS SHOWN - 7

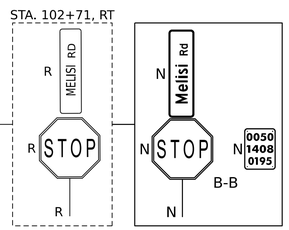
SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 102+38 TO 102+76, BIKE LANE RT
STA. 105+26 TO 105+82, BIKE LANE LT

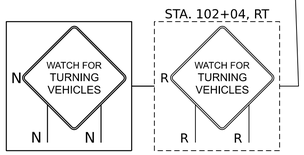












MELISI RD.
TH-75
MM 1.942 = STA. 102+53
(PAVED)

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

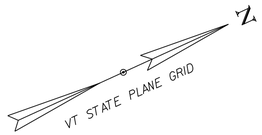
FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 20

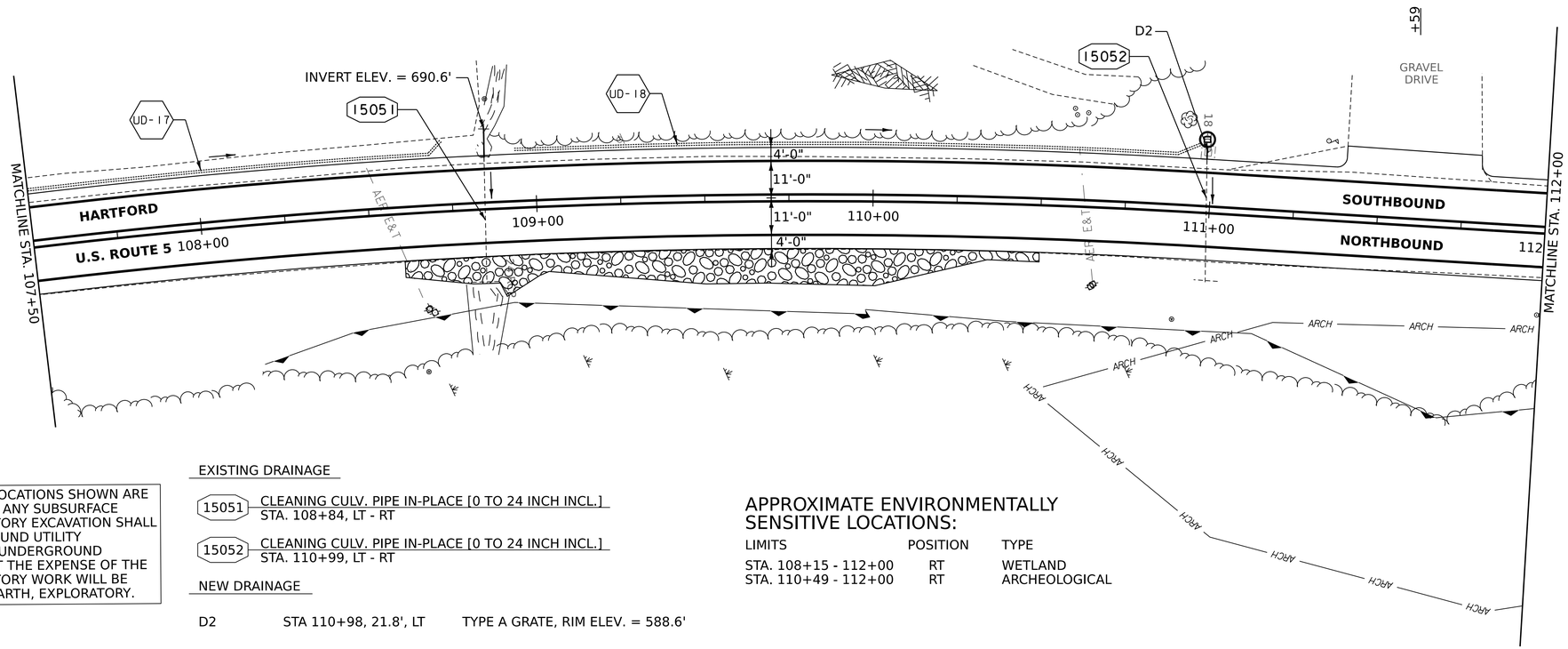
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 121OF 210

STONE FILL, TYPE I
STA. 108+60 TO 110+50, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 107+50 TO 112+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 107+50 TO 112+00, SOLID LT & RT





ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

EXISTING DRAINAGE

15051 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 108+84, LT - RT

15052 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 110+99, LT - RT

NEW DRAINAGE

D2 STA 110+98, 21.8', LT TYPE A GRATE, RIM ELEV. = 588.6'

PIPE ID	LOCATION	COMMENTS
15051	STA. 108+84, LT	REMOVE EXISTING HEADWALL AND EXTEND EXISTING 24" PIPE 24"X8' RCP, LT - 20' INCLUDED FOR CONNECTION
15052	STA. 110+99 OFFSET = 19.8', LT TO STA 110+99 OFFSET = 12.8', LT	REMOVE EXISTING STRUCTURE INSTALL NEW STRUCTURE EXTEND EXISTING 18" RCP; INVERT IN = 584.4' 18"X4' RCP, LT - 10' INCLUDED FOR CONNECTION

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 108+15 - 112+00	RT	WETLAND
STA. 110+49 - 112+00	RT	ARCHEOLOGICAL

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

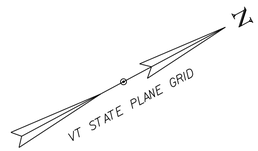
FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 21

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 122OF 210

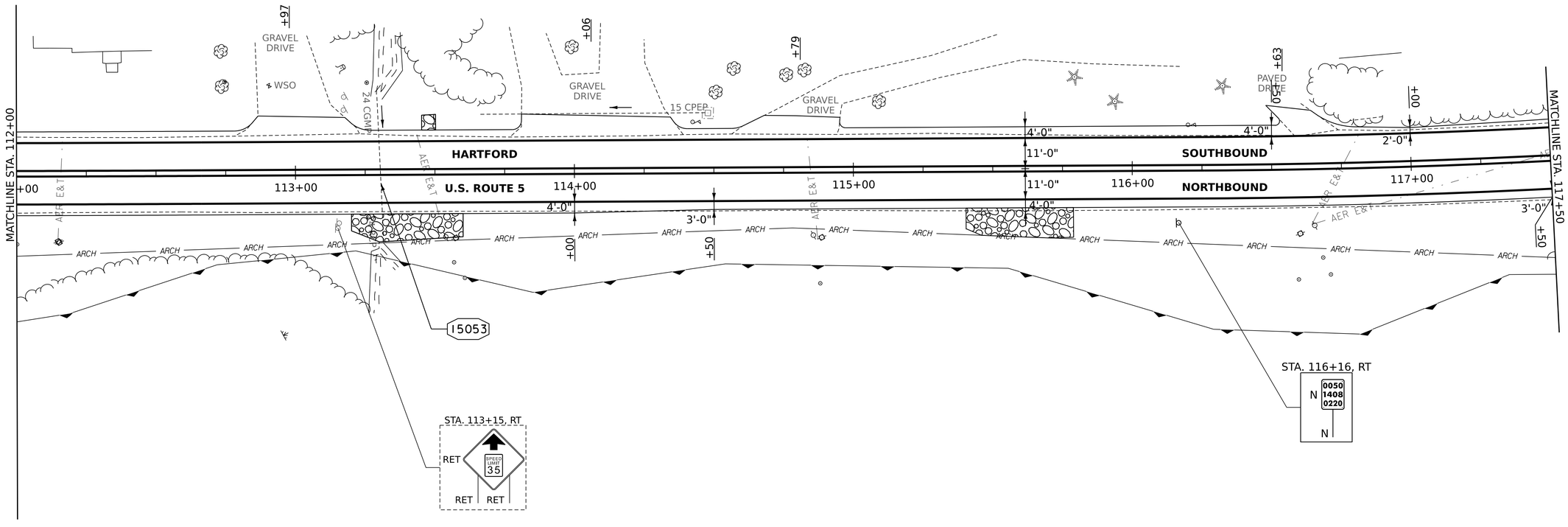
STONE FILL, TYPE I
STA. 113+20 TO 113+60, RT
STA. 113+45 TO 113+50, LT
STA. 115+40 TO 115+79, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 112+00 TO 117+50, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 112+00 TO 117+50, SOLID LT & RT



ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

EXISTING DRAINAGE

15053 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 113+30 LT-RT

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 112+00 - 117+50	RT	WETLAND
STA. 112+00 - 117+50	RT	ARCHEOLOGICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 22

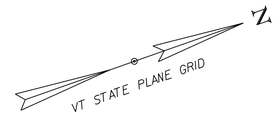
PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 123OF 210

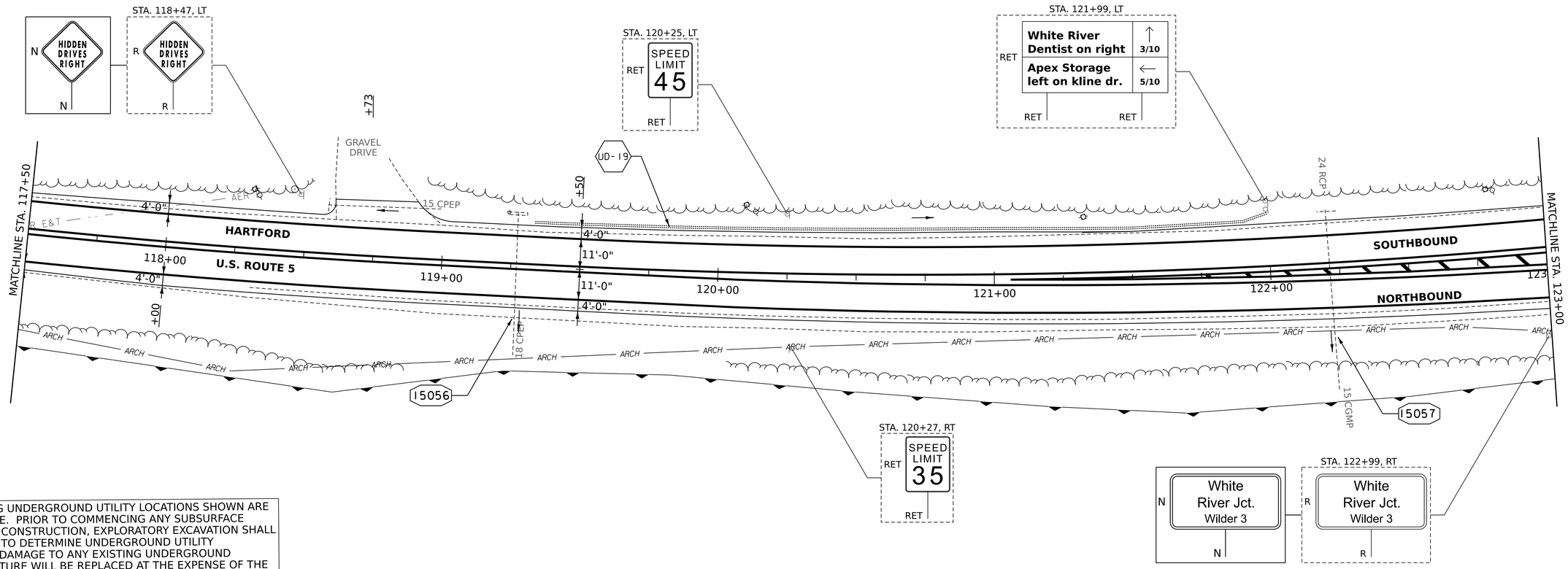
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 117+50 TO 123+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 117+50 TO 121+05, SOLID LT & RT
STA. 121+05 TO 123+00, DOUBLE SOLID LT & RT (ISLAND)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 121+05 TO 123+00, SOLID LT & RT (DIAGONALS)

REMOVING SIGNS
AS SHOWN - 2





ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 117+50 - 123+00	RT	WETLAND
STA. 117+50 - 123+00	RT	ARCHEOLOGICAL

EXISTING DRAINAGE

15056 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 119+27, LT - RT

15057 CLEANING CULV. PIPE IN-PLACE [0 TO 24 INCH INCL.]
STA. 122+20, LT - RT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 23

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 124OF 210

THINNING AND TRIMMING FOR SIGNS
STA. 126+76, RT

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

VERTICAL GRANITE CURB
STA. 126+55 TO 129+00, RT

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 123+00 TO 129+00, SOLID LT & RT (EDGE LINES)
STA. 124+04 TO 124+90, DOTTED RT (2)
STA. 124+43, SOLID RT (EDGE LINES ARBORETUM LN. TH-295)
STA. 124+43, SOLID RT (LANE LINE, ARBORETUM LN. TH-295)
STA. 124+52 TO 126+47, SOLID LT (LANE LINE)
STA. 126+27 TO 127+07, DOTTED LT (2)
STA. 126+66, SOLID LT (EDGE LINES WRIGHT RESERVOIR RD. TH-47)
STA. 126+87 TO 128+30, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 123+00 TO 124+24, DOUBLE SOLID LT & RT (ISLAND)
STA. 124+43, DOUBLE SOLID RT (ARBORETUM LN. TH-295)
STA. 124+67 TO 126+47, DOUBLE SOLID RT
STA. 126+66, DOUBLE SOLID LT (WRIGHT RESERVOIR RD. TH-47)
STA. 126+87 TO 129+00, DOUBLE SOLID LT & RT (ISLAND)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 123+00 TO 124+24, SOLID LT & RT (DIAGONALS)
STA. 126+87 TO 129+00, SOLID LT & RT (DIAGONALS)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 124+43, RT (ARBORETUM LN. TH-295)
STA. 126+66, LT (WRIGHT RESERVOIR RD. TH-47)

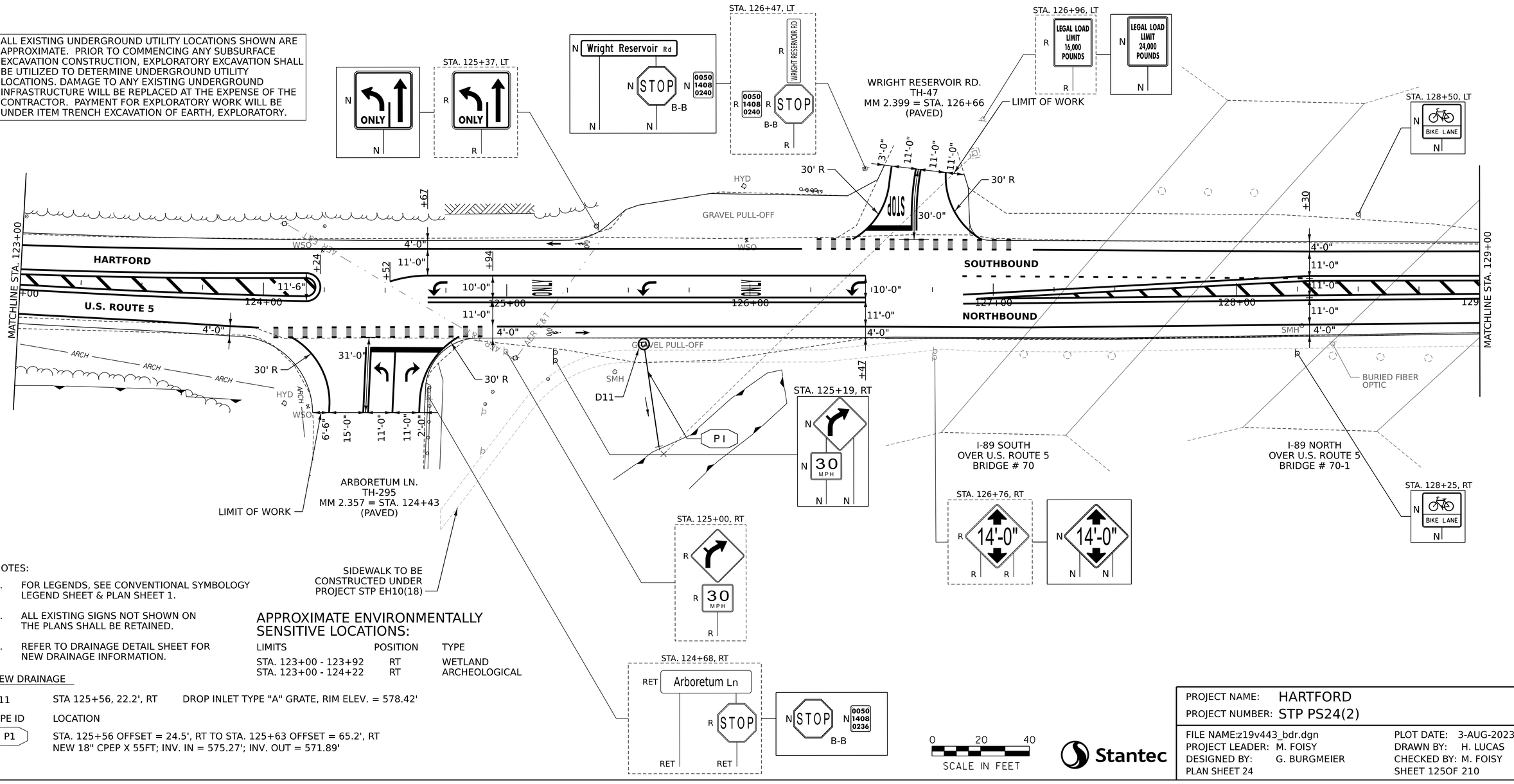
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 124+43, RT ARROWS (2) (ARBORETUM LN. TH-295)
STA. 124+71, CL ARROW
STA. 125+14, CL "ONLY"
STA. 125+19, RT BIKE LANE SYMBOL
STA. 125+31, RT BIKE LANE ARROW
STA. 125+19, LT BIKE LANE ARROW
STA. 125+31, LT BIKE LANE SYMBOL
STA. 125+58, CL ARROW
STA. 126+00, CL "ONLY"
STA. 126+43, CL ARROW
STA. 126+66, LT "STOP" (WRIGHT RESERVOIR RD. TH-47)

REMOVING SIGNS
AS SHOWN - 9

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 124+04 TO 124+90, BIKE LANE RT
STA. 126+27 TO 127+07, BIKE LANE LT

VT STATE PLANE GRID

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 123+00 - 123+92	RT	WETLAND
STA. 123+00 - 124+22	RT	ARCHEOLOGICAL

NEW DRAINAGE

D11	STA 125+56, 22.2', RT	DROP INLET TYPE "A" GRATE, RIM ELEV. = 578.42'
PIPE ID	LOCATION	
P1	STA. 125+56 OFFSET = 24.5', RT TO STA. 125+63 OFFSET = 65.2', RT NEW 18" CPEP X 55FT; INV. IN = 575.27'; INV. OUT = 571.89'	

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME:z19v443_bdr.dgn	PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY	DRAWN BY: H. LUCAS
DESIGNED BY: G. BURGMEIER	CHECKED BY: M. FOISY
PLAN SHEET 24	SHEET 125OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

VERTICAL GRANITE CURB
STA. 129+00 TO 129+81, RT
STA. 130+36 TO 134+00, RT

REMOVING AND RESETTING CURB
STA. 132+96 TO 133+71, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 129+00 TO 134+00, SOLID LT & RT (EDGE LINES)
STA. 132+11 TO 133+17, DOTTED LT (2)
STA. 132+68, SOLID LT (EDGE LINES, VA CUTOFF RD. TH-6)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 129+00 TO 130+88, DOUBLE SOLID LT & RT (ISLAND)
STA. 130+88 TO 134+00, SOLID LT & RT
STA. 132+68, DOUBLE SOLID LT (VA CUTOFF RD, TH-6)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 129+00 TO 130+88, SOLID LT & RT (DIAGONALS)

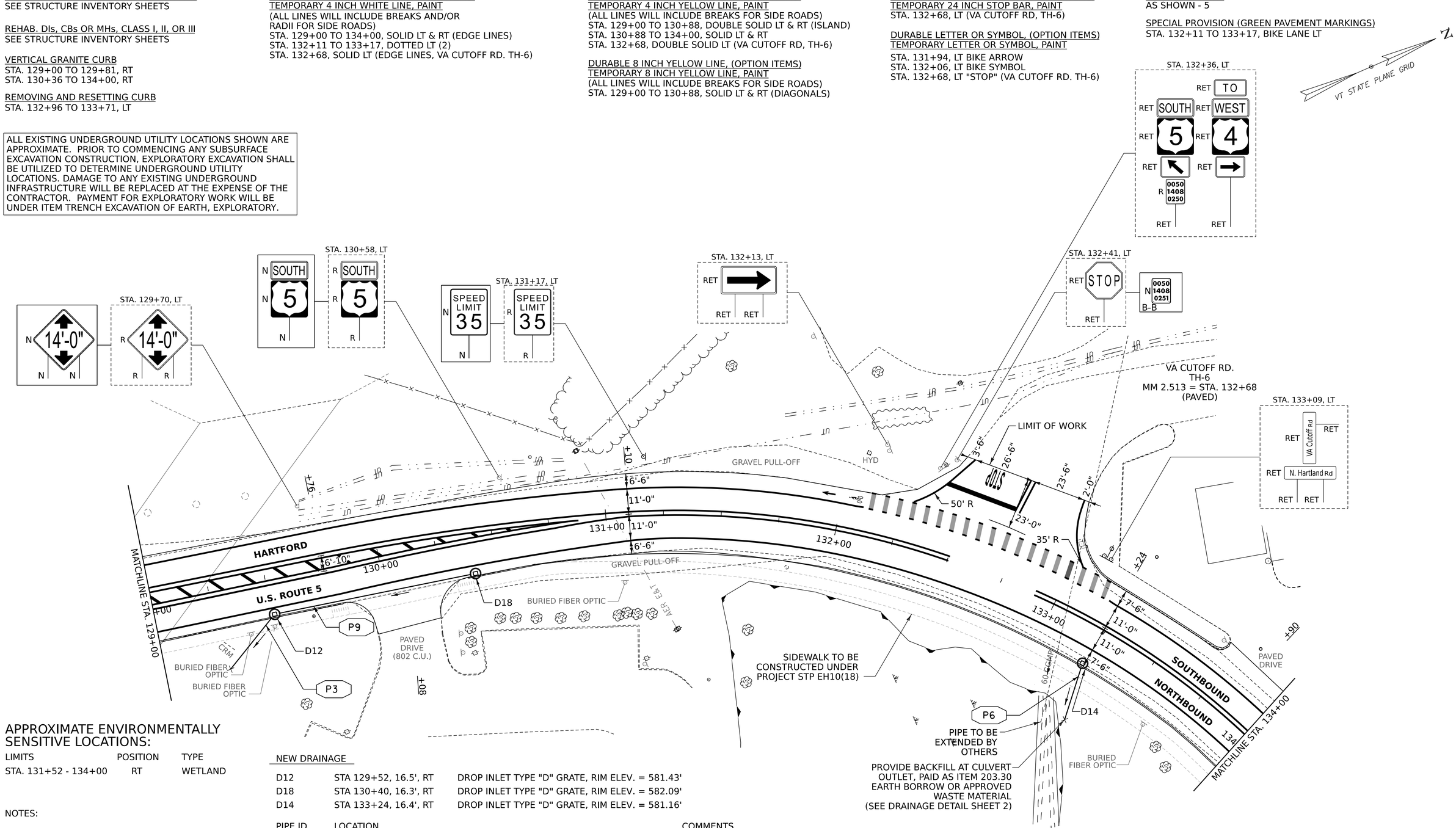
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 132+68, LT (VA CUTOFF RD, TH-6)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 131+94, LT BIKE ARROW
STA. 132+06, LT BIKE SYMBOL
STA. 132+68, LT "STOP" (VA CUTOFF RD. TH-6)

REMOVING SIGNS
AS SHOWN - 5

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 132+11 TO 133+17, BIKE LANE LT

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 131+52 - 134+00	RT	WETLAND

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO UNDERDRAIN DETAIL SHEET FOR PROPOSED UNDERDRAIN INFORMATION.
4. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

NEW DRAINAGE

D12	STA 129+52, 16.5', RT	DROP INLET TYPE "D" GRATE, RIM ELEV. = 581.43'
D18	STA 130+40, 16.3', RT	DROP INLET TYPE "D" GRATE, RIM ELEV. = 582.09'
D14	STA 133+24, 16.4', RT	DROP INLET TYPE "D" GRATE, RIM ELEV. = 581.16'

PIPE ID	LOCATION	COMMENTS
P3	STA. 129+28 OFFSET = 36.0', RT TO STA. 129+50 OFFSET = 17.8', RT	NEW 18" CPEP X 30.2FT; INV. IN = 577.43'; INV. OUT = 577.28
P9	STA. 129+53 OFFSET = 16.5', RT TO STA. 130+39 OFFSET = 16.3', RT	NEW 18" CPEP X 85FT; INV. IN = 578.79'; INVERT OUT = 578.37'
P6	STA. 133+24 OFFSET = 16.4', RT TO STA. 133+30 OFFSET = 41.5', RT	NEW 18" CPEP X 32.3FT; INV. IN = 577.16'; INV. OUT = 574.52'

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 25

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 126OF 210

VERTICAL GRANITE CURB
STA. 134+00 TO 138+74, RT
STA. 139+22 TO 139+75, RT

REMOVING AND RESETTING CURB
STA. 134+12 TO 134+69, LT
STA. 135+06 TO 136+01, LT

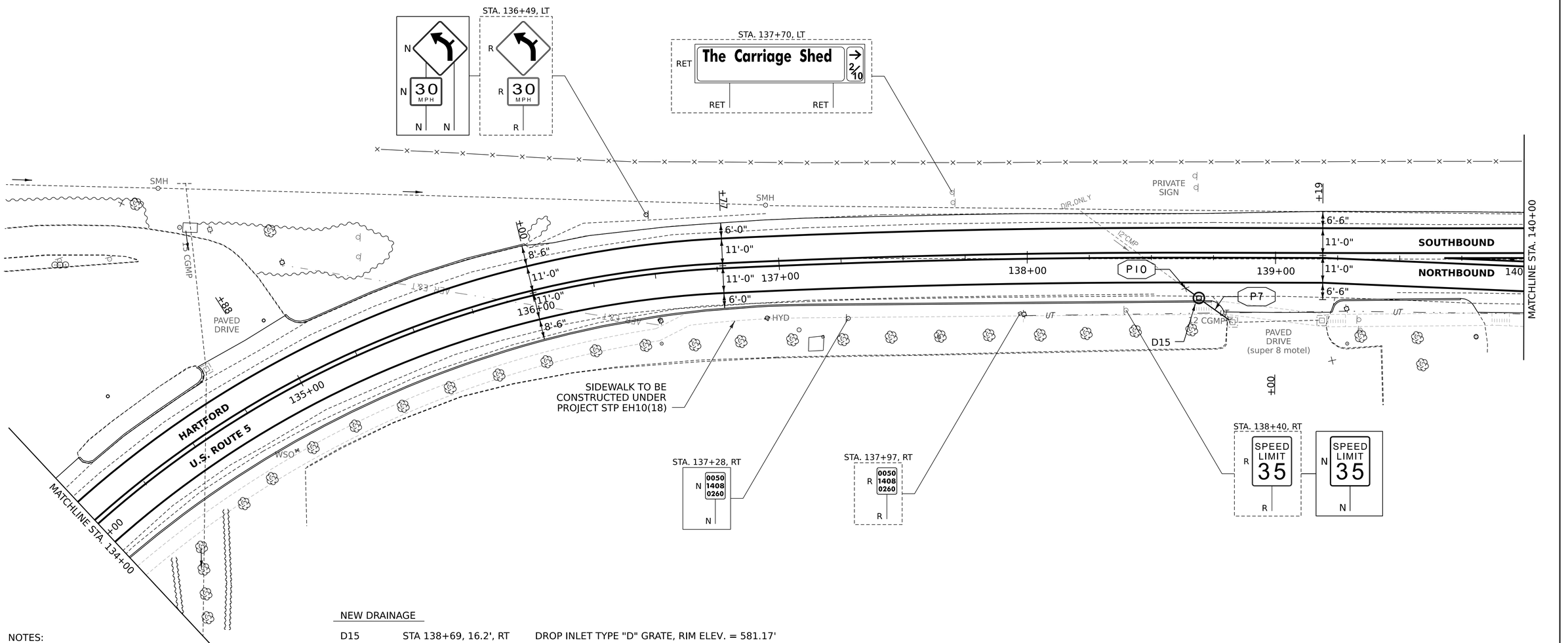
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 134+00 TO 140+00, SOLID LT & RT (EDGE LINES)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 134+00 TO 139+70, SOLID LT & RT
STA. 139+70 TO 140+00, DOUBLE SOLID LT & RT (ISLAND)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 139+70 TO 140+00, SOLID LT & RT (DIAGONALS)

REMOVING SIGNS
AS SHOWN - 4

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. REFER TO DRAINAGE DETAIL SHEET FOR NEW DRAINAGE INFORMATION.

NEW DRAINAGE

D15 STA 138+69, 16.2', RT DROP INLET TYPE "D" GRATE, RIM ELEV. = 581.17'

PIPE ID	LOCATION	COMMENTS
P7	STA. 138+71 OFFSET = 17.5', RT TO STA. 138+81 OFFSET = 24.9', RT	NEW 18" CPEP(SL) X 13FT; INV. IN = 578.17'; INVERT OUT = 577.09'
P10	STA. 138+64 OFFSET = 12.3', RT TO STA. 138+69 OFFSET = 15.0', RT	EXTEND EXISTING 12" CMP 12" CMP X 3FT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 26

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 127OF 210

THINNING AND TRIMMING FOR SIGNS
STA. 144+66, LT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

VERTICAL GRANITE CURB
STA. 140+50 TO 140+78, RT
STA. 141+24 TO 141+74, RT

REMOVING AND RESETTING CURB
STA. 142+08 TO 144+38, RT
STA. 142+38 TO 144+40, LT
STA. 145+03 TO 145+38, RT

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA. 142+28 TO 142+36, LT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 140+00 TO 145+50, SOLID LT & RT (EDGE LINES)
STA/ 141+46 TO 142+27, DOTTED LT (2)
STA. 142+10 TO 142+80, SOLID LT (LANE LINE)
STA. 142+80 TO 144+50, DASHED LT
STA. 143+33 TO 144+52, SOLID LT (BIKE LANE)
STA. 143+33 TO 144+52, SOLID LT (DIAGONALS)
STA. 144+38 TO 145+16, DOTTED RT (2)
STA. 144+44 TO 145+10, DOTTED LT (2)
STA. 144+80, SOLID LT (EDGE LINES, WINSOR DR. TH-142)
STA. 144+82, SOLID RT (EDGE LINES, BALLARDVALE DR.)
STA. 144+82, SOLID RT (LANE LINE, BALLARDVALE DR.)
STA. 145+02 TO 145+50, SOLID LT (LANE LINE)
STA. 145+14 TO 145+50, SOLID LT (BIKE LANE)
STA. 145+14 TO 145+50, SOLID LT (DIAGONALS)
STA. 145+14 TO 145+50, SOLID RT (BIKE LANE)
STA. 145+14 TO 145+50, SOLID RT (DIAGONALS)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 140+00 TO 141+69, DOUBLE SOLID LT & RT (ISLAND)
STA. 141+82, DOUBLE SOLID LT (VETERANS DR.)
STA. 142+09 TO 143+39, DOUBLE SOLID RT
STA. 143+39 TO 144+61, DOUBLE SOLID LT & RT (ISLAND)
STA. 144+80, DOUBLE SOLID LT (WINSOR DR., TH-142)
STA. 144+82, DOUBLE SOLID RT (BALLARDVALE DR.)
STA. 145+02 TO 145+50, DOUBLE SOLID RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 140+00 TO 141+69, SOLID LT & RT (DIAGONALS)
STA. 143+39 TO 144+61, SOLID LT & RT (DIAGONALS)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 141+82, LT (VETERANS DR.)
STA. 144+80, LT (WINSOR DR., TH-142)
STA. 144+82, RT (BALLARDVALE DR.)

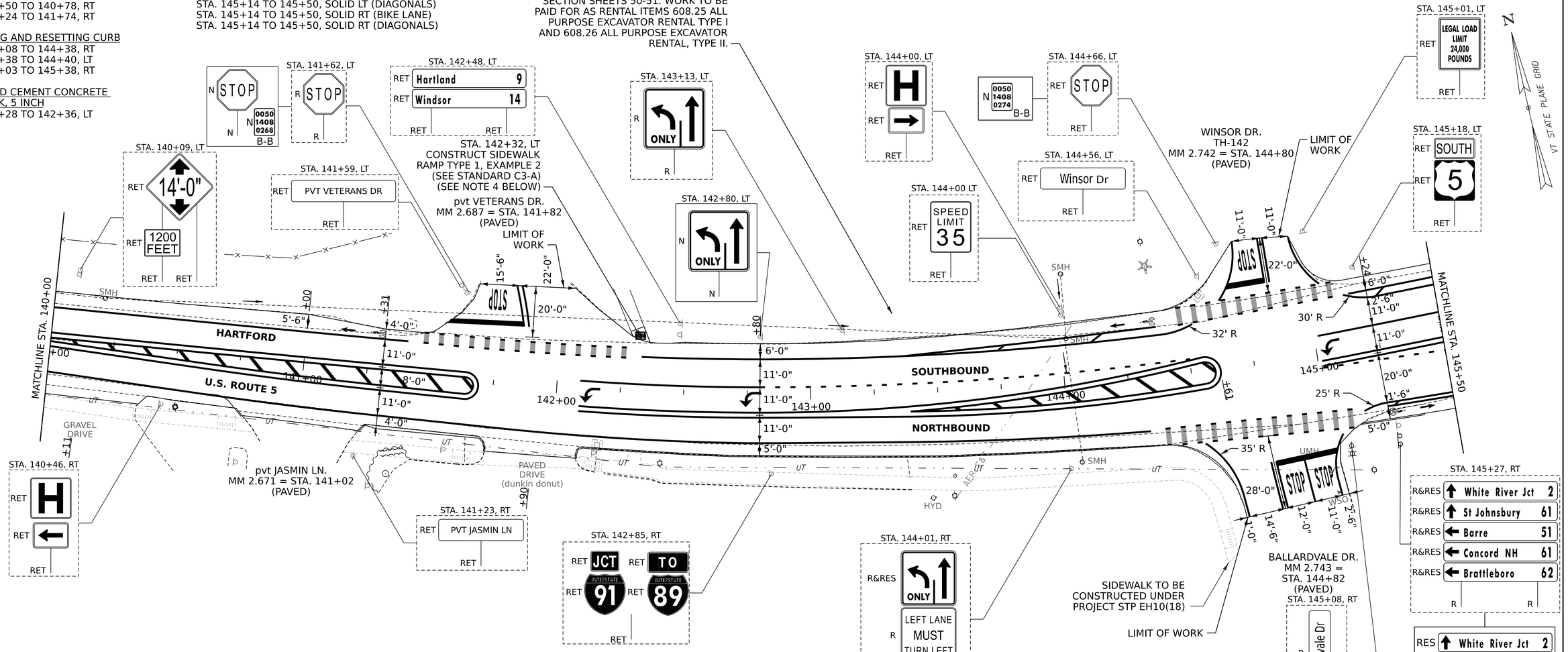
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 141+16, LT BIKE LANE ARROW
STA. 141+28, LT BIKE LANE SYMBOL
STA. 141+82, LT "STOP" (VETERANS DR.)
STA. 142+14, RT ARROW
STA. 142+77, RT ARROW
STA. 144+23, LT BIKE LANE ARROW
STA. 144+35, LT BIKE LANE SYMBOL
STA. 144+80, LT "STOP" (WINSOR DR., TH-142)
STA. 144+82, RT "STOP" (BALLARDVALE DR.)
STA. 144+82, RT "STOP" (BALLARDVALE DR.)
STA. 145+07, RT ARROW
STA. 145+25, RT BIKE LANE SYMBOL
STA. 145+37, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 11

RESETTING SIGNS
AS SHOWN - 5

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 141+46 TO 142+27, BIKE LANE LT
STA. 144+38 TO 145+16, BIKE LANE RT
STA. 144+44 TO 145+10, BIKE LANE LT

CUT SLOPE BACK 15 FT FROM EDGE OF TRAVELLED WAY TO CLEAR SIGHT DISTANCE FOR WINDSOR DRIVE TRAFFIC AS NEEDED AND SHOWN ON CROSS SECTION SHEETS 50-51. WORK TO BE PAID FOR AS RENTAL ITEMS 608.25 ALL PURPOSE EXCAVATOR RENTAL TYPE I AND 608.26 ALL PURPOSE EXCAVATOR RENTAL, TYPE II.



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.
4. THIS WORK CONSISTS OF THE REMOVAL AND REPLACEMENT OF A SINGLE SLAB OF CONCRETE SIDEWALK IN ORDER TO INSTALL A NEW DETECTABLE WARNING SURFACE. FOR ITEM BREAKDOWN SEE ITEM DETAIL SUMMARY SHEETS.

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 27

PLOT DATE: 3-AUG-2023
DRAWN BY: H. LUCAS
CHECKED BY: M. FOISY
SHEET 128OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 145+50 TO 146+54, DOTTED RT (LANE LINE)
STA. 145+50 TO 147+01, SOLID LT (BIKE LANE)
STA. 145+50 TO 147+01, SOLID LT (DIAGONALS)
STA. 145+50 TO 147+01, SOLID LT (LANE LINE)
STA. 145+50 TO 147+15, SOLID LT (EDGE LINE)
STA. 145+50 TO 148+36.80, SOLID RT (EDGE LINE)
STA. 145+50 TO 148+36.80, SOLID RT (BIKE LANE)
STA. 145+50 TO 148+36.80, SOLID RT (DIAGONALS)
STA. 146+54 TO 147+54, SOLID RT (LANE LINE)
STA. 147+01 TO 147+94, DOTTED LT (2)
STA. 147+01 TO 148+36.80, DOTTED LT (LANE LINE)
STA. 148+00 TO 148+36.80, DOUBLE SOLID LT (ISLAND)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 145+50 TO 147+54, SOLID LT & RT
STA. 147+94 TO 148+36.80, DOUBLE SOLID LT & RT (ISLAND)

DURABLE 6 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 147+56, SOLID LT (I-91 SB OFF RAMP EDGE LINE)
STA. 147+56, SOLID LT (I-91 SB OFF RAMP LANE LINE)
STA. 147+93, SOLID LT (I-91 SB ON RAMP EDGE LINE)

DURABLE 6 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 147+56 TO 147+93, SOLID LT (I-91 SB OFF/ON RAMP)

DURABLE 8 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 8 INCH WHITE LINE, PAINT
STA. 148+00 TO 148+36.80, SOLID LT (DIAGONALS)

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. 147+94 TO 148+36.80, SOLID RT (DIAGONALS)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 147+56, LT (I-91 SB OFF RAMP)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 145+54, LT "ONLY"
STA. 146+03, LT ARROW
STA. 146+49, LT "ONLY"
STA. 146+56, RT ARROW
STA. 146+86, LT BIKE LANE ARROW
STA. 146+98, LT BIKE LANE SYMBOL
STA. 146+98, LT ARROW
STA. 147+02, RT "ONLY"
STA. 147+48, RT ARROW
STA. 147+56, LT "STOP" (I-91 SB OFF RAMP)
STA. 147+56, LT "STOP" (I-91 SB OFF RAMP)

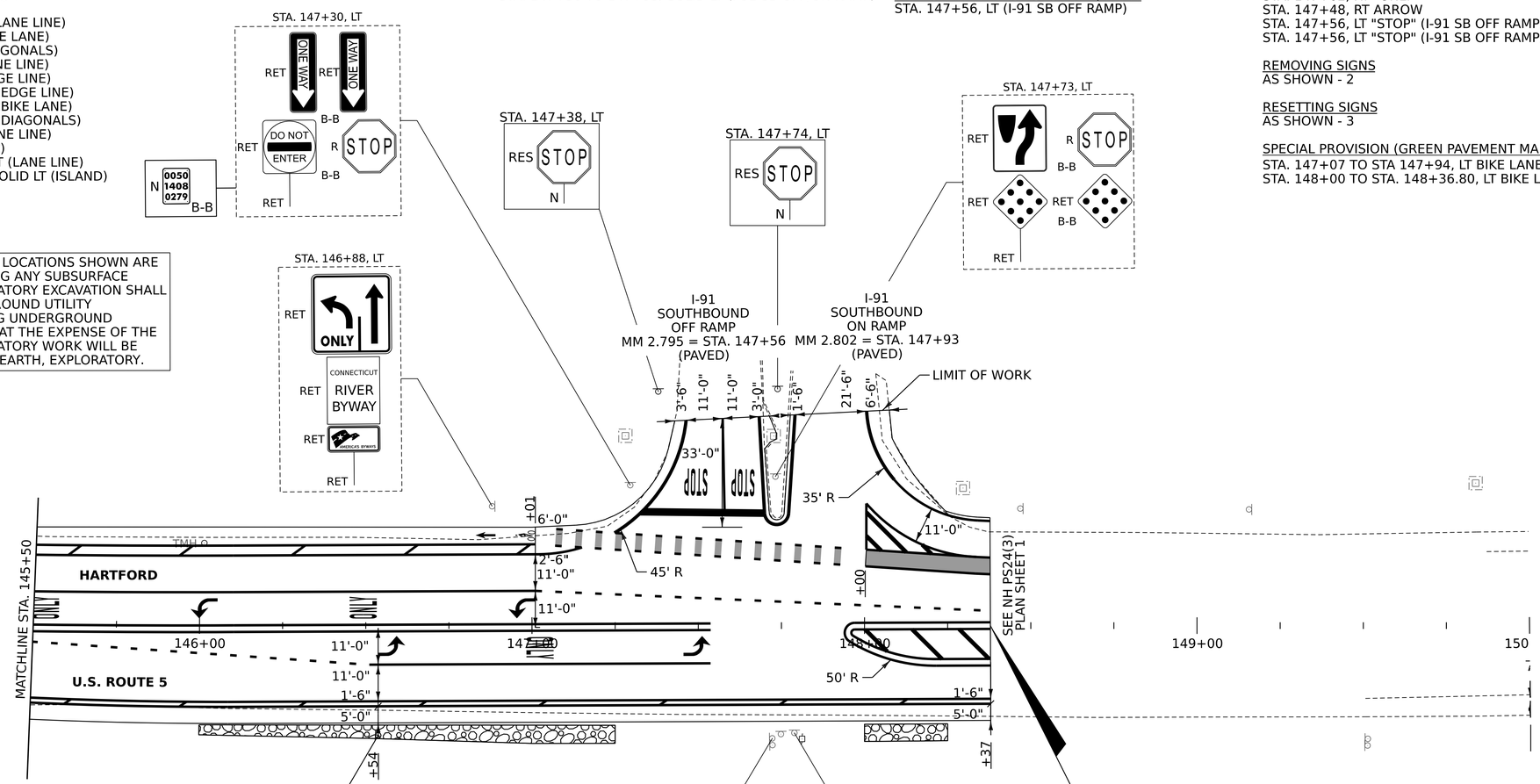
REMOVING SIGNS
AS SHOWN - 2

RESETTING SIGNS
AS SHOWN - 3

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 147+07 TO STA 147+94, LT BIKE LANE
STA. 148+00 TO STA. 148+36.80, LT BIKE LANE

N
VT STATE PLANE GRID

ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. PRIOR TO COMMENCING ANY SUBSURFACE EXCAVATION CONSTRUCTION, EXPLORATORY EXCAVATION SHALL BE UTILIZED TO DETERMINE UNDERGROUND UTILITY LOCATIONS. DAMAGE TO ANY EXISTING UNDERGROUND INFRASTRUCTURE WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. PAYMENT FOR EXPLORATORY WORK WILL BE UNDER ITEM TRENCH EXCAVATION OF EARTH, EXPLORATORY.



U.S. ROUTE 5
STA. 148+36.80 (MM 2.810)
STOP STP PS24(2)
BEGIN NH PS24(3)

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 28

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 129OF 210

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 205+15 TO 208+50, SOLID LT & RT (BIKE LANES)
STA. 205+15 TO 208+50, SOLID LT & RT (DIAGONALS)
STA. 205+15 TO 208+50, SOLID LT & RT (EDGE LINES)

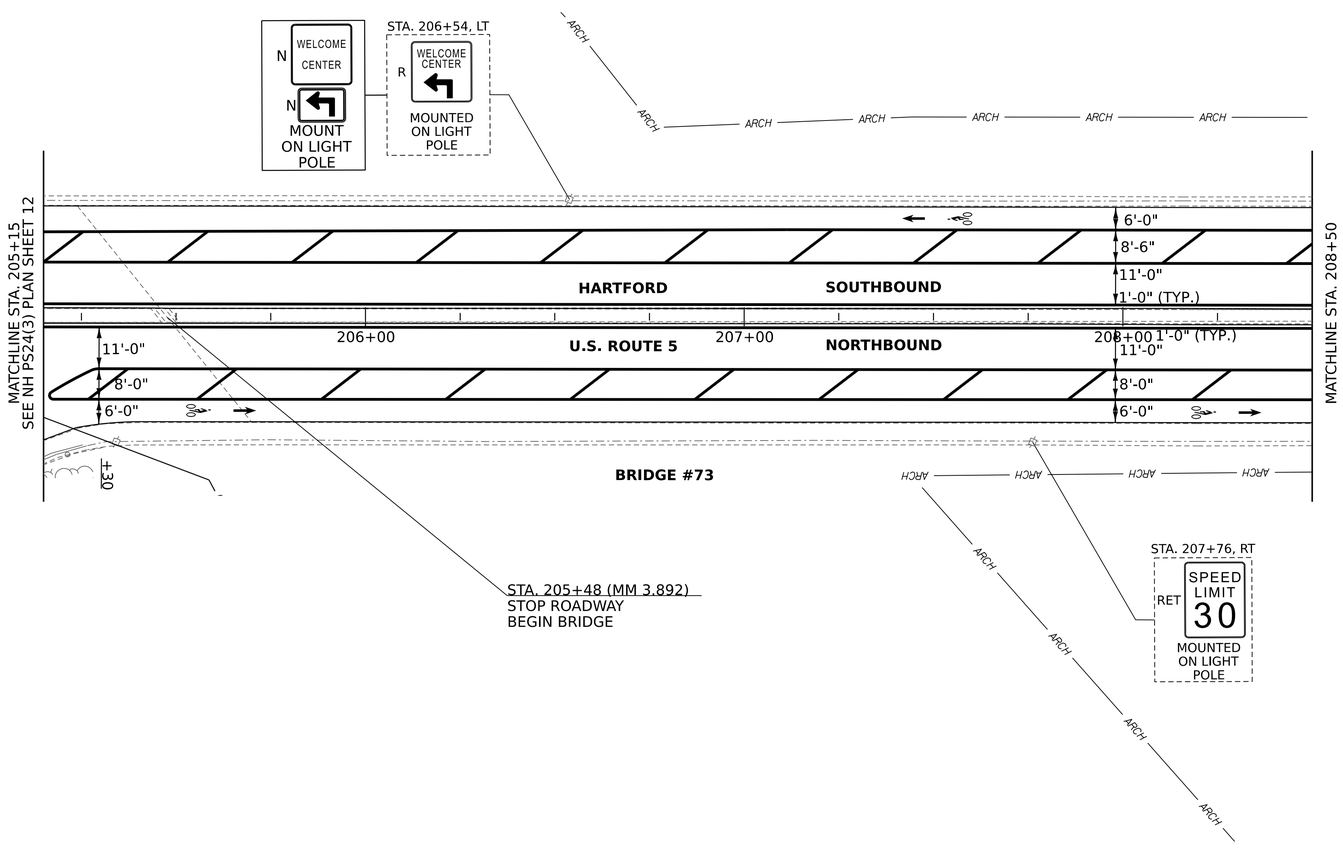
DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 205+15 TO 208+50, SOLID LT & RT (ISLAND)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 205+57, RT BIKE LANE SYMBOL
STA. 205+69, RT BIKE LANE ARROW
STA. 207+45, LT BIKE LANE ARROW
STA. 207+57, LT BIKE LANE SYMBOL
STA. 208+22, RT BIKE LANE SYMBOL
STA. 208+34, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 1

N

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 206+50 - 207+50	LT	ARCHEOLOGICAL
STA. 207+43 - 207+50	RT	ARCHEOLOGICAL

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 29

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 130OF 210

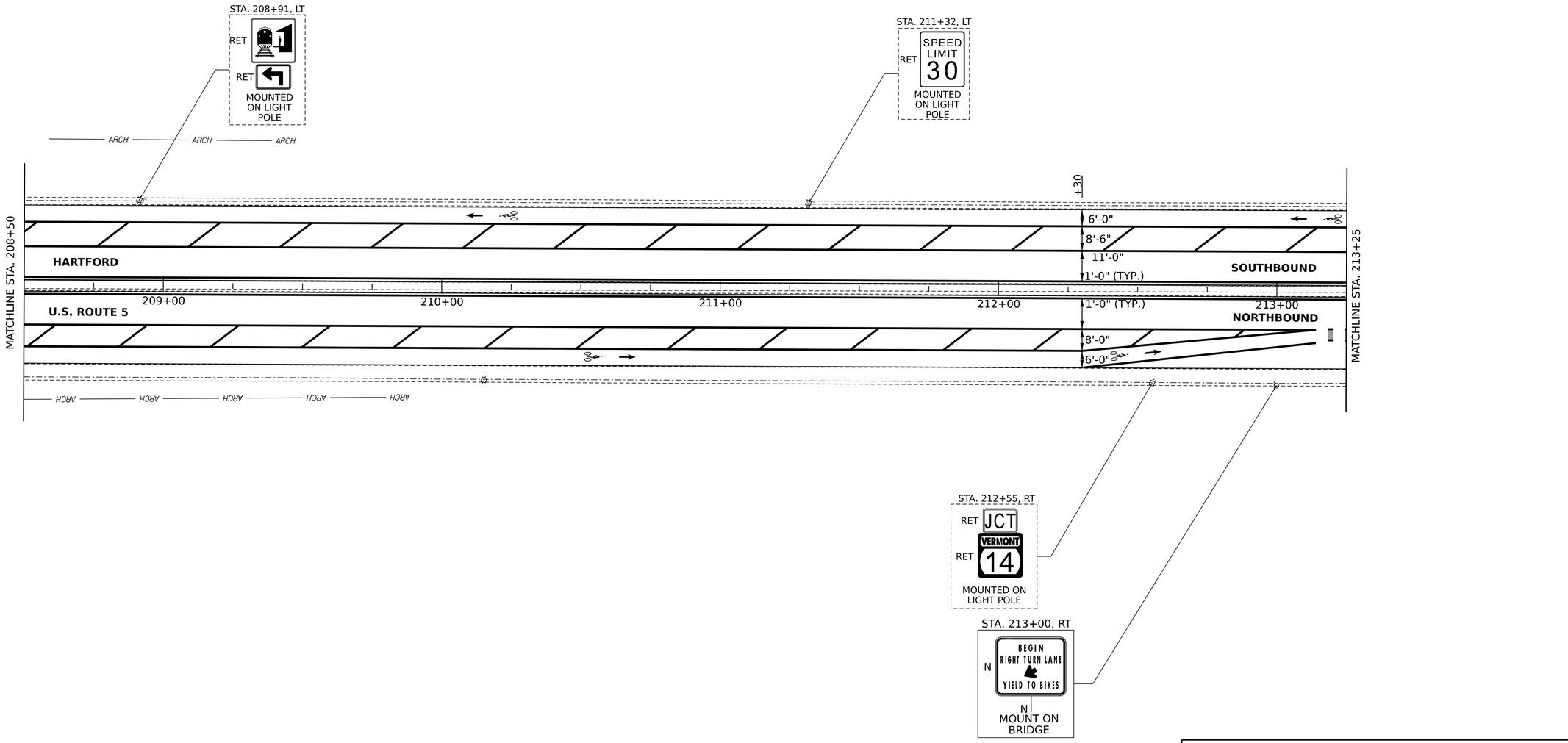
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 208+50 TO 213+16, SOLID RT (BIKE LANE)
STA. 208+50 TO 213+16, SOLID RT (EDGE LINE)
STA. 208+50 TO 213+16, SOLID RT (DIAGONALS)
STA. 208+50 TO 213+25, SOLID LT (BIKE LANE)
STA. 208+50 TO 213+25, SOLID LT (EDGE LINE)
STA. 208+50 TO 213+25, SOLID LT (DIAGONALS)
STA. 212+30 TO 213+16, SOLID RT (BIKE LANE)
STA. 213+18 TO 213+25, DOTTED RT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 208+50 TO 213+25, SOLID LT & RT (ISLAND)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 210+12, LT BIKE LANE ARROW
STA. 210+24, LT BIKE LANE SYMBOL
STA. 210+55, RT BIKE LANE SYMBOL
STA. 210+67, RT BIKE LANE ARROW
STA. 212+44, RT BIKE LANE SYMBOL
STA. 212+56, RT BIKE LANE ARROW
STA. 213+07, LT BIKE LANE ARROW
STA. 213+19, LT BIKE LANE SYMBOL

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 213+18 TO 213+25, RT (BIKE LANE)

N
VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 208+50 - 209+45	LT	ARCHEOLOGICAL
STA. 208+50 - 209+89	RT	ARCHEOLOGICAL

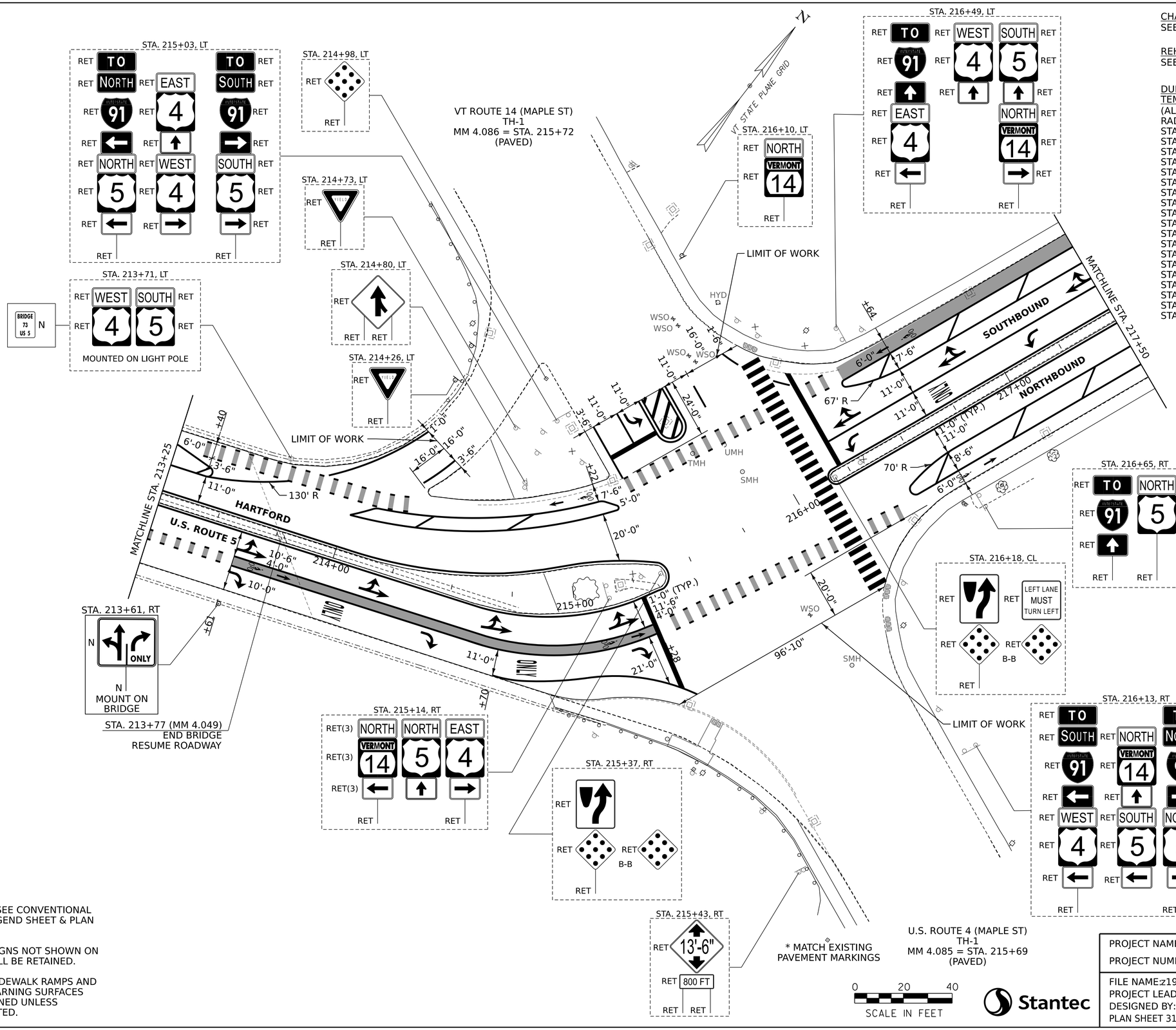
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 30

PLOT DATE: 5-OCT-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 131OF 210



CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 213+25 TO 217+50, SOLID LT & RT (EDGE LINES)
STA. 213+25 TO 213+42, SOLID LT (BIKE LANE)
STA. 213+25 TO 213+42, SOLID LT (DIAGONALS)
STA. 213+25 TO 213+56, DOTTED RT (2)
STA. 213+37 TO 214+24, DOTTED LT (2)
STA. 213+61 TO 215+28, SOLID RT (BIKE LANE) (2)
STA. 214+01 TO 215+28, SOLID LT (BIKE LANE)
STA. 214+01 TO 215+28, SOLID LT (DIAGONALS)
STA. 215+34 TO 216+34, DOTTED RT (2)
STA. 215+35 TO 216+35, DOTTED LT (2)
STA. 215+72, SOLID LT (EDGE LINES, SLIP RAMP, VT 14, TH-1)
STA. 215+72, SOLID LT (EDGE LINES, VT ROUTE 14, TH-1)
STA. 215+72, SOLID LT (LANE LINE, VT ROUTE 14, TH-1)
STA. 215+72, DASHED LT (LANE LINE, VT ROUTE 14, TH-1)
STA. 216+23 TO 217+50, SOLID LT (LANE LINE)
STA. 216+40 TO 217+50, SOLID LT (BIKE LANE)
STA. 216+40 TO 217+50, SOLID LT (DIAGONALS)
STA. 216+42 TO 217+50, SOLID RT (BIKE LANE)
STA. 216+42 TO 217+50, SOLID RT (DIAGONALS)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 213+25 TO 215+40, SOLID LT & RT (ISLAND)
STA. 215+72, SOLID LT (VT ROUTE 14, TH-1) (ISLAND)
STA. 216+16 TO 217+50, SOLID LT & RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. 215+72, SOLID LT (VT ROUTE 14,TH-1) (ISLAND)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 215+28, RT
STA. 215+72, LT (VT ROUTE 14, TH-1)
STA. 216+22, LT

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 213+65, RT ARROW
STA. 213+67, RT ARROWS (2)
STA. 213+70, RT BIKE LANE SYMBOL
STA. 213+82, RT BIKE LANE ARROW
STA. 214+06, RT "ONLY"
STA. 214+20, RT ARROWS (2)
STA. 214+46, RT ARROW
STA. 214+70, RT ARROWS (2)
STA. 214+81, RT "ONLY"
STA. 214+97, LT BIKE LANE ARROW
STA. 215+09, LT BIKE LANE SYMBOL
STA. 215+11, RT BIKE LANE SYMBOL
STA. 215+18, RT ARROWS (2)
STA. 215+20, RT ARROW
STA. 215+23, RT BIKE LANE ARROW
STA. 215+72, LT ARROW (VT ROUTE 14)
STA. 216+31, LT ARROW
STA. 216+33, LT ARROWS (2)
STA. 216+61, LT BIKE LANE ARROW
STA. 216+64, RT BIKE LANE SYMBOL
STA. 216+73, LT BIKE LANE SYMBOL
STA. 216+73, LT "ONLY"
STA. 216+76, RT BIKE LANE ARROW
STA. 216+83, LT ARROWS (2)
STA. 217+16, LT ARROW
STA. 217+44, LT ARROWS (2)

DURABLE CROSSWALK MARKING, (OPTION ITEMS) TEMPORARY CROSSWALK MARKING, PAINT
STA. 216+12, LT TO RT

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 213+25 TO 213+56, RT (BIKE LANE)
STA. 213+37 TO 214+24, LT (BIKE LANE)
STA. 213+61 TO 215+28, RT (BIKE LANE)
STA. 215+34 TO 216+34, RT (BIKE LANE)
STA. 215+35 TO 216+35, LT (BIKE LANE)
STA. 216+40 TO 217+50, LT (BIKE LANE)

NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 31

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 132OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 217+50 TO 223+25, SOLID LT & RT (EDGE LINES)
STA. 217+50 TO 218+05, SOLID LT (LANE LINE)
STA. 217+50 TO 223+25, SOLID LT & RT (BIKE LANES)
STA. 217+50 TO 223+25, SOLID LT & RT (DIAGONALS)
STA. 218+05 TO 219+41, DOTTED LT (LANE LINE)

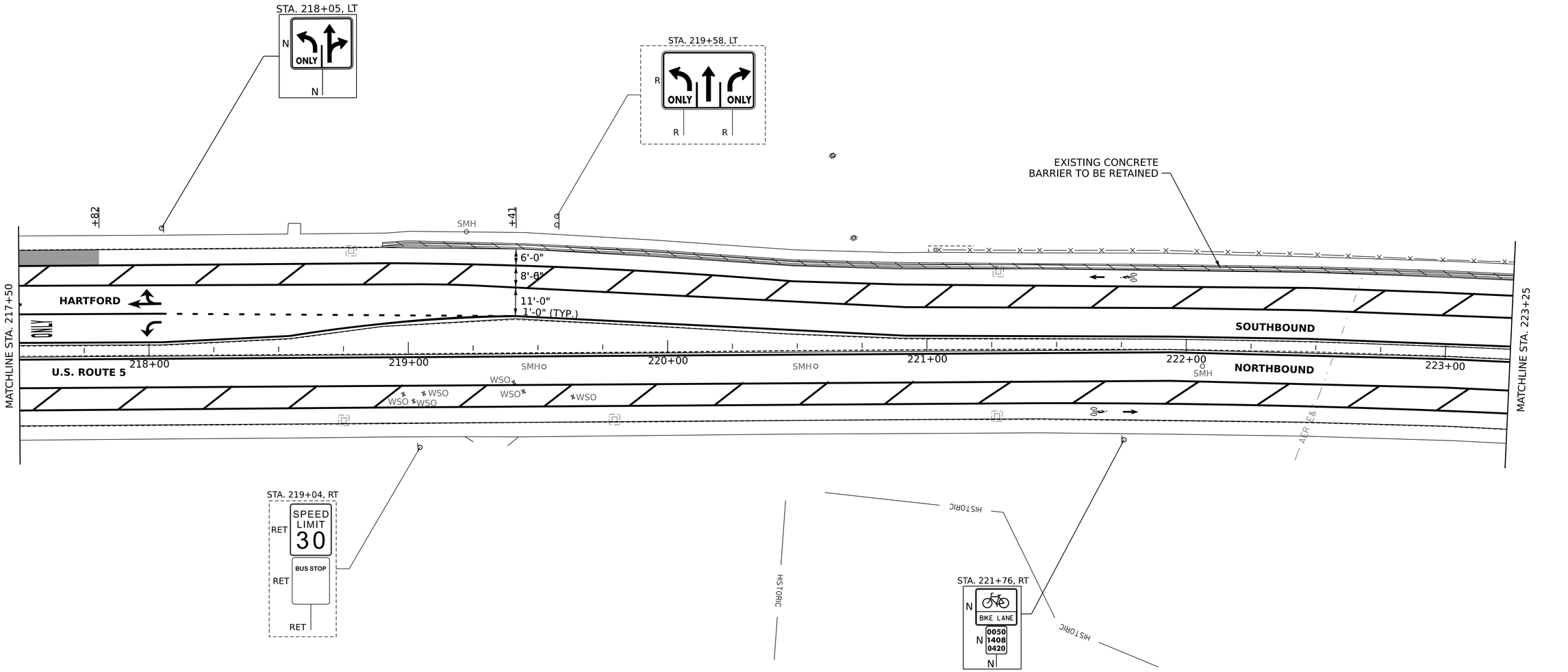
DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 217+50 TO 223+25, SOLID LT & RT

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 217+59, LT "ONLY"
STA. 218+00, LT ARROW (2)
STA. 218+02, LT ARROW
STA. 221+65, LT BIKE LANE ARROW
STA. 221+67, RT BIKE LANE SYMBOL
STA. 221+77, LT BIKE LANE SYMBOL
STA. 221+79, RT BIKE LANE ARROW

REMOVING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 217+50 TO 217+82, LT BIKE LANE

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

APPROXIMATE ENVIRONMENTALLY SENSITIVE LOCATIONS:

LIMITS	POSITION	TYPE
STA. 220+43 - 222+00	RT	HISTORIC

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 32

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 133OF 210

THINNING AND TRIMMING FOR SIGNS
STA. 223+59, LT
STA. 226+17, LT
STA. 226+12, LT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

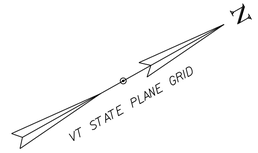
ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

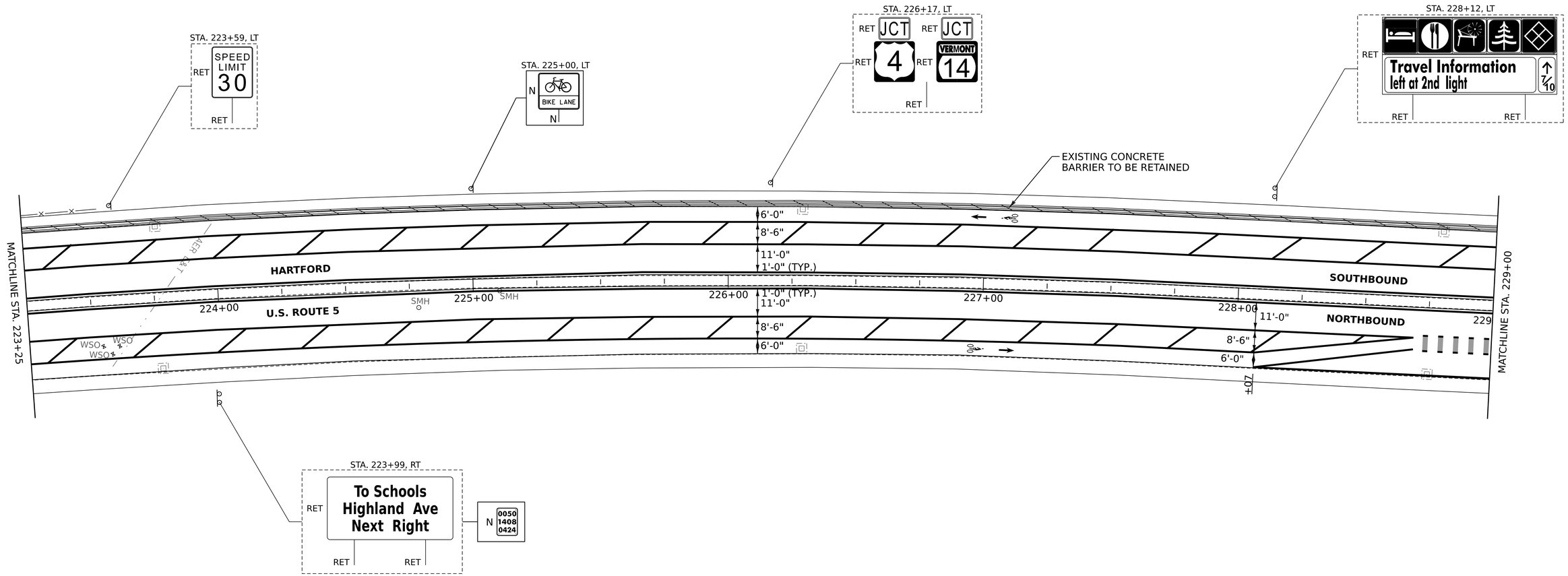
DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 223+25 TO 229+00, SOLID LT & RT (EDGE LINE)
STA. 223+25 TO 228+69, SOLID RT (BIKE LANE)
STA. 223+25 TO 228+69, SOLID RT (DIAGONALS)
STA. 223+25 TO 229+00, SOLID LT (DIAGONALS)
STA. 228+07 TO 228+69, SOLID RT (BIKE LANE) (2)
STA. 228+69 TO 229+00, DOTTED RT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 223+25 TO 229+00, SOLID LT & RT

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 226+97, LT BIKE LANE ARROW
STA. 226+98, RT BIKE LANE SYMBOL
STA. 227+09, LT BIKE LANE SYMBOL
STA. 227+10, RT BIKE LANE ARROW

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 228+69 TO 229+00, RT





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 33

PLOT DATE: 5-OCT-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 134OF 210

THINNING AND TRIMMING FOR SIGNS
STA. 230+05, RT

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 229+00 TO 234+00, SOLID LT & RT (EDGE LINES)
STA. 229+00 TO 232+47, SOLID LT (BIKE LANE)
STA. 229+00 TO 232+47, SOLID LT (DIAGONALS)
STA. 229+00 TO 230+00, DOTTED RT (2)
STA. 230+00 TO 231+39, SOLID RT (BIKE LANE)
STA. 231+39 TO 231+95, SOLID RT (BIKE LANE)(2)
STA. 231+39 TO 232+87, SOLID RT (DIAGONALS)
STA. 231+95 TO 232+87, SOLID RT (BIKE LANE)
STA. 232+48 TO 233+41, DOTTED LT (2)
STA. 232+52 TO 233+43, DOTTED RT (2)
STA. 233+02, SOLID LT (LANE LINES, HIGHLAND AVE. TH-153)(2)
STA. 233+02, SOLID LT (EDGE LINES, HIGHLAND AVE. TH-153)
STA. 233+57 TO 234+00, SOLID RT (BIKE LANE)
STA. 233+57 TO 234+00, SOLID RT (DIAGONALS)
STA. 233+06, SOLID RT (EDGE LINES, WORCESTER DR)
STA. 233+75 TO 234+00, SOLID LT (LANE LINES)
STA. 233+75 TO 234+00, SOLID LT (BIKE LANE) (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 229+00 TO 232+57, SOLID LT & RT
STA. 230+95 TO 231+30, SOLID RT (WORCESTER AVE. TH-152)
STA. 233+61 TO 234+00, DOUBLE SOLID RT
STA. 233+02, SOLID LT (HIGHLAND AVE. TH-153) (2)
STA. 233+06, DOUBLE SOLID RT (WORCESTER AVE. TH-152)

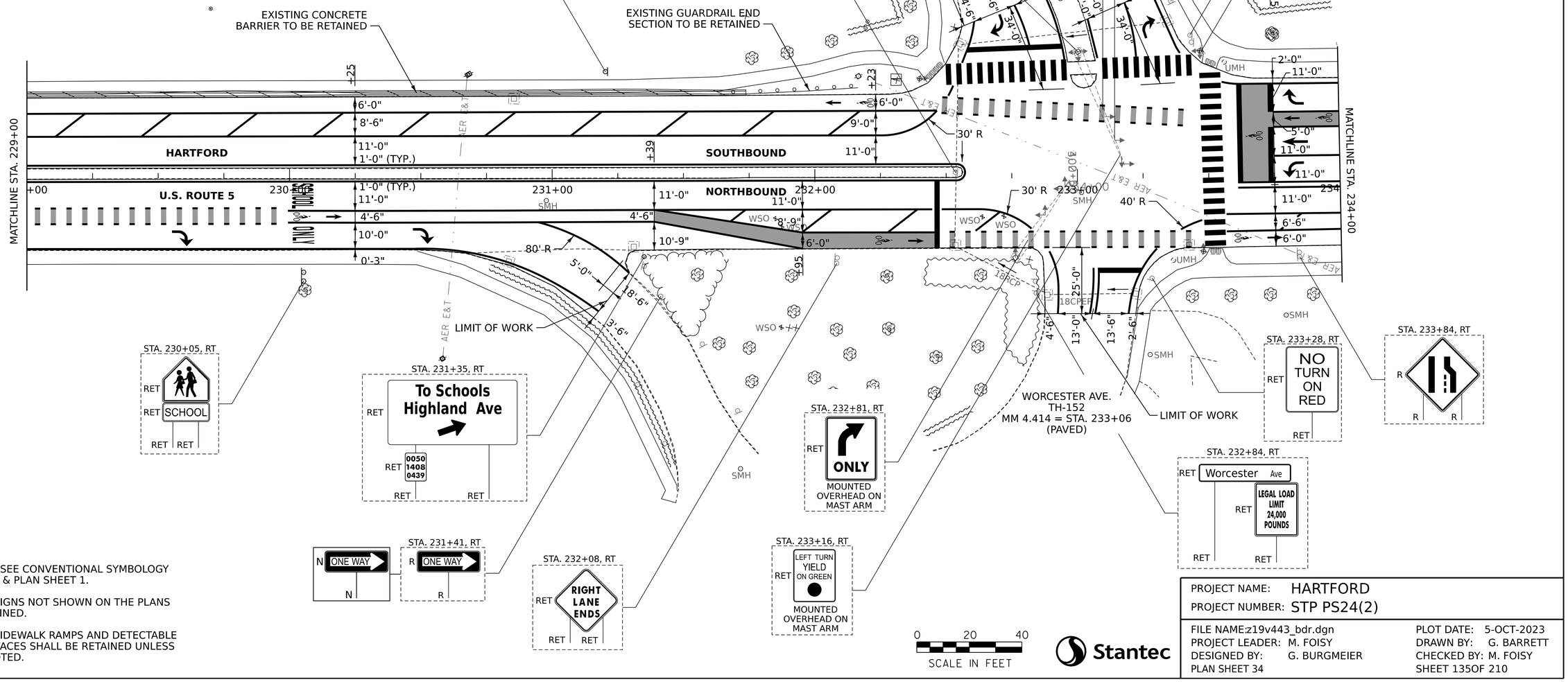
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 232+47, RT (MAINLINE)
STA. 233+02, LT (HIGHLAND AVE. TH-153)
STA. 233+06, RT (WORCESTER AVE. TH-152)
STA. 233+62, LT (MAINLINE)
STA. 233+74, LT (MAINLINE)(2)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 229+59, RT ARROW
STA. 230+05, RT "SCHOOL"
STA. 230+05, RT BIKE LANE SYMBOL
STA. 230+05, RT "ONLY"
STA. 230+16, RT BIKE LANE ARROW
STA. 230+50, RT ARROW
STA. 232+07, LT BIKE LANE ARROW
STA. 232+19, LT BIKE LANE SYMBOL
STA. 232+27, RT BIKE LANE SYMBOL
STA. 232+39, RT BIKE LANE ARROW
STA. 233+02, LT ARROW (HIGHLAND AVE. TH-153)
STA. 233+02, LT ARROW (HIGHLAND AVE. TH-153)
STA. 233+63, RT BIKE LANE SYMBOL
STA. 233+67, LT BIKE LANE SYMBOL
STA. 233+75, RT BIKE LANE ARROW
STA. 233+81, LT BIKE LANE ARROW
STA. 233+83, LT ARROW (3)
STA. 233+95, LT BIKE LANE SYMBOL

DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 233+02, LT (HIGHLAND AVE. TH-153)
STA. 233+52, LT & RT (MAINLINE)

REMOVING SIGNS
AS SHOWN - 4

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 229+00 TO 230+00, RT BIKE LANE
STA. 231+39 TO 232+46, RT BIKE LANE
STA. 232+48 TO 233+41, LT BIKE LANE
STA. 232+52 TO 233+43, RT BIKE LANE
STA. 233+63 TO 234+00, LT BIKE BOX



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 34

PLOT DATE: 5-OCT-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 135OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 234+00 TO 235+78, SOLID LT (EDGE LINE)
STA. 234+00 TO 239+00, SOLID RT (EDGE LINE)
STA. 234+00 TO 234+80, SOLID LT (LANE LINES) (2)
STA. 234+00 TO 234+80, SOLID LT (BIKE LANE)
STA. 234+00 TO 236+50, SOLID RT (BIKE LANE)
STA. 234+00 TO 236+50, SOLID RT (DIAGONALS)
STA. 234+80 TO 235+96, DOTTED LT (2)
STA. 234+80 TO 235+29, DOTTED LT (LANE LINE)
STA. 235+96 TO 239+00, SOLID LT (EDGE LINE)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 234+00 TO 235+30, DOUBLE SOLID RT
STA. 234+30 TO 239+00, SOLID LT & RT (CENTER LANE)
STA. 234+30 TO 239+00, DASHED LT & RT (CENTER LANE)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 234+37, LT (HEBARD AVE. TH-112)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 234+29, LT "ONLY" (2)
STA. 234+76, LT ARROW (3)
STA. 238+02, LT "SCHOOL"
STA. 238+83, LT BIKE LANE ARROW
STA. 238+95, LT BIKE LANE SYMBOL

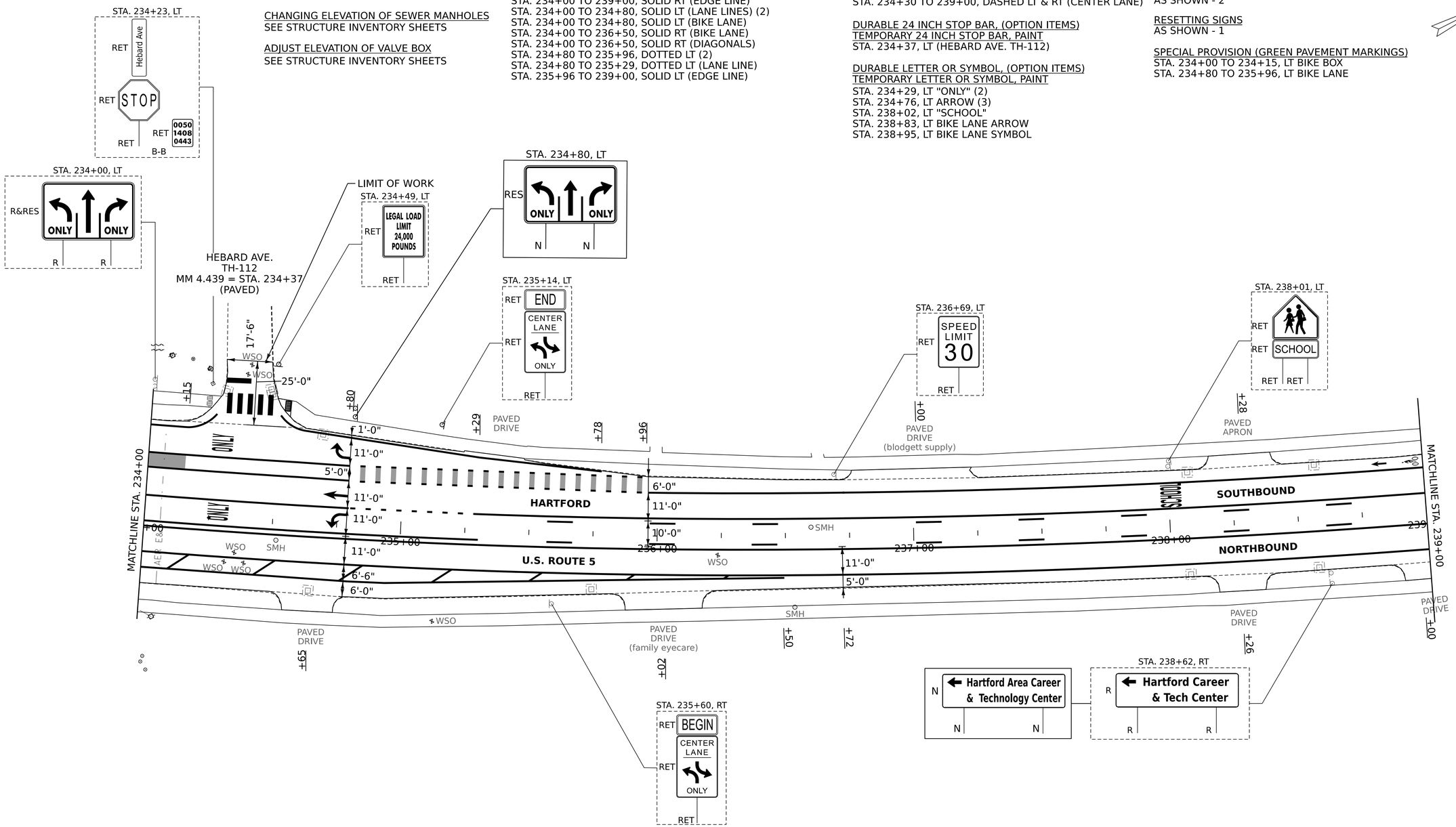
DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 234+37, LT (HEBARD AVE. TH-112)

REMOVING SIGNS
AS SHOWN - 2

RESETTING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 234+00 TO 234+15, LT BIKE BOX
STA. 234+80 TO 235+96, LT BIKE LANE

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 35

PLOT DATE: 5-OCT-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 136OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 239+00 TO 244+50, SOLID LT & RT (EDGE LINES)
STA. 239+14 TO 239+83, DOTTED LT (2)
STA. 239+50, SOLID LT (EDGE LINES, SAUNDERS AVE. TH-149)
STA. 243+45 TO 243+89, DOTTED LT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 239+00 TO 244+50, SOLID LT & RT (CENTER LANE)
STA. 239+00 TO 244+50, DASHED LT & RT (CENTER LANE)
STA. 239+50, DOUBLE SOLID LT (SAUNDERS AVE. TH-149)
STA. 243+66, DOUBLE SOLID LT (PIERCE ST. TH-148)

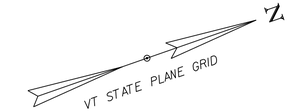
DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 239+50, LT (SAUNDERS AVE. TH-149)
STA. 243+66, LT (PIERCE ST. TH-148)

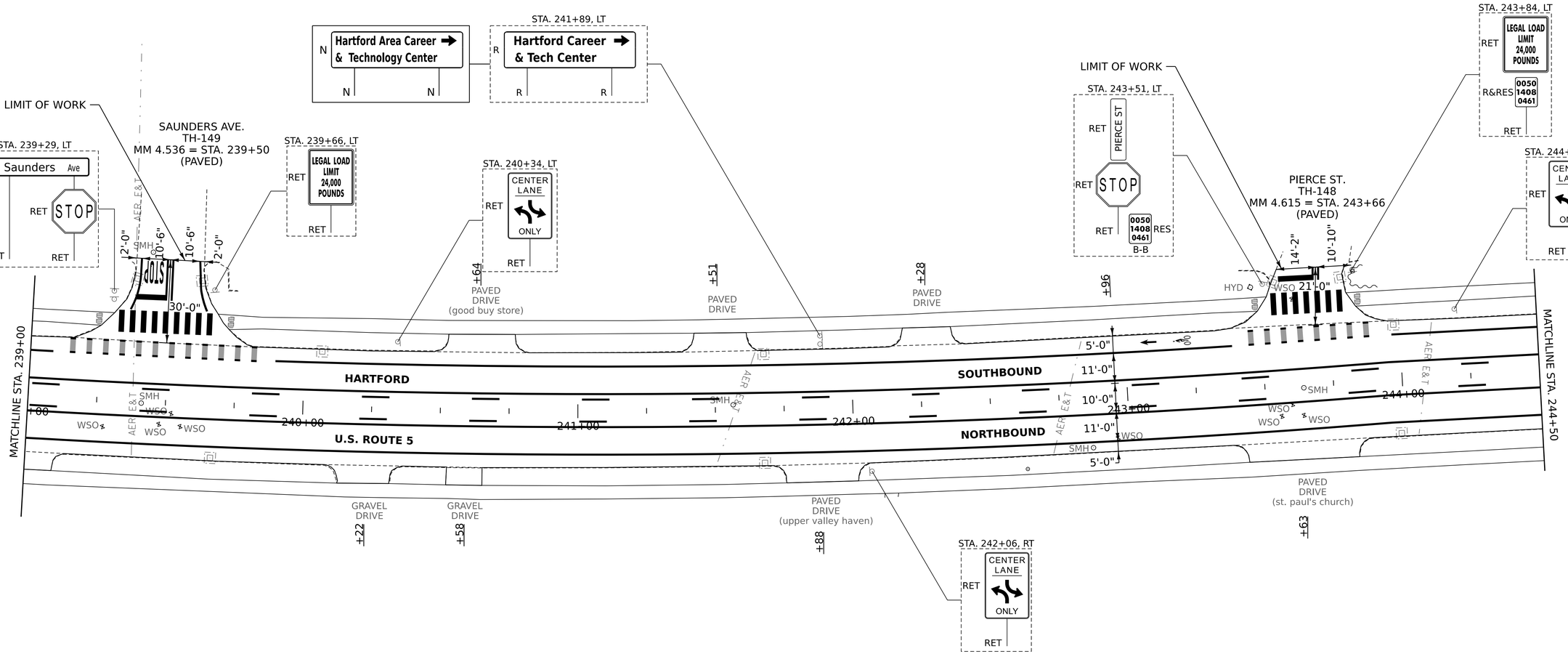
DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 239+50, LT "STOP" (SAUNDERS AVE. TH-149)
STA. 243+08, LT BIKE LANE ARROW
STA. 243+20, LT BIKE LANE SYMBOL

DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 239+50, LT (SAUNDERS AVE. TH-149)
STA. 243+66, LT (PIERCE ST. TH-148)

REMOVING SIGNS
AS SHOWN - 2

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 239+14 TO 239+83, LT BIKE LANE
STA. 243+45 TO 243+89, LT BIKE LANE





NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 36

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 137OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA. 249+27 TO 249+35, RT

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR RADII FOR SIDE ROADS)
STA. 244+50 TO 250+25, SOLID LT & RT (EDGE LINES)
STA. 246+38 TO 247+01, DOTTED RT (2)
STA. 249+23 TO 249+73, DOTTED RT (2)

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 244+50 TO 250+25, SOLID LT & RT (CENTER LANE)
STA. 244+50 TO 250+25, DASHED LT & RT (CENTER LANE)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 246+69, RT (GOUDREAU ST. TH-150)
STA. 249+45, RT (DEVIN ST. TH-151)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 246+69, RT "STOP" (GOUDREAU ST. TH-150)
STA. 247+11, RT BIKE LANE SYMBOL
STA. 247+23, RT BIKE LANE ARROW
STA. 249+45, RT "STOP" (DEVIN ST. TH-151)
STA. 249+86, RT BIKE LANE SYMBOL
STA. 249+98, RT BIKE LANE ARROW

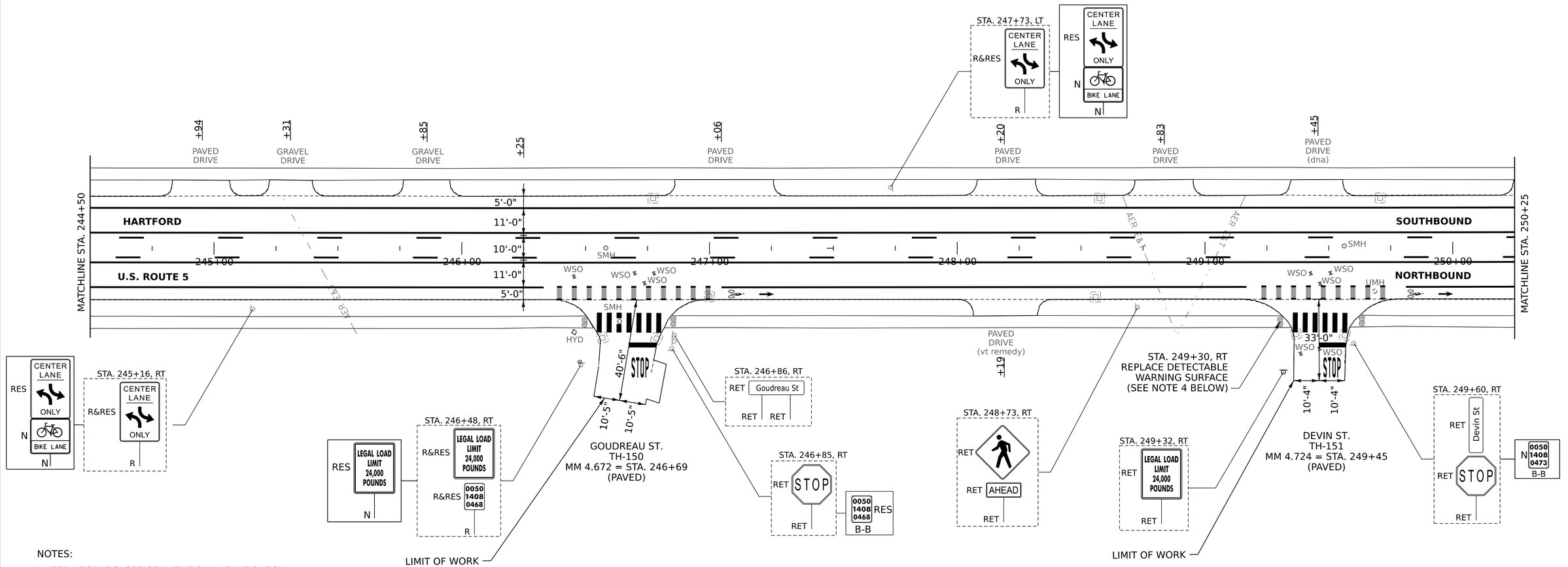
DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 246+69, RT (GOUDREAU ST. TH-150)
STA. 249+45, RT (DEVIN ST. TH-151)

REMOVING SIGNS
AS SHOWN - 4

RESETTING SIGNS
AS SHOWN - 4

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 246+38 TO 247+01, RT BIKE LANE
STA. 249+23 TO 249+73, RT BIKE LANE

VT STATE PLANE GRID



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.
4. THIS WORK CONSISTS OF THE REMOVAL AND REPLACEMENT OF A SINGLE SLAB OF CONCRETE SIDEWALK IN ORDER TO INSTALL A NEW DETECTABLE WARNING SURFACE. FOR ITEM BREAKDOWN SEE ITEM DETAIL SUMMARY SHEETS.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 37

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 138OF 210

CHANGING ELEVATION OF DIs, CBs OR MHs
SEE STRUCTURE INVENTORY SHEETS

REHAB. DIs, CBs OR MHs, CLASS I, II, OR III
SEE STRUCTURE INVENTORY SHEETS

CHANGING ELEVATION OF SEWER MANHOLES
SEE STRUCTURE INVENTORY SHEETS

ADJUST ELEVATION OF VALVE BOX
SEE STRUCTURE INVENTORY SHEETS

DURABLE 4 INCH WHITE LINE, (OPTION ITEMS)
TEMPORARY 4 INCH WHITE LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS AND/OR
RADII FOR SIDE ROADS)
STA. 250+25 TO 255+97.44, SOLID LT & RT (EDGE LINES)
STA. 252+47 TO 253+03, DOTTED RT (2)
STA. 252+66 TO 253+28, DOTTED LT (2)
STA. 253+24 TO 253+74, SOLID LT (LANE LINE)
STA. 253+74 TO 254+88, DOTTED LT

DURABLE 4 INCH YELLOW LINE, (OPTION ITEMS)
TEMPORARY 4 INCH YELLOW LINE, PAINT
(ALL LINES WILL INCLUDE BREAKS FOR SIDE ROADS)
STA. 250+25 TO 252+52, SOLID LT & RT (CENTER LANE)
STA. 250+25 TO 252+52, DASHED LT & RT (CENTER LANE)
STA. 252+99, DOUBLE SOLID LT (HEWITT ST. TH-174)
STA. 253+23 TO 254+38, DOUBLE SOLID RT
STA. 254+38 TO 255+97.44 DOUBLE SOLID LT & RT

DURABLE 8 INCH YELLOW LINE, (OPTION ITEMS)
STA. 254+38 TO 255+97.44, SOLID LT & RT (DIAGONALS)

DURABLE 24 INCH STOP BAR, (OPTION ITEMS)
TEMPORARY 24 INCH STOP BAR, PAINT
STA. 252+72, RT (ADVENT LN. TH-185)
STA. 252+99, LT (HEWITT ST. TH-174)

DURABLE LETTER OR SYMBOL, (OPTION ITEMS)
TEMPORARY LETTER OR SYMBOL, PAINT
STA. 252+47, LT BIKE LANE ARROW
STA. 252+59, LT BIKE LANE SYMBOL
STA. 252+72, RT "STOP" (ADVENT LN. TH-185)
STA. 252+99, LT "STOP" (HEWITT ST. TH-174)
STA. 253+28, CL ARROW
STA. 253+31, RT BIKE LANE SYMBOL
STA. 253+43, RT BIKE LANE ARROW
STA. 253+70, CL ARROW

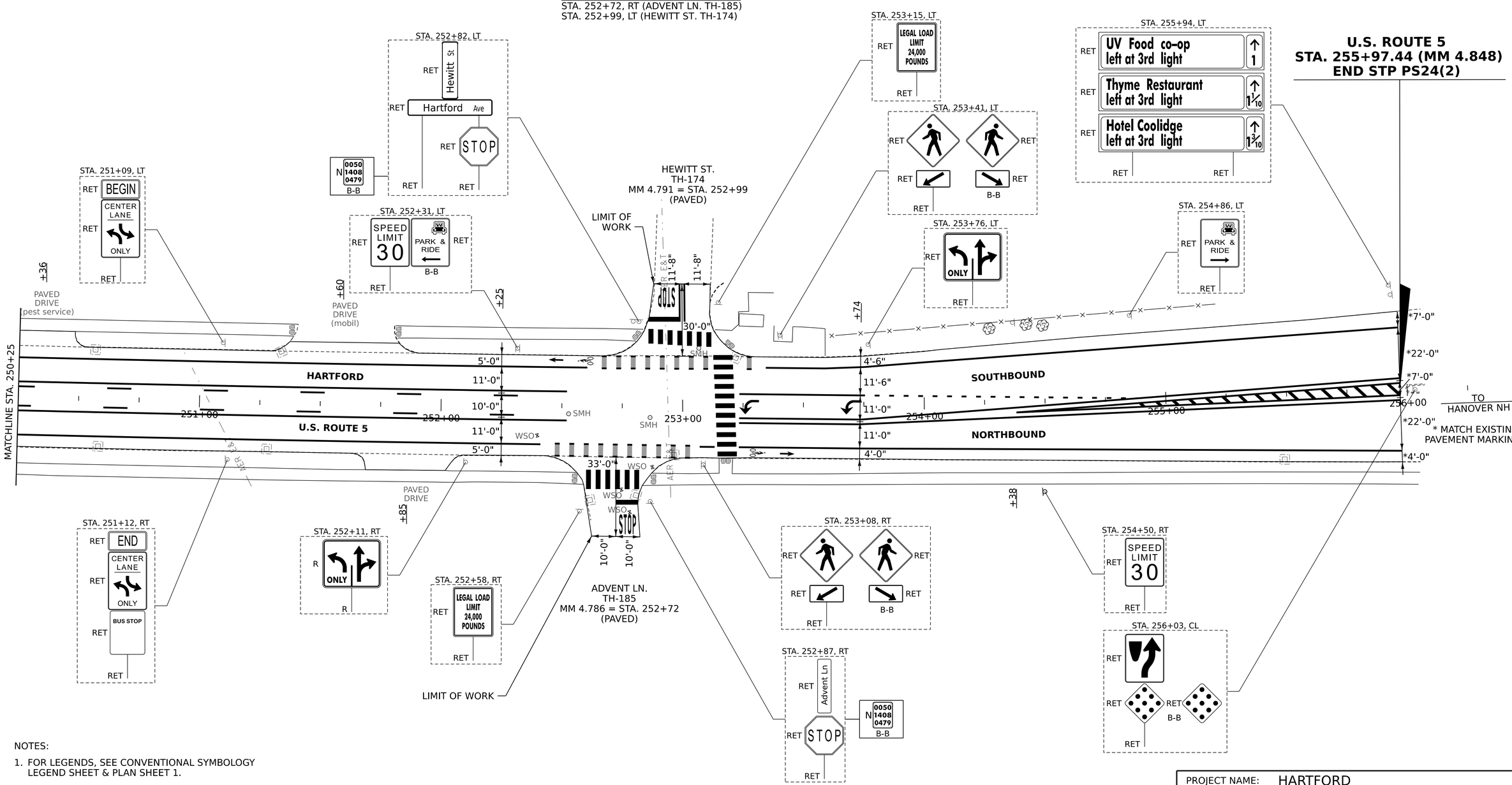
DURABLE CROSSWALK MARKING, (OPTION ITEMS)
TEMPORARY CROSSWALK MARKING, PAINT
STA. 252+72, RT (ADVENT LN. TH-185)
STA. 252+99, LT (HEWITT ST. TH-174)
STA. 253+17, LT TO 253+19, RT

REMOVING SIGNS
AS SHOWN - 1

SPECIAL PROVISION (GREEN PAVEMENT MARKINGS)
STA. 252+47 TO 253+03, RT BIKE LANE
STA. 252+66 TO 253+28, LT BIKE LANE

VT STATE PLANE GRID

U.S. ROUTE 5
STA. 255+97.44 (MM 4.848)
END STP PS24(2)



NOTES:

1. FOR LEGENDS, SEE CONVENTIONAL SYMBOLOGY LEGEND SHEET & PLAN SHEET 1.
2. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED.
3. ALL EXISTING SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE RETAINED UNLESS OTHERWISE NOTED.

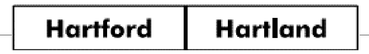
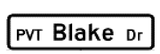
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_bdr.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
PLAN SHEET 38

PLOT DATE: 3-AUG-2023
DRAWN BY: G. BARRETT
CHECKED BY: M. FOISY
SHEET 139OF 210

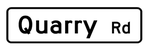
DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	0+00, RT		VD-024	72	10			5.00								2		X										T-94
			VD-700	6	10			0.42																			T-44
											1	1																
	0+25, RT		R3-17	24	18			3.00								1		X									X		
			R3-17aP	24	8			1.34																			X		
	0+49, LT		VW-060	30	30			6.25								1		X											T-81
	2+00, LT		W7-1a	30	30			6.25								1		X									X		
	3+42, LT		R3-17	24	18			3.00								1		X									X		
			R3-17bP	24	8			1.34																			X		
	4+42, LT		W1-5L	30	30			6.25								2		X									X		
			W16-4P	30	24			5.00																			X		
	6+02, RT		D3-1	48	12	BLK WHT		6.00								2		X									DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
	6+20, RT		R1-1	30	30			6.25								1		X									X		
			VD-700	6	10			0.42																			MOUNT BACK TO BACK			T-44
	6+57, LT		S3-1	36	36	FYG		9.00								2		X									X		
							SHEET TOTALS	59.52	0.00	0	1	1	0	0	0	13		195.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0	0.0								

SIGN SUMMARY SHEET

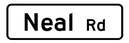
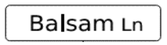
VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	9+95, RT		D3-1	42	12			5.25								1		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
			R1-1	30	30			6.25																			X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	10+11, LT		R3-7	30	30			6.25								1		X									X		
	12+55, LT		VR-921	30	30			6.25								1		X											E-145A
	17+52, RT		W1-2R	30	30			6.25								1		X									X		
	20+69, RT		VW-205	36	36			9.00								2		X											T-82
	21+58, LT		D3-1	42	12			5.25								1		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
	21+78, LT		R1-1	30	30			6.25								1		X									X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	22+74, LT		VR-017	24	30			5.00								1		X											T-70
			R2-1	24	30			5.00																			X		
	24+48, RT		R1-1	30	30			6.25								1		X									X		
	27+78, RT		W1-4R	30	30			6.25								1		X									X		
																													T-80
SIGN SUMMARY SHEET							SHEET TOTALS	74.09	0.00	0	0	0	0	0	0	11		165.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**
FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 2
SHEET **141** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	30+80, LT		D3-1	36	12			4.50								1		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
			R1-1	30	30			6.25																			X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	31+20, LT		VR-017	24	30			5.00								1		X											T-70
	32+48, LT		VW-205	36	36			9.00								2		X											T-82
	33+70, RT							0.00			1	1				1		X											
			R1-1	30	30			6.25																			X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	37+61, LT		W1-4R	30	30			6.25								1		X									X		
	42+24, RT		VD-700	6	10			0.42								1	X											T-44
	47+95, RT		D3-1	48	12	BLK WHT		6.00								2		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
	48+43, RT		R1-1	30	30			6.25								1		X									X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	50+98, LT		VR-921	30	30			6.25								1		X											E-145A
	52+80, LT		VD-700	6	10			0.42								1	X											T-44
SIGN SUMMARY SHEET							SHEET TOTALS	57.85	0.00	0	1	1	0	0	0	12		180.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm** PLOT DATE: **8/3/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 3 SHEET **142** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	56+49, RT		VR-020	24	30			5.00								1		X										T-70
	58+50, RT		R3-17	24	18			3.00								1		X									X		
	59+00, LT		R3-17	24	18			3.00								1		X									X		
	60+91, RT										1	1				1		X								MOUNT SALVAGED SIGN ON NEW POST			
	60+93, RT		VR-017	24	30			5.00								1		X										T-70
	61+24, RT		D3-1	42	12			5.25								1		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
			R1-1	30	30			6.25																			X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	62+09, RT										1	1				1		X											
	63+36, RT		VD-700	6	10			0.42								1	X											T-44
	64+97, RT		W1-4R	30	30			6.25								1		X									X		
	65+53, LT										1	1				1		X											
	73+92, LT		VD-700	6	10			0.42								1	X											T-44
	74+49, LT		VW-054R	30	30			6.25								1		X											
	80+38, LT		W1-4R	30	30			6.25								1		X									X		
SIGN SUMMARY SHEET							SHEET TOTALS	47.51	0.00	0	3	3	0	0	0	13		195.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

TRAFFIC SIGN SUMMARY SHEET 4

SHEET **143** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	84+48, RT		VD-700	6	10		0050 1408 0160	0.42								1	X												T-44
	95+04, LT		VD-700	6	10		0050 1408 0180	0.42								1	X												T-44
	97+80, LT		VW-205	36	36		WATCH FOR TURNING VEHICLES	9.00								2		X											T-82
	102+04, RT		VW-205	36	36		WATCH FOR TURNING VEHICLES	9.00								2		X											T-82
	102+71, RT		D3-1	42	12		Melisi Rd	5.25								1		X									DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
			R1-1	30	30		STOP	6.25																				X		
			VD-700	6	10		0050 1408 0195	0.42																			MOUNT BACK TO BACK			T-44
	105+36, LT		D3-1	42	12		Remick Rd	5.25								1		X									DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		151	
			R1-1	30	30		STOP	6.25																				X		
			VD-700	6	10		0050 1408 0200	0.42																			MOUNT BACK TO BACK			T-44
	105+70, LT		VR-017	24	30		LEGAL LOAD LIMIT 24,000 POUNDS	5.00								1		X											T-70
	116+16, RT		VD-700	6	10		0050 1408 0220	0.42								1	X												T-44
	118+47, LT		VW-054R	30	30		HIDDEN DRIVES RIGHT	6.25								1		X											T-80
	122+99, RT		VD-018B	36	24		White River Jct. Wilder 3	6.00								1		X											T-95
							SHEET TOTALS	60.35	0.00	0	0	0	0	0	0	12		180.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0	0.0								

SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
TRAFFIC SIGN SUMMARY SHEET 5

PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	124+68, RT		R1-1	30	30			6.25																		MOUNT ON EXISTING POST	X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK WITH NEW STOP SIGN ON EXISTING POST			T-44
	125+19, RT		W1-10R	36	36			9.00									2		X									X		
			W13-1P	18	18			2.25																			X		
	125+37, LT		VR-921	30	30			6.25								1		X											E-145A
	126+47, LT		D3-1	72	12			9.00								2		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		152	
			R1-1	30	30			6.25																			X		
			VD-700	6	10			0.42																		MOUNT BACK TO BACK			T-44
	126+76, RT		W12-2	36	36			9.00									2		X									X		
	126+96, LT		VR-017	24	30			5.00								1		X											T-70
	128+25, RT		R3-17	24	18			3.00								1		X										X		
	128+50, LT		R3-17	24	18			3.00								1		X										X		
	129+70, LT		W12-2	36	36			9.00								2		X									X		
	130+58, LT		M3-3	24	12	BLK WHT		2.00								1		X									X		
			M1-4	24	24	BLK WHT		4.00																			X		
SIGN SUMMARY SHEET							SHEET TOTALS	74.84	0.00	0	0	0	0	0	0	13		195.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm** PLOT DATE: **8/3/2023**
PROJECT MANAGER: **M. FOISY** DRAWN BY: **D. DRAPER**
DESIGNED BY: **D. DRAPER** CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 6 SHEET **145** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																			"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	131+17, LT		R2-1	24	30		SPEED LIMIT 35	5.00								1		X									X		
	132+41, LT		VD-700	6	10		0050 1408 0250	0.42																		MOUNT ON EXISITNG POST			T-44
	136+49, LT		W1-10L	36	36			9.00								2		X									X		
			W13-1P	18	18		30 MPH	2.25																			X		
	138+40, RT		R2-1	24	30		SPEED LIMIT 35	5.00								1		X									X		
	141+62, LT		R1-1	30	30		STOP	6.25								1		X									X		
			VD-700	6	10		0050 1408 0268	0.42																		MOUNT BACK TO BACK			T-44
	142+80, LT		VR-921	30	30		ONLY	6.25								1		X									X		
	144+66, LT		VD-700	6	10		0050 1408 0274	0.42																		MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
	145+08, RT		VD-700	6	10		0050 1408 0275	0.42																		MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
	145+08, RT		D3-1	66	12	BLK WHT	PVT Balardvail Dr	9.00								2		X								DOUBLE SIDED SIGN, AREA HAS BEEN MULTIPLIED BY 1.5		152	
			R1-1	30	30		STOP	6.25								1		X									X		
			VD-700	6	10		0050 1408 0275	0.42																		MOUNT BACK TO BACK			T-44
			SHEET TOTALS					51.10	0.00	0	0	0	0	0	0	9		135.0			0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT			EA	LB	LB	LB	LB					
			TOWN DIRECTIONAL TOTALS					502.6	0.0	0	17	17	0	0	0	103		1545.0			0	0.0								

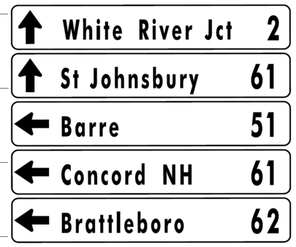
SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
TRAFFIC SIGN SUMMARY SHEET 7

PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	145+27, RT										1	1				2		X								MOUNT RETAINED SIGNS ON NEW POSTS			
											1	1																	
											1	1																	
											1	1																	
											1	1																	
	146+54, RT										1	1				1		X								MONT RETAINED SIGN ON NEW POST			
	147+30, LT		VD-700	6	10			0.42								1	X								MOUNT BACK TO BACK ON EXISTING POLE			T-44
	206+54, LT			24	24	WHT BLU		4.00																		MOUNT ON LIGHT POLE USING NEW HARDWARE (INCIDENTAL)		152	
			M5-1	21	15	WHT BLU		2.19																		MOUNT ON LIGHT POLE USING NEW HARDWARE (INCIDENTAL)	X		
	213+00, RT		R4-4	36	30			7.50								1		X								MOUNT ON BRIDGE USING NEW HARDWARE (INCIDENTAL)	X		
	213+61, RT		VR-922	36	30			7.50								1		X								MOUNT ON BRIDGE USING NEW HARDWARE (INCIDENTAL)			E-145A
	213+71, LT		VD-701	6	10			0.42																		MOUNT ON EXISTING LIGHT POLE			T-42
	218+05, LT		VR-922	36	30			7.50								1		X											E-145A
	221+76, RT		R3-17	24	18			3.00								1		X									X		
			VD-700	6	10			0.42																				T-44
SIGN SUMMARY SHEET							SHEET TOTALS	32.95	0.00	0	6	6	0	0	0	8		120.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0		0.0							

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**
FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**
TRAFFIC SIGN SUMMARY SHEET 8
SHEET **147** OF **210**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																			"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	223+99, RT		VD-700	6	10		0050 1408 0424	0.42																		MOUNT ON EXISITNG POST			T-44
	225+00, LT		R3-17	24	18		BIKE LANE	3.00								1		X									X		
	231+41, RT		R6-1R	36	12		ONE WAY	3.00								1		X									X		
	232+54, LT		R3-18	24	24			4.00																		MOUNT ON EXISITNG POST			
	233+36, LT		VR-921	30	30		ONLY	6.25								1		X											E-145A
	234+80, LT						ONLY ONLY				1	1				2		X											E-145B
	238+62, RT		VD2-1S	72	20		Hartford Area Career & Technology Center	10.00								2		X											T-93
	239+29, LT		VD-700	6	10		0050 1408 0453	0.42																		MOUNT ON EXISITNG POST			T-44
	241+89, LT		VD2-1S	72	20		Hartford Area Career & Technology Center	10.00								2		X											T-93
	243+51, LT						0050 1408 0461				1	1														MOUNT SALVAGED SIGN ON EXISITNG POST			
	245+16, RT						CENTER LANE ONLY				1	1				1		X											
			R3-17	24	18		BIKE LANE	3.00																			X		
	246+48, RT						LEGAL LOAD LIMIT 24,000 POUNDS				1	1				1		X											
	246+85, RT						0050 1408 0468				1	1														MOUNT SALVAGED SIGN BACK TO BACK ON EXISITNG POST			
							SHEET TOTALS	40.09	0.00	0	5	5	0	0	0	11		165.0		0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103		1545.0		0	0.0								

SIGN SUMMARY SHEET

VERMONT AGENCY OF TRANSPORTATION

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

DIRECTION	MILEPOINT	LOCATION CODE (SHEET 2)	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS SALVAGE FROM	EXISTING SIGNS SALVAGE TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) 1.75 (LB / FT) 1.88	SQUARE STEEL (IN) 2.00 (LB / FT) 2.42	SQUARE STEEL (IN) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION SHSM	SIGN DETAIL LOCATION PROJECT SHEET #	SIGN DETAIL LOCATION STANDARD SHEET #
U.S. ROUTE 5							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
	247+73, LT										1	1				1		X										
			R3-17	24	18			3.00																	X		
	249+60, RT		VD-700	6	10			0.42																		MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
	252+82, LT		VD-700	6	10			0.42																		MOUNT BACK TO BACK ON EXISITNG POST			T-44
	252+87, RT		VD-700	6	10			0.42																		MOUNT BACK TO BACK WITH RETAINED STOP SIGN ON EXISITNG POST			T-44
SIGN SUMMARY SHEET							SHEET TOTALS	4.26	0.00	0	1	1	0	0	0	1	15.0			0	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA	FT			EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	502.6	0.0	0	17	17	0	0	0	103	1545.0			0	0.0								

PROJECT NAME: **HARTFORD**
PROJECT NUMBER: **STP PS24(2)**

FILE NAME: **z19v442 TSSS.xlsm**
PROJECT MANAGER: **M. FOISY**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **8/3/2023**
DRAWN BY: **D. DRAPER**
CHECKED **M. FOISY**

TOTAL SIGN SUMMARY SHEET

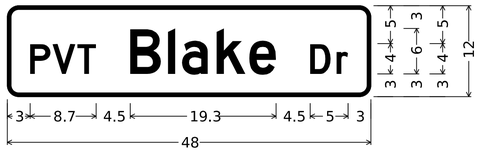
SHEET NUMBER	NEW SIGNS (SF)		EXISTING SIGNS (EA)				EXIST POST (EA)		SQUARE STEEL (IN)					TUBULAR STEEL ø (IN)				
									1.75	2.00	2.50				3.00	3.50	4.00	5.00
									(LB / FT)						(LB / FT)			
	"A"	"B"	RETAIN	RESET FROM	RESET TO	REMOVE	RETAIN	REMOVE	1.88	2.42	3.35	TOTAL POSTS	SQUARE TUBE SIGN POST AND ANCHOR (LF)	FOUNDATION	7.60	9.00	10.80	14.60
140	59.52			1	1				0	13	0	13	195					
141	74.09			0	0				0	11	0	11	165					
142	57.85			1	1				2	10	0	12	180					
143	47.51			3	3				2	11	0	13	195					
144	60.35			0	0				3	9	0	12	180					
145	74.84			0	0				0	13	0	13	195					
146	51.10			0	0				0	9	0	9	135					
147	32.95			6	6				1	7	0	8	120					
148	40.09			5	5				0	11	0	11	165					
149	4.26			1	1				0	1	0	1	15					
SUBTOTALS	**502.56**	**0.0**	**0**	**17**	**17**	**0**	**0**	**0**	**8**	**95**	**0**	**103**	**1545**	**0**	**0**	**0**	**0**	**0**
ROUNDING	**7.44**												**5**					
TOTALS	**510**	**0**	**0**	**17**	**17**	**0**	**0**	**0**	**8**	**95**	**0**	**103**	**1550**	**0**	**0**	**0**	**0**	**0**

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_frm.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. DRAPER
TRAFFIC SIGN SUMMARY SHEET 10

PLOT DATE: 3-AUG-2023
DRAWN BY: D. DRAPER
CHECKED BY: M. FOISY
SHEET 150 OF 210



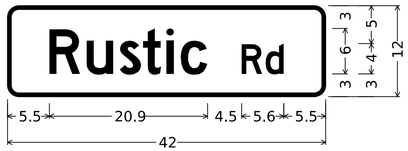
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"PVT", D 2K; "Blake", D 2K specified length;
"Dr", D 2K specified length;

D3-1

LOCATION: STA. 6+20, RT

COLOR: BLACK BORDER AND TEXT (RETROREFLECTIVE)
WHITE BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



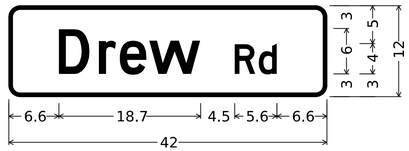
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Rustic", D 2K; "Rd", D 2K;

D3-1

LOCATION: STA. 21+78, LT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



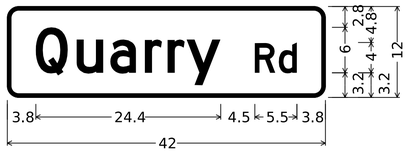
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Drew", D 2K; "Rd", D 2K;

D3-1

LOCATION: STA. 61+21, RT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



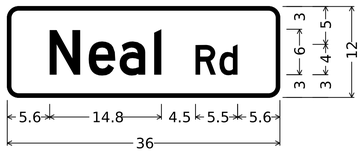
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Quarry", D 2K; "Rd", D 2K;

D3-1

LOCATION: STA. 9+95, RT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



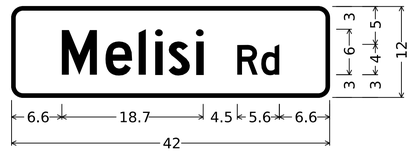
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Neal", D 2K; "Rd", D 2K;

D3-1

LOCATION: STA. 30+80, LT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Melisi", D 2K; "Rd", D 2K;

D3-1

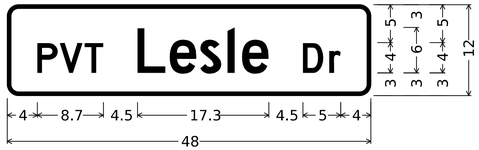
LOCATION: STA. 102+71, RT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM

STREET NAME SIGN INSTALLATION NOTES

1. SIDE ROAD STREET NAME SIGNS, COMMONLY INSTALLED PERPENDICULAR TO APPROACHING MAINLINE TRAFFIC, SHALL BE POSITIONED IN SUCH A WAY AS TO ENSURE THE BEST POSSIBLE VISIBILITY TO APPROACHING MAINLINE TRAFFIC FROM EACH DIRECTION. IN MOST CASES WHERE THE SIDE ROAD STOP SIGN POSITION WOULD NOT BE SUITABLE FOR A TOP-MOUNTED STREET NAME SIGN, OR DUE TO OTHER SITE-SPECIFIC CONSTRAINTS, THE STREET NAME SIGN MAY BE INSTALLED A MINIMUM OF SIX FEET FROM THE EDGE OF PAVEMENT OF THE MAINLINE ROUTE TO THE NEAREST EDGE OF THE SIGN.
2. SEE VTRANS STANDARD T-56 NOTE 2 FOR STREET NAME SIGNS WITH A LENGTH EXCEEDING 42-INCHES.
3. TOP-MOUNTED STREET NAME SIGNS SHALL REQUIRE 12 INCH MOUNTING BRACKETS. MOUNTING BRACKET AND ALL MOUNTING HARDWARE WILL BE CONSIDERED INCIDENTAL TO ITEM 675.20 TRAFFIC SIGNS, TYPE A.
4. IF EXISTING STREET SIGNS ARE SALVAGED, THEY SHALL BE RE-INSTALLED PER THE ABOVE NOTES OR AS DIRECTED BY THE ENGINEER.
5. STREET NAME SIGNS FOR PRIVATE ROADS SHALL BE RETAINED, UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER.
6. ALL STREET NAME SIGNS ARE TWO-SIDED UNLESS NOTED OTHERWISE.
7. FOR SHEETING SEE VTRANS STANDARDS T-1 AND T-2 UNLESS OTHERWISE DETAILED WITHIN THESE PLANS.
8. ALL COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND APPROVED BY FHWA UNLESS OTHERWISE NOTED. FOR FURTHER DETAILS AND NOTES SEE VTRANS STANDARDS T-1 AND T-2.



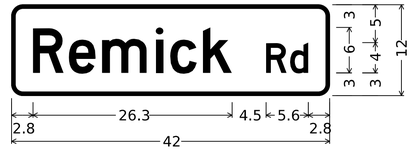
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"PVT", D 2K; "Lesle", D 2K;
"Dr", D 2K specified length;

D3-1

LOCATION: STA. 47+95, RT

COLOR: BLACK BORDER AND TEXT (RETROREFLECTIVE)
WHITE BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Remick", D 2K; "Rd", D 2K;

D3-1

LOCATION: STA. 105+36, LT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

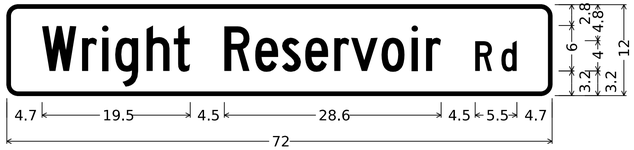
MATERIAL: 0.125" FLAT SHEET ALUMINUM

NOT TO SCALE

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2) & NH PS24(3)

FILE NAME:z19v443_tsd.dgn PLOT DATE: 3-AUG-2023
PROJECT LEADER: M. FOISY DRAWN BY: D. DRAPER
DESIGNED BY: D. DRAPER CHECKED BY: M. FOISY
TRAFFIC SIGN DETAIL SHEET 1 SHEET 151OF 210



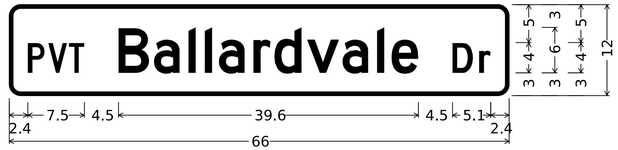
D3-1(1)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"Wright", C 2K; "Reservoir", C 2K; "Rd", C 2K specified length;

D3-1

LOCATION: STA. 126+47, LT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
GREEN BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



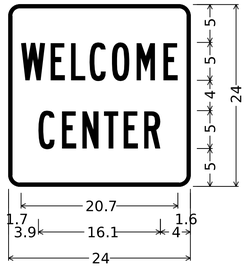
D3-1(3)_VARx12;
1.5" Radius, 0.5" Border, White on, Green;
"PVT", C 2K; "Ballardvale", D 2K; "Dr", D 2K;

D3-1

LOCATION: STA. 145+08, RT

COLOR: BLACK BORDER AND TEXT (RETROREFLECTIVE)
WHITE BACKGROUND (RETROREFLECTIVE)

MATERIAL: 0.125" FLAT SHEET ALUMINUM



1.5" Radius, 0.5" Border, White on, Blue;
"WELCOME", B 2K;
"CENTER", B 2K;

LOCATION: STA. 206+54, LT

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)
BLUE BACKGROUND (RETROREFLECTIVE)

MATERIAL: SEE VTRANS STANDARD T-2

NOT TO SCALE

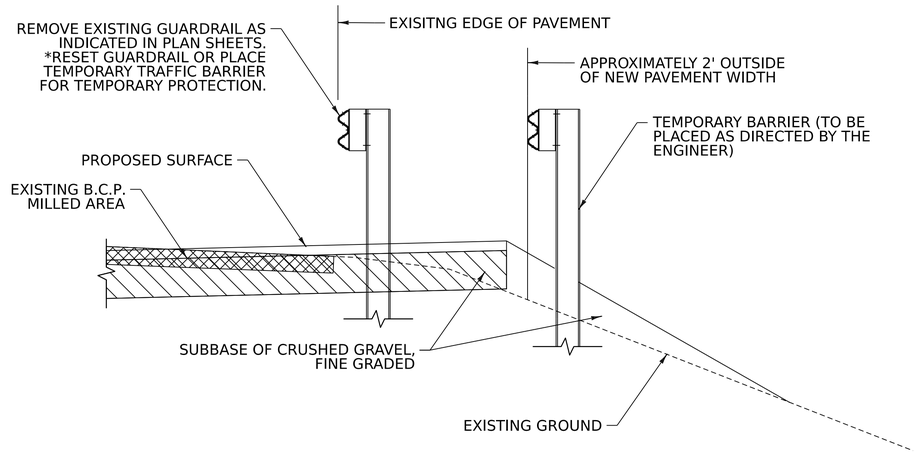
Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2) & NH PS24(3)

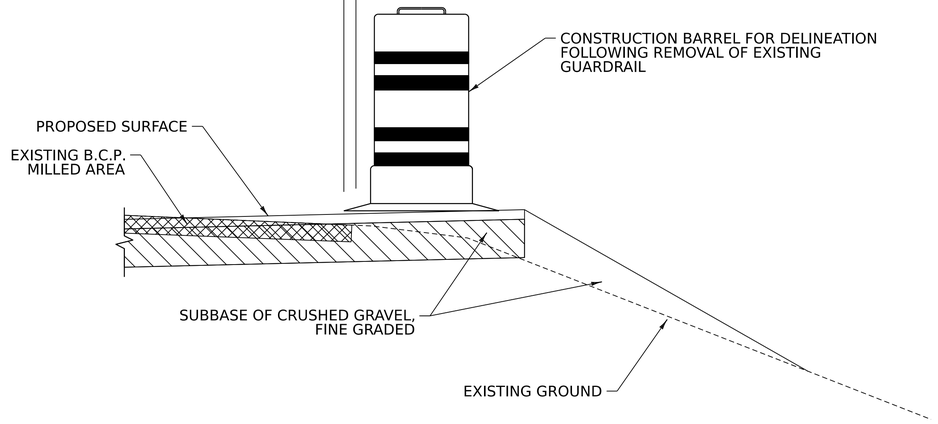
FILE NAME:z19v443_tsd.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: D. DRAPER
TRAFFIC SIGN DETAIL SHEET 2

PLOT DATE: 3-AUG-2023
DRAWN BY: D. DRAPER
CHECKED BY: M. FOISY
SHEET 152OF 210

EXISTING GUARDRAIL INVENTORY								PROTECTION PLAN	
BEGIN STA.	END STA.	OFFSET	LENGTH (LF)	RETAIN/ REPLACE (Y/N)	OFFSET DISTANCE FROM PROPOSED HCL TO FACE OF RAIL (LF)	EXISTING RAIL TYPE	ASSESSED CONDITION (GOOD/FAIR /POOR)	CONSTRUCTION CONDITION	ITEM 900.640 BARRIER FOR TEMPORARY TRAFFIC PROTECTION (LF)
HARTFORD U.S. ROUTE 5									
20+89	24+04	RT	337.5	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	337.5
22+68	25+05	LT	237.5	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	237.5
28+55	30+32	RT	175	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	175
28+63	30+56	LT	200	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	200
45+00	47+61	RT	262.5	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	262.5
48+43	55+15	RT	675	Y	0'-0"	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRIER. INSTALL NEW AFTER TYPE IIS LIFT IS COMPLETE.	675
								SUBTOTAL =	1887.5



* PAYMENT FOR THIS WORK WILL BE MADE UNDER ITEM 900.640 SPECIAL PROVISION (BARRIER FOR TEMPORARY TRAFFIC PROTECTION)



PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE UNIT BID PRICE FOR CONTRACT ITEM 641.11

TEMPORARY TRAFFIC PROTECTION AND DELINEATION DURING CONSTRUCTION

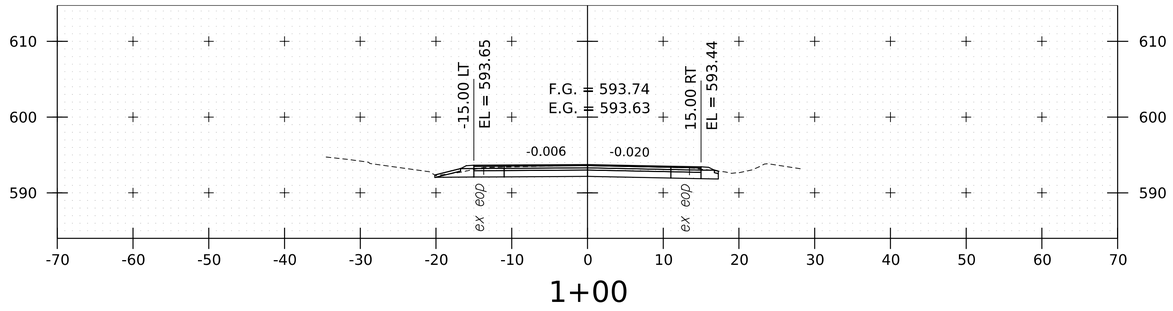
NOT TO SCALE

Stantec

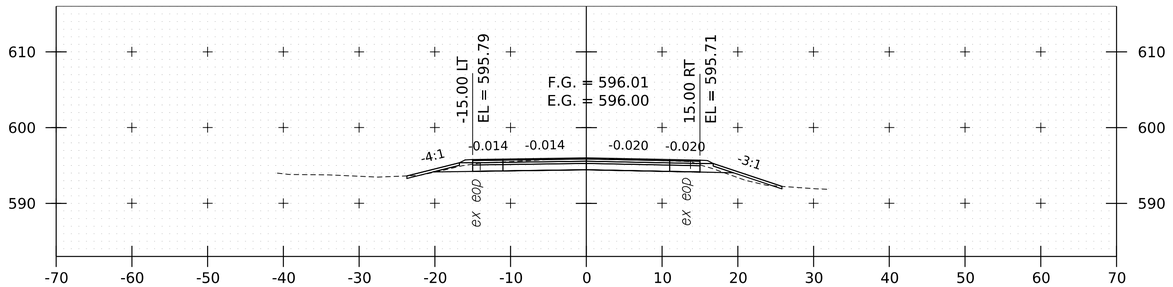
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME:z19v443_det.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CONST. OPS. TRAFFIC PROTECTION PLAN

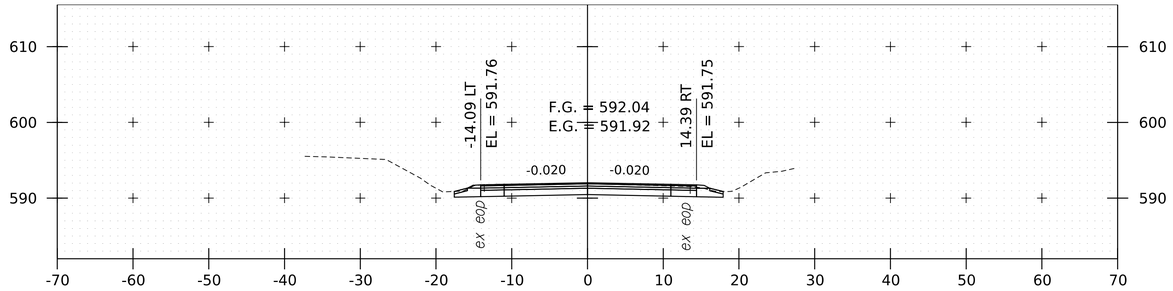
PLOT DATE: 3-AUG-2023
DRAWN BY: G. BURGMEIER
CHECKED BY: M. FOISY
SHEET 153OF 210



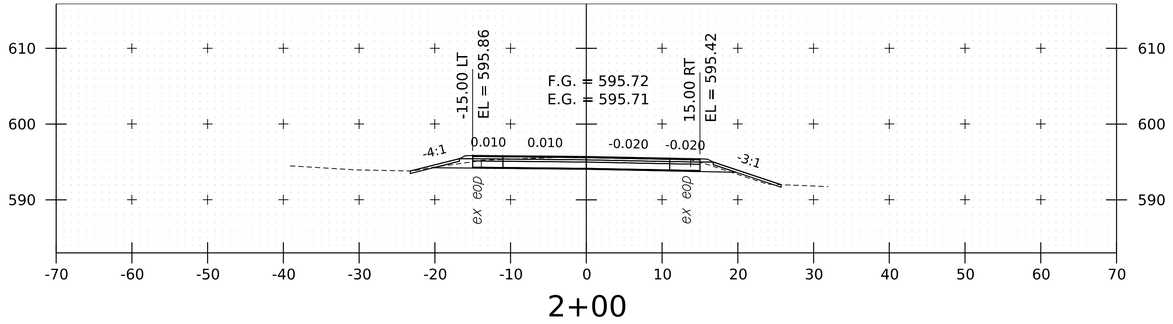
1+00



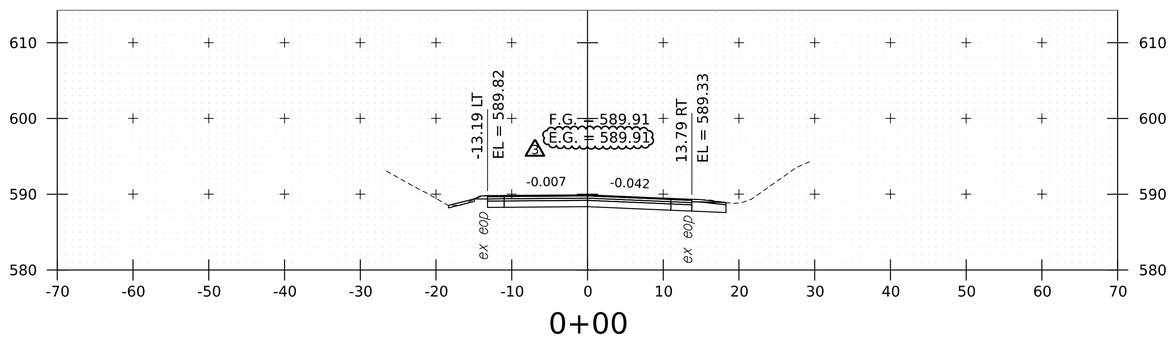
2+50



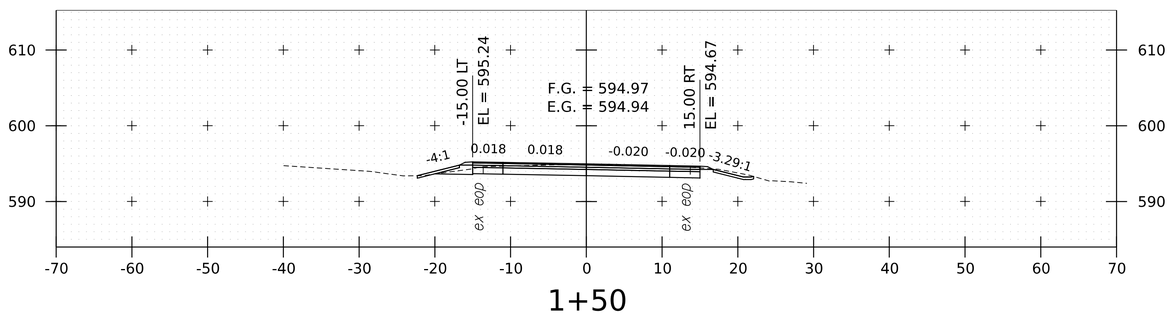
0+50



2+00



0+00



1+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

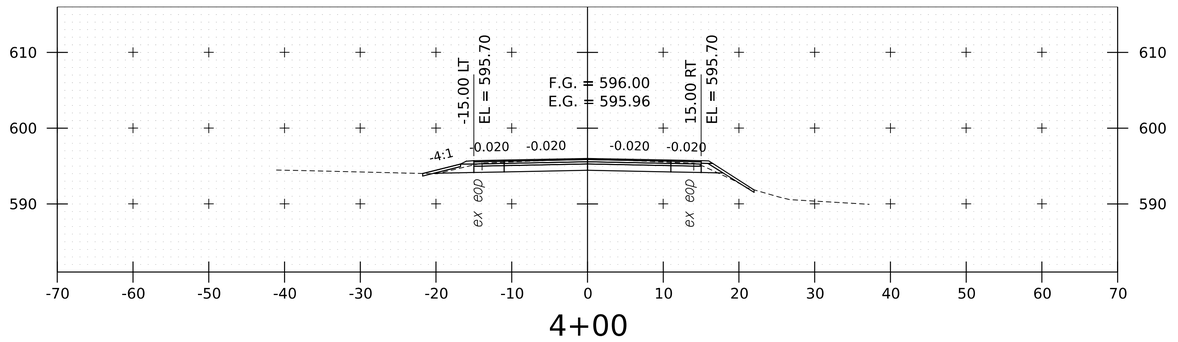
0 10 20
SCALE IN FEET

Stantec

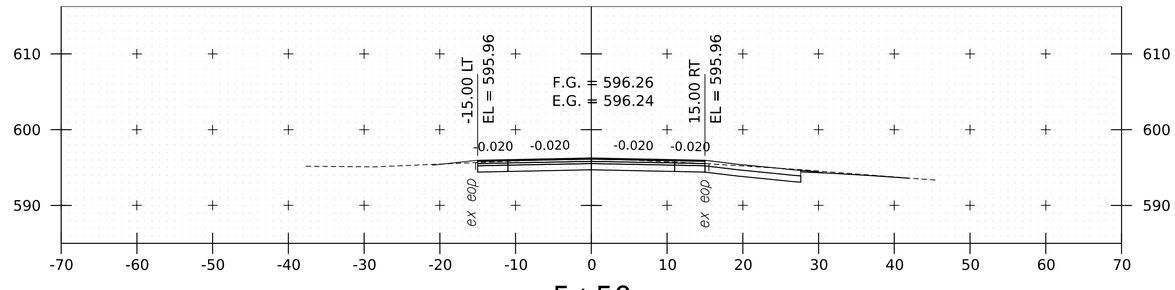
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 1

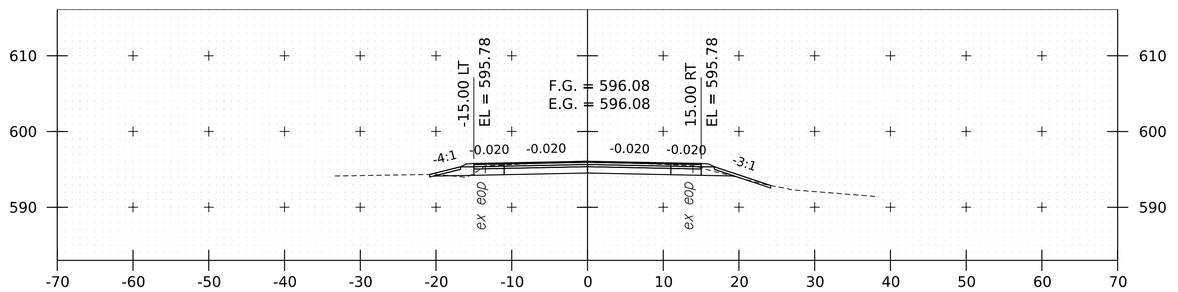
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 154 OF 210



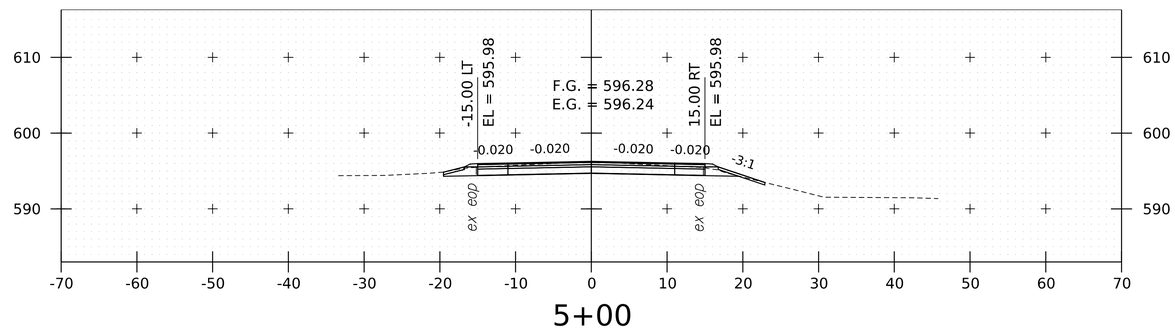
4+00



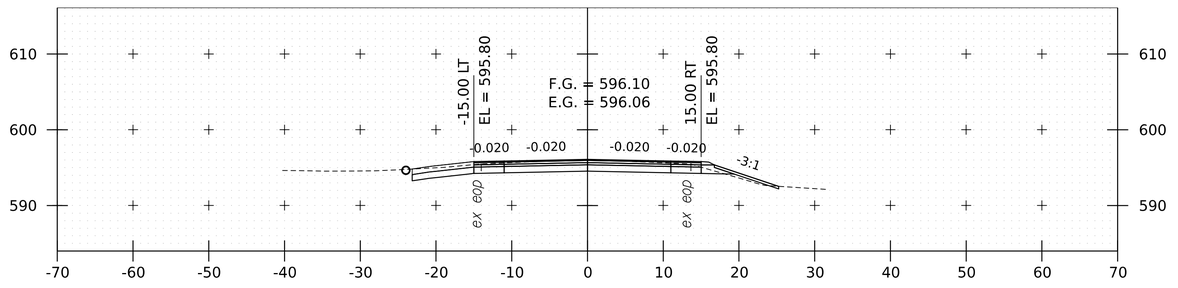
5+50



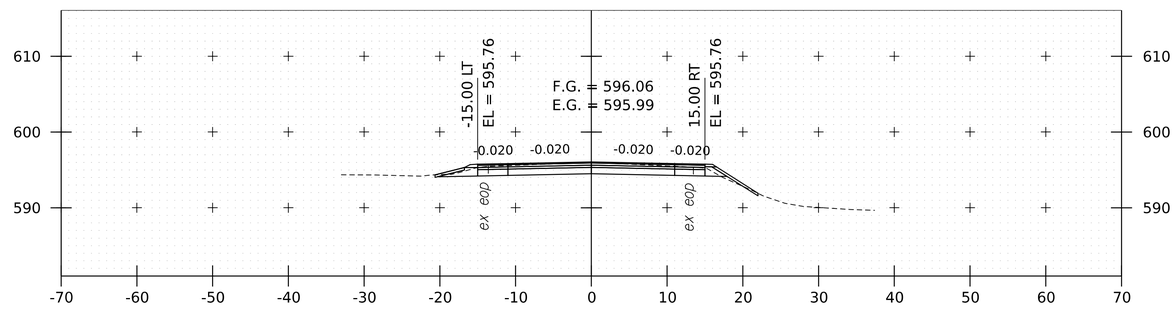
3+50



5+00



3+00



4+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
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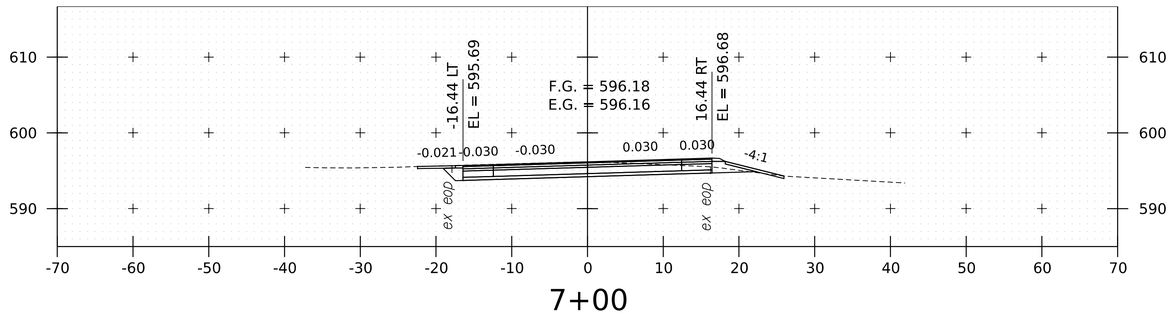
0 10 20
SCALE IN FEET

Stantec

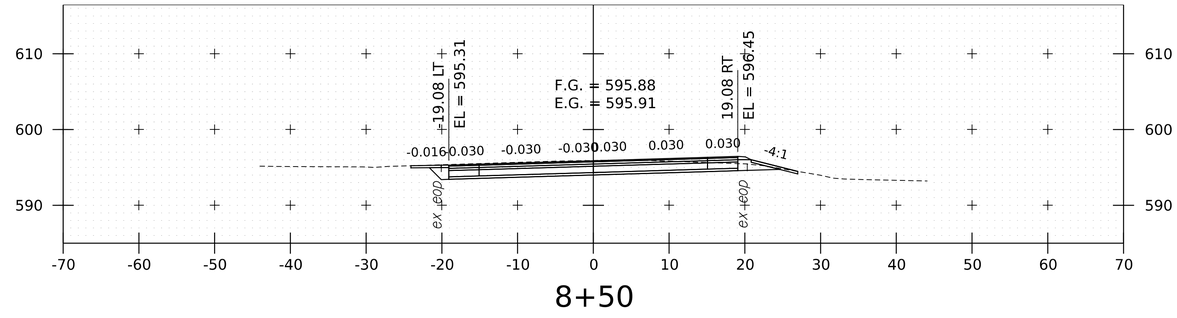
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 2

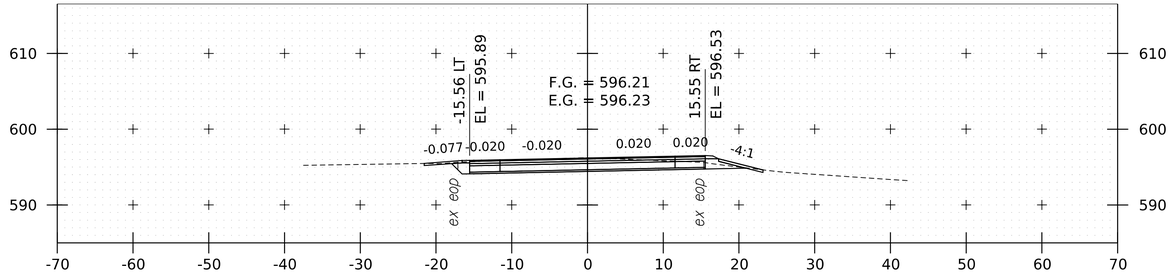
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 155 OF 210



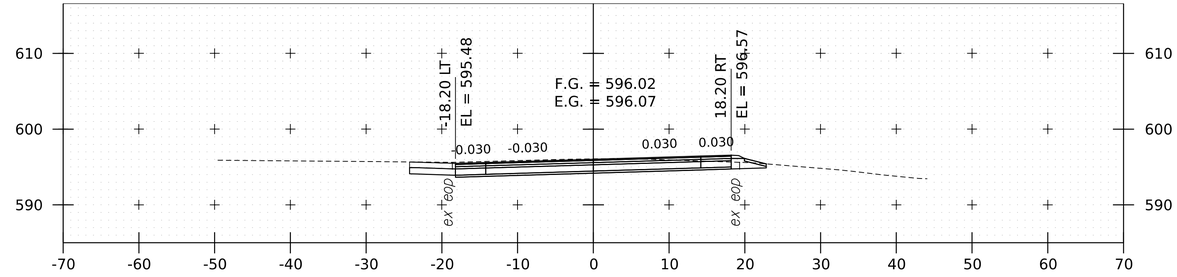
7+00



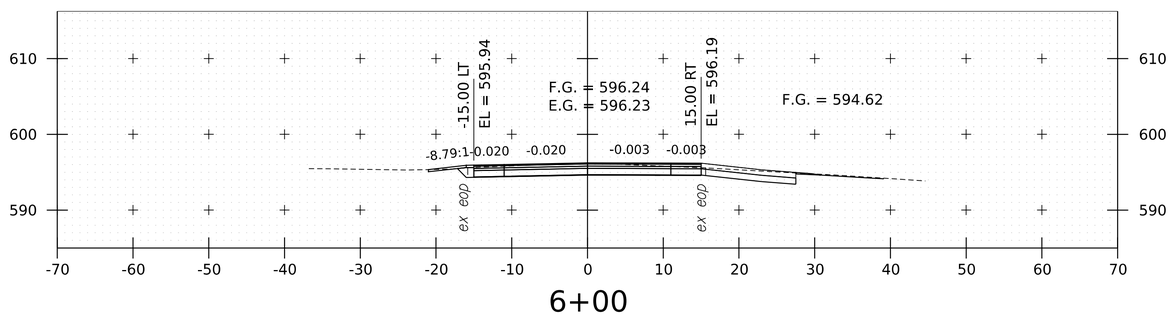
8+50



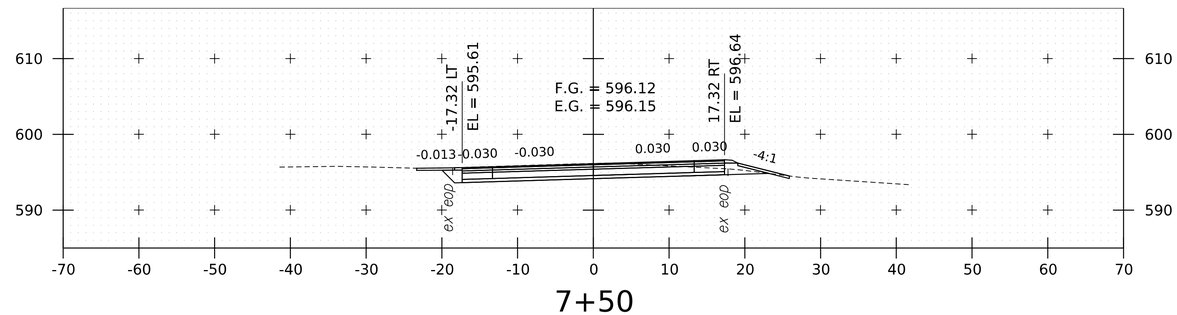
6+50



8+00



6+00



7+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

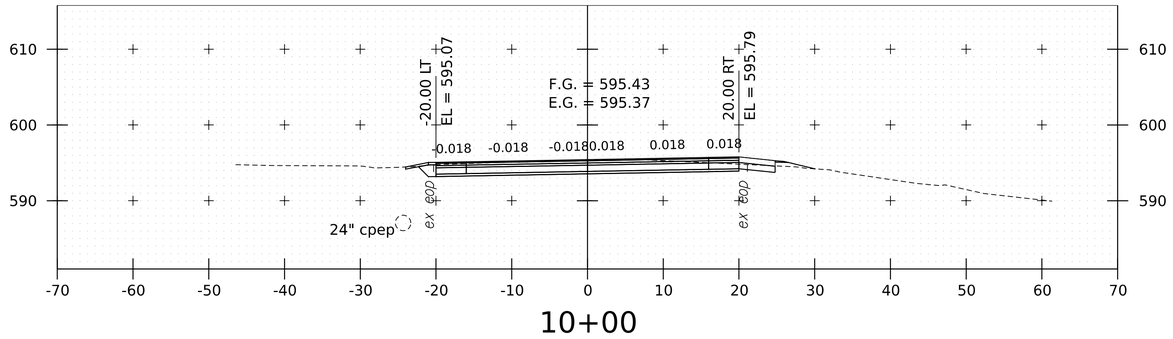
0 10 20
SCALE IN FEET

Stantec

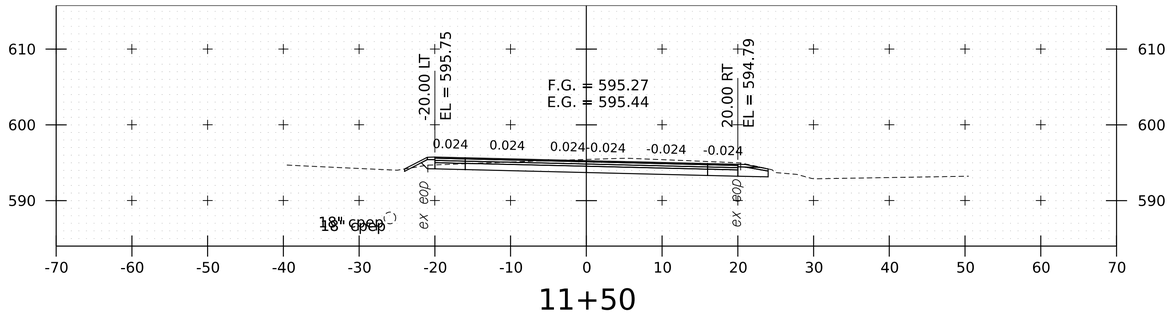
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 3

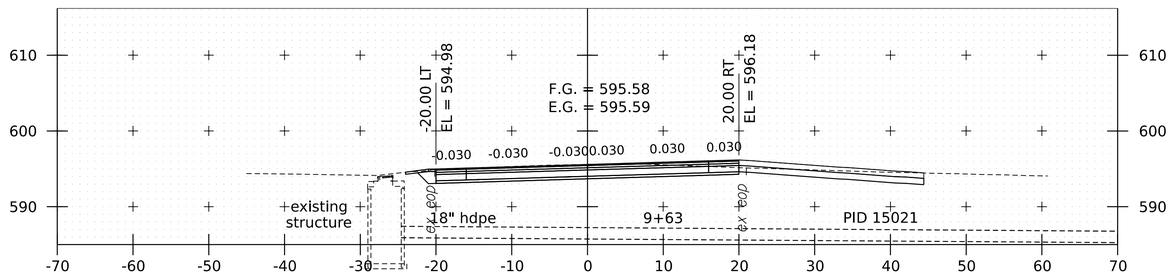
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 156 OF 210



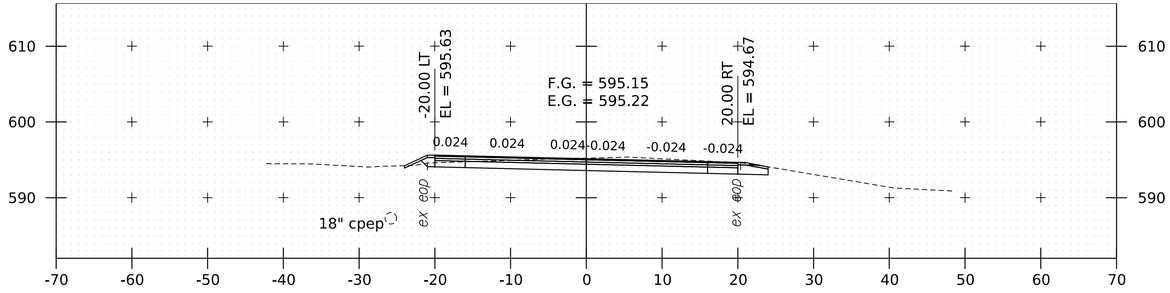
10+00



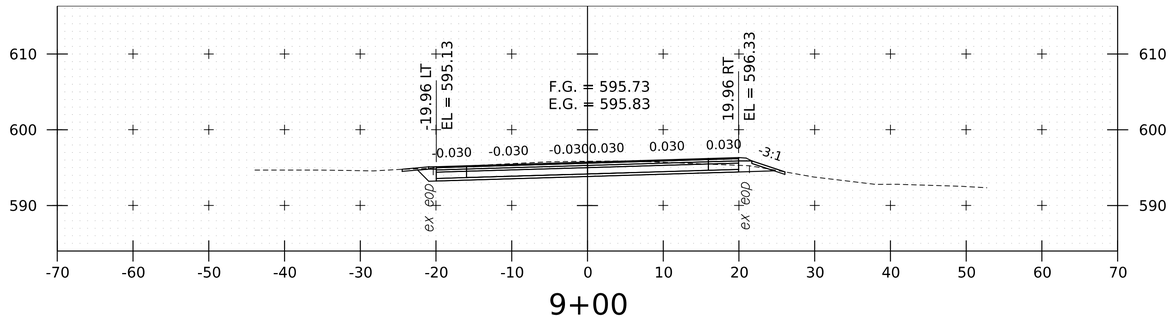
11+50



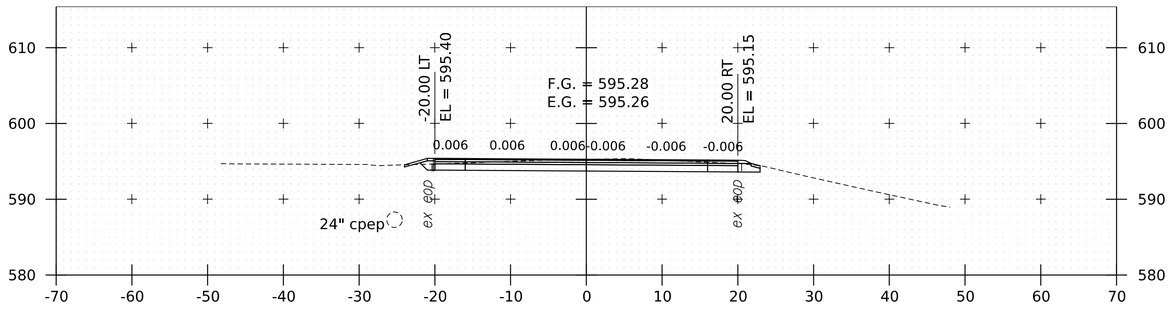
9+50



11+00



9+00



10+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

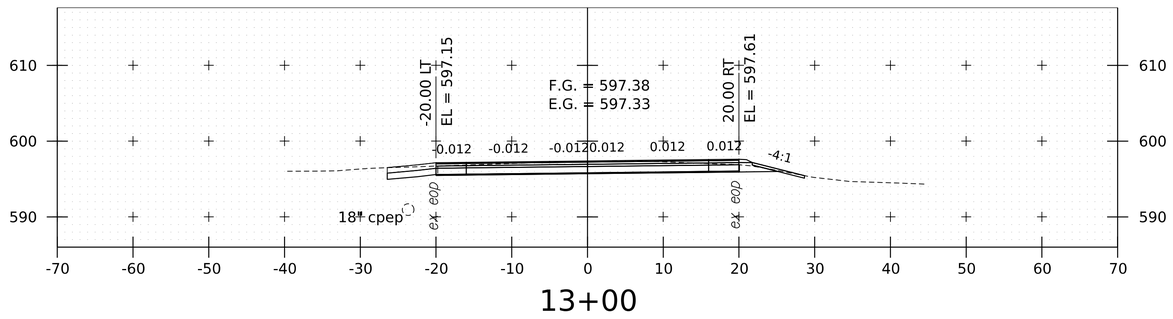
0 10 20
SCALE IN FEET

Stantec

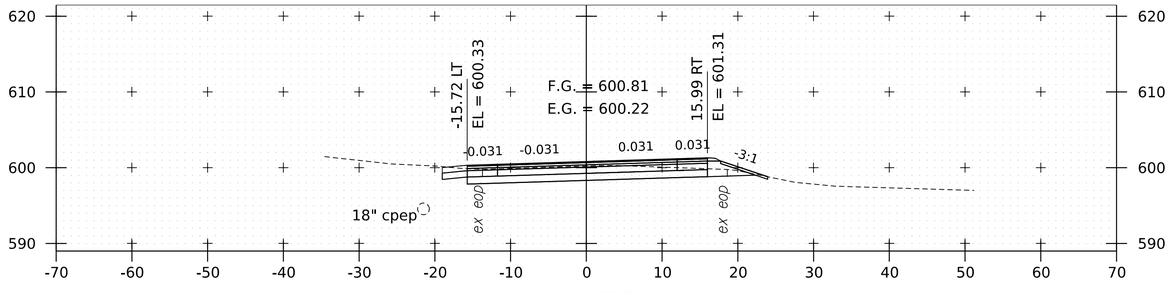
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 4

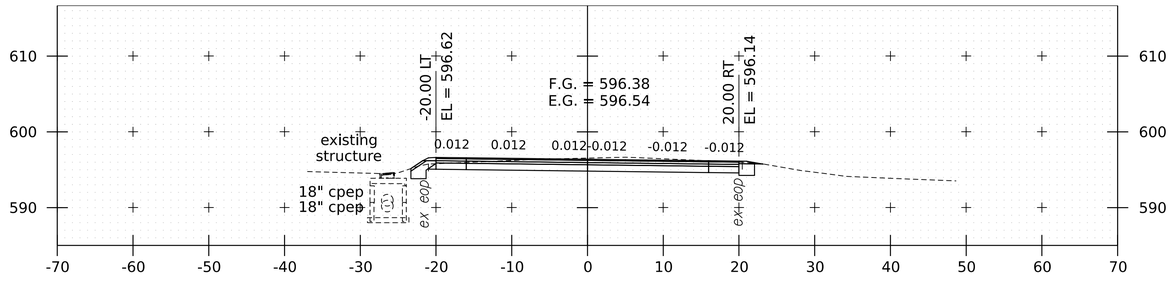
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 157 OF 210



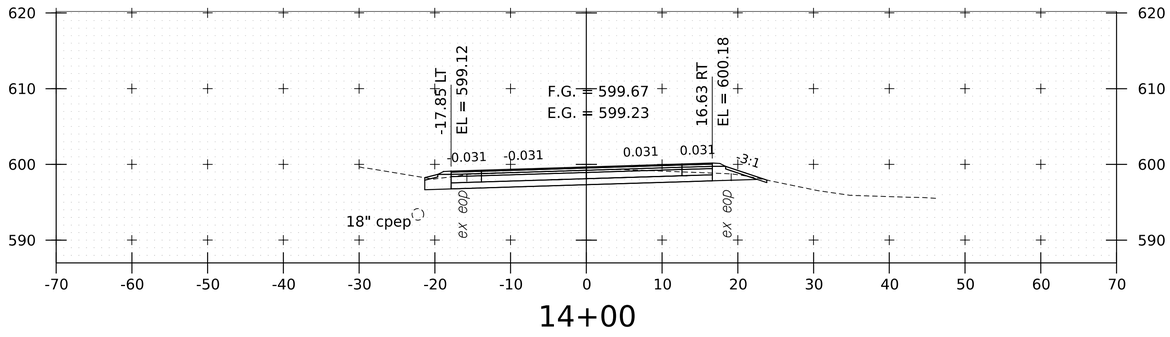
13+00



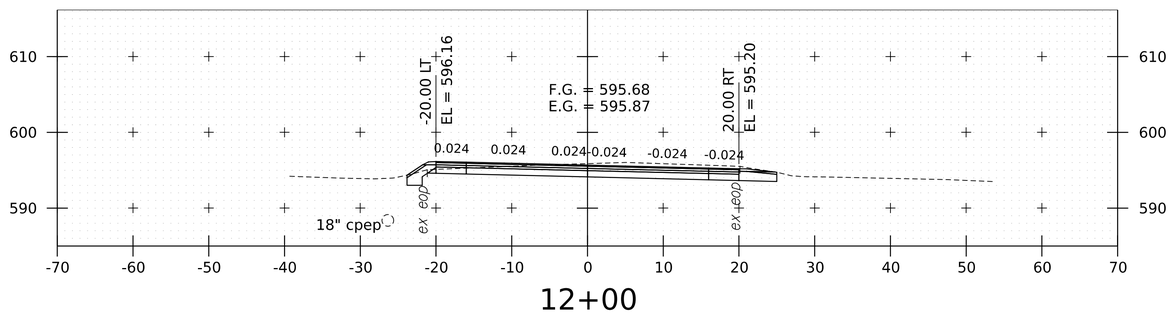
14+50



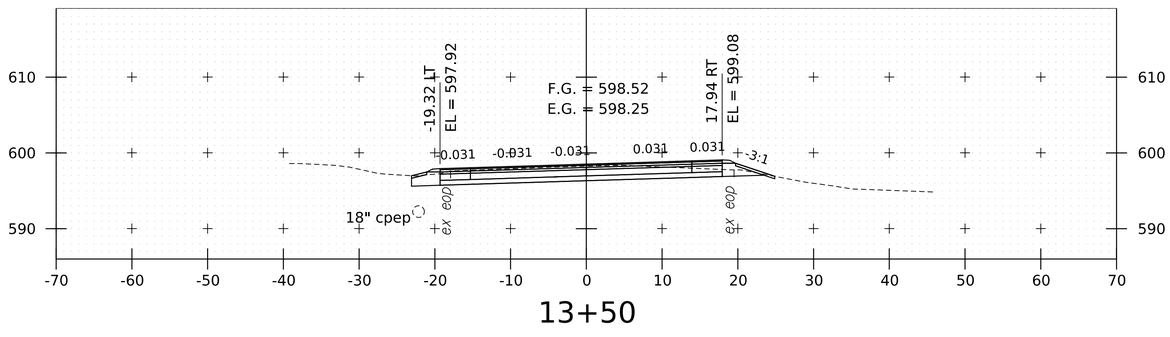
12+50



14+00



12+00



13+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

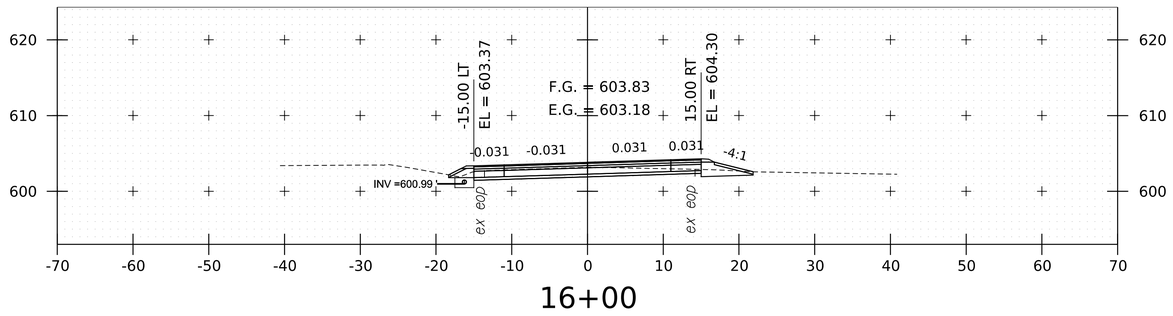
0 10 20
SCALE IN FEET

Stantec

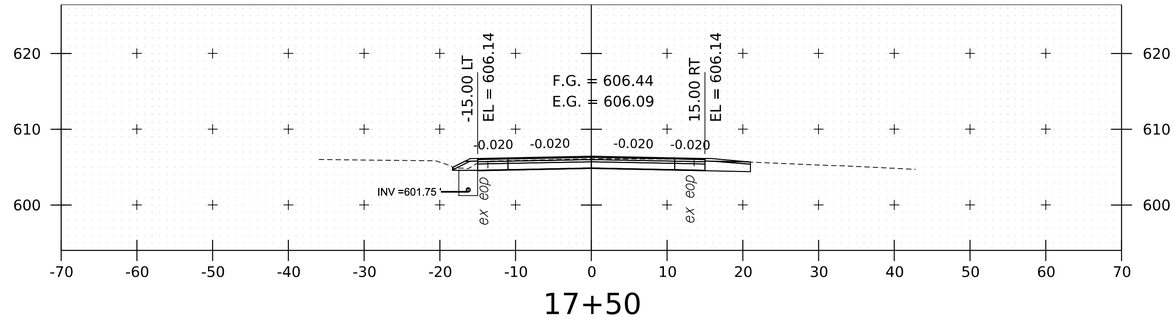
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 5

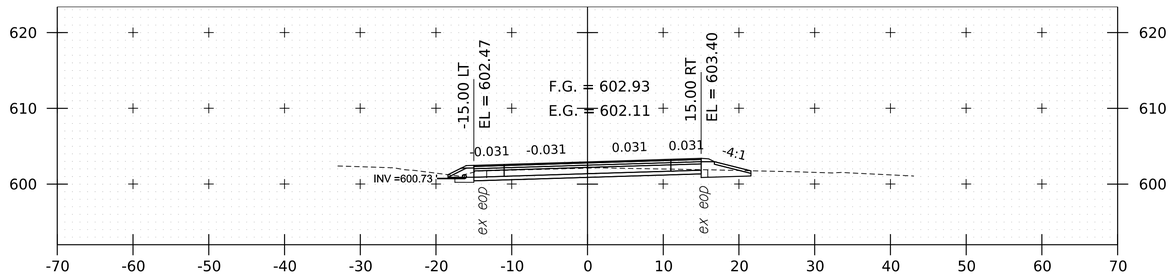
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 158 OF 210



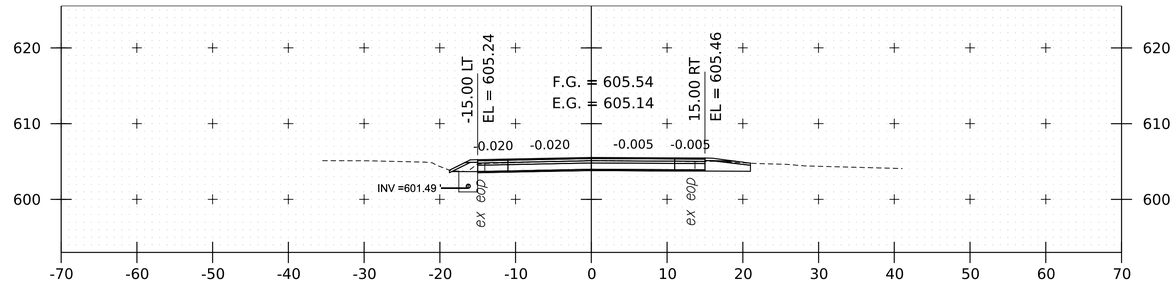
16+00



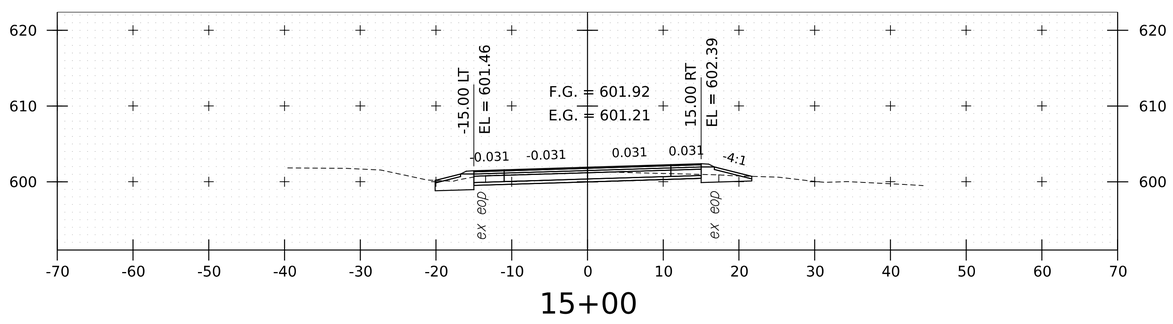
17+50



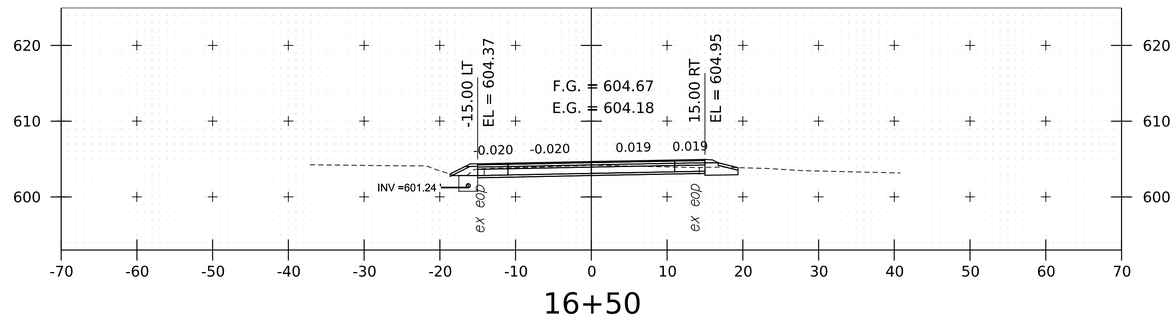
15+50



17+00



15+00



16+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

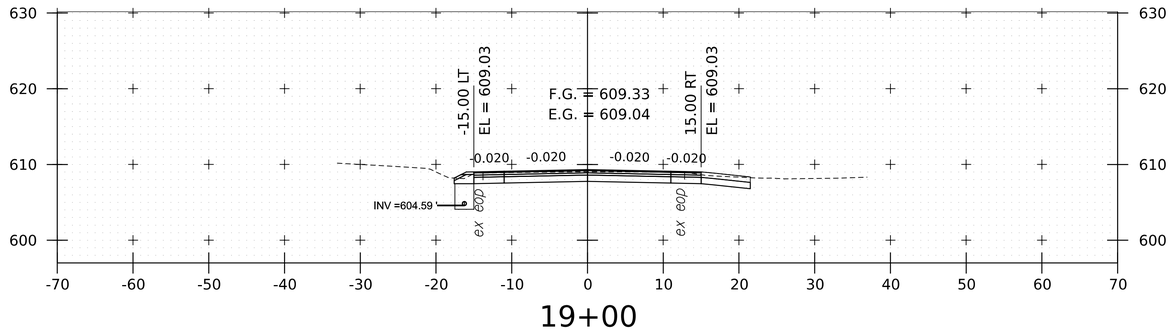
0 10 20
SCALE IN FEET

Stantec

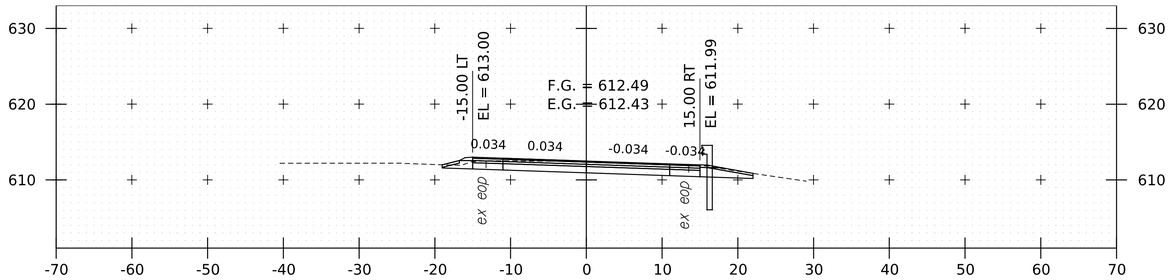
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 6

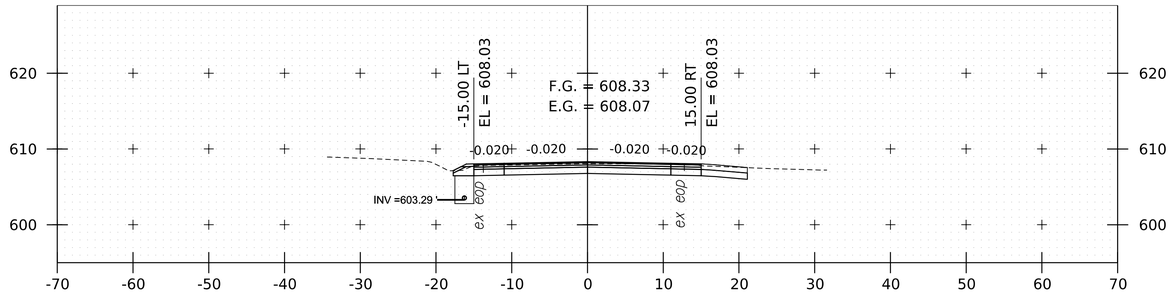
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 159 OF 210



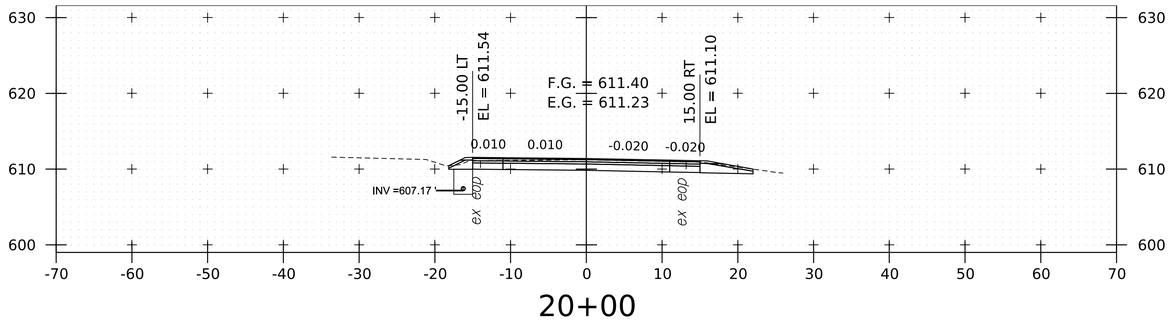
19+00



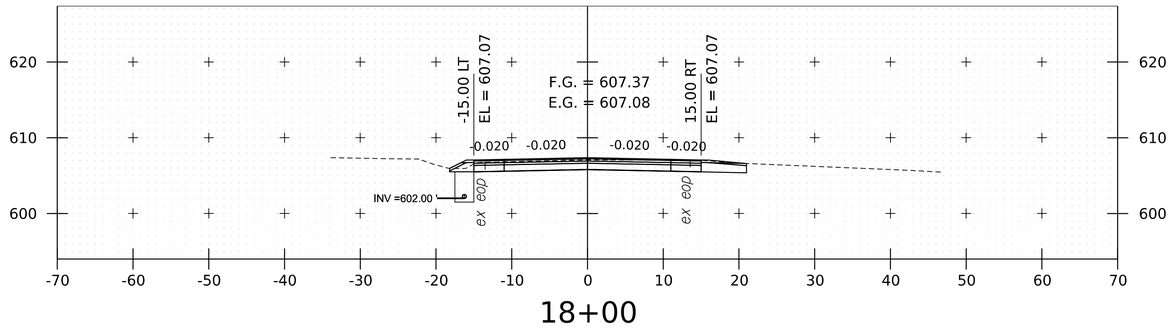
20+50



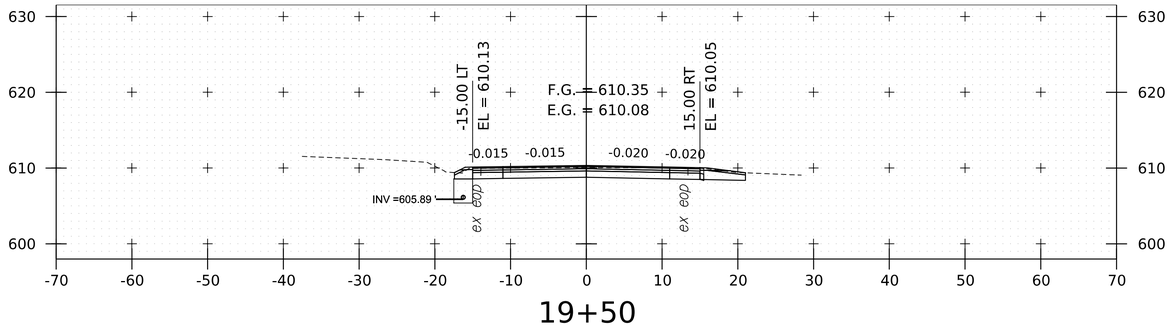
18+50



20+00



18+00



19+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

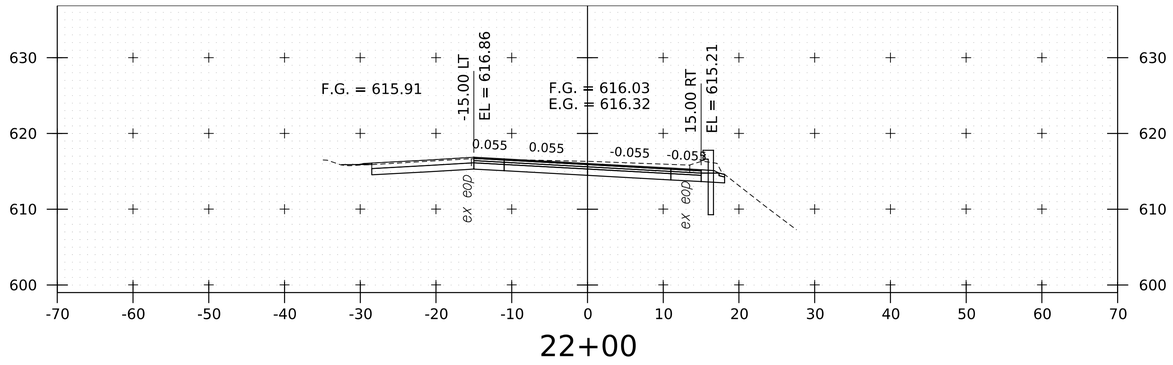
0 10 20
SCALE IN FEET

Stantec

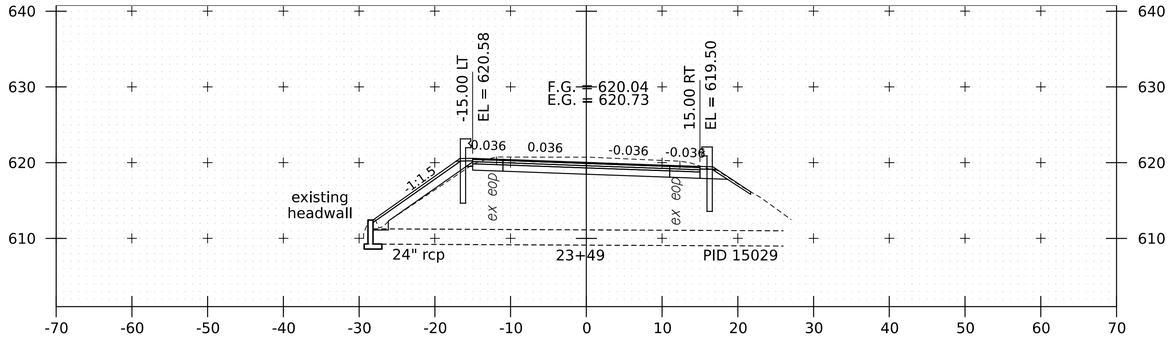
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 7

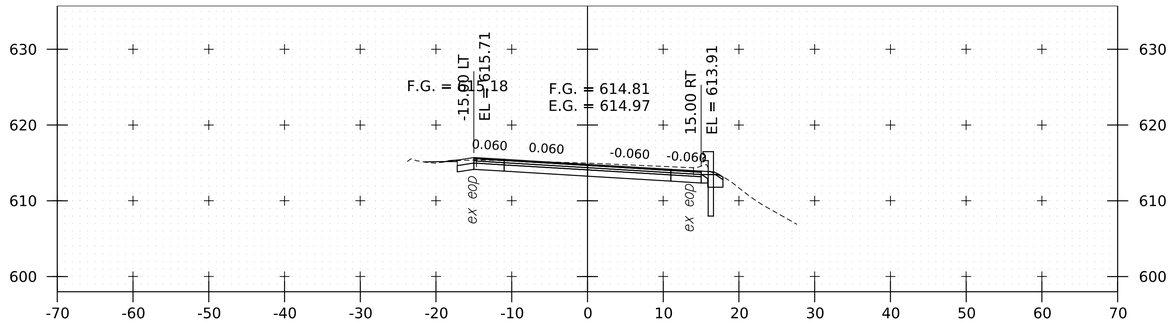
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 160 OF 210



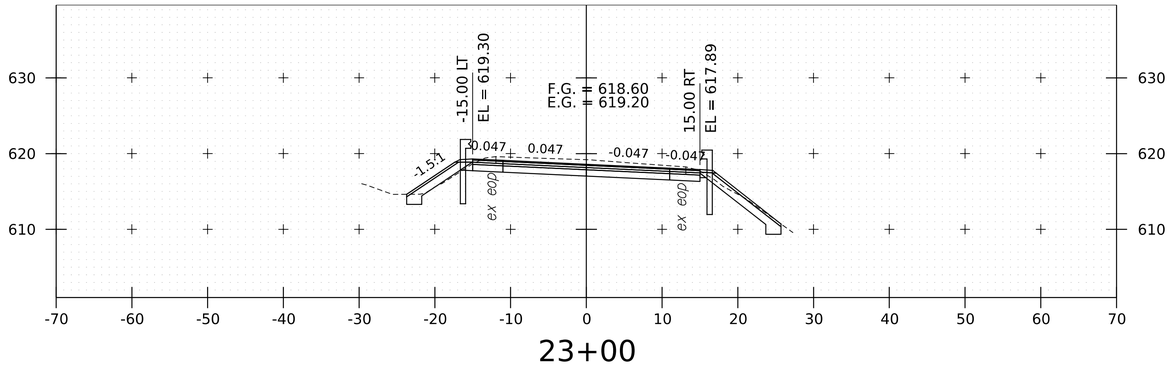
22+00



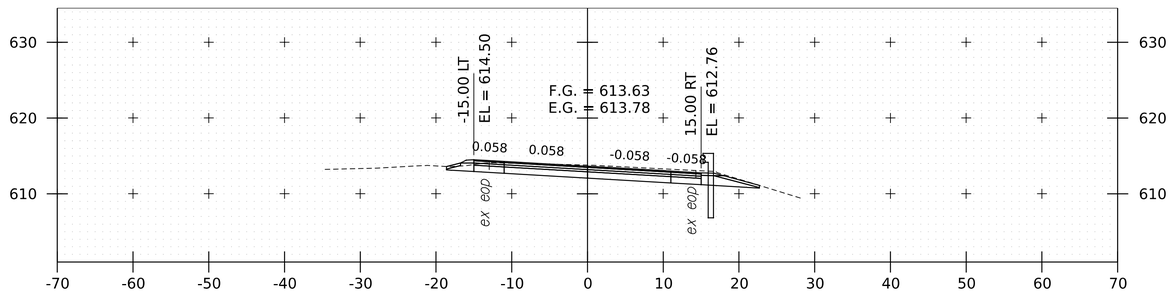
23+50



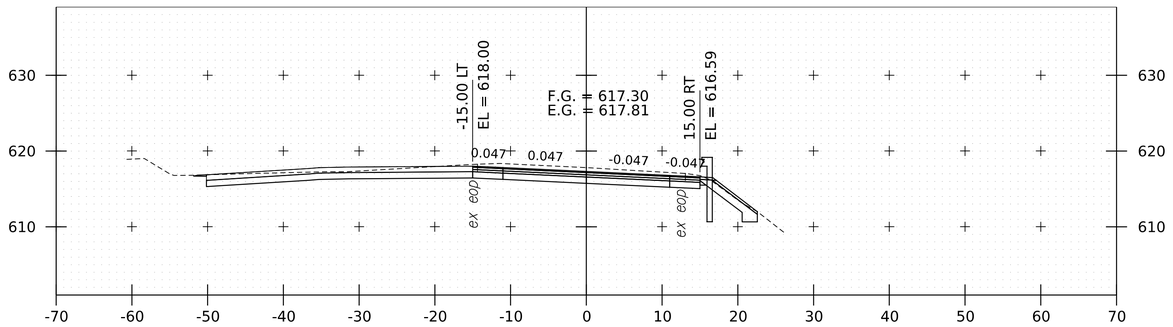
21+50



23+00



21+00



22+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

0 10 20

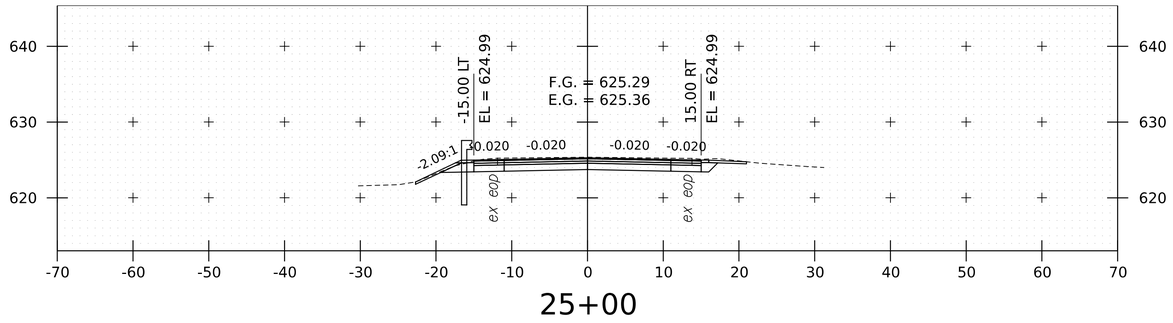
SCALE IN FEET

Stantec

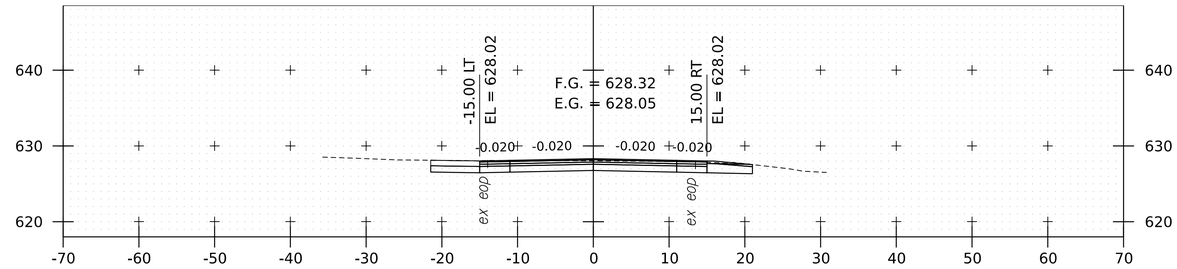
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 8

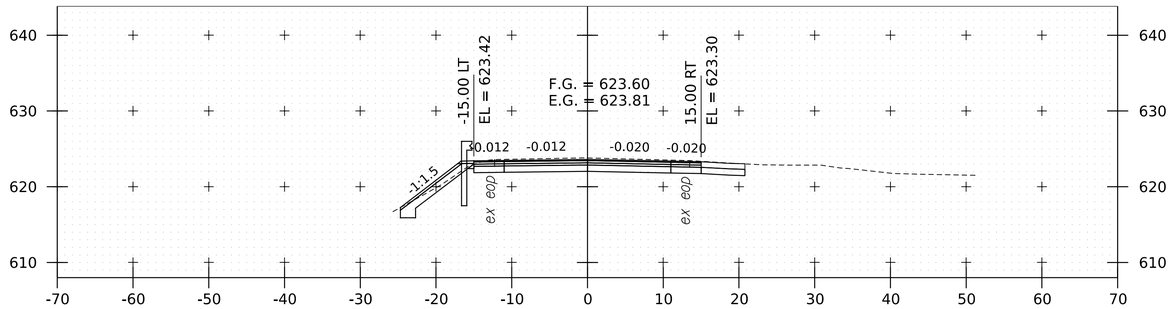
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 161 OF 210



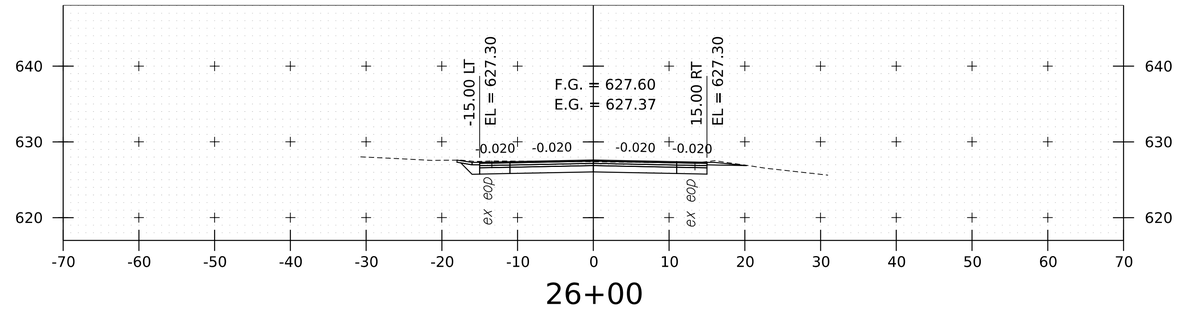
25+00



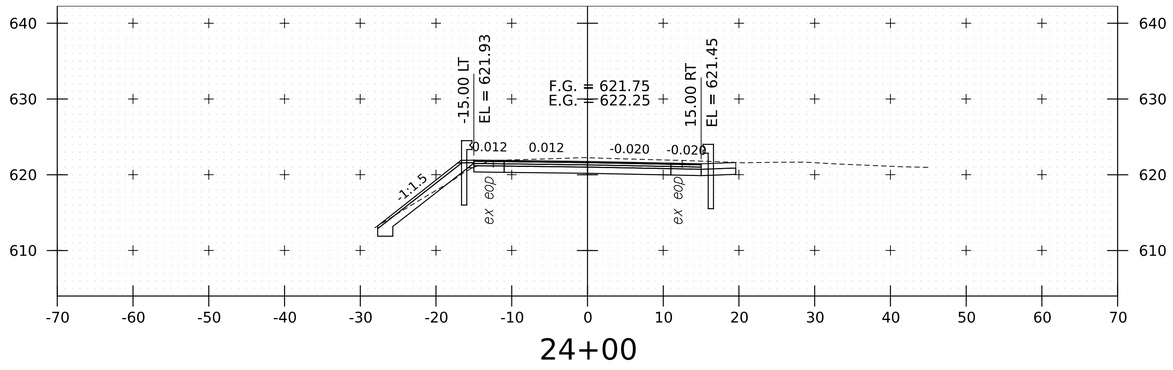
26+50



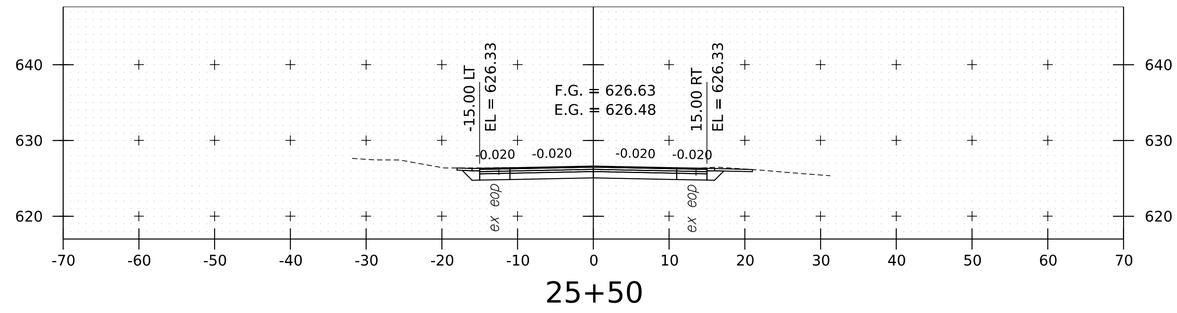
24+50



26+00



24+00



25+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

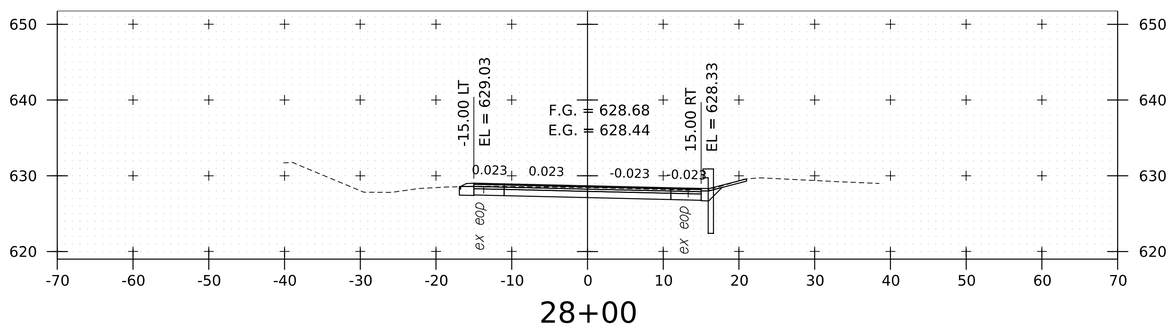
0 10 20
SCALE IN FEET

Stantec

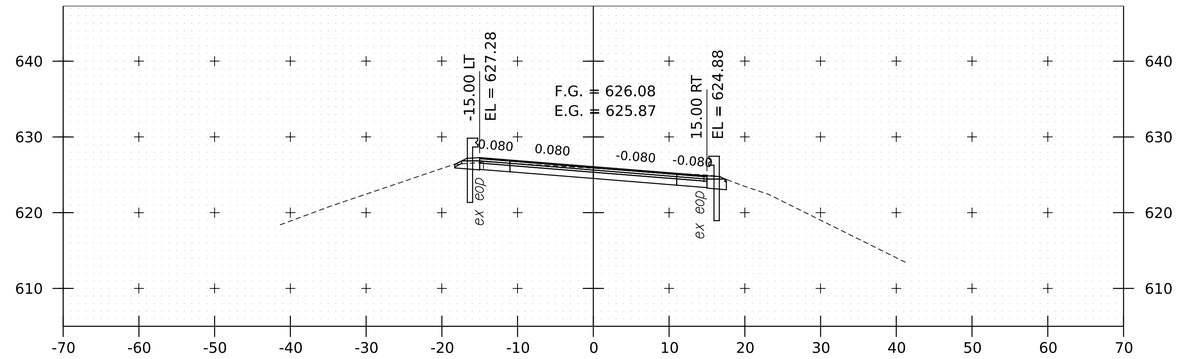
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 9

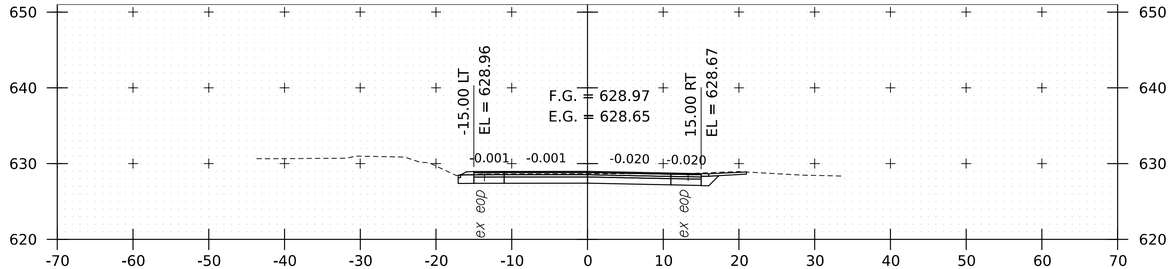
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 162 OF 210



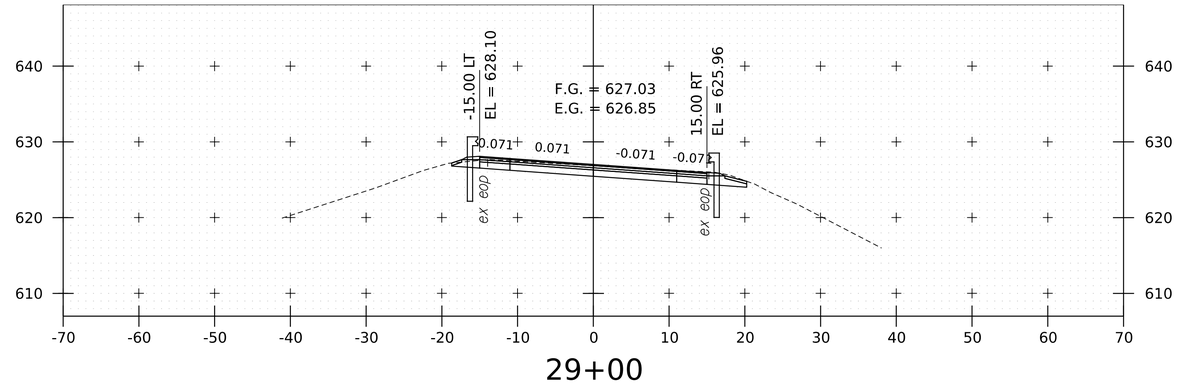
28+00



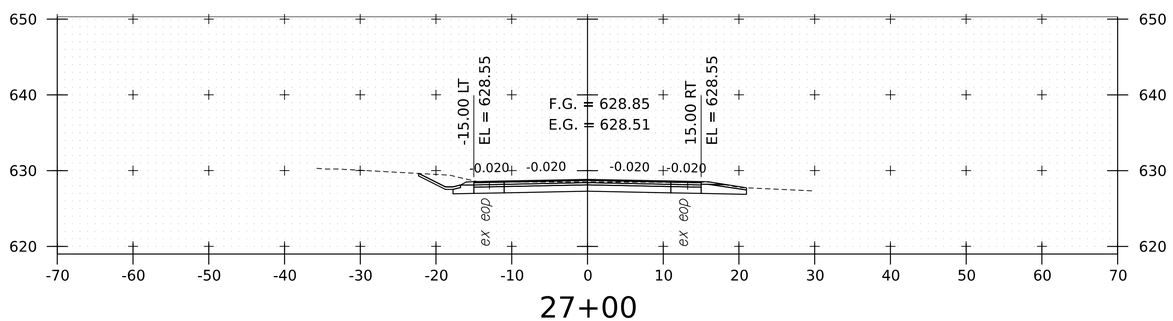
29+50



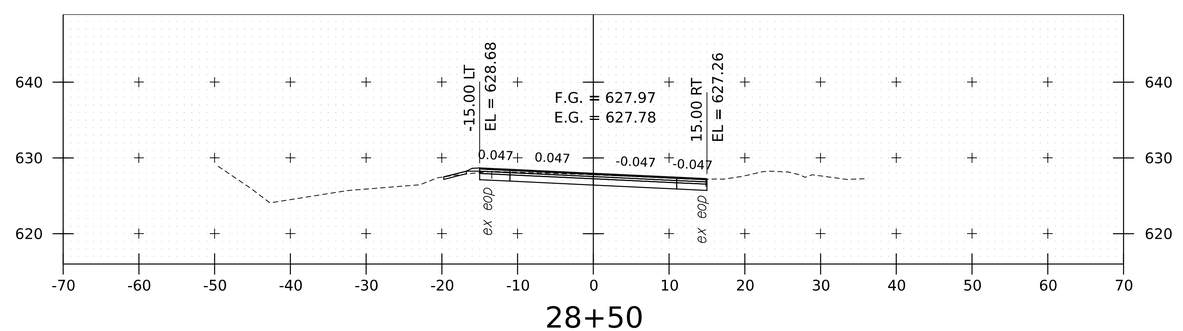
27+50



29+00



27+00



28+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

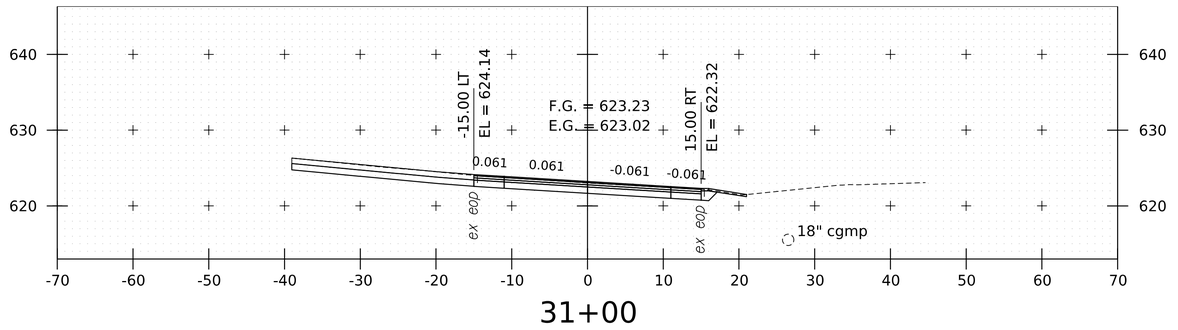
0 10 20
SCALE IN FEET

Stantec

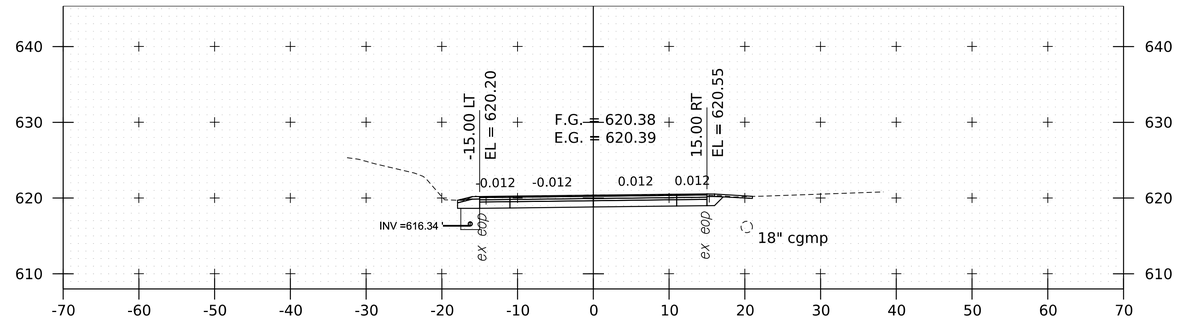
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 10

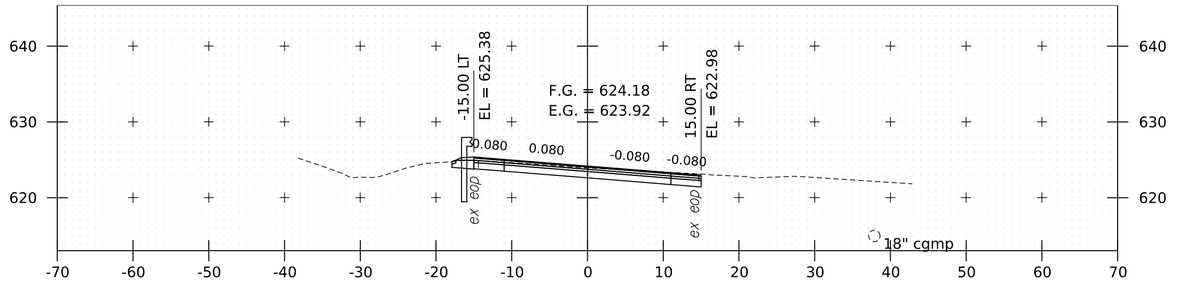
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 163 OF 210



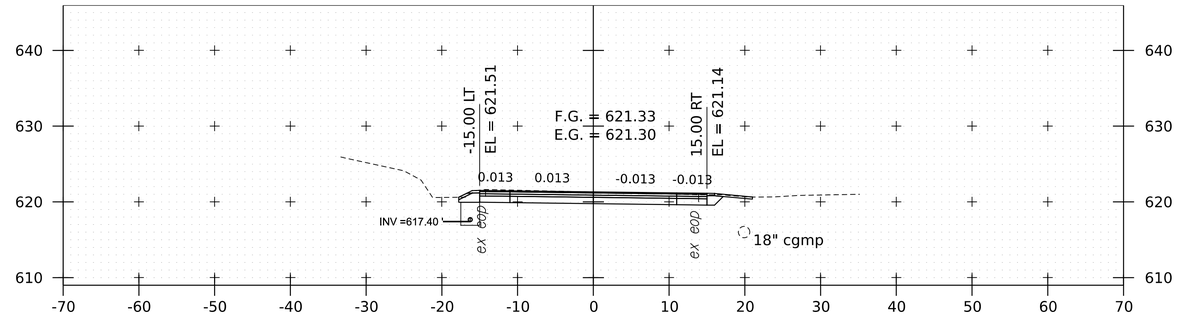
31+00



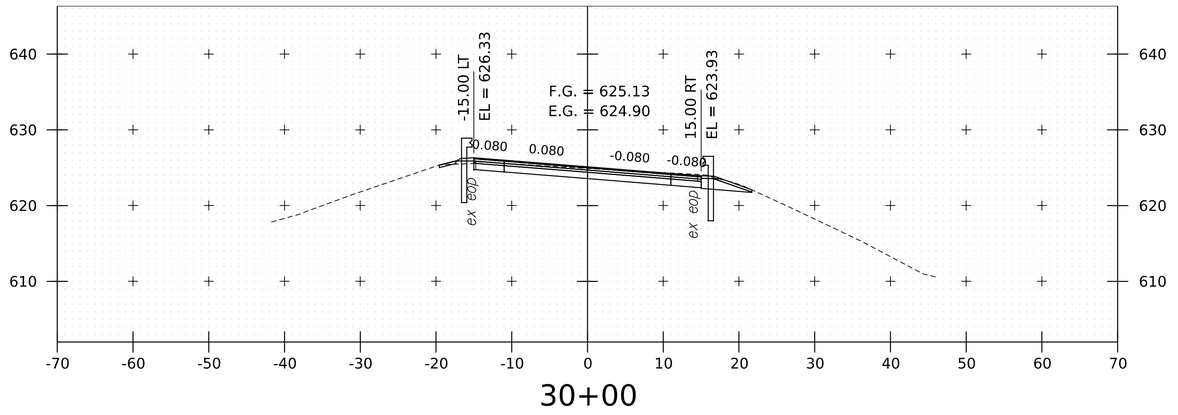
32+50



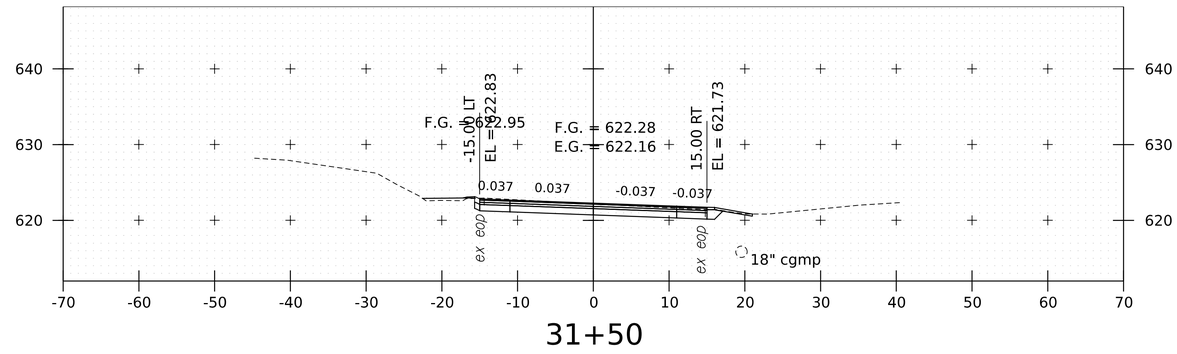
30+50



32+00



30+00



31+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

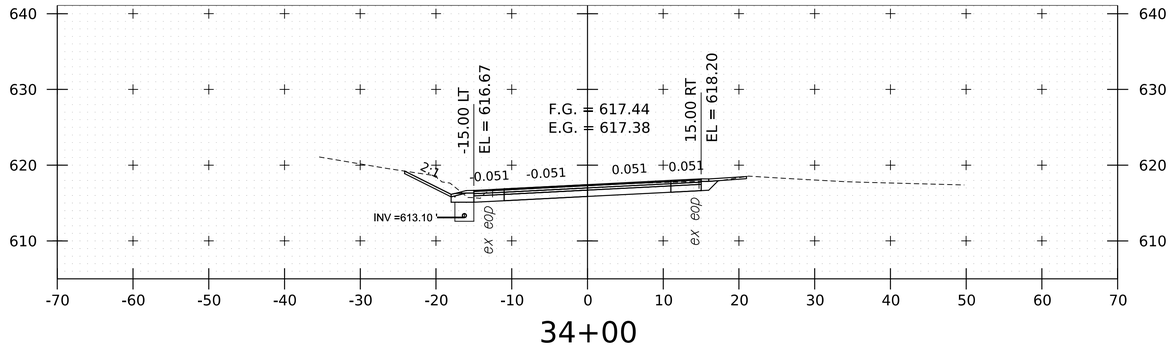
0 10 20
SCALE IN FEET

Stantec

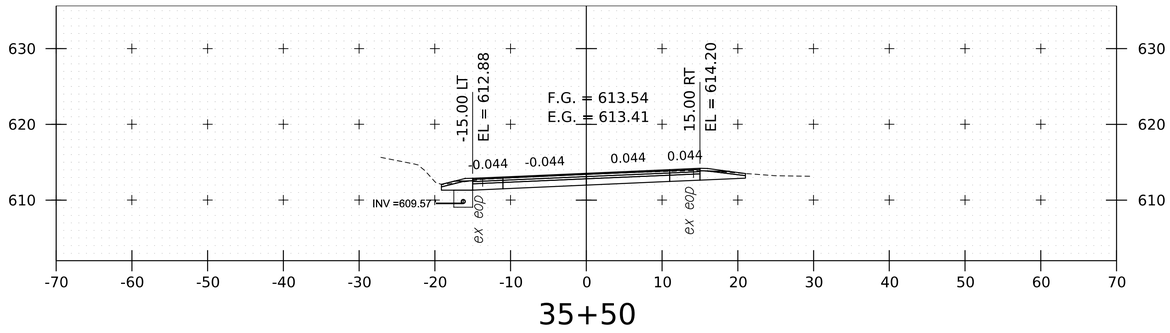
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 11

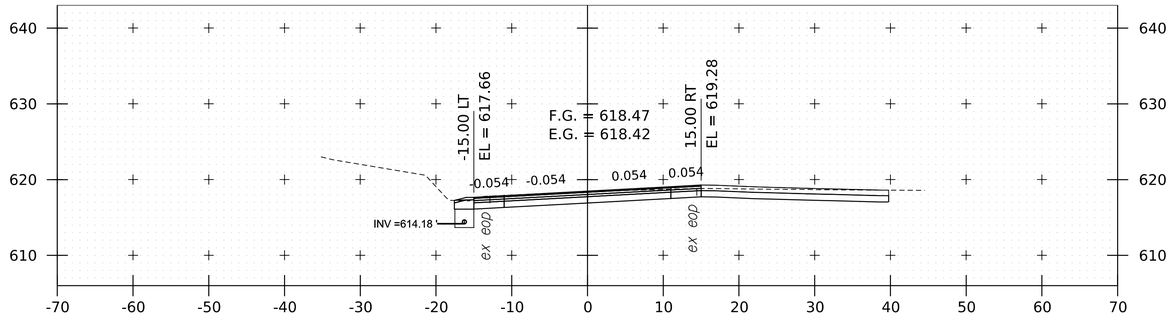
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 164 OF 210



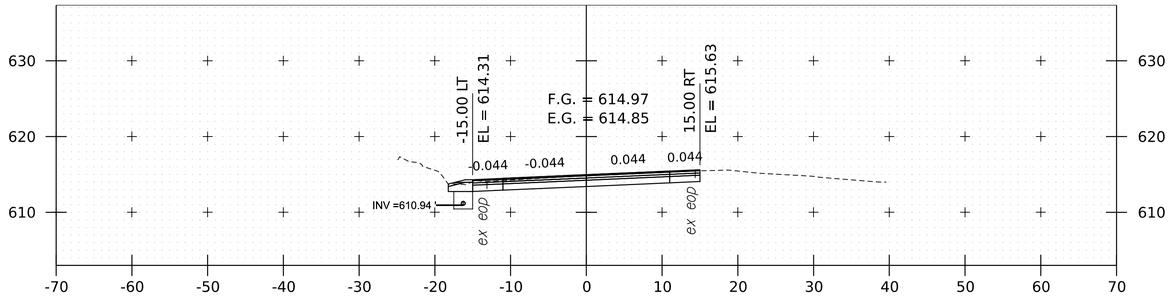
34+00



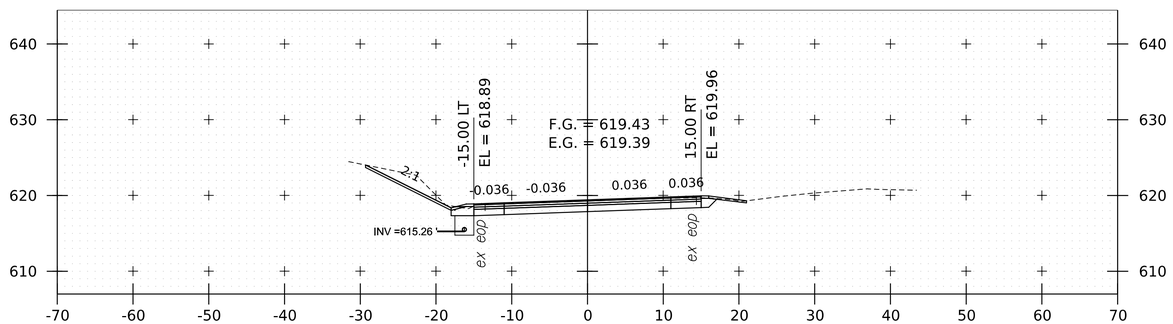
35+50



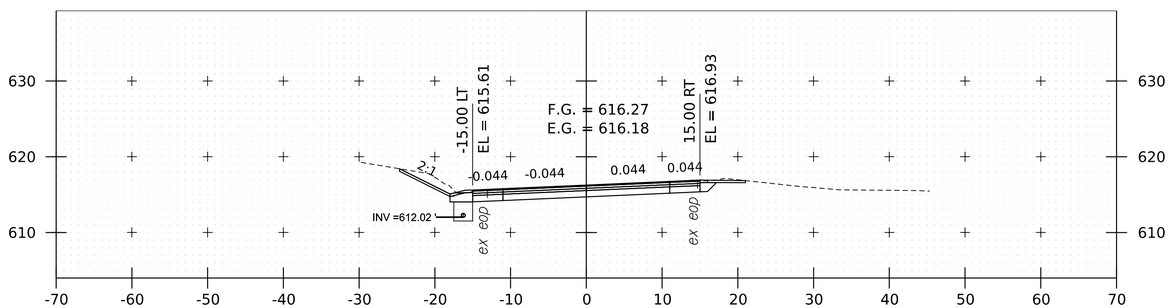
33+50



35+00



33+00



34+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

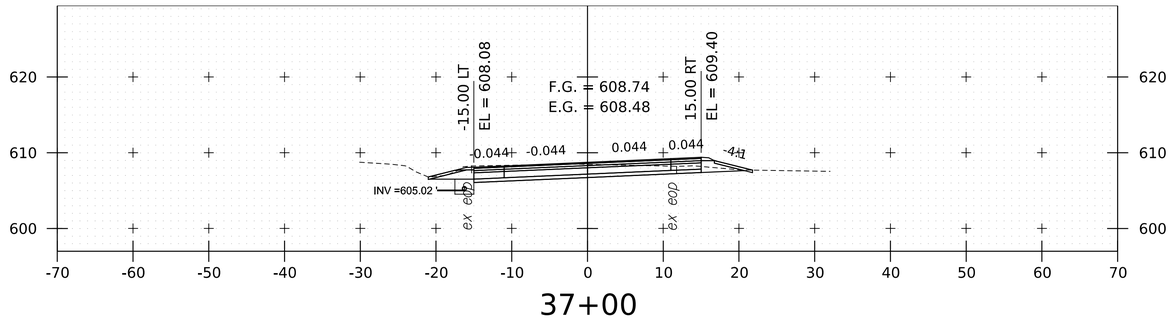
0 10 20
SCALE IN FEET

Stantec

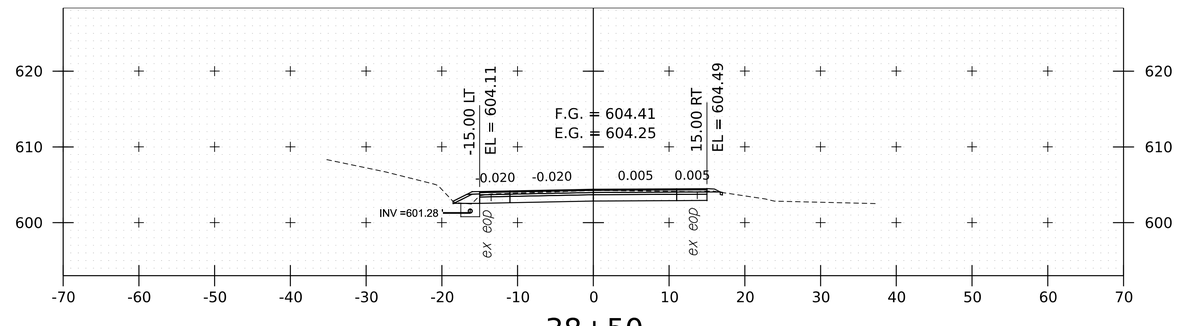
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 12

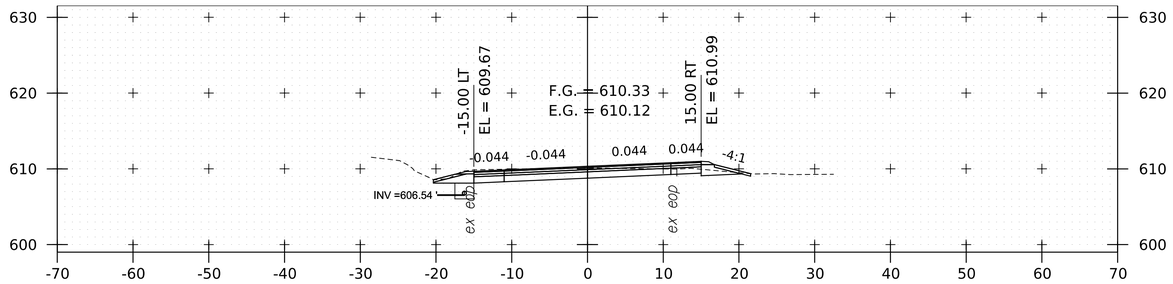
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 165 OF 210



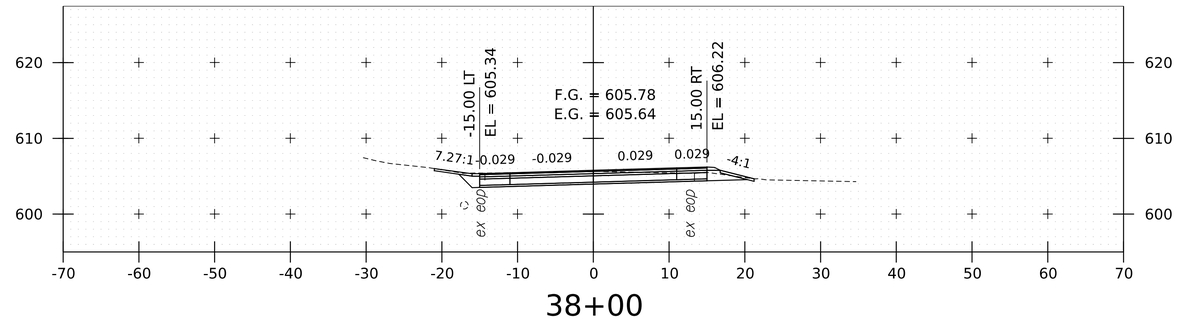
37+00



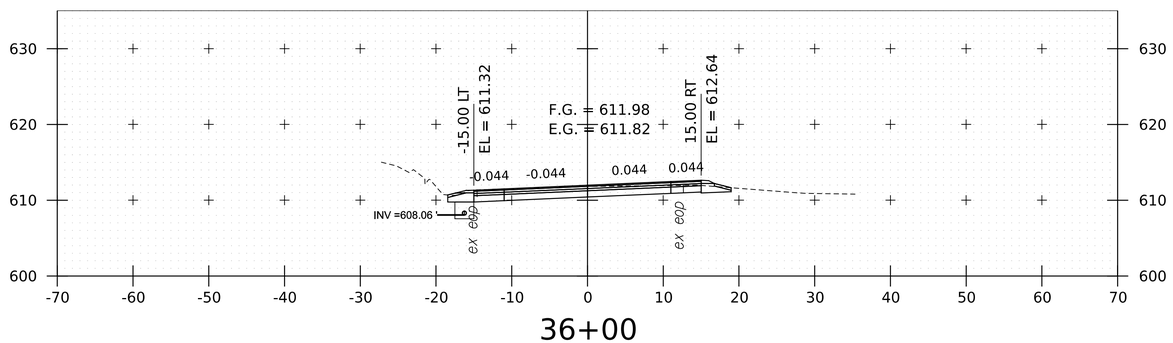
38+50



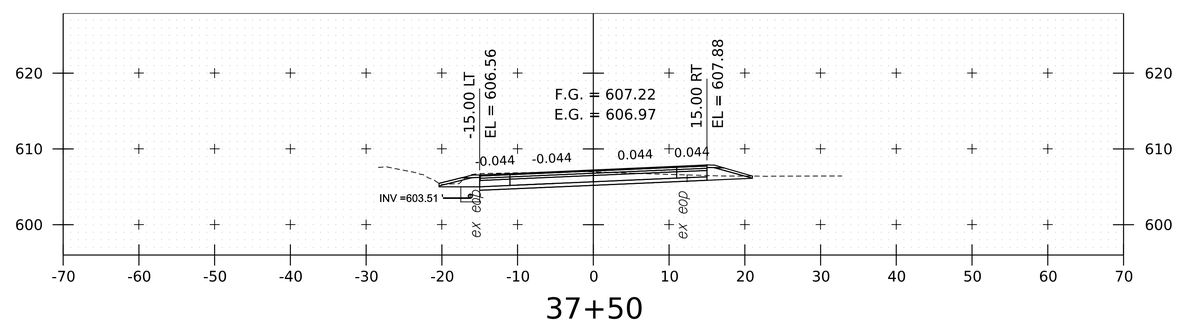
36+50



38+00



36+00



37+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

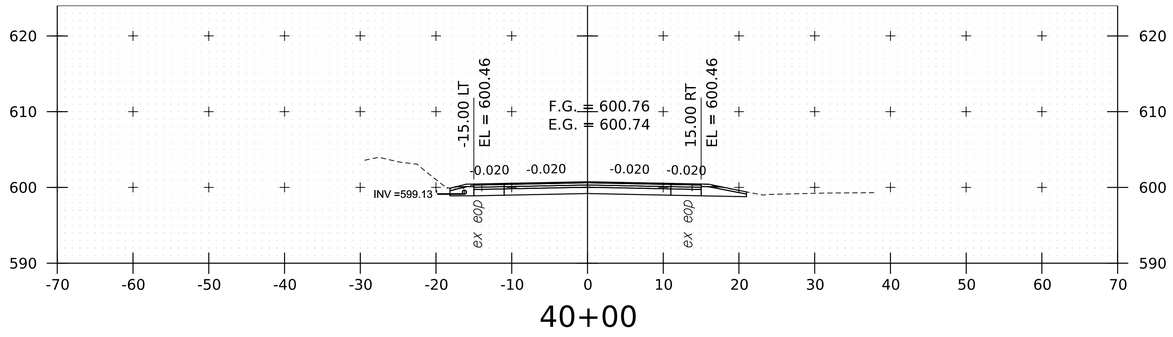
0 10 20
SCALE IN FEET

Stantec

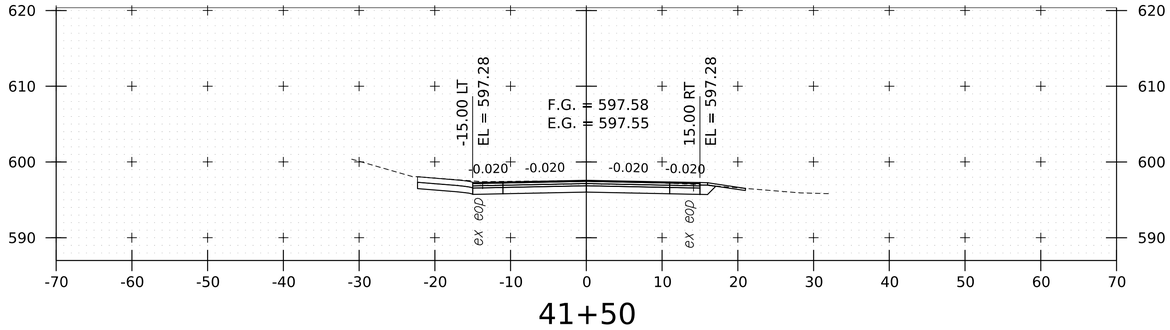
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 13

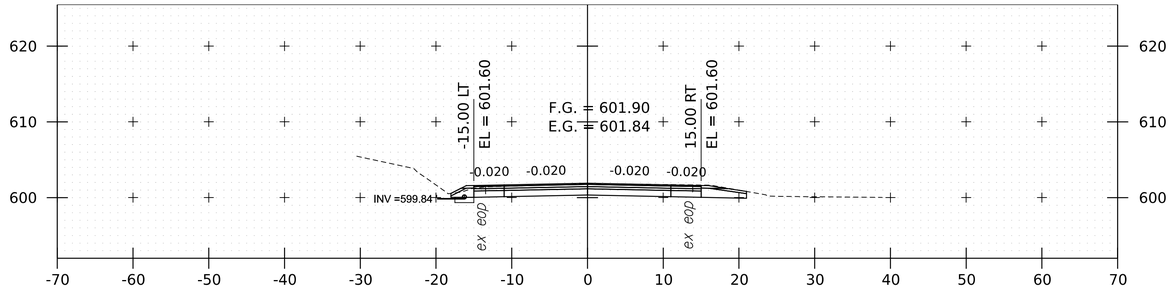
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 166 OF 210



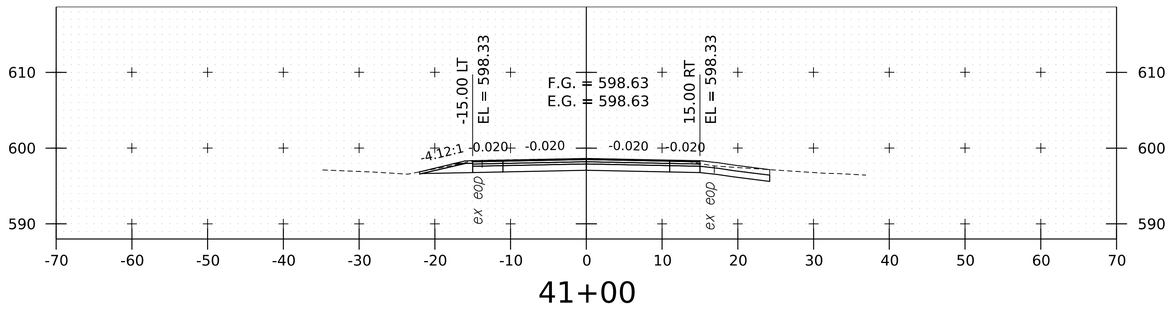
40+00



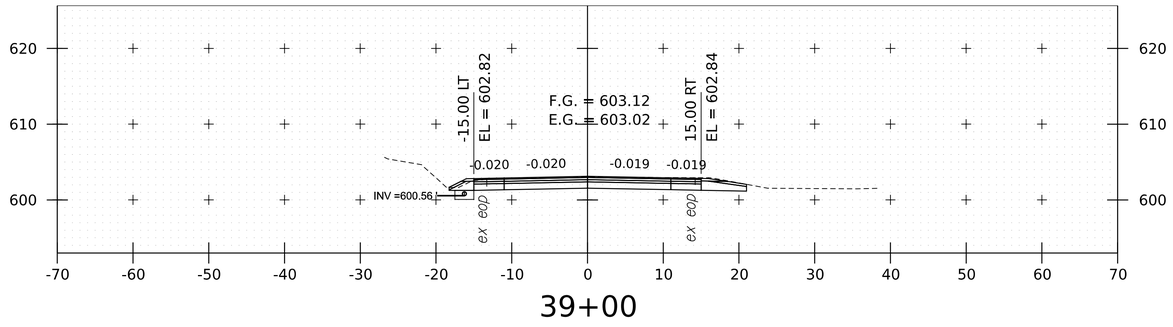
41+50



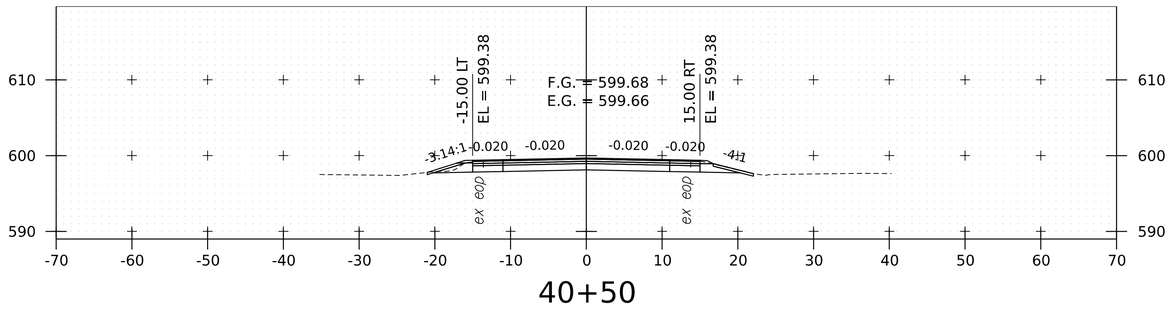
39+50



41+00



39+00



40+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
A	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

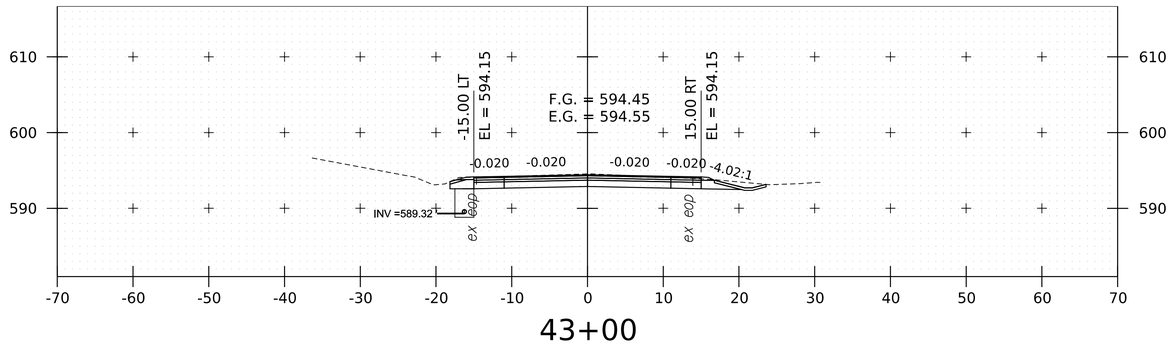
0 10 20
SCALE IN FEET

Stantec

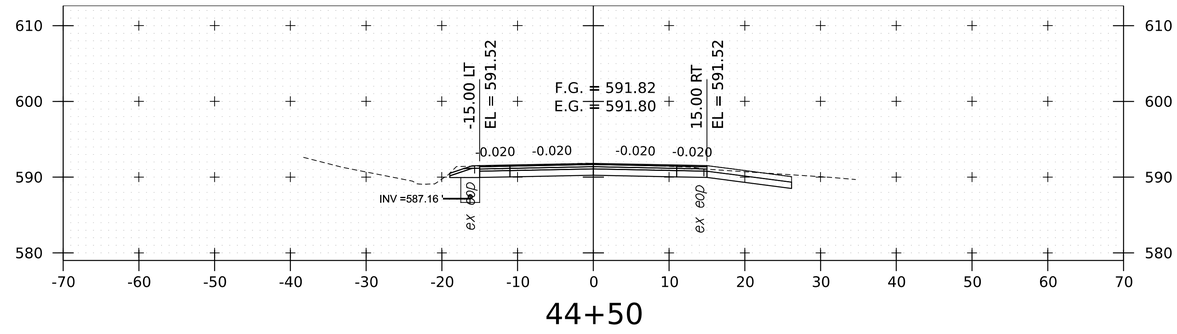
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 14

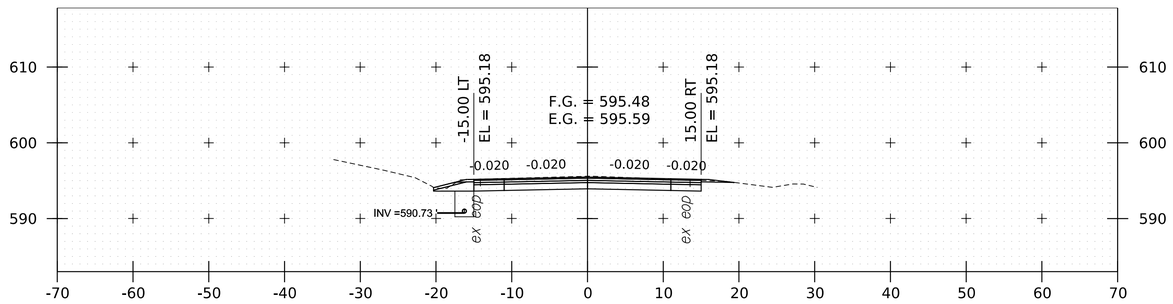
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 167 OF 210



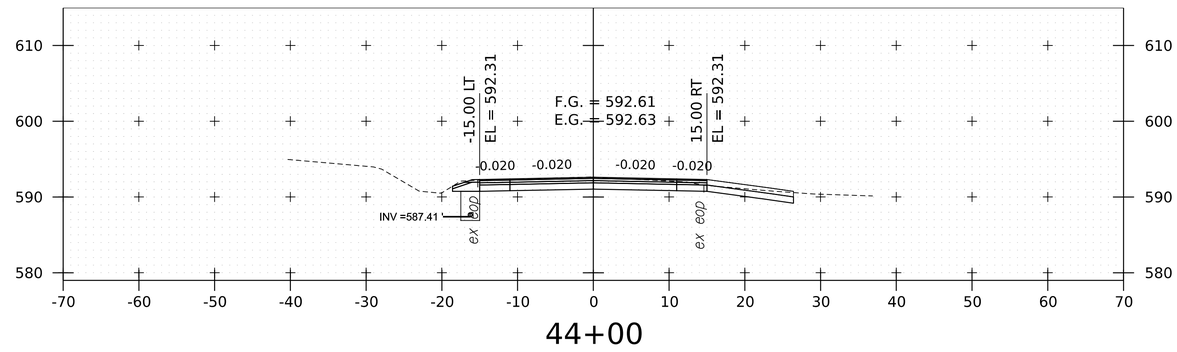
43+00



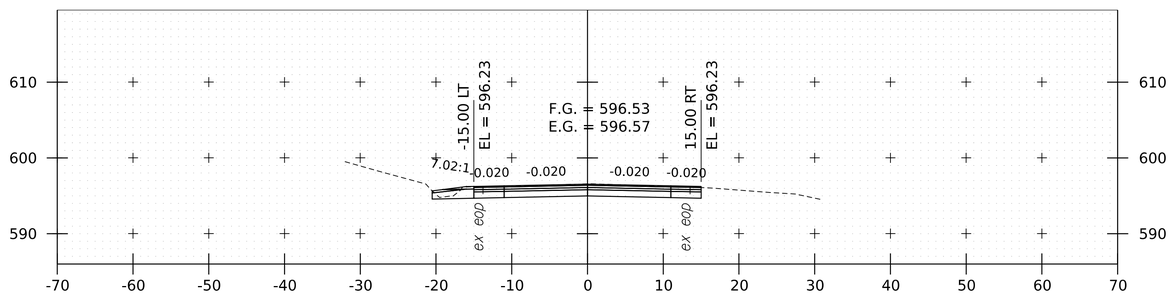
44+50



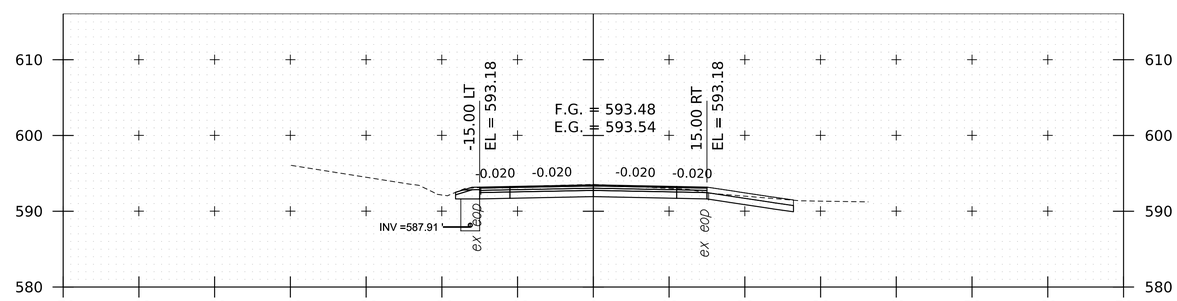
42+50



44+00



42+00



43+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

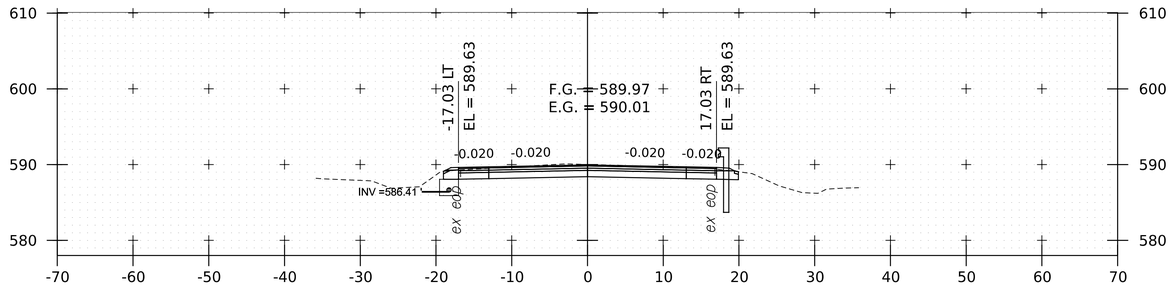
0 10 20
SCALE IN FEET

Stantec

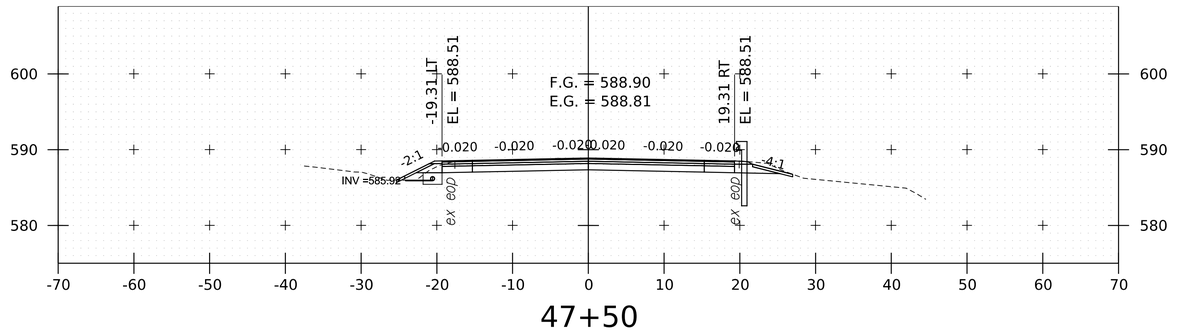
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 15

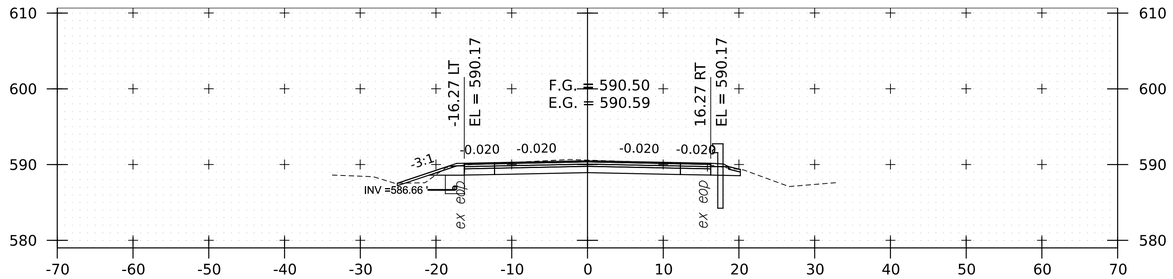
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 168 OF 210



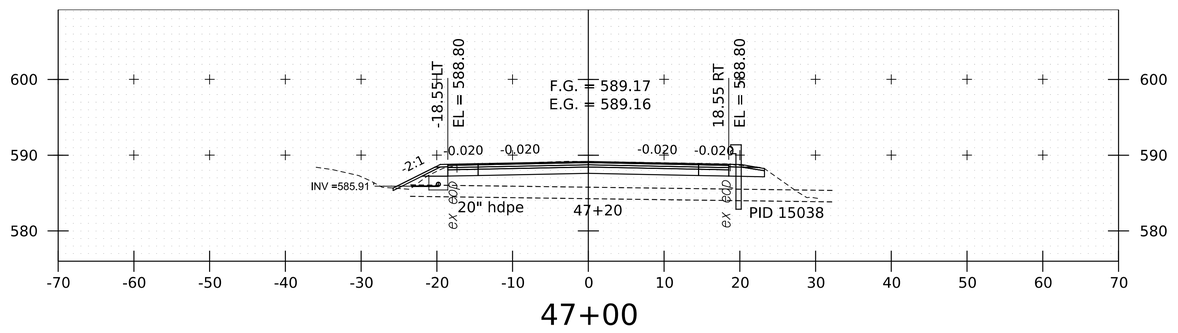
46+00



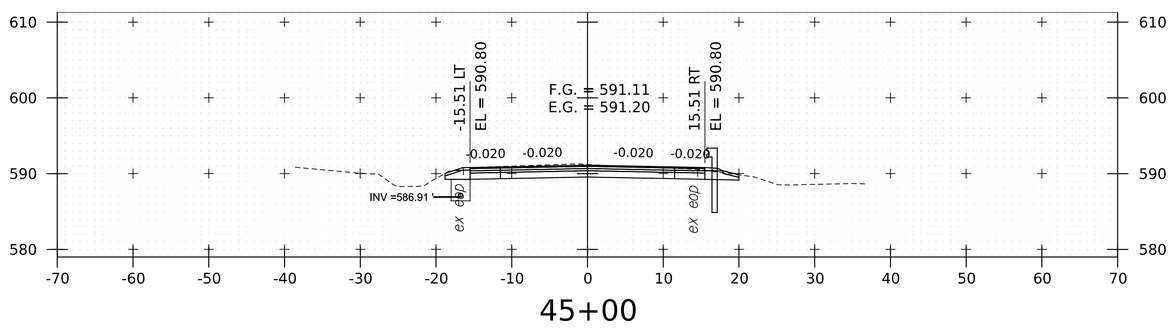
47+50



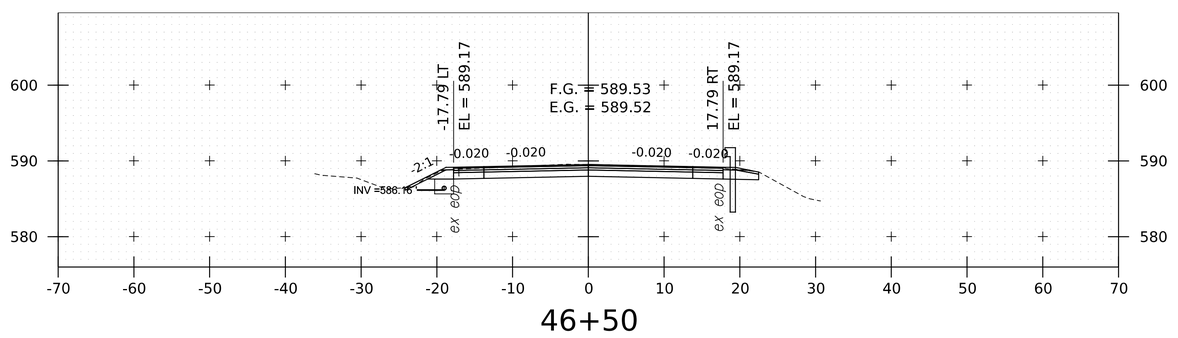
45+50



47+00



45+00



46+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

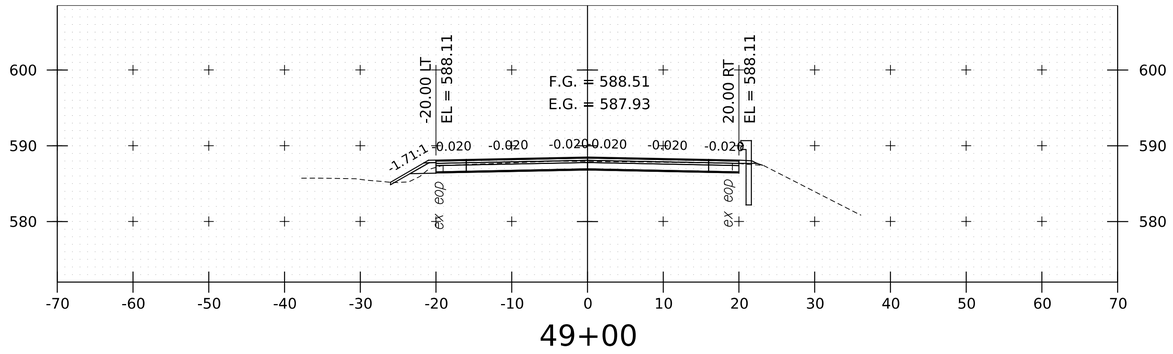
0 10 20
SCALE IN FEET

Stantec

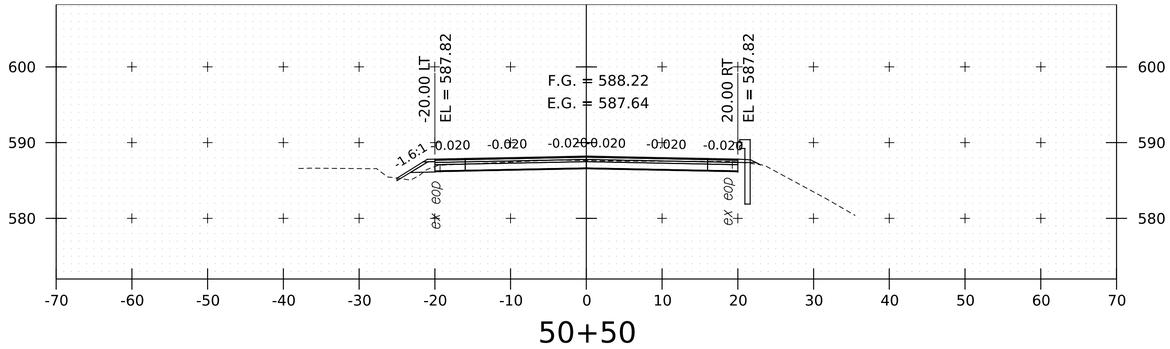
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 16

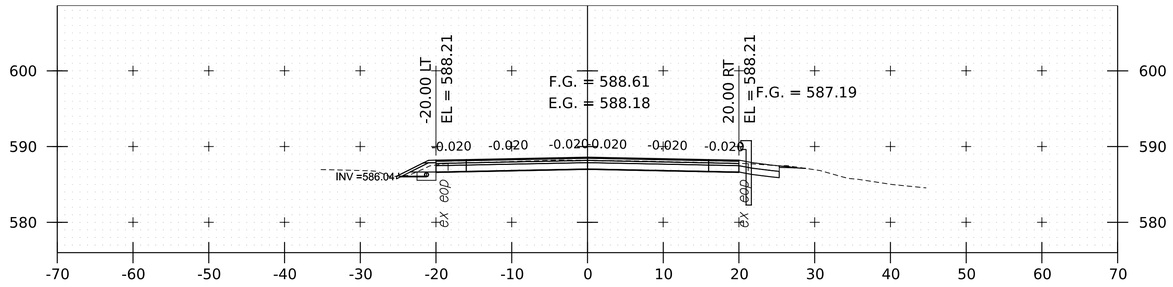
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 169 OF 210



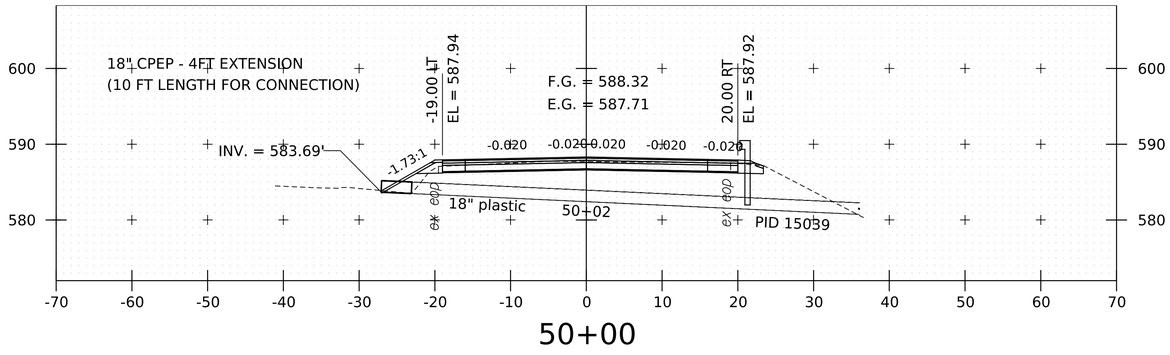
49+00



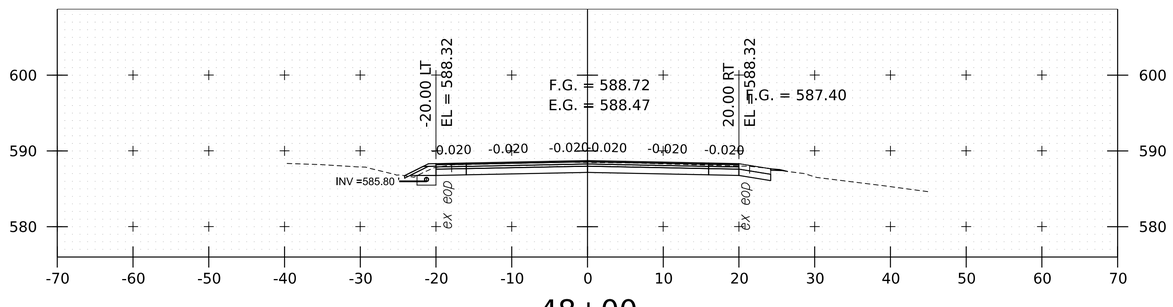
50+50



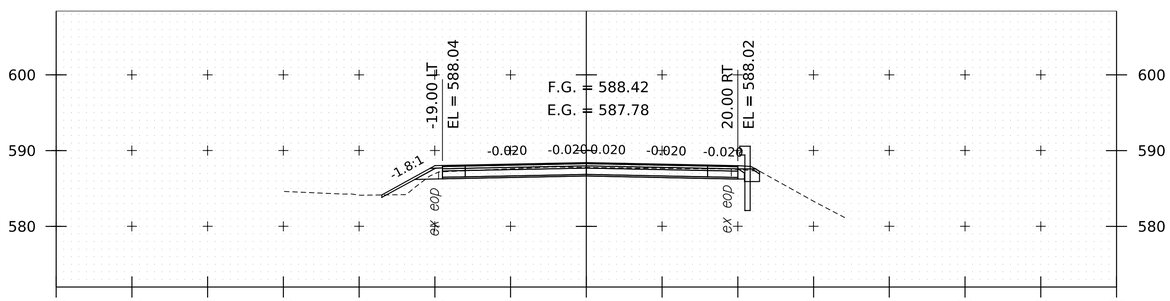
48+50



50+00



48+00



49+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

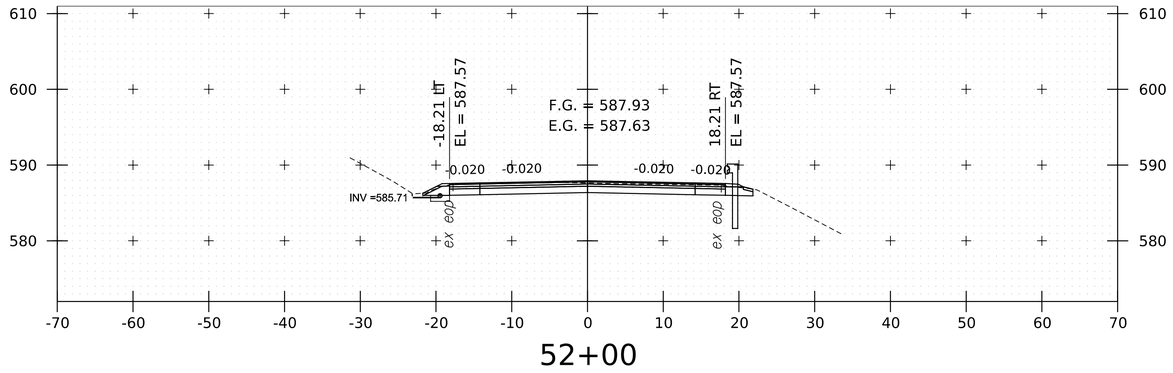
0 10 20
SCALE IN FEET

Stantec

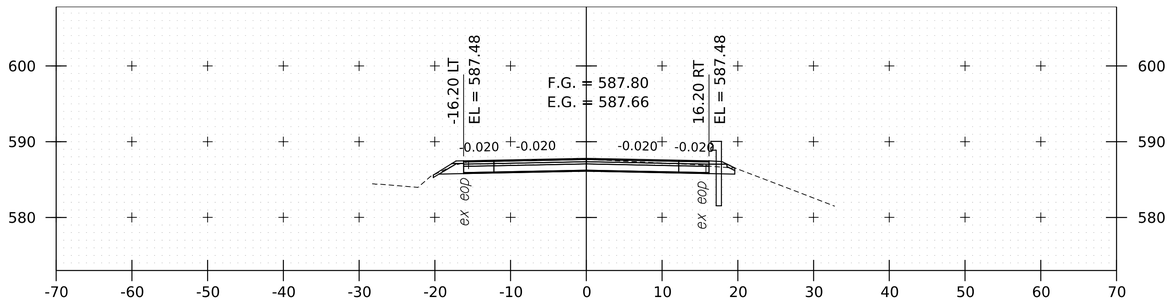
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 17

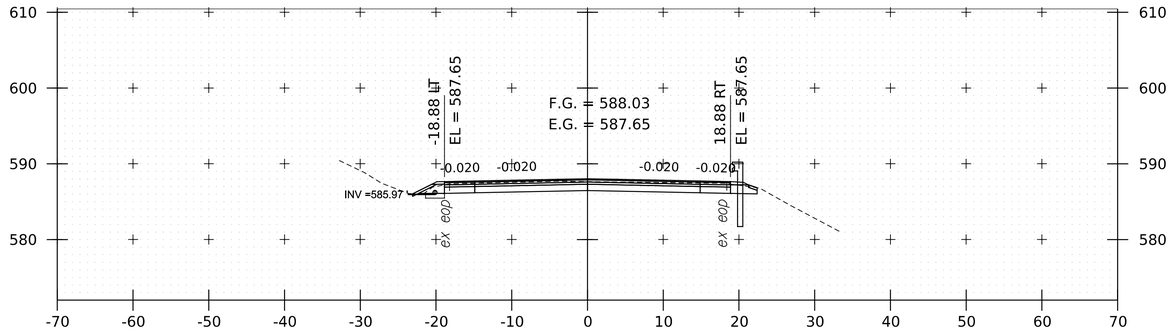
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 170 OF 210



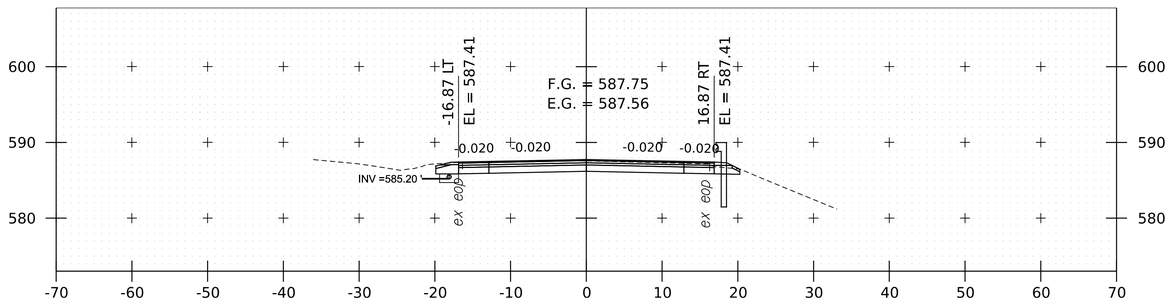
52+00



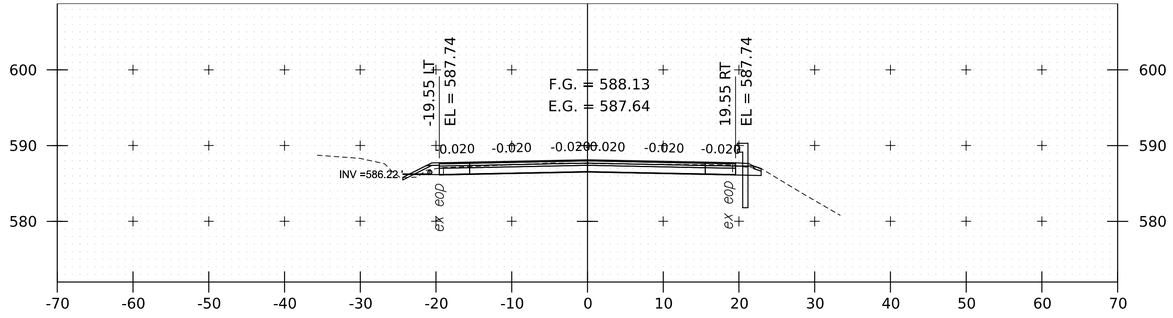
53+50



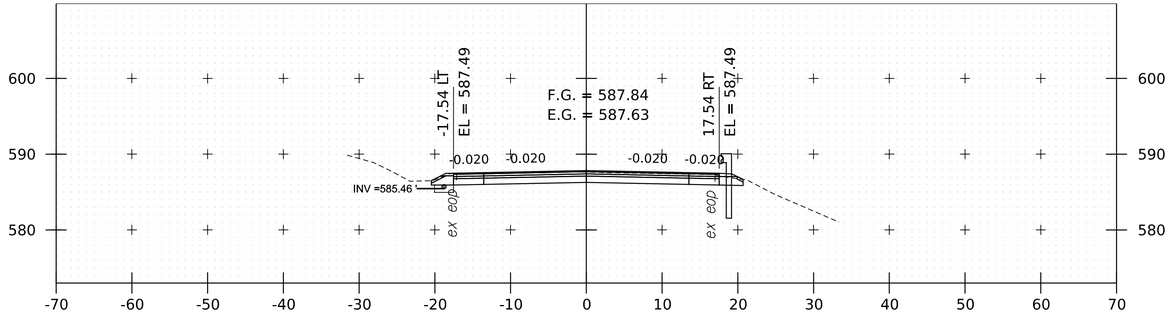
51+50



53+00



51+00



52+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

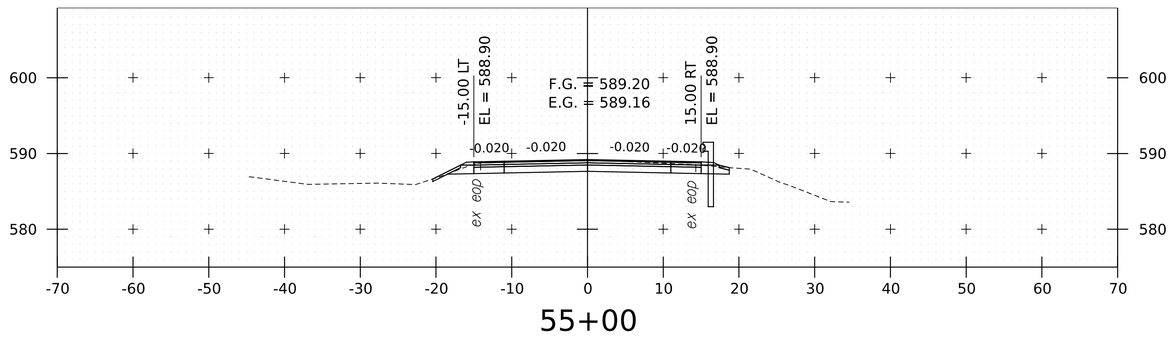
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SCALE IN FEET

Stantec

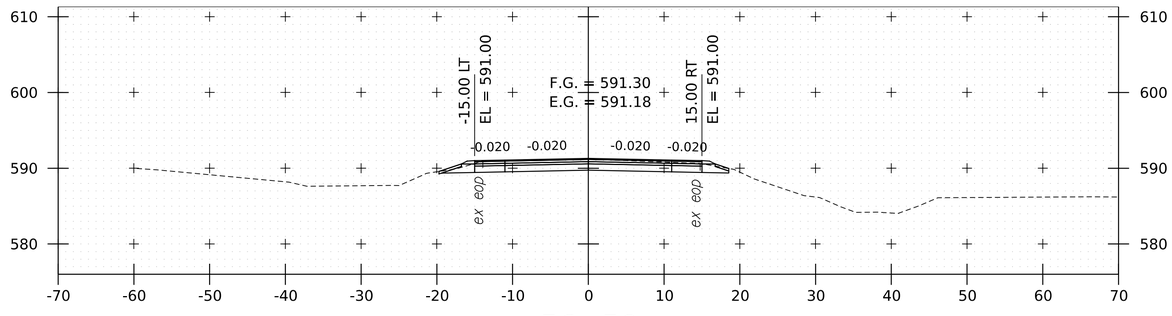
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 18

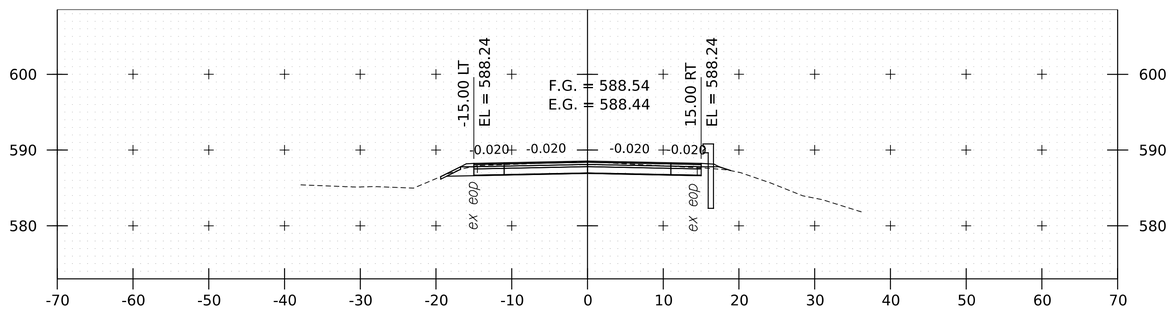
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 171 OF 210



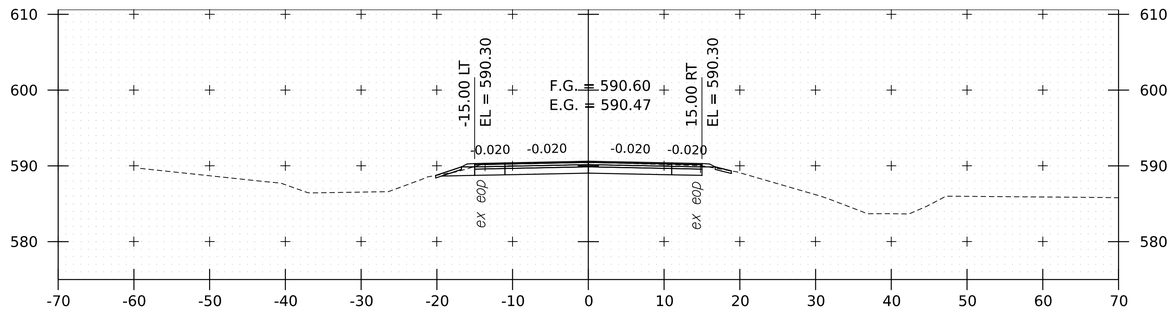
55+00



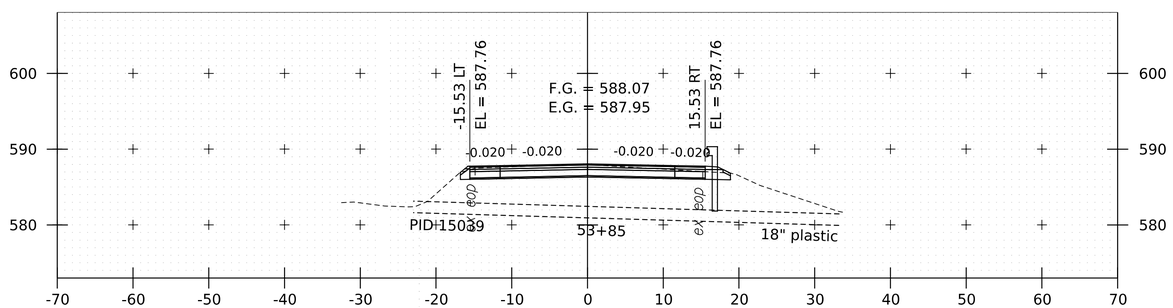
56+50



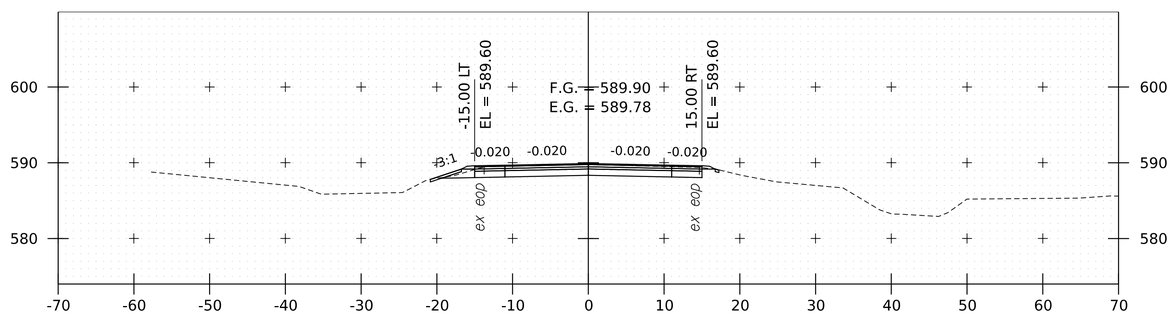
54+50



56+00



54+00



55+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

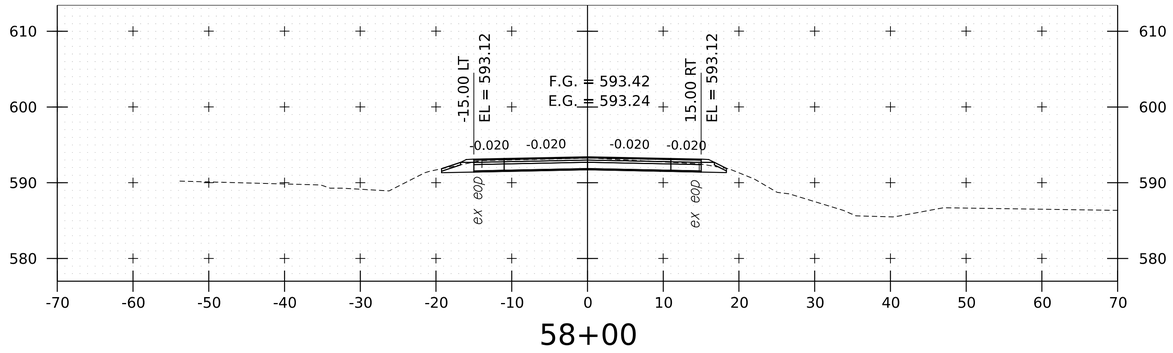
0 10 20
SCALE IN FEET

Stantec

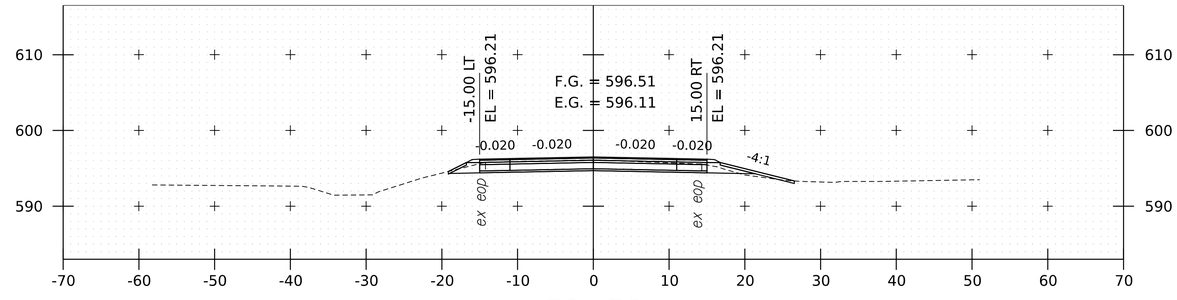
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 19

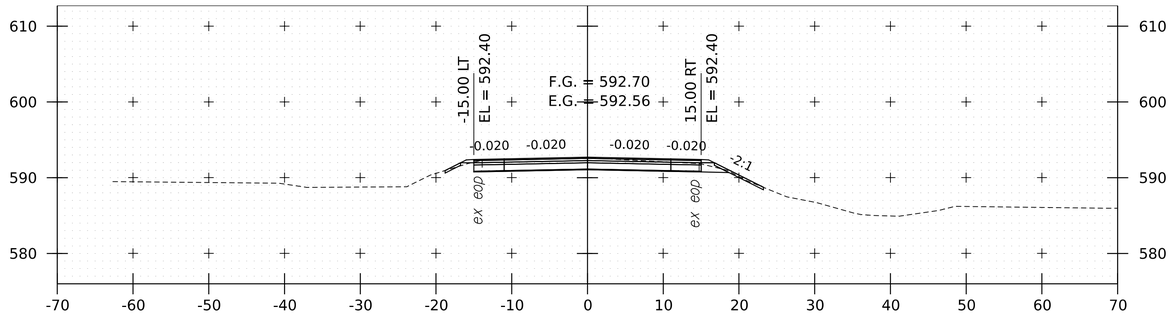
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 172 OF 210



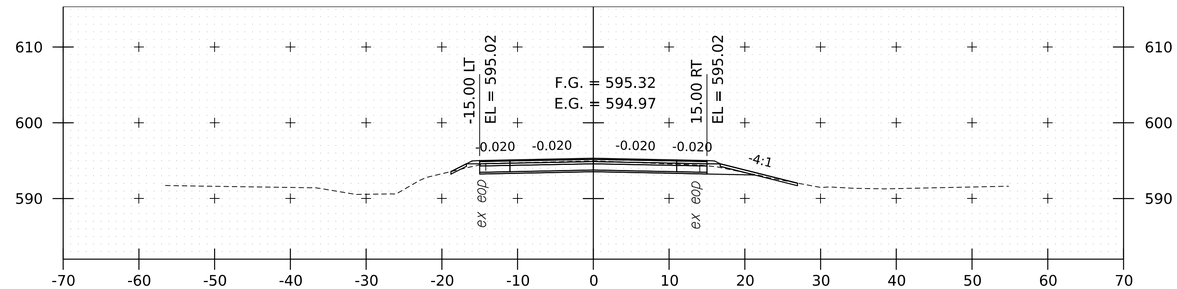
58+00



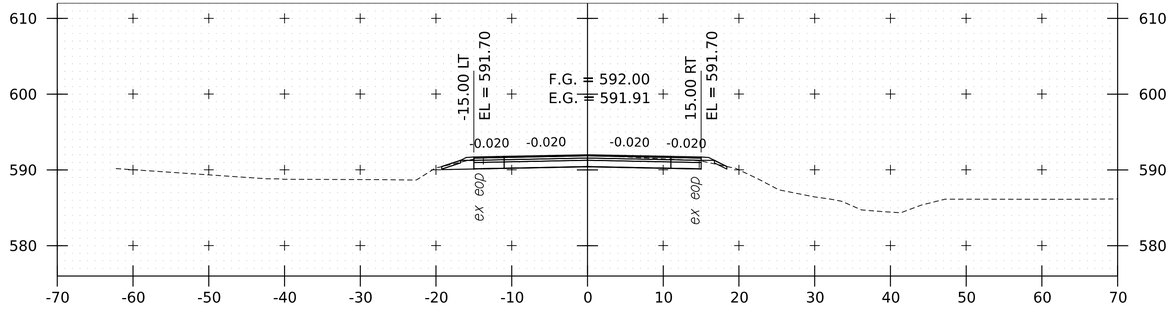
59+50



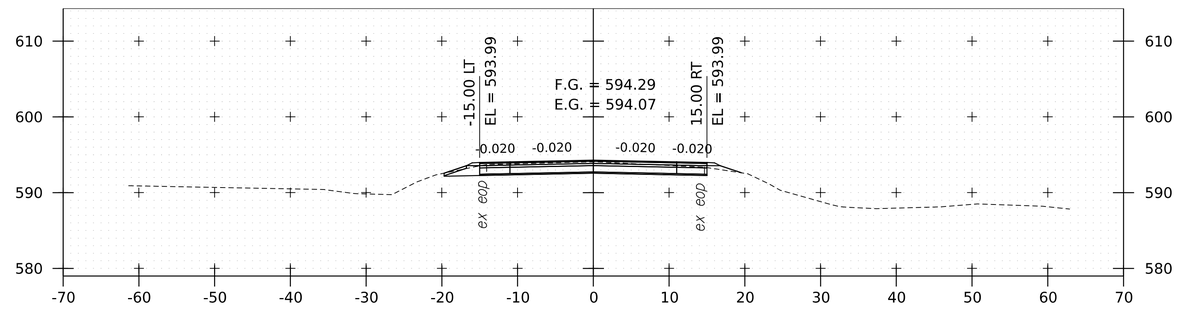
57+50



59+00



57+00



58+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
A	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

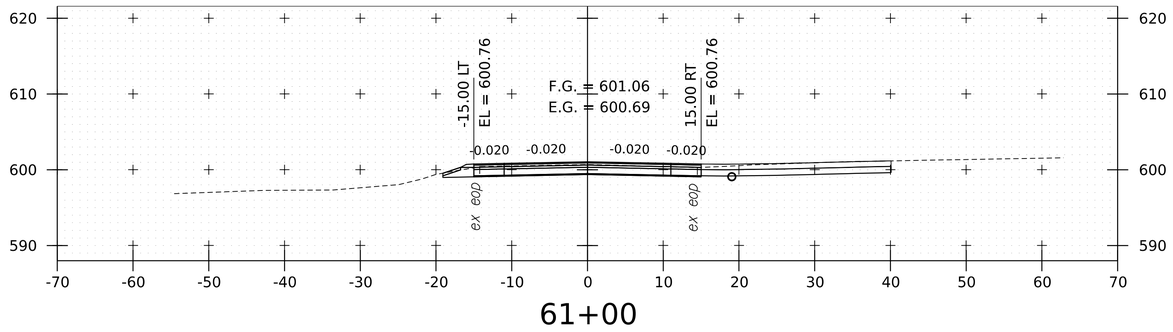
0 10 20
SCALE IN FEET

Stantec

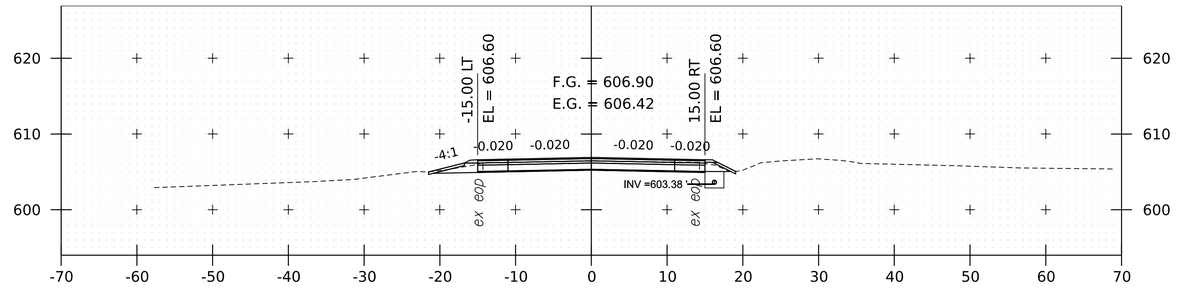
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 20

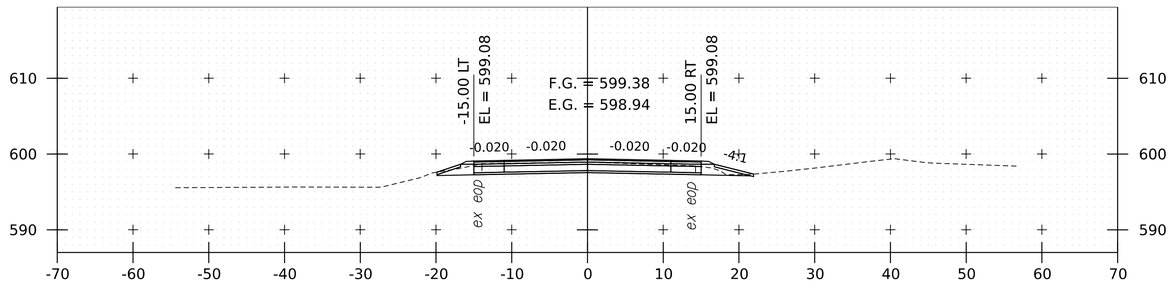
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 173 OF 210



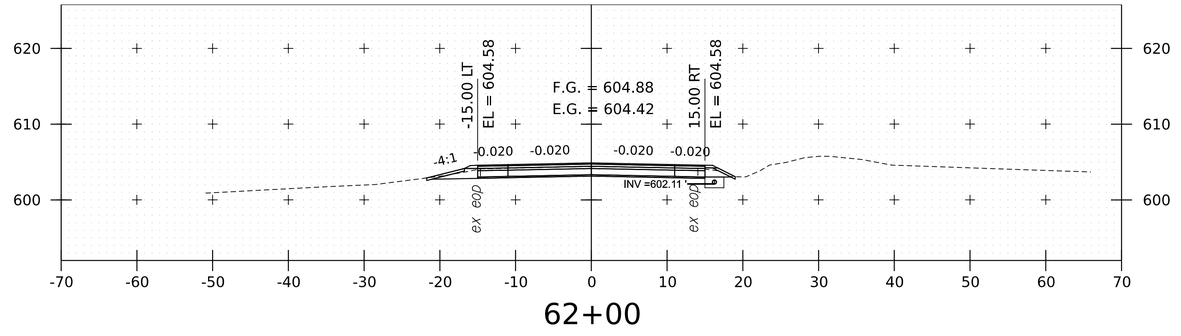
61+00



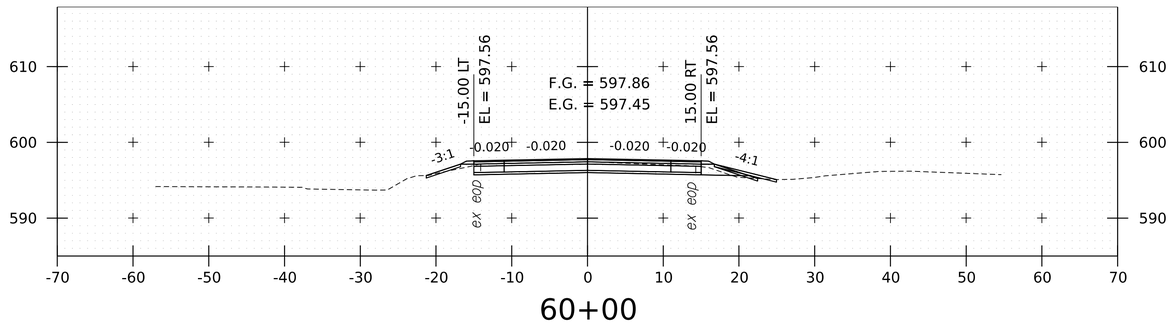
62+50



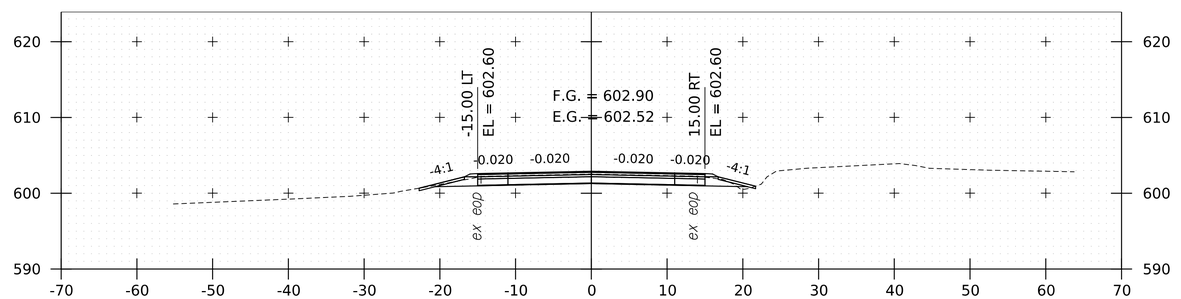
60+50



62+00



60+00



61+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

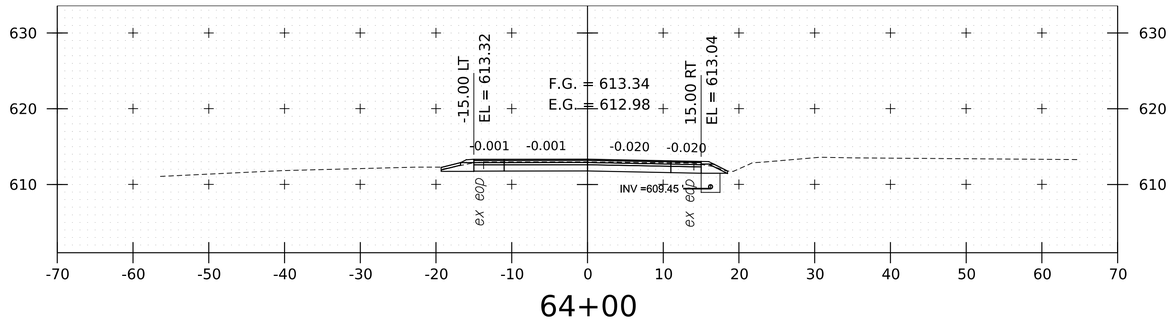
0 10 20
SCALE IN FEET

Stantec

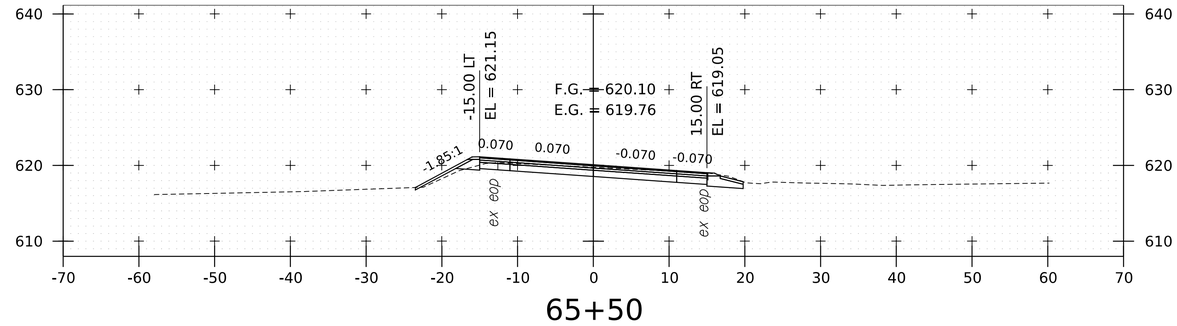
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 21

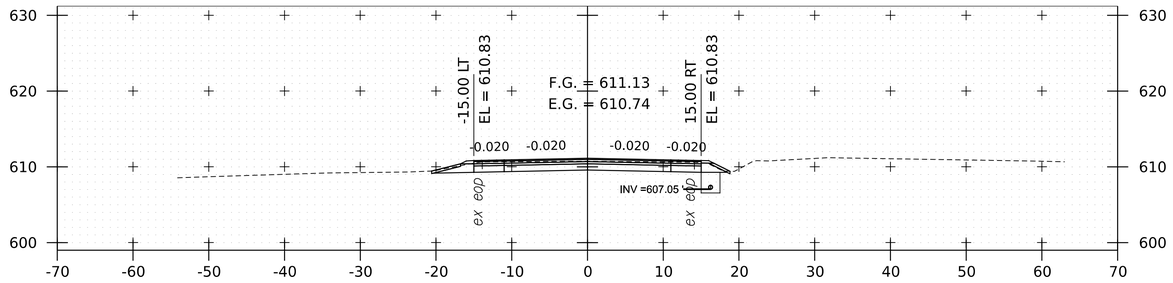
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 174 OF 210



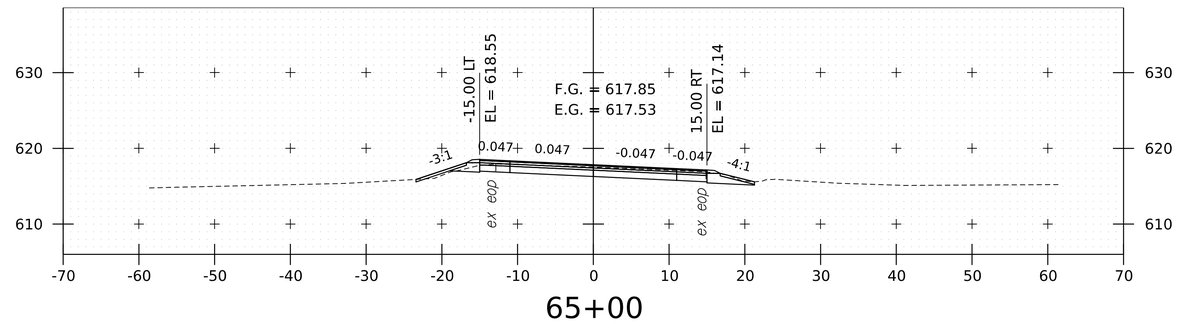
64+00



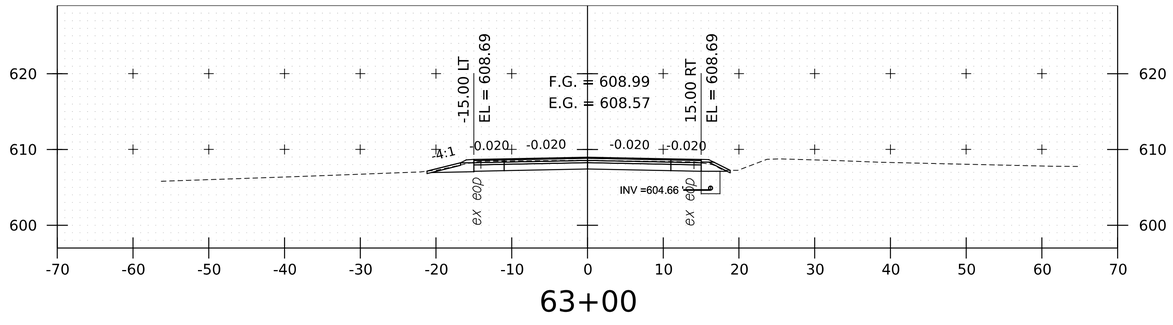
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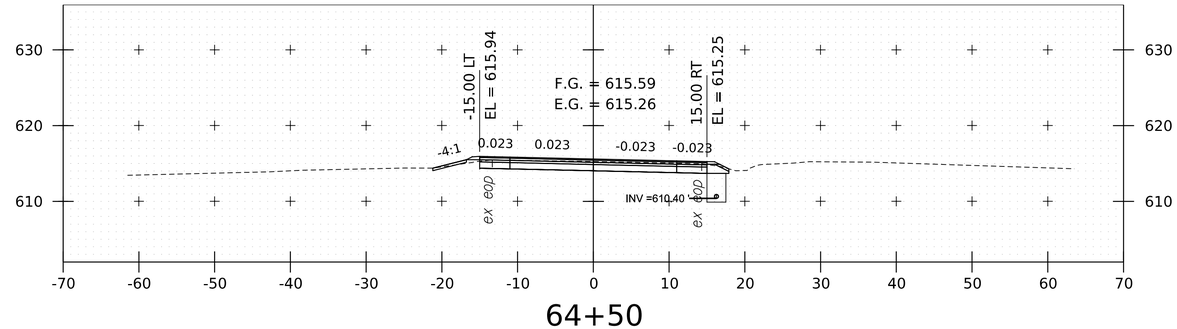
63+50



65+00



63+00



64+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

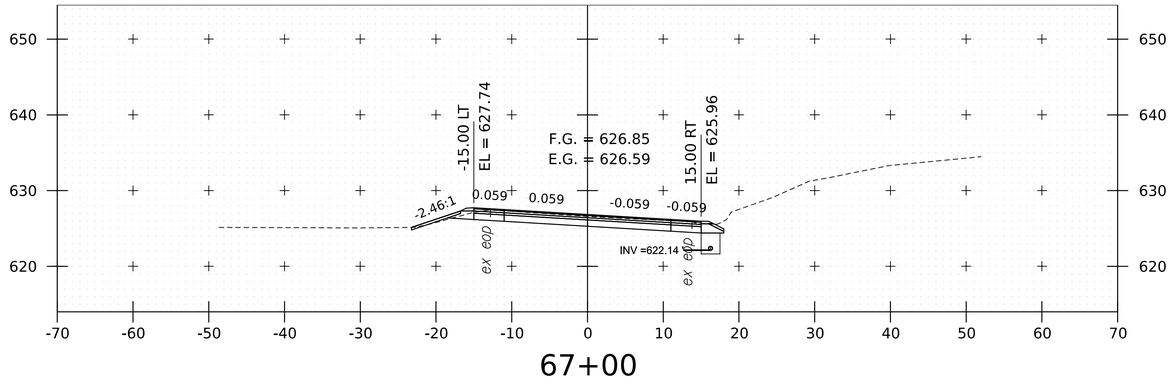
0 10 20
SCALE IN FEET

Stantec

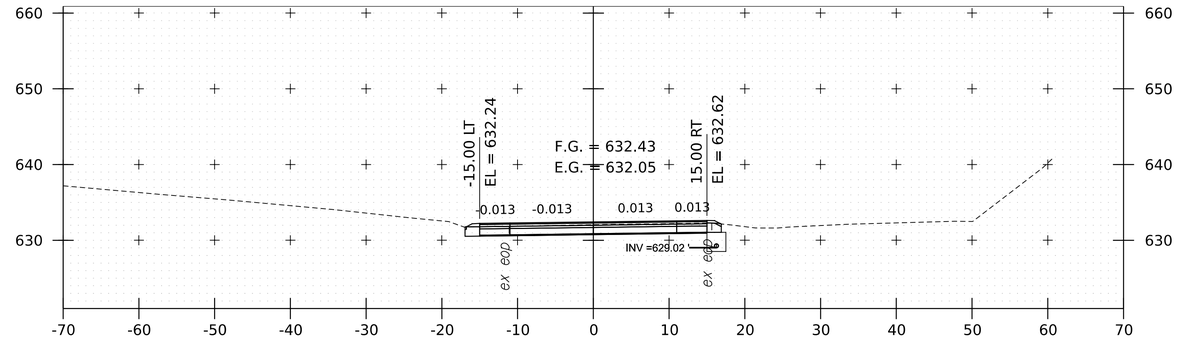
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 22

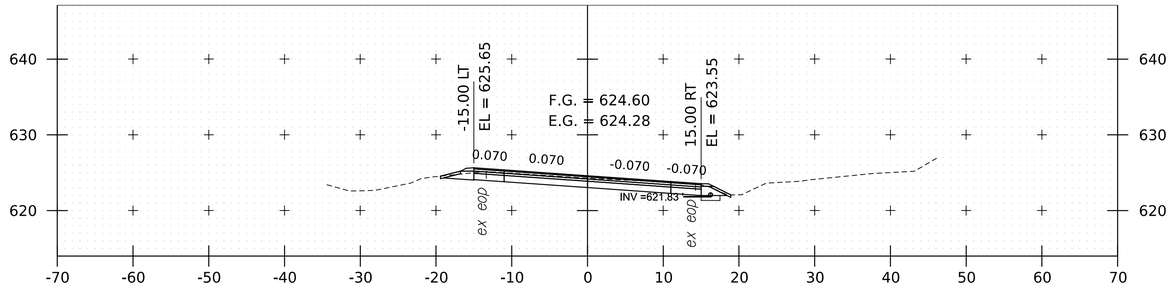
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 175 OF 210



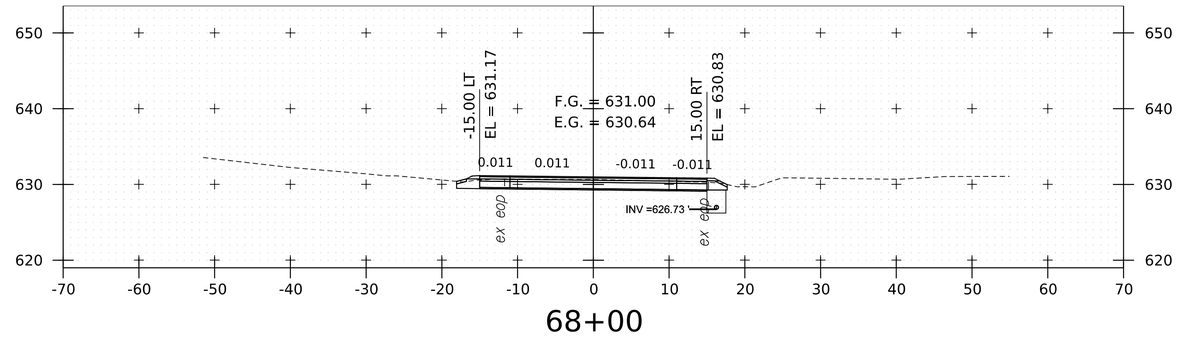
67+00



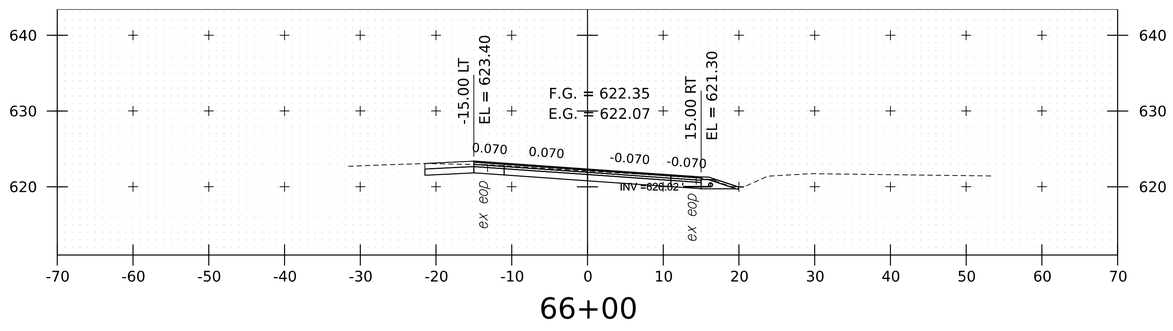
68+50



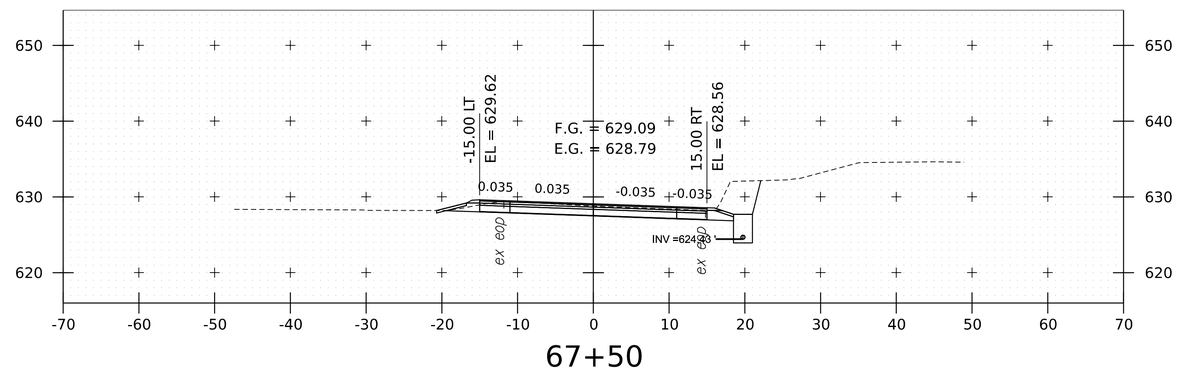
66+50



68+00



66+00



67+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

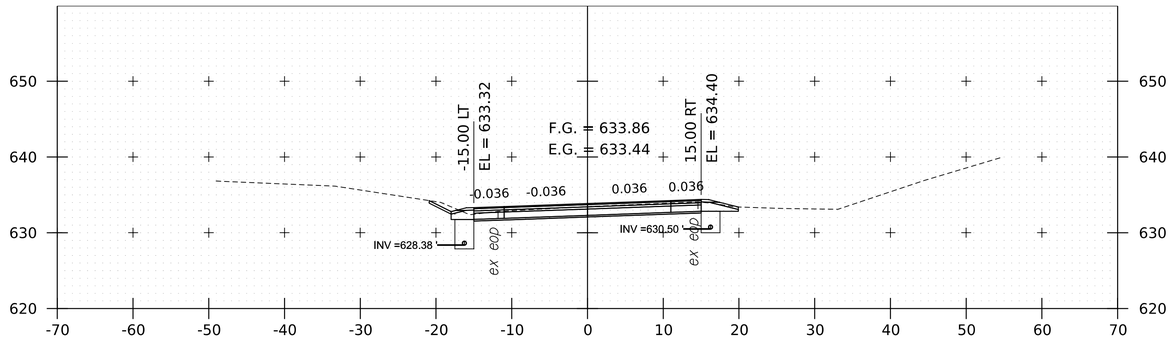
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SCALE IN FEET

Stantec

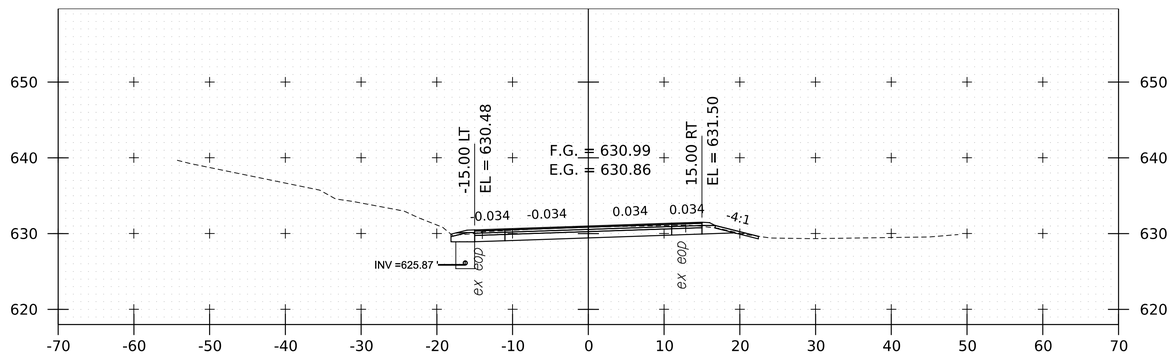
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 23

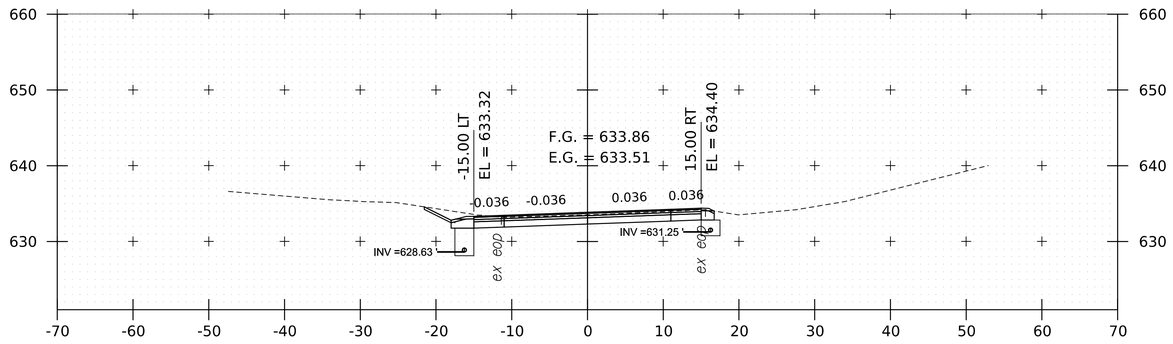
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 176 OF 210



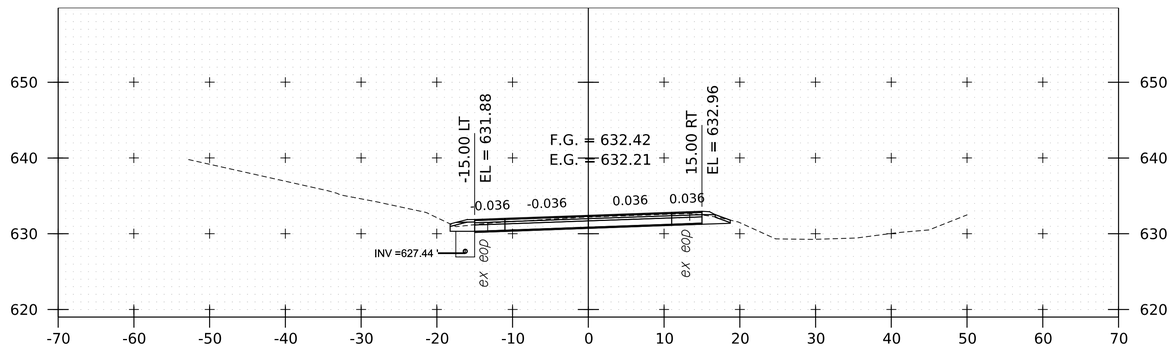
70+00



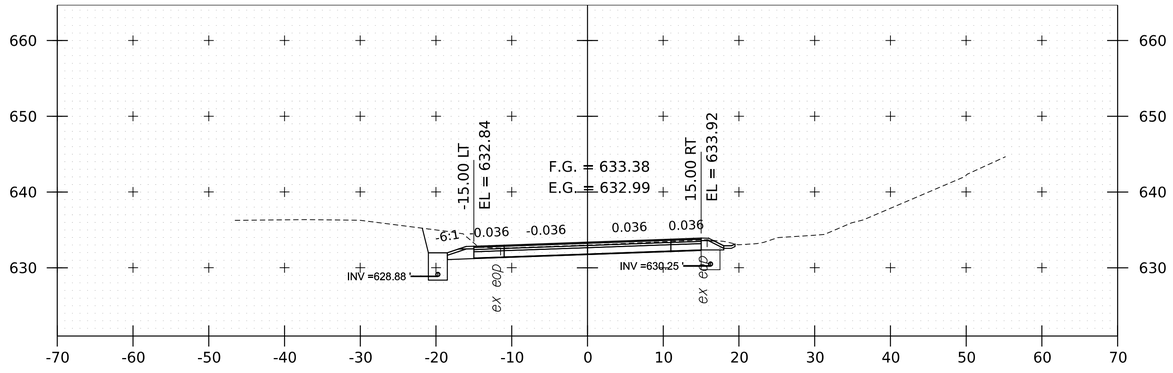
71+50



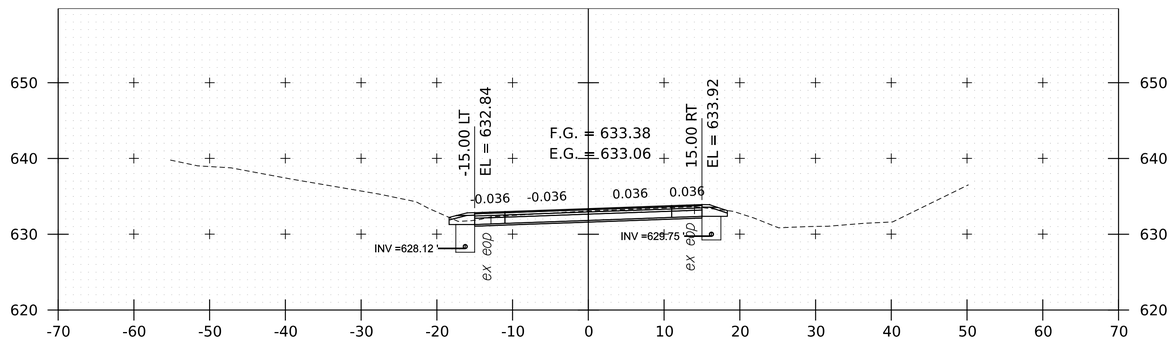
69+50



71+00



69+00



70+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

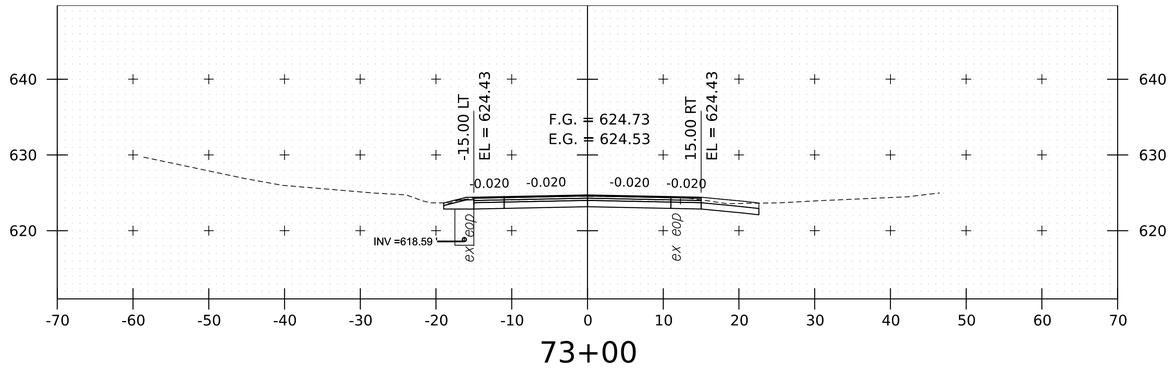
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SCALE IN FEET

Stantec

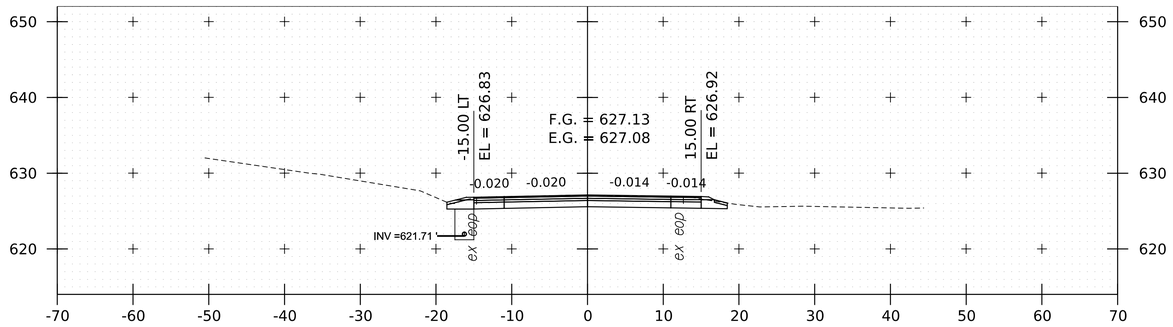
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 24

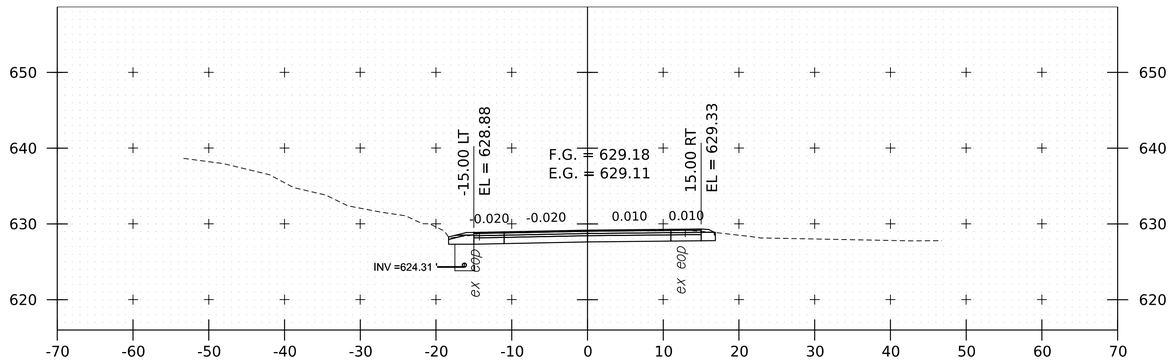
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 177 OF 210



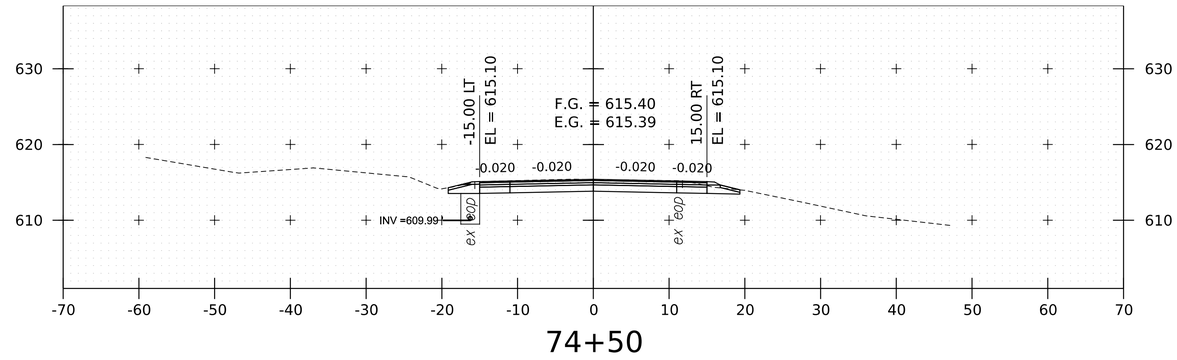
73+00



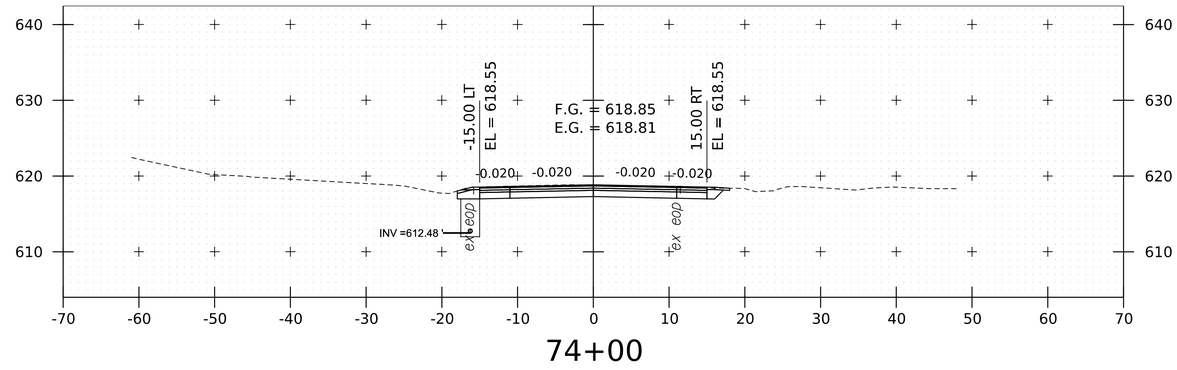
72+50



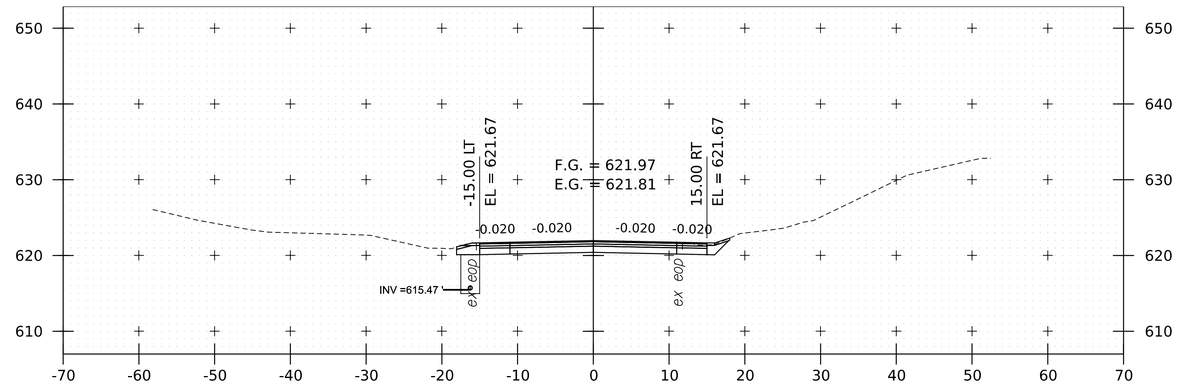
72+00



74+50



74+00



73+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

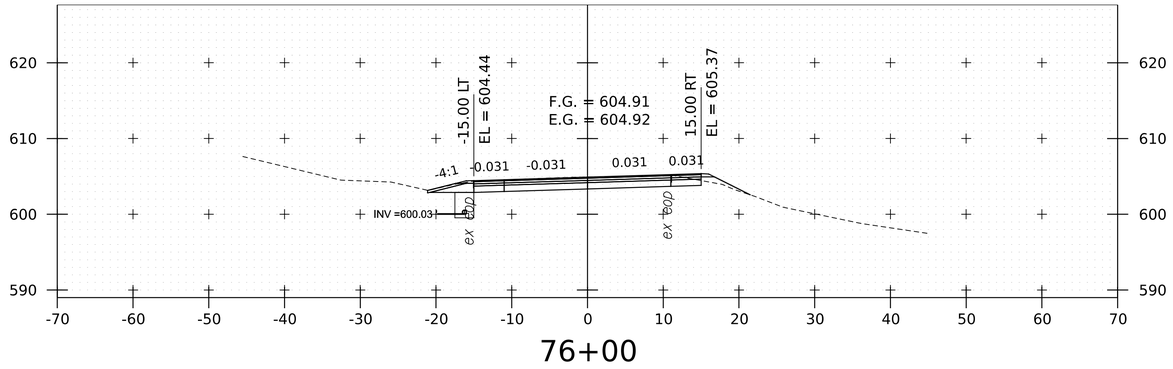
0 10 20
SCALE IN FEET

Stantec

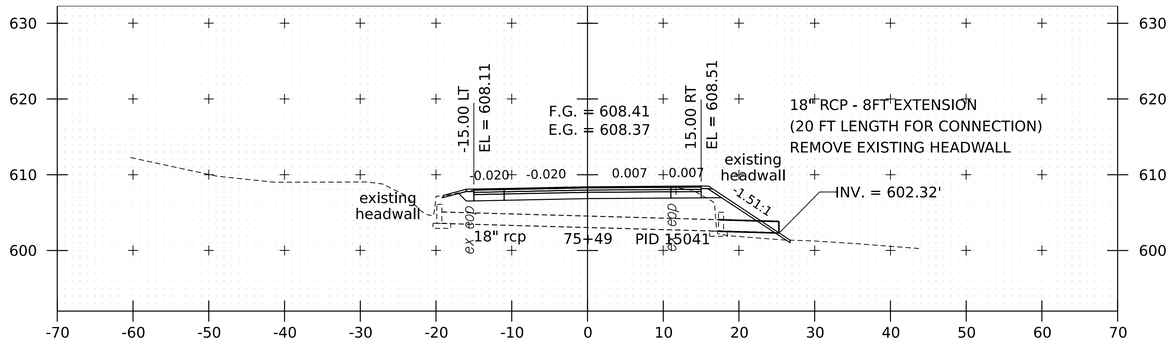
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 25

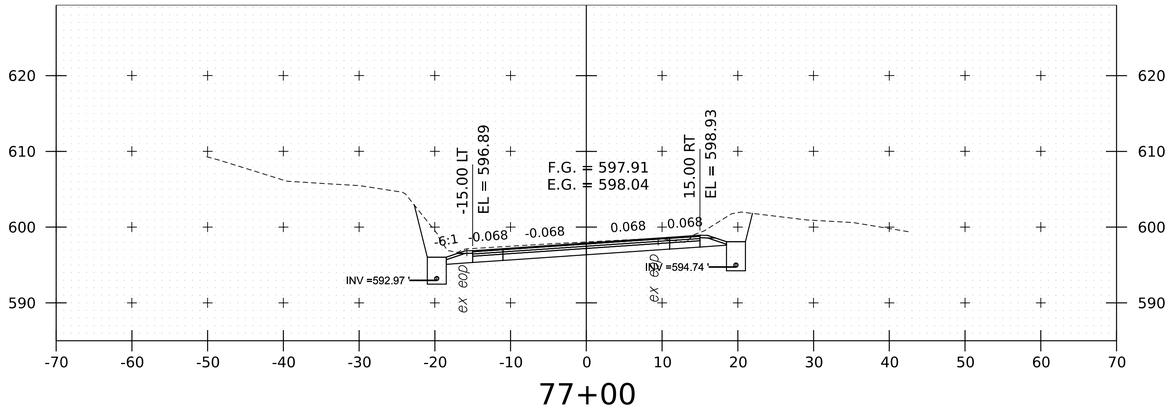
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 178 OF 210



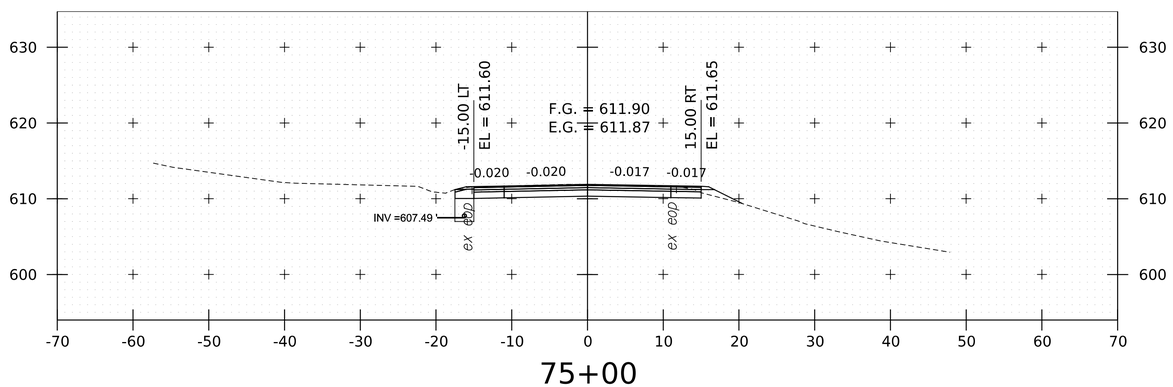
76+00



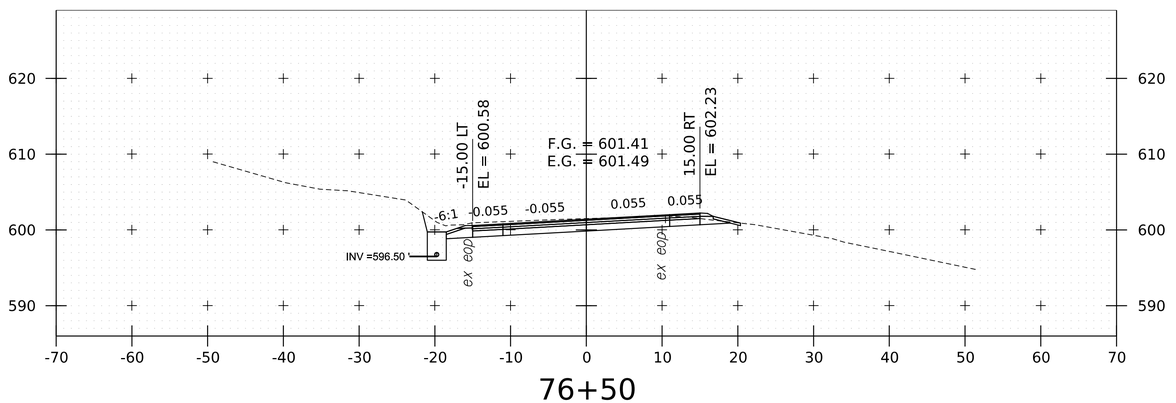
75+50



77+00



75+00



76+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

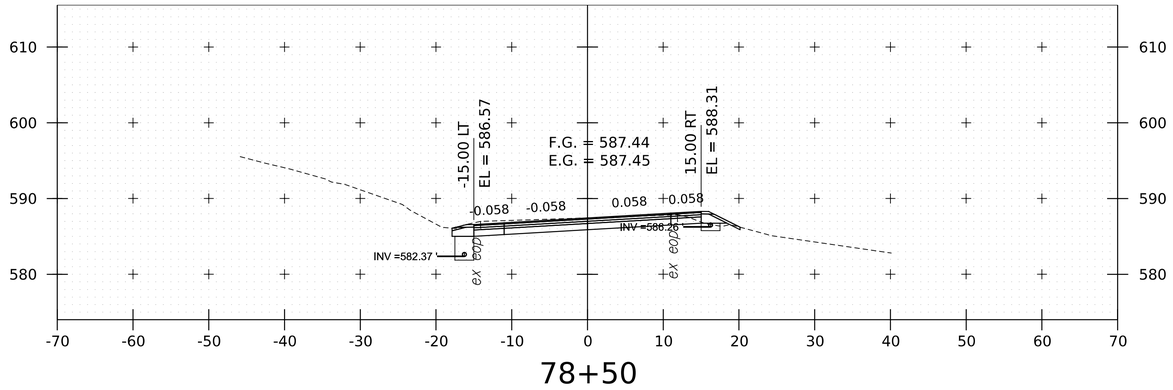
0 10 20
SCALE IN FEET

Stantec

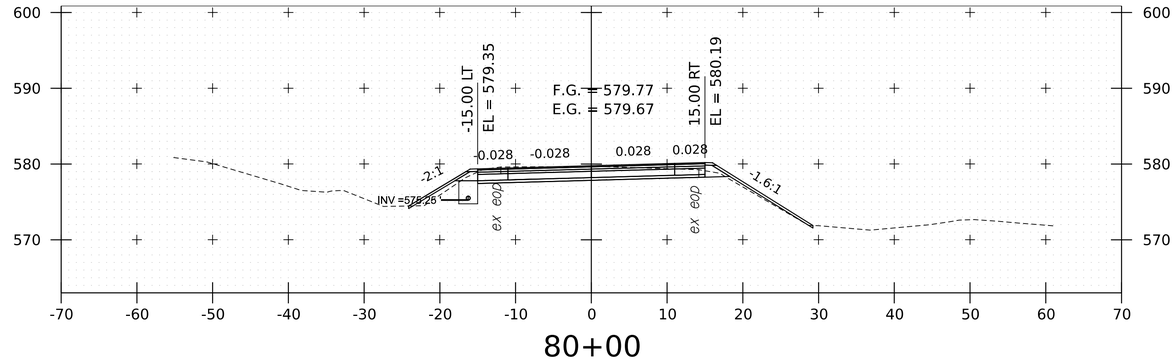
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 26

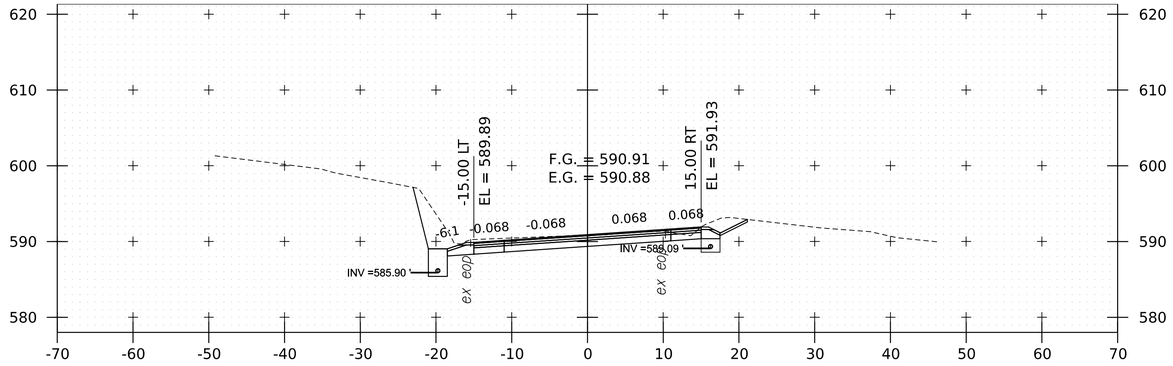
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 179 OF 210



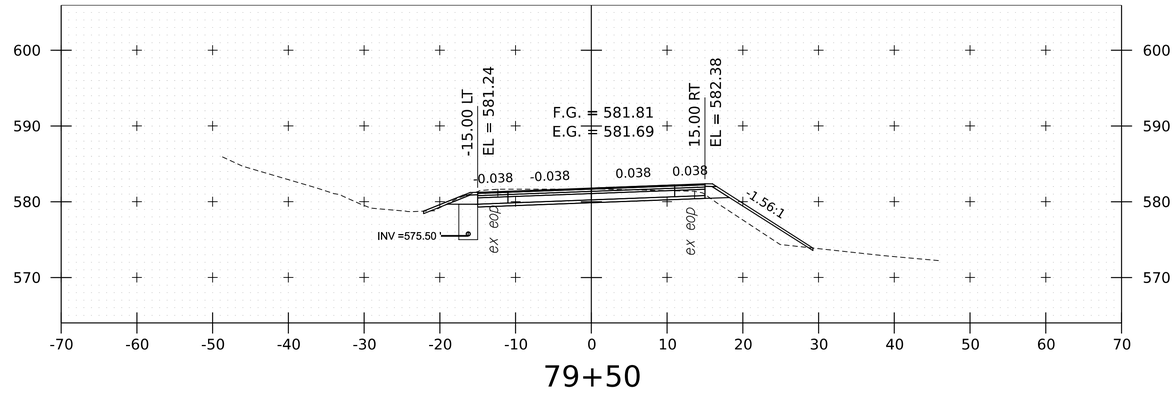
78+50



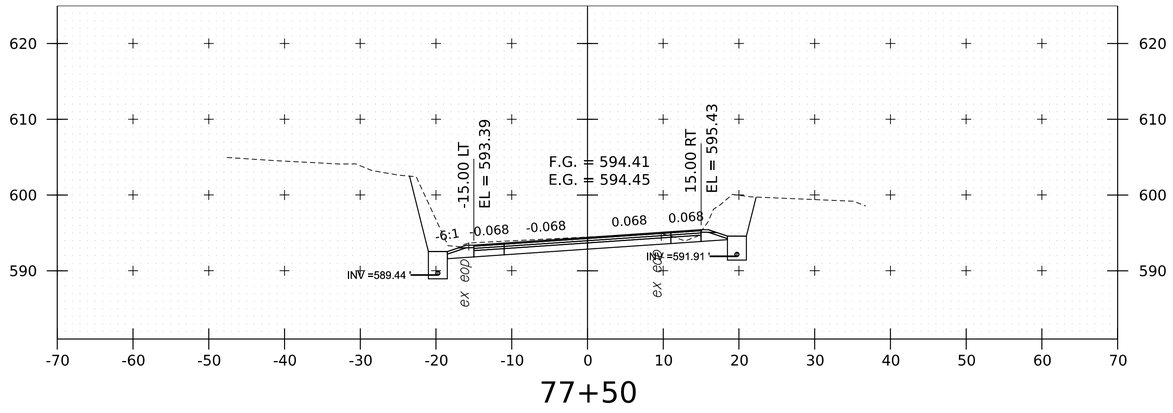
80+00



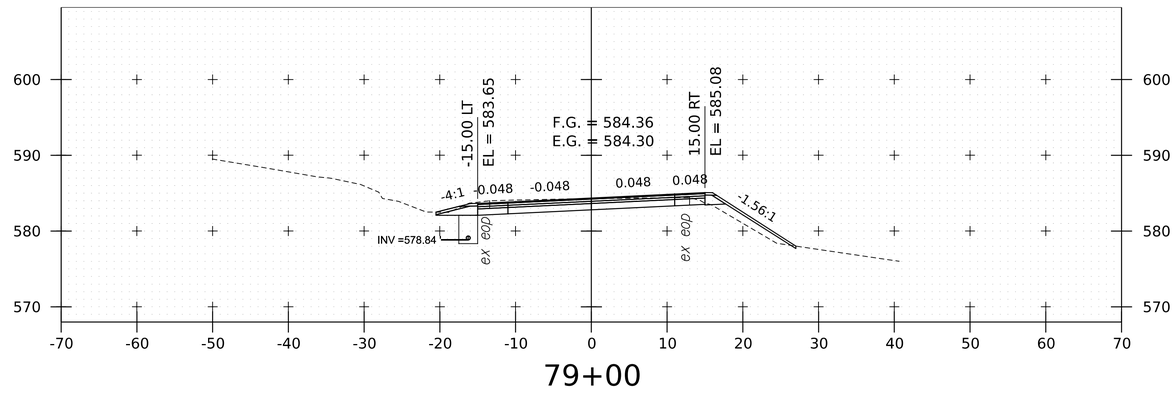
78+00



79+50



77+50



79+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

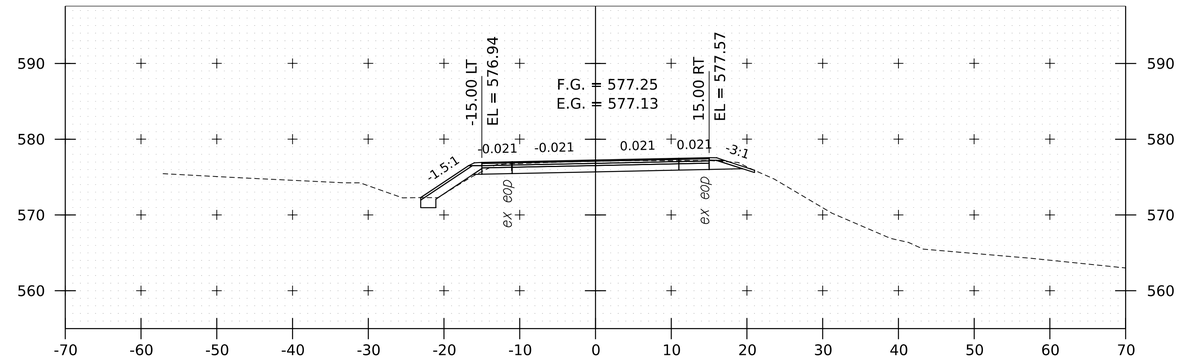
0 10 20
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

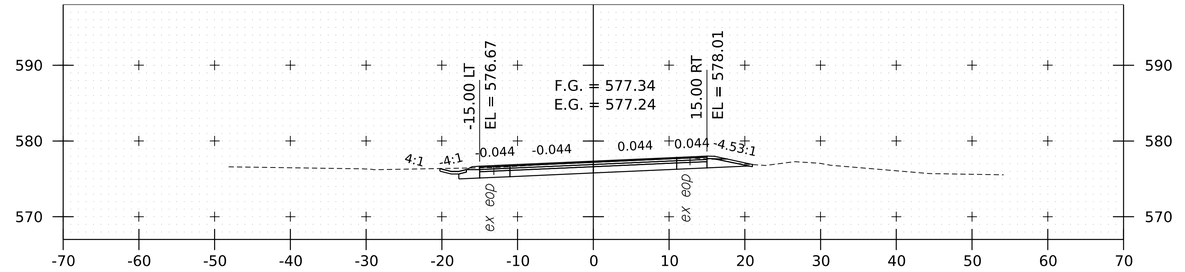
FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 27

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 180 OF 210

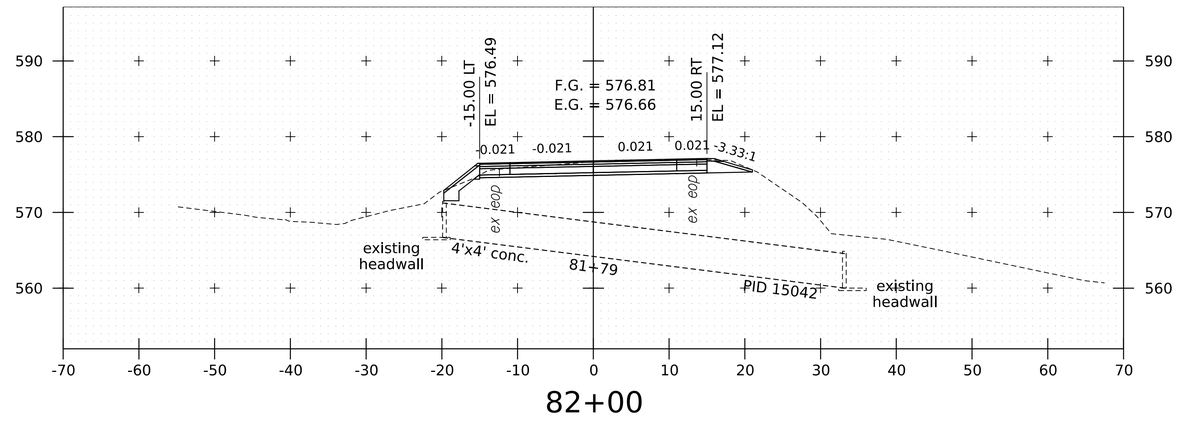


81+00

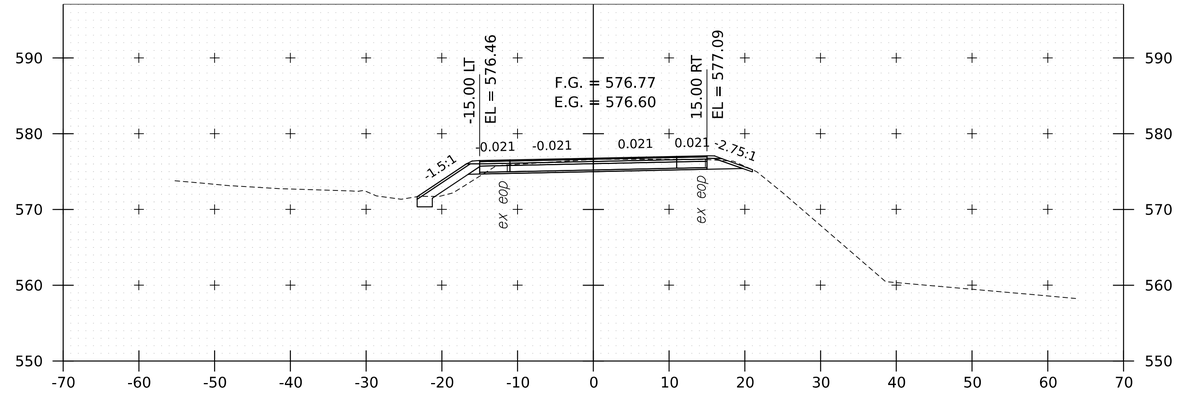
80+50



82+50



82+00



81+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

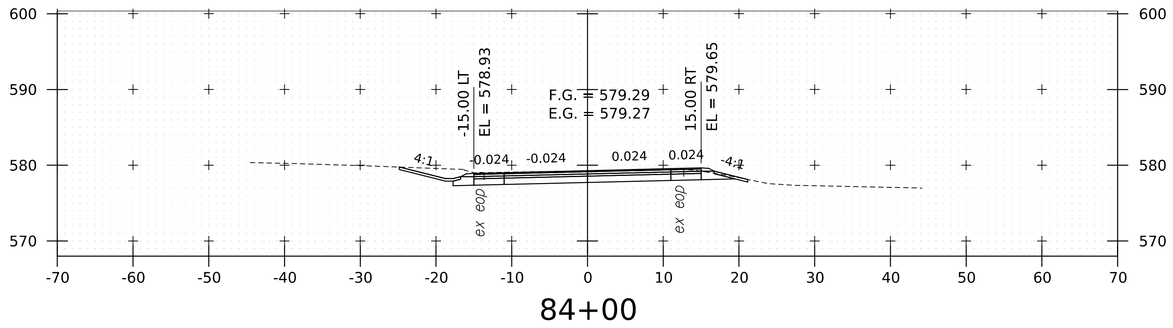
0 10 20
SCALE IN FEET

Stantec

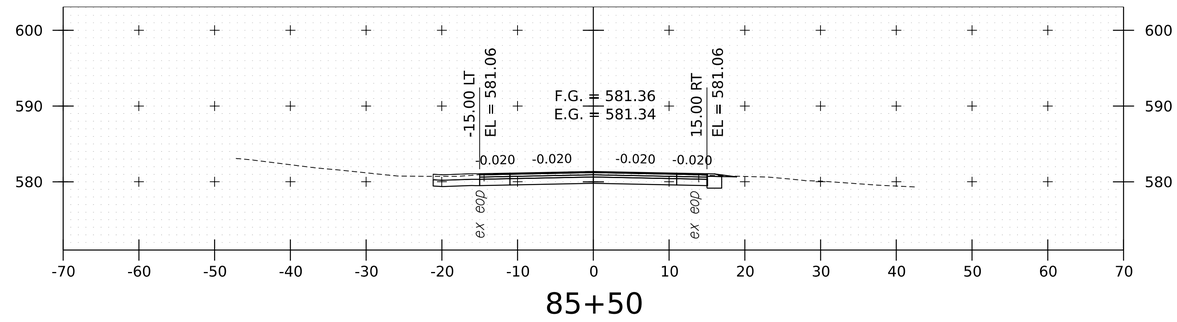
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 28

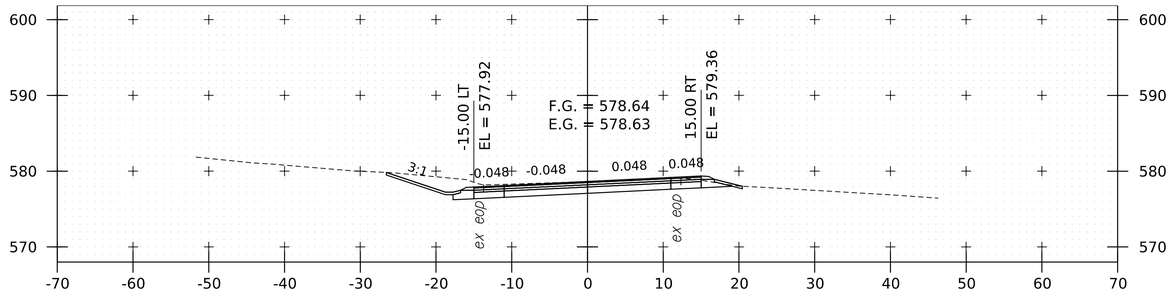
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 181 OF 210



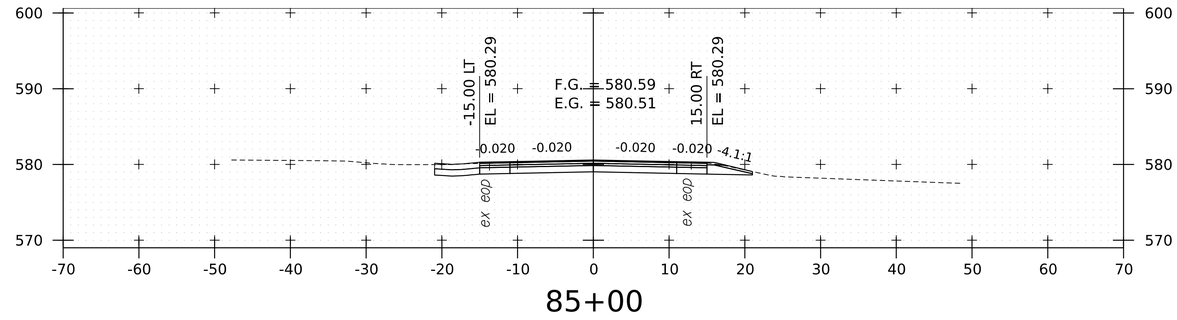
84+00



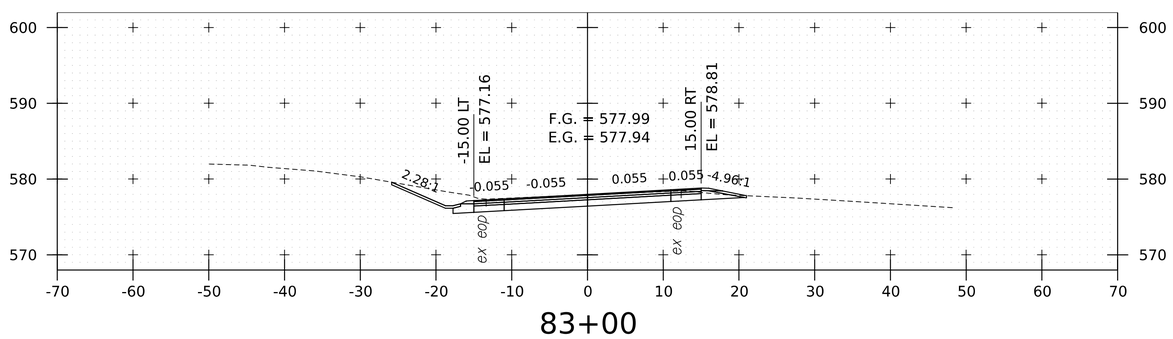
85+50



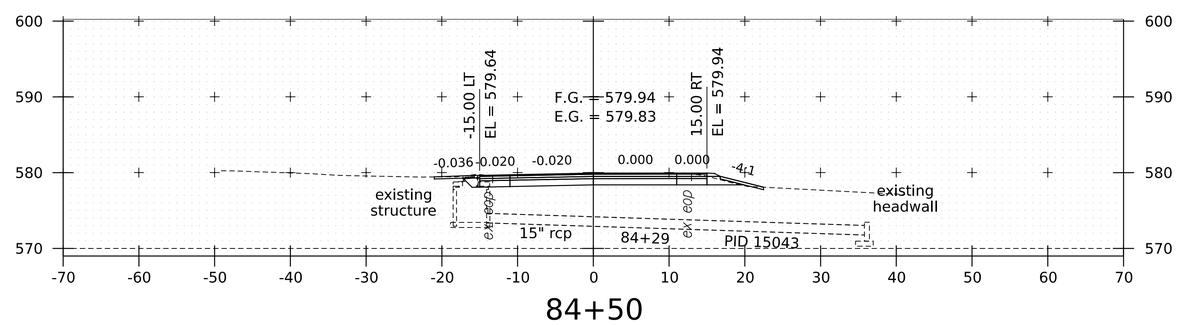
83+50



85+00



83+00



84+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

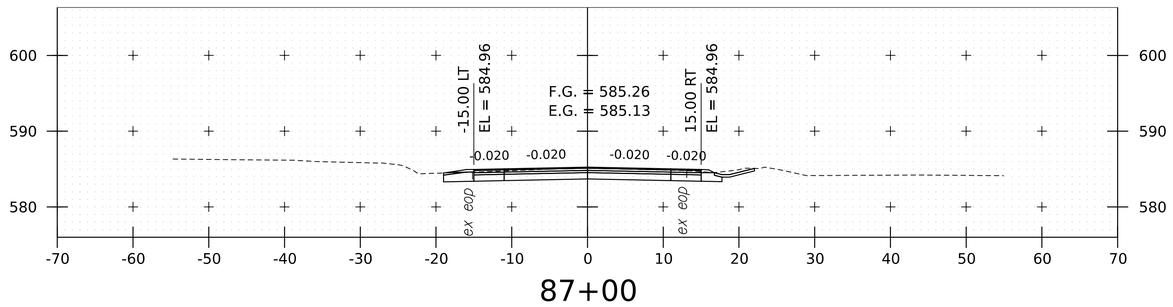
0 10 20
SCALE IN FEET

Stantec

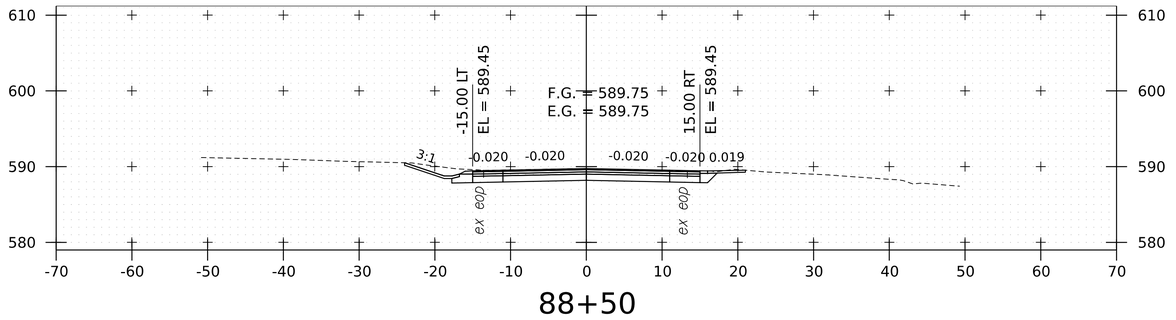
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 29

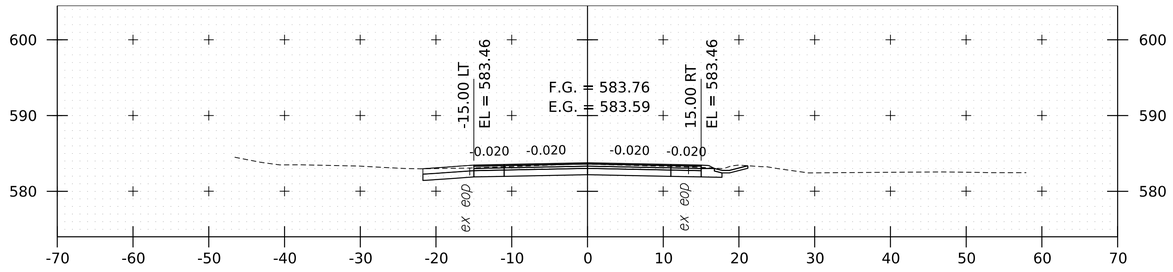
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 182 OF 210



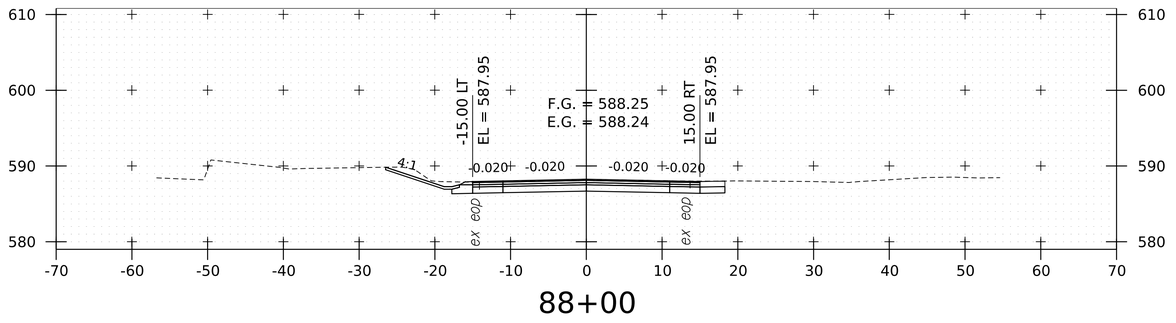
87+00



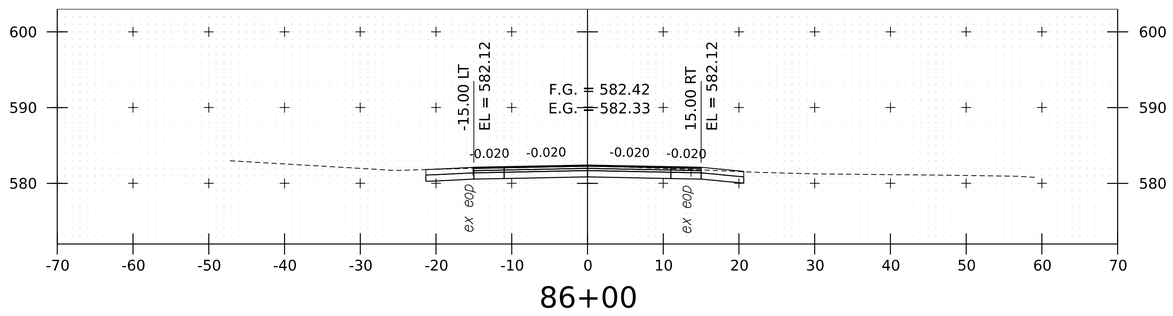
88+50



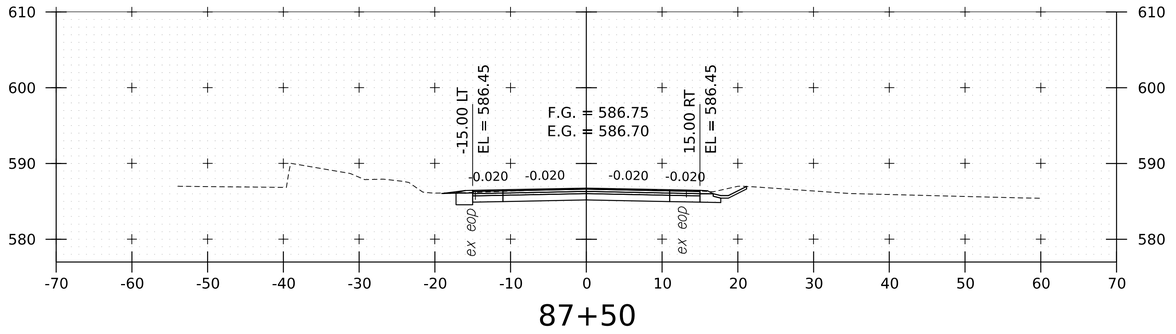
86+50



88+00



86+00



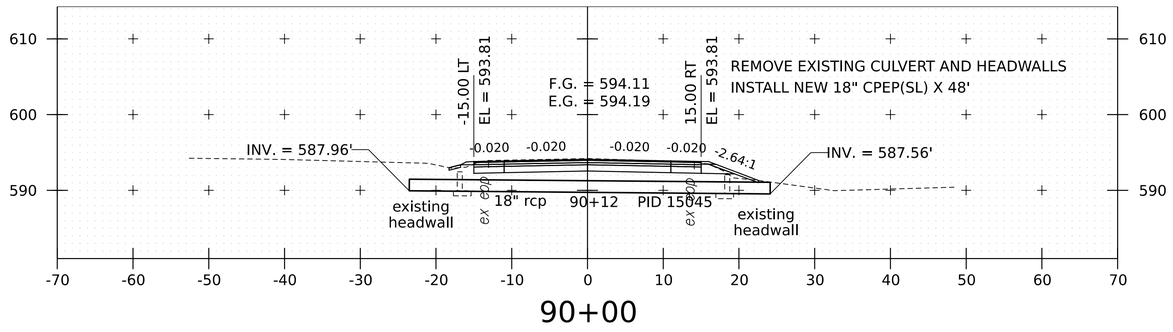
87+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

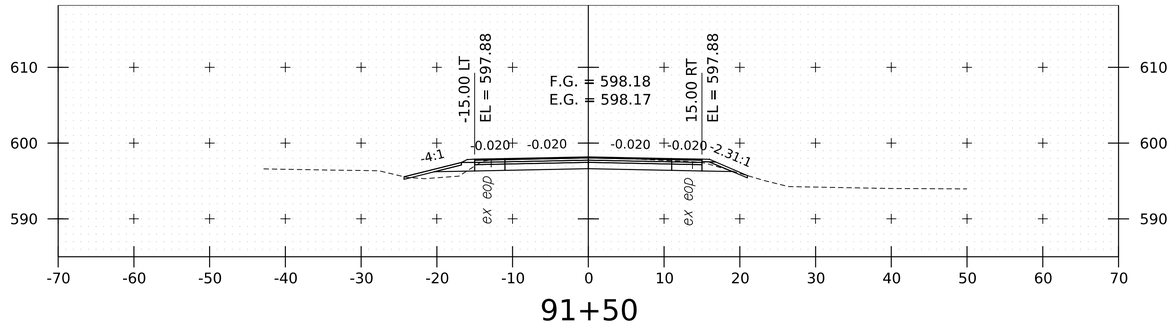
0 10 20
SCALE IN FEET

Stantec

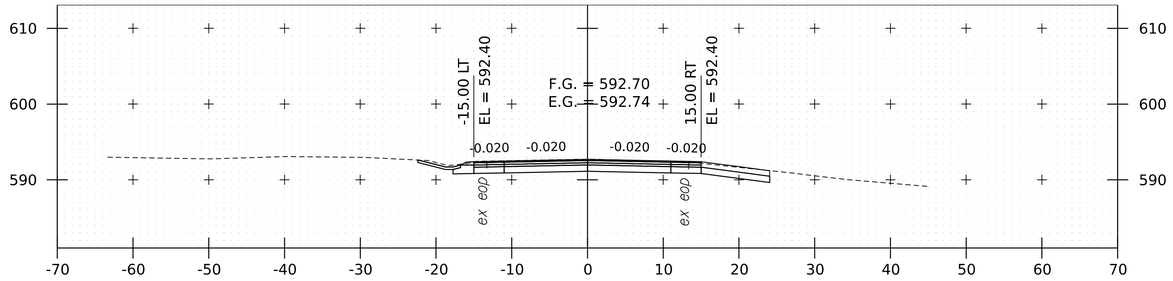
PROJECT NAME:	HARTFORD
PROJECT NUMBER:	STP PS24(2)
FILE NAME: z19v443_xs_1.dgn	PLOT DATE: 9-JAN-2024
PROJECT LEADER: M. FOISY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
CROSS SECTION SHEET 30	SHEET 183 OF 210



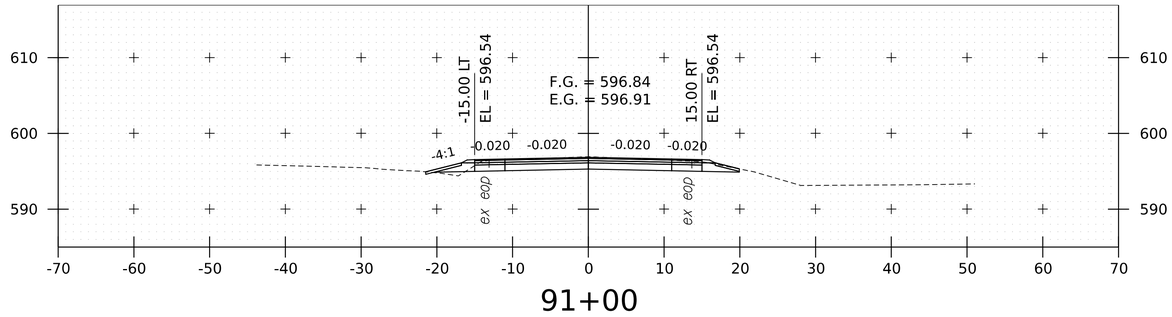
90+00



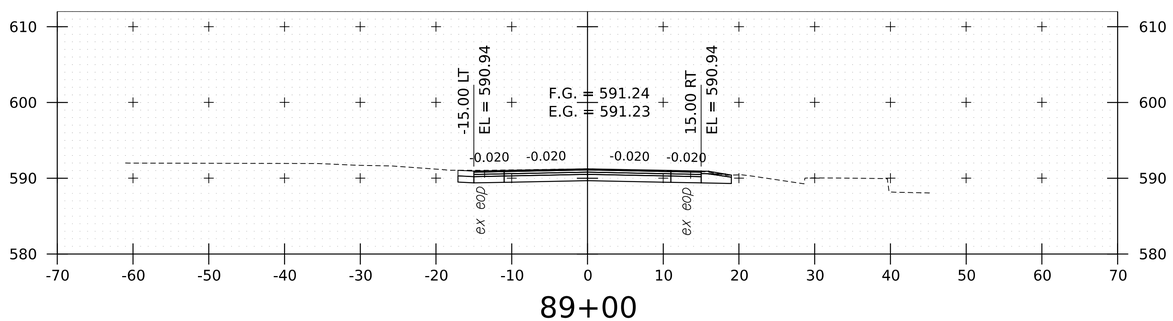
91+50



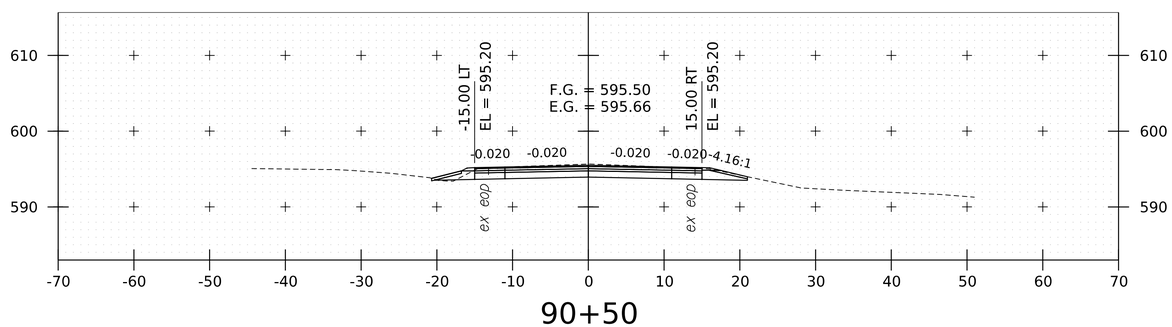
89+50



91+00



89+00



90+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
A	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

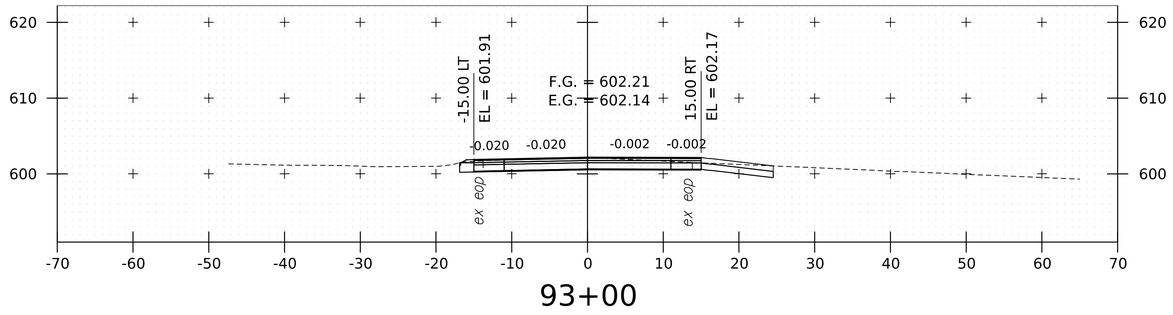
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SCALE IN FEET

Stantec

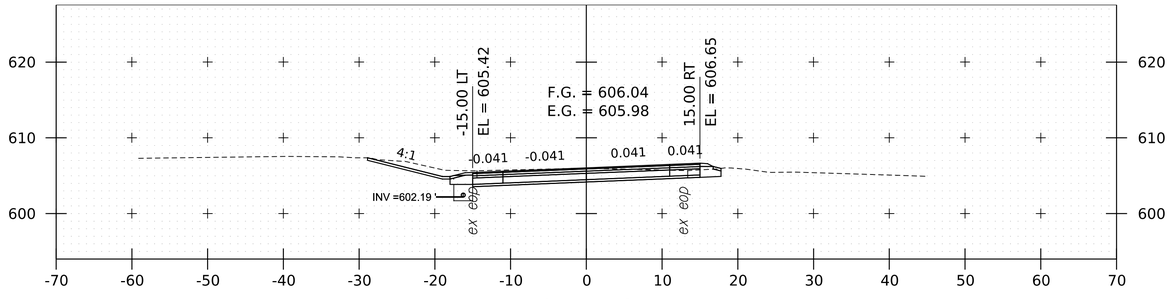
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 31

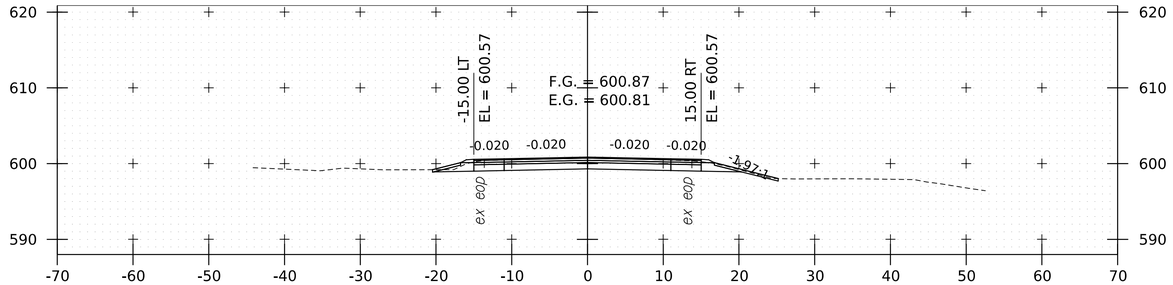
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 184 OF 210



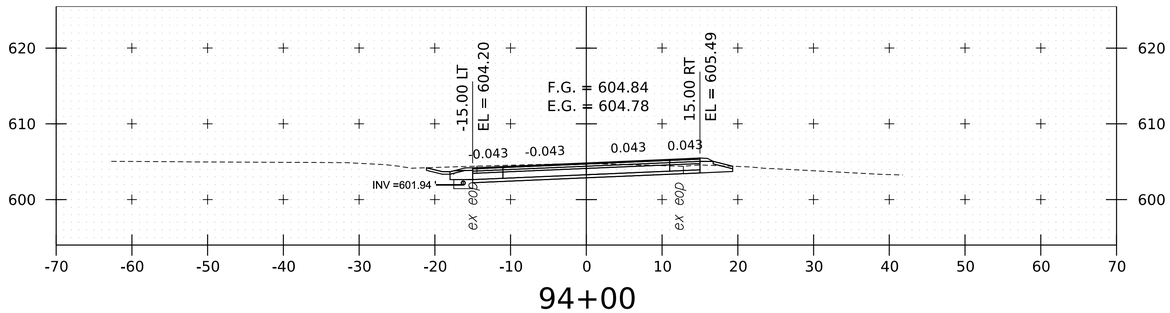
93+00



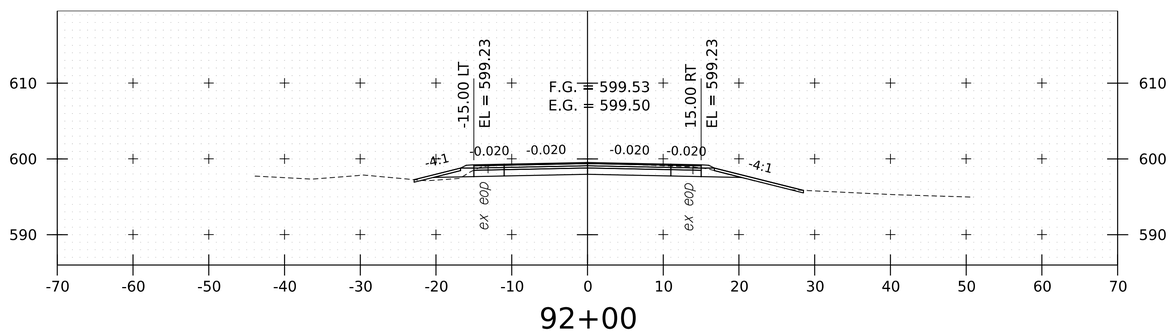
94+50



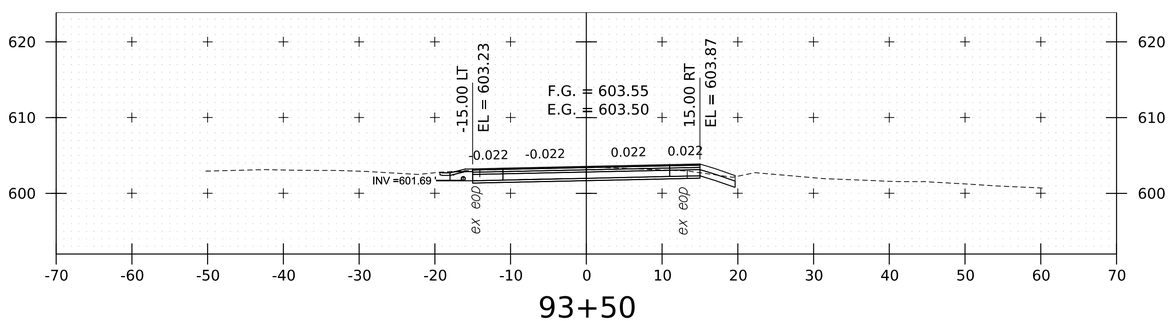
92+50



94+00



92+00



93+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

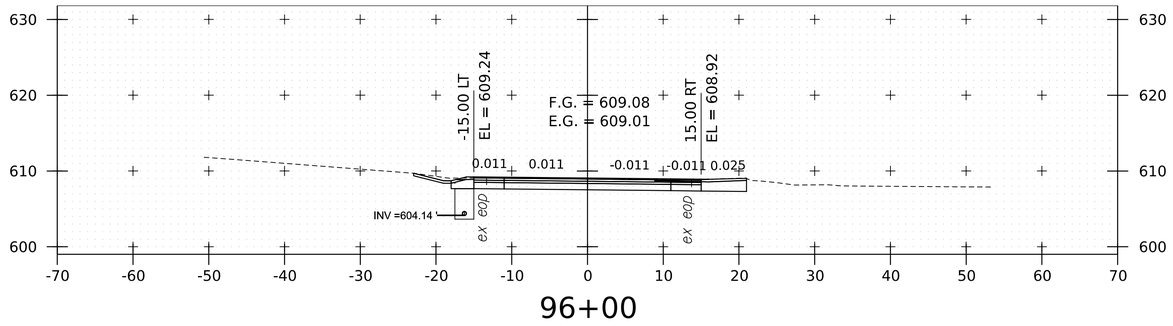
0 10 20
SCALE IN FEET

Stantec

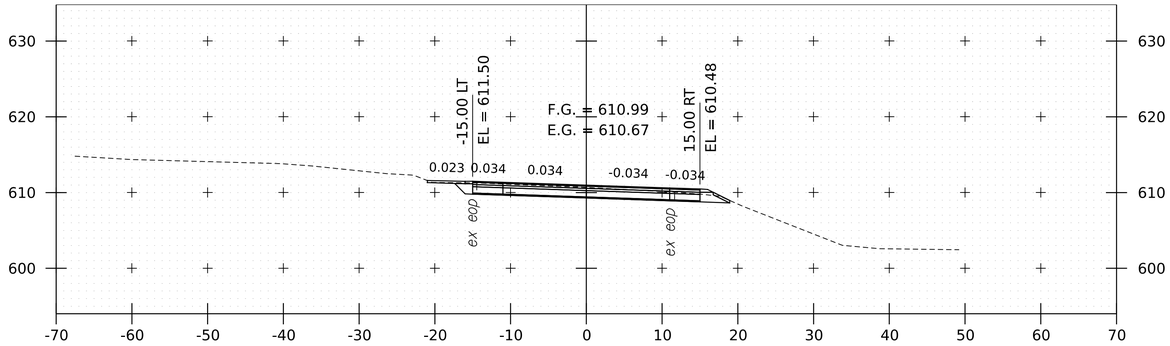
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 32

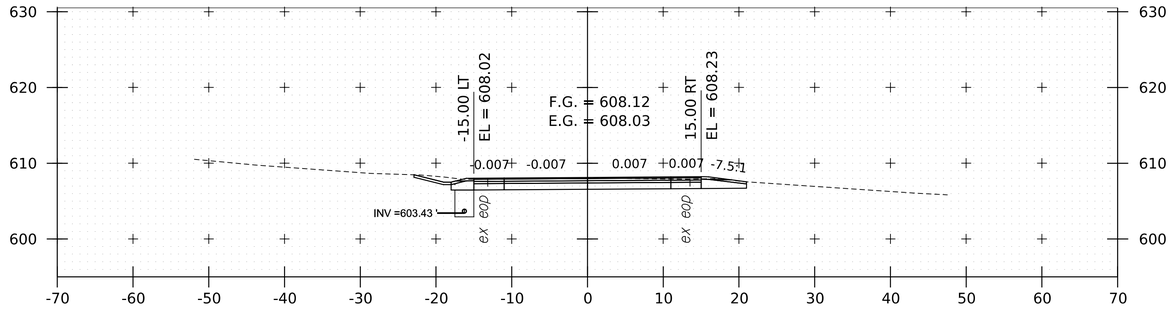
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 185 OF 210



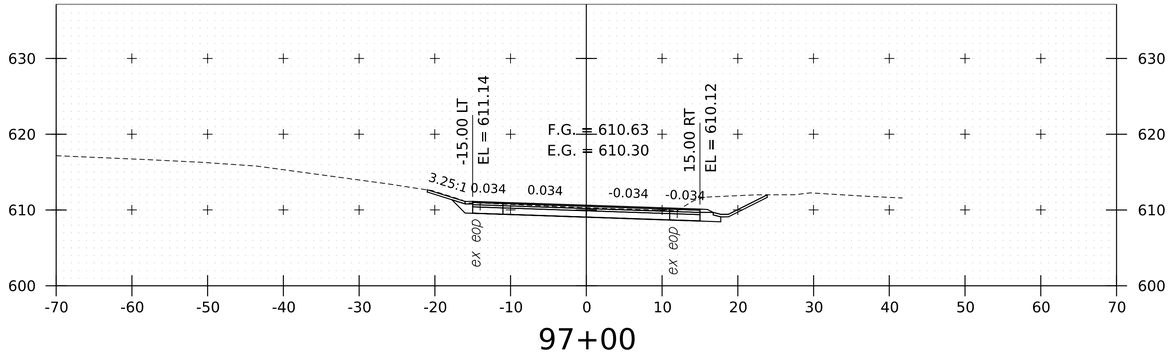
96+00



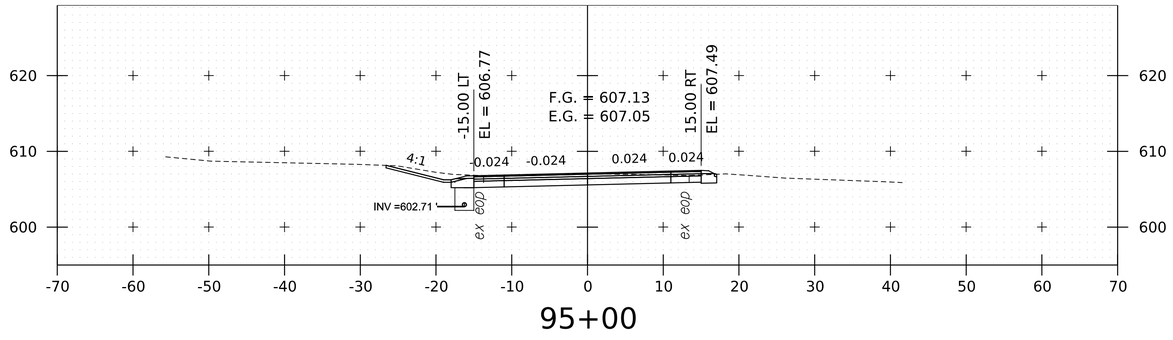
97+50



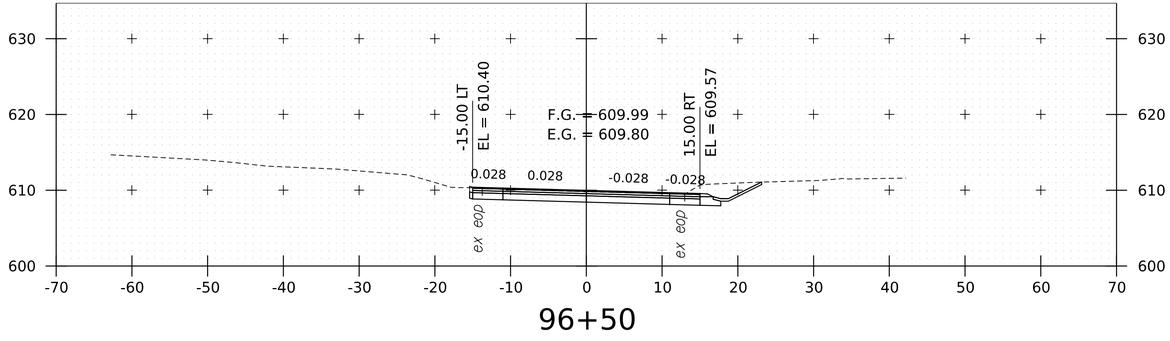
95+50



97+00



95+00



96+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
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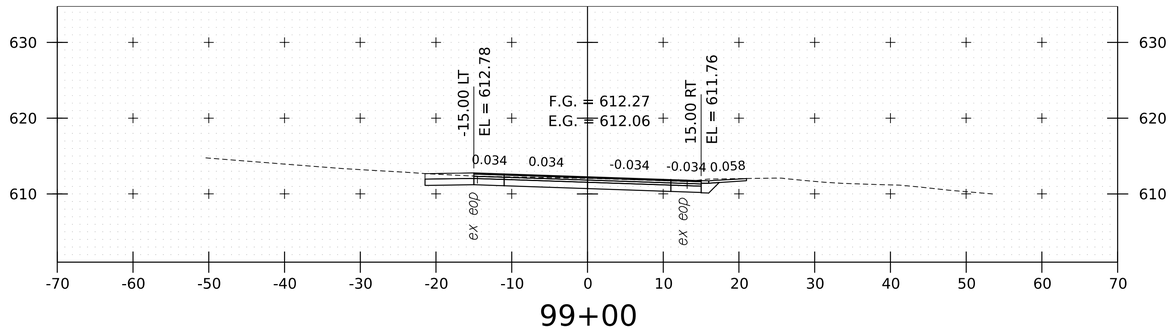
0 10 20
SCALE IN FEET

Stantec

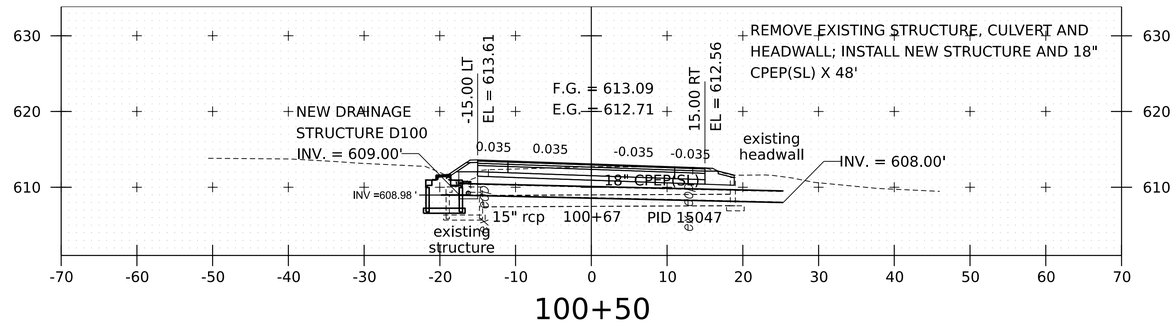
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 33

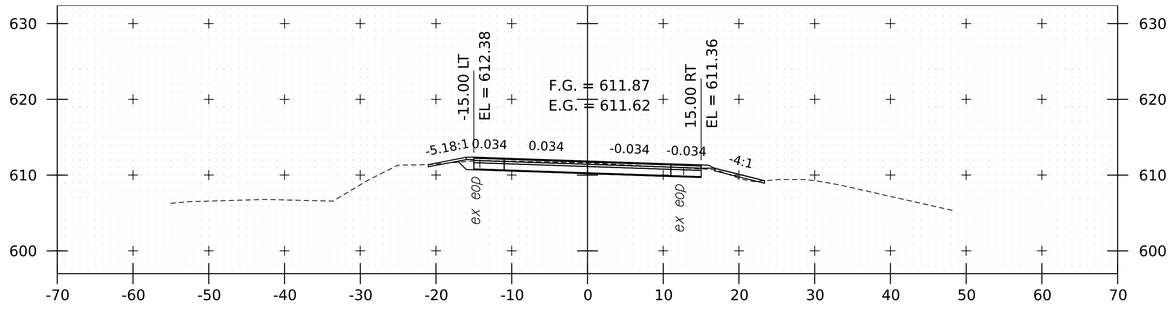
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 186 OF 210



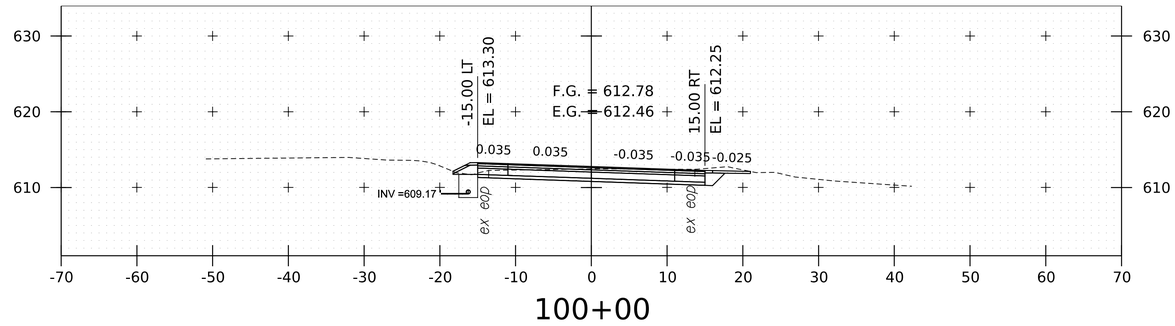
99+00



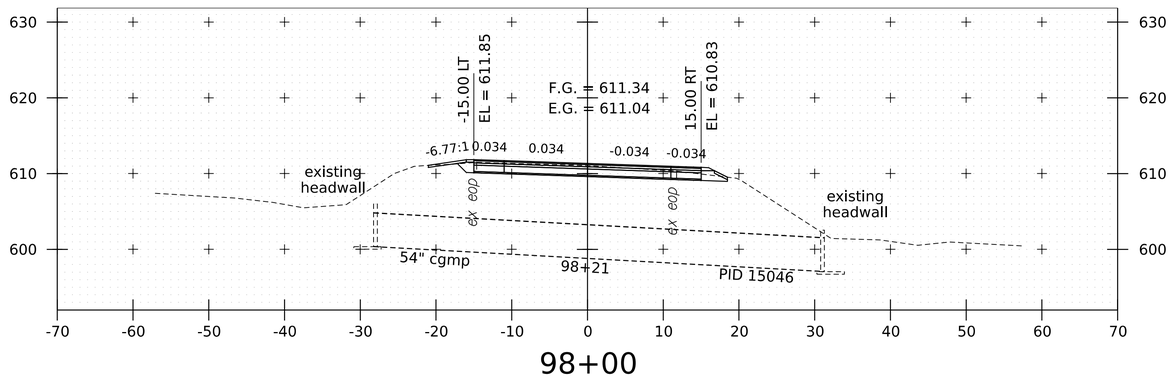
100+50



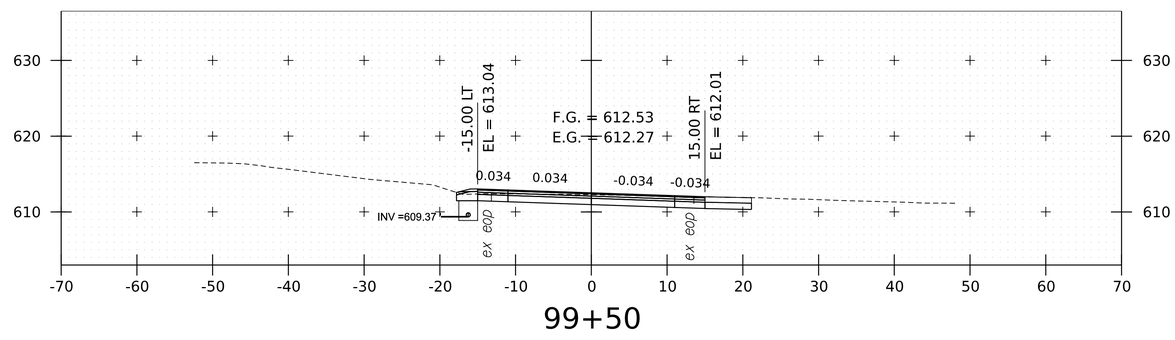
98+50



100+00



98+00



99+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
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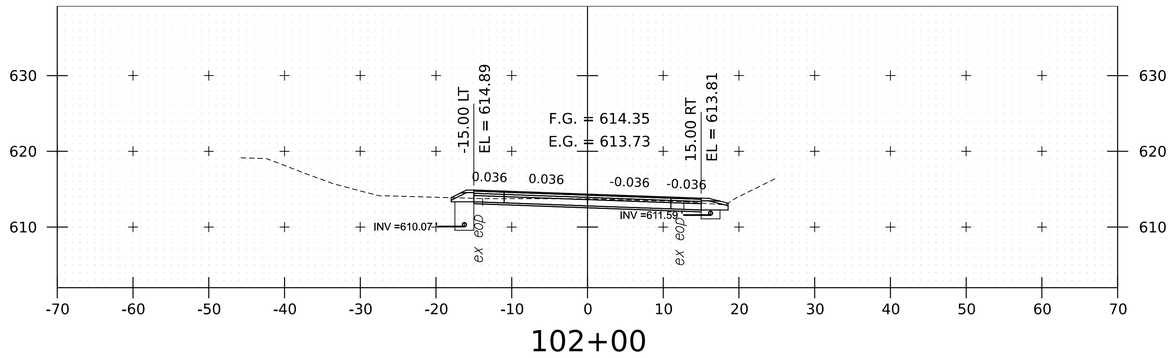
0 10 20
SCALE IN FEET

Stantec

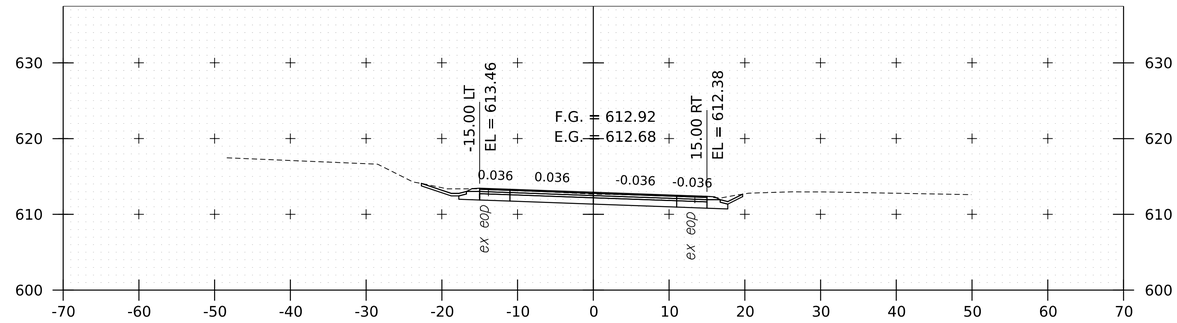
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 34

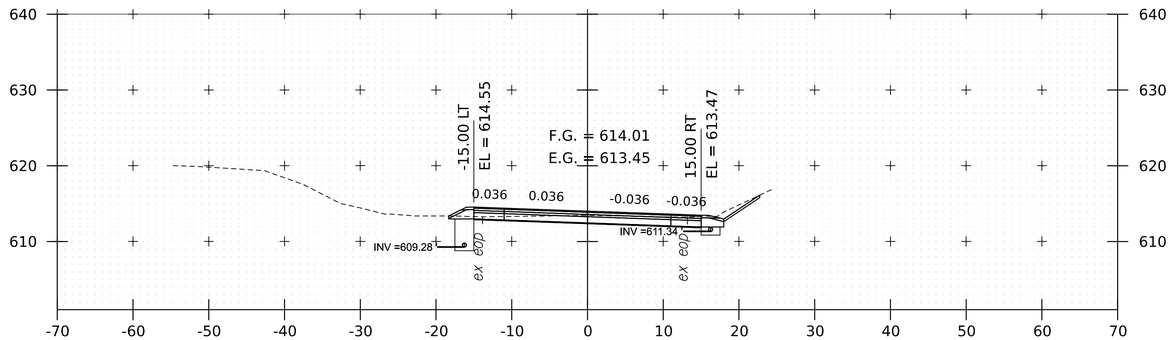
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 187 OF 210



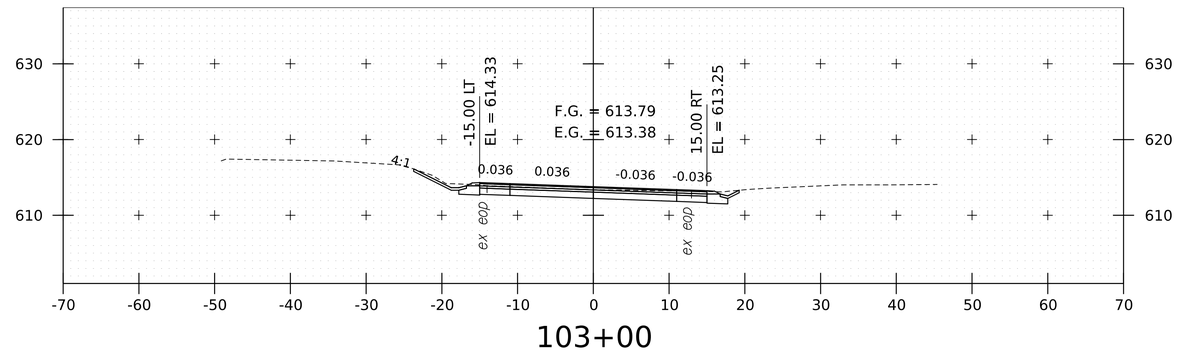
102+00



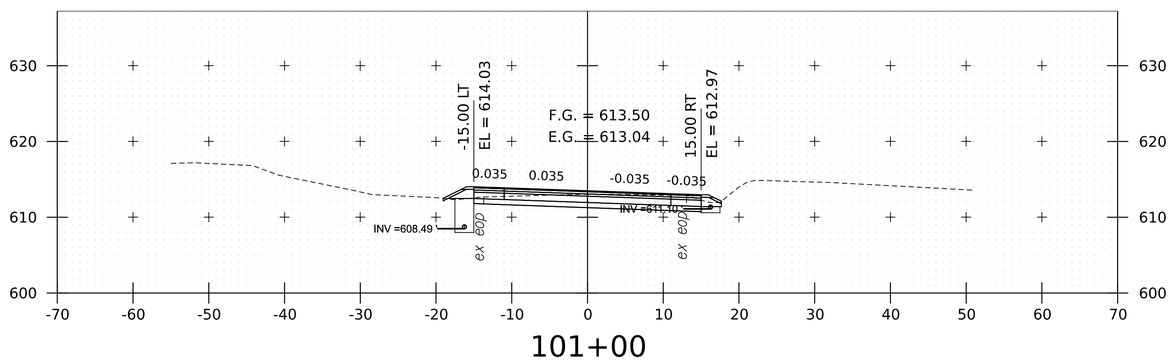
103+50



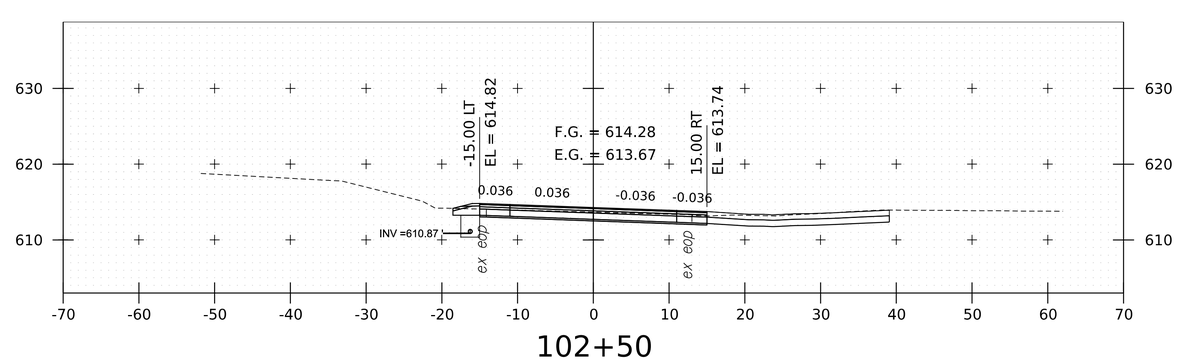
101+50



103+00



101+00



102+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

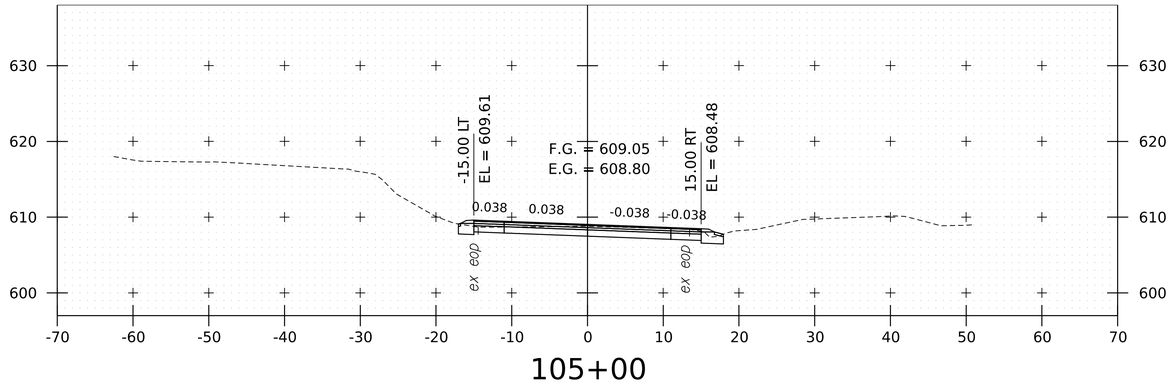
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SCALE IN FEET

Stantec

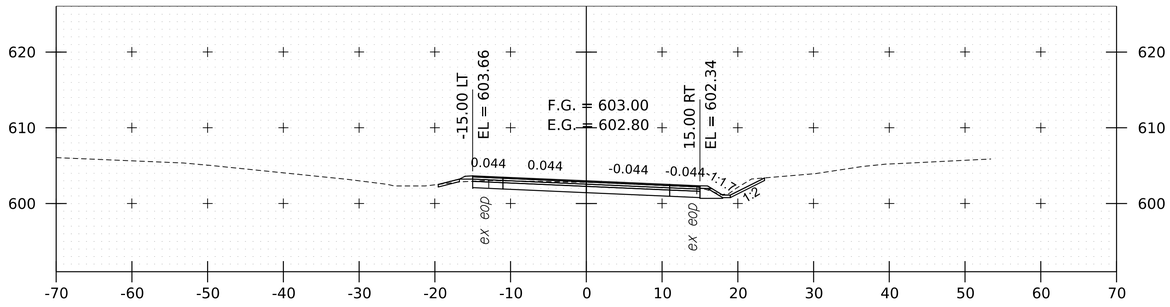
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 35

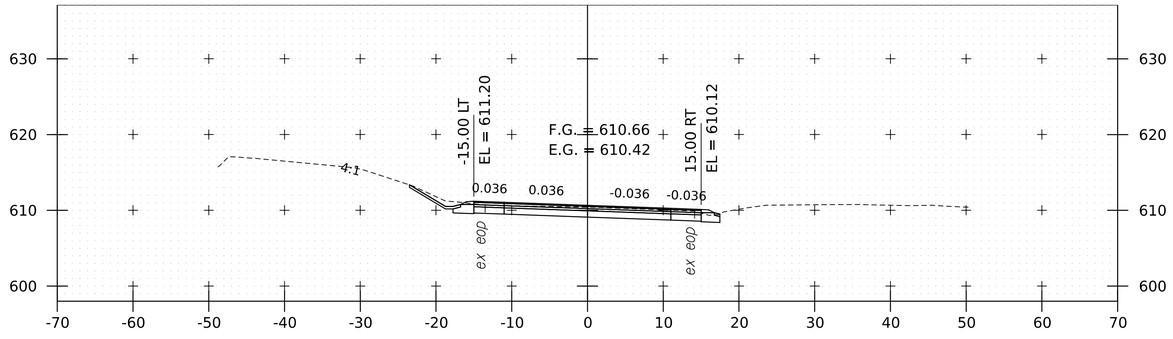
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 188 OF 210



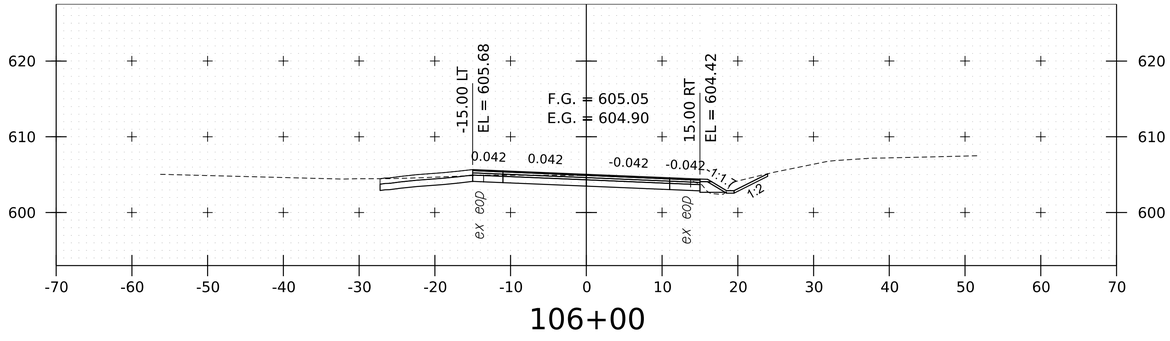
105+00



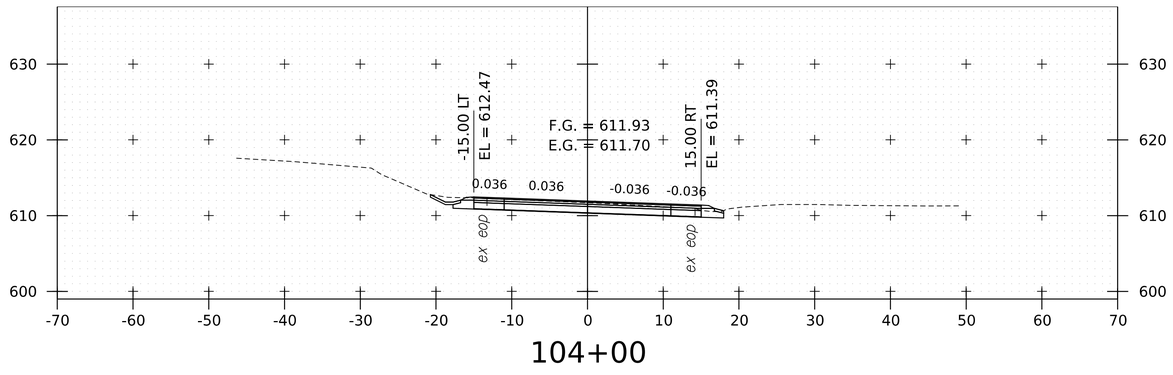
106+50



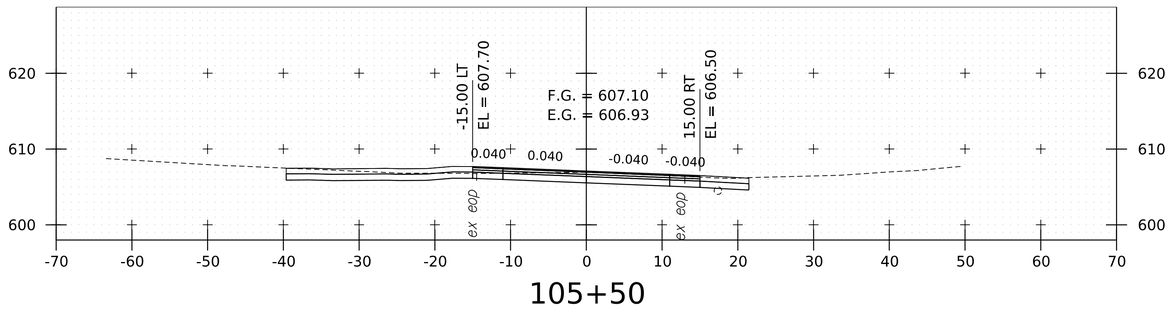
104+50



106+00



104+00



105+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
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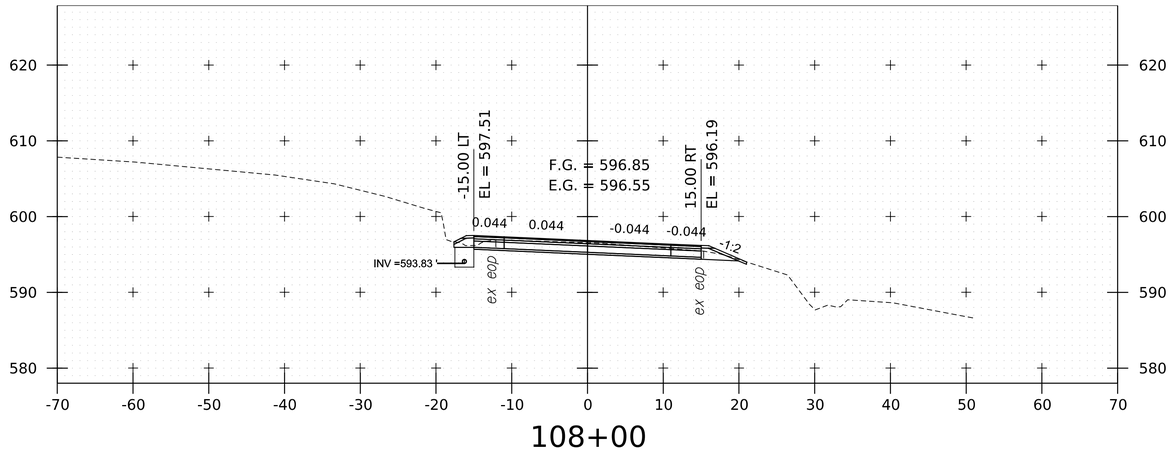
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SCALE IN FEET

Stantec

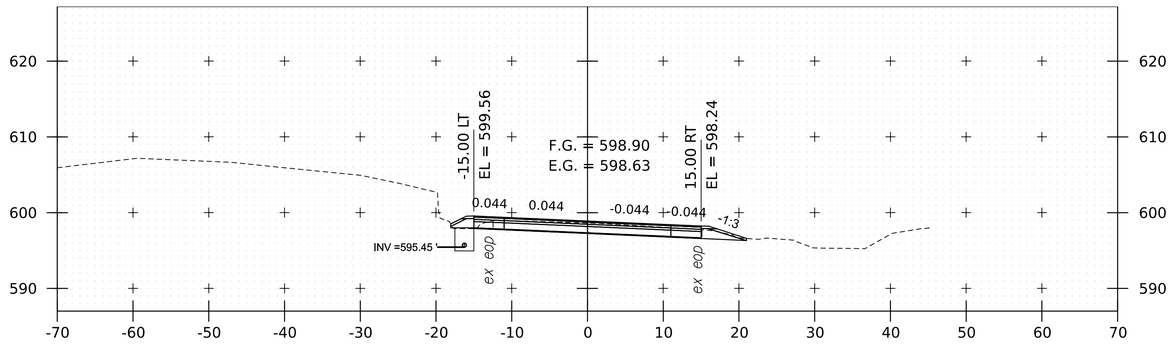
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 36

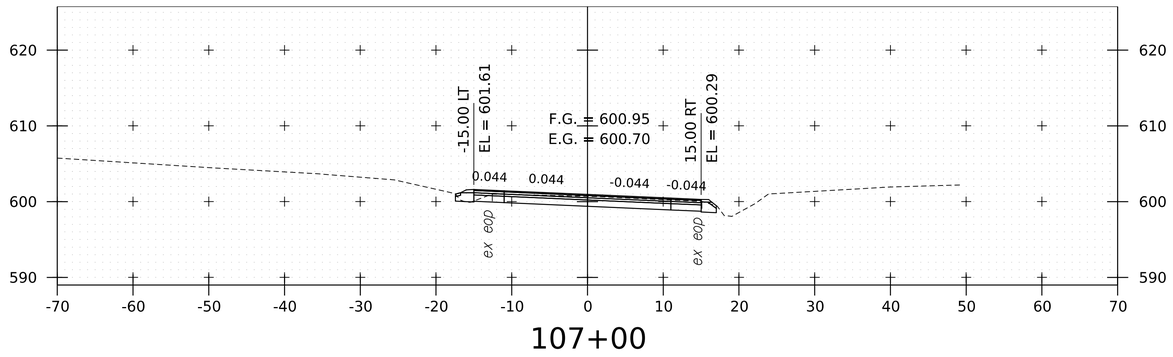
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 189 OF 210



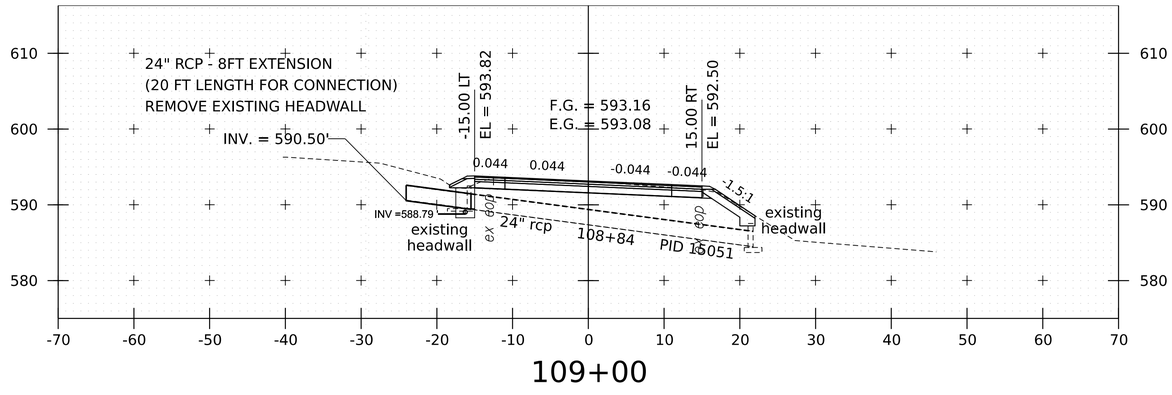
108+00



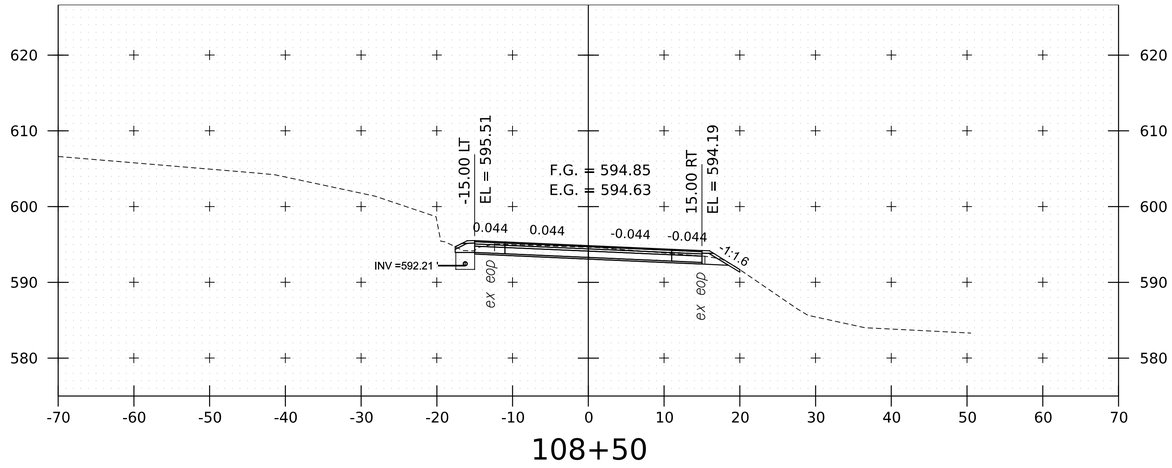
107+50



107+00



109+00



108+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

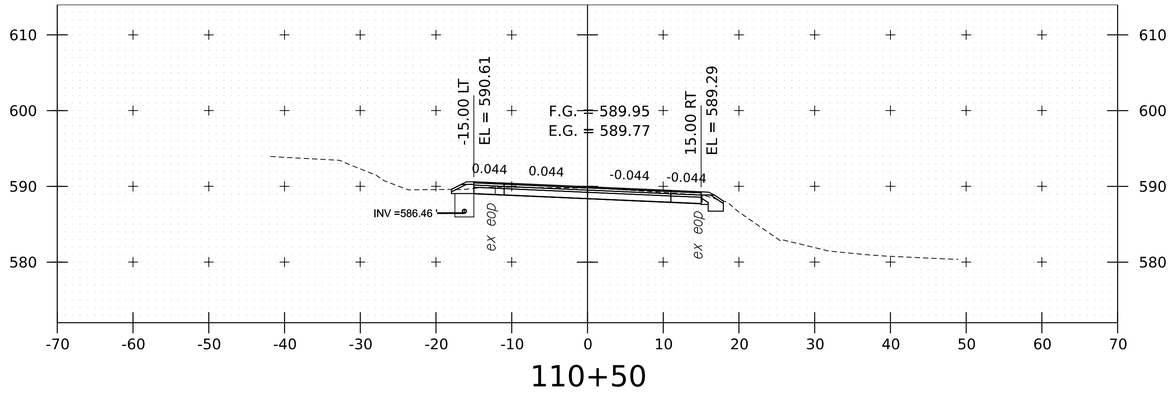
0 10 20
SCALE IN FEET

Stantec

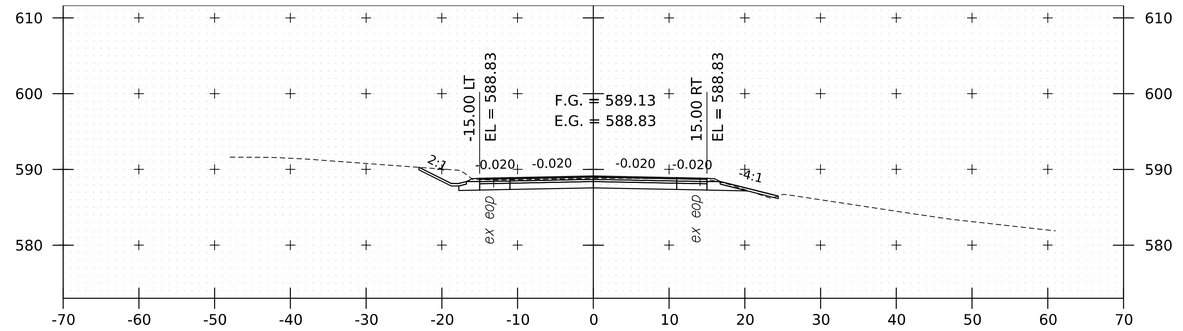
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 37

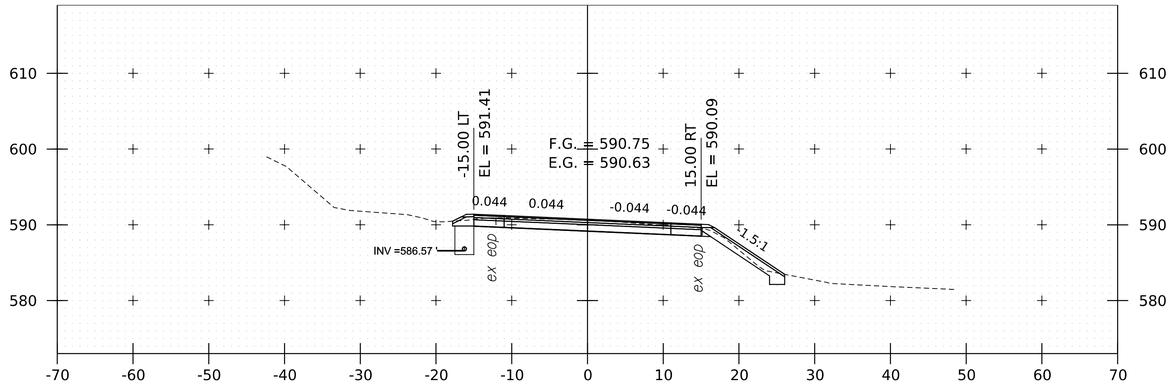
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 190 OF 210



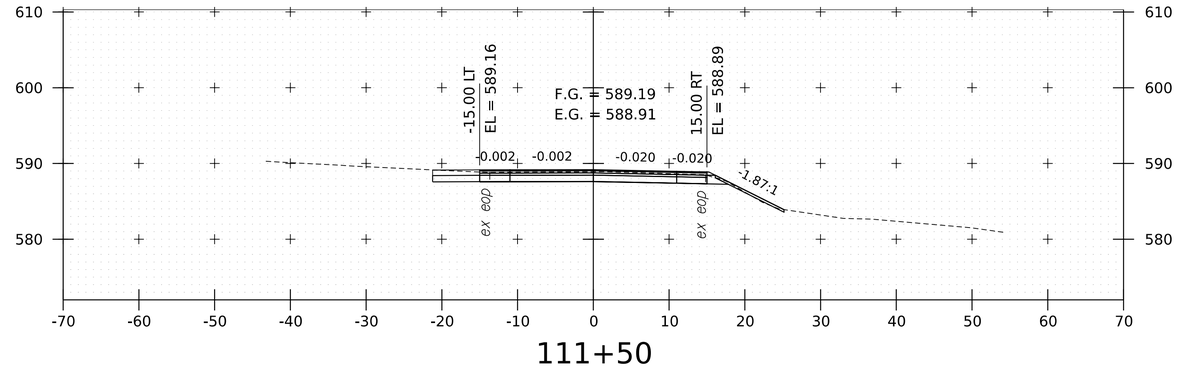
110+50



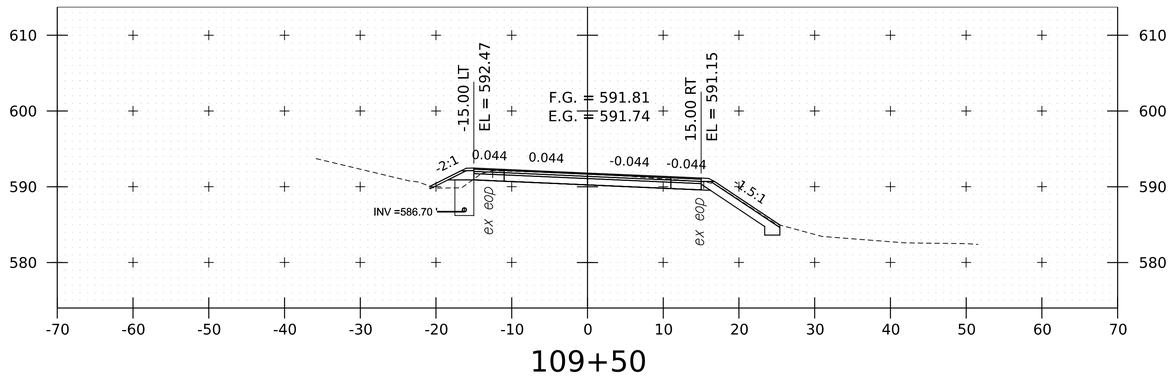
112+00



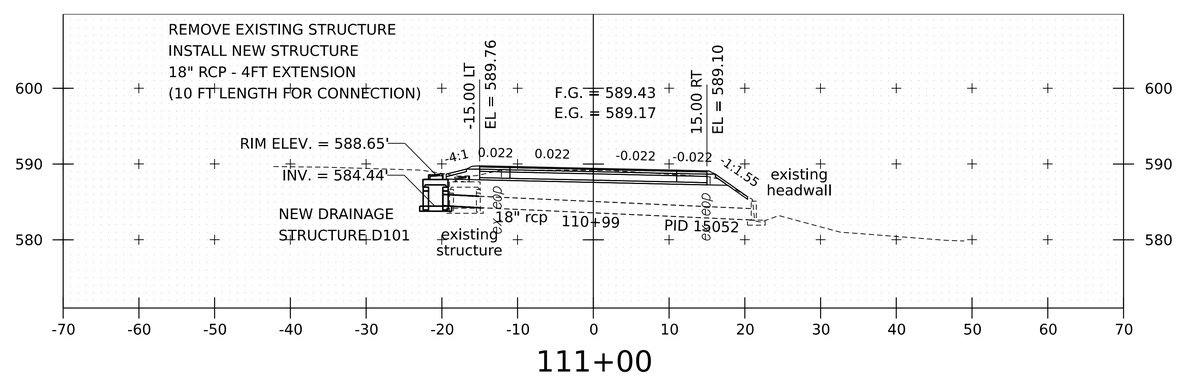
110+00



111+50



109+50



111+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

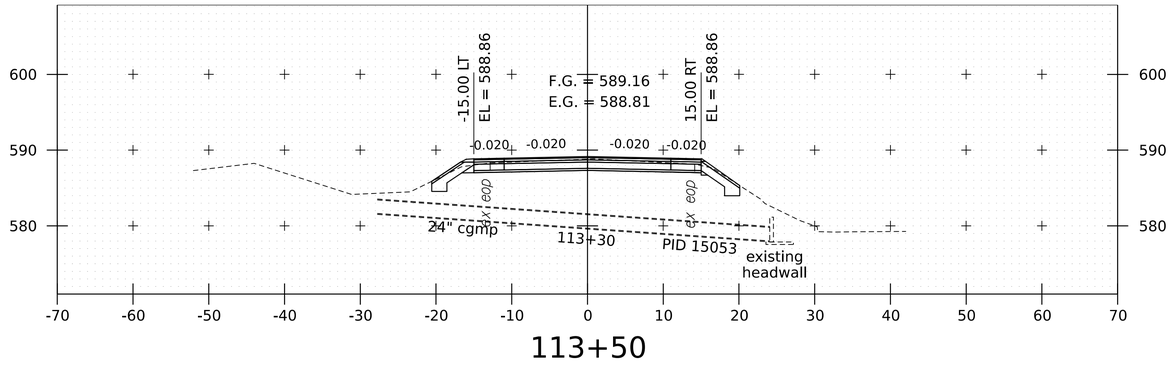
0 10 20
SCALE IN FEET

Stantec

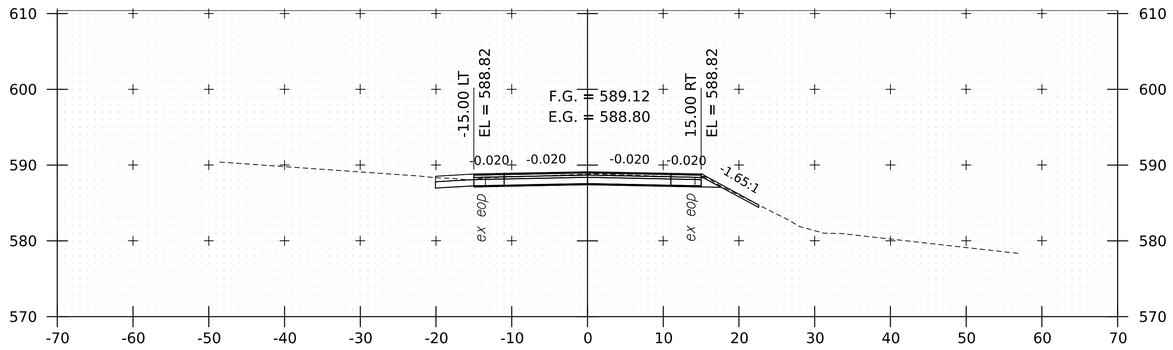
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 38

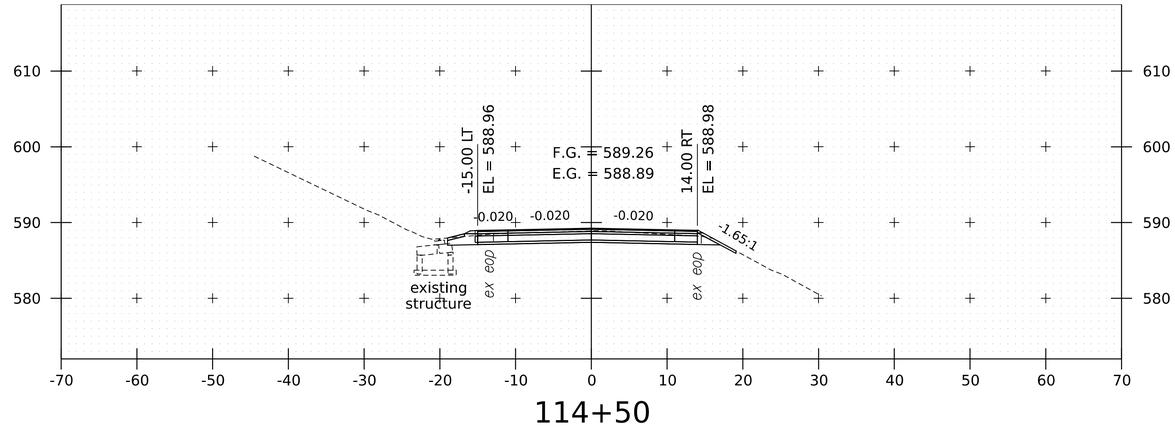
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 191 OF 210



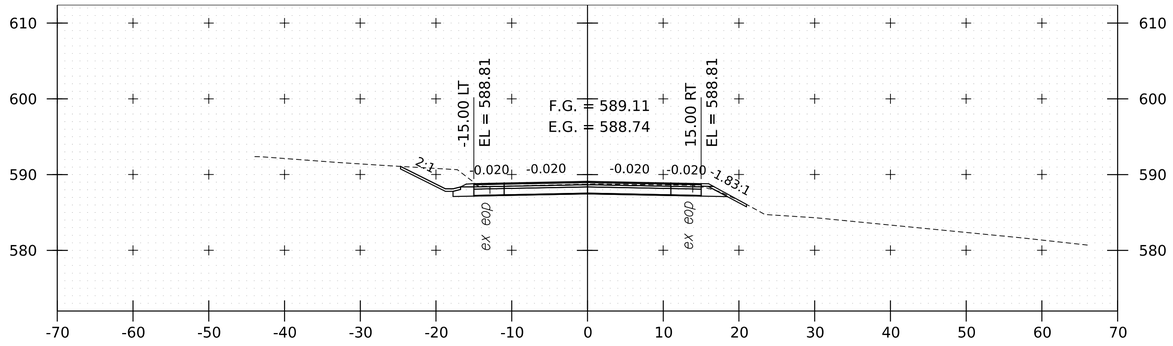
113+50



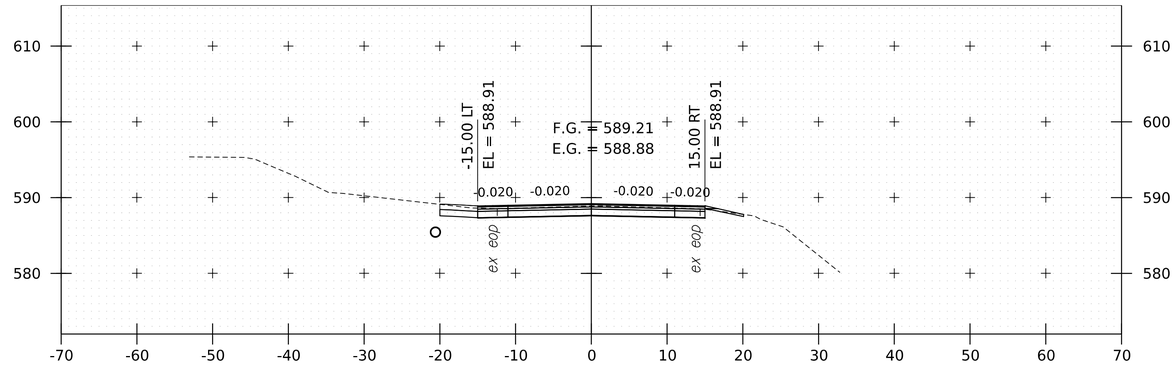
113+00



114+50



112+50



114+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

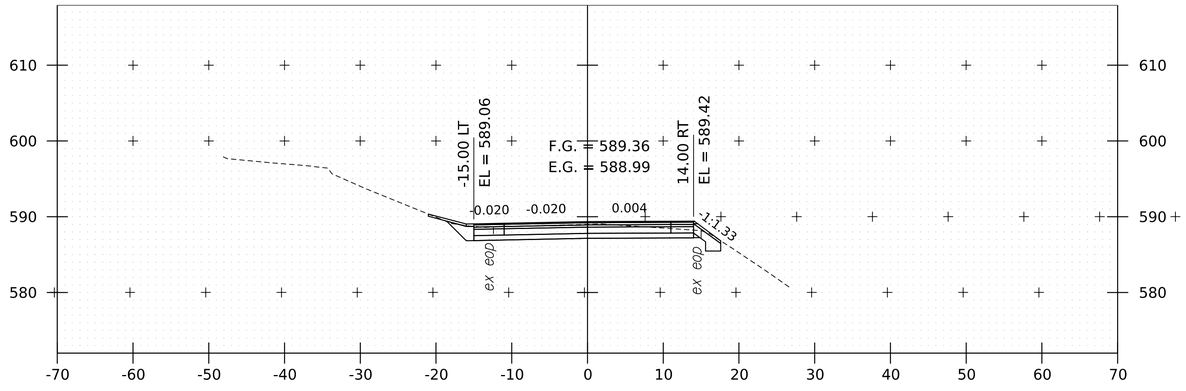
0 10 20
SCALE IN FEET

Stantec

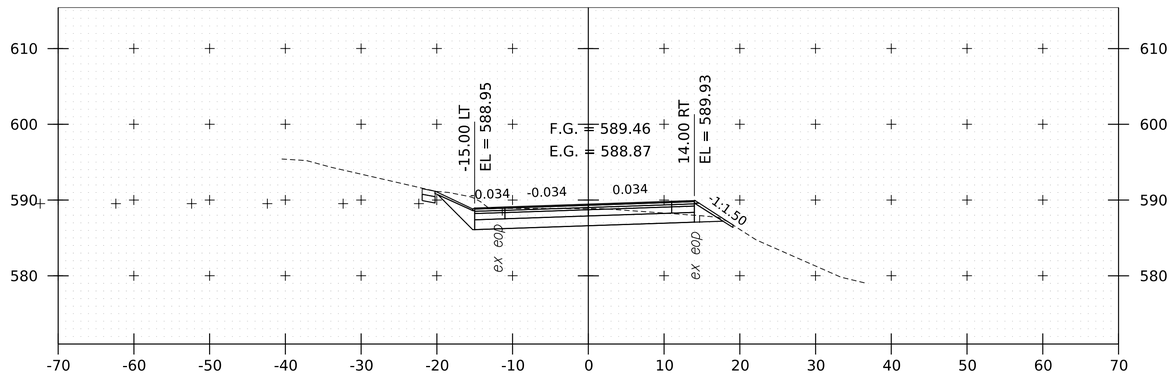
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 39

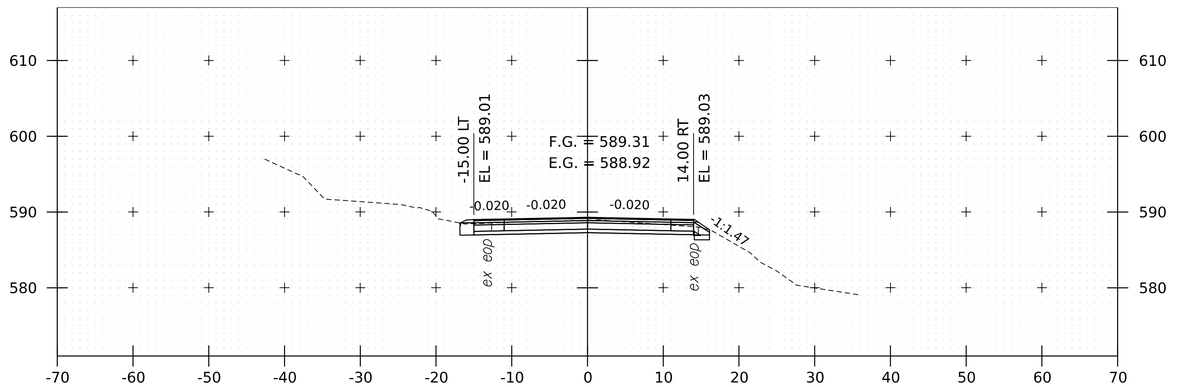
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 192 OF 210



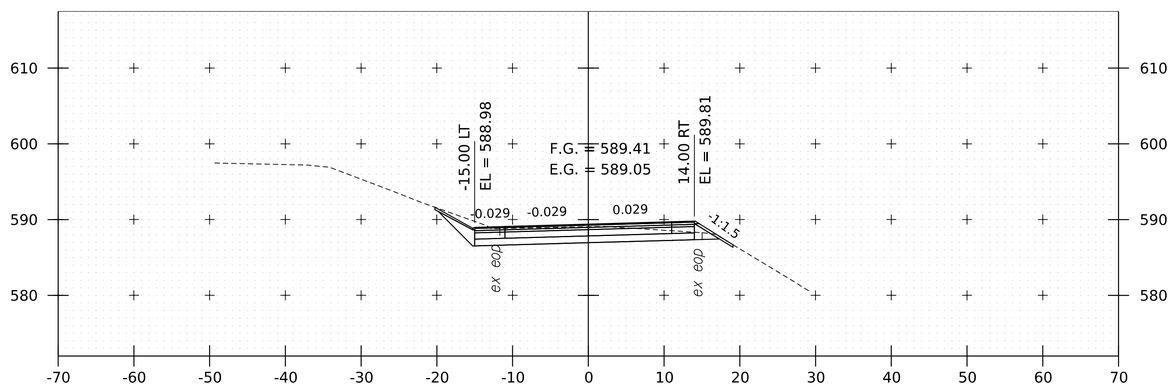
115+50



116+50



115+00



116+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

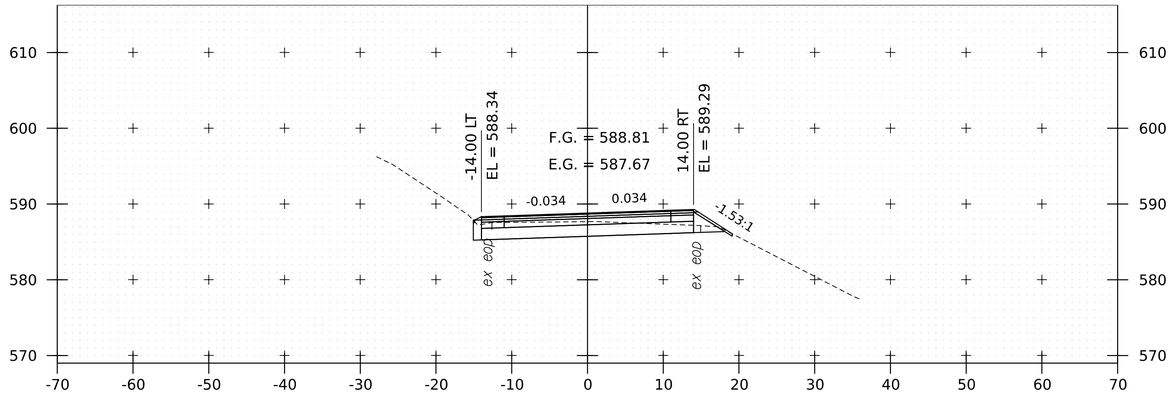
0 10 20
SCALE IN FEET

Stantec

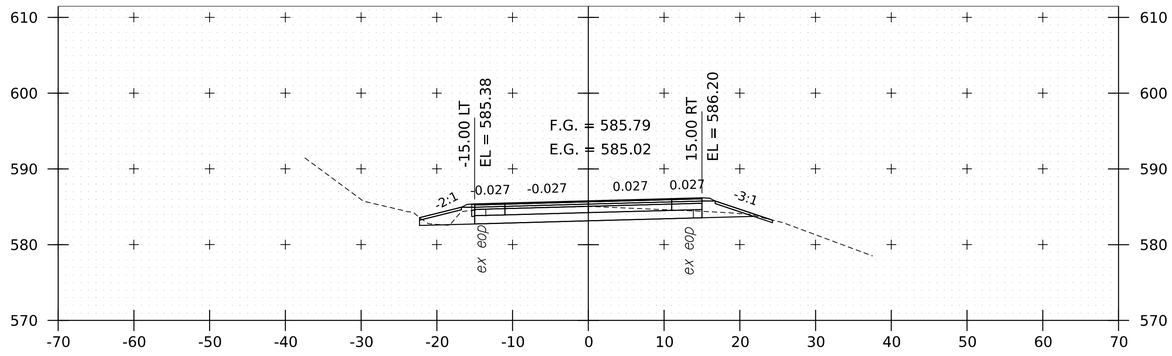
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 40

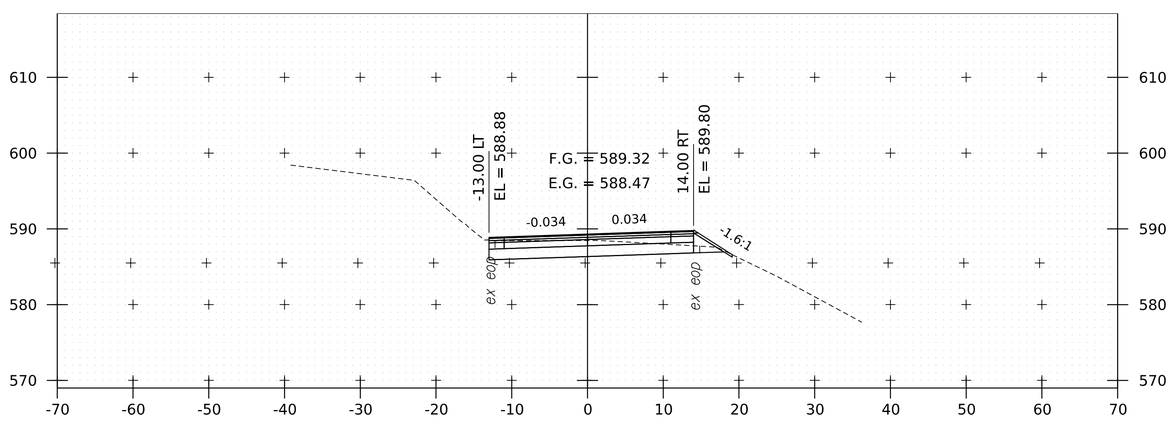
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 193 OF 210



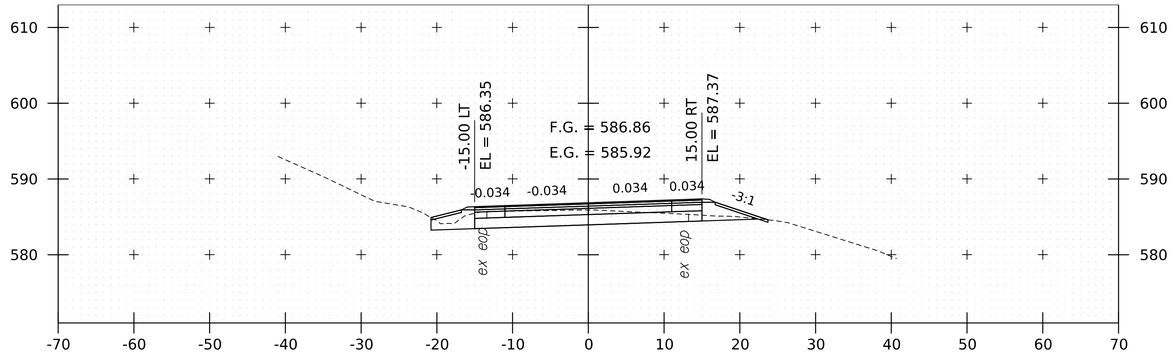
117+50



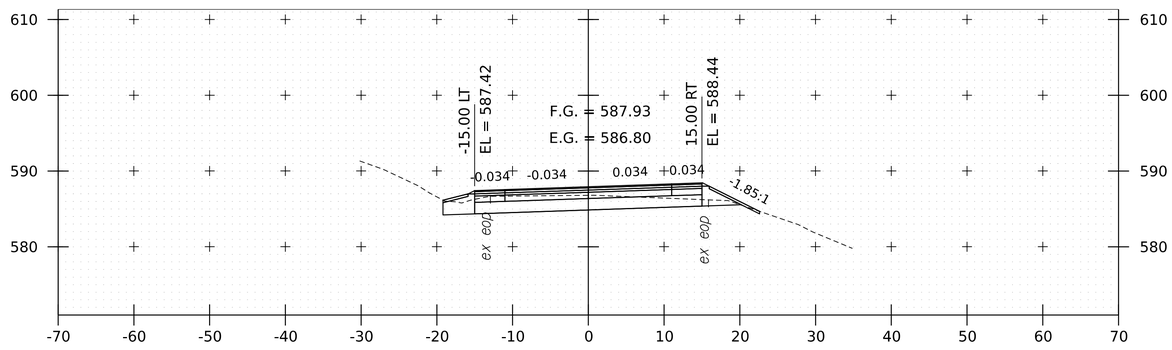
119+00



117+00



118+50



118+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

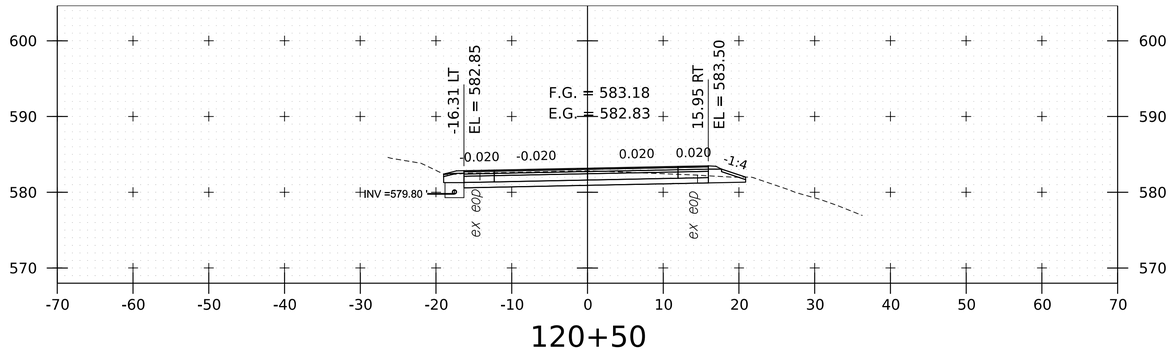
0 10 20
SCALE IN FEET

Stantec

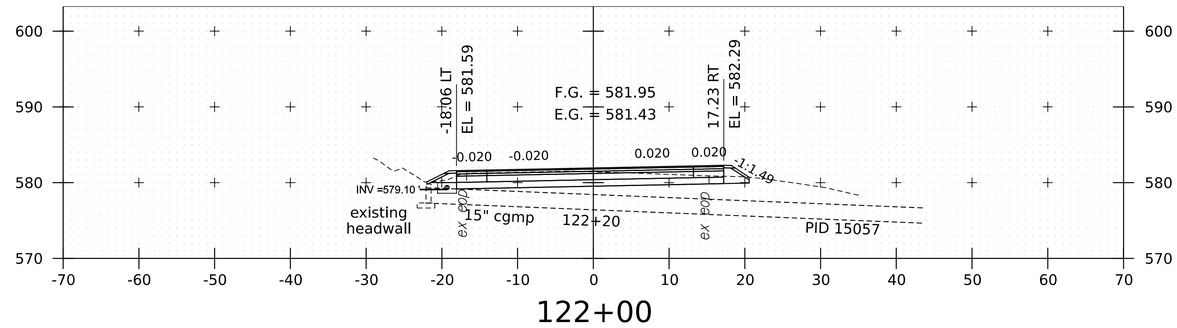
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 41

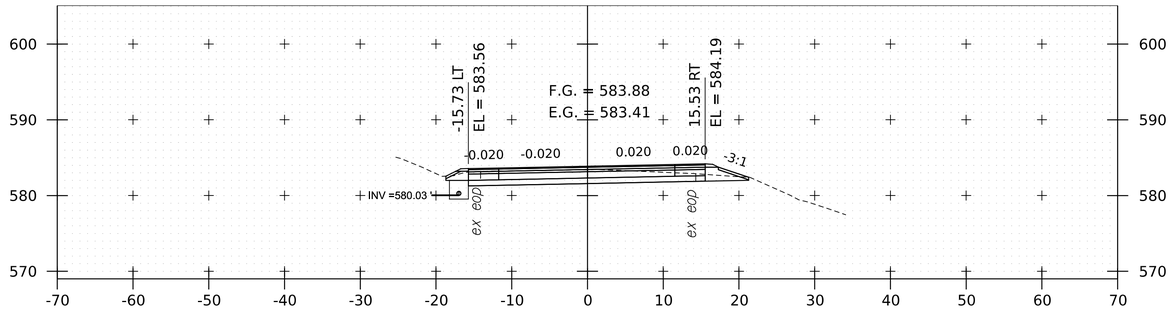
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 194 OF 210



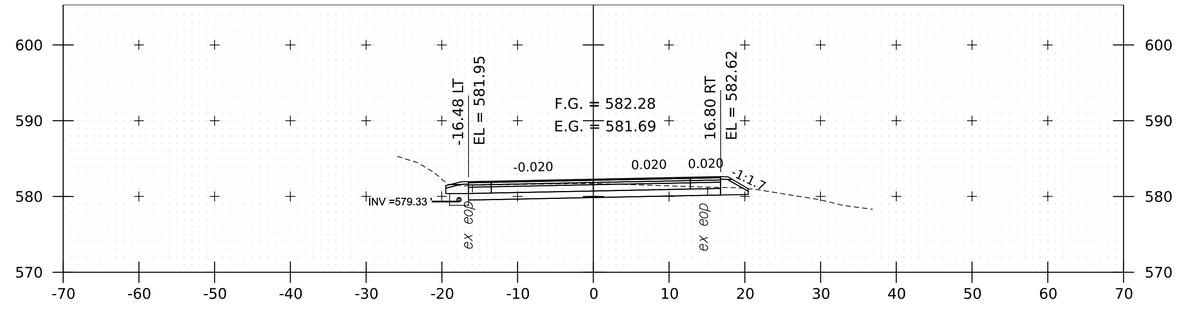
120+50



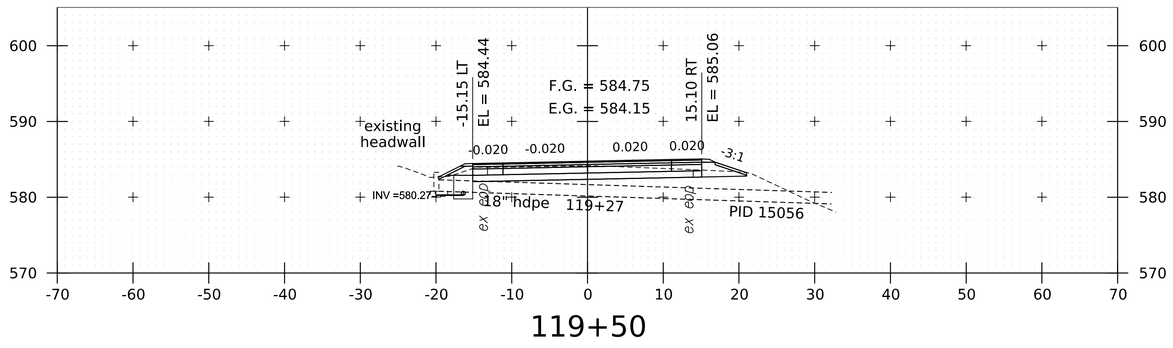
122+00



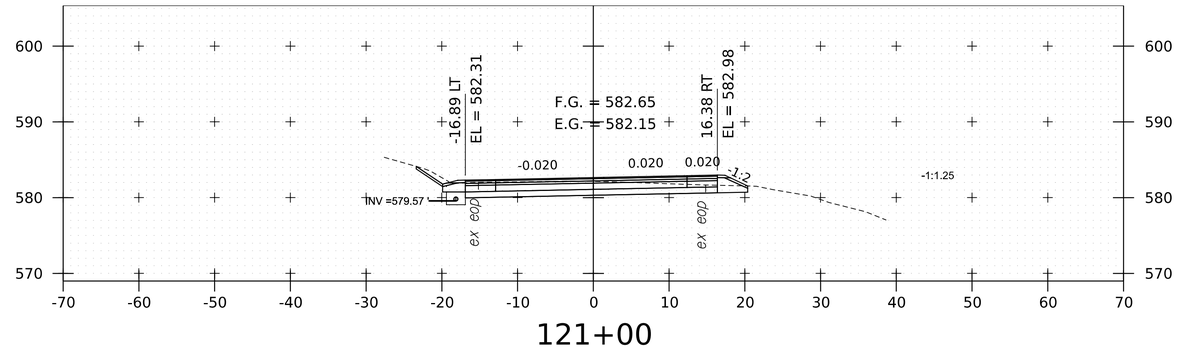
120+00



121+50



119+50



121+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

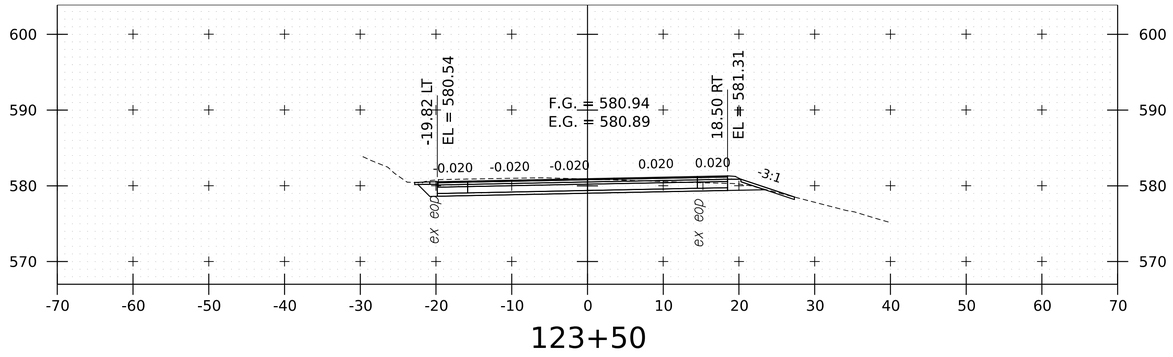
0 10 20
SCALE IN FEET

Stantec

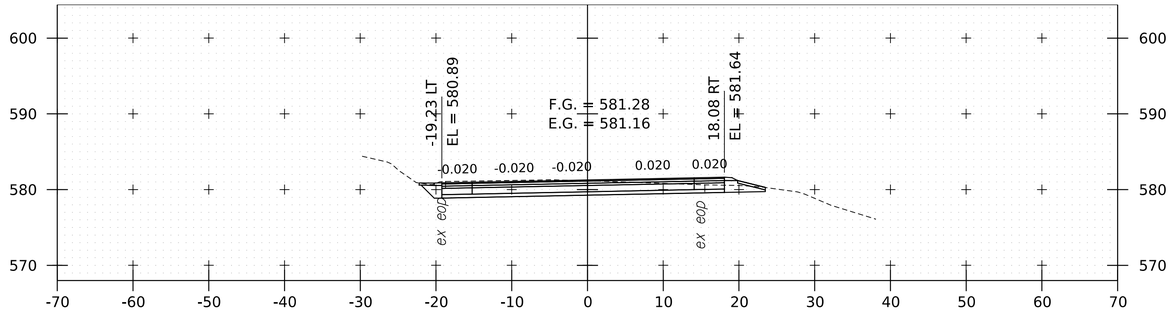
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 42

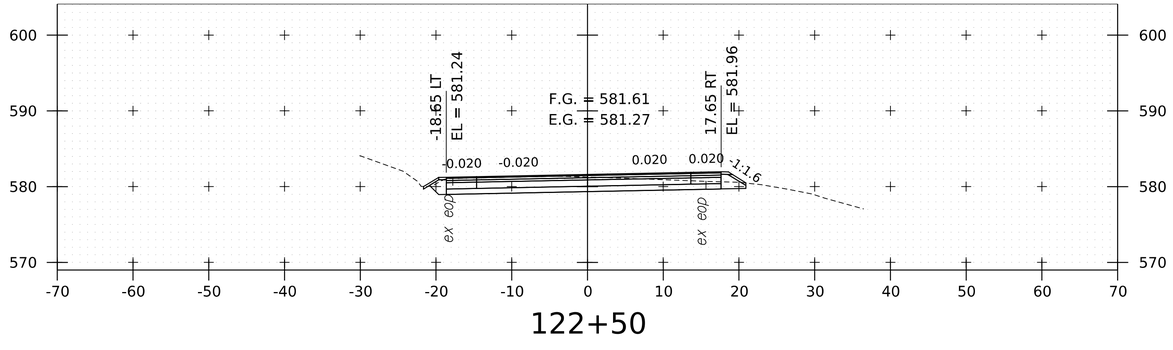
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 195 OF 210



123+50



123+00



122+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

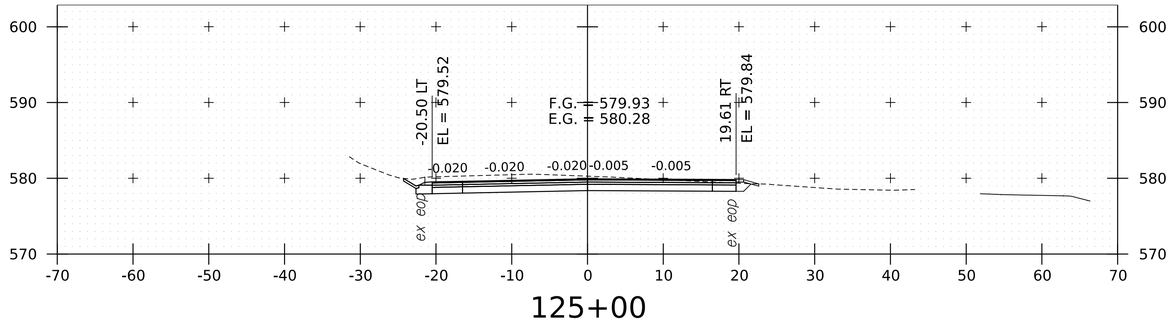
0 10 20
SCALE IN FEET

Stantec

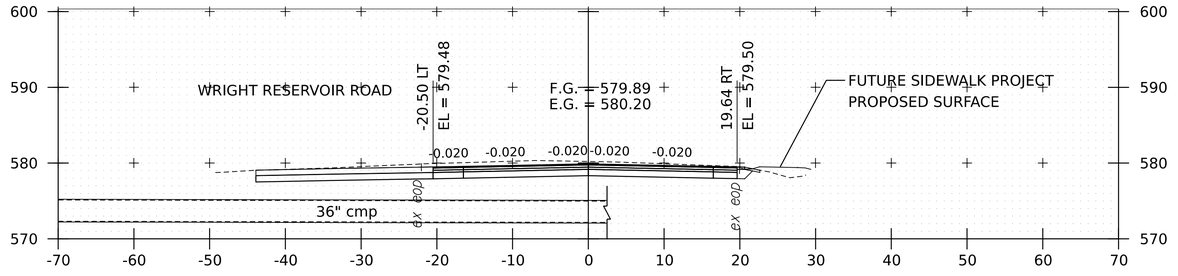
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_1.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 43

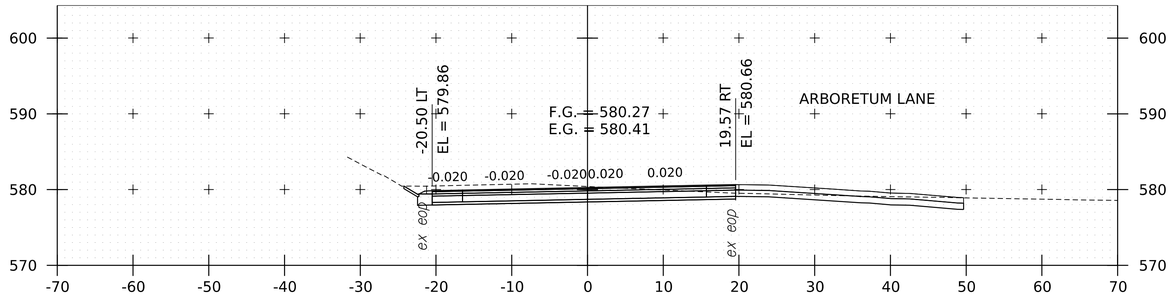
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 196 OF 210



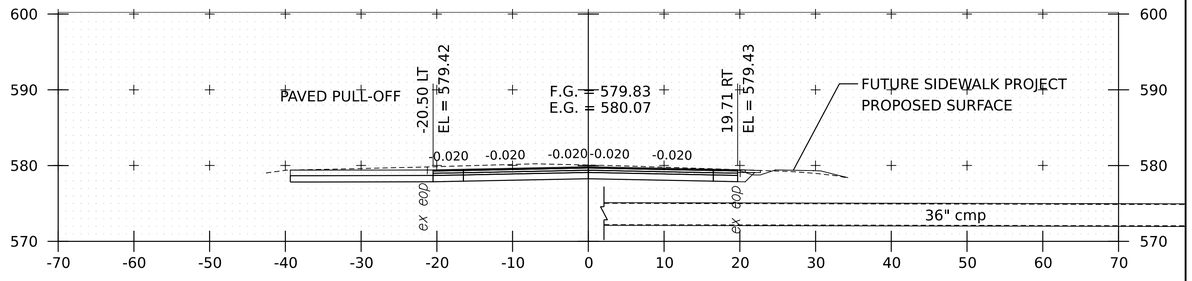
125+00



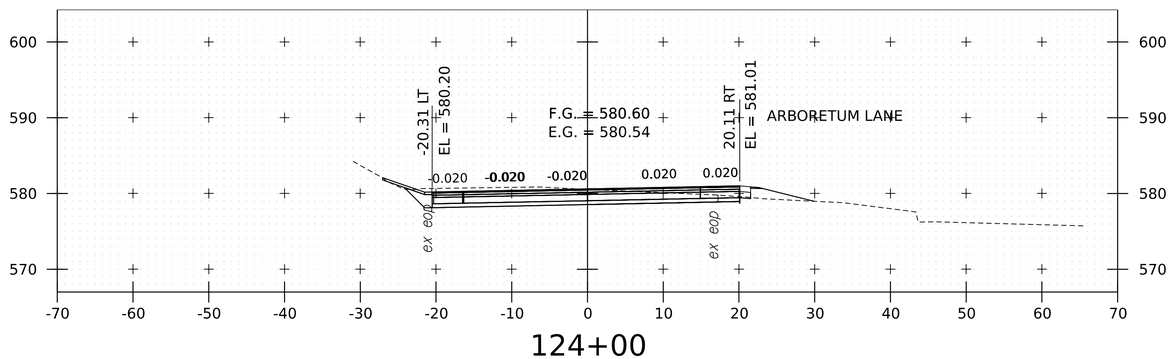
126+50



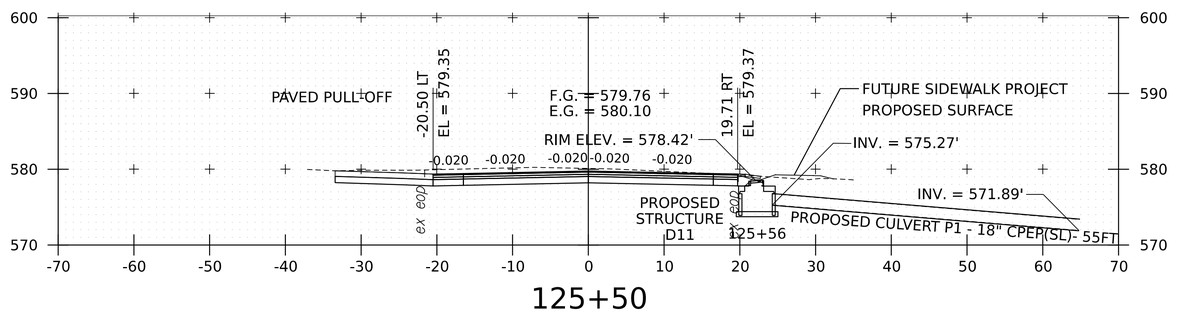
124+50



126+00



124+00



125+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

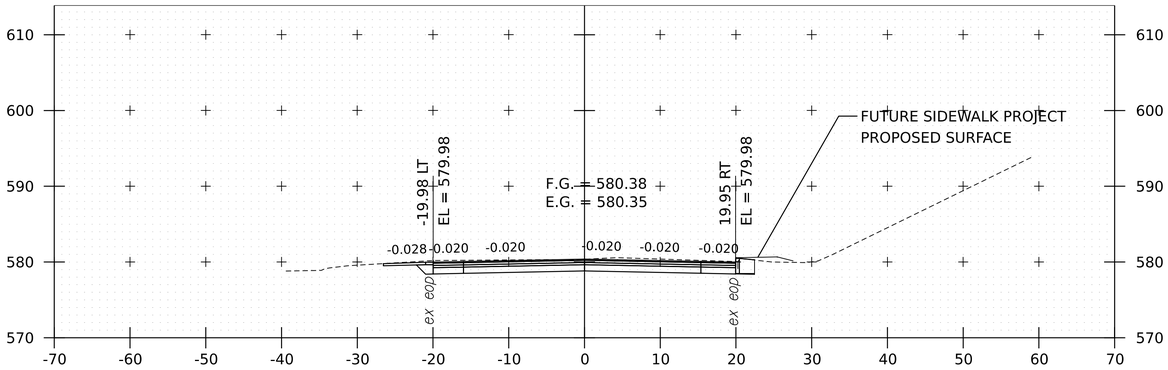
0 10 20
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

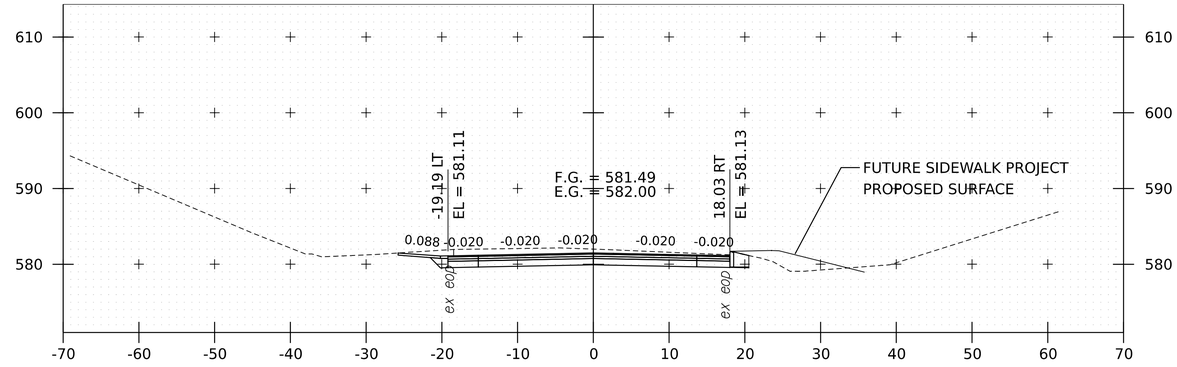
FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 44

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 197 OF 210

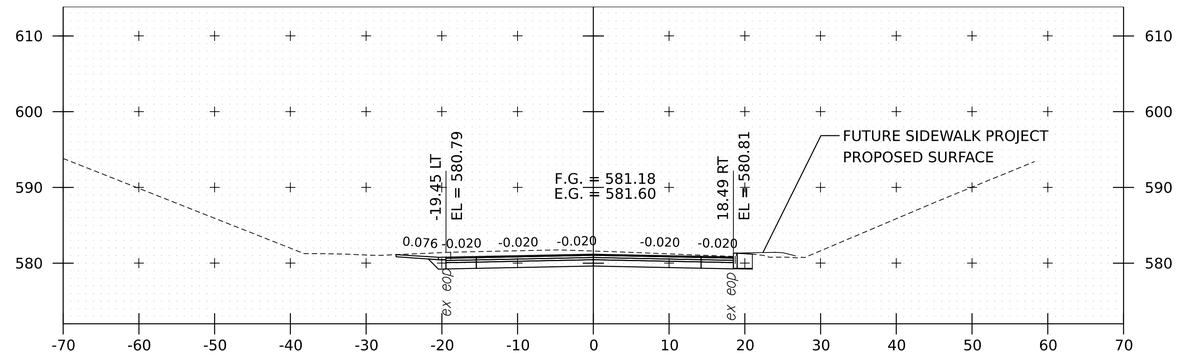


127+50

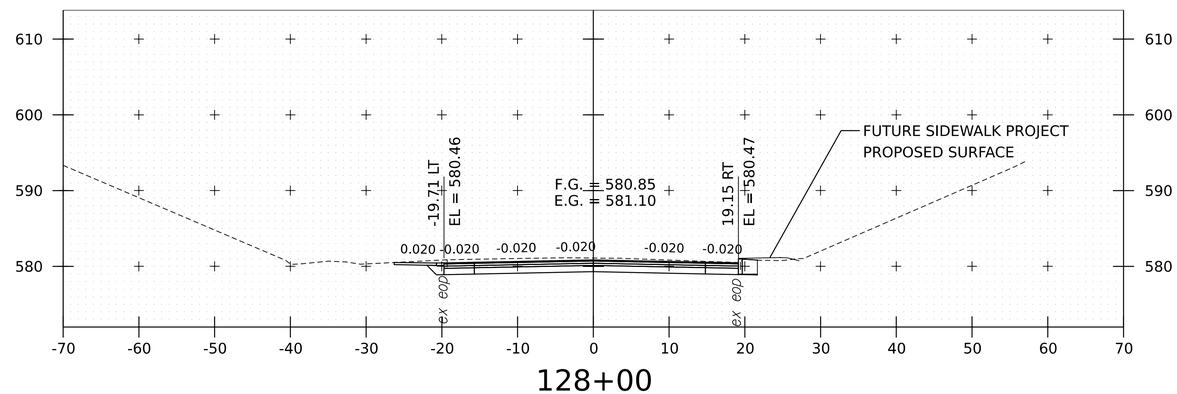
127+00



129+00



128+50



128+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

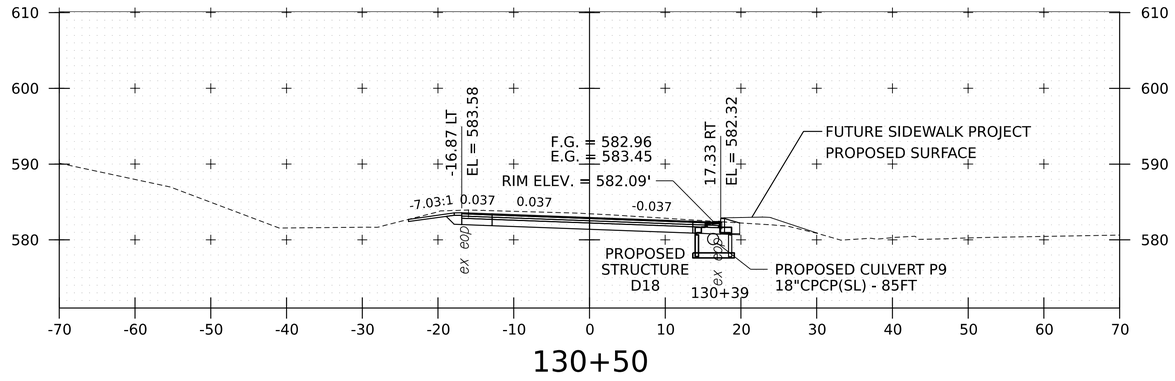
0 10 20
SCALE IN FEET

Stantec

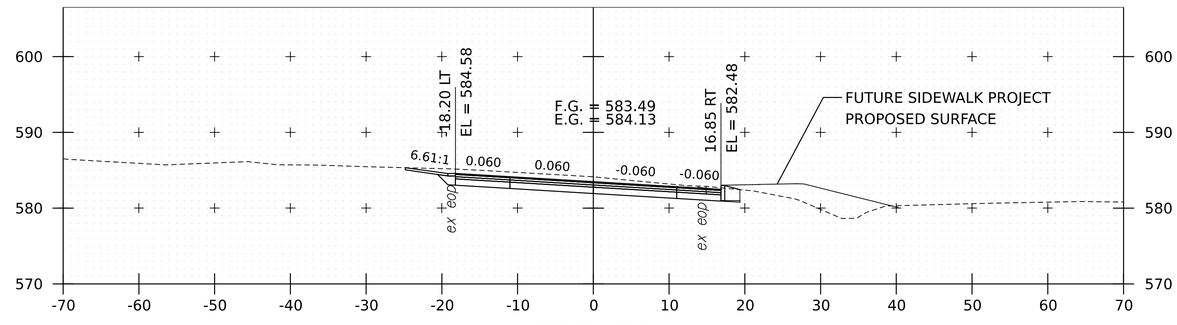
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 45

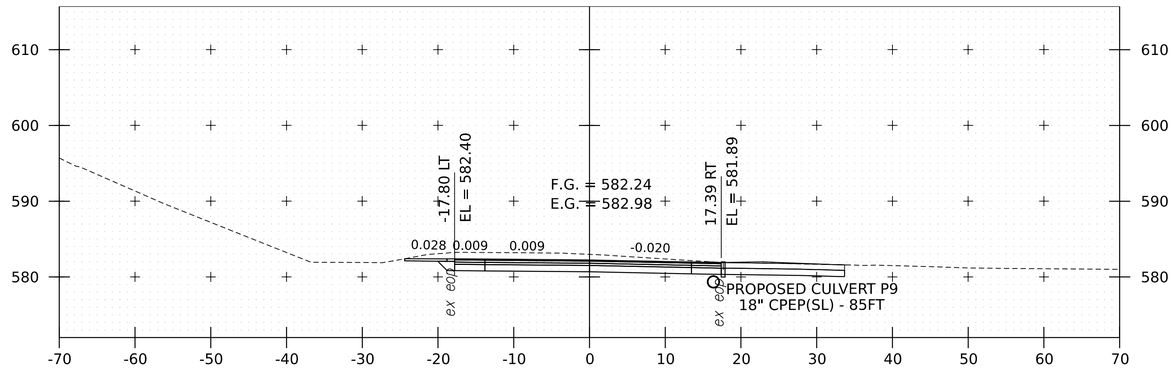
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 198 OF 210



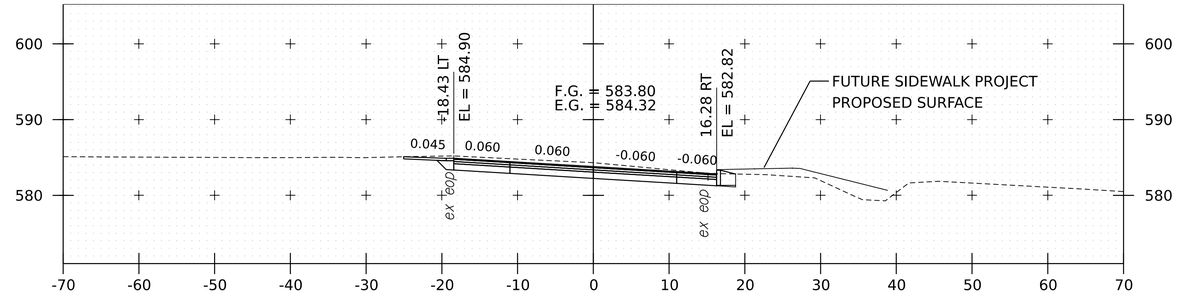
130+50



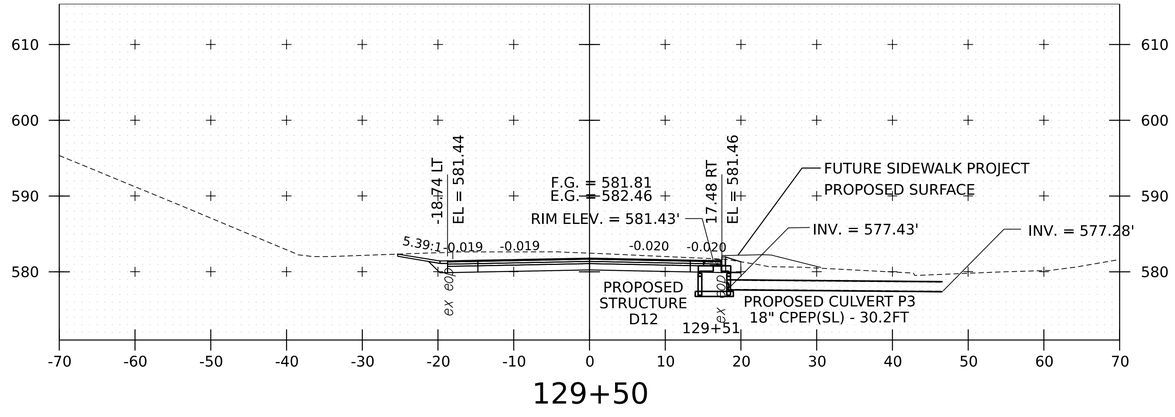
132+00



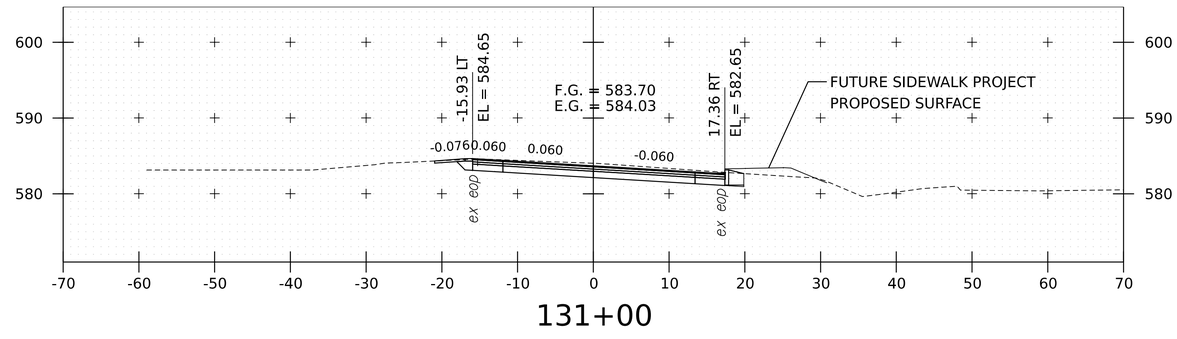
130+00



131+50



129+50



131+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

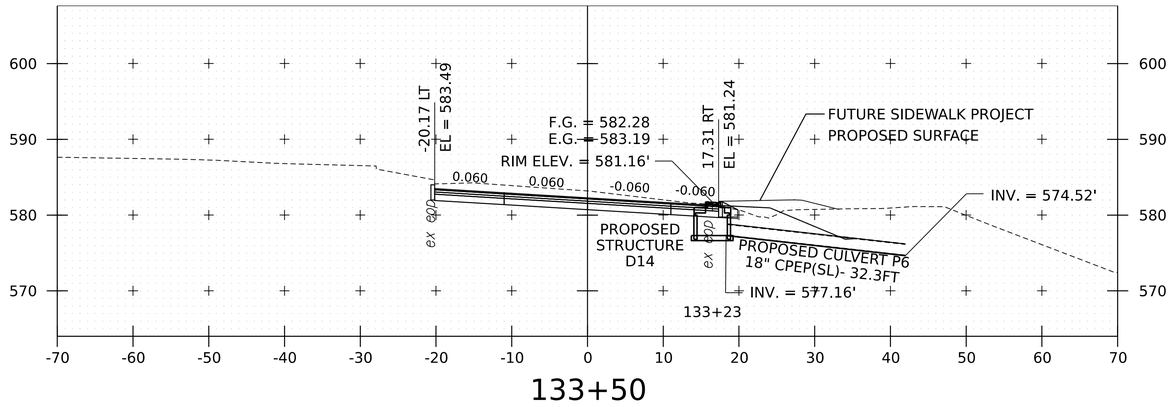
0 10 20
SCALE IN FEET

Stantec

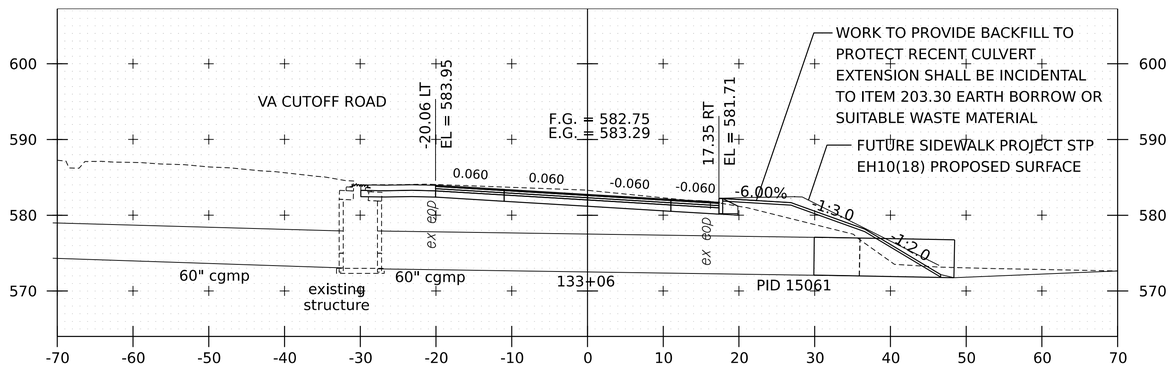
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 46

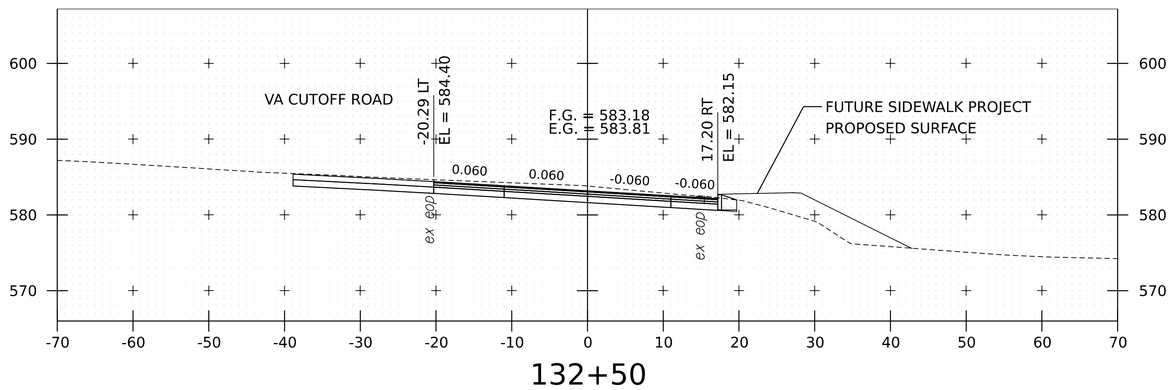
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 199 OF 210



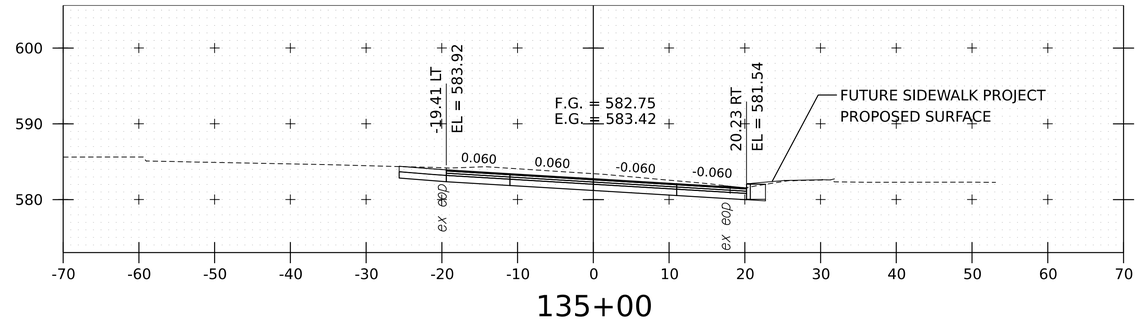
133+50



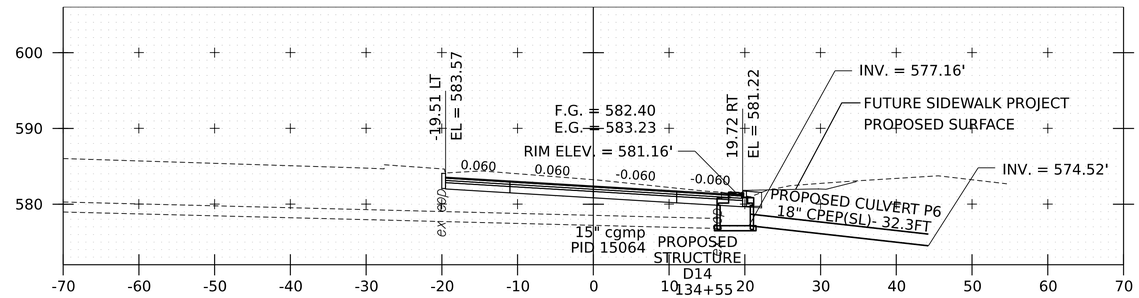
133+00



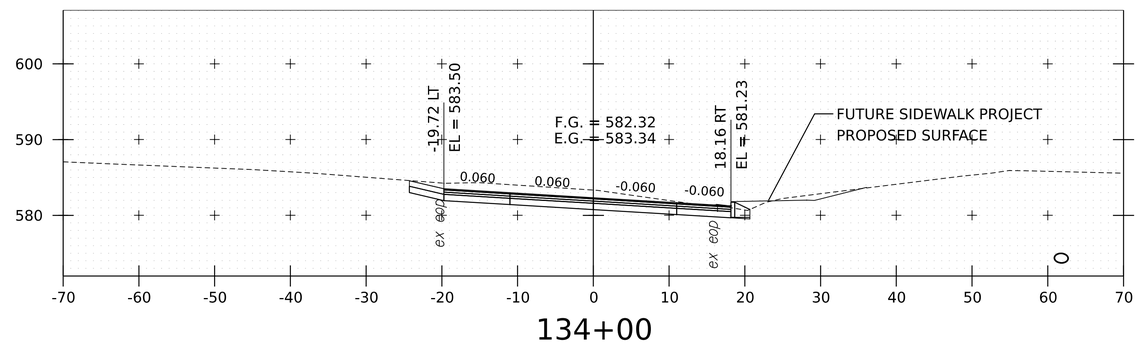
132+50



135+00



134+50



134+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
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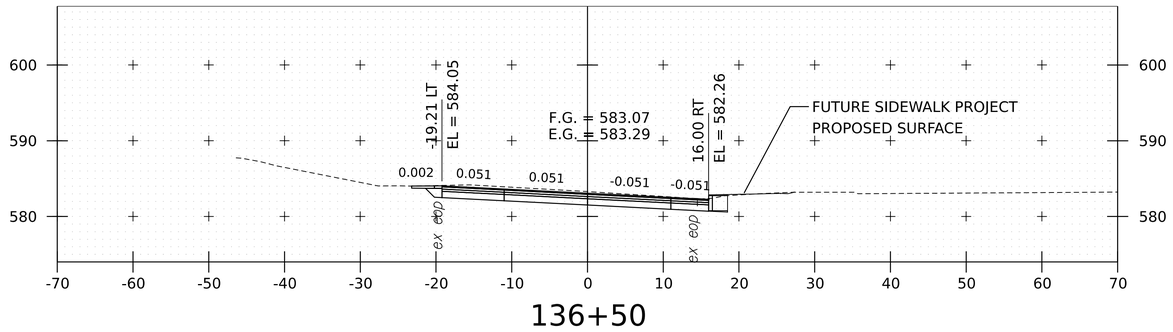
0 10 20
SCALE IN FEET

Stantec

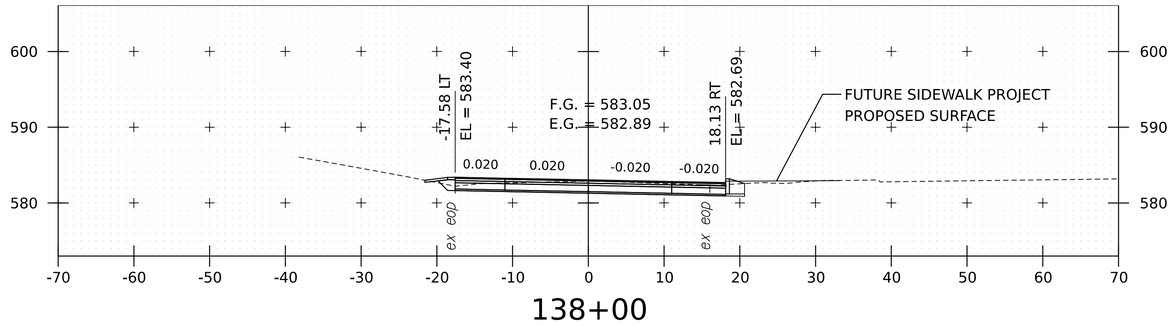
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 47

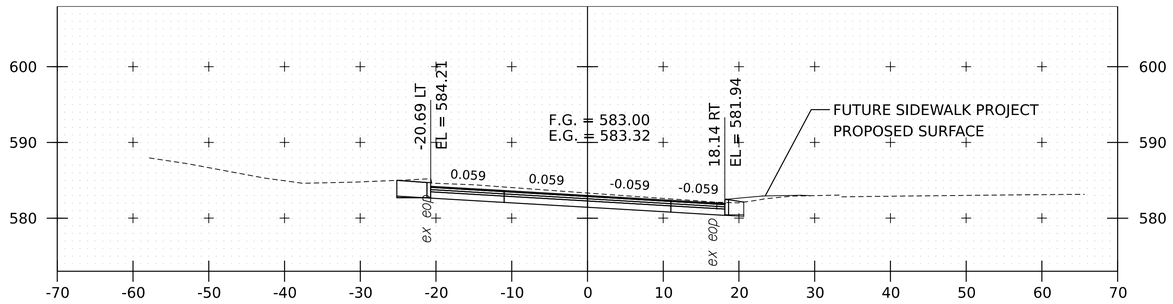
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 200 OF 210



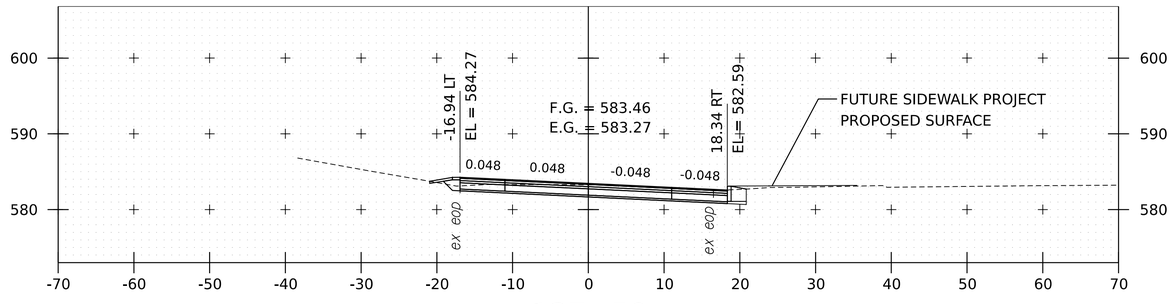
136+50



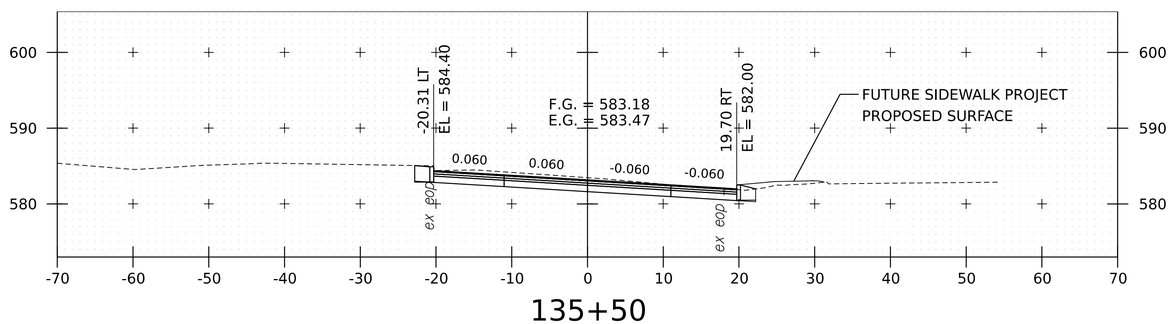
138+00



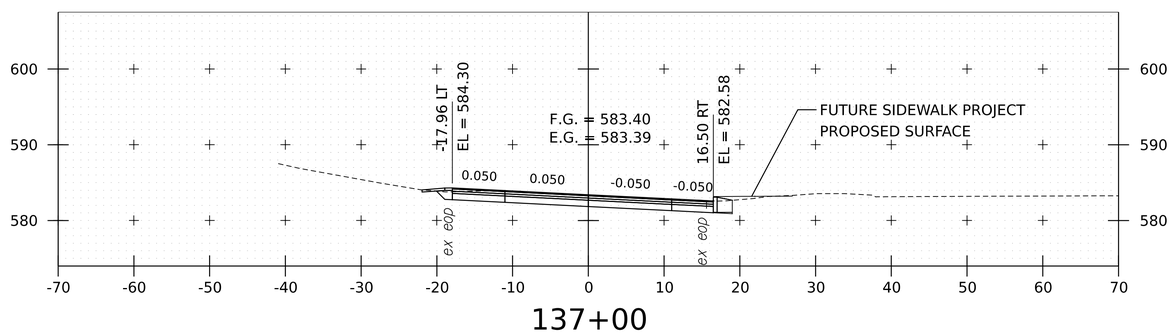
136+00



137+50



135+50



137+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

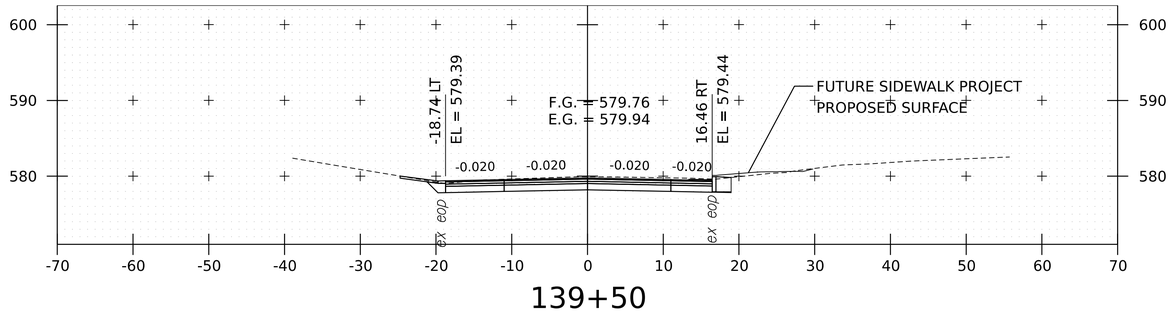
0 10 20
SCALE IN FEET

Stantec

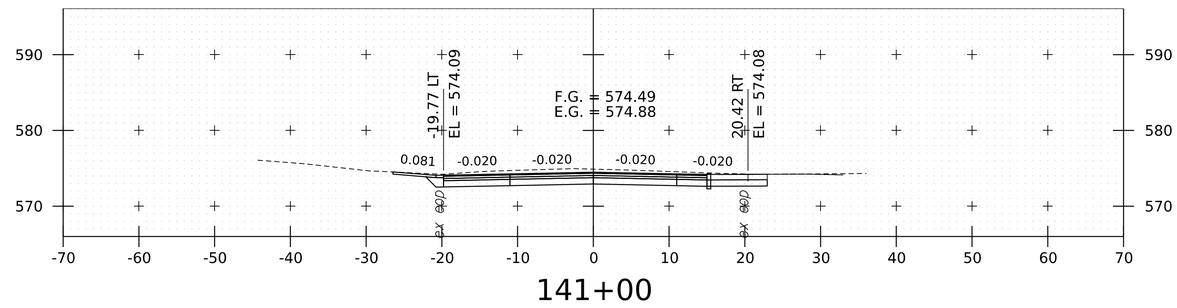
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 48

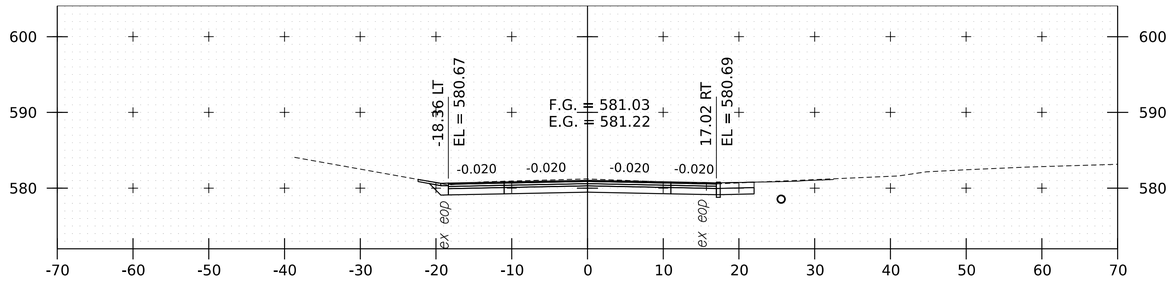
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 201 OF 210



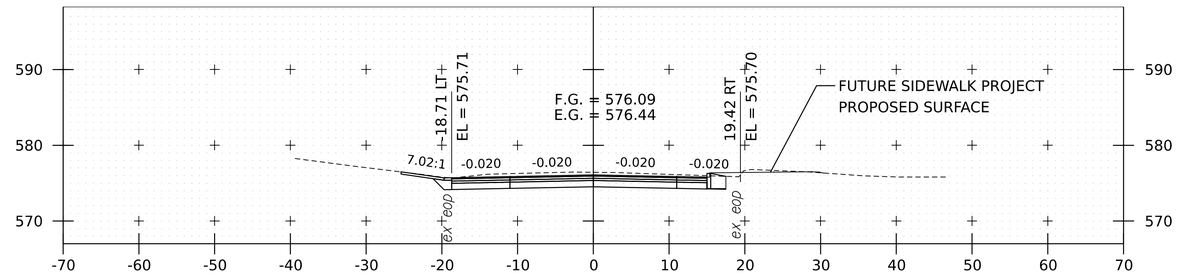
139+50



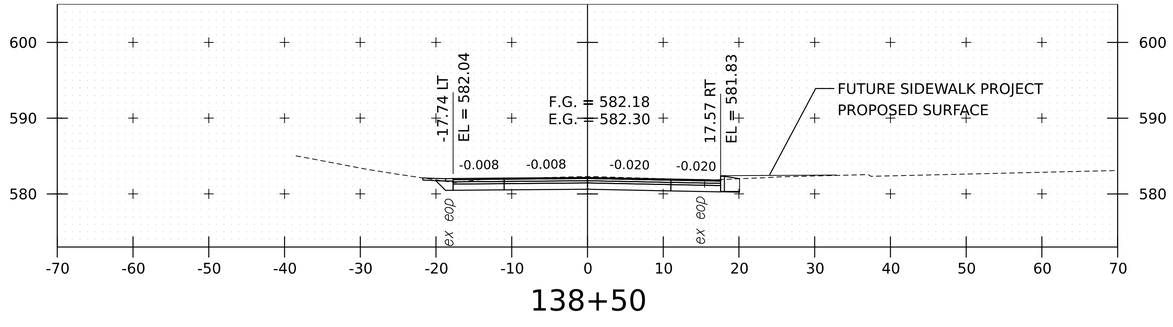
141+00



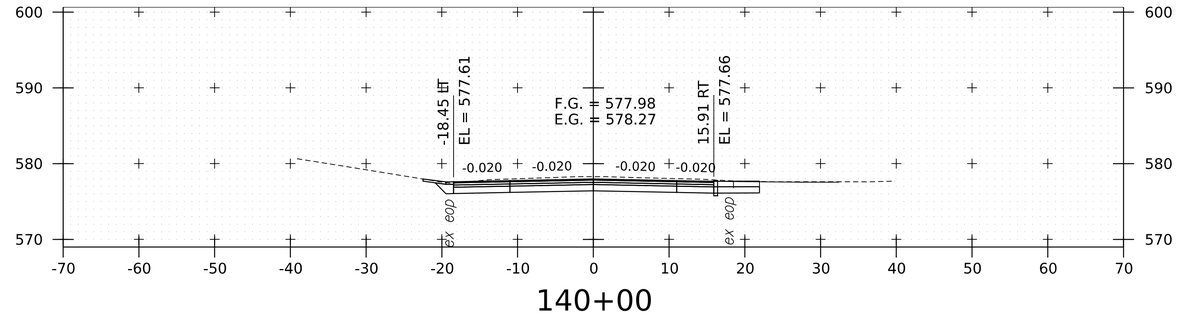
139+00



140+50



138+50



140+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

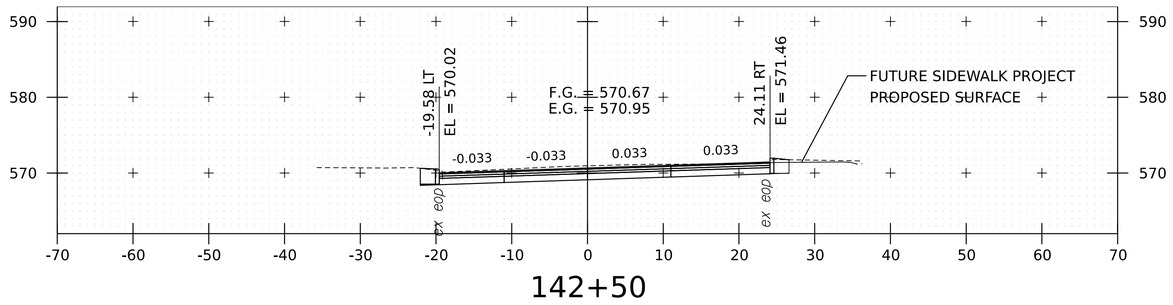
0 10 20
SCALE IN FEET

Stantec

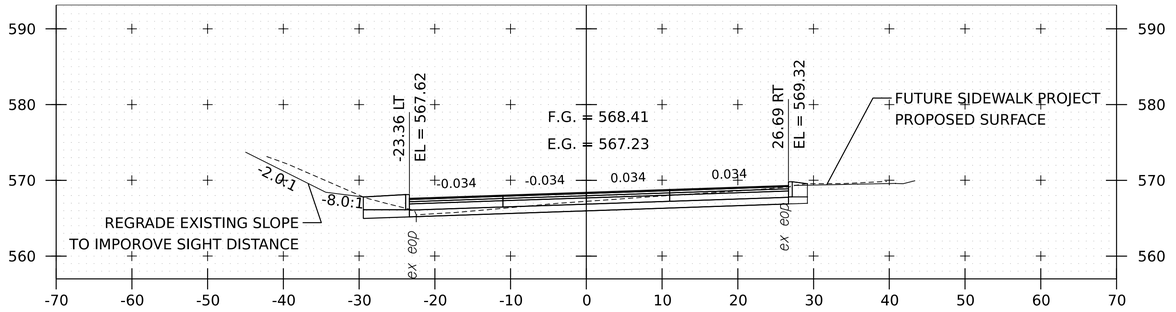
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 49

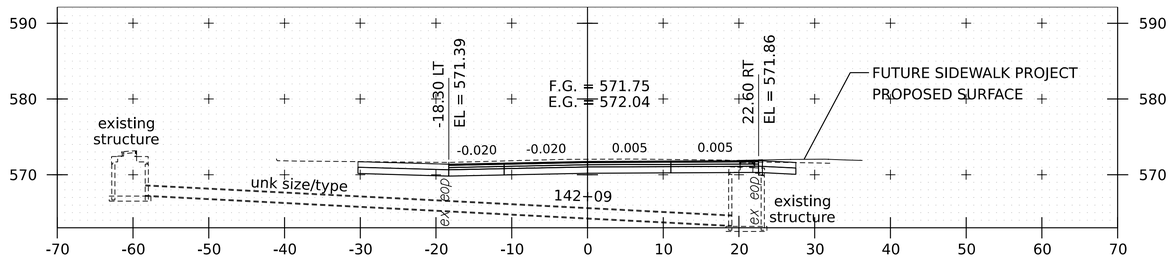
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 202 OF 210



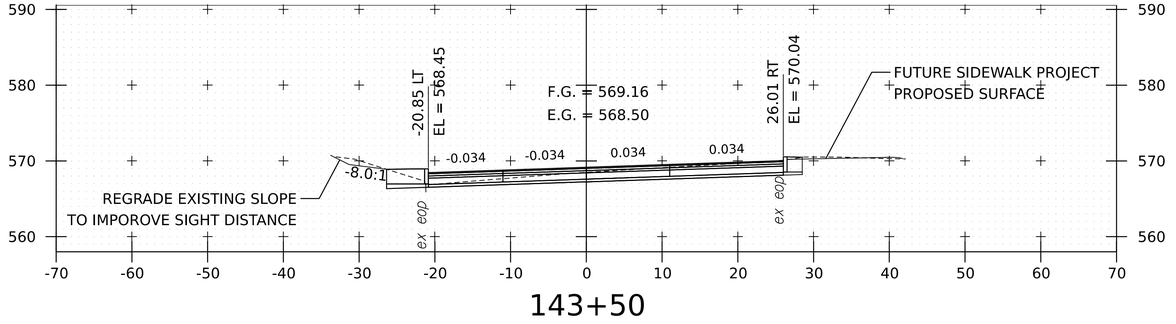
142+50



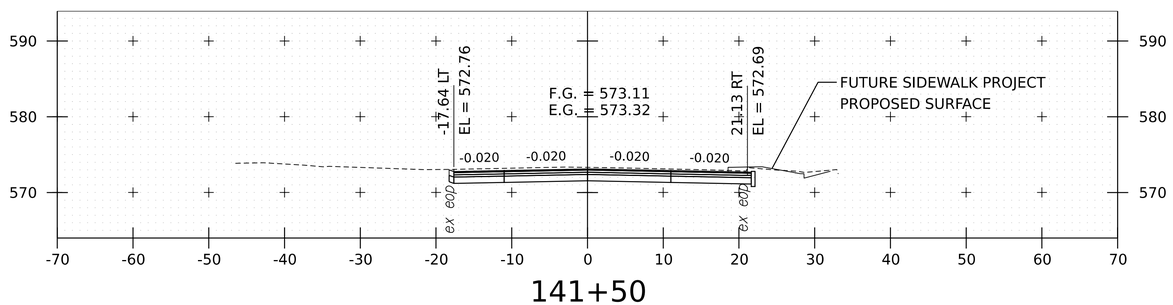
144+00



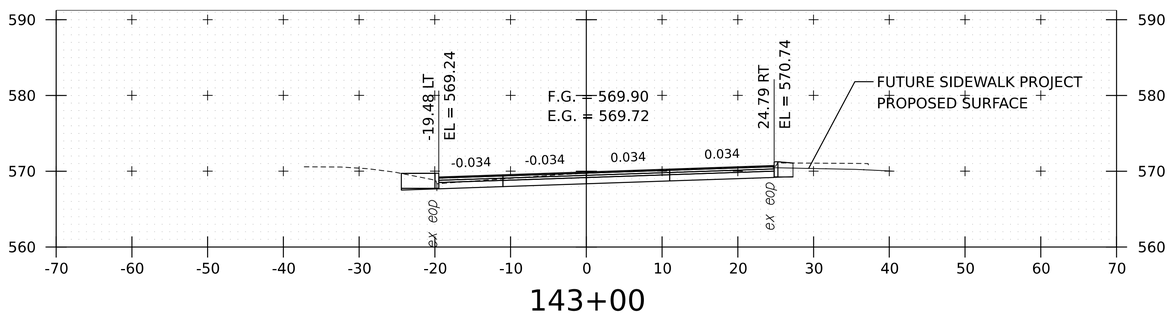
142+00



143+50



141+50



143+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

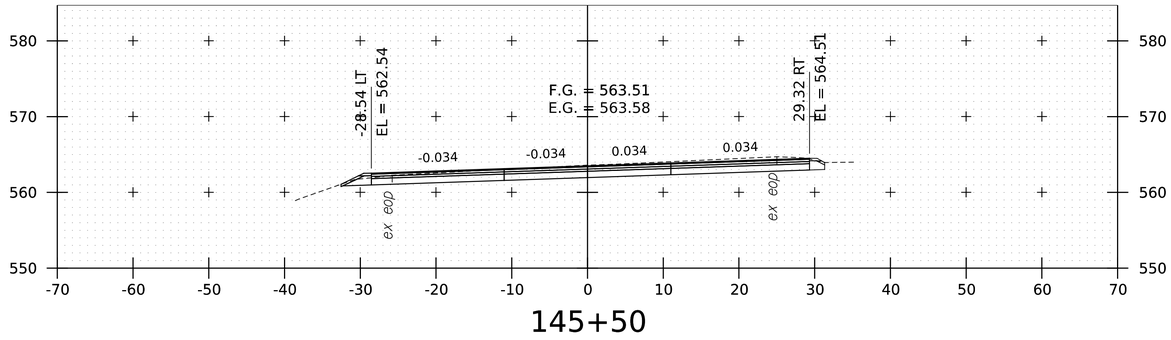
0 10 20
SCALE IN FEET

Stantec

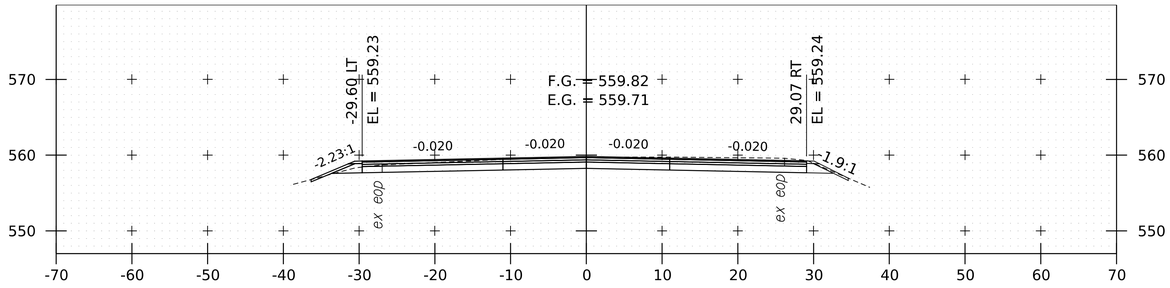
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 50

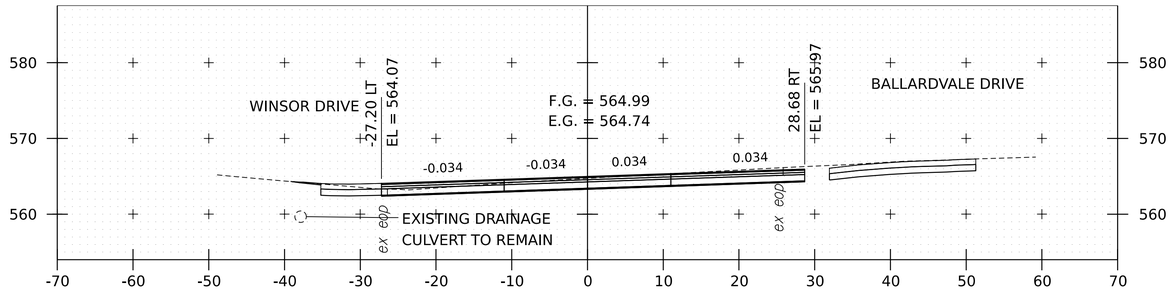
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 203 OF 210



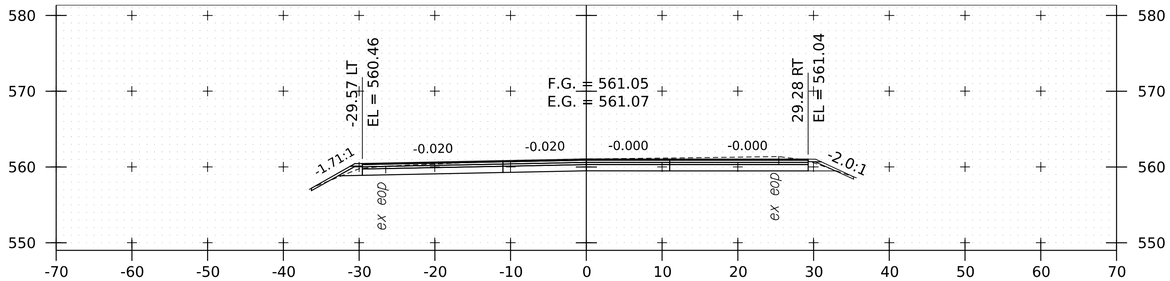
145+50



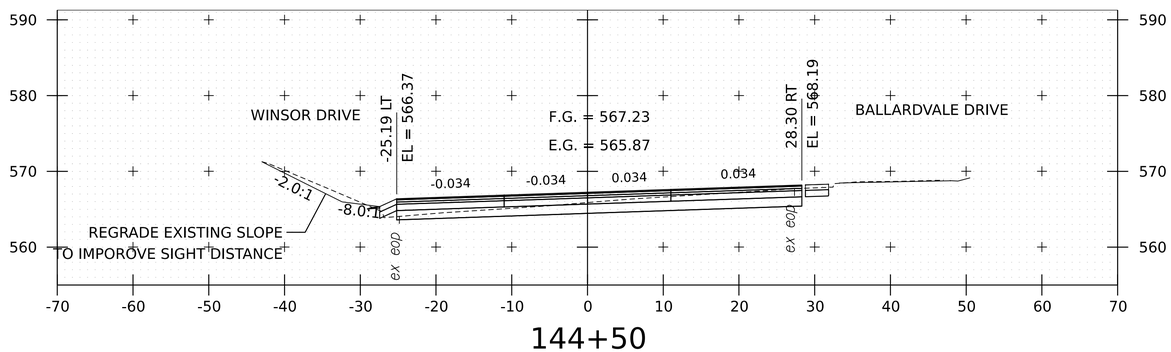
147+00



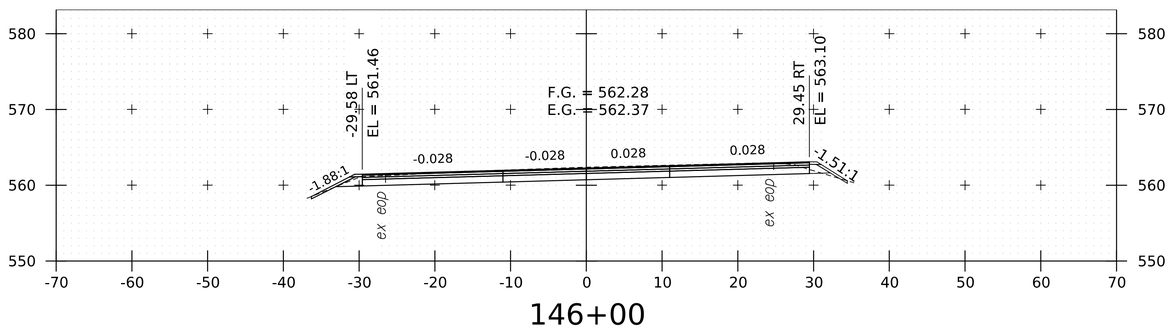
145+00



146+50



144+50



146+00

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

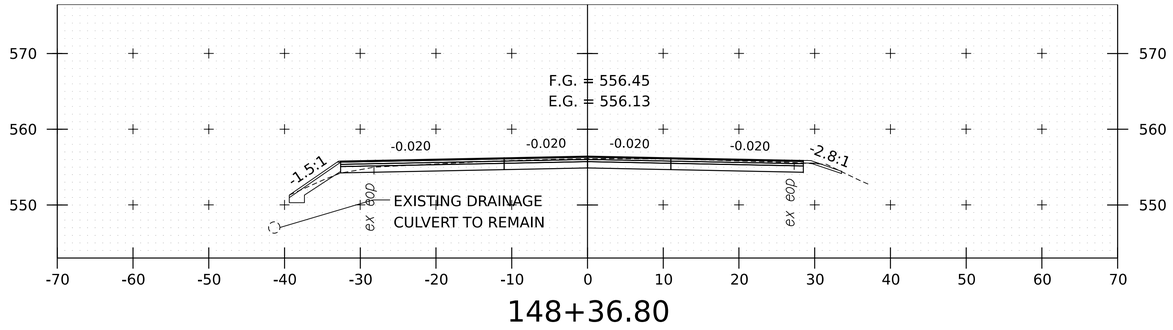
0 10 20
SCALE IN FEET

Stantec

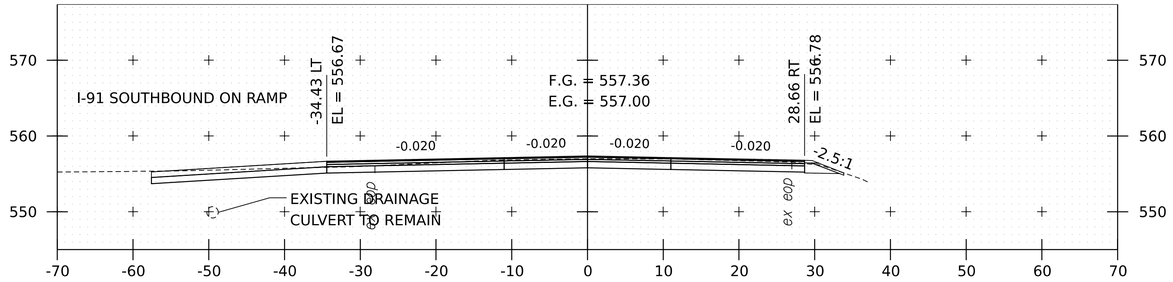
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 51

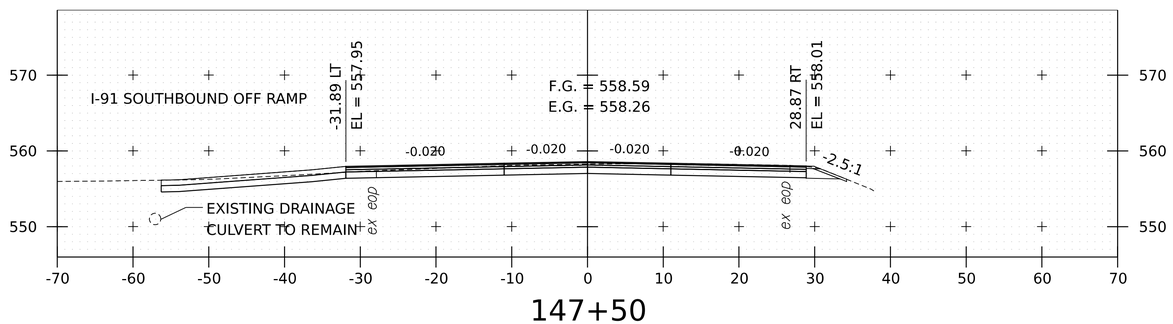
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 204 OF 210



148+36.80



148+00



147+50

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
2	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

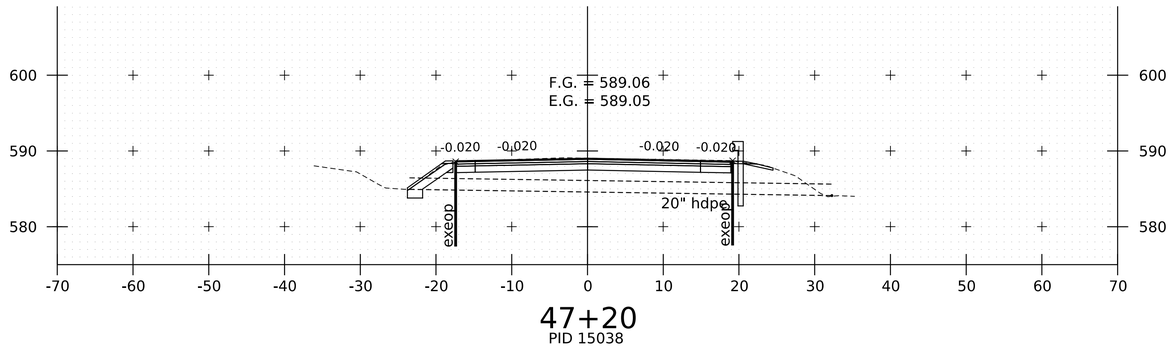
0 10 20
SCALE IN FEET

Stantec

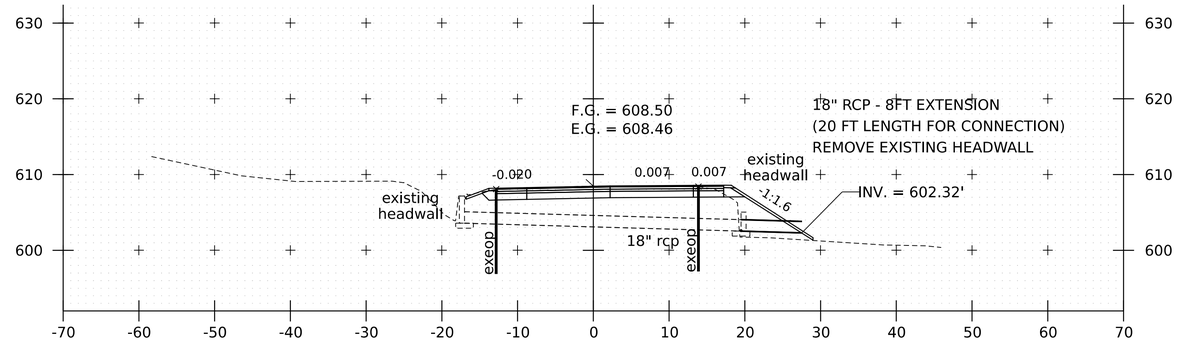
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_2.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CROSS SECTION SHEET 52

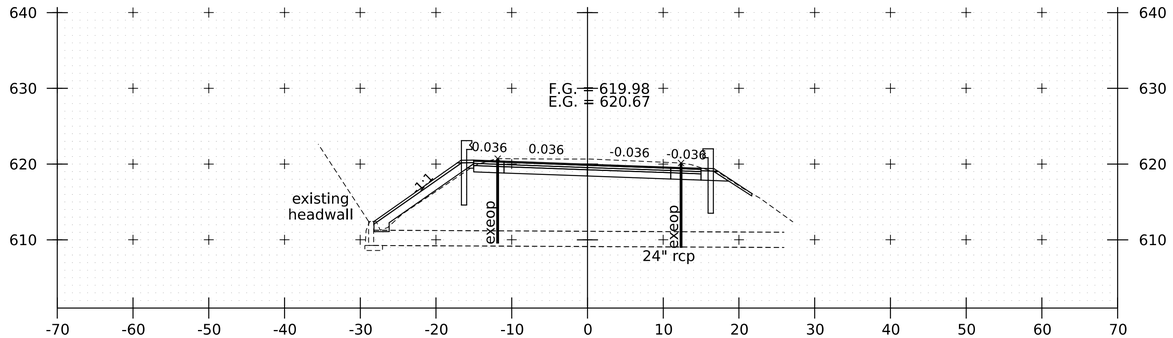
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 205 OF 210



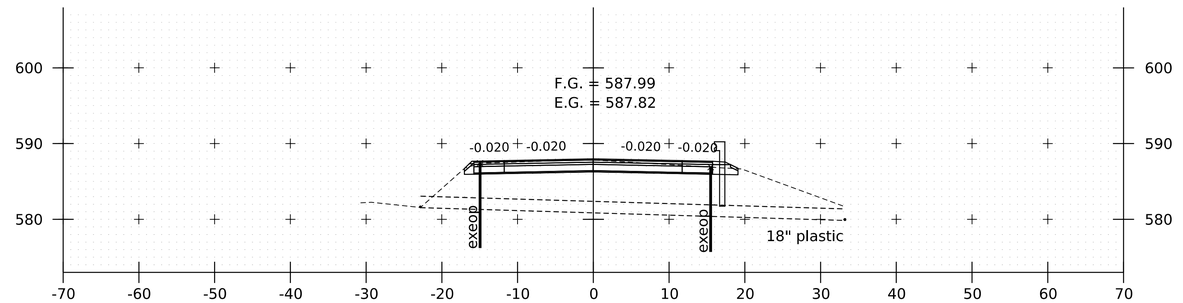
47+20
PID 15038



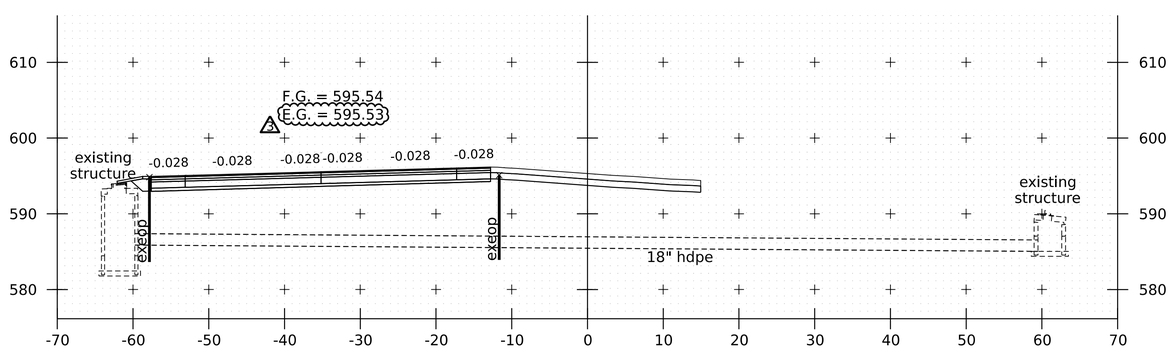
75+49
PID 15041



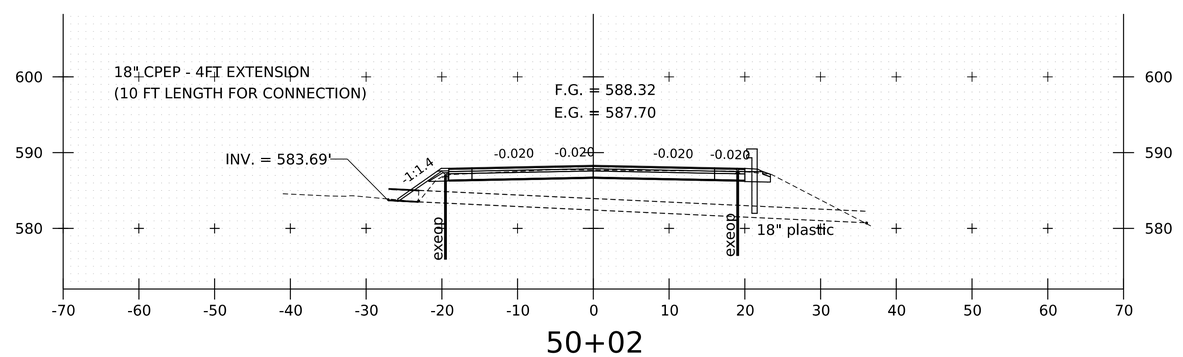
23+49
PID 15029



53+85
PID 15040



9+63
PID 15021



50+02
PID 15039

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

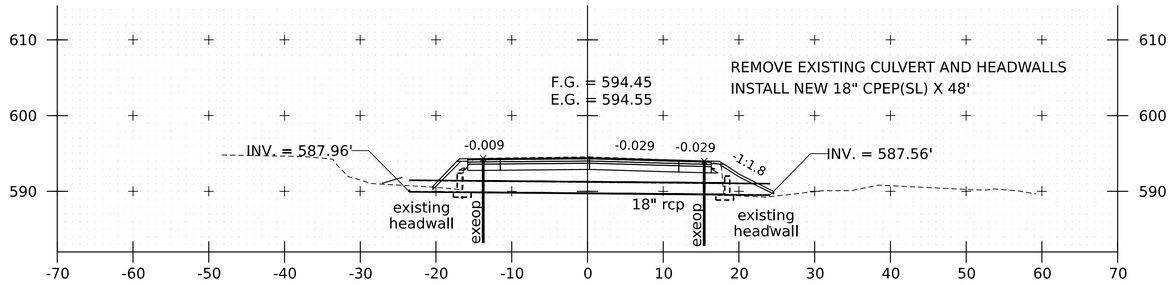
0 10 20
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

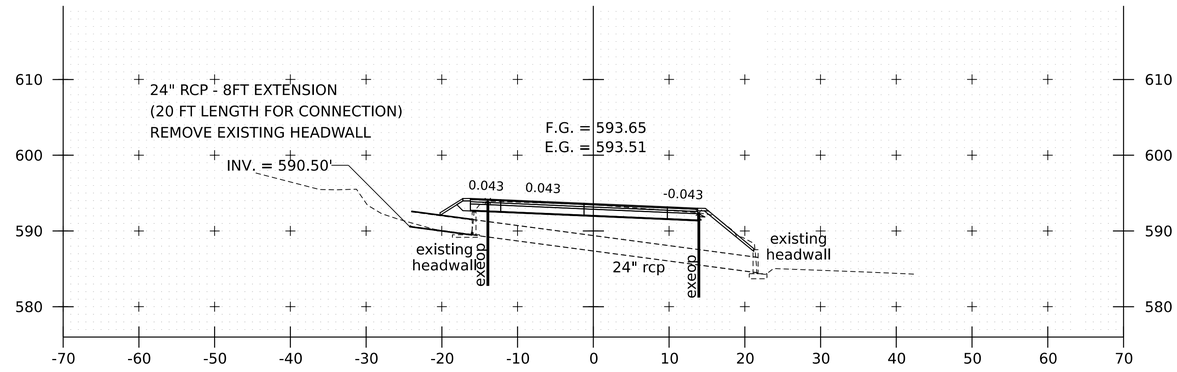
FILE NAME: z19v443_xs_culv.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CULVERT CROSS SECTION SHEET 1

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 206 OF 210



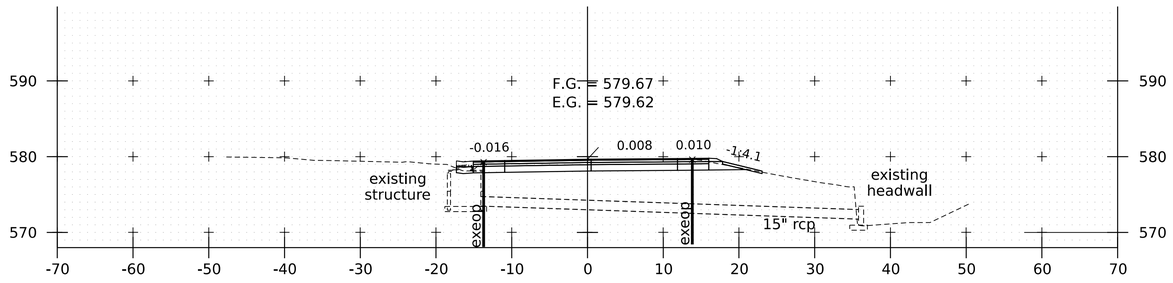
90+12

PID 15045



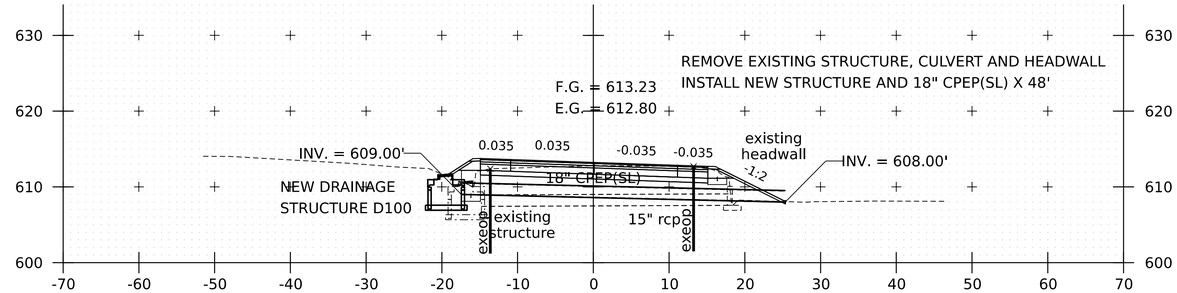
108+84

PID 15051



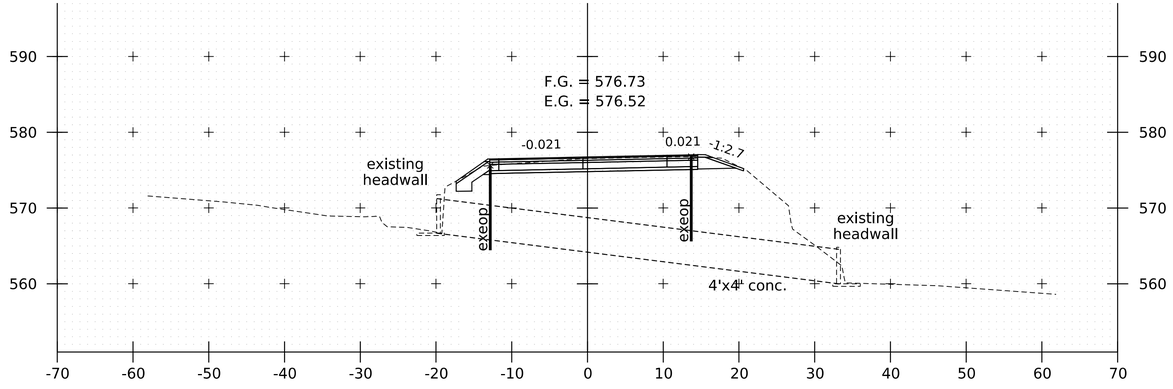
84+29

PID 15043



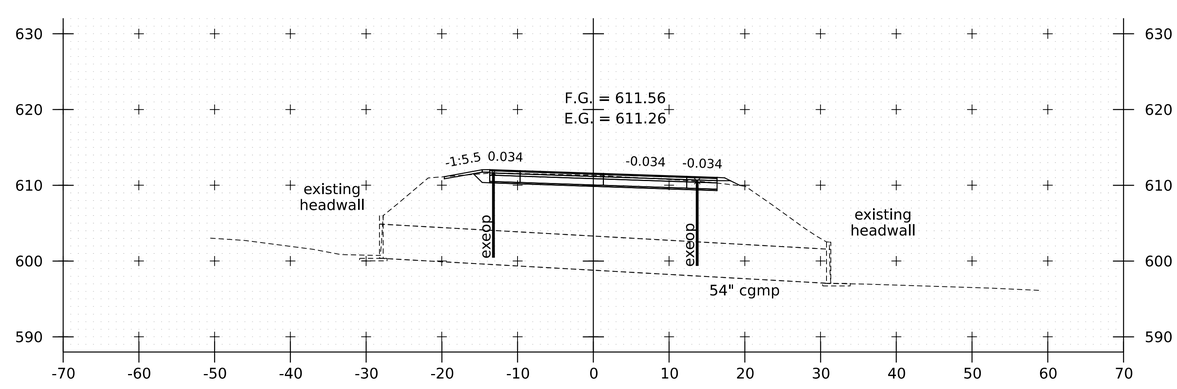
100+67

PID 15047



81+79

PID 15042



98+21

PID 15046

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

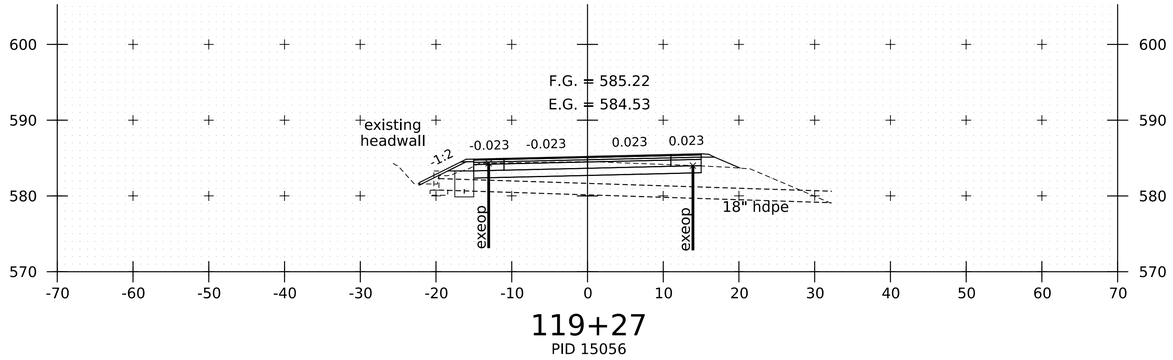
0 10 20
SCALE IN FEET

Stantec

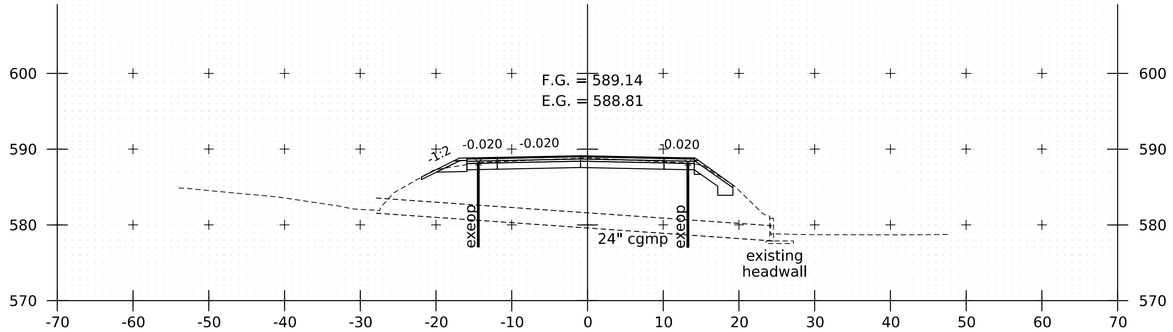
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_culv.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CULVERT CROSS SECTION SHEET 2

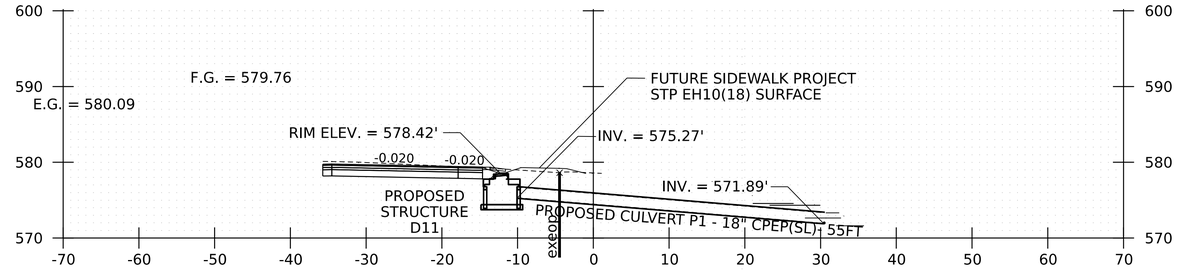
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 207 OF 210



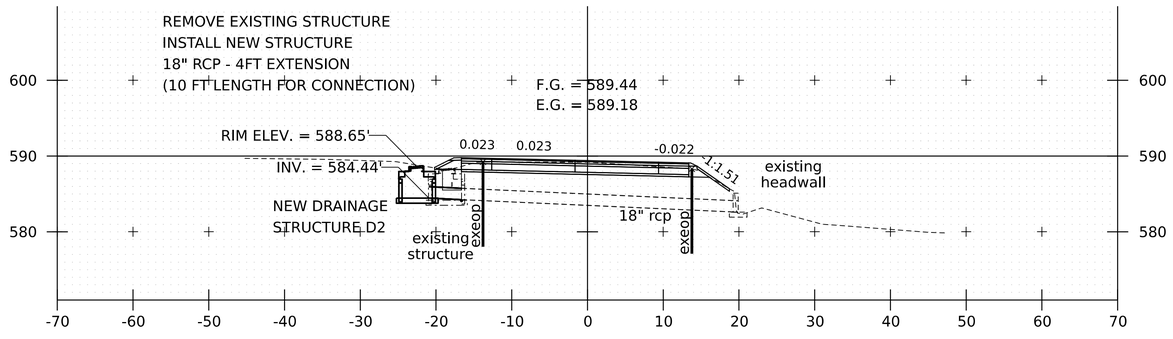
119+27
PID 15056



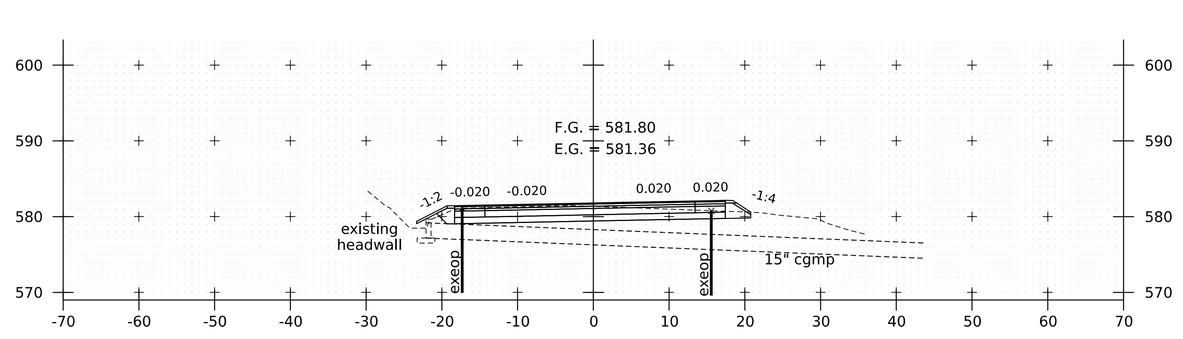
113+30
PID 15053



125+56



110+99
PID 15052



122+20
PID 15057

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

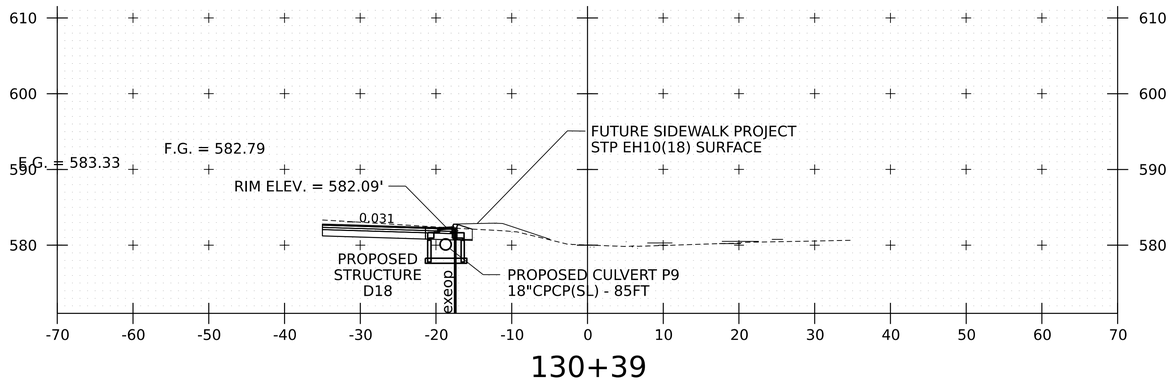
0 10 20
SCALE IN FEET

Stantec

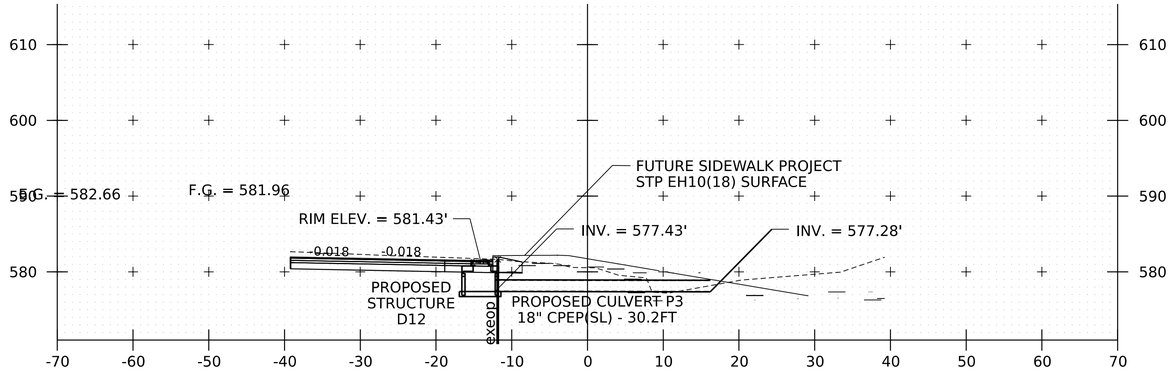
PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_culv.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CULVERT CROSS SECTION SHEET 3

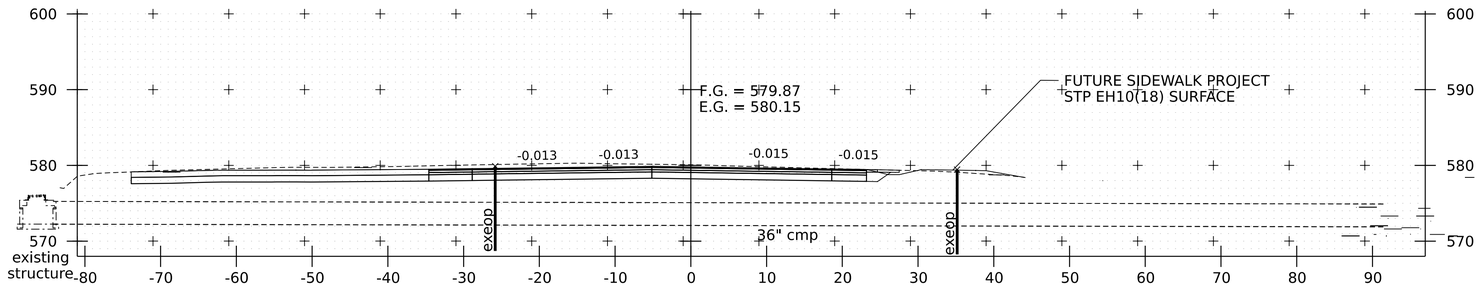
PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 208 OF 210



130+39



129+51



126+34

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

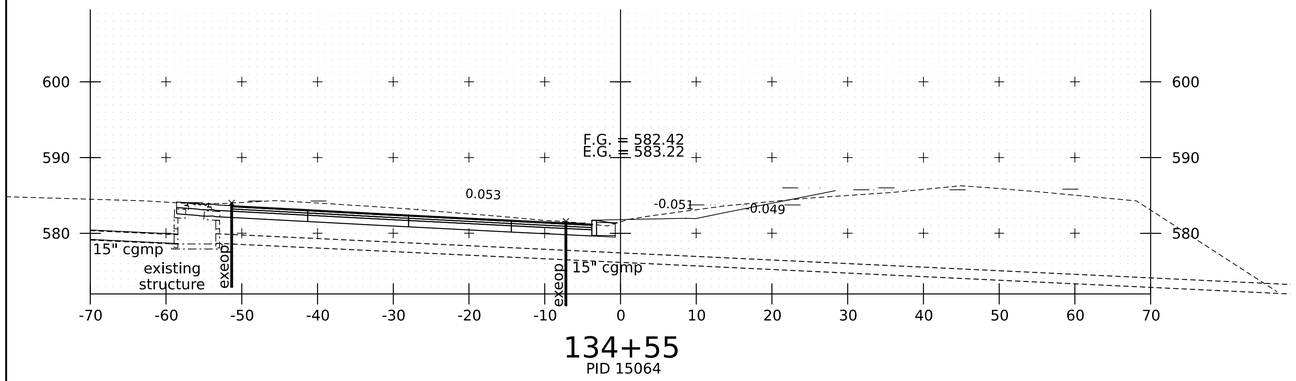
0 10 20
SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD
PROJECT NUMBER: STP PS24(2)

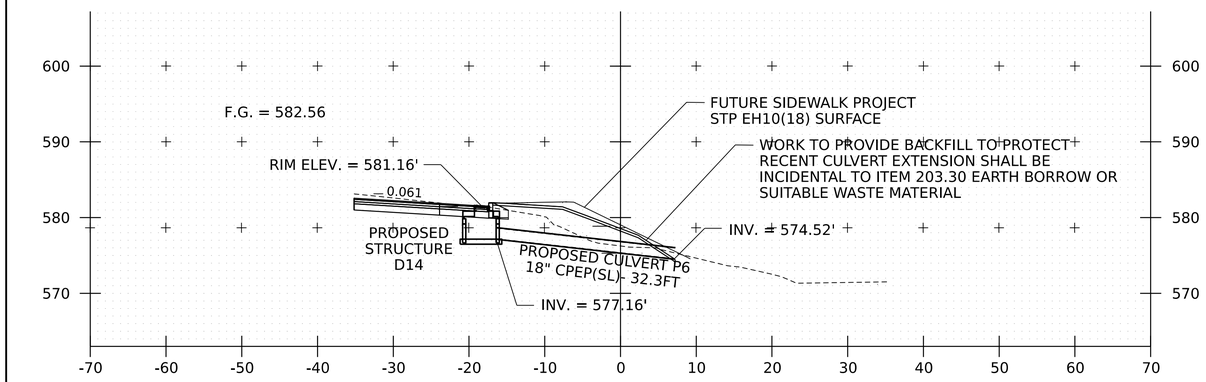
FILE NAME: z19v443_xs_culv.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CULVERT CROSS SECTION SHEET 4

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 209 OF 210

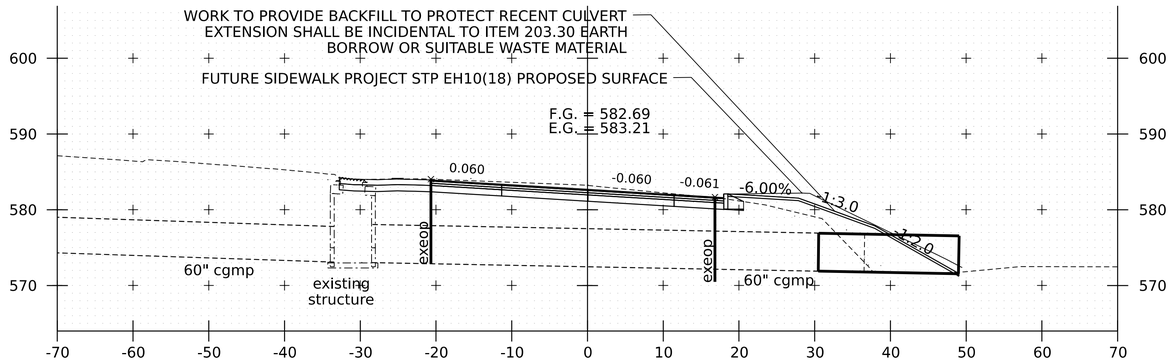


134+55

PID 15064

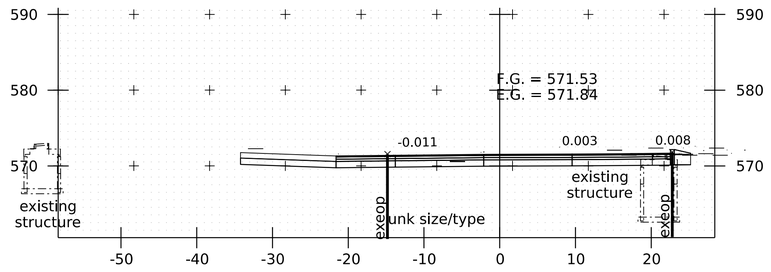


133+23



133+06

PID 15061



142+09

ADDENDUM	REVISION	PLOT DATE	DESCRIPTION	BY
3	1	1/9/2024	ADDED EXISTING CENTERLINE ELEVATIONS	MCF

0 10 20

SCALE IN FEET

Stantec

PROJECT NAME: HARTFORD

PROJECT NUMBER: STP PS24(2)

FILE NAME: z19v443_xs_culv.dgn
PROJECT LEADER: M. FOISY
DESIGNED BY: G. BURGMEIER
CULVERT CROSS SECTION SHEET 5

PLOT DATE: 9-JAN-2024
DRAWN BY: G. BURGMEIER
CHECKED BY: G. SANTY
SHEET 210 OF 210