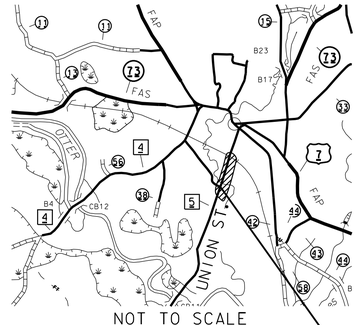
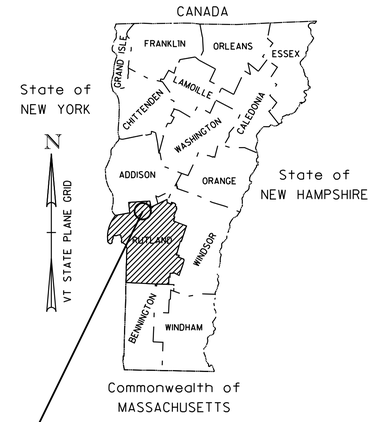
TOWN OF BRANDON
COUNTY OF RUTLAND
PROPOSED IMPROVEMENT
BRANDON STP EH 05 (4)
UNION STREET SIDEWALK PROJECT

LOCATION MAP





PROJECT LOCATION
BRANDON STP EH 05 (4)

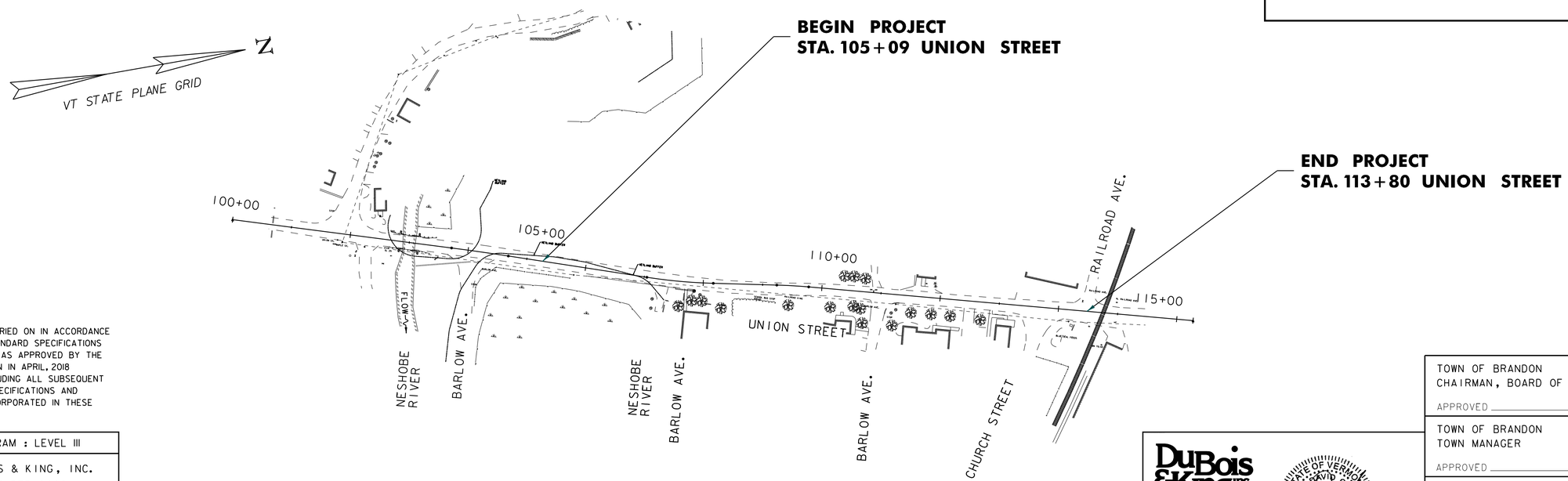
PROJECT LOCATION: UNION STREET - STARTING ON THE EAST SIDE OF THE STREET NORTH OF THE NESHOBE RIVER AND BARLOW AVE. THEN CONTINUING FOR APPROXIMATELY 692 FT. AND TERMINATING ON THE SOUTH SIDE OF THE INTERSECTION OF UNION STREET WITH THE RAILROAD.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS CONTRACT INCLUDES PAVEMENT AND SUBBASE, CONSTRUCTION OF A PORTLAND CEMENT CONCRETE SIDEWALK, GRANITE CURBING, A MODULAR BRICK RETAINING WALL, INTERSECTION MODIFICATIONS, PAVING DRIVEWAY APRONS, AND DRAINAGE IMPROVEMENTS. ADDITIONAL PROJECT ELEMENTS INCLUDE THE INSTALLATION OF CATCH BASINS, CROSSWALK MARKINGS, SIGNING, AND OTHER INCIDENTAL ITEMS.

LENGTH OF SIDEWALK: UNION STREET (CONC. SIDEWALK) - 692 FT. (0.131 MILE)

LENGTH OF PROJECT: 871 FT. (0.165 MILE)

CONSTRUCTION PLANS
MAY **2019**



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 IN APRIL, 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 III
SURVEYED BY : DUBOIS & KING, INC. SURVEYED DATE : DECEMBER 2006
DATUM VERTICAL NAVD 88 HORIZONTAL NAD 83 (96)

PLOTTED 4/24/2019

SCALE 1" = 100'-0
100 0 100

DuBois & King inc.

STATE OF VERMONT — DAVID CONGER — No. 7666 Civil — LICENSED PROFESSIONAL ENGINEER

TOWN OF BRANDON
CHAIRMAN, BOARD OF SELECTMEN
APPROVED _____ DATE _____

TOWN OF BRANDON
TOWN MANAGER
APPROVED _____ DATE _____

PROJECT MANAGER : DAVID CONGER, P.E.

PROJECT NAME : BRANDON UNION ST. SIDEWALK
PROJECT NUMBER : STP EH 05 (4)

SHEET 1 OF 26 SHEETS

INDEX OF SHEETS

VTRANS STANDARDS FOR CONSTRUCTION

B-5	EMBANKMENT ON EARTH SLOPE, EMBANKMENT	06/01/94
B-71	STANDARDS FOR RESIDENTIAL AND COMMERCIAL DRIVES	07/08/05
C-10	CURBING	02/11/08
C-2A	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK ADJACENT TO CURB	10/14/05
C-2B	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK AND GREEN STRIP	10/14/05
C-3A	SIDEWALK RAMPS	03/10/08
C-3B	SIDEWALK RAMPS AND MEDIAN ISLANDS	03/10/08
D-1	PRECAST REINFORCED CONCRETE DROP INLET DETAILS	06/01/94
D-13	CONCRETE CATCH BASIN	01/03/00
D-6	REINFORCED CONCRETE DROP INLET W/ GRATE	06/01/94
D-15	PRECAST REINF CONC. MH-GRATES, CAST IRON GRATE WITH FRAME, TYPE D & E	06/01/94
D-16	DRAINAGE DETAILS INCLUDING DROP INLETS, IRON GRATE TYPE B & C, CONC END SECTIONS. ETC.	06/01/94
D-33	REINFORCED CONCRETE STRAIGHT HEADWALL	03/12/07
T-1	TRAFFIC CONTROL GENERAL NOTES	04/25/16
T-2	TRAFFIC SIGN GENERAL NOTES	04/25/16
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08/06/12
T-28	CONSTRUCTION SIGN DETAILS	08/06/12
T-30	CONSTRUCTION SIGN DETAILS	08/06/12
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	08/06/12
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01/02/13
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08/08/95
E-191	PAVEMENT MARKING DETAILS	02/01/99
E-192	PAVEMENT MARKING DETAILS	10/12/00
E-193	PAVEMENT MARKING DETAILS	08/18/95

DuBois & King Inc.

INDEX OF SHEETS

PROJECT NAME: BRANDON UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_idx.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
INDEX OF SHEETS

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 2 OF 26

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
	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
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⊡	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
◎	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 RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

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+TELEP.
- 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+TELEP.
- 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

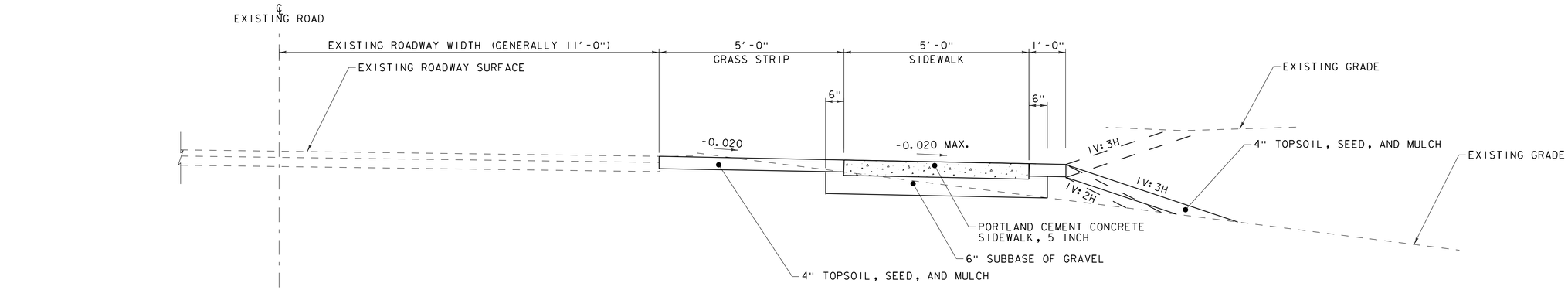
DuBois & King INC.

CONVENTIONAL SYMBOLOGY LEGEND

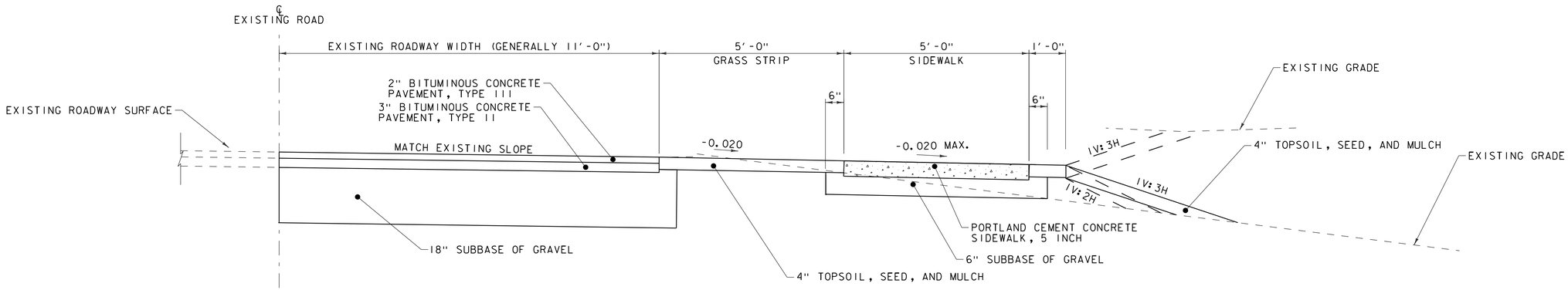
PROJECT NAME: BRANDON UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_idx.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
CONVENTIONAL SYMBOLOGY LEGEND SHEET

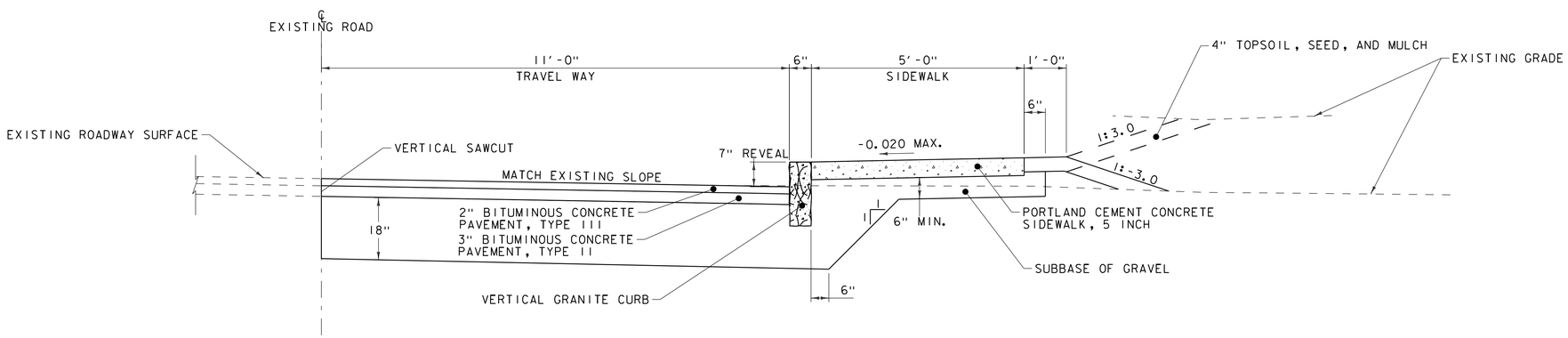
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER



TYPICAL SIDEWALK SECTION – UNION STREET STA. 106+87 – STA. 107+54



TYPICAL SIDEWALK SECTION – UNION STREET STA. 107+54 – STA. 108+02



TYPICAL SIDEWALK SECTION – UNION STREET
STA. 108+02 – STA. 109+34
STA. 109+96 – STA. 112+74

NOTES:

1. TYPICAL SECTIONS REPRESENT GENERAL INTENT BETWEEN STATIONS. REFER TO CROSS SECTION SHEETS FOR SPECIFIC GEOMETRY AT SPECIFIC STATIONS.
2. ALL EXCAVATION SHALL BE PAID FOR UNDER ITEM 203.15, "COMMON EXCAVATION", UNLESS OTHERWISE NOTED.
3. ASPHALT TREATED FELT TO BE INCIDENTAL TO ITEM 616.21, "VERTICAL GRANITE CURB".

SCALE 3/4" = 1'-0

DuBois & King Inc.

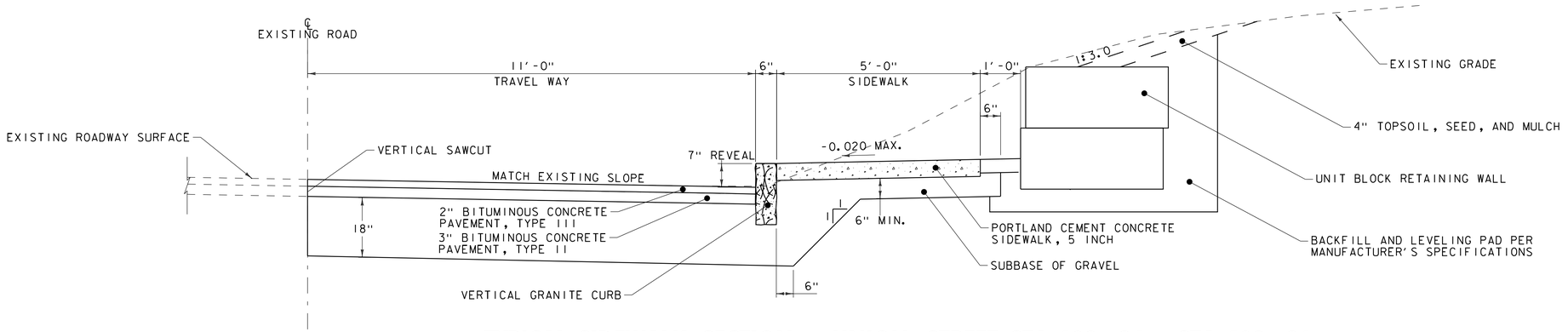
TYPICAL SECTIONS SHEET 1

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

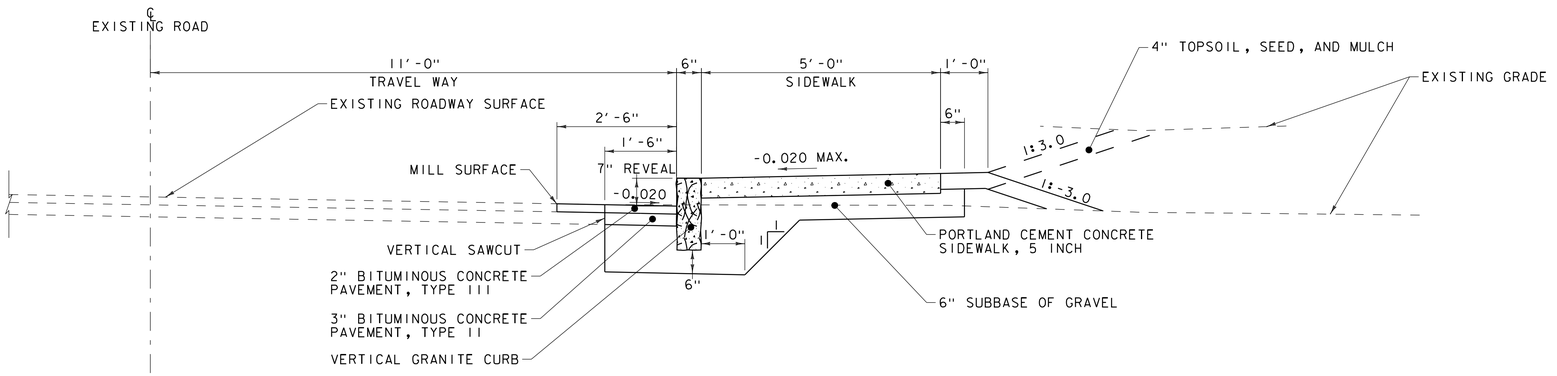
FILE NAME: 619452_typ-u.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
TYPICAL SECTIONS SHEET 1

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 4 OF 26

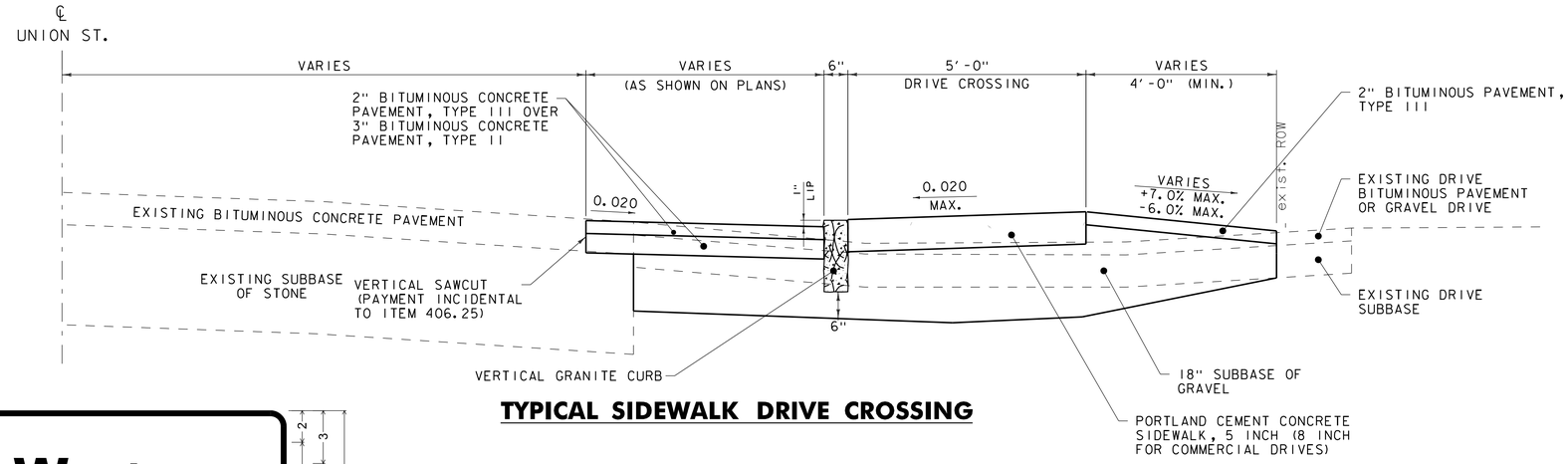
I:\V\619452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_typ-u.dgn



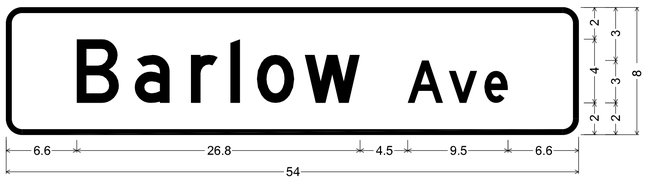
TYPICAL SIDEWALK SECTION – UNION STREET STA. 109+34 – STA. 109+96



TYPICAL SIDEWALK SECTION – UNION STREET STA. 112+74 – STA. 113+79



TYPICAL SIDEWALK DRIVE CROSSING



1.5" Radius, 0.5" Border, White on Green;
[Barlow Ave] D;

SIGN DETAIL CODE VD3-1

SCALE 3/4" = 1'-0

DuBois & King inc.

TYPICAL SECTIONS SHEET 2

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_typ-u.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
TYPICAL SECTIONS SHEET 2

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 5 OF 26

I:\419452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_typ-u.dgn

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES		TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	EROSION CONTROL	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
1		1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	--			
710		710		CY	COMMON EXCAVATION	203.15	4.53			
1		1		CY	SOLID ROCK EXCAVATION	203.16	EST			
15		15		CY	EARTH BORROW	203.30	6.82			
850		850		CY	TRENCH EXCAVATION OF EARTH	204.20	10			
725		725		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	4.39			
30		30		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10				
400		400		CY	SUBBASE OF GRAVEL	301.15	2.98			
7		7		CWT	EMULSIFIED ASPHALT	404.65	0.89			
180		180		TON	BITUMINOUS CONCRETE PAVEMENT	406.25	2			
310		310		LB	REINFORCING STEEL, LEVEL III	507.13	2.71			
2		2		CY	CONCRETE, CLASS B	541.25	0.33			
640		640		LF	18" CPEP	601.0915	5			
5		5		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	--			
2		2		EACH	PRECAST REINFORCED CONCRETE PIPE DI WITH CAST IRON GRATE	604.25	--			
300		300		HR	POWER BROOM RENTAL, TYPE II	608.31	--			
5		5		MGAL	DUST CONTROL WITH WATER	609.10	EST			
6		6		CY	STONE FILL, TYPE I	613.10	0.81			
550		550		LF	VERTICAL GRANITE CURB	616.21	4			
330		330		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	3			
55		55		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	618.11	5			
50		50		SF	DETECTABLE WARNING SURFACE	618.30	--			
1500		1500		HR	FLAGGERS	630.15	--			
1		1		LS	MOBILIZATION/DEMOBILIZATION	635.11	EST.			
1		1		LS	TRAFFIC CONTROL	641.10	EST.			
40		40		LF	DURABLE CROSSWALK MARKING, EPOXY PAINT	646.503	--			
	10	10		SY	GEOTEXTILE UNDER STONE FILL	649.31	1.47			
	30	30		LB	SEED	651.15	2			
	190	190		LB	FERTILIZER	651.18	15			
	1	1		TON	AGRICULTURAL LIMESTONE	651.20	0.3			
	200	200		CY	TOPSOIL	651.35	11.78			
	1	1		LS	EPSC PLAN	653.01	--			
	60	60		HR	MONITORING EPSC PLAN	653.02	EST.			
	1	1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03	--			
	1	1		TON	HAY MULCH	653.10	0.3			
	4.5	4.5		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	1.5			
	7	7		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	--			
	170	170		LF	SILT FENCE, TYPE II	653.476	10			
	3	3		LS	TREE PROTECTION	656.85	--			
12		12		SF	TRAFFIC SIGNS, TYPE A	675.20	0.44			

DuBois & King Inc.

QUANTITY SHEET 1

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_qty.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
QUANTITY SHEET I

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 6 OF 26

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	EROSION CONTROL
60	
3	
30	

TOTALS

GRAND TOTAL	FINAL
60	
3	
30	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	--
EACH	REMOVING SIGNS	675.50	--
SY	SPECIAL PROVISION (UNIT BLOCK RETAINING WALL)	900.675	10

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DuBois & King, Inc.

QUANTITY SHEET 2

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_qty.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
QUANTITY SHEET 2

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 7 OF 26

POINT COORDINATES

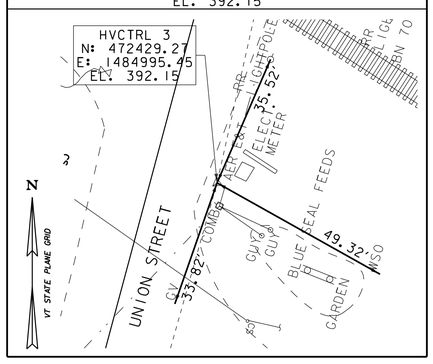
Point Type	Station	MAPLE STREET Northing (Y)	Easting (X)
POB	0+00.00	472207.54	1483922.57
B.P.	2+08.67	472130.91	1483999.60
PC	2+26.53	472118.30	1484012.28
PI	2+75.78	472083.57	1484047.19
PT	3+24.95	472045.57	1484078.52
PC	4+63.49	471938.68	1484166.66
PI	5+10.62	471902.32	1484196.65
PT	5+57.68	471868.94	1484229.92
PC	6+49.00	471804.26	1484294.39
PI	7+32.29	471745.27	1484353.19
PT	8+05.99	471662.05	1484349.64
PC	9+11.31	471556.83	1484345.16
PI	10+13.19	471455.04	1484340.83
PT	11+02.13	471385.90	1484415.65
PI	11+89.38	471326.68	1484479.73
PT	12+75.31	471289.16	1484558.50
POE	13+91.48	471239.20	1484663.39

Point Type	Station	UNION STREET Northing (Y)	Easting (X)
POB	100+00.00	471124.38	1484598.77
PC	103+71.91	471479.35	1484709.74
PI	104+20.17	471525.41	1484724.14
PT	104+68.43	471571.11	1484739.65
PC	107+04.49	471794.65	1484815.51
PI	107+60.77	471847.95	1484833.60
PT	108+16.91	471903.08	1484844.90
PC	109+23.94	472007.93	1484866.40
PI	109+50.85	472034.30	1484871.81
PT	109+77.75	472060.30	1484878.78
E.P.	115+19.64	472583.69	1485019.14
POE	116+27.61	472687.97	1485047.11

TRAVERSE TIES

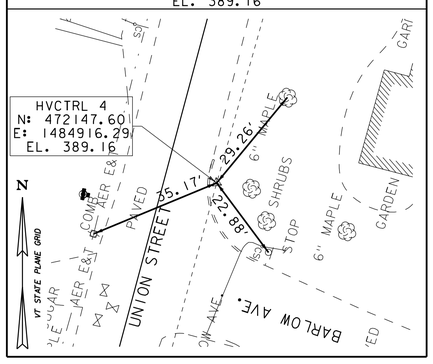
HVCTRL 3

N: 472429.27
E: 1484995.45
EL. 392.15



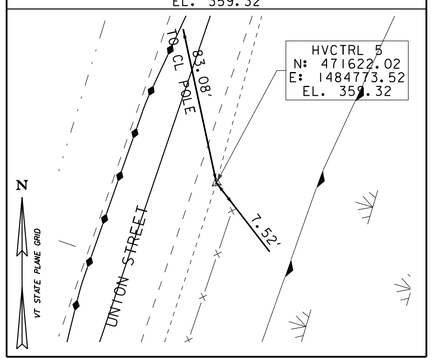
HVCTRL 4

N: 472147.60
E: 1484916.29
EL. 389.16



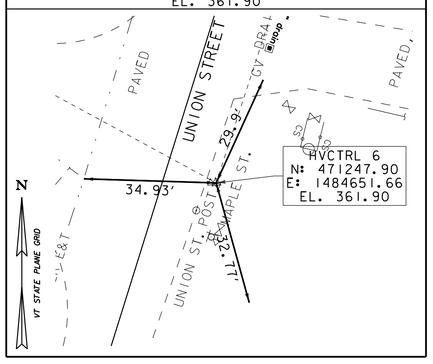
HVCTRL 5

N: 471622.02
E: 1484773.52
EL. 359.32



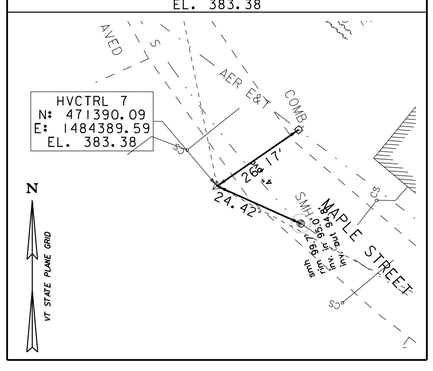
HVCTRL 6

N: 471247.90
E: 1484651.66
EL. 361.90



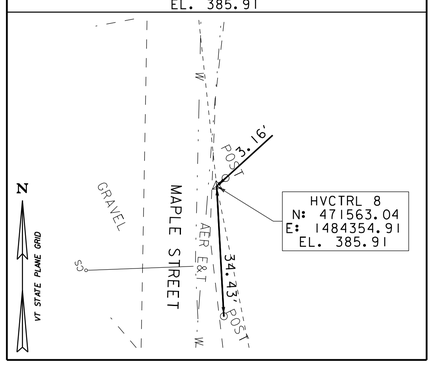
HVCTRL 7

N: 471390.09
E: 1484389.59
EL. 383.38



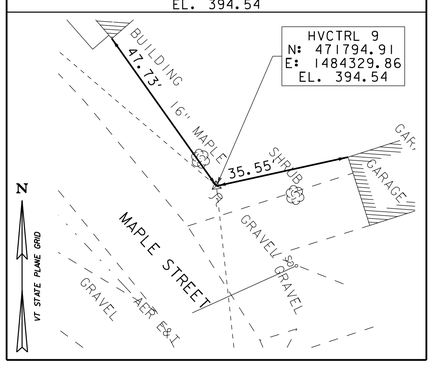
HVCTRL 8

N: 471563.04
E: 1484354.91
EL. 385.91



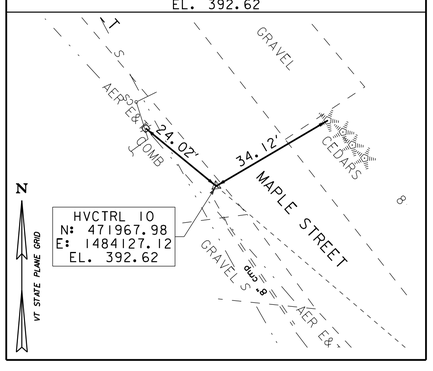
HVCTRL 9

N: 471794.91
E: 1484329.86
EL. 394.54



HVCTRL 10

N: 471967.98
E: 1484127.12
EL. 392.62



TIE SHEET

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_tie.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
TIE SHEET 1

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 8 OF 26

I:\v1\619452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_tie.dgn

HVCTRL 3
N: 472429.27
E: 1484995.45
EL. 392.15

RAILROAD AVE.

N. RAILROAD AVE.

VT STATE PLANE GRID

STA. 115+19.64

POE
Sta 116+27.61

UNION STREET

173° 1' 31.83"

N15° 00' 45.79"E

113+00

114+00

156.22'

115+00

263.81'

116+00

116+28

TO HVCTRL 4

184° 24' 16.36"

STOP

Curve No. 6
PI Sta. 104+20.17
N: 471525.41
E: 1484724.14
Δ 1°22'57"RT
R = 4000.00 FT.
T = 48.26 FT.
L = 96.52 FT.
E = 0.29 FT.
D = 1°25'57"

PC
Sta 103+71.91

PI
Sta 104+20.17

PT
Sta 104+68.43

UNION STREET

N18°

104+00

Curve No. 6

108.50'

105+00

TO HVCTRL 6

BARLOW AVE.

350° 58' 15.64"

TO HVCTRL 3

TOP

EXISTING CLASS II WETLANDS

VT STATE PLANE GRID

ALIGNMENT TIES

Curve No. 7
PI Sta. 107+60.77
N: 471847.95
E: 1484833.59
Δ 7°09'26"LT
R = 900.00 FT.
T = 56.29 FT.
L = 112.42 FT.
E = 1.76 FT.
D = 6°21'58"

PC
Sta 107+04.49

PT
Sta 108+16.91

VT STATE PLANE GRID

Curve No. 8
PI Sta. 109+50.85
N: 472034.30
E: 1484871.80
Δ 3°25'34"RT
R = 900.00 FT.
T = 26.92 FT.
L = 53.82 FT.
E = 0.40 FT.
D = 6°21'58"

PI
Sta 109+50.85

HVCTRL 4
N: 472147.60
E: 1484916.29
EL. 389.16

174° 15' 41.28"

UNION STREET

107+00

grate over 6" vertical pipe
89' to bottom

108+00

109+00

310.86'

RAILROAD XING

SCHOOL BUS STOP AHEAD

110+00

121.72'

111+00

TO HVCTRL 3

BARLOW AVE.

STOP

179° 43' 47.20"

PC
Sta 109+23.94

PT
Sta 109+77.75

PI
Sta 107+60.77

MAPLE STREET STA. 13+63.80
= UNION STREET STA. 101+32.78

MAPLE STREET

STOP

TO HVCTRL 7

81° 53' 34.94"

UNION STREET

134.37'

TO HVCTRL 5

UNION ST.

MAPLE ST.

14.60'

108° 30' 58.60"

185° 8' 14.45"

HVCTRL 6
N: 471247.90
E: 1484651.66
EL. 361.90

VT STATE PLANE GRID

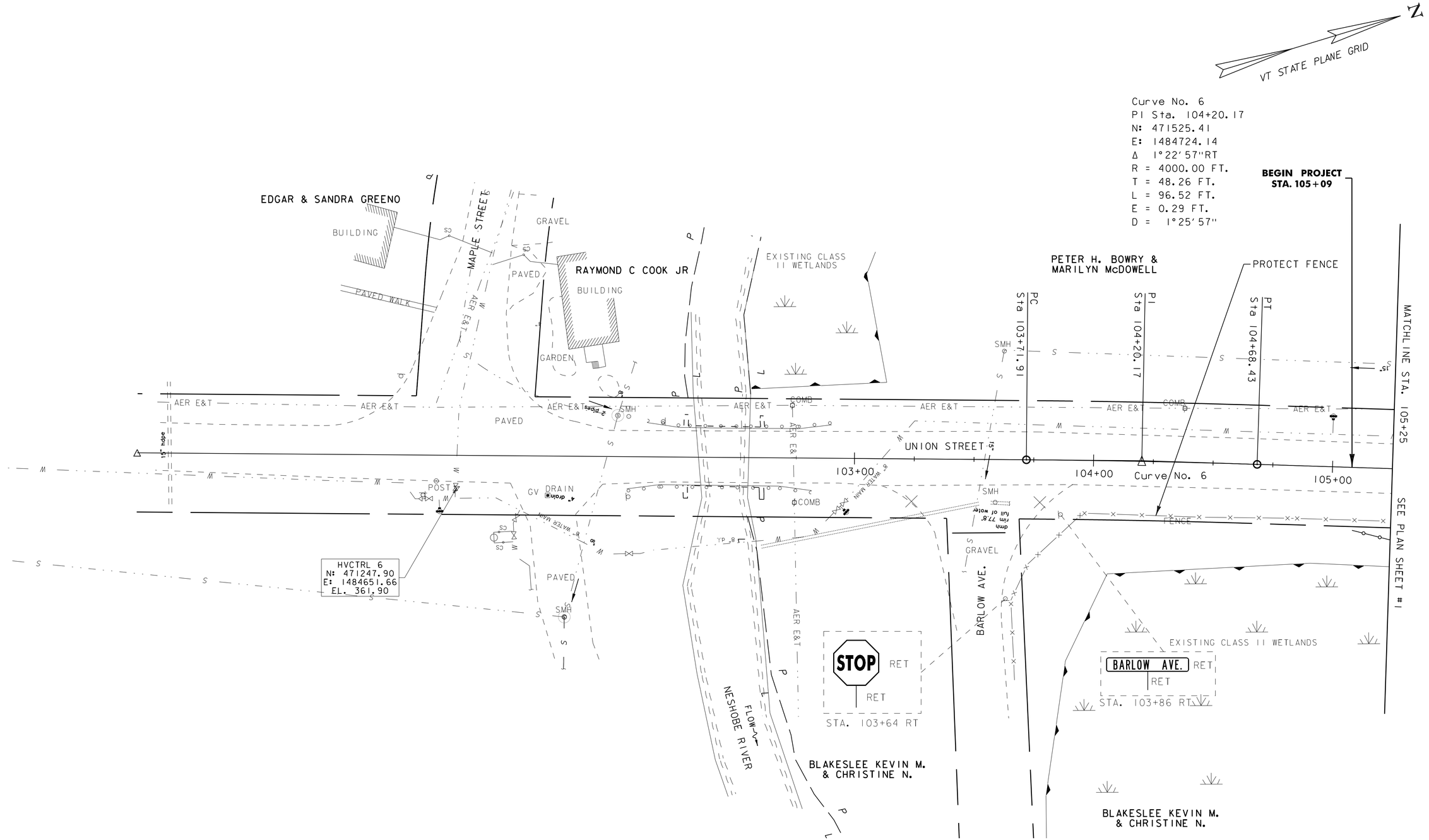
DuBois & King inc.

TIE SHEET 2

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_tie.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
TIE SHEET 2

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 9 OF 26



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

SIGN LEGEND
R = REMOVE
R&S = REMOVE & SALVAGE
S = SALVAGE
RET = RETAIN
N = NEW
B-B = BACK TO BACK

SCALE 1" = 20'-0
20 0 20
PLOTTED 4/24/2019

DuBois & King Inc.

PLAN SHEET 1

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_bdr
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
PLAN SHEET 1
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 10 OF 26

I:\A\619452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_bdr.dgn

616.21 VERTICAL GRANITE CURB
STA. 108+02 - STA. 110+29 RT
STA. 110+61 - STA. 111+00 RT

618.30 DETECTABLE WARNING SURFACE
STA. 106+89 RT
STA. 110+29 RT
STA. 110+67 RT

SIDEWALK RAMP TYPES
STA. 110+29 RT TYPE I EXAMPLE I
STA. 110+67 RT TYPE I EXAMPLE I

REMOVING SIGNS
AS SHOWN - 3

UNIT BLOCK RETAINING WALL
STA. 109+34 - STA. 109+96 RT

N
VT STATE PLANE GRID

Curve No. 8
PI Sta. 109+50.85
N: 472034.30
E: 1484871.80
Δ 3°25'34"RT
R = 900.00 FT.
T = 26.92 FT.
L = 53.82 FT.
E = 0.40 FT.
D = 6°21'58"

STA. 108+31 RT
SCHOOL BUS STOP AHEAD R
S3-1
R

STA. 110+26 RT
Barlow Ave N
N N
BARLOW AVE. R
R
STA. 110+23 RT

HVCTRL 4
N: 472147.60
E: 1484916.29
EL. 389.16

BEGIN FULL DEPTH ROADWAY RECONSTRUCTION
STA. 107+54

PETER H. BOWRY & MARILYN McDOWELL

SEE PLAN SHEET #2

PC Sta 107+04.49

PT Sta 108+16.91

PI Sta 109+50.85

APPROX. EXIST. 3-ROD R.O.W.

WETLAND BUFFER

8" WATER MAIN

N18°44'37.93"E

N11°35'12.11"E

N15°00'45.79"E

UNION STREET

106+00 107+00 108+00 109+00 110+00 111

Curve No. 7

Curve No. 8

PAVED

GRAVEL

YARD DRAIN

RET. WALL

WALL

APPROX. EXIST. 3-ROD R.O.W.

5'-0" WIDE PORTLAND CEMENT CONCRETE SIDEWALK WITH VERTICAL GRANITE CURB (TYP.)

JOHN F. & BLANCHE R. WELCH

PC Sta 109+23.94

PT Sta 109+77.75

HYD

CONC.

2" galv

BARLOW AVE.

APPROX. EXIST. R.O.W.

GARDEN

SEE PLAN SHEET #2

MATCHLINE STA. 111+00

MATCHLINE STA. 105+25

HVCTRL 5
N: 471622.02
E: 1484773.52
EL. 359.32

REMOVE 4' OF WALL
PAID AS ITEM 203.16
SOLID ROCK EXCAVATION

PAVE DRIVEWAY FROM ROADWAY TO R.O.W. LIMITS WITH 2" TYPE III BITUMINOUS CONCRETE PAVEMENT

BLAKESLEE KEVIN M. & CHRISTINE N.

Curve No. 7
PI Sta. 107+60.77
N: 471847.95
E: 1484833.59
Δ 7°09'26"LT
R = 900.00 FT.
T = 56.29 FT.
L = 112.42 FT.
E = 1.76 FT.
D = 6°21'58"

R&R R
W10-1
R
STA. 108+96 RT

STOP RET
R1-1
RET
STA. 110+58 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE & SALVAGE
S = SALVAGE
RET = RETAIN
N = NEW
B-B = BACK TO BACK

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

SCALE 1" = 20'-0
20 0 20

PLOTTED 4/24/2019

DuBois & King inc.

PLAN SHEET 2

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_bdr
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
PLAN SHEET 2

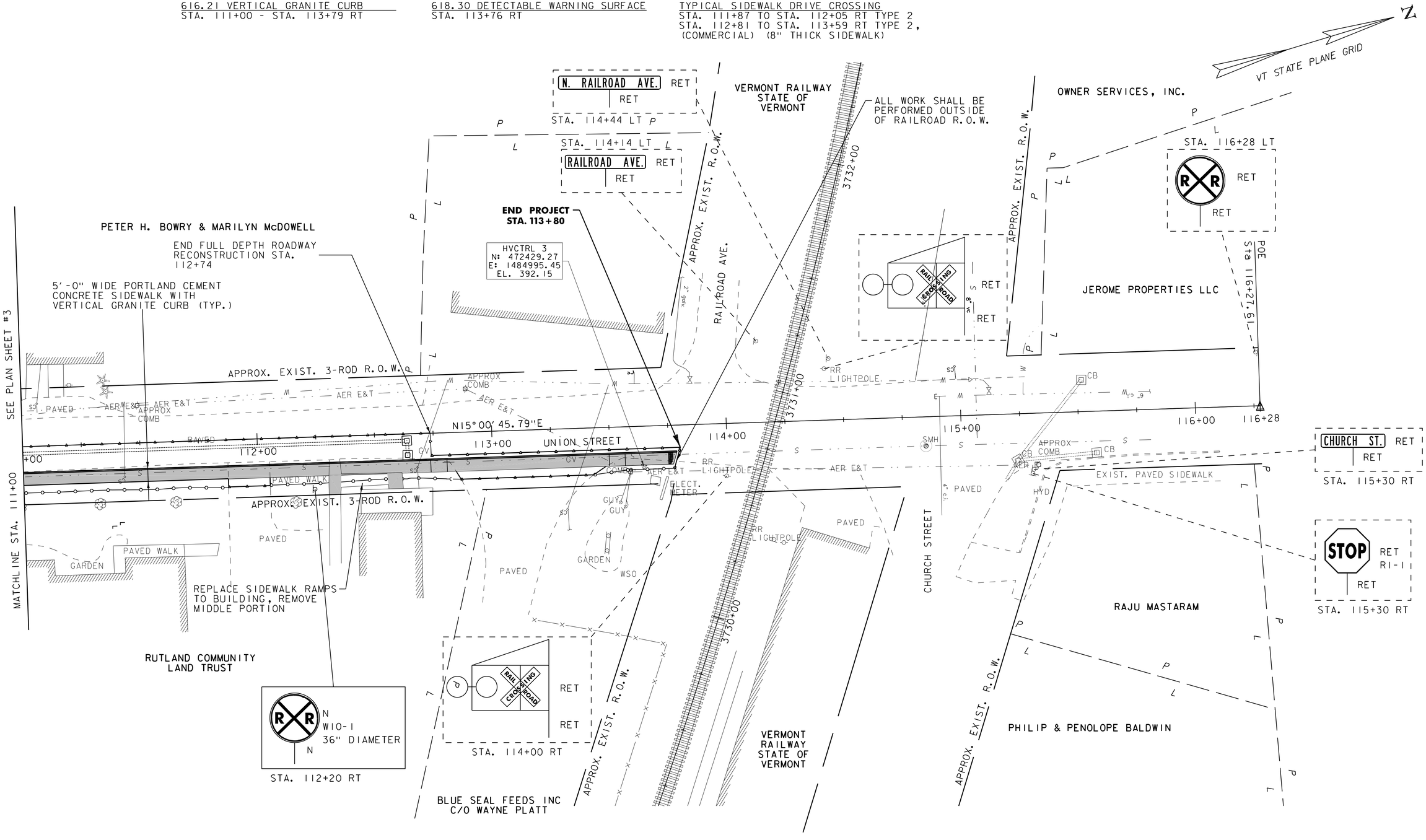
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 11 OF 26

I:\X\419452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_bdr.dgn

616.21 VERTICAL GRANITE CURB
STA. 111+00 - STA. 113+79 RT

618.30 DETECTABLE WARNING SURFACE
STA. 113+76 RT

TYPICAL SIDEWALK DRIVE CROSSING
STA. 111+87 TO STA. 112+05 RT TYPE 2
STA. 112+81 TO STA. 113+59 RT TYPE 2,
(COMMERCIAL) (8" THICK SIDEWALK)



SIGN LEGEND
R = REMOVE
R&S = REMOVE & SALVAGE
S = SALVAGE
RET = RETAIN
N = NEW
B-B = BACK TO BACK

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

SCALE 1" = 20'-0
20 0 20

PLOTTED 4/24/2019

DuBois & King Inc.

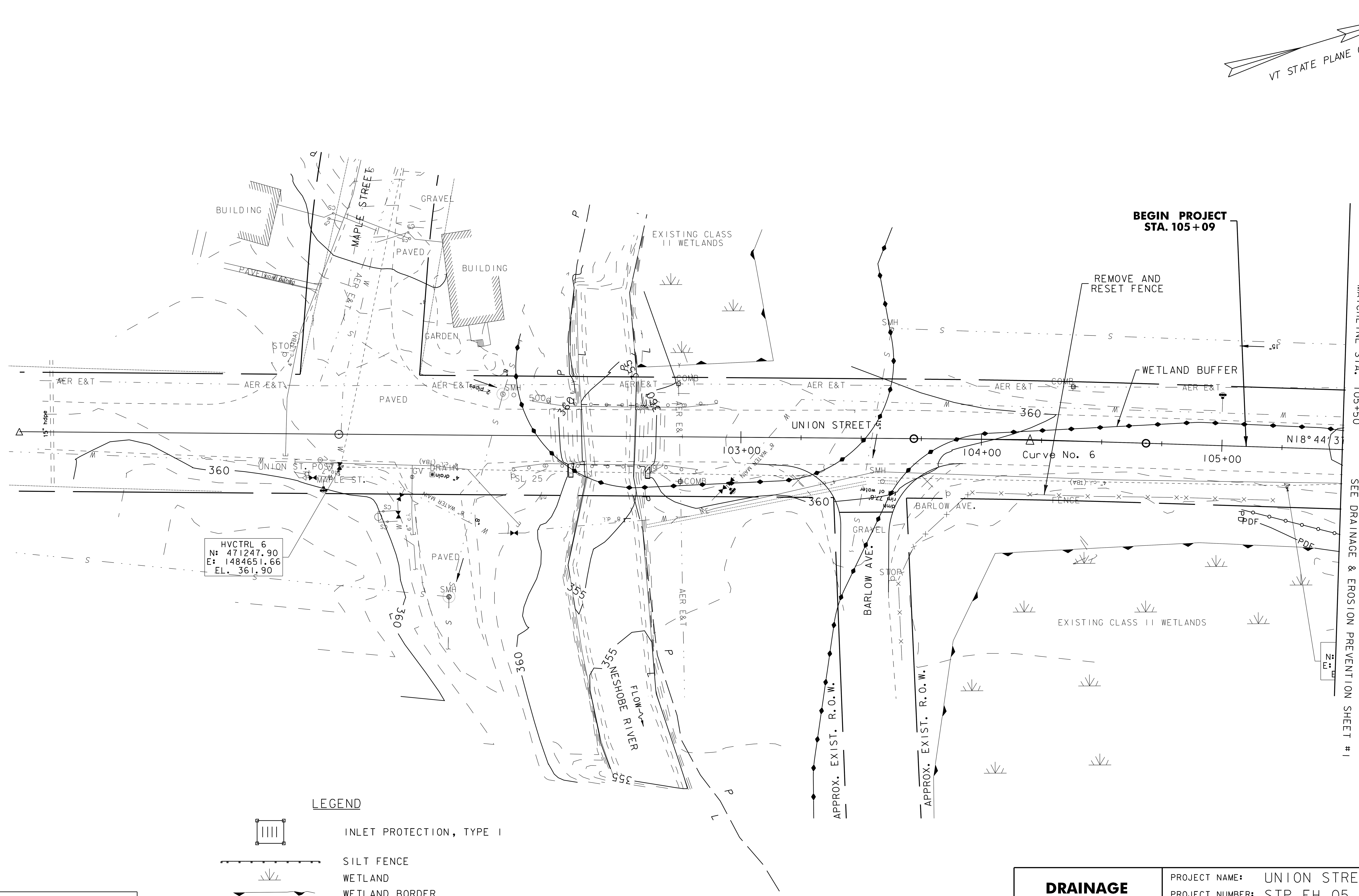
PLAN SHEET 3

PROJECT NAME: UNION STREET SIDEWALK
PROJECT NUMBER: STEP BETH 05 (4)

FILE NAME: 619452_bdr
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
PLAN SHEET 3

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 12 OF 26

I:\4\619452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_bdr.dgn



LEGEND

INLET PROTECTION, TYPE I

SILT FENCE

WETLAND

WETLAND BORDER

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83

SCALE 1" = 20'-0

20 0 20

PLOTTED 4/24/2019

DuBois & King inc.

DRAINAGE AND EROSION PREVENTION SHEET 1

PROJECT NAME: UNION STREET SW.

PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_EPSC-Plans

PLOT DATE: 4/24/2019

PROJECT LEADER: D. CONGER

DRAWN BY: P. DAY

DESIGNED BY: P. DAY

CHECKED BY: D. CONGER

DRAINAGE & EROSION PREVENTION SHT 1

N

VT STATE PLANE GRID

SEE DRAINAGE & EROSION PREVENTION SHEET #2

MATCHLINE STA. 105+50

HVCTRL 5
471622.02
1484773.52
EL. 359.32

HVCTRL 4
N: 472147.60
E: 1484916.29
EL. 389.16

MATCHLINE STA. 111+00

SEE DRAINAGE & EROSION PREVENTION SHEET #2

SAVE TREES

SAVE TREES

WETLAND BUFFER

UNION STREET

APPROX. EXIST. 3-ROD R.O.W.

APPROX. EXIST. 3-ROD R.O.W.

N11°35'12.11"E

N15°00'45.79"E

Curve No. 7

Curve No. 8

FLOW

PAVED

GRAVEL

BARLOW AVE.

TREE PROTECTION ZONE (TPZ)

INSTALL PIPE END SECTION SEE STD D-16 FOR DETAIL

INSTALL TYPE I STONE FILL APRON 4'-12" X 8'

REMOVE 4' OF WALL

SAVE TREES

BUILDING

BUILDING

CONC.

APPROX. EXIST. R.O.W.

APPROX. EXIST. R.O.W.

GARDEN

SHRUBS

STOP

24" OAK

24" SUGAR MAPLE

12" BEAN TREE

30" MAPLE

30" HARDWOOD

6" WHITE BIRCH

30" MAPLE

16" MAPLE

10" MAPLE

6" APPLE

6" MAPLE

6" MAPLE

6" MAPLE

385

380

360

(1) STA. 106+33.14 RT 22.44'
18" CPEP (99' LONG)
INV. OUT = 358.00'
INSTALL PIPE END SECTION SEE STD D-16 FOR DETAIL
INSTALL TYPE I STONE FILL APRON 4'-12" X 8'

(2) STA. 107+31.58 RT 12.10'
REMOVE EXISTING YARD DRAIN
INSTALL PRECAST REINFORCED CONC. CATCH BASIN WITH CAST IRON GRATE, TYPE D
RIM EL. = 364.08'
18" CPEP (107' LONG)
INV. IN. = 360.58'
18" CPEP (99' LONG)
INV. OUT = 360.08'

(3) STA. 108+39.05 RT 9.58'
INSTALL PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE, TYPE D.
RIM EL. = 373.16'
18" CPEP (36' LONG)
INV. IN = 369.66'
18" CPEP (107' LONG)
INV. OUT = 369.16'

(4) STA. 108+75.00 LT 1.29'
INSTALL PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON COVER.
RIM EL. = 375.62'
18" CPEP (203' LONG)
INV. IN = 372.12'
18" CPEP (36' LONG)
INV. OUT = 371.62'

(5) STA. 110+79.60 RT 3.05'
INSTALL PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON COVER.
RIM EL. = 388.95'
18" CPEP (4' LONG)
INV. IN = 385.15'
18" CPEP (182' LONG)
INV. IN = 385.15'
18" CPEP (203' LONG)
INV. OUT = 384.65'

(6) STA. 110+79.60 RT 9.00'
INSTALL PRECAST REINFORCED PIPE DI WITH CAST IRON GRATE.
RIM EL. = 388.92'
18" CPEP (4' LONG)
INV. OUT = 385.42'

LEGEND

INLET PROTECTION, TYPE I

WETLAND

WETLAND BORDER

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

SCALE 1" = 20'-0
20 0 20

PLOTTED 4/24/2019

DuBois & King inc.

DRAINAGE & EROSION PREVENTION SHEET 2

PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_EPSC-Plans.dgn PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER DRAWN BY: P. DAY
DESIGNED BY: P. DAY CHECKED BY: D. CONGER
DRAINAGE & EROSION PREVENTION SHT 2 SHEET 14 OF 26

I:\X\419452 - Brandon Union Maple Sdwk\dgn\I-Union Street\619452_EPSC-Plans.dgn

SEE DRAINAGE & EROSION PREVENTION SHEET #3

MATCHLINE STA. 111+00

END PROJECT STA. 113+80

HVCTRL 3
N: 472429.27
E: 1484995.45
EL. 392.15

ALL WORK SHALL BE PERFORMED OUTSIDE OF RAILROAD R.O.W.

APPROX. EXIST. 3-ROD R.O.W.

APPROX. EXIST. R.O.W.

RAILROAD AVE.

UNION STREET

CHURCH STREET

N15° 00' 45.79"E

111+00 112+00 113+00 114+00 115+00 116+00 116+28

3730+00 3731+00 3732+00

390 395.9

BUILDING

RED SPRUCES

PAVED

PAVED WALK

GARDEN

6" MAPLE

APPROX COMB

AER E&T

FLOW

RR LIGHTPOLE

ELECT. METER

GUY

BLUE SEAL FEEDS

WSO

BN 70.65

SMH

CB

CB COMB

STOP

HYD

EXIST. PAVED SIDEWALK

REPLACE SIDEWALK RAMPS TO BUILDING, REMOVE MIDDLE PORTION

⑦ STA. 112+63.89 RT 2.84'
INSTALL PRECAST REINFORCED CATCH BASIN WITH CAST IRON COVER.
RIM EL. = 390.92'
18" CPEP (4' LONG)
INV. IN= 387.05'
18" CPEP (182' LONG)
INV. OUT = 386.55'

⑧ STA. 112+63.89 RT 9.00'
INSTALL PRECAST REINFORCED PIPE DI WITH CAST IRON GRATE.
RIM EL. = 390.75'
18" CPEP (4' LONG)
INV. OUT = 387.25'

LEGEND

INLET PROTECTION, TYPE I

SCALE 1" = 20'-0
20 0 20

PLOTTED 4/24/2019

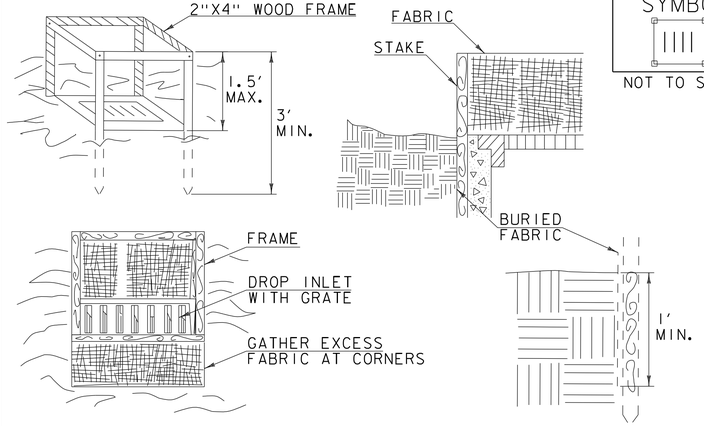
DuBois & King inc.

DRAINAGE & EROSION PREVENTION SHEET 3

PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_EPSC-Plans.dgn PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER DRAWN BY: P. DAY
DESIGNED BY: P. DAY CHECKED BY: D. CONGER
DRAINAGE & EROSION PREVENTION SHT 3 SHEET 15 OF 26

I:\VA\19452 - Brandon Union Maple Sdwk\dgn\1-Union Street\619452_EPSC-Plans.dgn



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN APPARENT OPENING SIZE OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3'.
4. SPACE STAKES EVENLY AROUND INLET 3' APART AND DRIVE A MINIMUM 18" DEEP. SPANS GREATER THAN 3' MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1' MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
7. MAXIMUM DRAINAGE AREA 1 ACRE

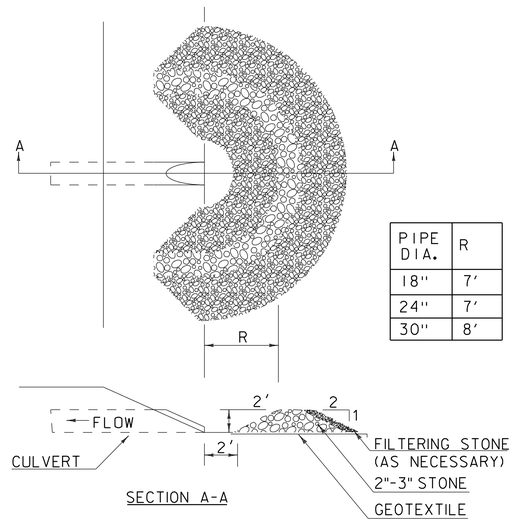
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FILTER FABRIC DROP INLET PROTECTION

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 INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 7, 2008	WHF
JANUARY 13, 2009	WHF



PIPE DIA.	R
18"	7'
24"	7'
30"	8'

SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

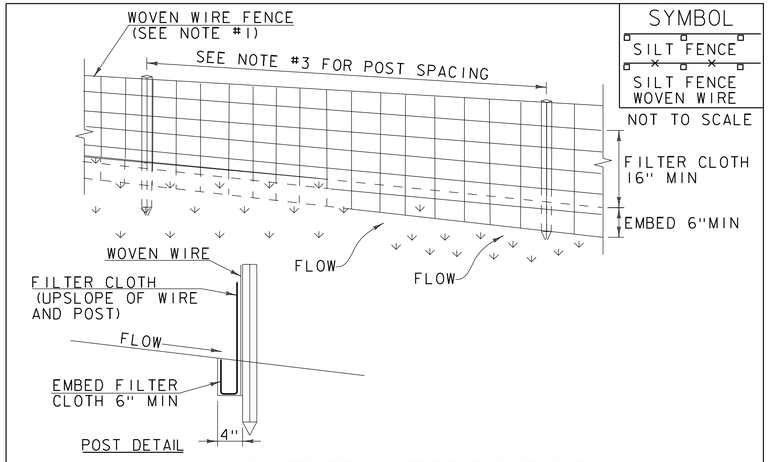
1. USE 2" TO 3" STONE. FILTERING STONE SHALL BE 3/4".
2. PLACE STONE OVER GEOTEXTILE.
3. ONCE THE AREAS UPSTREAM FROM THE CHECK DAM ARE STABILIZED WITH VEGETATION, THE SEDIMENT TRAPPED BEHIND THE DAM SHALL BE DISPOSED OF IN AN APPROVED WASTE AREA.
4. THE CHECK DAM(S) SHALL BE FLATTENED AND GRADED IN A MANNER WHICH PROTECTS THE AREA FROM EROSION AND CHANNEL BLOCKAGE . (GEOTEXTILE MUST BE REMOVED).
5. THE GEOTEXTILE MUST BE DISPOSED OF APPROPRIATELY.
6. THE AREA CONTRIBUTING TO THE CHECK DAM SHALL NOT EXCEED 4 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY USDA-NRCS

PIPE INLET PROTECTION

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF



SYMBOL

SILT FENCE

SILT FENCE WOVEN WIRE

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

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

SILT FENCE

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 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

DuBois & King inc.

EROSION CONTROL DETAILS 1

PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_EPSC-Details.dgn PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER DRAWN BY: P. DAY
DESIGNED BY: P. DAY CHECKED BY: D. CONGER
EROSION CONTROL DETAILS 1 SHEET 16 OF 26

I:\419452 - Brandon Union Maple Sdwk\dgn\I-Union Street\619452_EPSC-Details.dgn

VAOT RURAL AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
37.5%	22.5	45	CREEPING RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.5%	34	68	CREEPING RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

GENERAL GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	19-19-19	PELLETIZED	LIQUID
500 LBS/AC		2 TONS/AC	4.4 GAL/AC

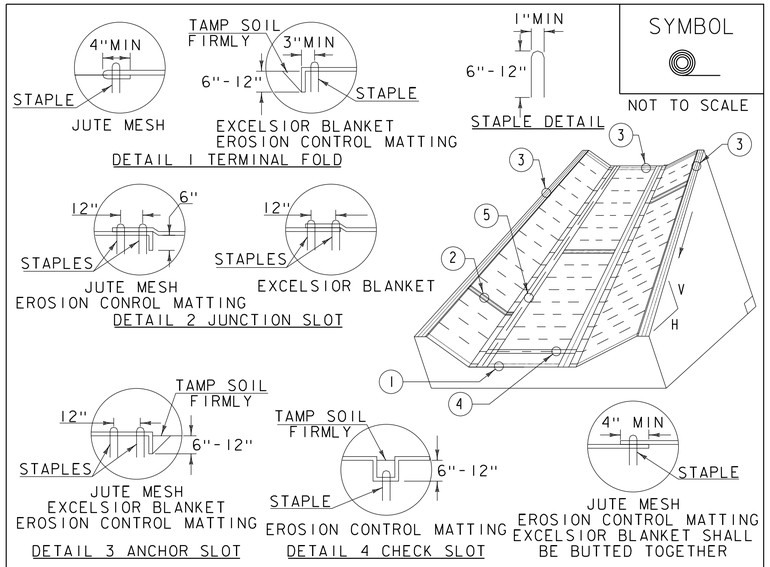
CONSTRUCTION GUIDANCE

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN 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. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. 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 LANSCAPE MAUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF



CONSTRUCTION SPECIFICATIONS

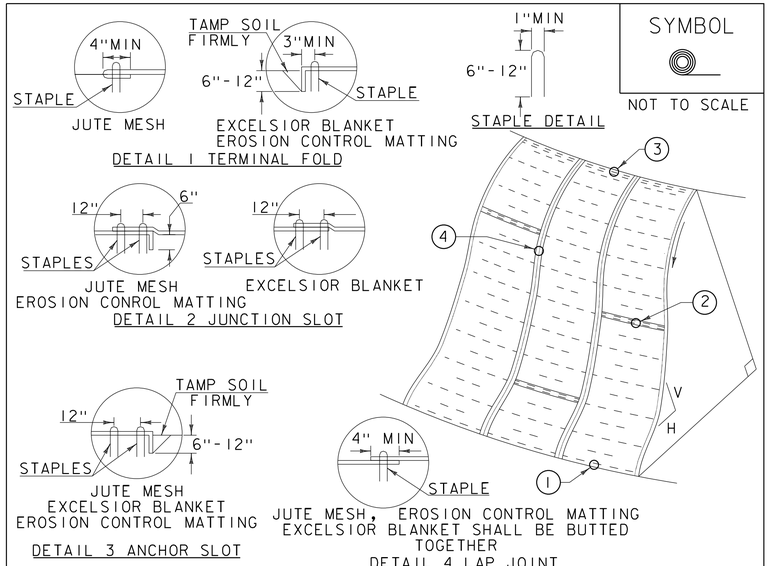
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

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

ROLLED EROSION CONTROL PRODUCT (RECP) DITCH

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 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

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

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

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 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

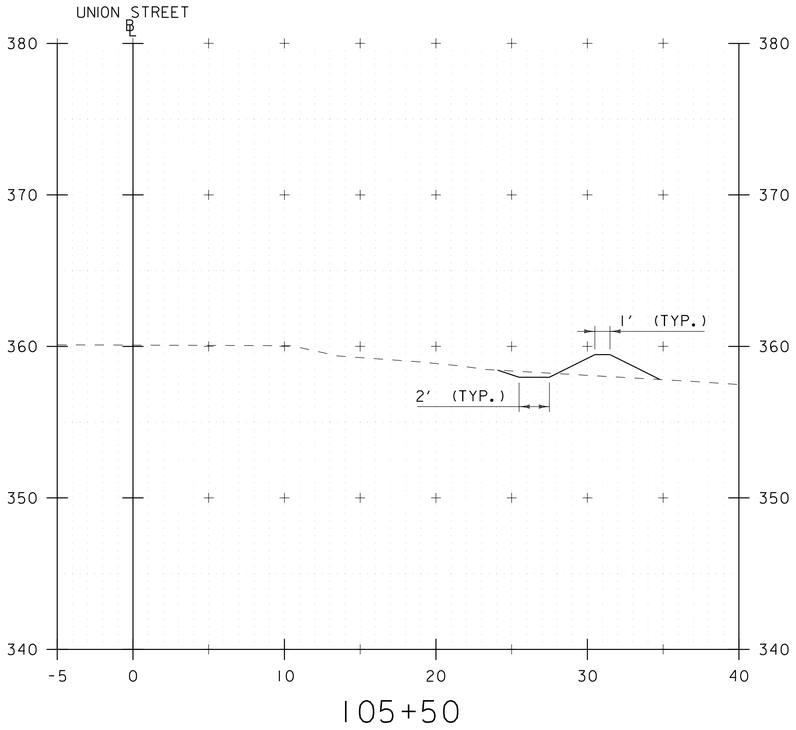
REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

DuBois & King inc.

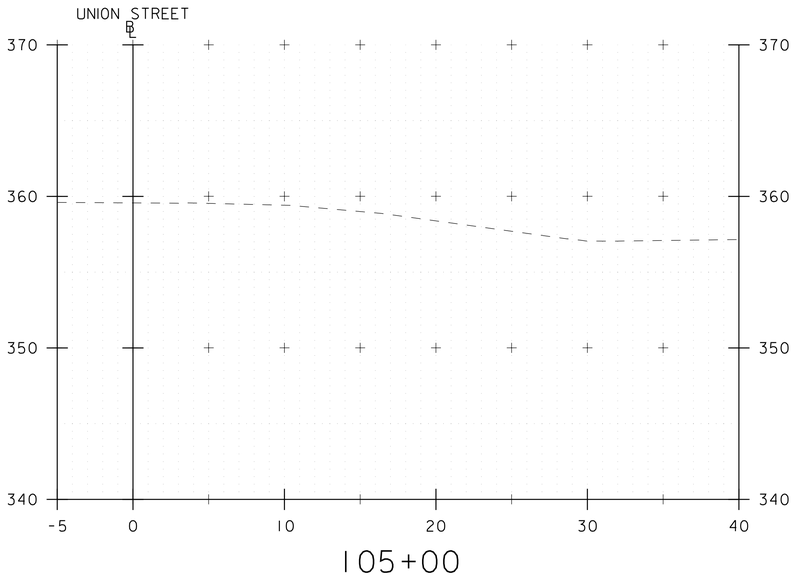
EROSION CONTROL DETAILS 2

PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

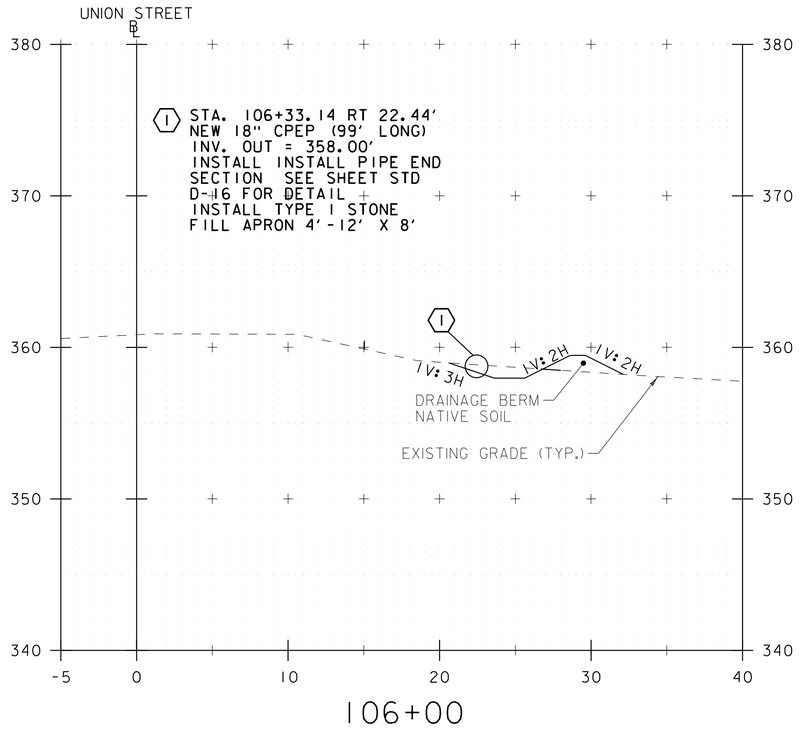
FILE NAME: 619452_EPSC-Details.dgn PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER DRAWN BY: P. DAY
DESIGNED BY: P. DAY CHECKED BY: D. CONGER
EROSION CONTROL DETAILS 2 SHEET 17 OF 26



105+50



105+00



106+00

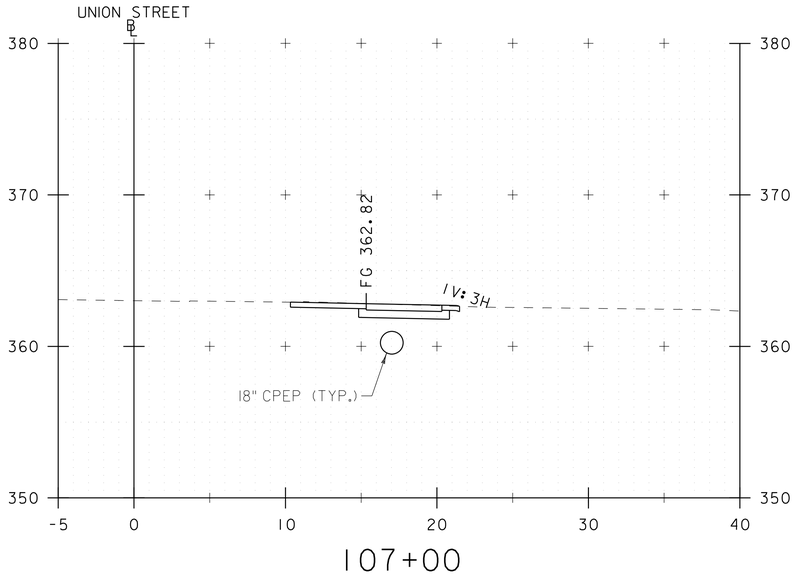
DuBois & King inc.

CROSS SECTIONS SHEET 1

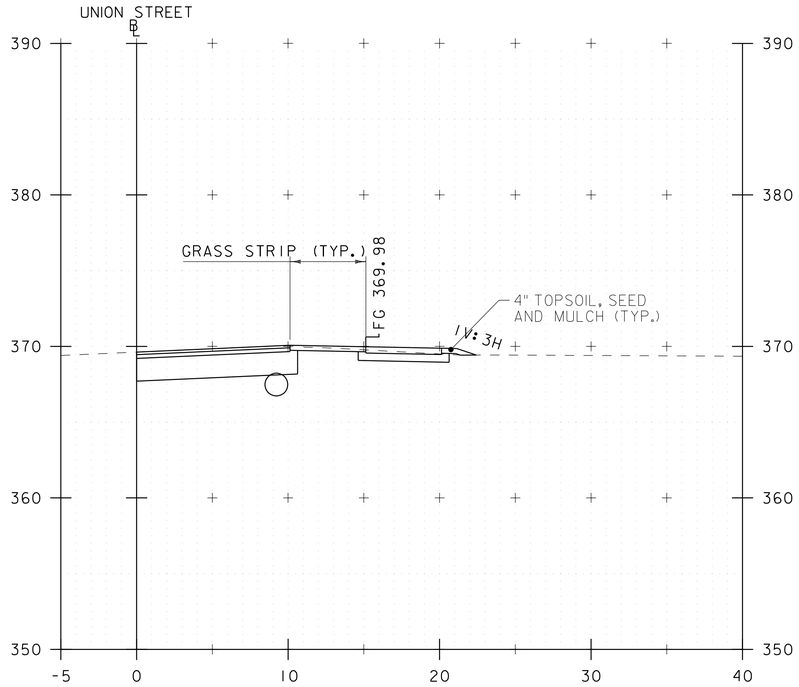
PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_xs1.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: R. DANIELS
CROSS SECTIONS SHEET 1

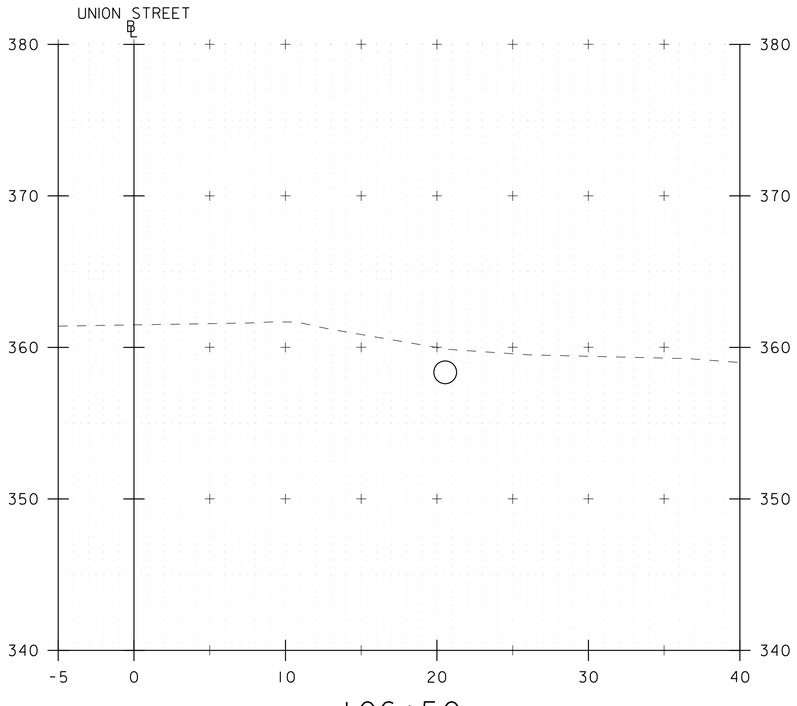
PLOT DATE: 4/24/2019
DRAWN BY: R. DANIELS
CHECKED BY: D. CONGER
SHEET 19 OF 26



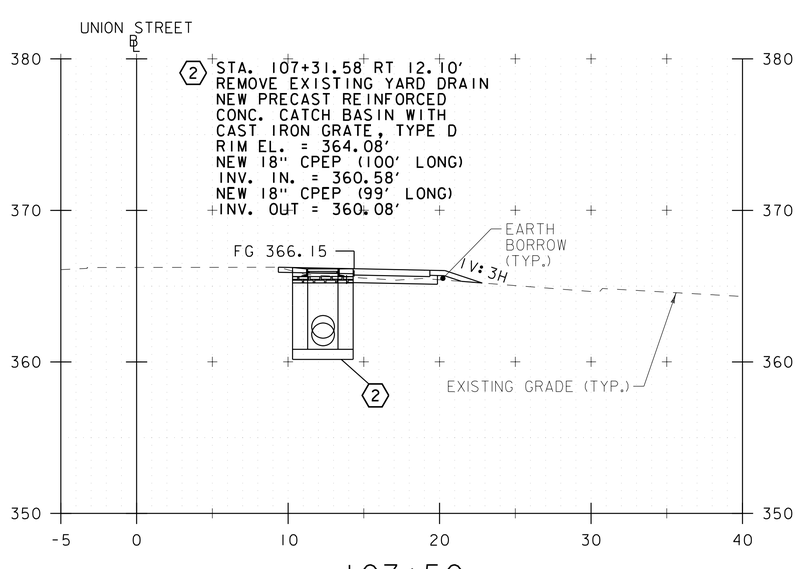
107+00



108+00



106+50



107+50

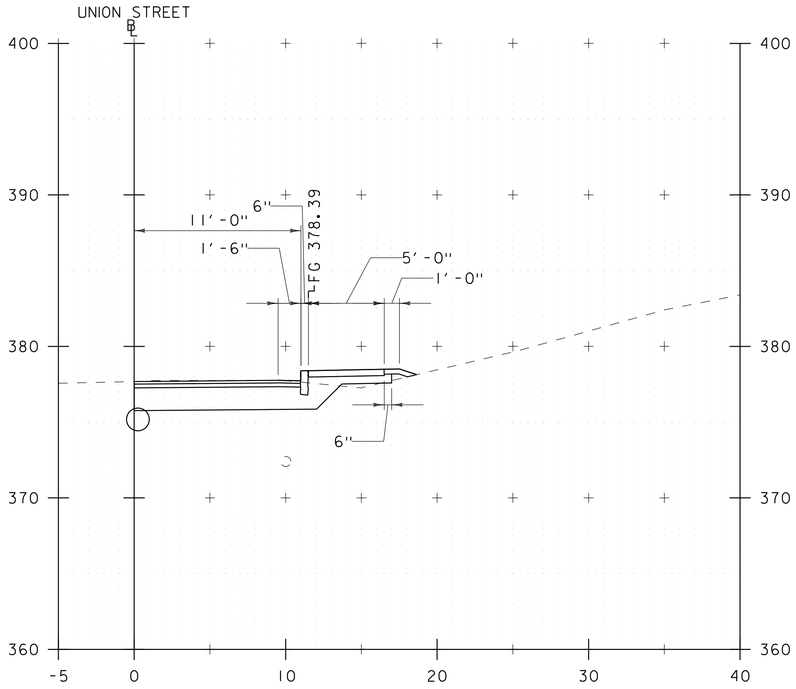
DuBois & King inc.

CROSS SECTIONS SHEET 2

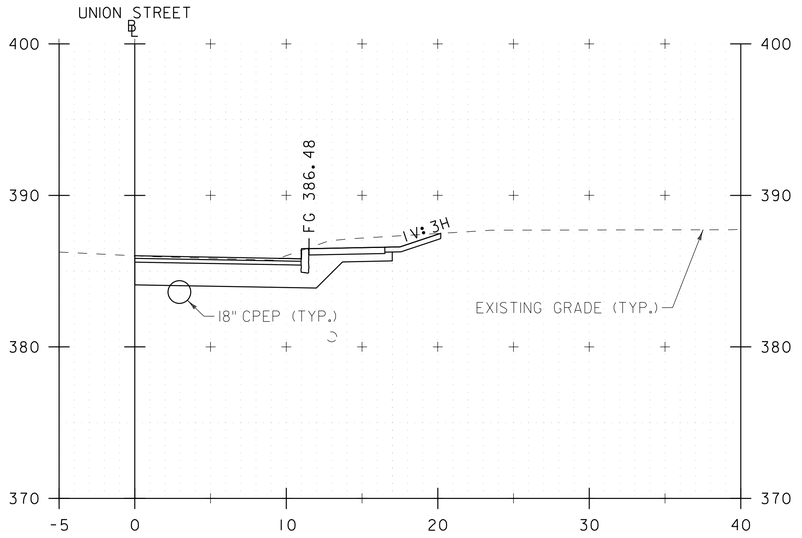
PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_xs1.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
CROSS SECTIONS SHEET 2

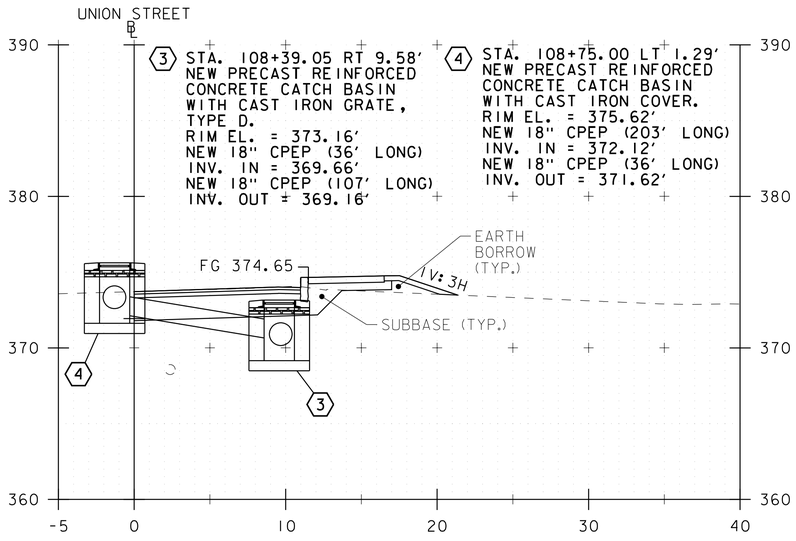
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 19 OF 26



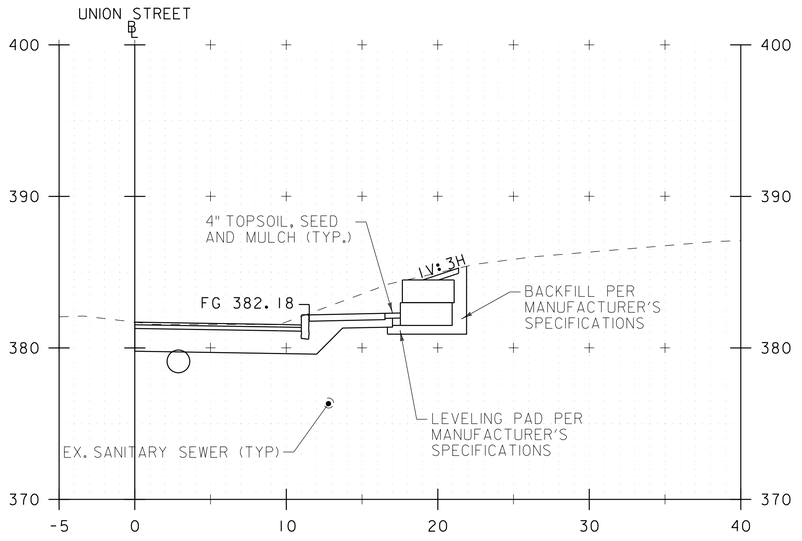
109+00



110+00



108+50



109+50

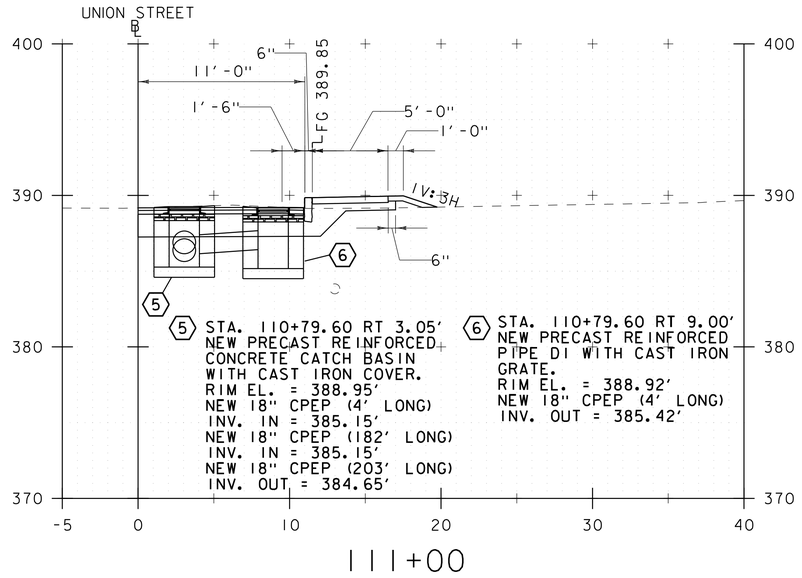
DuBois & King inc.

CROSS SECTIONS SHEET 3

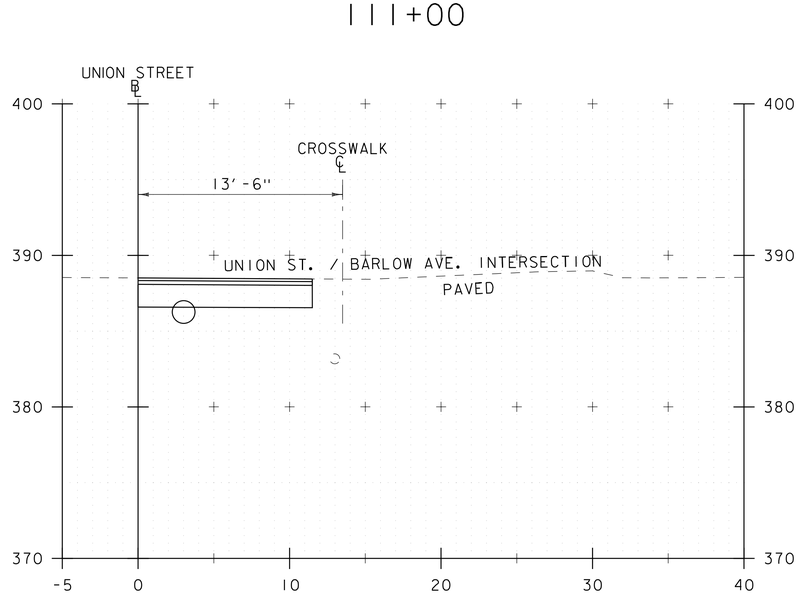
PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_xs1.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
CROSS SECTIONS SHEET 3

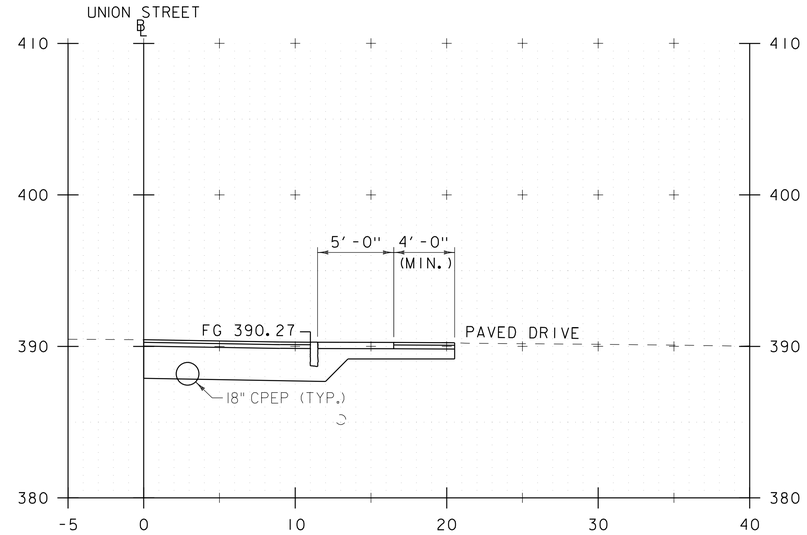
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 20 OF 26



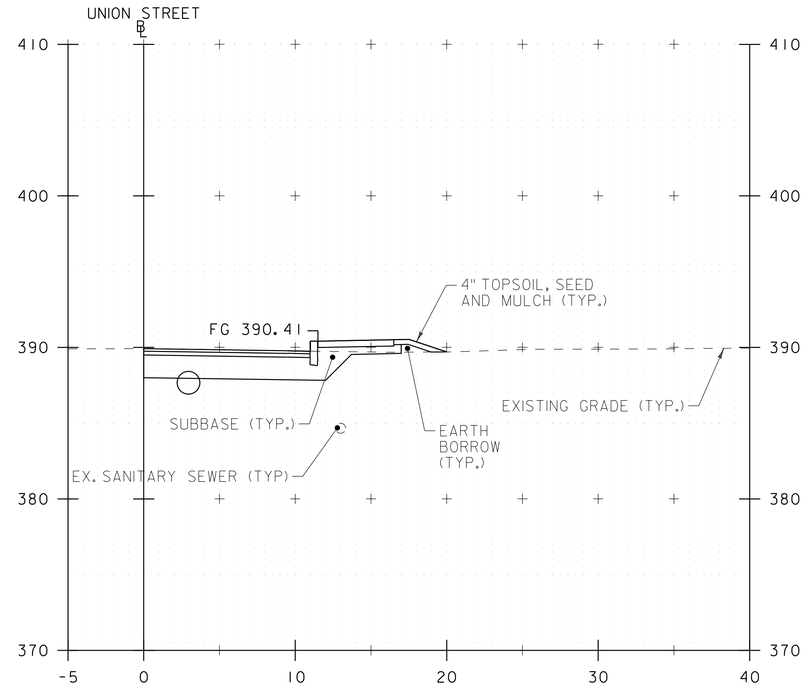
111+00



110+50



112+00



111+50

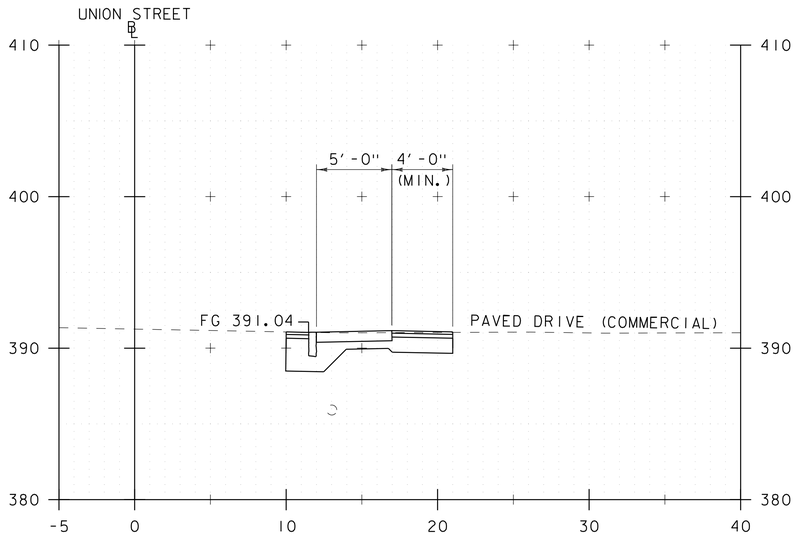
DuBois & King inc.

CROSS SECTIONS SHEET 4

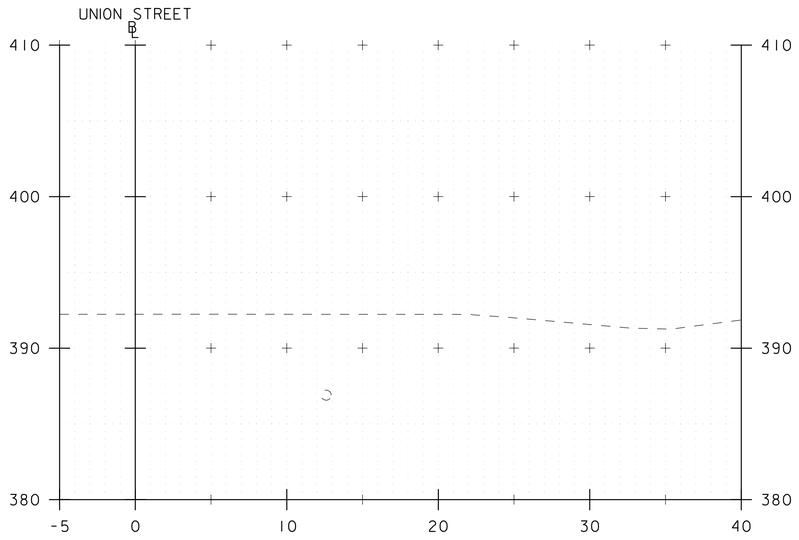
PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_xs1.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
CROSS SECTIONS SHEET 4

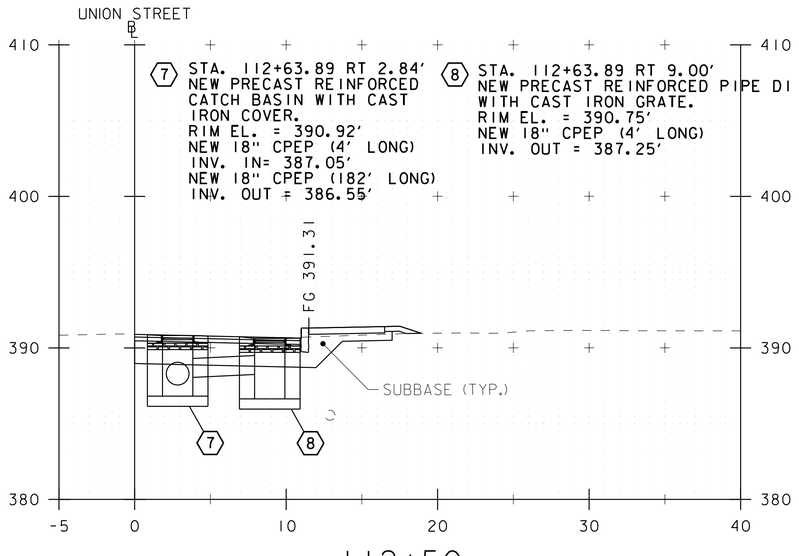
PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 21 OF 26



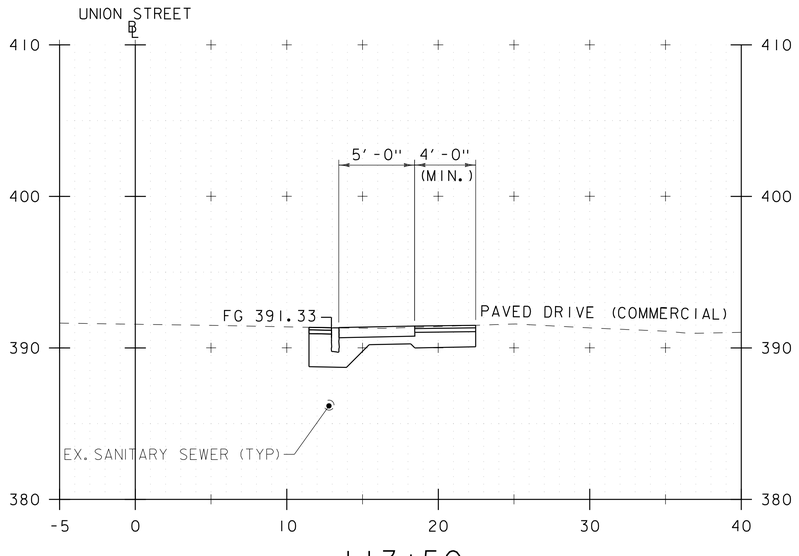
113+00



114+00



112+50



113+50

DuBois & King inc.

CROSS SECTIONS SHEET 5

PROJECT NAME: UNION STREET SW.
PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 619452_xs1.dgn
PROJECT LEADER: D. CONGER
DESIGNED BY: P. DAY
CROSS SECTIONS SHEET 5

PLOT DATE: 4/24/2019
DRAWN BY: P. DAY
CHECKED BY: D. CONGER
SHEET 22 OF 26

N

VT STATE PLANE GRID

PETER H. BOWRY &
MARILYN McDOWELL

ENERGY ABSORPTION ATTENUATOR
(TYP.)

TEMPORARY BARRIER (TYP.)

CONSTRUCTION
AREA (TYP.)

CONTRACTOR SHALL PROVIDE SITE SPECIFIC
TRAFFIC CONTROL TO ROUTE TRAFFIC ON
THE EAST SIDE OF THE ROAD FOR THE
INSTALLATION OF THIS CATCH BASIN

CONIFRM ATTENUATOR
REQUIREMENTS IN ACCORDANCE
WITH NOTE #24 OF THE CORRIDOR
TRAFIC CONTROL NOTES, TRAFFIC
CONTROL NOTES SHEET (TYP.)

MATCHLINE STA. 110+50

SEE TRAFFIC CONTROL PLAN SHEET #2

APPROX. EXIST. 3-ROD R.O.W.

UNION STREET

8" WATER MAIN

PAVED

GRAVEL

RET. WALL

WALL

BARLOW AVE.

CONC.

2" gpw

APPROX. EXIST. R.O.W.

106+00 107+00 108+00 109+00 110+00

360 365 380 385

AER E&T

M

S

PDF

BARREL (TYP.)

TYPE III
BARRICADE (TYP.)

① BLAKESLEE KEVIN M.
& CHRISTINE N.

② JOHN F. & BLANCHE R. WELCH

PROJECT NAME:	BRANDON UNION STREET SW.
PROJECT NUMBER:	STP EH 05 (4)
FILE NAME: 619452_tc.dgn	PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER	DRAWN BY: P. DAY
DESIGNED BY: P. DAY	CHECKED BY: D. CONGER
TRAFFIC CONTROL PLAN SHEET 1	SHEET 23 OF 26

PETER H. BOWRY & MARILYN McDOWELL

JEROME PROPERTIES LLC.

VERMONT RAILWAY
STATE OF
VERMONT

APPROX. EXIST. R.O.W.

RAILROAD AVE.

VT STATE PLANE GRID

ALL WORK SHALL BE PERFORMED OUTSIDE OF RAILROAD R.O.W.

TEMPORARY BARRIER (TYP.)

CONSTRUCTION AREA (TYP.)

ENERGY ABSORPTION ATTENUATOR (TYP.)

CONIFRM ATTENUATOR REQUIREMENTS IN ACCORDANCE WITH NOTE #24 OF THE CORRIDOR TRAFIC CONTROL NOTES, TRAFFIC CONTROL NOTES SHEET (TYP.)

APPROX. EXIST. 3-ROD R.O.W.

SEE TRAFFIC CONTROL PLAN SHEET #1

MATCHLINE STA. 110+50

111+00

112+00

113+00

UNION STREET

114+00

3732+00

3731+00

3730+00

3729+00

PAVED

PAVED WALK

GARDEN

AER E&T

APPROX. EXIST. R.O.W.

TYPE III BARRICADE (TYP.)

③ HOUSING TRUST OF RUTLAND COUNTY, INC.

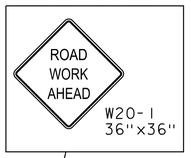
BARREL (TYP.)

④ C&D REALTY HOLDINGS, LLC

APPROX. EXIST.

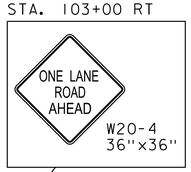
PROJECT NAME:	BRANDON UNION STREET SW.
PROJECT NUMBER:	STP EH 05 (4)
FILE NAME: 619452_tc.dgn	PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER	DRAWN BY: P. DAY
DESIGNED BY: P. DAY	CHECKED BY: D. CONGER
TRAFFIC CONTROL PLAN SHEET 2	SHEET 24 OF 26

STA. 102+00 RT



W20-1
36"x36"

STA. 103+00 RT



W20-4
36"x36"

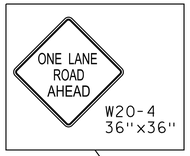
STA. 104+00 RT

W20-7
36"x36"

STA. 115+00 LT

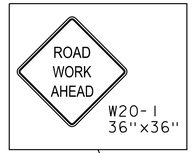
W20-7
36"x36"

STA. 116+00 LT

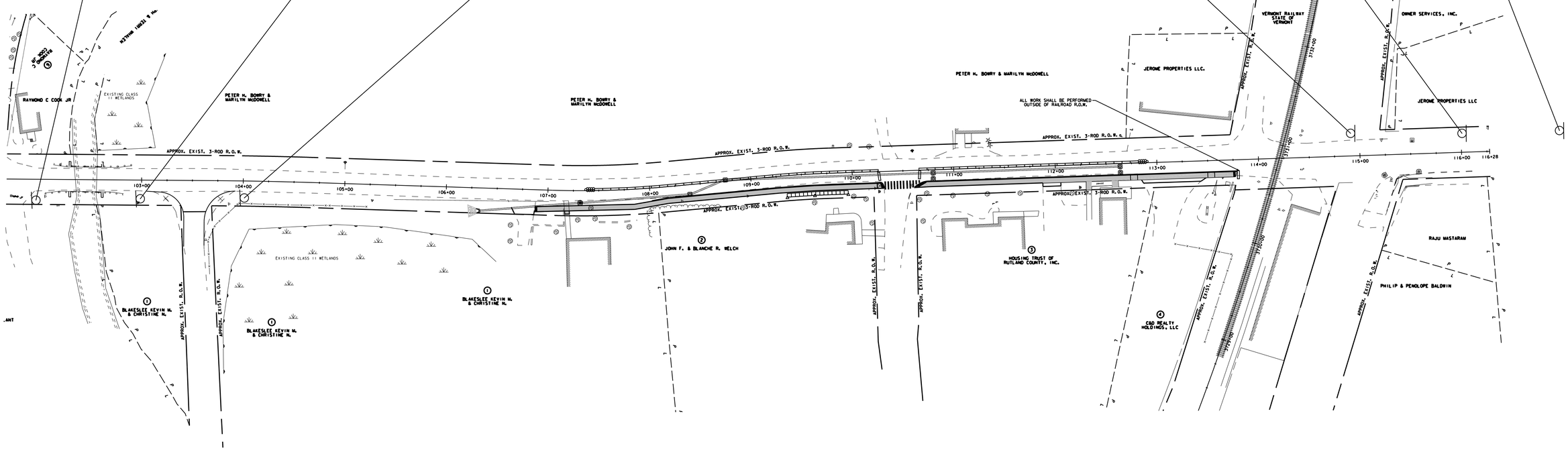


W20-4
36"x36"

STA. 117+00 LT



W20-1
36"x36"



PROJECT NAME:	UNION STREET SIDEWALK
PROJECT NUMBER:	STP EH 05 (4)
FILE NAME: 619452_tc.dgn	PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER	DRAWN BY: P. DAY
DESIGNED BY: P. DAY	CHECKED BY: D. CONGER
CONSTRUCTION APPROACH SIGNING SHEET	SHEET 25 OF 26

CORRIDOR TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN PER SUBSECTION 105.03 TO THE ENGINEER. CONSTRUCTION OPERATIONS SHALL NOT COMMENCE UNTIL THE PLAN HAS BEEN APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES, WORK ZONE SPEED REDUCTIONS AND PEDESTRIAN ACCESS. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 641.10, "TRAFFIC CONTROL". THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD. WHERE CONFLICTS EXIST, THE LATEST EDITION OF THE MUTCD SHALL GOVERN.

2. THE BID PRICE FOR "TRAFFIC CONTROL", ITEM 641.10, SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, 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. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY: 630.15 - FLAGGERS.

3. BARRELS, CONES, TEMPORARY TRAFFIC BARRIERS, AND ENERGY ABSORPTION ATTENUATORS SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH. REFLECTORIZED CONES WILL BE USED TO DELINEATE COMMERCIAL DRIVES WITHIN THE WORK ZONE.

4. THE CONTRACTOR SHALL PROVIDE FLAGGERS FOR ONE LANE TRAFFIC CONTROL, AND AT LOCATIONS WHERE SIGHT DISTANCES ARE IMPAIRED BY CONSTRUCTION OPERATIONS OR OTHER SITUATIONS.

5. FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS, WALKIE-TALKIES OR OTHER FORMS OF ENHANCED COMMUNICATION WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER, OR IF THE ENGINEER DEEMS IT NECESSARY.

6. STOP/SLOW PADDLES SHALL BE USED FOR ALL FLAGGING, AND SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE MUTCD.

7. A MINIMUM LANE WIDTH OF 10 FT. SHALL BE MAINTAINED.

9. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE AND MAINTAIN ACCESS TO ALL PROPERTIES FOR EMERGENCY VEHICLES AT ALL TIMES OR COORDINATE EMERGENCY ROUTES.

10. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OR STORE MATERIAL WHERE IT IS DEEMED BY THE ENGINEER TO BE A SAFETY HAZARD.

11. ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES SHALL BE MAINTAINED DURING BUSINESS HOURS. ACCESS TO RESIDENTIAL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK SHALL BE COORDINATED WITH THE OWNER/TENANT. COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL ACCESSES SHALL ALSO BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UNIFORMED TRAFFIC OFFICERS OR FLAGGERS AS REQUIRED BY THE ENGINEER.

13. SEE VAOT STANDARD T-10 FOR ADDITIONAL SIGN PLACEMENT DETAILS.

14. TRAFFIC SHALL NOT BE CHANGED FROM ONE TRAFFIC PATTERN TO THE NEXT TRAFFIC PATTERN UNTIL SIGNING WORK IS COMPLETED.

15. THE CURRENT EDITION OF THE MUTCD AND ITS 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 CONTROL 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.

16. 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.

17. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED, THE PAYMENT FOR WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL.

18. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VAOT STANDARDS.

19. FOR TRAFFIC CONTROL GENERAL NOTES, SEE VAOT STANDARD T-1.

20. DIAMOND SHAPED SIGNS SHALL BE 36"X36" WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.

21. ACCOMMODATIONS FOR POSTAL DRIVERS, NEWSPAPER ROUTES, DELIVERY SERVICES AND/OR TRASH SERVICES THAT ARE INTERRUPTED BY THE PROJECT OR DETOUR SHALL BE COORDINATED BY THE CONTRACTOR.

22. IF USED, ROADWAY FLAGGER PERSONNEL WILL BE USED TO HOLD AND RELEASE TRAFFIC. ROADWAY FLAGGERS WILL HAVE RECEIVED 4 HOURS OF TRAINING AND SHALL BE CERTIFIED PRIOR TO PERFORMING WORK ON THE PROJECT AND SHALL USE MUTCD COMPLIANT HIGH VISIBILITY APPAREL, SIGN PADDLES, AND TWO WAY RADIOS FOR COMMUNICATION.

23. ALTHOUGH THERE ARE NO KNOWN SCHOOL BUS STOP LOCATIONS LOCATED WITHIN THE PROJECT SITE, WHEN SCHOOL IS IN SESSION SCHOOL BUS STOP ACCOMMODATIONS ARE REQUIRED. LOCATIONS SHALL BE COORDINATED WITH THE LOCAL SCHOOL TRANSPORTATION COORDINATOR.

24. THE CONTRACTOR SHALL PROVIDE BARRICADES BETWEEN THE PROJECT AND TRAVELED PORTION OF THE ROADWAY WHILE CONSTRUCTION FOR THE STORMWATER SYSTEM IS UNDERWAY OR IF OPEN EXCAVATION IS ADJACENT TO TRAVEL LANES.

25. SIGN LOCATIONS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND SHALL MEET MUTCD REQUIREMENTS.

26. WHEN TYPE III BARRICADES ARE USED NEAR DRIVEWAYS OR INTERSECTIONS, THEY SHALL BE PLACED IN SUCH A WAY AS TO NOT OBSTRUCT SIGHT DISTANCE.

27. TERMINALS OF TEMPORARY TRAFFIC BARRIERS SHALL BE EXTENDED BEYOND THE CLEAR ZONE WHEN POSSIBLE. IF TERMINALS CAN NOT BE EXTENDED PAST THE CLEAR ZONE, THEN ENERGY ABSORPTION ATTENUATORS SHALL BE USED.

28. CONCRETE BARRIERS SHALL BE UTILIZED WHERE SEPARATION CAN NOT BE MAINTAINED BETWEEN LOCAL TRAFFIC ROUTES AND CONSTRUCTION OPERATIONS/EQUIPMENT OR DROP OFFS. INSTALL ENERGY ABSORPTION ATTENUATORS WHEN BARRIER ENDS CANNOT BE LOCATED OUTSIDE OF THE CLEAR ZONE. CONCRETE BARRIER SIDE EXPOSED TO TRAFFIC SHALL BE DELINEATED. REFLECTORS SHALL BE MOUNTED EVERY 20 FEET ALONG THE SIDE OF THE BARRIER EXPOSED TO TRAFFIC, WITH YELLOW ON THE DRIVER'S LEFT AND WHITE ON THE DRIVER'S RIGHT.

PEDESTRIAN NOTES

1. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) FOR REVIEW AND WRITTEN APPROVAL BY THE ENGINEER 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 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 OF 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 PLACED 7 FEET ON CENTER APART. IT SHOULD BE NOTED THAT CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 50 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 NIGHT TIME 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 REALIGNED 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 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 DROP-OFFS, THEN CRASHWORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE 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. PROVISIONS 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 641.10 "TRAFFIC CONTROL".

FINAL - NOT FOR CONSTRUCTION

PROJECT NAME: UNION STREET SIDEWALK

PROJECT NUMBER: STP EH 05 (4)

FILE NAME: 419452_tc-notes.dgn	PLOT DATE: 4/24/2019
PROJECT LEADER: D. CONGER	DRAWN BY: P. DAY
DESIGNED BY: P. DAY	CHECKED BY: D. CONGER
TRAFFIC CONTROL NOTES SHEET	SHEET 26 OF 26