

PROJECT INFORMATION

Proj. Name and Number:

EA No.: PPMS:

Project Manager:

DOCUMENTS FOR REVIEW AND FILES LOCATION

PLANS	<input type="text" value="CONCEPTUAL"/>	FILE LOCATION :	<input type="text" value="Z:\Highways\MUN\LCL\LTF Projects\Colchester STP 5600 (15) - 13F052\3 Conceptual\Plans\13F052 - Conceptual Plans.pdf"/>
ESTIMATES	<input type="text" value="CONCEPTUAL"/>	FILE LOCATION :	<input type="text" value="Z:\Highways\MUN\LCL\LTF Projects\Colchester STP 5600 (15) - 13F052\3 Conceptual\Plans\13F052 - Conceptual Estimate.pdf"/>
SPECIAL PROVISION	<input type="text" value="NONE"/>	FILE LOCATION :	<input type="text"/>

TIME LINES

SUBMITTED:

DEADLINE:

COMPLETED:

Brief Project Description:

Program: Project Location: Route:

INVITEES FOR REVIEW

<input type="checkbox"/> MOB District 1	<input checked="" type="checkbox"/> MAB Bicycle and Pedestrian Program Unit REVIEWED <small>By Jon Kaplan (jon.kaplan@state.vt.us) at 1:37 pm, Dec 19, 2014</small>	<input checked="" type="checkbox"/> AMP Safety Section- Traffic Operations Unit REVIEWED <small>By Tyler Guazzoni (tyler.guazzoni@state.vt.us) at 11:21 am, Dec 15, 2014</small>	<input type="checkbox"/> PDB Highway Safety & Design	<input type="checkbox"/> CMB Construction Section	<input type="checkbox"/> FHWA
<input type="checkbox"/> MOB District 2	<input type="checkbox"/> MOB District 6	<input type="checkbox"/> MOB District Management	<input checked="" type="checkbox"/> PDB Environmental Section REVIEWED <small>By Jon Armstrong (jon.armstrong@state.vt.us) at 2:53 pm, Dec 04, 2014</small> REVIEWED <small>By Glenn Gingras (glenn.gingras@state.vt.us) at 2:34 pm, Dec 04, 2014</small> REVIEWED <small>By Jeff Ramsey (jeff.ramsey@state.vt.us) at 2:32 pm, Nov 24, 2014</small>	<input type="checkbox"/> CMB Materials Testing and Certification Section	<input type="checkbox"/> Integral Abutment
<input type="checkbox"/> MOB District 3	<input type="checkbox"/> MOB District 7	<input type="checkbox"/> MOB Technical Services	<input type="checkbox"/> PDB Hydraulics Section	<input type="checkbox"/> CMB Geotechnical Engineering Section	<input type="checkbox"/> Civil Rights
<input type="checkbox"/> MOB District 4	<input type="checkbox"/> MOB District 8	<input checked="" type="checkbox"/> PDB Utility and Permit Section Didn't participate in On-line review.	<input type="checkbox"/> PDB Structural Section	<input type="checkbox"/> Rail Bureau	<input type="checkbox"/> Others:
<input checked="" type="checkbox"/> MOB District 5 REVIEWED <small>By Richard Hosking (dick.hosking@state.vt.us) at 8:34 am, Dec 02, 2014</small>	<input type="checkbox"/> MOB District 9	<input checked="" type="checkbox"/> PDB Right-of-Way REVIEWED <small>By Trey Polk (trey.polk@state.vt.us) at 4:27 pm, Dec 18, 2014</small>	<input type="checkbox"/> PDB Survey Section	<input type="checkbox"/> Policy and Planning Bureau	Kristin Driscoll Wendy Pelletier REVIEWED <small>By Wendy Pelletier (wendy.pelletier@state.vt.us) at 8:26 am, Nov 26, 2014</small>

Review Focus Notes:

Please charge time to 5600015- 102. Design Consultant response period: 12-22-2014 to 1-12-2015.

REVIEWED
By Nancy Avery (nancy.avery@state.vt.us) at 2:16 pm, Dec 05, 2014

REVIEWED
By Alan Ellis (alan.ellis@state.vt.us) at 3:29 pm, Dec 18, 2014

Print Form

Clear Form

Submit by Email

Quality Assurance Section

INDEX OF SHEETS

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TOWN OF COLCHESTER COUNTY OF CHITTENDEN PROPOSED IMPROVEMENT SIDEWALK AND RESURFACING PROJECT STP 5600(15)

VTRANS STANDARD DRAWINGS

TO BE DEVELOPED
AT FINAL PLANS

All CCTA bus shelters should be shown and any modifications to their access to sidewalk needs to be addressed.

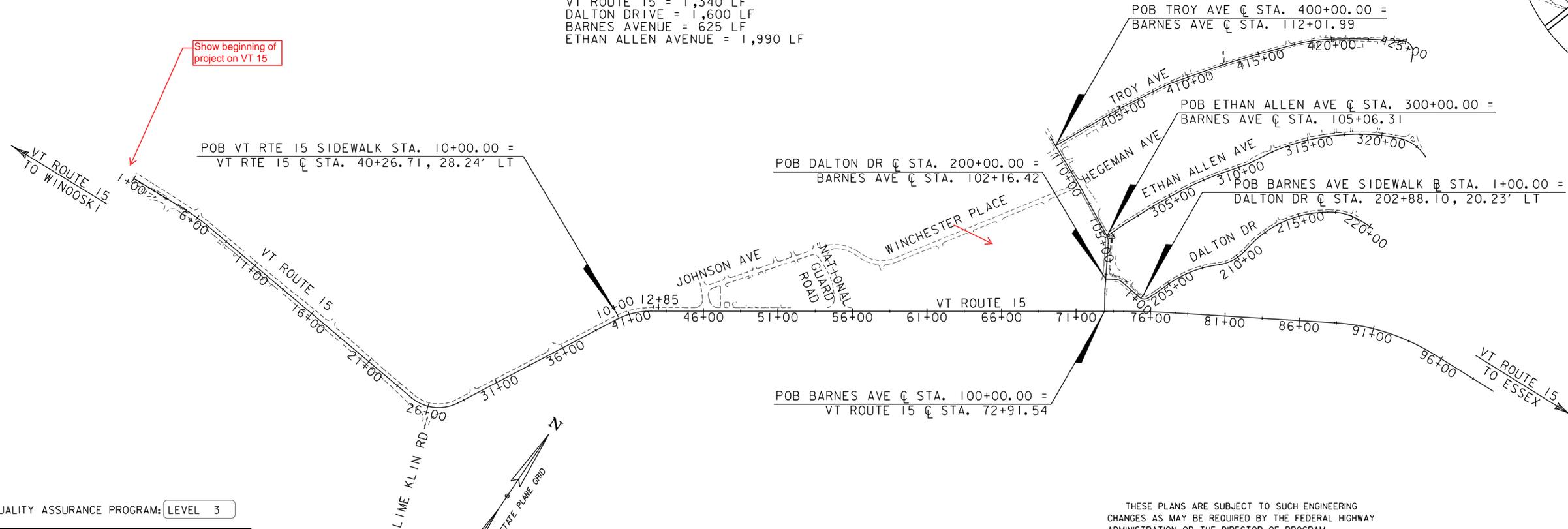
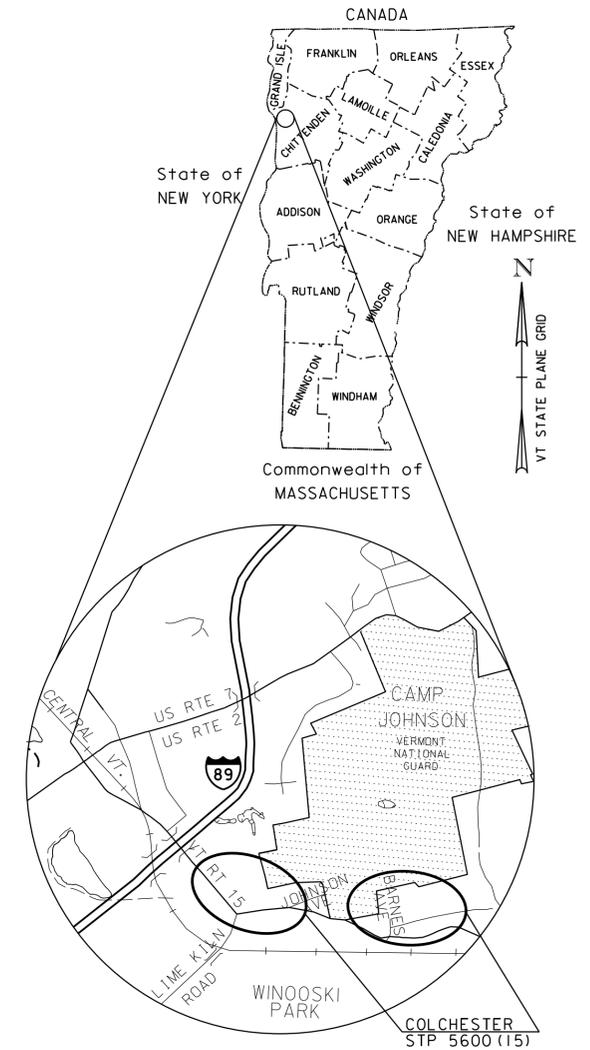
PROJECT LOCATION:

- THIS PROJECT IS LOCATED ALONG VT ROUTE 15, BARNES AVENUE, DALTON DRIVE, ETHAN ALLEN AVENUE AND TROY AVENUE, IN THE TOWN OF COLCHESTER.
- THE VT ROUTE 15 SIDEWALK RECONSTRUCTION BEGINS APPROXIMATELY 550 FT EAST OF THE I-89 OFF-RAMP INTERSECTION AND EXTENDS EASTERLY FOR APPROXIMATELY 4,450 FT ALONG VT ROUTE 15.
- THE DALTON DRIVE SIDEWALK RECONSTRUCTION IS LOCATED ON THE NORTHWESTERLY SIDE OF DALTON DRIVE, BEGINNING AT THE INTERSECTION OF BARNES AVENUE AND EXTENDING NORTHEASTERLY FOR APPROXIMATELY 1,850 FT.
- THE BARNES AVENUE SIDEWALK CONSTRUCTION BEGINS ON THE NORTHERN SIDE OF DALTON DRIVE AND EXTENDS NORTHWESTERLY FOR APPROXIMATELY 625 FT.
- THE ETHAN ALLEN AVENUE SIDEWALK RECONSTRUCTION IS LOCATED ON THE NORTHWESTERLY SIDE OF ETHAN ALLEN AVENUE, BEGINNING AT THE INTERSECTION OF BARNES AVENUE AND EXTENDING NORTHEASTERLY FOR APPROXIMATELY 2,250 FT.
- THE BARNES AVENUE OVERLAY BEGINS ON BARNES AVENUE ON THE NORTHWESTERLY SIDE OF THE HEGEMAN AVENUE EXTENDING APPROXIMATELY 250 FT.
- THE TROY AVENUE OVERLAY BEGINS AT THE INTERSECTION OF BARNES AVENUE AND EXTENDS NORTHEASTERLY 2,500 FT.

PROJECT DESCRIPTION:

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES PAVING, RECONSTRUCTING SIDEWALK AND CURB, CONSTRUCTING SIDEWALK AND CURB, STRIPING, SIGNS, RETAINING WALLS AND OTHER INCIDENTALS.

LENGTH OF OVERLAY = 2,748 LF
 LENGTH OF SIDEWALK
 VT ROUTE 15 = 1,340 LF
 DALTON DRIVE = 1,600 LF
 BARNES AVENUE = 625 LF
 ETHAN ALLEN AVENUE = 1,990 LF



Show beginning of project on VT 15

**CONCEPTUAL PLANS
NOVEMBER 24, 2014**

QUALITY ASSURANCE PROGRAM: LEVEL 3
SURVEYED BY : VERMONT SURVEY AND ENGINEERING, INC.
SURVEYED DATE : JULY 02, 2013 & JULY 11, 2013
DATUM
VERTICAL: NAVD 88
HORIZONTAL: NAD 83 SPC



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

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

Stantec Consulting Services Inc.
 55 Green Mountain Drive
 South Burlington VT U.S.A. 05403
 Tel. 802.864.0223
 Fax. 802.864.0165
 www.stantec.com

CITY REPRESENTATIVE	APPROVED _____ DATE _____
PROJECT MANAGER : JON LEINWOHL, P.E.	
PROJECT NAME : COLCHESTER	
PROJECT NUMBER : STP 5600 (15)	
SHEET 1 OF 35 SHEETS	

GENERAL INFORMATION

SYMBOLGY LEGEND NOTE

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY 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. SYMBOLGY 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
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 BENCH MARK
□	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 VALUE
⊕	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 SYMBOLGY

UNDERGROUND UTILITIES

— 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)

— 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 SYMBOLGY

PROJECT DESIGN & LAYOUT SYMBOLGY

—	CLEAR ZONE
—	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

△	TOP OF CUT SLOPE
○	TOE OF FILL SLOPE
⊗	STONE FILL
---	BOTTOM OF DITCH L
---	CULVERT PROPOSED
---	STRUCTURE SUBSURFACE
PDF	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
XXXXXX	TREE PROTECTION ZONE (TPZ)
////	STRIPING LINE REMOVAL
~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLGY**

**BOUNDARY LINES**

—	TOWN BOUNDARY LINE
—	COUNTY BOUNDARY 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
---	PROPERTY LINE (P/L)
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**EPSC MEASURES**

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

**ENVIRONMENTAL RESOURCES**

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

**ARCHEOLOGICAL & HISTORIC**

---	ARCHEOLOGICAL BOUNDARY
---	HISTORIC DISTRICT BOUNDARY
---	HISTORIC AREA
Ⓜ	HISTORIC STRUCTURE

**CONVENTIONAL TOPOGRAPHIC SYMBOLGY**

**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

PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Symbols.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
STANDARD SYMBOLS SHEET

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 2 OF 35



# TYPICAL SECTIONS

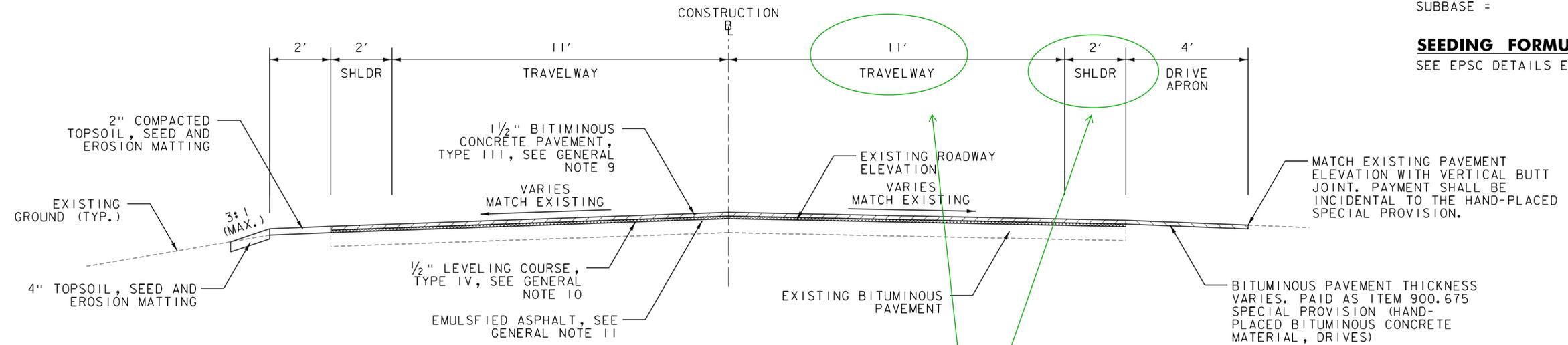
## MATERIAL ITEM THICKNESS/TOLERANCE

PAVEMENT = +/- 1/4" (TOTAL DEPTH)

SUBBASE = 1" (TOTAL DEPTH)

## SEEDING FORMULA - URBAN

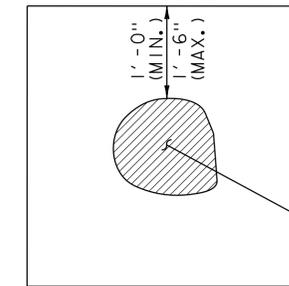
SEE EPSC DETAILS ED-01



### BARNES & TROY AVENUES TYPICAL SECTION

NOT TO SCALE

For these low volume roads, could this be a 10 ft. lane with a 3 ft. shoulder? That would be better for bicyclists.



SAW CUT BITUMINOUS CONCRETE PAVEMENT INCIDENTAL TO ITEM 900.680

POT HOLE REPAIR TO BE PAID AS ITEM 900.680 - SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE 11)

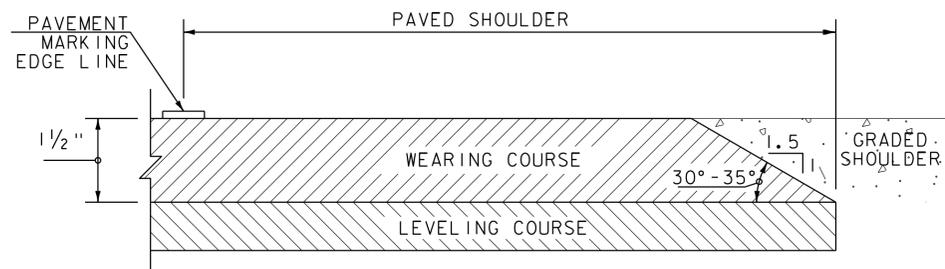
EXISTING POT HOLE (OR LONGITUDINAL CRACK) DEPTH 3/4" MIN.

### POT HOLE REPAIR

NOT TO SCALE

NOTE:

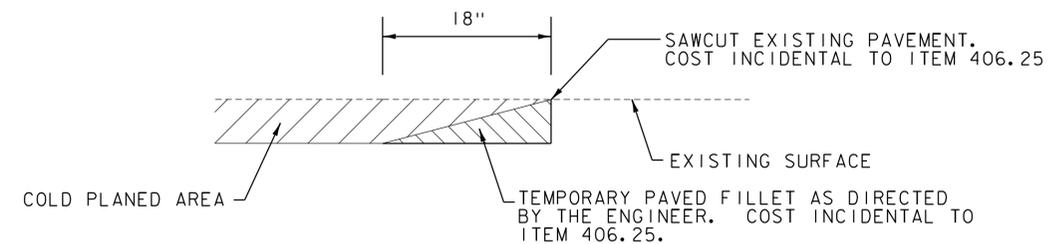
EMULSIFIED ASPHALT SHALL BE APPLIED AS IDENTIFIED IN NOTE 11.



### SAFETY EDGE DETAIL

NOT TO SCALE

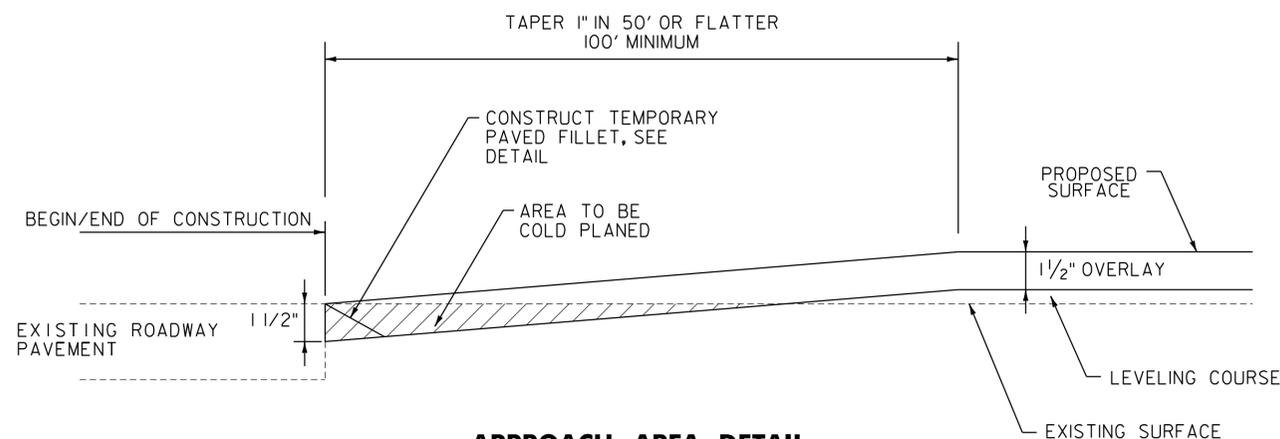
NOTE:  
THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE SUPERPAVE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.



### DETAIL AT VERTICAL COLD PLANE JOINTS

NOT TO SCALE

NOTE  
THIS DETAIL SHALL BE USED AT LOCATIONS DESIGNATED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT.



### APPROACH AREA DETAIL (BEGIN/END OVERLAY)

NOT TO SCALE



PROJECT NAME: COLCHESTER

PROJECT NUMBER: STP 5600(I5)

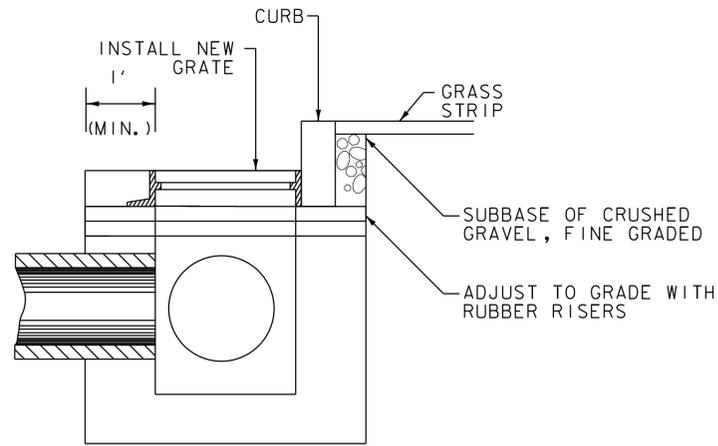
FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL

TYPICAL SECTIONS TS-01

SHEET 3 OF 35

# TYPICAL SECTIONS

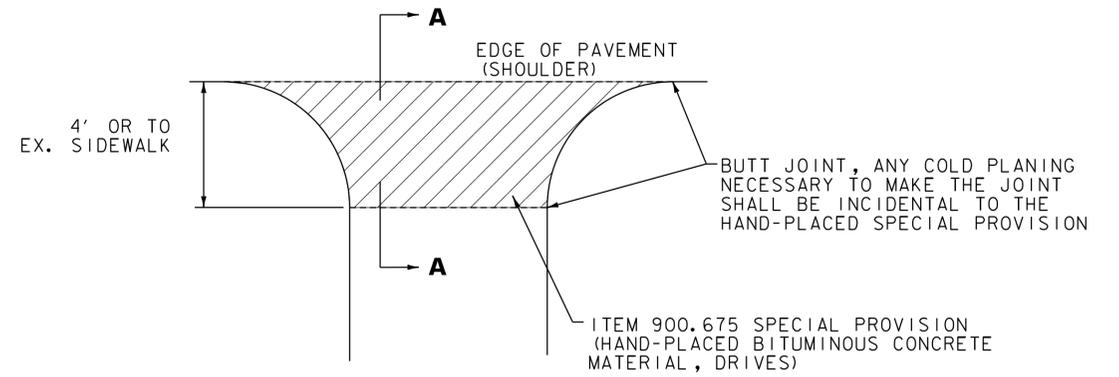


## REHAB EXISTING DRAINAGE STRUCTURE

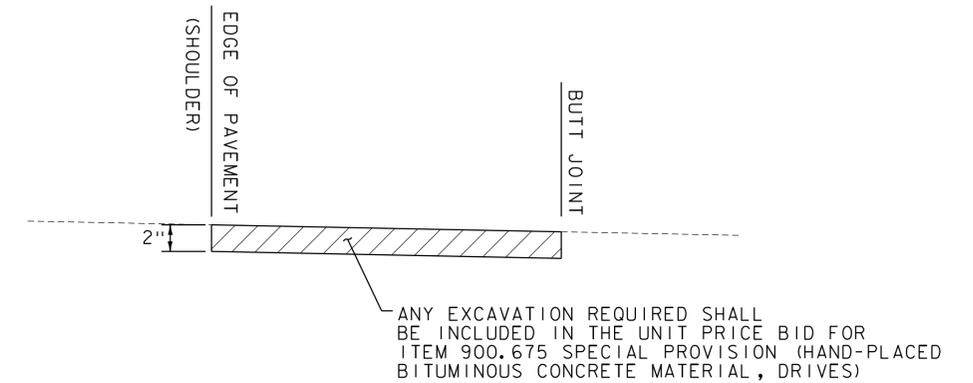
NOT TO SCALE

### NOTES:

1. THESE DETAILS MAY NOT DEPICT ALL EXISTING CONDITIONS FOR ALL EXISTING D.I.'S. REHABILITATION MAY VARY, AS DIRECTED BY THE ENGINEER.
2. REMOVE EXISTING GRANITE CURB, DROP INLET TOPS, PEDESTALS AND DROP INLET WALLS TO ACCOMMODATE NEW BRICKS, D.I. COVERS, FRAMES AND GRATES TO MAINTAIN EXISTING FLOW LINES (SEE VTRANS STANDARD D-8 FOR EXISTING D.I. DETAILS).
3. REDUCE BRICK COURSES AS NECESSARY TO MAINTAIN EXISTING FLOW ALONG THE GUTTER.
4. SEE VTRANS STANDARDS D-8 & D-9 FOR CONCRETE TOP DETAIL, AND D-15 AND D-16 FOR GRATE DETAILS. IN AREAS WHERE CURB IS NOT ADJACENT TO THE GRATE, PROVIDE A CONCRETE TOP AS SHOWN ON STANDARD D-6.
5. ALL REMOVAL AND RECONSTRUCTION, INCLUDING ALL MATERIALS, LABOR AND INCIDENTALS WILL BE PAID FOR UNDER ITEM 604.415 OR 604.418.



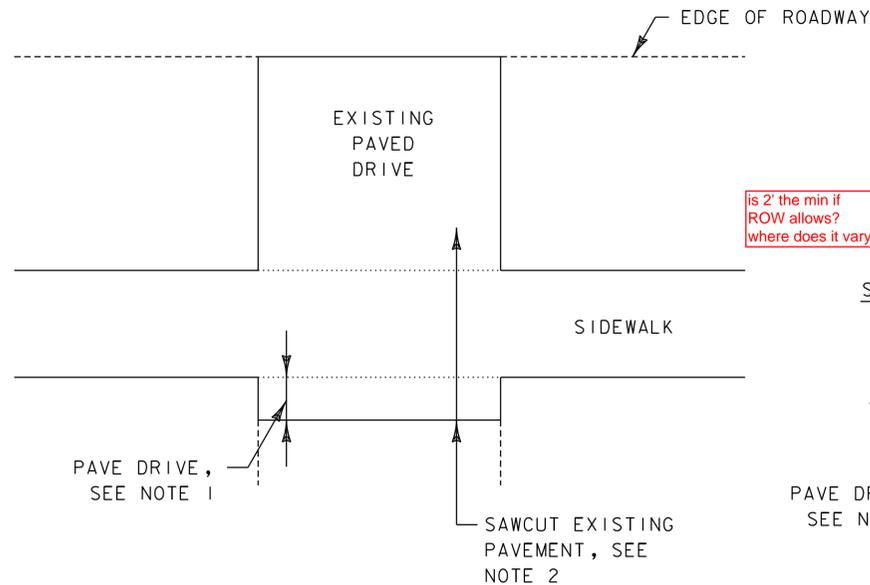
## PLAN



## SECTION A-A

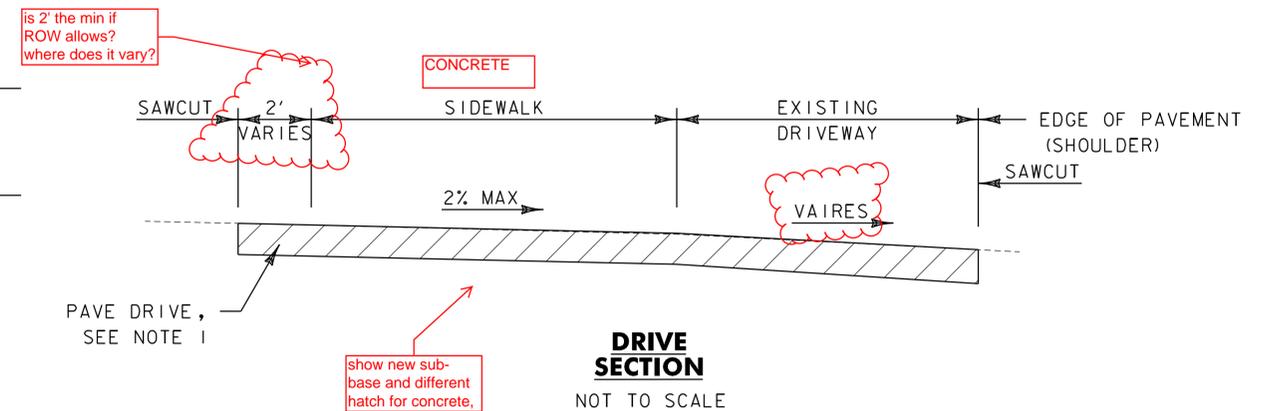
## HANDWORK DETAILS FOR PAVED DRIVES WITHOUT SIDEWALK

NOT TO SCALE



## PAVING LIMITS FOR DRIVES

NOT TO SCALE



## DRIVE SECTION

NOT TO SCALE

CLARIFY WHEN YOU WOULD REPLACE MORE...WITH RE APPROVAL?

### DRIVE NOTES:

1. PAVE DRIVE A MINIMUM OF 2' BEYOND EDGE OF SIDEWALK WITH 2" BITUMINOUS CONCRETE PAVEMENT, TYPE IV. WORK SHALL BE PAID AS ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).
2. ALL SAWCUTTING WITHIN DRIVEWAYS SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).
3. SIDEWALK CONSTRUCTION ACROSS DRIVES SHALL BE COMPLETED IN ACCORDANCE WITH VTRANS STANDARD DETAIL C-2B>

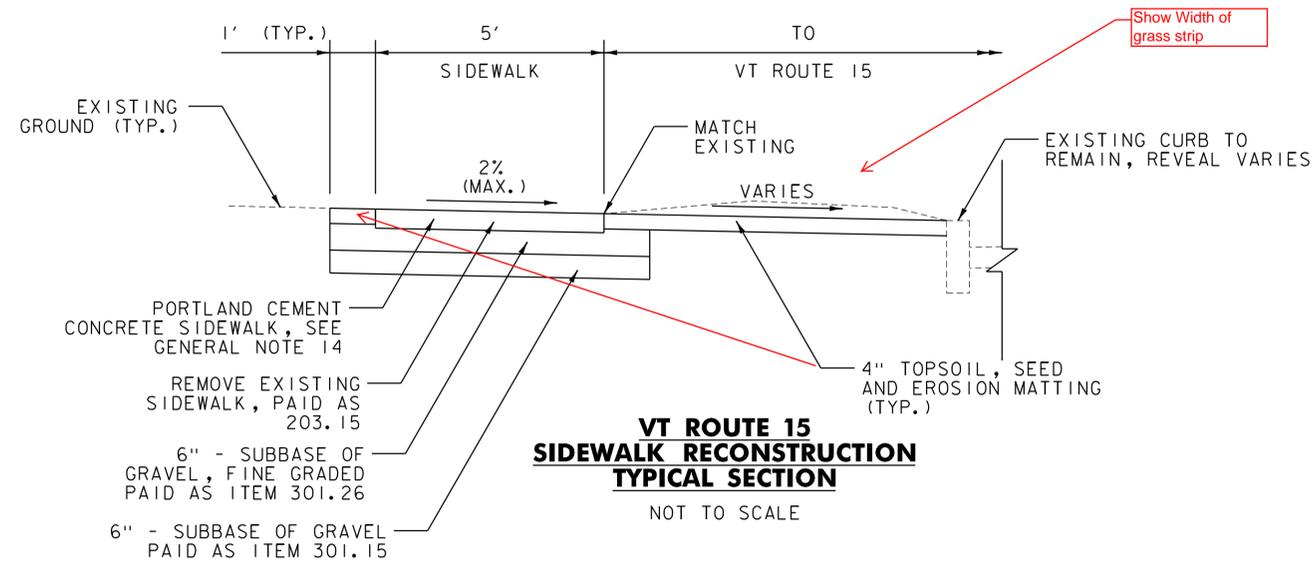


PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
TYPICAL SECTIONS TS-02

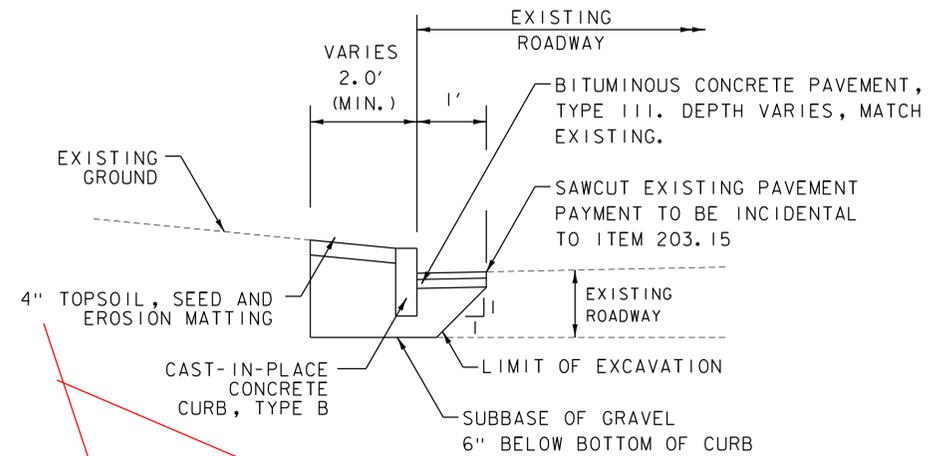
PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 4 OF 35

# TYPICAL SECTIONS



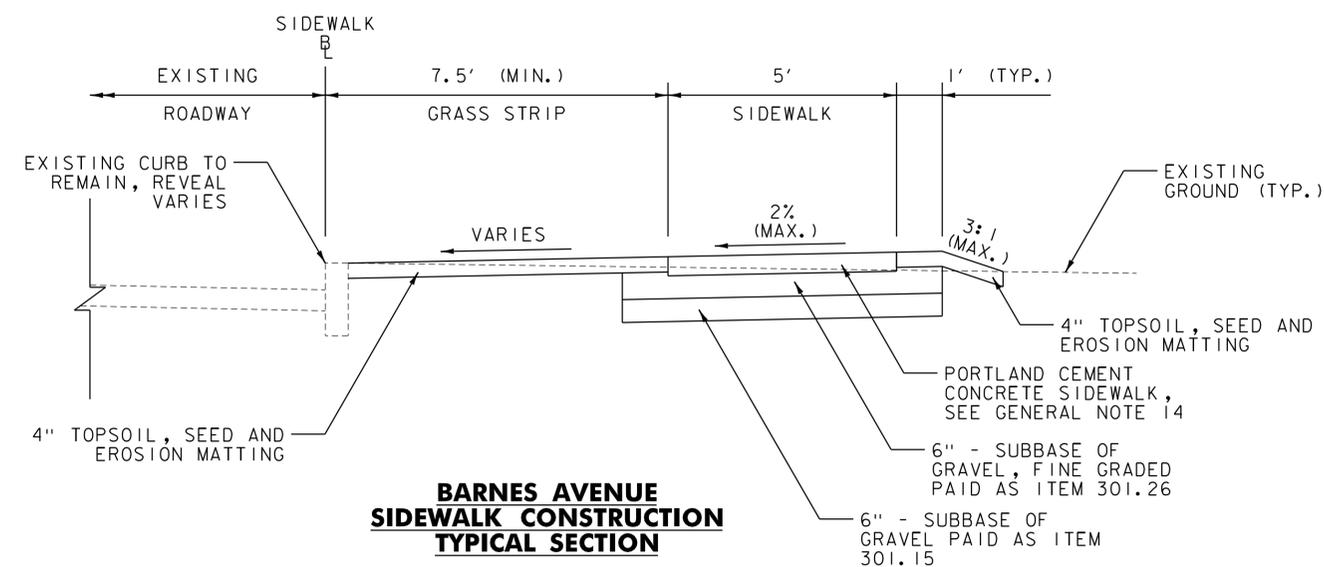
**VT ROUTE 15  
SIDEWALK RECONSTRUCTION  
TYPICAL SECTION**

NOT TO SCALE



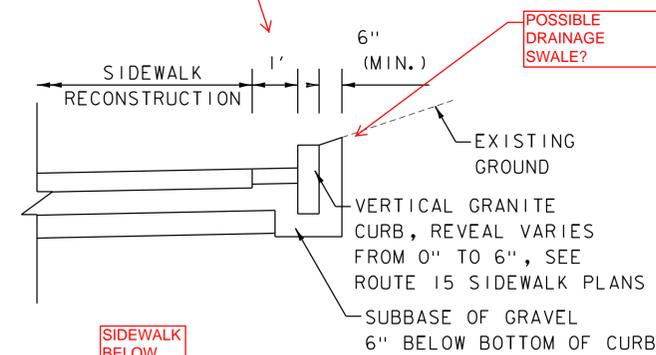
**CURB REPLACEMENT  
DETAIL**

NOT TO SCALE



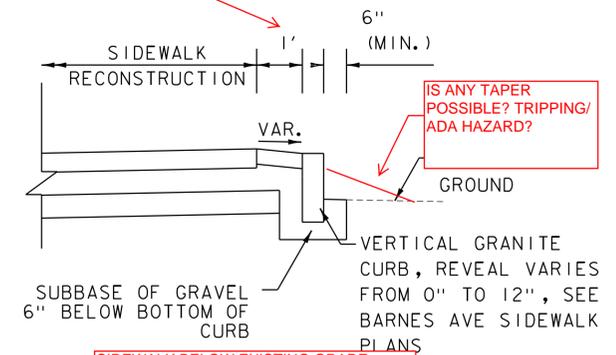
**BARNES AVENUE  
SIDEWALK CONSTRUCTION  
TYPICAL SECTION**

NOT TO SCALE



**CURB RETAINING  
WALL DETAIL**

NOT TO SCALE



**CURB RETAINING  
WALL DETAIL**

NOT TO SCALE

SIDEWALK BELOW EXISTING GRADE

SIDEWALK BELOW EXISTING GRADE

DO WE REALLY WANT TO CALL THESE RETAINING WALLS?

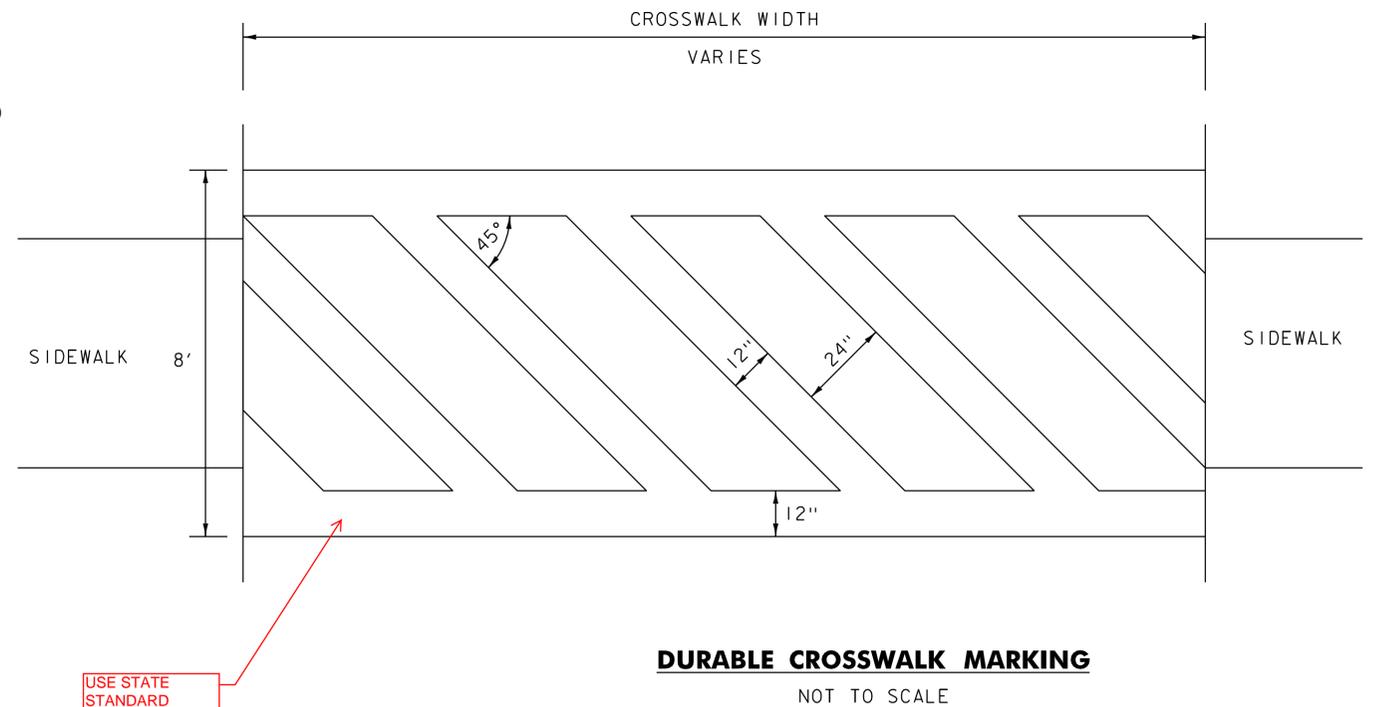
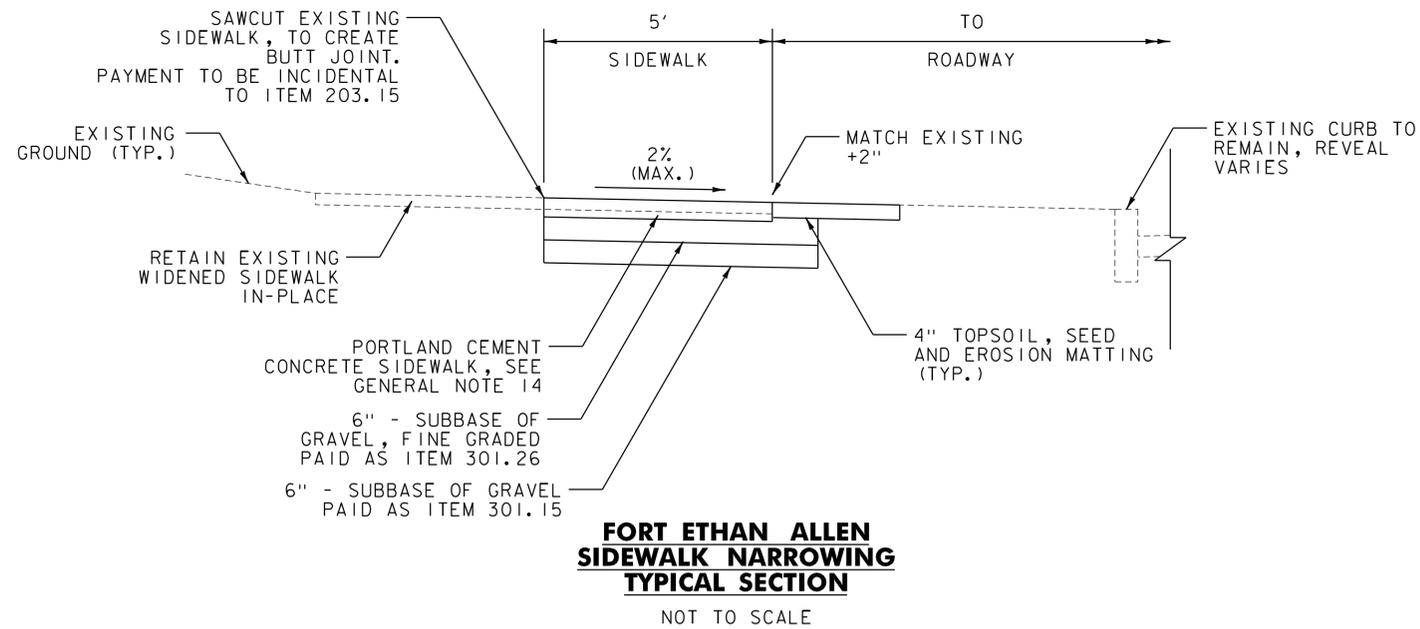
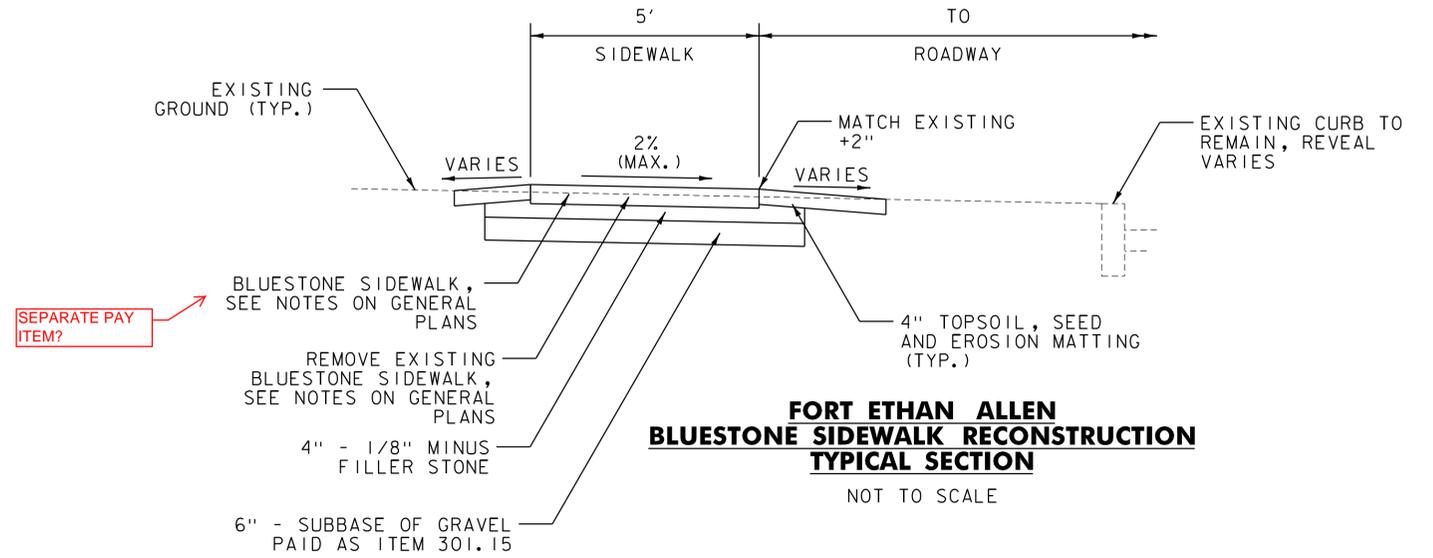
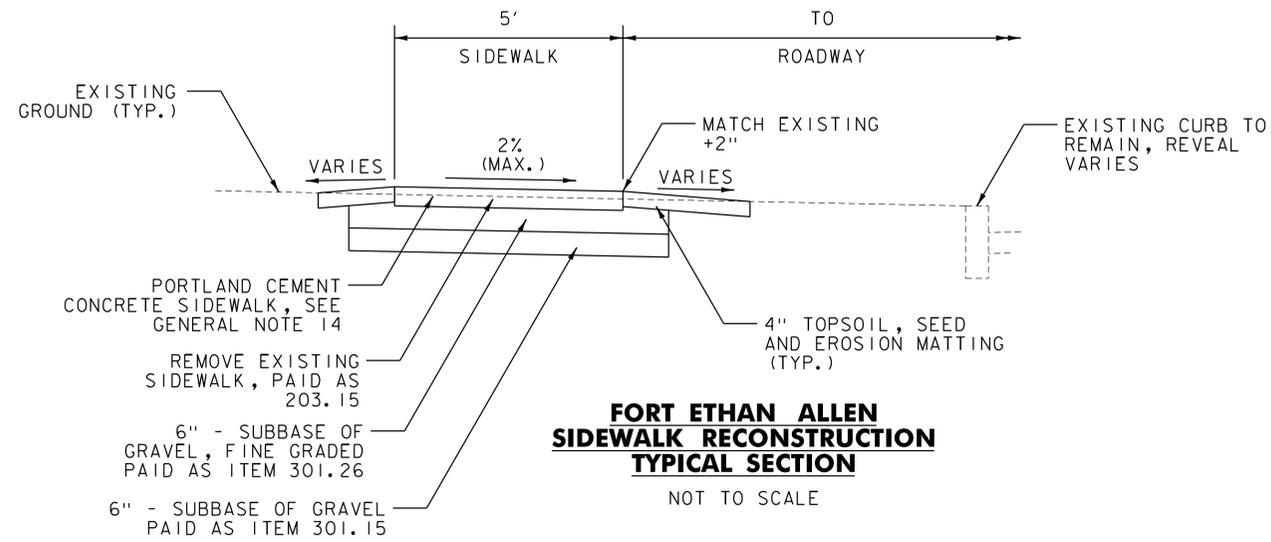
PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
**TYPICAL SECTIONS TS-03**

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 5 OF 35



# TYPICAL SECTIONS



PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
**TYPICAL SECTIONS TS-04**

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 6 OF 35



# GENERAL NOTES

## GENERAL PROJECT NOTES

1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE BASED ON LIMITED INFORMATION. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES WHERE A POTENTIAL CONFLICT EXISTS SHALL BE VERIFIED IN THE FIELD WITH EXPLORATORY EXCAVATION AS REQUIRED PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. PAYMENT OF EXPLORATORY EXCAVATION SHALL BE MADE UNDER ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY. CONTRACTORS MUST CONTACT "DIG SAFE" AT 1 (888) 344-7233 [1 (888) DIG-SAFE] BEFORE EXCAVATING, DRILLING OR DRIVING SIGN POSTS.
2. CARE SHALL BE TAKEN TO AVOID DAMAGE TO NEARBY FENCES, DRIVEWAYS, BUILDINGS, MONUMENTS, IRON PINS, AND ANY OTHER APPURTENANCES DURING CONSTRUCTION. DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. IF PROPERTY INCLUDING BUT NOT LIMITED TO IRON PINS, FENCES, BUILDINGS, MONUMENTS, ETC. NEEDS TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION, CONTRACTOR SHALL DOCUMENT EXACT EXISTING LOCATION AND RESET IN THE SAME LOCATION UPON COMPLETION OF WORK. THE CONTRACTOR SHALL WORK WITH THE PROPERTY OWNER AS REQUIRED. PROPERTY SHALL BE RESET TO ITS ORIGINAL CONDITION OR BETTER, AT THE DISCRETION OF THE ENGINEER. PROPERTY MONUMENTS SHALL BE SET BY A LICENSED LAND SURVEYOR, LICENSED IN THE STATE OF VERMONT. COST TO COMPLETE THIS WORK SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
4. CONTRACTOR SHALL PROVIDE AT LEAST ONE WEEK NOTICE TO ADJACENT PROPERTY OWNERS AND BUSINESSES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL INFORM PROPERTY OWNER OF WORK TO BE COMPLETED AND SHALL WORK WITH PROPERTY OWNER TO MAINTAIN ACCESS TO PROPERTY AT ALL TIMES. COST TO COMPLETE THIS WORK SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
5. CONTRACTOR SHALL RESTORE PROPERTY IN AN ACCEPTABLE MANNER SATISFACTORY TO THE ENGINEER IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. TOPSOIL, SEED, FERTILIZER, LIMESTONE AND MULCH SHALL BE PAID PER THEIR RESPECTIVE PAY ITEMS. ANY OTHER WORK OR MATERIALS NECESSARY SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
6. PAYMENT FOR SAW CUTTING PAVEMENT AND PAVEMENT PATCHING REQUIRED FOR REMOVAL OR INSTALLATION OF CONTRACT ITEMS SHALL BE INCIDENTAL TO ALL OTHER ITEMS.
7. ALL EXISTING CURB SHALL BE RETAINED, IN PLACE, UNLESS OTHERWISE NOTED.
8. ALL EXISTING DRAINAGE STRUCTURES SHALL BE RETAINED, IN PLACE, UNLESS OTHERWISE NOTED.

## PAVING NOTES:

9. THE PAVEMENT SHALL BE PLACED IN ONE 1 1/2" LIFT AND BE BITUMINOUS CONCRETE PAVEMENT, TYPE III. BITUMINOUS CONCRETE PAVEMENT SHALL BE PAID AS ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT.
10. A LEVELING COURSE SHALL BE 1/2" THICK AND BE BITUMINOUS CONCRETE PAVEMENT, TYPE IV. BITUMINOUS CONCRETE PAVEMENT SHALL BE PAID AS ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT.
11. EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON THE FACE OF CURB. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404. EMULSIFIED ASPHALT SHALL BE APPLIED TO ALL COLD PLANED SURFACES AT A RATE OF 0.08 GAL/SY. EMULSIFIED ASPHALT SHALL BE APPLIED TO ALL OTHER PAVED SURFACED AT A RATE BETWEEN 0.025 AND 0.04 GAL/SY, AS DIRECTED BY THE ENGINEER. EMULSIFIED ASPHALT SHALL BE PAID AS ITEM 404.65 EMULSIFIED ASPHALT.

## SIDEWALK AND CROSSWALK NOTES:

12. THE REMOVAL OF ALL EXISTING CONCRETE SIDEWALK SHALL BE PAID AS ITEM 203.15 COMMON EXCAVATION.
13. FOR INFORMATION ON THE TREATMENT OF THE EXISTING BLUESTONE SIDEWALKS, REFER TO DD-01 AND DD-02.
14. THE SIDEWALK THROUGHOUT THE PROJECT CORRIDOR, EXCEPT IN THE LOCATIONS WHERE THERE IS EXISTING BLUESTONE SIDEWALK, SHALL BE MADE OF PORTLAND CEMENT CONCRETE. THE SIDEWALK SHALL BE 8" THICK ACROSS COMMERCIAL DRIVEWAYS AND PAID AS ITEM 618.11 PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH. THE SIDEWALK SHALL BE 6" THICK ACROSS ALL OTHER DRIVES AND PAID AS ITEM 900.675 SPECIAL PROVISION (PORTLAND CEMENT CONCRETE SIDEWALK, 6 INCH). IN ALL OTHER LOCATIONS, THE SIDEWALK SHALL BE 5" THICK AND PAID AS ITEM 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH.
15. THE EXISTING VT ROUTE 15 SIDEWALK, TO BE REPLACED, HAS EXISTING CROSS SLOPE THAT MAY VARY BY LOCATION. THE NEW SIDEWALK CROSS SLOPE SHALL MATCH EXISTING SIDEWALK CROSS SLOPE AT THE BEGINNING AND END OF CONSTRUCTION.
16. SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH VTRANS STD DRAWINGS C-3A, C-3B AND THE COLCHESTER DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS. ALL SIDEWALK RAMPS SHALL BE PORTLAND CEMENT CONCRETE, 5" THICK AND PAID AS ITEM 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH. DETECTABLE WARNING SURFACES SHALL BE CAST IRON. DETECTABLE WARNING SURFACES PAID AS 618.30.
17. ALL NEW CROSSWALKS SHALL BE DURABLE MARKINGS, AND SHALL BE PAID AS ITEM 646.500 DURABLE CROSSWALK MARKING.

Normally done as solid rock excavation - see spec 203.16

What do the Town's specs have that is different/ supplemental to our spec? Referring to both introduces ambiguity possibly.

## SIGN DESIGN AND FABRICATION

18. ROADWAY SIGNS SHALL BE PLACED IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH VTRANS STANDARD E-121. LATERAL CLEARANCE FROM EDGE OF PAVEMENT TO THE EDGE OF THE SIGN SHOULD BE PER STANDARD. ALL SIGNS SHALL BE INSTALLED WITHIN THE TOWN ROW AND SHALL BE HIGHLY VISIBLE TO VEHICULAR TRAFFIC. EXACT SIGN LOCATIONS SHALL BE REVIEWED IN THE FIELD WITH THE ENGINEER AND TOWN PUBLIC WORKS DIRECTOR. SIGN LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ORDERING AND INSTALLATION.
19. VERTICAL CLEARANCE FROM EDGE OF PAVEMENT TO BOTTOM OF SIGN SHALL BE FOR URBAN LOCATIONS PER VTRANS STANDARD DRAWING E-121.
20. ALL EXISTING SIGNS NOT SHOWN ON THE PLANS SHALL BE RETAINED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
21. THE MUTCD SIGN CODES PROVIDED IN THESE PLANS REFER TO THE MOST RECENT VERSION OF THE MUTCD. DESIGN DETAILS FOR SIGNS INDICATED ON THE PLANS SHALL BE PER THE STANDARD HIGHWAY SIGN AND MARKINGS BOOK (SHSM).
22. SIGN SHEETING FOR FLUORESCENT YELLOW (FY) AND FLUORESCENT YELLOW-GREEN (FYG) SHALL BE ASTM D4956 TYPE VII, VIII OR IX.
23. SHEETING TYPES AND SHEETING FABRICATED BY DIFFERENT MANUFACTURERS SHALL NOT BE MIXED ON A SINGLE SIGN ASSEMBLY. SHEETING COLOR/TYPE SHOULD BE BY THE SAME MANUFACTURER AND SHOULD BE CONSISTENT THROUGHOUT THE PROJECT.

## SIGN POSTS

24. CONTRACTOR SHALL VERIFY SLOPE CONDITIONS AT EACH SIGN LOCATION TO DETERMINE PROPER SIGN POST LENGTH BEFORE BEGINNING WORK.
25. ALL SQUARE STEEL SIGN POSTS SHALL BE INSTALLED IN A NEW ANCHOR. ALL SIGNS INSTALLED IN PAVED OR CONCRETE ISLANDS OR SIDEWALKS SHALL BE INSTALLED IN A SLEEVE PER STANDARD T-45. SQUARE STEEL SIGN POSTS PAID AS 675.341.

## EROSION PREVENTION AND SEDIMENT CONTROL

26. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) CONSISTS OF INLET PROTECTION AND TEMPORARY AND PERMANENT STABILIZATION OF ALL DISTURBED SURFACES. EPSC REQUIREMENTS SHALL BE GOVERNED BY SUBSECTION 105.23 OF THE VTRANS STANDARD SPECIFICATIONS.

REFER TO LOW RISK HANDBOOK AND STANDRAD DETAILS

PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
GENERAL NOTES GN-01

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 7 OF 35



VAOT RURAL AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
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					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
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			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

**CONSTRUCTION GUIDANCE**

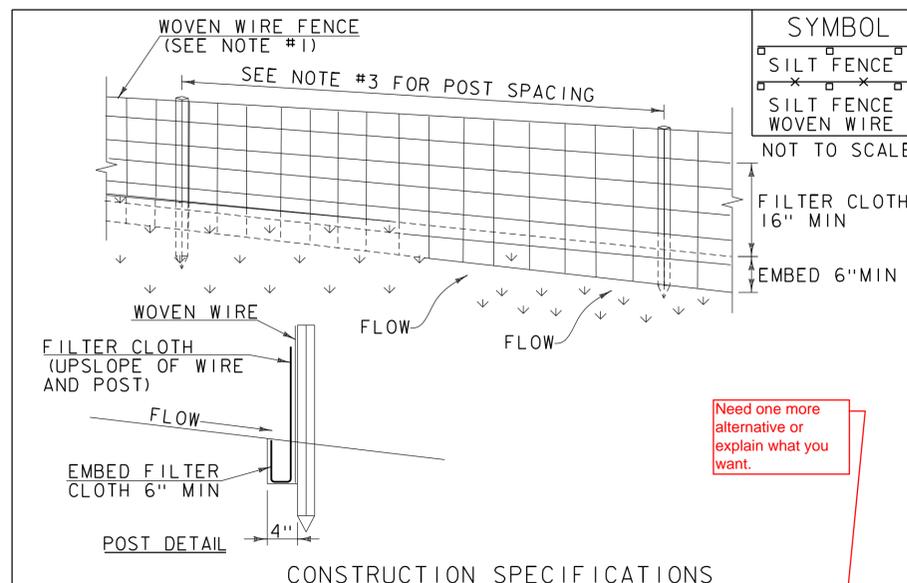
1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 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 LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

**TURF ESTABLISHMENT**

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

REVISIONS		
JUNE 23, 2009	WHF	
JANUARY 15, 2010	WHF	
FEBRUARY 16, 2011	WHF	



- 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, MIRAF1100X, 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.

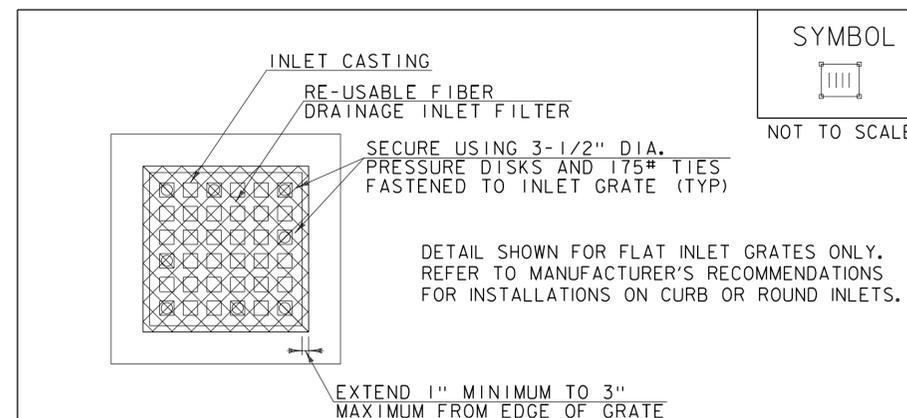
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**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 649.5) 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	



**CONSTRUCTION SPECIFICATIONS**

1. FILTERS SHALL RETAIN ALL CONSTRUCTION DEBRIS AND SHALL RETAIN OR OTHERWISE CONTROL MOST OF THE SEDIMENT PRODUCED BY CONSTRUCTION OPERATIONS.
2. IF CLOGGING OCCURS, INLETS SHALL BE ABLE TO BE EASILY UNCLOGGED BY BROOMING THE SIDES AND TOP OF THE FILTER.
3. INSTALLED FILTERS SHALL BE RESISTANT TO TRAFFIC DAMAGE, INCLUDING TRAFFIC BY STREET CLEANING MACHINES.
4. FILTER UNITS SHALL BE BIODEGRADABLE AND MAY OFTEN BE RE-USED.
5. INSTALL FILTER UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. MINIMUM NUMBER OF ANCHORS PER FILTER UNIT: 7 FOR CURB INLETS, 8 FOR FLAT GRATES.
7. INSPECT ALL INSTALLED FILTER UNITS AFTER EVERY RAIN.
8. INSPECT ALL INSTALLED FILTER UNITS PRIOR TO INITIATING CONSTRUCTION ACTIVITIES FOR THE DAY IF RAIN PERSISTS OVERNIGHT.
9. IF, UPON VISUAL INSPECTION, 50% OR MORE OF FILTER FABRIC SURFACE AREA IS INUNDATED WITH SEDIMENT OR FILTER FABRIC IS CLOGGED, CONTRACTOR SHALL BROOM COLLECTED MATERIAL OFF FILTER UNIT SURFACES AND AWAY FROM EDGES.
10. REMOVE SEDIMENT AND DEBRIS COLLECTED AROUND FILTER UNITS. DISPOSE OF COLLECTED SEDIMENT AND DEBRIS OFF-SITE IN ACCORDANCE WITH THE VERMONT AGENCY OF NATURAL RESOURCES, SOLID WASTE MANAGEMENT RULES.

ORIGINALLY DEVELOPED BY STANTEC

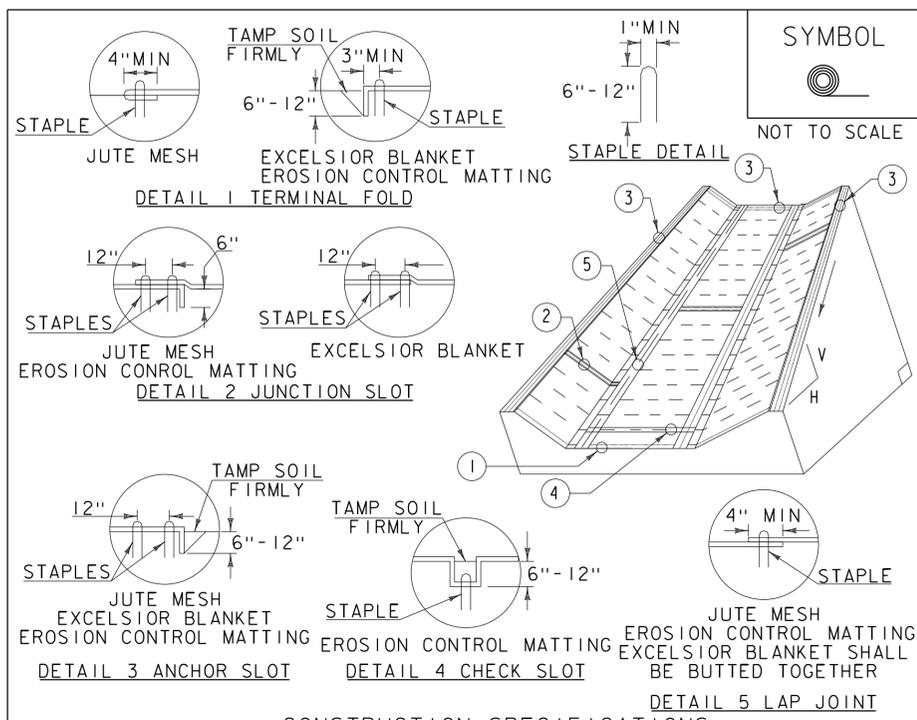
**INLET PROTECTION DEVICE, FILTER FIBER**

NOTES:  
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR PAY ITEM 653.40

PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Typical.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
**EROSION CONTROL DETAILS ED-01**

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 8 OF 35



**CONSTRUCTION SPECIFICATIONS**

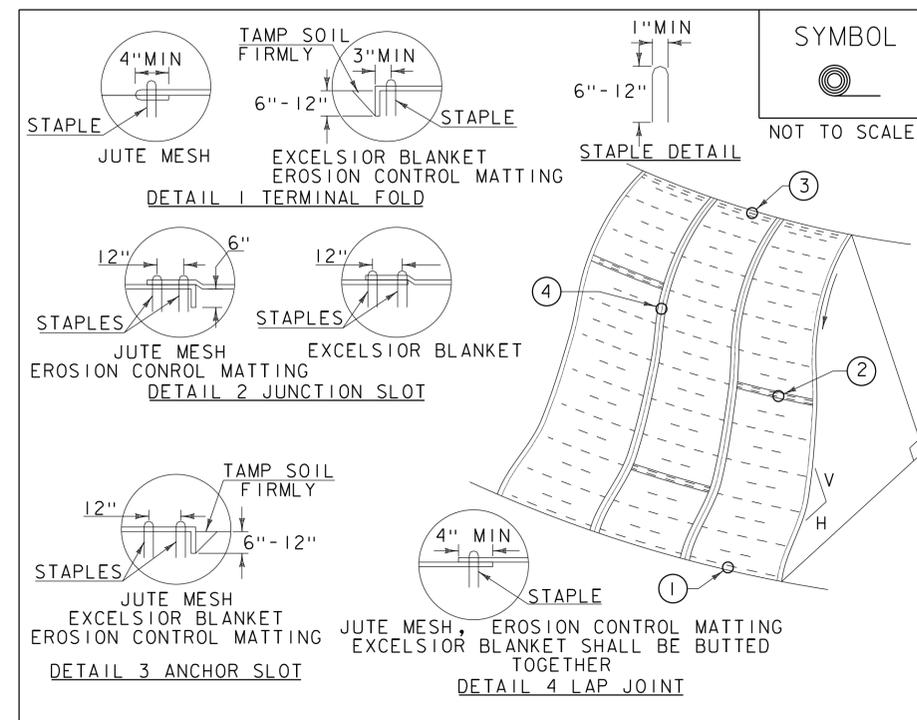
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' 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' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' 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	

PROJECT NAME: COLCHESTER	PLOT DATE: 11/24/2014
PROJECT NUMBER: STP 5600(I5)	DRAWN BY: T. DUGUAY
FILE NAME: Typical.dgn	CHECKED BY: J. LEINWOHL
PROJECT LEADER: J. LEINWOHL	SHEET 9 OF 35
DESIGNED BY: T. DUGUAY	
<b>EROSION CONTROL DETAILS ED-02</b>	

GPS/NGS CONTROL POINTS

**C95015**

PID AB9623  
 N = 727851.49  
 E = 1467825.79  
 ELEV. = 319.20

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (CHR). GENERAL LOCATION, COLCHESTER, VT. TO REACH FROM THE I-89 BRIDGES OVER VT ROUTE 15 AT EXIT 15 IN WINOOSKI, GO EAST ALONG VT ROUTE 15 FOR 0.6 MI (1.0 KM) TO THE MARK ON THE RIGHT AT THE WEST CORNER OF A CEMETERY AND THE NORTHEAST END OF A JUGHANDLE INTERSECTION. THE MARK IS SET IN THE TOP OF THE SOUTHWEST SIDE OF A 90 CM DIAMETER CONCRETE BASE FOR A GALVANIZED STRAIN POLE FOR A SET OF TRAFFIC LIGHTS. IT IS 6.4 M (21.0 FT) SOUTHEAST OF THE SOUTHEAST EDGE OF VT ROUTE 15, 6.9 M (22.6 FT) NORTHEAST OF THE CENTERLINE OF THE JUGHANDLE, 2.9 M (9.5 FT) SOUTH OF THE WEST CORNER OF A CHAIN LINK FENCE ENCLOSING THE CEMETERY, 0.2 M (0.7 FT) SOUTH OF THE SOUTH EDGE OF THE STRAIN POLE, AND 1.3 M (4.3 FT) SOUTHWEST OF A FIBERGLASS WITNESS POST AGAINST THE FENCE.

**NOYES**

PID PG1426  
 N = 729317.80  
 E = 1469377.51  
 ELEV. = 318.03

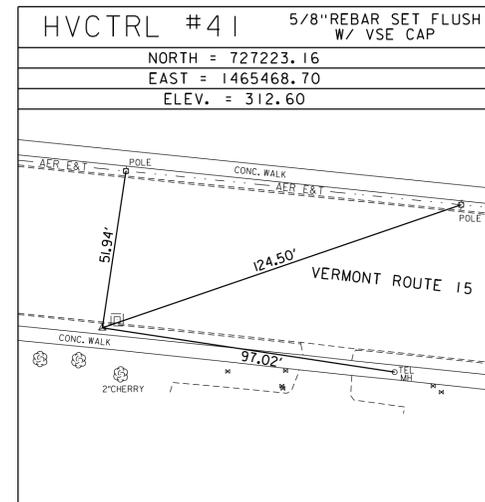
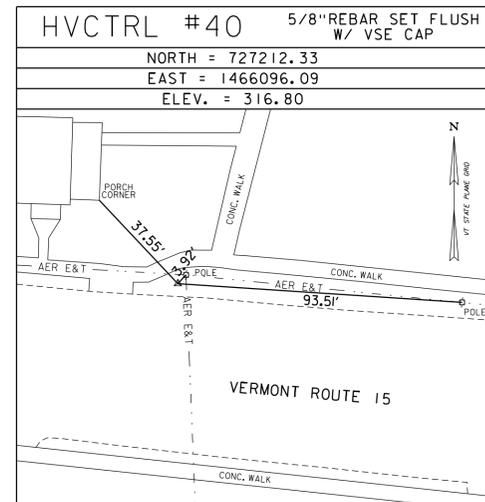
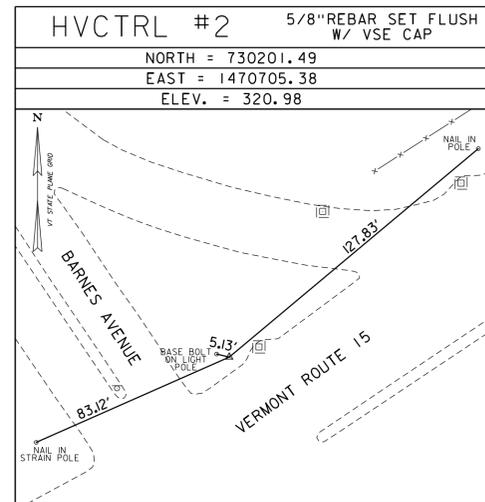
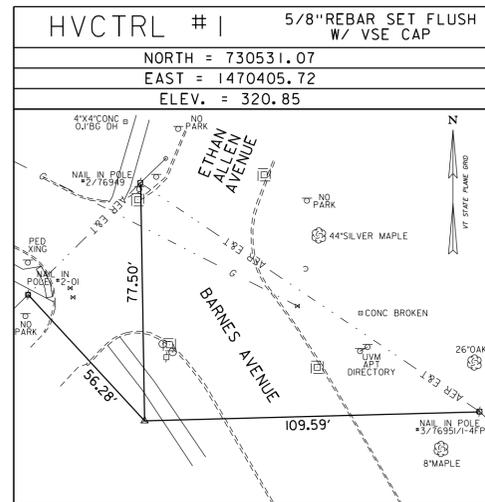
DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1977. 1.7 MI ENE FROM WINOOSKI. TO REACH THE STATION FROM THE LINCOLN INN, GO WEST ALONG VT ROUTE 15 APPROXIMATELY 2.6 MILES TO GATE NO. 1 ENTRANCE TO CAMP JOHNSON, ON THE NORTHWEST SIDE OF THE ROAD, 251.5 FEET NORTHEAST OF THE CENTERLINE OF THE ENTRANCE TO CAMP JOHNSON, 47.8 FEET WEST OF THE CENTER OF A MAN-HOLE COVER IN THE SIDEWALK, 18 FEET NORTHWEST OF A DRILLHOLE IN THE TOP OF THE CURB ABOVE THE WEST CORNER OF A DRAIN INLET (THIS BEING THE SECOND DRAIN INLET NORTHEAST ALONG VT. ROUTE 15 FROM THE ENTRANCE TO CAMP JOHNSON), 18.8 FEET SOUTHEAST OF THE RIGHT-OF-WAY FENCE, 8.5 FEET NORTHWEST OF THE NORTHWEST EDGE OF A BITUMINOUS SIDEWALK, 61.5 FEET SOUTHWEST OF AN 18 INCH ELM, 38.7 FEET NORTHEAST OF A 20 INCH ELM. STATION RECOVERY (1996). RECOVERY NOTE BY VERMONT AGENCY OF TRANSPORTATION 1996 (CHR). RECOVERED AS DESCRIBED. NOTE, ELM TREES AND DRILL HOLE IN CURB AT DI ARE GONE. TABLET HAS BEEN BEAT ON, HOWEVER INTEGRITY OF POSITION SHOULD STILL BE OK.

**C95014**

PID AB9622  
 N = 730793.64  
 E = 1471672.01  
 ELEV. = 326.54

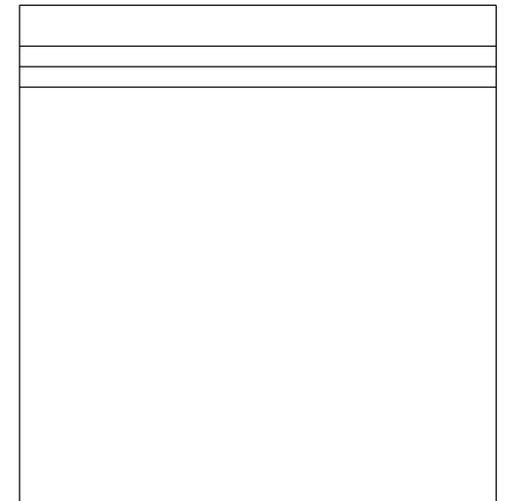
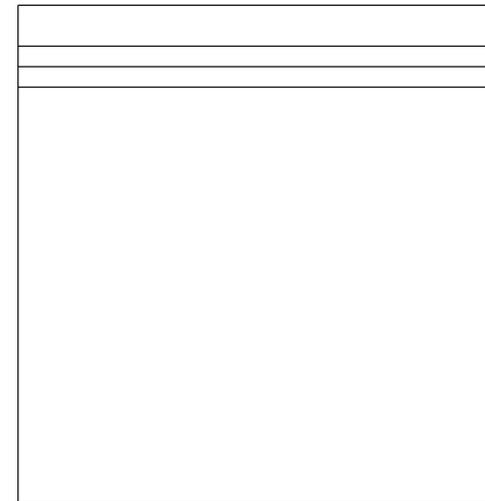
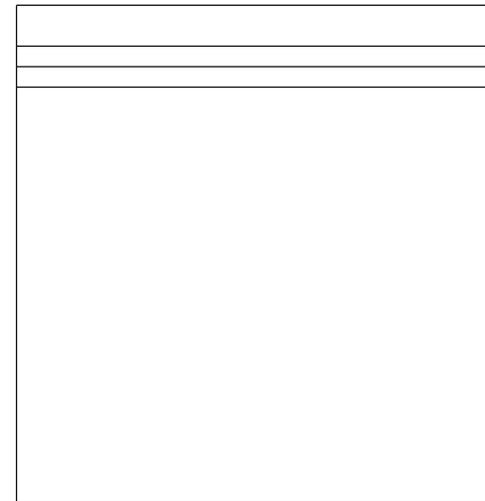
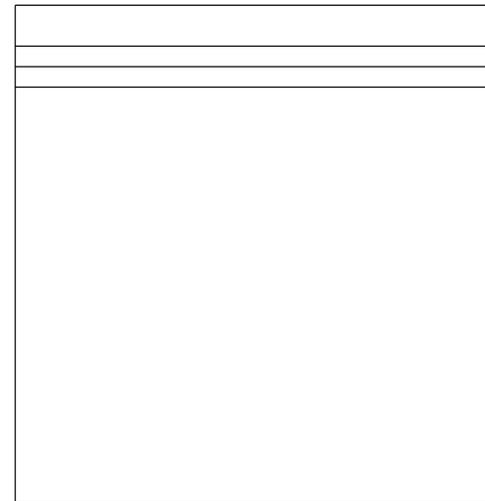
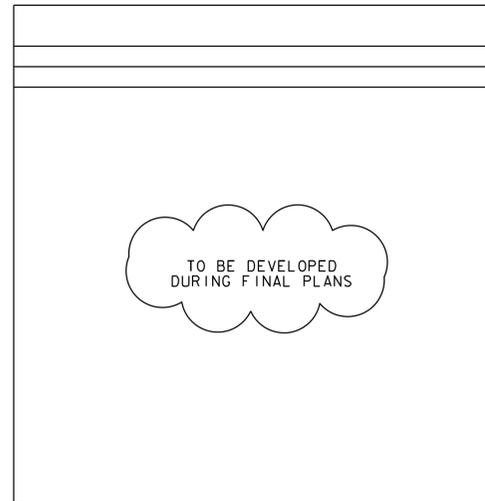
DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (CHR). GENERAL LOCATION, ESSEX, VT. TO REACH FROM THE 5 CORNERS INTERSECTION OF VT ROUTES 2A, 15, AND 117 IN ESSEX JUNCTION GO NORTHWEST ALONG VT ROUTE 15 FOR 1.6 MI (2.6 KM) TO THE INTERSECTION OF SUSIE WILSON ROAD RIGHT. CONTINUE STRAIGHT AHEAD AND GO WEST ALONG VT ROUTE 15 FOR 0.4 MI (0.6 KM) TO THE MARK ON THE RIGHT IN A GRASS STRIP BETWEEN THE ROAD AND A WOVEN WIRE FENCE. IT IS 1.6 MI (2.6 KM) EAST ALONG VT ROUTE 15 FROM THE I-89 BRIDGES OVER VT ROUTE 15 AT EXIT 15 IN WINOOSKI. THE MARK IS SET 10 CM BELOW GROUND SURFACE IN THE TOP OF A CAST ALUMINUM MONUMENT. IT IS 3.9 M (12.8 FT) NORTH OF THE NORTH CURB OF VT ROUTE 15, 22.2 M (72.8 FT) SOUTHEAST OF A 100 CM OAK, 17.4 M (57.1 FT) WEST OF A 40 CM PINE, 6.9 M (22.6 FT) SOUTH OF A FIBERGLASS WITNESS POST AGAINST THE WOVEN WIRE FENCE, AND 0.2 M (0.7 FT) SOUTH OF A LONE FIBERGLASS WITNESS POST.

TRAVERSE TIES



* PROJECT COMPLETED: SEPTEMBER 11, 2013 BY VSE, M. YEFCHAK-PC, T. YEFCHAK

ALIGNMENT TIES



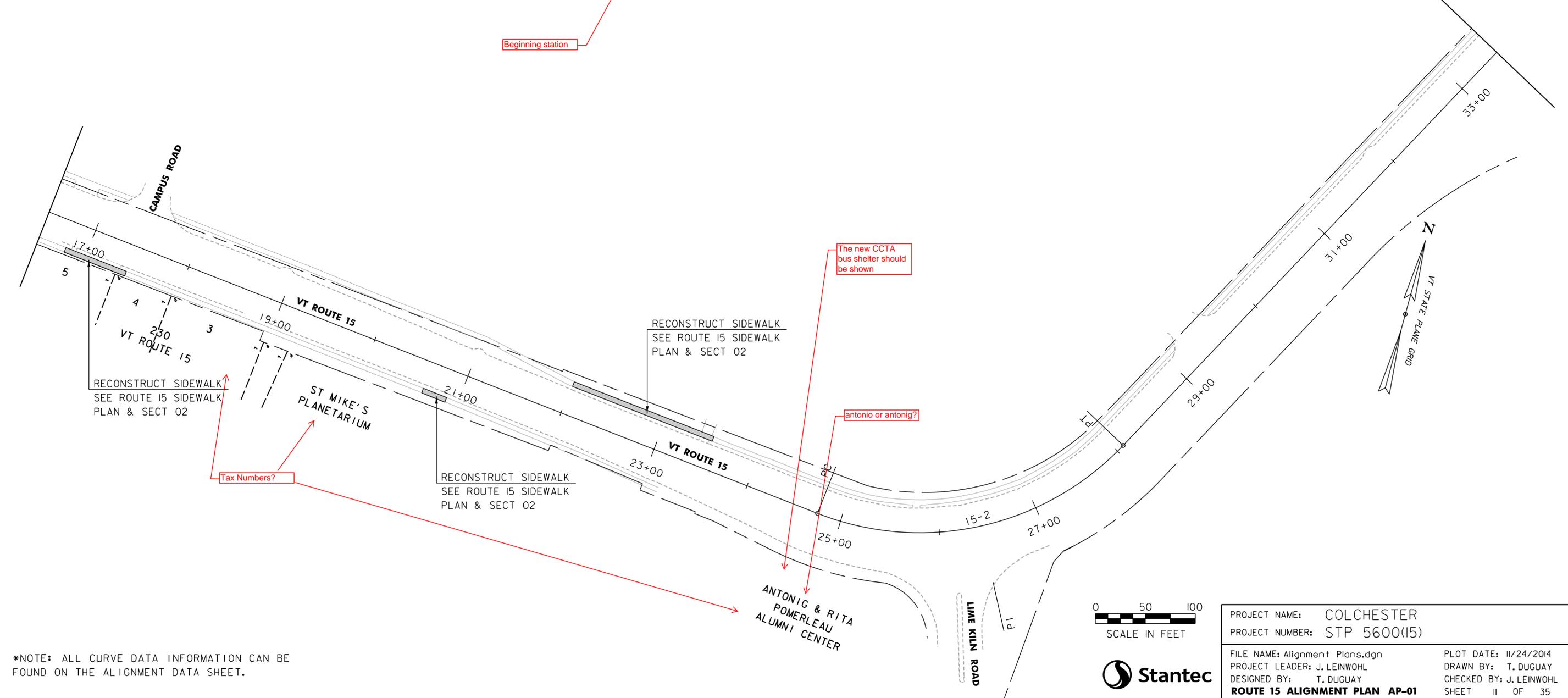
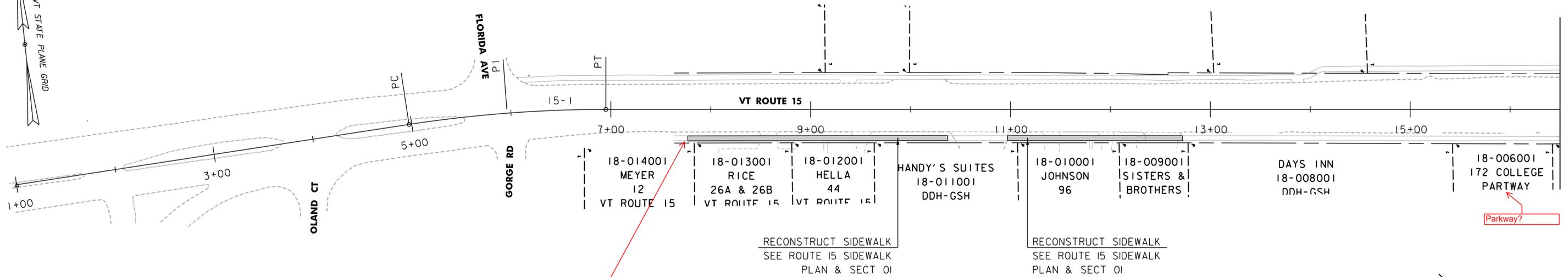
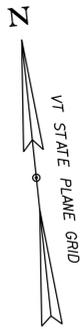
DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83(2011) sFT
ADJUSTMENT	LSQ



PROJECT NAME: COLCHESTER  
 PROJECT NUMBER: STP 5600(I5)

FILE NAME: Survey Tie.dgn  
 PROJECT LEADER:  
 DESIGNED BY:  
**SURVEY TIE SHEET**

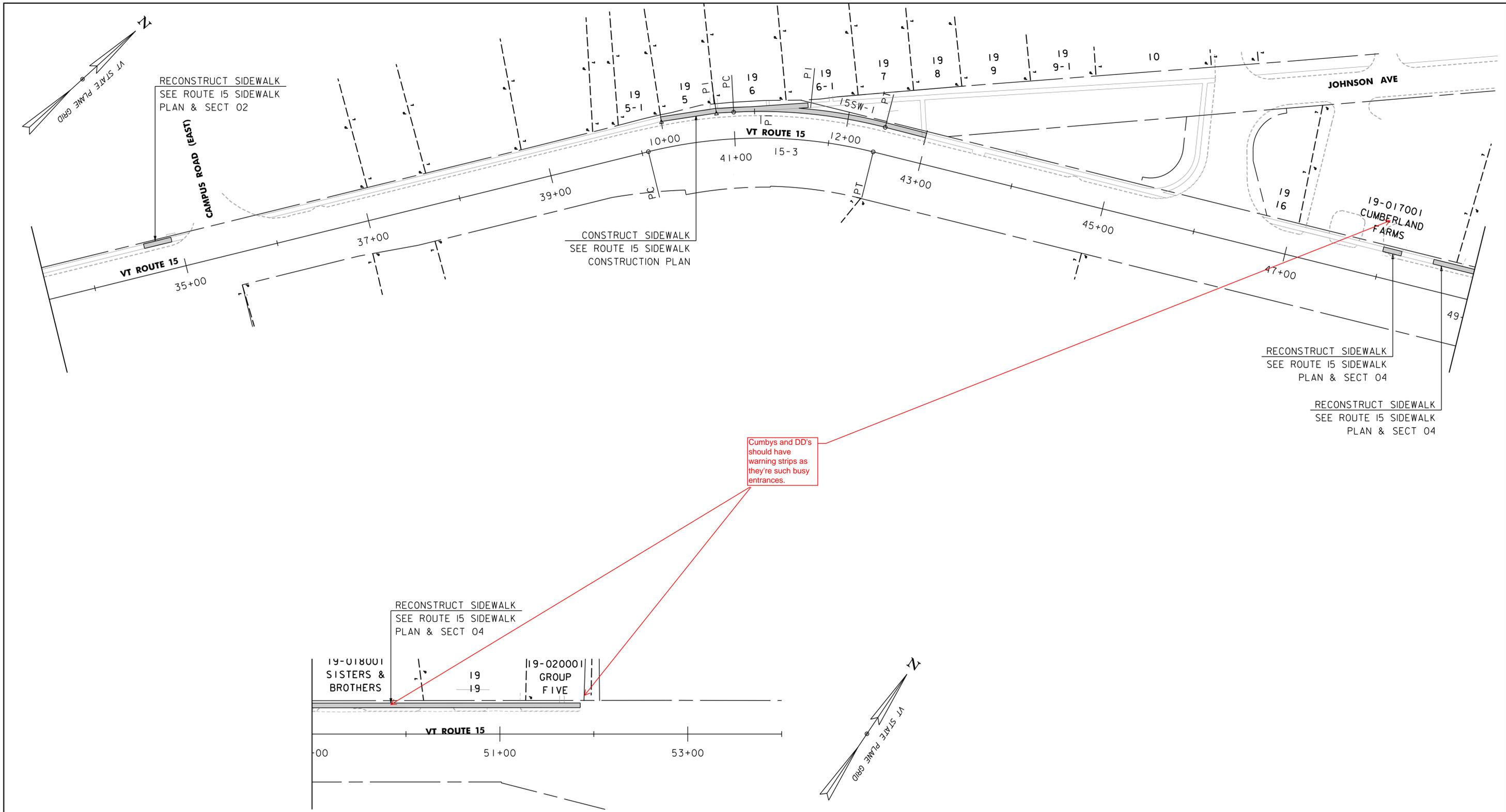
PLOT DATE: 11/24/2014  
 DRAWN BY:  
 CHECKED BY:  
 SHEET 10 OF 35



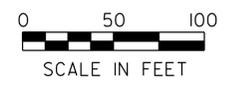
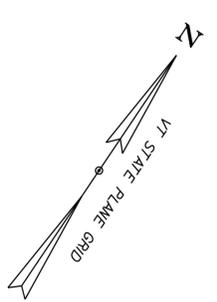
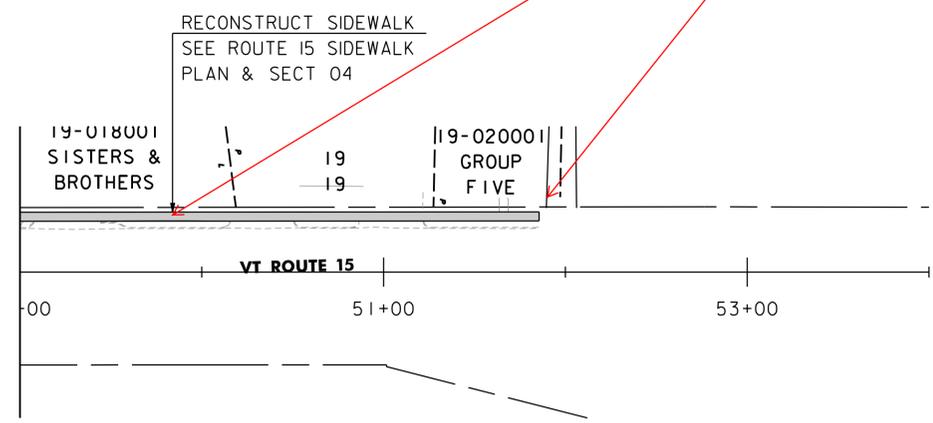
*NOTE: ALL CURVE DATA INFORMATION CAN BE FOUND ON THE ALIGNMENT DATA SHEET.



PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(15)
FILE NAME:	Alignment Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
ROUTE 15 ALIGNMENT PLAN	AP-01
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
SHEET	11 OF 35



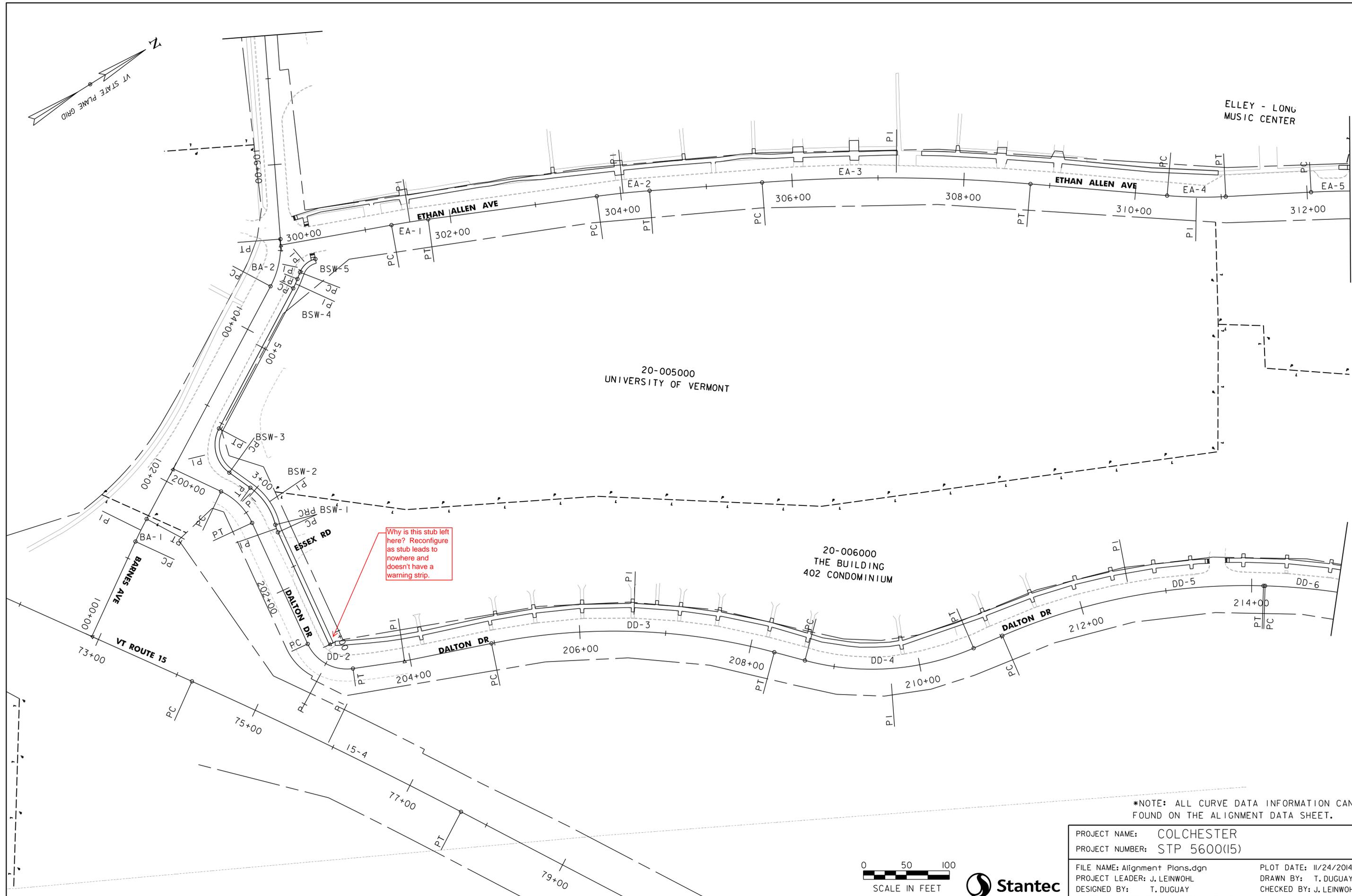
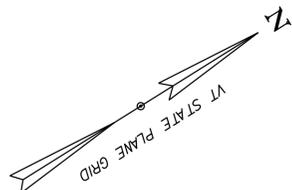
Cumbys and DD's should have warning strips as they're such busy entrances.



*NOTE: ALL CURVE DATA INFORMATION CAN BE FOUND ON THE ALIGNMENT DATA SHEET.



PROJECT NAME:	COLCHESTER	FILE NAME:	Alignment Plans.dgn	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(15)	PROJECT LEADER:	J. LEINWOHL	DRAWN BY:	T. DUGUAY
		DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. LEINWOHL
			<b>ROUTE 15 ALIGNMENT PLAN AP-02</b>	SHEET	12 OF 35



Why is this stub left here? Reconfigure as stub leads to nowhere and doesn't have a warning strip.

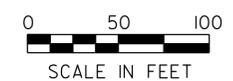
*NOTE: ALL CURVE DATA INFORMATION CAN BE FOUND ON THE ALIGNMENT DATA SHEET.



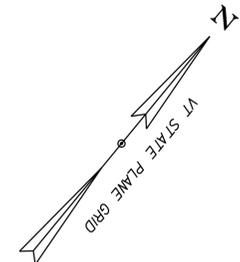
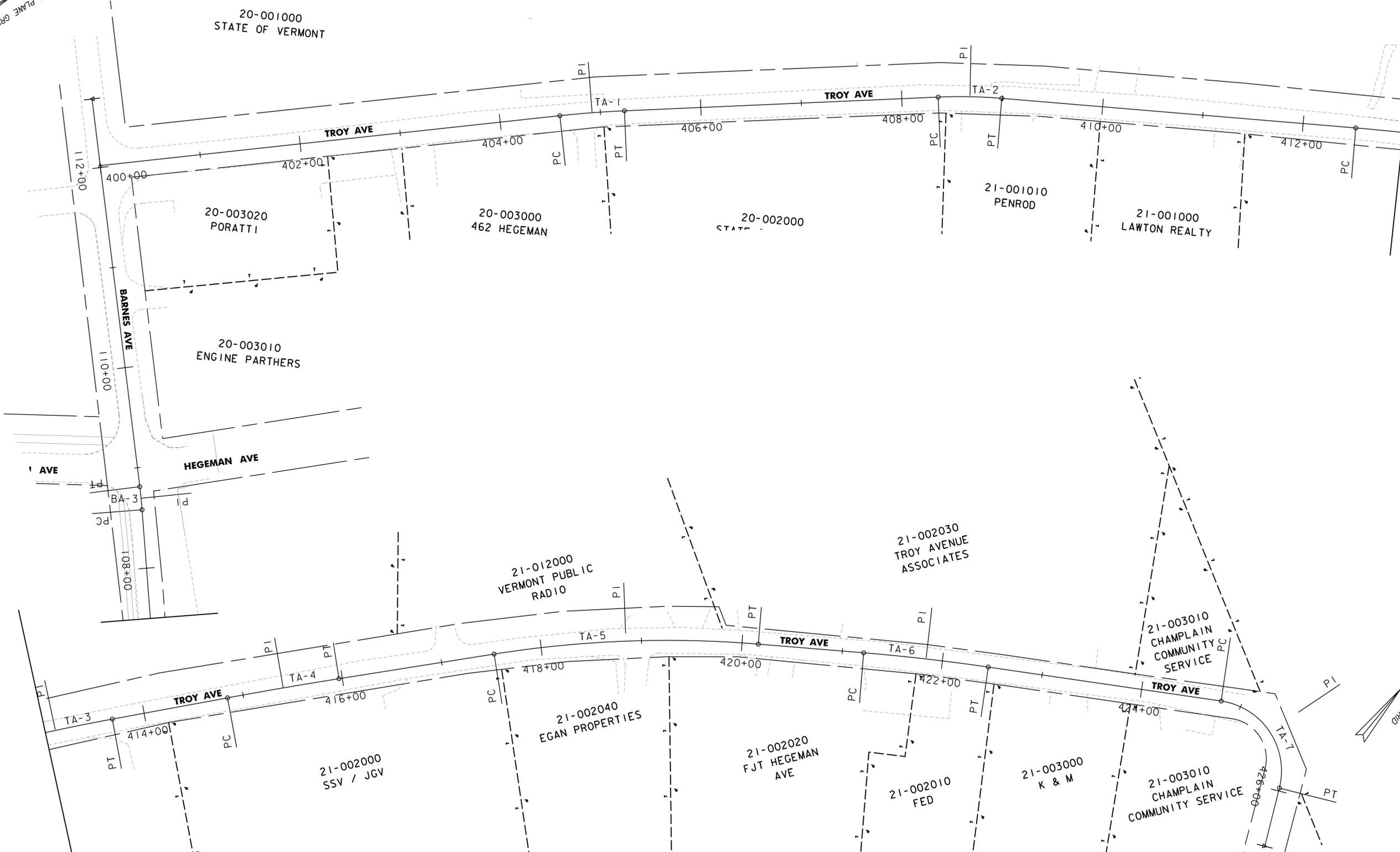
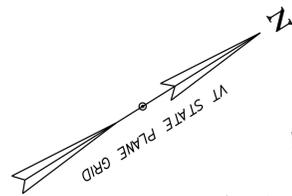
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PROJECT NUMBER:	STP 5600(15)
FILE NAME:	Alignment Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
FOR	EA ALIGNMENT PLAN AP-03
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
SHEET	13 OF 35



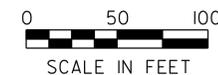
*NOTE: ALL CURVE DATA INFORMATION CAN BE FOUND ON THE ALIGNMENT DATA SHEET.



PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(I5)	DRAWN BY:	T. DUGUAY
FILE NAME:	Alignment Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL	SHEET	14 OF 35
DESIGNED BY:	T. DUGUAY	<b>FORT EA ALIGNMENT PLAN AP-04</b>	



*NOTE: ALL CURVE DATA INFORMATION CAN BE FOUND ON THE ALIGNMENT DATA SHEET.



PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(15)

FILE NAME: Alignment Plans.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
FORT EA ALIGNMENT PLAN AP-05

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL  
SHEET 15 OF 35

VT ROUTE 15 ALIGNMENT DATA				VT ROUTE 15 ALIGNMENT DATA (CONT.)			BARNES AVE SIDEWALK ALIGNMENT DATA			DALTON DR ALIGNMENT DATA				BARNES AVE SIDEWALK ALIGNMENT DATA					
Tangential Direction: N 87°20'39.83" E				Station	Northing	Easting	Tangential Direction: N 82°39'23.19" W			Tangential Direction: N 57°13'40.97" E				Station	Northing	Easting			
Station	Northing	Easting	Curve 15-6	Station	Northing	Easting	Station	Northing	Easting	Station	Northing	Easting	Curve DD-6	Station	Northing	Easting			
<b>Curve 15-1</b>			PC	100+13.73	731162.5679	1473147.0486	<b>Curve BSW-1</b>			<b>Curve DD-1</b>			PC	214+15.67	731336.5892	1471356.5105			
PC	4+97.32	727262.496	1465185.855	PI	108+29.99	731193.9190	1473962.7080	PC	2+43.60	730395.4217	1470696.0404	PC	200+61.40	730364.2925	1470620.8407	PI	215+40.46	731440.4868	1471425.6378
PI	5+96.37	727267.085	1465284.798	PT	115+67.11	730655.3054	1474576.0421	PI	2+48.26	730396.0174	1470691.4181	PI	200+88.70	730379.0680	1470643.7925	PT	216+62.84	731515.2923	1471525.5250
PT	6+95.04	727256.631	1465383.296	Radius:	2046.5			PRC	2+52.90	730397.4571	1470686.9855	PT	201+13.76	730375.6344	1470670.8723	Radius:	725		
Radius:	1300			Delta:	43°29'23.65" Right			Radius:	50			Radius:	75			Delta:	19°31'58.96" Right		
Delta:	8°42'51.06" Right			D:	2°47'58.91"			Delta:	10°39'01.15" Right			Delta:	39°59'54.35" Right			D:	7°54'10.32"		
D:	4°24'26.52"			Length:	1553.38			D:	114°35'29.61"			D:	76°23'39.74"			Length:	247.16		
Length:	197.72			Tangent:	816.26			Length:	9.29			Length:	52.36			Tangent:	124.79		
Tangent:	99.05			External:	156.78			Tangent:	4.66			Tangent:	27.3			External:	10.66		
External:	3.77			Tangential Direction:	S 48°42'40.55" E			External:	0.22			External:	4.81			Tangential Direction:	N 53°10'13.68" E		
Tangential Direction: S 83°56'29.10" E				VT ROUTE 15 SIDEWALK ALIGNMENT DATA			Tangential Direction: N 33°22'16.27" E			Tangential Direction: S 82°46'24.67" E				Tangential Direction: N 53°10'13.68" E					
Station	Northing	Easting	Curve 15-2	Station	Northing	Easting	Station	Northing	Easting	Station	Northing	Easting	Curve DD-7	Station	Northing	Easting			
PC	24+75.74	727068.6871	1467154.0433	PC	10+77.72	728365.9126	1468029.0968	<b>Curve BSW-2</b>			<b>Curve DD-2</b>		PC	216+95.16	731534.6688	1471551.3982			
PI	26+64.42	727048.7723	1467341.6745	PI	11+59.77	728429.5746	1468080.8528	PRC	2+52.90	730397.4571	1470686.9855	PC	202+68.43	730356.1776	1470824.3181	PI	218+01.24	731598.2545	1471636.3037
PT	28+08.06	727214.9089	1467431.1211	PT	12+40.54	728474.8015	1468149.3076	PI	2+80.50	730405.9844	1470660.7316	PI	203+05.81	730351.4758	1470861.3987	PT	219+02.05	731608.6715	1471741.8667
Radius:	281			Radius:	535			PT	3+05.80	730395.4569	1470635.2138	PT	203+32.63	730385.7097	1470876.4026	Radius:	380		
Delta:	67°45'39.25" Left			Delta:	17°26'15.19" Right			Radius:	75			Radius:	50			Delta:	31°11'37.70" Right		
D:	20°23'23.85"			D:	10°42'34.17"			Delta:	40°24'45.87" Left			Delta:	73°33'35.64" Left			D:	15°04'40.21"		
Length:	332.32			Length:	162.82			D:	76°23'39.74"			D:	114°35'29.61"			Length:	206.89		
Tangent:	188.69			Tangent:	82.05			Length:	52.9			Length:	64.19			Tangent:	106.08		
External:	57.47			External:	6.25			Tangent:	27.6			Tangent:	37.38			External:	14.53		
Tangential Direction: N 28°17'51.65" E				Tangential Direction: N 56°32'52.72" E			Tangential Direction: S 67°34'52.08" W			Tangential Direction: N 23°39'59.69" E				Tangential Direction: N 84°21'51.39" E					
Station	Northing	Easting	Curve 15-3	Station	Northing	Easting	Station	Northing	Easting	Station	Northing	Easting	Curve DD-8	Station	Northing	Easting			
PC	40+06.79	728270.3866	1467999.3822	PC	101+21.32	730249.0957	1470617.4245	<b>Curve BSW-3</b>			<b>Curve DD-3</b>		PC	219+11.73	731609.6228	1471751.5073			
PI	41+30.04	728378.9034	1468057.8068	PI	101+35.93	730261.3022	1470609.4067	PC	3+35.85	730383.9943	1470607.4292	PC	204+96.43	730537.8602	1470936.9182	PI	219+67.59	731615.1079	1471807.0918
PT	42+48.45	728447.7511	1468160.0289	PT	101+50.52	730273.9558	1470602.1150	PI	3+70.83	730370.6548	1470575.0955	PI	206+65.44	730696.1410	1470996.1898	PT	220+23.21	731611.7093	1471862.8429
Radius:	499.1			Radius:	500			PT	3+93.33	730400.9205	1470557.5625	PT	208+28.45	730811.5152	1471119.6999	Radius:	700		
Delta:	27°44'29.92" Right			Delta:	3°20'45.92" Right			Radius:	40			Radius:	720			Delta:	9°07'27.06" Right		
D:	11°28'47.35"			D:	11°27'32.96"			Delta:	82°20'06.25" Right			Delta:	26°25'16.11" Right			D:	8°11'06.40"		
Length:	241.66			Length:	29.2			D:	143°14'22.02"			D:	7°57'27.89"			Length:	111.47		
Tangent:	123.25			Tangent:	14.6			Length:	57.48			Length:	332.02			Tangent:	55.85		
External:	14.99			External:	0.21			Tangent:	34.98			Tangent:	169.01			External:	2.22		
Tangential Direction: N 56°02'21.56" E				Tangential Direction: N 29°57'09.59" W			Tangential Direction: N 30°05'01.67" W			Tangential Direction: N 46°57'02.20" E				Tangential Direction: N 8°39'50.65" E					
Station	Northing	Easting	Curve 15-4	Station	Northing	Easting	Station	Northing	Easting	Station	Northing	Easting	Curve DD-4	Station	Northing	Easting			
PC	74+19.14	730218.9759	1470789.8692	PC	104+56.60	730539.1542	1470449.2947	<b>Curve BSW-4</b>			<b>Curve DD-4</b>		PC	208+65.32	730836.6862	1471146.6458			
PI	75+93.01	730316.1035	1470934.0801	PI	104+85.74	730564.3980	1470434.7480	PC	5+77.53	730560.3033	1470465.2317	PC	209+69.46	730907.7738	1471222.7463	PI	209+69.46	730907.7738	1471222.7463
PT	77+66.77	730404.3081	1471083.9149	PT	105+13.30	730577.8782	1470408.9189	PI	5+83.48	730565.4543	1470462.2478	PI	210+65.79	731010.7236	1471238.4338	PT	210+65.79	731010.7236	1471238.4338
Radius:	5729.7			Radius:	100			PT	5+89.42	730570.2148	1470458.6738	PT	210+65.79	731010.7236	1471238.4338	Radius:	300		
Delta:	3°28'34.48" Right			Delta:	3°20'45.92" Right			Radius:	100			Radius:	300			Delta:	38°17'11.55" Left		
D:	0°59'59.92"			D:	11°27'32.96"			Delta:	6°48'48.22" Left			Delta:	26°25'16.11" Right			D:	19°05'54.94"		
Length:	347.63			Length:	29.2			D:	57°17'44.81"			D:	7°57'27.89"			Length:	200.47		
Tangent:	173.87			Tangent:	14.6			Length:	57.48			Length:	332.02			Tangent:	104.14		
External:	2.64			External:	0.21			Tangent:	34.98			Tangent:	169.01			External:	17.56		
Tangential Direction: N 59°30'56.05" E				Tangential Direction: N 62°26'23.25" W			Tangential Direction: N 36°53'49.90" W			Tangential Direction: N 8°39'50.65" E				Tangential Direction: N 8°39'50.65" E					
Station	Northing	Easting	Curve 15-5	Station	Northing	Easting	Station	Northing	Easting	Station	Northing	Easting	Curve DD-5	Station	Northing	Easting			
PC	88+37.66	730947.5713	1472006.7661	PC	108+58.09	730737.4034	1470103.2586	<b>Curve BSW-5</b>			<b>Curve DD-5</b>		PC	211+02.15	731046.6735	1471243.9119			
PI	91+98.63	731130.6961	1472317.8436	PI	108+69.59	730742.7274	1470093.0575	PC	5+97.76	730576.8813	1470453.6690	PC	212+60.49	731203.2039	1471267.7639	PI	212+60.49	731203.2039	1471267.7639
PT	95+44.89	731144.5605	1472678.5535	PT	108+81.10	730747.5764	1470082.6224	PI	6+11.14	730587.5800	1470445.6370	PI	214+13.80	731335.0291	1471355.4725	PT	214+13.80	731335.0291	1471355.4725
Radius:	1432.7			Radius:	500			PT	6+22.32	730600.1980	1470450.0824	PT	214+13.80	731335.0291	1471355.4725	Radius:	715		
Delta:	28°16'59.75" Right			Delta:	2°38'12.07" Left			Radius:	25			Radius:	715			Delta:	24°58'24.07" Right		
D:	3°59'56.93"			D:	11°27'32.96"			Delta:	56°18'17.29" Right			Delta:	24°58'24.07" Right			D:	8°00'48.22"		
Length:	707.23			Length:	23.01			D:	229°10'59.22"			D:	8°00'48.22"			Length:	311.65		
Tangent:	360.98			Tangent:	11.51			Length:	24.57			Length:	311.65			Tangent:	158.34		
External:	44.78			External:	0.13			Tangent:	13.38			Tangent:	158.34			External:	17.32		
Tangential Direction: N 87°47'55.80" E				Tangential Direction: N 65°04'35.32" W			Tangential Direction: N 33°38'14.72" E			Tangential Direction: N 33°38'14.72" E				Tangential Direction: N 33°38'14.72" E					

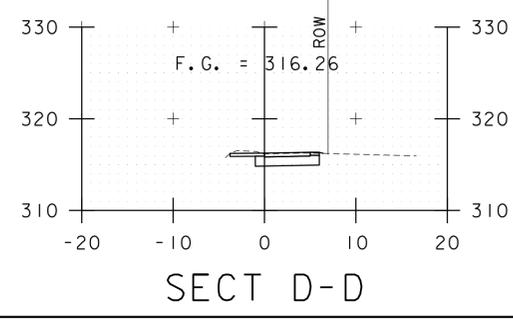
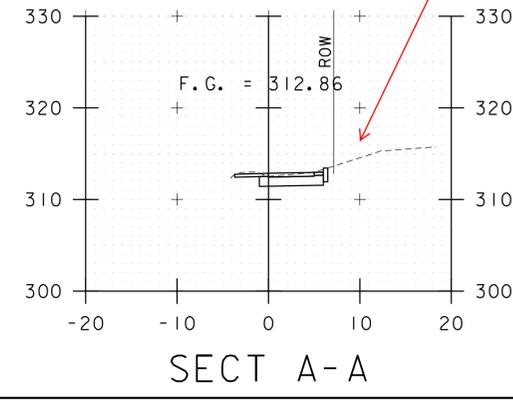
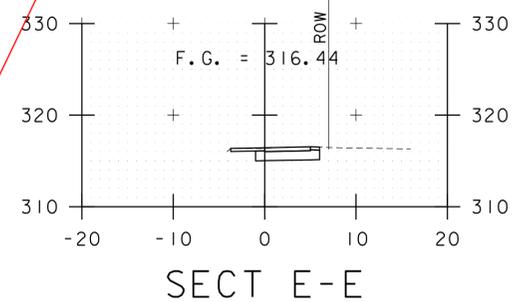
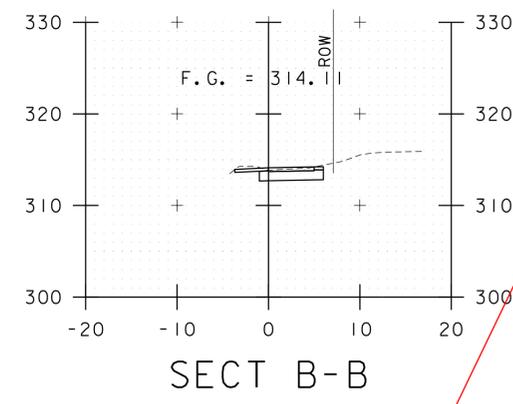
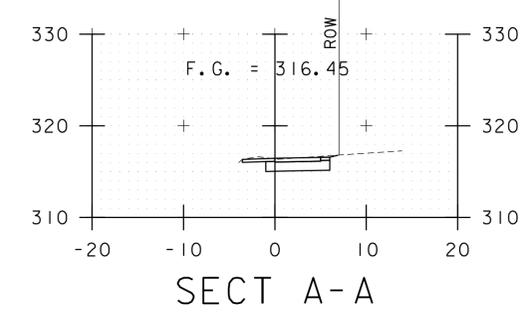
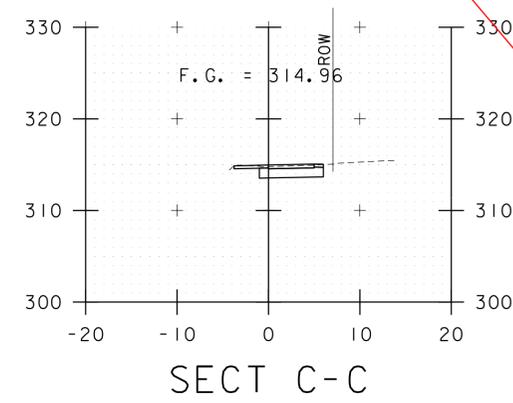
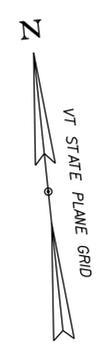
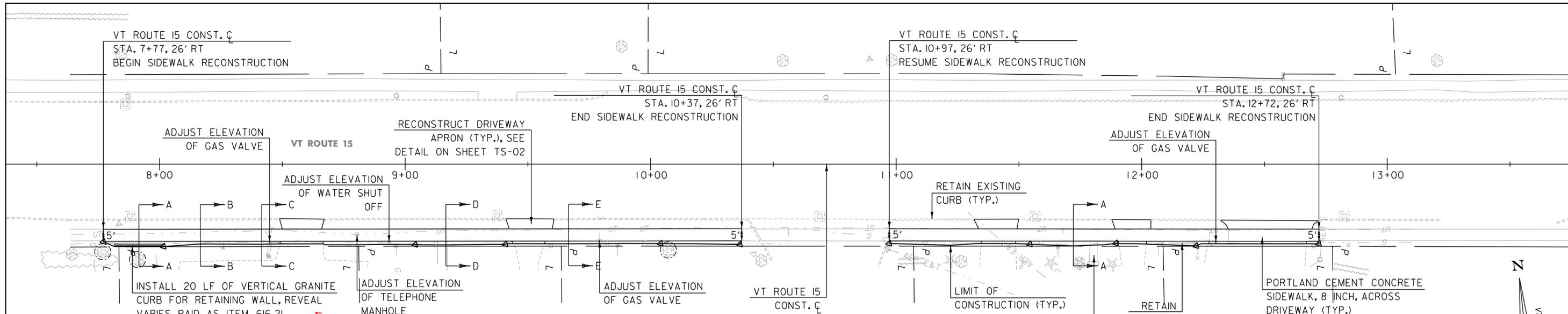
PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(I5)	DRAWN BY:	T. DUGUAY
FILE NAME:	Alignment Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL	ALIGNMENT DATA SHEET AD-01	SHEET 16 OF 35



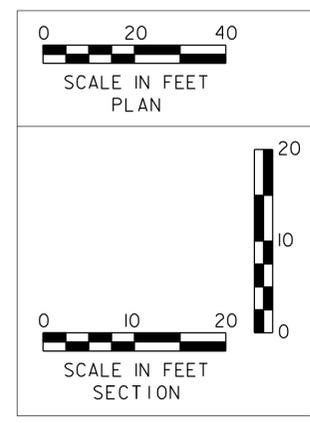
ETHAN ALLEN AVE ALIGNMENT DATA				ETHAN ALLEN AVE ALIGNMENT DATA (CONT.)			TROY AVE ALIGNMENT DATA				TROY AVE ALIGNMENT DATA (CONT.)				
Tangential Direction: N 21°44'03.47" E				Station	Northing	Easting	Tangential Direction: N 25°46'45.54" E				Station	Northing	Easting		
Station	Northing	Easting	Curve EA-6				Station	Northing	Easting	Curve TA-6					
<b>Curve EA-1</b>			PC	314+23.70	731802.5388	1471123.0576	<b>Curve TA-1</b>			PC	421+21.31	732577.7976	1471026.2582		
PC	301+30.94	730696.0607	1470463.4826	PI	316+38.62	731967.4788	1471260.8375	PC	404+59.65	731296.5816	1469991.4586	PI	421+83.67	732613.4024	1471077.4555
PI	301+52.57	730716.1571	1470471.4939	PT	318+50.63	732087.0960	1471439.3879	PI	404+91.84	731325.5685	1470005.4585	PT	422+45.99	732645.7484	1471130.7714
PT	301+74.20	730735.8883	1470480.3668	Radius:	1500			PT	405+24.01	731353.5949	1470021.2937	Radius:	2000		
Radius:	1000			Delta:	16°18'26.37" Right			Radius:	1000			Delta:	3°34'18.65" Right		
Delta:	2°28'43.44" Right			D:	3°49'10.99"			Delta:	3°41'14.99" Right			D:	2°51'53.24"		
D:	5°43'46.48"			Length:	426.92			D:	5°43'46.48"			Length:	124.68		
Length:	43.26			Tangent:	214.92			Length:	64.36			Tangent:	62.36		
Tangent:	21.63			External:	15.32			Tangent:	32.19			External:	0.97		
External:	0.23			Tangential Direction:	N 56°10'49.68" E			External:	0.52			Tangential Direction:	N 58°45'19.45" E		
Tangential Direction: N 24°12'46.91" E				Station	Northing	Easting	Tangential Direction: N 29°28'00.52" E				Station	Northing	Easting		
Station	Northing	Easting	Curve EA-7				Station	Northing	Easting	Curve TA-7					
<b>Curve EA-2</b>			PC	318+57.83	732091.1048	1471445.3717	<b>Curve TA-2</b>			PC	424+79.95	732767.1015	1471330.7977		
PC	303+72.13	730916.4098	1470561.5458	PI	319+69.54	732153.2777	1471538.1761	PC	408+36.12	731625.3362	1470174.8298	PI	425+57.43	732807.2895	1471397.0395
PI	304+02.99	730944.5532	1470574.2016	PT	320+80.68	732198.4352	1471640.3473	PI	408+67.83	731652.9407	1470190.4265	PT	425+97.00	732737.3217	1471430.3197
PT	304+33.83	730971.8627	1470588.5686	Radius:	1280			PT	408+99.45	731678.3539	1470209.3852	Radius:	70		
Radius:	1000			Delta:	9°58'30.48" Right			Radius:	500			Delta:	95°48'23.46" Right		
Delta:	3°32'05.83" Right			D:	4°28'34.44"			Delta:	7°15'24.27" Right			D:	81°51'04.01"		
D:	5°43'46.48"			Length:	222.85			D:	11°27'32.96"			Length:	117.05		
Length:	61.7			Tangent:	111.71			Length:	63.33			Tangent:	77.48		
Tangent:	30.86			External:	4.87			Tangent:	31.71			External:	34.42		
External:	0.48			Tangential Direction:	N 66°09'20.16" E			External:	1			Tangential Direction:	S 25°26'17.09" E		
Tangential Direction: N 27°44'52.73" E				Station	Northing	Easting	Tangential Direction: N 36°43'24.79" E				Station	Northing	Easting		
Station	Northing	Easting	Curve EA-8				Station	Northing	Easting	Curve TA-3					
<b>Curve EA-3</b>			PC	321+09.74	732210.1828	1471666.9268	<b>Curve TA-3</b>			PC	412+52.50	731961.3327	1470420.4921		
PC	305+65.06	731088.0031	1470649.6678	PI	322+20.95	732255.1421	1471768.6495	PC	413+10.22	732007.5938	1470455.0037	PI	413+10.22	732007.5938	1470455.0037
PI	307+21.62	731226.5597	1470722.5597	PT	323+21.11	732216.7499	1471873.0282	PI	413+67.90	732051.7878	1470492.1256	PT	413+67.90	732051.7878	1470492.1256
PT	308+77.53	731351.9016	1470816.3712	Radius:	275			PT	413+67.90	732051.7878	1470492.1256	Radius:	2000		
Radius:	1975			Delta:	44°02'19.44" Right			Radius:	2000			Delta:	3°18'21.49" Right		
Delta:	9°03'53.44" Right			D:	20°50'05.38"			Delta:	3°18'21.49" Right			D:	2°51'53.24"		
D:	2°54'03.79"			Length:	211.37			D:	2°51'53.24"			Length:	115.4		
Length:	312.47			Tangent:	111.22			Length:	115.4			Tangent:	57.72		
Tangent:	156.56			External:	21.64			Tangent:	57.72			External:	0.83		
External:	6.2			Tangential Direction:	S 69°48'20.40" E			External:	0.83			Tangential Direction:	N 40°01'46.28" E		
Tangential Direction: N 36°48'46.17" E				Station	Northing	Easting	Tangential Direction: N 41°27'37.36" E				Station	Northing	Easting		
Station	Northing	Easting	Curve EA-4				Station	Northing	Easting	Curve TA-4					
<b>Curve EA-4</b>			PC	310+37.04	731479.607	1470911.952	<b>Curve TA-4</b>			PC	414+84.31	732140.9241	1470566.9982		
PC	310+37.04	731479.607	1470911.952	PI	310+71.22	731506.970	1470932.431	PC	414+84.31	732140.9241	1470566.9982	PI	415+40.50	732183.9515	1470603.1402
PI	310+71.22	731506.970	1470932.431	PT	311+05.29	731536.864	1470948.996	PI	415+40.50	732183.9515	1470603.1402	PT	415+96.69	732226.0629	1470640.3454
PT	311+05.29	731536.864	1470948.996	Radius:	500			PT	415+96.69	732226.0629	1470640.3454	Radius:	4500		
Radius:	500			Delta:	7°49'14.74" Left			Radius:	4500			Delta:	1°25'51.08" Right		
Delta:	7°49'14.74" Left			D:	11°27'32.96"			Delta:	1°25'51.08" Right			D:	1°16'23.66"		
D:	11°27'32.96"			Length:	68.25			D:	1°16'23.66"			Length:	112.38		
Length:	68.25			Tangent:	34.18			Length:	112.38			Tangent:	56.19		
Tangent:	34.18			External:	1.17			Tangent:	56.19			External:	0.35		
External:	1.17			Tangential Direction:	N 28°59'31.43" E			External:	0.35			Tangential Direction:	N 41°27'37.36" E		
Tangential Direction: N 28°59'31.43" E				Station	Northing	Easting	Tangential Direction: N 55°11'00.80" E				Station	Northing	Easting		
Station	Northing	Easting	Curve EA-5				Station	Northing	Easting	Curve TA-5					
<b>Curve EA-5</b>			PC	312+04.65	731623.7738	1470997.1555	<b>Curve TA-5</b>			PC	417+52.79	732343.0436	1470743.6970		
PC	312+04.65	731623.7738	1470997.1555	PI	312+99.89	731707.0805	1471043.3181	PC	417+52.79	732343.0436	1470743.6970	PI	418+85.15	732442.2409	1470831.3371
PI	312+99.89	731707.0805	1471043.3181	PT	313+94.56	731780.1753	1471104.3766	PI	418+85.15	732442.2409	1470831.3371	PT	420+16.25	732517.8154	1470940.0080
PT	313+94.56	731780.1753	1471104.3766	Radius:	1000			PT	420+16.25	732517.8154	1470940.0080	Radius:	1100		
Radius:	1000			Delta:	10°52'51.89" Right			Radius:	1100			Delta:	13°43'23.44" Right		
Delta:	10°52'51.89" Right			D:	5°43'46.48"			Delta:	13°43'23.44" Right			D:	5°12'31.35"		
D:	5°43'46.48"			Length:	189.91			D:	5°12'31.35"			Length:	263.47		
Length:	189.91			Tangent:	95.24			Length:	263.47			Tangent:	132.37		
Tangent:	95.24			External:	4.53			Tangent:	132.37			External:	7.94		
External:	4.53			Tangential Direction:	N 39°52'23.32" E			External:	7.94			Tangential Direction:	N 55°11'00.80" E		

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	Alignment Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
<b>ALIGNMENT DATA SHEET AD-02</b>	
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
SHEET	17 OF 35



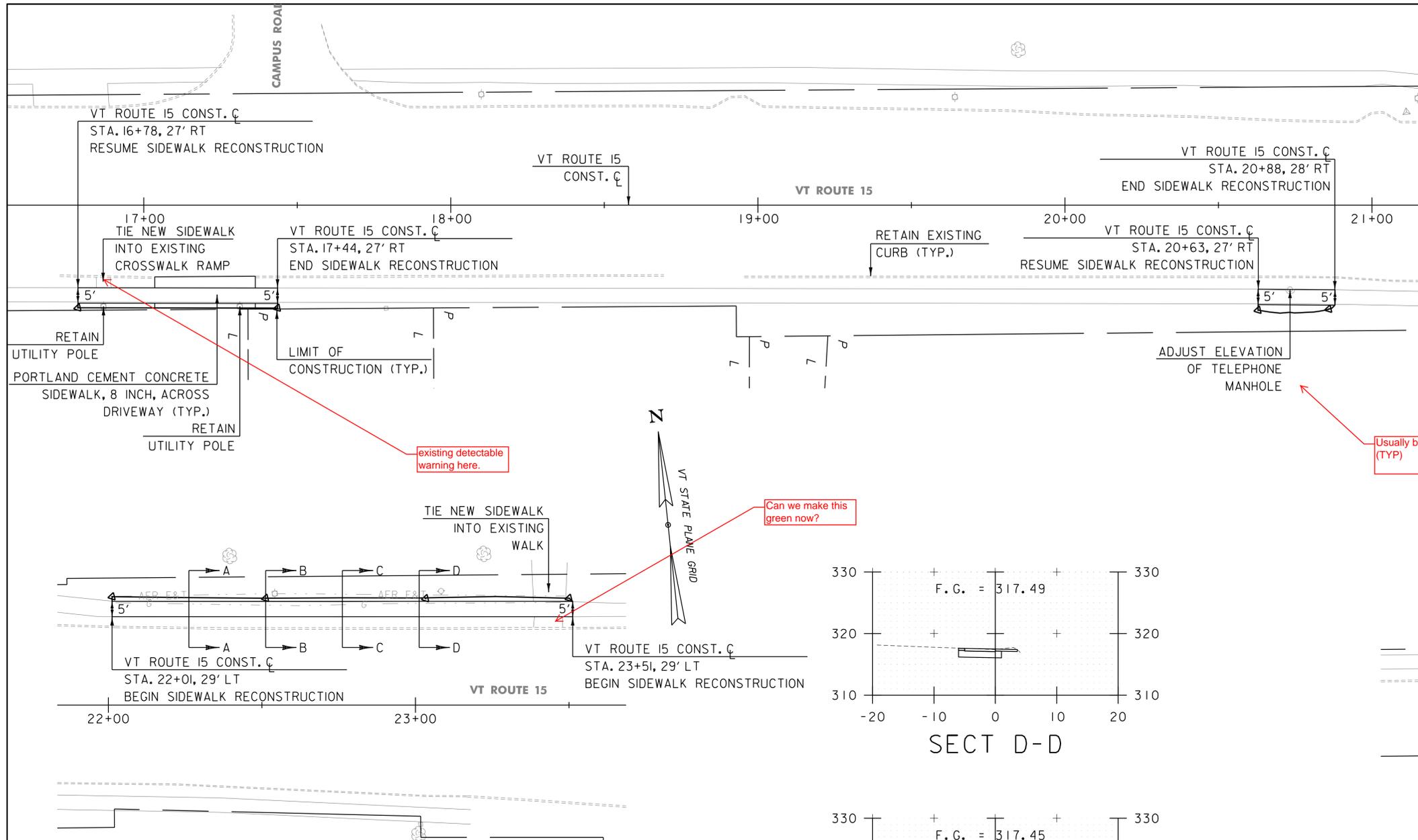


- NOTES:
1. ALL TREES AND SHRUBS SHALL BE PROTECTED AND RETAINED. TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
  2. ALL UTILITY POLES SHALL BE RETAINED.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.



PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	General Plans_Route15.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
ROUTE 15 SIDEWALK PLAN & SECT 01	
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
SHEET	18 OF 35



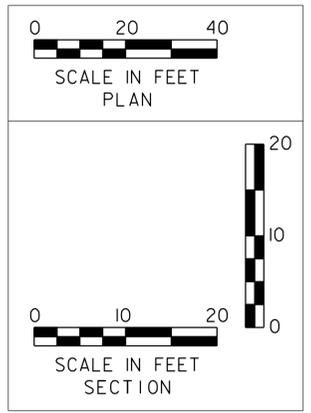
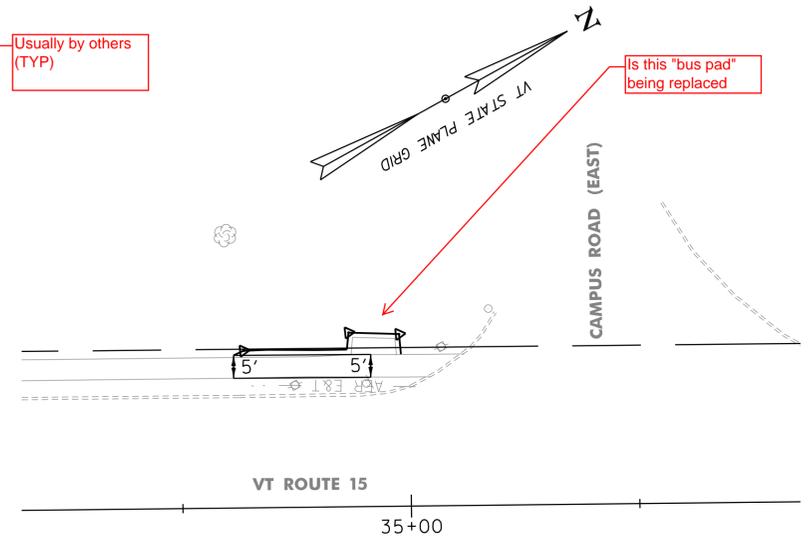
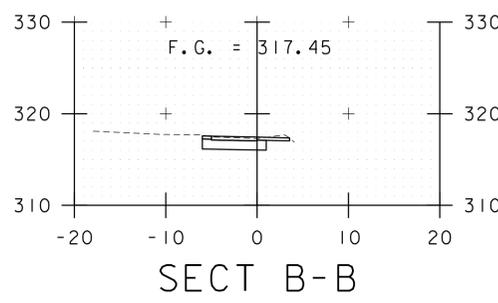
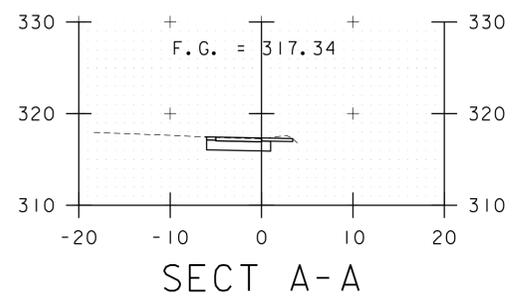
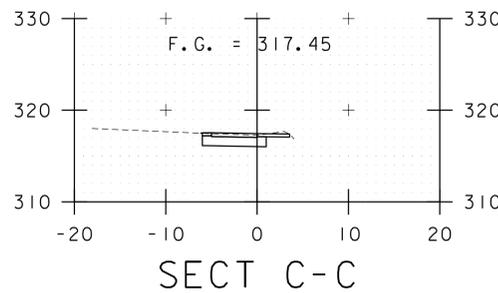
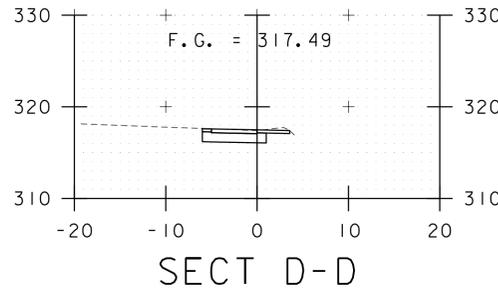
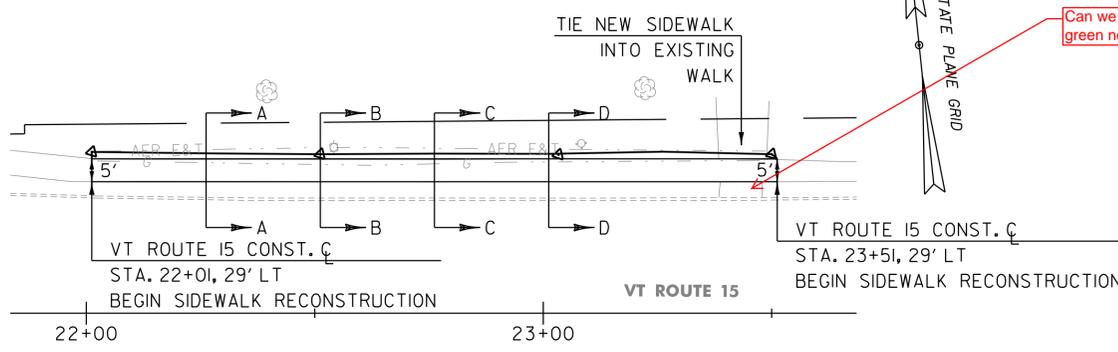


existing detectable warning here.

Usually by others (TYP)

Can we make this green now?

Is this "bus pad" being replaced

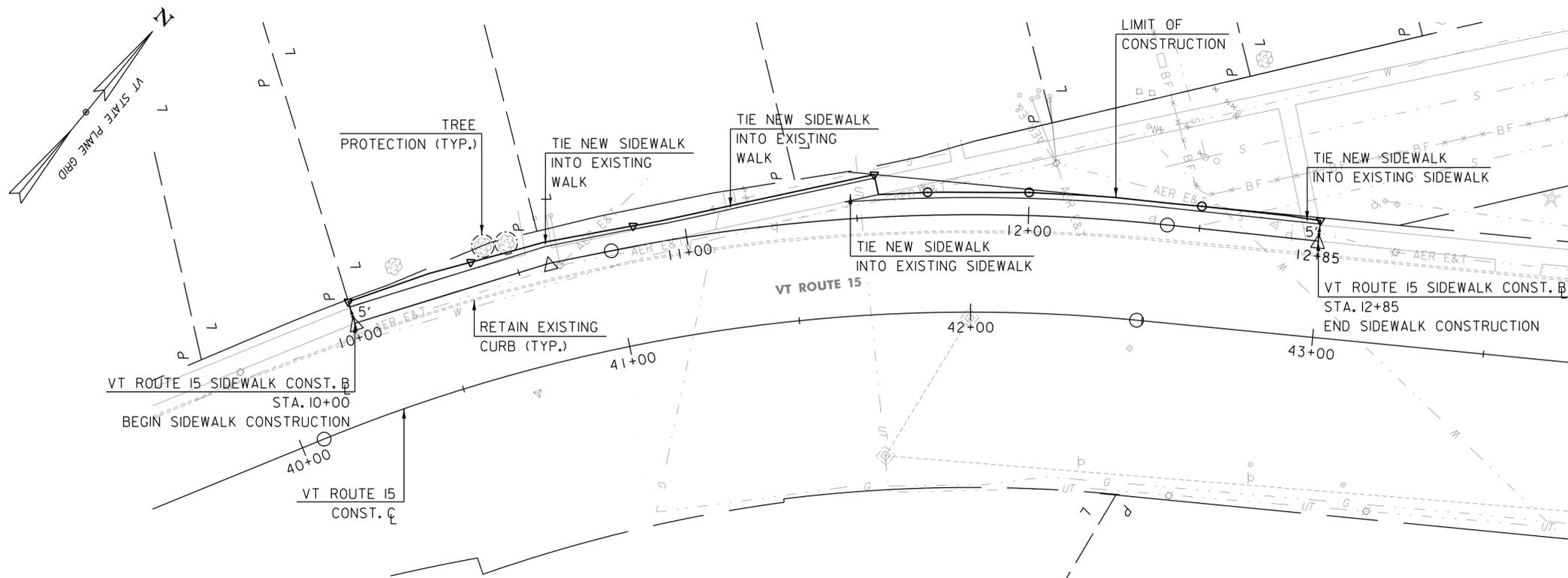


- NOTES:
1. ALL TREES AND SHRUBS SHALL BE PROTECTED AND RETAINED. TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
  2. ALL UTILITY POLES SHALL BE RETAINED.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.

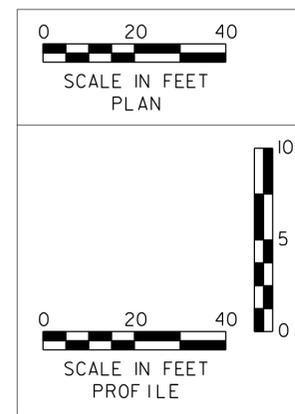
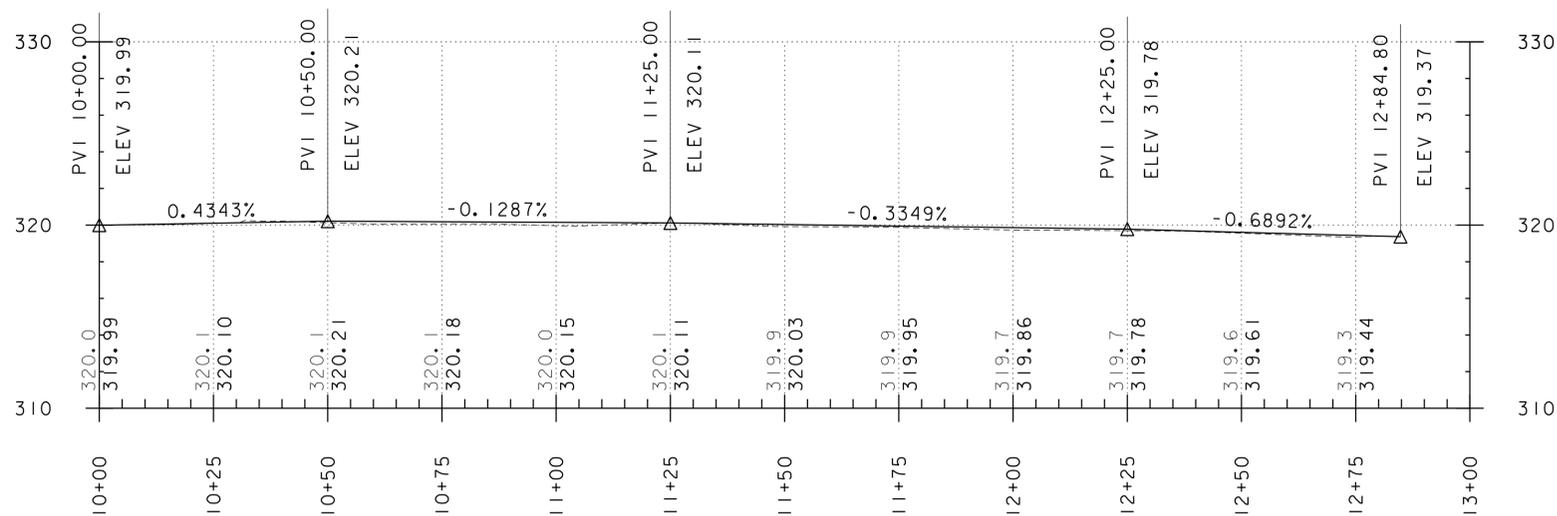
Contractor should also notify VTrans District 5 of all work near signals. (655-1580, Steve Guyette)

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	GeneralPlans_Route15.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
<b>ROUTE 15 SIDEWALK PLAN &amp; SECT 02</b>	
SHEET 19 OF 35	





# VT ROUTE 15 SIDEWALK



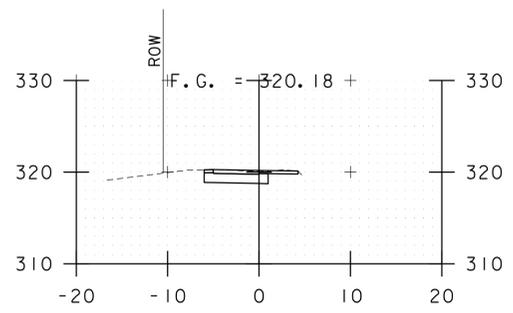
- NOTES:
1. ALL TREES AND SHRUBS SHALL BE PROTECTED AND RETAINED. TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
  2. ALL UTILITY POLES SHALL BE RETAINED.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.



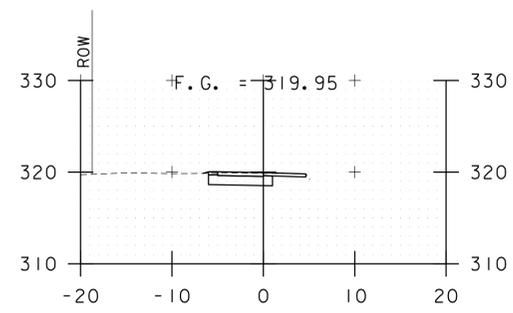
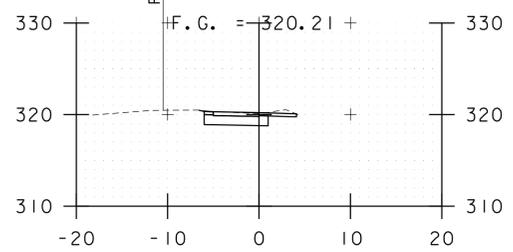
PROJECT NAME: COLCHESTER  
 PROJECT NUMBER: STP 5600(I5)

FILE NAME: GeneralPlans_Route15.dgn  
 PROJECT LEADER: J. LEINWOHL  
 DESIGNED BY: T. DUGUAY  
**ROUTE 15 SIDEWALK CONSTRUCTION**

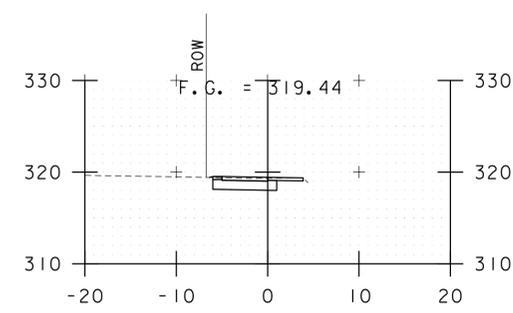
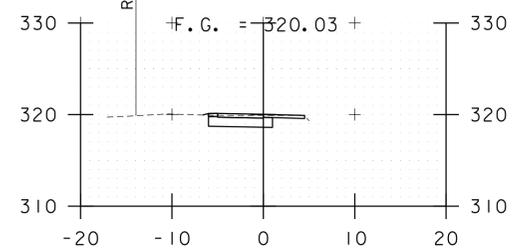
PLOT DATE: 11/24/2014  
 DRAWN BY: T. DUGUAY  
 CHECKED BY: J. LEINWOHL  
 SHEET 20 OF 35



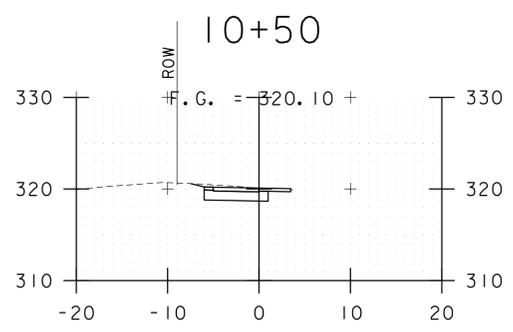
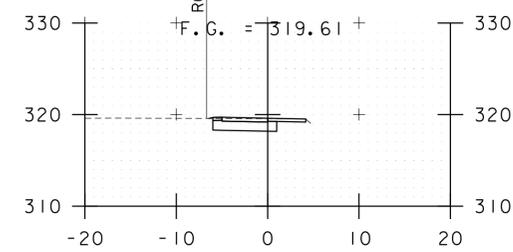
10+75



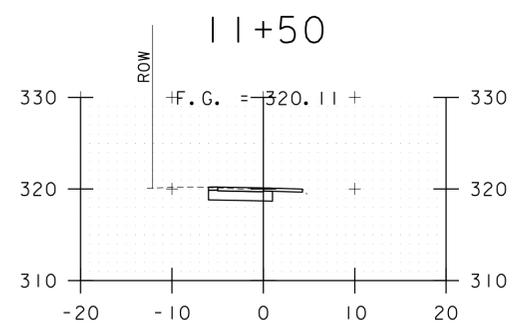
11+75



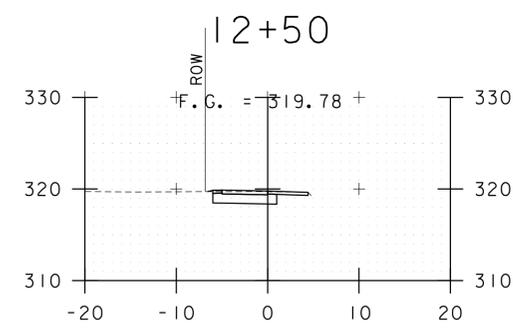
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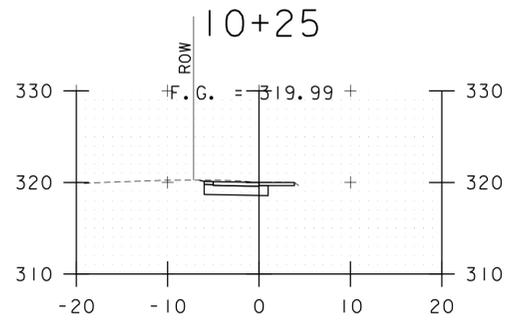
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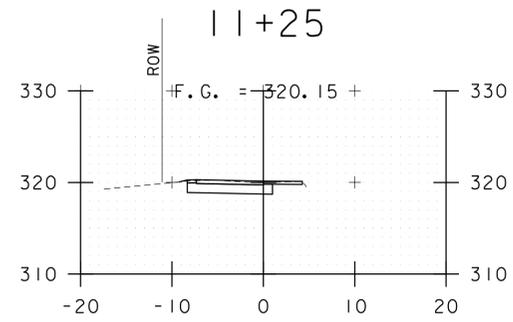
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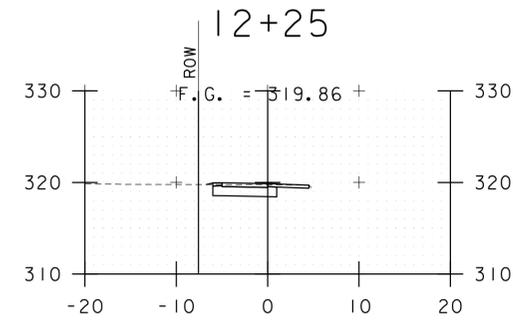
12+50



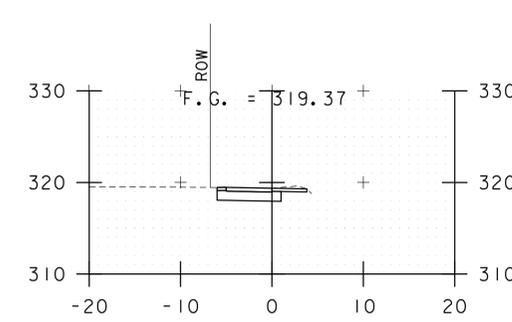
10+25



11+25



12+25



12+85

10+00

11+00

12+00

12+85

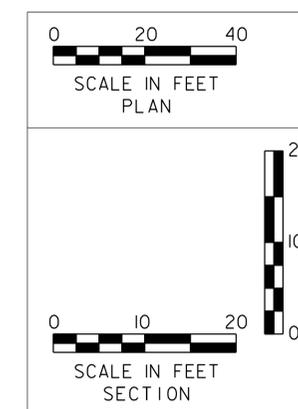
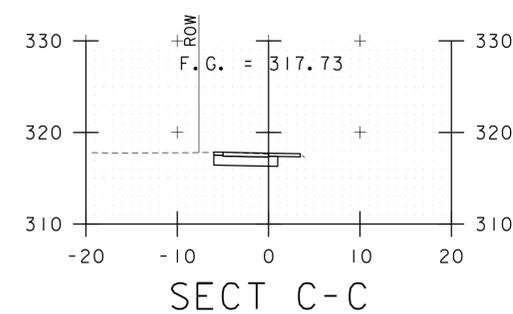
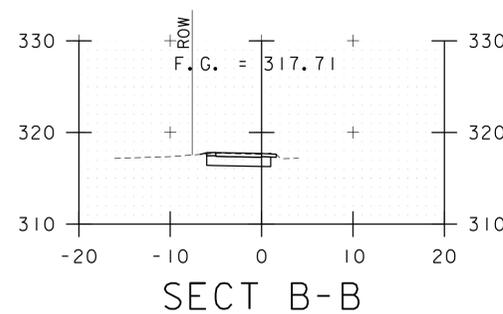
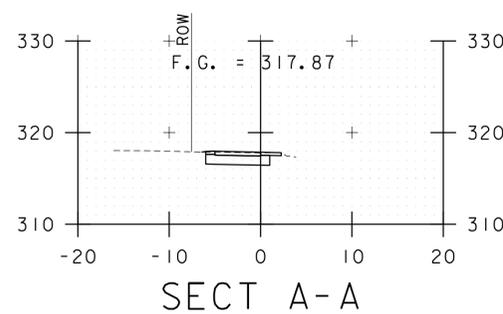
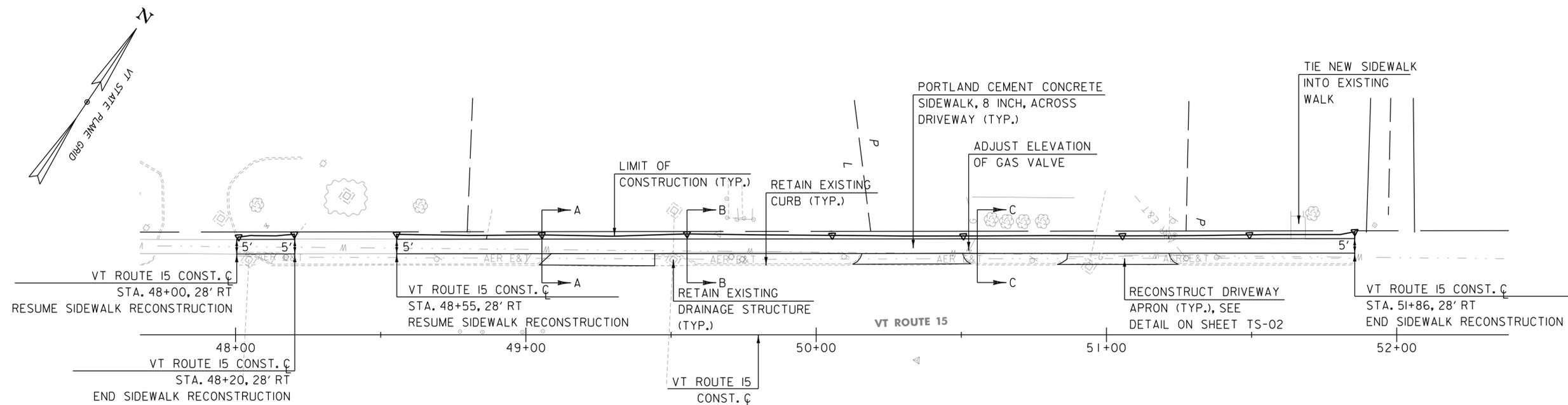


SCALE IN FEET

PROJECT NAME: COLCHESTER	
PROJECT NUMBER: STP 5600(I5)	
FILE NAME: Cross Sections.dgn	PLOT DATE: 11/24/2014
PROJECT LEADER: J. LEINWOHL	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: J. LEINWOHL
<b>ROUTE 15 SIDEWALK CROSS SECTIONS</b>	
SHEET 21 OF 35	



STA. 10+00 TO STA. 12+85



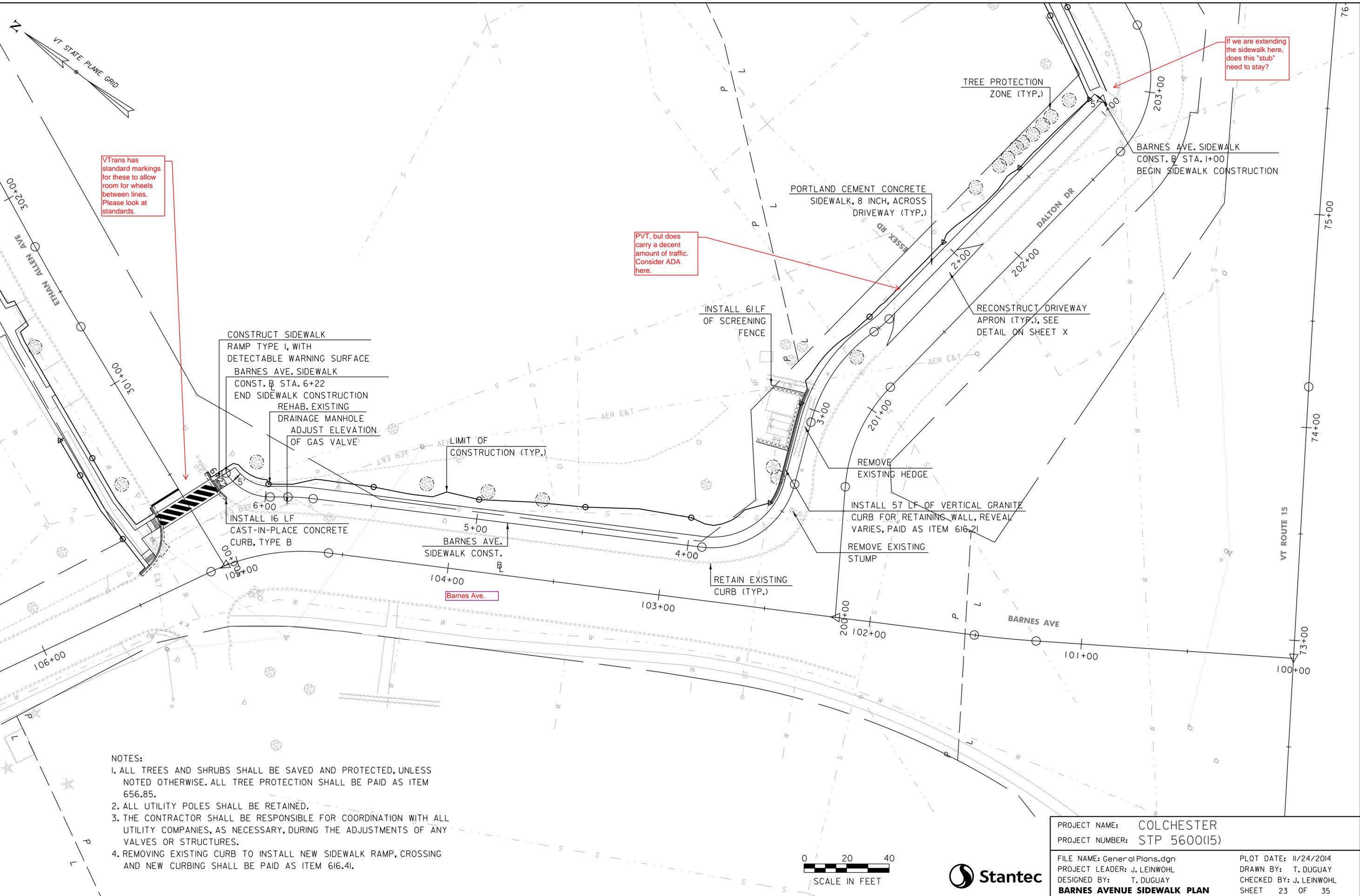
NOTES:

1. ALL TREES AND SHRUBS SHALL BE PROTECTED AND RETAINED. TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
2. ALL UTILITY POLES SHALL BE RETAINED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.



PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: General Plans_Route15.dgn PLOT DATE: 11/24/2014  
PROJECT LEADER: J. LEINWOHL DRAWN BY: T. DUGUAY  
DESIGNED BY: T. DUGUAY CHECKED BY: J. LEINWOHL  
ROUTE 15 SIDEWALK PLAN & SECT 04 SHEET 22 OF 35



VTrans has standard markings for these to allow room for wheels between lines. Please look at standards.

PVT, but does carry a decent amount of traffic. Consider ADA here.

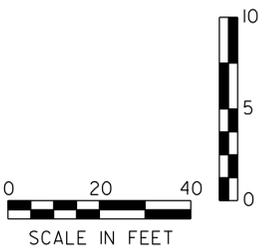
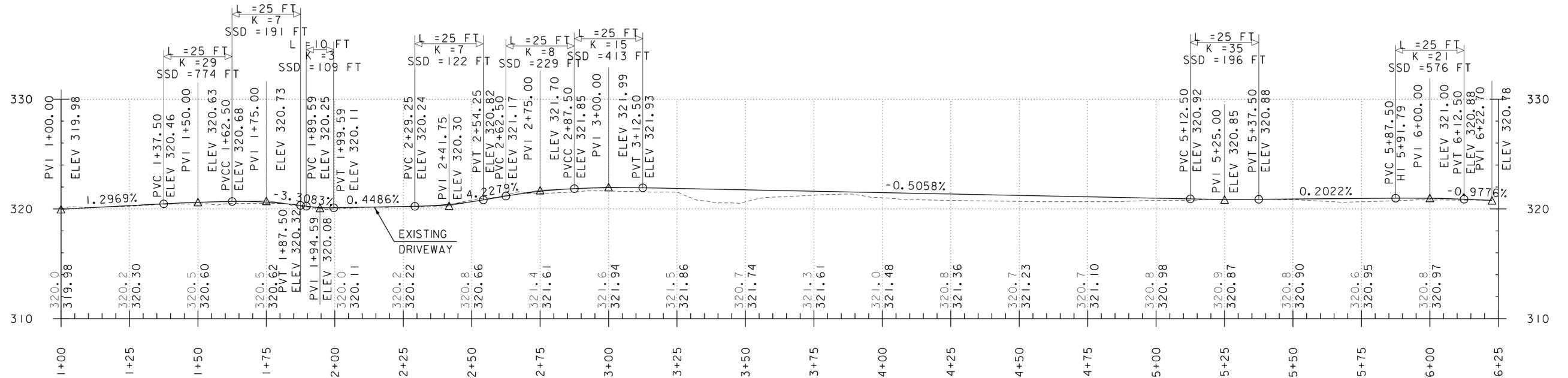
If we are extending the sidewalk here, does this "stub" need to stay?

- NOTES:
1. ALL TREES AND SHRUBS SHALL BE SAVED AND PROTECTED, UNLESS NOTED OTHERWISE. ALL TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
  2. ALL UTILITY POLES SHALL BE RETAINED.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.
  4. REMOVING EXISTING CURB TO INSTALL NEW SIDEWALK RAMP, CROSSING AND NEW CURBING SHALL BE PAID AS ITEM 616.41.



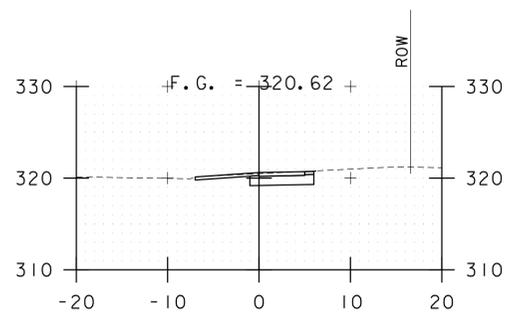
PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(I5)	DRAWN BY:	T. DUGUAY
FILE NAME:	General Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL	SHEET	23 OF 35
DESIGNED BY:	T. DUGUAY	<b>BARNES AVENUE SIDEWALK PLAN</b>	

# BARNES AVENUE SIDEWALK PROFILE

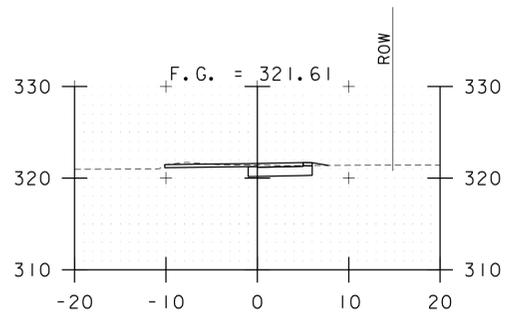


PROJECT NAME: COLCHESTER	PLOT DATE: 11/24/2014
PROJECT NUMBER: STP 5600(I5)	DRAWN BY: T. DUGUAY
FILE NAME: Profile.dgn	CHECKED BY: J. LEINWOHL
PROJECT LEADER: J. LEINWOHL	SHEET 24 OF 35
DESIGNED BY: T. DUGUAY	
<b>SIDEWALK PROFILE PRO-01</b>	

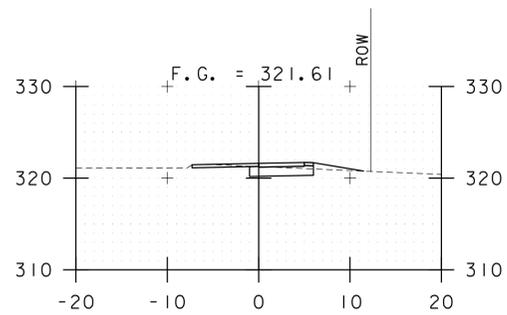




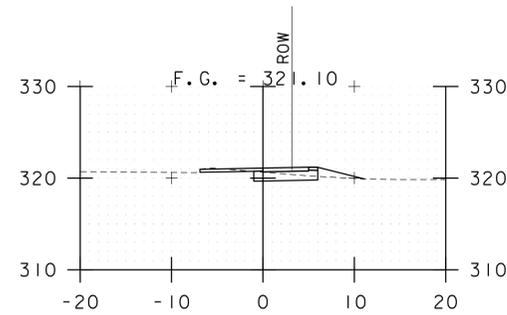
1+75



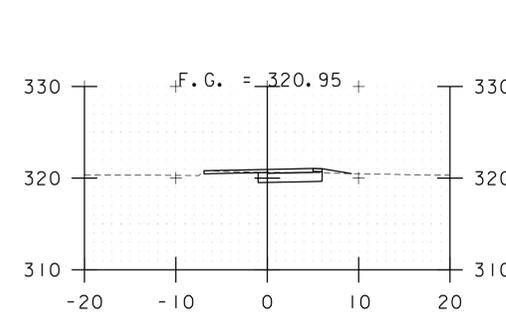
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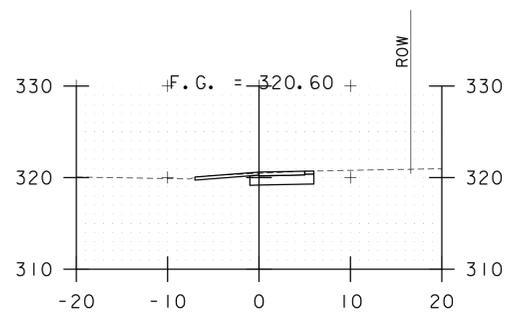
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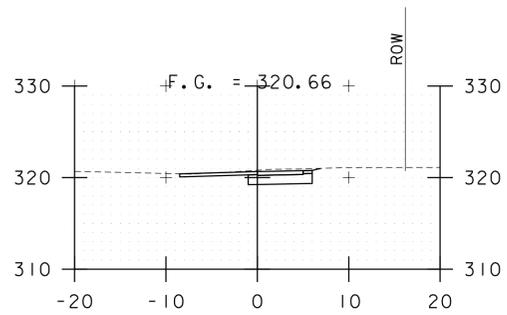
4+75



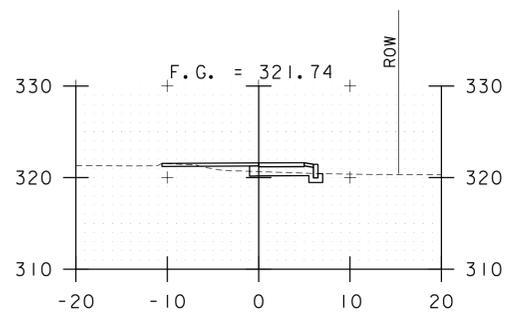
5+75



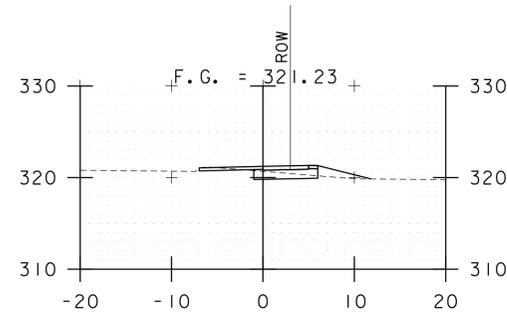
1+50



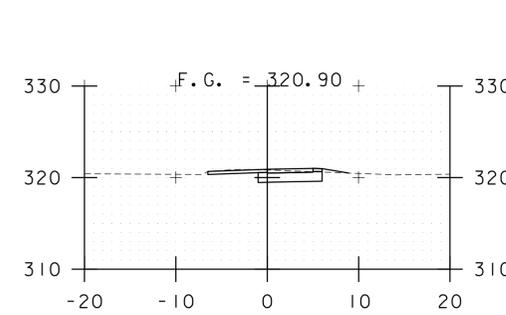
2+50



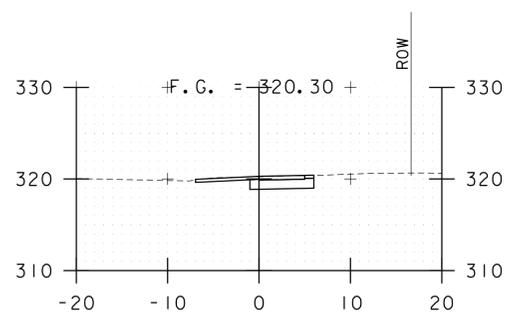
3+50



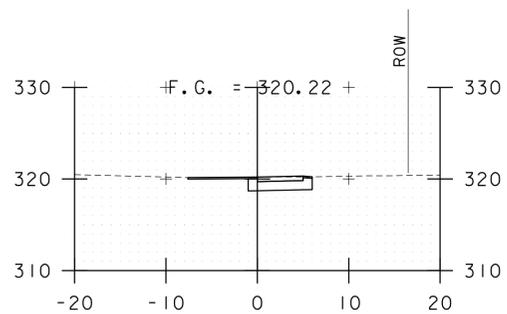
4+50



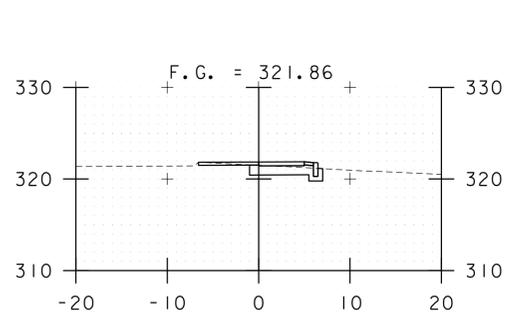
5+50



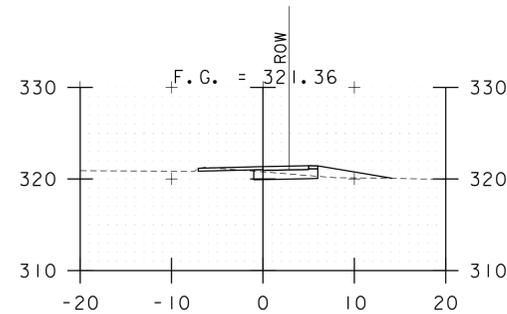
1+25



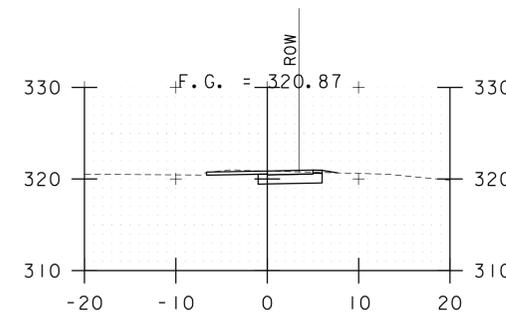
2+25



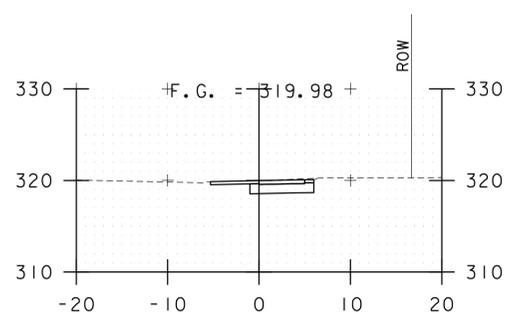
3+25



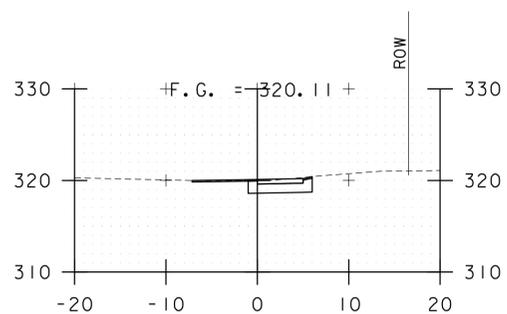
4+25



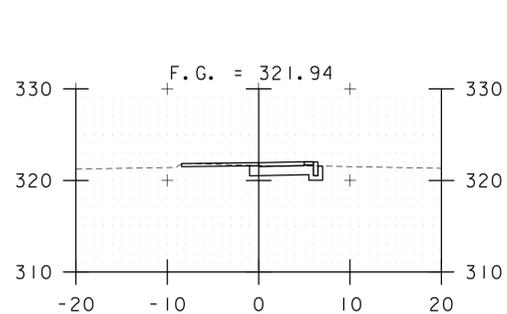
5+25



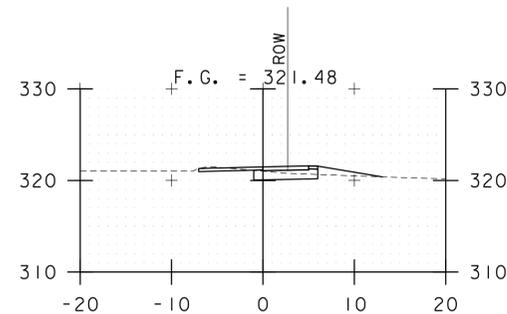
1+00



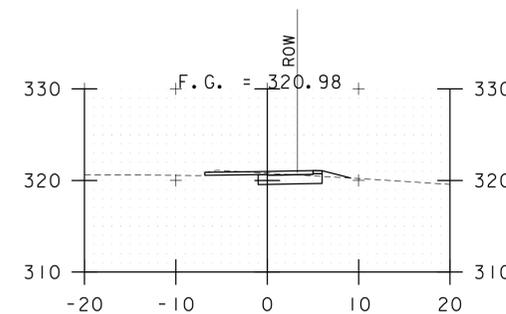
2+00



3+00



4+00



5+00



SCALE IN FEET

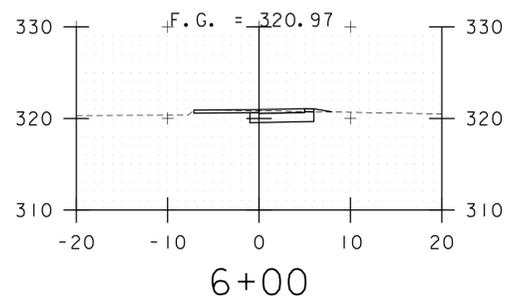
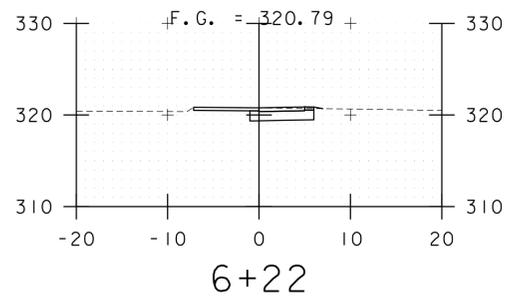


STA. 1+00 TO STA. 5+75

PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(I5)

FILE NAME: Cross Sections.dgn  
PROJECT LEADER: J. LEINWOHL  
DESIGNED BY: T. DUGUAY  
BARNES AVE. SDWK CROSS SECTIONS 01 SHEET 25 OF 35

PLOT DATE: 11/24/2014  
DRAWN BY: T. DUGUAY  
CHECKED BY: J. LEINWOHL



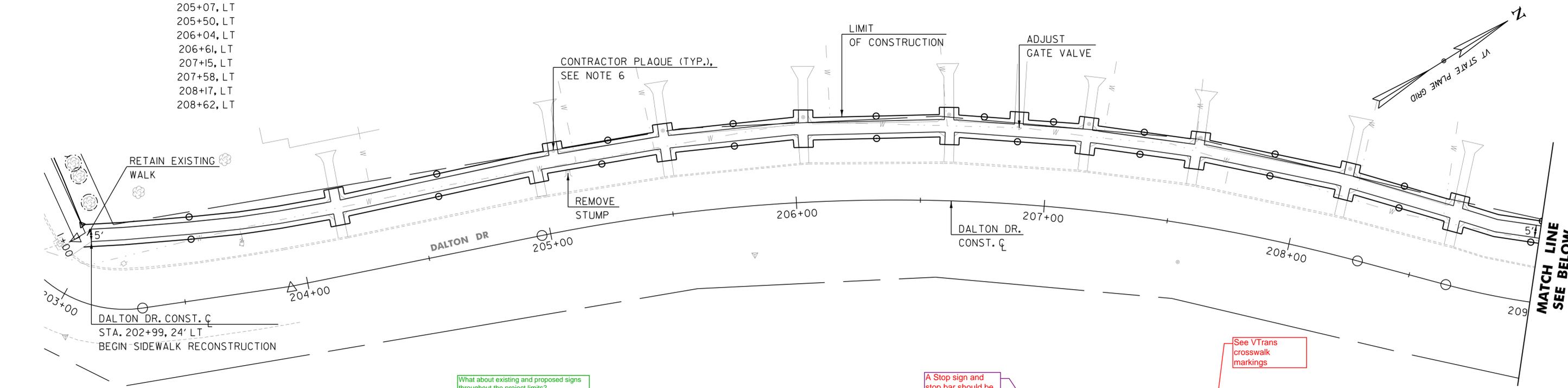
STA. 6+00 TO STA. 6+22



PROJECT NAME: COLCHESTER	
PROJECT NUMBER: STP 5600(I5)	
FILE NAME: Cross Sections.dgn	PLOT DATE: 11/24/2014
PROJECT LEADER: J. LEINWOHL	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: J. LEINWOHL
<b>BARNES AVE. SDWK CROSS SECTIONS 02</b> SHEET 26 OF 35	

CONTRACTOR PLAQUE

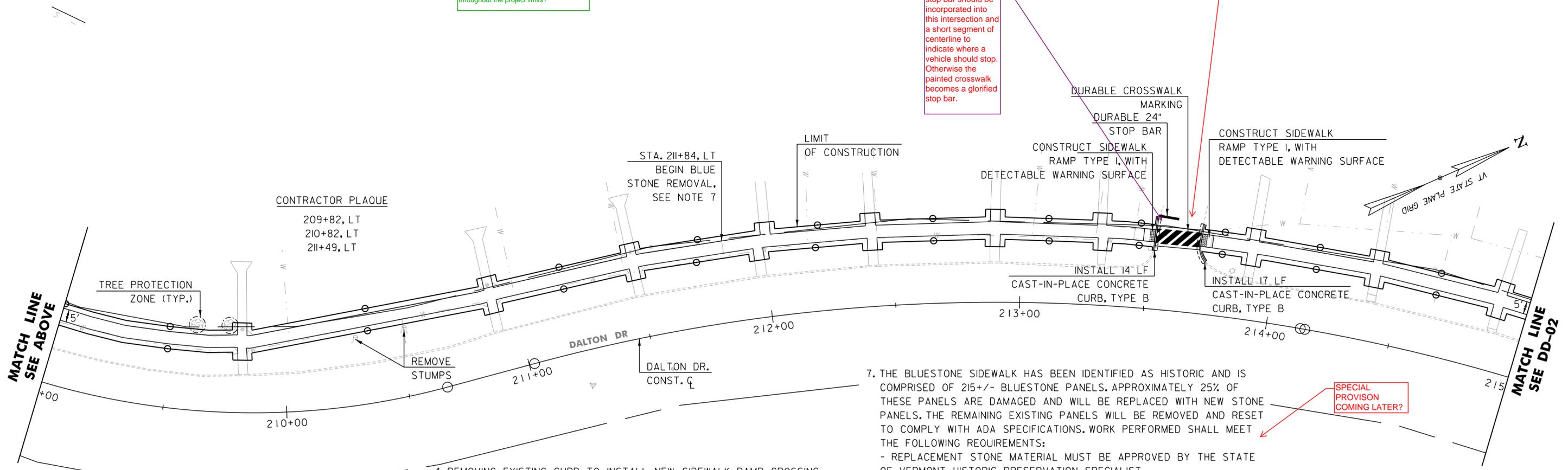
- 205+07, LT
- 205+50, LT
- 206+04, LT
- 206+61, LT
- 207+15, LT
- 207+58, LT
- 208+17, LT
- 208+62, LT



What about existing and proposed signs throughout the project limits?

A Stop sign and stop bar should be incorporated into this intersection and a short segment of centerline to indicate where a vehicle should stop. Otherwise the painted crosswalk becomes a glorified stop bar.

See VTrans crosswalk markings



7. THE BLUESTONE SIDEWALK HAS BEEN IDENTIFIED AS HISTORIC AND IS COMPRISED OF 215+/- BLUESTONE PANELS. APPROXIMATELY 25% OF THESE PANELS ARE DAMAGED AND WILL BE REPLACED WITH NEW STONE PANELS. THE REMAINING EXISTING PANELS WILL BE REMOVED AND RESET TO COMPLY WITH ADA SPECIFICATIONS. WORK PERFORMED SHALL MEET THE FOLLOWING REQUIREMENTS:  
 - REPLACEMENT STONE MATERIAL MUST BE APPROVED BY THE STATE OF VERMONT HISTORIC PRESERVATION SPECIALIST.  
 - SPECIFIC PANELS TO BE REPLACED SHALL BE IDENTIFIED BY THE DESIGN ENGINEER, VTRANS HISTORIC PRESERVATION SPECIALIST AND THE TOWN OF COLCHESTER.

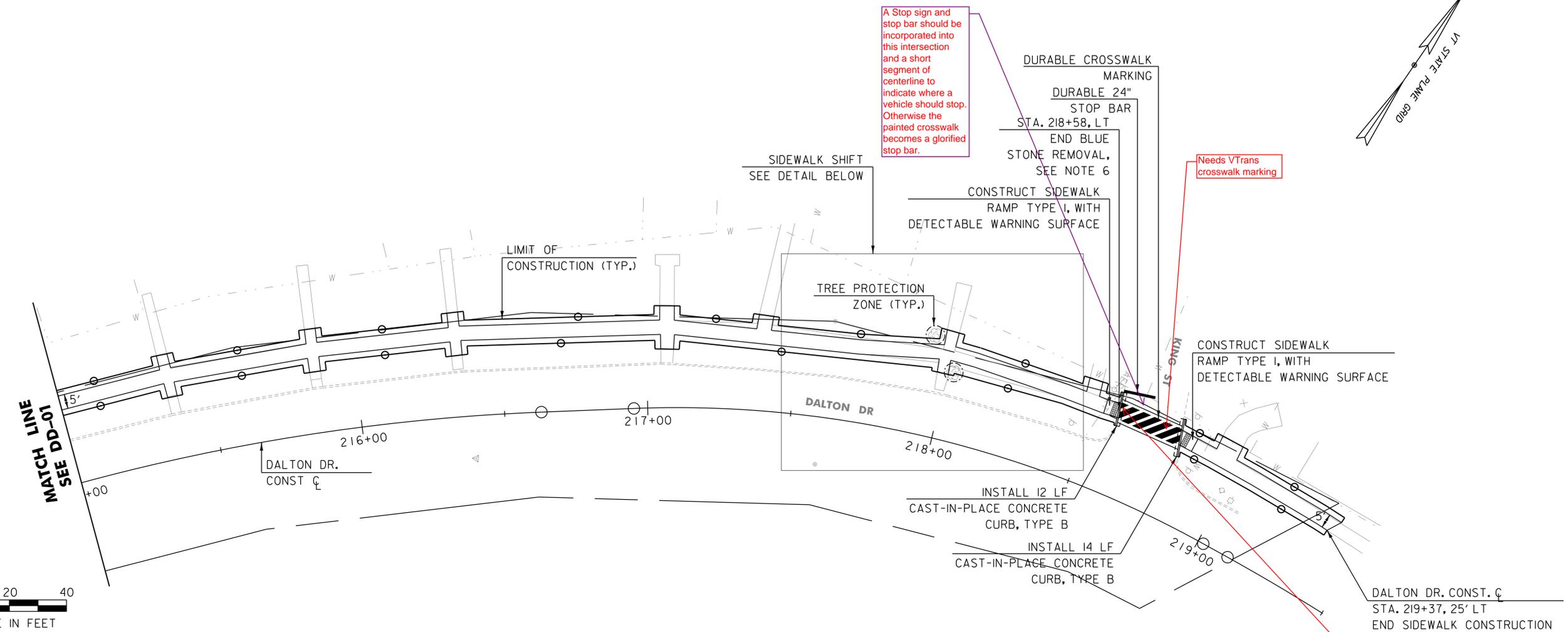
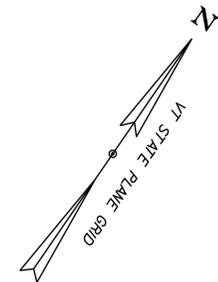
SPECIAL PROVISION COMING LATER?

- NOTES:
1. ALL TREES AND SHRUBS SHALL BE SAVED AND PROTECTED, UNLESS NOTED OTHERWISE. ALL TREE PROTECTION SHALL BE PAID AS ITEM 656.85.
  2. ALL UTILITY POLES SHALL BE RETAINED.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES, AS NECESSARY, DURING THE ADJUSTMENTS OF ANY VALVES OR STRUCTURES.

4. REMOVING EXISTING CURB TO INSTALL NEW SIDEWALK RAMP, CROSSING AND NEW CURBING SHALL BE PAID AS ITEM 616.41.
5. TIE EXISTING HOUSE CROSSING INTO NEW SIDEWALK CONSTRUCTION WITHIN 5'. THE ENGINEER SHALL HAVE THE FINAL AUTHORITY ON DEFINING THE LIMIT OF CONSTRUCTION.
6. THERE ARE EXISTING HISTORIC CONTRACTOR PLAQUES, CAST IN THE SIDEWALK, AROUND THE FORT AREA. THE PLAQUES SHALL BE REMOVED FROM THEIR EXISTING LOCATIONS, PRESERVED AND RETURNED TO THE TOWN OF COLCHESTER. PAYMENT SHALL BE INCIDENTAL TO ITEM 203.15 COMMON EXCAVATION.



PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	General Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
<b>DALTON DRIVE SIDEWALK PLAN DD-01 SHEET 27 OF 35</b>	

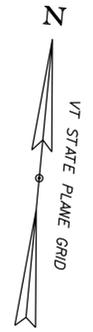
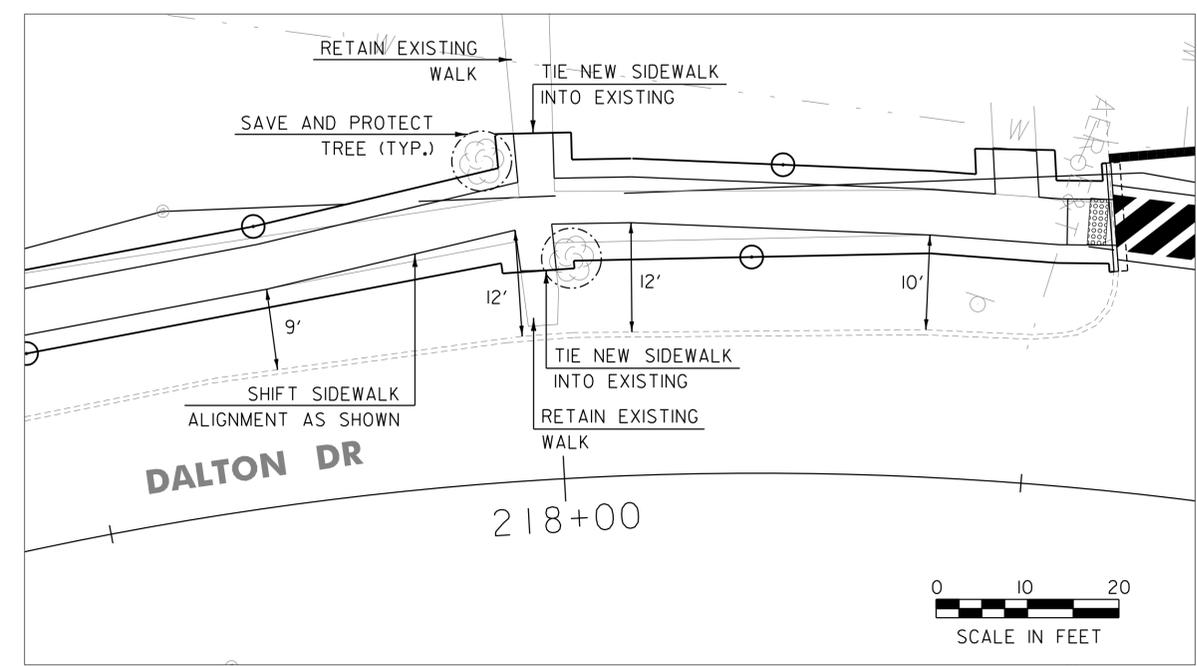


A Stop sign and stop bar should be incorporated into this intersection and a short segment of centerline to indicate where a vehicle should stop. Otherwise the painted crosswalk becomes a glorified stop bar.

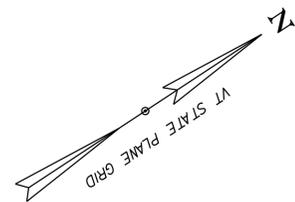
Needs VTrans crosswalk marking

Replace bluestone with concrete at end to put in warning strip

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PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	General Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL
<b>DALTON DRIVE SIDEWALK PLAN DD-02</b>	
SHEET 28 OF 35	



00+90.1

CONTRACTOR PLAQUE  
302+26, LT

ETHAN ALLEN AVE. CONST. C  
STA. 300+21, 26' LT  
BEGIN SIDEWALK RECONSTRUCTION

CONSTRUCT SIDEWALK  
RAMP TYPE I, WITH  
DETECTABLE WARNING SURFACE

CONSTRUCT SIDEWALK  
RAMP TYPE I, WITH  
DETECTABLE WARNING SURFACE

Consider crossing  
peds closer to  
intersection.  
Should be able to  
squeeze space  
between curb and  
pole. Eliminates  
two spurs and puts  
peds closer to  
where driver makes  
their turn, allowing  
for better ped  
visibility.

Existing Stop sign  
assembly does not  
meet MUTCD com-  
pliance  
requirements,  
please update.

Watch out for  
manhole and water  
line cover here!

RETAIN EXISTING BUS  
STOP, TIE NEW SIDEWALK  
INTO EXISTING PAD

RETAIN EXISTING WIDENED  
SIDEWALK, IN-PLACE

Why? Doesn't  
appear to be in  
great shape.....  
(TYP)

CONTRACTOR PLAQUE (TYP.),  
SEE NOTE 6

LIMIT  
OF CONSTRUCTION  
(TYP.)

Existing pedestrian  
sign will need to be  
relocated.

REHAB. EXISTING  
DRAINAGE  
STRUCTURE

RETAIN GUY  
WIRE  
INSTALL 36 LF  
CAST-IN-PLACE CONCRETE  
CURB, TYPE B

DURABLE 24"  
STOP BAR

DURABLE CROSSWALK  
MARKING

So peds are  
walking under the  
guy wire??  
Probably not the  
best idea.

SHIFT SIDEWALK  
ALIGNMENT AS SHOWN

ETHAN ALLEN AVE

SHIFT SIDEWALK  
ALIGNMENT AS SHOWN

SAVE AND  
PROTECT TREE  
(TYP.)

MATCH LINE  
SEE EA-02

301+00

302+00

303

ETHAN ALLEN AVE.  
CONST. C

Are these both for  
bus stops?

Stop Sign will have  
to be relocated

Use VTrans  
crosswalk  
markings

Gradual curve  
instead of sharp  
angle would make  
it more user  
friendly unless you  
plan to tie  
something in here  
in the near future.

Is this sign  
necessary?  
Obscured and old  
on google maps.

NOTES:

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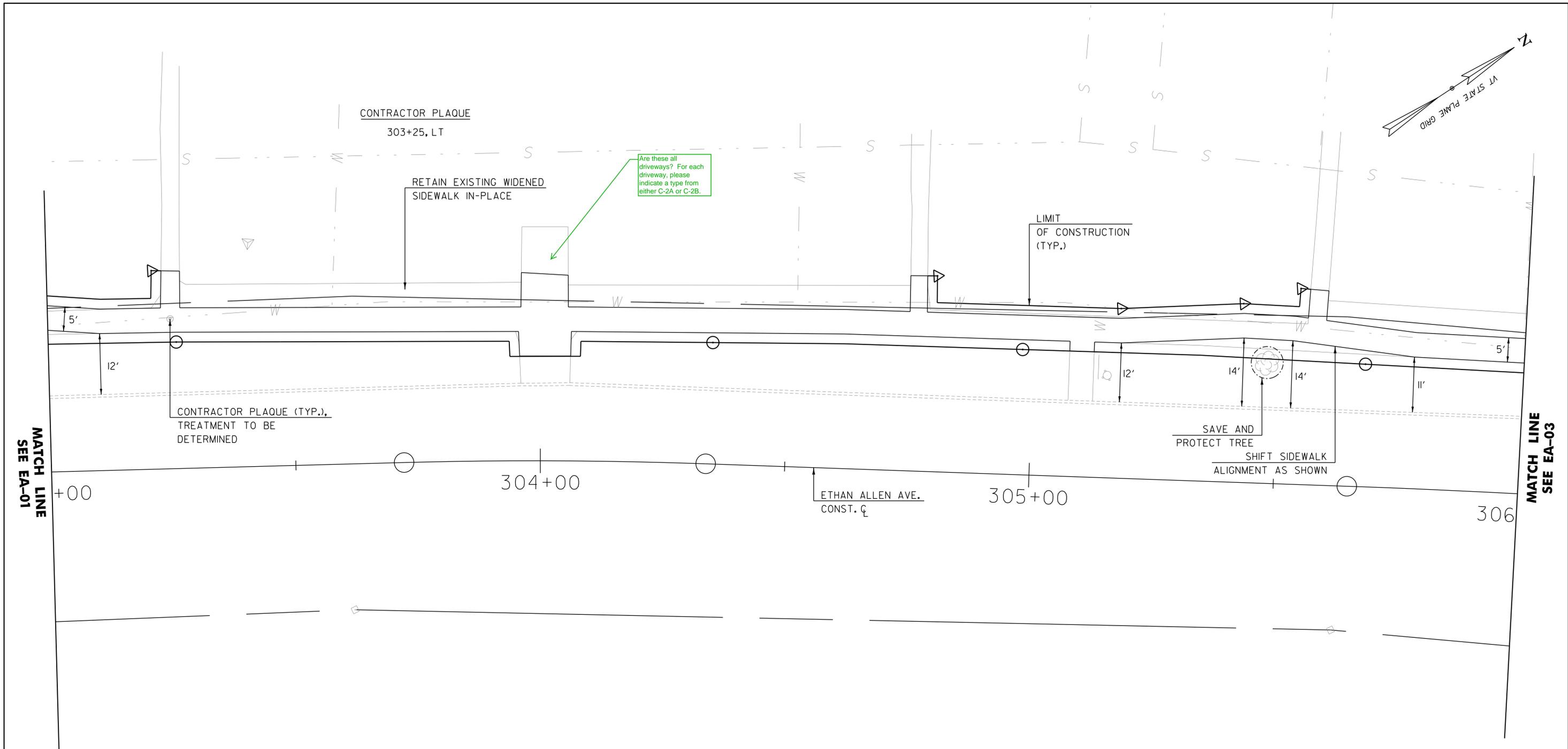
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PROJECT NAME: COLCHESTER	
PROJECT NUMBER: STP 5600(I5)	
FILE NAME: General Plans.dgn	PLOT DATE: 11/24/2014
PROJECT LEADER: J. LEINWOHL	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: J. LEINWOHL
ETHAN ALLEN AVE. SDWK PLAN EA-01 SHEET 29 OF 35	

Within ROW?



NOTES:

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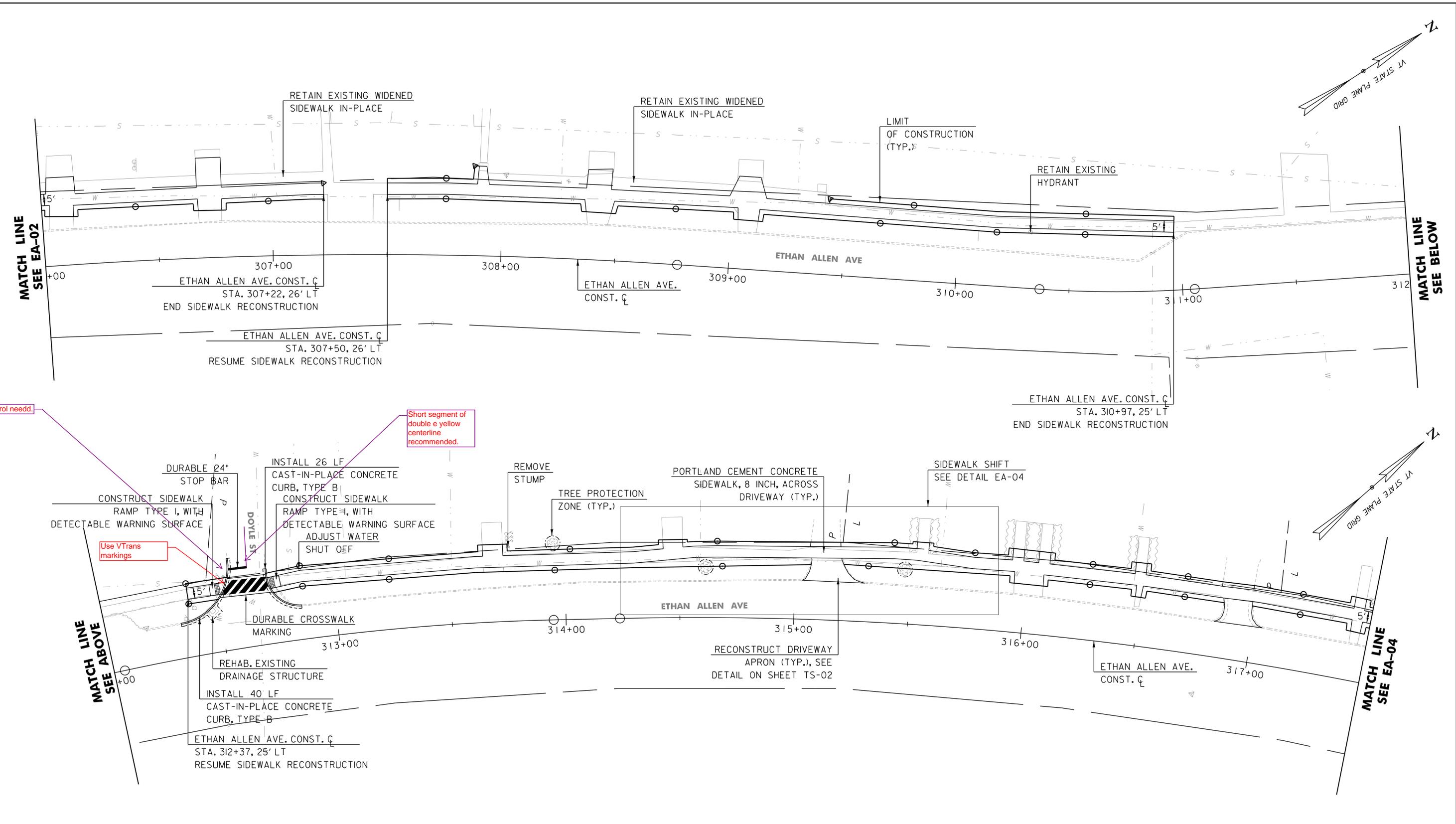
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PROJECT NAME: COLCHESTER  
PROJECT NUMBER: STP 5600(15)

FILE NAME: General Plans.dgn PLOT DATE: 11/24/2014  
PROJECT LEADER: J. LEINWOHL DRAWN BY: T. DUGUAY  
DESIGNED BY: T. DUGUAY CHECKED BY: J. LEINWOHL  
ETHAN ALLEN AVE. SDWK PLAN EA-02 SHEET 30 OF 35



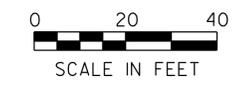
Stop control needed.

Short segment of double yellow centerline recommended.

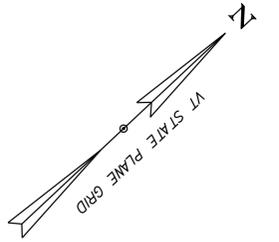
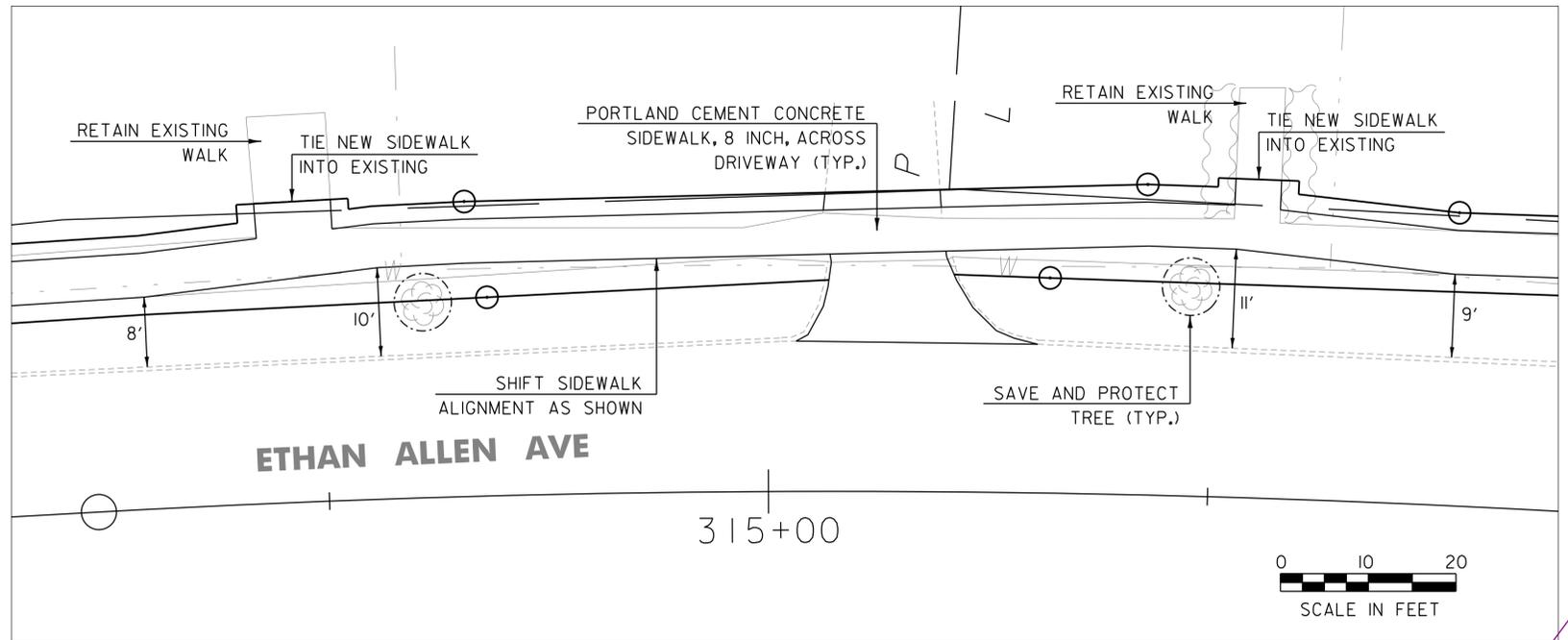
Use VTrans markings

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PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	General Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
ETHAN ALLEN AVE. SDWK PLAN EA-03	SHEET 31 OF 35
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL



Short segments of double yellow centerline recommended (approx 40 ft long) (TYP.)

Signage will have to be addressed

All signs to be 2009 MUTCD compliant

Tree won't pose a sight distance issue with the stop bar moved back?

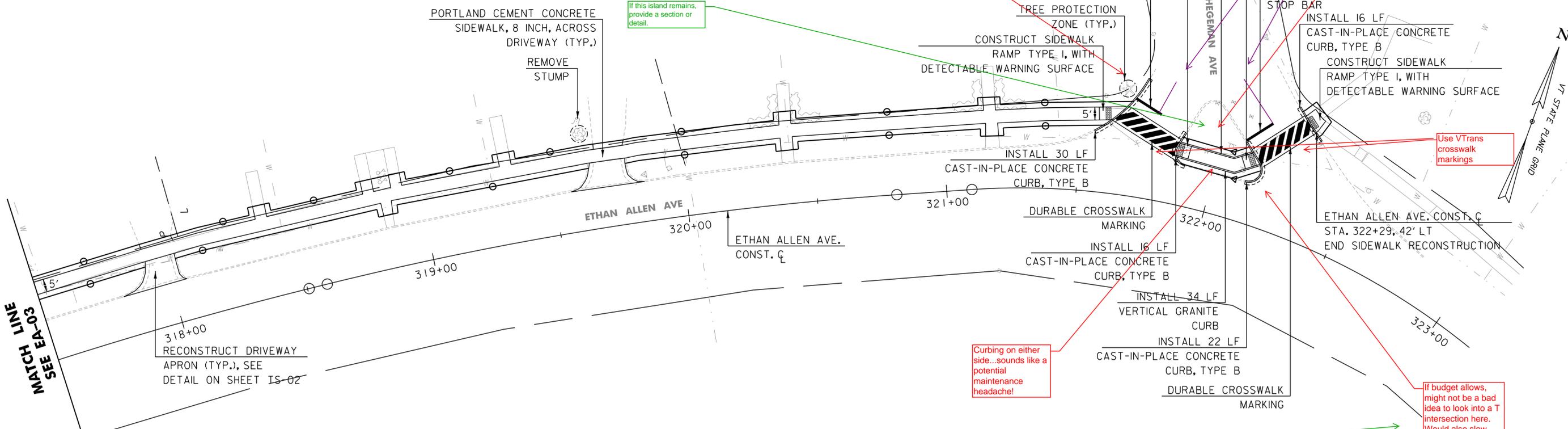
If this island remains, provide a section or detail.

Use VTrans crosswalk markings

Curbing on either side...sounds like a potential maintenance headache!

If budget allows, might not be a bad idea to look into a T intersection here. Would also slow traffic down and make it a little safer for peds.

I second this thought, plus it eliminates the need to maintain the cut through of the island.

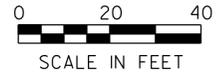


MATCH EA-03 SEE EAST

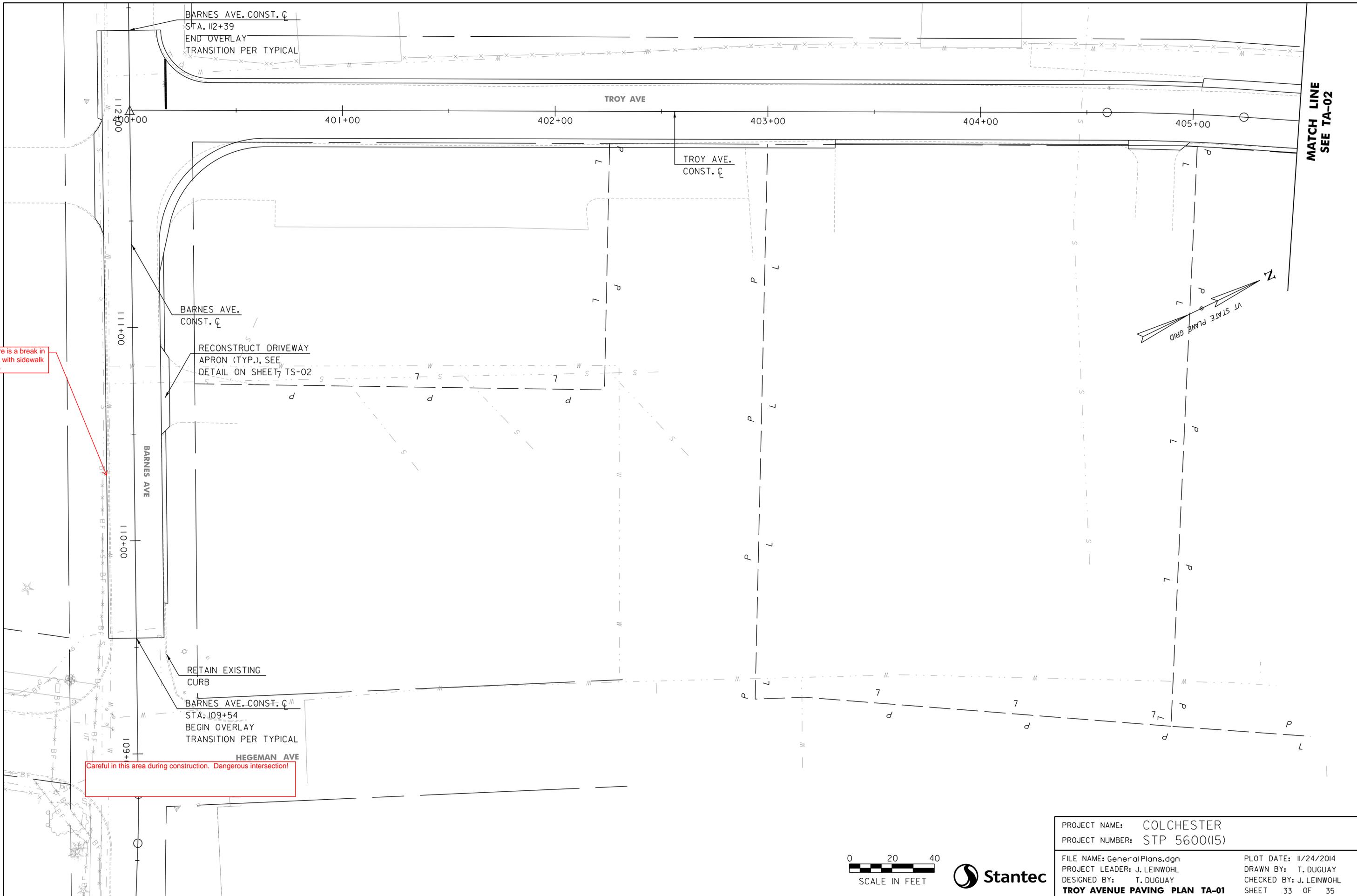
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PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	STP 5600(I5)
FILE NAME:	General Plans.dgn
PROJECT LEADER:	J. LEINWOHL
DESIGNED BY:	T. DUGUAY
ETHAN ALLEN AVE. SDWK PLAN EA-04	SHEET 32 OF 35
PLOT DATE:	11/24/2014
DRAWN BY:	T. DUGUAY
CHECKED BY:	J. LEINWOHL

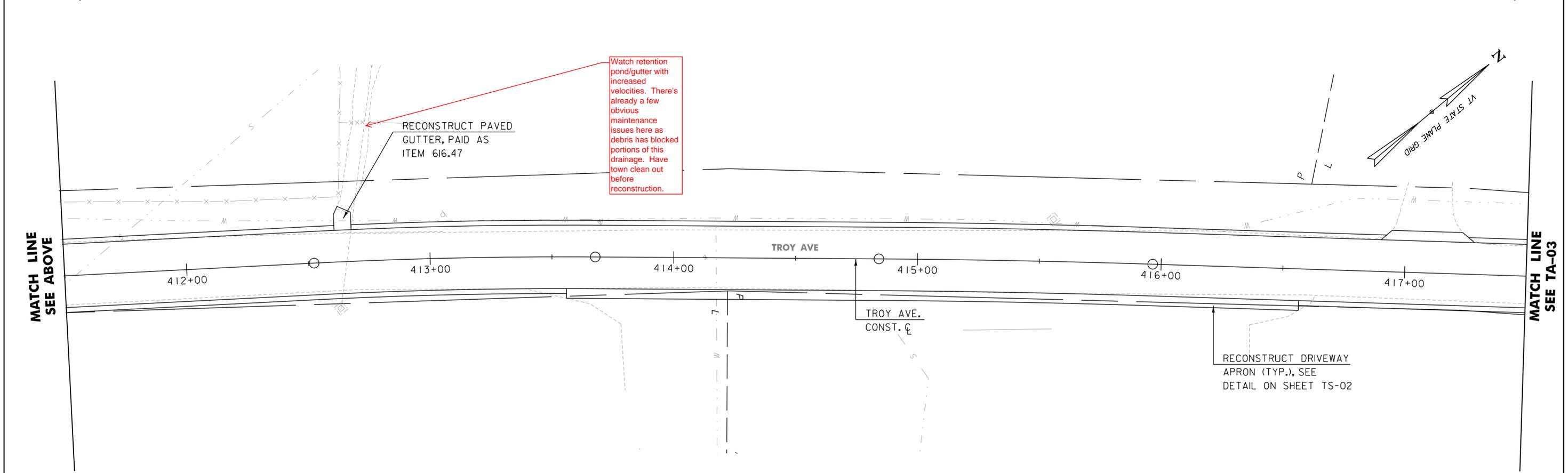
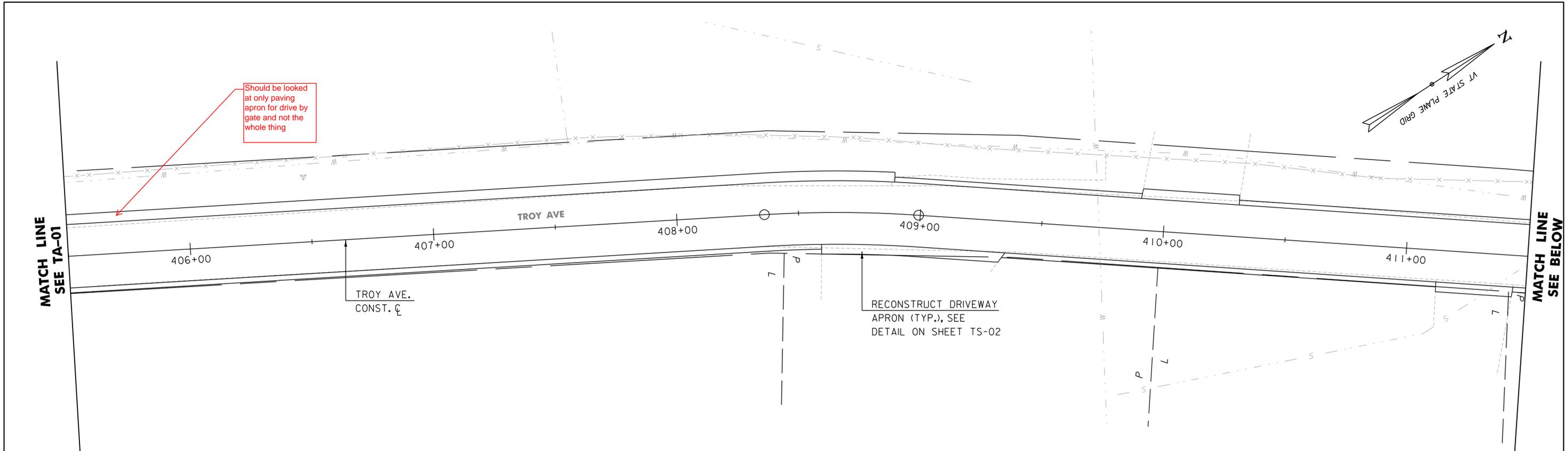


There is a break in curb with sidewalk here

Careful in this area during construction. Dangerous intersection!

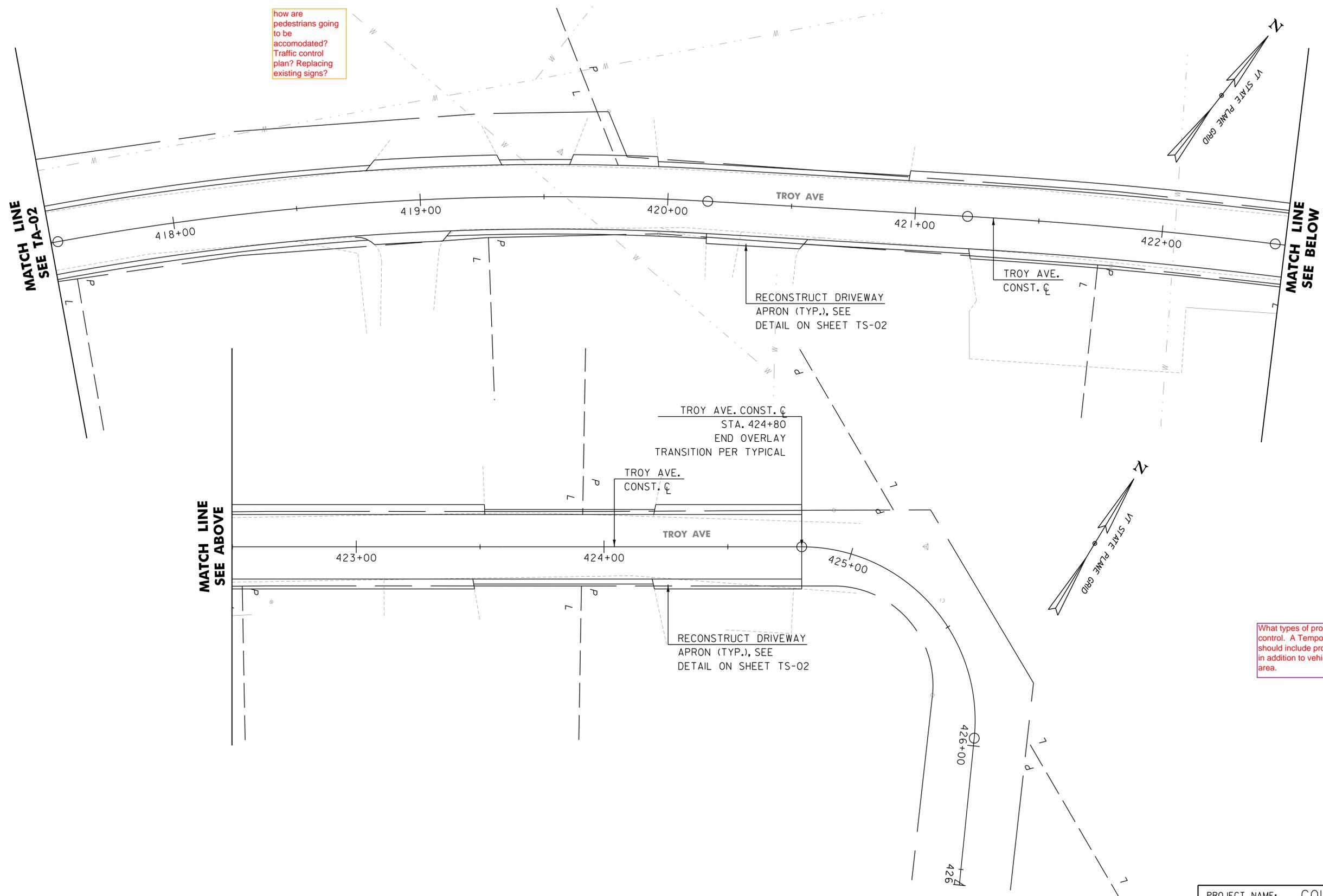
PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(15)	DRAWN BY:	T. DUGUAY
FILE NAME:	General Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL		
DESIGNED BY:	T. DUGUAY		
<b>TROY AVENUE PAVING PLAN TA-01</b>		SHEET	33 OF 35





PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(I5)	DRAWN BY:	T. DUGUAY
FILE NAME:	General Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL	DESIGNED BY:	T. DUGUAY
<b>TROY AVENUE PAVING PLAN TA-02</b>		SHEET	34 OF 35

how are pedestrians going to be accommodated? Traffic control plan? Replacing existing signs?



What types of provisions have been made for traffic control. A Temporary Traffic Control plan is required that should include provisions for pedestrian and bicycle traffic in addition to vehicular traffic. Complex is a very busy area.



PROJECT NAME:	COLCHESTER	PLOT DATE:	11/24/2014
PROJECT NUMBER:	STP 5600(I5)	DRAWN BY:	T. DUGUAY
FILE NAME:	General Plans.dgn	CHECKED BY:	J. LEINWOHL
PROJECT LEADER:	J. LEINWOHL		
DESIGNED BY:	T. DUGUAY		
<b>TROY AVENUE PAVING PLAN TA-03</b>		SHEET	35 OF 35



Quantity Summary

Colchester

STP 5600(15)

Colchester

55 Green Mountain Drive  
 South Burlington, VT 05403  
 Tel: (802) 864-0223  
 Fax: (802) 864-0223

	Initials	Date
Calc'd By:	TFD	11/14/2014
Checked By:	DKB	11/14/2014
Revised By:		
Checked By:		

This seems a little low. Our bid history on local projects shows \$45 or more with an avg. of \$56.

Item No.	Item Description	Unit	Unit Price	Total Project		VT Route 15 Construction		Fort Ethan Allen Construction		Iroy Avenue Construction	
				Quantity	Extension	Quantity	Extension	Quantity	Extension	Quantity	Extension
201.15	REMOVING MEDIUM TREES	EACH	\$610.00	1	\$610.00	0	\$0.00	1	\$610.00	0	\$0.00
201.20	REMOVING MEDIUM STUMPS	EACH	\$200.00	6	\$1,200.00	0	\$0.00	6	\$1,200.00	0	\$0.00
203.15	COMMON EXCAVATION	CY	\$12.00	2650	\$31,800.00	600	\$7,200.00	2050	\$24,600.00	0	\$0.00
204.22	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	CY	\$75.00	10	\$750.00	5	\$375.00	5	\$375.00	0	\$0.00
301.15	SUBBASE OF GRAVEL	CY	\$32.00	800	\$25,600.00	180	\$5,760.00	620	\$19,840.00	0	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	\$43.00	800	\$34,400.00	180	\$7,740.00	620	\$26,660.00	0	\$0.00
404.65	EMULSIFIED ASPHALT	CWT	\$36.00	85	\$3,060.00	0	\$0.00	0	\$0.00	85	\$3,060.00
406.25	BITUMINOUS CONCRETE PAVEMENT	TON	\$90.00	950	\$85,500.00	0	\$0.00	10	\$900.00	940	\$84,600.00
604.412	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	EACH	\$1,350.00	3	\$4,050.00	0	\$0.00	3	\$4,050.00	0	\$0.00
616.21	VERTICAL GRANITE CURB	LF	\$33.00	150	\$4,950.00	20	\$660.00	130	\$4,290.00	0	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	\$38.00	270	\$10,260.00	0	\$0.00	270	\$10,260.00	0	\$0.00
616.47	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	TON	\$280.00	1	\$280.00	0	\$0.00	0	\$0.00	1	\$280.00
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	\$30.00	2850	\$85,500.00	640	\$19,200.00	2210	\$66,300.00	0	\$0.00
618.11	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	SY	\$58.00	100	\$5,800.00	60	\$3,480.00	40	\$2,320.00	0	\$0.00
618.30	DETECTABLE WARNING SURFACE	SF	\$35.00	150	\$5,250.00	0	\$0.00	150	\$5,250.00	0	\$0.00
629.20	ADJUST ELEVATION OF VALVE BOX	EACH	\$140.00	2	\$280.00	0	\$0.00	0	\$0.00	2	\$280.00
635.11	MOBILIZATION/DEMObILIZATION	LS	See Below	1							
641.10	TRAFFIC CONTROL	LS	See Below	1							
646.400	DURABLE 4 INCH WHITE LINE	LF	\$0.75	5500	\$4,125.00	0	\$0.00	0	\$0.00	5500	\$4,125.00
646.410	DURABLE 4 INCH YELLOW LINE	LF	\$0.75	5500	\$4,125.00	0	\$0.00	0	\$0.00	5500	\$4,125.00
646.480	DURABLE 24 INCH STOP BAR	LF	\$6.75	100	\$675.00	0	\$0.00	70	\$472.50	30	\$202.50
646.500	DURABLE CROSSWALK MARKING	LF	\$20.00	150	\$3,000.00	0	\$0.00	150	\$3,000.00	0	\$0.00
651.15	SEED	LB	\$8.00	60	\$480.00	15	\$120.00	45	\$360.00	0	\$0.00
651.18	FERTILIZER	LB	\$4.00	330	\$1,320.00	65	\$260.00	265	\$1,060.00	0	\$0.00
651.20	AGRICULTURAL LIMESTONE	TON	\$650.00	2	\$1,300.00	0.5	\$325.00	1.5	\$975.00	0	\$0.00
651.25	HAY MULCH	TON	\$610.00	2	\$1,220.00	0.5	\$305.00	1.5	\$915.00	0	\$0.00
651.35	TOPSOIL	CY	\$36.00	400	\$14,400.00	100	\$3,600.00	300	\$10,800.00	0	\$0.00
653.20	TEMPORARY EROSION MATTING	SY	\$5.00	50	\$250.00	15	\$75.00	35	\$175.00	0	\$0.00

653.40	INLET PROTECTION DEVICE, TYPE I	EACH	\$150.00	3	\$450.00	0	\$0.00	3	\$450.00	0	\$0.00
656.85	TREE PROTECTION	LS	\$5,000.00	1	\$5,000.00		\$2,500.00		\$2,500.00		
675.20	TRAFFIC SIGNS, TYPE A	SF	\$28.00	7	\$196.00	0	\$0.00	7	\$196.00	0	\$0.00
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	\$10.00	14	\$140.00	0	\$0.00	14	\$140.00	0	\$0.00
675.50	REMOVING SIGNS	EACH	\$12.00	2	\$24.00	0	\$0.00	2	\$24.00	0	\$0.00
900.608	SPECIAL PROVISION (1/8" MINUS FILLER STONE)	CY	\$40.00	60	\$2,400.00	0	\$0.00	60	\$2,400.00	0	\$0.00
900.620	SPECIAL PROVISION (ADJUST GAS VALVE)	EACH	\$200.00	5	\$1,000.00	4	\$800.00	1	\$200.00	0	\$0.00
900.620	SPECIAL PROVISION (ADJUST ELEVATION OF WATER SHUT OFF)	EACH	\$200.00	3	\$600.00	1	\$200.00	2	\$400.00	0	\$0.00
900.620	SPECIAL PROVISION (ADJUST ELEVATION OF TELEPHONE MANHOLE)	EACH	\$1,000.00	2	\$2,000.00	2	\$2,000.00	0	\$0.00	0	\$0.00
900.620	SPECIAL PROVISION (REMOVE AND RESET ORNAMENTAL SIGN)	EACH	\$500.00	7	\$3,500.00	0	\$0.00	7	\$3,500.00	0	\$0.00
900.640	SPECIAL PROVISION (SCREENING FENCE)	LF	\$40.00	70	\$2,800.00	0	\$0.00	70	\$2,800.00	0	\$0.00
900.670	SPECIAL PROVISION (BLUESTONE SIDEWALK, REMOVE AND DISPOSE)	SF	\$5.00	1250	\$6,250.00	0	\$0.00	1250	\$6,250.00	0	\$0.00
900.670	SPECIAL PROVISION (BLUESTONE SIDEWALK, REMOVE AND RESET)	SF	\$15.00	2340	\$35,100.00	0	\$0.00	2340	\$35,100.00	0	\$0.00
900.670	SPECIAL PROVISION (BLUESTONE SIDEWALK)	SF	\$20.00	1250	\$25,000.00	0	\$0.00	1250	\$25,000.00	0	\$0.00
900.675	SPECIAL PROVISION (PORTLAND CEMENT CONCRETE SIDEWALK, 6 INCH)	SY	\$40.00	100	\$4,000.00	80	\$3,200.00	20	\$800.00	0	\$0.00
900.675	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIALS, DRIVES)	SY	\$50.00	1220	\$61,000.00	160	\$8,000.00	1060	\$53,000.00	0	\$0.00
900.680	SPECIAL PROVISION (BITUMINOUS CONCRETE SURFACE PREPARATION, TYPE II)	TON	\$100.00	10	\$1,000.00	0	\$0.00	0	\$0.00	10	\$1,000.00

<b>Subtotal</b>	<b>\$480,645.00</b>	<b>\$65,800.00</b>	<b>\$317,172.50</b>	<b>\$97,672.50</b>
<b>Mobilization/Demobilization (10%)</b>	<b>\$48,065.00</b>	<b>\$6,580.00</b>	<b>\$31,717.00</b>	<b>\$9,767.00</b>
<b>Traffic Control (5%)</b>	<b>\$24,032.00</b>	<b>\$14,032.00</b>	<b>\$5,000.00</b>	<b>\$5,000.00</b>
<b>Contengencies (5%)</b>	<b>\$24,032.00</b>	<b>\$3,290.00</b>	<b>\$15,859.00</b>	<b>\$4,884.00</b>
<b>Total Opinion of Probable Construction Cost</b>	<b>\$576,774.00</b>	<b>\$89,702.00</b>	<b>\$369,748.50</b>	<b>\$117,323.50</b>

Please include the following items:  
**Flaggers**  
**Uniform Traffic Officers**

ADD 10% FOR  
**CONSTRUCTION  
ENGINEER/  
INSPECTION**