

**Shoreland Permit Application**

for a **Shoreland Protection Permit** under  
Chapter 49A of Title 10, § 1441 *et seq.*

**For Shoreland Permitting Use Only**

Application Number:



VERMONT DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
**WATERSHED  
MANAGEMENT DIVISION**  
LAKES & PONDS PROGRAM

**Public Notice:** At the same time this application is filed with Shoreland Permitting, a copy of this application must be provided to the municipal clerk for posting in the municipality in which the project is located.

Submission of this application constitutes notice that the person in Section A intends to create impervious surface and/or cleared area within the Protected Shoreland Area, and certifies that the project will comply with Chapter 49A of Title 10, § 1441 *et seq.* All information required on this form must be provided, and the requisite fees (Section G) must be submitted made payable to the State of Vermont, to be deemed complete. Refer to *The Vermont Shoreland Protection Act - A Handbook for Shoreland Development* and related instructions for guidance in completing this application.

**A. Parcel Information**

1. Landowner's Name: City of Burlington, c/o Jesse Bridges, Director and Harbormaster, Department of Parks Recreation & Waterfront

2a. Physical Address (911 Address): **645 Pine Street**

2b. Town - County: Burlington - Chittenden

2c. Zip: 05401

3. SPAN (The School Parcel Account Number is required for your application to be deemed complete. It can be obtained from your : 038-2-006-000 property tax bill. If you cannot locate your property tax bill, please obtain this information from your Town Clerk)

4. Phone: (802) 864-0123

5. Email: [jbridges@burlingtonvt.gov](mailto:jbridges@burlingtonvt.gov)

6. Name of lake/pond: Champlain Lake (Burlington Bay)

7. Total shore frontage: (feet)

8. Was the parcel of land created before July 1, 2014?  Yes  No

9. Are there wetlands associated with this parcel?  Yes  No

Contact the Wetlands Program: (802) 828-1535 or [watershedmanagement.vt.gov/wetlands.htm](http://watershedmanagement.vt.gov/wetlands.htm).

10. Have you ever applied for a permit with the Department of Environmental Conservation associated with this parcel?

Yes  No

11. What is the surface area of your parcel within the Protected Shoreland Area (PSA): 5,200 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix C, Determining Lakeside Zone & PSA

12. What is the surface area of existing impervious surface on your parcel within the PSA: 2,000 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F, Calculating Percent Impervious Surface

13. What is the surface area of existing cleared area on your parcel within the PSA: 4,500 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing

**B. Applicant Contact Information**

1. Name: City of Burlington Department of Parks, Recreation & Waterfront c/o Jesse Bridges

2a. Mailing Address: **645 Pine Street**

2b. Municipality: Burlington

2c. State: VT

2d. Zip: 05401

3. Phone: (802) 864-0123

4. Email: [jbridges@burlingtonvt.gov](mailto:jbridges@burlingtonvt.gov)

**C. Application Preparer Information** (If the individual preparing the application is not the landowner.)

1. Name: VHB (Carla Fenner, Environmental Scientist)

2a. Mailing Address: 40 IDX Drive, Building 100, Suite 200

2b. Municipality: South Burlington

2c. State: VT

2d. Zip: 05403

3. Phone: (802) 497-6100

4. Email: [cfenner@vhb.com](mailto:cfenner@vhb.com)

**D. Project Description**

1. Describe the proposed project. For this application to be considered administratively complete you must attach site plans that denote existing and proposed cleared areas and impervious surface and their distances from mean water level, no fewer than three photos of the project area, and dimensions and associated surface areas of cleared areas and impervious surfaces.

The overall project is a rehabilitation of the Burlington Bike Path (Project). The Project is being implemented in phases, and Phase 1b, the subject of this permit application, is a segment of the path from approximately just north of the skate park (near the Moran Plant) to the North Beach access, proposed to be constructed in 2016. The Project will generally include rehabilitation of the existing Bike Path and realignment of one segment onto the alignment of an unused railroad track, closer to the Lake's edge. Many areas of existing impervious surfaces (asphalt and concrete) will be removed to improve the nature and connectivity of the area, and maintenance and repair of existing shoreline protection revetments and rip rap armoring are proposed. The Project will include selective limited tree cutting, the installation of a stormwater management system, and construction and operation of the Project require the implementation of erosion prevention and sediment control (EPSC) plans. Revegetation in the Project area will include seeding herbaceous species and installation of more than 200 shrubs and trees.

2. For developed parcels, how far is the existing habitable structure from Mean Water Level \_\_\_\_\_ (feet), and How far will new cleared area or impervious surface be from MWL <sup>1</sup> \_\_\_\_\_ (feet)?

**OR**

For undeveloped parcels, how far will new cleared area or impervious surface be from MWL \_\_\_\_\_ (feet)?

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix A – Estimating Mean Water Level

3. Can all new cleared area or impervious surface be set back at least 100 feet from MWL?  Yes  No  
If no, explain why below (attach support information as needed):

See Attachments 6 & 7.

Existing impervious surfaces account for approximately 2,560 sf of the total 5,200 sf area within the State-protected shoreland area (State-PSA), all of which occur within 100 ft of the mean water line (MWL) of 95.5 elevation. As this is a redevelopment and rehabilitation project, there is no practicable way to locate impervious surfaces beyond a 100 ft set back. See the Public Recreation Addendum and this application's supplemental narrative for additional information about the project's location requirements.

- 4a. What is the slope of the project site area: 15.00 %  
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix B, Determining Slope

- 4b. Is the slope of the project area less than 20%?  
 Yes  No If yes, skip 4c.

- 4c. If no above (4b), describe the measures taken to ensure the slope is stable, resulting in minimal erosion and impacts to water quality (attach support information as needed):

Average slopes within the Project area are mapped as less than 15% on the Agency of Natural Resources Atlas, a suggested reference in the Shoreland Permit Appendix B. A portion of the PSA currently consists of rip rap for shoreline protection, and some localized rip rap slopes exceed 20% per the Project's survey data, however that steepness is not representative of the overall shoreline slope in the Project parcel. Refer to the Project site plans (Attachment 7) for detailed depiction of contours within the State-PSA and adjacent City-PSA, which extends 250 lateral feet from the 100 ft elevation line.

- 5a. What is the surface area of new impervious surface associated with this project: 3,725.00 (square feet)  
See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix F Calculating Percent Impervious Surface

- 5b. What is the total resulting impervious surface after completion of the project and prior to implementation of best management practices: 5,725.00 (square feet)  
For D5b, add A12 to D5a

- 5c. Is the total in 5b. 20% or less of the parcel area within the PSA?  Yes If yes, skip 5d.  No  
If 5a is 0, check the n/a box, otherwise divide 5b by A11 and multiply by 100 for percentage. Total percentage = 110 %  N/A

- 5d. If no above (5c), describe the best management practices used to manage, treat and control erosion from stormwater from the portion of impervious that exceeds 20% (attach support information as needed):

The resulting impervious surface area within the State-PSA exceeds the 20% threshold, which has been determined to be necessary per the Applicant's stated project goal for increased public recreational opportunity and accessibility. The addition of new impervious surfaces will be mitigated through the implementation of Best Management Practices (BMPs): the overall Project requires an operational phase stormwater permit and as such, new impervious areas both within and beyond the State-PSA and City-PSA will be managed and authorized under a General Permit 3-9015, which will include the design and implementation of stormwater management practices. Additionally, the Project will require a construction phase stormwater permit (General Permit 3-9020) which will include specific EPSC measures to be employed during Project construction.

6a. What is the surface area of new cleared area associated with this project: 700.00 (square feet)

See The Vermont Shoreland Protection Act – A Handbook for Shoreland Development, Appendix E, Calculating Percent Clearing

6b. What is the total resulting cleared area after completion of the project and prior to implementation of best management practices: 5,200.00 (square feet)

For 6b, add A13 to D6a.

6c. Is the total in 6b. 40% or less of the parcel area within the PSA?  Yes If yes, skip 6d.  No  
If 6a is 0, check the n/a box, otherwise divide 6b by A11 and multiply by 100 for percentage. Total percentage = 100 %  N/A

6d. If no above (6c), describe the best management practices used to provide erosion control, bank stability, and wildlife habitat functionally equivalent to clearing less than 40% (attach support information as needed).

Of the approximately 5,200 sq ft within the State-PSA, approximately 86% is currently in an existing cleared condition (i.e., not covered by tree cover, shrub cover, or typical natural organic duff and herbaceous ground cover). The Project will require clearing of 700 sq ft of woody vegetation within the State-PSA in order for safe access to areas of shoreline protection maintenance and repair. There will be at least 700 sq ft of new tree/shrub planting within the State-PSA, which is identified in the Shoreland Protection Act as a BMP to mitigate for necessary clearing within the PSA. The approximate location of tree planting is depicted on the Project site plans (Attachment 7). Refer to the Supplemental Narrative (Attachment 4) for a further description of tree cutting and revegetation for Phase 1B.

### E. Landowner Certification

As APPLICANT, I hereby certify that the statements presented on this application are true and accurate and recognize that by signing this application, I agree to complete all aspects of the project as authorized. I understand that failure to comply with the foregoing may result in violation of the Shoreland Protection Act, 10 V.S.A. Chapter 49A, and the Vermont Agency of Natural Resources may bring an enforcement action for violations of the Act pursuant to 10 V.S.A. chapter 201.

Applicant/Landowner Signature: Jesse Bridges Date: 5/9/16

Digitally signed by Jesse Bridges  
DN: cn=Jesse Bridges, o=City of Burlington,  
ou=Parks, Recreation & Waterfront,  
email=jbridges@burlingtonvt.gov, c=US  
Date: 2016.05.09 12:42:20 -0400

### F. Application Preparer Certification (if applicable)

As APPLICATION PREPARER, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Application Preparer Signature: [Signature] Date: 04/27/2016

### G. Additional Required Documentation (Please check to ensure you have completed the following)

- All sections of the application are complete (or otherwise indicate "not applicable")
- Application includes site plans denoting existing and proposed cleared area and impervious surface and distances from mean water level
- Application description includes dimensions and surface areas of cleared areas and impervious surfaces
- Application includes photos of project area

### H. Permit Application Fees

|   |  |                    |
|---|--|--------------------|
| Administrative Fee: \$125.00                |  | \$ 125.00          |
| Impervious Area Fee: \$0.50 per square foot | Enter new impervious area<br>as entered in item (5a.) <u>3,725.00</u> x .5 | \$ 1,862.50        |
| <b>Total:</b>                               |  | <b>\$ 1,987.50</b> |

**Print Form**

**Submit this form and application fee, payable to:**

**State of Vermont  
Vermont Department of Environmental Conservation  
Watershed Management Division  
Shoreland Permitting  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3522**

Direct all correspondence or questions to Shoreland Permitting  
at: [ANR.WSMDSshoreland@vermont.gov](mailto:ANR.WSMDSshoreland@vermont.gov)

For additional information visit:  
[www.watershedmanagement.vt.gov](http://www.watershedmanagement.vt.gov)

**Shoreland Permit  
Application Addendum**  
for a **Shoreland Protection Permit** under  
Chapter 49A of Title 10, § 1443(g)  
*Public Recreation Areas*



VERMONT DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
**WATERSHED  
MANAGEMENT DIVISION**  
LAKES & PONDS PROGRAM

This Public Recreation Areas Addendum is intended to accompany a completed *Shoreland Permit Application* in instances of proposed impervious surface and cleared area that serves the general public and promotes a public trust use and otherwise would not meet the Shoreland Protection Act standards.

Submission of this Public Recreation Areas Addendum constitutes notice that the person in Section A of the attached *Shoreland Permit Application* intends to create impervious surface and/or cleared area within the Protected Shoreland Area, and certifies that the project will comply with Chapter 49A of Title 10, § 1443(g). All information required on this form must be provided to be deemed complete.

#### **D. Project Description**

1. Describe the proposed project and how it provides access to the water for the general public and promotes public trust uses of the water. On separate pages attach site plans, photos, calculations of impervious surface and cleared area, and any other relevant supporting documents:

The Burlington Bike Path is recognized by the City of Burlington Department of Parks, Recreation & Waterfront as being the crown jewel of the City's parks system, serving as an immensely popular attraction during the summer, fall and spring and even in the winter months with multi-modal winter recreation and transportation like skiing and fat bikes. Approximately eight miles of paved path, with aggregate shoulders for runners and walkers, the path in Burlington runs from just south of Oakledge park to the Winooski River to the north, and along the way runs through and connects many major parks and facilities situated on the Lake Champlain shoreline. The path also connects many residential neighborhoods and is situated close to several commercial districts. The Path interconnects with the Island Line Trail, which gives walkers, runners, and bikers the opportunity to extend their adventure north to the Colchester Causeway and to North Hero at the Allen Point Access, making up a 14 mile trail. The Phase 1B Project will rehabilitate the existing path to improve the surface conditions, partially realign it to extend along an existing railroad bed, and add three "pause places," which will allow path users to access the Lake shore and water. By creating established access locations at the pause places, not only will use and enjoyment of the Lake water be promoted, but also the safety and visibility of that access will be improved for all. The Project will necessarily include work within the PSA as regulated by the State and under the City's Delegated Municipal Authority, which starts at 100 feet elevation AMSL and extends 250 feet laterally (City-PSA). Within the State PSA between 95.5 feet and 100 feet AMSL (State-PSA), proposed work includes the installation of pause place infrastructure (steps) impervious surface, and the repair and maintenance of existing shoreline armoring (rip rap), another impervious surface. In order to conduct this work, limited tree cutting is required to allow access to the construction areas and allow a safe work area. See attached site plans, supplemental narrative, representative photographs, and calculations of regulated activities within the PSA.

2. Describe why the new impervious surface and/or cleared area within the Protected Shoreland Area are necessary to achieve the recreational purpose and function of the project:

The new impervious surface area within the State-PSA is limited to 3,725 square feet, which is required per the engineered design for the steps of a pause place located at approximately Station 149+75 (see Attachment 7, Site Plans). The proposed new impervious area is negligible when considered in the context of the existing impervious surface along the Lake edge and within the combined State-PSA and City-PSA areas. Existing impervious surfaces include stone rip rap, concrete rip rap, bituminous pavement and concrete from former buildings, the Bike Path itself, and an existing rail road bed. Although there is 3,725 square feet of proposed new impervious area within the State-PSA, there will be a reduction in overall impervious area within the combined State-PSA and City-PSA of 0.67 acre. New impervious area proposed within the State-PSA will be in the form of pause place steps, as well as an area of repair and maintenance of shoreline protection rip rap. The Project requires a construction and operational phase stormwater permits, and as such the runoff from all new impervious surface will be managed through the design and installation of stormwater management practices. The Project also will require a construction phase stormwater permit, and therefore will be required to install and maintain Erosion Protection and Sediment Control (EPSC) measures throughout the duration of construction. As such, although new impervious surface is required within the PSA in order to meet the goals of the Project, impacts from stormwater and erosion have been minimized and mitigated for to the greatest extent practicable. As described in Section 1 above, limited woody vegetation clearing within the PSA will be required in order for construction access. A total of 700 square feet of tree clearing is required within the State-PSA, which is necessary in order that the shoreline protection infrastructure maintenance activities can be completed and so that the pause place steps may be installed. Without the repairs to shoreline armoring the safety and longevity of the Project would be at risk, and without construction of the pause place, Bike Path users would not have the designated access and safe approach that the pause place would offer, including steps and a handrail (see cross section of pause place steps, sheet 13 of Attachment 7, Site Plans).

3. Describe the best management practices used to protect habitat and water quality of the lake while achieving the public recreational purpose. On separate pages attach site plans, photos, and any other relevant supporting documents:

The Project's overall goal of increasing and enhancing the existing public recreational and multi-modal transportation opportunities provided by the Bike Path will not come at the expense of wildlife habitat or water quality. Within the State-PSA of 95.5 feet and 100 feet AMSL, there will be approximately 700 square feet of woody vegetation clearing. Revegetation of this 700 square foot area within the State-PSA is not feasible, largely because the shoreline is protected with rip rap and other infrastructure which could be damaged or compromised by the growth of tree roots in place and if tipped or uprooted during storms. Revegetation within the State-PSA as a BMP is also not feasible because this narrow band of shoreline is subject to seasonal flooding and annual storm and ice damage, and conditions for a successful planting are not present within the largely rip rapped and modified protected shoreline. Project-wide, within the City-PSA there will be approximately 52 trees cut, and up to approximately 0.95 acre of tree clearing across the entire Project. In order to evaluate the potential impacts to protected wildlife (State and Federally listed bat species) from the proposed tree cutting, the Project consulted with the Vermont Department of Fish and Wildlife ("FWD"). FWD corroborated that there would be no concern for direct take or indirect impacts to protected bat species from the proposed tree cutting.

In order to mitigate for the Project's tree removal and also to enhance an overall wooded shore aesthetic and character, the City has designed a revegetation plan which includes approximately 200 trees and shrubs to be planted. As such, although the 700 square feet of woody vegetation removal within the State-PSA will not be mitigated for within the same portion of the State-PSA, the BMP to establish a comparable (1:1 area ratio as described in the Shoreland Protection Act, 2014) of revegetation elsewhere within the PSA will be met when the State-PSA is considered in combination with the City-PSA. The tree and shrub planting locations, as well as an inventory of existing woody vegetation and proposed trees and shrubs to be cut, are included on the Project Site Plans, Attachment 7.

***Submit this form as an addendum to a complete Shoreland Permit Application to:***

**Vermont Department of Environmental Conservation  
Watershed Management Division  
Shoreland Permitting  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3522**

Direct all correspondence or questions to Shoreland Permitting at:  
ANR.WSMDSshoreland@state.vt.us

For additional information visit: [www.watershedmanagement.vt.gov](http://www.watershedmanagement.vt.gov)



**Photograph 1:** View looking north along the shoreline approximately at the proposed new staircase “pause place”, where impervious surface within the State-PSA is required. Photo taken 6/1/14 by VHB/Ketterling.



**Photograph 2:** Photograph looking south towards the proposed location of the staircase and pause place; representative character of conditions in State-PSA are not conducive to revegetation. Photo taken 6/1/14 by VHB/Ketterling.



**Photograph 3:** Representative view of shoreline revetment that will be repaired as part of the Project, location near larger pause place at northwest corner of Urban Reserve. View to south. Photo taken 4/13/13 by VHB/Ketterling.

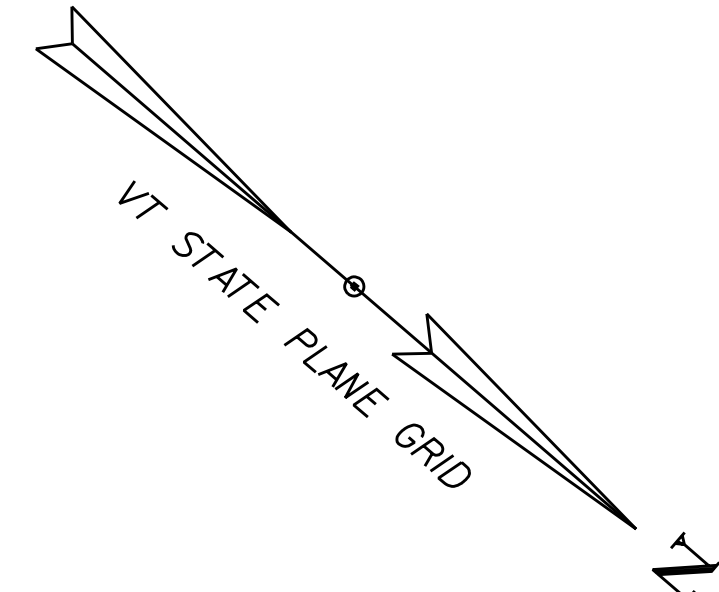


**Photograph 4:** Representative view of shoreline revetment that will be repaired as part of the Project, location is between jetty and northwest corner of Urban Reserve. View to north. Photo taken 6/1/14 by VHB/Ketterling.



**Photograph 5:** Representative view of existing shoreline rip rap needing repair and maintenance, approximately at Station 157+50. Photo taken 6/1/14 by VHB/Ketterling.





**EXCAVATION OF SURFACES & PAVEMENTS**  
STA. 151+75 TO 157+50, ALL

**SOLID ROCK EXCAVATION  
(REMOVAL OF CONCRETE)**

**CLEARING AND GRUBBING**  
STA. 155+75 TO 157+50, WITHIN L.O.D.

**4 INCH YELLOW LINE**  
STA. 151+75 TO 157+50 (DASHED)

STA. 154+14 TO 154+66, ALL  
STA. 155+20 TO 155+75, ALL  
STA. 156+55 TO 157+40, ALL

**SPECIAL PROVISION  
(STEEL BENCH)**  
STA. 152+94, 26' LT

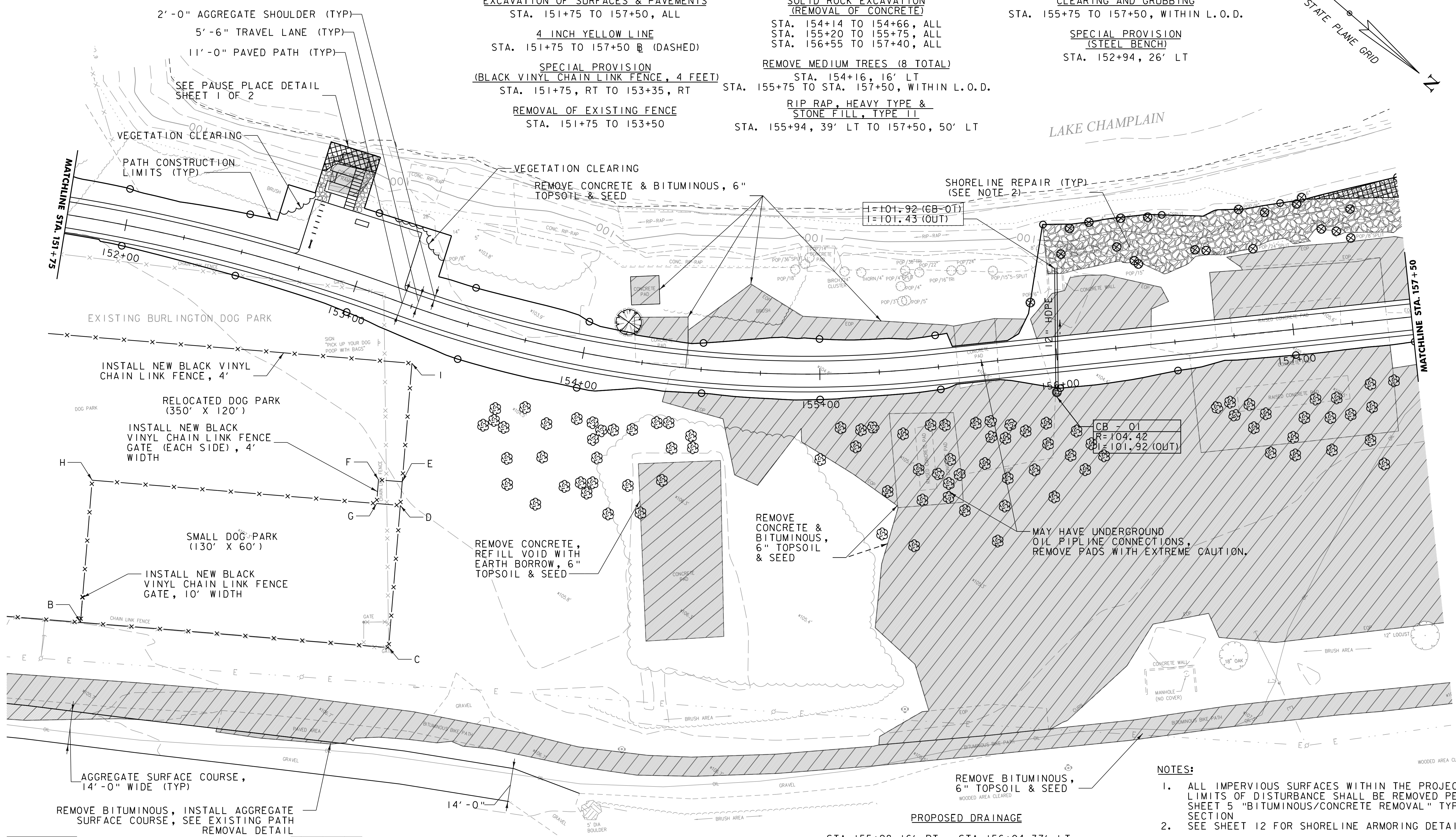
**SPECIAL PROVISION  
(BLACK VINYL CHAIN LINK FENCE, 4 FEET)**  
STA. 151+75, RT TO 153+35, RT

**REMOVE MEDIUM TREES (8 TOTAL)**  
STA. 154+16, 16' LT  
STA. 155+75 TO STA. 157+50, WITHIN L.O.D.

**REMOVAL OF EXISTING FENCE**  
STA. 151+75 TO 153+50

**RIP RAP, HEAVY TYPE &  
STONE FILL, TYPE II**  
STA. 155+94, 39' LT TO 157+50, 50' LT

**LAKE CHAMPLAIN**



- NOTES:**
- ALL IMPERVIOUS SURFACES WITHIN THE PROJECT LIMITS OF DISTURBANCE SHALL BE REMOVED PER SHEET 5 "BITUMINOUS/CONCRETE REMOVAL" TYPICAL SECTION
  - SEE SHEET 12 FOR SHORELINE ARMORING DETAILS

|  |  |  |   |
|--|--|--|---|
|  | = NEW IMPERVIOUS SURFACE WITHIN STATE PROTECTED SHORELAND AREA |  | = REMOVE EXISTING CONCRETE/BITUMINOUS SURFACE |
|  | = TREE PLANTING  |  | = REMOVE TREE                                 |

SCALE 1" = 20'-0"  
20 0 20



|                                    |                         |
|------------------------------------|-------------------------|
| PROJECT NAME: BURLINGTON BIKE PATH |                         |
| PROJECT NUMBER: 57634.00           |                         |
| FILE NAME: z57634bdr_nul.dgn       | PLOT DATE: 4/5/2016     |
| PROJECT LEADER: M.A. COLGAN        | DRAWN BY: P.A. MILLER   |
| DESIGNED BY: E.B. PARIZO           | CHECKED BY: E.B. PARIZO |
| LAYOUT SHEET (5 OF 11)             | SHEET 16 OF 22          |

**EXCAVATION OF SURFACES & PAVEMENTS**

STA. 157+50 TO 163+00, ALL

4 INCH YELLOW LINE

STA. 157+50 TO 163+00 (DASHED)

REMOVING MEDIUM TREES (15 TOTAL)

STA. 157+150 TO 163+00, WITHIN L.O.D.

**SOLID ROCK EXCAVATION**

STA. 157+63, 150' RT TO 157+92, 150' RT

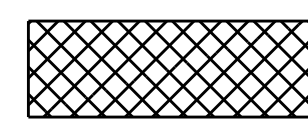
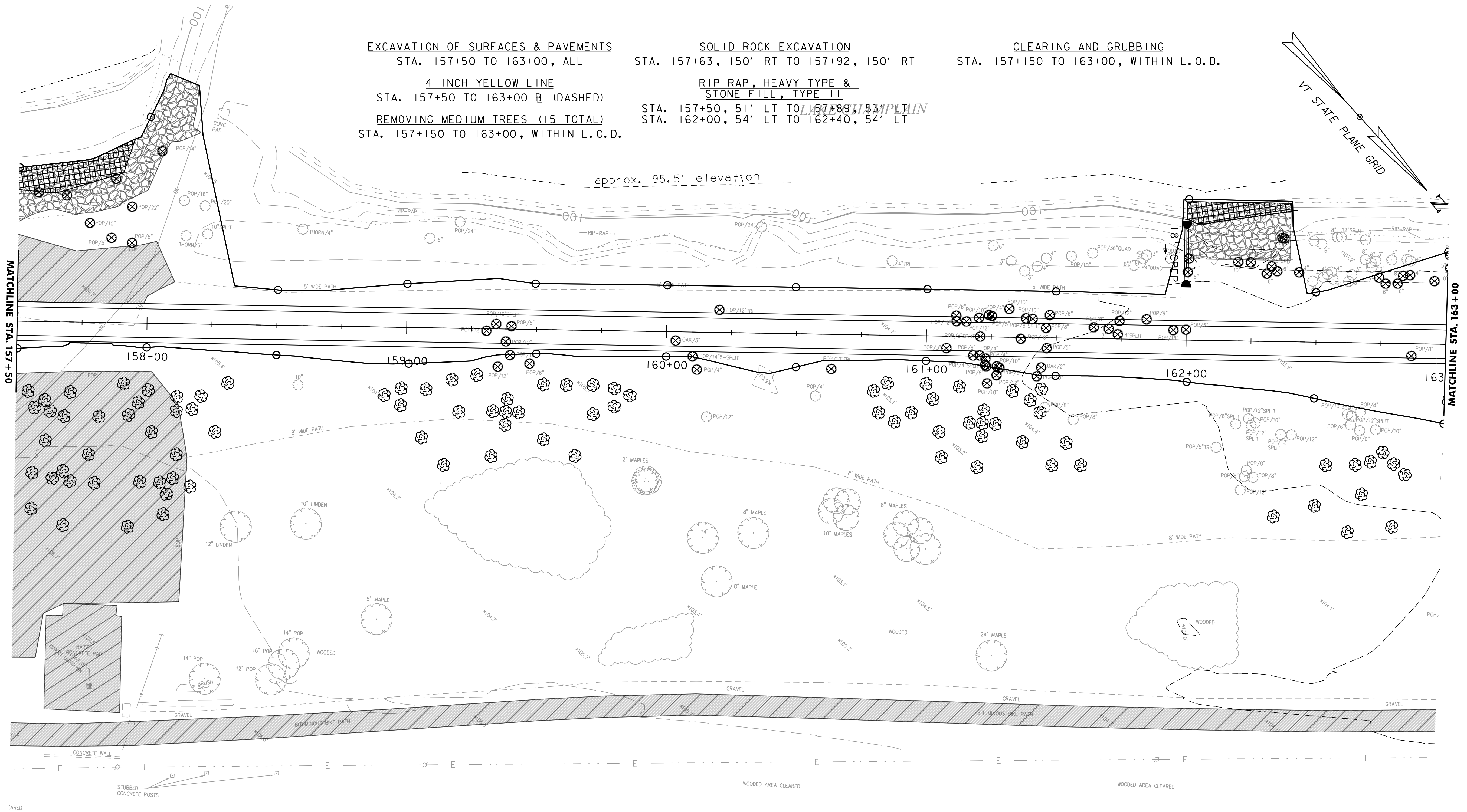
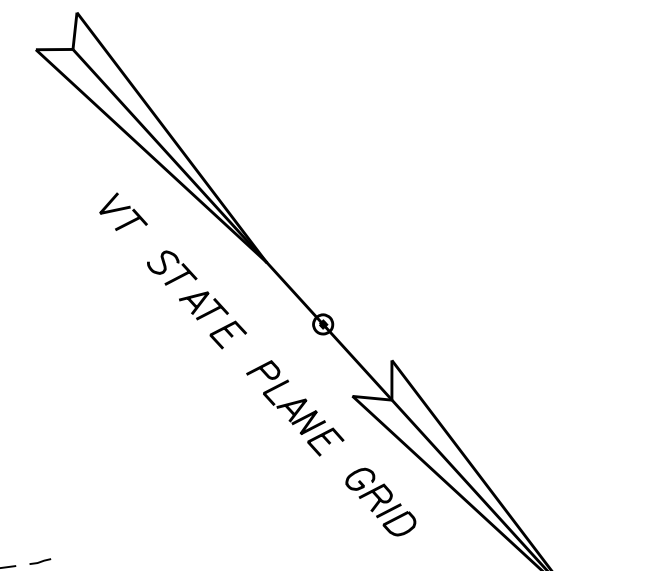
RIP RAP, HEAVY TYPE &  
STONE FILL, TYPE II

STA. 157+50, 51' LT TO 157+89, 53' LT

STA. 162+00, 54' LT TO 162+40, 54' LT

**CLEARING AND GRUBBING**

STA. 157+150 TO 163+00, WITHIN L.O.D.



= NEW IMPERVIOUS SURFACE  
WITHIN STATE PROTECTED  
SHORELAND AREA



= TREE PLANTING



= REMOVE EXISTING CONCRETE/BITUMINOUS SURFACE



= REMOVE TREE

**PROPOSED DRAINAGE**

STA. 162+00, LT. 23' - STA. 162+00, LT. 43'  
NEW 20 LF X 18" CPEP (SL)  
NEW 18" CPEPES AT INLET, +00, LT. 23'  
18" INV. AT INLET = 103.80  
NEW 18" CPEPES AT OUTLET, +00, LT. 43'  
18" INV. AT OUTLET = 103.40

SCALE 1" = 20'-0"  
20 0 20

**NOTES:**

1. ALL IMPERVIOUS SURFACES WITHIN THE PROJECT LIMITS OF DISTURBANCE SHALL BE REMOVED PER SHEET 5 "BITUMINOUS/CONCRETE REMOVAL" TYPICAL SECTION
2. SEE SHEET 12 FOR SHORELINE ARMORING DETAILS

PROJECT NAME: BURLINGTON BIKE PATH

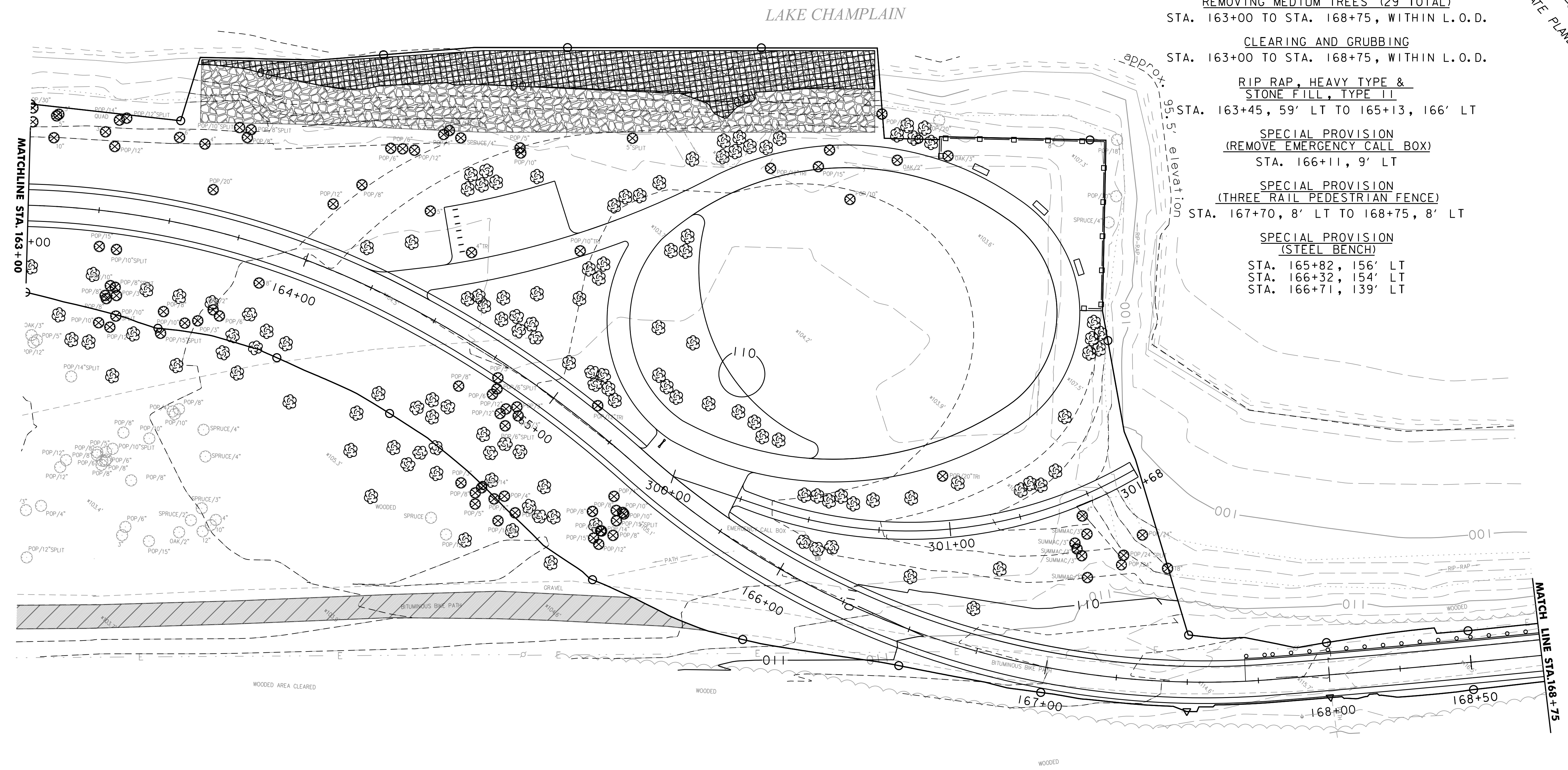
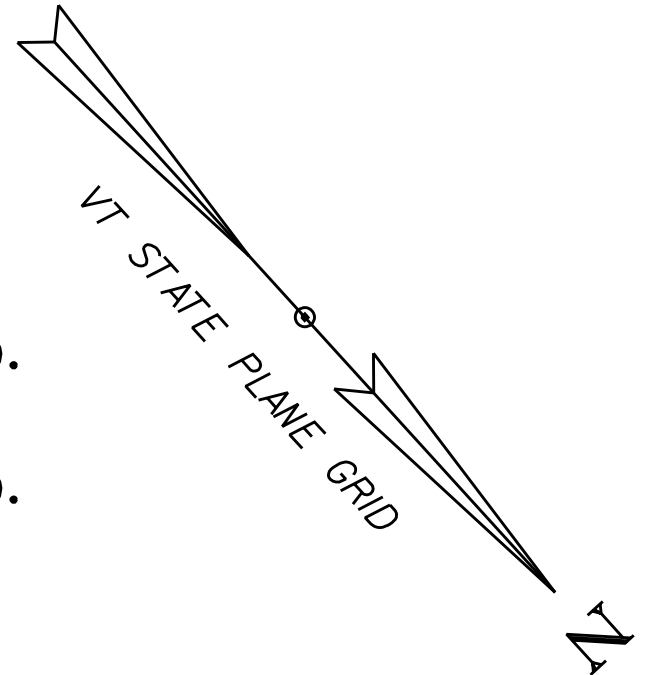
PROJECT NUMBER: 57634.00

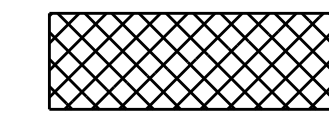
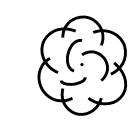
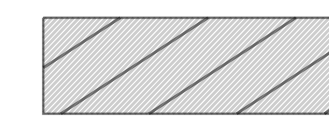
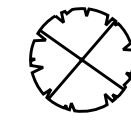
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PROJECT LEADER: M.A. COLGAN  
DESIGNED BY: P.A. MILLER  
LAYOUT SHEET (6 OF 11)

PLOT DATE: 4/5/2016  
DRAWN BY: P.A. MILLER  
CHECKED BY: E.B. PARIZO  
SHEET 17 OF 22



- EXCAVATION OF SURFACES & PAVEMENTS  
STA. 163+00, 150' RT TO 165+90, 32' RT
- 4 INCH YELLOW LINE  
STA. 163+00 TO 168+75 (DASHED)
- REMOVING MEDIUM TREES (29 TOTAL)  
STA. 163+00 TO STA. 168+75, WITHIN L.O.D.
- CLEARING AND GRUBBING  
STA. 163+00 TO STA. 168+75, WITHIN L.O.D.
- RIP RAP, HEAVY TYPE &  
STONE FILL, TYPE II  
STA. 163+45, 59' LT TO 165+13, 166' LT
- SPECIAL PROVISION  
(REMOVE EMERGENCY CALL BOX)  
STA. 166+11, 9' LT
- SPECIAL PROVISION  
(THREE RAIL PEDESTRIAN FENCE)  
STA. 167+70, 8' LT TO 168+75, 8' LT
- SPECIAL PROVISION  
(STEEL BENCH)  
STA. 165+82, 156' LT  
STA. 166+32, 154' LT  
STA. 166+71, 139' LT



-  = NEW IMPERVIOUS SURFACE WITHIN STATE PROTECTED SHORELAND AREA
-  = TREE PLANTING
-  = REMOVE EXISTING CONCRETE/BITUMINOUS SURFACE
-  = REMOVE TREE

SCALE 1" = 20'-0"  
20 0 20

- NOTES:
1. ALL IMPERVIOUS SURFACES WITHIN THE PROJECT LIMITS OF DISTURBANCE SHALL BE REMOVED PER TYPICAL SECTIONS UNLESS OTHERWISE NOTED
  2. SEE SHEET 12 FOR SHORELINE ARMORING DETAILS

|                                    |                         |
|------------------------------------|-------------------------|
| PROJECT NAME: BURLINGTON BIKE PATH |                         |
| PROJECT NUMBER: 57634.00           |                         |
| FILE NAME: z57634bdr_nul.dgn       | PLOT DATE: 4/5/2016     |
| PROJECT LEADER: M.A. COLGAN        | DRAWN BY: P.A. MILLER   |
| DESIGNED BY: E.B. PARIZO           | CHECKED BY: E.B. PARIZO |
| LAYOUT SHEET (7 OF 11)             | SHEET 18 OF 22          |

