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Williston, VT 05495  
[www.kas-consulting.com](http://www.kas-consulting.com)

802.383.0486 p  
802.383.0490 f

February 15, 2018

Mr. Matt Becker  
Waste Management Division  
Vermont Department of Environmental Conservation  
1 National Life Drive - Davis 1  
Montpelier, VT 05620-3704

RE: Corrective Action Plan Addendum – Northern Waterfront Parcel, Penny Lane, Burlington, Vermont, SMS #2005-3357 & 90-0540

Dear Mr. Becker:

The following has been prepared as an addendum to the approved Corrective Action Plan (CAP) dated August 24, 2011 for the Waterfront North property located near Penny Lane in Burlington, Vermont. This addendum addresses lands located within Tax Map parcel #043-4-004 and lot #043-4-004 along the northern waterfront in the City of Burlington, Vermont (property; see attached Site Location Map). The property consists of areas of land within parcel #043-4-004 and the areas are positioned between buildings and portions of Penny Lane (See attached Site Plan).

Final redevelopment plans are in place for the property. These plans consist of replacing two existing parking lot areas and installing permeable asphalt/surfaces, removing trees and re-landscaping green space along the waterfront, installing subsurface utilities between the City of Burlington Water Department and US Coast Guard buildings, removing the existing pavilion located to the west of the City of Burlington Water Department and installing an electric transformer and underground storage tank in the vicinity of the removed pavilion. The planned depths of excavation to conduct these redevelopment activities range from surface grade up to approximately 10 feet below grade (fbg).

The planned redevelopment is scheduled to begin in early spring 2018. Based on the soil testing results from the Phase II Environmental Site Assessment completed by KAS, Inc. in February 2016 which showed concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals in soils planned to be disturbed as part of the redevelopment to be below urban background levels, the soils beneath the property will be managed as Class A or B (PID readings < 10 parts per million by volume (ppmv)) and Class C or D (PID readings > 10 ppmv) soils in accordance with the soil management procedures outlined in Section 6.4 of the approved CAP and



Mr. Matt Becker  
February 15, 2018  
Page 2

Addendum #1 dated March 27, 2014. More specifically, all soils handled and stockpiled as part of the construction activities will be screened on site by an environmental professional using a properly calibrated photoionization detector (PID) during the development and construction activities. It is anticipated soils excavated and graded within the waterfront north park area shown on the attached Sheet C2.3 will remain within this area and not be stockpiled. Soils generated from the other project areas will be temporarily staged on plastic sheeting so as to not mix with the underlying material and placed north of the eastern parking lot area (see attached Sheet C3.0) for later use. It is anticipated all soils will be reused on-site. Any soils staged overnight will be covered with plastic sheeting. A permanent soil pile/berm will be constructed along the western side of the eastern parking lot which will be covered with topsoil and seeded with grass (see Sheet C3.0). The planned redevelopment activities will disturb portions of the recently installed 6" soil cap near the eastern parking lot. This area will be replaced in kind following completion of the work anywhere a new hardscape surface is not installed. Any excess topsoil from this area will be stockpiled separately on plastic sheeting so as to not mix with the underlying material and will be reused elsewhere as applicable.

KAS will provide periodic oversight during the construction project. Details of the proposed construction are outlined on the attached plans.

Please contact me should you have any questions.

Sincerely,

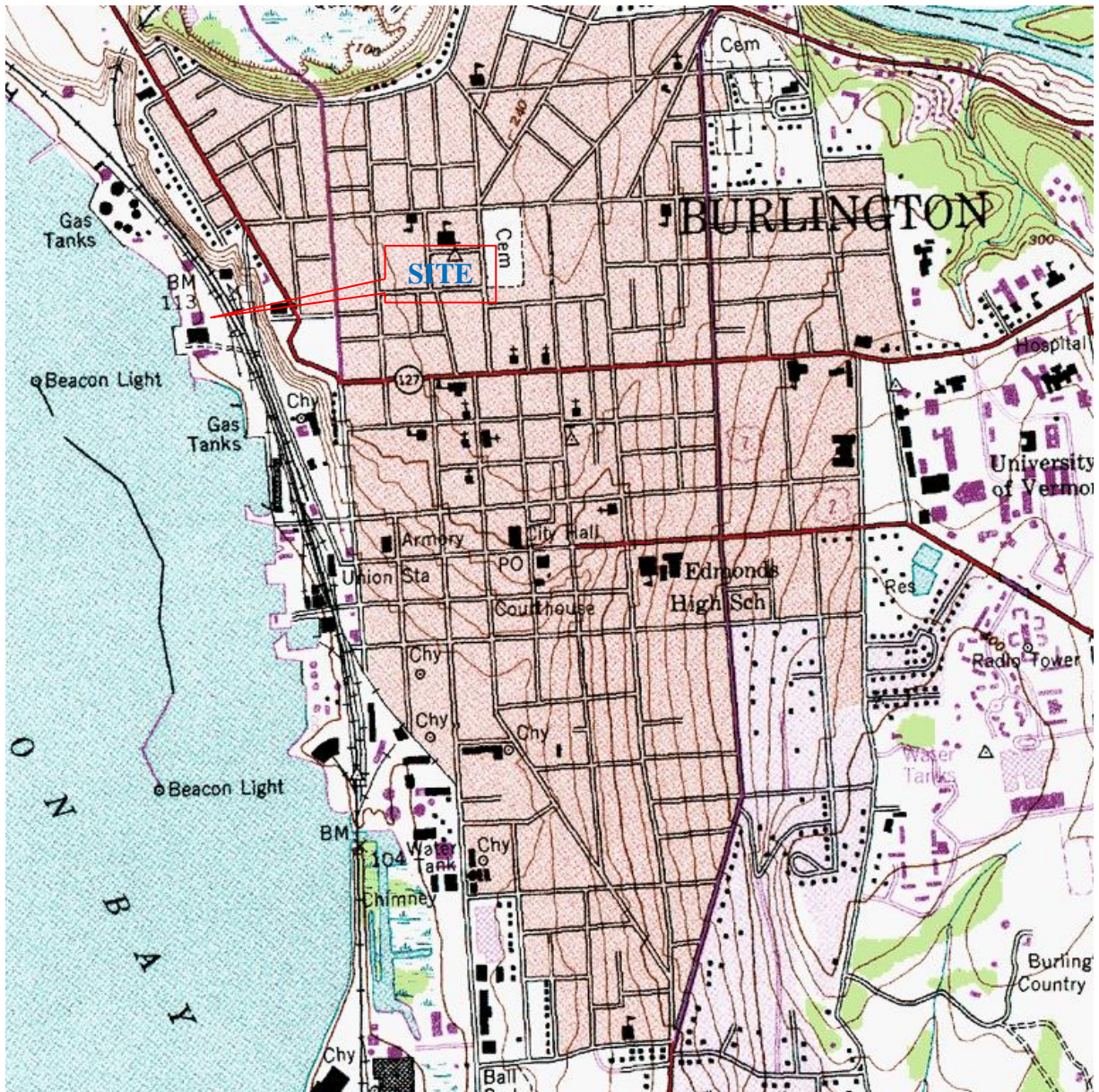
A handwritten signature in black ink, appearing to read "J. Roberts", written over the printed name.

Jeremy Roberts, P.G.  
Environmental Programs Manager

cc- Mr. Jack Wallace, Burlington Harbor Marina, LLC  
Ms. Kirsten Merriman Shapiro, CEDO  
KAS #512150387

Enclosure: Proposed Redevelopment Plans





JOB # 511150384



## Northern Waterfront

Penny Lane  
Burlington, Vermont

### Site Location Map

Source: topoquest.com

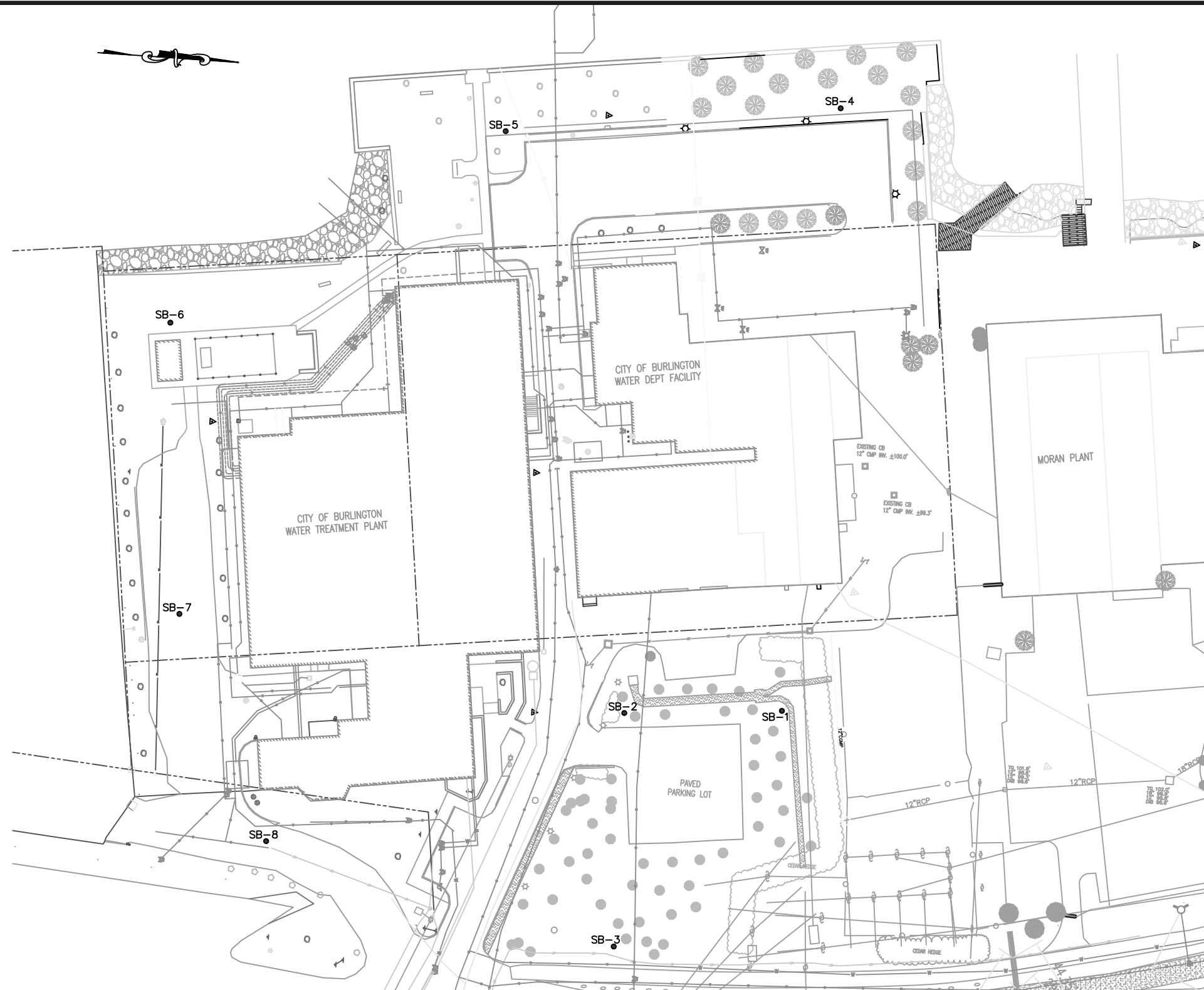
Date: 12/21/15

Drawing: #1

Scale: 1:24,000"

By: JR

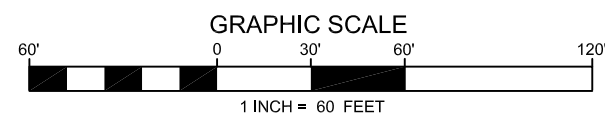




KAS # 512150387

#### LEGEND

- SB-1 SOIL BORING
- TREES
- PROPERTY LINE
- WATER LINE
- STORM SEWER



NOTE: BASE MAP PROVIDED BY CIVIL ENGINEERING ASSOCIATES, INC. OF SOUTH BURLINGTON, VERMONT

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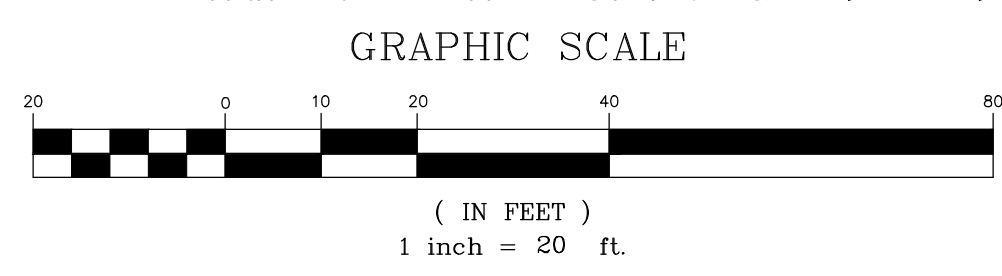
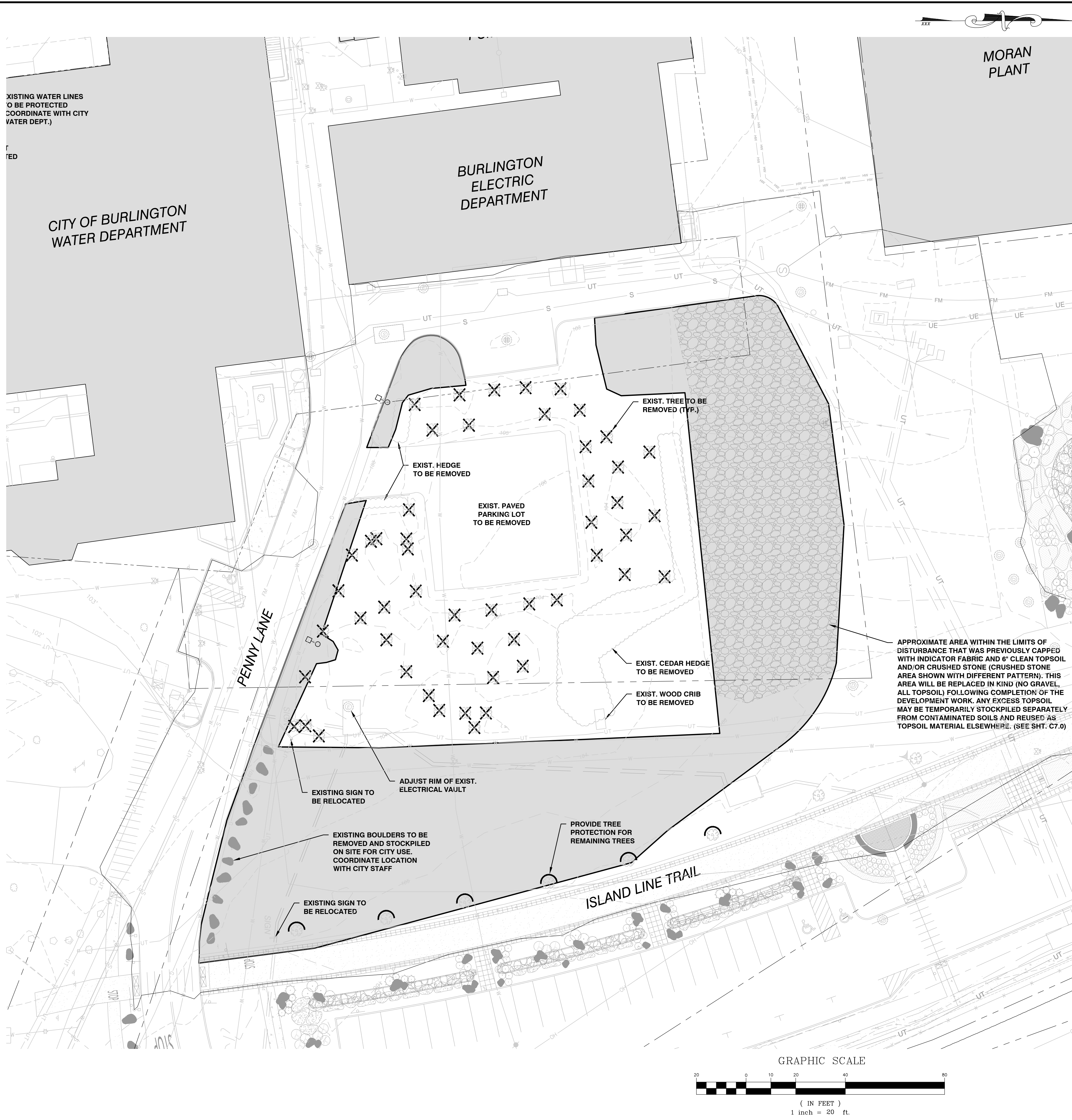


BURLINGTON WATERFRONT  
PENNY LANE  
BURLINGTON, VERMONT

#### SITE MAP

DATE: 3/11/16	DWG. #: 1	SCALE: 1"=60'	DRN.: TB	APP.: JR
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SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.  
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802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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DRAWN SAL	
CHECKED DSM	
APPROVED DSM	

OWNER:

**BURLINGTON  
HARBOR MARINA  
LLC**

1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:

**BURLINGTON  
HARBOR MARINA**

234 PENNY LANE  
BURLINGTON VT 05401

LOCATION MAP  
1" = 2000'

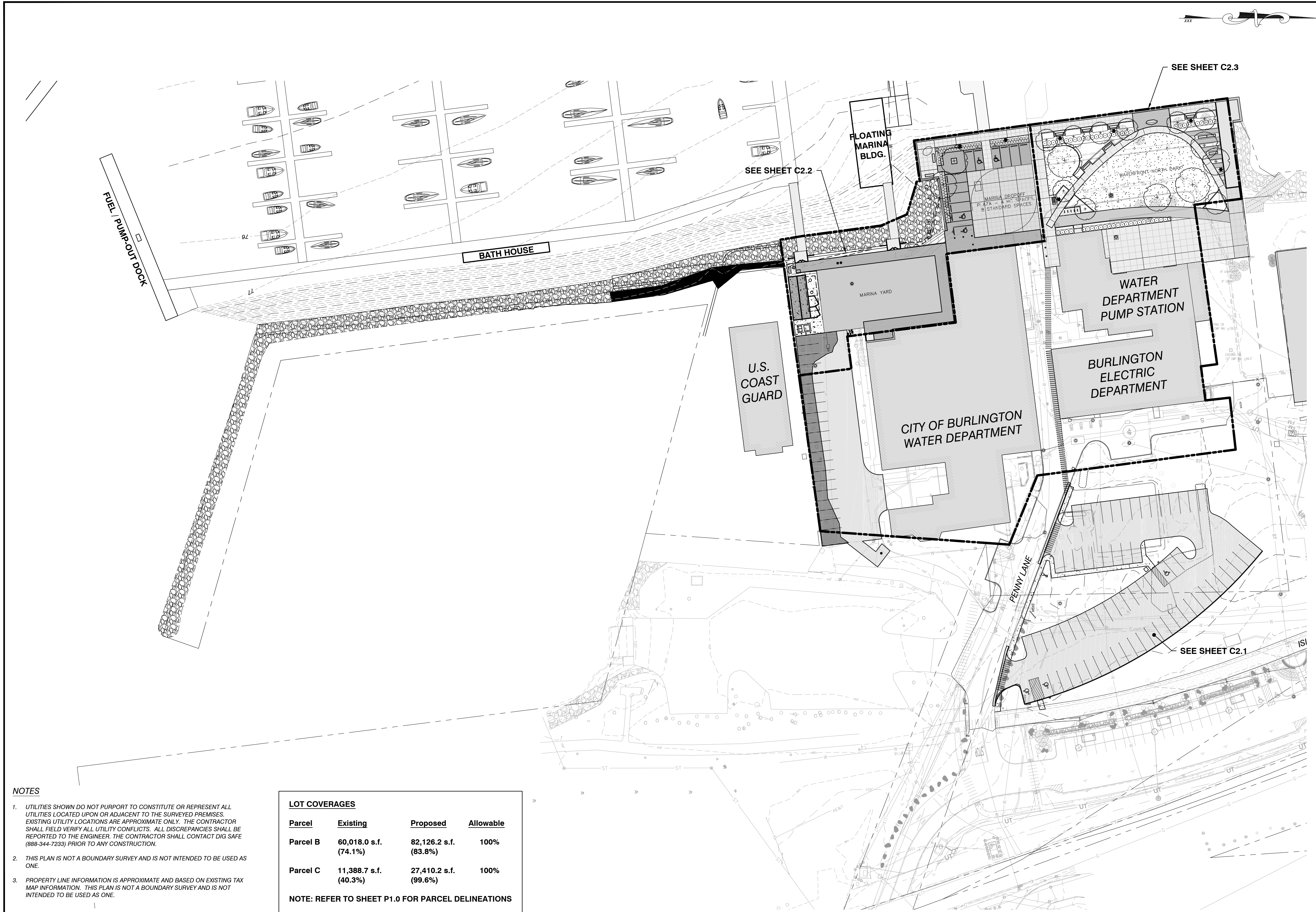
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1/24/17	DSM	MISC. CHANGES
8/23/17	SAL	DRAFT BID SET
9/22/17	DSM	BID SET
11/09/17	DSM	BID SET - RESUBMITTAL
1/10/18	DSM	REVISED CALLOUTS

**EXISTING  
CONDITIONS/  
DEMOLITION  
PARTIAL SITE PLAN**

DATE JAN. 13, 2017	DRAWING NUMBER <b>C1.1</b>
SCALE 1" = 20'	
PROJ. NO. 14115	

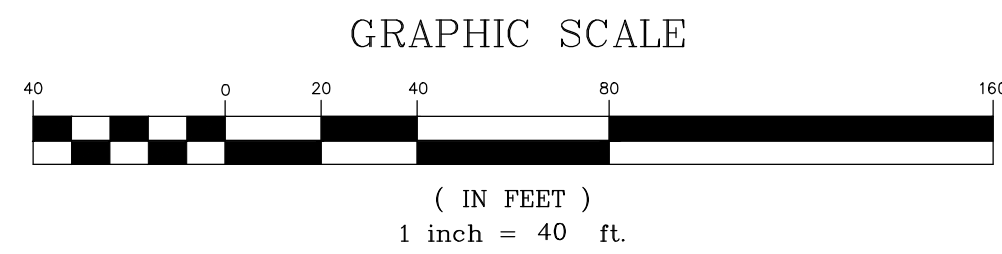
P:\AutoCAD Projects\2016\14115\2016-14115-01.dwg Plot Date: 1/13/2017 1:25:22 PM





- NOTES**
- UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.
  - THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.
  - PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.

LOT COVERAGES			
Parcel	Existing	Proposed	Allowable
Parcel B	60,018.0 s.f. (74.1%)	82,126.2 s.f. (83.8%)	100%
Parcel C	11,388.7 s.f. (40.3%)	27,410.2 s.f. (99.6%)	100%
NOTE: REFER TO SHEET P1.0 FOR PARCEL DELINEATIONS			



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DSM

OWNER:  
  
**BURLINGTON  
HARBOR MARINA  
LLC**  
1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:  
  
**BURLINGTON  
HARBOR MARINA**  
  
234 PENNY LANE  
BURLINGTON VT 05401

LOCATION MAP

1" = 2000'

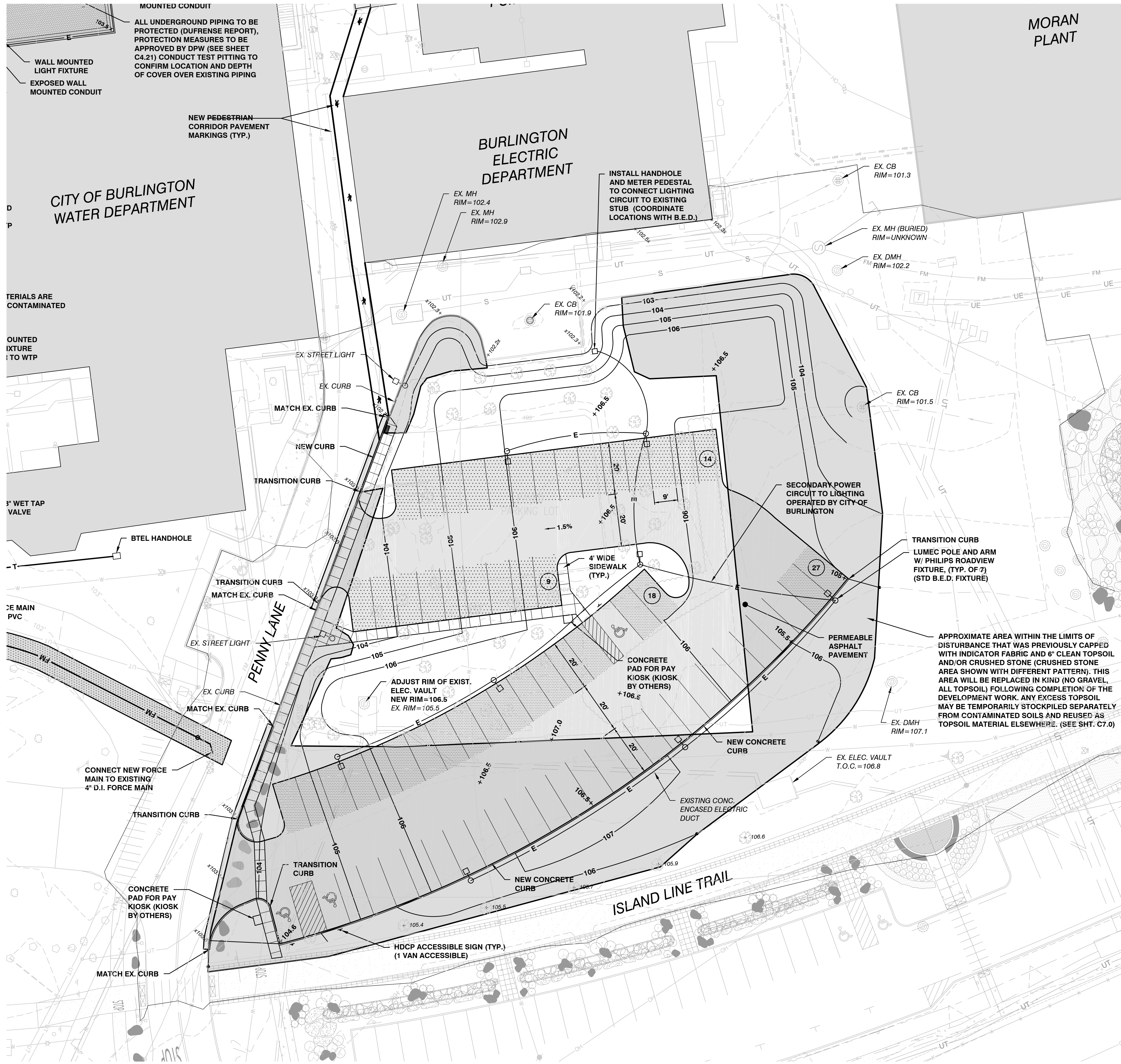
DATE	CHECKED	REVISION
1/24/17	DSM	MISC. CHANGES
1/27/17	DSM	PL REVISED FOR PARKING

PROPOSED  
CONDITIONS  
OVERALL SITE  
PLAN

DATE  
JAN. 13, 2017  
  
SCALE  
1" = 40'  
  
PROJ. NO.  
14115

DRAWING NUMBER  
  
**C2.0**





#### OFF STREET PARKING REQUIREMENTS

<b>MARINA</b>	
96 SEASONAL SLIPS (0.5 / SLIP)	48 SPACES
(PER WAIVER)	
<b>MARINA</b>	
EAST LOT	42 SPACES
SOUTH LOT (EMPLOYEE)	4 SPACES
PLAZA LOT (HDCP ACCESS.)	2 SPACES
	48 SPACES
<b>BIKE PARKING</b>	
SHORT TERM (100 USERS x 0.1)	10 SPACES
LONG TERM (1/10) (EMPLOYEE)	1 SPACES
TOTAL REQUIRED	11 SPACES
TOTAL PROVIDED	11 SPACES

#### WFN (EAST LOT) PARKING SUMMARY

##### MIN. REQUIRED SPACES

42 MARINA  
26 COMMUNITY SAILING CENTER  
68 REQUIRED SPACES  
68 PROPOSED SPACES  
73 PREVIOUSLY PERMITTED SPACES

3 ACCESSIBLE SPACES REQUIRED (TOTAL)  
3 ACCESSIBLE SPACES PROVIDED (TOTAL)  
1 VAN ACCESSIBLE SPACE REQUIRED  
1 VAN ACCESSIBLE SPACES PROVIDED

#### EAST LOT PARKING RESERVED SPACES

	23 SPACES FOR EXCLUSIVE MARINA USE MAY TO OCT.
	19 SPACES FOR EXCLUSIVE MARINA USE WEEKENDS AND HOLIDAYS - MAY TO OCT.

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DSM

OWNER:

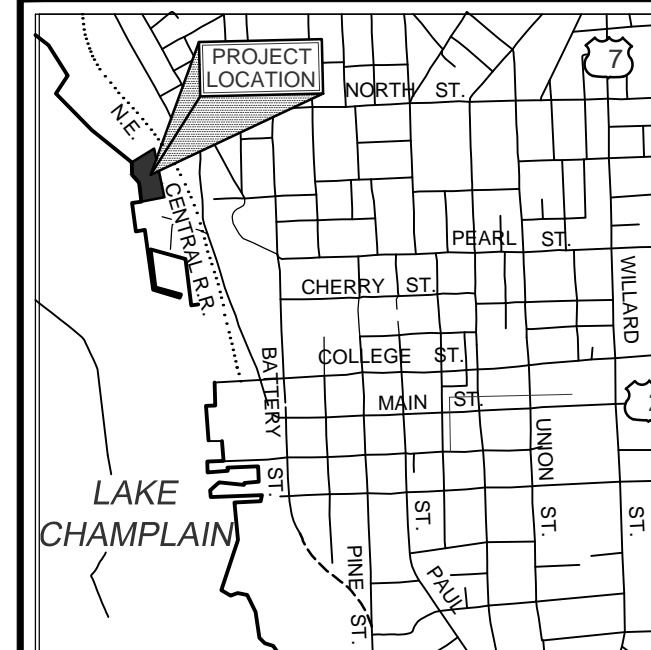
**BURLINGTON  
HARBOR MARINA  
LLC**

1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:

**BURLINGTON  
HARBOR MARINA**

234 PENNY LANE  
BURLINGTON VT 05401



LOCATION MAP

1" = 200'

DATE	CHECKED	REVISION
1/24/17	DSM	MISC. CHANGES
8/23/17	SAL	DRAFT BID SET
9/22/17	DSM	BID SET
11/09/17	DSM	BID SET - RESUBMITTAL

**PROPOSED  
CONDITIONS  
PARTIAL SITE PLAN**

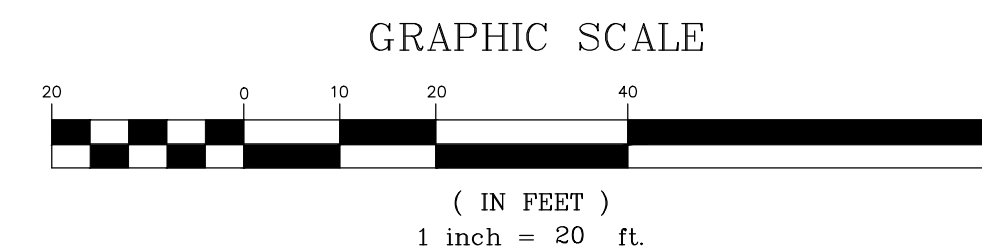
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SCALE  
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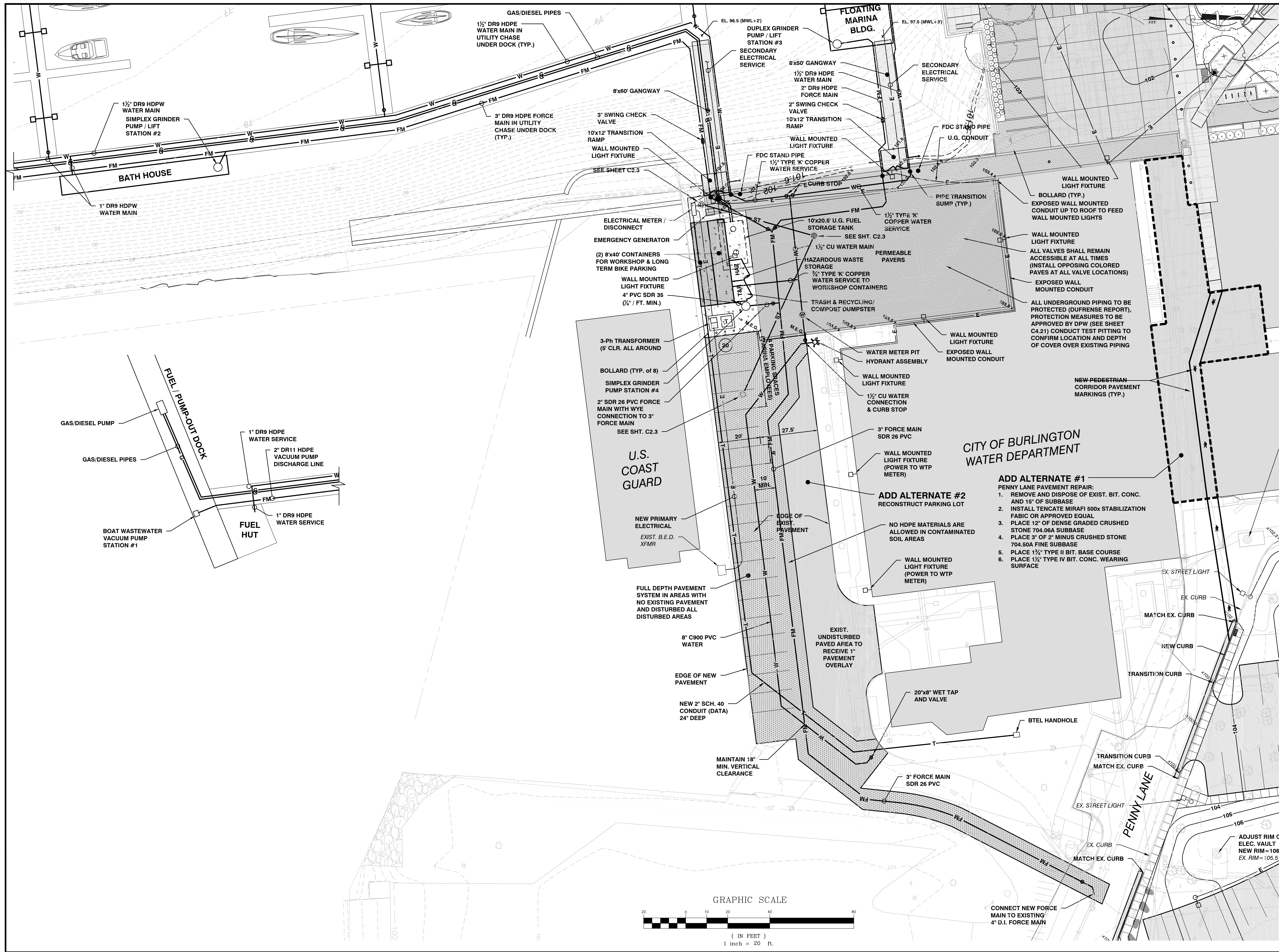
PROJ. NO.  
14115

DRAWING NUMBER

**C2.1**







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DSM

OWNER:

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LLC**

1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:

**BURLINGTON  
HARBOR MARINA**

234 PENNY LANE  
BURLINGTON VT 05401



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION
1/24/17	DSM	MISC. CHANGES
3/14/17	DSM	RELOCATE WORK OUTSIDE FLOODPLAIN
3/30/17	DSM	MODIFIED PUMP OUT FORCE MAIN
5/12/17	DSM	REVISED TRANSFORMER LAYOUT
8/23/17	SAL	DRAFT BID SET
9/22/17	DSM	BID SET
10/17/17	DSM	WATER SUPPLY PERMIT APPL.
11/09/17	DSM	BID SET - RESUBMITTAL

## PROPOSED CONDITIONS PARTIAL SITE PLAN

DATE  
JAN. 13, 2017

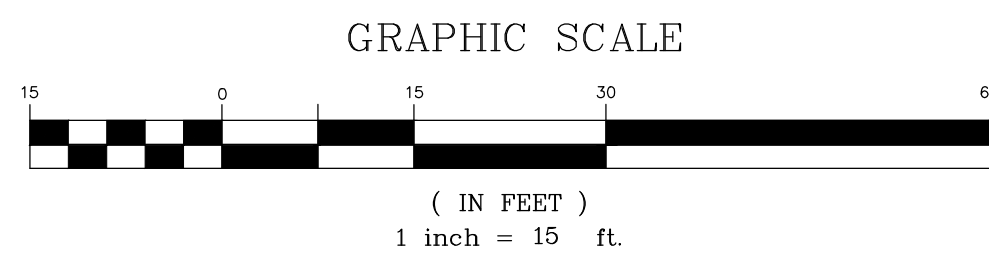
SCALE  
1" = 20'

PROJ. NO.  
14115

DRAWING NUMBER

**C2.2**





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CHECKED

DSM

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DSM

OWNER:

**BURLINGTON  
HARBOR MARINA  
LLC**

1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:

**BURLINGTON  
HARBOR MARINA**

234 PENNY LANE  
BURLINGTON VT 05401



LOCATION MAP

1" = 200'

DATE	CHECKED	REVISION
1/24/17	DSM	MISC. CHANGES

**PROPOSED  
CONDITIONS  
PARTIAL SITE PLAN**

DATE  
JAN. 13, 2017

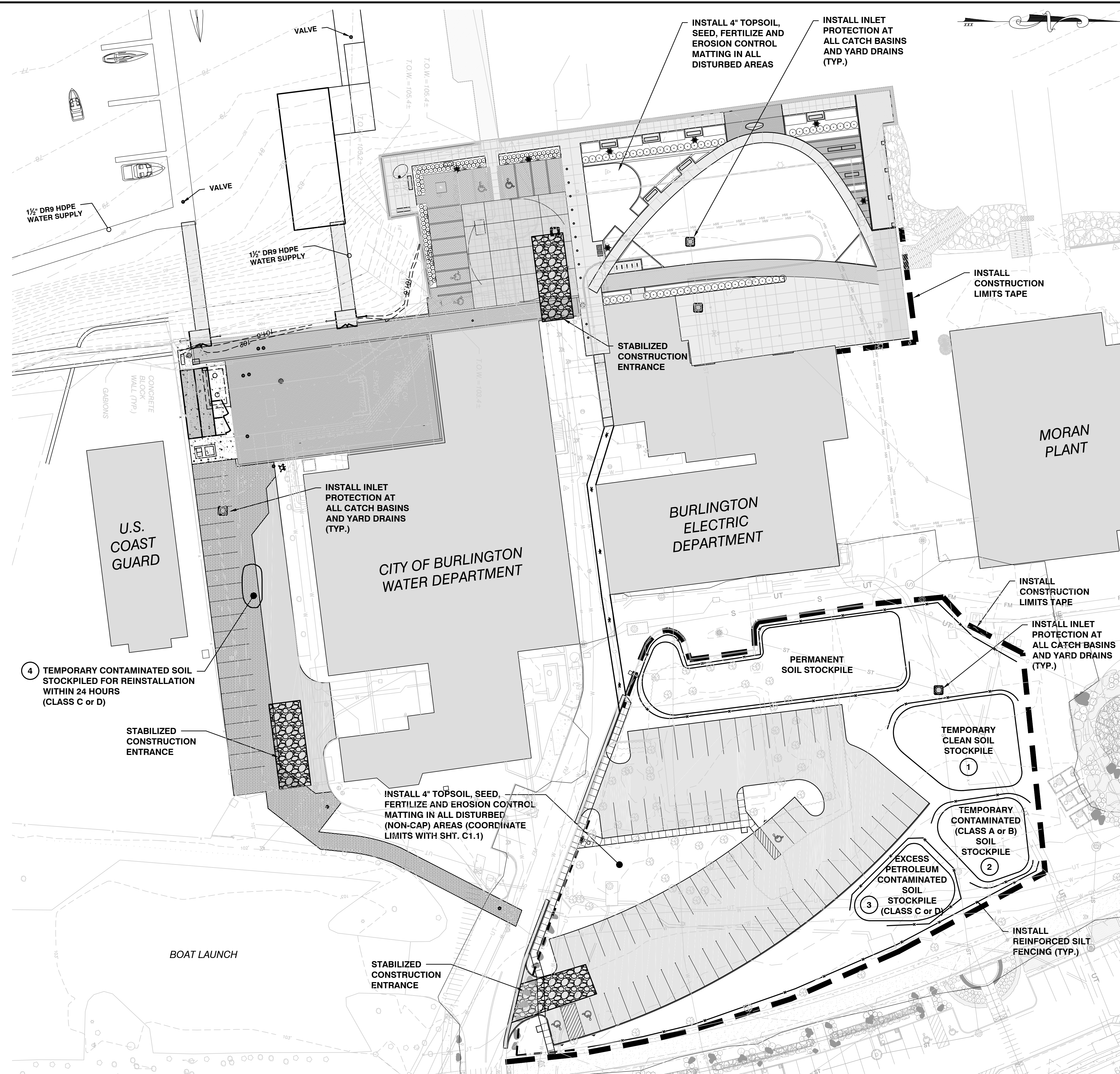
SCALE  
1" = 15'

PROJ. NO.  
14115

DRAWING NUMBER

**C2.3**





④ TEMPORARY CONTAMINATED SOIL STOCKPILED FOR REINSTALLATION WITHIN 24 HOURS (CLASS C or D)

STABILIZED CONSTRUCTION ENTRANCE

INSTALL 4" TOPSOIL, SEED, FERTILIZE AND EROSION CONTROL MATTING IN ALL DISTURBED (NON-CAP) AREAS (COORDINATE LIMITS WITH SHT. C1.1)

STABILIZED CONSTRUCTION ENTRANCE

INSTALL 4" TOPSOIL, SEED, FERTILIZE AND EROSION CONTROL MATTING IN ALL DISTURBED AREAS

INSTALL INLET PROTECTION AT ALL CATCH BASINS AND YARD DRAINS (TYP.)

INSTALL CONSTRUCTION LIMITS TAPE

INSTALL CONSTRUCTION LIMITS TAPE

INSTALL INLET PROTECTION AT ALL CATCH BASINS AND YARD DRAINS (TYP.)

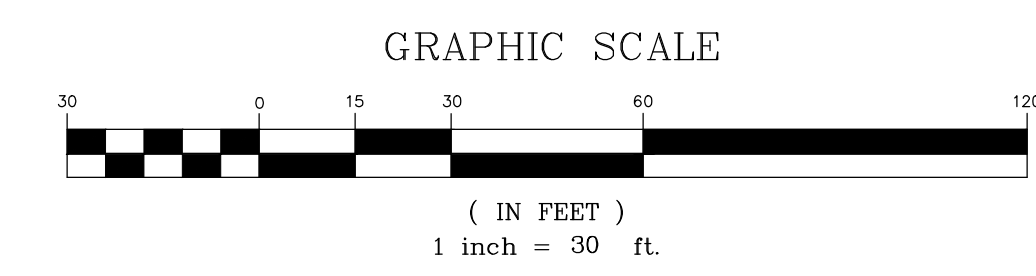
① TEMPORARY CLEAN SOIL STOCKPILE

② TEMPORARY CONTAMINATED (CLASS A or B) SOIL STOCKPILE

③ EXCESS PETROLEUM CONTAMINATED SOIL STOCKPILE (CLASS C or D)

INSTALL REINFORCED SILT FENCING (TYP.)

NOTE:  
REFER TO THE SOIL MANAGEMENT PLAN (SHEET C7.0)  
FOR CONTAMINATED SOIL CLASSIFICATION GUIDELINES



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DSM

OWNER:  
**BURLINGTON HARBOR MARINA LLC**  
1 CHURCH STREET  
BURLINGTON VT 05401

PROJECT:  
**BURLINGTON HARBOR MARINA**  
  
234 PENNY LANE  
BURLINGTON VT 05401

LOCATION MAP  
1" = 2000'

DATE	CHECKED	REVISION
1/24/17	DSM	MISC. CHANGES
8/23/17	SAL	DRAFT BID SET
9/22/17	DSM	BID SET
11/09/17	DSM	BID SET - RESUBMITTAL
01/02/18	DSM	REVISED SOIL STOCKPILES

PROPOSED  
EPSC PLAN

DATE  
JAN. 13, 2017  
  
SCALE  
1" = 30'  
  
PROJ. NO.  
14115

DRAWING NUMBER  
  
**C3.0**



Soil management at the Site will consist of onsite management and reuse. No offsite management is planned. If offsite management is required, all contaminated soils will be disposed of at the Coventry landfill or E.M.S.I. The principal contaminants of concern are metals and PAHs, which are predominant across the Site but have been shown to be below the State of Vermont urban background levels as established in the Investigation of Contaminated Properties Rule (IRule) dated July 27, 2017. These contaminants tend to stay adsorbed to soil particles and do not dissolve and create groundwater contamination. The metals are not amenable to commonly used treatment methods and levels are not anticipated to change with time, while the PAH contamination may degrade slowly with time. Secondary contaminants of concern are petroleum and PCBs which are limited to smaller areas. The objective is to properly manage and stockpile soils during construction to reduce the potential for direct contact and exposure to the impacted soils.

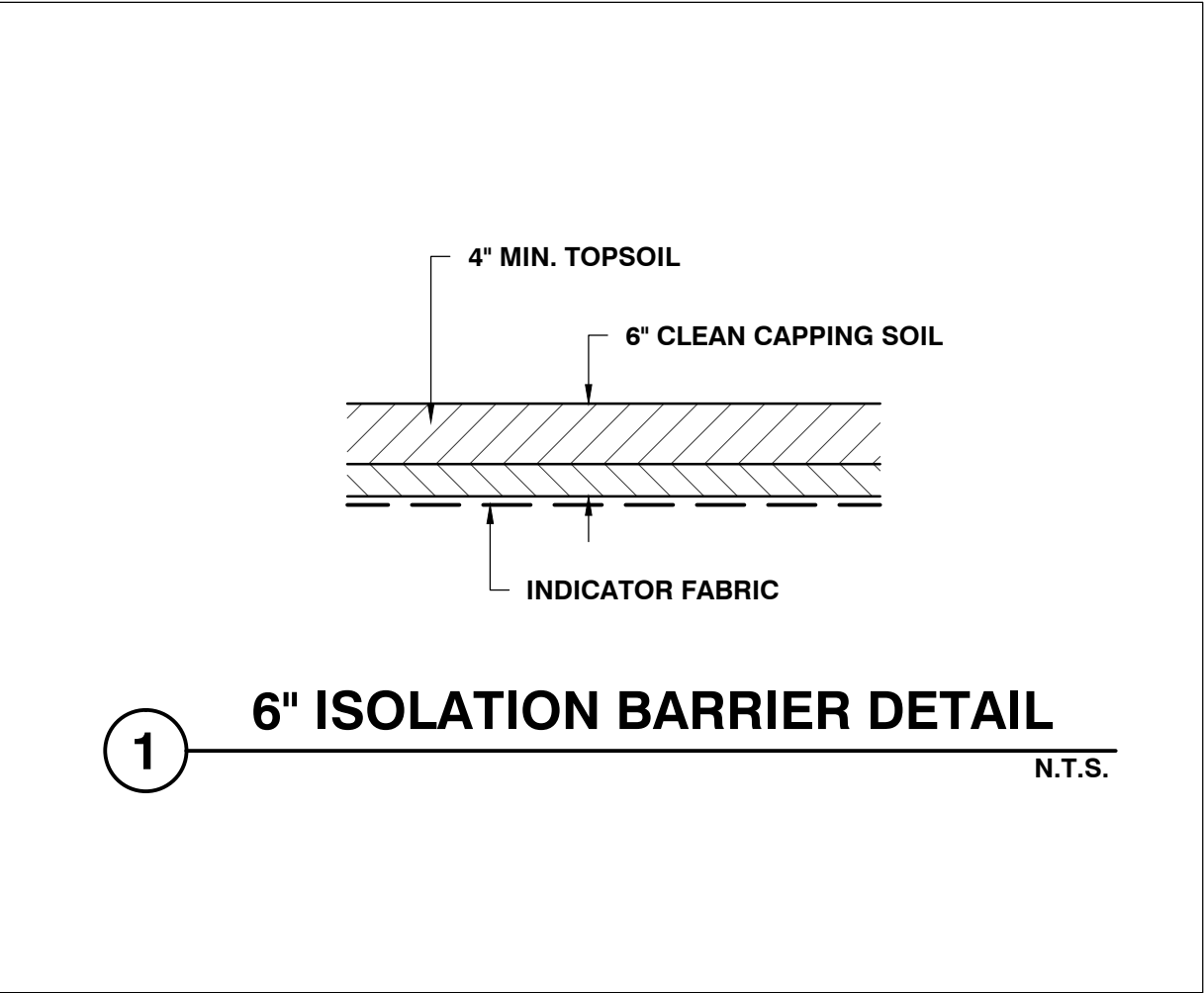
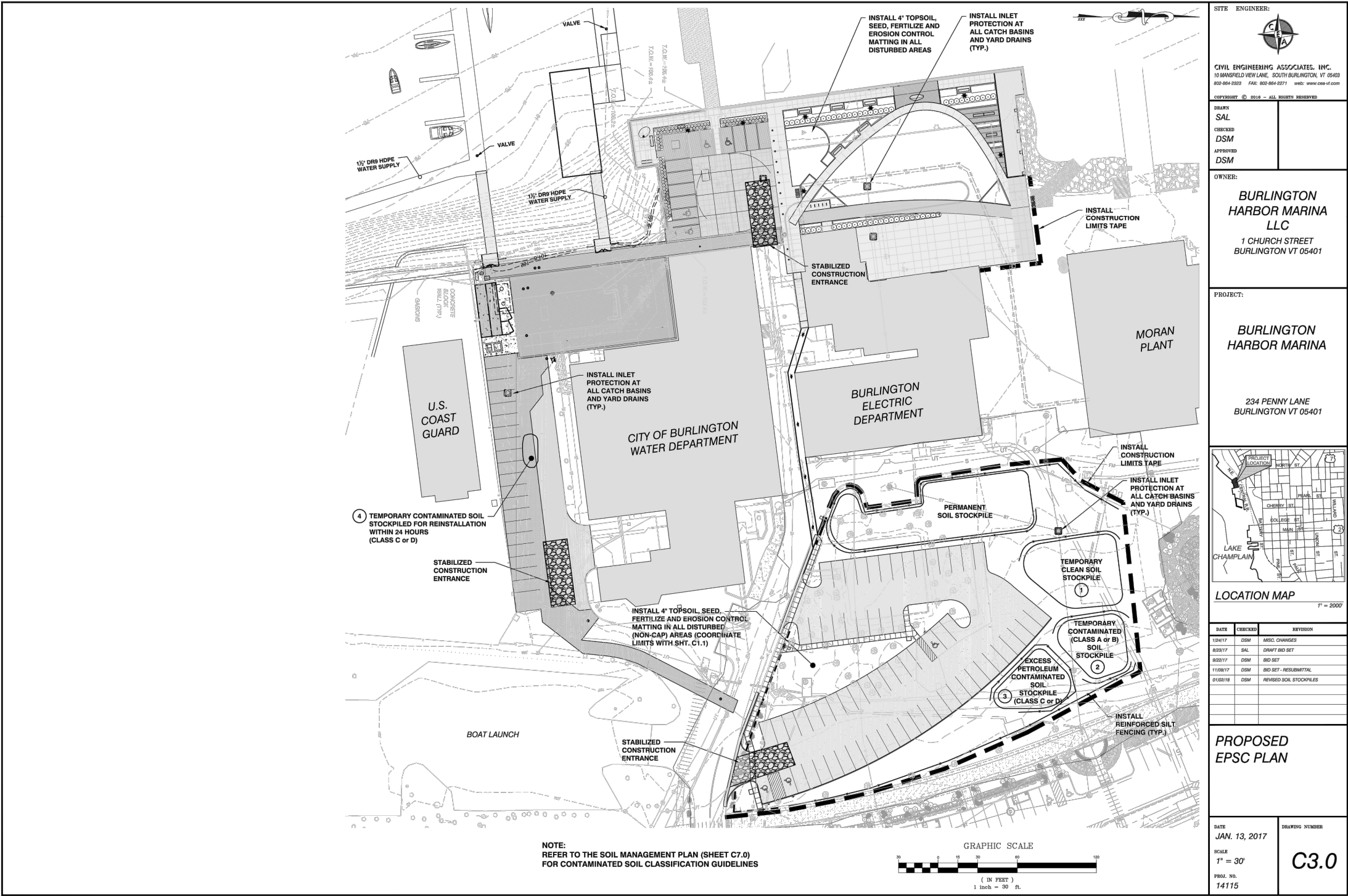
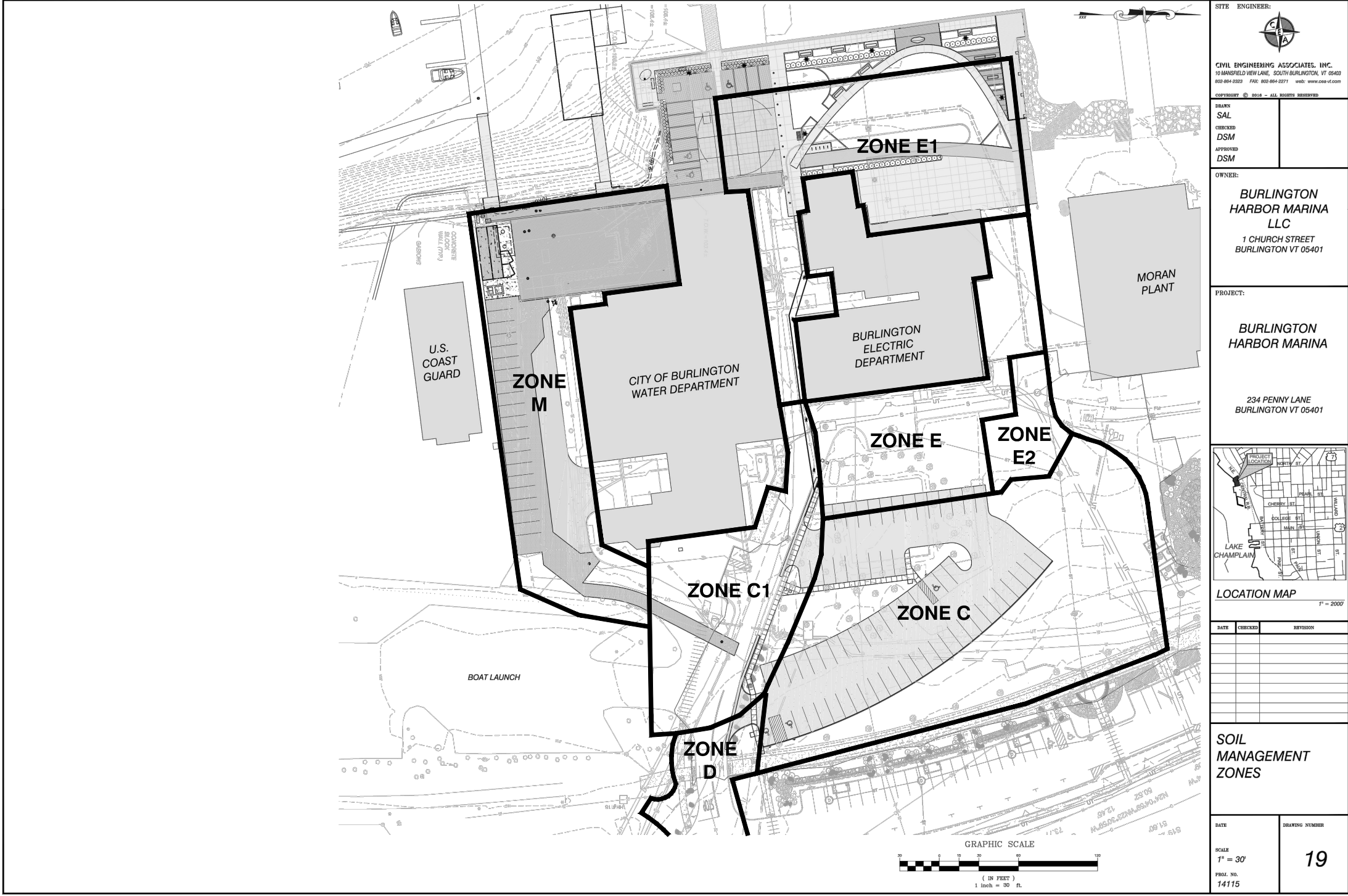
1. All pre-existing soils that are removed for construction shall be reused onsite.
2. All pre-existing areas covered by a continuous cap of filter fabric as a marker layer followed by either Clean Topsoil and cover material (grass, plantings, or mulched beds) shall be replaced in kind where not covered by newly installed hardscape surface (see Isolation Barrier Detail (this sheet) and Sheet C1.1 ' Existing Conditions Plan') for the existing WAN cap limits.
3. Field screening with a PID will be required for classifying all soil to be stockpiled and reused during the entire project. Since no offsite soil management is anticipated no Ex Situ soil sampling will occur. The contractor shall coordinate with the designated Environmental Professional (KAS, Inc.) in executing the field screening efforts. The Contractor shall notify KAS, Inc. of any planned excavation and/or soil stockpiling activities at least 24 hours in advance of work commencement so that the proper field screening activities can take place.
4. Strict record keeping of soil types, stockpile volumes and reuse volumes will be required. This requirement shall be completed by the Contractor on a daily basis and shared with the Environmental Professional (KAS, Inc.) for reporting purposes.

Class A	<p>Possibly from any area except Zone C1 (Defined in Figure 19)</p> <p><u>Field Parameters</u></p> <p>Depth of &gt; 2 feet</p> <p>PID &lt; 10 ppm</p> <p>No obvious visual or olfactory evidence of contamination</p> <p><u>Analytical Parameters</u></p> <p>PAHs: Below urban background (580 mg/kg)</p> <p>Arsenic: Below state background (16 mg/kg)</p> <p>VOCs: Below EPA residential RSLs</p> <p>RCRA 8 metals (excluding arsenic): Below EPA residential RSLs</p> <p>PCBs: Below EPA residential RSLs</p>
Class B	<p>Possibly from any area except Zone C1 (Defined in Figure 19)</p> <p><u>Field Parameters</u></p> <p>Depth of &lt; 2 feet</p> <p>PID &lt; 10 ppm</p> <p>No obvious visual or olfactory evidence of contamination</p> <p><u>Analytical Parameters</u></p> <p>PAHs: Below urban background (580 mg/kg)</p> <p>Arsenic: Below state background (16 mg/kg)</p> <p>VOCs: Below EPA residential RSLs</p> <p>RCRA 8 metals (excluding arsenic): Below EPA residential RSLs</p> <p>PCBs: Below EPA residential RSLs</p>
Class C	<p>Non petroleum contaminated soils with odors; possibly from any area except Zone E or E1 (Defined in Figure 19)</p> <p><u>Field Parameters</u></p> <p>PID &gt; 10 ppm</p> <p>Obvious visual or olfactory evidence of contamination</p> <p><u>Analytical Parameters</u></p> <p>PAHs: Below urban background (580 mg/kg)</p> <p>Arsenic: Below state background (16 mg/kg)</p> <p>VOCs: Below EPA residential RSLs</p> <p>RCRA 8 metals (excluding arsenic): Below EPA residential RSLs</p> <p>PCBs: Below EPA residential RSLs</p>
Class D	<p>Petroleum contaminated soils; possibly from any area (Defined in Figure 19)</p> <p><u>Field Parameters</u></p> <p>PID &gt; 10 ppm</p> <p>Obvious visual or olfactory evidence of contamination</p> <p><u>Analytical Parameters</u></p> <p>PAHs: Below urban background (580 mg/kg)</p> <p>Arsenic: Below state background (16 mg/kg)</p> <p>VOCs: Below EPA residential RSLs</p> <p>RCRA 8 metals (excluding arsenic): Below EPA residential RSLs</p> <p>PCBs: Below EPA residential RSLs</p>
<p>Clear Topsoil</p>	<p>No Topsoil anticipated to need to be brought onto the site. All remaining existing clean 6" top soil material removed that is not placed back in kind (see Section 6.4.3.1) will be stockpiled at Pile 1 location and reused elsewhere on site.</p>

Soil screening will be conducted using a PID (10.6 eV lamp) throughout the excavation process by the designated Environmental Professional (KAS, Inc.). The Contractor shall notify KAS, Inc. of any planned excavation and/or soil stockpiling activities at least 24 hours in advance of work commencement so that the proper field screening activities can take place.

PID readings will be utilized to confirm safe working conditions, and to classify the soil as described in Table 6-1.

This zone is outside the Penny Lane contaminated soil area (Area C1). Any soil excavated from this area that has field evidence of petroleum contamination will be classified and stockpiled as Class D soils and must be reused and placed back at the same depth and location of where it came. Soils excavated from this area are not anticipated to be stockpiled.



234 PENNY LANE  
BURLINGTON VT 05401

DATE	CHECKED	REVISION
3/23/17	SAL	DRAFT BID SET
9/22/17	DSM	BID SET
1/09/17	DSM	BID SET - RESUBMITTAL
2/4/17	DSM	REVISED SPECIFICATIONS
01/11/10/18	DSM	REVISED SPECIFICATIONS
02/21/18	DSM	REVISED SPECIFICATIONS

## C7.0