



Vermont Department of Environmental Conservation
 Watershed Management Division
 St. Johnsbury Regional Office
 1229 Portland Street, Suite 201
 St. Johnsbury, VT 05819
 www.watershedmanagement.vt.gov

Agency of Natural Resources

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AUTHORIZATION TO CONDUCT NEXT FLOOD MEASURES
 Pursuant to Section F of the Vermont Stream Alteration General Permit

Project Number: **NFM - 3 – 520 - 2016**

Applicant Name: City of Barre c/o Steven Mackenzie Phone: 476-0240

Mailing Address: 6 North Main Street, Barre Vermont 05641

Project Location: Along the Gunner Brook – Flood Mitigation (Phase 1)

Email: manager@barrecity.org

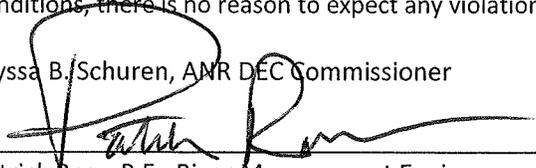
The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:

1. This project authorizes Phase 1 Gunner Brook flood mitigation work. In-stream work includes: repair/replacement of granite walls, installation of two debris racks and associated appurtenances. Note: Debris racks are not commonly permitted and are only allowed in this case due to the significant flood challenges in this community.
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit – Next Flood Measures.
3. The proposed activity will meet the terms and conditions of Section F of the General Permit provided:
 - a) The project will be completed and approved as shown on the plans dated August 30, 2016, prepared by Dubois & King Inc., and approved by the Vermont Agency of Natural Resources.
 - b) The project is proportional to the threat and conditioned to cease when the threat to life or to improved property has ended.
 - c) The project will not result in a threat to life, public health or safety.
 - d) The project will meet the standards detailed in subsection E.2.1 and E.2.2 of the General Permit.
 - e) The project will meet Stream Alteration Standards to the greatest extent possible.
 - f) A pre-construction meeting is held between the contractor, owner/applicant, and the ANR River Management Engineer.
 - g) The River Management Engineer is notified by phone or email when construction begins and when the project is complete.
 - h) **Additional conditions:** 1.) Debris rack installation shall take place from 7/1-10/1 unless there is an approved E&SC plan (by the RME) for specific instream work outside this work period. 2.) With the installation of the debris racks, the armor layer in the Gunner Brook shall be sealed such that there are no subsurface flows. 3.) All wall work is to repair or replace existing walls, there shall be no further encroachment on the Gunner Brook beyond the existing footprint. 4.) the city shall develop and adhere to a monitoring and debris removal action plan to ensure the racks are maintained and that the brook is not blocked at any flow level.

If there are any changes in the project plan or deviation in construction from the plan, the Permittee must notify the River Management Engineer immediately.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

Alyssa B. Schuren, ANR DEC Commissioner


 Patrick Ross, P.E., River Management Engineer

Dated: 9/1/16

BEGIN PROJECT
STA. 0+14.00
(MATCH EXISTING)



DuBois & King Inc.
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MANAGEMENT • DEVELOPMENT
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RANDOLPH, VT 05060
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BRANDON, VT
SQ. BURLINGTON, VT
SPRINGFIELD, VT
BEDFORD, NH
LACONIA, NH
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PROFESSIONAL SEAL

**NOT FOR
CONSTRUCTION
BID DRAWINGS**

NO.	DATE	DESCRIPTION	BY	CK'D

CITY OF BARRE,
VERMONT
6 N. MAIN STREET
BARRE, VT 05641

GUNNERS BROOK
FLOOD MITIGATION
PHASE I
BARRE, VERMONT

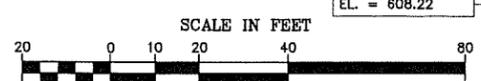
SHEET TITLE
EXISTING
CONDITIONS -
BASELINE LAYOUT
LOWER SITE

DRAWN BY	DATE
EBS	AUG. 30, 2016
CHECKED BY	DSK PROJECT #
ATH	123389
PROJ. ENG.	DSK ARCHIVE #
CSE	

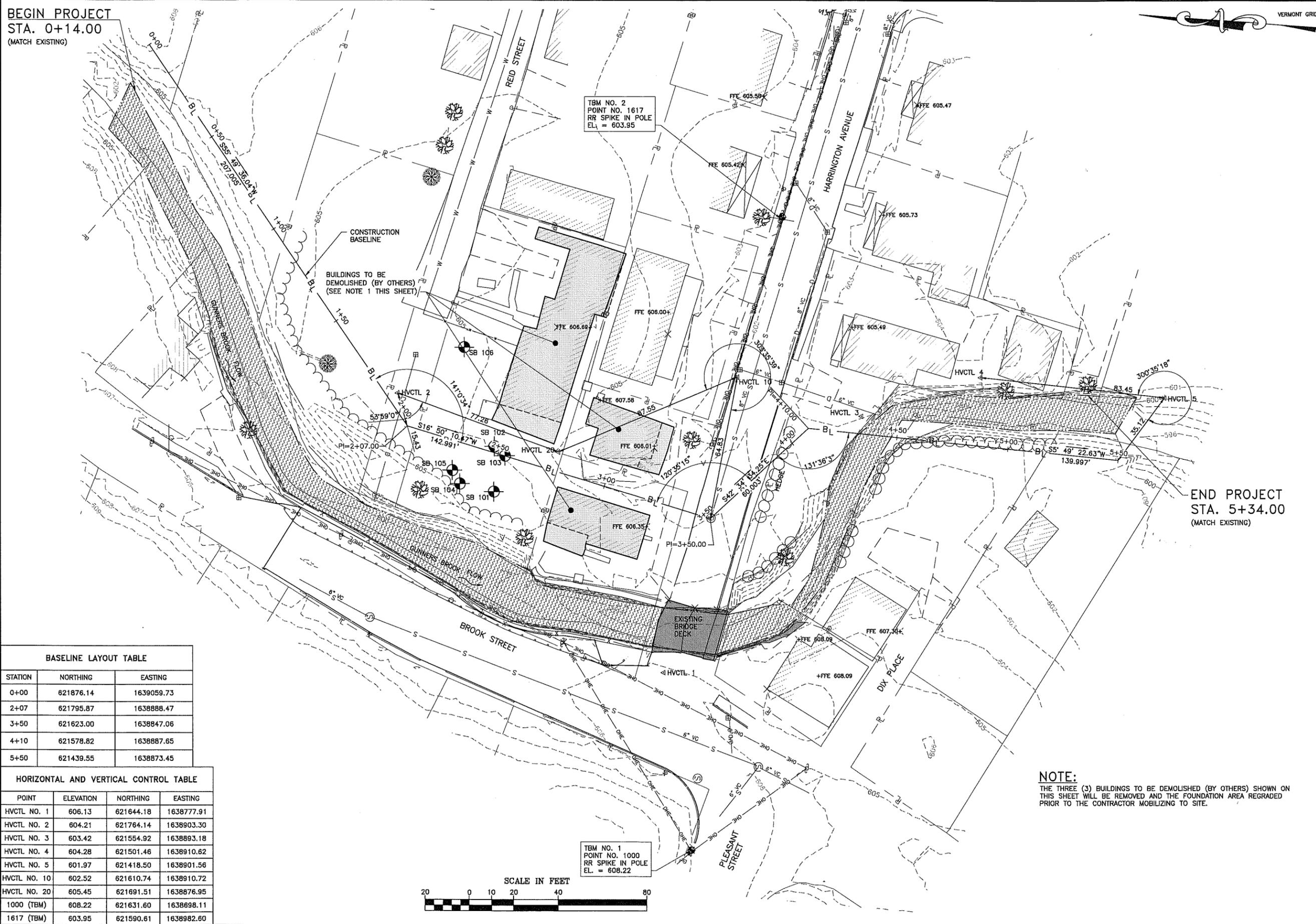
SHEET NUMBER
C-4
SHEET 5 OF 15

STATION	NORTHING	EASTING
0+00	621876.14	1639059.73
2+07	621795.87	1638888.47
3+50	621623.00	1638847.06
4+10	621578.82	1638887.65
5+50	621439.55	1638873.45

POINT	ELEVATION	NORTHING	EASTING
HVCTL NO. 1	606.13	621644.18	1638777.91
HVCTL NO. 2	604.21	621764.14	1638903.30
HVCTL NO. 3	603.42	621554.92	1638893.18
HVCTL NO. 4	604.28	621501.46	1638910.62
HVCTL NO. 5	601.97	621418.50	1638901.56
HVCTL NO. 10	602.52	621610.74	1638910.72
HVCTL NO. 20	605.45	621691.51	1638876.95
1000 (TBM)	608.22	621631.60	1638698.11
1617 (TBM)	603.95	621590.61	1638982.60



NOTE:
THE THREE (3) BUILDINGS TO BE DEMOLISHED (BY OTHERS) SHOWN ON THIS SHEET WILL BE REMOVED AND THE FOUNDATION AREA REGRADED PRIOR TO THE CONTRACTOR MOBILIZING TO SITE.



TBM NO. 2
POINT NO. 1617
RR SPIKE IN POLE
EL. = 603.95

TBM NO. 1
POINT NO. 1000
RR SPIKE IN POLE
EL. = 608.22

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BID DRAWINGS**

NO.	DATE	DESCRIPTION	BY	CK'D

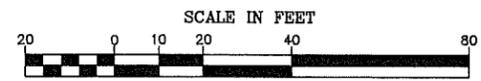
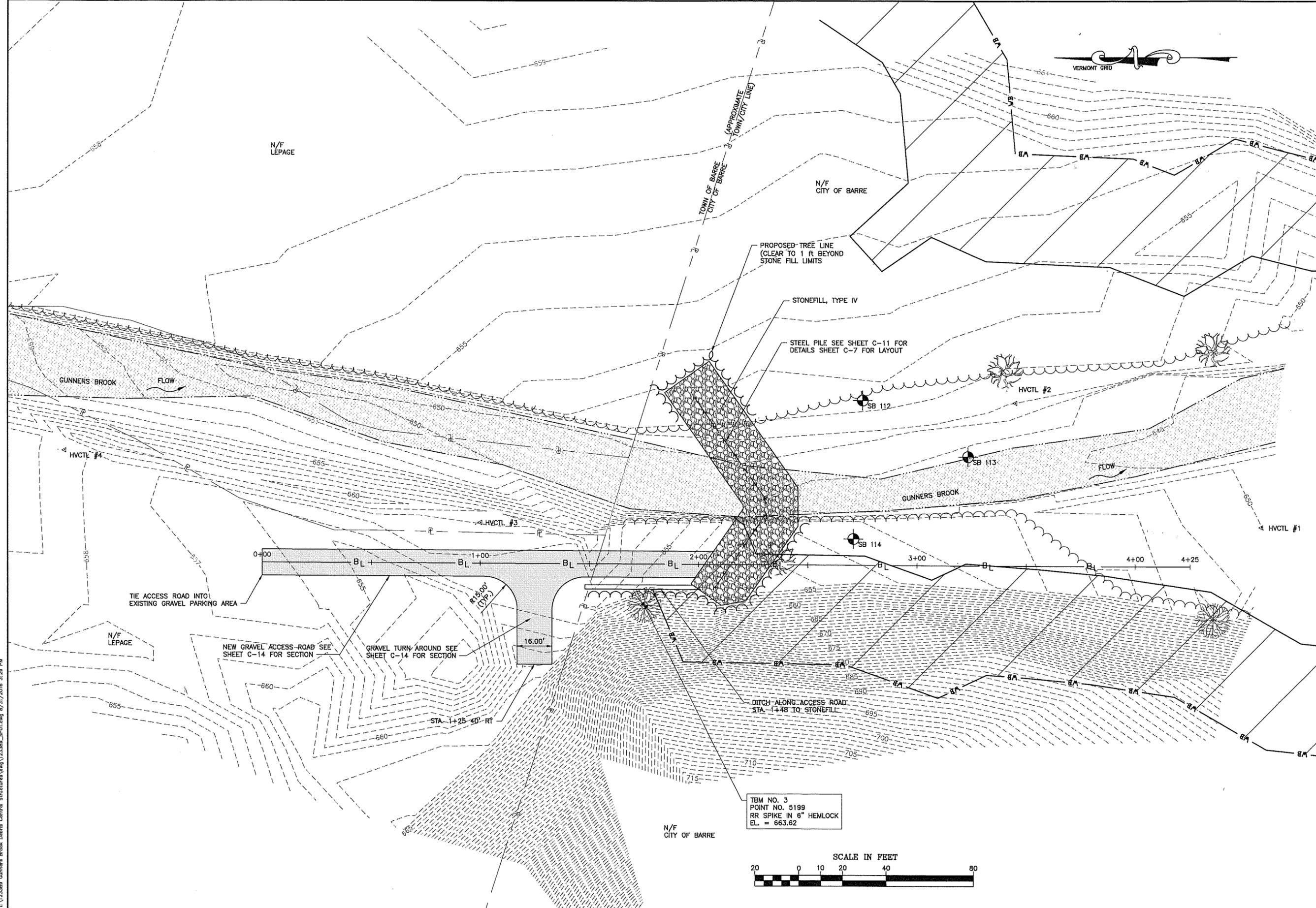
CITY OF BARRE,
VERMONT
6 N. MAIN STREET
BARRE, VT 05641

GUNNERS BROOK
FLOOD MITIGATION
PHASE I
BARRE, VERMONT

SHEET TITLE
PROPOSED
CONDITIONS PLAN
UPPER SITE

DRAWN BY	DATE
EBS	AUG. 30, 2016
CHECKED BY	D&K PROJECT #
ATH	123389
PROJ. ENG.	D&K ARCHIVE #
CSE	

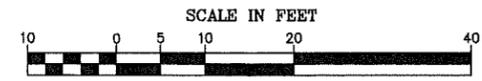
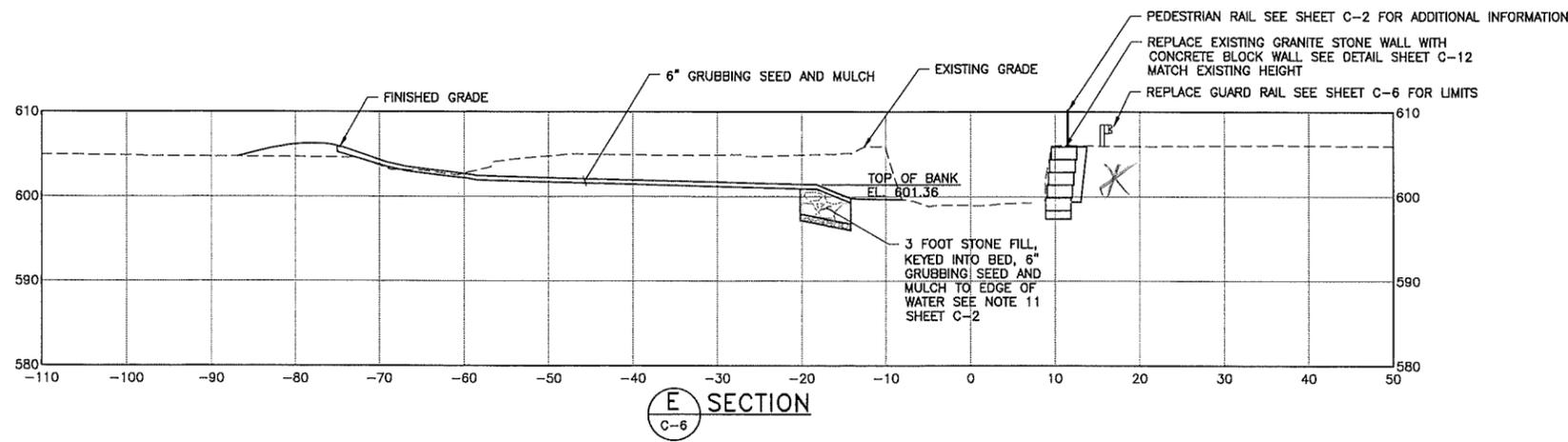
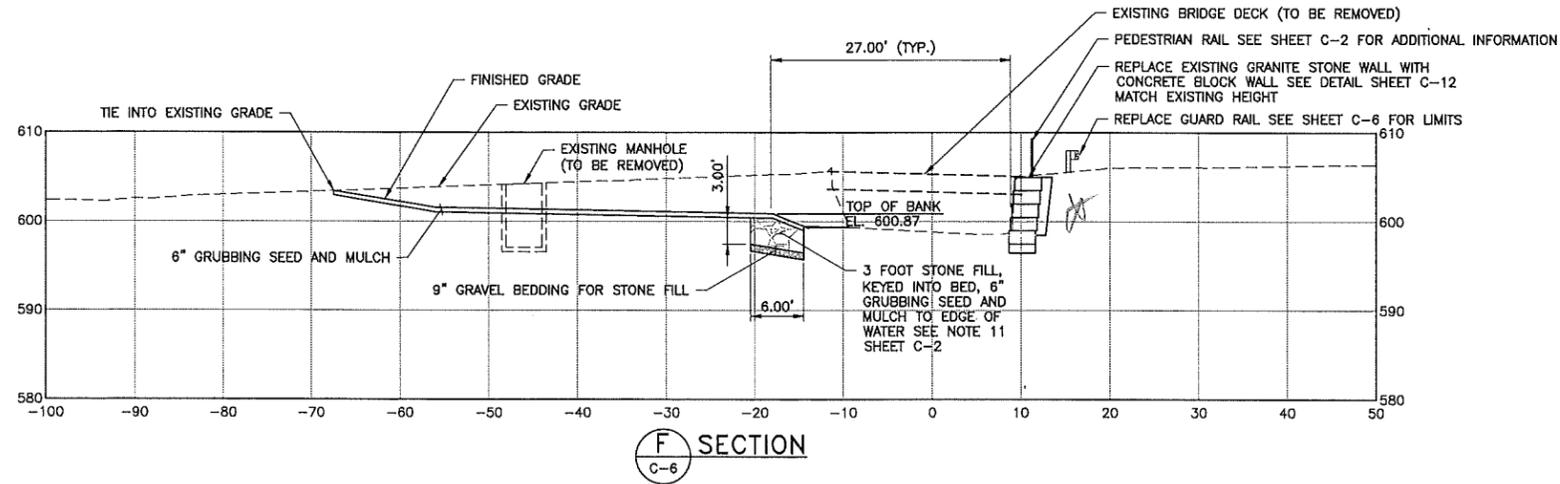
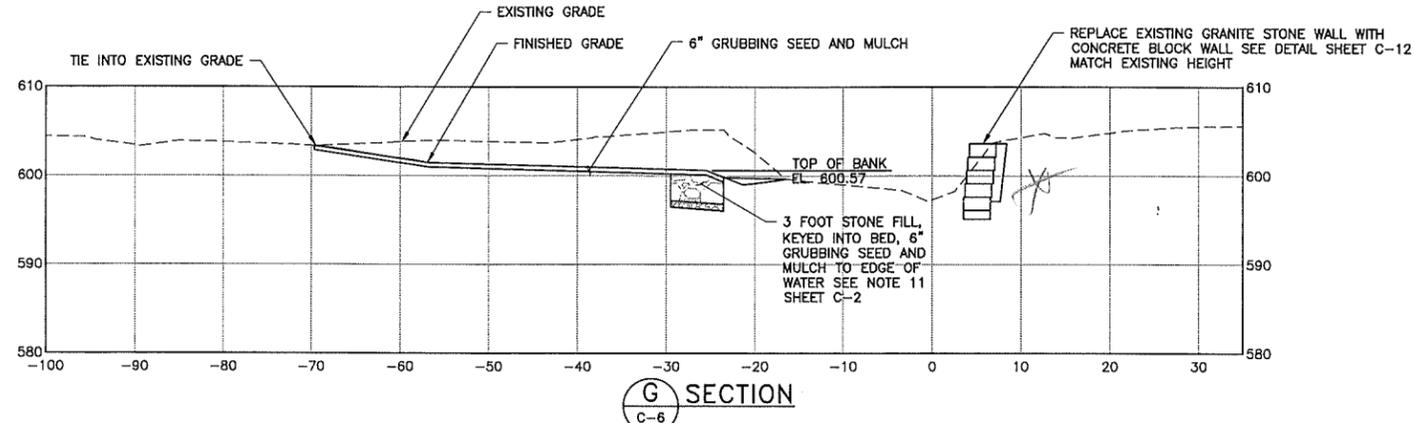
SHEET NUMBER
C-5



TBM NO. 3
POINT NO. 5199
RR SPIKE IN 8" HEMLOCK
EL. = 663.62

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NO.	DATE	DESCRIPTION	BY	CHKD

CITY OF BARRE,
VERMONT
6 N. MAIN STREET
BARRE, VT 05641

GUNNERS BROOK
FLOOD MITIGATION
PHASE I
BARRE, VERMONT

SHEET TITLE
CENTERLINE BROOK
CROSS SECTIONS
LOWER SITE

DRAWN BY	DATE
EBS	AUG. 30, 2016
CHECKED BY	D&K PROJECT #
ATH	123389
PROJ. ENG.	D&K ARCHIVE #
CSE	

SHEET NUMBER
C-9

**NOT FOR
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BID DRAWINGS**

NO.	DATE	DESCRIPTION	BY	CHK'D

CITY OF BARRE,
VERMONT
6 N. MAIN STREET
BARRE, VT 05641

GUNNERS BROOK
FLOOD MITIGATION
PHASE I
BARRE, VERMONT

SHEET TITLE
CENTERLINE BROOK
CROSS SECTIONS
LOWER SITE

DRAWN BY	DATE
EBS	AUG. 30, 2016
CHECKED BY	DKR PROJECT #
ATH	123389
PROJ. ENG.	DKR ARCHIVE #
CSE	

SHEET NUMBER
C-10
SHEET 11 OF 15

