Burlington Department of Public Works
Stormwater Program
645 Pine Street
Burlington, VT 05401
PH: 802-540-1748 Email: mmoir@ci.burlington.vt.us

Small Project Erosion Prevention & Sediment Control Plan

This questionnaire, at a minimum, is required to accompany all zoning or building permit applications **which involve 400 sq. ft. or more of land disturbance**. Please also provide a site plan indicating the locations of all erosion prevention and sediment control measures (silt fence, hay bales etc).
Properties with greater than 2500 sq. ft. of total impervious surfaces, that are adding more impervious, will also be required to comply with additional long term stormwater management requirements.

1. Project Location 289 COLLEGE STREET
2. Brief Project Description (i.e. house foundation, swimming pool)
   NEW BUILDING ADDITION, PARKING IMPROVEMENTS, NEW WATER AND SEWER CONNECTIONS IN R.O.W. NEW UNDERGROUND STORMWATER SYSTEM
3. Owner Name: 289 COLLEGE STREET ASSOCIATES, LLC
4. Owner Mailing Address: 346 Shelborne Rd Burlington Vt 05406
5. Owner Phone: 802 316 0852 6. Owner email: mike@vtappraisers.com
7. Contractor Name: NA
8. Contractor Phone: _____ 9. Contractor Email: _____
10. Estimated Project Start Date 5/1/15 Estimated End Date NA
11. Area of Land Disturbance 18,000 sq. ft.
12. Total proposed (existing + new) amount of impervious: 15,500 sq. ft.
13. Estimated distance in feet from disturbance to nearest:
    a. City Sidewalk or Street 0 ft b. Drainage Ditch 0 ft
    c. Catch Basin (storm drain) 0 ft d. Lake/River/Stream NA ft
14. Site plan/sketch MUST BE ATTACHED showing the following:
    ☑ Limits of disturbance ☑ Direction of stormwater flow on site
    ☑ Location of stockpiles (if any) ☑ Location of sediment control BMP's (silt fence etc.)

EPSC QUESTIONNAIRE ***(See last page for typical solutions to these questions)***

A) Nature of all site disturbances (check all that apply):

☑ Underground utility trench(es) ☐ curb cut/driveway ☑ foundation ☑ cut/fill/regrading ☑ landscaping

☐ other _____

B) Do you anticipate the need for any dewatering of excavations during the construction? ☑ Yes ☐ No

- If yes, how will the pumped water be managed or filtered to prevent the discharge of dirty water?
  PUMPED WATER WILL BE MANAGED USING A SEDIMENT DEWATERING BAG OR SILT TRAP CONSTRUCTED ONSITE.

*impervious = any surface off of which water runs off rather than infiltrates, including, but not limited to rooftops and paved/unpaved (gravel/packed dirt) driveways, walkways and patios

C) Will excavated soil be stockpiled on the site? ☑ Yes ☐ No

- If yes, how long will the stockpile be on site? (i.e. 1 day, 1 week) 1 WEEK MAX
  How do you propose to control erosion of the stockpile? MULM AFTER 14 DAYS OR COVER WITH TARP
- If no, where is the ultimate disposal of excess soil? _____

D) How do you propose to prevent sediment from leaving the site and entering nearby city sidewalks/streets and storm drains and/or lakes, rivers and streams? (see page 4 for examples)

REFER TO EPSC PLAN SHEET C1.4, WHICH USES TRACKING PAD, AND INLET PROTECTION AND SILT FENCE TO PREVENT SEDIMENT TRANSPORT

E) Do you plan to park construction vehicles on or disturb City owned property like the greenbelt area? ☐ Yes ~~☑ No~~

- If yes, tell us how you agree to repair all disturbances or damage to City owned property and provide a written approval from the City allowing construction vehicles to park on City owned property.

_____

_____

- If no, then please monitor all construction and visitor vehicles and advise all not to park on City owned property.

F) How do you propose to either prevent or clean sediment generated from construction vehicles and activities that becomes deposited on City streets, sidewalks, or bikepaths and how frequently this will be done.

THE SITE DRIVEWAY AND CITY ROW WILL BE MONITORED DAILY AND SWEPT AS NEEDED AND PRIOR TO FORCAST RAIN EVENTS

G) Will stockpiles or disturbed soils be present and/or exposed after Nov. 1st of any construction year? ☐ Yes ~~☑ No~~

- If yes, tell us how you plan to stabilize any stockpile and/or disturbed soils.

_____

_____

Do you agree to abide by the following conditions?

☑Y ☐N Applicant will call 540-1748 or email mmoir@burlingtonvt.us at least 24 hours prior to initiating earth disturbance and submit the **name and contact (cell phone and email) of the erosion control coordinator for the project**

☑Y ☐N Applicant will post the notice in a visible location

☑Y ☐N I acknowledge that it is the responsibility of the owner and his/her representatives to ensure that:

- sediment does not enter surface water bodies (streams, ditches, ponds, lakes, wetlands etc.)
- sediment does not enter City conveyance infrastructure (catch basins, sewers etc.) and
- All sediment must be removed from the city ROW (sidewalks and roadways) by the end of each work day.

☑Y ☐N Sediment control measures will be installed prior to the initiation of earth disturbance.

☑Y ☐N During the non-winter construction season (April 15 – November 1): After an initial **14 day** period of initial disturbance, temporary or permanent stabilization (mulching, erosion control matting or tarps for stockpiles, or other approved method) of exposed areas and stockpiles will occur at the end of each work day unless:

- Earthwork is to continue in the area within the next 24 hours **and** there is NO liquid precipitation forecast for the next 24 hours; or
- If work is occurring in a self contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches.

☑Y ☐N During the winter construction period from November 1 to April 15, any **new disturbance** must be temporarily or permanently stabilized (mulching, erosion control matting or tarps for stockpiles, or other approved method) will occur at the end of each work day unless:

- Earthwork is to continue in the area within the next 24 hours **and** there is NO liquid precipitation forecast for the next 24 hours; or
- If work is occurring in a self-contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches)

☑Y ☐N The perimeter of the site and all BMPs will be inspected at the **end of each workday** to ensure that sediment will not leave the site. If sediment has travelled beyond the site boundary, it shall be swept up or otherwise removed and deposited on-site in an upgradient area at the **end of each work day.**

☑Y ☐N The owner and his/her representatives shall abide by the best management practices (BMPs) indicated in this plan and conditions and in the Vermont DEC Low Risk Site Handbook for Erosion Prevention and Sediment Control (2006). Contact 802-540-1748 for a hard copy or go to the web: http://vtwaterquality.org/stormwater/docs/construction/sw_low_risk_site_handbook.pdf

☑Y ☐N **If soils will be exposed after November 1st and winter construction has not been permitted the project will notify DPW prior to October 15th.** If the project is completed during the winter months, an additional inspection will be required to ensure that the site is buttoned up for the winter.

☑Y ☐N Within 48 hours of reaching final grading, the exposed soil will be seeded and mulched or covered with erosion control matting (for slopes steeper than 3:1 or high wind prone areas). Erosion control matting is preferred.

☑Y ☐N The owner will contact DPW to schedule a stabilization inspection when site work is finished and stabilization measures (seeding and mulching or matting) have been installed.

AGREEMENT

By filling out and signing this plan, I agree to abide by the terms and conditions outlined above. Failure to follow this plan can result in a stop work order by the City of Burlington, fines, or both.

By: ☐ Owner ☐ Contractor ☑ Architect/Engineer

PETER SMAR		11/26/14
Name	Signature	Date

Additional Conditions of Approval:

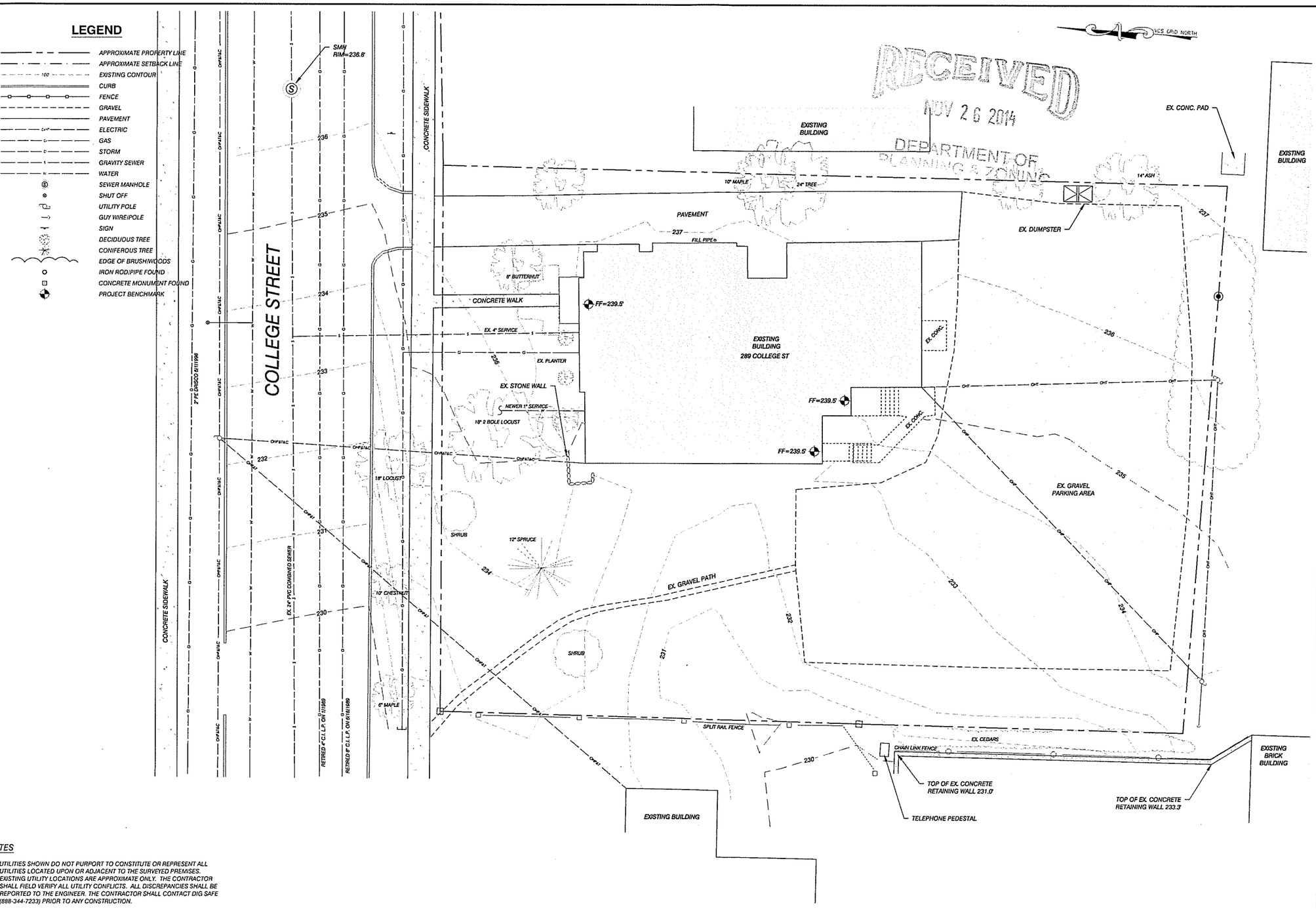
Required Compliance Items:

- Notification of start/identification of EPSC responsible party
- Winter Stabilization Inspection (if applicable)
- Final Stabilization

RECEIVED
NOV 26 2014
DEPARTMENT OF
PLANNING & ZONING

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- EXISTING CONTOUR
- CURB
- FENCE
- GRAVEL
- PAVEMENT
- ELECTRIC
- GAS
- STORM
- GRAVITY SEWER
- WATER
- SEWER MANHOLE
- SHUT OFF
- UTILITY POLE
- GUY WIRE/POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
- PROJECT BENCHMARK



NOTES

1. 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.
2. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO USED AS ONE.
3. SITE INFORMATION & TOPOGRAPHY IS BASED ON A FIELD SURVEY PERFORMED BY BRADFORD L. HOLDEN SEPTEMBER 2014 AND HAS NOT BEEN FIELD VERIFIED BY CEA. BRADFORD L. HOLDEN SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL). VERTICAL DATUM WAS DERIVED FROM NGS BENCH MARK A65 (PID-PG1569) NAVD 88 DATUM. ELEVATION = 287.40 FEET (GEOID 12A).

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft

PROGRESS PLANS 11/26/2014

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.

10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403

802-864-2333 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN	CHECKED
GAC	PBS

APPROVED: PBS

OWNER:

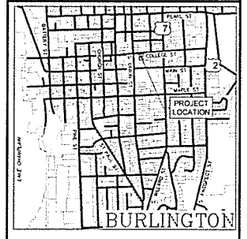
289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON VERMONT
05401

PROJECT:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON, VT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION
11/26/14	PBS	LOCAL SUBMITTAL

EXISTING CONDITIONS SITE PLAN
PERMIT PLANS

DATE 10/20/2014

SCALE 1" = 10'

PROJ. NO. 14216

DRAWING NUMBER C1.0

LEGEND

- APPROXIMATE PROPERTY LINE
- SETBACK LINE
- EXISTING CONTOUR
- CURB
- FENCE
- GRAVEL
- PAVEMENT
- ELECTRIC
- GAS
- STORM
- GRAVITY SEWER
- WATER
- SEWER MANHOLE
- SHUT OFF
- UTILITY POLE
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- CONIFEROUS TREE
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- IRON ROD/PIPE FOUND
- CONCRETE MONUMENT FOUND
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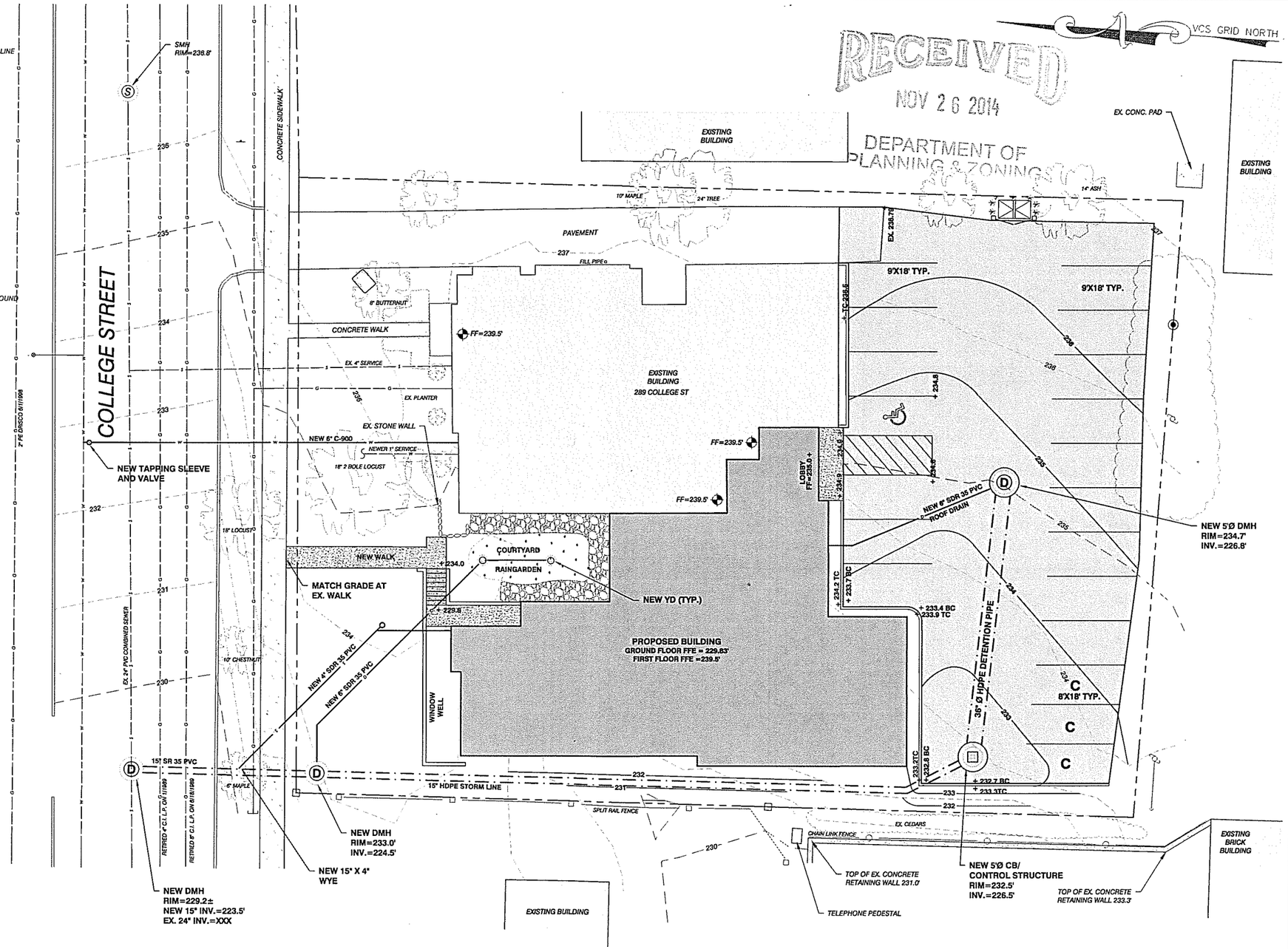

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(IN FEET)

1 inch = 10 ft

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CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cae-vt.com

DRAWN: GAC
CHECKED: PBS
APPROVED: PBS

OWNER:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON VERMONT
05401

PROJECT:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
11/26/14	PBS	LOCAL SUBMITTAL

PROPOSED GRADING AND DRAINAGE PLAN

PERMIT PLANS

DATE: NOV., 2014
SCALE: 1" = 10'
PROJ. NO.: 14216

DRAWING NUMBER: C1.3

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LEGEND

- APPROXIMATE PROPERTY LINE
- SETBACK LINE
- EXISTING CONTOUR
- CURB
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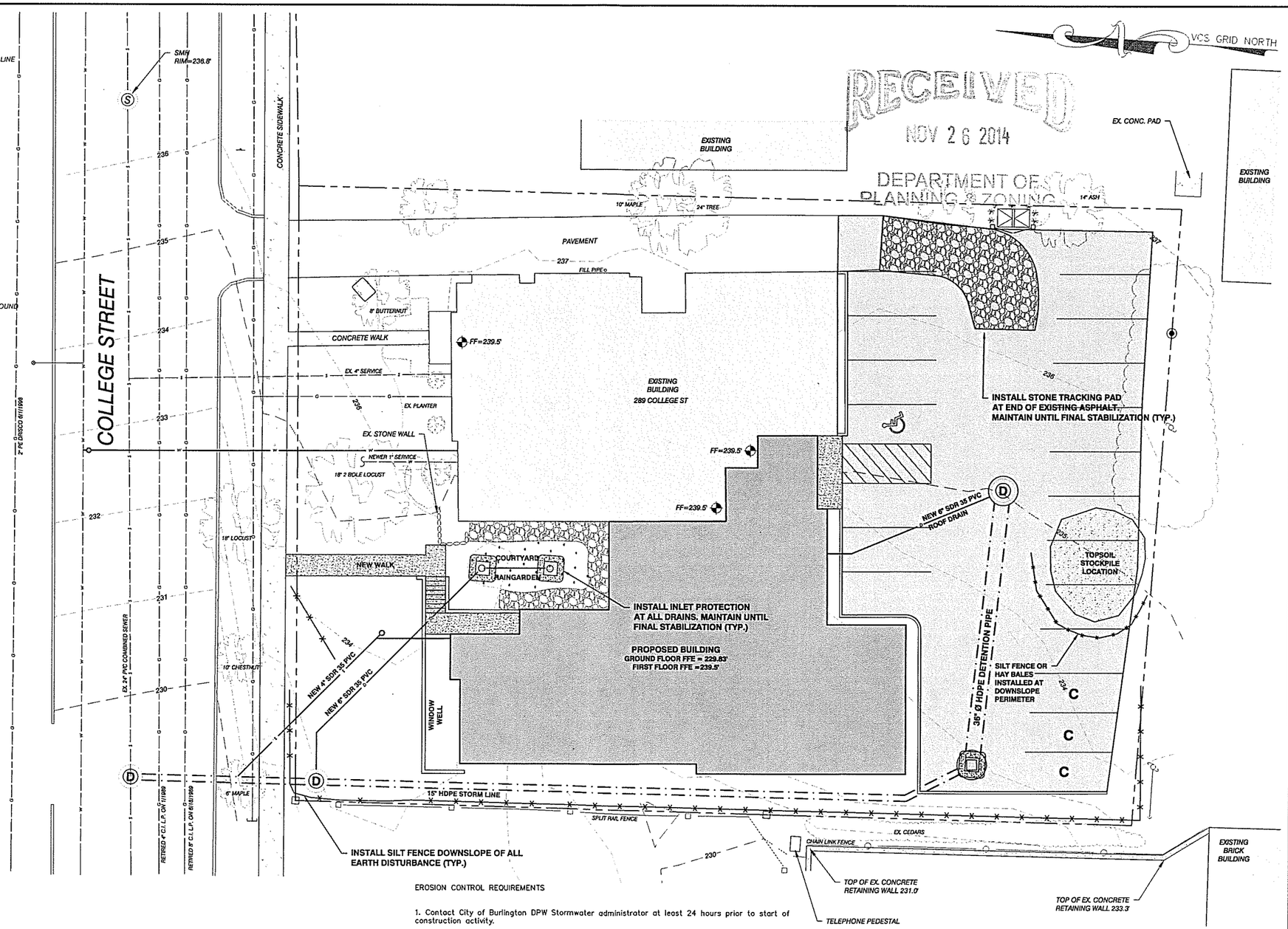

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GRAPHIC SCALE

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(IN FEET)

1 inch = 10 ft.

EROSION CONTROL REQUIREMENTS

1. Contact City of Burlington DPW Stormwater administrator at least 24 hours prior to start of construction activity.
2. Install erosion and sediment control measures prior to earth disturbance. Erosion control measures shall be inspected and repaired daily in order to minimize the discharge of sediment to the City drainage system. Maintain sediment controls until site is fully stabilized.
3. The access points to the project and nearby portions of surrounding City streets shall be inspected daily and prior to forecast precipitation events. Sediment deposited by vehicle tracking shall be removed by sweeping as needed and prior to forecast precipitation.
4. No vehicle or equipment parking or material staging shall occur within the City ROW without permission from the City of Burlington Department of Public Works.
5. Disturbed areas shall be stabilized with topsoil, seed and mulch, stone, concrete, pavement, or other approved means within 14 days of initial disturbance.
6. Silt fence or other approved silt barrier shall be installed at the downslope perimeter of all soils stockpiles.
7. EC matting shall be used for final stabilization on all disturbed areas unless otherwise approved by engineer. Use North American Green S75 or approved equal.
8. Refer to EPSC detail sheet for more information.

PROGRESS PLANS 11/26/2014

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CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: GAC
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OWNER:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON VERMONT
05401

PROJECT:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON, VT

LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
11/26/14	PBS	LOCAL SUBMITTAL

PROPOSED EPSC PLAN

PERMIT PLANS

DATE: NOV., 2014
SCALE: 1" = 10'
PROJ. NO.: 14216

DRAWING NUMBER: C1.4

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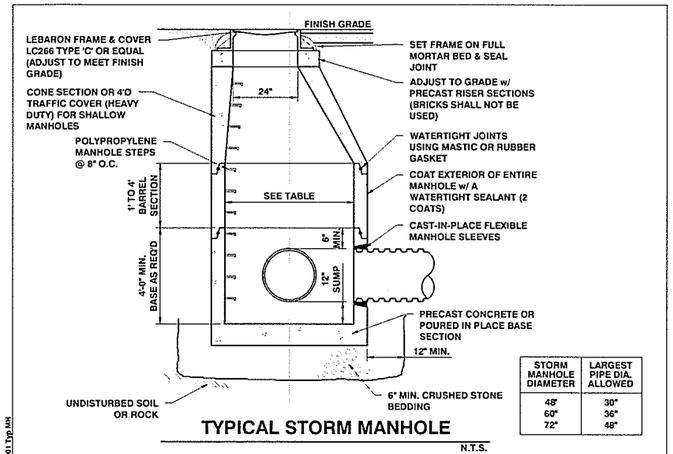
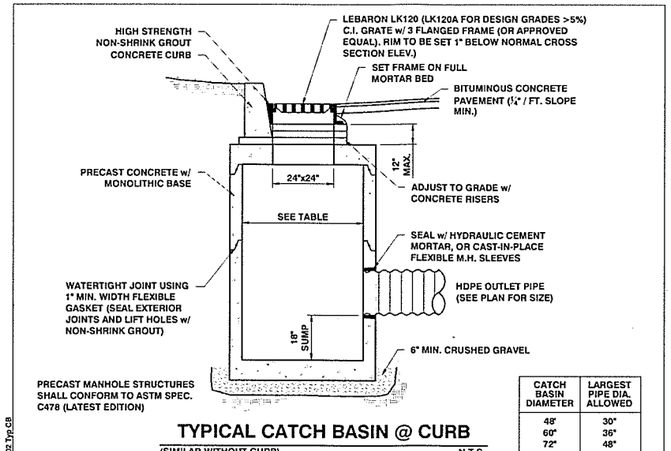


TYPICAL STORM MANHOLE

N.T.S.

ST-001 Typ MH

ST-001 REVISED 11/25/2014



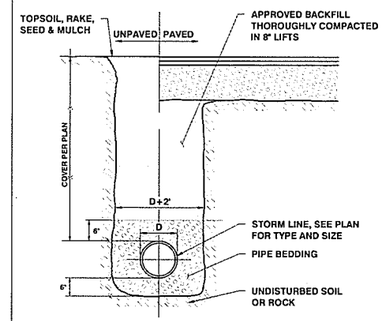
TYPICAL CATCH BASIN @ CURB

(SIMILAR WITHOUT CURB)

N.T.S.

ST-002 Typ CB

ST-002 REVISED 08.01.2014



TYPICAL STORM TRENCH

N.T.S.

ST-003 Storm Trench

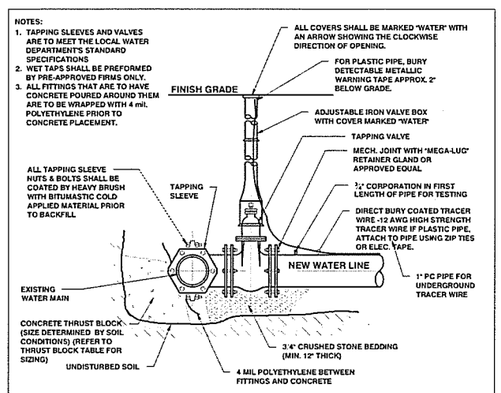
ST-003 REVISED 08.01.2014

NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.

NOTES:

1. TAPPING SLEEVES AND VALVES ARE TO MEET THE LOCAL WATER DEPARTMENT'S STANDARD SPECIFICATIONS
2. WET TAPS SHALL BE PREFORMED BY PRE-APPROVED FIRMS ONLY.
3. ALL FITTINGS THAT ARE TO HAVE CONCRETE POURED AROUND THEM ARE TO BE WRAPPED WITH 4 mil. POLYETHYLENE PRIOR TO CONCRETE PLACEMENT.

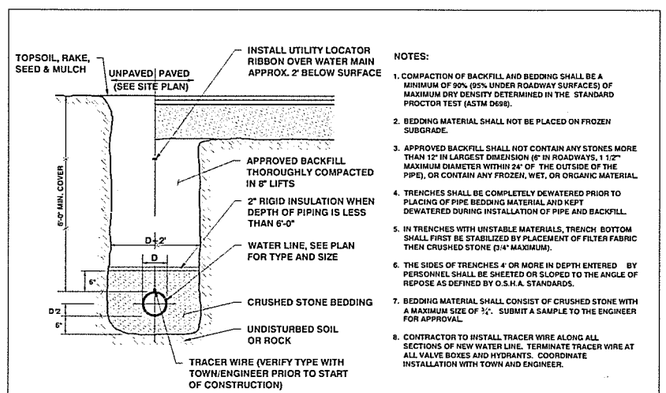


TAPPING SLEEVE & VALVE DETAIL

N.T.S.

W-002 Tap

W-002 REVISED 11/25/2014



TYPICAL WATER TRENCH DETAIL

N.T.S.

W-001 Trench

W-001 REVISED 10/17/2014

NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
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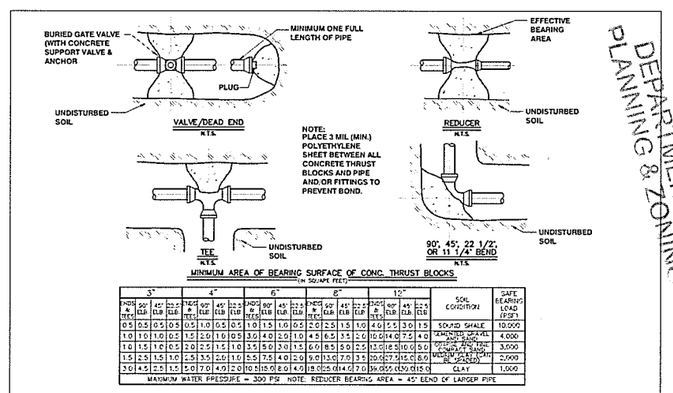
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. CONTRACTOR TO INSTALL TRACER WIRE ALONG ALL SECTIONS OF NEW WATER LINE. TERMINATE TRACER WIRE AT ALL VALVE BOXES AND HYDRANTS. COORDINATE INSTALLATION WITH TOWN AND ENGINEER.



MINIMUM AREA OF BEARING SURFACE OF CONC. THRUST BLOCKS (in SQUARE FEET)

3"			4"			6"			8"			12"			SOIL CONDITION	SAFE BEARING LOAD (PSF)
ANGLE & DIR.	90° & 45° ELB	22.5° ELB	ANGLE & DIR.	90° & 45° ELB	22.5° ELB	ANGLE & DIR.	90° & 45° ELB	22.5° ELB	ANGLE & DIR.	90° & 45° ELB	22.5° ELB	ANGLE & DIR.	90° & 45° ELB	22.5° ELB		
0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.5	1.0	2.0	2.5	1.0	4.0	5.5	3.0	SOUND SHALE	10,000
1.0	1.0	1.0	1.5	2.0	1.0	3.0	4.0	2.0	5.0	6.5	3.5	10.0	14.0	7.5	CEMENTED SHALE, SOFT SHALE ROCK	4,000
1.0	1.5	1.0	2.0	2.5	1.5	4.0	5.5	3.0	7.0	8.5	5.0	12.0	16.5	10.0	COMPACT GRAVEL AND/OR CLAY, HARD	3,000
1.5	2.5	1.5	3.0	3.5	2.0	5.5	7.5	4.0	9.0	12.0	7.0	16.5	22.5	13.5	MEDIUM CLAY (CAN BE MOLDED)	2,000
3.0	4.5	2.5	5.0	7.0	4.5	12.0	15.0	8.0	18.0	25.0	14.0	36.0	55.0	30.0	CLAY	1,000

MAXIMUM WATER PRESSURE = 300 PSI NOTE: REDUCER BEARING AREA = 45° BEND OF LARGER PIPE

NOTE: THRUST BLOCK SHALL BE USED AT ALL BENDS, TEES & REDUCERS

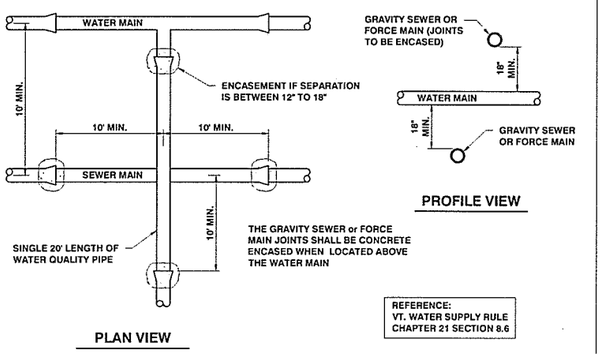
THRUST BLOCK DETAILS

NO BACKFILLING WILL BE ALLOWED UNTIL ANY CONC. THRUST BLOCKS HAVE SET SUFFICIENTLY, AS DETERMINED BY THE ENGINEER AND/OR LOCAL WATER DEPT.

N.T.S.

W-003 Thrust

W-003 REVISED 10/17/2014



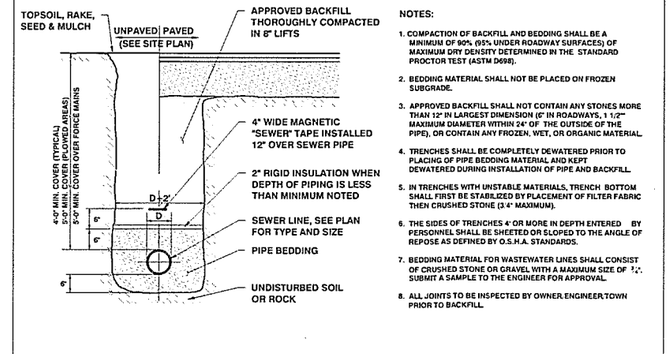
PLAN VIEW

WATER/SEWER CROSSING

N.T.S.

W-007 Water-Sewer Crossing

W-007 REVISED 10 07/2014



NOTES:

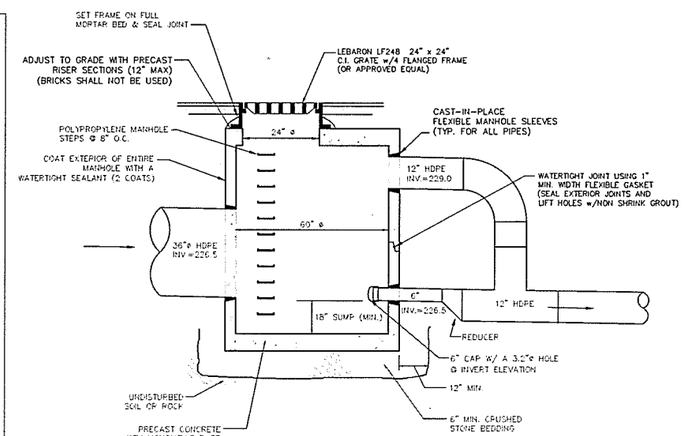
1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL FOR WASTEWATER LINES SHALL CONSIST OF CRUSHED STONE OR GRAVEL WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. ALL JOINTS TO BE INSPECTED BY OWNER,ENGINEER,TOWN PRIOR TO BACKFILL.

TYPICAL SEWER TRENCH DETAIL

N.T.S.

SWR-001 Trench

SWR-001 REVISED 10 07/2014



STORM CONTROL STRUCTURE

N.T.S.

PROGRESS PLANS 11/26/2014

RECEIVED NOV 26 2014 DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: MAB
CHECKED: PBS
APPROVED: PBS

OWNER:

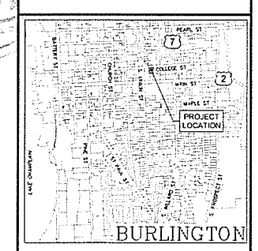
289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON VERMONT
05401

PROJECT:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON, VT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION

DETAILS

DATE: NOV., 2014
SCALE: AS SHOWN
PROJ. NO.: 14216

DRAWING NUMBER: C2.0

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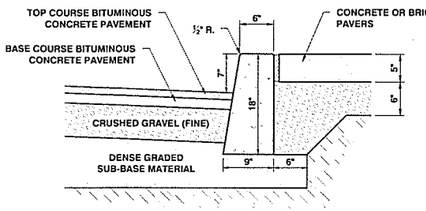


NOTES:

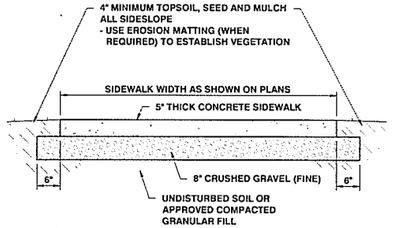
1. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH ½" JOINT BETWEEN SECTIONS.
2. CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (½" SPONGE RUBBER OR CORK).
3. ASPHALT TREATED FELT TO BE USED BETWEEN SIDEWALK AND CONCRETE CURB TOP.

CURB w/SIDEWALK DETAIL

(SIMILAR WITH OUT SIDEWALK) N.T.S.

S-001 Curb

S-001 REVISED 08.01.2014



NOTES:

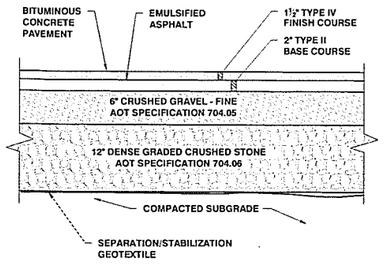
1. EXPANSION JOISTS SHALL NOT BE PLACED
2. THE SIDEWALK SHALL BE DIVIDED AT INTERVALS OF FIVE FEET BY DUMMY JOINTS.

CONCRETE SIDEWALK DETAIL

N.T.S.

S-002 Conc Walk

S-002 REVISED 11/10/2014

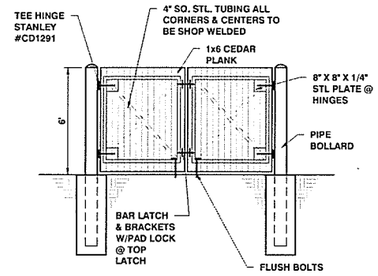


TYPICAL PAVEMENT SECTION

(FULL DEPTH CONSTRUCTION SECTION) N.T.S.

S-003 Pave Sec

S-003 REVISED 08.01.2014

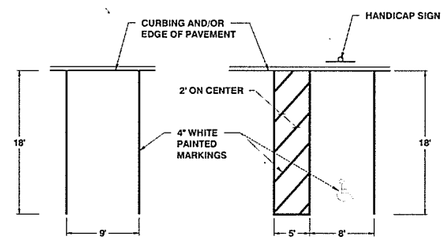


DUMPSTER ENCLOSURE

N.T.S.

M-010 Dumpster Enclosure - Wood

M-010 REVISED 11/25/2014



STANDARD PARKING SPACE HANDICAP PARKING SPACE

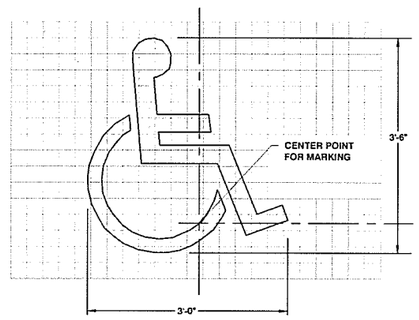
TRAFFIC MARKING PAINT TO BE READY-MIXED TRAFFIC PAINT SUITABLE FOR MARKING ON EITHER BITUMINOUS OR PORTLAND CEMENT CONCRETE PAVEMENT. READY-MIXED LOW VOC TRAFFIC PAINT SHALL CONSIST OF 100% ACRYLIC TYPE, FAST DRYING TRAFFIC PAINT.

LINE STRIPING DETAIL

N.T.S.

S-015 Parking Space Striping

S-015 REVISED 08.01.2014



NOTE: PAVEMENT MARKINGS TO MEET STATE STANDARDS E-191

HANDICAPPED PARKING MARKING DETAIL

N.T.S.

M-012 HC Pave Marking

M-012 REVISED 8.12.2014

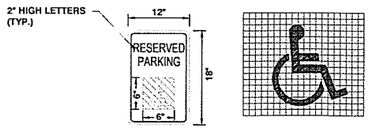
1. THE DIMENSIONS AND GRADES SHOWN ON THIS STANDARD WILL BE ADHERED TO IN THE DESIGN AND THE CONSTRUCTION OF SIDEWALK RAMPS. WHERE SIDEWALKS RUN ADJACENT TO ROADWAYS ON STEEP (5% OR GREATER) GRADES, RAMP GRADES WILL BE AS FLAT AS POSSIBLE. (ON LOW SIDE OF DRIVES AND INTERSECTING SIDE STREETS, RAMPS SHALL SLOPE TOWARDS DRIVE OR SIDE STREET @ 2%)
2. NOMINAL RAMP DIMENSIONS: RAMP WIDTH - 5'-0" MINIMUM RAMP SLOPE - 8.3% MAXIMUM FLARE SLOPE - 10% MAXIMUM RAMP CROSS SLOPE - 2.0% MAXIMUM
3. A LEVEL LANDING (NO GREATER THAN 2.0% SLOPE IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF SIDEWALK RAMPS TO ALLOW FOR STOPPING AND MANEUVERING OF WHEELCHAIRS.
4. LEVEL LANDINGS AT THE BOTTOM OF PERPENDICULAR RAMPS SHALL BE WHOLLY CONTAINED WITHIN MARKED CROSSWALKS.
5. DUMMY JOINTS SHALL BE PROVIDED AT TRANSITIONS (GRADE CHANGES) AT TOPS AND BOTTOMS OF RAMPS AND FLARES.
6. VERTICAL DROP-OFF EDGES TO RAMPS WILL NOT BE BUILT UNLESS THE RAMP ABUTS AN AREA WHICH WILL NOT BE USED BY PEDESTRIANS.
7. NO VERTICAL "LIP" OR "CURB REVEAL" WILL BE PROVIDED WHERE THE RAMP ADJOINS THE ROADWAY.
8. AT MARKED CROSSWALKS, THE FULL WIDTH OF THE RAMP OR LANDING SHALL BE CONTAINED WITHIN THE PAVEMENT MARKINGS.
9. WHERE POSSIBLE, RAMP FLARES SHOULD BE LOCATED OUTSIDE THE DIRECT LINE OF TRAVEL MOST LIKELY TO BE FOLLOWED BY THE VISUALLY IMPAIRED.
10. SIGNS, POLES, PLANTERS, MAILBOXES, ETC. SHALL NOT BE LOCATED WHERE THEY WILL INTERFERE WITH THE USE OF SIDEWALK RAMPS.
11. WHERE POSSIBLE, SIDEWALK RAMPS SHOULD NOT BE LOCATED WHERE USERS MUST CROSS DROP INLET GRATES, MANHOLE COVERS OR OTHER ACCESS LIDS. IF THIS CANNOT BE AVOIDED THEN GRATE DESIGN AND PLACEMENT SHALL CONFORM TO ADA REQUIREMENTS.
12. CURB DRAINAGE SHOULD BE CONSTRUCTED SO AS TO PRECLUDE THE FLOW OF WATER PAST THE SIDEWALK RAMP.
13. WHEREVER FEASIBLE, TWO SIDEWALK RAMPS ARE RECOMMENDED IN PREFERENCE TO A SINGLE RAMP.
14. JOINTS WILL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT SIDEWALK SPECIFICATIONS, HOWEVER EXPANSION JOINTS WITHIN THE SIDEWALK RAMP AREA WILL BE AVOIDED WHEREVER POSSIBLE.
15. SIDEWALKS THAT ARE LESS THAN 5' WIDE REQUIRE 5' WIDE BY 5' LONG PASSING AREAS (NO GREATER THAN 2.0% CROSS SLOPE) AT INTERVALS NOT TO EXCEED 200 FEET.
16. E.O.P. = EDGE OF PAVEMENT
17. THE PUBLIC SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THIS SHEET TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
18. ALL AREAS OF SIDEWALK RAMPS SHALL HAVE EXPOSED AGGREGATE.

HANDICAP RAMP NOTES

N.T.S.

M-004 HC Ramp Notes

M-004 REVISED 08.01.2014



COLOR: LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE

MATERIAL: AS PER VAOT STANDARD E-143M

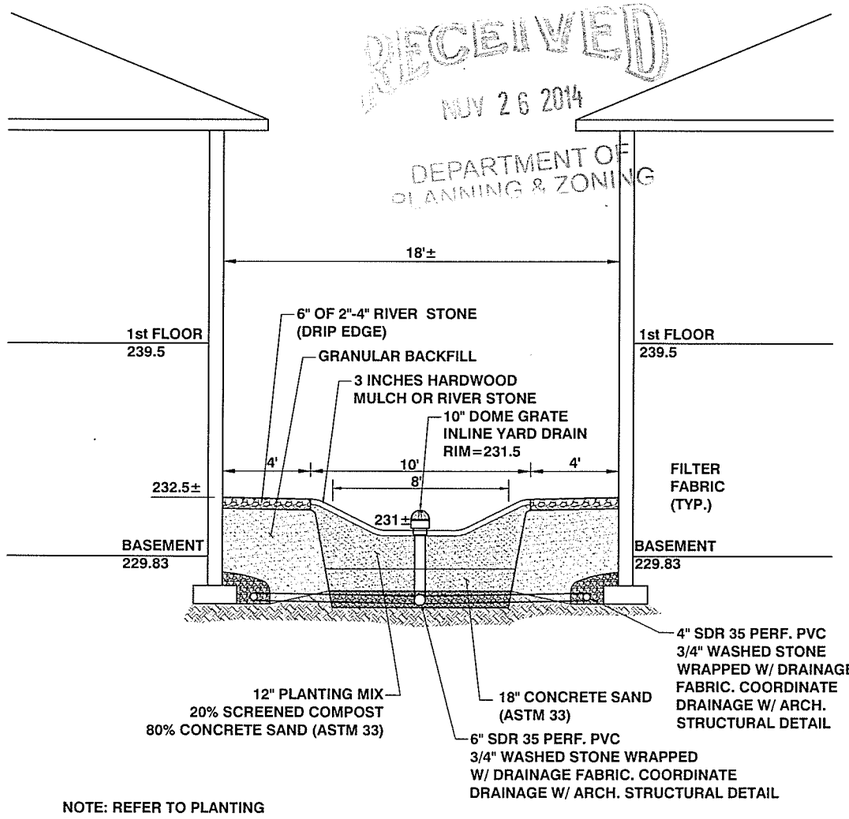
POST: 2" (14 ga.) SQUARE STEEL SIGN POST
INSTALL IN ACCORDANCE w/VAOT STANDARD E-164

HANDICAPPED PARKING SIGN DETAIL

(POSTED AT THE HEAD OF EACH HANDICAPPED SPACE) N.T.S.

M-011 HC Sign

M-011 REVISED 8.12.2014



NOTE: REFER TO PLANTING PLAN FOR BIORETENTION PLANTINGS

COURTYARD AREA DETAIL

PROGRESS PLANS 11/26/2014

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cae-vt.com

DRAWN MAB
CHECKED PBS
APPROVED PBS

OWNER:

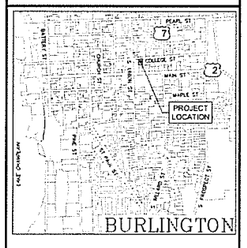
289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON VERMONT
05401

PROJECT:

289 COLLEGE STREET ASSOCIATES

289-291 COLLEGE STREET
BURLINGTON, VT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION

DETAILS

DATE NOV., 2014
SCALE AS SHOWN
PROJ. NO. 14216

DRAWING NUMBER C2.1

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EROSION CONTROL REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. The work under this section includes but is not limited to providing all labor, equipment and materials for the installation of all required site related erosion control measures. If not otherwise directed on the plans, erosion control shall be in strict conformity with all City Department of Public Works requirements, as well as the latest revision of the "Low Risk Site Handbook for Erosion Prevention and Sediment Control " available from the VT DEC Stormwater Section at:

www.anr.state.vt.us/dec/waterq/stormwater/htm/sw_cgp.htm

1.02 GENERAL NOTES

A. The discharge of sediment laden water from the project site is prohibited. All discharged water from dewatering operations shall discharge into a temporary sedimentation basin.

B. If soil disturbance will be required later than October 15th or earlier than April 15, the contractor shall be responsible for maintaining compliance with the winter stabilization practices and requirements for winter construction found in the "Low Risk Site Handbook for Erosion Prevention and Sediment Control".

C. Contractor shall mark the site boundaries to identify the limits of construction. Fence is required on any boundary within 50 ft. of a stream, lake, pond or wetland.

D. All stockpile material (topsoil, borrow, etc.) shall have silt fence installed around the downgradient portion of the stockpile perimeter. Seed and mulch stockpiled material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of the disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

E. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contract with the soil and mulch. Pin netting with wire staples 3' o.c. to ensure full bonding with soil surface.

F. Install stone check dams in grass-lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

G. Control dust through the application of calcium chloride or water. An average application of one pound of calcium chloride per square yard of exposed area should be considered for each treatment. The exact number of applications and amount of dust controller shall be based upon field and weather conditions. It shall be spread in such manner and by such devices that uniform distribution is attained over the entire area on which it is ordered placed.

PART 2 – PRODUCTS

2.01 EROSION CONTROL NETTING

A. Jute netting shall consist of undyed and unbleached yarn woven into a uniform open plain weave mesh.

2.02 EROSION CONTROL MATTING

A. Where required on the plans or where directed by the Engineer, erosion control blankets (matting) shall be North American Green S75 unless otherwise shown on plans

2.03 FILTER FABRIC

A. When filter fabric is required, it shall conform to the requirements of Mirafi 140NS or approved equivalent.

2.04 CALCIUM CHLORIDE

A. Calcium chloride shall conform to the requirements of AASHTO M 144. Either regular flake calcium chloride, Type 1 or concentrated flake, pellet or other granular calcium chloride, Type 2, may be used.

2.05 WATER

A. All water used shall be clean and free of harmful amounts of oil, salt, acids, alkalies, sugar, organic matter and other substances injurious to the finished product, plant life or the establishment of vegetation.

PART 3 – EXECUTION

3.01 STONE CHECK DAM INSTALLATION

A. Stone check dams to be constructed and installed as outlined in the Low-Risk Handbook or as instructed by the Engineer. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed.

3.02 SILT FENCES

A. The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plans. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

B. The silt fences shall be inspected periodically for damage or build-up of sediments. All damaged fences shall be repaired or replaced. Sediment deposits shall be removed from the fence as they build up and be placed in an area where there is no danger of further erosion.

3.03 EROSION MATTING

A. Erosion matting shall be placed on all grass-lined ditches with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

3.04 RESTORATION

A. As soon as construction is completed in a given area, it shall be topsoiled, seeded, and mulched.

3.05 GRASS-LINED DITCHES

A. All ditches that are not stone-lined shall be topsoiled, seeded, and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

3.06 TEMPORARY DIVERSION DITCH

A. Stabilize any diversion berms or flow channels with with seed and straw mulch or erosion control matting immediately after installation. Channels with slopes greater than 5% shall be lined with 4 inch stone. The diversion berm shall remain in place until disturbed areas are completely stabilized.

3.07 MAINTENANCE

A. All erosion control measures shall be inspected weekly and repaired and/or replaced as needed.

B. All erosion control measures shall be inspected after periods of heavy rain.

C. The stabilized road entrance shall be top dressed with additional stone should the existing stone become clogged with sediment.

D. Hay or straw mulch is subject to wind action. Mulch may require anchoring as the weather conditions warrant.

3.08 WINTER CONSTRUCTION

A. If, due to the project schedule, construction during the winter months is necessary, the Contractor shall follow the winter construction procedures outlined in the "Low Risk Site Handbook for Soil Erosion and Sediment Control " as well as the following procedures:

1. Minimize disturbance between October and May.
2. All erosion control measures shall be in place prior to the ground freezing.
3. For areas to be stabilized by vegetation, seeding shall be completed no later than september 15 to ensure adequate growth and cover.
3. All non-vegetative stabilization must be completed by October 15.
4. Where mulch is specified, apply roughly 3 inches with an 80-90% cover. Mulch should be tracked in or stabilized with netting in open areas vulnerable to wind.

TEMPORARY SEEDING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:
1. Furnishing all labor, materials and equipment to complete all seeding required to provide temporary protection against wind or water erosion.

1.02 GENERAL NOTES

A. Adequate seed bed preparation, use of quality seed, and timely planting are required to achieve a good stand of vegetation to control erosion. Within 48 hours of final grading, the exposed soil must be seeded and mulched or covered with erosion control matting.

PART 2 – PRODUCTS

2.01 GENERAL

A. At a minimum, all products shall meet the requirements of Section 651 of the VAOT Standard Specifications for Construction.

PART 3 – EXECUTION

3.01 SEEDING CONDITIONS

A. All essential grading and all temporary structures, such as diversions, dams, ditches, and drains needed to prevent gullying and reduce siltation, should be completed prior to seeding.

B. All areas of disturbance must have temporary or permanent stabilization within 14 days of initial disturbance. After this time, any disturbance in the area must be stabilized at the end of each work day.

C. Stabilization is not required if earthwork is to continue in the area within the next 24 hours and there is no precipitation forecast for the next 24 hours.

3.02 SEED AND SEEDING

A. Seed and seeding rates may be selected from the table below. The selection will be based on the time of year the seeding is to be made and the length of time the vegetation is to afford the protection. The seed should be spread uniformly over the area. After seeding, the soil should be firmed by rolling or packing. Where rolling or packing is not feasible, the seed should be covered lightly by raking, disking, or dragging.

B. Plant Selection and Seeding Rates:

Species	Per Acre	Per 1000 Sq. Ft.	Remarks
Annual Ryegrass	40 lbs.	1 lb.	Grows quickly, but is of short duration. Use where appearances are important. Seed early spring and/or between August 15 and September 15. Cover the seed with no more than 0.25 inch of soil.
Perennial Ryegrass	30 lbs.	0.7 lbs.	Good cover which is longer lasting than annual ryegrass. Seed between April 1 and June 1 and/or between August 15 and September 15. Mulching will allow seeding throughout the growing season. Seed to a depth of approximately .5 inch.

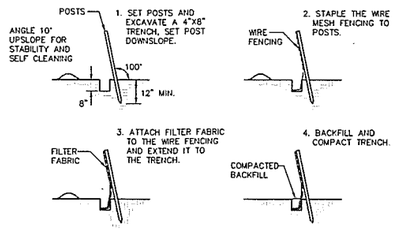
3.04 MULCHING

A. Where it is impracticable to incorporate fertilizer and seed into moist soil, the seeded area should be mulched to facilitate germination.

3.05 MAINTENANCE

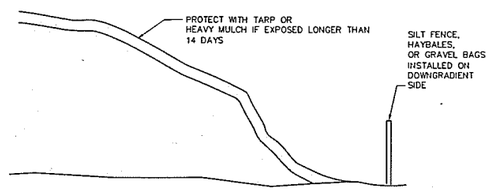
A. If the seeding fails to grow, it may need to be re-established to provide adequate erosion control.

B. If weeds become a problem, they may need to be controlled by mowing.



SILT FENCE CONSTRUCTION DETAIL

N.T.S.



TEMPORARY STOCKPILE DETAIL

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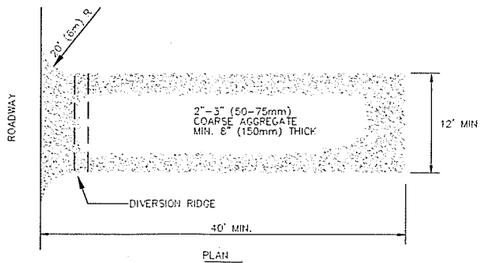
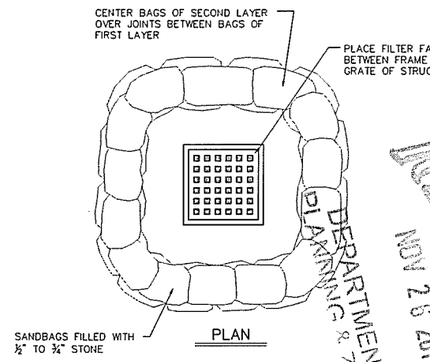


PLAN

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

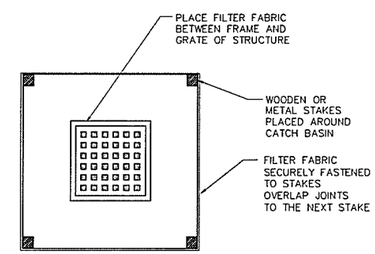
STABILIZED CONSTRUCTION ENTRANCE

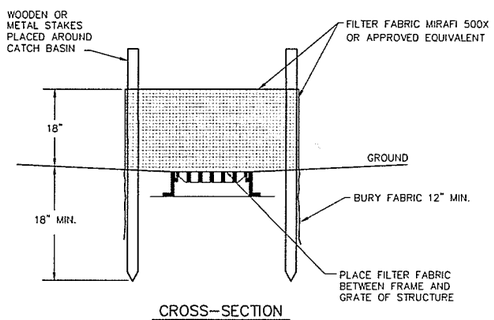
N.T.S.



CATCH BASIN INLET PROTECTION (GRAVEL BAGS)

N.T.S.





CATCH BASIN INLET PROTECTION (WITH FABRIC)

N.T.S.

PROGRESS PLANS 11/26/2014

SITE ENGINEER:

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10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
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DRAWN MAB
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BURLINGTON VERMONT
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PROJECT:

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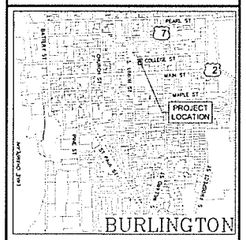
289-291 COLLEGE STREET
BURLINGTON, VT



LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION

EROSION CONTROL DETAILS & NOTES

DATE NOV.,2014
SCALE AS SHOWN
PROJ. NO. 14216

DRAWING NUMBER C2.2