Jacobson

February 5, 2020

Mr. J. Colin Heffernan, Chairman
Inland Wetlands & Watercourses Commission
Town Hall
302 Main Street
Old Saybrook, CT 06475

RE: Route 1 Sidewalks, Pond Road to Lynde Street
Old Saybrook, CT
NLJA #1185-0000

Dear Mr. Heffernan:

On behalf of the Town of Old Saybrook we hereby submit the enclosed Application to Conduct a Regulated Activity for the Route 1 Sidewalk project from Pond Road to Lynde Street.

The project consists of installing concrete sidewalks on the south side of Route 1 to connect to the existing sidewalks at the Pond Road and Lynde Street intersections. The sidewalks will be imprinted and colored to make the appearance of a brick sidewalk and match the surrounding sidewalks.

The construction portion of this project is being funded by a State of Connecticut Community Connectivity Grant Program that is administered by the Department of Transportation.

The proposed design will result in a relatively small amount of disturbance and filling to inland wetlands. To minimize the area of permanent wetland disturbance a retaining wall has been included in the proposed design. Several types of retaining walls have been evaluated. An existing 12-inch diameter steel gas line is located beneath the proposed sidewalk. This gas line precludes the location of the retaining wall being closer to Route 1.

It is anticipated that a sandbag cofferdam and local dewatering will be required during the installation of the retaining wall. The wetlands and nearby upland areas disturbed during construction will be restored and revegetated.

In a preapplication meeting with the Commission, we presented two alternatives including a fill slope with no wall, and a reinforced concrete retaining wall, which the Commission indicated a preference for. At that meeting we noted that while temporary disturbance of the wetlands would occur to construct the reinforced concrete retaining wall footings, that this area would be restored. Since that date we have reviewed alternative wall types, and have decided to recommend a segmental block wall which would eliminate the need for a footing and further reduce the area of both permanent and temporary wetland impacts.

We are requesting the permit fee be waived because the Town of Old Saybrook is the applicant for this project.

Nathan L. Jacobson & Associates, Inc.
Nathan L. Jacobson & Associates, P.C. (NY)
86 Main Street P.O. Box 337 Chester, Connecticut 06412-0337
Tel 860.526.9591 Fax 860.526.5416
Consulting Civil and Environmental Engineers Since 1972

Jacobson

Mr. J. Colin Heffernan, Chairman
Town of Old Saybrook, Inland Wetlands & Watercourse Agency
RE: Route 1 Sidewalks, Pond Road to Lynde Street
NLJA #1185-0000
February 5, 2020

Property owners adjacent to the site:

Address	Owner	Assessor's Map	Assessor's Parcel
7 Maplewood Street	HMJZ, LLC	36	123
774 Boston Post Road	Madison P & G Properties, LLC	36	117
806 Boston Post Road	Philip H W Redford, Jr.	36	118
820 Boston Post Road	Mark Zuckerman	36	119

Please contact us with any questions.

Very truly yours,

NATHAN L. JACOBSON & ASSOCIATES, INC.

Geoffrey L. Jacobson, P.E.

CPT/GLJ

cc: Carl Fortuna, Jr., w/encl.
File, w/encl.

L:\11850000 Old Saybrook Sidewalks\PERMITTING\OS IWWC\Wetlands Cover Letter.docx

TOWN OF OLD SAYBROOK
Inland Wetlands & Watercourses Commission

302 Main Street • Old Saybrook, Connecticut 06475-1741
Telephone (860) 395-3131 • FAX (860) 395-1216

APPLICATION
TO CONDUCT A REGULATED ACTIVITY

APPLICATION # 20-002 *(to be completed by staff)*

Date received in Land Use Department: 2-6-20 *(to be completed by staff)*

Date received by Commission: 2-20-20 *(to be completed by staff)*

✓ Check Applicable Activity & Attach Check for Total Fee Amount			
☐ *Residential – single lot*	*$100.00*	☒ Municipal Improvement	$0
☐ *Residential – subdivision, PRD, IHZ*	*$200.00*	✓ *State Fee for ALL Applications*	*$60.00*
☐ *Commercial/Industrial*	*$200.00*	☐ *Administrative Permit*	*$50.00*

TOTAL APPLICATION FEE AMOUNT $ 0 W RECEIVED BY: _____

1. Name of Applicant Town of Old Saybrook

   Home Address _____ Home Telephone _____

   Business Address 302 Main Street Bus. Telephone 860-395-3123

2. Name of Property Owner State of Connecticut, Department of Transportation

   Home Address _____ Home Telephone _____

   Business Address 171 Salem Turnpike, Norwich, CT 06360 Bus. Telephone _____

3. If applicant other than owner, please state interest in the land Town of Old Saybrook has received a grant from the State of Connecticut Department of Transportation to construct a sidewalk within the Route 1 right-of-way at this location.

4. Location of Property by Street Address Boston Post Road (Route 1)

   Assessor's Map No. 36 Lot No. N/A

5. Provide the names and addresses of all property owners adjacent to the subject property (on an additional sheet).

6. **State the purpose, proposed use and a summary description of the proposed activity. (Please be specific, use additional sheets if necessary.)**

See attached.

7. **Activity Location (Submit map with sufficient detail as a part of the application.)**

Number of acres of wetlands (or portion thereof) on the property 270 sf in Route 1 ROW

Total area of inland wetlands to be altered 167 sf (permanent), 357 sf (temporary)

Are vernal pools or tidal wetlands located on the property? If so, where and how many acres (or portion thereof) on the property?

No tidal wetlands are located within the State right-of-way. Based on input received from an IWWC Member, a past study of the wetlands at this location indicated the presence of a vernal pool.

Are inland wetlands or watercourses located on adjacent properties? If so, state the name of the property owner and if it is a wetland or watercourse.

Yes, 7 Maplewood St., HMJZ, LLC, wetland.

Has a licensed soil scientist flagged the wetlands or watercourses on this property? If so, who and when?

Yes, Richard Snarski, 06/17/2019

Nearest Thoroughfare Boston Post Road (Rt. 1) Distance (in feet) 0 ft

Nearest Town Boundary N/A Distance (in feet) > 1,000 ft

Zoning District B1, B2

8. Check applicable activities occurring within 0-100 feet of wetlands or watercourses.

- ☒ Removing material
- ☒ Depositing material
- ☒ Surface Water Diversion
- ☒ Construction
- ☒ Grading
- ☒ Paving
- ☒ Vegetation Removal
- ☒ Vegetation Restoration

9. Explain in detail the extent of any activity checked above, type of material and equipment to be used to complete project. (Use additional sheets if necessary.)

See attached

10. Estimated cost and time for completion: $250,000 and 2 months

11. Explain what alternatives have been considered in connection with this application to avoid altering inland wetlands or watercourses?

See attached.

12. Identify any other local, State or Federal permits previously issued or pending that will be required for work on this property?

CT Department of Transportation: Encroachment Permit

Old Saybrook: 8-24 Municipal project seeking approval

Affidavit of Accuracy and Agency

The undersigned applicant warrants the truth of all statements contained herein, and in all supporting documents attached hereto or which may be presented to the Commission in the future, pursuant to this application.

I further understand that the Commission may request further information in connection with this application and that if the proposed activity involves a significant activity, an additional filing fee may be required.

Signed: _____ **Date:** _____

The undersigned, as owner of the property, hereby consents to necessary and proper inspections of the above-mentioned property by agents of the Town of Old Saybrook, the Connecticut Department of Energy and Environmental Protection and the U.S. Department of Agriculture, Natural Resources Conservation Service, at reasonable times, both before and after a final decision has been issued by the Old Saybrook Inland Wetlands and Watercourses Commission.

I understand the Old Saybrook Inland Wetlands & Watercourses Regulations, have had an opportunity to review these regulations and understand that these regulations regulate activities conducted on my property. In the event this application is approved and the property subsequently is transferred to another owner, I understand that it is my responsibility to advise the new owner in writing that an Application for Permit Transfer must be submitted to the Inland Wetlands & Watercourses Commission in order for the permit issued to remain valid.

Signed: _____ **Date:** 2/3/2020

Carl A. Fortuna Jr.
First Selectman

ATT	AMERICAN TELEPHONE AND TELEGRAPH
BIL	BITUMINOUS
Conc.	CONCRETE
CL&P	CONNECTICUT LIGHT AND POWER
EL.	ELEVATION
FC	FRONTIER COMMUNICATIONS
INV.	INVERT
N/F	NOW OR FORMERLY
RCP	REINFORCED CONCRETE PIPE
SNET	SOUTHERN NEW ENGLAND TELEPHONE CO.
TYP.	TYPICAL

LEGEND

Existing / PROPOSED

- INDEX CONTOUR (100)
- INTERMEDIATE CONTOUR (98)
- SPOT ELEVATION (99.00)
- TREE LINE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB
- BOULDER
- WETLAND FLAG
- WETLAND LINE
- GRAVEL EDGE
- PAVEMENT EDGE
- BITUMINOUS CONCRETE CURBING
- CONCRETE CURBING
- STORM DRAIN
- GUIDE RAIL
- MAILBOX
- SIGN
- SITE LIGHT
- CATCH BASIN
- MANHOLE
- HYDRANT
- WATER VALVE
- UTILITY BOX
- UTILITY POLE
- UTILITY POLE WITH GUY
- GAS VALVE
- AERIAL UTILITIES
- ELECTRIC LINE
- WATER LINE
- GAS LINE
- BORING
- SURVEY MONUMENT
- PROPERTY LINE
- STREET LINE
- SURVEY CONTROL
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- BITUMINOUS CONCRETE PAVEMENT
- CONCRETE WALK STENCILED AND COLORED
- SIDEWALK CENTERLINE WITH CURVE AND LINE START AND END LOCATIONS
- SEDIMENT BARRIER
- SEDIMENT BARRIER AT DRAINAGE STRUCTURE
- PAVEMENT SAWCUT
- REMOVE TREE
- REMOVE BITUMINOUS CONCRETE PAVEMENT
- GRADE TO DRAIN
- REMOVE CURBING

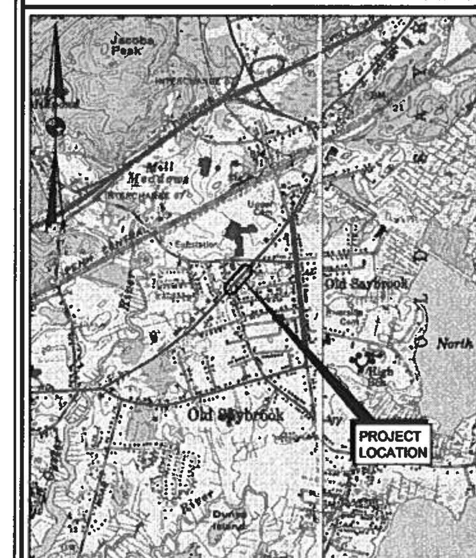
PERMITTING
JANUARY 2020

TOWN OF
OLD SAYBROOK, CONNECTICUT

ROUTE 1 SIDEWALKS

FROM POND ROAD TO LYNDE STREET

CARL P. FORTUNA, JR., FIRST SELECTMAN
SCOTT GIEGERICH, SELECTMAN
MATTHEW PUGLIESE, SELECTMAN



PROJECT LOCATION MAP
SCALE: 1" = 2000'
2000 1000 0 2000 4000
(SCALE IN FEET)

Jacobson
Nathan L. Jacobson & Associates, Inc.
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Chester, Connecticut 06412-0337
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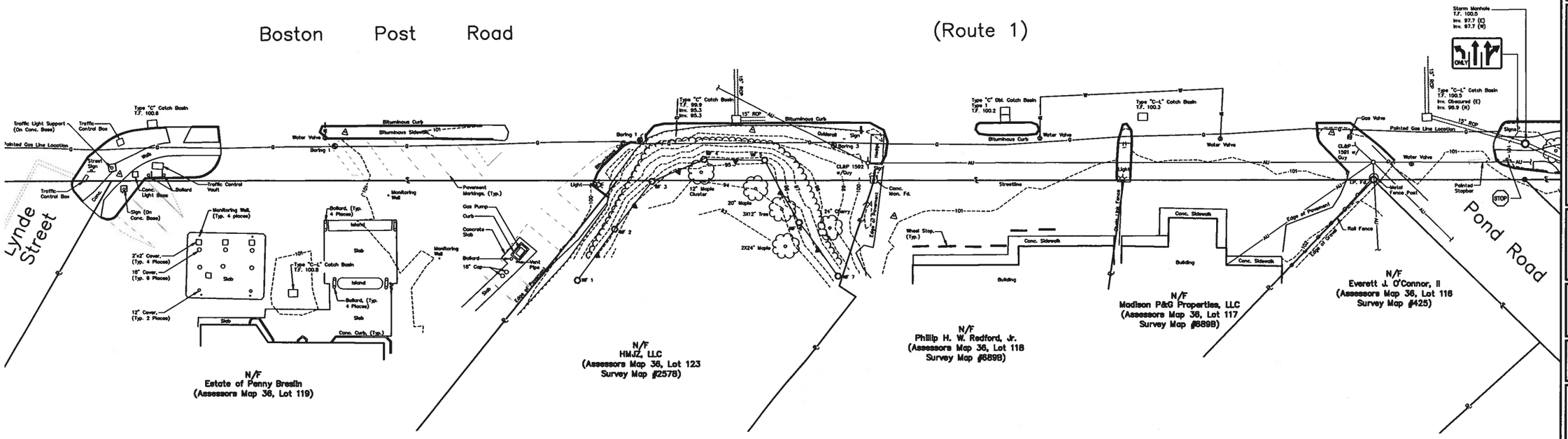
www.nlja.com
Consulting Civil and Environmental Engineers Since 1972

1850000 - PROJECT NAME: TOWN OF OLD SAYBROOK ROUTE 1 SIDEWALKS - FROM POND ROAD TO LYNDE STREET - DATE: SEPTEMBER 2019



N

ASSUMED

REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AS A CLASS T-2 TOPOGRAPHIC SURVEY (VERTICAL ACCURACY CLASS V-2). BOUNDARY LINES DEPICTED HEREON WERE DERIVED FROM RECORD RESEARCH, FILED MAPS, AND LIMITED FIELD MEASUREMENTS. SEE MAPS FILED IN THE OLD SAYBROOK LAND RECORDS AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION.

2. In General, Lower Case Text Identifies Existing Features/Conditions.
3. IN GENERAL, *UPPER CASE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS* UNLESS OTHERWISE SPECIFIED.
4. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, GAS, CABLE TV AND OTHER FACILITIES OF PUBLIC UTILITY COMPANIES, INQUIRE OF "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455.
5. UNDERGROUND OR OVERHEAD ENCROACHMENTS, STRUCTURES, AND SYSTEMS WERE NOT INVESTIGATED AS A PART OF THIS SURVEY, EXCEPT AS SHOWN OR NOTED HEREON.
6. STONE WALLS AND/OR FENCES MAY DEVIATE SLIGHTLY FROM PRINCIPAL COURSES SHOWN.
7. PERIPHERAL PROPERTY LINES OF ADJACENT OWNERS ARE SHOWN FOR GENERAL INFORMATIONAL PURPOSES ONLY AND ARE NOT TO BE CONSTRUED AS BEING ACCURATELY LOCATED OR SHOWN HEREON.
8. HORIZONTAL DATUM IS ASSUMED. VERTICAL DATUM IS ASSUMED.
9. FIELD SURVEY PERFORMED FROM SEPTEMBER 2009 THROUGH JUNE 2019 BY LAND SURVEY & TECHNICAL SERVICES, INC.

THIS DRAWING IS INTENDED TO BE USED FOR INFORMATION AND REVIEW PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION.

GRAPHIC SCALE

20 15 10 5 0 20 40

SCALE: 1"=20'

TOWN OF OLD SAYBROOK

ROUTE 1 SIDEWALKS FROM POND ROAD TO LYNDE STREET

OLD SAYBROOK, CONNECTICUT

TOPOGRAPHIC SURVEY

PERMITTING

ANY ALTERATIONS TO THIS DRAWING MADE WITHOUT THE EXPRESSED WRITTEN APPROVAL OF LAND SURVEY & TECHNICAL SERVICES, INC. WILL BE AT THE SOLE RISK OF THE PERSON OR FIRM MAKING SUCH UNAUTHORIZED ALTERATIONS AND LAND SURVEY & TECHNICAL SERVICES, INC. WILL NEITHER HAVE NOR ACCEPT ANY LIABILITY OR LEGAL EXPOSURE ARISING FROM SAID UNAUTHORIZED ALTERATIONS.

Jacobson
Land Survey & Technical Services, Inc.
86 Main Street P.O. Box 337
Chester, Connecticut 06412-0337
Tel: (860) 526-4522 Fax: (860) 526-5416
www.nlja.com
An Affiliate of Nathan L. Jacobson & Associates, Inc.

NOT VALID WITHOUT ORIGINAL SEAL

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

JEFFREY A. BANBORN, L.S.
CT REGISTRATION No. 12883

REVISIONS

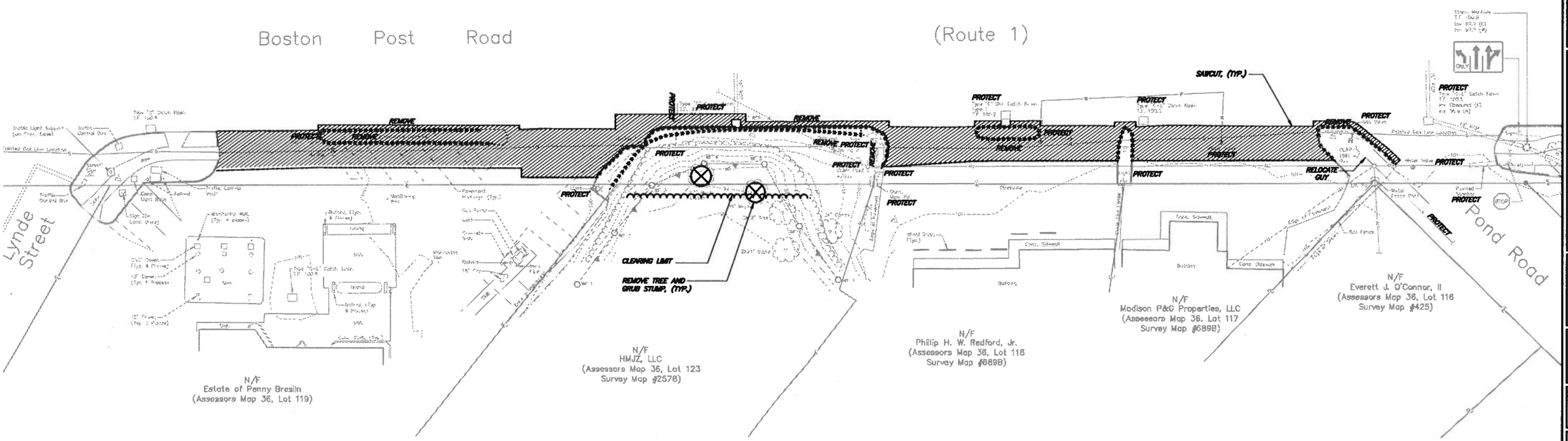
No.	DESCRIPTION	DATE

DATE: JANUARY 2020
SCALE: 1"=20'
PROJECT No.: 11860000
SHEET No.:

Features/Conditions.

2. IN GENERAL, *UPPER CASE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS* UNLESS OTHERWISE SPECIFIED.

3. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, GAS, CABLE TV AND OTHER FACILITIES OF PUBLIC UTILITY COMPANIES, INQUIRE OF "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455.



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GRAPHIC SCALE
20 15 10 5 0 20 40
SCALE: 1"=20'

TOWN OF OLD SAYBROOK

ROUTE 1 SIDEWALKS FROM POND ROAD TO LYNDE STREET

OLD SAYBROOK, CONNECTICUT

DEMOLITION PLAN

PERMITTING

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Jacobson Consulting Civil and Environmental Engineers Since 1972

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CHRISTOPHER P. TAYLOR, P.E.
CT REGISTRATION No. 32783

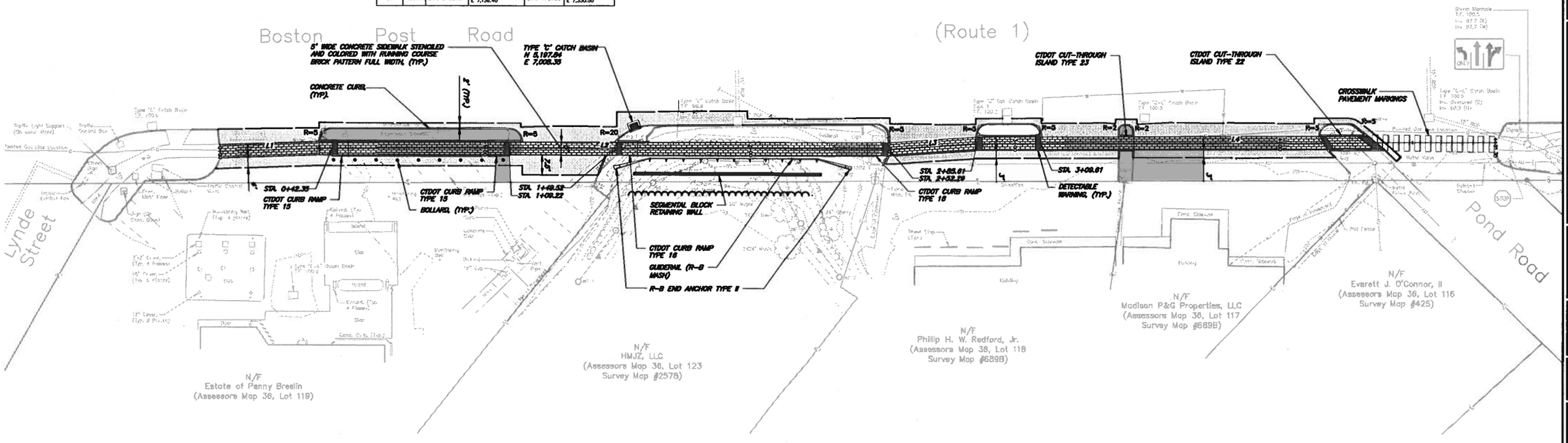
REVISIONS

No.	DESCRIPTION	DATE

DATE: JANUARY 2020
SCALE: 1" = 20'
PROJECT No.: 1185-0000

SHEET No.:

ALIGNMENT LINE TABLE					
LINE NO.	LENGTH	START STATION	START COORDINATES	END STATION	END COORDINATES
L1	37.39	STA. 0+00.00	N 5,187.35 E 6,854.50	STA. 0+37.39	N 5,173.72 E 6,891.34
L2	215.53	STA. 0+37.39	N 5,173.72 E 6,891.34	STA. 2+52.91	N 5,203.43 E 7,104.81
L3	32.27	STA. 2+52.91	N 5,203.43 E 7,104.81	STA. 2+85.18	N 5,210.02 E 7,136.40
L4	196.11	STA. 2+85.18	N 5,210.02 E 7,136.40	STA. 4+81.30	N 5,238.01 E 7,330.50



1. FEATURES/CONDITIONS.
2. IN GENERAL, *UPPER CASE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS* UNLESS OTHERWISE SPECIFIED.
3. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, GAS, CABLE TV AND OTHER FACILITIES OF PUBLIC UTILITY COMPANIES, INQUIRE OF "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455.

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GRAPHIC SCALE
30 15 10 5 0 20 40
SCALE: 1"=20'

TOWN OF OLD SAYBROOK

ROUTE 1 SIDEWALKS FROM POND ROAD TO LYNDE STREET

OLD SAYBROOK, CONNECTICUT

SITE LAYOUT PLAN

PERMITTING

ANY ALTERATIONS TO THIS DRAWING MADE WITHOUT THE EXPRESSED WRITTEN APPROVAL OF NATHAN L. JACOBSON & ASSOCIATES, INC. WILL BE AT THE SOLE RISK OF THE PERSON OR FIRM MAKING SUCH UNAUTHORIZED ALTERATIONS AND NATHAN L. JACOBSON & ASSOCIATES, INC. WILL NEITHER HAVE NOR ACCEPT ANY LIABILITY OR LEGAL EXPOSURE ARISING FROM SAID UNAUTHORIZED ALTERATIONS.

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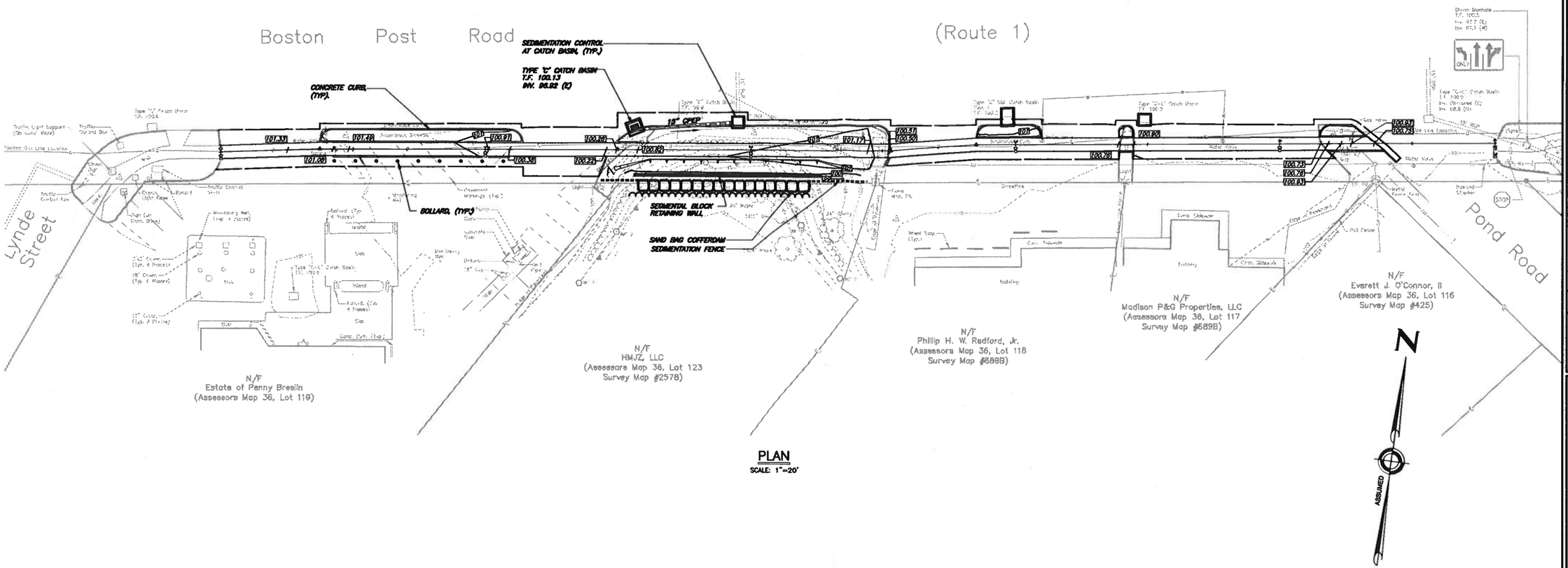
CHRISTOPHER P. TAYLOR, P.E.
CT REGISTRATION No. 32763

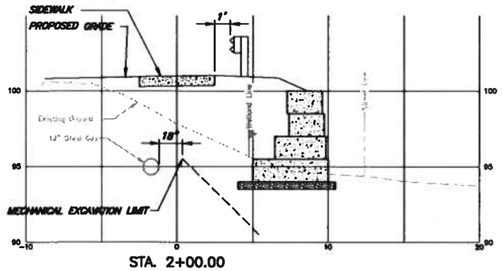
REVISIONS

No.	DESCRIPTION	DATE

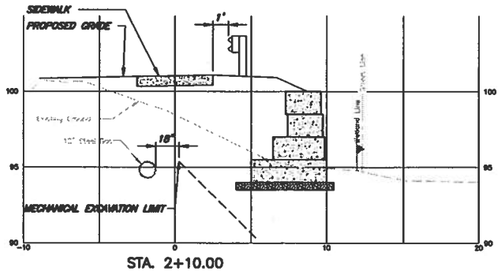
DATE:	JANUARY 2020	SHEET No.:
SCALE:	1" = 20'	
PROJECT No.:	1185-0000	



PLAN
SCALE: 1"=20'



STA. 2+00.00



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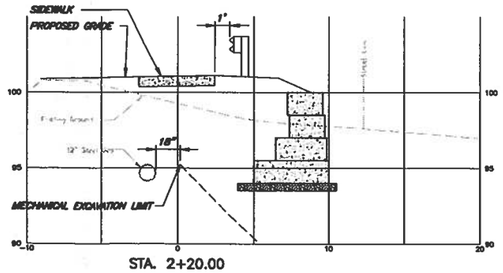
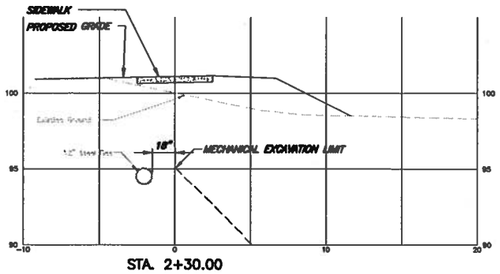


STA. 2+20.00



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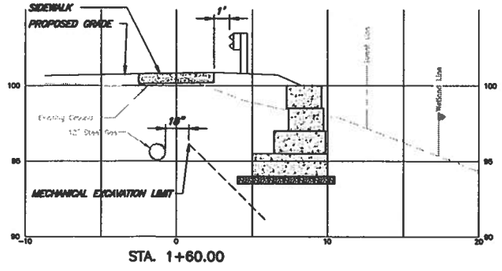
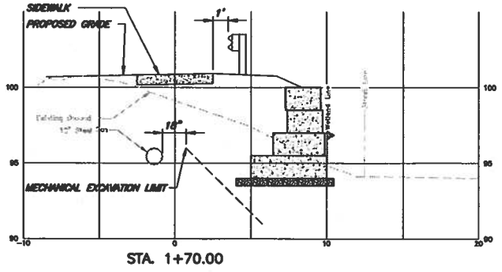
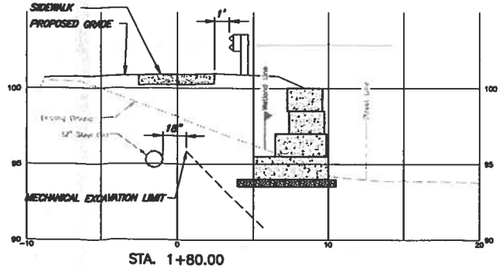


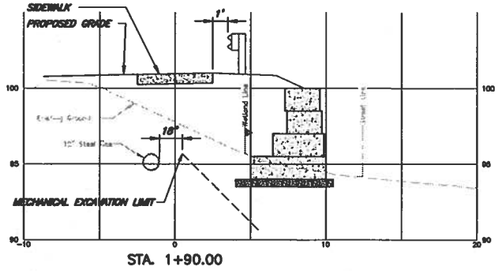
STA. 1+60.00



STA. 1+70.00



STA. 1+80.00



STA. 1+90.00

CROSS SECTIONS

2. IN GENERAL, *UPPER CASE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS* UNLESS OTHERWISE SPECIFIED.

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GRAPHIC SCALE
20 15 10 5 0 20 40
SCALE: 1"=20'
6 4 3 2 1 0 5 10
SCALE: 1"=6'

TOWN OF OLD SAYBROOK

ROUTE 1 SIDEWALKS FROM POND ROAD TO LYNDE STREET

OLD SAYBROOK, CONNECTICUT

SITE GRADING, DRAINAGE AND EROSION & SEDIMENT CONTROL PLAN

PERMITTING

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NOT VALID WITHOUT ORIGINAL SEAL

CHRISTOPHER P. TAYLOR, P.E.
CT REGISTRATION No. 32763

REVISIONS

No.	DESCRIPTION	DATE

DATE: JANUARY 2020
SCALE: AS SHOWN
PROJECT No.: 1165-0000

SHEET No.:

SUBJECT PROJECT INCLUDES THE CONSTRUCTION OF SIDEWALK IMPROVEMENTS INCLUDING CURBING, PAVING, DRAINAGE, 'AINING WALL AND GUIDE RAIL.

RESS OF PROPOSED USE:

TE 1
SAYBROOK, CONNECTICUT 06475

RESS OF PROPERTY OWNER:

CARL FORTUNA, Jr., FIRST SELECTMAN
MAIN STREET
SAYBROOK, CONNECTICUT 06475

ONSTRUCTION SCHEDULING:

PROPOSED TO PERFORM CONSTRUCTION IN THE SUMMER OF 2020. IN GENERAL, THE SEQUENCE FOR CONSTRUCTION AND STABILIZATION MAY BE AS FOLLOWS:

INSTALL SEDIMENT AND EROSION CONTROLS.

IMPLEMENT MAINTENANCE AND PROTECTION OF TRAFFIC CONTROLS.

REMOVE TREES.

INSTALL EROSION CONTROLS.

SAW CUT AND REMOVE EXISTING PAVEMENT AND CURB.

CONSTRUCT RETAINING WALL AND INSTALL DRAINAGE.

CONSTRUCT SIDEWALK AND CURBING.

COMPLETE PAVING AND CURBING.

INSTALL GUIDE RAIL.

FURNISH TOPSOIL, FINE GRADE, SEED, FERTILIZE, LIME AND MULCH.

REMOVE REMAINING SEDIMENT AND EROSION CONTROL MEASURES ONCE VEGETATION HAS BECOME ESTABLISHED.

CONTRACTOR SELECTED TO CONSTRUCT THIS PROJECT WILL BE RESPONSIBLE FOR IMPLEMENTATION OF SEDIMENT AND SION CONTROL MEASURES ON THIS SITE. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR WILL PROVIDE THE OLD BROOK INLAND WETLANDS ENFORCEMENT OFFICER AND ZONING ENFORCEMENT OFFICER WITH THE NAME, ADDRESS AND EPHONE NUMBER OF THE RESPONSIBLE PERSON. SHOULD ANY PROBLEMS OCCUR, THEN THE OWNER'S AGENT SHOULD BE TACTED.

ONTINGENCY PLAN

NIMUM OF TWO WEEKS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE OWNER'S AGENT THE ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF THE RESPONSIBLE PERSONS TO BE CONTACTED IN THE NT OF AN EROSION AND/OR SEDIMENT CONTROL PROBLEM.

CONTRACTOR SHALL AT ALL TIMES KEEP SUFFICIENT ADDITIONAL SEDIMENTATION CONTROL FENCE AND/OR HAY BALES ON PROJECT SITE TO CONTROL UNFORESEEN EROSION AND/OR SEDIMENT PROBLEMS. IN THE EVENT OF A PROBLEM THE TRACTOR SHALL PROMPTLY STABILIZE THE PROBLEM AND CONTAIN ANY SEDIMENT AND THEN NOTIFY THE OWNER'S AGENT.

ROSION AND SEDIMENT CONTROL

CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN FOR THE JECT.

MINIMUM STANDARDS FOR ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THOSE OUTLINED IN THE "2002 NECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", LATEST REVISION. ALTERNATIVE MEASURES, METHODS, NS AND TECHNIQUES MAY BE ALLOWED WITH THE PRIOR APPROVAL OF THE OWNER'S AGENT.

ENERAL GUIDELINES:

NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN AREAS DESIGNATED AS INLAND WETLANDS, WATERCOURSES OR FLOODPLAINS, DESIGNATED UPLAND REVIEW ZONES OR WITHIN STREAM CHANNEL ENCROACHMENT LINES WITHOUT ALL REQUIRED APPROVALS AND/OR PERMITS.

TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.

ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED CONTINUOUSLY AND SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.

THE CONTRACTOR SHALL LIMIT THE DISTURBANCE OF LAND TO THOSE AREAS SHOWN ON THE DRAWINGS AND SHALL TAKE REASONABLE CARE TO PROTECT AND PRESERVE EXISTING VEGETATION WITHIN THE LIMITS OF DISTURBANCE WHERE FEASIBLE.

WHERE PRACTICABLE, THE CONTRACTOR SHALL PLAN HIS CONSTRUCTION OPERATIONS SO AS TO LIMIT THE AREAS OF EXPOSED SOIL TO AREAS ACTIVELY UNDER CONSTRUCTION. THE CONTRACTOR SHALL TAKE REASONABLE CARE TO LIMIT THE PERIOD OF EXPOSURE OF DISTURBED AREAS. THE INSTALLATION OF PERMANENT VEGETATIVE MEASURES SHALL BE ACCOMPLISHED AS SOON AS IS PRACTICABLE.

ADEQUATE PROVISIONS SHALL BE TAKEN TO PROTECT ALL EXPOSED CUT AND FILL SLOPES FROM SURFACE WATER FLOW DAMAGE.

ALL MATERIAL FROM CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF IN A LAWFUL MANNER.

WATER FROM DEWATERING OPERATIONS SHALL NOT BE DISCHARGED DIRECTLY TO ANY WETLAND OR WATERCOURSE. SUCH WATER SHALL BE DISCHARGED TO AN APPROVED SEDIMENT BASIN AND/OR FILTER DEVICE OR TO A STORM DRAINAGE SYSTEM ONLY WHEN APPROVED. NO WATER FROM DEWATERING OPERATIONS SHALL BE DISCHARGED INTO A SANITARY SEWER SYSTEM.

THE STORAGE, WASHING, FUELING AND MAINTENANCE OF EQUIPMENT AND VEHICLES SHALL TAKE PLACE IN DESIGNATED AREAS ONLY. IN THE EVENT OF A CONTAMINANT SPILL THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION OIL AND CHEMICAL SPILL RESPONSE DIVISION (860-424-3338) AND THE OWNER'S AGENT.

RESERVE AND CONSERVE SOIL

)PSOILING

MATERIALS

SITE INVESTIGATIONS SHALL BE MADE TO DETERMINE IF THERE IS A SUFFICIENT QUANTITY OF TOPSOIL OF GOOD QUALITY ON THE SITE TO JUSTIFY STRIPPING. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM). OTHER SOIL TYPES WITH HIGH ORGANIC CONTENT MAY BE FOUND SUITABLE AFTER TESTING. IT SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEDS. IT SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION. IT SHALL CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY TO DETERMINE THE PROPER APPLICATION RATES OF LIME AND FERTILIZER.

INSTALLATION REQUIREMENTS

STRIPPING OF TOPSOIL SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. THE DEPTH OF REMOVAL MAY VARY DEPENDING ON THE SITE CONDITIONS. ALL SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO BEGINNING STRIPPING OPERATIONS.

TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL SURFACE WATER FLOW IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE SHALL RESULT.

SIDE SLOPES OF STOCKPILES SHALL NOT BE STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.

A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.

TEMPORARY SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 30 DAYS OF THE FORMATION OF THE STOCKPILE, IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE COVER REQUIREMENTS.

PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE DRAWINGS.

WHERE THE pH OF THE SUBSOIL IS 6.0 OR LESS, GROUND AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST TO A pH OF 6.0 TO 6.5 OR THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.

AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING OR TRACKING TO A DEPTH OF AT LEAST 4 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 6 INCHES, UNLESS OTHERWISE NOTED. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

TOPSOIL SHALL BE COMPACTED ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A UNIFORM FIRM SEEDBED FOR THE ESTABLISHMENT OF A DURABLE TURF. UNDUE COMPACTION IS TO BE AVOIDED AS IT INCREASES RUNOFF VELOCITY AND VOLUME, AND PREVENTS SEED GERMINATION.

IMMEDIATELY FOLLOWING TOPSOIL APPLICATION, PROTECT THE TOPSOIL FROM EROSION BY EITHER SODDING, SEEDING AND/OR MULCHING.

ND GRADING

ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

TOPSOILING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS FOR TOPSOILING.

ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

JST CONTROL

STALLATION REQUIREMENTS

WATER

THE EXPOSED SOIL SURFACE SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE QUANTITIES OF WATER TO CONTROL DUST.

STONE

COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. IN AREAS ADJACENT TO WATERWAYS USE CHEMICALLY STABLE AGGREGATE.

MAINTENANCE

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

EGETATIVE SOIL COVER

MPORARY SEEDING

INSTALLATION REQUIREMENTS

SITE PREPARATION

SEEDBED PREPARATION

1. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF CONNECTICUT SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7.5 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1,000 SQUARE FEET
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

REFER TO COUNTY SOIL SURVEY REPORT FOR SOIL TEXTURES AT THE SITE.

SEEDING

1. ANNUAL RYE GRASS 40 LBS/ACRE, 1 LB/1000 SF
2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER LIME AND SEED.
3. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER. HYDROSEEDINGS WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10 PERCENT WHEN HYDROSEEDING.
4. SPRING SEEDINGS USUALLY GIVE THE BEST RESULTS, SPRING SEEDINGS OF ALL SEED LEGUMES IS RECOMMENDED. HOWEVER, LATE SUMMER SEEDINGS PRIOR TO SEPTEMBER 1 CAN BE MADE. WHEN CROWN VETCH IS SEEDED IN LATE SUMMER AT LEAST 35 PERCENT OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED), THE RECOMMENDED SEEDING DATES ARE:

   MARCH 15 THROUGH JUNE 15
   AUGUST 15 THROUGH OCTOBER 15

PERMANENT SEEDING

INSTALLATION REQUIREMENTS

1. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. ALL GRADING SHOULD BE BE DONE IN ACCORDANCE WITH THE REQUIREMENTS FOR LAND GRADING.

SEEDBED PREPARATION

1. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF CONNECTICUT SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7.5 POUNDS PER 1,000 SQUARE FEET USING 10-10-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS OF 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED FOR TOPDRESSING. APPLY GROUND LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1,000 SQUARE FEET
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

REFER TO COUNTY SOIL SURVEY REPORT FOR SOIL TEXTURES AT THE SITE.

2. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHALL BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
3. REMOVE FROM THE SURFACE ALL STONES ONE AND ONE-QUARTER INCHES OR LARGER IN ANY DIMENSION UNLESS OTHERWISE SPECIFIED. REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
4. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

SEEDING DATES

1. SPRING SEEDINGS USUALLY GIVE THE BEST RESULTS. SPRING SEEDINGS OF ALL SEED MIXES WITH LEGUMES IS RECOMMENDED. HOWEVER LATE SUMMER SEEDINGS PRIOR TO SEPTEMBER 15 CAN BE MADE. WHEN CROWN VETCH IS SEEDED IN LATE SUMMER AT LEAST 35 PERCENT OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). THE RECOMMENDED SEEDING DATES ARE:

   MARCH 15 THROUGH JUNE 15
   SEPTEMBER 1 THROUGH OCTOBER 15

2. WITH THE EXCEPTION OF CROWN VETCH, THE FINAL SEEDING DATE MAY BE EXTENDED 15 DAYS IN THE COASTAL TOWNS OF NEW LONDON, MIDDLESEX, NEW HAVEN AND FAIRFIELD COUNTIES.

SEEDING

1. UNLESS OTHERWISE SPECIFIED, THE SEED MIXTURE SHALL BE NEW ENGLAND CONSERVATION/WILDLIFE MIX FROM NEW ENGLAND WETLAND PLANTS, INC. AMHERST, MA, OR ACCEPTED SUBSTITUTION.
2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER. NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDINGS WHICH ARE MULCHED MAY BE LEFT ON SOIL SURFACE.
3. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
4. FROST CRACK SEEDING MUST BE DONE IN LATE WINTER OR EARLY SPRING. SUITABLE WEATHER CONDITIONS ARE FREEZING NIGHTS AND THAWING DAYS WITH LITTLE OR NO SNOW COVER. SEEDING RATES MUST BE INCREASED 10 PERCENT WHEN USING THIS METHOD.
5. HYDRAULIC APPLICATION (HYDROSEEDING), IS A SUITABLE METHOD FOR USE ON CRITICAL AREAS. WHEN HYDROSEEDING, A SEEDBED IS PREPARED IN THE CONVENTIONAL WAY OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN ONE AND ONE-QUARTER INCHES IN DIAMETER. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO ONE FOOT VERTICALLY). LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). FIBER MULCH DOES NOT PROVIDE ADEQUATE SEEDBED PROTECTION. BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH. SEEDING RATES MUST BE INCREASED BY 10 PERCENT WHEN HYDROSEEDING.
6. APPLY MULCH ACCORDING TO THE TEMPORARY MULCHING MEASURE.
7. IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

MAINTENANCE

1. LIME ACCORDING TO A SOIL TEST OR AT A MINIMUM OF EVERY FIVE YEARS USING A RATE OF TWO TONS PER ACRE (100 POUNDS PER 1,000 SQUARE FEET).
2. WHERE GRASSES PREDOMINATE, FERTILIZE ACCORDING TO A SOIL TEST OR BROADCAST BIENNIALLY, 300 POUNDS OF 10-10-10 OR EQUIVALENT PER ACRE (7.5 POUNDS PER 1,000 SQUARE FEET).
3. WHERE LEGUMES PREDOMINATE, FERTILIZE ACCORDING TO A SOIL TEST OR BROADCAST EVERY THREE YEARS 300 POUNDS OF 0-20-20 PER ACRE OR EQUIVALENT (7.5 POUNDS PER 1,000 SQUARE FEET).

NON-LIVING SOIL PROTECTION

MULCH FOR SEED

MATERIALS

1. SELECT MULCH MATERIALS BASED ON SITE CONDITIONS, AVAILABILITY OF MATERIALS AND LABOR AND EQUIPMENT. OTHER MATERIALS MAY BE USED ONLY WITH THE PERMISSION OF THE APPROVING AUTHORITY.

INSTALLATION REQUIREMENTS

ORGANIC MULCHES

1. ORGANIC MULCHES MAY BE USED IN ANY AREA WHERE MULCH IS REQUIRED, SUBJECT TO THE RESTRICTIONS NOTED BELOW:

	RATES	
MULCHES	PER ACRE	PER 1,000 SQUARE FEET
STRAW OR HAY	1 1/2 - 2 TONS	35-45 LBS

APPLICATION

1. MULCH MATERIALS SHALL BE SPREAD UNIFORMLY, BY HAND OR MACHINE. WHEN SPREADING STRAW OR HAY MULCH BY HAND, DIVIDE THE AREA TO BE MULCHED INTO APPROXIMATELY 1,000 SQUARE FOOT SECTIONS AND PLACE 35-45 POUNDS (3/4 TO 1 BALE) OF STRAW OR HAY IN EACH SECTION TO ENSURE UNIFORM DISTRIBUTION.

ANCHORING

1. HAY OR STRAW MULCHES MUST BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT WINDBLOWING. HAY OR STRAW MULCH MAY BE ANCHORED BY TRACKING WITH CONSTRUCTION EQUIPMENT, BUT NOT BY USING NETTING.

MAINTENANCE

1. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. WHERE EROSION IS OBSERVED, ADDITIONAL MULCH SHOULD BE APPLIED. NETS SHALL BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, REINSTALL NET AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. GRASSES SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED WHICH IS MATURE ENOUGH TO CONTROL SOIL EROSION AND TO SURVIVE SEVERE WEATHER CONDITIONS. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE, REPAIR AS NEEDED.

TEMPORARY EROSION CONTROL BLANKET

DEFINITION

1. A MANUFACTURED BLANKET COMPOSED OF BIODEGRADABLE/PHOTODEGRADABLE NATURAL OR POLYMER FIBERS AND/OR FILAMENTS THAT HAVE BEEN MECHANICALLY, STRUCTURALLY OR CHEMICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX.

PURPOSE

1. TO PROVIDE TEMPORARY SURFACE PROTECTION TO NEWLY SEEDED AND/OR DISTURBED SOILS TO ABSORB RAINDROP IMPACT AND TO REDUCE SHEET AND RILL EROSION AND TO ENHANCE THE ESTABLISHMENT OF VEGETATION.

APPLICABILITY

1. ON DISTURBED SOILS WHERE SLOPES ARE 2:1 OR FLATTER.
2. WHERE WIND AND TRAFFIC GENERATED AIR FLOW MAY DISLODGE STANDARD, UNARMORED MULCHES.
3. MAY BE USED AS A SUBSTITUTE FOR TEMPORARY SOIL PROTECTION.
4. MAY BE USE AS A SUBSTITUTE FOR MULCH FOR SEED.

PLANNING CONSIDERATION

1. THE SUCCESS OF TEMPORARY EROSION CONTROL BLANKETS IS DEPENDENT UPON STRICT ADHERENCE TO THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS.

MATERIALS

1. TEMPORARY EROSION CONTROL BLANKETS SHALL BE COMPOSED OF FIBERS AND/OR FILAMENTS THAT:

MT. ARE OF SUFFICIENT STRUCTURAL STRENGTH TO WITHSTAND STRETCHING OR MOVEMENT BY WIND OR WATER WHEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS;

MU. ARE FREE OF ANY SUBSTANCE TOXIC TO PLANT GROWTH AND UNPROTECTED HUMAN SKIN OR WHICH INTERFERES WITH SEED GERMINATION;

MV. CONTAIN NO CONTAMINANTS THAT POLLUTE THE AIR OR WATERS OF THE STATE WHEN PROPERLY APPLIED;

MW. PROVIDE EITHER 80% - 95% SOIL COVERAGE WHEN USED AS A SUBSTITUTE FOR MULCH FOR SEED OR 100% INITIAL SOIL COVERAGE WHEN USED AS A SUBSTITUTE FOR TEMPORARY SOIL PROTECTION MEASURE, AND;

MX. DO NOT CONTAIN NETTING.

2. MATERIALS SHALL BE SELECTED AS APPROPRIATE FOR THE SPECIFIC SITE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. USE OF ANY PARTICULAR TEMPORARY EROSION CONTROL BLANKET SHOULD BE SUPPORTED BY MANUFACTURER'S TEST DATA THAT CONFIRMS THE BLANKET MEETS THESE MATERIAL SPECIFICATIONS AND WILL PROVIDE THE SHORT TERM EROSION CONTROL CAPABILITIES NECESSARY FOR THE SPECIFIC PROJECT.

SITE PREPARATION AND INSTALLATION

1. PREPARE THE SURFACE, REMOVE PROTRUDING OBJECTS AND INSTALL TEMPORARY EROSION CONTROL BLANKETS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ENSURE THAT THE ORIENTATION AND ANCHORING OF THE BLANKET IS APPROPRIATE FOR THE SITE.
2. THE BLANKET CAN BE LAID OVER AREAS WHERE SPRIGGED GRASS SEEDLINGS HAVE BEEN INSERTED INTO THE SOIL.
3. WHERE LANDSCAPE PLANTINGS ARE PLANNED, LAY THE BLANKET FIRST AND THEN PLANT THROUGH THE BLANKET IN ACCORDANCE WITH LANDSCAPE PLANTING MEASURE.
4. INSPECT THE INSTALLATION TO INSURE THAT ALL LAP JOINTS ARE SECURE, ALL EDGES ARE PROPERLY ANCHORED AND ALL STAKING OR STAPLING PATTERNS FOLLOW MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE

1. INSPECT TEMPORARY EROSION CONTROL BLANKETS AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER FOR FAILURES. BLANKET FAILURE HAS OCCURRED WHEN (1) SOILS AND/OR SEED HAVE WASHED AWAY FROM BENEATH THE BLANKET AND THE SOIL SURFACE CAN BE EXPECTED TO CONTINUE TO ERODE AT AN ACCELERATED RATE, AND/OR (2) THE BLANKET HAS BECOME DISLODGED FROM THE SOIL SURFACE OR IS TORN.
2. IF WASHOUTS OR BREAKOUTS OCCUR, RE-INSTALL THE BLANKET AFTER REGRADING AND RE-SEEDING, ENSURING THAT BLANKET INSTALLATION STILL MEETS DESIGN SPECIFICATIONS. WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND LIMITATIONS FOR USE AND DETERMINE IF DIVERSIONS, STONE CHECK DAMS OR OTHER MEASURES ARE NEEDED TO REDUCE FAILURE RATE.
3. REPAIR ANY DISLODGED OR FAILED BLANKETS IMMEDIATELY.
4. WHEN USED AS A SUBSTITUTE FOR MULCH FOR SEED, CONTINUE TO INSPECT AS REQUIRED BY THE SEEDING MEASURE. WHEN USED AS A SUBSTITUTE FOR TEMPORARY SOIL PROTECTION, CONTINUE TO INSPECT UNTIL IT IS REPLACED BY OTHER EROSION CONTROL MEASURES OR UNTIL WORK RESUMES.

OUTLET PROTECTION

DEFINITION

1. STRUCTURALLY LINED APRONS OR OTHER ACCEPTABLE ENERGY DISSIPATING DEVICES PLACED BETWEEN THE OUTLETS OF PIPES OR PAVED CHANNEL SECTIONS AND A STABLE DOWNSTREAM CHANNEL.

PURPOSE

1. TO PREVENT SCOUR AT STORM DRAIN, CULVERT OR DRAINAGEWAY OUTLETS AND TO MINIMIZE THE POTENTIAL FOR DOWNSTREAM EROSION BY REDUCING THE VELOCITY OF CONCENTRATED STORM WATER FLOWS.

APPLICABILITY

1. AT THE OUTFALL OF ALL STORM DRAIN OUTLETS, ROAD CULVERTS, PAVED CHANNEL OUTLETS, NEW CHANNELS CONSTRUCTED AS OUTLETS FOR CULVERTS AND CONDUITS, ETC. DISCHARGING INTO NATURAL OR CONSTRUCTED CHANNELS, WHICH IN TURN DISCHARGE INTO EXISTING STREAMS OR DRAINAGE SYSTEMS.

PLANNING CONSIDERATIONS

1. ANALYSIS AND APPROPRIATE TREATMENT SHALL BE DONE ALONG THE ENTIRE LENGTH OF THE FLOW PATH FROM THE END OF THE CONDUIT, CHANNEL OR STRUCTURE TO THE POINT OF ENTRY INTO AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM, WHERE FLOW IS EXCESSIVE FOR THE ECONOMICAL USE OF AN APRON, EXCAVATED STILLING BASINS MAY BE USED.

DESIGN CRITERIA

1. DETERMINATION OF NEEDS. THE NEED FOR CONDUIT OUTLET PROTECTION SHALL BE DETERMINED BY COMPARING THE ALLOWABLE VELOCITY WHICH THE SOIL WILL WITHSTAND TO THE EXIT VELOCITY OF THE FLOW FROM THE CONDUIT. THE ALLOWABLE VELOCITY FOR WATER OVER THE SOIL SHALL BE THAT GIVEN IN FIGURE OP-1 BELOW. THE EXIT VELOCITY OF THE WATER IN THE CONDUIT SHALL BE CALCULATED USING THE GREATER OF THE CONDUIT DESIGN STORM OR THE 25-YEAR FREQUENCY STORM. WHEN THE EXIT VELOCITY OF THE WATER IN THE CONDUIT EXCEEDS THE ALLOWABLE VELOCITY FOR THE SOIL, OUTLET PROTECTION IS REQUIRED. OUTLET PROTECTION IS ALSO REQUIRED IF THE CONDUIT OUTFALL IS SET ABOVE THE RECEIVING CHANNEL (I.E., CANTILEVERED) CAUSING THE WATER TO DROP AT THE OUTLET END OF THE CULVERT.

FIGURE OP-1 ALLOWABLE VELOCITIES FOR VARIOUS SOILS

SOIL TEXTURE	ALLOWABLE VELOCITY (FT./SEC.)
SAND AND SANDY LOAM	2.5
SILT LOAM	3.0
SANDY CLAY LOAM	3.5
CLAY LOAM	4.0
CLAY, FINE GRAVEL, GRADED LOAM TO SOIL	5.0
COBBLES	5.5
SHALE	6.0

RIPRAP APRONS

1. DESIGN LIMITATIONS: NO BENDS OR CURVES AT THE INTERSECTION OF THE CONDUIT AND THE APRON PROTECTION WILL BE PERMITTED.
2. THERE SHALL BE NO VERTICAL DROP FROM THE END OF THE APRON TO THE RECEIVING CHANNEL.

OTHER OUTLET PROTECTIONS

1. STANDARD ENGINEERING PRACTICES ALLOW FOR MANY DIFFERENT TYPES OF OUTLET PROTECTION WHICH PROVIDE ENERGY DISSIPATION. COMMON OUTLET PROTECTIONS INCLUDE THE USE OF A RIPRAP APRON AND A RIPRAP STILLING BASIN.

INSTALLATION REQUIREMENTS

1. INSTALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENGINEERED DESIGN.

MAINTENANCE

1. INSPECT THE COMPLETED STRUCTURE ANNUALLY AND AFTER EACH MAJOR RAINFALL FOR DAMAGE AND DETERIORATION. REPAIR DAMAGES IMMEDIATELY.

GEOTEXTILE SILT FENCE

MATERIALS

1. GEOTEXTILE. GEOTEXTILE SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:

PHYSICAL PROPERTY	REQUIREMENTS
FILTERING EFFICIENCY	75% (MIN)
TENSILE STRENGTH AT 20% (MAX) ELONGATION	-
EXTRA STRENGTH	50 LBS./LIN. IN. (MIN)
STANDARD STRENGTH	30 LBS./LIN. IN. (MIN)
FLOW RATE	12 GAL./SF/MIN. (MIN.)

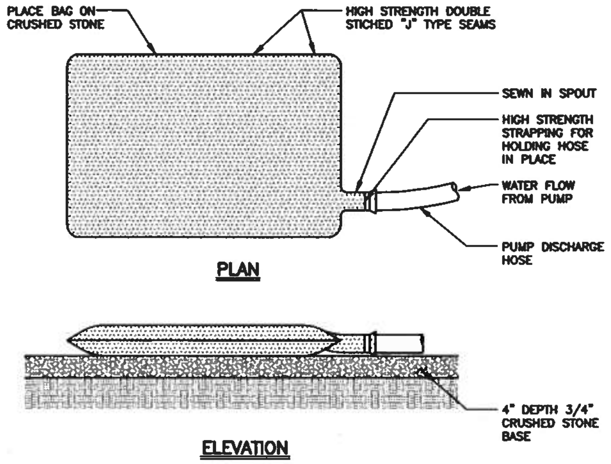
2. STAKES FOR GEOTEXTILE SILT FENCES SHALL BE EITHER 1" X 2" WOOD OR 0.5 POUND (MINIMUM) PER LINEAL FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
3. WIRE FENCE REINFORCEMENT FOR GEOTEXTILE SILT FENCES USING STANDARD STRENGTH MATERIAL SHALL BE A MINIMUM OF 42 INCHES IN HEIGHT, A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES.

INSTALLATION REQUIREMENTS

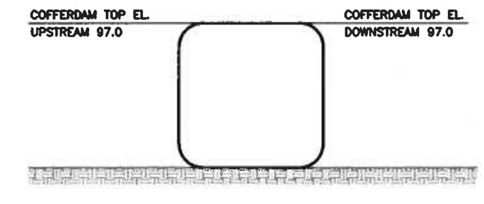
1. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES. (HIGHER BARRIERS MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE). THE SEDIMENTATION CONTROL FENCE SHALL BE PLACED 10 FEET AWAY FROM THE TOE OF SLOPES UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR DIRECTED.
2. WHEN JOINTS ARE NECESSARY, GEOTEXTILE ROLL ENDS SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP AND SECURELY SEALED IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM DEPTH OF 12 INCHES.
4. WHEN STANDARD STRENGTH GEOTEXTILE IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO A TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE STANDARD STRENGTH GEOTEXTILE SHALL BE STAPLED, WIRED OR TIED TO THE WIRE FENCE, AND 8 INCHES OF THE GEOTEXTILE SHALL BE EXTENDED INTO THE TRENCH.
6. WHEN EXTRA STRENGTH GEOTEXTILE OR BURLAP AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED.
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE GEOTEXTILE.

MAINTENANCE

1. INSPECTION SHALL BE MADE AFTER EACH STORM EVENT AND PERIODICALLY DURING PROLONGED RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE AS REQUIRED.
2. ACCUMULATED SEDIMENT BEHIND THE FENCE SHALL BE REMOVED WHEN IT REACHES 1/2 OF THE HEIGHT OF THE BARRIER.



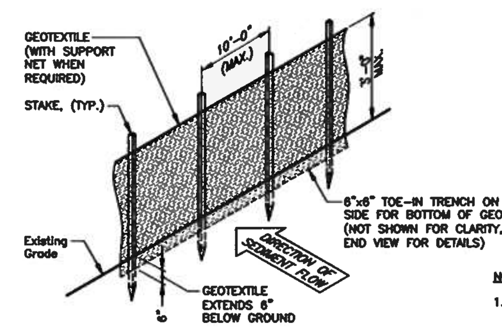
DIRTBAG® FOR PUMP DISCHARGE
N.T.S.



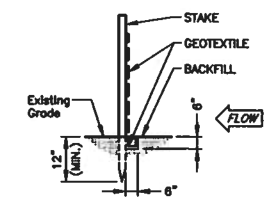
TEMPORARY COFFERDAM
N.T.S.

NOTES:

1. COFFERDAM MATERIAL, DESIGN AND CONFIGURATION SHALL BE SELECTED BY CONTRACTOR. SAND BAG SIZE, NUMBER AND ORIENTATION ARE SHOWN FOR ILLUSTRATION ONLY.



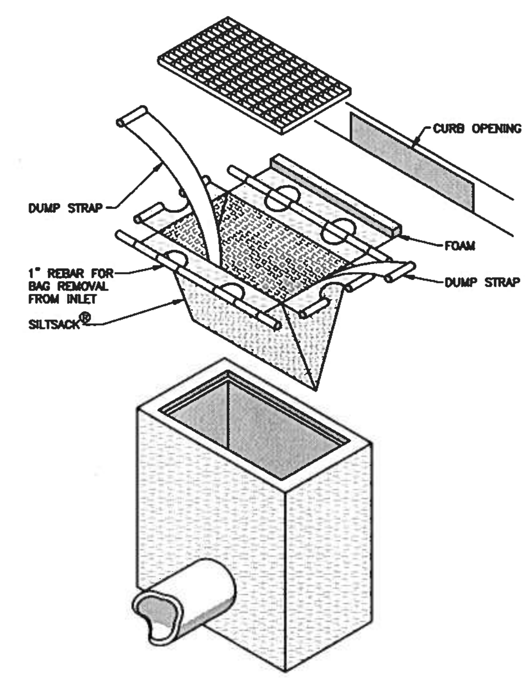
SEDIMENTATION FENCE
N.T.S.



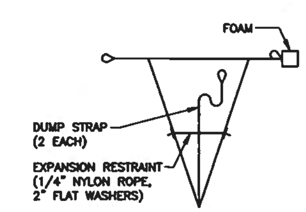
END VIEW

NOTES:

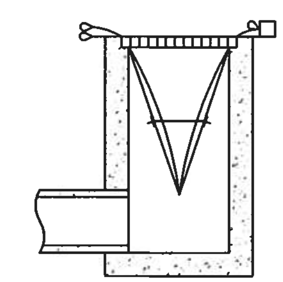
1. AS AN ALTERNATE TO THE TRENCHING METHOD FOR BURYING THE BOTTOM 6" FLAP OF GEOTEXTILE, IT MAY BE LAID HORIZONTALLY ON THE GROUND AND BURIED BY RAMPING SOIL UP TO THE SEDIMENTATION FENCE AS SPECIFIED IN SECTION 2.19.03 OF THE STATE OF CT, DEPT. OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 817, 2016, AS AMENDED TO DATE.



INSTALLATION SCHEMATIC



BAG DETAIL



INSTALLATION DETAIL

NOTES:

1. FOR DRAINAGE STRUCTURES OFF PAVEMENT, THIS DETAIL APPLIES IMMEDIATELY AFTER THEIR CONSTRUCTION
2. REMOVE SEDIMENT WHEN HALF FULL.

SEDIMENTATION CONTROL AT DRAINAGE STRUCTURE
N.T.S.

NOTES:

1. TYPE "C" CATCH BASIN HEAD SHOWN FOR CLARITY ONLY. THIS DETAIL APPLIES TO

Features/Conditions.

2. IN GENERAL, *UPPER CASE TEXT IDENTIFIES PROPOSED FEATURES/CONDITIONS* UNLESS OTHERWISE SPECIFIED.
3. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, GAS, CABLE TV AND OTHER FACILITIES OF PUBLIC UTILITY COMPANIES, INQUIRE OF "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455.

THIS DRAWING IS INTENDED TO BE USED FOR INFORMATION AND REVIEW PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION.

TOWN OF
OLD SAYBROOK

ROUTE 1 SIDEWALKS
FROM POND ROAD TO
LYNDE STREET

OLD SAYBROOK,
CONNECTICUT

EROSION AND
SEDIMENT CONTROL
NOTES AND DETAILS

PERMITTING

Jacobson
Nathan L. Jacobson & Associates, Inc.
86 Main Street P.O. Box 337
Chester, Connecticut 06412-0337
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Consulting Civil and Environmental Engineers Since 1972

NOT VALID WITHOUT ORIGINAL SEAL

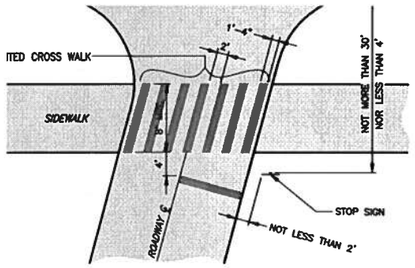
CHRISTOPHER P. TAYLOR, P.E.
CT REGISTRATION No. 32763

REVISIONS

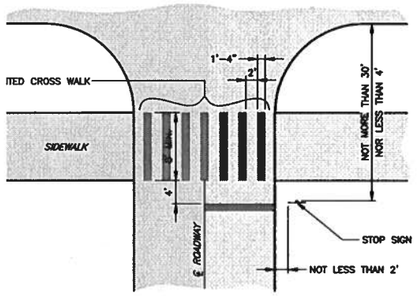
No.	DESCRIPTION	DATE

DATE: JANUARY 2020
SCALE: AS NOTED
PROJECT No.: 1186-0000

SHEET No.:



AT SKEWED INTERSECTION



AT PERPENDICULAR INTERSECTION

STOP BAR, CROSS WALK AND SIGN LOCATION

N.T.S.

NOTES:

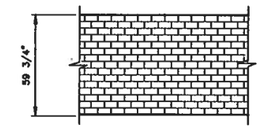
STOP BAR SHALL BE 1'-0" WIDE AND EXTEND 1/2 THE WIDTH OF THE ROADWAY AND BE PLACED 90° TO CENTERLINE OF ROADWAY, UNLESS OTHERWISE SHOWN ON PLAN.

CROSSWALK LINES SHALL BE 1'-4" WIDE AND SPACES SHALL BE 2'-0" WIDE.

AT LOCATIONS WHERE THE CROSS WALK IS SKEWED, BARS TO BE PARALLEL TO CENTERLINE OF ROAD AND ENDS OF BARS TO BE PARALLEL.

STOP SIGNS TO BE PLACED AS SHOWN ON PLAN, MOUNTED AT A HEIGHT OF 7'-0" FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB.

BREAKAWAY SIGN POSTS SHALL BE PROVIDED WITH A RED VERTICAL REFLECTIVE STRIP ON THE SIGN SUPPORT

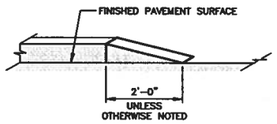


CONCRETE SIDEWALK STENCILED AND COLORED WITH RUNNING COURSE BRICK PATTERN FULL WIDTH

N.T.S.

NOTES:

1. PATTERN ALIGNMENT TO BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
2. FOR 5' WIDE SIDEWALKS, ACTUAL WIDTH WILL BE 59 3/4" TO ALLOW FOR FULL WIDTH BRICKS IN THE STENCIL PATTERN.

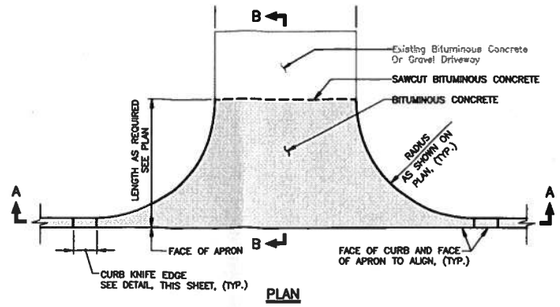


CURB KNIFE EDGE

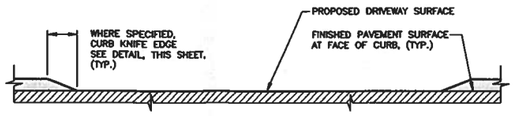
N.T.S.

NOTES:

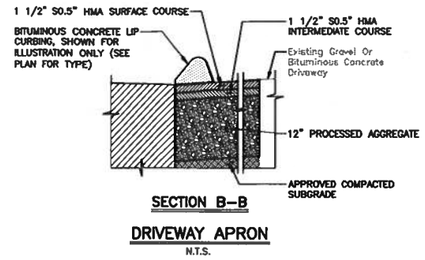
1. PROVIDE KNIFE EDGE WHERE CURBING ABUTS SIDEWALK AND AS NOTED.



PLAN



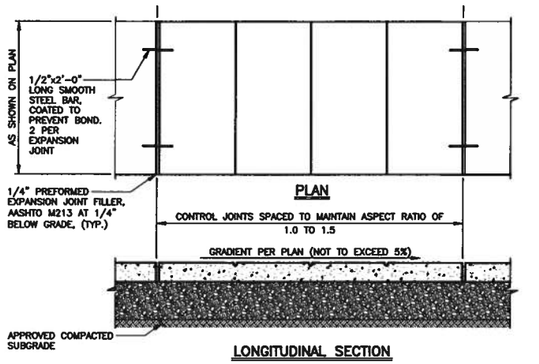
SECTION A–A



SECTION B–B

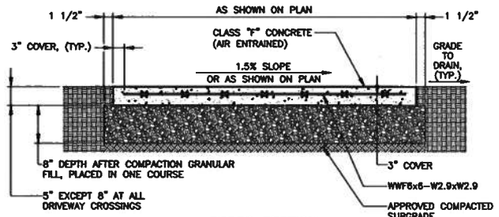
DRIVEWAY APRON

N.T.S.



PLAN

LONGITUDINAL SECTION



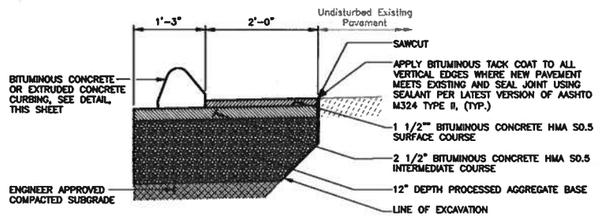
CROSS SECTION

CONCRETE SIDEWALK

N.T.S.

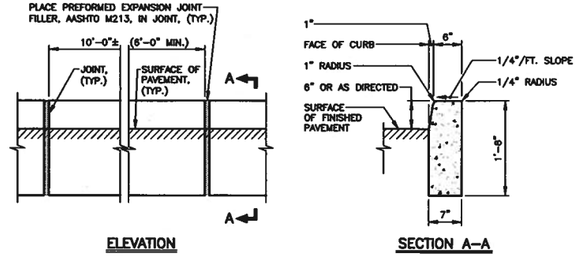
NOTES:

1. SEE STENCILING DETAILS WHERE APPLICABLE.
2. WHERE DIRECTED BY THE DIRECTOR OF PUBLIC WORKS, PROVIDE 4 – #4x20' LONG REINFORCING BARS IN SIDEWALK WITH ADJACENT TREES.
3. AT CONSTRUCTION JOINTS, PROVIDE PLASTIC INSERTS (SPEED DOWEL) TO ACCEPT #4 REINFORCING BAR. REINFORCING BAR SHALL BE 2'-0" LONG. PROVIDE 2 BARS PER JOINT.



TOWN ROAD PAVEMENT REPAIR (CURBING)

N.T.S.

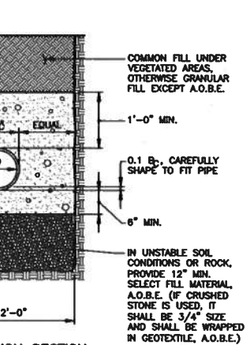


ELEVATION

SECTION A–A

CONCRETE CURBING

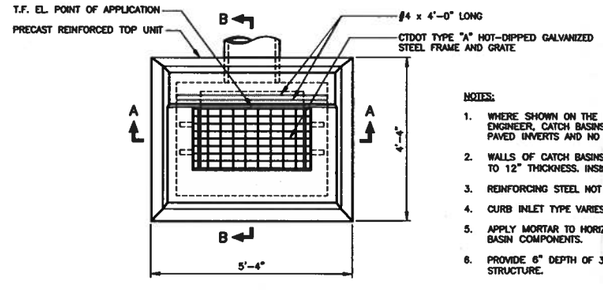
N.T.S.



TYPICAL TRENCH SECTION

STORM DRAINAGE PIPE

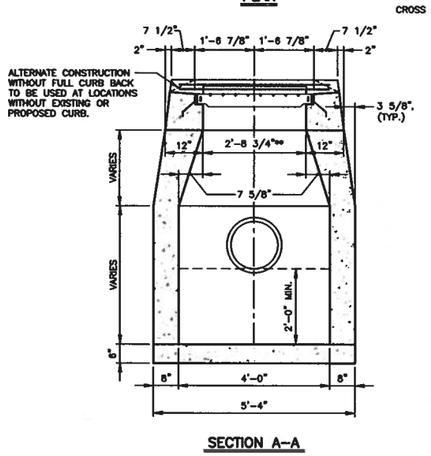
N.T.S.



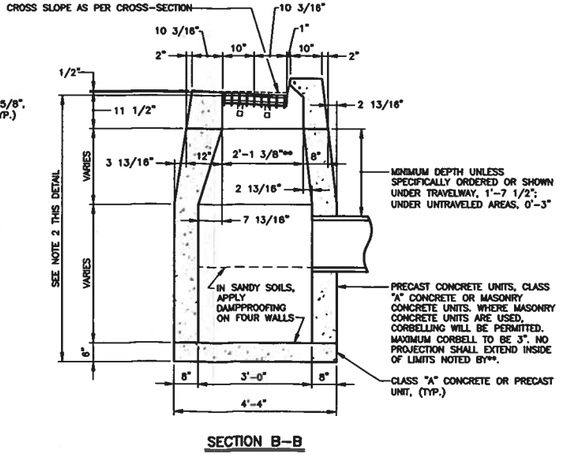
NOTES:

1. WHERE SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER, CATCH BASINS SHALL BE CONSTRUCTED WITH PAVED INVERTS AND NO SUMPS, OR DEEP SUMPS.
2. WALLS OF CATCH BASINS OVER 10' DEEP TO BE INCREASED TO 12" THICKNESS. INSIDE DIMENSION TO REMAIN THE SAME.
3. REINFORCING STEEL NOT SHOWN FOR CLARITY.
4. CURB INLET TYPE VARIES ACCORDING TO ADJACENT CURBING.
5. APPLY MORTAR TO HORIZONTAL SURFACES BETWEEN CATCH BASIN COMPONENTS.
6. PROVIDE 6" DEPTH OF 3/4" CRUSHED STONE UNDER STRUCTURE.

PLAN



SECTION A–A



SECTION B–B

TYPE "C" CATCH BASIN

N.T.S.

TOWN OF OLD SAYBROOK

ROUTE 1 SIDEWALKS FROM POND ROAD TO LYNDE STREET

OLD SAYBROOK, CONNECTICUT

SITE DETAILS

PERMITTING

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CHRISTOPHER P. TAYLOR, P.E.
CT REGISTRATION No. 32783

REVISIONS

No.	DESCRIPTION	DATE

DATE:	JANUARY 2020	SHEET No.:	
SCALE:	1" = 20'		
PROJECT No.:	1185-0000		