TOWN OF RIDGEFIELD Director of Facilities

RIDGEFIELD, CONNECTICUT

New Street and Pound Street Sidewalk Installations

New Street

DETAILED SPECIFICATIONS:

BIDDING REQUIREMENTS
CONDITIONS OF AGREEMENT
CONSTRUCTION SPECIFICATIONS
PLANS



RUDY MARCONI FIRST SELECTMAN

Bid Number 2023-09

LEGAL NOTICE

INVITATION to BID

The **Town of Ridgefield** invites all interested parties to submit sealed bids on the following:

BID DUE DATE: Thursday, June 22, 2023

BID DUE TIME: 11:00 AM

BID ITEM: New Street & Pound Street Sidewalk

Installations

BID NUMBER: 2023-09

Terms and conditions as well as the description of items being bid are stated in the specifications. **Specifications may be obtained at the following address:**

Town of Ridgefield Jacob Muller 400 Main Street Ridgefield, CT. 06877 203 - 431 – 2720

The return bid envelope must be marked and addressed to the following:

TOWN OF RIDGEFIELD DIRECTOR OF PURCHASING BID NUMBER: 2023-09 400 MAIN STREET RIDGEFIELD, CT. 06877

Bids must be received no later than the date and time stated above at the Purchasing Director's office on the second floor or via facsimile or email. For further information, please call Jacob Muller at (203) 431-2720 or email at purchasing@ridgefieldct.org

Bid Documents available at <u>www.ridgefieldct.org</u> in the Purchasing section under Departments

Results may be viewed at <u>www.ridgefieldct.org</u> in the Purchasing Section under Departments after the bid opening.

TOWN OF RIDGEFIELD CONNECTICUT

BOARD OF SELECTMEN

INSTRUCTIONS TO BIDDERS

- Submit proposals in a sealed envelope plainly marked with bid number to identify this particular proposal. The Town of Ridgefield will also accept electronic submissions of the bid via fax or email. If you decide to fax the bid; please send it to (203) 431-2723 or via email to the following email address; purchasing@ridgefieldct.org. The time stamp of the hand delivery, fax or email shall be on or before the bid due date. Only one method of submission is necessary.
- 2. Withdrawals of or amendments to bids received later than the time and date specified for bid opening will not be considered.
- 3. The Board of Selectmen of the Town of Ridgefield reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of Ridgefield, Connecticut.
- 4. Bidders may be present at the opening of bids.
- 5. Bids may be held by the Town of Ridgefield for a period not to exceed sixty (60) days from the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders prior to the awarding of the contract.
- 6. <u>Insurance requirements:</u> if any, must be submitted with the bid. This includes any Hold Harmless requirements as well as Certificates of Insurance for the full amounts specified. **Unauthorized changes** to these forms, i.e. adding, striking out and/or changing any words, language or limits will cause the bidder to be disqualified.
 - **Please Note**: Certificates of Insurance, if required, MUST name the <u>Town of Ridgefield</u> as **Additional Insured**. Failure to do so will mean disqualification from the Bid. There will no exceptions.
- 7. <u>Permits:</u> It is the Contractor's responsibility to obtain any necessary permits prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and

building codes in effect in the State of Connecticut, the latest edition of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Town of Ridgefield Road Construction Standards, or as set forth in these specifications. Any local (Town of Ridgefield) permits will have the permit fee waived.

- 8. <u>Emergency Work:</u> The Contractor shall file with the Engineer a telephone number of a person authorized by him who may he contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.
- 9. <u>Sales Tax</u>: In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.
- 12. <u>Contractor's Qualification Statement:</u> The Contractor's Qualification Statement must be filled out as part of the bid package and the experience and references listed therein will be one to the determining factors in the awarding of the bid.
- 13. <u>Hold Harmless Agreement:</u> In order for the bid to be considered valid, the Contractor <u>must</u> sign the enclosed hold harmless agreement. Bids submitted without the signed hold harmless agreement will be rejected.
- 14. <u>Prevailing Wage Rates:</u> This project <u>is</u> subject to the State of Connecticut prevailing wage rates.
- 15. **SBE and Contract Compliance Requirements:** This project **is** subject to the State of Connecticut SBE set aside and contract compliance requirements. Plan requirements are attached.
- 16. <u>Bonds:</u> A Payment and Performance bond in the full amount of the Proposal will be required of the successful bidder. The bond must be in the form of a surety bond of a type satisfactory to the Town of Ridgefield. All sureties must be listed on the most recent IRS Circular 570. The bond shall be delivered to the Office of the Town Engineer before commencing the work.
- 17. <u>Time of Completion:</u> All work must be completed within on hundred twenty (120) days of the notice to proceed.

- 18. <u>Site Inspection:</u> General bidding, Technical questions and requests for access to the site shall be directed to Jacob Muller, Director of Facilities and Purchasing, via email <u>purchasing@ridgefieldct.org</u>.
- 19. **Bid Schedule:**

Pre-Bid Site Inspection – Verify appointment via email

RFI Requests Due - June 12, 2023 RFI Responses Released- June 15, 2023

Bid Due Date - June 22, 2023 at 11:00AM

- 20. **Prime Contractor:** The prime contractor is required to self-preform a minimum of 50% of the total contract value.
- 21. <u>Bid Submissions:</u> The following items shall be submitted for a bid to be considered complete:
 - (a) Insurance certificates
 - (b) Hold Harmless Agreement
 - (c) Contractor's Qualification Statement
 - (d) Contractor's List of Subcontractors
 - (e) Bid Tabulation Sheet
 - (f) Project Schedule
 - (g) Executed Fracking Watse Ordinance Form

PROPOSAL

to furnish and deliver all materials and to do and perform all works in accordance
with the Contract Documents for New Street and Pound Street Sidewalk
Installations, the plans and specifications prepared by Jacob Muller, Facilities

Director and CCA, LLC, Civil Engineers, the works being situated within the

Town of Ridgefield, Connecticut.

Proposal of:

The undersigned bidder has carefully examined the Contract Documents referred to in the "Information for Bidders", and also the site of the work, and will provide all necessary labor, machinery, tools, apparatus, and other means of construction, and do all the work and furnish all material called for by the Contract Documents in the manner prescribed therein and in said Contract, and in accordance with the requirements of the Engineer under them for the following sums:

Estimated Quantities

<u>Item</u>		Estimated <u>Quantity</u>	Computed Total
Base Bid Items			
Item 1: Concrete State unit price of:	Sidewalk 5-inch,	Including Salt	<u>Guard</u>
		_dollars	
and		cents	
(\$) per SF	8,250 SF	\$
Item 2: Concrete In the unit price of:	Handicap Ramp i	ncludes DWP	
		_dollars	
and		cents	
(\$) per SF	500 SF	\$
Item 3: Tree Remo	oval (including S	tumps), Vegeta	tion, and Hedges
		_dollars	
and		cents	
(\$) per LS	1 LS	\$
Item 4: Erosion ar Fencing as design the unit price of:		Controls; (Silt S	Saks, Haybales\Pigs and
		_dollars	
and		cents	
(\$) per LS	1 LS	\$

Item 5: Realign Boulders & Stonewalls as designed the unit price of: _____dollars and _____cents (\$_____) per LF 55 LF Item 6: Remove & Relocate Existing Fencing the unit price of: _____dollars and _____cents (\$) per LF 240 LF Item 7: Remove & Relocate Existing Mailboxes, Signs & Bollards the unit price of: _____dollars and _____cents (\$______) per EA 15 EA Item 8: New Catchbasin, Type "C", Complete the unit price of: ____dollars and _____cents (\$) per EA 1 EA Item 9: New Catchbasin, Type "CL", Complete the unit price of: ____dollars and ____cents (\$_____) per EA 1 EA

Item 10: Remove and Replace new CB Top Type "C", Installed the unit price of: _____dollars and _____cents (\$) per EA 5 EA Item 11: Remove and Replace new CB Top Type "CL", Installed the unit price of: ____dollars and ____cents (\$) per EA 3 EA Item 12: New 15-Inch CPEP-S Pipe, Installed the unit price of: ____dollars and _____cents (\$______) per LF 125 LF Item 13: New 12-Inch CPEP-S Pipe, Installed the unit price of: ____dollars and _____cents (\$) per LF 10 LF Item 14: Redirect existing 4-Inch PVC Pipe, as designed the unit price of: _____dollars and _____ cents (\$_____) per LF 20 LF

<u>Item 15: Raise Existing Utility Structures; Water Valves, Manholes and Water Meter Pits</u>

the unit price of:				
		dollars		
and		cents		
(\$) per EA	10 EA	\$	
Item 16: Bitum the unit price of:	inous Concrete Cur	oing (machin	ed), Installed	
		dollars		
and		cents		
(\$) per LF	140 LF	\$	
Item 17: Bitum the unit price of:	inous Concrete Driv	eway Apron,	Installed	
		dollars		
and		cents		
(\$) per SY	110 SY	\$	
	inous Concrete Roa paction, Base & Top			
		dollars		
and		cents		
(\$) ner SY	75 SY	\$	

the unit price of:			
		_dollars	
and	andcents		
(\$) per SY	20 SY	\$
Item 20: Canopy and Sithe unit price of:	hade Trees	s, Installed	
		_dollars	
and		_cents	
(\$) per EA	16 EA	\$
Item 21: Lawn Restorate the unit price of:	<u>tion</u>		
		_dollars	
and		_cents	
(\$) SY	5,000 SY	\$
Item 22: Flagman the unit price of:			
		_dollars	
and		_cents	
(\$) LS	1 LS	\$
Grand Total, Base Bid Inclusive			

Town of Ridgefield, April 2023 New Street Sidewalk Installation

Add Alternate 1: Additional For Concrete Curbing				
the unit price of:			_	
		dollars		
and		cents		
(\$	_) per LF	140 LF	\$	
Add Alternate 2: Rock the unit price of:	<u>Excavation</u>			
		dollars		
and		cents		
(\$) per CY	75 CY	\$	

The Unit prices shown above is for all labor, tools, materials (supplied and furnished), concrete testing and equipment necessary to complete the improvements shown on the plans depicting the stairs, handicap ramp and hand rails or as specified herein.

For purposes of comparison, the computed Grand Total, the Base Bid will serve as the basis of comparison of all bids. The computed total is not an official part of this proposal.

The Town reserves the right to eliminate any item or portion of the work that it deems to be in the best interest of the Town.

All costs of excavation of unsuitable material as shown on the plans or specified in the field are to be carried under each specific item.

Any inconsistencies between the plans and specifications shall be reported to the Facilities Director. The Facilities Director shall make the final decision on any inconsistencies and their intent.

PROPOSAL

to furnish and deliver all materials and to do and perform all works in accordance
with the Contract Documents for New Street and Pound Street Sidewalk
Installations, the plans and specifications prepared by Jacob Muller, Facilities

Director and CCA, LLC, Civil Engineers, the works being situated within the

Town of Ridgefield, Connecticut.

Proposal of:

The undersigned bidder has carefully examined the Contract Documents referred to in the "Information for Bidders", and also the site of the work, and will provide all necessary labor, machinery, tools, apparatus, and other means of construction, and do all the work and furnish all material called for by the Contract Documents in the manner prescribed therein and in said Contract, and in accordance with the requirements of the Engineer under them for the following sums:

The Undersigned Also Agrees as Follows:

<u>First</u>: To do any extra work not covered by the above schedule of prices, which may be ordered by the Engineer and to accept as full compensation therefor such prices as may be agreed upon in writing by the Engineer and the Contractor in accordance with Article 5, "General Conditions".

Second: Within **seven (7)** days from the date of the "Notice to Proceed", to execute the Contract and to furnish to the Owner a satisfactory performance and payment bond in the sum of the full amount of the contract.

Dated:
Signature of Bidder:
By:
Title:
Business Address:

APPENDIX - INSURANCE REQUIREMENTS

Each bidder shall carry and maintain the following insurance coverage during the period of the contract: The Certificate of Insurance for the Limits of Liability stated below should be submitted with your bid to the Purchasing Department at Town Hall. Bidders may not perform any work until <u>all</u> insurance requirements are met.

- 1. Comprehensive General Liability Insurance as will protect him, the Town, and any subcontractor performing work covered by this Contract, from claims for damages for personal injury, including accidental or wrongful death, as well as claims for property damages, which may arise from operations under this Contract whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. Liability insurance shall include premises and operations, products, contractual, owners, and contractors protective. The minimum amounts of such insurance shall be as follows:
 - Bodily Injury Liability and Property Damage Liability:
 \$1,000,000 each occurrence.
 - The Town shall be named as an <u>Additional Insured</u>
 This MUST be stated explicitly on the Certificate or you will be disqualified
- Worker's Compensation Insurance and Employer's Liability for all of his employees, employed at the site and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all employees of the later unless such employees are covered by the protection afforded by the Contractor.
 - Worker's Compensation and Employer Liability: Statutory Limits
- 3. Comprehensive Auto Liability Insurance:
 - Bodily Injury Insurance and Property Damage Insurance covering the operation of all Motor Vehicles owned, hired and/or non-owned by the Contractor, or used by the Contractor in the Prosecution of the work under the Contract, shall be in the minimum of \$1,000,000 each occurrence.

All policies relating to this Contract shall be so written so that the Town shall be notified of cancellation or change at least thirty (30) days prior to the effective

date for each policy and type of coverage except for nonpayment which shall be ten (10) days prior to the cancellation. Renewal certificate covering the renewal of all policies expiring during the life of the Contract shall be filed with the Town not less than ten (10) days before the expiration of such policies. Failure to due so will result in work stoppage and possible contract cancellation.

Purchasing Department, Town of Ridgefield,400 Main Street, Ridgefield, CT. 06877 203-431-2720 & purchasing@ridgefieldct.org

HOLD HARMLESS AGREEMENT

The undersigned covenants and agrees to and shall at all times indemnify, protect and save harmless the Town of Ridgefield from and against all costs or expenses resulting from any and all losses, damages, detriments, claims, demands, cost and charges including attorneys fees the Town of Ridgefield may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to this Contract or any activities in connection with said Contract whether such losses and damages be suffered or sustained by the Town of Ridgefield directly or by its employees, licenses or invitees or be suffered or sustained by other persons or corporations who may seek to hold the Town of Ridgefield liable therefore.

The Contractor shall comply with the Provisions of the Immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold the Town of Ridgefield harmless for the failure of the Contractor to comply with the provisions of said Act.

IN WITNESS WHEREOF, the partie	es hereto have set their hand and seal this on
the day of	
Signed, Seated and Delivered in the Presence of:	e Signed:
Notary Public	

<u>CONTRACTOR'S QUALIFICATION STATEMENT</u>
List below references for similar projects, including all information requested. This page must be completed and submitted with the bid.

1. Client:		
Project Address:		
Approximate Value:	Date: Started	Completed
Contact: Name		Telephone
2. Client:		
Project Address:		
Approximate Value:	Date: Started	Completed
Contact: Name		Telephone
3. Client:		
Project Address:		
Approximate Value:	Date: Started	Completed
Contact: Name		Telephone
4. Client:		
Project Address:		
Approximate Value:	Date: Started	Completed
Contact: Name		Telephone
Company:	Bid Title	:
Street:	Bid No.:	
City, State:	Telephone No.:	

<u>CONTRACTOR'S LIST OF SUBCONTRACTORS</u>
List below the subcontractors intended to be utilized for this project. This page must be completed and submitted with the bid.

1. Firm:	
Firm's Address:	
Contact: Name	Telephone
Type of Work to be Performed:	
2. Firm:	
Firm's Address:	
Contact: Name	Telephone
Type of Work to be Performed:	
3. Firm:	
Firm's Address:	
Contact: Name	Telephone
Type of Work to be Performed:	
4. Firm:	
Firm's Address:	
Contact: Name	Telephone
Type of Work to be Performed:	
Company:	Bid Title:
Street:	Bid No.:
City, State:	Telephone No.:

FRACKING WASTE ORDANINCE NOTICE

On January 9, 2019, The Town of Ridgefield approved and adopted an Ordinance prohibiting the storage, disposal or use of fracking waste on Town of Ridgefield land and/or projects. The complete Ordinance can be viewed at the Town Clerk's Office located at 400 Main Street, Ridgefield, CT or on the town website at the following link;

https://ecode360.com/RI2176/laws/LF1067113.pdf#search=fracking

Bidders shall follow this Ordinance in preparation and submission of their bid.

- 1.) No materials containing natural gas or oil waste shall be utilized in providing and retaining services to construct or maintain publicly owned and/or maintained road or real property with the Town of Ridgefield.
- 2.) No materials containing natural gas or oil waste shall be utilized in the purchase or acquisition of materials to construct or maintain publicly owned and/or maintained road or real property with the Town of Ridgefield.

3.)	Wehereby submit a bid for
	materials, equipment and/or labor for the Town of Ridgefield. The bid is for
	bid documents titled We hereby
	certify under penalty of perjury that no natural gas waste or oil waste will
	be used by the undersigned bidder or any contractor, sub-contractor,
	agent or vendor agent in connection with the bid; nor will the undersigned
	bidder or any sub-contractor, agent or vendor agent thereof apply any
	natural gas waste or oil waste to any road or real property within the Town
	of Ridgefield as a result of the submittal of this bid if selected.

Signed and sealed in	
the presence of:	
	_
Contractor	
By	
Date	-
IN WITNESS WHEREOF, the parties heret	o have set their hand and seal this
day on the day of	
Signed, Seated and Delivered in the Presence of:	Signed:
Notary Public	

4.) The successful bidder shall submit certificates of origin for project

materials, fill and other.

GENERAL CONDITIONS

1. CONTRACTOR'S UNDERSTANDING:

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character quality and quantity of materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the Owner, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

2. **DEFINITIONS**:

OWNER: The word "Owner" when it appears in

the Contract Documents shall mean The Town of Ridgefield, Connecticut.

ENGINEER: The word "Engineer" when it appears

in the contract Documents shall mean: Jacob Muller, Director of Facilities, or his specifically designated Agent.

<u>CONTRACTOR:</u> The word "Contractor" when it appears

in the Contract Documents shall mean the party to whom the Contract has been

awarded.

3. MATERIALS, APPLIANCES AND EMPLOYEES:

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times endorse strict discipline and good order among his employees, and shall not employ on the work any unfit person or any one not skilled in the work assigned to him.

4. PROTECTION OF WORK AND PROPERTY:

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. He shall adequately protect adjacent property as provided by law and the Contract Documents. He shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, it so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work, shall be determined by agreement or arbitration.

5. CHANGES IN THE WORK:

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the Engineer shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the work, but otherwise, except in an emergency, endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Engineer, and no claim for an addition to the Contract Sum shall be valid unless so ordered.

The value of any such extra work or change shall be determined in one or more of the following ways:

- (a) By estimate and acceptance in a lump sum.
- (b) By unit prices named in the Contract subsequently agreed upon.
- (c) By cost and percentage or by cost and a fixed fee.

If none of the above methods is agreed upon, the Contractor, provided he receives an order as above, shall proceed with the work. In such case, and also under case (c), he shall keep and present in such form as the Engineer may

direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, the Engineer shall certify to the amount, including reasonable allowance for overhead and profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate.

6. CLAIMS FOR EXTRA COST:

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this Contract, he shall give the Engineer written notice thereof within a reasonable time after the receipt of such instructions and in any event before proceeding to execute the work, except in emergency endangering life or property, and the procedure shall then be as provided for changes in the work. No such claim shall be valid unless so made.

7. SUSPENSION OF WORK:

The Owner may at any time suspend the work, or any part thereof by giving 24 hours notice to the Contractor in writing. The work shall be resumed by the Contractor within ten (10) days after the date fixed in the written notice from the owner to the Contractor to do so. The Owner shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this contract as a result of such suspension.

8. THE OWNER'S RIGHT TO DO WORK:

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner, after three days written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

9. PAYMENTS WITHHELD:

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect him from loss on account of the following:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims.
- (c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- (d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- (e) Damage to another Contractor.

When the above grounds are removed, payment shall be made for amount withheld because of them.

10. CONTRACTOR'S LIABILITY INSURANCE:

The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and from any other claims for damages for personal injury, including death, which may arise from operations under this Contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them. Certificates of such insurance shall be filed with the engineer, if he so requires and shall be subject to his approval for adequacy of protection.

11. <u>INDEMNITY</u>:

The Contractor shall indemnify and save harmless the Owner from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him, by reason of any act or omission of the said Contractor, his agents or employees, in the execution of the work or in the guarding of it.

The Contractor shall, and is hereby authorized to maintain and pay for such insurance, issued in the name of the Owner, as will protect the Owner from his contingent liability under this Contract, and the Owner's right to force against the Contractor any provision of this article shall be contingent upon the full compliance by the Owner with the terms of such insurance policy or policies, a copy of which shall be deposited with the Owner.

12. DAMAGES:

Any claim for damage arising under this Contract shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and shall be adjusted by agreement or arbitration.

13. ASSIGNMENT:

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due to or to become due to him hereunder, without the previous written consent of the Engineer.

14. ENGINEER'S STATUS:

The Engineer shall have general supervision and direction of the work. He has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract. He shall also have authority to

reject all work and materials which do not conform to the Contract, to direct the application of forces to any portion of the work, as in his judgment is required, and to order the force increased or diminished, and to decide questions which arise in the execution of the work.

15. METHOD OF PAYMENT:

At the end of each calendar month, the Contractor shall submit to the Engineer a requisition for payment which requisition shall be based upon the actual amount of the work performed during the previous month. The requisition may include materials stored on the site but not installed. The Engineer shall, within ten (10) days, check the requisition against his review of the work which has been done and submit it to the Owner, a written statement as to the validity of the requisition. The Owner shall then pay to the Contractor one hundred percent (100%) of the amount stated in the Engineer's report. No payment shall be made until the Contractor has satisfied all prevailing wage reporting requirements if prevailing wages are a part of this contract.

In the event that this contract is subject to the State of Connecticut SBE/MBE set aside and contract compliance requirements, the Contractor's attention is directed to Appendix "B", State of Connecticut SBE/MBE requirements regarding the withholding of 2% of the State Funded portion of the contract value each month if the contract value exceeds \$500,000, pending the review and approval of the Contractor's Affirmative Action Plan by CHRO.

16. FINAL PAYMENT:

When the Contract has been completed, the Contractor shall notify the Engineer in writing. Upon receipt of this notification, the Engineer shall proceed to make final measurements of the work done under the provisions of this Contract. The Engineer shall then submit to the Owner a written statement setting forth these final measurements and the amount due the Contractor consistent with the unit prices and lump sum bid in the Proposal. The Owner shall within sixty (60) days pay to the Contractor this sum except that he may deduct any moneys which are to be retained under the terms of the Contract for repairs or otherwise.

17. ORDER OF THE WORK:

The order of the work shall be subject to the approval of the Engineer in all cases. The Contractor may be required to submit a work schedule in writing to the Engineer for his approval.

18. (<u>OMITTED</u>)

19. **PROTECTION TO PUBLIC**:

The Contractor shall conduct the work in such a manner as to offer minimum disturbance to the traveling public. He shall not close off traffic without specific permission of the Engineer and shall provide flagmen if such becomes necessary, in the opinion of the Engineer. Proper barricades, lights, and other protective devices shall be supplied at the Contractor's expense and properly maintained during the entire course of the work.

20. GUARANTEE:

The Contractor guarantees that the work to be done under this Contract and the materials furnished by him and used in the construction of the project are free from defects or flaws. The guarantee is for a term of one (1) year from and after the date upon which the final estimate of the Engineer is formally approved by the party of the first part It is hereby agreed and understood that this guarantee shall not include any repairs made necessary by any cause or causes other than defective materials furnished by or defective work done by the Contractor.

21. RATE OF PROGRESS AND TIME OF COMPLETION:

The Contractor shall commence work within seven (7) days after receipt of the Notice to Proceed and, unless an extension of time shall be made in the manner herein provided, shall progress therewith to final completion within *ninety (90) consecutive calendar days* after receipt of the Notice to Proceed.

22. EXTENSION OF TIME:

The Contractor expressly covenants and agrees that, in undertaking to complete the work within the time specified, he has taken into consideration and made allowance for all of the ordinary delays and hindrances incident to such work. whether growing out of delays in securing materials, workmen, or otherwise. Should the Contractor, however, be substantially delayed in the prosecution and completion of the work by any changes, additions, or omissions therein ordered in writing by the engineer, or by fire, lightning, earthquake, tornado, cyclone, riot, insurrection of war, or by the abandonment of the work by the workmen engaged therein, through no fault of the Contractor, or by the discharge of all or any material number of workmen in consequence of difficulties arising between the Contractor and such workmen, or by the neglect, delay, or de default it of any other contractor of the town, then the Contractor may, within five (5) days after the occurrence of the delay for which he claims allowance, notify the Engineer in writing, and thereupon, and otherwise, the Contractor shall be allowed such additional time for the completion of the work, as the Engineer in his discretion shall award in writing, and his decision shall he final and conclusive upon the parties.

Such additional time shall be the sole and exclusive remedy for any delay claimed by the Contractor.

23. **SALES TAX**:

In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.

24. Termination of the Contract:

If the Owner fails to make payment thereon for a period of 30 days, the Contractor may, upon seven additional days written notice to the Owner, terminate the Contract and recover from the Owner payment for work executed and for proven loss with respect to materials, equipment tools, and construction equipment and machinery, including reasonable overhead, profit and damages applicable to the project.

If the contractor defaults or persistently fails or neglects to carry out the work in accordance with the Contract Documents or fails to perform a provision of the Contract, the Owner, after seven days written notice to the Contractor and without prejudice to any other remedy the Owner may have, may make good such deficiencies and may deduct the cost thereof, including compensation for the Engineer's services and expenses made necessary thereby, from the payment then or thereafter due the Contractor. Alternatively, at the Owner's option, and upon certification by the Engineer that sufficient cause exists to justify such action, the Owner may terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method the Owner may deem expedient. It the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Engineer's services and expenses made necessary thereby, such excess shall be paid to the Contractor, but if such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

Supplemental Information for Bidders and General Contract Provisions

1. PREPARATION OF PROPOSALS

Proposals must be made upon forms contained herein or as directed elsewhere. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office addresses and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, bid number, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Director, Town Hall, 400 Main Street, Ridgefield, CT 06877.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

2. SUBMISSION OF PROPOSALS

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

3. INCURRING COSTS

The Town of Ridgefield is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

4. FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint him with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made

such examination.

5. CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

6. ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

At the time of the opening of bids each bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Director. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Town of Ridgefield, Purchasing Director, 400 Main Street, Ridgefield, Connecticut 06877, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such Addendum or interpretations shall not relieve any bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Ridgefield. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of your bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as "no substitutions." The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall

establish a standard of equality only. An item shall be considered equal to the item so named or described if:

- a. It is at least equal in quality, durability, appearance, strength and design.
- b. It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- c. It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Ridgefield, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Ridgefield or himself because of the unauthorized use of such articles.

7. **QUOTATION LIMITATION**

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or-equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

8. ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

9. <u>SAMPLES</u>

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Ridgefield. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

10. WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date. The successful agent/broker shall not withdraw, cancel or modify their proposal.

11. POWER OF ATTORNEY

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and

effectively dated copy of their power of attorney.

12. SUBCONTRACTORS

Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form. The apparent low bidder shall file with the Town of Ridgefield, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town. Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Ridgefield. Local subcontractors, material suppliers, and labor in the Town of Ridgefield should be considered and sought insofar, as is practical in the performance of this project.

13. QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors. The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

14. DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

15. DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the

essence of this bid. Accordingly, the successful bidder shall commence work **upon** receipt of the signed Purchase Order unless the Town shall authorize or direct a further delay. Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Ridgefield. Prices quoted must include delivery to the Town of Ridgefield as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

16. PAYMENT

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery. Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Ridgefield Office of the Town Engineer 66 Prospect Street Ridgefield, CT 06877

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Ridgefield for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment and at time of final payment prior to any payment being made.

At the time of award, the successful bidder shall be required to supply the Town of Ridgefield a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

17. SALES TAX

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

18. CARE AND PROTECTION OF PROPERTY

The Bidder shall take particular care to avoid damages to all private and public property and to private or public improvements within the Town's right of way. He shall make good any damages to the satisfaction of the Town. There shall be no additional compensation for the repair or restoration of private or public property improvements.

19. COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable.

20. AWARD

The Town of Ridgefield reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Ridgefield reserves the right:

- a. To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- b. To reject any or all bids, or any part thereof.
- c. To waive any informality in the bids.
- d. To accept the bid that is in the best interest of the Town of Ridgefield. The Purchasing Agent's decision shall be final.

21. <u>INSURANCE</u>

Insurance requirements are detailed under the attached "Insurance Requirements."

22. **GUARANTEE**

The bidder shall unconditionally guarantee for a period of one (1) year, except as specifically noted within these documents, from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

23. PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town.

24. NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Non-Segregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

25. <u>MECHANICS LIEN WAIVERS</u>

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment, and/or at time of final payment, prior to any payment made.

SPECIMEN CONTRACT

This Agreement	made as of the	day of		
the year	by and betwee	by and between the Town of Ridgefield, 400 Main		
Street, Ridgefield	d, Connecticut, (herein	after called the Owner), and	
		_, doing business at		
		, (here	ein after called the	
Contractor).				

Witnesseth that the Owner and the Contractor in consideration of the mutual covenants herein after set forth, agree as follows:

Article 1. Work:

The contractor will perform all work as shown in the Contract Documents for the completion of the Project generally described as follows:

New Street Sidewalk Installation

The work to be done consists of the furnishing of all labor, materials, tools, and equipment necessary to construct the project as shown on the plans and as described in the specifications prepared by Jacob Muller, Facilities Director and CCA, LLC, Civil Engineers.

Article 2. Engineer:

Jacob Muller, Facilities Director, will act as the Engineer in connection with completion of the Project in accordance with the Contract Documents.

Article 3. Contract Time:

CONTRACT C-1

The work shall be completed within **one hundred twenty (120) calendar days** after the date which the Contractor is to start the work as provided in the Contract Documents.

Article 4. Liquidated Damages:

The OWNER and CONTRACTOR recognize that time is of the essence with this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in Article 3, above, plus any extensions thereof allowed in accordance with the General Conditions of the contract. They also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. If the CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER One Thousand Two Hundred dollars (\$1,200.00) for each calendar day that expires after the time specified in Paragraph 3.1 above for completion and readiness for final payment until the Work is completed and ready for final payment.

Article 5. Contract Price:

The Owner will pay the Contractor for performance of the Work and completion of the Project in accordance with the Contract Documents subject to adjustment by modifications as provided therein in current funds as follows:

Article 6. Progress and Final Payments:

The Owner will make progress payments on account of the Contract Price as provided in the General Conditions. Progress and final payments will be on the basis of the Contractor's application for payment as approved by the Engineer.

Article 7. Contract Documents:

The Contract Documents which comprise the contract between the Owner and the Contractor are attached hereto and made a part hereof and consist of the following:

- A. This agreement
- B. Exhibits to this Agreement
- C. Contractor's Bid and Bid Bonds
- D. Specifications
- E. Drawings as referenced by the Specifications or attached hereto
- F. Addenda numbers:
- G. Any modifications, including change orders, duly delivered after execution of this agreement.

Article 8. Miscellaneous:

- A. Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- B. Neither the Owner nor the Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his interest under any of the Contract Documents and, specifically, the Contractor shall not assign any moneys due or to become due without the prior written consent of the Owner.

- C. The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto in respect of all covenants, agreements and obligations contained in the Contract Documents.
- D. The Contract Documents constitute the entire agreement between the Owner and the Contractor and may only be altered, amended or repealed by a duly executed written instrument.

Town of Ridgefield, April 2023 New Street Sidewalk Installation

In witness whereof, the said parties hereto have caused this instrument to be signed by their respective duly constituted officers, attested, and sealed pursuant to proper resolutions.

	Signed and sealed in
	the presence of:
	Town of Ridgefield
Ву	
Date	
	Contractor
Dec	
Ву	
Date	

SECTION 02050 – SITE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

- A. The work includes all labor, material, equipment and incidentals required to demolish, modify, remove and dispose of work shown on the Drawings and as specified herein. This specification is for the site only and not the building. Refer to Architect's specifications for Building demolition.
- B. Included, but not limited to, are demolition, modifications and removal of existing materials, equipment or work necessary to install the new work as shown on the Drawings and as specified herein and to connect with existing work in approved manner.
- C. Demolition and modifications include:
 - 1. Disconnecting, capping or sealing, excavating and removing, and abandoning site utilities.
- 2. Protection of identified existing utilities to remain in operation during demolition.
- 3. Protection of adjoining and adjacent structures, facilities and surfaces during the work and warranty periods
- 4. Removal and storage of equipment and materials that will remain the property of the Owner.
- E. Blasting and the use of explosives will not be permitted for any demolition work.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CLEARING, GRUBBING AND STRIPPING	SECTION 02130
CUTTING AND PATCHING	SECTION 02230
ROCK AND BOULDER REMOVAL	SECTION 02211

1.4 CODES

A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

1.5 JOB CONDITIONS

A. Protection

1. Execute the demolition and removal work to prevent damage or injury to structures, occupants thereof and adjacent features which might result from falling debris or other causes, and so as not to interfere with the use, and free and safe passage to and from adjacent structures.

SITE DEMOLITION 02050 - 1

SECTION 02130 - CLEARING, GRUBBING AND STRIPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to do all clearing, grubbing and stripping of topsoil complete as shown on the Drawings and/or specified herein.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

TRENCHING, BACKFILLING AND COMPACTING	SECTION 02221
CUTTING AND PATCHING	SECTION 02230
ROCK AND BOULDER REMOVAL	SECTION 02211

1.4 SUBMITTALS AND CODES

A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

PART 2 - PRODUCTS

2.1 MATERIALS-Not applicable

PART 3 - EXECUTION

3.1 <u>CLEARING AND GRUBBING</u>

Except as otherwise directed, cut, grub, remove and dispose (off-site) of all trees, stumps, brush, shrubs, roots, and any other objectionable material within the limits defined on the Drawings. All stumps, brush and roots shall be grubbed and removed from areas to be occupied by structures, roads, pipelines and any other areas to be stripped.

Protect areas shown on the Drawings and any trees or groups of trees designated by the Engineer to remain, from damage by any construction operation by erecting suitable barriers, or by other approved means. Clearing operations shall be conducted in a manner to prevent falling trees from damaging trees designated to remain.

Areas outside the contract limits as shown on the Drawings shall be protected and no equipment or materials shall be stored or allowed to damage these areas.

Where found on the project, foundations or buildings shall be demolished, removed and disposed of off-site in accordance with the law.

No stumps, trees, limbs, or brush shall be buried, anywhere on-site, or burned.

3.2. STRIPPING

Strip topsoil from all areas to be occupied by structures, roadways, and all areas to excavated or filled. Avoid mixing topsoil with subsoil and stockpile it in areas on the site as approved by the Engineer. Erosion and sedimentation controls to be placed as soon as possible after stripping.

Topsoil shall be stockpiled free from brush, trash, large stones and other extraneous material and protected until it is placed. The Contractor as directed by the Engineer shall dispose of any topsoil remaining after all work is in place.

3.3. <u>DISPOSAL OF MATERIALS</u>

All tree trunks, limbs, roots, stumps, brush, foliage and other vegetation shall become the property of the Contractor and removed and disposed of by him off the project site, No burning shall be allowed.

END OF SECTION 02130

 Closing or obstructing of roadways, sidewalks and passageways adjacent to the work by the placement or storage of materials will not be permitted and all operations shall be conducted with a minimum interference to traffic on these ways.

B. Conditions of Structures

- 1. The Owner, Architect and the Engineer assume no responsibility for the actual condition of the structures to be demolished or modified.
- 2. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable. However, variations within a structure may occur prior to the start of demolition work.

C. Repairs to Damage

1. Promptly repair damage caused to adjacent facilities by demolition operation when directed by Engineer and at no cost to the Owner. Repairs shall be made to a condition at least equal to that which existed prior to construction.

D. Traffic Access

- Conduct demolition and modification operations and the removal of equipment and debris to ensure minimum interference with roads, streets, walks both onsite and offsite and to ensure minimum interference with occupied or used facilities.
- 2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Engineer. Furnish alternate routes around closed or obstructed traffic in access ways.

1.6 DISPOSAL OF MATERIAL

- A. Salvageable material and equipment listed hereinafter shall become the property of the Owner. Dismantle all such items to a size that can be readily handled and deliver them to a designated storage area.
- B. The following materials and items of equipment shall remain the property of the Owner and stored where directed on the site. Any such material damaged due to improper handling will not be accepted and the replacement value of the material deducted from the payment to the Contractor.
 - 1. Play equipment, swing set, black chain link fence along Candlewood Lake Road.
- C. All other material and items of equipment shall become the Contractor's property and must be removed from the site.
- D. The storage or sale of removed items on the site will not be allowed.

PART 2 - PRODUCTS

2.1 MATERIALS-Not applicable

PART 3 - EXECUTION

3.1 GENERAL

A. All materials and equipment removed from existing work, shall become the property of the Contractor, except for those which the Owner has identified and marked for their use. All materials and equipment marked by the

SITE DEMOLITION 02050 - 2

Owner to remain shall be carefully removed, so as not to be damaged, cleaned and stored on or adjacent to the site in a protected place specified by the Engineer or loaded onto trucks provided by the Owner.

B. Dispose of all demolition materials, equipment, debris and all other items not marked by the Owner to remain, off the site and in conformance with all existing applicable laws and regulations.

C. Pollution Controls

- 1. Use water sprinkling, temporary enclosures and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.
 - a. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding and pollution.
 - b. Clean adjacent structures, facilities, and improvements of dust, dirt and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of the work.

3.2 MECHANICAL REMOVALS

- A. Mechanical removals shall consist of dismantling and removing of existing septic systems, piping, equipment and other appurtenances as specified, shown, or required for the completion of the work.
- B. When underground piping is to be altered or removed, the remaining piping shall be properly capped. Abandoned underground piping may be left in place unless it interferes with new work or is shown or specified to be removed.
- C. Any changes to potable water piping shall be made in conformance with all applicable codes and under the same requirements as other underground piping. All portions of the potable water system that have been altered or opened shall be pressure tested and disinfected in accordance with local codes.

3.3 <u>ELECTRICAL REMOVALS</u>

- A. Electrical removals shall consist of the removal of existing transformers, distribution switchboards, control panels, motors, conduits and wires, poles and overhead wiring, panelboards, lighting fixtures and miscellaneous electrical equipment all as shown on the Drawings, specified herein, or required to perform the work.
- B. All existing electrical equipment and fixtures to be removed shall be removed with such care as may be required to prevent unnecessary damage, to keep existing systems in operation and to maintain the integrity of the grounding systems.
- C. Where shown, direct-burial cable shall be abandoned. Such cable shall be disconnected at both ends of the run. Where it enters a building or structure the cable shall be cut back to the point of entrance. All opening in buildings for entrance of abandoned direct-burial cable shall be patched and made watertight.
- D. Poles and overhead wiring shall be abandoned as shown and specified. Contractor shall coordinate removal with the appropriate utility.
- E. Lighting fixtures shall be removed or relocated as shown. Fixtures not relocated shall be removed from the site. Relocated fixtures shall be carefully removed from their present location and rehung where shown.

3.4 <u>CLEAN-UP</u>

A. Remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the work, all materials, equipment, waste and debris of every sort shall be removed and premises shall be left, clean, neat and orderly.

END OF SECTION 02050

SITE DEMOLITION 02050 - 3

SECTION 02150 - MAINTENANCE AND PROTECTION OF TRAFFIC

PART 1 - GENERAL

- 1.01 SCOPE OF WORK
 - A. Comply with ConnDOT Form 818, Article 9.71.01.
 - B. Apply for and obtain permits for all work within the town roadway and State of Connecticut roadway. The Contractor shall include the cost of all town and ConnDOT required bonds and insurance in the cost of this item.
- 1.02 REFERENCES
 - A. ConnDOT Form 818.
 - B. U.S. Department of Transportation "Manual on Uniform Traffic Control Devices", latest edition.
- 1.03 SUBMITTALS
 - A. Furnish the Owner with three complete copies of the town excavation permit and State of Connecticut Department of Transportation Encroachment Permit.
- 1.04 PROJECT / SITE CONDITIONS
 - A. Implement the various traffic control schemes as necessary to construct the work.
- 1.05 SEQUENCING
 - A. Before commencement of construction:
 - 1. Apply for and acquire a town permit for all work within the rights-of-way.
 - 2. Notify various entities of the impending construction (see Part 3 below).
 - 3. Install all required traffic control signs.
 - 4. Install drums, signs, and cones in immediate vicinity of the work.
 - 5. Following completion of construction:
 - 6. Remove all construction signs, cones, drums, etc. from the project site.
 - 7. Repair areas damaged by sign placement or construction activities to pre-construction condition.

PART 2 - PRODUCTS-

2.1 <u>MATERIALS-Not applicable</u>

PART 3 - EXECUTION

3.01 CONSTRUCTION METHOD

- A. Comply with ConnDOT Form 818, Article 9.71.03.
- B. Apply for and obtain the permit for all work within town rights-of-way. Include the cost of all town required bonds and insurances in the cost of this item.
- C. Notify the following entities of the commencement and termination of construction at each project site:

Entity	Telephone Number
Town of Ridgefield-Public Works	(203) 431-2745
Town of Ridgefield-Purchaser	(203) 431-2720
CONNDOT-District IV	(203) 591-3627

END OF SECTION 02150

SECTION 02157 - FLAGMEN

PART 1 - GENERAL

- 1.01 SCOPE OF WORK
 - A. Comply with ConnDOT Form 818, Article 9.70.01, and utilizing flagmen (uniformed police officers) where appropriate.
- 1.02 REFERENCES
 - A. ConnDOT Form 818.
- 1.03 SUBMITTALS
 - A. None required.

PART 2 – PRODUCTS-

2.01 <u>MATERIALS-Not applicable</u>

PART 3 - EXECUTION

- 3.01 CONSTRUCTION METHOD
 - A. Furnish adequate flagmen as required to provide traffic movement for the duration of construction, for work within town and State rights-of-way.

END OF SECTION 02157

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SECTION 02211 - ROCK AND BOULDER REMOVAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required for the excavation and disposal of rock encountered in the construction of work on the project.

Rock excavation shall mean solid ledge rock, which required for its removal drilling and blasting, wedging, sledging or barring. No hardpan, soft or disintegrated rock or shale which can be removed or backhoed. Surface and subsurface boulders over one cubic yard in size, which cannot be moved with ordinary heavy equipment, shall be considered Rock Excavation.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CLEARING, GRUBBING AND STRIPPING	SECTION 02130
TRENCHING, BACKFILLING AND COMPACTING	SECTION 02221
CUTTING AND PATCHING	SECTION 02230

1.4 SUBMITTALS AND CODES

- A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.
- B. The Contractor shall meet the requirements of all local, state and federal laws and ordinances relating to the handling and use of explosives. Contractor shall obtain a blasting permit from the Ridgefield Fire Marshall. A blaster licensed in the State of Connecticut shall do all the blasting work.

1.5 <u>INSURANCE</u>

A. No explosives shall be brought onto, stored or used on the site by the Contractor unless and until he shall have furnished the Engineer with a satisfactory certificate of insurance showing that the risks arising from the presence and use of explosives and blasting are included within the insurance provided by the Contractor to secure his obligations to the Owner.

1.6 LIABILITY

- A. The Contractor shall be fully liable for all damage or nuisance caused by his blasting operations, including damage to utilities, structures, private wells, outbuildings, etc. and shall promptly repair all damage at his own expense.
- B. The Contractor shall be solely responsible for defending any claims resulting from his rock elevation operations including blasting and shall make whatever adjustments is required at his own expense.

PART 2 - PRODUCTS

2.1 <u>MATERIALS-Not applicable</u>

PART 3 - EXECUTION

3.1 PRE-BLAST SURVEY

A pre-blast survey conducted by a registered professional engineer experienced in this work is required for structures within blasting zone as determined by the Brookfield Fire Marshal. It is recommended that the survey be done for structures and wells outside the above limits if they are judged by the Contractor to have claim potential, with special emphasis on structures with pre-blast damage.

3.2. <u>METHODS OF BLASTING</u>

The Contractor shall provide complete data on the proposed method of blasting, including type of explosives, maximum charge, spacing, delay devices and type of blasting mat or cover.

All Utilities with work in the general vicinity of areas to be blasted shall be contacted before blasting and any procedures or requirements they may have shall be followed.

3.3. PROTECTION

In rock excavation, it is especially required that blasting shall be conducted with all possible care so as to injury to persons and property.

Rock shall be well covered with effective appliances.

Sufficient warning shall be given to all persons in vicinity of work before blasting.

Excavations shall be protected by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.

Adjacent structures, which may be damaged by excavation work, shall be underpinned including service utilities and pipe chases.

Caps or other primers shall not be kept in same place in which dynamite or other explosives are stored.

The charges used shall not make the excavation unduly large or irregular nor shatter the rock upon, or against which, masonry is to be built, or injury existing structures at the site or in the vicinity thereof. Blasting shall not be carried on within 300 feet of any radio transmitter or radio frequency emission equipment, such as high-frequency welders, and blasting caps shall be kept in closed, all-metal cans when in the vicinity of such equipment.

3.4 <u>FIELD PROCEDURES</u>

The Contractor shall notify the Engineer of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.

If blasting operations cause significant damage in the judgment of the Engineer, removal of remaining rock shall be my other approved method.

In the event blasting is prohibited, the Contractor shall make no claim for any additional compensation for rock excavation by other method.

3.5 RECORDS

The magazine keeper shall keep accurate daily records and account for each piece of explosive, detonator and equipment from the time of delivery at the magazine until used or removed from the site.

3.6 METHOD OF MEASUREMENT

The contractor shall expose all rock areas prior to blasting and contact a licensed land surveyor registered in the State of Connecticut to cross-section the rock for measurement. After blasting the licensed land surveyor shall cross section the area to determine the amount of rock removed.

Excess rock removed will be deducted from the total amount.

3.7 <u>BASIS FOR PAYMENT</u>

Rock excavation shall be paid for at the contract unit price per cubic yard. The fees for the licensed land surveyor shall be in addition to the contractor's price to remove the material and will be provided to the owner or owner's representative prior to blasting or removal for approval.

Necessary rock excavation shall include all limits of rock removal and/or grading shown on the plans. Necessary trench rock removal shall include all rock within six (6) inches of the bottom and sides of the specified trench.

No payment shall be made for unnecessary rock removal. It shall be the contractor's responsibility to obtain approval from the engineer for rock removal prior to removal so all parties agree to what rock removal is determined as necessary.

END OF SECTION 02211

SECTION 02212 - GRADING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals necessary to accomplish the excavating, filling, grading and testing required to attain the rough and final grades for the project as shown on the Drawings or as approved by the Engineer. This work may include but is not necessarily limited to attaining subgrade for roadways, parking areas, buildings and all other areas within the contract limits.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CLEARING, GRUBBING AND STRIPPING	SECTION 02130
ROCK AND BOULDER REMOVAL	SECTION 02211
TRENCHING, BACKFILLING AND COMPACTING	SECTION 02221

1.4 SUBMITTALS AND CODES

A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

B. Material:

Representative samples of all materials, which require approval of the Engineer, shall be submitted five (5) days prior to the date of anticipated use.

C. Drainage work:

All surface water encountered on the site shall be accommodated by satisfactory drainage. Where the Contract Documents do not specifically provide for a drainage problem encountered during the progress of work, the method and details for providing for such drainage shall be submitted to the Engineer for approval prior to beginning this work.

PART 2 - PRODUCTS

2.1 <u>MATERIALS</u>

All fill materials shall be as specified or as indicated on the Drawings. They shall be unfrozen and free of organic material, trash, ice or other objectionable material. The Contractor shall remove excess or unsuitable material from the job site.

Unsuitable soils material shall mean unstable or poor quality soils such as peat, muck, highly organic material, fill with debris, unconsolidated fill, soft fine grained soil or as otherwise determined by the engineer.

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Common fill material shall be of the composition and gradation specified under Section 02221, Trenching, Excavation and Backfill.

PART 3 - EXECUTION

3.1 GENERAL

A. Familiarization:

Become thoroughly familiar with the site, the site conditions and all portions of the work falling within this Section before beginning the work.

B. Preparation:

Confirm the finish elevations and lines are adequately set and staked out prior to doing any grading.

Ascertain that all areas of the site where the Drawings indicate that existing physical features will be changed have been cleared, grubbed and stripped in accordance with Section 02130-Clearing, Grubbing and Stripping; and are ready for grading.

3.2 GRADING

- 1. <u>Grading areas to be paved or loamed and seeded:</u>
- A. Perform all rough grading required to attain the elevations indicated on the Drawings or as required.
- B. Excavate to grades shown on the Drawings or as required to accommodate the installation of the plant site landscaping and amenities. Backfill and compact all over excavated areas at no additional cost to the Owner.
- C. Remove all material, including rocks and boulders to a point at least 4 inches below the finished grade of landscaped areas to be loamed and seeded.
- D. Remove all ruts, hummocks and other uneven surfaces by surface grading prior to placement of fill. Do not place, spread or compact any fill material during unfavorable weather conditions and do not conduct further fill operations until compaction tests indicate acceptable results in previous layers.
 Do not use frozen materials or place a successive layer of fill on frozen materials. Use only approved fill material, free of stumps, trees, trash or other unsuitable material.
- E. Spread in approved fill material in uniform layers not exceeding 10 inches thickness per layer and compact with heavy machinery as required. Begin the fill layers at the deepest part of the fill. Fill should extend to the point where a relatively uniform layer of topsoil or loam not less than 4 inches deep will produce final grade.

2. <u>Grading areas to be surfaced:</u>

- A. Perform all rough grading, including excavation, formation of embankments, shaping, sloping, compaction, construction of ditches, disposal of surplus or unsuitable material, and any work necessary to prepare the subgrades of all roadways, walk, and parking areas. Grading shall be brought to the bottom of the base course under paved or surfaced areas and to within a minimum of 4 inches of finished grade under side slopes and/or embankment areas to receive loam along roadways, walks or parking areas.
- B. Accomplish all excavation and fill within the slope and grade lines as indicated on the Drawings unless otherwise authorized in writing by the Engineer. The roadway shall be graded to full cross section width at subgrade before placing any type of subbase except that partial width construction is permissible where necessary for the maintenance of traffic.
- C. Do not use frozen material in the construction of embankments and do not place embankments of successive

layers of embankment upon frozen material. Placement of material shall stop when the sustained air temperature, below 32 degrees Fahrenheit, prohibits the obtaining of the required compaction. If the material is otherwise acceptable, it shall be stockpiled and reserved for future use when its condition is acceptable to the Engineer for use in embankments.

- D. Place all material being placed in embankments in horizontal layers of uniform thickness across the full width of embankment except when it is impractical to construct full width of the embankment and partial width layers are authorized by the Engineer.
- E. Do not allow or place stumps, trees, rubbish or other unsuitable material in embankments. Begin layers of embankment at the deepest part of the fill.
- F. Areas of soft, yielding or otherwise unsuitable material that will not meet compaction requirements shall be removed, replaced with suitable material and properly compacted. In any building area where unsuitable fill is found the Structural / Geotechnical Engineer of Record shall be contacted and shall determine what action is required.
- G. Place embankments for surfaced areas in horizontal layers of depths that will result in layers of compacted material not exceeding 6 inches. Compact each layer as specified before placing each new layer. Use effective spreading equipment on each layer to obtain uniform thickness prior to compacting. Each layer shall be kept crowned to shed water to the outside edges of embankment and continuous leveling and manipulating will be required to assure uniform density. Construction equipment shall be routed uniformly over the entire surface of each layer.
- H. If during the construction of the embankments, there is any indication that serious bulging, cracking, or unstable movement may occur, the placing of fill shall be stopped or retarded to allow the material to stabilize.
- I. All ditches and drains shall be constructed so they will effectively drain the roadway or parking lot before any subbase or surface course material is placed. In handling materials, tools and equipment, the Contractor shall protect the subgrade from damage. In no case shall vehicles be allowed to travel in a single track and form ruts. If ruts are formed, the subgrade shall be reshaped and compacted and any pockets of clay, sand, or soft material that may have been left in the subgrade shall be removed, replaced with approved material, and properly compacted at the Contractor's expense. The subgrade shall be kept in such condition that it will drain. Subbase, base or surface material shall not be deposited on the subgrade until the subgrade has been checked and approved by the Engineer. After the subgrade has been approved, hauling shall not be done nor equipment moved over the subgrade which will distort the cross section.

3.3 COMPACTION

- 1. <u>Compaction under surfaced areas:</u>
- A. The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors, or a combination thereof. Compact subgrades by proofrolling which will consist of a minimum 8 passes over the subgrade with a vibratory roller having a minimum operating weight of 10 tons. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment. Each layer for its full width shall be compacted to not less than 95 percent of the maximum dry density as determined by the Standard Methods of Test for Moisture-Density Relations of Soils, ASTM-D698, Method C, except that the material in the top two feet of any embankment, immediately below the subgrade shall be compacted to not less than 95% of the maximum dry density. The field density determination will be made in accordance with the Standard Method of Test for Density of Soil In-Place by either the Sand-Cone Method, ASTM D1556, the Rubber-Balloon Method, ASTM D2167, or Nuclear Densometer.
- B. In no case shall the moisture content in each layer under construction vary more than 3 percent from the optimum moisture content.

C. When the moisture content of the material in the layer under construction is less than the amount necessary to obtain satisfactory compaction by mechanical compaction methods, water shall be added. Water may also be added in excavation or borrow pits.

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- D. In areas inaccessible to power rolling, the embankment material shall be placed in uniform horizontal layers of not more than 4 inches in depth and compacted by means of approved mechanical tampers to the density requirements herein specified.
- E. Contractor shall include in their bids the cost for obtaining compaction testing by a qualified laboratory testing company.
- 2. Compaction under loamed and seeded areas:

A. In areas to be loamed and seeded, except for roadway embankments and slopes, a minimum 92% compaction shall be accomplished by heavy machinery or mechanical tamps.

END OF SECTION 02212

SECTION 02221 - TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals necessary to excavate trenches to depths and widths shown or directed, backfill, compact, testing and dispose of surplus material. Provide drainage to make the bottom of the excavation dry and firm. Excavate unsuitable material below grade and backfill.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CUTTING AND PATCHING	SECTION 02230
ROCK AND BOULDER REMOVAL	SECTION 02211
GRADING	SECTION 02212
STORM DRAINAGE SYSTEM	SECTION 02730

1.4 SUBMITTALS AND CODES

A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

B. Material:

Representative samples of all materials, which require approval of the Engineer, shall be submitted five (5) days prior to the date of anticipated use.

1.5 JOB CONDITIONS

A. Dust Control:

Use all means necessary to control dust on and near the work. Apply water and/or calcium chloride to prevent dust from being a nuisance to the public or workers.

B. Protection:

Use all means necessary to protect all materials, living matter, utilities, pavements and structures. Particular care shall be exercised to protect tree root systems and tree trunks. In the event of damage, immediately make all repairs and replacement necessary to the approval of the Engineer and at no additional cost to the Owner.

C. Traffic Control:

Direct traffic throughout project by warning signs and flagmen to provide maximum safety for workmen, residents and traffic.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Common Fill:

Common fill shall not contain stones, rock, concrete or other rubble larger than ten (10) inches in diameter. It shall have physical properties that allow it to be easily spread and compacted.

Common fill shall be unfrozen and free of organics, trash, ice, wood, wet or soft plastic soils and other objectionable material which may be compressible or which cannot be compacted properly and shall consist of one or more of the following Unified soil types GW, GP, GM, SW, SP, and SM.

B. Free Draining Material:

Connecticut DOT Specification Form 818-M.02.07.

C. Sand:

Sand shall consist of clean mineral aggregate with particle size limits as follows:

<u>US Sieve Size</u>	Percent Passing by Weight
No. 4	100
No. 100	0 - 13
No. 200	0 - 12

D. Bank run gravel:

Connecticut DOT Specification Form 818 Section M.02.01, grading A.

E. Processed Aggregate Base:

Connecticut DOT Specification Form 818 Section M.05.01.

F. Crushed Stone:

Clean, sound, crusher run or natural stone, conforming to Connecticut DOT specifications M.01.01.

G. Other Material:

All other material required for completion of the work, but not specified herein, shall conform to the Connecticut DOT Standard specifications for Roads and Bridges and

Incidental Construction, Form 818 and shall meet with the Engineer's approval.

PART 3 - EXECUTION

3.1 <u>INSPECTION</u>

A. Become thoroughly familiar with the site, the site conditions and all portions of the work falling under this Section. Inspect all physical features within and adjacent to the project and report to Engineer all deviations or discrepancies from information shown on the Drawings.

3.2 PREPARATION

A. Field Measurements:

Establish centerline of trenches.

Set elevations for work.

Perform all necessary clearing and grubbing.

Strip topsoil from all areas that will be substantially disturbed by or during construction. Avoid mixing topsoil with subsoil and stockpile it in areas on the site as approved by the Engineer. Topsoil shall be stockpiled free from brush, trash, stones and other extraneous material and protected until it is placed. The Contractor as directed by the Engineer shall dispose of any topsoil remaining after all work is in place.

All pavements shall be cut prior to removal with saws or approved power tools.

3.3 PERFORMANCE

A. Trenching:

Excavation shall be made to the widths and depths necessary for sheeting, bracing, pumping, draining and for all other work required. The Engineer must approve any deviations from the trench dimensions shown on the Drawings.

Where sand or screened or crushed gravel is used for bedding, the trench may be excavated by machinery to, or just below, the designated subgrade provided that the material remaining in the bottom of the trench is no more than slightly disturbed.

Where pipe is to be laid directly on the trench bottom, the lower part of the trenches shall not be excavated to grade by machinery, the last of the material being excavated manually in such a manner that will give a flat bottom true to grade so that pipe can be evenly supported on undisturbed material. Bell holes shall be made as required.

Excavated material shall be stockpiled in such a manner as to prevent nuisance conditions. Surface drainage shall not be hindered.

When utilities are noted on the drawings as being extended 5' outside the building by either the electrical, plumbing, fire protection or HVAC contractor, it shall be the responsibility of the contractor to do all excavation and backfill up to the face of the building.

B. Below Grade Excavation and Refill:

If the material at or within 8 inches below the normal grade of the bottom of the trench is unsuitable for foundation, it shall be removed as directed by the Engineer and replaced by screened or bank-run gravel.

If the Contractor excavates below grade through error or for his own convenience, or through failure to properly dewater the trench, or disturbs the subgrade before dewatering is sufficiently complete, he may be directed by the Engineer to excavate below grade as set forth in the preceding paragraph, in which case the work of excavating below grade and furnishing and placing the refill shall be performed at his own expense.

If the material at the level of trench bottom consists of fine sand, sand and silt or soft earth, the subgrade material shall be removed to the extent directed and the excavation refilled with bank-run gravel for bedding of the pipe.

C. Drainage:

The Contractor shall at all times during construction provide and maintain proper equipment and facilities to remove promptly and dispose of properly all water entering excavations, and keep such excavations dry so as to obtain a satisfactory undisturbed subgrade foundation condition. The dewatering method used shall prevent disturbance of earth below grade.

All water pumped or drained from the work shall be disposed of in a suitable manner without damage to surrounding property, and in accordance with pertinent rules and regulations.

No construction, including pipe laying, shall be allowed in water. No water shall be allowed to contact masonry or concrete within 24 hours after being placed.

The Contractor shall constantly guard against damage due to water and floatation and take full responsibility for all damage resulting from his failure to do so.

Any and all costs associated with dewatering that may be required for the installation of buildings foundations and site elements shall be included in the contractor's bid. This will include the installation of crushed stone as specified. The contractor shall carefully review all recommendations of the geotechnical report which are part of the contract documents. The contractor will be responsible for all dewatering required in the building footprints until such time as all slabs on grade are complete. The contractor will be responsible for dewatering on the site elements for the duration of the project.

D. Backfilling and Compacting:

As soon as practicable after pipe has been positioned, jointed, tested and approved by the Engineer for backfilling, backfilling shall begin and continue expeditiously. Should any of the work be backfilled prior to approval, it shall be uncovered for inspection at no cost to the Owner.

From the bottom of the trench to mid-diameter of the pipe, backfill shall be as noted on the drawings thoroughly compacted (95% of maximum density) by hand tamping.

From mid-diameter to 1 foot above top of pipe, backfill shall be as noted on the drawings placed in 8-inch layers compacted to 95% maximum density.

From 1 foot above top of pipe to subgrade for paved or gravel surfaces (or within 2 feet of surface), backfill shall be granular backfill placed in 8 inch layers compacted to 92% maximum density.

For subgrade or for 1 foot below traveled surface, backfill shall be gravel placed in 8-inch layers compacted to 95% maximum density. Compact subgrades by proofrolling which will consist of a minimum 8 passes over the subgrade with a vibratory roller having a minimum operating weight of 10 tons.

Backfilling shall be completed to original grades or as indicated on the Drawings. Settlements shall be corrected.

3.4 <u>FIELD QUALITY CONTROL</u>

A. Soil Compaction Tests:

Field determination will be made in accordance with the Standard Method of Testing for Density of soil in place by either the Sand-Cone Method ASTM 1556 the Rubber-Balloon Method ASTM D2167, or Nuclear Densometer. Contractor shall include in their bids the cost for obtaining compaction testing by a qualified laboratory testing company.

3.5 ADJUSTMENT AND CLEANING

A. Disposal of Excess Material:

Segregate excavated material for suitability for use in backfilling.

Do not excavate material from the site except as authorized. Stockpile surplus material suitable for backfill until fill requirements are satisfied. Excess material including paving, rock and boulders shall be the Contractor's responsibility for disposal: first at municipal sites designated by the Owner and secondly at approved sites chosen by

the Contractor.

B. Restoring Trench Surface:

Trench surfaces shall be maintained constantly as work progresses. All areas of settlement shall be refilled immediately.

Surfaces other than paved traveled ways disturbed by trenching shall be restored by the Contractor to a condition at least equal to that was existing before work began.

Trenches in grassed area may be restored with either conserved loam or loam borrow at the Contractor's expense. Minimum depth of loam shall be 4-inch.

END OF SECTION 02221

SECTION 02230 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

- A. Execute cutting (including excavating), fitting or patching of Work.
- B. In addition to contract requirements, upon written instructions of Engineer:

Uncover work to provide for Engineer's examination of covered work.

Remove samples of installed materials for testing.

Remove work to provide for alteration of existing work.

- C. Do not endanger any work by cutting or altering work or any part thereof.
- D. Do not cut or alter work of another contractor without written consent of Engineer.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

TRENCHING, BACKFILLING AND COMPACTING

SECTION 02221

1.4 <u>SUBMITTALS AND CODES</u>

- A. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.
- B. Prior to cutting which affects structural integrity or safety of Project, or work of another Contractor, submit written notice to Engineer, requesting consent to proceed with cutting, including:
 - Identification of Project.
 - Description of affected work.
 - Necessity for cutting.
 - Affect on other work, on structural integrity of Project.
- C. Description of proposed work. Designate:
 - Scope of cutting and patching.
 - Contractor and trades to execute work.
 - Products proposed to be used.
 - Extent of refinishing.
- D. Alternatives to cutting and patching:
 - Designation of party responsible for cost of cutting and patching.
 - Prior to cutting and patching done on instruction of Engineer, submit cost estimate.

New Street & Pound Street Sidewalk Extension

- E. Should conditions of Work, or schedule, indicate change of materials or methods, submit written recommendation to Engineer, including:
 - Conditions indicating change.
 - Recommendations for alternative materials or methods.
 - Submittals as required for Substitutions.
 - Estimate of cost.
 - Submit written notice to Engineer, designating timework will be uncovered, to provide for observation.

1.5 PAYMENT FOR COSTS

Costs caused by ill-times or defective work, or work not conforming to Contract Documents, including costs for additional services to Engineer: shall be borne entirely by the party responsible for the ill-timed, rejected or nonconforming work.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Materials for replacement of work removed shall comply with specifications or instructions of Engineer for type of work to be done.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of work including elements subject to movement or damage during:
 - Cutting and patching.
 - Excavating and backfilling.
- B. After uncovering work, inspect conditions affecting installation of new products.

3.2 PREPARATION PRIOR TO CUTTING

- A. Provide shoring, bracing and support as required to maintain safety and structural integrity of project.
- B. Provide protection for other portions of Project.
- C. Provide protection from elements.

3.3 <u>PERFORMANCE</u>

- A. Execute fitting and adjacent of projects to provide finished installation to comply with specified tolerances, finishes.
- B. Execute cutting and demolition by methods that will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
- C. Execute excavating and backfilling by methods that will prevent damage to other work, and will repairs and new work.
- D. Restore work that has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents and the instructions of the Engineer.
- E. Refinish entire surfaces as necessary to provide an even finish.

- F. Continuous Surfaces: To nearest intersections.
- G. Assembly: Entire refinishing.

END OF SECTION 02230

SECTION 02261 - RIPRAP

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications to General Conditions, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to furnish and place riprap complete as shown on the Drawings and/or specified herein. Riprap shall be placed to protect slopes, waterways, and culvert outlets from water damage at locations shown on the plans.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specifications Sections that directly relate to work of this Section include, but are not limited to:

TRENCHING, BACKFILLING AND COMPACT	SECTION 02221
STORM DRAINAGE SYSTEM	SECTION 02730

1.4 <u>SUBMITTALS AND CODES</u>

- A. Certifications and/or manufacturers product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stone shall be the type called for on the plans and shall conform to the requirements of the Connecticut D.O.T. Specifications Article M.12.02.
- B. Bedding material for riprap shall conform to the specification of the material indicated on the plans.

PART 3 - EXECUTION

A. Construction methods shall conform to the plans and to Connecticut D.O.T. Specification Article 7.03.03.

END OF SECTION 02261

RIPRAP 02261 - 1

SECTION 02270 - SEDIMENTATION AND EROSION CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals necessary to intercept and filter overground water flows to prevent the movement of silt from the construction area.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

GRADING SECTION 02212 RIPRAP SECTION 02261

1.4 SUBMITTALS AND CODES

- A. Certifications and/or manufacturers product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.
- C. Connecticut Guidelines for Soil Erosion and Sediment Control 2002.

PART 2 - PRODUCTS

2.1 HAY BALES AND STAKES

- A. Hay Bales: Forty pounds minimum weight and 120 pounds maximum weight.
- B. Wood Stakes:
 - Two per bale for securing bales.
 - Two inches by two inches by a minimum of three feet long.

2.2 MATERIALS FOR SILT FENCE

- A. Filter Fabric: Sub-article M.08.01-26, DOT Specifications. Obtain manufacturer's certification that filter fabric is suitable for the intended purpose. Do not use fabric susceptible to deterioration in sunlight. Submit 2-foot square sample and technical data sheet for acceptance by the Engineer. Submit manufacturer's installation instructions for acceptance by the Engineer.
- B. Posts: Wood. Three-foot minimum length as shown on the Drawings. Cross-section dimensions as recommended by filter fabric manufacturer.
- C. Other Suitable Mounting: As recommended by the manufacturer.

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Provide materials as required by the manufacturer, for attaching fabric to posts.

2.3 WOODCHIPS

A. Wood Chips: Shall be the type called for on the plans and shall conform to the requirements of the Connecticut D.O.T. Specifications Article M.13.05.1.

2.4 <u>CATCH BASIN SILT SACK</u>

A. Silt Sack: Shall be the type called for on the plans or equal.

PART 3 - EXECUTION

3.1 <u>PERFORMANCE</u>

- A. Place silt fence, silt sacks and construction entrance, wood chip berms and haybales at locations shown on plan prior to construction. Maintain erosion controls at all times during the construction period. Protect all catch basins from erosion with silt sacks.
- B. Remove silt fences at completion of project unless Engineer directs otherwise.

END OF SECTION 02270

SECTION 02481 - LANDSCAPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to do all landscaping work complete as shown on the Drawings and/or specified herein.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

TRENCHING, BACKFILLING AND COMPACTING SECTION 02221 LOAMING & SEEDING SECTION 02900

1.4 <u>SUBMITTALS AND CODES</u>

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specifications Sections.
- B. Product certificates signed by manufacturers certifying that their products comply with specified requirements.
 - 1. Manufacturer's certified analysis for standard products.
 - 2. Analysis for other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
- C. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and address of architects and owners, and other information specified.
- D. Planting schedule indicating anticipated dates and locations for each type of planting.
- E. Maintenance instructions recommend procedures to be established by Owner for maintenance of landscape work during entire year. Submit before expiration of required maintenance periods.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed landscaping work similar in material, design, and extent to the indicated for this Project and with a record of successful tree and shrub establishment.
 - 1. Installer's Field Supervisions: Require Installer to maintain an experienced full-time supervisor on the Project site during times that tree and shrub planting is in progress.
- B. Testing Agency Qualifications: To qualify for acceptance, an independent testing agency must demonstrate to Engineer's satisfaction, based on evaluation of agency-submitted criteria conforming to ASTM E 699, that it has the experience and capability to satisfactorily conduct the testing indicated without delaying the Work
- C. Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock."

- 1. Selection of trees and shrubs purchased under allowances, if any, will be made by Engineer, who will tag stock at their place of growth before they are prepared for transplanting.
- D. Topsoil Analysis: Furnish a soil analysis made by a qualified independent soil-testing agency stating percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, soluble salts and mineral and plant-nutrient content of topsoil.
 - 1. Report suitability of topsoil for growth of applicable planting material. State recommended quantities of nitrogen, phosphorus, and potash nutrients and any limestone, aluminum sulfate of other soil amendments to be added to produce satisfactory topsoil.
- E. Measurements: Measure trees and shrubs according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150mm) above ground for trees up to 4-inch (100mm) caliper size, and 12 inches (300mm) above ground for larger sizes. Measure main body of tree or shrub for height and spread: do not measure branches or roots tip-to-tip.
- F. Observation: The Engineer may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size and quality. Engineer retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately form Project site and replace.
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements of Divisions 1 Section "Project Meetings."

1.6 DELIVERY, STORAGE & HANDLING

- A. Deliver freshly dug trees and shrubs. Do not prune before delivery, except as approved by Engineer. Protect bark, branches, and root systems form sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy natural shape. Provide protective covering during delivery. Do not drop trees and shrubs during delivery.
- B. Handle balled and burlapped material by the root ball.
- C. Deliver trees and shrubs after preparations for planting have been completed and install immediately. If planting is delayed more that 6 hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and keep roots moist.
 - Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 - 2. Do not remove container-grown stock form containers before time of planting.
 - 3. Water root systems of trees and shrubs stored on site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.7 COORDINATION AND SCHEDULING

- A. Coordinate planting of trees and shrubs during normal planting seasons for such work in location of Project.
 - 1. Plant frost-tender trees and shrubs during normal planting seasons for such work in location of Project.
- B. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to Engineer.
 - 1. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

1.8 WARRANTY

A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

- B. Special Warranty: Warrant living trees and shrubs for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, abnormal weather conditions unusual for warranty period, or incidents which are beyond Contractor's control.
- Remove and replace dead trees and shrubs immediately unless required to plant in the succeeding planting season.
- D. Replace trees and shrubs that are more that 25 percent dead or in an unhealthy condition at end to warranty period.
- E. A limit of one replacement of each tree and shrub will be required, except for losses or replacements due to failure to comply with requirements.

1.9 <u>MAINTENANCE</u>

- A. Maintain trees and shrubs during warranty period by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray as required to keep trees and shrubs free of insects and disease. Maintain trees and shrubs for the following period:
 - 1. <u>Maintenance Period: 60 days following Substantial Completion.</u>

PART 2 - PRODUCTS

2.1 TREE AND SHRUB MATERIAL

- A. General: Unless otherwise indicated, furnish nursery-grown trees and shrubs conforming to ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Grade: Provide trees and shrubs of sizes and grades conforming to ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.
- C. Label at least 1 tree and 1 shrub of each variety and caliper with a securely attached, waterproof tag bearing legible designation of botanical and common name.
 - 1. Where formal arrangements or consecutive order of trees or shrubs are shown, select stock for uniform height and spread, and number label to assure symmetry in planting.

2.2 BALLED AND BURLAPPED STOCK MATERIAL

- A. Provide trees and shrubs dug with firm, natural ball of earth in which they are grown.
- B. Ball Size: Not less that sizes indicated.
- C. Ball Size: Not less than diameter and depth recommended by ANSI Z60.1 for type and size of trees or shrub requires. Increase ball size or modify ration of depth to diameter to encompass enough fibrous and
 - feeding-root system necessary for full recovery of trees and shrubs.
- D. Wrap, tie, and rigidly support earth ball as recommended by ANSI Z60.1 for size of balls required. Drumlace balls with a diameter of 30 inches (760 mm) or greater.

2.3 CONTAINER GROWN STOCK MATERIAL

- A. Provide healthy, vigorous, well-rooted trees or shrubs established in container. Provide balled and burlapped stock when required trees or shrubs exceed maximum size recommended by ANSI Z60.1 for container-grown stock.
 - 1. Established container stock is defined as a tree or shrub transplanted into container and grown long enough to develop new fibrous roots, so that root mass will retain its shape and hold together when removed form container.
- B. Containers: Rigid containers that will hold ball shape and protect root mass during shipping. Provide trees and shrubs established in containers of not less than minimum sizes recommended by ANSI Z60.1 for kind, type, and size of trees and shrubs required.

2.4 PLANTING MATERIAL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of six (6%) percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.
 - 1. Topsoil Source: Reuse surface soil stockpiled on-site and supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Verify suitability of stockpiled surface soil to produce topsoil.
 - 2. Topsoil Source: Amend existing in-place surface soil to produce topsoil. Verify suitability of surface soil to produce topsoil. Surface soil may be supplemented with imported or manufactured topsoil from off-site sources.

B. Organic Soil Amendments:

1. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 3/4-inch sieve.

C. Fertilizer:

- 1. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of one (1%) percent nitrogen and ten (10%) percent phosphoric acid.
- 2. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20% available phosphoric acid.
- 3. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - a. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4% phosphorous, and 2% potassium, by weight.
- 4. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - a. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.

D. Mulches:

- 1. Organic Mulch: Shredded pine bark.
- 2. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve.

E. Weed-Control Barriers:

1. Nonwoven Fabric: Polypropylene or polyester fabric, 3 oz./sq. yd. minimum.

New Street & Pound Street Sidewalk Extension

2. Composite Fabric: Woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, 4.8 oz./sq. yd..

2.5 STAKES

- A. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end.
- B. Tie Wire: ASTM A 641 (ASTM A 641M), Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch (2.7 mm) in diameter.
- C. Hose Chafing Guard: Reinforced rubber of plastic hose at least 1.2 inch (13 mm) in diameter, black, cut to length required to protect tree trunks form damage.
 - 1. Edging Size: As indicated
 - 2. Stakes: Aluminum, ASTM B 221 (ASTM B 221M), alloy 6061-T6, approximately1-1/2 inches (38 mm) wide by 12 inches (300 mm) long.
 - 3. Finish: Standard black-paint finish.

PART 3 - EXECUTION

3.1 <u>EXAMINATION</u>

A. Examine areas to receive trees and shrubs for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Engineer's acceptance of layout before planting. Make minor adjustments as may be required.

3.3 PLANTING SOIL ESTABLISHMENT

- A. Before mixing, clean topsoil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
- B. Mix soil amendments and fertilizers with topsoil at rates indicated below. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days.

2 parts topsoil, 1 part organic amendment, 1 part excavated soil

C. For tree pit and trench backfill, mix planting soil before backfilling and stockpile at site.

3.4 <u>EXCAVATION</u>

- A. Pits and Trenches: Excavate with sloped sides and with bottom of excavations slightly raised at center to assist drainage. Loosen hard subsoil in bottom of excavation.
 - 1. Balled and Burlapped Trees and Shrubs: Excavate approximately 3 times as wide as ball diameter and equal to ball depth, plus the following setting layer depth:

- a. Setting Layer: Allow 3 inches (75 mm) of planting soil.
- 2. Container-Grown Trees and Shrubs: Excavate 3 times as wide as container diameter and equal to container depth, plus the following setting layer depth:
 - a. Setting Layer: Allow 3 inches (75 mm) of planting soil.
- B. Dispose of Excess subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.
- C. Obstructions: Notify Engineer if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
 - 1. Hardpan Layer: Drill 6-inch (150 mm) diameter holes into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.
- D. Drainage: Notify Engineer if subsoil conditions evidence unexpected water seepage or retention in tree of shrub pits.
- E. Fill excavations with water and allow to percolate out, before placing setting layer and positioning trees and shrubs.

3.5 PLANTING TREES AND SHRUBS

- A. Set balled and burlapped stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
 - 1. Place stock on setting layer of compacted planting soil.
 - 2. Remove burlap and wire baskets from tops of balls and partially form sides, but do not remove from under balls. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operation.
 - 3. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- B. Set container-grown stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
 - 1. Carefully remove containers so as not to damage root balls.
 - 2. Place stock on setting layer of compacted planting soil.
 - 3. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- C. Dish and tamp top of backfill to form a 3-inch (75 mm) high mound around the rim of the pit. Do not cover top of root ball with backfill
- D. Wrap trees of 2-inch (50 mm) caliper and larger with trunk-wrap tape. Start at base of trunk and spiral cover trunk to height of first branches. Overlap wrap, exposing half the width, and securely attach without causing girdling. Inspect tree trunks for injury, improper pruning, and insect infestation and take corrective measures requires before wrapping.
- E. Planting Periods: All plant material (B&B, Container shrubs and Perennials) is to be installed from Mid-March to Mid July and September 1st to November 15th.

3.6 CONTINUOUS GROUND COVER & PERENNIAL BEDS

A. Till the planting bed topsoil area to a minimum depth of 6" Spread humus to a minimum depth of 2" and add soil amendments as called for by topsoil tests. Rototill to a depth of 6" to obtain a uniform, continuous planting mixture.

3.7 <u>MULCHING</u>

- A. Mulch backfilled surfaces of pits, trenches, and other areas indicated.
- B. Organic Mulch: Apply the following average thickness of organic mulch and finish level with adjacent finish grades. Do not place mulch against trunks or stems.
 - 1. Thickness: 2-inches (50mm).

3.8 <u>CLEANUP & PROTECTION</u>

- A. During tree and shrub work, keep pavements clean and work area in an orderly condition.
- B. Protect trees and shrubs form damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed.

3.9 DISPOSAL OF SURPLUS & WASTE MATERIAL

A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash and debris, and legally dispose of it off the Owner's property.

END OF SECTION 02481

LANDSCAPING 02481 - 7

SECTION 02513 – BITUMINOUS CONCRETE PAVEMENT AND CURBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to construct bituminous concrete paving and curbing, complete in place as shown on the Drawings and as specified.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

GRADING
PAVEMENT MARKINGS AND SIGNS

SECTION 02212 SECTION 02577

1.4 SUBMITTALS AND CODES

- A. Certifications and/or manufacturer's product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

1.5 QUALITY ASSURANCE

- A. Qualifications of Workmen: Provide at least one person who shall be thoroughly trained and experienced in the skills required, who shall be completely familiar with the design and application of work described for this Section, and who shall be present at all times during progress of the work of this Section and shall direct all work performed under this Section.
- B. For actual finishing of bituminous concrete and curbing and operation of the required equipment, use only personnel who are thoroughly trained and experienced in the skills required.

1.6 JOB CONDITIONS

- A. Apply prime and tack coats when ambient temperature is above 50 degrees F and when temperature has not been below 35 degrees F for 12 hours immediately prior to application.
- B. Construct bituminous concrete courses when atmospheric temperature is above 40 degrees F and when base course is dry and frost free. Base and sub-base courses may be placed when air temperature is above 30 degrees F.
- C. Grade control: establish and maintain required lines and elevations.

PART 2 - PRODUCTS

2.1 MATERIALS - Specifications unless specified on the plans.

- A. Sub-Base: 3" Minus Controlled Fill conforming to the requirements of Section M.02.06, Grading B of the DOT Specifications.
- B. Base: Processed Aggregate Base conforming to the requirements of Section M.05.01-1, 2, &3 of the DOT Specifications.
- C. Gravel Surfaces: Processed Gravel conforming to the requirements of Section M.02.06, Grading C of the DOT Specifications.
- D. Pavement Materials: Bituminous concrete mixtures conforming to the requirements of Section M.04 of the DOT Specifications. Tack Coat conforming to the requirements of Section Article 4.06.02, of the DOT Specifications.
- E. In Section M.04, reference is made to the Chief, Materials Testing Section, to the Materials Testing Section, and to the Laboratory; none of which will be involved in this work. The Contractor shall do the work of the Chief, the Section, and the Laboratory; or arrange for the producer of the bituminous concrete to do this work. Make the determinations, verifications, rejections, approvals, tests, and inspections as specified by Section M.04 and as necessary to produce satisfactory bituminous mixtures.

PART 3 - EXECUTION

3.1 <u>INSPECTION</u>

A. Examine the areas and conditions under which work of this Section will be installed. Correct conditions detrimental to proper and timely completion of the Work. Do not proceed until unsatisfactory conditions have been corrected.

3.2 <u>FINAL PREPARATION OF SUBGRADE</u>

- A. After preparation of subgrade as shown in these plans, thoroughly scarify and sprinkle the entire area to be paved, and then compact by rolling to a smooth, hard, even surface of 95 percent compaction to receive sub-base. Finish to the required grades, with due allowance for the thickness of base and bituminous concrete courses to be placed thereon.
- B. Equipment: Compact by rolling with an accepted power roller having minimum compression of 300 pounds per inch of tread width on the rear wheel and weighing not less than 7 tons, except that equivalent vibratory roller or compactor may be used when specifically accepted by the Engineer.

3.3 CONSTRUCTION OF SUBBASE AND BASE COURSE

- A. Construct processed aggregate base in accordance with the requirements of Article 3.04.03 of the DOT Specifications. This will include placing, compacting, wetting, and brooming of one course of the processed aggregate base material.
- B. Make final compacted depth of processed aggregate base as shown on the Drawings with tolerances as specified under Article 3.04.04 of the DOT Specifications.

3.4 CONSTRUCTION OF BITUMINOUS CONCRETE PAVEMENT AND CURBING

- A. Construct pavement in courses as called for on the Drawings. Use a class of bituminous concrete for each course as indicated on the Drawings. Thickness of each course: As shown on the Drawings.
- B. Construct the bituminous concrete pavement in accordance with Article 4.06.03 and Article 8.15.03 for curbing of the DOT Specifications.

- C. Article 4.06.03-1 Samples: Samples will not be taken by Materials Testing Section. Arrange for the producing plant to take its own samples to ascertain that mixtures are proper. Provide certifications. The Contractor will have the ultimate responsibility. Owner reserves rights to conduct referee testing, as he in his sole opinion deems appropriate.
- D. Article 4.06.03-2 Mixing Plant Inspection: Inspections, verifications, determinations, and approvals at the mixing plants will not be made by the Chief, Materials Testing Section. The Contractor will be responsible for mixtures and shall take whatever steps are required to ensure production of satisfactory mixtures. He shall certify that mixtures do meet specifications. Weights of completed mixtures will not be required.
- E. Article 4.0603-3 Mixing Plant Inspection Field Laboratory: Delete in its entirety.
- F. Article 4.06.03-3: In the fourth paragraph on Sheet 6, delete "Chief, Materials Testing Section" and substitute "Contractor."
- G. Article 4.06.03-5: Delete "Chief, Materials Testing Section" wherever it appears and substitute "Contractor."
- H. Certifications: Furnish certified test reports, material certificates, and certificates of compliance in accordance with the requirements of Article 1.06.07 of the DOT Specifications.

3.5 CONSTRUCTION OF GRAVEL SURFACES

- A. Examine the subgrade and the conditions under which the gravel surfaces are to be installed. Do not install gravel surfaces until any unsatisfactory conditions have been corrected.
- B. Subgrade preparation and Processed Aggregate Base: grade subgrade and base to required elevations and firmly compact.
- C. Gravel Surface: Place processed gravel and compact by rolling with a 600 pound roller.

3.6 <u>PROTECTION</u>

A. Protect from traffic during all operations.

3.7 FINISH TOLERANCES

- A. Finish surfaces to the following tolerances.
- B. Processed Aggregate Base: Plus 0.00 feet to minus 0.05 feet from line grade shown on the Drawings.
- C. Bituminous Concrete Surface Course: Plus or minus 0.05 feet at any point from line and grade shown on the Drawings.
- D. Painting: Apply the marking paint is strict accordance with the manufacturer's published recommendations, using all means necessary to protect the painted surfaces until dry. Width: 4 inches unless otherwise indicated on the Drawings.

SECTION 02540 - SITE CONCRETE BACKFILL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to install concrete backfill in postholes or other areas as indicated on the plans. Work includes earth excavation, preparation of subgrade, support and dewatering of excavation and backfill by placement of portland cement concrete.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CONCRETE AND REINFORCING STEEL

SECTION 02550

1.3 SUBMITTALS AND CODES

- A. Certifications and/or manufacturer's product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

PART 2 - PRODUCTS-

2.1 <u>MATERIALS</u>

A. Materials for this work shall conform to the requirements of Section M.03, of the CT. D.O.T. Specifications "Portland Cement Concrete".

PART 3 - EXECUTION

3.1 <u>PERFORMANCE</u>

A. Construction methods shall be in accordance with the requirements of Section 6.01 of the DOT Specifications, "Concrete for Structures", except that concrete may be mixed on-site.

SECTION 02550 - POURED IN PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to install concrete work as ordered by the engineer, as shown on the Drawings and as specified herein. Work includes earth excavation, preparation of subgrade, support and dewatering of excavation, reinforcing steel and concrete placement.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

GRADING SECTION 02212

1.3 <u>SUBMITTALS</u>

- A. Certifications and/or manufacturer's product data of materials listed in part 2. Submit to the Engineer, shop drawings showing locations of all joints and accessories. Submit full shop drawings and bar schedules for reinforcing steel. Submit technical data on all materials and components. Submit other data specified herein when required.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.
- C. Codes and standards: all work shall be done in accordance with all local governing regulations having jurisdiction. Unless otherwise specified herein, or by local ordinance, all work shall be done in accordance with the latest edition of ACI Building Code 318, ACI Manual of Standard Practice 315, and ACI Specifications for Structural Concrete 301.

PART 2 – PRODUCTS-

2.1 <u>MATERIALS</u>

- A. Concrete materials: comply with requirements of applicable Division 03 sections for concrete materials, admixtures, bonding materials, curing materials, and others as required.
- B. Concrete mix, design and testing: comply with requirements of applicable Division 03 sections for concrete mix design, sampling, and testing, and quality control, and as herein specified.
- C. Design mix to produce normal weight concrete, consisting of portland cement, aggregate, air entraining admixture and water to produce the following properties:
 - 1 Compressive strength: 4500 psi minimum at 28 days.
 - 2 Slump range: 2" -4".

- 3 Air content: 5% -7%.
- D. Forms: steel, wood or other suitable material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use forms that are straight and free of distortion and defects. Use flexible spring steel forms or laminated boards to form radius bends as required. Coat forms with a non-staining form release agent that will not discolor or deface surface of concrete.
- E. Welded wire mesh: welded plain cold drawn steel wire fabric conforming to ASTM A 185. Furnish in flat sheets, not rolls, unless otherwise acceptable to the Engineer.
- F. Reinforcing bars: deformed bars of new billet steel conforming to ASTM A 615, grade 60, unless otherwise shown.
- G. Water: clean water suitable for drinking purposes and free from injurious amounts of mineral and organic substances.
- H. Joint filler: pre-molded, non-extruding joint filler conforming to ASTM D-1751, 1/4" and 1/2" thick as required.
- I. Sub-base course: stone and gravel materials conforming to the requirements of CT. DOT Form 818 Section M.02, Article M.02.06, Gradation "B".
- J. Base course: processed aggregate conforming to the requirements of CT. DOT Form 818 Section M.05, Article M.05.01.
- K. Geotextile: non-woven geotextile with a minimum weight of 4 oz. / sq. yd.
- L Saltguard: Consolideck WB or equal.
- M Detectable Warning Panel (DWP): Red polymer, Superior Products or equal.

PART 3 - EXECUTION

3.1 <u>INSPECTION</u>

A. Examine the subgrade and the conditions under which site concrete is to be installed. Installation shall not proceed until all unsatisfactory conditions, if any, have been corrected.

3.2 SUBGRADE PREPARATION

- A. Remove loose material from compacted subgrade surface immediately prior to placing concrete.
- B. Grade and prepare subgrade to smooth surface parallel to finish grade and to proper elevation. No humps or hollows will be permitted. Roll with a 3-wheel power roller weighing not less than 10 tons.
- C. Remove soft and yielding materials which will not compact readily when rolled or tamped. Replace with crushed stone, gravel, or other approved materials. Ram or roll until level with adjacent grade.
- D. Check elevations and position of all utility structures, valves, etc. that lie within the areas to receive concrete pavements. Make or have made any adjustments required to properly line up and set these elements with regard to the finish work.

E. Subgrade shall be smooth, hard and dry, prior to installation of the sub-base course. Notify the Engineer following completion of subgrade preparation to allow for inspection and compaction testing. 00 not proceed with installation of the sub-base course until approval by the Engineer.

3.3 INSTALLATION OF SUB-BASE COURSE

A. Sub-base course: install to requirements of CT. DOT Form 818 Section 2.12, Articles 2.12.03 through 2.12.05. Thickness of compacted sub-base course shall be as detailed. Sub-base courses greater than 6" in thickness shall be placed and compacted in two courses of equal depth. Thickness of sub-base course and use of geotextile varies depending upon whether proposed pavements fall within cuts or fills -see details for clarification.

3.4 INSTALLATION OF BASE COURSE

- A Base course: install to requirements of CT. DOT Form 818 Section 3.04, Articles 3.04.01 through 3.04.03. Thickness of compacted base course shall be as detailed.
- B. Finished base course shall be thoroughly compacted and moistened as required.

3.5 <u>FORM CONSTRUCTION</u>

- A. Set forms to the required grades and lines, rigidly braced and secured. Install sufficient quantity of forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- B. Check completed formwork for grade and alignment to the following tolerances:
- C. Top of form units: not more than 1/8" in 10'.
- D. Vertical face: not more than 1/4" in 10' on longitudinal axis.
- E. Clean forms after each use and coat with form release agent as often as required to ensure separation from concrete without damage.

3.6 REINFORCEMENT

- A. Storage: bars and mesh shall be free from scale, oil, ice and structural defects, and kept in this condition on the job site. Bars and mesh shall be stored out of contact with the ground.
- B. Appliances: adequate chairs and other devices shall be used to maintain proper elevation of bars and mesh reinforcing at all times. All chairs and other devices shall be galvanized. Continuous mesh reinforcing shall be lapped at least one wire space.
- C. Preparation: all reinforcing steel within the limits of 1 days pour shall be in place and firmly wired before concrete pouring starts. Bending of bars by use of heat will not be permitted.
- D. Placement: locate, place, and support reinforcement in accordance with all applicable requirements of ACI-318-77.

3.7 CONCRETE PLACEMENT -GENERAL

A. Placement of concrete shall be according to the accepted practice of AC.1.

- B. Do not place concrete until subgrade and forms have been checked for line and grade. Moisten subgrade as required to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they have been brought to the required grade and alignment.
- C. Place concrete using methods which prevent segregation of the mix and with as little handling as possible. Consolidate concrete along the face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement or side forms. Use only square faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocation of reinforcing dowels and joint devices.
- D. Deposit and spread concrete in a continuous operation between joints as far as possible. **If** interrupted for more than 1/2 hour, place a construction joint.

3.8 JOINT PLACEMENT

- A. General: construct expansion, score (weakened plane/contraction) and construction joints as detailed, as shown on the Drawings and in accordance with the accepted practice of the A.C.1. Provide bridging where necessary to pour concrete panels in sizes as indicated on the Drawings.
- B. All joints shall be constructed true to line with face perpendicular to surface of the concrete unless otherwise specified or detailed. Construct transverse joints at right angles to the centerline.
- C. Score (weakened plane/contraction) joints: provide score joints, sectioning concrete into areas as detailed and as shown on the Drawings. Construct joints 1/4" wide by depth as detailed, by grooving top portion of fresh concrete with a recommended cutting tool and finishing with a jointer.
- D. Construction joints: place construction joints at end of placements and at locations where placement operations are stopped for a period of more than 1/2 hour, except where such placements terminate at expansion joints.
- E. Construct joints as shown, or if not shown, use standard metal key-way-section forms.
- F. Expansion joints: provide and install pre-molded joint filler for expansion joints abutting curbs, inlets, structures, walks, walls, other fixed objects and as shown on the Drawings. Locate expansion joints at 25' O.C., or as shown on the drawings.
- G. Extend joint fillers full width and depth of joint, and not less than 1/2" or more than 1" below finished surface where joint sealer is indicated. If no joint sealer is used, place top of joint filler flush with finished concrete surface.
- H. Furnish joint fillers in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
- I. Protect the top edge of joint filler during concrete placement with wood strip, metal cap or other temporary material. Remove protection after concrete has been placed on both sides of joint.

3.9 CONCRETE PAVEMENTS, SLABS AND PADS

A. Concrete pavements located at building doors shall be pinned to the building foundation with steel rebar, as detailed.

- B. Install sub-base and base courses over previously prepared subgrade. Thoroughly compact sub-base and base courses and moisten.
- C. Construct and install forms as required and detailed.
- D. Place concrete. Consolidate, tamp, screed and finish true to line. Provide joints as detailed.
- E. Round edges of pavements and all joint edges with an approved tool. Eliminate tool marks on concrete surface.
- F. Finish horizontal surfaces as detailed and as shown on the drawings.

3.10 <u>CONCRETE CURBS</u>

- A. Construct as detailed at locations as shown on Drawings. All concrete curbs that occur adjacent to concrete pavements shall be constructed integrally with pavements as detailed.
- B. Accurately place and brace formwork with tops at finish elevations and curved sections on the true radii with radial joints.
- C. Locate 1/2" expansion joints as shown on the Drawings or at 15' maximum intervals and wherever curbing abuts walls, structures, existing curbing, etc.
- D. Finish exposed surfaces as detailed.

3.11 CONCRETE FINISHING -HORIZONTAL SURFACES

- A. General: after striking *off* and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- B. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities, and re-float repaired areas to provide a continuous smooth finish.
- C. Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2" radius, unless otherwise indicated. Eliminate tool marks on concrete surface.
- D. After completion of floating and troweling when excess moisture or surface sheen has disappeared, complete surface finishing as detailed. Methods defined as follows:
- E. Light broom finish: draw a fine-hair broom across concrete surface in direction as detailed. Repeat operation if required, to provide a fine line texture acceptable to the Engineer.
- F. Heavy broom finish: draw a stiff-bristled broom across concrete surface in direction as detailed. Repeat operation if required, to provide a coarse, non-slip finish, acceptable to the Engineer.
- G. Rubbed finish: rub exposed concrete surfaces with a wood or rubber float to achieve a uniform, gritty texture.
- H. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Engineer.

3.12 CONCRETE FINISHING -FORMED SURFACES

- A. Smooth rubbed finish: wet surfaces and rub with carborundum brick or other abrasive until uniform color and texture are produced. No cement grout shall be used other than the cement paste drawn from the concrete itself by the rubbing process. Smooth rubbed finish shall be produced on newly hardened concrete no later than the day following form removal.
- B. Related unformed surfaces: strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.13 CURING

- A. General: protect concrete so that the temperature at the surface will not fall below 50 degrees F., and there will be no loss of moisture from concrete surfaces for a period of seven days. Cover concrete surfaces with approved kraft paper, burlap, or polyethylene sheeting.
- B. At Contractor's option, and only with approval by the Engineer, a colorless liquid membrane curing compound may be applied. Apply as directed by manufacturer's recommendations.

3.14 REPAIRS

- A. Where new site concrete has been cracked or damaged, remove the entire panel/section wherein the damage occurs and install a new panel/section. No patching is permitted.
- B. Patching/repairing of surface defects (honey-combed areas, etc.) may be permitted if damaged areas are not extensive. Repair work must meet with the approval of the Engineer.

3.15 PROTECTION

- A. Protect concrete from damage until acceptance of the work. Exclude traffic from pavement for at least 14 days after placement. No construction traffic is permitted.
- B. Sweep concrete pavements and wash all concrete surfaces free of stains, discolorations, dirt and other foreign materials just prior to final inspection.
- C. Protection of finished work is the responsibility of the Contractor until final acceptance of all work by the Engineer. All damaged work shall be replaced by the Contractor at no additional cost to the Contract Sum.

3.16 CLEAN-UP

- Keep grounds clean of rubbish caused by work and of unused materials at all times. Dispose of rubbish off-site.
- B. Remove unused materials and equipment. Leave area clean.

SECTION 02577 - PAVEMENT MARKINGS AND SIGNS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes all labor, material, equipment and incidentals required to install the pavement markings, reflectors and signs as indicated on the plans. Signs shall include all posts and hardware required to install each sign. The furnishing of all labor and materials for this work is included.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

BITUMNINOUS CONCRETE PAVING

SECTION 02513

1.4 SUBMITTALS AND CODES

- A. Certifications and/or manufacturer's product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.
- C. U.S. Department of Transportation "Manual on Uniform Traffic Control Devices", latest edition.

PART 2 - PRODUCTS

- 2.1 <u>MATERIALS Specifications unless specified on the plans.</u>
 - A. All painted pavement markings shall conform to the requirements of Section 12.09 of the DOT Specifications. This material shall be used in the site unless OWNER requests otherwise.
 - B. All epoxy resin painted pavement markings shall conform to the requirements of Section 12.10 of the DOT Specifications.
 - C. Signs, etc. shall conform to the requirements of Section 12.08 of the DOT Specifications.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect the areas to receive painted pavement markings, Sweep and clean surfaces to completely eliminate loose material and dust.
- B. Submit a detailed drawing of proposed pavement markings indication of colors, linetypes, etc. for review by the Engineer. Do not proceed with painting until final approval from the Engineer has been received.

3.2 APPLICATION

SECTION 02730 – STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.1 <u>RELATED DOCUMENTS</u>

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. The work includes the complete installation of storm drainage systems as indicated on the plans. The placement of pipe culvert, culvert ends, construction of catch basins, U-drains (curtain drains), manholes, detention system, hydrodynamic separators, all related trench excavation, bedding material, compaction, dewatering, line and grade and the furnishing of all labor and materials for this work is included.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

TRENCHING, BACKFILLING AND COMPACTING	SECTION 02221
CUTTING AND PATCHING	SECTION 02230
RIPRAP	SECTION 02261
ROCK AND BOULDER REMOVAL	SECTION 02211

1.4 SUBMITTALS AND CODES

- A. Certifications and/or manufacturers product data of materials listed in part 2.
- B. Wherever reference is made to the D.O.T. Specifications, it shall mean the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as modified by Supplemental Specifications issued by the Connecticut Department of Transportation.

PART 2 - PRODUCTS

- 2.1 <u>MATERIALS-Specifications unless specified on the plans.</u>
 - A. Bedding material shall be sand which passes a 3/8-inch sieve, and not more than 10% passes a No. 200 sieve. When "Fine Aggregate is used on the plans it shall mean Bedding Material. When ground water is encountered the use of 3/4 inch stone conforming to Section M.01.01 of the D.O.T. Specifications may be permitted upon approval of the Engineer. All material shall conform to Section M.08.0121.
 - B. Bank Run Gravel shall conform to Grading "A" of Section M.02.06 of the D.O.T. Specifications.
 - C. Pipe culverts shall be the type, size and class as specified on the plans. PVC shall be Polyvinyl Chloride Plastic Pipe in accordance with Article M.08.02.27 of the D.O.T. Specifications. RCP shall mean Reinforced Concrete Pipe in accordance with Article M.08.01.6. When no class is specified on the plans class IV or better shall be used. CPEP-S shall mean corrugated polyethylene pipe with smooth interior culvert in accordance with Article M.08.01.25 as manufactured by Hancor "Hi-Q" or ADS "N-12" or approved equivalent. All structures shall meet Connecticut DOT specifications.
 - D. Gaskets shall be preformed plastic gaskets or flexible, watertight, rubber-type gaskets conforming to Article M.08.01 of the D.O.T. Specifications.

SECTION 02900 - LOAMING AND SEEDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

A. Furnish all labor, materials, equipment and incidentals necessary to loam, fertilize, seed, mulch and maintain all seeded areas as shown on the Drawings and/or specified herein, and any other areas disturbed by the Contractor's operations.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

CLEARING AND GRUBBING	SECTION 02130
GRADING	SECTION 02212
TRENCHING, BACKFILLING AND COMPACTING	SECTION 02221
LANDSCAPING	SECTION 02481

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage experienced trained personnel in this type of work.

1.5 DELIVERY, STORAGE & HANDLING

- A. Fertilizer shall be delivered to the site in the original unopened containers each showing the manufacturers guaranteed analysis, and stored so that when used it shall be dry and free flowing.
- B. Lime shall be delivered and maintained in a dry, free flowing condition.
- C. Seed shall be delivered in sealed containers bearing the dealer's guaranteed analysis and stored in a dry, protected place.

1.6 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Warranty: Warrant all lawn areas where seed is installed for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth, except for defects resulting form lack of adequate maintenance, neglect, or abuse by Owner, abnormal weather conditions unusual for warranty period, or incidents which are beyond Contractor's control.
- C. If the Engineer deems an area of seeding to be unsatisfactory, the contractor shall rake and reseed and mulch as required for proper germination.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Loam shall be fertile, natural soil, typical of the locality, substantially free of stones, roots, sticks, clay, peat, weeds and sod, and obtained from naturally well-drained areas.
 - 1. It shall not be excessively acid or alkaline, nor contain toxic material harmful to plant growth. Any topsoil stockpiled as a result of operations under Section 02212 may be used, but the Contractor shall furnish any additional loam at his own expense.
- B. Fertilizer shall be complete commercial fertilizer, 10-10-10 grade.
- C. Lime shall be ground limestone containing not less than 85% calcium and magnesium carbonates.
- D. Seed shall be from the same or previous year's crop and shall have not more than 1% weed content. Seed shall also meet the following requirements:
 - 1. Grass seed of the specified mixture shall be furnished in fully labeled, standard, sealed containers.
 - 2. Percentage and germination of each seed type in the mixture, purity, and weed seed content of the mixture shall be clearly stated on the label.
- E. Hay mulch shall consist of mowed and properly cured grass or legume mowings, free from swamp grass, weeds, twigs, debris or other deleterious material. It shall be free from rot or mold.

PART 3 - EXECUTION

3.1 GENERAL

- A. Rake the subgrade of all areas to be loamed for seed or ground cover and remove all rubbish, sticks, roots and stones larger than 2 inches. Spread and lightly compact the loam to finished grade as shown on the Drawings. When finished grades are not indicated, they shall be uniform between the points to existing grades, except that the top and bottom of slopes shall be rounded.
- B. After the loam is placed and before it is raked to true lines and rolled, spread limestone evenly over loam surface and thoroughly incorporate into the loam by heavy raking to at least one-half the depth of the loam.
- C. Uniformly spread fertilizer and immediately mix with the upper 2 inches of loam. Immediately following this preparation, uniformly apply the seed and lightly rake the seed into the surface. Lightly roll the surface and water with a fine spray.
- D. Seeding and fertilizing shall be done between April 1 and June 1, between August 15 and October 15, or as directed or permitted. Seeding shall not be done during windy weather or when the ground is frozen, excessively wet, or otherwise untillable. Promptly thereafter, or within 24 hours after the seeding operation, lightly and uniformly mulch the area with hay.
- E. Protect against washouts by an approved method. Any washout which occurs shall be regarded and reseeded at the Contractor's expense until a good sod is established.

3.2 APPLICATION RATES

Place loam to a minimum depth of 6 inches. Apply lime at the rate of 50 to 100 lbs. per 1,000 square feet. Apply fertilizer at the rate of 30 pounds per square feet. Seed shall be applied at the rate of 4-6 pounds per 1,000 square feet. Apply mulch at the rate of 90 lbs. per 1,000 square feet.

3.3 MAINTENANCE

- A. Keep all seeded areas watered and in good condition, reseeding if and when necessary until a good, healthy, uniform growth is established over the entire area seeded, and maintain these areas in an approved condition until final acceptance of growth by the Engineer. The maintenance shall include repairs for damage caused by erosion.
- B. Inspection of the work of seeding will be made upon the establishment of the specified growth. Notice requesting inspection shall be submitted to the Engineer at least five days prior to the anticipated date.

- E. Concrete and reinforcement shall conform to Article M.03.01, Class "C" and M.06.01 of the D.O.T. Specifications.
- F. Mortar: Shall conform to the requirements of Section M.11.04 of the D.O.T. Specifications.
- G. Clean, washed crushed stone: Shall conform to the requirements of Section M.01.01, Table M.01.02-2 of the D.O.T. Specifications.
- H. Filter Fabric: Shall be non-woven with minimum physical properties of 1.5 ounce per square yard (per ASTM D-3776) and a flux of 100 gallons per square foot minimum (per ASTM D-4491).
- I. Catch basins and manholes shall conform to the requirements of Section M.08.02 of the D.O.T. Specifications.

PART 3 - EXECUTION

3.1 <u>STORM DRAINAGE CONSTRUCTION, GENERAL</u>

- A. Construction Methods for this work shall generally conform to the requirements of Section 2.05, Section 5.07, Section 6.01, Section 6.02, Section 6.51 and Section 6.52 of the D.O.T. Specifications.
- B. Trench excavation shall be to the depths as indicated on the plans. When a drainage structure or pipe is to be eliminated it shall be completely removed and all pipes plugged with cement masonry or removed completely, and the excavation backfilled. All excavation and backfilling shall be in accordance with Section 2.05 of the D.O.T. Specifications
- C. Pipe bedding shall be placed in accordance with the details on the plans. Bedding material under the pipe shall be four inches and pre-shaped to 10 % of the pipe diameter. After the pipe is installed bedding material shall be placed in accordance with the details on the plan. When poor foundation material is encountered installation shall be in accordance with Section 6.51.03 of the D.O.T. Specifications
- D. Pipe installation shall start at the downstream end and progress upstream. Pipe shall be installed true to lines and grade as shown on the plans. Hubs shall be upgrade with the spigot ends fully entered the adjacent hubs. Pipe installation under the building shall conform to the plumbing.
- E. Install plastic marker tape 12" above all storm drains and culverts.
- F. Concrete Culvert Ends shall be placed on a six-inch bank run gravel base. They shall be accurately aligned, and the joints sealed as specified in Article 6.51.03 of the D.O.T. Specifications.
- F. Catch basins and manholes shall be constructed in accordance with the plans and Section 5.07 of the D.O.T. Specifications. Inlet and outlet pipes shall be flushed with the inside of the catch basin/manhole and be watertight. All concrete and reinforcement shall be in accordance with Sections 6.01 and 6.02 of the D.O.T. Specifications. Previous material shall be used for backfilling the upper portion of the excavation.
- G. All catch basins, culverts, manholes, tanks etc. shall be completely cleaned of sediment or other debris prior to contractor vacating the site.

- A. Parking stalls: Paint 4" wide lines to delineate all parking stalls as shown on the drawings. Painted lines shall be for the full depth of the parking stall.
- B. Other pavement markings: Paint to delineate all other pavement markings (arrows, cross-hatching, handicap symbols, centerlines, fire lanes, etc.) as shown on the drawings.

3.3. FIELD QUALITY CONTROL

- A. Apply waterborne pavement marking paint in accordance with applicable requirements of CDOT Form 818, Section 12.09, Articles 12.09.01 through 12.09.03.
- B. Apply epoxy resin pavement marking paint in accordance with applicable requirements of CDOT Form 818, Section 12.10, Articles 12.10.01 through 12.10.03.

3.4 <u>PROTECTION</u>

A. Protect all painted pavement markings from both vehicular and pedestrian traffic until completely dry.

3.5 <u>CLEAN-UP</u>

- A. Keep grounds clean of rubbish caused by work and of unused materials at all times. Dispose of rubbish offsite.
- B. Remove unused materials and equipment. Leave clean area.

SECTION 02989 - MISCELLANEOUS WORK AND CLEAN UP

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attention is directed to the Contract, General Conditions, Modifications, and all Sections within Division 1, General Requirements, which are hereby made a part of this Specification Section.

1.2 WORK INCLUDED

Furnish all labor, materials, equipment and incidentals required to do all miscellaneous work and cleaning up not otherwise specified. The work of the Section includes, but is not limited to, the following:

- 1. Continual clean up of site.
- 2. Cleaning up.
- 3. Incidental work.

1.3 <u>RELATED WORK</u>

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

GRADING SECTION 02212 SEDIMENTATION AND EROSION CONTROL SECTION 02270

PART 2 – PRODUCTS-

2.1 <u>MATERIALS-Not applicable</u>

PART 3 - EXECUTION

3.1 CLEANUP

A. Maintain the site of the work as neat as possible, free of debris and rubbish. At the conclusion of the work, the Contractor shall remove all construction material, excess excavation, equipment and all other debris remaining on the job as a result of construction operations unless otherwise specified herein or directed by the Engineer.

3.2 <u>INCIDENTAL WORK</u>

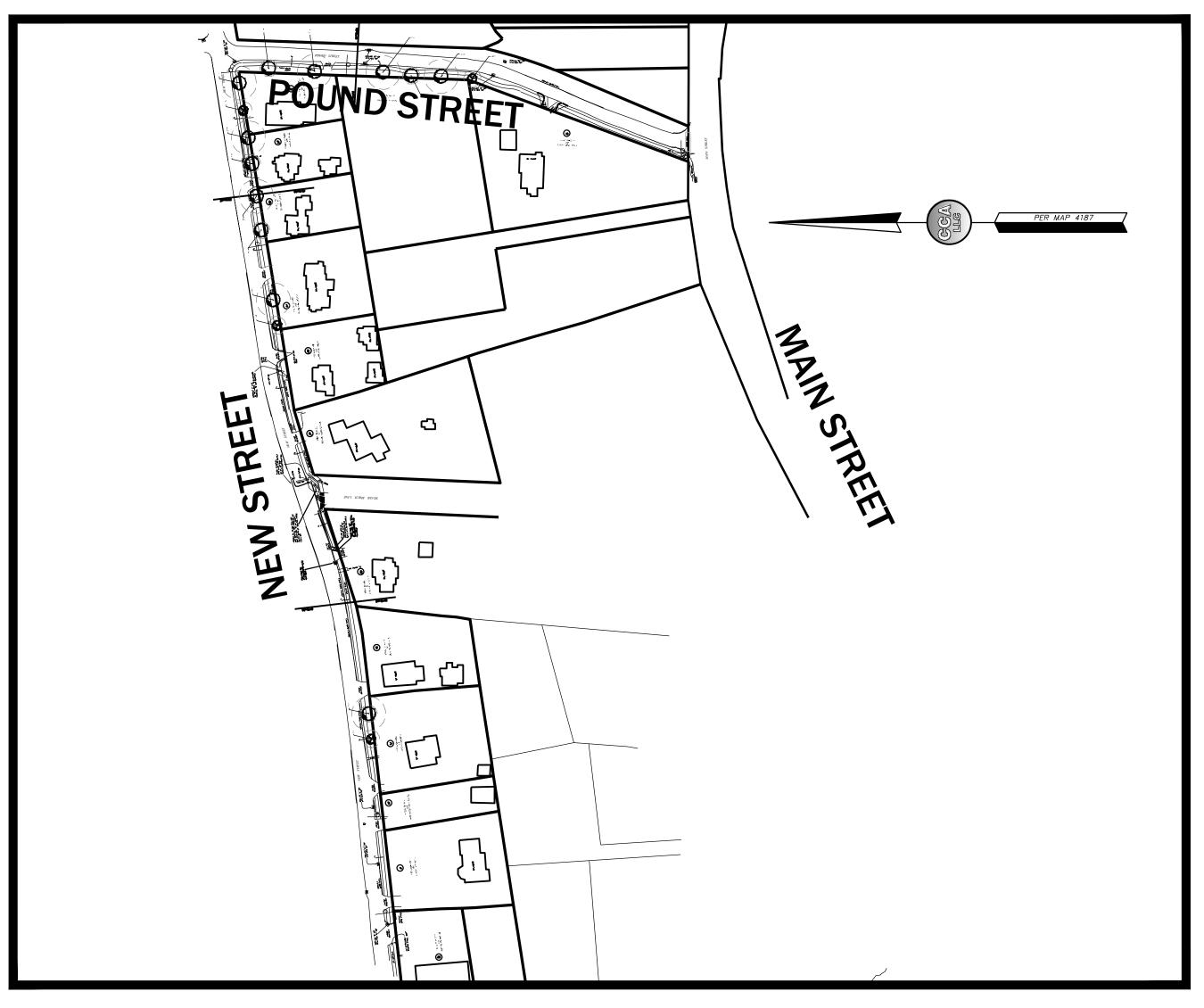
A. Do all incidental work not otherwise specified but obviously necessary to the proper completion of the Contract as specified and as shown on the Drawings.

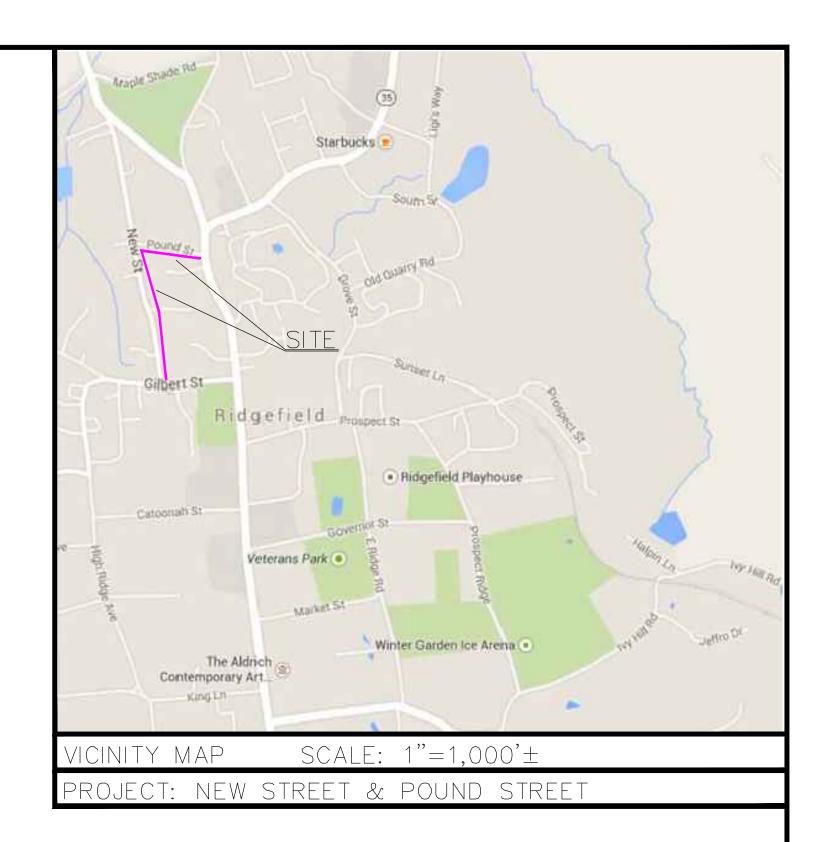
SIDEWALK EXTENSION PLANS

TOWN OF RIDGEFIELD

NEW STREET & POUND STREET

RIDGEFIELD, CONNECTICUT





OWNER:

TOWN OF RIDGEFIELD
400 MAIN STREET
RIDGEFIELD, CT 06877
APPLICANT
TOWN OF RIDGEFIELD
400 MAIN STREET
RIDGEFIELD, CT 06877

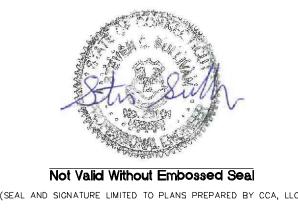
CIVIL ENGINEER, SURVEYOR & LANDSCAPE ARCHITECT



40 OLD NEW MILFORD ROAD BROOKFIELD, CONNECTICUT



APRIL 4, 2023



LIST OF DRAWINGS

SHEET TITLE

N1 GENERAL LEGEND, NOTES & ABBREVIATIONS

S1-S4 PROPOSED SIDEWALK PLAN

D1 NOTES & DETAILS

- CT. DOT SIDEWALK RAMP SHEET 2 AND 4
- CT. DOT METAL SIGN POSTS AND SIGN

MOUNTING DETAILS

ES1 SEDIMENTATION & EROSION CONTROL DETAILS

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ABBREVIATIONS

APPROX APPROXIMATE BASEMENT FLOOR BENCH MARK BITUMINOUS CONCRETE LIP CURB BLDG BUILDING CIP CAST IRON PIPE CATCH BASIN CURTAIN DRAIN CHORD CONSTRUCTION LIMIT LINE CONC CONCRETE CONST CONSTRUCT CORRUGATED METAL PIPE CPEP-S CORRUGATED POLYETHYLENE PIPE WITH SMOOTH INTERIOR CULV CULVERT DEPARTMENT OF TRANSPORTATION DISTRIBUTION BOX DRAINAGE MANHOLE DEEP HOLE DRIVEWAY DUCTILE IRON PIPE DETECTABLE WARNING PANEL EOP EDGE OF PAVEMENT ELEC ELECTRIC ELEVATION ELEV EXIST, EX EXISTING EXISTING GRADE FLARED END FIRST FLOOR FINISH GRADE FOUNDATION GPD GALLONS PER DAY GARAGE GROUND GEOTEXTILE SILT FENCE GAS VALVE HEADWALL HANDICAP HIGHWAY **HYDRANT** INLET INVERT IRON PIPE LENGTH LANDING LINEAR FEET LIGHT POLE MANHOLE MAXIMUM METAL METAL BEAM RAIL MINIMUM MISCELLANEOUS MONUMENT NUMBER OUTLET PERCOLATION TEST POINT OF CURVATURE POINT OF COMPOUND CURVATURE POINT OF INTERSECTION POINT OF TANGENCY PERMANENT VEGETATION PVC POINT OF VERTICAL CURVATURE POINT OF VERTICAL INTERSECTION PVIPOINT OF VERTICAL TANGENCY PVTPVRC POINT OF VERTICAL REVERSE CURVE POLYVINYL CHLORIDE PIPE PVCPROJ PROJECT PROPERTY LINE PROP, PR PROPOSED PUMP STATION RADIUS RAILROAD RCP REINFORCED CONCRETE PIPE RELOC RELOCATION REQUIRED REQ'D RETAINING RET RIGHT OF WAY ROW ROAD RD. ROOF DRAIN SANITARY SAN SANITARY SEWER MANHOLE SSMH SEPTIC TANK SPECIFICATION SPEC SPIKE SPK STK STAKE STD STANDARD STA STATION

STONE WALL

STORY STREET

TANGENT

TELEPHONE

TEMPORARY

TOP OF FRAME

UNDER DRAIN

WATER VALVE

YARD DRAIN

VERTICAL

WITH

SANITARY SEWER

SW

SS STY

TAN

TEL

TEMP

VERT

WV

U-DRAIN

GENERAL LEGEND PROPERTY LINE EXISTING MONUMENT EXISTING IRON PIN OR PIPE PROPOSED IRON PIN OR PIPE PROPOSED MONUMENT DRILL HOLE STONE BOUND UTILITY POLE W/ANCHOR EASEMENT LINE CHAIN FENCE _____ o ____ o ____ WOOD FENCE STONE WALL WIRE FENCE _____ x ____ CATCH BASIN LIGHT POLE BLDG. SETBACK LINE WATERCOURSE FLOODWAY FLOODPLAIN EXISTING CONTOUR PROPOSED CONTOUR DEEPHOLE TEST PIT PERCOLATION TEST EXISTING SPOT ELEVATION 311.5 PROPOSED SPOT ELEVATION 311 + 5LOT NUMBER STREET NUMBER TREE LINE GEOTEXTILE SILT FENCE (GSF) FLAGGED WETLANDS SOIL BOUNDARY ROCK OUTCROP ----- III=III ------CONSTRUCTION LIMIT LINE HAY BALES (HB) FOOTING DRAIN (F) ROOF DRAIN (R) PRIMARY SEPTIC SYSTEM AREA $\widehat{\mathbb{R}}$ RESERVE SEPTIC SYSTEM AREA SOLAR ACCESS ROOF ROOF RECHARGE GALLERY

GUIDE RAIL

EXISTING CURB GRAVEL ROAD EXISTING MANHOLE EXISTING STORM DRAINAGE MANHOLE EXISTING SANITARY SEWER MANHOLE EXISTING WATER VALVE EXISTING GAS VALVE EXISTING FIRE HYDRANT EXISTING SIGN HANDICAP PARKING SPACE HANDICAP RAMP REFUSE AREA EXISTING WELL TRAFFIC FLOW DIRECTION MONITORING WELL SWALE, GRADE TO DRAIN

EXISTING RETAINING WALL PROPOSED RETAINING WALL

RAILROAD TRACKS

RIPRAP PAD EXIST. GAS MAIN

EXIST. WATER MAIN EXIST. WATER SERVICE EXIST. TELEPHONE LINE EXIST. ELECTRIC SERVICE _____ G ____

——— LEVEL 3 ————

_____SL____

=========

R

O LD

——Е/T———

■ AIR-VENT OR BLOW-OFF

-

—— GS ———

EXIST DRAINAGE

EXIST. OVERHEAD ELECTRIC SERVICE EXIST. LEVEL 3 COMMUNICATION LINE EXIST. FIBER OPTIC LINE

EXIST. SANITARY SEWER LATERAL

EXIST. DRAINAGE PROPOSED FIRE HYDRANT

EXIST. SANITARY SEWER

PROPOSED WELL PROPOSED GAS VALVE

PROPOSED WATER VALVE SCREENED REFUSE AREA

PROPOSED CATCH BASIN PROPOSED MANHOLE PROPOSED LAWN DRAIN PROPOSED LIGHT POLE PROPOSED BUILDING LIGHT PROPOSED BOLLARD LIGHT

START / END CURBING TEMPERORY SWALE

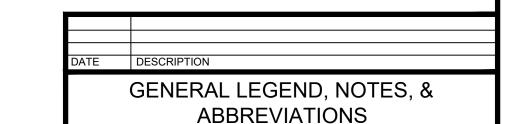
PROPOSED FIRE LANE

PROPOSED GAS MAIN PROPOSED ELECTRIC/TELEPHONE SERVICE PROPOSED AIR VENT OR BLOW-OFF

PROPOSED SIGN

GENERAL NOTES

- 1. HOLD PRE-CONSTRUCTION MEETING WITH OWNER, EXCAVATION AND WALL CONTRACTORS. ENGINEER AND TOWN STAFF.
- 2. ALL WORK TO MEET TOWN OR CITY, STATE AND FEDERAL CODES.
- REGULATIONS AND STANDARDS AS APPLICABLE. 3. DISCREPANCIES IN THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE
- ENGINEER IMMEDIATELY FOR RESOLUTION 4. ALL PERMITS SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING REQUIRED PERMITS AND NOTIFYING THE TOWN OR CITY DEPARTMENTS AND THE ENGINEER FOR INSPECTIONS.
- 6. THE TOWN AND PROJECT ENGINEER SHALL INSPECT THE PROPERTY REGULARLY. IMPROVEMENTS TO THE SITE BASED ON THOSE INSPECTIONS ARE INTENDED TO BE COMPLETED WITHIN 48 HOURS OR BEFORE THE NEXT STORM WHICHEVER IS EARLIER. CHANGES TO THE SEQUENCE PLANS SHALL BE NOTED ON THE PLANS AND SUBMITTED TO THE TOWN FOR STAFF REVIEW PRIOR TO IMPLEMENTATION.
- 7. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET CONNECTICUT D.O.T. STANDARDS FOR ITEMS NOT SPECIFIED IN THE TOWN OR CITY REGULATIONS.
- 8. ALL CATCH BASINS, MANHOLES, PIPING AND OTHER UTILITY COMPONENTS WITHIN TRAFFIC AREAS SHALL BE CAPABLE OF SUPPORTING H-20 LOADING.
- 9. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL ON-SITE AND OFF-SITE FIELD CONDITIONS AND VERIFY THAT NO CHANGES HAVE OCCURRED SINCE THE ISSUANCE OF THIS PLAN. THE DESIGN ENGINEER IS TO BE NOTIFIED OF ANY CHANGES WHICH CONFLICT WITH THIS PLAN.
- 10. THE EROSION CONTROL LINE (GSF) IS TO BE CONSIDERED AS THE LIMIT OF CONSTRUCTION UNLESS OTHERWISE NOTED.
- 11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND QUANTITIES SHOWN ON THESE PLANS PRIOR TO PROCEEDING WITH CONSTRUCTION AND ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER WHOM SHALL HAVE FINAL SAY AS TO THE ACTUAL DIMENSIONS TO CONSTRUCT BY.
- 12. STRICT ADHERENCE TO ALL OSHA, TOWN OR CITY AND STATE OF CONNECTICUT REGULATIONS REGARDING CONSTRUCTION IS REQUIRED AT ALL
- 13. CONTRACTOR SHALL NOTIFY CALL-BEFORE-YOU-DIG (1-800-922-4455) FOR UTILITY MARKOUT PRIOR TO CONSTRUCTION.
- 14. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR JOB SAFETY.
- 15. ALL UTILITIES TO BE INSTALLED UNDERGROUND
- 16. UTILITY LOCATIONS WILL BE AS DETERMINED BY THE UTILITY COMPANIES. 17. THE LOCATION AND ELEVATION OF UNDERGROUND UTILITIES IS UNKNOWN. THEY ARE INDICATED AT ALL ON THESE PLANS, THEY ARE APPROXIMATE AND CCA, LLC, IT'S PRINCIPALS OR EMPLOYEES, SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES AND/OR ADDITIONAL COSTS WHICH MIGHT RESULT FROM THE
- EXISTENCE OF SAID UTILITIES. 18. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND
- 19. ALL GRADING SHALL BE PERFORMED TO ELIMINATE LOW POINTS AND DEPRESSIONS WHICH WOULD TRAP SURFACE WATER. CONTACT THE DESIGN ENGINEER IF CHANGES ARE WARRANTED.
- 20. GRADING TO BE TO ALL APPLICABLE REGULATIONS AND NORMAL STANDARDS
- OF GOOD PRACTICE. 21. MINOR GRADING CHANGES ARE PERMITTED TO MEET FIELD CONDITIONS
- PROVIDED PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.
- 22. GRADING SHALL MAINTAIN EXISTING RUNOFF CONDITIONS.
- 23. ALL BACKFILL FOR BUILDINGS, TRENCHES, STRUCTURES, PARKING, DRIVEWAY AND SIDEWALK ETC. SHALL BE ADEQUATELY COMPACTED TO PREVENT EXCESSIVE SETTLEMENT. CONTACT THE ENGINEER SHOULD ADDITIONAL CLARIFICATION BE NECESSARY.
- 24. CONTRACTOR TO MATCH INTO EXISTING CONDITIONS AT ALL POINTS WHERE CONSTRUCTION MUST MATCH SUCH EXISTING CONDITIONS.
- 25. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED SO THAT THEY MAY BE ADJUSTED DOWN AT LEAST 12".
- 26. NO SILTY WATER SHALL BE PERMITTED TO DISCHARGE INTO THE DETENTION SYSTEMS. STORMWATER SYSTEMS SHALL BE CLEANED PRIOR TO CONNECTION TO THE DETENTION SYSTEMS. SILT SACKS SHALL BE MAINTAINED IN CATCH
- BASINS UNTIL PROJECT IS COMPLETED. 27. THESE PLANS ARE FOR LAND USE APPROVALS ONLY. ADDITIONAL ENGINEERING MAY BE NECESSARY PRIOR TO CONSTRUCTION.



TOWN OF RIDGEFIELD **NEW STREET & POUND STREET** RIDGEFIELD, CONNECTICUT

PREPARED FOR



40 Old New Milford Road Brookfield, Ct. 06804 (203)775-6207 www.ccaengineering.com

Date: **4/04/2023**

roject: **22-647** 5197

Acad: **22647-SP**

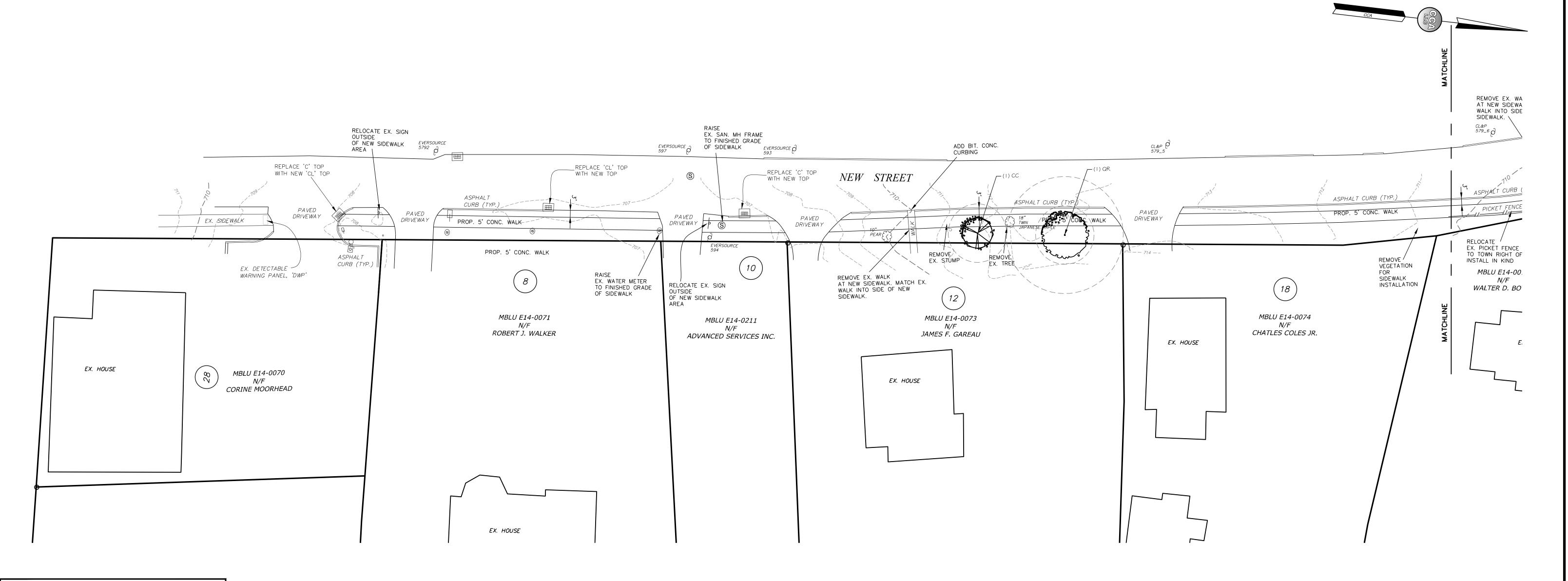
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ALL PAINTED PAVEMENT MARKINGS SHALL BE EPOXY RESIN CONFORMING TO CURRENT CONNDOT SPECIFICATIONS, OR MATERIALS AS DIRECTED BY THE TOWN OF RIDGEFIELD OR THE DEPARTMENT OF TRANSPORTATION.

CROSS SLOPE SIDEWALKS TOWARD THE STREETS AT A 2% SLOPE. LONGITUDINAL SLOPES SHALL FOLLOW EXISTING ROAD GRADES UNLESS OTHERWISE NOTED.

REMOVE ALL BRUSH, TREES & VEGETATION WITHIN THE SIDEWALK CONSTRUCTION AREA.

RESET AND/OR RELOCATE ALL MAILBOXES/SIGNS
IMMEDIATLEY AFTER WORK IS COMPLETE IN THE AREA. SET
MAILBOXES/SIGNS BETWEEN THE NEW SIDEWALK AND EDGE

ALL DISTURBED AREAS WITHIN THE SIDEWALK CONSTRUCTION AREA SHALL BE TOPSOILED AND SEEDED.

CONTRACTOR SHALL RE-SEED LAWN AREAS AFTER INITIAL SEEDING TO ENSURE A FULL GRASS SURFACE HAS BEEN ESTABLISHED.

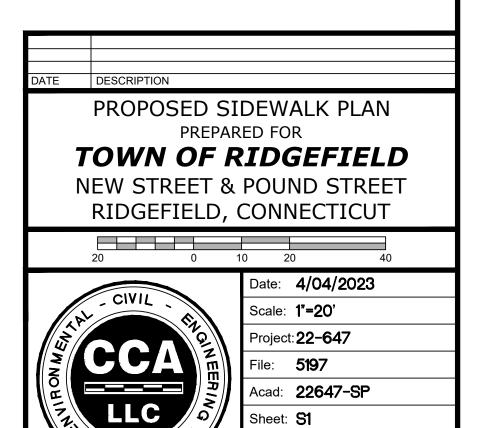
PROVIDE CATCH BASIN SILT PROTECTION DURING CONSTRUCTION PER CT E&S STANDARDS, TYP. E.G. SILT SACKS OR EQUAL

CONTRACTOR SHALL OBTAIN RIDGEFIELD HIGHWAY DEPT. AND CT. DOT ENCROACHMENT PERMITS.

CONTRACTOR SHALL VISIT THE SITE BEFORE BIDDING TO FAMILIARIZE THEMSELVES OF THE EXISTING CONDITIONS.

POUR SIDEWALK CONCRETE TO INCORPORATE EXISTING WATER METERS. METER PITS SHALL BE FLUSH WITH SIDEWALK FOR ACCESS.

CONTRACTOR SHALL SAWCUT AROUND CATCH BASINS AND REPLACE ANY BITUMINOUS CONCRETE AFTER REPLACING CATCH BASIN TOPS WITH A CLEAN EDGE.



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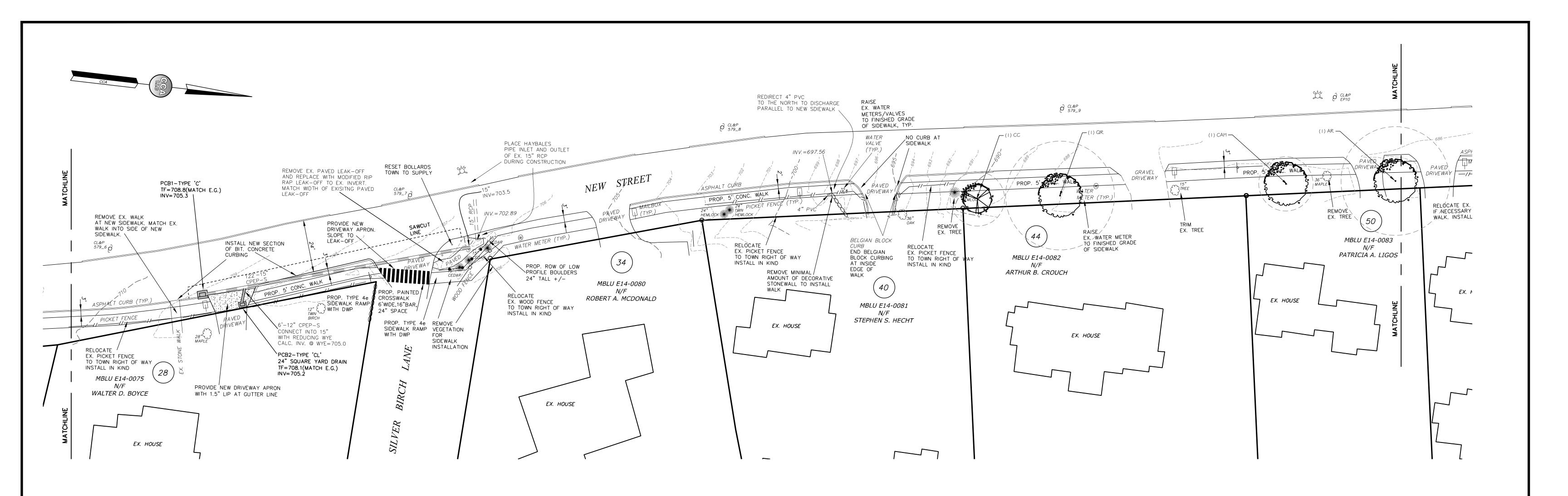
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ALL DISTURBED AREAS WITHIN THE SIDEWALK CONSTRUCTION AREA SHALL BE TOPSOILED AND SEEDED.

CONTRACTOR SHALL RE-SEED LAWN AREAS AFTER INITIAL SEEDING TO ENSURE A FULL

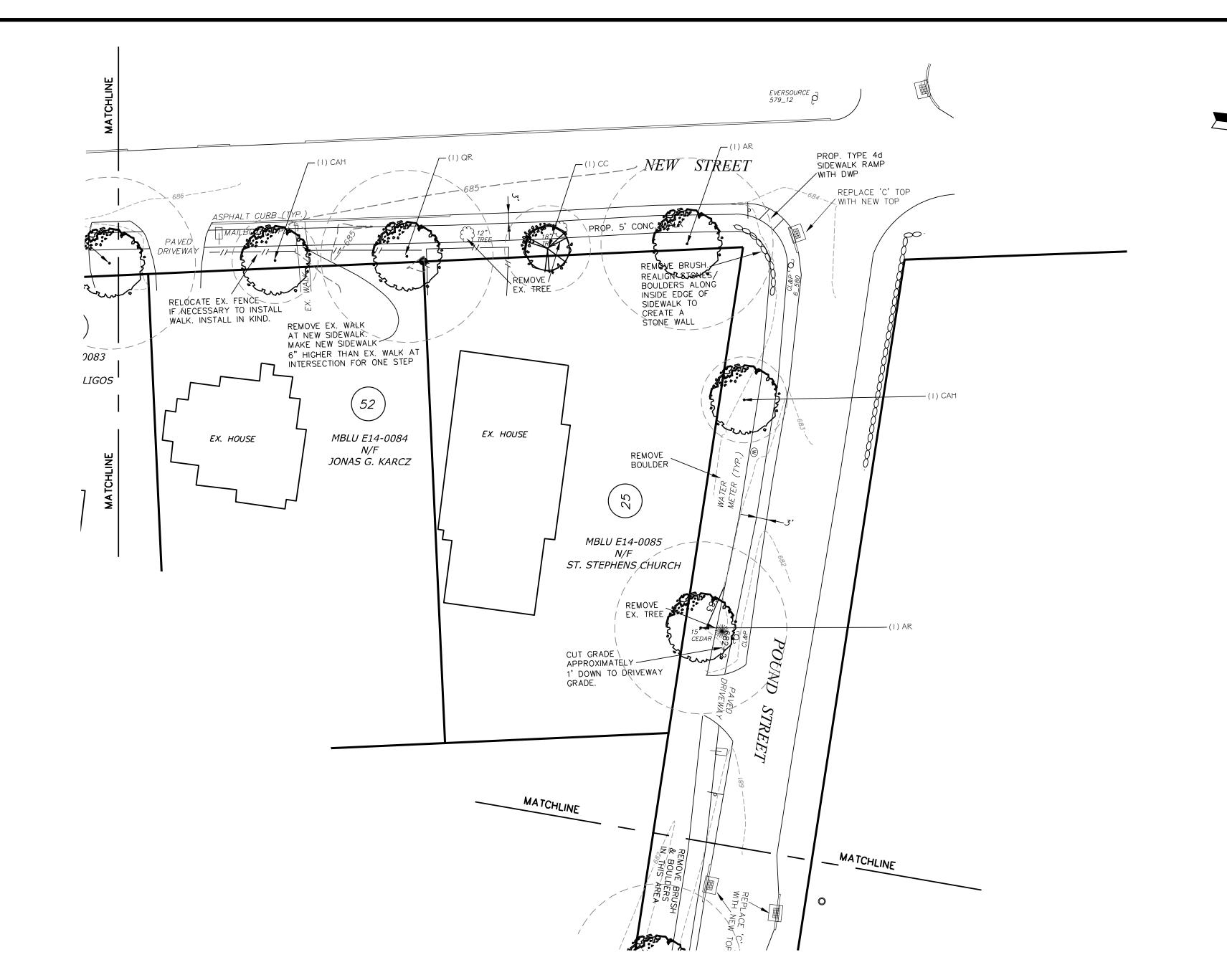
GRASS SURFACE HAS BEEN ESTABLISHED. PROVIDE CATCH BASIN SILT PROTECTION DURING CONSTRUCTION PER CT E&S STANDARDS, TYP. E.G. SILT SACKS OR EQUAL

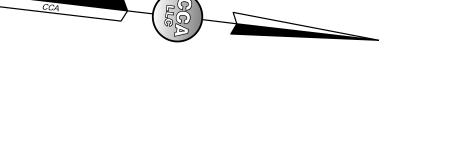
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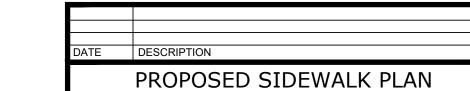
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POUR SIDEWALK CONCRETE TO INCORPORATE EXISTING WATER METERS. METER PITS SHALL BE FLUSH WITH SIDEWALK FOR ACCESS.

CONTRACTOR SHALL SAWCUT AROUND CATCH BASINS AND REPLACE ANY BITUMINOUS CONCRETE AFTER REPLACING CATCH BASIN TOPS WITH A CLEAN EDGE.







PREPARED FOR

TOWN OF RIDGEFIELD **NEW STREET & POUND STREET**

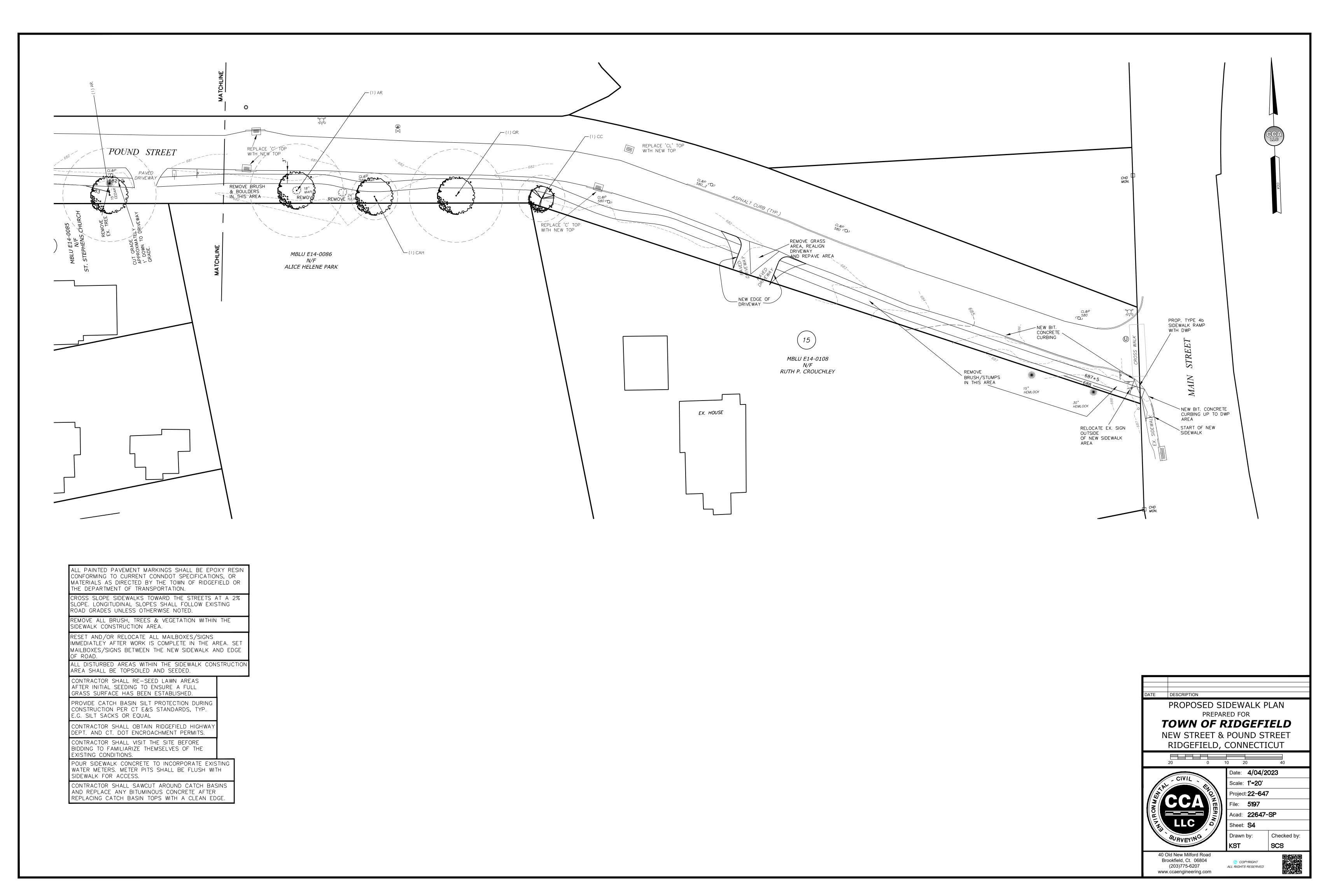
RIDGEFIELD, CONNECTICUT

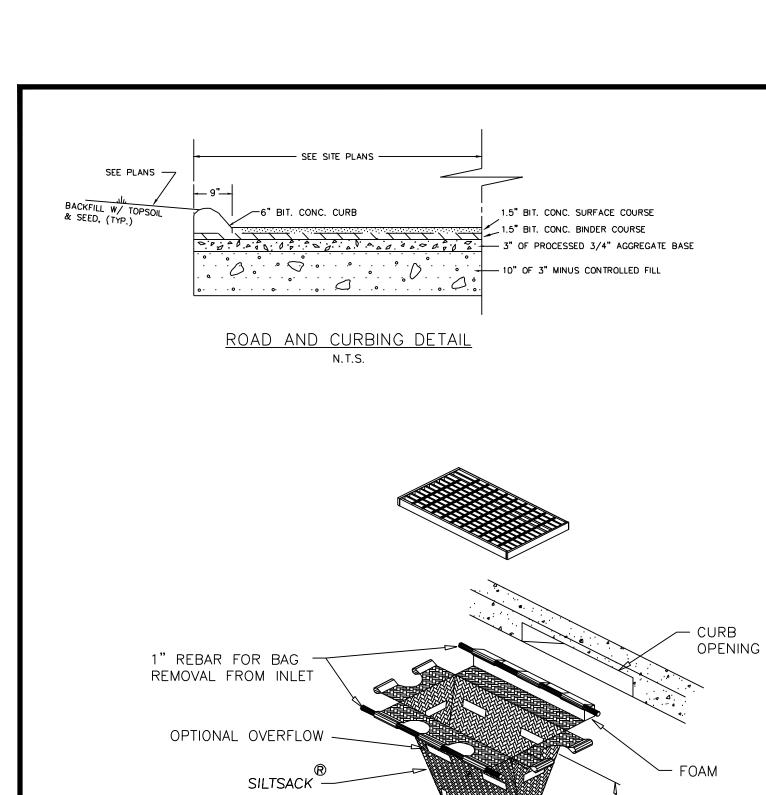
Date: 4/04/2023 Scale: **1″=20**″ Project: **22-647** Acad: **22647-SP**

Sheet: S3 Drawn by: Checked by:

Brookfield, Ct. 06804 (203)775-6207 www.ccaengineering.com







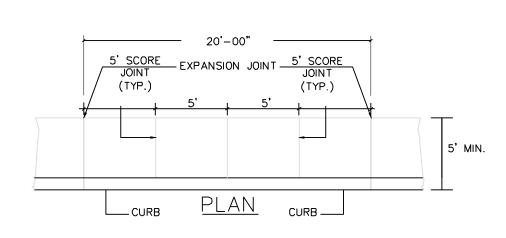
DUMP LOOPS (PROVIDE REBAR)

SPECIFICATIONS NOTE: THE SILTSACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE

SIDE VIEW INSTALLED

INSTALLATION DETAIL

FABRIC THA	AT MEETS OR EXCEE	DS THE	FOLLOWING SPECIFICATION	NS.
PROPERTIES	TEST METHOD	UNITS		
GRAB TENSILE STRENGTH			D-4632	300 LBS
GRAB TENSILE ELONGATION PUNCTURE	N		D-4632 D-4833	20 % 120 LBS
MULLEN BURST			D-3786	800 PSI
TRAPEZOID TEAR		ASTM	D-4533	120 LBS
JV RESISTANCE		ASTM	D-4355	80 %
APPARENT OPENING SIZE		ASTM	D-4751	40 US SIEVE
FLOW RATE		ASTM	D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY		ASTM	D-4491	0.55 SEC -1



- POSITION POSTS TO OVERLAP AS SHOWN MAKING CERTAIN THAT THE FABRIC FOLDS AROUND EACH POST ONE FULL TURN

- DRIVE POSTS TIGHTLY TOGETHER AND SECURE TOPS OF POSTS BY TYING OFF WITH CORD OR WIRE TO PREVENT FLOW-THROUGH OF

5'-10' FROM TOE OF SLOPE

INSTALLATION SECTION

WING DETAIL

REFERENCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT

(IF REQUIRED BY ENGINEER)

DIRECTION OF

CONTROL HANDBOOK.

FINISHED GRADE (SEE PAVEMENT X-SEC'N)

0.25 X O.D. BANK RUN GRAVEL BEDDING MATERIAL

NOTE: 1) - PIPE SECTIONS TO BE JOINED IN

RECOMMENDATIONS.

O.D. MATERIAL

. ── WARNING TAPE

PLACE MIRAFI 140N FILTER

SUBGRADE

ACCORDANCE WITH MANUFACTURERS'

2) - INSTALL ADDITIONAL 6" OF BEDDING MATERIAL FOR TRENCH IN LEDGE.

TYPICAL TRENCH SECTION

TAMPED GRANULAR BACKFILL

FABRIC OR EQUAL ON TOP OF

SUPPORTING POSTS SHALL BE AT

LEAST 42" LONG, 1.5" SQUARE
HARDWOOD STAKE OR STEEL POST

WITH 10' O.C. MAXIMUM SPACING.

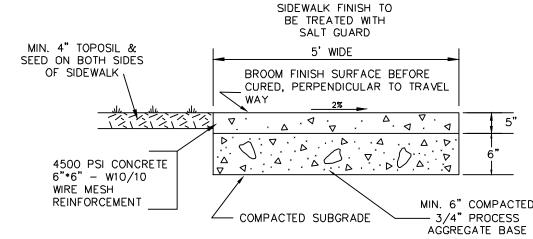
· IMPORTANT:
FOR PROPER INSTALLATION, SILT FENCE MUST BE
'TOED-IN' TO THE EXISTING SUBGRADE WITH A
6"x 6" BACKFILLED TRENCH.

FLOW FROM ADJACENT SLOPE

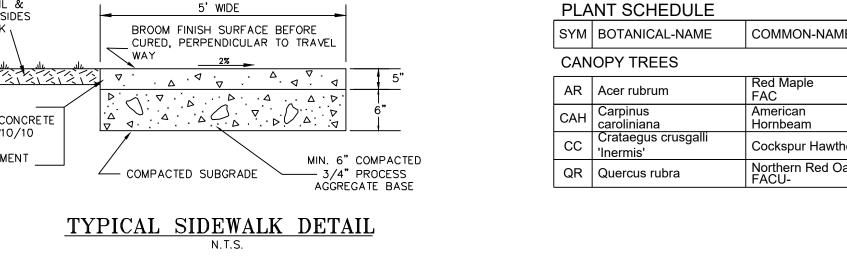
WING ORIENTED TO INTERCEPT FLOW

6" X 6" BACKFILLED

SIDEWALK JOINTING PLAN



	BE TREATED WITH SALT GUARD	
MIN. 4" TOPOSIL & SEED ON BOTH SIDES	5' WIDE	
OF SIDEWALK	BROOM FINISH SURFACE BEFORE CURED, PERPENDICULAR TO TRAVEL WAY	
12/2/2/2/2	Δ	5"
4500 PSI CONCRETE 6"*6" - W10/10	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	6"
WIRE MESH REINFORCEMENT	COMPACTED SUBGRADE 3/4	' COMPACTED " PROCESS



FLANT SCHEDOLL					
SYM	BOTANICAL-NAME	COMMON-NAME	SIZE	ROOT	QTY
CANOPY TREES					
AR	Acer rubrum	Red Maple FAC	3-4" Cal	B&B	4
CAH	Carpinus caroliniana	American Hornbeam	3-4" Cal	B&B	4
СС	Crataegus crusgalli 'Inermis'	Cockspur Hawthorn	3-4" Cal	B&B	4
QR	Quercus rubra	Northern Red Oak FACU-	2.5-3" Cal	B&B	4

TRUNK FLARE JUNCTION: PLANT TREE 2"

3" LAYER SHREDDED PINE BARK MULCH TO

OUTER EDGE OF SAUCER KEEP MULCH 2" FROM TRUNK

CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL. IF NONBIODEGRADABLE,

ABOVE EXISTING GRADE

REMOVE COMPLETELY.

BACKFILL AS PER SPECIFICATION

DO NOT EXCAVATE BELOW ROOTBALL.

— SLOPE SIDES OF HOLE

GRADING NOTES: 1. - All grading shall be performed to eliminate low points and depressions which

would trap surface water. Contact the design engineer if changes are warranted. 2. - Fill under all parking, driveway and sidewalk areas shall be adequately compacted to 95% of the maximum density as determined by ASTM D 1557. 3. - All backfill for buildings, trenches, structures, etc. shall be adequately compacted to prevent excessive settlement. Compaction shall achieve 95% of the maximum density as determined by ASTM D 1557. Contact the engineer should additional clarification be necessary. 4. - Minor grading changes are permitted to meet field conditions provided prior

approval is obtained from the engineer.

5. - Proposed grading shall maintain existing runoff conditions. 6. - Care should be taken when paving to properly grade the driveway/parking areas in order to avoid ponding and provide adequate drainage patterns.

1. BOUNDARY & TOPOGRAPHIC DATA BY CCA,LLC.

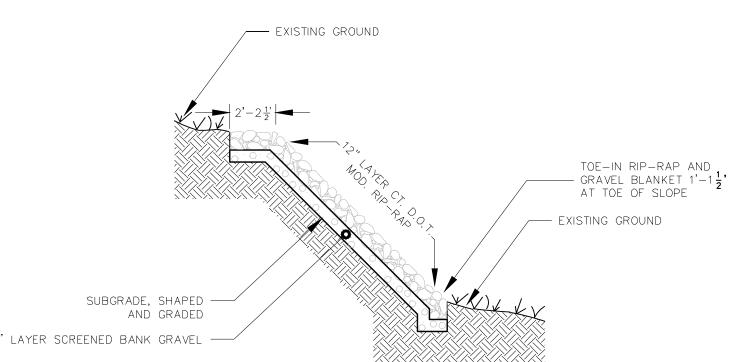
- VERTICAL DATUM IS BASED ON NGVD 1988. STRICT ADHERENCE TO ALL OSHA, TOWN OF RIDGEFIELD AND STATE OF CONNECTICUT REGULATIONS REGARDING
- CONSTRUCTION IS REQUIRED AT ALL TIMES.
- 4. CONSTRUCTION IS EXPECTED TO BEGIN UPON RECEIPT OF PROPER PERMITS. ALL LANDSCAPED AREAS TO BE MULCHED.
- CONTRACTOR IS RESPONSIBLE TO CONTACT " CALL BEFORE YOU DIG". DISCREPANCIES IN THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY FOR
- RESOLUTIONS.
- 8. SPARE EROSION CONTROLS SHALL BE STORED ON SITE FOR EMERGENCY USE.
- 9. ALL DISTURBED AREAS TO BE TOPSOIL AND SEEDED. 10. UNDERGROUND UTILITIES, STRUCTURES, AND FACILITIES NOT FIELD LOCATED. THE SIZE, LOCATION, EXISTENCE OR

NONEXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE

- AUTHORITIES. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455. 11. UNDERGROUND UTILITIES SHOWN AS MARKED IN THE FIELD BY CALL BEFORE YOU DIG. LOCATIONS TO BE VERIFIED BY APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 BEFORE ANY
- 12. THE EROSION CONTROL LINE (GSF) IS THE LIMIT OF CONSTRUCTION UNLESS OTHERWISE NOTED.
 13. HOURS OF OPERATION FOR ALL EARTH EXCAVATION/PLACEMENT TO OCCUR IN ACCORDANCE WITH TOWN OF
- RIDGEFIELD ZONING REGULATIONS. 14. CROSS SLOPE ON SIDEWALKS SHALL BE A MIN. OF 1/4" PER FOOT FROM BUILDING.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING REQUIRED PERMITS AND NOTIFYING THE TOWN DEPARTMENTS AND THE ENGINEER FOR INSPECTIONS.
- 16. METHODS OF CONSTRUCTION SHALL MEET TOWN OF RIDGEFIELD AND CONNECTICUT D.O.T. STANDARDS. 17. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ON-SITE AND OFF-SITE FIELD CONDITIONS AND VERIFY THAT NO CHANGES HAVE OCCURRED SINCE THE ISSUANCE OF THIS PLAN. THE DESIGN ENGINEER IS TO BE NOTIFIED OF ANY
- CHANGES WHICH CONFLICT WITH THIS PLAN. 18. EXISTING HOUSE LOCATIONS WERE TAKEN FROM RIDGEFIELD GIS AND MAY NOT BE THE UP TO DATE LOCATIONS OR

PLANTING NOTES:

- 1. ALL PLANTING MATERIAL TO BE NURSERY GROWN STOCK SUBJECT TO APPLICABLE A.A.N.
- STANDARDS. 2. THE CONTRACTOR SHALL SUPPLY ALL PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT LIST. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT LIST AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER NUMBER SHALL APPLY.
- 3. ALL PLANTS SHALL BE APPROVED PRIOR TO INSTALLATION AND SHALL BE LOCATED ON SITE BY THE CONTRACTOR, FOR THE APPROVAL OF THE LANDSCAPE ARCHITECT. ANY INSTALLATIONS WHICH WERE NOT APPROVED BY THE LANDSCAPE ARCHITECT AND WHICH ARE SUBSEQUENTLY REQUESTED TO BE MOVED, WILL BE DONE AT THE CONTRACTORS EXPENSE.
- 4. PRECISE LOCATION OF ITEMS NOT DIMENSIONED ON THE PLAN ARE TO BE FIELD STAKED BY THE CONTRACTOR AND SHALL BE SUBJECT TO THE REQUIREMENTS SPECIFIED IN THE PREVIOUS NOTE.
- 5. ALL SHRUB MASSINGS AND TREE PITS SHALL BE MULCHED TO A DEPTH OF 3" WITH SHREDDED
- PINE BARK MULCH. 6. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGED VEGETATION AND SHALL REPLACE OR
- REPAIR ANY DAMAGE, AT HIS OWN EXPENSE. 7. ALL SHRUB AND GROUND COVER PLANTING AREAS SHALL HAVE CONTINUOUS BEDS OF TOPSOIL,
- 8. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES IN THE FIELD. WHERE PLANT MATERIAL MAY INTERFERE WITH UTILITIES, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT TO COORDINATE THEIR INSTALLATION.
- 9. PLANTINGS INSTALLED IN THE DRY SUMMER MONTHS AND /OR LAWN SEEDED OUT OF SPRING OR FALL PERIODS, IF ALLOWED BY OWNER, WILL REQUIRE AGGRESSIVE IRRIGATION PROGRAMS AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- 10. SUBSTITUTIONS PERMITTED ONLY UPON WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- 11. PLANT TAGS TO REMAIN ON ALL PLANT MATERIAL UNTIL FINAL ACCEPTANCE. CONTRACTOR TO THEN REMOVE ALL PLANT TAGS.
- 12. WHERE A SIZE RANGE IS GIVEN IN THE PLANT SCHEDULE, AT LEAST 50% OF THE PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.
- 13. CONTRACTOR TO GUARANTEE ALL PLANT MATERIAL FOR ONE YEAR AFTER DATE OF FINAL
- 14. CONTRACTOR TO MAINTAIN ALL PLANT MATERIAL UNTIL 60 DAYS AFTER FINAL ACCEPTANCE.
- 15. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND NOT COVERED BY OTHER SITE IMPROVEMENTS.
- 16. CONTRACTOR SHALL DECOMPACT ALL LANDSCAPE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES TO A MINIMUM DEPTH OF 12" PRIOR TO PLACEMENT OF TOPSOIL.



THREE TIMES WIDTH OF ROOTBALL

DECIDUOUS TREE PLANTING

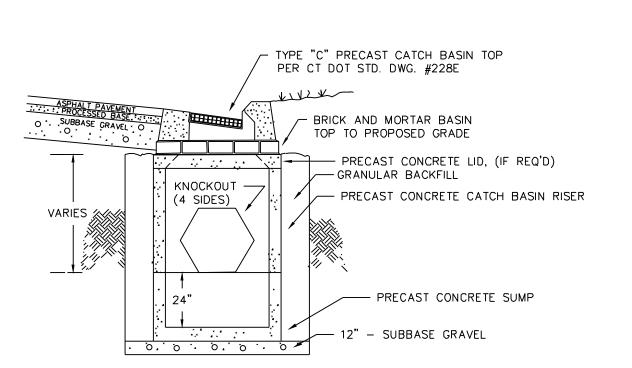
DETAIL

NOT TO SCALE

RIP-RAP STABILIZED SLOPE

STABILIZATION.

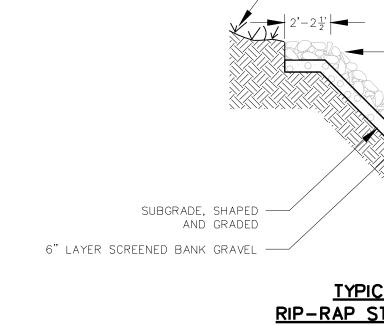
CT. D.O.T. MATERIALS SPEC. M.O2.O2-1, GRADING "B" M.12.02-3, "MODIFIED RIP-RAP". - SUBGRADE TO BE SHAPED AND GRADED SMOOTH AND UNIFORMLY AND SHALL BE FREE OF TOPSOIL, ROOTS, LARGE STONES, AND OTHER DELETERIOUS MATERIALS. - FILTER FABRIC, MIRAFI 140N OR EQUIVALENT MAY BE SUBSTITUTED FOR GRAVEL BLANKET WITH APPROVAL FROM THE ENGINEER.



NOTE - 1) ALL PRECAST COMPONENTS TO BE ABLE TO WITHSTAND HS-20 - 2) BACKFILL TO BE COMPACTED IN 8" LIFTS AROUND BASIN - 3) TYPE C-L OR C-G BASIN TOP MAY SUBSTITUTED ABOVE

WHERE CALLED FOR ON THE PLANS.

PRECAST CATCH BASIN WITH TYPE "C" TOP

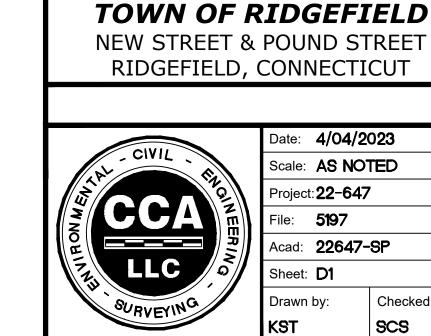


DETAIL OF FENCE JOINT

(TOP VIEW)

TYPICAL DETAIL

- SLOPE SHALL NOT EXCEED 1 : 1 - SCREENED GRAVEL BLANKET TO CONFORM TO - RIP-RAP TO CONFORM TO CT. D.O.T. MATERIALS SPEC. - REFER TO SITE PLANS FOR LOCATION FOR SLOPE



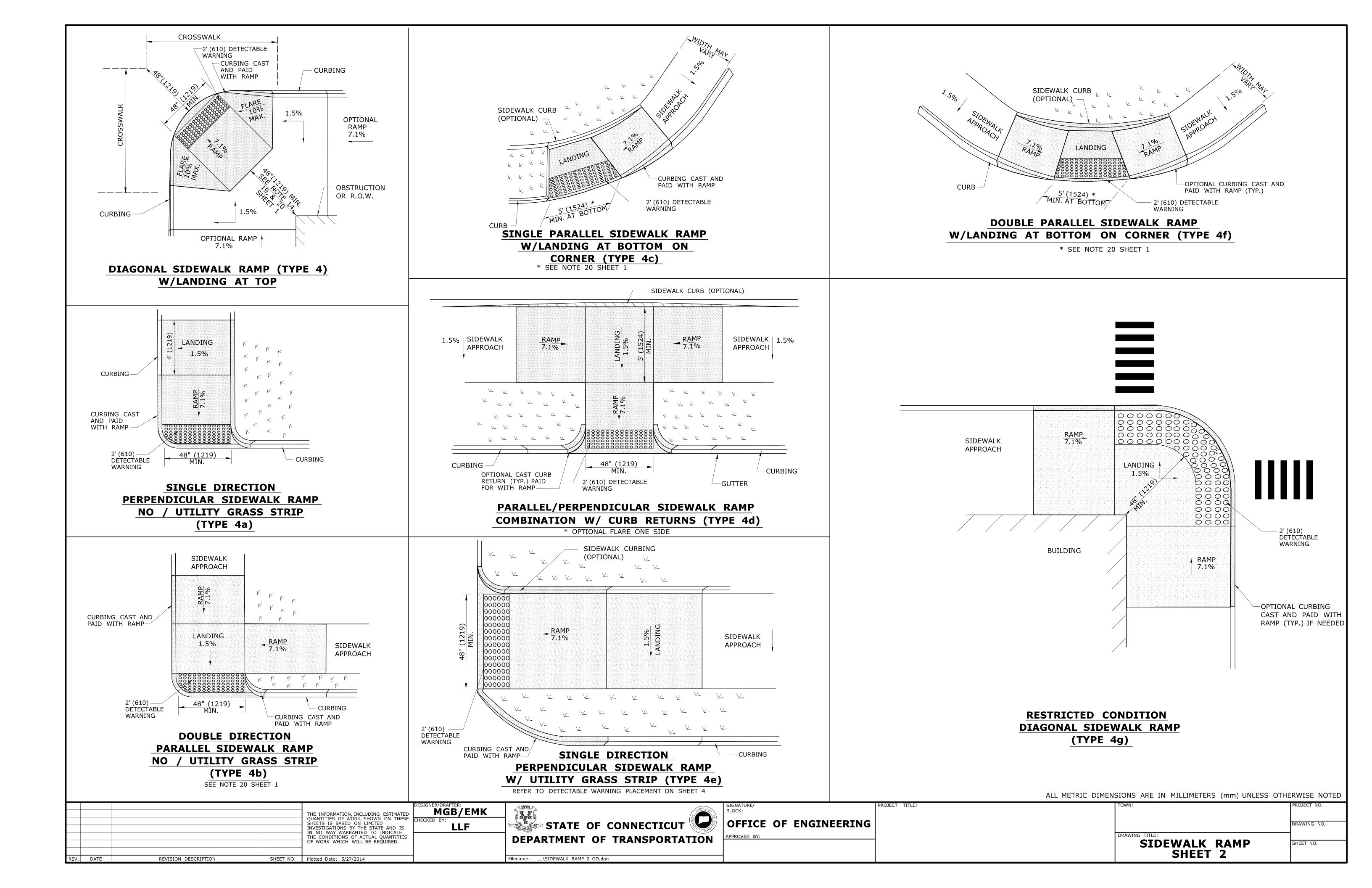
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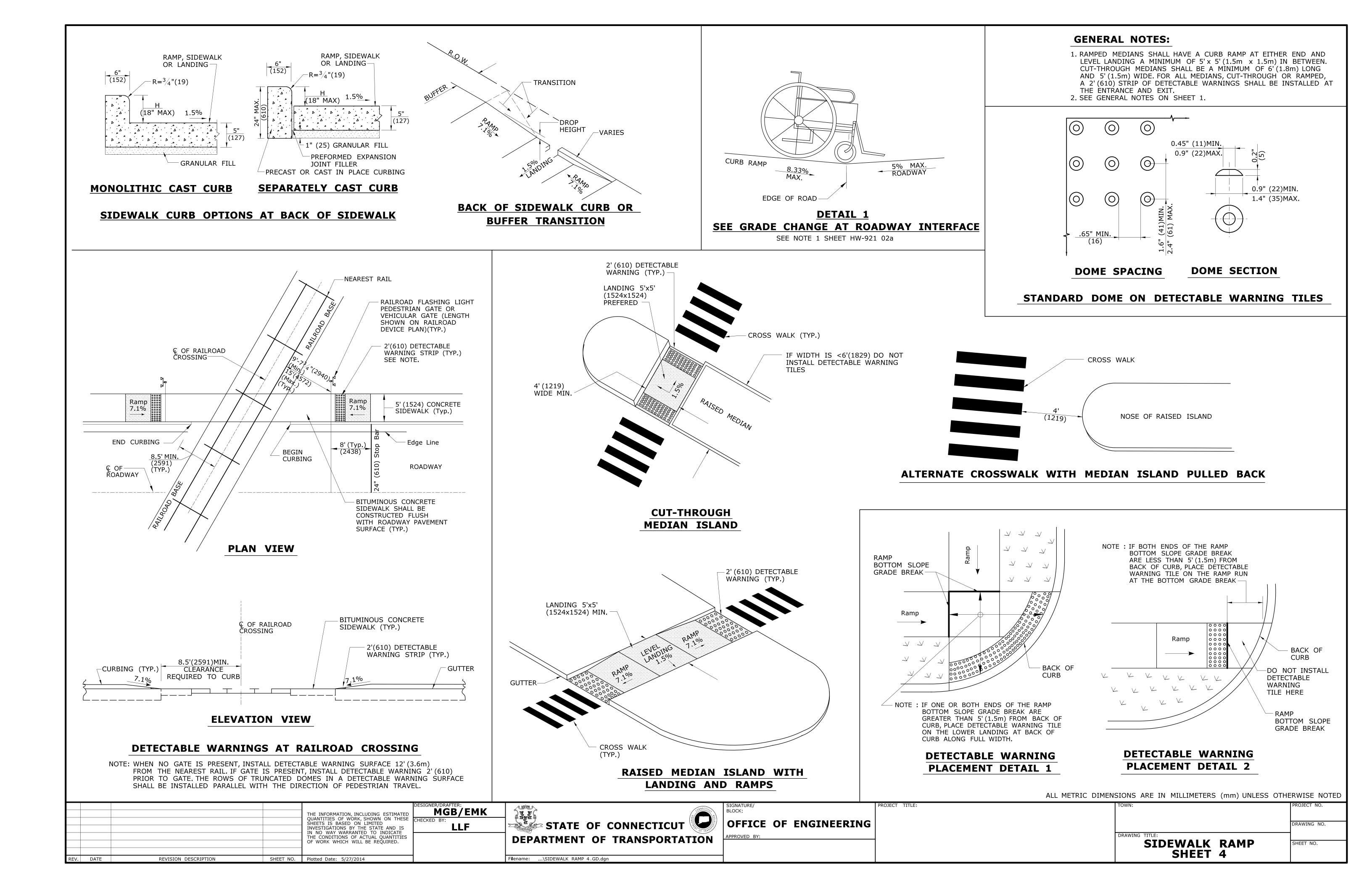
Brookfield, Ct. 06804 (203)775-6207 ALL RIGHTS RESERVED www.ccaengineering.com

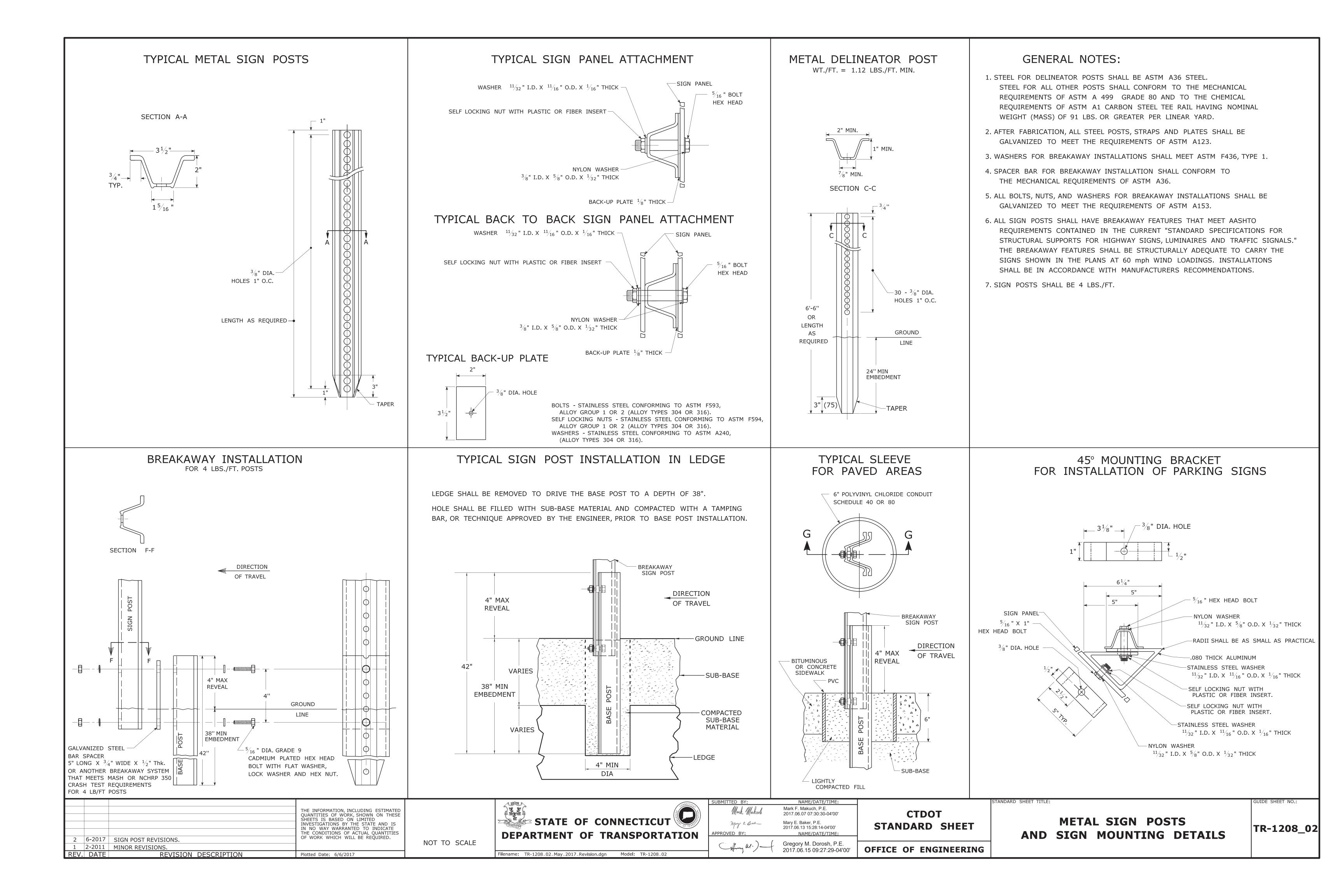
NOTES & DETAILS

PREPARED FOR

Checked by:







G. RIP RAP FOR SLOPE STABILIZATION

PROTECT THE CHANNEL.

RIP RAP FOR CHANNEL STABILIZATION SHALL BE DESIGNED TO BE STABLE FOR THE CONDITION

OF BANK-FULL FLOW IN THE REACH OF CHANNEL BEING STABILIZED (SEE PERMANENT LINED

WATERWAY MEASURE). THE DESIGN PROCEDURE, WHICH IS EXTRACTED FROM THE FEDERAL

HIGHWAY ADMINISTRATION'S DESIGN OF ROADSIDE CHANNELS WITH FLEXIBLE LININGS, IS ONE ACCEPTED METHOD. OTHER GENERALLY ACCEPTED PUBLISHED METHODS MAY BE USED.

THE RIP RAP SIZE TO BE USED IN A CHANNEL BEND SHALL EXTEND UPSTREAM FROM THE POINT OF CURVATURE A MINIMUM OF 0.4 TIMES THE WATER SURFACE WIDTH, AND DOWNSTREAM FROM THE POINT OF TANGENCY A DISTANCE OF AT LEAST 5 TIMES THE CHANNEL BOTTOM WIDTH. THE RIP RAP MAY EXTEND ACROSS THE BOTTOM AND UP BOTH

SIDES OF THE CHANNEL OR ONLY PROTECT THE OUTSIDE BANK, DEPENDING UPON SPECIFIC

WHERE RIP RAP IS USED ONLY FOR BANK PROTECTION AND DOES NOT EXTEND ACROSS THE

FOR RIP RAPPED AND OTHER LINED CHANNELS, THE HEIGHT OF CHANNEL LINING ABOVE THE DESIGN WATER SURFACE SHALL BE BASED ON THE SIZE OF THE CHANNEL, THE FLOW

VELOCITY. THE CURVATURE, INFLOWS, WIND ACTION, FLOW REGULATION, ETC

UNDERGROUND SOURCES THREATENS THE STABILITY OF THE RIP RAF

(1) GRANULAR FILTER LAYER: A GRANULAR (STONE) BEDDING IS A

d15 filter/d85 base < 5 < d15 filter/d15 base < 40

d50 filter/d50 base < 40

OF FINE PARTICLES (LESS THAN 0.075MM):

INSTALLATION REQUIREMENTS

C. FILTER BLANKET OR BEDDING

THE VARIOUS STONE SIZES.

B GEOTEXTILE

A. SUB GRADE PREPARATION

I) d85 BASE (MM)/EOS GEOTEXTILE(MM) > 1

(B) FOR GEOTEXTILE ADJACENT TO ALL OTHER SOILS:

A) EOS LESS THAN U.S. STANDARD SIEVE NO. 70

WHERE EOS = EQUIVALENT OPENING SIZE TO A U.S. STANDARD SIEVE SIZE

II) TOTAL OPEN AREA OF GEOTEXTILE IS LESS THAN 36%.

B) TOTAL OPEN AREA OF GEOTEXTILE IS LESS THAN 10%.

BRUSH, TREES, STUMPS AND OTHER OBJECTIONABLE MATERIAL

IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

VIABLE OPTION WHEN THE FOLLOWING RELATIONSHIP EXISTS:

EACH LAYER OF FILTER MATERIAL SHALL BE A MINIMUM OF 6 INCHES THICK.

BOTTOM OF THE CHANNEL, RIP RAP SHALL BE KEYED INTO THE BOTTOM OF THE CHANNEL TO A MINIMUM ADDITIONAL DEPTH EQUAL TO 1.5 TIMES THE MAXIMUM SIZE STONE.

A FILTER BLANKET OR BEDDING IS A LAYER OF MATERIAL PLACED BETWEEN THE RIP RAP AND THE UNDERLYING SOIL SURFACE TO PREVENT SOIL MOVEMENT THROUGH THE RIP RAP.

A FILTER BLANKET OR BEDDING CAN BE FITHER GRANULAR STONE LAYER(S). A GEOTEXTILE OR NOTH. A DETERMINATION OF THE NEED FOR A FILTER BLANKET IS MADE BY COMPARING

IN SOME CASES, MORE THAN ONE LAYER OF FILTER MATERIAL MAY BE NEEDED. IN THESE

IN SOME CASES, MORE ITAN ONE LATER OF FILTER MATERIAL MAY BE REEDED. IN THESE CASES, FILTER REFERS TO THE UNDERLYING MATERIAL. THE RELATIONSHIPS MUST HOLD BETWEEN THE RIP RAP AND THE FILTER MATERIAL.

2) GEOTEXTILE (SPECIFICALLY INTENDED TO PREVENT PIPING): MAY BE USED IN CONJUNCTION

WITH A LAYER OF COARSE AGGREGATE. THE GEOTEXTILE SHALL NOT BE USED ON SLOPES

(A) FOR GEOTEXTILE ADJACENT TO BASE MATERIALS CONTAINING 50% OR LESS (BY WEIGHT)

NO GEOTEXTILE SHOULD BE USED WITH AND EOS SMALLER THAN U.S. STANDARD SIEVE NO.

PREPARE THE SUB GRADE THE SUB GRADE FOR THE RIP RAP, BEDDING, FILTER OR GEOTEXTILE

TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUB GRADE TO A DENSITY APPROXIMATING THAT OF THE SURROUNDING UNDISTRIBUTED MATERIAL. REMOVE

FOR GEOTEXTILE FILTERS, USE ONLY GEOTEXTILES THAT WERE STORED IN A CLEAN DRY PLACE,

OUT OF DIRECT SUNLIGHT, WITH THE MANUFACTURER'S PROTECTIVE COVER IN PLACE TO INSURE THE GEOTEXTILE WAS NOT DAMAGED BY ULTRAVIOLET LIGHT. PLACE THE GEOTEXTILE

SPREAD THE FILTER OR BEDDING MATERIALS IN A UNIFORM LAYER TO THE SPECIFIED DEPTH.
WHERE MORE THAN ONE DISTINCT LAYER OF FILTER OR BEDDING MATERIAL IS REQUIRED,

MMFDIATELY AFTER PLACEMENT OF THE FILTER BLANKET, BEDDING AND/OR GEOTEXTILE. PLACE

THE RIP RAP TO ITS FULL COURSE THICKNESS IN ONE OPERATION SO THAT IT PRODUCES A DENSE WELL-GRADED MASS OF STONE WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION

OF STONES THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY, CONTROLLED DUMPING OF SUCCESSIVE LOADS DURING FINAL PLACING, OR BY A COMBINATION OF THESE METHODS. DO NOT PLACE THE RIP RAP IN LAYERS OR USE CHUTES

R SIMILAR METHODS TO DUMP THE RIP RAP WHICH ARE LIKELY TO CAUSE SEGREGATION OF

AKE CARE NOT TO DISLODGE THE UNDERLYING MATERIAL WHEN PLACING THE STONES. WHEN

PLACING RIP RAP ON A GEOTEXTILE TAKE CARE NOT TO DAMAGE THE FABRIC. IF DAMAGE OCCURS, REMOVE AND REPLACE THE DAMAGED SHEET. FOR LARGE STONE, 12 INCHES OR

GREATER, USE A 6-INCH LAYER OF FILTER OR BEDDING MATERIAL TO PREVENT DAMAGE TO

MMEDIATELY AFTER SLOPE PREPARATION INSTALL THE FILTER OR REDDING MATERIALS

SPREAD THE LAYERS SO THAT THERE IS MINIMAL MIXING BETWEEN MATERIALS.

STEEPER THAN 1-1/2: 1 AS SLIPPAGE MAY OCCUR. THE FOLLOWING PARTICLE SIZE RELATIONSHIPS MUST EXIST:

PARTICLE SIZE'S OF THE OVERLYING MATERIAL AND THE UNDERLYING MATERIAL IN ACCORDANCE WITH THE CRITERIA BELOW.

RIP RAP SHALL EXTEND UP THE BANKS OF THE CHANNEL TO A HEIGHT FOUAL TO THE DESIGN

FLOW OR TO A POINT WHERE VEGETATION CAN BE ESTABLISHED TO ADEQUATELY

A. SIZES - EQUIVALENT SPHERES RIP RAP SIZES CAN BE DESIGNATED BY EITHER THE DIAMETER OR THE WEIGHT OF THE RIP RAP SIZES CAN BE DESIGNATED BY ETHER THE DIAMETER OR THE WEIGHT OF THE STONES. THEY CAN ALSO BE DESIGNATED BY ESTABLISHED PUBLISHED STANDARDS, SUCH AS THAT FOUND IN THE DOT STANDARDS AND SPECIFICATIONS SECTION M.02.06. IT IS OFTEN MISLEADING TO THINK OF RIP RAP IN TERMS OF DIAMETER, SINCE THE STONES SHOULD BE ANGULAR INSTEAD OF SPHERICAL. IT IS SIMPLER TO SPECIFY THE DIAMETER OF AN EQUIVALENT SIZE OF SPHERICAL STONE. STONE SIZES ARE BASED UPON AN ASSUMED BULK

WEIGHT OF 2.65 GRAMS PER CUBIC CENTIMETER (165 LBS./CF).

A DIAMETER OF STONE IN THE MIXTURE IS SPECIFIED FOR WHICH SOME PERCENTAGE, B WEIGHT, WILL BE SMALLER. FOR EXAMPLE, d85 REFERS TO A MIXTURE OF STONES IN WHICH 85% OF THE STONE BY WEIGHT WOULD BE SMALLER THAN THE DIAMETER SPECIFIED. MOS DESIGNS ARE BASED ON d50 (SEE FIGURE RR-2). IN OTHER WORDS, THE DESIGN IS BASED ON THE AVERAGE SIZE OF STONE IN THE MIXTURE. B GRADATION

RIP RAP GRADATIONS SHALL BE SPECIFIED BY FITHER THE DOT STANDARD SPECIFICATIONS OR OTHER ESTABLISHED PUBLISHED STANDARDS. REGARDLESS OF THE STANDARD USED, RIP RAI SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DUMN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50% OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE d50 SIZE AS DETERMINED FROM THE DESIGN PROCEDURE. THE DIAMETER OF THE LARGEST STONE SIZE II SUCH A MIXTURE SHALL BE 1.5 TIMES THE d50 SIZE. A WELL-GRADED MIXTURE AS USED HEREIN IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DOT RIP RAP STANDARDS ARE EXAMPLES OF WELL GRADED

AFTER DETERMINING THE RIP RAP SIZE THAT WILL BE STABLE UNDER THE FLOW CONDITIONS, CONSIDER THAT SIZE TO BE A MINIMUM AND THEN, BASED ON RIP RAP GRADATIONS ACTUALLY AVAILABLE IN THE AREA, SELECT THE SIZE OR GRADATIONS THAT EQUAL OR EXCEED TH

FIGURE RR-2: EXAMPLES OF AVERAGE STONE SIZE FOR d50 0.42 FEET OR 5 INCHES 0.67 FEET OR 8 INCHES INTERMEDIATE d50

DESIGN CRITERIA

THE MINIMUM THICKNESS OF THE RIP RAP LAYER SHALL BE 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 12 INCHES. INDIVIDUAL ROCK FRAGMENTS SHALL BE DENSE, SOUND AND FREE FROM CRACKS, SEAMS AND OTHER DEFECTS CONDUCIVE TO ACCELERATED WEATHERING. THE ROCK FRAGMENTS SHALL BE ANGULAR IN SHAPE. THE LEAST DIMENSION OF AN INDIVIDUAL ROCK FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD THE GREATEST DIMENSION OF THE FRAGMENT. THE STONE SHALL BE OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE, AND SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.65.

% OF MASS

% OF MASS

20-30

DOT STANDARD SPECIFICATIONS DO NOT ACCEPT ROUNDED STONE OR BROKEN D.O.T. STANDARD RIP RAP SIZES

STANDARD RIP RAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: (A) NOT MORE THAN 15% OF THE RIP RAP SHALL BE

SCATTERED SPALLS AND STONES LESS THAN 6 INCHES (B) NO STONE SHALL BE LARGER 30 THAN INCHES (760 MM) IN SIZE, AND AT LEAST 75% OF THE MASS SHALL BE

STONES AT LEAST 15 INCHES (380 MM) IN SIZE.
INTERMEDIATE RIP RAP: THIS MATERIAL SHALL CONFORM TO TH FOLLOWING GRADATION: STONE SIZE (ENGLISH) / (METRIC) 18" OR OVER / 460MM OR OVER

10" TO 18" / 255 MM TO 460MM 6" TO 10" / 150MM TO 255MM 4" TO 6" / 100MM TO 150MM 2" TO 4" / 50MM TO 100MM LESS THAN 2" / LESS THAN 50MM 0-10 MODIFIED RIP RAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION: STONE SIZE (ENGLISH) / (METRIC) 10" OR OVER / 255 MM OR OVER

' TO 10" / 150MM TO 255MM 4" TO 6" / 100MM TO 150MM 2" TO 4" / 50MM TO 100MM TO 4" / 25MM TO 50MM LESS THAN 1" / LESS THAN 50MM

DESIGN CRITERIA FOR SIZING THE STONE AND DETERMINING THE DIMENSIONS OF RIP RAP PADS USED AT THE OUTLET OF DRAINAGE STRUCTURES ARE CONTAINED IN THE OUTLET PROTECTION MEASURE. A PROPERLY DESIGNED BEDDING, FILTER, AND/OR GEOTEXTILE UNDERLINING IS REQUIRED FOR RIP RAP USED AS OUTLET PROTECTION. WHERE THE NATIVE MATERIAL MEETS THE REQUIREMENTS FOR GRANULAR FREE DRAINING BEDDING MATERIAL, NO ADDITIONAL FILTER OR GEOTEXTILE IS REQUIRED.

WATERWAY MEASURE). THE DESIGN PROCEDURE. WHICH IS EXTRACTED FROM THE FEDERAL HIGHWAY ADMINISTRATION'S DESIGN OF ROADSIDE CHANNELS WITH FLEXIBLE LININGS, IS ONE ACCEPTED METHOD. OTHER GENERALLY ACCEPTED PUBLISHED METHODS MAY BE USED. RIP RAP SHALL EXTEND UP THE BANKS OF THE CHANNEL TO A HEIGHT EQUAL TO THE DESIGN

THE RIP RAP SIZE TO BE USED IN A CHANNEL BEND SHALL EXTEND UPSTREAM FROM THE POINT OF CURVATURE A MINIMUM OF 0.4 TIMES THE WATER SURFACE WIDTH, AND DOWNSTREAM FROM THE POINT OF TANGENCY A DISTANCE OF AT LEASE 5 TIMES THE CHANNEL BOTTOM AND UP BOTH SIDES OF THE CHANNEL OR ONLY PROTECT THE OUTSIDE

BANK, DEPENDING UPON SPECIFIC DESIGN REQUIREMENT

A MINIMUM ADDITIONAL DEPTH FOUAL TO 1.5 TIMES THE MAXIMUM SIZE STONE. DESIGN WATER SURFACE SHALL BE BASED ON THE SIZE OF THE CHANNEL, THE FLOW VELOCITY, THE CURVATURE, INFLOWS, WIND ACTION, FLOW REGULATION, ETC.

BLANKET IS WITHIN PLUS OR MINUS 0.25 OF THE SPECIFIED THICKNESS.

O PREVENT THE MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, WHICH MAY CAUSE BOTH OFF-SITE AND ON-SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND

ON UNSTABLE SOILS SUBJECT TO CONSTRUCTION TRAFFIC WHERE UNSTABLE SOILS ARE LOCATED ON HILL TOPS OR LONG REACHES OF OPEN GROUND AND CAN BE EXPOSED TO HIGH WINDS.

1. PLANNING CONSIDERATIONS

A. LIMIT THE AMOUNT OF EXPOSED SOIL BY PHASING CONSTRUCTION TO REDUCE THE AREA OF LAND DISTURBED AT ANY ONE TIME AND BY USING. AS SOON AS POSSIBLE, STABILIZATION MEASURES SUCH AS ANCHORED TEMPORARY SOIL PROTECTION, TEMPORARY SEEDING OR PERMANENT SEEDING WITH ANCHORED MULCH FOR SEED, LANDSCAPE PLANTINGS WITH LANDSCAPE MULCH, SODDING OR

IDENTIFY AND ADDRESS SOURCES OF DUST GENERATED BY CONSTRUCTION ACTIVITIES, LIMIT CONSTRUCTION TRAFFIC TO PREDETERMINED ROUTES, PAVED SURFACES REQUIRE MECHANICAL SWEEPERS TO REMOVE SOIL THAT HAS BEEN DEPOSITED OR TRACKED ONTO THE PAVEMENT. ON UNPAVED TRAVEL WAYS AN EMPORARY HAUL ROADS. USE ROAD CONSTRUCTION STABILIZATION MEASURES AND/OR WATER AS NEEDED TO KEEP SURFACE DAMP. STATIONARY SOURCES OUST, SUCH AS ROCK CRUSHERS, USE FINE WATER SPRAYS TO CONTROL DUS IF WATER IS EXPECTED TO BE NEEDED FOR DUST CONTROL, IDENTIFY THE SOURCE OF WATER IN ADVANCE. PUMPING FROM STREAMS, POND AND SIMILAR WATERBODIES MAY REQUIRE APPROVAL FROM THE MUNICIPAL INLAND WETLAND

D. IDENTIFY AND ADDRESS SOURCES OF WIND GENERATED DUST. PROVIDE SPECIAL CONSIDERATION TO HILL TOPS AND LONG REACHES OF OPEN GROUND WHERE SLOPES MAY BE EXPOSED TO HIGH WINDS. CONSIDER BREAKING UP LONG REACHES WITH TEMPORARY WINDBREAKS CONSTRUCTED FROM BRUSH PILES GEOTEXTILE SILT FENCES OR HAY BALES. PLAN ON STABILIZING SLOPES EARLY.

USED FOR DUST CONTROL. WHEN CONSIDERING THE USE OF CALCIUM CHLORIDE BE AWARE OF THE FOLLOWING: THE RECEIVING SOIL'S PERMEABILITY SO AS TO PREVENT GROUNDWATER CONTAMINATION: THE TIMING OF THE APPLICATION TO RAINFALL TO PREVENT WASHING OF SALTS INTO SENSITIVE AREAS SUCH AS WETLANDS AND WATERCOURSES; AND PROXIMITY TO SENSITIVE AREAS SUCH AS WATERCOURSES, PONDS, ESTABLISHED OR SOON TO BE ESTABLISHED AREA OF PLANTINGS, WHERE SALTS COULD IMPAIR OR DESTROY PLANT AND ANIMAL LIFE ADDITIONALLY, SOME MATERIALS USED FOR DUST CONTROL MAY BE RENDERED

CONSIDER USING DUST CONTROL MEASURES ONLY AFTER IT IS DETERMINED THAT OTHER MEASURES FOR SOIL STABILIZATION CANNOT BE PRACTICALLY APPLIED.

A. MECHANICAL SWEEPING

MECHANICAL SWEEPING ON PAVED AREAS WHERE DUST AND FINE MATERIALS ACCUMULATE AS A RESULT OF TRUCK TRAFFIC. PAVEMENT SAW CUTTING SPILLAGE. AND WIND OR WATER DEPOSITION FROM ADJACENT DISTURBED AREAS. SWEEP DAILY IN HEAVILY TRAFFICKED AREAS

PERIODICALLY MOISTEN EXPOSED SOIL SURFACES ON UNPAVED TRAVEL WAYS TO KEEP THE

NATEX ACRYLICS. THE SOLUTIONS SHALL BE NON—ASPHALTIC, NON TOXIC TO HUMAN, ANIMAL AND PLANT LIFE, NON—CORROSIVE AND NONFLAMMABLE. MATERIALS USED SHALL MEET LOCAL STATE AND FEDERAL GUIDELINES FOR INTENDED USE. ALL MATERIALS ARE TO BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND ALL SAFETY GUIDELINES SHAL

GEOTEXTILE SILT FENCE (GSF

STONE CHECK DAM (SCD)

1 PLANNING CONSIDERATIONS

DESIGN REQUIREMENTS

2. SPECIFICATIONS

DESIGN REQUIREMENTS

NO ENGINEERED DESIGN 2-YR FREQUENCY STORM

25-YR FREQUENCY STORM

LEAST 6 FEET FROM THE INLET

DURING FROZEN GROUND CONDITIONS.

STONE HAS MOVED.

WATER BAR - SEE

REQUIREMENTS BELOW

WATER BAR SECTION

-- 6' MIN. --

2:1 OR FLATTER SID

D.O.T. #3 OR ASTM C-33 No.3

FILTER FABRIC IN WET AND-

POOR SOIL CONDITIONS

REMOVE TOPSOIL AND

ORGANICS PRIOR TO

PLACING STONE

A STONE CHECK DAM IS CONSIDERED TO BE TEMPORARY IF IT IS USED LESS THAN 1

YEAR. IT IS CONSIDERED TO BE PERMANENT IF IT IS USED MORE THAN 1 YEAR. ITS

< OR = TO 2 ACRES

STONE: SHALL MEET THE REQUIREMENTS OF DOT STANDARD SPECIFICATIONS SECTION

M.OI.OI, #3 AGGREGATE. THE STONE SHALL BE SOUND, TOUGH, DURABLE, ANGULAR, NO SUBJECT TO DISINTEGRATION ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY

PLACE THE STONE BY HAND OR MACHINE, MAKING SIDE SLOPES NO STEEPER THAN 1:1

(I.E., THE ANGLE OF REPOSE WITH A MAXIMUM HEIGHT OF 3 FEET AT THE CENTER OF

DEPTH OF THE DRAINAGEWAY BUT IT SHALL NOT EXCEED 3 FEET IN HEIGHT AT THE

CENTER EXTEND THE STONE CHECK DAM TO THE FULL WIDTH OF THE DRAINAGEWAY

CHECK DAM APPROXIMATELY 6 INCHES LOWER THAN THE HEIGHT OF THE OUTER FDCF

THE MAXIMUM SPACING BETWEEN CHECK DAMS SHALL BE SUCH THAT THE TOE OF THE

UPSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE TOP OF THE CENTER OF T

). CATCH BASIN IN DRAINAGEWAYS ON SLOPES AND AT THE CULVERT INLETS: WHERE

CATCH BASINS IN DRAINAGEWAYS ARE LOCATED ON SLOPES OR AT CULVERT INLETS,

LOCATE THE CHECK DAM ACROSS THE DRAINAGEWAY NO FARTHER THAN 20 FEET ABOVE

HE CATCH BASIN OR CULVERT. FOR CULVERT INLETS, LOCATE THE CHECK DAM AT

CATCH BASINS IN DEPRESSIONS OR LOW SPOTS (YARD DRAINS): ENCIRCLE THE

CULVERT INLETS: LOCATE THE STONE CHECK DAM APPROXIMATELY 6 FEET FROM

SPECIAL CASE COMBINATIONS FOR ADDED FILTRATION & FROZEN GROUND CONDITION

WATERSHEDS (E.G. PUBLIC WATER SUPPLY, COLD WATER FISHERIES) WHEN THE DRAINAGE

STONE CHECK DAM/GEOTEXTILE: STONE CHECK DAMS THAT ARE INSTALLED WITH AN INTERNAL CORE OF GEOTEXTILE. THE GEOTEXTILE MUST MEET THE MINIMUM STANDARDS SET FORTH IN GEOTEXTILE SILT FENCE MEASURE. PARTIALLY CONSTRUCT THE STONE

PARTIALLY BUILT DAM WITH SUFFICIENT MATERIAL ON THE UPSTREAM SIDE TO ALLOW FO

TO MAKE COMPLETE CONTACT WITH THE GROUND. COMPLETE THE PLACEMENT OF

STONE BY BURYING THE GEOTEXTILE WITHIN THE CHECK DAM. USEFUL LIFE OF THE MEASURE IS LIMITED BY THE LIFE OF THE GEOTEXTILE USED AND MAINTENANCE.

STONE CHECK DAM/HAY BALES: STONE CHECK DAMS THAT ARE INSTALLED WITH A

CORE OF HAY BALES. THE HAY BALES MUST MEET THE MINIMUM STANDARDS SET FORTH

TIGHTLY ABUTTING ONE ANOTHER. WEDGE ANY GAPS WITH LOOSE HAY. BURY HAY BALES

FOR PERMANENT STONE CHECK DAMS, INSPECT AND MAINTAIN THE STONE CHECK DAM IN

WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF O

ICH OR GREATER TO DETERMINE MAINTENANCE NEEDS. REMOVE THE SEDIMENT DEPO

OR REPAIR THE CHECK DAM WITHIN 24 HOURS OF OBSERVED FAILURE. FAILURE OF THE

SOIL HAS ERODED AROUND OR UNDER THE CHECK DAM REDUCING ITS FUNCTIONAL

WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND

ACCUMULATED SEDIMENT. STONE CHECK DAMS MAY BE REMOVED OR GRADED INTO THE

GRADE SO THERE ARE NO OBSTRUCTIONS TO WATER FLOW. IF STONE CHECK DAMS AR USED IN GRASS-LINED CHANNELS, WHICH WILL BE MOWED, REMOVE ALL THE STONE OR

CAREFULLY CRADE OUT THE STONE TO ENSURE IT DOES NOT INTERFERE WITH MOWING

STABILIZE ANY DISTURBED SOIL THAT REMAINS FROM CHECK DAM REMOVAL OPERATIONS.

EXISTING PAVED ROADWAY OR DRIVEWAY

06000000

FULL WIDTH OF

OR 12' MINIMUM

LIMITATIONS FOR USE AND DETERMINE IF ADDITIONAL CONTROLS (E.G. TEMPORARY

STABILIZATION OF CONTRIBUTING AREA DIVERSIONS STONE CHECK DAMS) ARE

AREA IS STABILIZED. AFTER THE CONTRIBUTING AREA IS STABILIZED, REMOVE

CHECK DAM HAS OCCURRED WHEN SEDIMENT FAILS TO BE RETAINED BECAUSE:

WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE CHECK DAM. REPLACE

ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS PROVIDED IN THE DESIGN.

FOR TEMPORARY STONE CHECK DAMS, INSPECT STONE CHECK DAMS AT LEAST ONCE

HE APPLICATION PARAGRAPHS ABOVE. USEFUL LIFE OF THE MEASURE IS

IN HAY BALE BARRIER MEASURE. AT THE LOCATION OF THE STONE CHECK DAM FIRST

LAY A LOOSE BED OF HAY SEVERAL INCHES THICK ALONG THE ENTIRE LENGTH OF THE

CHECK DAM ALIGNMENT. PLACE HAY BALES WITH THE ENDS OF ADJACENT BALES

WITH STONE AND COMPLETE THE CONSTRUCTION OF THE STONE CHECK DAM AS

LIMITED BY THE LIFE OF THE HAY BALES AND MAINTENANCE.

TRAPPED SEDIMENTS ARE OVER TOPPING THE CHECK DAM.

10' MIN. RADIUS

HECK DAM TO AT LEAST HALF ITS HEIGHT. PLACE THE GEOTEXTILE OVER THE

ENTIRE CATCH BASIN WITH A STONE CHECK DAM NOT TO EXCEED 18 INCHES IN HEIGHT AND 3 FEET OUT FROM THE OUTSIDE EDGE OF THE TOP OF THE FRAME.

THESE ARE NON-ENGINEERED STONE CHECK DAMS MODIFIED FOR USE IN CRITICAL

AREA IS 2 ACRES OR LESS OR WHEN A SEDIMENT BARRIER NEEDS TO BE INSTALLED

E CHECK DAM. A GEOTEXTILE MAY BE USED UNDER THE STONE TO PROVIDE A STABLE

. IN DRAINAGEWAYS: THE MINIMUM HEIGHT OF THE CHECK DAM SHALL BE THE FLOW

STABLE, AND SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED

ANY DRAINAGE SIZE

DRAINAGE AREA

FOR ENGINEERED STONE CHECK DAMS, CONSTRUCT THE STONE CHECK DAM IN

ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS. FOR ALL

NON-ENGINEERED STONE CHECK DAMS, COMPLY WITH THE FOLLOWING:

FOUNDATION AND TO FACILITATE REMOVAL OF THE STONE.

THE CULVERT IN THE DIRECTION OF THE INCOMING FLOW.

> 2 ACRES

LENGTH OF USE AND THE SIZE OF THE WATERSHED DETERMINE IF AN ENGINEERED DESIG

LENGTH OF USE

> 6 MONTHS, < 1 YEAR

< 6 MONTHS

GEOTEXTILE SILT FENCES SHALL BE UTILIZED EXCEPT WHERE NOTED OTHERWISE GEOTEXTILE SILT FENCE (ST)

EOTEXTILE SILT FENCING MINIMUM REQUIREMENTS

GRAB TENSILE STRENGTH (LBS.) ONGATION @ FAILURE MULLEN BURST STRENGTH APPARENT OPENING SIZE FLOW RATE ERMATIVITY LTRAVIOLET RADIATION

MINIMUM REQUIREMENT 75% (MIN) NO GREATER THAN 0.90MM ASTM D4751 ASTM D4491 0.2 GAL/FT2/MIN ASTM D4491 0.05 SEC. -1 (MIN) ASTM-D4355 70% AFTER 500 HOURS OF EXPOSURE (MIN)

OTEXTILE SILT FENCE SLOPE / LENGTH LIMITATIONS SLOPE STEEPNESS* SLOPE LENGTH AND WING SPACING 5:1 OR FLATTER

*WHERE THE GRADIENT CHANGES THROUGH THE DRAINAGE AREA THE STEEPEST SLOPE SECTION GEOTEXTILE FABRIC: SHALL BE A PERVIOUS SHEET OF POLYPROPYLENE, NYLON, POLYESTER

ETHYLENE OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS SHOWN. THE GEOTEXTILE SHALL BE NON-ROTTING, ACID ND ALKALI RESISTANT AND HAVE SUFFICIENT STRENGTH AND PERMEABILITY FOR THE PURPOS TENDED, INCLUDING HANDLING AND BACKFILLING OPERATIONS. FILAMENTS IN THE GEOTEXTIL SHALL BE RESISTANT TO ABSORPTION. THE FILAMENT NETWORK MUST BE DIMENSIONALLY STABLE AND RESISTANT TO DE-LAMINATION. THE GEOTEXTILE SHALL BE FREE OF ANY CHEMICAL TREATMENT OR COATING THAT WILL REDUCE ITS PERMEABILITY. THE GEOTEXTILE SHALL ALSO BE FREE OF ANY FLAWS OR DEFECTS WHICH WILL ALTER ITS PHYSICAL PROPERTIES. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

B. SUPPORTING POSTS: SHALL BE AT LEAST 42 INCHES LONG MADE OF EITHER 1.5 INCH SQUARE HARDWOOD STAKES OR STEEL POSTS WITH PROJECTIONS FOR FASTENING THE GEOTEXTILE OSSESSING A MINIMUM STRENGTH OF 0.5 POUND PER LINEAR FOOT

PLACEMENT ON THE LANDSCAPE

A. FOR TOE OF SLOPE: LOCATE 5-10 FEET DOWN GRADIENT FROM THE TOE OF THE SLOPE, GENERALLY ON THE CONTOUR WITH MAINTENANCE AND SEDIMENT REMOVAL REQUIREMENTS IN MIND WHEN THE CONTOUR CANNOT BE FOLLOWED INSTALL THE FENCE SUCH THAT PERPENDICULAR WINGS ARE CREATED TO BREAK THE VELOCITY OF WATER FLOWING ALONG THE FENCE. SWALES: LOCATE "U" SHAPE ACROSS SWALE SUCH THAT THE BOTTOM OF BOTH ENDS OF THE CATCH BASINS IN SWALE ON SLOPES: LOCATE 2 "U" SHAPES ACROSS SWALE AS ABOVE: NE IMMEDIATELY UP SLOPE FROM THE CATCH BASIN AND THE OTHER IMMEDIATELY DOWN SLOPE

FROM THE CATCH BASIN. . CATCH BASINS IN DEPRESSIONS: ENCIRCLE ENTIRE CATCH BASIN. CULVERT INLETS: LOCATE IN A "U" SHAPE APPROXIMATELY 6 FEET FROM THE CULVERT IN

INSTALLATION A TRENCH EXCAVATION: EXCAVATE A TRENCH A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE ON THE UP SLOPE SIDE OF THE FENCE LOCATION. FOR SLOPE AND SWALE INSTALLATIONS, EXTEND THE ENDS OF THE TRENCH SUFFICIENTLY UP SLOPE SUCH THAT BOTTOM END OF THE FENCE WILL BE HIGHER THAN THE TOP OF THE LOWEST PORTION OF THE FENCE. WHEN THE FENCE IS NOT TO BE INSTALLED ON THE CONTOUR, EXCAVATE WING TRENCHES SPACED AT THE INTERVALS

CULVERT OUTLETS: LOCATE ACROSS THE SWALE AT LEAST 6 FEET FROM THE CULVERT

SUPPORT POSTS: DRIVE SUPPORT POSTS ON THE DOWN SLOPE OF THE TRENCH TO A DEPTH OF LEAST 12 INCHES INTO ORIGINAL GROUND. NEVER INSTALL SUPPORT POSTS MORE THAN 10 ET APART. INSTALL SUPPORT POSTS CLOSER THAN 10 FEET APART WHEN CONCENTRATED FLOWS RE ANTICIPATED OR WHEN STEEP CONTRIBUTING SLOPES AND SOIL CONDITIONS ARE EXPECTED TO CORNER OF THE CATCH BASIN. WHENEVER THE GEOTEXTILE FILTER FABRIC THAT IS USED EXCEEDS HE MINIMUM MATERIAL SPECIFICATIONS CONTAINED IN THIS MEASURE, THE SPACING OF THE STAKES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

GEOTEXTILE FILTER FABRIC: STAPLE OR SECURE THE GEOTEXTILE TO THE SUPPORT POSTS PER IANUFACTURER 'S INSTRUCTION SUCH THAT AT LEAST 6 INCHES OF GEOTEXTILE LIES WITHIN THE RENCH. THE HEIGHT OF THE FENCE DOES NOT EXCEED 30 INCHES AND THE GEOTEXTILE IS TAUT BETWEEN THE POSTS. WHEN THE TRENCH IS OBSTRUCTED BY STONES, TREE ROOTS, ETC. ALLOW THE GEOTEXTILE TO LAY OVER THE OBSTRUCTION SUCH THAT THE BOTTOM OF THE GEOTEXTILE IN THE ABSENCE OF MANUFACTURER'S INSTRUCTIONS, SPACE WIRE STAPLES ON WOODEN STAKES AT MAXIMUM OF 4 INCHES APART AND ALTERNATE THEIR POSITION FROM PARALLEL TO THE AXIS OF THE STAKE TO PERPENDICULAR. DO NOT STAPLE THE GEOTEXTILE TO LIVING TREES.

PROVIDE REINFORCEMENT FOR THE FENCE WHEN IT CAN BE EXPOSED TO HIGH WINDS. WHEN JOINTS IN THE GEOTEXTILE FABRIC ARE NECESSARY, SPLICE TOGETHER ONLY AT A SUPPORT POSTS, AND SECURELY SEAL (SEE MANUFACTURER'S RECOMMENDATIONS).

BACKFILL & COMPACTION: BACKFILL THE TRENCH WITH TAMPED SOIL OR AGGREGATE OVER THE OTEXTILE. WHEN THE TRENCH IS OBSTRUCTED BY A STONE, TREE ROOT, ETC. MAKE SURE THE ITTOM OF THE GEOTEXTILE LIES HORIZONTAL ON THE GROUND WITH THE RESULTING FLAP ON THE IP SLOPE SIDE OF THE GEOTEXTILE AND BURY THE FLAP 6 INCHES OF TAMPED SOIL, OR MAINTENANCE

PECT THE SILT FENCE AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR CREATER TO DETERMINE MAINTENANCE NEEDS. WHEN D FOR DEWATERING OPERATIONS, INSPECT FREQUENTLY BEFORE, DURING AND AFTER PUMPING REMOVE THE SEDIMENT DEPOSITS OR, IF ROOM ALLOWS, INSTALL A SECONDARY SILT FENCE UP SLOPE OF THE EXISTING FENCE WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE EXISTING FENCE. REPLACE OR REPAIR THE FENCE WITHIN 24 HOURS OF OBSERVED . FAILURE OF THE FENCE HAS OCCURRED WHEN SEDIMENT FAILS TO BE RETAINED BY THE FENCE BECAUSE:) THE BARRIER HAS BEEN OVER TOPPED, UNDERCUT OR BYPASSED BY RUNOFF WATER,) THE BARRIER HAS BEEN MOVED OUT OF POSITION. OR) THE HAY BALES HAVE DETERIORATED OR BEEN DAMAGED

WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND LIMITATIONS FOR USE AND DETERMINE IF ADDITIONAL CONTROLS (F.G. TEMPORARY STABILIZATION OF ONTRIBUTING AREA, DIVERSIONS, STONE BARRIERS) ARE NEEDED TO REDUCE FAILURE RATE OR REPLACE HAY BALE BARRIER MAINTAIN THE HAY BALE BARRIER UNTIL THE CONTRIBUTING AREA IS STABILIZED.

AFTER THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED, PULL THE STAKES OUT OF THE HAY BALES. UNLESS OTHERWISE REQUIRED, NO REMOVAL OR REGRADING OF ACCUMULATED SEDIMENT IS REQUIRED. THE HAY BALES MAY THEN BE LEFT IN PLACE OR BROKEN UP FOR

HAY BALE BARRIER (HB)

HAY BALE DESIGN SLOPE/LENGTH LIMITATIONS SLOPE STEEPNESS SLOPE LENGTH AND WING SPACING 1 OR SHALLOWER

MATERIALS

A. HAY BALES: SHALL BE MADE OF HAY OR STRAW WITH 40 POUNDS MINIMUM WEIGHT AND 120 POUNDS MAXIMUM WEIGHT HELD TOGETHER BY TWINE OR WIRE. STAKES FOR ANCHORING HAY BALES: SHALL BE A MINIMUM OF 36 INCHES LONG AND MADE OF EITHER HARDWOOD WITH DIMENSIONS OF AT LEAST 1.5 INCHES SQUARE OR STEEL POSTS WITH A MINIMUM WEIGHT OF 0.5 POUND PER LINEAR FOOT. PLACEMENT ON THE LANDSCAPE

CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 1 ACRE. MAXIMUM SLOPE LENGTH IS AS

A, TOE OF SLOPE: LOCATE 5-10 FEET DOWN GRADIENT FROM THE TOE OF SLOPE GENERALLY ON THE CONTOUR. B. SWALES: NOT RECOMMENDED. SEE GEOTEXTILE SILT FENCE OR STONE CHECK DAM MEASURES. C. CATCH BASINS IN SWALES ON SLOPES: NOT RECOMMENDED. SEE GEOTEXTILE SILT FENCE OR STONE CHECK DAM MEASURES. . CATCH BASINS IN DEPRESSIONS OR LOW SPOTS (YARD DRAINS): ENCIRCLE CATCHBASIN.

CULVERT INLETS: NOT RECOMMENDED. SEE GEOTEXTILE SILT FENCE MEASURE. NOT RECOMMENDED. USE TEMPORARY SEDIMENT TRAP AND/OR STONE CHECK DAM MEASURES

INSTALLATION TRENCH EXCAVATION: EXCAVATE A TRENCH AS WIDE AS THE BALES AND AT LEAST 4 INCHES EEP. EACH END OF THE TRENCH SHOULD BE WINGED UPSLOPE SO THAT THE BOTTOM OF THE B. HAY BALE PLACEMENT: PLACE BALES IN A SINGLE ROW IN THE TRENCH, LENGTHWISE, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER AND THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES (TO AVOID PREMATURE ROTTING OF THE BINDINGS).

N EACH BALE TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES MUST BE DRIVEN A MINIMUM OF 18 INCHES INTO THE GROUND. FILL ANY GAPS BETWEEN THE BALES WITH HAY OR STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES. BACKFILL & TAMPED: BACKFILL THE BALES WITH THE EXCAVATED TRENCH MATERIAL TO A MINIMUM DEPTH OF 4 INCHES ON THE UPHILL SIDE OF THE BALES TAMP BY HAND OR MACHINE AND COMPACT THE SQIL. LOOSE HAY OR STRAW SCATTERED OVER THE DISTURBED AREA IMMEDIATELY UPHILL FROM THE HAY BALE BARRIER TENDS TO INCREASE BARRIER EFFICIENCY

STAKING HAY BALES: ANCHOR EACH BALE WITH AT LEAST 2 STAKES, DRIVING THE FIRST STAKE

NSPECT THE HAY BALE BARRIER AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF $^\prime$ STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER TO DETERMINE MAINTENANCE NEEDS. REMOVE THE SEDIMENT DEPOSITS OR, INSTALL A SECONDARY BARRIER UPSLOPE FROM THE EXISTING BARRIER WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF T EXISTING BARRIER. REPLACE OR REPAIR THE BARRIER WITHIN 24 HOURS OF OBSERVED FAILURE.

) THE FENCE HAS BEEN OVER TOPPED, UNDERCUT OR BYPASSED BY RUNOFF WATER,

B) THE FENCE HAS BEEN MOVED OUT OF POSITION (KNOCKED OVER), OR THE GEOTEXTILE HAS DECOMPOSED OR BEEN DAMAGED. WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND LIMITATIONS FOR USE AND DETERMINE IF ADDITIONAL CONTROLS (F.G. TEMPORARY STABILIZATION OF INTRIBUTING AREA, DIVERSIONS, STONE BARRIERS) ARE NEEDED TO REDUCE FAILURE RATE OR AINTAIN THE FENCE UNTIL THE CONTRIBUTING AREA IS STABILIZED AFTER THE CONTRIBUTING AREA IS STABILIZED DETERMINE IF SEDIMENT CONTAINED BY THE FENCE REQUIRES REMOVAL OR REGRADING AND STABILIZATION. IF THE DEPTH IS GREATER THAN OR EQUAL TO 6 INCHES, REGRADING OR REMOVAL OF THE ACCUMULATED SEDIMENT IS REQUIRED. NO REMOVAL OR REGRADING IS REQUIRED IF SEDIMENT DEPTH IS LESS THAN 6 INCHES

REMOVE THE FENCE BY PULLING UP THE SUPPORT POSTS AND CUTTING THE GEOTEXTILE AT GROUND LEVEL. REGRADE OR REMOVE SEDIMENT AS NEEDED, AND STABILIZE DISTURBED SOILS. REFERENCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT

CONTROL HANDBOOK.

TEMPORARY SEEDING

A. SEED SELECTION SELECT GRASS SPECIES APPROPRIATE FOR THE SEASON AND SITE CONDITIONS FROM TABLE

EED WITH A TEMPORARY SEED MIXTURE WITHIN 7 DAYS AFTER THE SUSPENSION OF GRADING WORK IN DISTURBED AREAS WHERE HE SUSPENSION OF WORK IS EXPECTED TO BE MORE THAN 30 DAYS BUT LESS THAN 1 YEAR. SEEDING OUTSIDE THE OPTIMUM EEDING DATES GIVEN IN TABLE MAY RESULT IN EITHER INADEQUATE GERMINATION OR LOW PLANT SURVIVAL RATE, REDUCING

STALL NEEDED EROSION CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, SEDIMENT BASINS AND RASSED WATERWAYS IN ACCORDANCE WITH THE APPROVED PLAN. GRADE ACCORDING TO PLANS AND ALLOW FOR THE USE OF PPROPRIATE EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING

DOSEN THE SOIL TO A DEPTH OF 3-4 INCHES WITH A SLIGHTLY ROUGHENED SURFACE. IF THE AREA HAS BEEN RECENTLY OOSENED OR DISTURBED, NO FURTHER ROUGHENING IS REQUIRED. SOIL PREPARATION CAN BE ACCOMPLISHED BY TRACKING WITH A ULLDOZER, DISCING, HARROWING, RAKING OR DRAGGING WITH A SECTION OF CHAIN LINK FENCE. AVOID EXCESSIVE COMPACTION OF HE SURFACE BY EQUIPMENT TRAVELING BACK AND FORTH OVER THE SURFACE. IF THE SLOPE IS TRACKED, THE CLEAT MARKS SHALL BE PERPENDICULAR TO THE ANTICIPATED DIRECTION OF THE FLOW OF SURFACE WATER.

APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SYSTEM OFFICE. APPENDIX E CONTAINS A LISTING OF THE COOPERATIVE EXTENSION SYSTEM OFFICES. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MA
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. DDITIONALLY, LIME MAY BE APPLIED USING RATES GIVEN IN TABLE BELOW.

SOIL TEXTURE VS. LIMING RATES SOIL TEXTURES TONS/ACRE OF LIME LBS/1,000 SF OF LIME SANDY LOAM, LOAM, SILT LOAM LOAMY SAND, SAND

E. SEEDING PPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER AT A MINIMUM RATE FOF HE SELECTED SEED IDENTIFIED IN TABLE BELOW. INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING. EMPORARY SEEDINGS MADE DURING OPTIMUM SEEDING DATES SHALL BE MULCHED ACCORDING TO THE MULCH FOR SEED MEASURE.

NSPECT SEEDED AREA AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF AS OCCURRED. DETERMINE THE CAUSE OF THE FAILURE BIRD FFEDING MAY BE A PROBLEM IF MULCH WAS APPLIED TOO THINL' PROTECT SEED. RE-SEED AND RE-MULCH. IF MOVEMENT WAS THE RESULT OF WIND, THEN REPAIR EROSION DAMAGE (IF ANY) EAPPLY SEED AND MULCH AND APPLY MULCH ANCHORING. IF FAILURE WAS CAUSED BY CONCENTRATED RUNOFF. INSTAL ADDITIONAL MEASURES TO CONTROL WATER AND SEDIMENT MOVEMENT, REPAIR EROSION DAMAGE, RE-SEED AND RE-APPLY MULCH WITH ANCHORING OR USE TEMPORARY EROSION CONTROL BLANKET MEASURE. CONTINUE INSPECTIONS UNTIL THE GRASSES ARE IRMLY ESTABLISHED. GRASSES SHALL NOT BE CONSIDERED ESTABLISHED LINTIL A GROUND COVER IS ACHIEVED WHICH IS MATUR

ENOUGH TO CONTROL SOIL EROSION AND TO SURVIVE SEVERE WEATHER CONDITIONS (APPROXIMATELY 80% VEGETATIVE SURFACE

TEMPORARY SEEDING RATES AND DATES

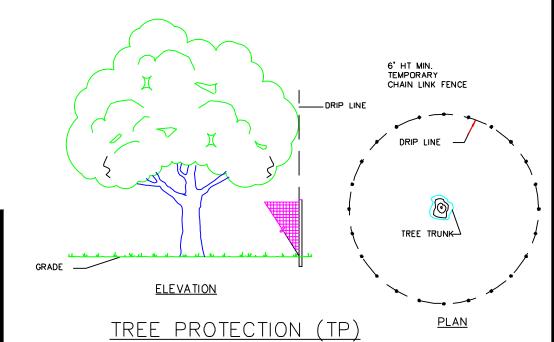
SPECIES OPTIMUM OPTIMUM SEEDING SEED DEPTH(NOTE2) RATES DATES(NOTE1) CHARACTERISTICS /Ac. /1000 S.F. (INCHES) NNUAL RYEGRASS MAY BE ADDED IN MIXES. LOLIUM MULTIFLORUM 40 1.0 0.5 3/1 - 6/15 & 8/1 - 10/15 PERENNIAL RYEGRASS WILL MOW OUT OF MOST STANDS.
USE FOR WINTER COVER. 0.5 3/15 -7/1 & 8/1 - 10/15 LOLIUM PERENNE SECALE CEREALE 120 3.0 1.0 4/15 - 7/1 & 8/15 -10/15 GROWTH. DIES BACK IN JUNE WITH LITTLE REGROWTH.
IN NORTHERN CT. WINTER WILL KILL AVENA SATIVA 86 2.0 1.0 3/1 - 6/15 & 8/1 - 9/15 WITH THE FIRST KILLING OF FROST AND <u>SEVERE WINTERS.</u> QUICK GERMINATION WITH MODERATE TRITICUM AESTIVUM 120 3.0 1.0 4/15 - 7/1 & 8/15 - 10/15 GROWTH. DIES BACK IN JUNE WITH NO REGROWTH.
WARM SEASON SMALL GRAIN. DIES WITH FROST IN SEPTEMBER.
TOLERATES WARM TEMPERATURES AND FCHINOCHLOA CRUSGALLI 20 0.5 SORGHUM SUDANENSE 30 0.7 AGOPYRUM ESCULENTUM 15 0.4 AND IS GOOD AS A GREEN MANURE WARM-SEASON PERENNIAL, MAY BUNCH RAGROSTIS CURVULA 5 0.2 TOLERATES HOT, DRY SLOPES, ACID

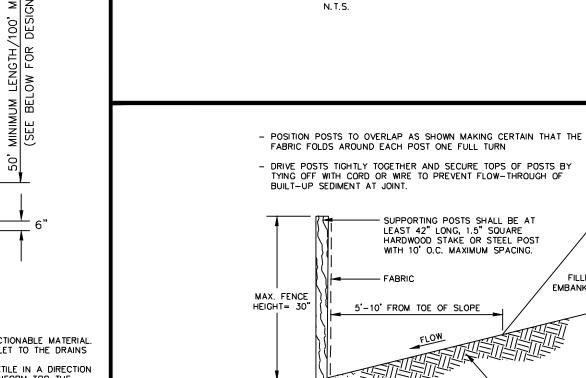
SEED AT TWICE THE INDICATED DEPTH FOR SANDY SOILS. SEE PERMANENT SEEDING TABLE FOR SEEDING MIXTURE REQUIREMENTS.
LISTED SPECIES MAY BE USED IN COMBINATIONS TO OBTAIN A BROADER TIME SPECTRUM. IF USED IN COMBINATIONS, REDUCE

I MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED. FALL SEEDING MAY BE EXTENDED

CROP. USUALLY WINTER KILLS.

0.5 3/15 - 6/15 & 8/15 - 10/15 SUITABLE FOR ALL CONDITIONS. (NO...)





FAR THE AREA OF THE ENTRANCE OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL IF USING A GEOTEXTILE IN PLACE OF FREE DRAINING MATERIAL, UNROLL THE GEOTEXTILE IN A DIRECTION PARALLEL TO THE ROADWAY CENTERLINE IN A LOOSE MANNER PERMITTING IT TO CONFORM TOO THE SURFACE IRREGULARITIES WHEN THE STONE IS PLACED, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER, THE MINIMUM OVERLAP OF GEOTEXTILE PANELS JOINED WITHOUT SEWING ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE GEOTEXTILE MAY BE TEMPORARILY SECURED WITH PINS RECOMMENDED OR PROVIDED BY THE MANUFACTURER BUT THEY SHALL BE REMOVED PRIOR TO PLACE THE STONE TO THE SPECIFIED DIMENSION. KEEP ADDITIONAL STONE AVAILABLE OR STOCKPILE FOR FUTURE USE. IF THE GRADE OF THE CONSTRUCTION ENTRANCE DRAINS TO THE PAVED SURFACE AND IT CONSTRUCT A WATER BAR WITHIN THE CONSTRUCTION ENTRANCE AT LEAST 15 FEET FROM CONSTRUCT ANY DRAINAGE AND SETTLING FACILITIES NEEDED FOR WASHING OPERATIONS. IF WASH RACKS ARE USED, INSTALL ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS MOST OF THE SEDIMENT IS NOT REMOVED BY TRAVEL OVER THE STONE, WASH TIRES BEFORE VEHICLES

PERIOD. USING A WASH RACK MAY MAKE WASHING MORE CONVENIENT AND EFFECTIVE. MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENT NTO PAVED SURFACES. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND, REPAIR ANY MEASURES USED TO TRAP SEDIMENT AS NEEDED IMMEDIATELY REMOVE ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES.
ROADS ADJACENT TO A CONSTRUCTION SITE SHALL BE LEFT CLEAN AT THE END OF EACH DAY. F THE CONSTRUCTION ENTRANCE IS BEING PROPERLY MAINTAINED AND THE ACTION OF A VEHICLE TRAVELING OVER THE STONE PAD IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF THE SEDIMENT, THEN EITHER (1) INCREASE THE LENGTH OF THE CONSTRUCTION ENTRANCE, (2) MODIFY THE CONSTRUCTION ACCESS ROAD SURFACE, OR (3) INSTALL WASHING RACKS AND ASSOCIATED SETTLING AREA OR SIMILAR

ENTER A PUBLIC ROAD. DIVERT WASH WATER AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. SIZE SETTLING AREA TO HOLD THE VOLUME OF WATER USED DURING ANY 2-HOUR

ANTI-TRACKING PAD

N.T.S. REFERENCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMEN CONTROL HANDBOOK.

GEOTEXTILE SILT FENCE

WING DETAIL

(IF REQUIRED BY ENGINEER)

REDTOP (STREAKER, COMMON) FOR THE COASTAL TOWNS AND IN THE CONNECTICUT RIVER VALLEY FINAL FALL BIRDS FOOT TREFOIL (EMPIRE, VIKING) W/INOCULANT1 SEEDING DATES CAN BE EXTENDED AN ADDITIONAL 15 DAYS, AND

* DORMANT OR FROST CRACK SEEDING IS DONE AFTER THE GROUND IS FROZEN. C. SITE PREPARATION PERENNIAL RYE GRASS GRADE IN ACCORDANCE WITH THE LAND GRADING MEASURE. TOTAL 1 INSTALL ALL NECESSARY SURFACE WATER CONTROLS.
FOR AREAS TO BE MOWED REMOVE ALL SURFACE STONES 2 INCHES OR LARGER. CREEPING RED FESCUE REDTOP (STREAKER, COMMON) DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS PERENNIAL RYE GRASS TOTAL 42 UNSUITABLE MATERIAL. SMOOTH BROMEGRASS (SARATOGA, LINCOLN) PERFUNIAL RYEGRASS (NORLEA, MANHATTAN NOTE: ON AREAS WHERE WOOD CHIPS AND/OR BARK MULCH WAS PREVIOUSLY PPLIED. EITHER REMOVE THE MULCH OR INCORPORATE IT INTO THE SOIL WITH A BIRDS FOOT TREFOIL (EMPIRE, VIKING) W/ INOCULANT NITROGEN FERTILIZER ADDED. NITROGEN APPLICATION RATE IS DETERMINED BY SOIL TEST AT TIME OF SEEDING; ANTICIPATE 12 LBS NITROGEN PER TON OF WOOD CHIPS SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK) AND/OR BARK MULCH. SEEDBED PREPARATION LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER) LY TOPSOIL IF NECESSARY, IN ACCORDANCE WITH THE TOPSOILING MEASURE PPLY FERTILIZER AND GROUND LIMESTONE ACCORDING TO SOIL TESTS CONDUCTED BY THE UNIVERSITY OF CONNECTICUT SOIL
TESTING LABORATORY OR OTHER RELIABLE SOURCE. A PH RANGE OF 6.2 TO 7.0 IS CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) CROWN VETCH (CHEMUNG, PENNGIFT) WITH INOCULANT1 PTIMAL FOR PLANT GROWTH OF MOST OR (FLATPEA (LATHCO) WITH INOCULANT1) (.75) GRASS SPECIES. WHERE SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE ALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN) 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 OR EQUIVALENT AND LIMESTONE AT 4 TONS PER ACRE OR 200 POUNDS PER 1,000 SQUARE FEET. REDTOP (STREAKER, COMMON) TOTAL 42 (OR 57) 1.00 (OR 1.40) DITIONALLY, LIME MAY BE APPLIED USING RATES GIVEN IN TABLE BELOW. A PH CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) OF 6.2 TO 7.0 IS OPTIMAL. OF 6.2 TO 7.0 IS OPTIMAL.
FOR AREAS THAT WERE PREVIOUSLY MULCHED WITH WOOD CHIPS OR BARK AND THE
WOOD CHIPS OR BARK ARE TO BE INCORPORATED INTO THE SOIL, APPLY ADDITIONAL
NITROGEN AT A RATE THAT IS DETERMINED BY SOIL TESTS AT TIME OF SEEDING. REDTOP (STREAKER, COMMON) CROWN VETCH (CHEMUNG PENNGIET) WITH INOCULANT OR (FLATPEA (LATHCO) WITH INOCULANT 1) WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES WITH A DISC OR OTHER SUITABLE EQUIPMENT CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. FOR 115
AREAS TO BE MOWED THE FINAL SOIL LOOSENING AND SURFACE ROUGHENING BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1 CROWN VETCH (CHEMUNG, PENNGIFT) WITH INOCULANT OPERATION IS BY HAND. HARROW OR DISC IF DONE BY HARROW OR DISC. IT IS CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)OR TALL FESCUE (KENTUCKY 31) ENERALLY DONE ON THE CONTOUR. AREAS NOT TO BE MOWED CAN BE OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN) ITH CLEATED EARTH MOVING EQUIPMENT PERPENDICULAR TO THE SLOPE. HOWEVER FOR AREAS WHERE TEMPORARY EROSION CONTROL BLANKETS ARE TO BE USED INSTEAD OF MULCH FOR SEED PREPARE THE SEED BED IN ACCORDANCE WITH SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK) BLANKET MANUFACTURER'S RECOMMENDATIONS.
INSPECT SEEDBED JUST BEFORE SEEDING. IF THE SOIL IS COMPACTED, CRUSTED OR HARDENED, SCARIFY THE AREA PRIOR TO SEEDING. PERENNIAL RYEGRASS (NORLEA, MANHATTAN) CROWN VETCH (CHEMUNG, PENNGIFT) WITH INNOCULANT1 CROWN VETCH (CHEMUNG, PENNGIFT) WITH INNOCULANT SOIL TEXTURE VS. LIMING RATES OR (FLATPEA (LATHCO) WITH INOCULANT 1) SOIL TEXTURE TONS/ACRE OF LIME LBS/1000 SF OF LIME SWITCHGRASS (BLACKWELL, SHELTER, CAVÉ-IN-ROCK) PERENNIAL RYEGRASS (NORLEA, MANHATTAN) ANDY LOAM, LOAM, .45 (OR .95 LOAMY SAND, SAND CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT OR (FLATPEA (LATHCO) WITH INOCULANT1) PERENNIAL RYEGRASS (NORLEA, MANHATTAN) PPLY SELECTED SEED AT RATES PROVIDED IN TABLE BELOW UNIFORMLY BY HAND. TOTAL 25 (OR 40) .60 (OR 1.0 YCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY CLUDING SEED, FERTILIZER). NORMAL SEEDING DEPTH IS FROM 0.25 TO 0.5 INCH. 156 CREASE SEEDING RATES BY 10% WHEN HYDROSEEDING OR FROST CRACK SEEDING. SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK) BIG BLUESTEM (NIAGRA, KAW) OR LITTLE BLUESTEM EED WARM SEASON GRASSES DURING THE SPRING PERIOD ONLY. (BLAZE, ALSOUS, CAMPER) PPLY MULCH ACCORDING TO THE MULCH FOR SEED MEASURE PERENNIAL RYEGRASS (NORLEA, MANHATTAN) BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1 IRRIGATION FOR SUMMER SEEDING TOTAL 2 T. INTIGATION FOR SOMMEN SELDING WHEN SEEDING DATES IN THE SUMMER WHEN SEEDING OUTSIDE OF THE RECOMMENDED SEEDING DATES IN THE SUMMER MONTHS, WATERING MAY BE ESSENTIAL TO ESTABLISH A NEW SEEDING. IRRIGATION IS A SPECIALIZED PRACTICE AND CARE NEEDS TO BE TAKEN NOT TO EXCEED THE NFILTRATION RATE OF THE SOIL EACH APPLICATION MUST BE UNIFORMLY APPLIED WITH 1 TO 2 INCHES OF WATER APPLIED PER APPLICATION, SOAKING THE GROUND FLATPEA (LATHCO) WITH INOCULANT TOTAL 50 DEER TONGUE (TIOGA) WITH INOCULANTS BIRDS FOOT TREFOIL (EMPIRE VIKING) WITH INOCULANT1 PERENNIAL RYEGRASS (NORLEA, MANHATTAN) NSPECT SEEDED AREA AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END TOTAL 21 A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER DURING THE DEER TONGUE (TIOGA) WITH INOCULANT 1 IRST GROWING SEASON. WHERE SEED HAS BEEN MOVED OR WHERE SOIL EROSION HAS OCCURRED DETERMINE CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT HE CAUSE OF THE FAILURE, BIRD DAMAGE MAY BE A PROBLEM IF MULCH WAS PERENNIAL RYEGRASS (NORLEA, MANHATTAN) APPLIED TOO THINLY TO PROTECT SEED. RE-SEED AND RE-MULCH. IF MOVEMEN TOTAL 28 WAS THE RESULT OF WIND, REPAIR EROSION DAMAGE (IF ANY), RE-APPLY SEED ND MULCH, AND APPLY MULCH ANCHORING. IF FAILURE WAS CAUSED BY CHEWINGS FESCUE CONCENTRATED WATER, (1) INSTALL ADDITIONAL MEASURES TO CONTROL WATER AND COLONIAL BENTGRASS SEDIMENT MOVEMENT. (2) REPAIR EROSION DAMAGE, (3) RE-SEED AND (4) BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT F-APPLY MULCH WITH ANCHORING OR USE TEMPORARY EROSION CONTROL PERENNIAL RYEGRASS BLANKET MEASURE AND/OR PERMANENT TURF REINFORCEMENT MAT MEASURE THERE IS NO EROSION. BUT SEED SURVIVAL IS LESS THAN 100 PLANTS PER CONTINUE INSPECTIONS UNTIL AT LEAST 100 PLANTS PER SQUARE FOOT HAVE GROWN AT LEAST 6 INCHES TALL OR UNTIL THE FIRST MOWING. . 205 DELETED DUE TO INVASIVE SPECIES 215 CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) TOTAL 60 OW THE MAJORITY OF PLANTS TO ACHIEVE A HEIGHT OF AT LEAST 6 INCHES CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) BEFORE MOWING IT THE FIRST TIME. DO NOT MOW WHILE THE SURFACE IS WE $^{ ext{T}}$ TALL FESCUE (KENTUCKY 31) MOWING WHILE THE SURFACE IS STILL WET MAY PULL MANY SEEDLINGS FROM THE SOIL AND OFTEN LEAVES A SERIES OF UNNECESSARY RUTS. THE FIRST MOWING TOTAL 60 HOULD REMOVE APPROXIMATELY ONE THIRD OF THE GROWTH, DEPENDING ON TH CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) TYPE OF GRASS AND WHERE IT IS BEING USED. DO NOT MOW GRASS BELOW 3 FLATPEA (LATHCO) WITH INOCULANTI TOTAL 45 THE SEEDING WAS MULCHED, DO NOT ATTEMPT TO RAKE OUT THE MULCHING MATERIAL, NORMAL MOWING WILL GRADUALLY REMOVE ALL UNWANTED DEBRIS. TALL FESCUE (KENTUCKY 31 TOTAL 150 IOW AND FERTILIZE AT A RATE THAT SUSTAINS THE AREA IN A CONDITION THAT AMERICAN BEACHGRASS (CAPE) SUPPORTS THE INTENDED USE. IF APPROPRIATE THE HEIGHT OF CUT MAY BE ADJUSTED DOWNWARD, BY DEGREES, AS NEW PLANTS BECOME ESTABLISHED. IT ANY FERTILIZATION PROGRAM IN ACCORDANCE WITH APPROVED SOIL TESTS SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK) BIG BLUESTEM (NIAGRA, KAW) MAINTAIN A VIGOROUS SOD YET PREVENT EXCESSIVE LEACHING OF NUTRIENTS TO LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER) THE GROUNDWATER OR RUNOFF TO SURFACE WATERS.

LITHOUGH WEEDS MAY APPEAR TO BE A PROBLEM, THEY SHADE THE NEW SAND LOVEGRASS (NE-27, BEND) BIRD'S-FOOT TREFOIL (EMPIRE VIKING SEEDLINGS AND HELP CONSERVE SURFACE MOISTURE. DO NOT APPLY WEED CONTROL TOTAL 13.5 NTIL THE NEW SEEDLING HAS BEEN MOWED AT LEAST FOUR TIMES. SELECTING SEED MIX TO MATCH NEED PERENNIAL PEA (LANCER) AREA TO BE SEEDED CROWN VETCH (CHEMUNG, PENNGIFT) MOWING DESIRED MOWING NOT REQUIRED TALL FESCUE (KENTUCKY 31) BORROW AREAS, ROADSIDES TOTAL 2 DIKES, LEVEES, POND BANKS AND OTHER SLOPES AND BANKS ORCHARDGRASS (PENNLATE, KAY, POTOMAC) A) WELL OR EXCESSIVELY 1,2,3,4,5, OR 8 5,6,7,8,9,10,11,12,16, **22** TALL FESCUE (KENTUCKY 31) REDTOP (STREAKER, COMMON) SOMEWHAT POORLY DRAINED BIRD'S-FOOT TREFOIL (EMPIRE VIKING TOTAL 2 VARIABLE DRAINAGE SOILS 2 5.6.11 TURF TYPE TALL FESCUE (BONANZA, MUSTANG, REBEL II, SPARTAN, JAGUAR) OR PERENNIAL RYE A) WELL OR EXCESSIVELY DRAINED SOILS 2 1,2,3, OR 4 9,10,11,12

PERMANENT SEEDING (PS)

CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)

CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)

CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)

IRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT

REEPING RED FESCUE (PENNLAWN, WINTERGREEN)

ALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS

TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS

PERENNIAL RYEGRASS (NORLEA, MANHATTAN)

REDTOP (STREAKER, COMMON)

OR TALL FESCUE (KENTUCKY 31)

(SARATOGA, LINCOLN)

(SARATOGA, LINCOLN)

LBS/ACRE LBS/1.000 SF

(.75)

A. SEED SELECTION AND QUANTITY
SELECT A SEED MIXTURE APPROPRIATE TO THE INTENDED USE AND SOIL CONDITIONS No. SEED MIXTURE (VARIETY)4

SELECT A SEED MIXTURE APPROPRIATE TO THE INTENDED USE AND SOIL CONDITIONS 15 KENTUCKY BLUEGRASS

R USE MIXTURE RECOMMENDED BY THE NRCS. FOR SEED MIXTURES CONTAINING EGUMES, SELECT THE TYPE AND AMOUNT OF INOCULANT THAT IS SPECIFIC FOR THE

LEGUME TO BE USED.
WHEN BUYING SEED MAKE SURE THE QUALITY OF THE SEED IS GIVEN FOR PURE LIVE
SEED AND GERMINATION RATE. ASK THE SUPPLIER FOR AN AFFIDAVIT OF PURITY

ND GERMINATION RATE IF THERE IS ANY QUESTION. EXPECT A PURITY RETWEEN OF

SED WITH A PERMANENT SEED MIXTURE WITHIN 7 DAYS AFTER ESTABLISHING FINAL

GRADES OR WHEN GRADING WORK WITHIN A DISTURBED AREA IS TO BE SUSPENDED FOR A PERIOD OF MORE THAN I YEAR. SEEDING IS RECOMMENDED FROM APRIL 1

HROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1, WITH THE FOLLOWING

NCREASE SEEDING RATES 10% WHEN USING FROST CRACK SEEDING OR

IIXTURES CALL FOR PURE LIVE SEED.

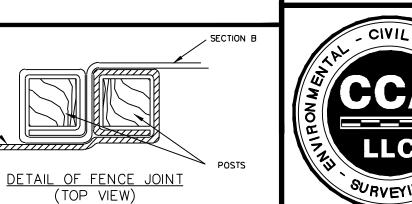
IYDROSEEDING.

1 USE PROPER INOCULANT FOR LEGUME SEEDS, USE FOUR TIMES RECOMMENDED RATE WHEN 3,4,5,8,10,11,12 2 USE PURE LIVE SEED (PLS) = $\frac{(\% \text{ GERMINATION } \times \% \text{ PURITY})}{100}$ EXAMPLE: COMMON BERMUDA SEED WITH 70% GERMINATION AND 80% PURITY= 15,16,17,18,26,27,28

("FUTURE 2000" MIX: FIESTA II, BLAZER II, AND DASHER II) 175-250

10LBS PLS/ACRE/56% = 17.9 LBS/ACRE OF BAGGED SEED 4 WILD FLOWER MIX CONTAINING NEW ENGLAND ASTER, BABY'S BREATH, BLACK EYE SUSAN, CATCHFLY, DWARF COLUMBINE, PURPLE CONEFLOWER, LANCED-LEAVED COREOPSIS, CORNFLOWER, OX-EYE DAISY, SCARLET FLAX, FOXGLOVE, GAYFEATHER, ROCKY LARKSPUR SPANISH LARKSPUR, CORN POPPY, SPURRED SNAPDRAGON, WALLFLOWER AND/OR YARROW MAY BE ADDED TO ANY SEED MIX GIVEN. MOST SEED SUPPLIERS CARRY A WILD FLOWER MITTHAT IS SUITABLE FOR THE NORTHEAST AND CONTAINS A VARIETY OF BOTH ANNUAL AND PERENNIAL FLOWERS. SEEDING RATES FOR THE SPECIFIC MIXTURES SHOULD BE FOLLOWED. 5 CONSIDERED TO BE A COOL SEASON MIX. 6 CONSIDERED TO BE A WARM SEASON MIX.

SEDIMENTATION & EROSION **CONTROL DETAILS**



1,2,3,4,6,7, OR 8

REFER TO 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTRO FOR ADDITIONAL INFORMATION

1.2.3.4.6.7. OR 8

19, 21, OR 23

1,19, 21, OR 29

THE NUMBERS FOLLOWING IN THESE COLUMNS REFER TO SEED MIXTURES IN

3 USE MIX 26 WHEN SOIL PASSING A 200 MESH SIEVE IS LESS THAN 15% OF TOTAL WEIGHT. USE MIX 26 & 27 WHEN SOIL PASSING A 200 MESH SIEVE IS BETWEEN 15 AND 20% OF TOTAL WEIGHT. USE MIX 26, 27 & 28 WHEN SOIL

SEE COUNTY SOIL SURVEY FOR DRAINAGE CLASS. SOIL SURVEYS ARE AVAILABLE

OLLOWING TABLE. MIXES FOR SHADY AREAS ARE IN BOLD ITALICS PRINT

OM THE COUNTY SOIL AND WATER CONSERVATION DISTRICT OFFICE.

PASSING A 200 MESH SIEVE IS ABOVE 20% OF TOTAL WEIGHT

S) SOMEWHAT POORLY DRAINED SOILS2

B) SOMEWHAT POORLY DRAINED SOILS

A) WELL OR EXCESSIVELY DRAINED SOILS 2,3, OR 4

VARIABLE DRAINAGE SOILS 2

VARIABLE DRAINAGE SOILS

PHYSICAL PROPERTIES NOT LIMITING)3

GRAVEL PITS3
GULLIED AND ERODED AREAS

IF TOXIC SUBSTANCES AND

LUCTUATING WATER LEVELS)

UNNY RECREATION AREAS

WOODLAND ACCESS ROADS.

NATURE TRAILS

EXISTING SUBGRADE

OR PROPER INSTALLATION, SILT FENCE MUST BE

'TOED-IN' TO THE EXISTING SUBGRADE WITH A

6"x 6" BACKFILLED TRENCH.

ADJACENT SLOP

INSTALLATION SECTION

RAILS (SHADED)

OD WATERWAYS AND SPILLWAYS

PICNIC AREAS AND PLAYGROUND

CAMPING AND PARKING, NATURE

AWNS AND HIGH MAINTENANCE

INCLUDING MIXES 20 THROUGH 24

R DRIVING AND ARCHERY RANGES,

KID TRAILS AND LOG YARDING AREAS

MINESPOIL & WASTE AND OTHER SPOIL BANKS

FLUENT DISPOSAI



AS NOTED 2002E+S roj. No.: File No.: Acad No.: **2002E+S** Drawn by:

10-05-17

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F. RIP RAP AT OUTLETS

F. RIP RAP FOR CHANNEL STABILIZATION RIP RAP FOR CHANNEL STABILIZATION SHALL BE DESIGNED TO BE STABLE FOR THE CONDITION OF BANK-FULL FLOW IN THE REACH OF CHANNEL BEING STABILIZED (SEE PERMANENT LINED

DEPTH OF FLOW OR TO A POINT WHERE VEGETATION CAN BE ESTABLISHED TO ADEQUATEL PROTECT THE CHANNEL.

WHERE RIP RAP IS USED ONLY FOR BANK PROTECTION AND DOES NOT EXTEND ACROSS THE

TOPSOILING

WHERE THE TEXTURE, PH, OR NUTRIENT BALANCE OF THE AVAILABLE SOIL (SANDS, GRAVEL OR OTHER UNCONSOLIDATED MATERIALS) CANNOT BE MODIFIED BY REASONABLE MEANS TO PROVIDE AN ADEQUATE GROWTH MEDIUM.

- WHERE THE EXISTING SOIL MATERIAL IS TOO SHALLOW TO PROVIDE AN ADEQUATE ROOT ZONE AND TO SUPPLY NECESSARY MOISTURE AND NUTRIENTS FOR PLANT GROWTH.
- WHERE HIGH QUALITY TURF IS DESIRABLE TO PREVENT EROSION AND WITHSTAND INTENSIVE USE AND/OR MEET AESTHETIC REQUIREMENTS. WHERE LANDSCAPE PLANTINGS ARE PLANNED. WHERE EXTENSIVE FILLING AND CUTTING OF SLOPES HAS OCCURRED.

ONLY ON SLOPES NO STEEPER THAN 2:1. 2. MATERIALS TOPSOIL SHALL INCLUSIVELY MEAN A SOIL STATES DEPARTMENT OF AGRICULTURE CLASSIFICATION SYSTEM BASED UPON THE PROPORTION OF SAND, SILT, AND CLAY SIZE PARTICLES AFTER PASSING A 2 MILLIMETER (MM) SIEVE AND SUBJECTED TO A PARTICLE SIZE ANALYSIS: LOAMY SAND, INCLUDING COARSE, LOAMY FINE, AND LOAMY VERY FINE SAND.
SANDY LOAM, INCLUDING COARSE, FINE AND VERY FINE SANDY LOAM

SILT LOAM WITH NOT MORE THAN 60% SILT; B. CONTAINING NOT LESS THAN 6% AND NOT MORE THAN 20% ORGANIC MATTER AS DETERMINED BY LOSS-ON-IGNITION OF OVEN DRIED SAMPLES DRIED AT 105 DEGREES POSSESSING A PH RANGE OF 6.0 - 7.5. EXCEPT IF THE VEGETATIVE PRACTICE BEING USED SPECIFICALLY REQUIRES A LOWER PH, THEN PH MAY BE ADJUSTED ACCORDINGLY;

D. HAVING SOLUBLE SALTS NOT EXCEEDING 500 PPM; AND

E. THAT IS LOOSE AND FRIABLE AND FREE FROM REFUSE, STUMPS, ROOTS, BRUSH, WEEDS,
FROZEN PARTICLES, ROCKS, AND STONES OVER 1.25 INCHES IN DIAMETER, AND ANY
MATERIAL THAT WILL PREVENT THE FORMATION OF A SUITABLE SEEDBED OR PREVENT
SEED CERMINATION AND PLANT CROWTH. TOPSOIL MAY BE OF NATURAL ORIGIN OR MANUFACTURED BY BLENDING COMPOSTED ORGANIC MATERIALS WITH ORGANIC DEFICIENT SOILS, MINERAL SOILS, SAND AND LIME SUCH THAT THE RESULTING SOIL MEETS THE MATERIAL SPECIFICATIONS LISTED ABOVE. TOPSOIL SHALL BE ANALYZED BY A RECOGNIZED SOIL TESTING LABORATORY FOR ORGANIC

CONTENT, PH AND SOLUBLE SALTS REQUIREMENTS GIVEN ABOVE. TOPSOILING NEEDS CAN BE CALCULATED BY USING THE VALUES GIVEN IN FIGURE TO-1. CALCULATE TOPSOIL NEEDS IN ADVANCE OF STRIPPING TO DETERMINE IF THERE IS SUFFICIENT TOPSOIL OF GOOD QUALITY TO JUSTIFY STRIPPING.

FIGURE TO-1: TOPSOIL REQUIRED FOR APPLICATION OF VARIOUS DEPTHS DEPTH CY/1,000 SF CY/ACRE 12.4 18.6

STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA, A 4- TO 6-INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. PLACE ALL PERIMETER DIKES, BASINS, AND OTHER SEDIMENT CONTROLS PRIOR TO STRIPPING

STOCKPILE TOPSOIL THAT IS STRIPPED FROM THE SITE IN SUCH A MANNER THAT NATURAL SITE DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE RESULTS. IN ALL CASES, LOCATE STOCKPILES TO MAXIMIZE DISTANCE FROM WETLANDS AND/OR WATERCOURSES THE SIDE SLOPES OF ALL STOCKPILES SHALL NOT EXCEED 2: 1. INSTALL A SEDIMENT BARRIER DOWN SLOPE TO TRAP SEDIMENTS ERODING FROM THE STOCKPILE. STABILIZE THE STOCKPILED MATERIAL IF IT IS TO REMAIN FOR A PERIOD OF 30 DAYS OR LONGER.

6. APPLICATION OF TOPSOIL A. SITE PREPARATION: INSTALL AND/OR REPAIR EROSION AND SEDIMENT CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, WATERWAYS, SILT FENCE AND SEDIMENT BASINS BEFORE TOPSOILING. MAINTAIN THESE MEASURES DURING TOPSOILING. BONDING: AFTER BRINGING THE SUBSOIL TO GRADE (AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL), THE SUBGRADE SHALL BE LOOSENED BY DISCING, SCARIFYING OR TRACKING TO A DEPTH OF AT LEAST 4 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL: DISTRIBUTE THE TOPSOIL UNIFORMLY TO A MINIMUM DEPTH OF 4 INCHES. MAINTAIN APPROVED GRADES WHEN SPREADING TOPSOIL CORRECT ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS IN

NOTE: DO NOT PLACE TOPSOIL IF THE SUBGRADE OR THE TOPSOIL IS FROZEN OR EXCESSIVELY WET. ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND OBTAIN A INFORM FIRM SEEDRED FOR THE ESTABLISHMENT OF VEGETATION AVOID EXCESSIVE COMPACTION AS IT INCREASES RUNOFF VELOCITY AND VOLUME, AND INHIBITS SEED LIMING: WHERE THE PH OF THE SUBSOIL IS 6.0 OR LESS, GROUND AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST TO ATTAIN A PH OF 5.0 TO 6.5 OR TO ATTAIN A PH AS REQUIRED BY THE VEGETATIVE ESTABLISHMEN

D. STABILIZING APPLIED TOPSOIL: IMMEDIATELY FOLLOWING TOPSOIL APPLICATIONS, PROTECT THE TOPSOIL FROM EROSION BY EITHER SODDING, SEEDING AND/OR MULCHING. INSPECT AND MAINTAIN IN ACCORDANCE WITH THE SURFACE PROTECTION

ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS

ENSURE THE FINISHED SLOPE IS FREE OF POCKETS OF SMALL STONES OR CLUSTERS OF LARGE STONES. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE REQUIRED GRADES AND A GOOD DISTRIBUTION OF STONE SIZES. ENSURE THE FINAL THICKNESS OF THE RIP RAP

THE CONTROL OF DUST ON CONSTRUCTION SITES, CONSTRUCTION ROADS AND OTHER AREAS

PLANT LIFE, OR CREATE A SAFETY HAZARD BY REDUCING TRAFFIC VISIBILITY

WHEN CONSTRUCTION ACTIVITIES EXPOSE SOILS, FUGITIVE DUST IS EMITTED BOTH DURING THESE ACTIVITIES (I.E., EXCAVATION, DEMOLITION, VEHICLE TRAFFIC, ROCK DRILLING AND OTHER HUMA ACTIVITIES) AND AS A RESULT OF WIND EROSION OF THE EXPOSED EARTH SURFACES. LARGE QUANTITIES OF DUST CAN BE GENERATED DURING "HEAVY" CONSTRUCTION ACTIVITIES, SUCH AS ROAD AND STREET CONSTRUCTION, SUBDIVISION, COMMERCIAL OR INDUSTRIAL DEVELOPMENT.

IN PLANNING FOR DUST CONTROLS:

VEGETATIVE BUFFERS (MINIMUM OF 50° WIDTH) LEFT BETWEEN GRADED AREAS AND AREA TO BE PROTECTED CAN BE VERY EFFECTIVE.

NON-ASPHALTIC SOIL TACKIFIER NON-ASPHALTIC SOIL TACKIFIER CONSISTS OF AN EMULSIFIED LIQUID SOIL STABILIZER OF ORGANIC, INORGANIC OR MINERAL ORIGIN, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: MODIFIED RESINS, CALCIUM CHLORIDE, COMPLEX SURFACTANT, COPOLYMERS OR HIGH GRADE

REPEAT APPLICATION OF DUST CONTROL MEASURES WHEN FUGITIVE DUST BECOMES EVIDENT.

Appendix A State of Connecticut Contract Provisions

Construction Contracts - Required Contract Provisions(State Funded Only Contracts)

Index

- 1. Specific Equal Employment Opportunity Responsibilities
- 2. Contract Wage Rates
- 3. Americans with Disabilities Act of 1990, as Amended
- 4. Connecticut Statutory Labor Requirements
 - a. Construction, Alteration or Repair of Public Works Projects; Wage Rates
 - b. Debarment List Limitation on Awarding Contracts
 - c. Construction Safety and Health Course
 - d. Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited
 - e. Residents Preference in Work on Other Public Facilities (Not Applicable to Federal Aid Contracts)
- 5. Tax Liability Contractor's Exempt Purchase Certificate (CERT 141)
- 6. Executive Orders (State of CT)
- 7. Non Discrimination Requirement and Certification (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised)
- 8. Whistleblower Provision
- 9. Connecticut Freedom of Information Act
 - a. Disclosure of Records
 - b. Confidential Information
- 10. Service of Process
- 11. Substitution of Securities for Retainages on State Contracts and Subcontracts
- 12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- 13. Forum and Choice of Law
- 14. Summary of State Ethics Laws
- 15. Audit and Inspection of Plants, Places of Business and Records
- 16. Campaign Contribution Restriction
- 17. Tangible Personal Property

- 18. Bid Rigging and/or Fraud Notice to Contractor
- 19. Consulting Agreements Representation
- 20. Sovereign Immunity
- 21. Large State Contract Representation for Contractor
- 22. Large State Contract Representation for Official or Employee of State Agency
- 23. Iran Investment Energy Certification
- 24. Access to Contract and State Data
- 25. Affirmative Action Policy Statement

Index of Exhibits

EXHIBIT A – Specific Equal Employment Opportunity Responsibilities (page 14)

EXHIBIT B – Affirmative Action Policy Statement (page 22)

EXHIBIT C – Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 26)

EXHIBIT D - State Wage Rates and Other Related Information (page 34)

1. Specific Equal Employment Opportunity Responsibilities

The Contractor shall comply with the Specific Equal Employment Opportunity requirements, as applicable, attached at Exhibit A and hereby made part of this Contract.

2. Contract Wage Rates

The Contractor shall comply with:

The State wage rate requirements indicated in Exhibit D hereof are hereby made part of this Contract.

Prevailing Wages for Work on State Highways; Annual Adjustments. With respect to contracts for work on state highways and bridges on state highways, the Contractor shall comply with the provisions of Section 31-54 and 31-55a of the Connecticut General Statutes, as revised.

As required by section 1.05.12 (Payrolls) of the State of Connecticut, Department of Transportation's Standard Specification for Roads, Bridges and Incidental Construction (FORM 818), as may be revised, every Contractor or subcontractor performing project work on a federal aid project is required to post the relevant prevailing wage rates as determined by the United States Secretary of Labor. The wage rate determinations shall be posted in prominent and easily accessible places at the work site.

3. Americans with Disabilities Act of 1990, as Amended

This provision applies to those Contractors who are or will be responsible for compliance with the terms of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. 12101 et seq.), (Act), during the term of the Contract. The Contractor represents that it is familiar with the terms of this Act and that it is in compliance with the Act. Failure of the Contractor to satisfy this standard as the same applies to performance under this Contract, either now or during the term of the Contract as it may be amended, will render the Contract voidable at the option of the State upon notice to the contractor. The Contractor warrants that it will hold the State harmless and indemnify the State from any liability which may be imposed upon the State as a result of any failure of the Contractor to be in compliance with this Act, as the same applies to performance under this Contract.

4. Connecticut Statutory Labor Requirements

- (a) Construction, Alteration or Repair of Public Works Projects; Wage Rates. The Contractor shall comply with Section 31-53 of the Connecticut General Statutes, as revised. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.
- **(b) Debarment List. Limitation on Awarding Contracts.** The Contractor shall comply with Section 31-53a of the Connecticut General Statutes, as revised.

(c) Construction Safety and Health Course. The Contractor shall comply with section 31-53b of the Connecticut General Statutes, as revised. The contractor shall furnish proof to the Labor Commissioner with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 of the Connecticut General Statutes, as revised, on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

Any costs associated with this notice shall be included in the general cost of the contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

- (d) Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited. The Contract is subject to Section 31-57b of the Connecticut General Statutes, as revised.
- (e) Residents Preference in Work on Other Public Facilities. NOT APPLICABLE TO FEDERAL AID CONTRACTS. Pursuant to Section 31-52a of the Connecticut General Statutes, as revised, in the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available, then to residents of other states

5. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)

The Contractor shall comply with Chapter 219 of the Connecticut General Statutes pertaining to tangible personal property or services rendered that is/are subject to sales tax. The Contractor is responsible for determining its tax liability. If the Contractor purchases materials or supplies pursuant to the Connecticut Department of Revenue Services' "Contractor's Exempt Purchase Certificate (CERT-141)," as may be revised, the Contractor acknowledges and agrees that title to such materials and supplies installed or placed in the project will vest in the State simultaneously with passage of title from the retailers or vendors thereof, and the Contractor will have no property rights in the materials and supplies purchased.

Forms and instructions are available anytime by:

Internet: Visit the DRS website at www.ct.gov/DRS to download and print Connecticut tax forms; or Telephone: Call 1-800-382-9463 (Connecticut calls outside the Greater Hartford calling area only) and select Option 2 or call 860-297-4753 (from anywhere).

6. Executive Orders and Other Enactments

- (a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the Client Agency's authority to require compliance with the Enactments.
- (b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.
- (c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017 concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

7. NonDiscrimination

- (a) For purposes of this Section, the following terms are defined as follows:
 - i. "Commission" means the Commission on Human Rights and Opportunities;
 - ii. "Contract" and "contract" include any extension or modification of the Contract or contract;
 - iii. "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
 - iv. "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose;
 - v. "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
 - vi. "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;
 - vii. "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;

- viii. "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;
- ix. "minority business enterprise" means any small contractor or supplier of materials fiftyone percent or more of the capital stock, if any, or assets of which is owned by a person or
 persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power
 to direct the management and policies of the enterprise, and (3) who are members of a
 minority, as such term is defined in subsection (a) of Connecticut General Statutes § 329n; and
- x. "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in C.G.S. § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in the immediately preceding enumerated items (1), (2), (3),or (4).

(b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this Section and Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes §§ 46a-56, 46a-68e and 46a-68f; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and

permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

- (c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.
- (d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.
- (e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes §46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.
- (f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.
- (g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Connecticut General Statutes § 46a-56.
- (h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by

regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(i) Pursuant to subsection (c) of section 4a-60 and subsection (b) of section 4a-60a of the Connecticut General Statutes, the Contractor, for itself and its authorized signatory of this Contract, affirms that it understands the obligations of this section and that it will maintain a policy for the duration of the Contract to assure that the Contract will be performed in compliance with the nondiscrimination requirements of such sections. The Contractor and its authorized signatory of this Contract demonstrate their understanding of this obligation by (A) having provided an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations under such sections, (B) signing this Contract, or (C) initialing this nondiscrimination affirmation in the following box:

8. Whistleblower Provision

The following clause is applicable if the Contract has a value of Five Million Dollars (\$5,000,000) or more.

Whistleblowing. This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

9. Connecticut Freedom of Information Act

(a) Disclosure of Records. This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes.

(b) Confidential Information. The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and shall apply and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, e.g., Conn. Gen. Stat. §1-210(b)(5)(A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

10. Service of Process

The Contractor, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office, as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract and six (6) years thereafter.

11. Substitution of Securities for Retainages on State Contracts and Subcontracts

This Contract is subject to the provisions of Section 3-ll2a of the General Statutes of the State of Connecticut, as revised.

12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit B, and hereby made part of this Contract.

13. Forum and Choice of Law

Forum and Choice of Law. The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

14. Summary of State Ethics Laws

Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes (a) the State has provided to the Contractor the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes, which summary is incorporated by reference into and made a part of this Contract as if the summary had been fully set forth in this Contract; (b) the Contractor represents that the chief executive officer or authorized signatory of the Contract and all key employees of such officer or signatory have read and understood the summary and agree to comply with the provisions of state ethics law; (c) prior to entering into a contract with any subcontractors or consultants, the Contractor shall provide the summary to all subcontractors and consultants and each such contract entered into with a subcontractor or consultant on or after July 1, 2021, shall include a representation that each subcontractor or consultant and the key employees of such subcontractor or consultant have read and understood the summary and agree to comply with the provisions of state ethics law; (d) failure to include such representations in such contracts with subcontractors or consultants shall be cause for termination of the Contract; and (e) each contract with such contractor, subcontractor or consultant shall incorporate such summary by reference as a part of the contract terms.

15. Audit and Inspection of Plants, Places of Business and Records

- (a) The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract. For the purposes of this Section, "Contractor Parties" means the Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity.
- (b) The Contractor shall maintain and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.
- (c) The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.

- (d) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (e) The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct and the Contractor shall cooperate with an exit conference.
- (f) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

16. Campaign Contribution Restriction

For all State contracts, defined in section 9-612 of the Connecticut General Statutes as having a value in a calendar year of \$50,000 or more, or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Contract represents that they have received the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice.

17. Tangible Personal Property

- (a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:
 - (1)For the term of the Contract, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;
 - (2) A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;
 - (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;
 - (4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and
 - (5) Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.
- (b) For purposes of this section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.
- (c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The

Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.

18. Bid Rigging and/or Fraud - Notice to Contractor

The Connecticut Department of Transportation is cooperating with the U.S. Department of Transportation and the Justice Department in their investigation into highway construction contract bid rigging and/or fraud.

A toll-free "HOT LINE" telephone number 800-424-9071 has been established to receive information from contractors, subcontractors, manufacturers, suppliers or anyone with knowledge of bid rigging and/or fraud, either past or current. The "HOT LINE" telephone number will be available during normal working hours (8:00 am - 5:00 pm EST). Information will be treated confidentially and anonymity respected.

19. Consulting Agreement Representation

Pursuant to section 4a-81 of the Connecticut General Statutes, the person signing this Contract on behalf of the Contractor represents, to their best knowledge and belief and subject to the penalty of false statement as provided in section 53a-157b of the Connecticut General Statutes, that the Contractor has not entered into any consulting agreements in connection with this Contract, except for the agreements listed below or in an attachment to this Contract. "Consulting agreement" means any written or oral agreement to retain the services, for a fee, of a consultant for the purposes of (A) providing counsel to a contractor, vendor, consultant or other entity seeking to conduct, or conducting, business with the State, (B) contacting, whether in writing or orally, any executive, judicial, or administrative office of the State, including any department, institution, bureau, board, commission, authority, official or employee for the purpose of solicitation, dispute resolution, introduction, requests for information, or (C) any other similar activity related to such contracts. "Consulting agreement" does not include any agreements entered into with a consultant who is registered under the provisions of chapter 10 of the Connecticut General Statutes as of the date such contract is executed in accordance with the provisions of section 4a-81 of the Connecticut General Statutes.

Consultant's Name and Title		Name of Firm (if applicable)	
Start Date	End Date	Cost	
The basic terms of	the consulting agreement ar	re:	
Description of Serv	rices Provided:		
Is the consultant a f If YES:	Former State employee or fo	ormer public official? YES NO	
Name of Fo	rmer State Agency	Termination Date of Employment	

20. Sovereign Immunity

The parties acknowledge and agree that nothing in the Solicitation or the Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of the Contract. To the extent that this section conflicts with any other section, this section shall govern.

21. Large State Contract Representation for Contractor

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the Contractor, for itself and on behalf of all of its principals or key personnel who submitted a bid or proposal, represents:

- (1) That no gifts were made by (A) the Contractor, (B) any principals and key personnel of the Contractor, who participate substantially in preparing bids, proposals or negotiating State contracts, or (C) any agent of the Contractor or principals and key personnel, who participates substantially in preparing bids, proposals or negotiating State contracts, to (i) any public official or State employee of the State agency or quasipublic agency soliciting bids or proposals for State contracts, who participates substantially in the preparation of bid solicitations or requests for proposals for State contracts or the negotiation or award of State contracts, or (ii) any public official or State employee of any other State agency, who has supervisory or appointing authority over such State agency or quasi-public agency;
- (2) That no such principals and key personnel of the Contractor, or agent of the Contractor or of such principals and key personnel, knows of any action by the Contractor to circumvent such prohibition on gifts by providing for any other principals and key personnel, official, employee or agent of the Contractor to provide a gift to any such public official or State employee; and
- (3) That the Contractor is submitting bids or proposals without fraud or collusion with any person.

22. Large State Contract Representation for Official or Employee of State Agency

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the State agency official or employee represents that the selection of the person, firm or corporation was not the result of collusion, the giving of a gift or the promise of a gift, compensation, fraud or inappropriate influence from any person.

23. Iran Investment Energy Certification

(a) Pursuant to section 4-252a of the Connecticut General Statutes, the Contractor certifies that it has not made a direct investment of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, and has not increased or renewed such investment on or after said date.

(b) If the Contractor makes a good faith effort to determine whether it has made an investment described in subsection (a) of this section then the Contractor shall not be deemed to be in breach of the Contract or in violation of this section. A "good faith effort" for purposes of this subsection includes a determination that the Contractor is not on the list of persons who engage in certain investment activities in Iran created by the Department of General Services of the State of California pursuant to Division 2, Chapter 2.7 of the California Public Contract Code. Nothing in this subsection shall be construed to impair the ability of the State agency or quasi-public agency to pursue a breach of contract action for any violation of the provisions of the Contract.

24. Access to Contract and State Data

The Contractor shall provide to the Client Agency access to any data, as defined in Conn. Gen Stat. Sec. 4e-1, concerning the Contract and the Client Agency that are in the possession or control of the Contractor upon demand and shall provide the data to the Client Agency in a format prescribed by the Client Agency and the State Auditors of Public Accounts at no additional cost.

25. Affirmative Action Policy Statement

The Contractor shall comply with the Affirmative Action Policy Statement, as applicable, attached at Exhibit B and hereby made part of this Contract.

EXHIBIT A

CONNECTICUT REQUIRED SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES July 2022

1. General:

- a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246, Executive Order 11375 are set forth in Required Contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23 U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968, 49 CFR Part 21, 4a-60a and 46a-68c to 46a-68f of the Connecticut General Statutes. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.
- b) "Company" refers to any entity doing business with the Connecticut Department of Transportation and includes but is not limited to the following:

Contractors and Subcontractors
Consultants and Subconsultants
Suppliers of Materials and Vendors (where applicable)
Municipalities (where applicable)
Utilities (where applicable)

- c) The Company will work with the Connecticut Department of Transportation (CTDOT) and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
- d) The Company and all his/her subcontractors or subconsultants holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 60, Chapter 4, Section 1, subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The company will include these requirements in every subcontract of \$10,000 or more with such modification of language as necessary to make them binding on the subcontractor or subconsultant.
- e) CTDOT shall require each contractor with contracts of \$10,000 or more or who have fifty or more employees and are awarded a public works contract, to comply with all existing procedures of CTDOT's Contract Compliance Program.

2. Equal Employment Opportunity Policy:

a) Companies with contracts, agreements or purchase orders valued at \$10,000 or more or who have fifty or more employees are required to comply with the Affirmative Action contract requirements. By signing a contract with CTDOT the contractor's commits to complying with federal and state requirements to provide equal employment opportunity to all persons without regard to their race, color, religion, creed, sex, gender identity or expression, marital status, age, national origin, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through a positive and continuous efforts.

3. Project Workforce Utilization Goals:

These goals are applicable to all construction projects performed in the covered area work (whether the project is federal or state funded). If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where the work is actually performed.

- a. Appendix A establishes the goals for minority and female utilization in all crafts statewide on all State Funded construction projects.
- b. Appendix B establishes the goals for minority and female utilization in all crafts statewide on Federally assisted or funded construction projects.

Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications which contain the applicable goals for minority and female participation.

The goals for minority and female participation are expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

State Utilization GoalsFederal Utilization GoalsSee Appendix ASee Appendix B

4. Executive Order 11246

The Contractor's compliance with Executive Order 11246 and 41-CFR Part 60-4 shall be based on its implementation of the specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(A) and its efforts to meet the goals established for the geographical area where the contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hour performed.

If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Pan does not excuse any covered Contractor's of subcontractor's failure to take good faith efforts to achieve the plan goals and timetables.

The Contractor shall implement the specific affirmative action standards provided in a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs (OFCCP) Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractors obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant hereto.

In order for the nonworking training hours of apprentices and trainees to be counted in meeting the workforce utilization goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites; and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason thereafter; along with whatever additional actions the Contractor may have taken.
 - d) Provide immediate written notification to CTDOT when the Union or Unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the Union referral process has impeded the Contractor's efforts to meet its obligations.
 - e) Develop on-the-job training opportunities and/or participate in training programs that which expressly target minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under b above.
 - f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations.
 - g) Review at least annually, the company EEO Policy and affirmative action obligations with all employees having any responsibility for hiring, assignments, layoffs, terminations, or other employment decisions, prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h) Disseminate the Contractor's EEO Policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

- i) Direct its recruitment efforts, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the project worksite and in other areas of the Contractor's workforce.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for opportunities through appropriate training opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are nonsegregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p) Conduct a review at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations:

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (a through p). The efforts of a contractor association, joint contractor union, contractor community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet with individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative

action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of Executive Order 11246 if a particular group is employed in a substantially disparate manner, (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under utilized).

The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps so as to achieve maximum results from its efforts to ensure equal employment opportunity.

The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status, (e.g. mechanic, apprentice, trainee, helper, or laborer) dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

Nothing herein provided shall be construed as a limitation upon the application of their laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

The Director of the Office of Federal Contract Compliance Programs, from time to time, shall issue goals and timetables for minority and female utilization which shall be based on appropriate workforce, demographic or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or timetables, shall be published as notices in the Federal Register, and shall be inserted by the Contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2.

5. Subcontracting:

a. The Company will use his/her best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among

their employees. Companies shall obtain lists of minority-owned construction firms from the Office of Equity.

b. The Company will use its best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

6. Records and Reports:

- a. The Company will keep such records as are necessary to determine compliance with equal employment opportunity obligations. The records kept by the Company will be designed to indicate:
 - 1. The number of minority and non-minority group members and women employed in each classification on the project.
 - 2. The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women; (applicable only to contractors who rely in whole or in part on unions as a source of their work force),
 - 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - 4. The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.
 - 5. Records of internal and external communication and outreach to document its affirmative efforts.
- b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation.

c. For Federal Highway Administration funded projects only:

The Company will submit an annual report to CTDOT each July or as otherwise directed, for the duration of the project, indicating the number of minorities, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391. If on-the-job training is being required by "Training Special Provision", the Company will be required to furnish Form FHWA 1409 and 1415 as required by CTDOT.

STATE FUNDED PROJECTS (only) APPENDIX A (Labor Market Goals)

LABOR MARKET AREA GOAL

Minority

Female

Bridgeport 1.4%				22.7%
Ansonia	Beacon Falls	Bridgeport	Derby	
Easton	Fairfield	Milford	Monroe	
Oxford	Seymour	Shelton	Stratford	
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Danbury				10.7%
3.8%				
Bethel	Bridgewater	Brookfield	Danbury	
Kent	New Fairfield	New Milford	Newtown	
Redding	Ridgefield	Roxbury	Sherman	
Washington				
Danielson 1.8%				4.3%
Brooklyn	Eastford	Hampton	Killingly	
Pomfret	Putnam	Scotland	Sterling	
Thompson	Voluntown	Union	Woodstock	
Hartford 2.1%				13.7%
Andover	Ashford	Avon	Barkhamsted	
Belin	Bloomfield	Bolton	Bristol	
Burlington	Canton	Chaplin	Colchester	
Columbia	Coventry	Cromwell	Durham	
East Granby	East Haddam	East Hampton	East Hartford	
East Windsor	Ellington	East Hampton Enfield	Farmington	
	Granby	Haddam	Hartford	
Glastonbury Harwinton	Hebron	Lebanon	Manchester	
Mansfield Navinatan	Marlborough	Middlefield	Middletown	
Newington	Plainville	Plymouth	Portland	
Rocky Hill	Simsbury	Somers	South Windsor	
Southington	Stafford	Suffield	Tolland	
Vernon	West Hartford	Wethersfield	Willington	
Winchester	Windham	Windsor	Windsor Locks	
Lower River				4.3%
1.8% Chester	Deep River	Essex	Old Lyme	
Westbrook	Deep River	ESSCA	Old Lyllic	
LABOR MARKET	T AREA GOAL		<u> </u>	<u> Minority</u>
<u>Female</u>				
New Haven				17.9%
3.1%		C1 1 1	Q1'	
Bethany	Branford	Cheshire	Clinton	
East Haven	Guilford	Hamden	Killingworth	
Madison	Meriden	New Haven	North Branford	
North Haven	Orange	Wallingford	West Haven	
Waadhridaa				
Woodbridge				

July 2022

				July 20
3.1%				
Bozrah	Canterbury	East Lyme	Franklin	
Griswold	Groton	Ledyard	Lisbon	
Montville	New London	North Stonington	Norwich	
Old Lyme	Old Saybrook	Plainfield	Preston	
Salem	Sprague	Stonington	Waterford	
Hopkinton	RI – Westerly Rho	ode Island		
Stamford 2.1%				33.2%
Darien	Greenwich	New Canaan	Norwalk	
Stamford	Weston	Westport	Wilton	
Torrington				4.3%
1.8%				
Canaan	Colebrook	Cornwall	Goshen	
Hartland	Kent	Litchfield	Morris	
Norfolk	North Canaan	Salisbury	Sharon	
Torrington	Warren			
Waterbury 1.6%				12.4%
Bethlehem	Middlebury	Naugatuck	Prospect	
Southbury	Thomaston	Waterbury	Watertown	
Wolcott	Woodbury	·		
	•			

EXHIBIT B

AFFIRMATIVE ACTION POLICY STATEMENT (July 2022)

It is the policy of this firm to assure that applicants are employed, and that employees are treated during employment, without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through positive and continuous affirmative efforts. Such action shall include employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, selection for training/apprenticeship, preapprenticeship opportunities, and on-the-job training opportunities.

This firm will implement, monitor, enforce and achieve full compliance with this Affirmative Action Policy Statement in conjunction with the applicable Federal and State laws, regulations, executive orders, and contract provisions, including but not limited to those listed below:

Dissemination of Policy:

All members of the firm who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, this firm's Equal Employment Opportunity (EEO) policy and

contractual responsibilities to provide EEO in each grade and classification of employment. These actions shall include:

- 1. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the firm's EEO policy and its implementation will be reviewed and explained. These meetings will be conducted by the EEO officer.
- 2. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- 3. All personnel who are engaged in direct recruitment for the firm will be instructed by the EEO Officer of the contractor's procedures for locating and hiring minority group employees.
- 4. Notices and posters setting forth the firm's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- 5. The firm's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- 6. Sexual Harassment Prevention Resources including training and remedies must be available to all employees. See Connecticut General Assembly Public Acts <u>19–16</u> and <u>19–93</u>.

Recruitment:

When advertising for employees, the firm will include in all advertisements the notation; "An Affirmative Action/Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area where the workforce would normally be derived.

- 1. The firm will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants. To meet this requirement, the firm will identify referral sources and establish procedures for recruitment to obtain the referral of minority and female applicants.
- 2. In the event the firm has a valid bargaining agreement providing for exclusive hiring referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The United States Department of Labor has held that where implementation of such agreements has had the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
- 3. The firm will encourage his/her present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

Personnel Actions:

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved. The following procedures shall be followed:

- 1. The firm will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of personnel.
- 2. The firm will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take correction action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- 3. The firm shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- 4. The firm will promptly investigate all complaints of alleged discrimination made to the firm and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective actions shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

Training and Promotion:

The firm will assist in locating, qualifying, and increasing the skills of minorities and women. The firm will utilize the following tools to identify training and promotional opportunities in the firm:

- 1. The firm will advise employees and applicants for employment of available training programs and the entrance requirements.
- 2. The firm will periodically review the training and promotion of minority group and female employees and will encourage eligible employees to apply for such training and promotion.

Unions:

If the firm relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the firm either directly or through a contractor's association acting as agent will include the procedures set forth below:

- 1. The firm will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- 2. The firm will use best efforts to incorporate an EEO clause into each union agreement to the extent that such union will be contractually bound to refer applicants without regard to their to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved.
- 3. The firm is to obtain information as to the referral practices and policies of the labor union except that to the extent that such information is within the exclusive possession of the labor union and such labor union refuses to furnish the information to the contractor, the contractor shall notify the Connecticut Department of Transportation (CTDOT) of the efforts made to obtain the information.
- 4. In the event the union is unable to provide the firm with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies. (The United States Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to

refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations under Executive Order 11246 as amended, and in compliance with 23 CFR Part 230, the firm will notify CTDOT.

Selection of Subcontractors:

The firm will not discriminate on the grounds race, color, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, ancestry, age, intellectual disability, learning disability, physical disability, including, but not limited to, blindness, or status as a veteran in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

1. The firm shall use his/her best efforts to ensure subcontractor/subconsultant compliance with Federal and State Equal Opportunity (EO) and EEO requirements.

Records and Reports:

The Contractor shall keep records as necessary to document compliance with EO/EEO requirements. Such reports shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation. The following records should be maintained:

- 6. The number of minority and non-minority group members and women employed in each work classification;
- 7. The progress and efforts being made in cooperation with unions, when applicable to increase the employment opportunities for minorities and women;
- 8. The documentation showing progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
- 9. Complaints of Discrimination.

In implementing this policy and ensuring that affirmative action is being provided, each time a hiring opportunity occurs this firm will contact and request referrals from minority and female organizations, referral sources, and media sources. All advertising will emphasize that the firm is "An Affirmative Action/Equal Opportunity Employer."

In order to substantiate this firm's efforts and affirmative actions to provide equal opportunity, the firm will maintain and submit, as requested, documentation such as referral request correspondence, copies of advertisements utilized and follow-up documentation to substantiate that efforts were made in good faith. This firm will maintain the necessary internal audit procedures and record keeping systems to report the firm's affirmative action efforts.

It is understood by Owner/CEO/President of the firm and the firm's Equal Employment Opportunity Officer and supervisory and managerial personnel that failure to effectively implement, monitor and enforce this firm's affirmative action program and/or failure to adequately document and submit as required, the affirmative actions taken and efforts made to recruit and hire minority and female applicants in accordance with our affirmative action program in each instance of hire, will result in this firm being required to recommit itself to a modified and more stringent affirmative action program as a condition of approval. It is recognized that this policy is a contractual requirement and is a prerequisite for performing services for the contracting agency. This policy in addition to CTDOT's EO/EEO contract provisions and requirements, shall constitute the CTDOT Affirmative Program requirements.

The ultimate responsibility for the full implementation of this firm's Affirmative Action Program rests with the Chief Executive Officer of this firm.

Rev. 4/24/2019

EXHIBIT C

Health Insurance Portability and Accountability Act of 1996 ("HIPAA").

- (a) If the Contactor is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Contractor must comply with all terms and conditions of this Section of the Contract. If the Contractor is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor for this Contract.
- (b) The Contractor is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The State of Connecticut Agency named on page 1 of this Contract (hereinafter the "Department") is a "covered entity" as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor, on behalf of the Department, performs functions that involve the use or disclosure of "individually identifiable health information," as that term is defined in 45 C.F.R. § 160.103; and
- (e) The Contractor is a "business associate" of the Department, as that term is defined in 45 C.F.R. § 160.103; and
- (f) The Contractor and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (hereinafter the HITECH Act), (Pub. L. 111-5, sections 13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
- (g) Definitions
 - (1) "Breach shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1))
 - (2) "Business Associate" shall mean the Contractor.
 - (3) "Covered Entity" shall mean the Department of the State of Connecticut named on page 1 of this Contract.

- (4) "Designated Record Set" shall have the same meaning as the term "designated record set" in 45 C.F.R. § 164.501.
- (5) "Electronic Health Record" shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5))
- (6) "Individual" shall have the same meaning as the term "individual" in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
- (7) "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and parts 164, subparts A and E.
- (8) "Protected Health Information" or "PHI" shall have the same meaning as the term "protected health information" in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
- (9) "Required by Law" shall have the same meaning as the term "required by law" in 45 C.F.R. § 164.103.
- (10) "Secretary" shall mean the Secretary of the Department of Health and Human Services or his designee.
- (11) "More stringent" shall have the same meaning as the term "more stringent" in 45 C.F.R. § 160.202.
- (12) "This Section of the Contract" refers to the HIPAA Provisions stated herein, in their entirety.
- (13) "Security Incident" shall have the same meaning as the term "security incident" in 45 C.F.R.§ 164.304.
- (14) "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and parts 164, subpart A and C.
- (15) "Unsecured protected health information" shall have the same meaning as the term as defined in section 13402(h)(1)(A) of HITECH. Act. (42 U.S.C. §17932(h)(1)(A)).
- (h) Obligations and Activities of Business Associates.
 - (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.
 - (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
 - (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of

- electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.
- (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
- (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
- (6) Business Associate agrees to insure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
- (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
- (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
- (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity's compliance with the Privacy Rule.
- (10)Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (11)Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section of the Contract, to permit Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (12)Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.

- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not, directly or indirectly, receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act,(42 U.S.C. § 17935(d)(2)) and in any accompanying regulations

(16) Obligations in the Event of a Breach

- A. The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. 17932(b) and the provisions of this Section of the Contract.
- B. Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. 17932(g)). A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been, or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
- C. The Business Associate agrees to include in the notification to the Covered Entity at least the following information:
 - 1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
 - 2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
 - 3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.

- 4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
- 5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and; if so, include contact information for said official.
- D. Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor.
- E. Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notifications requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.
- (i) Permitted Uses and Disclosure by Business Associate.
 - (1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
 - (2) Specific Use and Disclosure Provisions
 - (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
 - (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.

- (C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).
- (j) Obligations of Covered Entity.
 - (1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.
 - (2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
 - (3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.
- (k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.
- (1) Term and Termination.
 - (1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such information, in accordance with the termination provisions in this Section.
 - (2) Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:
 - (A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or
 - (B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or
 - (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.
 - (3) Effect of Termination

- (A) Except as provided in (l)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.
- (m) Miscellaneous Provisions.
 - (1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
 - (2) Amendment. The Parties agree to take such action as in necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.
 - (3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract.
 - (4) Effect on Contract. Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
 - (5) Construction. This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.
 - (6) Disclaimer. Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate

regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.

(7) Indemnification. The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments, penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

EXHIBIT D

State Wages and Other Related Information

Please refer to the Department of Labor website for the latest updates, annual adjusted wage rate increases, certified payroll forms and applicable statutes.

http://www.ctdol.state.ct.us/wgwkstnd/prevailwage.htm

Prevailing Wage Law Poster Language

THIS IS A PUBLIC WORKS PROJECT Covered by the PREVAILING WAGE LAW CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE (applicable to public building contracts entered into on or after July 1, 2007, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a bona fide student course completion card issued by the federal OSHA Training Institute; or (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;
- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute. Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute. The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- Laborers (Group 4) Mason Tenders operates forklift solely to assist a mason to a maximum height of nine feet only.
- Power Equipment Operator (Group 9) operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORMConstruction Manager at Risk/General Contractor/Prime Contractor

I,	of	
I,Officer, Owner, Authorized Rep.		Company Name
do hereby certify that the		
· · · · · · · · · · · · · · · · · · ·	Company	y Name
	Street	
	City	
and all of its subcontractors will pay all wor	rkers on the	
Project Name	e and Numbe	r
Street and Cit	ty	
the wages as listed in the schedule of prevai attached hereto).	iling rates re	quired for such project (a copy of which is
		Signed
Subscribed and sworn to before me this	day	of,
	_	Notary Public
		rioury ruone
Return to: Connecticut Department of Labo Wage & Workplace Standards D 200 Folly Brook Blvd. Wethersfield, CT 06109		
Rate Schedule Issued (Date):		

Information Bulletin Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

□ ASBESTOS WORKERS

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

□ ASBESTOS INSULATOR

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

□ **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

□ <u>BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO</u> WORKERS, TILE SETTERS

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

□ <u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT</u> <u>FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing:

student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

□ **LABORER**, **CLEANING**

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

□ <u>DELIVERY PERSONNEL</u>

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

□ **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. *License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.

□ ELEVATOR CONSTRUCTORS

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. *License required by Connecticut General Statutes: R-1, 2, 5, 6.

☐ FORK LIFT OPERATOR

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

☐ GLAZIERS

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

□ **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

☐ INSULATOR

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

□ **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

□ **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

☐ <u>LEAD PAINT REMOVAL</u>

• Painter's Rate 1. Removal of lead paint from bridges. 2. Removal of lead paint as preparation of any surface to be repainted. 3. Where removal is on a Demolition project prior to reconstruction. • Laborer's Rate 1. Removal of lead paint from any surface NOT to be repainted. 2. Where removal is on a TOTAL Demolition project only.

☐ PLUMBERS AND PIPEFITTERS

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. *License required per Connecticut General Statutes: P-1,2,6,7,8,9 J1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.

□ POWER EQUIPMENT OPERATORS

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. *License required, crane operators only, per Connecticut General Statutes.

□ ROOFERS

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

☐ SHEETMETAL WORKERS

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

□ SPRINKLER FITTERS

Installation, alteration, maintenance and repair of fire protection sprinkler systems. *License required per Connecticut General Statutes: F-1, 2, 3, 4.

☐ <u>TILE MARBLE AND TERRAZZO FINISHERS</u>

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

☐ TRUCK DRIVERS

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance

of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. *License required, drivers only, per Connecticut General Statutes.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

 \square Any questions regarding the proper classification should be directed to:

Public Contract Compliance Unit Wage and Workplace Standards Division Connecticut Department of Labor 200 Folly Brook Blvd, Wethersfield, CT 06109 (860) 263-6543.

Connecticut Department of Labor Wage and Workplace Standards Division FOOTNOTES

 \Box Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and (Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he

INSERT STATE WAGES HERE

Appendix B SBE Requirements

SET-ASIDE PLAN FORMAT

Effective 08/15/2010

COVER PAGE

Company Name:							
Company Address:							
Telephone No.:							
FAX No.:							
E-mail Address:							
Web Site Address:							
Date Submitted:							
AAP Prepared By:							
1	(Please Print)						
	(Please Print) Name of AA/EOE Officer						
	(Please Print) Name and Title of the Head of the Company						
This Set-Aside Plan is submitted	(Name of Project)						
State Contract Number:							
Awarding Agency:							
Contract Value:							
M/W/DisBE Value as Assigne	ed by the Awarding Agency:						
SBE Value as Assigned by the	e Awarding Agency:						

TABLE OF CONTENTS

 \underline{Note} : Set-Aside Plan that meets all the requirements of the following sections, must be filed for \underline{each} state project.

ANY SUBMISSION THAT DOES NOT STRICTLY ADHERE TO THIS PLAN'S FORMATTING WILL NOT BE REVIEWED.

ANY SECTION THAT DOES NOT INCLUDE A RESPONSE TO SAID SECTION AND/OR ITS SUBSECTIONS HEREIN WILL BE DISAPPROVED.

Section Number/Title: Pag	ge Number:
1. Policy Statement	3
2. Internal Communications	5
3. External Communications	6
4. Project Description, Timeline and Trades Involved	7
5. Subcontractor Availability Analysis	8
6. Minority Business Enterprise Project Goals and Timetable	12
7. Project Reporting and Monitoring Procedures	14
8. Concluding Statement	24

SECTION 1

Affirmative Action/Equal Opportunity Employment (AA/EOE) Policy Statement

Point of Statutory and/or Regulatory Reference: Conn. Gen. Stat. Sections 4a-60(a)(1),4a-60a(a)(1); 46a-68c, 46a-68d, P.A. 07-142, Contract Compliance Regulations Section 46a-68j-27(1)

Contractors shall create a policy statement that includes, but is not limited to, the following information:

- A. Identify the individual assigned affirmative action responsibilities;
- B. Affirm the Contractor's commitment to achieve Equal Opportunity Employment through affirmative action for certain defined protected classes of persons;
- C. Pledge the Contractor's best good faith efforts to attain the objectives of the plan [Sec 46a-68j-27(1)].

INSTRUCTIONS:

On the next page is an EXAMPLE of an Affirmative Action/Equal Opportunity Employment (AA/EOE) Policy Statement that illustrates what may be included in your company's AA/EOE Policy Statement.

<u>NOTE</u>: If your company's AA/EOE Policy Statement lists the protected classes or if it lists each basis (that under Connecticut Law) an employer cannot discriminate then your lists must be inclusive (for an up to date listing of prohibited forms of employment discrimination, please refer to the *Discrimination Is Illegal* notice.)

This policy statement must be signed and dated by the head of the company. The signature must be original.

SAMPLE

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYMENT POLICY STATEMENT

It is the policy and practice of XYZ Company to assure that no person will be discriminated against, or be denied the benefit of any activity, program or employment process, in areas including but not limited to recruiting, advertising, hiring, upgrading, promotion, transfer, demotion, lay off, termination, rehiring, employment, rates of pay and/or other compensation.

XYZ Company is an Affirmative Action/Equal Opportunity Employer and is strongly committed to all policies which will afford equal opportunity employment to all qualified persons without regard to age, ancestry, color, marital status (including civil union status), national origin, race, religious creed, sex, sexual orientation, mental retardation, learning disability, present or past history of mental disorder, mental disability or physical disability including, but not limited to, blindness, unless it is shown that such disability prevents performance of the work involved.

This policy and practice applies to all persons, particularly those who are members of the protected classes identified as being Black, Hispanic and others such as Asian, Native American, etc., and Women and Persons with Disabilities. XYZ Company will implement, monitor and enforce this *Affirmative Action/Equal Opportunity Employment Policy Statement* and program in conjunction with all applicable Federal and State laws, regulations and executive orders.

In order to implement our Affirmative Action/Equal Opportunity Employment Program, XYZ Company will develop written strategies and plans designated to correct any deficiencies identified. Furthermore, this policy statement, as well as the Labor and Antidiscrimination Poster, shall be posted and otherwise made known to all workers in the company's home office, each satellite office, and at each job site. Managers and supervisory staff will be advised of their responsibilities to ensure the success of this program.

Ultimate responsibility for this Affirmative Action/Equal Opportunity Employment Program will be with the (Insert Head of Company's Official). The day-to-day duties for the plan will be coordinated by (Insert the name of the company's Affirmative Action/Equal Title Opportunity Employment Officer), who is hereby designated the Affirmative Action/Equal Opportunity Employment Officer for XYZ Company.

I have expressly advised (Insert the name of the company's Affirmative Action/Equal Opportunity Employment Officer) of his/her legal responsibilities as XYZ Company's Affirmative Action/Equal Opportunity Employment Officer pursuant to the Contract Compliance Regulations Section 46a-68j-27(4).

This Set-Aside Plan has my total support and XYZ Company pledges it best good faith efforts to achieve the objectives of this Set-Aside Plan. I expect each manager, supervisor and employee of this Company to aid in the implementation of this program and be accountable for complying with the objectives of this Set-AsidePlan.

Date	(Signature)
	Printed Name and Printed Title of Person Signing

SECTION 2 INTERNAL COMMUNICATIONS Information Provided to Employees/Work Force

Point of Statutory and/or Regulatory Reference: Conn. Gen. Stat. Section 4a-60(a)(3); Contract Compliance Regulations Section 46a-68j-27(2)

The policy statement and a summary of the objectives of the plan shall be posted and otherwise made known to all workers. The plan shall indicate what steps the contractor undertook to make information on the plan available to its workforce [Sec. 46a-68j-27(2)].

An employer, employment agency or labor organization is required to post notices regarding statutory provisions, as the commission shall provide [C.G.S. Sec. 46a54(13)]

An employer with three or more employees is required to post in a prominent and accessible location a notice concerning the illegality of sexual harassment and the remedies available to victims of sexual harassment [C.G.S. § 46a-54(15)]

INSTRUCTIONS:

- 1. Describe in your Set-Aside Plan the specific actions your company takes to communicate its Affirmative Action/Equal Opportunity Employment (AA/EOE) Policy Statement (see Section 1) and its AA/EOE hiring commitment to its workers. For example, do you distribute your AA/EOE Policy Statement (found in Section 1) to your new hires during orientation? Do you include a copy of your AA/EOE Policy Statement to all your employees with their paycheck every month? Do you post your AA/EOE Policy Statement in prominent and accessible locations? Please describe the locations.
- 2. Demonstrate in your AAP, that your company complies with posting requirements prohibiting discrimination by describing in detail where in your business office, and on project sites your company posts the *Discrimination Is Illegal* notice. Please attach a copy of the notice your company posts.
- 3. Demonstrate in your AAP, that your company complies with posting requirements prohibiting sexual harassment by describing in detail where in your business office, and on project sites your company posts the *Sexual Harassment Is Illegal* notice. Please attach a copy of the notice your company.

<u>NOTE</u>: Please be sure the notices that your company posts are current. You may obtain updated notices on CHRO's website at www.ct.gov/chro and clicking on *Publications* at the top of the site page.

SECTION 3 EXTERNAL COMMUNICATIONS Information Provided to the Public

Point of Statutory and/or Regulatory Reference: Conn. Gen. Stat. Section 4a-60(a)(2), (3), 4a-60a(a)(2); Contract Compliance Regulations Sections 46a-68j-23(9), 46a-68j27(3)

The contractor shall, in all advertisements and business with the public, indicate that it is an affirmative action/equal opportunity employer. The plan shall include information on what steps the contractor undertook to advise the public concerning its affirmative action requirements; [Sec. 46a-68j-27(3)].

INSTRUCTIONS:

1. In this section of the AAP, contractors should include a statement indicating that in all advertisements **and** business with the public, it will hold itself out as an

"Affirmative Action/Equal Opportunity Employer or AA/EOE."

2. To demonstrate your company's commitment to its statement, please attach examples of three different forms of external communication (e.g. letterhead, letters of transmittal, bid notification, purchase order, fax cover sheet, etc.) sent out by your company indicating that you are an AA/EOE.

<u>NOTE</u>: If your company's forms of external communication do not currently indicate your company is an AA/EOE, and your company's forms of external communication are not created inhouse, please include a statement ensuring that upon reordering such forms; your company's external communication will indicate it is an AA/EOE. Please include samples of how your revised forms of external communication will appear. Statements that have been made to such for more than one (1) year are unacceptable.

SECTION 4 Project Description, Timeline, and Trades Involved

INSTRUCTIONS:

This section of the AAP should list the trade categories that will be needed to perform the work of this specific project (include those to be employed by your Company and all subcontractors).

- 1. Briefly describe the work involved in this project.
- 2. Estimate (mm/dd/yyyy) when construction will commence. If the project has already begun, please provide the actual project mobilization date (mm/dd/yyyy).
- 3. Estimate (mm/dd/yyyy) when construction will be completed. If the project is complete, then please provide the project end date (mm/dd/yyyy).
- 4. List all of the types of "trades"-related work to be performed on this project that your company will be hiring a subcontractor(s) to perform (do not provide the name of the subcontractor(s), just identify the trade). Attach a copy of the applicable section of the agency bid document (i.e., Project Manual, ITB, etc.), that specifies all trades required to be performed on this project.
- 5. List all specific types of materials to be used for this project that your company will be hiring a Vendor(s) to supply (do not provide the name of the vendor(s) just identify the type of supplies/materials to be provided). Attach a copy of the applicable section of the agency bid document (i.e., Project Manual, ITB, etc.), that specifies all materials required to be utilized for the completion of this project.
- 6. List all specific types of non trades-related services to be used for this project that your company will hire a service company to provide (do not provide the name of the company just identify the type of services to be provided). Attach a copy of the applicable section of the agency bid document (i.e., Project Manual, ITB, etc.), that specifies all non-trades-related services to be utilized for the completion of this project.

Ex: Port-a-lets
Trucking Driver Only – No Labor Involved

- 7. List the any circumstance for which you will be hiring a broker. Do not list the name of the brokerage firm.
- 8. List all trades that will be performed by your company's employees.
- 9. List all supplies that will be manufactured by your company for use on this project.

SECTION 5 Subcontractor Availability Analysis

Point of Statutory and/or Regulatory Reference: Connecticut General Statutes section 4a-60 and 4a-60g as amended by Public Act 09-158; and Regulations of Connecticut State Agencies Section 46a-68j-28(2):

Applicable portions of the general statutes subsections of Section 4a-60(a) as amended state:

- (a) Every contract to which the state or any political subdivision of the state other than a municipality is a party shall contain the following provisions:
 - (4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e and 46a-68f; and
 - (5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.
- (b) If the contract is a public works contract, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.
- (f) Determination of the contractor's good faith efforts shall include but shall not be limited to the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.
- (g) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

Regulations of Connecticut State Agencies §46a-68j-28(2) states the following:

Sec. 46a-68j-28. Elements of plans required by Section 46a-68d of the Connecticut General Statutes as amended by Section 4 of Public Act 89-253.

In addition to the elements in Section 46a-68j-27, plans subject to the requirements of Section 46a-68d of the Connecticut General Statutes as amended shall contain the following elements as described below:

2. Subcontractor Availability Analysis. When a contractor intends to subcontract all or part of the work to be performed under a State contract to one or more subcontractors, the contractor shall consult the listing of minority business enterprises maintained by the Department of Administrative Services, the practical experience of other contractors, contacts developed by the contractor itself, trade publications and similar sources to develop a base from which the contractor might reasonably be expected to draw minority business enterprises from. The plan shall indicate what sources were consulted and whether the enterprise was ready and able to perform the required work or supply necessary materials;

Also see Conn. Gen. Stat. sections 4a-60g, 46a-68b, §46a-68c, §46a-68d and §46a-68e.

When a contractor intends to subcontract all or part of the work to be performed under a state contract to one or more subcontractors, the contractor shall consult the listing of minority business enterprises maintained by the Department of Administrative Services, the practical experience of other contractors, contacts developed by the contractor itself, trade publications and similar sources to develop a base from which the contractor might reasonably be expected to draw minority business enterprises. The plan shall indicate what sources were consulted and whether the enterprise was ready and able to perform the required work or supply necessary materials [Sec. 46a-68j-28(2)].

INSTRUCTIONS: Use WBE for a woman owned business, MBE for an ethnic minority owned business, DisBE for a business owned by a person(s) with a disability, and SBE for a small business that is not one of the aforementioned.

<u>Design/Build Projects</u>: When projects are design/build (or similar as in multi-phase contracts) where subcontractors/vendors are solicited for bids at different stages of the project, Contractors must continuously file this section at each stage of the bidding process, until the Contractor has provided evidence of its good faith efforts to achieve the set-aside goals at each stage.

<u>PART A:</u> List all the sources used by the company to find S/M/W/DisBE subcontractors and/or vendors for <u>this</u> project only.

Ex: DAS Supplier Diversity Website www.webaddress.com

Minority Contractor Weekly 1234 Diversity Lane, Hartford, CT 06010

(See attached ad as it appeared in the weekly)

Women In Construction Lisa Doe,

Business Construction Recruiter

5678 Diversity Lane, Hartford, CT 06010

Ready and Able Ron Doe

Disabled Construction Recruiter

9101 Diversity Lane, Hartford, CT 06010

<u>PART B</u>: List every SBE/MBE/WBE/DisBE subcontractor and/or vendor that your company solicited to bid on <u>this</u> contract, as shown in the example below. Indicate each subcontractor's trade(s). Indicate why you solicited each of the listed DAS certified

companies, as shown in the example below (i.e. to perform what trade or to supply what materials/services).

Ex: ABC Construction SBE Carpentry Carpentry Carpenter's LLC **DisBE** Hard Knocks Woodwork Carpentry MBE Rumor Mill Mill Work **MBE** The Mill Worm MBE Mill Work Piece Mill WBE Mill Work XYZ Material Suppliers **WBE**

XYZ Material Suppliers WBE Hardwood Supplier Best Floor Co. DisBE Hardwood Supplier

Got 2 Go MBE Port a lets
Number 1 SBE Port a lets
When Nature Call SBE Port a lets

PART C:

Indicate what became of each DAS certified subcontractor/vendor you listed in Part B during the bidding process. You must be able to explain and document to CHRO the reason(s) why your company did not award a subcontract to the companies you solicited in Part B, as shown in the example below, thus a vague response such as "Bid Received", "Called/Left Message", "Said Will Bid", etc. are insufficient. Use "Awarded" as the only bid result for those companies that you will utilize for this project.

Ex: ABC Construction Bid Incomplete
Carpenter's LLC Bid Too High
Hard Knocks Woodwork Bid Too High

Rumor Mill Awarded

The Mill Worm Bid Too High

Piece Mill Bid Not Accepted – Received Late

XYZ Material Suppliers

Best Floor Co.

Got 2 Go

Number One

When Nature Calls

Bid Too High

Bid Too High

Refused To Bid

Scheduling Conflict

PART D:

List all non-DAS certified companies (including brokers) that you expect to perform on this project or to supply material/services (i.e. companies not already accounted for in Part B & Part C). This list must inform CHRO what trades, materials, or services the companies listed will provide. Any company performing a specialized trade or supplying specialized materials/services must be indicated and accompanied by a letter attesting to such from (i.e. signed) by the awarding agency. See the example below.

Ex: Color Coded Painting, LLC Carpentry

Pristine Port a lets Port a lets

Boltz, Inc. High and Low Voltage Installation*

**** RECORDS RETENTION NOTICE ****

PLEASE BE ADVISED THAT CHRO IS AUTHORIZED TO AUDIT YOUR COMPANY RECORDS REGARDING CONTRACT COMPLIANCE AT ANY TIME DURING OR AFTER THE PERFORMANCE OF YOUR PROJECT. IT IS RECOMMENDED THAT YOU DEVELOP AND MAINTAIN DETAILED RECORDS OF YOUR SOLICITATION OF AND RESPONSES FROM EACH COMPANY LISTED IN THIS SECTION (E.G.: A DETAILED RECORD OF YOU GOOD FAITH EFFORTS), IN THE EVENT CHRO REQUESTS DOCUMENTATION OF THE SAME. CONN. GEN. STAT. §4A-60(A)(5), §4A-60G(G).

ONLY THE STANDARD SERVICE FEE(S) CHARGE BY A BROKER WILL BE CALCULATED TOWARD YOUR ACTUAL SET-ASIDE GOAL ACHIEVEMENT. CHRO MAY REQUIRE A COPY OF THE BROKER'S INVOICE AND OTHER DOCUMENTATION, AS NEEDED BY CHRO, TO DETERMINE THE ACTUAL PERCENTAGE OF PERFORMANCE BY THE BROKER ON THE CONTRACT AMOUNT INDICATED ON THE ATTACHMENT III.

^{*} The electrical portion of this project is specialized and can only be performed by Boltz, Inc. Please see the attached letter verifying such, in detail, from the project manager at the awarding agency.

SECTION 6 Minority Business Enterprise Goals and Timetables.

Point of Statutory and/or Regulatory Reference: <u>Contract Compliance Regulations Section 46a-68j-28(3)</u>

Based upon the availability of minority business enterprises calculated in Sec 46a-68j-28(2), the contractor shall set goals for awarding all or a reasonable portion of the contract to qualified minority business enterprises. The Plan shall detail what steps it took to make such opportunities available (Sec. 46a-68j28(3).

<u>Design/Build Projects</u>: When projects are design/build (or similar as in multi-phase contracts) where subcontractors are solicited for bids at different stages of the project, Contractors must file Attachment IIIa see Section 12) by week, month, or quarter (as determined by CHRO) listing all SBE/MBE/WBE/DisBEs subcontractors/vendors with whom contracts have been signed during that period.

INSTRUCTIONS:

On Attachment III:

- Provide all the information requested in the Attachment III.
- List all the MBE's, WBE's, and DisBE's you designated in Section 11, Part C as "Awarded" in the top portion ("A") of Attachment III.
- List all the SBE's you designated in Section 11, Part C as "Awarded" in the bottom portion ("B") of Attachment III.
- Input all percentages requested in the Attachment III.

Once your Plan is approved, you may not add or delete any of the companies nor alter any of the contract values as listed on the Attachment III of your approved plan, except as follows. Attachment III may be altered after your Plan is approved only if you submit:

- I. A Cover Letter:
 - A) requesting acknowledgement of the change;
 - B) detailing why CHRO should grant the change; and
 - C) documentation to support your request in the follow forms:
 - 1) if requesting acknowledgement of a removal: out of business verification, Change Order eliminating a subcontractor's portion of the project from the awarding agency, etc.);
 - 2) if requesting acknowledgement of an addition: a copy of the current DAS certification; and
- II. A Revised Attachment III bearing the MM/DD/YYYY of the revision and incorporating the requested change.

NOTE: Upon a project's completion, only those companies that are listed on the latest approved Attachment III, and who have maintained a current DAS certification throughout the duration of the project, will be utilized in CHRO's final calculations of actual goal achievement upon the project's completion.

Attachment III

Small Contractor and Minority Business Enterprise Goals and/or "Good Faith Effort"

MBE requirement of%; OR, Project requires only "good faith effort" for MBE contractors								
A. Please identify MBE/WBE/DisBE subcontractors who will participate on the project.								
Company Name	Address	DAS Certification Type	DAS Certification	Contract Value				
		(MBE/WBE/DisBE)	Expiration Date					

Total amount of

MBE, WBE, &

DisBE contract

values:

(Total amount of

contract values ÷

MBE, WBE, & DisBE

project value **x** 100) = %

B. Please identify SBE contractors who will participate on the project.

Company Name	Address	DAS Certification Type (SBE)	DAS Certification Expiration Date	Contract Value
			Total amount of SBE contract values:	Total amount of SBE contract values ÷ project value x 100=%
Total amount of	all contract values		Total amount of all contract values listed in A & B ÷ project value x 100 =%	

Please use additional sheets if necessary

**** CHRO encourages your company to not just meet its set-aside goals, but to surpass them in order to ensure project circumstances (i.e. delays, change orders, decrease between estimate amount and contract amount, etc.) does not cause your company to fall below its set-aside goals achieved in its approved Set-Aside Plan.****

A current copy of the DAS certificate must be attached to this section for each subcontractor/vendor listed on Attachment III. Without a current copy of each company's current DAS certification, the value of the contract will not be taken into account for the determination of whether your company has met its set-aside goals.

For projects with the Connecticut Department of Public Works (DPW), the general contractor cannot utilize its DAS Certification for the purpose of achieving the set-aside goals.

SECTION 7 Project Reporting and Monitoring Procedures

Point of Statutory and/or Regulatory Reference: <u>Contract Compliance Regulations Section 46a-68j-23(6)</u>, 46a-68j-23(8), Conn. Gen. Stat. Section 4a-60(a)(5), 46a-68e

Each contractor shall file, and shall cause each of his subcontractors to file, with the commission such compliance reports at such times as the commission may direct. Compliance reports shall contain such information as to the practices, policies, programs, and employment policies, employment programs, and employment statistics of the contractor and each subcontractor and be in such form as the commission may prescribe (C.G.S. Sec. 46a-68e).

INSTRUCTIONS:

Please provide a statement that your company will file all monthly and quarterly reports as directed by CHRO, and will require its subcontractors and/or vendors to do likewise. This statement should also indicate that your company will forward the original reports to CHRO, and copies will be sent to the awarding agency.

- Forms are due each month of the project's duration with filing to commence thirty (30) days after the project's start date.
- Forms must contain original signatures, printed names & titles of persons signing.
- A copy must be kept at the General Contractor, Subcontractor, Supplier or Service Provider's office for reference when filing Form 257b.
- A copy of all reports must be sent to the awarding agency.

I. General Contractor:

- Form 257 (Monthly Employment Utilization Report)
 - o Fill out every month from the date that the project started.
 - o For the months employee(s) did not work on the project site, fill out one form for each month & check the box marked "Did not perform work on this project for this month" which is located at the bottom of the form.
 - o If employee(s) then returned to the project site and began working after the months they were not working at the project site, fill out a Form 257, one for each month.

Ex: If employee(s) did not work in Jan. fill out a Form 257 for the month of Jan. & check the "Did not perform work on this project for this month" box.

If employee(s) worked Feb & Mar fill out a Form 257, one for each month, indicating the hours these employees worked during those months.

o The last month any of the employee(s) worked on the job (i.e. the month the company walked off the project site) fill out a Form 257 & write at the bottom of the form in BIG BOLD letters "FINAL".

• Form 257a (Monthly Employment Utilization Report)

- o Fill out every month from the date that the project started only if "On Site Personnel (Other than Trade Workers)" worked on the job.
- o Follow instructions above for Form 257 when a non-trade worker employee is on the site.
- o If no non-trade worker employee(s) are on the site, do not submit Form 257a.

• Form 257b (Cumulative Employment Utilization Report)

- o The last month any of the employee(s) worked at the project site, the fill out a Form 257b (as well as the FINAL Form 257 mentioned above) & write at the bottom of the form in BIG BOLD letters "FINAL".
- o Form 257b is a total of all the work hours the employees have worked on the project. Therefore, if you add up all of the hours from each of the Form 257's that have been filed for this project, that number should correspond with the number of total work hours reported on the Form 257b.

• Punch List Items or Other Events

- o If an employee returns to the job to do punch list items or other events after filling out **FINAL** filings a Revised FINAL Form 257 for the months that they worked on the punch list items, as well as a Revised FINAL Form 257b must be filed.
- These revised reports should be marked in BIG BOLD letters "REVISED MM/DD/YYYY."

• Form 258a (Monthly Payment Status Reports)

o If the project's anticipated duration is 12 months or less, fill out Form 258a every month from the date that the project started except for the project's quarter months.

Ex: If the project began in Jan., fill out Form 258a for Jan., Feb., but not for March (e.g. third month of the project, thus the project's quarter month).

- o If you are filing out a Form 258a for the last month of the project write at the bottom of the form in BIG BOLD letters "FINAL".
- o If the project's anticipated duration is in excess of 12 months, do not fill out Form 258a.

- Form 258 (Quarterly Payment Status Report)
 - o If the project's anticipated duration is in excess of 12 month, fill out Form 258 every project quarter month from the date the project started.
 - The Form 258 filed for the last quarter of the project's duration must indicate "FINAL" in BIG BOLD letters.

The General Contractor sends the following reports to CHRO:

- Form 2528a (Monthly Small Contractor and Minority Business Enterprise Payment Status Report).
- Form 258 (Quarterly Small Contractor and Minority Business Enterprise Payment Status Report).
- Form 257 & Form 257a (Monthly Employment Utilization Report) from subcontractors.
- Form 257 & Form 257a (Monthly Employment Utilization Report) from the General Contractor .
- Form 257b (Cumulative Employment Utilization Report) from subcontractors & the General Contractor.
- Form 259 (Monthly Materials Consumption Report) from Material Suppliers & Service Providers.

II. <u>Material Suppliers/Service Providers:</u>

- Form 259 (Monthly Materials Consumption Report)
 - Material Supplier/Service Supplier submits every month from the date that the project started. The officer of the company signs in the box that corresponds as to whether they "Did Supply Materials" that month or they "Did Not Supply Materials" that month.
 - At the end of the last month in which the material/servicer provider provided material or service for this project, the officer of the company must write at the bottom of the form in BIG BOLD letters <u>FINAL</u>".

III. Subcontractors (Sub):

- Form 257 (Monthly Employment Utilization Report)
 - Sub submits every month from the date that the project started and not from the date that specific sub began.
 - o For the months in which the sub did not work on the project site, the sub still fills out one Form 257 for each month & checks the box marked "Did not perform work on this project for this month" which is located at the bottom of the form.

o For whatever months the sub does work on the project site, the sub fills out a Form 257, one for each month indicated the hours its employee(s) worked on the project for the month specified on the Form 257.

EX: If the sub did not work in Jan. they fill out Form 257 & check the "Did not perform work on this project for this month" box. If the sub worked Feb. & March they fill out the hours on Form 257, one for each month.

If the sub finishes its work in April they fill out Form 257 & write at the bottom of the form in BIG BOLD letters "FINAL".

• Form 257a (Monthly Employment Utilization Report)

- Sub submits every month from the date that the project started only if "On Site Personnel (Other than Trade Workers)" worked on the job.
- o Follow instructions above for Form 257 when a non-trade worker employee is on site.
- o If no non-trade worker employees are on the site, then the sub need not submit Form 257a.

• Form 257b (Cumulative Employment Utilization Report)

- The last month the sub finishes its work on the project site, that sub must fill out Form 257b (as well as a FINAL Form 257 mentioned above) & write at the bottom of the form in BIG BOLD letters "FINAL".
- o Form 257b is a total of all the work hours the trade personnel have worked on the project. Therefore, if you add up all of the hours for each of the Form 257s that have been filed for this project, that number should correspond with the number of total work hours reported on the Form 257b.

• Punch List Items or Other Events

- o If a sub returns to the job to do punch list items or other events after filling out **FINAL** filings, a Revised Final Form 257 for the months that they worked on the punch list items, as well as a Revised Form 257b must be filed.
- These revised reports should be marked in BIG BOLD letters "REVISED MM/DD/YYYY."

Additional copies of CHRO forms and further instructions can be obtained by logging onto www.ct.gov/chro and clicking on "Forms" and then selecting the required from under the second heading "Form and Reports for Construction Workers."

Commission on Human Rights and Opportunities Contract Compliance Unit 25 Sigourney Street Floor 7 Hartford CT 06106					1. MONTHLY EMPLOYMENT UTILIZATION REPORT (FORM chro cc-257)			PROJECT AREA (MSA): 2. EMPLOYERS FEIN NO.			MINORIT	3. PROJECT AAP GOALS MINORITY:		4. REPORTING PERIOD FROM: TO:			
GENERAL CONTRACTOR: PROJECT NAME: CONTRACT NUMBER:						NAME AND LOCATION OF CONTRACTOR (submitting report):							:	STATE AWARDING AGENCY:			
5.		URS OF	OF TRADE WORKERS EMPLOYED ON PROJECT									9. 10.					
CONSTRUCTION TRADE (please identify)	CLASSIFICATION	FICATION TOTAL HOURS BY TRADE 6b. BLACK (Not of Hispanic Origin)		Not of spanic	6c. HISPANIC M F		6d. ASIAN OR PACIFIC ISLANDERS M F		6e. AMERICAN INDIAN OR ALASKAN NATIVE M F		7. MINORITY PERCENT	8. FEMALE PERCENT	NUM	OTAL BER OF OYEES	TOTAL NUMBER OF MINORITY EMPLOYEES M F		
	Journey Worker Apprentice Trainee SUB-TOTAL																
	Journey Worker Apprentice Trainee SUB-TOTAL																
	Journey Worker Apprentice Trainee SUB-TOTAL																
	Journey Worker Apprentice Trainee SUB-TOTAL																
	Journey Worker Apprentice Trainee SUB-TOTAL																
TOTAL JOURNEY WO TOTAL APPRENTICE TOTAL TRAINEES GRAND TOTAL																	
1 MPANY OFFICIALS SIGNATURE , PRINTED NAME AND PRINTED TITLE						12. TELEPHONE NUMBER (Including area code)						13. DATE SIGNED			PAGEOF		
Did not p	erform work on this	project f	or this n	onth (Please p	lace an '	'X" in tl	he box if	vour com	nany did	not perfor	rm work on th	is project for th	is montl	only.)		

Form CHRO 257

Contract Compliance Unit 25 Sigourney Street Floor 7 UTIL					EMPLOYMENT TILIZATION REPORT			PROJECT AREA (MSA): 2. EMPLOYERΣ FEIN NO.			MINORIT	MINORITY:		4. REPORTING PERIOD FROM: TO:			
GENERAL CONTRACTOR: PROJECT NAME: CONTRACT NUMBER:						NAME AND LOCATION OF CONTRACTOR (subm						mitting report)	nitting report): STAT			E AWARDING AGENCY:	
5. ON SITE PERSONNEL (OTHER THAN TRADE WORKERS) (please identify specific job title)		6a. HOURS OF BY TRADE Hispanic Origin) M F M F		6c.	RS <u>(OTH</u> PANIC F	6d. 6e. ASIAN OR AMERICAN PACIFIC INDIAN OF ISLANDERS ALASKAN NATIVE		RICAN IN OR SKAN	7. 8. MINORITY PERCENT FEMALE PERCENT		NUM	OTAL BER OF LOYEES F	NUMB MINC	TAL EER OF DRITY DYEES			
GRAND TOTAL WORKERS																	
11. COMPANY OFFICIALS SIGNATURE, PRINTED NAME AND PRINTED TITLE			Ē	12. TELEPHONE NUMBER (Including area code)					13. DATE SIGNED		PAGE OF						

Form CHRO 257a

Contract Compliance Unit					1. CUMULATIVE EMPLOYMENT UTILIZATION REPORT (FORM chro cc-257b)			PROJECT AREA (MSA): 2. EMPLOYERS FEIN NO.			MINORITY	3. PROJECT PLAN GOALS MINORITY: FEMALE:		4. PROJECT DURATION START DATE: END DATE :			
GENERAL CONTRACTOR: PROJECT NAME: CONTRACT NUMBER:						NAME AND LOCATION OF CONTRACTOR (submitting report):								STATE AWARDING AGENCY:			
5.			6. C U	MULAT	IVE WO	RK HOU	RS OF 1	TRADE W	ORKERS	EMPLOY	ED ON P	ROJECT	9.	9. 10.			
CONSTRUCTION TRADE (please identify)	CLASSIFICATION	6. CUMULATIVE WO 6a. CUMULATIVE HOURS BY TRADE M F M F		6c. HISPANIC		6d. ASIAN OR PACIFIC ISLANDERS M F				7. CUMULATIVE MINORITY PERCENT	8. CUMULATIVE FEMALE PERCENT	CUMULATIVE NUMBER OF EMPLOYEES		CUMULATIVE NUMBER OF MINORITY EMPLOYEES M F			
	Journey Worker Apprentice Trainee CUMULATIVE TOTAL																
	Journey Worker Apprentice Trainee CUMULATIVE TOTAL																
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CUMULATIVE TOTAL JOURNEY WORKERS CUMULATIVE TOTAL APPRENTICES CUMULATIVE TOTAL TRAINEES CUMULATIVE GRAND TOTAL																	
11. COMPANY OFFICIALS SIGNATURE, PRINTED NAME AND PRINTED TITLE					12. TELEPHONE NUMBER (Including area code)					13. DATE SIGNED			PAGE OF				

FORM CHRO 257b

^{**} NOTE: The purpose of this report is to be a CUMULATIVE Employment Utilization Report (257b); cumulative meaning the total sum of all the 257s filed by your company throughout the duration of this project. Please submit this *Cumulative Employment Utilization Report* (257b) with your *FINAL 257* filing. If punch list items or other events require your company to return to the project after such filings, than please submit a *Revised 257b* with your *Revised FINAL 257*.

MONTHLY SMALL CONTRACTOR AND MINORITY BUSINESS ENTERPRISE PAYMENT STATUS REPORT

1)	General Contractor Name									
2)	State Contract Num	nber								
3)	State Contract Awa	ard Agency								
4)	Project Name	5) Estimated	Completion Date							
6)	Project Value (Indicate & attach a		ompleted to Date							
9)	Actual Project Mobilization Date (MM/DD/YYYY)									
10)		contractors and minority bus tractual small business set as		tractors on the project						
Comj	pany Name	Total Contract Amount (Indicate & attach all Change Orders)	Total Payment this Month	Total Payment to Date						
Signa	ature of Company Off	icial	Date o	of Report						
	ed Name and Printed 7 : 1) Contract Awardi	Title of Person Signing ng Agency								
		Human Rights & Opportunit reet Floor 7, Hartford CT 06								

Form CHRO 258a (for projects less than 12 months or as directed by CHRO).

QUARTERLY SMALL CONTRACTOR AND MINORITY BUSINESS ENTERPRISE PAYMENT STATUS REPORT

General Contractor	Name			
State Contract Num	ber			
State Contract Awar	rd Agency			
Project Name	5)	Estimated	Completion Date	
Project Value (Indicate & attach a	7) ll Change Orders		ompleted to Date	_
Actual Project Mob	ilization Date (M	M/DD/YY	YY)	
				tractors on the project
any Name	(Indicate & a	ttach all	Total Payment this Quarter	Total Payment to Date
1 Name and Printed T 1) Contract Awarding Age	Fitle of Person Si		Date of	of Report
	State Contract Num State Contract Awar Project Name Project Value (Indicate & attach a Actual Project Mob Listing of all small to comply with contany Name ure of Company Offin Name and Printed Total Name and Printed Total Name and Printed Total Name (2) Commission on Human	State Contract Number State Contract Award Agency Project Name 5) Project Value 7) (Indicate & attach all Change Orders Actual Project Mobilization Date (Manage of all small contractors and not to comply with contractual small busing any Name Total Contract (Indicate & a Change Orders) Total Contract (Indicate & a Change Orders) In Name and Printed Title of Person Single Official (Indicate & a Change Orders) In Contract Awarding Agency In Contract Awarding Agency	State Contract Award Agency Project Name 5) Estimated Project Value 7) Percent Co (Indicate & attach all Change Orders) Actual Project Mobilization Date (MM/DD/YY) Listing of all small contractors and minority bus to comply with contractual small business set as any Name Total Contract Amount (Indicate & attach all Change Orders) Change Orders) Ture of Company Official I Name and Printed Title of Person Signing	State Contract Award Agency Project Name 5) Estimated Completion Date Project Value 7) Percent Completed to Date (Indicate & attach all Change Orders) Actual Project Mobilization Date (MM/DD/YYYY) Listing of all small contractors and minority business enterprise conto comply with contractual small business set aside provisions: any Name Total Contract Amount (Indicate & attach all Change Orders) Total Payment (Indicate & attach all Change Orders)

Form CHRO 258

MONTHLY MATERIALS CONSUMPTION REPORT

(CHRO FORM-259)

Contract Compliance Unit	MONTHLY MATERIALS CONSUMPTION REPORT
Affirmative/Action Contract Compliance Division The Commission on Human Rights and Opportunities	(CHRO FORM-259)*
State of Connecticut Administrative Headquarters 25 Sigourney Street Floor 7 Hartford CT 06106	* TO BE FILLED OUT BY SBE/MBE/WBE/DIS CONTRACTORS/VENDORS WHOSE SOLE ROLE IN THE CONTRACT DESCRIBED BELOW IS THAT OF A "SUPPLIER OF MATERIALS."
NAME AND ADDRESS OF SBE/MBE/WBE/DIS CONTRACTOR/VENDOR (submitting report):	STATE CONTRACT NUMBER:
	PROJECT NAME:
	STATE AWARDING AGENCY
	REPORTING PERIOD FROM: TO:
The SBE/MBE/WBE/DIS Contractor / Vendor, submitting this report, <i>DID SUPPLY MATERIALS</i> to the General Contractor, or its Subcontractors, for the monthly reporting period listed above and for use in the aforesaid contract.	The SBE/MBE/WBE/DIS Contractor / Vendor, submitting this report, <i>DID NOT SUPPLY MATERIALS</i> to the General Contractor or its Subcontractors, for the monthly reporting period listed above and for use in the aforesaid contract.
I Agree:/Date: Signature of the Head of the Company	I Agree:/Date: Signature of the Head of the Company
Printed Name and Printed Title of Person Signing	Printed Name and Printed Title of Person Signing

SECTION 8 Concluding Statement

Point of Statutory and/or Regulatory Reference: <u>Contract Compliance Regulations Section 46a-68j-</u>27(10)

Set-Aside Plans shall contain a concluding provision signed and dated by the contractor stating that the contractor:

- A) has read the plan and that the contents of the plan are true and correct to the best of his or her knowledge and belief;
- B) pledges his or her best good faith efforts to achieve the objectives of the plan within established timetables.

INSTRUCTIONS:

The *Concluding Statement* must be <u>signed and dated</u> by the head of the company and by the AA/EOE Officer. The signatures must be original.

SAMPLE

CONCLUDING STATEMENT

I have read and pledge my full support to all sections of this Set-Aside Plan, and the commitments therein, are true and correct to the best of my knowledge and I pledge my "best good faith efforts" to achieve the objectives of the Plan within the established time frames.

The implementation of the goals in this Plan will be evidence that XYZ Company is willing to cooperate with the Commission on Human Rights and Opportunities in its effort to promote Equal Opportunity Employment and affirmative action in the State of Connecticut. I will continue my commitment and total support to the principles of a strong Set-Aside Plan for this Company.

Date	Head of Company's Signature
	Printed Name and Printed Title
Date	AA/EOE Officer's Signature
	Printed Name

Appendix C Prevailing Wage Rates

Project: New Street And Pound Street Sidewalk Installations

Town of Ridgefield

Minimum Rates and Classifications for Building Construction

Connecticut Department of Labor ID#: 22-42958 Wage and Workplace Standards Division

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: Project Town: Ridgefield

FAP#: State#:

New Street And Pound Street Sidewalk Installations Project:

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	44.57	31.79
2) Boilermaker	44.46	28.51
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	37.75	35.65 + a
3b) Tile Setter	37.1	30.52
3c) Tile and Stone Finishers	30.0	25.30
3d) Marble & Terrazzo Finishers	31.07	24.23
3e) Plasterer	41.9	28.75
LABORERS		

Town of Ridgefield

4) Group 1: Laborers (common or general), acetylene burners, concrete specialists, wrecking laborers, fire watchers.	32.0	24.40
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	32.25	24.40
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	32.5	24.40
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	33.0	24.40
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	32.75	24.40
4e) Group 6: Blasters, nuclear and toxic waste removal.	35.0	24.40
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	33.0	24.40
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	30.28	24.40
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	29.74	24.40
4i) Group 10: Traffic Control Signalman	18.0	24.40
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	36.07	26.15

5a) Millwrights of Ridgefield	36.32	26.81
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	41.4	31.07+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	58.9	36.885+a+b
LINE CONSTRUCTION		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	40.78	23.40 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	39.7	38.77 + a
OPERATORS		
Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	50.27	26.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	46.07	26.80 + a
Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	49.91	26.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	49.06	26.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer)	45.71	26.80 + a
As of: December 15, 2022		

Town of Ridgefield

Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	44.86	26.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	44.42	26.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	43.73	26.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	43.73	26.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	43.38	26.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	42.99	26.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	42.54	26.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	42.04	26.80 + a
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	39.7	26.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	39.7	26.80 + a

Group 12: ЖеНреје (Gregator.	39.63	26.80 + a
Group 13: Compressor Battery Operator.	38.97	26.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	37.66	26.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	37.2	26.80 + a
Group 16: Maintenance Engineer.	36.46	26.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	41.39	26.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	38.61	26.80 + a
PAINTERS (Including Drywall Finishing)		
10a) Brush and Roller	37.22	23.40
10b) Taping Only/Drywall Finishing	37.97	23.40
10c) Paperhanger and Red Label	37.72	23.40
10e) Blast and Spray	40.22	23.40
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	47.03	34.05
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
As of: December 15, 2022 BID #23-04 12/22/2022	Page 95 of 98	

Town of Ridgefield

Roofer: Cole Tar Pitch	43.0	21.80 + a
Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	41.5	21.80 + a
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	48.77	45.20
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	47.03	34.05
TRUCK DRIVERS		
17a) 2 Axle, Helpers	31.16	28.78 + a
17b) 3 Axle, 2 Axle Ready Mix	31.27	28.78 + a
17c) 3 Axle Ready Mix	31.33	28.78 + a
17d) 4 Axle	31.39	28.78 + a
17e) 4 Axle Ready Mix	31.44	28.78 + a
17f) Heavy Duty Trailer (40 Tons and Over)	33.66	28.78 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	31.44	28.78 + a
17h) Heavy Duty Trailer up to 40 tons	32.39	28.78 + a

17i) Snorkle Tripek Ridgefield	31.54	28.78 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	47.55	28.96 + a
19) Theatrical Stage Journeyman	25.76	7.34

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

**Note: Hazardous waste premium \$3.00 per hour over classified rate

Crane with 150 ft. boom (including jib) - \$1.50 extra Crane with 200 ft. boom (including jib) - \$2.50 extra Crane with 250 ft. boom (including jib) - \$5.00 extra Crane with 300 ft. boom (including jib) - \$7.00 extra Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page:

www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

As of:

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: December 15, 2022