TOWN OF RIDGEFIELD Office of Facilities Director

RIDGEFIELD, CONNECTICUT

PARKING LOT EXPANSION Parks and Recreation

195 Danbury Road

June 2019

DETAILED SPECIFICATIONS:

BIDDING REQUIREMENTS
CONDITIONS OF AGREEMENT
CONSTRUCTION SPECIFICATIONS
PLANS



RUDY MARCONI FIRST SELECTMAN

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 27, 2019

BID DUE TIME: 11:00 AM

BID ITEM: Parks & Recreation Parking Lot Expansion

BID NUMBER: 19-18

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: 19-18 400 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. For further information, please call Jacob Muller at (203) 431-2720 or E-Mail at purchasing@ridgefieldct.org

Bid Documents available at www.ridgefieldct.org 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

- 1. Submit proposals in a sealed envelope plainly marked with bid number to identify this particular proposal.
- 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. Insurance requirements, 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. **Permits:** 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.
- 8. **Emergency Work:** 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.
- 10. **Omitted:**
- 11. **Omitted:**
- 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. Hold Harmless Agreement: In order for the bid to be considered valid, the Contractor must sign the enclosed hold harmless agreement. Bids submitted without the signed hold harmless agreement will be rejected.
- 14. **Prevailing Wage Rates:** This project **is not** subject to the State of Connecticut's prevailing wage rates.
- 15. SBE/MBE and Contract Compliance Requirements: This project is not subject to the State of Connecticut SBE/MBE set aside and contract compliance requirements.
- 16. <u>Time of Completion:</u> All work must be completed within <u>90 days</u> from receipt of the notice to proceed
- 17. <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.

- 18. <u>Bid Bond:</u> A Bid Bond in the amount 5% of the base bid in a format similar to that required for both the payment and performance bonds is required.
- **19. Project Location:** The project is located at the Parks and Recreation Center, 195 Danbury Road, Ridgefield, Connecticut. All contractors will require an appointment to visit the project; please contact Jane Byrnes at (203) 431-2755 to request a appointment.
- 20. **Questions:** regarding bid procedures and technical questions should be directed via email to Jacob Muller, Director of Purchasing, purchasing@ridgefieldct.org.
- 21. <u>Bid Submissions:</u> The following items shall be submitted for a bid to be considered complete:
 - (a) Executed proposal sheets, pages P-1 to P-3
 - (b) Executed Hold Harmless Agreement
 - (c) Certificates of Insurance in conformance to Item 6 above
 - (d) Contractor's List of Subcontractor's (if none, state none)
 - (e) Contractor's Qualification Statement
 - (f) Bid Bond in the amount of 5% of the base bid
 - (g) A break-down of the lump sum price bid.

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 WHERE	OF, the parties here	eto have set their hand and seal this or
the	day of	
Signed, Sealed and D	elivered in the	Signed:
Presence of:		
		·
Notary Public		

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
- 2. 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 do so will result in work stoppage and possible contract cancellation.

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.

materials, fill and other. Signed and sealed in the presence of: Contractor By_____ Date_____ IN WITNESS WHEREOF, the parties hereto have set their hand and seal this day on the_____ day of_____ Signed: Signed, Seated and Delivered in the Presence of: **Notary Public**

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

PROPOSAL

Proposal of:
to furnish and deliver all materials and to do and perform all works in accordance
with the Contract Documents and Plans for Parks & Recreation Parking Lot
Expansion , the plans and specifications prepared by TJ Engineering and Jacob
Muller, Facilities Director, the works being situated within the Town of Ridgefield,
Connecticut.
The total price for the complete project as derived and described in this
document is:
in words:

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".

<u>Second</u>: 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.

Oated:	
Signature of Bidder:	-
Ву:	
Title:	_
Business Address.	

CONTRACTOR'S QUALIFICATION STATEMENT

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.:

CONTRACTOR'S LIST OF SUBCONTRACTORS

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:	
	Telephone
Type of Work to be Performed:	
3. Firm:	
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.:

SPECIMEN CONTRACT

This	Agreement	made	as o	f the			day	of
the ye	ar	 by a	nd betw	een the	Town of I	Ridgefield,	400	Main
Street,	Ridgefield,	Connection	cut, (he	rein afte	er called	the Ov	vner),	and
						, doing b	usines	s at
						erein after	· called	d the
Contra	ctor).							

Witnessed 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:

Parking Lot Expansion, Parks and Recreation, 195 Danbury Road

The work to be done consists of the furnishing of all labor, materials, tools, and equipment necessary to complete facility site renovations as shown on the plans and as described in the specifications prepared by TJ Engineering and Jacob Muller, Facilities Director.

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:

The work shall be completed within **ninety (90) calendar days** after the date which the Contractor is to start the work as provided in the Contract Documents.

Article 4. 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 5. 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 6. 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 7. 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.

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	
G	
Ву	
Date	
	(seal)
Contractor	
By	<u> </u>
Date	
	(seal)

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, Facilities Director, 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. INDEMNITY:

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.

SPECIAL CONDITIONS

1. Contract Documents and Working Drawings:

The work is shown on the attached appendices, if any, or the accompanying Contract Drawings. Such additional working drawings as are required because of changes or to provide greater detail will be provided by the Engineer.

2. Planimeter:

The use of the planimeter shall be considered satisfactory for estimating quantities where geometric and analytic methods would be comparatively laborious.

3. Soil and Groundwater Conditions:

The Town assumes no responsibility whatsoever with respect to ascertaining for the Contractor such facts concerning physical characteristics at the site of the project. The Contractor agrees that he will make no claim for and has no right to additional payment or extension of time for completion of the work, or any other concession because of any interpretations or misunderstanding on his part of this Contract, or because of any failure on his part to fully acquaint himself with all conditions relating to the work.

4. Existing Structures:

All known surface structures immediately adjacent to the work, are shown on the Plans. This information is shown for the convenience of the contractor in accordance with the best information available, but is not guaranteed to be correct or complete. Underground structures in the path of the project are **not** shown. The Contractor shall explore the route ahead of trenching and shall uncover all known obstructing pipes sufficiently to determine their location. Necessary changes in location may be made by the Engineer to avoid unanticipated obstruction.

The Contractor shall, at his own expense, sustain in their places and protect from direct or indirect injury all utilities, pipes, poles, conduits, walls, buildings, and other structures, utilities, and property in the vicinity of his work. Such sustaining and protecting shall be done carefully by the Contractor and as required by the party owning or controlling the structure. Before proceeding with such work, the Contractor shall satisfy the Engineer that the methods and procedures to be used have been approved by the party owning said structure. The Contractor shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, wires, or other structures, utilities, and property in the vicinity of his work, and he shall be responsible for all damage and assume all expense for direct or

indirect injury caused by his work to any of them or to any person or property by reason of injury to them.

The Contractor must notify "Call before You Dig" at 1-800-922-4455 prior to start of construction.

5. <u>Dust Control:</u>

The Contractor shall take all necessary precautions to prevent and abate nuisance caused by dust arising from his operation, by the application of water spray.

6. <u>Sedimentation and Erosion Control:</u>

The Contractor shall control sedimentation and erosion in accordance with the publication entitled, "Erosion and Sedimentation Control Handbook," latest edition, U. S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut, and as approved by the Engineer.

7. Payment for Miscellaneous Work:

No direct or separate payment will be made for furnishing and providing miscellaneous temporary works, plant and services, including Contractor's office, sanitary requirements, water supply, power, tools, equipment, lighting, telephone systems, store houses, store yards, safety devices, and watchmen, or other items specified under these special conditions. Compensation for all such services and materials shall be considered as having been included in the prices stipulated for the Items of the Contract.

8. Clean-up of Site:

During the progress of the work, the Contractor shall keep the site in a generally neat condition. Lunch papers, bottles, lumber cut-offs, drinking cups, and like rubbish shall be removed from the site daily. The work shall be cleaned up as the various portions of the project are completed.

Upon completion or the work and before acceptance and final payment will be made, the Contractor shall, except as otherwise expressly directed or permitted in writing, clean and remove from the site all surplus and discarded materials, rubbish, and temporary structures. He shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and leave the whole in a neat and presentable condition. He shall also remove all plant, surplus, and waste materials from the site.

9. Emergency Work:

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.

10. Work in Bad Weather:

During freezing, stormy, or inclement weather, no work shall be done except that which can be done satisfactory and in a manner as to secure first-class construction throughout.

11. Night, Saturday, and Sunday Work:

Unless otherwise permitted, no work shall be done between the hours of 6:00 p.m. and 7:00 am., nor on Saturday or Sunday, except as necessary for the proper care and protection of the work already performed. If it shall become absolutely necessary to perform work at night or on Saturday or Sunday, the Engineer shall be informed at least twenty-four (24) hours in advance of the beginning of performance or such work. Only such work shall be done at night as can be done satisfactorily and in a first-class manner. Good light and other necessary facilities for performing and inspecting the work shall be provided and maintained at all points where such work is being done.

12. Explosives and Blasting:

Explosives for blasting shall be stored, handled, and used in accordance with the laws, ordinances, and regulations of the State of Connecticut, all local regulations, and with such additional regulations as the Engineer may require. Blasting shall be conducted so as not to endanger persons or property and, unless otherwise permitted, shall be covered or otherwise satisfactorily confined. The Contractor shall be responsible and shall make good any damage of whatever nature caused by blasting or accidental explosions. It shall be the Contractor's responsibility to obtain all required permits for blasting.

13. Traffic Control:

The Contractor shall maintain traffic during the progress of the work. Barricades, flagmen, uniformed police officers on any other type of traffic control necessary to ensure the safety of the public shall be utilized by the Contractor. All methods of traffic control are subject to the approval of the Chief of Police who may direct other methods to be employed. No direct payment for traffic control will be made other than payment for uniformed police officers **at cost** when directed by the Chief of Police.

14. Material Disposal:

The Contractor shall be responsible for the disposal of all construction debris generated by the project. The Town cannot accept the disposal of any material at this time.

17. Wage Rates:

This project **IS NOT** subject to prevailing wage rates.

18. Permits:

It is the Contractor's responsibility to obtain all necessary building or construction permits, including those that may be required from either the Town of Ridgefield or the State of Connecticut, 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 or the State of Connecticut department of Transportation Standard Specifications, latest edition, as applicable.

19. Concrete Testing:

Concrete testing **is** required.

20. Materials:

Materials normally delivered labeled shall be received with manufacturer's original label and instruction, or else shall be subject to rejection. Materials shall be stored under adequately clean and dry condition, and all work shall be preformed according to the best practice of the trades. Manufacturer's specifications and instructions for products specified herein or approved equals, become part of these specifications and all such instructions are to be followed accordingly.

21. Lines and Grades:

It is the intent of these plans and specifications to illustrate the approximate location of the proposed water main. It is the Contractor's responsibility to locate in the field the water main's location according to the constraints as shown on the plans or listed under these specifications.

22. Public Access:

Public access to Town facilities shall be maintained at all times. To accommodate voters, no work will be allowed on site on Tuesday, November 4, 2008. On Monday, November 3, 2008, the Contractor will only be allowed to perform that work necessary to secure the site for safe vehicular and pedestrian passage. All construction materials, vehicles,

equipment and debris must be removed from all parking areas as directed by the Engineer.

SUPPLEMENTAL INFORMATION FOR BIDDERS

1. Contract Documents:

The "Invitation to Bid", the "Information for Bidders," the "General Conditions," the "Bidder's Proposal," the "Detailed Specifications," "Special Conditions" and the "Contract Drawings" are the Contract Documents that will form the Contract. Bidders must examine each of the Contract Documents, **must visit the location of the work** and inform themselves of the conditions and make their own estimates of the facilities and difficulties attending the execution of the work.

2. Omissions and Discrepancies:

Should a Bidder find discrepancies in, or omissions from, the Drawings or Contract Documents, or should he be in doubt as to their meaning, he should at once notify the Engineer who may send a written instruction to all bidders.

3. Acceptance Or Rejection of Proposals:

The Town of Ridgefield, Connecticut reserves the right to reject any or all Proposals. Without limiting the generality of the foregoing, any Proposal which is incomplete, obscure, or irregular may be rejected; any Proposal having erasures or corrections in the price sheet may be rejected; any Proposal which omits a bid on any one or more items in the price sheet may be rejected; any Proposal in which unit prices are omitted, or in which unit prices are obviously unbalanced, may be rejected; any Proposal accompanied by an insufficient or irregular check may also be rejected.

4. Acceptance of Proposal:

Within sixty (60) days after the opening of the Proposals, the Town of Ridgefield will act upon them. The acceptance of a Proposal will be a notice in writing signed by a duly authorized representative of said Town and no other act shall

constitute the acceptance of a Proposal. The acceptance of a Proposal shall bind the successful bidder to execute the Contract.

5. Time of Execution:

Within seven (7) days after the successful bidder has been notified in writing of the award of the Contract he shall commence the work.

6. Prices:

In the event of discrepancy between the prices quoted in the Proposal in words and those in figures, the words shall control. The prices are to include the furnishing of all material, plant, equipment, tools, shoring, and all other facilities, and the performance of all labor and services necessary or proper for the completion of the work, except such as may be otherwise expressly provided in the Contract Documents.

7. Bond:

A Payment and Performance bond in the full amount of the Proposal will be required of the successful bidder. The bond may be in the form of a certified check, cash, or 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.

A bid bond in the amount of five (5) percent of the total bid must be submitted with the proposal. The bond may be in the form as described above. For the bidder's convenience, a sample bid bond is included in these specifications. The Town will reject any bid, which is not accompanied by a proper bid bond.

8. Quantities:

The quantities of work indicated on the Proposal represent the estimate of the Engineer and the Town of Ridgefield does not expressly or by implication imply that the actual work will comply with these quantities. The Town of Ridgefield reserves the right to increase or decrease any item shown therein. However, the award of the Contract shall be on the basis of the Quantities shown on the Proposal.

9. Miscellaneous:

All proposals are to be **sealed** in an envelope plainly marked to identify this particular proposal.

Withdrawals of or amendments to bids received later than the time and date specified for bid opening will not be considered.

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.

Bidders may be present at the opening of the bids.

Bids may be held by the Town of Ridgefield for a period not to exceed sixty (60) days from the opening of the bids for the purpose of reviewing the bids and investigation the qualification of the bidders prior to the awarding of the contract.

10. <u>Insurance Requirements:</u>

Each bidder shall carry and maintain the following insurance coverage as noted within the appended Insurance Requirements 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 all 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 contractor's 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 Additional Insured

2. 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.

11. Contractor's Qualification Statement:

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 of the determining factors in the awarding of the bid.

Appendix A

Concrete

A 1.1 Cement

Portland cement shall conform to the Standard Specifications of ASTM Designation C150, latest revision, Type I or Type II cement. A well-known, acceptable manufacturer shall make it and the product of more than one plant shall be used on the work. Cement shall be stored and handled in such a manner as to prevent deterioration or the intrusion of foreign matter. Any material which has deteriorated or which has been damaged shall not be used for concrete.

A 1.2 Aggregates

Aggregates shall conform to ASTM Designation C33, latest revision. Coarse aggregate shall be size No. 67, nominal three-quarter inch (3/4") to No. 4, unless permitted otherwise by the Engineer. The Contractor shall obtain the services of an approved commercial testing laboratory to sample and test the aggregates to insure compliance with the above specification and shall submit the test results to the Engineer for approval before beginning work. Acceptance of samples shall not be considered as a guarantee of acceptance of all materials from the source and it shall be understood that any aggregates, which do not meet with requirements of these specifications, may be rejected at any time.

A 1.3 Admixtures

Admixtures other than an air-entraining admixture shall not be used without the written approval of the Engineer. Air entraining admixtures shall be used and shall be Sika AER, or approved equal, conforming to ASTM Designation C260. The air content of the concrete with three-quarter inch (3/4") maximum size aggregate shall be six per cent (6%), plus or minus one per cent (1%) by volume. The Contractor shall provide the equipment and all necessary assistance for calculating the air content in conformity with the requirements of "Test for Air Content of Freshly Mixed Concrete by the Pressure Method", ASTM Designation C231.

A 1.4 Water

Water used in mixing concrete shall be clean and free from injurious amounts of oils, acids, alkalies, organic materials, salts, or other substances that may be deleterious to concrete or steel.

A 1.5 Storing and Handling Aggregates

All materials used for concrete must be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard, clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling, and handling to prevent segregation of the coarse and fine particles of the aggregate to such a degree as to disturb the grading.

A 1.6 Measuring Materials

The proportions of cement and fine and coarse aggregate for each batch of concrete shall be determined by weight. Equipment for measurement of the amount of water used in each mix shall be readily adjustable and capable of measuring water in variable amounts within a tolerance of one percent (1%).

All equipment for measuring and accurately controlling the quantities of materials shall be of approved design and shall be tested before they are used. Tests shall be made of moisture content of aggregates and allowance shall be made for the variations in moisture content as required.

A 1.7 Proportions

Proportions of materials in the concrete and strength of concrete shall be approved by the Engineer and shall be subject to the following limitations:

	Minimum 28-day	Maximum Net Water	Minimum Cement
	Compressive	Content Gals. per	Contents Sacks
Class	Strength psi	Sacks Cement	Per Cubic Yard
Α	3,500	54	6.5

Prior to the beginning of concrete work, the Contractor shall submit a statement of the proportions of the cement, fine aggregate, coarse aggregate and water, and the gradations of the fine and coarse aggregates he proposes to use for approval. He shall have standard test cylinders made and tested by an approved testing laboratory. Laboratory test reports shall show sources of materials, proportions of each material, including water, used in the test mix, consistency, and the results of 7-day and 28-day compressive strength tests. The exact proportions of materials used in the work shall be subject to the approval of the Engineer and shall not be changed without his approval. Slump test shall be made from time to time during the progress of the work.

A 1.8 Slump Control

Class A concrete shall be furnished and placed at a slump of from two inches (2") to four inches (4") for slabs and walls respectively.

A 1.9 Slump Tests and Test Cylinders

The Contractor shall be responsible for and shall provide all labor, materials, tools, and equipment necessary for making slump tests and standard compression test cylinders as the work progresses, all at the direction of the Engineer, who shall be the sole judge of the number of tests and cylinders required.

The Contractor shall furnish all necessary materials for the tests, including standard slump cones and molds for concrete test cylinders in conformance with ASTM Standard C470, latest revision. The Contractor shall provide proper storage for the cylinders.

Standard test cylinders shall be made, stored, and cured in accordance with "Standard Method of Making and Curing Concrete Compression and Flexure Test Specimens in the Field", ASTM Designation C31, latest revision. A standard sample shall consist of six (6) test cylinders, three (3) of which normally shall be broken at seven (7) days and three (3) of which shall be broken at 28 days. Not less than one (1) standard sample shall be made for each fifty (50) cubic yards, or fraction thereof, of concrete placed in any one (1) day.

The Contractor shall provide the services of an approved testing laboratory to test the cylinders.

The Contractor in accordance with ASTM Designation C143, latest revision, shall make slump tests.

If tests do not show satisfactory results, the mix shall be adjusted as directed. Concrete which does not meet the strength requirements is subject to rejection and removal from the work or to such other corrective measures as are directed by the Engineer to make the work acceptable, all at the expense of the Contractor.

A 1.10 Tests by Approved Laboratory

Compression strength tests of cylinders shall conform to "Test for Compressive Strength of Molded Concrete Cylinders", ASTM Designation C39, latest revision.

The cost of all testing work shall be borne by the Contractor. The testing laboratory shall submit certified copies of the test results in duplicate directly to the Engineer and the Contractor within twenty-four (24) hours after tests are made.

A 1.11 Mixing

An approved rotation type batch machine shall mix concrete except where hand mixing of very small quantities may be permitted. The arrangements shall provide for the correct weight of each ingredient before placing in the mixer and the introduction of a measured quantity of water at any stage in the process. The quantity of ingredients to be mixed in each batch shall be governed by the size of the concrete mixer and shall not exceed the rated capacity specified for the mixer by the manufacturer. Unless otherwise permitted, the quantities shall be such as to require a whole number of bags of cement.

Mixing shall be thorough and all materials for each batch shall be mixed together at least two (2) minutes while the drum revolves at the proper speed.

A 1.12 <u>Transporting Concrete</u>

The concrete shall be transported and placed in the work not more than forty-five (45) minutes after the water is added to the dry ingredients. Care shall be taken to avoid spilling and separation of the mixture. No concrete in which ingredients have become separated shall be placed in the work. Retempering of partially set concrete will not be permitted. Suitable and approved equipment for transporting of concrete from mixer to forms shall be used.

A 1.13 Transit Mixed Concrete

If the Contractor desires to use transit mixed concrete, he shall submit full information as to the physical capability of the mixing plant and trucking facilities which are available and the estimated average amount which can be produced and delivered to the job site during a normal eight (8) hour day, excluding the output to other customers, for approval. The number of yards of concrete placed daily' will depend on the ability of the plant to deliver concrete to the site and is subject to the approval of the Engineer. The concrete shall be in accordance with the "Specification for Ready Mix Concrete", ASTM Designation C94, as amended, and all applicable requirements of this Item.

The Engineer shall have access to the mixing plant at all times. The concrete shall be mixed in revolving drum-type truck mixers, which are in good condition

and which produce thoroughly mixed concrete of the specified consistency and strength. Loads shall not exceed the proper capacity of the mixer.

Concrete shall be mixed for a minimum of one and one-half (1-1/2) minutes after it arrives at the job site, or as recommended by the mixer manufacturer. The drum shall not mix while in transit. Mixing shall be continuous at proper speed until the concrete is discharged. Concrete shall be discharged from the mixer within one (1) hour after water is added to the mix and shall have a maximum slump from two inches (2") to four inches (4").

Adequate facilities shall be available for continuous delivery of concrete at the required rates. Concrete which does not meet the requirements of this specification will be rejected.

A 1.14 Placing Concrete

Immediately before placing concrete, the forms shall be thoroughly cleaned and wet and the space to be occupied by concrete shall be free from all dirt, chips, and foreign material. The concrete shall be carried up level along the whole length of the section under construction and shall be so placed so as to avoid rehandling within the forms. Concrete shall be compacted by means of approved internal vibrators to produce dense, homogeneous concrete without pockets or voids. Vibrators shall not be used to move the concrete along the form.

When fresh and previously placed concrete masonry are jointed, immediately before placing fresh concrete, the contact surface of the old concrete shall be thoroughly cleaned using a stiff brush or other tools and a stream of water under pressure. The surface shall be clean and wet but free from pools of water at the moment the fresh concrete is placed. Any laitance, waste mortar, or other substance, which will prevent complete adhesion, will be removed. A one-inch (1") thick coat of mortar of similar proportions to the mortar in the concrete shall be placed over the contact surface of the old concrete and the fresh concrete shall be placed before the mortar has attained its initial set. No concrete shall be placed when the Engineer is not present.

A 1.15 Weather Conditions and at Night

Concrete placement during the cold and hot weather and at night shall conform to the following requirements.

<u>Cold Weather</u>: All methods and materials used for winter concreting shall be in accordance with the requirements of "Recommended Practice for Winter Concreting", ACI 306, latest revision, and shall be subject to the approval of the Engineer. Plans to protect fresh concrete from freezing and to maintain

temperatures not less than the permissible minimum during the first seven (7) days after placing shall be made before the first frosts are to occur. The temperature of the concrete placed shall not be less than 55°F, nor greater than 85 F and a temperature of between 50°F and 70°F shall be main-tamed for at least seven (7) days after placing. Means shall be provided, if necessary, to insure that the ambient temperature shall not fall more than 300F in the twenty-four (24) hours following the seven (7) day period. Admixtures, except those approved by the engineer, shall not be used. The cost of all material furnished or required to protect against freezing shall be at the sole expense of the Contractor without extra charge therefore.

<u>Hot Weather</u>: All methods and materials used for hot weather concreting shall be in accordance with the requirements of "Recommended Practice for Hot Weather Concreting", ACI 305, latest revision, and shall be subject to the approval of the Engineer. Concrete deposited in hot weather shall have a placing temperature, which will not cause difficulty from loss of slump, flash set, or cold joints.

<u>At Night</u>: No concrete shall be placed at night without permission of the Engineer, and the Contractor shall give at least twelve (12) hours notice to the engineer if he wishes to place concrete at night.

A 1.16 Quality of Concrete Work

Concrete shall be placed solidly against the forms and elsewhere so as to leave no voids. Every precaution shall be taken to make all masonry solid, compact, watertight, and smooth and to prevent the formation of laitance and to avoid cold joints. If for any reason the surfaces have voids or are unduly rough, or are in any way defective, such masonry shall be cut out to the extent ordered or permitted and shall be repaired to the satisfaction of the Engineer. The cost of all repairs shall be borne by the Contractor. No thin patches or plastering will be accepted.

Any concrete that is defective, which, in the opinion of the Engineer, cannot be properly repaired as described above, shall be removed and replaced at the expense of the Contractor.



