Request for Proposal 09-X-20549

For: Concrete, Construction, Curb and Gutter, (New, Removal, Repair and Replace) D.O.T.

Event	Date	Time
Bidder's Electronic Question Due Date (Refer to RFP Section 1.3.1 for more information.)	09/04/08	5:00 PM
Mandatory Pre-bid Conference	N/A	
Mandatory Site Visit	N/A	
Bid Submission Due Date (Refer to RFP Section 1.3.2 for more information.)	09/18/08	2:00 PM

Dates are subject to change. All changes will be reflected in Addenda to the RFP posted on the Division of Purchase and Property website.

Small Business Set-Aside (Refer to RFP Section 4.4.2.2 for more information.)	Status	Category
	X Not Applicable	☐ I
	☐ Entire Contract	☐ II
	☐ Partial Contract	☐ III
	☐ Subcontracting Only	

RFP Issued By

State of New Jersey
Department of the Treasury
Division of Purchase and Property
Trenton, New Jersey 08625-0230

Using Agency

Department of Transportation

Date: 8/20/08

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1.0 INFORMATION FOR BIDDERS

1.1 PURPOSE AND INTENT

This Request for Proposal (RFP) is issued by the Purchase Bureau, Division of Purchase and Property, Department of the Treasury on behalf of New Jersey Department of Transportation (DOT), Bureau of Maintenance Engineering & Operations. The purpose of this RFP is to solicit bid proposals for construction of curbs, sidewalks and gutter (new, removal, repair and replace) on State Highways and properties entitled or owned by the State of New Jersey.

The intent of this RFP is to award contracts to those responsible bidders whose bid proposals, conforming to this RFP are most advantageous to the State, price and other factors considered. However, the State reserves the right to separately procure individual requirements that are the subject of the contract during the contract term, when deemed by the Director to be in the State's best interest.

The NJ Standard Terms and Conditions version 07/27/07 will apply to all contracts or purchase agreements made with the State of New Jersey. These terms are in addition to the terms and conditions set forth in this RFP and should be read in conjunction with them unless the RFP specifically indicates otherwise.

1.2 BACKGROUND

This is a reprocurement of the **Concrete: Construction, Curb and Gutter (New, Removal, Repair and Replace) - DOT** term contract, presently due to expire on **November 30, 2008.** Bidders who are interested in the current contract specifications and pricing information may review the current contract T-0278 at http://www.state.nj.us/treasury/purchase/contracts.htm.

1.3 KEY EVENTS

1.3.1 ELECTRONIC QUESTION AND ANSWER PERIOD

The Purchase Bureau will accept questions and inquiries from all potential bidders electronically via web form. To submit a question, please go to Current Bid Opportunities webpage or to http://ebid.nj.gov/QA.aspx

Questions should be directly tied to the RFP and asked in consecutive order, from beginning to end, following the organization of the RFP. Each question should begin by referencing the RFP page number and section number to which it relates.

Bidders are not to contact the Using Agency directly, in person, by telephone or by email, concerning this RFP.

The cut-off date for electronic questions and inquiries relating to this RFP is indicated on the cover sheet. Addenda to this RFP, if any, will be posted on the Purchase Bureau website after the cut-off date (see Section 1.4.1. of this RFP for further information.)

1.3.2 SUBMISSION OF BID PROPOSAL

In order to be considered for award, the bid proposal must be received by the Purchase Bureau of the Division of Purchase and Property at the appropriate location by the required time. **ANY BID PROPOSAL NOT RECEIVED ON TIME AT THE LOCATION INDICATED BELOW WILL**

BE REJECTED. THE DATE AND TIME IS INDICATED ON THE COVER SHEET. THE LOCATION IS AS FOLLOWS:

BID RECEIVING ROOM - 9TH FLOOR
PURCHASE BUREAU
DIVISION OF PURCHASE AND PROPERTY
DEPARTMENT OF THE TREASURY
33 WEST STATE STREET, P.O. BOX 230
TRENTON, NJ 08625-0230

Directions to the Purchase Bureau can be found at the following web address:
http://www.state.nj.us/treasury/purchase/directions.htm.

Note: Bidders using USPS Regular or Express mail services should allow additional time since USPS mail deliveries are not delivered directly to the Purchase Bureau.

Procedural inquiries on this RFP may be directed to RFP.procedures@treas.state.nj.us. This e-mail address may also be used to submit requests to review bid documents. The State will not respond to substantive questions related to the RFP or any other contract via this e-mail address.

To submit an RFP or contract related question, go to the Current Bidding Opportunities webpage or to http://ebid.nj.gov/QA.aspx.

1.4 ADDITIONAL INFORMATION

1.4.1 ADDENDA: REVISIONS TO THIS RFP

In the event that it becomes necessary to clarify or revise this RFP, such clarification or revision will be by addendum. Any addendum to this RFP will become part of this RFP and part of any contract awarded as a result of this RFP.

ALL RFP ADDENDA WILL BE ISSUED ON THE DIVISION OF PURCHASE AND PROPERTY WEB SITE. TO ACCESS ADDENDA, SELECT THE BID NUMBER ON THE BIDDING OPPORTUNITIES WEB PAGE AT THE FOLLOWING ADDRESS:

HTTP://WWW.STATE.NJ.US/TREASURY/PURCHASE/BID/SUMMARY/BID.SHTML.

There are no designated dates for release of addenda. Therefore interested bidders should check the Purchase Bureau "Bidding Opportunities" website on a daily basis from time of RFP issuance through bid opening.

It is the sole responsibility of the bidder to be knowledgeable of all addenda related to this procurement.

1.4.2 BIDDER RESPONSIBILITY

The bidder assumes sole responsibility for the complete effort required in submitting a bid proposal in response to this RFP. No special consideration will be given after bid proposals are opened because of a bidder's failure to be knowledgeable as to all of the requirements of this RFP.

1.4.3 COST LIABILITY

The State assumes no responsibility and bears no liability for costs incurred by a bidder in the preparation and submittal of a bid proposal in response to this RFP.

1.4.4 CONTENTS OF BID PROPOSAL

Subsequent to bid opening, all information submitted by bidders in response to the bid solicitation is considered public information, except as may be exempted from public disclosure by the Open Public Records Act, N.J.S.A. 47:1A-1 et seq., and the common law. Because the State proposes to negotiate and/or pursue a Best and Final Offer, bid proposals will not be made public until the Letter of Intent to Award is issued.

A bidder may designate specific information as not subject to disclosure when the bidder has a good faith legal/factual basis for such assertion. The State reserves the right to make the determination and will advise the bidder accordingly. The location in the bid proposal of any such designation should be clearly stated in a cover letter. **The State will not honor any attempt by a bidder either to designate its entire bid proposal as proprietary and/or to claim copyright protection for its entire proposal.**

By signing the cover sheet of this RFP, the bidder waives any claims of copyright protection set forth within the manufacturer's price list and/or catalogs. The price lists and/or catalogs must be accessible to State using agencies and cooperative purchasing partners and thus have to be made public to allow all eligible purchasing entities access to the pricing information.

All bid proposals, with the exception of information determined by the State or the Court to be proprietary, are available for public inspection after the Letter of Intent to Award is issued. At such time, interested parties can make an appointment with the Purchase Bureau to inspect bid proposals received in response to this RFP.

1.4.5 BID OPENING

On the date and time bid proposals are due under the RFP, only the names of the bidders submitting bid proposals will be publicly announced. The contents of the bid proposals shall remain confidential until the Notice of Intent to Award is issued by the Director.

1.4.6 BID ERRORS

In accordance with N.J.A.C. 17:12-1.22, “Bid Errors,” a bidder may withdraw its bid as follows:

A bidder may request that its bid be withdrawn prior to bid opening. Such request must be made, in writing, to the Supervisor of the Business Unit. If the request is granted, the bidder may submit a revised bid as long as the bid is received prior to the announced date and time for bid opening and at the place specified.

If, after bid opening but before contract award, a bidder discovers an error in its proposal, the bidder may make written request to the Supervisor of the Business Unit for authorization to withdraw its proposal from consideration for award. Evidence of the bidder’s good faith in making this request shall be used in making the determination. The factors that will be considered are that the mistake is so significant that to enforce the contract resulting from the proposal would be unconscionable; that the mistake relates to a material feature of the contract; that the mistake occurred notwithstanding the bidder’s exercise of reasonable care; and that the State will not be significantly prejudiced by granting the withdrawal of the proposal. Note: a PB-36 complaint form may be filed and forwarded to the Division’s Contract Compliance and Audit

Unit (CCAU) for handling. A record of the complaint will also be maintained in the Division's vendor performance file for evaluation of future bids submitted.

All bid withdrawal requests must include the bid identification number and the final bid opening date and sent to the following address:

Department of the Treasury
Purchase Bureau, PO Box 230
33 West State Street – 9th Floor
Trenton, New Jersey 08625-0230
Attention: Supervisor, Business Unit

If during a bid evaluation process, an obvious pricing error made by a potential contract awardee is found, the Director shall issue written notice to the bidder. The bidder will have five days after receipt of the notice to confirm its pricing. If the vendor fails to respond, its bid shall be considered withdrawn, and no further consideration shall be given it.

If it is discovered that there is an arithmetic disparity between the unit price and the total extended price, the unit price shall prevail. If there is any other ambiguity in the pricing other than a disparity between the unit price and extended price and the bidder's intention is not readily discernible from other parts of the bid proposal, the Director may seek clarification from the bidder to ascertain the true intent of the bid.

1.4.7 JOINT VENTURE

If a joint venture is submitting a bid proposal, the agreement between the parties relating to such joint venture should be submitted with the joint venture's bid proposal. Authorized signatories from each party comprising the joint venture must sign the bid proposal. A separate Ownership Disclosure Form, Disclosure of Investigations and Actions Involving Bidder, Affirmative Action Employee Information Report, MacBride Principles Certification, and Business Registration or Interim Registration must be supplied for each party to a joint venture.

2.0 DEFINITIONS

2.1 GENERAL DEFINITIONS

The following definitions will be part of any contract awarded or order placed as result of this RFP.

Addendum - Written clarification or revision to this RFP issued by the Purchase Bureau.

Amendment - A change in the scope of work to be performed by the contractor after contract award. An amendment is not effective until signed by the Director, Division of Purchase and Property or his/her designee.

Bidder – A vendor submitting a bid proposal in response to this RFP.

Contract - This RFP, any addendum to this RFP, the bidder's bid proposal submitted in response to this RFP and the Division's Notice of Acceptance.

Contractor - The contractor is the bidder awarded a contract.

Director - Director, Division of Purchase and Property, Department of the Treasury. By statutory authority, the Director is the chief contracting officer for the State of New Jersey.

Division - The Division of Purchase and Property.

Joint Venture – A business undertaking by two or more entities to share risk and responsibility for a specific project.

May - Denotes that which is permissible, but not mandatory.

Request for Proposal (RFP) - This document, which establishes the bidding and contract requirements and solicits bid proposals to meet the purchase needs of [the] Using Agency[ies], as identified herein.

Shall or Must - Denotes that which is a mandatory requirement.

Should - Denotes that which is recommended, but not mandatory.

State - State of New Jersey

Using Agency[ies]- The entity[ies] for which the Division has issued this RFP.

3.0 COMMODITY DESCRIPTION/SCOPE OF WORK

Note: All paragraph numbers mentioned in this section of the bid refer to specific sections of standard Department of Transportation (DOT) specification and reference books. Consequently some of the numbering may not follow strict consecutive order.

SECTION 101 - GENERAL INFORMATION

101.01 GENERAL - DESCRIPTION

The work of this contract shall include the construction and rehabilitation of curb and sidewalk on State highways under the jurisdiction of the DOT. It shall also include locations on properties entitled and owned by the State Of New Jersey. This RFP requires work to be done in three regions of the State, namely north, south and central. Locations for work under this contract will be specified by the DOT regional maintenance offices on an as needed basis.

After award of contract, supervision and inspection of the work site will be assigned to the regional engineer responsible for the respective region(s) or such other individuals as may hereafter be designated. All inquires and correspondence shall be directed to the designated representative having responsibility for the various counties. The counties comprised in each region are as follows:

Regional Maintenance Engineer *North*	**Regional Maintenance Engineer *Central***	**Regional Maintenance Engineer *South***
Telephone: 973-770-5123	Telephone: 732-308-4100	Telephone: 856-486-6607
Counties: *Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, and Warren (Including and North of Route 57)*	*Counties:* *Mercer, Middlesex, Monmouth, Ocean, Hunterdon, Somerset and Warren (South of Route 57)*	*Counties:* *Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem*

Unless otherwise directed, the contractor shall forward all communications with the Department to the regional engineer. Where communications are directed to persons other than the regional engineer, a copy shall be sent to the regional engineer.

All inspections and certifications of materials and procedures affecting materials will be performed by a DOT representative having an office at 930 Lower Ferry Road, Trenton, New Jersey 08625, or such other individual as may hereafter be designated.

SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS

102.03 CONTENTS OF THE PROPOSAL

Items used during the course of this contract, will be determined by the regional maintenance offices of the DOT and actual quantities will then be given. Until then, all quantities will be "If and where directed".

The minimum call for a curb project will be 50 linear feet and the minimum call for a sidewalk project will be 4 square yards. The minimum call for barrier curb (installation or repair) will be 20 linear feet.

SECTION 104 SCOPE OF WORK

104.01 INTENT OF CONTRACT

The work to be performed under this contract consists of the construction of concrete curb and sidewalk on state highways and properties entitled or owned by the State of New Jersey, which will be designated by the DOT regional maintenance engineers throughout the State. The standards of construction will be the current Department of Transportation Design Standards and Details.

The DOT does not guarantee that work will be required in each region.

The number of workdays, necessary to complete a project, will be determined by the resident engineer at the pre-construction meeting as well as a decision of the number of days for traffic control if needed. The time period determined to complete the job shall be strictly adhered to by the contractor. The bidder must perform work on Saturday, Sundays and holidays at no additional cost to the State.

SECTION 105 CONTROL OF WORK

105.01 AUTHORITY OF THE ENGINEER

Subsequent to award of contract, when construction is required, the resident engineer shall:

1. Notify the contractor by telephone informing him of the following:
    A. Project location
    B. Required response time or planned work schedule
    C. Type of work needed
    D. Approximate estimate of quantities

2. Coordinate traffic protection by state support forces as required. Refer to Section 110 of this RFP for traffic control details

3. Notify any other parties as necessary (i.e. Police, Municipal Authorities, Etc.) including notification to utilities as set forth in Section 105.08, Item 3 of this RFP.

105.03 PLANS AND SPECIFICATIONS

Standard details shall consist of standard drawing nos. Cd-605, Cd-607 and all other standard DOT details relative to the items shown in this bid proposal.

Authorization of Contract

This is a wholly State funded project. The contract for this project is authorized by the provisions of Title 27 of the revised Statutes of New Jersey and supplements thereto, and Title 23 of the United Sates Code - Highways.

Specifications to be used

The 2007 U.S. Customary English Standard Specifications for Road and Bridge Construction, of the New Jersey Department of Transportation as amended herein will govern the construction of project(s) to be completed under the scope of this RFP.

These Special Provisions consist of the following:

Pages 1 to 59 inclusive for General, Road, and Bridge Provisions.

Executive Order 134 Special Provision for 100% State Funded Contracts, pages 1 to 7 inclusive, dated September 22, 2004.

State of New Jersey Equal Employment Opportunity for Contracts Funded by Wholly State Funds, pages 1 to 4 inclusive, dated January 2007.

Payroll Requirements for 100 Percent State Projects, dated January 2007.

Americans with Disabilities Act for 100 Percent State Funded Contracts, page 1, dated January 2007.

Equal Employment Opportunity Special Provisions Construction Contracts Funded by Wholly Funds, pages 1 to 10 inclusive, dated January 2007.

Small Business Enterprise Utilization Attachment for 100% State Funded Contracts, pages 1 to 6 inclusive, dated January 2007.

The Contractor shall pay the minimum wage rates determined by the New Jersey Department of Labor.

State wage rates may be obtained from the New Jersey Department of Labor (Telephone: 609-292-2259) or by accessing the Department of Labor's web site at http://www.nj.gov/labor/lsse/lspubcon.html. The State wage rates in effect at the time of award will be made a part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

In the event it is found that any employee of the contractor, has been paid a rate of wages less than the minimum wage required to be paid as per provisions of Section 1.3 of the NJ State Standard Terms and Conditions, the State may terminate the contractor's right to proceed with the work, or such part of the work, as to which there has been a failure to pay required wages. The contractor and its sureties shall be liable to the State for any excess costs occasioned thereby.

105.08 COOPERATION BY CONTRACTOR

Subsequent to the award of the contract, when construction is requested, the contractor shall:

1. Furnish all other work required for the layout and construction of the project.

2. Beginning with the date of award the contractor shall begin the operation within five (5) working days after he receives written notification from the engineer.

3. The contractor shall notify all respective utilities of the proposed work.

4. The contractor shall advise the engineer at least twenty-four (24) hours prior to commencement of work.

5. The contractor shall not begin work at any location until the location and extent of work has been verified and approved by the engineer or his representative.

Construction stakes, lines and grades construction layout, i.e. Line and grade is the responsibility of the contractor. The cost of this phase shall be included in the unit cost of the work being performed.

SECTION 108 PROSECUTION AND PROGRESS

108.02 SUBCONTRACTORS

No subcontracting of the work of this contract is permitted.

108.03 COMMENCEMENT OF WORK

The contractor will be required to respond and perform the work of the project within five (5) working days after written notification by the DOT.

108.05 MOBILIZATION

There will be no mobilization in this contract for any work performed during regular work day or an extension thereof. The cost of mobilization will be included in the cost of the items being constructed.

MOBILIZATION (PREMIUM)

The item MOBILIZATION (PREMIMUM) will be included in this contract, as directed by the Engineer. This item will be paid for on a per day basis, and will include the additional cost incurred for construction operations done on Saturdays, Sundays, holidays and nighttime work.

108.06 LIMITATION OF OPERATIONS

The normal hours for construction will be from 9:00 a.m. to 3:30 p.m. The DOT reserves the right to adjust these hours, due to the varying traffic conditions throughout the state.

108.16 FAILURE TO COMPLETE ON TIME

The contractor and the department recognize that delay in completion of work at each site will result in damage to the State of New Jersey in terms of the effect of the delay to provide use and safety to the traveling public and will also result in additional cost to the State for engineering, inspection and administration of the contract. Because some of this damage is difficult or impossible to estimate, the parties agree that if the contractor fails to respond to a call within the time specified elsewhere herein, the contractor shall pay the state liquidated damages of $500.00 per calendar day, in lieu of the above stated actual damage. Such liquidated damages shall be paid for each and every day, as hereinafter defined, that he is in default of responding to call from the department.

108.17 DEFAULT AND TERMINATION OF THE CONTRACT

In the event commencement of the work covered by this contract is requested by the DOT, Bureau of Maintenance and regional offices, and the contractor is unable to perform the job within five (5) working days after notification, the Director will authorize the using agency to complete the project using the next low responsive bidder, or from other available sources. The difference in price to be paid by the defaulting contractor from any monies due him. If there are no monies due, the difference shall be paid directly by the defaulting contractor, in the event this is not done within twenty (20) days, a claim will be made on the bonding company.

SECTION 109 MEASUREMENT AND PAYMENT

109.02 SCOPE OF PAYMENT

Work performed and satisfactorily completed will be submitted for payment on a properly prepared New Jersey State invoice form PV3 to:

New Jersey Department of Transportation
Bureau Of Accounting
Accounts Payable Section
1035 Parkway Avenue, PO Box 600.
Trenton, New Jersey 08625

Payment will be made as determined at the unit price bid in the proposal.

SECTION 110 TRAFFIC CONTROL

110.01 MAINTENANCE AND PROTECTION OF TRAFFIC

Maintenance and protection of traffic shall be provided by the contractor. The contractor will bid on traffic control on a per day basis. Please note that at least one Truck Mounted Attenuator (TMA) will be required on all work zones and safety setups.

This item will include traffic control and safety setup on the highway only. This item will adhere to the DOT standard specifications and details (Traffic Control plan numbers TCD-1 through TCD-22) and MUTCD (Manual of Uniform Traffic Control Devices) and will include the necessary signs and safety devices for a standard setup.

TRAFFIC CONTROL – night time operations

All operations which are performed during the non-daylight hours shall be properly illuminated to allow for the complete performance and inspection of the work and provide for the safety of the traveling public. Lighting systems shall be positioned such that they do not cause glare to drivers or any nearby homes. When necessary, the lighting systems shall include screening to minimize glare.

Prior to the initial start of night operations, a lighting plan shall be submitted for review and approval. The lighting plan shall specify the construction area to be lit, the layout of the lighting systems, and the illumination density of the lighting systems with calculations to show minimum lumens per square meter (Lux). The construction area is defined as the area in which any and all work related to the construction is on going and is to be performed during the hours of darkness. No night construction shall begin until the lighting plan is approved in writing. A Lux light meter shall be provided and be available for use by the engineer during night operations. The light meter will become the property of the contractor after acceptance.

All moving equipment used for night operations shall have mounted a lighting system consisting of a minimum of two lights directed in each direction of travel of the equipment. The equipment shall also have a minimum of 0.5 square feet high intensity retro-reflective sheeting toward the extremities of each side of the equipment. A minimum of 1.0 square feet of the sheeting shall be visible from each direction. All workers shall, during the hours of darkness, wear reflectorized garments as specified for traffic directors.

Night operations shall also be illuminated by lighting systems consisting of mobile units of floodlights so that the construction area is lit with a minimum illumination intensity of 54 Lux. Floodlight lamps shall be mercury vapor.

Lighting systems shall be generator or battery-powered. Each generator shall have a fuel tank of sufficient capacity to permit operation of the lighting system for a minimum of 12 hours.

Battery-powered systems shall consist of banks of batteries. The number and size of battery banks shall be sufficient to permit operation of the lighting system for a minimum of 12 hours.

Battery-powered systems shall be used in residential areas and areas designated to minimize noise pollution. If battery-powered systems are unavailable, generator-powered systems may be used with approval.

Lane closure times will be as directed by the resident engineer.

Work which will interfere with traffic or restrict the width of traveled way available for traffic shall not be performed on Saturdays, Sundays or legal holidays unless approved by the engineer.

Portable variable message signs shall be utilized to alert traffic on each of the respective section of highways of the anticipated conditions during construction. The exact locations and messages for these units will be provided by the resident engineer.

POLICE TRAFFIC DIRECTORS DESCRIPTION

New Jersey State Police officers will serve as police traffic directions on work sites.

Police traffic directors shall be assigned during construction hours at locations and times designated by the contractor and approved by the engineer.

Police traffic directors shall be utilized for work zone safety and to expedite the flow of traffic through the work zone.

All requests for New Jersey State Police, as police traffic directors shall be processed through the engineer. Specific requests to include times and locations shall be made a minimum of 72 hours prior to beginning operations which will require police traffic directors. Any non-weather related cancellations of scheduled police traffic directors shall be made at least 4 hours prior to scheduled start up. Projections for large-scale usage of hours for police traffic directors shall be given to the engineer at least 2 weeks prior to projected usage at regularly scheduled project meetings. The project progress schedule shall not constitute notice for police traffic directors.

Police traffic directors reporting for work shall be reimbursed for a minimum of 4 hours. If projected work has been canceled due to weather conditions and police traffic directors were not notified of the cancellation, the police traffic directors each will be reimbursed for 4 hours of work by the contractor without subsequent reimbursement by the State. Notification to the engineer of cancellation of operations shall not relieve the contractor of the responsibility to make separate notification to the appropriate contact liaison for New Jersey State Police.

A daily tally of all police traffic directors, to include names and badge numbers, and hours worked, shall be given to the engineer at the end of each day in which police traffic directors were used.

METHOD OF MEASUREMENT

Police traffic directors will be measured by the man-hour. The man-hours measured for police traffic directors will be those hours actually spent on the project site. Travel time will not be counted.

Method of measurement shall be for purpose of assessing the contractor for cancellation of operations without proper notification being given. "no pay item" shall appear in the bid proposal for police traffic directors.

BASIS OF PAYMENT

No payment will be made. This is a “no pay item.”

Payment for "Police Traffic Directors - New Jersey State Police" will be made by the DOT. However, a unit price of $42.00 per man-hour will be charged to the contractor for late cancellations. The contractor will not be charged for late cancellations due to weather related suspension or cancellations of construction operations by the engineer.

VARIABLE MESSAGE SIGNS DESCRIPTION

The variable message sign shall be a portable diesel or gasoline powered bulb matrix board suitable for mounting on a two-wheeled trailer. The sign system shall consist of a message board assembly, controller, power supply and structural support system.

The message displayed on the sign shall be visible from 0.5 miles and legible at a distance of 300 yards under all weather conditions. All messages shall be cycled so that three message cycles are displayed to a driver while approaching the sign from the 300 yards point at 55 miles per hour.

A trailer-mounted system shall be structurally adequate to withstand sustained freeway speeds of 55 miles per hour with the sign panel in either the raised or lowered position.

The complete message sign unit shall be designed to operate in the ambient air temperature range of -31 to 158 degrees F. The unit shall not be affected by mobile radio transmissions.

COMPONENTS SIGN PANEL ASSEMBLY

The sign panel shall be of aluminum or stainless steel construction between 70 and 80 inches high and 89 to 126 inches wide. Message board and trailer shall be within legal width when sign is in the travel position.

All exterior surfaces of the sign panel assembly shall be either anodized or painted flat black.

The sign panel shall consist of 3 lines of individually changeable characters. Each line shall be made up of a maximum of 9 characters. Each character shall be 17 inches in height, and shall be arranged in a 7 high X 5 wide Matrix of lamps.

The lamps shall be rugged, high performance, bayonet or screw base units. The lamps shall be a minimum of 20 watts with a life expectancy of at least 8000 hours. The lamps shall have a minimum light output to meet the requirements stated heretofore for visibility. All wiring shall be suitable for outdoor use. Each connector point of the wiring harness shall be properly marked.

The entire sign panel, for increased legibility in bright sunlight, shall be protected by a sunscreen, which has fixed horizontal black louvers tilted at 15 to 20 degrees to the horizontal.

CONTROLLER

The controller shall be a fully self-contained, compact, solid state, modularized unit with pre-programmed messages and the additional capability of having either an integral or plug-in type keyboard system for message generation. The controller display shall show a miniaturized version of the message being displayed, or to be displayed, on the sign panel. The controller shall also be equipped for an ambient light controlled continuous dimming (100% to 40%) and a three step (100% to 50%) dimming of the message displayed.

The unit shall be designed so that it can accept a pre-programmed default message. In the event of engine failure, the pre-programmed default message will be automatically displayed to the message display panel and remain there until such time that repairs to the power plant can be achieved or a maximum of eight nighttime viewing hours.

Provisions shall be made to lockout keyboard capability on the controllers with integral keyboards. This will result in a key being needed to electrically connect the keyboard, thereby providing security to keyboard access.

No message shall be displayed if not shown on the traffic control plans, or previously approved.

The controls for raising/lowering the sign panel; starting/stopping the generator; light intensity control of the lamps for the bulb matrix sign; and read-outs for the fuel supply and running time shall be located in a lockable enclosure.

POWER SUPPLY

The power unit for operating each entire sign system shall be diesel or gas powered, remote wire connected electric starting and have an engine driven generator or alternator.

The fuel tank shall be of sufficient capacity to supply a minimum of 72 hours of continuous operation without refueling. The engine/generator/alternator assembly enclosure shall be ventilated and provided with a lock.

The entire generator/alternator assembly shall be shock-mounted on a cradle to reduce vibration. An accessory exhaust system shall be provided to minimize exhaust noise. The exhaust system shall include a U.S. Department of Forestry approved spark arrestor.

Structural support system

The structural support system shall provide the support mechanism between the sign panel assembly and the power supply cabinet. This will allow the system to be assembled into a unit that is easily mountable on a trailer. The structure shall provide adequate support to allow complete sign operation including raising and lowering of the sign panel at sustained wind speeds of 30-miles per hour.

The primary support shall be welded structural steel of size and type capable of meeting the above specified sign operation, with all welds done by, or under the direction of a certified welder.

The structural system shall support the sign panel assembly at the proper height and orientation in reference to the rest of the system. A manual raise/lower mechanism shall be provided to serve as a back up in the case of failure of the motor drive system. The motor drive system shall be a gear or hydraulic unit powered by an electric motor (ac or dc) operated off the generator, in the case of an ac system, or by a 12 or 24-Volt battery system.

SECTION 201 CLEARING SITE

201.06 REMOVAL OF SIDEWALKS, CURBS AND GUTTERS

Sidewalks, curbs and other materials designated for removal shall be disposed of by the contractor as specified in section 201.09 of this RFP.

No special provisions are made for the removal of different types of curb, regardless of size or configuration. Concrete, granite and bituminous curb shall for the duration of this contract be removed and disposed of under the item "removal of curb".

No special provisions are made for the removal of different types of sidewalks. Concrete and bituminous sidewalks, driveways and island pavements of all thicknesses shall for the duration of this contract be removed and disposed of under the item "removal of sidewalk".

No additional payment will be allowed for any excavation adjacent to the curb or sidewalk being removed.

201.09 DISPOSAL OF DEBRIS

No materials of any type may be disposed of on New Jersey state property. Sole responsibility for the disposal of any materials shall be the contractors.

201.11 BASIS OF PAYMENT

Pay Item	Pay Unit
Removal of Curb	Linear Feet
Removal of Sidewalk	Square Yard

SECTION 202 - ROADWAY EXCAVATION

DESCRIPTION

This work shall consist of stripping, excavation for the roadway, and the construction of embankments with excavated material.

CLASSIFICATION

Roadway excavation unclassified: consists of the excavation of all materials of whatever character encountered.

The methods of construction shall conform to New Jersey Department of Transportation standards.

The measurement and payment for this item will be on a cubic yard basis.

SECTION 301 DENSE GRADED AGGREGATE BASE COURSE

DESCRIPTION

The work of this item shall include the placement of dense graded aggregate base course in areas of curb, sidewalk and driveway construction:

The material shall conform to section 901.08 of this RFP.

The methods of construction shall conform to New Jersey Department of Transportation Standards.

The measurement and payment for this item will be on a square yard basis for material actually placed. Measurement shall be in-place.

SECTION 404 BITUMINOUS CONCRETE

404.01 DESCRIPTION

The work of this item shall include the replacement of bituminous concrete for the purpose of restoring curb, sidewalk and driveway areas.

404.02 MATERIALS

The material used shall be a hot mix from an approved New Jersey State Plant. Mix type will be as specified by the New Jersey of Department Transportation and/or as directed by the resident engineer.

404.03 METHOD OF CONSTRUCTION

The method of construction will conform to New Jersey Department of Transportation standards and as directed by the resident engineer.

404.04 QUANTITY AND PAYMENT

The quantity of bituminous concrete for which payment will be made will be the total amount actually constructed measured in tons in accordance with the plan or as directed by the resident engineer.

Payment for bituminous concrete will be made for the quantity, as above determined measured in tons, which price shall include all labor, equipment, material and other work in connection therewith and incidental thereto.

SECTION 405 CONCRETE

405.03 EQUIPMENT

Portland cement concrete shall be supplied by a plant, which meets all requirements of the RFP specifications and has the facilities necessary to ascertain and control the quality of the concrete.

Batching Plant And Equipment

The batching plant shall include bins, weighing hoppers and scales for the fine aggregate and for each size of coarse aggregate. If cement is used in bulk, a bin, hopper and separate scale for cement shall be included. The weighing hoppers shall be sealed and vented to preclude dusting during operation. The batch plant shall be equipped with a non-resetable batch counter, which indicates the number of batches proportioned.

1 **Bins and Hoppers**. Bins with separate compartments for fine aggregate and for each size of coarse aggregate shall be provided at the batching plant.

2 **Scales**. The scales for weighing aggregates and cement shall be of either the beam type or the spring less dial type or the electronic load cell type with a read-out. They shall be accurate within 0.5 percent for cement and 1 percent for aggregate throughout the range of use. When beam type scales are used, a tell-tale dial shall be provided indicating to the operator the required load in the weighing beams and for indicating critical position clearly. Poises shall be designed to be locked in any position and to prevent unauthorized change. The weigh beam and telltale device shall be in full view of the operator who shall have convenient access to all controls while charging the hopper.

Scales shall be inspected as often as necessary to assure their accuracy. There shall be not less than ten 50-pound weights at hand for frequent testing of all scales. A convenient means of temporarily attaching the weights to the weigh hopper shall be provided.

3. **Water Measuring Equipment**. Water may be measured either by volume or by weight. The accuracy of measuring the water shall be within a range of error of not over 1 percent. Unless the water is to be weighed, the water measuring equipment shall include an auxiliary tank from which the measuring tank shall be filled. The measuring tank shall be equipped with outside taps and valves or other means to permit accurate calibration and to provide for readily and accurately determining the amount of water in the tank. The volume of the auxiliary tank shall be at least equal to that of the measuring tank.

4. **Admixture Dispenser**. an automatic displacement dispenser with plant operation shall be used for adding each admixture.

5. **Automatic Batching System**. Batching plants equipped to proportion aggregates and bulk cement by means of automatic weighing and recordation devices shall consist of a combination of automatic batching controls meeting the following requirements:

All batching equipment in the system for batching by weight must be actuated by a single starting mechanism. A separate starting mechanism is permitted for volumetric batching of water and/or admixtures not batched at the time of initial weighing.

Each automatic batcher must return to zero tolerance and each volumetric device must reset to start or signal empty before it may be charged.

The discharge of any ingredient in the system shall not start unless all batching controls have been cleared of the previous batch with scale returning to zero tolerance and volumetric devices resetting to start or signaling empty. The discharge of any weighed ingredient shall not start until all weighed ingredients have been batched. The automatic batching controls shall be actuated by a single starting signal, except as noted above, which shall start the weighing operation of each material and stop automatically when the designated weight of each material has been reached, interlocked in such a way that:

The charging device cannot be actuated until the scale has returned to zero balance within plus or minus 0.3 percent of the scale capacity.

The discharge device cannot be actuated until the required material is within the applicable tolerances.

The discharge device cannot be actuated if the charging device or the discharge device is open. For cumulative batchers, interlocked sequential controls shall be provided.

6. **Recordation**. Each automatic batching plant shall be equipped with an accurate recorder or recorders, which will provide a permanent and continuous record of batching operations. A maximum of two recording units in lockable enclosures shall be provided with each plant. Each recorder shall produce a digital record on tickets and shall provide the following information:

The quantity or batched weights of each aggregate, Portland cement, water and admixture. The zero balance condition of each scale after batchers have been discharged, or prior to the start of the batching operation.

A means of identifying each admixture batched. The time, date and batch number of each batch delivered.

Mix formula or concrete classification identification. A batching record shall be removed as directed and it shall become the property of the department.

7. **Plant Laboratory**. A plant laboratory shall be provided and maintained at each plant site for use of the engineer for sampling and testing and for use of the producer for quality control functions during periods of production. Quality control personnel should be available during production operation.

The plant laboratory shall be located to provide an unobstructed view of the trucks, as they are loaded. The plant laboratory shall have a floor area of not less than 225 square feet, a ceiling height of not less than 7.5 feet, adequate ventilation and artificial lighting, and shall have sanitary facilities in accordance with subsection 107.10. The plant laboratory shall be weather tight, heated and air-conditioned to maintain temperatures for testing purposes between 68 and 80 degrees F.

The plant laboratory shall have the following: work benches not less than 2.0 by 15.0 feet and two stools. Desk or table and at least two chairs. Four-drawer, legal-size file cabinet with lock and two keys. Shelves and supply cabinets. Statistical electronic calculator with printout tape. Telephone. Fire extinguisher meeting fire underwriters' approval. Electrical and/or gas outlets sufficient in number and capacity for operating the required testing equipment and for drying samples.

Display boards, approximately 4.0 by 4.0 feet, for mounting control charts. Mechanical shakers, screens and sieves conforming to AASHTO M 92 for determining the gradation of coarse and fine aggregates. When the shakers are housed inside, the equipment shall be installed in a soundproof and dustpan enclosure and a minimum 12-inch diameter exhaust fan shall be provided in proximity to the mechanical shakers.

Sink with hot and cold running water having adequate pressure and attached drain board and drain, capable of handling alterable material. Metal stand to hold sieves used in washing alterable material. Two-element hot plate or other comparable heating device having dial-type thermostatic controls to adjust the heat for drying aggregates. Platform scale of 200-pound minimum capacity with a beam or dial with significant graduations of 1/10 pound or less. Balance or balances conforming to AASHTO T 27. Sample splitter or splitters capable of splitting aggregates from 2.5 inches gradation size through concrete sand size.

Calibrated container for unit weight of aggregates, conforming to AASHTO T 9. Unit weight container, 1/2 - cubic feet, for concrete, in accordance with AASHTO T 121. Slump cone and rod. Pressure air meter (and volumetric air meter when required for lightweight concrete.)

Equipment for determining specific gravity of both fine and coarse aggregates. Miscellaneous items including rubber hammer, masons trowels, pointed shovel, small and large sugar scoops, heavy galvanized pail approximate 14 quart capacity, aggregate sample pans, brushes, flashlight, glassware, steel straightedge approximate 18 by 2 inches and such expendable supplies as are necessary for the tests to be made. All weighing devices utilized for the testing of samples shall be inspected annually and sealed by the office of weights and measures, new jersey department of law and public safety or a municipal weights and measures agency.

405.07 HANDLING, MEASURING AND BATCHING MATERIALS

The batch plant site, layout, equipment and provisions for transporting material shall be such as to assure a continuous supply of concrete to the work. Stockpiles shall be in accordance with section 901.02 of this RFP. The fine aggregate and each size of coarse aggregate shall be separately weighed into hoppers in the amounts in the job mix design.

Cement shall be measured by weight. Each bag of cement shall weigh 94 pounds and 94 pounds of bulk cement shall be considered one bag. Batches involving fractional bags will not be allowed except when bulk cement is used. When bulk cement is used, separate scales and hoppers shall be used for the cement, with a device to indicate the complete discharge of the batch of cement into the batch box or container. The weighing hopper and scale shall be of adequate size, completely encased, with provisions for locking. The hopper discharge mechanism shall be interlocked against opening until the full batch is in the hopper and the scale balanced, against opening while the hopper is being filled, against closing until the hopper is entirely discharged and the scale back in balance, and against opening if the batch in the hopper is either overweight or underweight by more than 1 percent of the amount specified. The weighing hopper discharge gate shall operate in such a manner so as not to affect the scale balance. The discharge chute, boot or other such device shall be suspended from the encasement and not from the weighing hopper and shall be so constructed that cement will not

lodge therein and there will be no loss of cement by air currents or otherwise. There shall be means to assure the presence in each batch of the entire cement content required.

Where bulk cement is to be used, there shall be provided separate storage for tested and approved cement, which shall be held in such storage for the particular project or projects for which it was consigned. Different brands of cement, or the same brand of cement from different mills, shall not be mixed nor shall they be used alternately unless approved.

When mixing is at the site of the work, aggregate shall be transported from the batching plant to the mixer in batch boxes, vehicle bodies, or other containers of adequate capacity and construction to carry the volume required. Partitions separating batches shall prevent spilling from one compartment to another while in transit or being dumped. The cement shall be transported to the mixer in waterproof compartments carrying the full amount of cement required for the batch. Cement in original shipping packages may be transported on the top of the aggregates, each batch containing the number of bags required by the job mix.

For individual batches, the following tolerances shall apply based on the required scale reading:

CEMENT

Plus or minus 1 percent of the required weight of material being weighed or plus or minus 0.3 percent of scale capacity, whichever is greater.

AGGREGATES 1.5 INCHES OR SMALLER

Plus or minus 2 percent of the required weight of material being weighed or plus or minus 0.3 percent of the scale capacity whichever is greater.

AGGREGATES LARGER THAN 1.5 INCHES

Plus or minus 3 percent of the required weight of material being weighed or plus or minus 0.3 percent of scale capacity, whichever is greater.

The water measuring system shall be capable of incorporating in the batch, the predetermined quantity of water, to an accuracy of plus or minus 1 percent. The metering device shall automatically register and stop the flow of the water when the designated quantity has been delivered into the mixing drum.

Plants shall be equipped with a separate dispensing system with a visual sight gauge for each admixture incorporated into the concrete. Each system shall be capable of dispensing, the total amount required to within plus or minus 3.0 percent or 1 ounce, whichever is greater. Convenient means shall be provided to calibrate each system. Air-entraining admixtures shall be added to the mixing water or sand.

405.08 MIXING CONCRETE

Concrete may be mixed at the job site or in a central-mix plant or may be mixed in transit-mix trucks. Mixing time shall be measured from the time all materials are in the drum.

The following methods of mixing are permissible:

(*A) Mixing on the project in batch (paving) mixers*
(B) Mixing on the project in truck mixers
(C) Mixing at the central mixing plant
(D) Transit-mixing
(E) Mixing on the project in continuous-mixing-type truck mixers.

For concrete used in headwalls, steps, pipe plugs, utility encasements, manhole and inlet bottoms, gutter, curb, headers, barrier curb, stone curb footings, sidewalk, island pavement, drives, fence and sign footings, signal, light standard meter cabinet footings, junction boxes and other small pour items as approved.

Mixers of a type capable of mixing not less than a 1-bag batch of the class of concrete or mortar required, may be used where only small quantities of concrete or mortar can be placed at a time.

The following shall apply to mixing Methods (B), (C) and (D): a delivery ticket, completely filled out, shall be furnished for each load. The tickets shall be serially numbered, and shall bear the printed heading of the supplier and the location of the batch plant. Each ticket shall show the name of the project, the name of the contractor, the number of meters cubed of concrete and the class and type; the name of each admixture and the quantity shown in liquid measure or weight; the time when the cement was loaded into the drum shall be imprinted on the ticket by an automatic clock and the time when the concrete was completely discharged; the amount of mixing water and the amount of tempering water, if used, both in liters; the total number of revolutions on the counter at the time of complete discharge for truck mix concrete plus the total number of mixing revolutions for transit mix; the date; and the truck number. In addition, for the first ticket of each day, the first ticket of each pour, and when changes occur in the information, the ticket shall show the number of kilograms of Portland cement with the brand name and type, the number of kilograms and the source of the fine aggregate, and the number of kilograms and the sizes and sources of the coarse aggregates. The ticket shall be authenticated by an authorized representative of the supplier.

The Concrete Will Be Rejected If:

The mixer fails to maintain the manufacturer's stated speed of rotation for both mixing and agitation, or is not able to promptly discharge the concrete. There is any indication of improper batching, lack of uniform distribution of constituents throughout the load, or balling of the cement and aggregates. The concrete is not discharged within the specified time limit after loading cement into the drum, or if the revolution counter shows a total of more than the permitted number of revolutions, provided, however, that if the load has been partially discharged and if the concrete yet to be discharged will comply with the specified ranges for slump and entrained air, without the further addition of water, the discharge and use of the concrete may be permitted.

A. MIXING ON THE PROJECT IN TRUCK MIXERS

Mixing on the project in truck mixers shall not be used for concrete surface, bridge structures and retaining walls. Truck-mixed concrete shall be materials proportioned at a batching plant and mixed in a revolving drum truck mixer at the point of delivery following the addition of the proper amount of mixing water.

Each truck mixer shall have attached a metal plate or plates on which is plainly marked the manufacturer's capacity rating in terms of the gross drum volume, the capacity of the drum in terms of the volume of mixed concrete, and the manufacturer's designated drum speed of rotation for both mixing and agitation. Truck mixers shall be equipped with electrically actuated

counters by which the number of revolutions of the drum may be readily verified. The counter unit shall be positioned on the truck so as to be plainly visible if the driver's door is open.

The mixer shall be capable of producing a thoroughly mixed and uniform mass and discharging the concrete with satisfactory uniformity within the ranges of slump and air entrainment specified for the class and type of concrete being furnished. Each truck mixer shall be equipped to carry sufficient water to mix a full capacity load of concrete within the required range of slump, and shall also carry wash water as necessary.

The mixing water tank, pump and all piping shall be kept clean and free of leaks. A metering device shall be provided which indicates the amount of mixing water added to the batch. The device shall have an accuracy of plus or minus 1 percent by volume of the amount set to be delivered, regardless of the attitude or position of the truck. The distribution system shall be equipped with three-way valves and bypasses or other suitable means for calibration of the water-metering device. The water-metering device shall be calibrated at least annually, and recalibrated whenever any repairs or modifications are made that may affect the calibration. Evidence showing the date of calibration of the water-metering device shall be carried on each truck mixer, and copies shall be furnished upon request. Near the metering device on the mixing water tank there shall be stenciled the word calibrated and the date of the last calibration.

Wash water shall be provided in addition to the water required for mixing. If the wash water runs through the measuring device for the mixing water, it shall not be used during any of the periods when mixing water is being measured into the drum. Under no circumstances shall the wash down hose be used to temper the concrete or to aid the flow of concrete in the chute, except for pre-wetting the chute. Any concrete that has been wetted with wash water shall be discarded. Immediately after the discharge of each load, the drum shall be washed out, and the wash water and any residue from the previous batch shall be completely discharged before reloading the drum at the batch plant.

B. MIXING AT A CENTRAL MIXING PLANT

Central-mix concrete shall be material proportioned and mixed at a central plant and transported to the point of use in an agitator or non-agitator truck of approved design. Central mixing plant mixers shall be of the type and capacity, capable of combining the cement, aggregates and water into a thoroughly mixed and uniform mass within the specified mixing time and of discharging the mixture with a satisfactory degree of uniformity and shall be operated in compliance with the NJAC 7:27-6.1 Et Seq.

Stationary mixers shall be equipped with a timing device that. Will not permit the batch to be discharged until the specified mixing time has elapsed. Mixing time at the central mix plant shall be not less than 1 minute. Mixing time shall be measured from the time all cement and aggregates are in the drum. The batch shall be so charged into the mixer that sufficient water will enter in advance of cement and aggregates to prevent caking, and all water shall be in the drum by the end of the first quarter of the specified mixing time.

When the temperature of the mixing water exceeds 38 degrees C, the loading sequence shall be modified by mixing all the water and the aggregates and then the cement. Mixing shall begin immediately following the complete charging of the drum and continue for not less than one minute. Truck mixers for the delivery of central mix concrete shall have a revolving, watertight drum capable of transporting and discharging the mixed concrete with a satisfactory degree of uniformity. The speed of the drum shall be that stated by the manufacturer to be the agitating speed. Each truck shall have attached thereto, in a prominent place, a metal plate on which is stated the gross volume of the drum, the manufacturer's rating in terms of mixed concrete for

agitation, and the speed of rotation for agitation. The volume of mixed concrete in the drum shall not exceed the manufacturer's rating nor shall it exceed 80 percent of the gross drum volume.

Non-agitating trucks may be used if the haul is not to exceed 5 miles and if the surfaces over which the concrete is to be hauled are maintained in a smooth riding condition. The time elapsing from the time water is added to the mix until the concrete is deposited in place at the site of the work shall not exceed 30 minutes. Bodies of non-agitating hauling equipment shall be smooth, mortar-tight metal containers and shall be capable of discharging the concrete at a controlled rate without segregation. Covers shall be provided when needed for protection.

The use of open body trucks with agitating mechanism may be permitted provided that the following requirements are met: maximum distance of haul from plant to location on project shall be 10 miles. Canvas covers over trucks shall be provided when needed for protection. Except for non-agitating trucks, the maximum length of time from loading at the plant to discharge at the project shall not exceed 90 minutes, except under conditions contributing to quick stiffening of the concrete or when the temperature of the concrete is 85 degrees F or above, such time limit shall be changed to 60 minutes. However, if the use of retarders is permitted, the time limit may be increased to a maximum of 75 minutes. Under very severe conditions, further reduction of the time limits or the size of the batches may be required. During these intervals, the concrete shall be agitated continuously. Two-way telephone or radiotelephone communication between the site of the placement of concrete and the mixing plant shall be provided.

C. TRANSIT MIXING

Transit mix concrete shall be materials, including water, proportioned and introduced into a truck mixer from a one stop or two stop batching plant and mixed while the truck is at the plant, en route to a job site, on a job site, or a combination of all three.

A one stop batching plant shall be a plant where all dry ingredients for each batch of concrete are loaded into the mixer truck simultaneously while water is being introduced.

A two stop batching plant shall be a plant where the ingredients for each batch of concrete are loaded into the mixer truck at two separate locations. Each transit mixer shall comply with the requirements for truck mixers except that the mixing water tank and metering device shall be used only for providing tempering water if necessary.

In addition, all truck mixers used for transit mix concrete shall be equipped with an electrically operated counter unit which shall be non-resetable except by use of a 110 volt device utilizing a nonstandard plug located at the batching plant. The counter unit shall contain two counters. One counter shall record. Only those revolutions at speeds recommended by the manufacturer of the truck mixer as mixing speed and shall record the total of all such mixing revolutions from the time the truck is loaded. The other counter shall record revolutions from the time the truck is loaded. The other counter shall record revolutions of the drum at all speeds and shall record the total revolutions from the time the truck is loaded. The unit shall include an indicator on the front panel, which shows if the instrument has been turned off, or tampered with in any manner after being reset at the time of loading. The counter unit and the resetting device shall conform with the national electric code.

The counter unit shall be positioned on the truck so as to be plainly visible if the driver's is open. In lieu of the time clock the counter unit may contain a third counter, an electrically operated timer, which shall be non-resetable except by use of the 110 volt device.

Mixing and delivery for transit mix concrete shall comply with the requirements for truck mix concrete except as follows: all ingredients including water shall be introduced into the transit

mixer at the batch plant. At a one stop batching plant, at least one third of the mixing water shall be introduced into the mixer prior to the dry ingredients and sufficient mix water to wash down the chute shall be introduced after all the dry ingredients have been added. At a two stop batching plant, the loading sequence shall be as follows: one half to three quarters of the mixing water, aggregates, cement and remaining water. As an alternative, at either a one stop or two stop batching plant, when the mixing water is less than 100 degrees F, slurry mixing can be used. When this method is used, all mixing water is added first, followed by the cement, and mixed at mixing speed for one minute. The remaining ingredients shall then be added. At either a one stop or two stop batching plant, when the temperature of the mixing water exceeds 100 degrees F, the loading sequence shall be the mixing water, then the aggregates and then the door cement. Sufficient mix water to wash down the chute shall be introduced after all the dry ingredients have been added. Mixing shall begin immediately following the complete charging of the drum and continue for not less than thirty five nor more than

Eighty revolutions of the drum at the mixing speed recommended by the manufacturer of the truck mixer. Upon completion of the designated number of mixing revolutions at the plant, the speed of the drum shall be reduced to the agitation speed recommended by the manufacturer. Concrete delivered to the job with less than 50 mixing revolutions shall be mixed to at least 50 but not more than 80 revolutions at mixing speed.

The maximum elapsed time from loading at the plant to the discharge of all the concrete from the mixer shall be 90 minutes, except that under conditions contributing to quick stiffening of the concrete or when the temperature of the concrete is 85 degrees F or above, such time limit shall be changed to 60 minutes. However, if the use of retarders is approved, the time limit may be increased to a maximum of 75 minutes. Under very severe conditions, further reduction of the time limits or in the size of the loads may be required. Transit mix concrete will be rejected if the concrete is not discharged within the specified time limit after loading all ingredients into the drum, if the indicator on the counter shows that the instrument has been turned off or tampered with, if the non-reset able total revolution counter shows more than 300 revolutions, or if the mixing revolution counter shows more than 110 revolutions, provided however, that if the load has been partially discharged and if the concrete yet to be discharged will comply with the specified ranges for slump and entrained air, without the further addition of water, the discharge and use of the concrete may be permitted. Two-way telephone or radio communication between the site of the placement of concrete and the batching plant shall be provided.

D. MIXING ON THE PROJECT IN CONTINUOUS MIXING TYPE MIXERS

Continuous mix concrete shall be material proportioned by volumetric measurement from bins and tanks on the truck mixer and mixed on the truck mixer at the site of the work.

The concrete shall be mixed in a mixing unit, which is part of the truck carrying the dry ingredients. The mixing unit shall be an auger type incorporated in the truck's discharge chute or other approved mixing mechanism. The mixer shall produce concrete of uniform consistency and shall discharge the mix without segregation.

The truck mixer shall have permanently attached thereto in a prominent place a metal plate or plates on which are plainly marked the gross volume of the unit in terms of mixed concrete, operating speed, and the cement constant of the machine in terms of an indicator revolution count required to deliver 94 pounds of cement, all as rated by the manufacturer.

The truck mixer shall be equipped with a cement bin of sufficient capacity to store and supply the quantity of dry cement required to produce the maximum volume concrete capacity of the truck mixer as rated by the manufacturer. The cement bin shall be free of moisture and contamination at all times.

The truck mixer shall be equipped with aggregate bins of sufficient capacity to store separately the quantities of fine and coarse aggregates required to produce the maximum volume concrete capacity of the truck mixer as rated by the manufacturer. Means shall be provided to prevent contamination or intermixing of the fine and coarse aggregates during loading and transporting. Aggregate bins shall be covered when there exists a possibility of moisture entering the bins.

The truck mixer shall be equipped with a means of readily determining the level of aggregates in the aggregate bins without the need for climbing up on the truck. The aggregate bins shall be equipped with vibrators or other means of maintaining a smooth, even and continuous flow of aggregate from the bins.

The truck mixer shall be equipped with water tanks of sufficient capacity to store the quantity of water required to produce the maximum volume concrete capacity of the truck mixer as rated by the manufacturer and at the slump specified for each concrete item.

If concrete additives are to be used in the mix, means shall be provided for storing the additives on the truck and incorporating them in the mix including a way to check the rate of flow of the additive into the mix.

The truck mixer shall include a feeder unit mounted under the compartment bins to deliver the ingredients to the mixing unit.

Each bin on the truck shall have an accurately controlled individual gate or feeding mechanism to form an orifice for volumetrically measuring the material drawn from each bin compartment. The cement bin feeding mechanism shall be set to discharge continuously and at a uniform rate, a given volumetric weight equivalent of cement during the concrete mixing operation. The gates of the aggregate bins shall be calibrated at the various openings to discharge the volumetric weight equivalent of aggregates required for various concrete mixes.

The truck mixer shall be so constructed as to permit checking the calibration of the gate openings and meters by means of weight test samples.

The calibration of the gate openings and meters shall be checked and certified for each class of concrete to be mixed and each combination of sources of aggregate at least once a year by a testing agency and retained by the owner of the truck mixer. A copy of the certification shall accompany the truck mixer at all times. The department shall be notified at least 1 week prior to the date of the annual calibration, in order that the department may observe the operation.

A calibration check or a yield test may be made by the engineer on the truck mixer at any time. Each truck mixer shall be equipped with a revolution counter indicator permitting the reading of the volumetric weight equivalent of cement discharged during the concrete mixing operation. Each truck mixer shall be equipped with fine and coarse aggregate dials to permit adjustment of the gates of the aggregate bins for volumetric proportioning of aggregates. Each truck mixer shall be equipped with a water meter or gauge to register the discharge rate of water by volume entering the mix.

Each truck mixer shall be equipped with automatic means of maintaining the operating speed of the proportioning and mixing operation independent of the drive engine of the truck, and within 8 percent above or below that established by the manufacturer and noted on the aforementioned metal plate as the speed at which the machine will accurately proportion concrete. Such automatic means shall automatically shut down the proportioning and mixing operation when the operating speed varies by more than the above tolerance. A tachometer shall be mounted on the unit to indicate the operating speed.

All indicators, dials, meters, tachometer and controls shall be in full view and near enough to be read or adjusted by the operator while mixing concrete. Handling, measuring and batching of materials shall conform to subsection 405.07 except as follows:

Cement and aggregates shall be proportioned, measured and batched by a volumetric weight equivalent method. Separate batching equipment and storage bins will not be required and the materials shall be batched in the continuous mixing truck type mixer.

Each truckload of ingredients shall be accompanied by a sufficient number of delivery tickets such that the operator may supply one copy of the delivery ticket for each project and for each class of concrete delivered. The delivery tickets shall show the brand name and type of cement, the calibrated cement constant of the machine in terms of the indicator revolution count, the source of aggregates and the size of the coarse aggregate. The delivery tickets shall be signed by a responsible officer or employee of the concrete supplier. At each project, for each class of concrete and for each separate mixing operation the mixer operator shall enter on the tickets the name of the project, the name of the contractor, the revolution counter readings indicating that volumetric weight equivalent of cement discharged during that mixing operation, the aggregate dial settings, and the class of concrete delivered. The operator shall sign each completed ticket and furnish one copy.

405.09 LIMITATIONS OF PLACING

Placing of concrete shall be discontinued in time to allow finishing to be completed in daylight hours, unless an artificial lighting system is provided.

405.14 CURING

Concrete shall be cured by one of the following methods:

White-pigmented liquid compound maintained and protected from damage for a period of not less than 72-hours. Waterproof paper maintained in place for not less than 72-hours. White polyethylene sheeting or white burlap-polyethylene sheeting maintained in place for not less than 72-hours. Burlap maintained wet and in place for not less than 72-hours. Hay or straw maintained wet and in place for not less than 72-hours. Any of the coverings specified above must be maintained in place until at least the day following pavement construction. If these coverings are removed before 72-hours, the concrete shall be sprayed with clear, translucent or white-pigmented liquid compound immediately after removal of the coverings. The spray coating shall be maintained and protected from damage for the balance of the 72-hour period.

Equipment and methods of application to be used for the various curing methods shall be as follows:

A. WHITE-PIGMENTED LIQUID COMPOUND

Application of the curing material shall be made immediately following final finishing, before any dehydration of the concrete or surface checking occurs. The compound shall be applied in one or two applications as directed. When the compound is applied in two applications, the second shall follow the first within 30 minutes. The compound shall be applied in a continuous uniform film by means of power-operated pressure spraying or distributing equipment at the rate directed but not less than 1.0 gallon per 200 square feet of surface. The equipment applying the compound shall provide for agitation of the compound. During cold weather the material may be warmed in a water bath at a temperature not over 100 degrees F. Thinning with solvents will not be permitted. Should the method of applying the compound produce a non-uniform film, its use

shall be discontinued and the curing shall be done by one of the other methods. Hand spraying of odd widths or shapes and concrete surfaces exposed by the removal of forms will be permitted. If rain falls on the newly coated concrete before the film has dried sufficiently to resist damage, or if the film is damaged in any other way, a new coat of material shall be applied to the affected areas at the rate specified for the original coat. The treated surface shall be protected from damage for a period of at least 3 days. All vehicular and pedestrian traffic is prohibited except that a minimum of walking will be permitted on the dried film as necessary to carry on the work provided any damage to the film is immediately repaired by the application of another coat of the compound. If hair-checking develops during finishing operations before the curing membrane can be applied, or if there a breakdown of the spraying equipment, protection of the concrete with wet burlap shall be provided.

B. WATERPROOF PAPER

Waterproof paper blankets shall be not less than 20 nor more then 75 feet in length and shall be of a width that, when in place, will completely cover the surface of the concrete. Unless the paper has been pretreated to resist such action, an 8-inch pleat to allow for shrinkage of the paper joints in the blankets shall be cemented together to provide seams with a minimum lap of 4 inches, producing and maintaining a waterproof joint.

The blankets shall be placed as soon as possible after the final finishing operation without marring or otherwise damaging the surface of the concrete. The blankets shall be securely weighted down by placing a ridge of earth, or light planks, on the edges of the blankets just inside the forms or by other approved means such that depressions will not be formed in the concrete surface. Adjoining blankets shall overlap not less than 300 millimeters. This lap shall also be securely weighted down to form a closed joint. If hair checking develops before the paper can be placed, the concrete shall be covered initially with wet burlap. Before moving the blankets ahead to new locations, the blankets shall be inspected and all holes and tears shall be repaired with cemented patches. When the blankets are no longer serviceable as a single unit, selections may be made from the rejected blankets, which, if approved, will serve for further applications, provided that two blankets are used as a single unit. However, the double blanket may be rejected if it no longer provides an airtight cover.

C. WHITE POLYETHYLENE OR WHITE BURLAP-POLYETHYLENE SHEETING

The top surface and sides of the concrete shall be covered with polyethylene or burlap-polyethylene sheeting. The units used shall be lapped at least 18 inches. The sheeting shall be placed and weighted down so as to remain in contact with the surface covered. The sheeting shall extend beyond the edges of the slab for a distance at least twice that of the thickness of the concrete. The covering shall be maintained in place for 72-hours after the concrete has been placed.

D. BURLAP

The concrete shall be covered with strips of wet burlap, which, after shrinkage, shall be not less than 2.5 feet longer than the width of the pavement slab. Approximately 2 feet shall be allowed for shrinkage of new burlap. The strips shall be laid across the slab and shall overlap not less than one-half the width of the strip to provide a double thickness of burlap. The burlap shall be laid immediately after surface texturing of the concrete and shall be maintained in a wet condition throughout the specified curing period. If a pipeline is to be used to furnish water for sprinkling, it shall have tees and stopcocks not more than 200 feet apart. If this pipeline is used for supplying water for the concrete mixer and other operations, it shall be of sufficient size, and operated under sufficient pressure, to serve all such operations and to permit sprinkling of the curing material, and shall not be removed from the site of sprinkling until the curing period is over.

E. HAY OR STRAW

The entire surface of the concrete shall be covered with a layer of hay or straw not less than 6 inches uniform thickness which shall be placed directly upon the concrete, and wet by sprinkling, as soon as possible after surface texturing without marring or otherwise damaging the surface of the concrete. If a pipeline is used to furnish water for sprinkling, it shall comply with Method (D) above.

F. CLEAR OR TRANSLUCENT LIQUID COMPOUND

When this compound is used as permitted above, the equipment, method and rate of application and other provisions specified for curing with white-pigmented liquid compound shall apply.

SECTION 500 SAW CUTTING

DESCRIPTION

Saw cutting will be required adjacent to all curb construction in the pavement area, and whenever needed to provide for a neat straight cut, prior to excavation. Any saw cutting necessary for the construction of curb, sidewalk or island pavement will be paid for under this item.

EQUIPMENT

Sawing equipment shall be provided adequate in number of units and power to complete the sawing to the required dimensions as specified by the resident engineer.

The saws shall be equipped with water-cooled diamond edge blades or abrasive wheels and alignment guides. At least one standby saw in working order shall be provided. An ample supply of saw blades shall be maintained at work site at all time during sawing operations.

BASIS OF PAYMENT

Saw cutting will be paid for on a linear foot basis.

SECTION 603 INLETS AND MANHOLES

Block And Brick Construction. Concrete block and brick shall be laid with staggered joints. All horizontal joints, all vertical joints of brick, and all key ways of vertical joints of concrete block shall be filled with mortar. All horizontal joints and, in brick, all vertical joints shall be not more than 3/8 inch wide. The outside wall shall be plastered with a minimum thickness of 1/2-inch thickness of mortar toweled to a smooth finish.

When the working day temperature is below 40 degrees F, mortar shall be prepared by heating the mixing water and sand to produce mortar between 50 and 100 degrees F. Masonry shall be maintained above 32 degrees F for 24 hours by the use of a protective covering.

Inlet and outlet pipes shall extend through the walls of manholes and inlets beyond the outer surface for a sufficient distance to allow for connections, but shall be cut off flush with the wall on the inside surface. Inlets and manholes shall be so constructed around the pipes as to prevent leakage and form a neat connection.

Pre-Cast Concrete Inlets And Manholes. Precast concrete inlets and manholes may be used where there are no conflicts with existing underground structures and utilities, which require changes in pipe location, size, or type. Modifications to precase concrete inlets and manholes, which may be required due to changes in pipe location, size, or tupe, are subject to approval and shall be made without additional compensation.

Welded steel wire fabric used for reinforcement need not be galvanized. Handling devices, if used, shall be removable and the holes filled with concrete.

Inverts. Inverts shall be constructed to cause the least possible resistance to flow. The shape of the inverts shall conform uniformly to inlet and outlet pipes. A smooth and uniform finish is required.

Inlets. To provide temporary drainage, one or more blocks shall be omitted in selected course or courses of the structure. Prior to construction of base and surface courses at inlets where blocks are temporarily omitted, the required blocks shall be placed and the inlet walls completed.

Curb inlet castings shall be set to final grade after adjacent curb forms have been set and approved, and prior to the placement of concrete for the adjacent curb.
Castings and Fittings. Cast iron frames, grates, and covers shall be fitted together and match-market to avoid rocking of covers and grates. All castings shall be set firm and snug and shall not rattle.

If castings are to be set in concrete or cement mortar, all anchors or bolts shall be in position before the concrete or mortar is placed. The casting shall not be disturbed until the mortar or concrete has set.

When castings are to be placed upon previously constructed masonry, the bearing surface of masonry shall be brought to line and grade in order to present an even bearing surface so that the entire face or back of the casting can come in contact with the masonry. Castings shall be set in mortar beds or anchored to the masonry as indicated.

Existing inlet and manhole castings shall be disposed of unless they are to be used on the project.

Reconstruction and conversion of existing structures.

A. **Reclaimed Castings**. Inlets and manholes shall be constructed using existing castings reclaimed from manholes and inlets on the project that are to be out-of-service and to remain in place or are to be removed. The castings which are required for use on the project and which are lost, broken, or damaged shall be replaced without additional compensation.

B. **Reconstructing Inlets And Manholes.** This work shall consist of removing the existing casting, removal of walls and ladder rungs to the necessary depth, disposal of the masonry, reconstruction of the walls, installing existing ladder rungs if in good condition or new rungs, if required, and setting existing castings if in good condition or new castings, if required, at the specified grade.

C. **Converting Existing Inlets Into Manholes**. This work shall conform to Subpart B above except that one of the following may be required:

1. Inlet walls may be removed or raised to the necessary elevation to allow construction of a concrete slab to accommodate the new frame.

2. Inlet walls may be removed down to the existing footing upon which a circular manhole shall be constructed.

D. **Resetting Castings**. Castings of existing structures shall be removed and reset to new elevation. Masonry of existing structures shall be built up or removed as may be necessary to conform to required surface grades and elevations. Mortar shall attain strength of 2500 pounds per square inch before the casting is exposed to traffic. Adjustment of grades and elevations in excess of 1 foot will be considered as reconstructing inlets and manhole.

E. **Cast Iron Curb Pieces**. Cast iron curb pieces of existing inlets are removed and new curb pieces shall be installed. If the frame and grate are damaged by construction operations so that they cannot be used, they shall be replaced without additional compensation.

F. **New Castings**. New castings shall be furnished and set on existing structures. Masonry of existing structures shall be added to or removed as may be necessary to conform to new surface grades and elevations.

G. **Bicycle Safe Grate**

15", 18", 24" CONCRETE PIPE
DOT Standard Specification 909.02.01

This work shall consist of constructing 15", 18" and/or 24" Reinforced Concrete Culvert Pipe (RCCP) for surface drainage. RCCP shall conform to AASHTO, ASTM and ANSI specifications as per New Jersey DOT Standard Specifications for Road and Bridge Construction; 909.02.01

16" CULVERT PIPE,

This work shall consist of constructing 16" culvert pipe for surface drainage. Ductile iron culvert pipe shall conform to AASHTO M64 or shall be ductile iron pipe conforming to ANSI/AWWA C151/A21.51 with push-on joint and the following:

Nominal Diameter (Inches)	Inside Thickness (Class)	Nominal Thickness (Inches)	Nominal Weight (Pounds Per Foot)
16	1	0.37	65.3

The laying of pipe shall begin at the downstream end of the pipe line. The lower segment of the pipe shall be in firm contact with the bedding throughout its full length. Bell or groove ends of pipe shall be placed facing upstream.

Where the ends of pipes are to enter existing concrete or masonry walls, the pipe shall be neatly cut to fit the inside face of the wall and the pipe shall be grouted in place. Where pipes are to enter below the paved invert of existing structures, the existing concrete shall be cut and shaped to form a new channel.

Pipe will be inspected before backfill is placed. Any pipe found to be out of alignment, excessively settled, or damaged shall be taken up and re-laid or replaced.

Joints for rigid pipe shall be made with mortar, grout, or gaskets. Other types of joints recommended by the pipe manufacturer may be permitted.

For mortar joints, the pipe ends shall be cleaned and wetted with water before the joint is made. Stiff mortar shall be placed in the lower half of the bell or groove of the pipe section already laid

and on the upper half of spigot or tongue of the section to be laid. The two pipe sections shall then be tightly joined with their inner surfaces flush and even. Any voids occurring in the outside of the joint shall be filled. Lifting holes shall be filled with stiff mortar.

Gaskets shall be installed to form a flexible watertight seal. Rubber and flexible plastic gaskets shall be installed in accordance with recommendations of the manufacturer.

16" pipe will be measured by the linear foot except for the distance between inner faces of inlet and manhole walls. Pipes with sloped or skewed ends will be measured along the invert.

COMPENSATION – METHOD MEASUREMENT

Inlets, manholes, castings, and pipe of the various kinds and types, will be measured by the unit or linear foot.

BASIS OF PAYMENT

Payment will be made under:

Pay Item	Pay Unit
Inlets. Type B	Unit
Inlets converted to manholes	Unit
Cast iron curb pieces	Unit
New casting	Unit
Reset inlet	Unit
16" ductile iron culvert pipe	Linear Foot
15” reinforced concrete culvert pipe	Linear Foot
18” reinforced concrete culvert pipe	Linear Foot
24” reinforced concrete culvert pipe	Linear Foot
Bicycle Safe Grate	Unit

SECTION 605 CURB AND HEADERS

605.01 DESCRIPTION

This work shall consist of the construction of Portland cement concrete curbs and headers.

605.02 MATERIALS

Portland cement concrete shall conform to section 914 of this RFP. Other materials shall conform to the following subsections:

Curing Materials	905.03 of this RFP
Pre-Formed Expansion Joint Filler	908.01 of this RFP
Mortar And Grout	914.03 of this RFP
Reinforcement Steel	915.03 of this RFP

605.03 EQUIPMENT

(A) COMPACTION

Compaction of underlying material shall be accomplished by mechanical (or vibratory) tamping in lifts of no more than 6 inches.

(B) FORMS

Forms shall be of wood, metal or other suitable material and shall extend for the full depth of the concrete. All forms shall be true to line, free from warp, and of sufficient strength to resist radius shall be used on all radial sections and shall be of an acceptable design. Bracing and staking of forms shall be such that the forms remain in both horizontal and vertical alignment until their removal.

(C) FINISHING

Finishing equipment shall include floats, edgers, spades and tamps.

605.04 EXCAVATION AND BACKFILL

Excavation shall consist of the removal of all materials of whatever character encountered. Backfill shall consist of constructing embankments and the preparation of the area on which it is to be placed.

605.05 PREPARATION OF UNDERLYING MATERIAL

Excavation for curbs and headers shall be made to the required depth, and to a width that will permit the installation and bracing of the forms. The underlying material shall be shaped and compacted to a firm, even surface. Unstable material shall be removed and replaced with acceptable material, which then shall be compacted.

605.06 GRANITE CURBS

Where concrete foundation is required, concrete as specified for manhole foundations shall be used.

Granite curbs shall be set with the top surface at the required grade. Joints shall be no more than 1/4 inch wide for dressed, and 3/8 inch wide for quarry-split curbs. The joints shall be pointed with 1:1 by volume cement-sand mortar. Between granite curbs and adjacent concrete surface and concrete base course, expansion joints shall be provided and filled with 1/4 inch, preformed bituminous joint filler and sealed with hot-poured joint sealer.

605.06 BELGIAN BLOCK CURB

MATERIALS

Materials shall comply with Sections 901 thru 914 contained elsewhere in these specifications.

A. PORTLAND CEMENT CONCRETE

Portland cement concrete shall be Class "C" air entrained, complying with Section 914 of these specifications.

B BELGIAN BLOCK

Belgian block granite blocks with dimensions of 4 inches x 7 inches x 10 inches.

C. JOINT MORTAR

Joint mortar shall conform to Section 914.03 of these specifications.

CONSTRUCTION

A. EXCAVATION

The curb area shall be excavated and tamped in preparation for the pouring of the concrete.

B. CURB CONSTRUCTION

The Belgian block curb shall be set in a 12 inch x 12 inch Portland cement setting bed, as shown in drawing to be provided by Lou Sansone at 609-530-3700.

C. MORTARED JOINTS

The mortared joints shall be not less or than 1/2 inch or more than 1-inch width.

D. BACKFILL

The front and back shall be backfilled and compacted to the extent necessary to prevent damage and/or movement to the new curb.

E. GRADING AND TAMPING

All areas disturbed by the curb construction shall be graded and tamped.

F. CLEAN-UP

The site shall then be cleaned up.

605.07 CONCRETE CURBS

A. Limitations

The limitations of placing shall be as specified in Section 405 of this RFP and include the following:

Concrete curb shall not be constructed from November 1 to March 15, unless specifically waived in writing by the engineer.

B. Mixing, Placing, And Finishing Concrete

Construction requirements shall conform to Section 405 and the following:

Where changes in the size or shape of curbs occur in a continuous section, the transition between sections shall be gradual.

Immediately before placing the concrete, the underlying material shall be thoroughly dampened, and the forms given a coating of light oil or other material which will prevent adherence to the concrete to the forms and which will not discolor the concrete. Where removed and used again, the forms shall be thoroughly cleaned and treated each time before using.

The concrete shall be placed immediately after mixing. The edges, sides or faces shall be spaded or vibrated, and the surface tamped to compact the concrete thoroughly and bring the

mortar to the surface, after which the surface shall be finished smooth and even by means of a wooden float.

Sleeves for sign or delineator posts installed in barrier curbs shall be filled with sand and sealed with hot-poured joint sealer immediately after installation and shall be resealed if and when posts are installed under this contract.

Concrete curbs shall be constructed in sections having uniform lengths of 20 feet. The length of these sections may be reduced where necessary for closures, but no section less than 6 feet will be permitted. The forms on the face of all curbs shall be removed as soon as the concrete holds its shape and the surface shall then be finished with a fine hairbrush to a smooth and even finish. No plastering will be permitted. The top edges of curb shall be rounded and the edges where expansion joint material has been placed shall be finished with an edging tool with a radius of not over 1/4 inch.

As soon as the forms are removed, the concrete shall be covered with wet burlap if finishing will prevent the immediate application of curing compound. The concrete shall remain covered until it is to be finished, at which time the wet burlap shall be removed from that amount of concrete that can be immediately finished. As soon as finishing is complete, curing compound shall be applied.

Any exposed surface or surfaces against which some rigid type of construction is to be made shall be left smooth and uniform so as to permit free movement of the curb.

All tool marks shall be removed with a wetted brush or wooded float, and the finished surface shall present a uniform appearance.

C. Joints

Expansion joints shall be provided opposite joints in abutting concrete surface coarse and at approximately equal distances of not more than 20 feet between joints. Points shall be filled with pre-formed expansion joint filler, 1/2 inch thick, which shall be flush with the top and face. Between concrete curbs and concrete surface or base course, 1/2-inch pre-formed expansion joint filler shall be installed and the joint shall be sealed with hot-poured joint sealer.

D. Protection and Curing

Immediately after finishing the concrete, protection during cold weather and curing shall be performed in accordance with Section 405.

The curb shall be protected until finally accepted. Any concrete that is damaged during that period shall be repaired. This reconstruction shall be performed without additional compensation.

E. Curb Placed On Concrete Base Or Surface.

When the curb is to be constructed upon concrete, all dirt, bituminous material, and other loose or adhering matter shall be removed from the surface. The curb shall be doweled with steel dowels. The diameter of holes drilled in the concrete shall be not more than 3/4 inch greater than the diameter of the dowels. The dowels shall be set in grout. Transverse joints in doweled curb shall be installed directly over transverse joints and over definite cracks in the concrete. Additional joints shall be installed between slab joints and cracks so as to divide the curb into sections of approximately equal lengths of not more than 20 feet. The joints shall be constructed as specified in subpart (C) above.

F. Curb Placed On Bridge Decks

The drilling of holes in the bridge deck outside the limits of the barrier curb to support the forms will not be permitted.

605.08 WHITE CONCRETE CURBS

White concrete curbs shall be constructed as specified for concrete curb in section 605.07 of this RFP and as follows:

Mixers and agitator trucks used for white concrete shall be used exclusively for that purpose during the time that the white concrete is being placed. The drums of such mixers and trucks shall be thoroughly washed and all cement and concrete removed prior to their use for white concrete.

The above specification will also apply to Grey curb.

605.10 METHOD OF MEASUREMENT

Curbs and headers of the various kinds and sizes will be measured by the linear foot along the face at the gutter line. Curbs in transition areas shall be measured under the larger size.

605.11 BASIS OF PAYMENT

Payment will be made under:

Pay item	Pay unit
12 by 13 inch white concrete sloping curb	Linear foot
9 by 16 inch white concrete vertical curb	Linear foot
9 by 16 inch Grey concrete vertical curb	Linear foot

Restoration of all areas adjacent to work sites shall be restored in kind. (i.e. If bituminous material is removed, it shall be restored with bituminous material; if top soil is removed, it is restored with topsoil).

There will be separate pay items for bituminous concrete (top soiling, seeding and mulching) and stone where applicable.

SECTION 607 SIDEWALKS AND DRIVEWAYS

607.01 DESCRIPTION

This work shall consist of the construction of concrete sidewalks and driveways. In regards to constructing driveway aprons, the cost for this work will be the same as the unit cost bid for construct sidewalk 6 inches thick and (8 inch thick for commercial driveways).

This work shall also consist of applying a color contrast and a slip resistant surface on Portland cement concrete sidewalks for the delineation of public sidewalk curb ramps.

607.02 MATERIALS

Portland cement concrete shall conform to section 914. Other materials shall conform to the following sections of this RFP

Dense Graded Aggregate	901.08 of this RFP
Curing Materials	905.03 of this RFP
Pre-Formed Expansion Joint Filler	908.01 of this RFP
Reinforcement Steel	915.03 of this RFP

Materials for public sidewalk delineation shall be safety red in color and shall be a moisture-cured polyurethane coating with self-contained white rubber grit, or a pre-formed plastic marking tape. The materials shall be capable of adhering to existing or new Portland cement concrete sidewalk. All applications of safety red shall be uniform in color.

The moisture-cured polyurethane shall be an abrasion, chemical, and UV resistant formula. When cured, the coating shall produce a slip resistant non-porous surface. The surface of the moisture-cured polyurethane shall exhibit the following minimum friction values when tested in accordance with ASTM D 1894.

Static Coefficient Of friction (N/kg)	**Kinetic Coefficient Of Friction (N/Kg)**
35.0	*32.0*

The minimum final dry coat thickness for two coats of roller applied moisture-cured polyurethane shall be 0.04 inches.

The pre-formed marking tape shall be a durable, retro-reflective, pliant, polymer material. The patterned material, without adhesive, shall have a minimum caliper of 0.02 inches at the thinnest portion of the cross-section. The surface of the public sidewalk delineation with the pre-formed marking tape shall exhibit a minimum slip resistant value of 55 BPN when tested in accordance with ASTM E 303.

607.03 PREPARATION OF UNDERLYING MATERIALS

The underlying material shall be shaped and compacted to a firm, even surface. All unstable material shall be removed and replaced with acceptable material, which shall then be compacted.

607.05 CONCRETE SIDEWALKS AND DRIVEWAYS

A. Mixing and Placing Concrete

Immediately before placing the concrete, the sub-grade shall be thoroughly dampened and the forms given a coating of light oil. Where removed and used again, the forms shall be thoroughly cleaned and oiled each time before using. Mechanical spreaders will not be required.

B. Finishing

The concrete shall be struck off with a transverse template resting upon the side forms. After the concrete has been struck off to the required cross section, it shall be finished with floats and straightedges until the required surface requirements have been obtained.

When the surface of the concrete is free from water and just before the concrete obtains its initial set, it shall be gone over and finished with a wooden float and brushed with a wet soft-haired brush. The surface of the concrete shall be so finished as to drain completely at all times. All edges shall be finished and rounded with an edging tool having a radius of 6 millimeters.

The surface shall be divided into blocks by use of a grooving tool. Grooves shall be so placed as to cause expansion joints to be placed at a groove line. The grooves shall be cut to a depth of

not less than 1/2 inch. The edges of the grooves shall be edged with an edging tool having a radius of 1/4 inch.

Grooves in the surface reinforced for beam action shall not be placed where the full thickness of concrete is required for strength.

C. Expansion Joints

Expansion joints shall be 1/2 inch wide, placed at intervals of approximately 20 feet, and shall be filled with pre-formed expansion joint filler. Expansion joints shall be formed around all appurtenances such as manholes and utility poles extending into or through the concrete. Pre-formed expansion joint filler, 1/4 inch thick, shall be installed in these joints. Expansion joint filler shall be installed between concrete and any fixed structure, such as a building or bridge. This expansion joint material shall extend for the full depth.

The top and ends of expansion joint material shall be cleaned of concrete, and the expansion joint material shall be so trimmed as to be slightly below the surface of the concrete.

D. Protection and Curing

Forms may be removed when removal will not damage the concrete. No pressure shall be exerted upon the concrete in removing forms.

Pedestrians will not be allowed upon the concrete sidewalks or driveways until 24 hours after finishing concrete, and no vehicles or loads shall be permitted on any sidewalk, driveway or median until the concrete has attained sufficient strength.

Such barricades and protection devices as are necessary shall be constructed and placed to keep pedestrians and other traffic off the sidewalk or driveway.

Any sidewalk or driveway damaged prior to final acceptance shall be repaired by removing concrete within groove limits and replacing it with concrete of the type and finish in the original construction. Damage caused by construction operations shall be repaired without additional compensation.

E. Backfilling

Immediately after removing the side forms, the spaces along the edges of sidewalks and all areas disturbed by replacement of sidewalks and driveways shall be filled with suitable material. This material shall be placed in layers not exceeding 5 inches in loose thickness, and compacted until firm.

F. Commercial Driveway

This work shall consist of the construction of an 8 inches thick driveway apron as specified in section 607.05. The cost for this work will be the same as the unit cost bid for construct sidewalk, 8 inches thick.

607.06 METHOD OF MEASUREMENT

Sidewalks and driveways of the various kinds and thickness will be measured by the square yard.

607.07 DETECTABLE WARNING SURFACES

607.08 METHOD OF MEASUREMENT

Detectable Warning Surfaces will be measured by the square yard.

607.09 BASIS OF PAYMENT

Payment will be made under:

Pay Item	Pay Unit
Concrete Sidewalk, 4 Inches Thick	Square Yard
Concrete Sidewalk, 6 Inches Thick	Square Yard
Concrete Sidewalk, 8 Inches Thick	Square Yard
White Concrete Island Pavement, 4 Inches Thick	Square Yard
Detectable Warning Surfaces	Square Yard

Restoration of all areas adjacent to work sites shall be restored in kind. There will be separate pay items for bituminous concrete, top soiling, seeding, mulching and stone where applicable.

SECTION 800 TOPSOILING, FERTILIZING, SEEDING AND MULCHING

DESCRIPTION

The work of this item shall include the construction of topsoiling, fertilizing, seeding and mulching needed for the restoration of curb, sidewalk and driveway areas.

SECTION 901 AGGREGATE

901.08 DENSE GRADED AGGREGATE

Dense graded aggregate shall consist of broken stone conforming to subsection 901.04, crushed gravel conforming to subsection 901.05 or blast furnace slag conforming to subsection 901.06 except that at least 90 percent of all fragments shall contain at least one face resulting from fracture, and shall conform to the following requirements and gradation:
The moisture content of dense graded aggregate immediately prior to placement shall be 6 plus or minus 2 percent based on dry weight. If dense graded aggregate is to be paid for on a tonnage basis, the moisture content shall not exceed 8 percent when delivered to the project.

Sieve Size	Percent
1 1/2 inch	100
3/4 inch	55-90
No. 4	25-60
No. 50	5-25
No. 200	3-12

The gradation shall be determined in accordance with AASHTO T 27.

The portion passing the No. 40 sieve shall be non-plastic when tested in accordance with AASHTO T 90.

Dense graded aggregate will be tested for wear and durability in accordance with Section 990, NJDOT A-8. After this test, the aggregate shall not have more than 25 percent cumulative loss between the original and final gradation on any one sample. The loss will be determined on the material passing the No. 4, 8, 50, and 200 sieves.

The gradation after breakdown shall comply with the specified gradation.

The maximum density at optimum moisture content will be determined as specified in Section 990, NJDOT A-8.

901.13 AGGREGATES FOR PORTLAND CEMENT CONCRETE, MORTAR AND GROUT

A. Coarse Aggregate. Coarse aggregate for any type or class of concrete, except white concrete, shall be broken stone of argillite, carbonate rock, granite, gneiss, quartzite or trap rock, or washed gravel conforming to subsection 901.04 or 901.05 respectively, except that carbonate rock shall not be used for concrete surface courses, bridge structures and culverts.

Coarse aggregate shall be the size or sizes shown in section 914, Table 914-1 and 914-2.

Broken stone and washed gravel for use in white concrete shall be free from dirt and discoloring matter and shall conform to subsections 901.04 and 901.05 respectively. Broken stone shall be washed and the gravel rewashed when so directed. The coarse aggregate shall be washed at least 24 hours before use.

B. Fine Aggregate. Fine aggregate for any type or class of concrete and for mortar shall be a washed and processed material composed of quartz or other hard durable particles. The fine aggregate shall be predominately angular in shape and be free of soft particles. The material shall conform to subsection 901.02 and the following gradation and quality requirements:

Sieve Size	Percent
3/8 INCH	100
NO. 4	95-100
NO. 8	80-100
NO. 16	50-85
NO. 600	25-60
NO. 50	10-30
NO. 100	2-10
NO. 200	0-3
NO. 200 (WHITE CONCRETE- NATURAL SAND)	0-5
NO. 200 (WHITE CONCRETE - STONE SAND)	0-7

The fine aggregate shall have not more than 45 percent retained between any tow consecutive sieves, and its fineness modules shall be not less than 2.3 and not more the 3.1 for concrete and shall be not less than 2.0 and not more than 3.1 for white concrete as defined in AASHTO M 6 and shall conform to the following quality requirements.

Maximum	Percent
Mica	2.0
Sea Salt	0.2
Absorption, Cold Water	2.0
Sulfate Soundness, Loss	5.0

Fine aggregate shall be tested for organic impurities and shall be rejected if it produces a color darker than the standard.

The mortar-making properties of the fine aggregate shall be not less than 100 percent of those of standard Ottawa sand.

1. Fine Aggregate For White Concrete And Mortar. Fine aggregate for white concrete and mortar shall conform to the applicable provisions above and to the following. The fine aggregate shall be a crushed white marble or calcite or clean washed natural sand, free from dirt and discoloring matter. It shall contain not more than 0.75 percent of ferric oxide.

When the coarse aggregate used in the manufacture of white concrete has a reflectance value of 20 percent or more, the fine aggregate shall have a reflectance value of not less than 40 percent. When the coarse aggregate has a reflectance value of less than 20 percent, the fine aggregate shall have a reflectance value of 50 percent or more.

2. Fine Aggregate For Grout. Fine aggregate for grout shall conform to the above requirements for Portland cement concrete and mortar except that it shall be so graded that 100 percent of the material will pass the No. 8 sieve and the mortar prepared from this material shall have a strength of not less than 75 percent of the strength of mortar prepared similarly with standard Ottawa sand.

SECTION 905 CONCRETE ADMIXTURES AND CURING MIXTURES

905.01 AIR-ENTRAINING ADMIXTURES

Air-entraining admixtures for Portland cement concrete shall conform to AASHTO M 154, except that the tests for bleeding and volume change will not be required.

Before the admixture is approved for use, the test results and certification shall be furnished in accordance with subsection 905.02.

Department testing for uniformity will be determined through the use of infrared spectrophotometer, ph values, specific gravity and solids content.

All bulk storage tanks shall be inside a heated area with an ambient temperature of not less than 0 degrees C. Air-entraining admixture that has been allowed to freeze shall not be reused until agitated and retested.

905.02 CHEMICAL ADMIXTURES

Chemical admixtures for Portland cement concrete shall conform to AASHTO M 194 except that the use of such admixtures shall not introduce more than 1 percent of air entrainment. Chlorides shall not be added in the admixture for pre-stressed concrete. The chemical admixtures shall be the following types:

Type A - Water Reducing Admixture
Type B - Retarding Admixture
Type D - Water Reducing And Retarding Admixtures

Before the admixture is approved for use, the results of tests conducted by a testing agency, which is inspected at regular intervals by the cement and concrete reference laboratory shall be submitted and verified by the department. Certification may be required periodically from the manufacturer stating that the material is identical with that originally approved and has in no way been changed or altered.

Department testing of admixtures for uniformity will be determined through the use of infrared spectrophotometer, ph values, specific gravity and solids content.

905.03 CURING MATERIALS

Curing materials for Portland cement concrete shall conform to the following:

Burlap made from Jute or Kenaf shall conform to AASHTO M 182, class 4.

Liquid membrane-forming compounds shall conform to AASHTO M 148, type 1-d, clear or translucent with fugitive dye of type 2, white pigmented white polyethylene sheeting shall conform to AASHTO M 171 for polyethylene film-white opaque.

White burlap-polyethylene sheeting shall conform to AASHTO M 171.

Waterproof paper shall conform to AASHTO M 171. Salt hay shall conform to subsection 919.13 and when used for insulation in cold weather, it shall be dry and shall not be reused.

905.04 SAMPLING AND TESTING

Samples and the rate of sampling taken by the engineer will be in accordance with the following:

Admixtures	1 gallon from each source
Curing materials	
Burlap	1 square yard from each source
Liquid compound	1 quart from each lot
Polyethylene sheeting	1 foot strip (Cut across full width) from each source
Waterproof paper	1 foot strip (Cut across full width) from each source

905.05 CERTIFICATION OF COMPLIANCE

Manufacturer's certification for polyethylene sheeting shall be submitted in accordance with subsection 106.04.

SECTION 908 JOINT MATERIALS

908.01 PRE-FORMED EXPANSION JOINT FILLER

Pre-formed fillers for joints shall conform to AASHTO M 33, M 153 Type II and M 213 and shall be punched to admit the dowels. The filler for each joint shall be furnished in a single piece for the full depth and width required for the joint. When the use of more than one piece is authorized for a joint, the abutting ends shall be fastened securely, and held accurately to shape by stapling or other positive fastening.

SECTION 909 LANDSCAPING MATERIALS

909.01 TOPSOIL

Topsoil shall not contain stones, lumps, roots or similar objects larger than 2 inches in any dimension and shall have not less than a 5.8 ph value. When the topsoil has less than a 5.8-pH value, it shall be increased by applying pulverized limestone at a rate necessary to attain a 6.5-pH value.

Material stripped from the following sources shall not be considered suitable for use as topsoil:

Soils having less than 4.1 pH value.
Chemically contaminated soils.
Areas from which the original surface has been stripped and/or
Covered over such as borrow pits, open mines, demolition sites,
Dumps and sanitary landfills.
Wet excavation.
Topsoil furnished from sources outside the limits of the project shall have a minimum organic content of not less than 2.75 percent by weight. When the organic content is less than 2.75

percent, it shall be increased by adding peat or composted sewerage sludge, conforming to subsection 909.07, at a rate necessary to attain this minimum organic content. The organic content of soils will be determined in accordance with AASHTO T 194 except that the sample is to be taken from oven-dried soil passing a No. 10 sieve.

The organic content of all topsoil used for planting shall conform to the requirements specified above.

The gradation of the topsoil furnished from sources outside the limits of the project will be determined using the bouyoucos hydrometer analysis conforming to AASHTO T 88. The gradation of the topsoil shall be within the following:

Not more that 20 percent of the material submitted from an off-site sample shall be retained on a No. 10 sieve.

If more than one-half the sand is larger than 0.5 mm:

Sand (2.000 mm to 0.050 mm)	40-80 OR 40-75 Percent
Silt (0.050 mm to 0.005 mm)	0-30 OR 0-30 Percent
Clay (0.005 mm and smaller)	15-30 OR 0-30 Percent

Material outside these ranges is not suitable for use as topsoil.

909.02 FERTILIZER

Fertilizer for establishing turf shall have a commercial designation of 10-20-10 or any 1-2-1-ratio fertilizer containing a minimum 5 percent nitrogen, 10 percent available phosphoric acid and 5 percent soluble potash.

If the fertilizer is to be applied with mechanical spreader in the dry form, a minimum of 75 percent shall pass a No. 8 sieve and a minimum of 75 percent shall be retained on a No. 16 sieve, and the maximum free moisture content shall be 2 percent.

Fertilizer for establishing sod shall be any 1-2-2-ratio fertilizer containing a minimum of 5 percent nitrogen, 10 percent available phosphoric acid and 10 percent soluble potash.

Each delivery of fertilizer shall be accompanied by a delivery slip showing the weight and a certified chemical analysis of the composition of the fertilizer.

909.03 LIMESTONE, PULVERIZED

Pulverized limestone shall be composed of not less than 85 percent calcium and magnesium carbonates to not less than 40 percent calcium and magnesium oxides.

Each delivery of pulverized limestone shall be accompanied by a delivery slip indicating its weight and certified analysis of its chemical composition and gradation, including calcium and magnesium oxide equivalents, which shall be furnished at the time of delivery.

909.04 MULCH

Straw shall be stalks of oats, wheat, rye, or barley relatively free from seeds, noxious weeds, and other foreign material. Wood cellulose fiber shall consist of wood cellulose fibers having no growth or germination-inhibiting materials.

Wood chips shall be produced by a wood-chipping machine. Wood chips shall be hard and shall not contain leaves, twigs, branches, wood shavings, dirt, stones, clods of turf, or other foreign material or debris. Wood chips shall not exceed 3 inches in any dimension.

Selected wood chips produced from clearing operations that are reasonably in conformance with the above are acceptable.

Samples of wood chips shall be submitted for approval before delivery to the project. Inspection of each shipment of wood chips will be made upon delivery to the project.

Each shipment of wood chips shall be accompanied by a delivery slip, which shall be furnished at the time of delivery.

Stone shall be coarse aggregate, approximately size No. 4, conforming to subsection 901.04. Sample shall be submitted for approval of size and color.

Gravel shall be uncrushed washed gravel, approximately size No. 4, conforming to subsection 901.05. Sample shall be submitted for approval of size and color.

909.06 SEED MIXTURES

(A) Grass seed mixtures shall be as follows:

TYPE A GRASS SEED MIXTURE

Kind Of Seed	**Minimum Purity, Percent**	**Minimum Germination, Percent**	**Percent Of Mixture**
Kentucky Bluegrass	85	75	20
Red Fescues (Creeping or Chewings)	95	80	35
Kentucky 31	95	80	20
Redtop	92	85	10
Perennial Ryegrass	98	85	10
White Clover	97	90	5

TYPE A-3 GRASS SEED MIXTURE

Kind Of Seed	**Minimum Purity, Percent**	**Minimum Germination, Percent**	**Percent Of Total Weight Of Mixture**
Tall Fescue Rebel Or Falcon)	95	80	60
Kentucky Bluegrass(Kenblue, South Dakota)	85	75	10
Chewings Fescue (Highlight or Jamestown)	95	85	10
Perennial Ryegrass (Linn)	98	85	20

TYPE A-4 GRASS SEED MIXTURE

Kind Of Seed	**Cultivar**	**Percent Of Total Weight Of Mixture**

Spread Fescue	Fortress	30
Chewings or Hand Fescue	Banner or Jamestown	30
Kentucky Bluegrass	Kenblue	30
Perennial Rye	Manhattan	10

All grass seed in the above mixture shall be certified seed.

The department has royalty free license to use the proprietary seed mixtures fortress and banner. Seed producers shall be notified when seed purchased is to be used on a department project and is not to be subject to royalties

TYPE B GRASS SEED MIXTURE

	Minimum Purity, Percent	**Minimum Germination, Percent**	**Percent Of Total Weight Of Mixture**
Kind Of Seed			
Redtop	**92**	**85**	**10**
Red Fescues (Creeping or Chewings)	**95**	**80**	**40**
Blackwells Switchgrass	**95**	**85**	**10**
Red Canary Grass	**96**	**80**	**10**
Weeping Love Grass	**95**	**85**	**10**
Perennial Ryegrass	**98**	**85**	**5**
Kentucky 31	**95**	**80**	**15**

TYPE D GRASS SEED MIXTURE

	Minimum Purity, Percent	**Minimum Germination, Percent**	**Percent Of Mixture**
Kind Of Seed			
Kentucky Bluegrass	85	75	50
Red Fescues(Creeping or Chewings)	95	85	35
Redtop	92	85	5
Perennial Ryegrass	95	90	10

TYPE F GRASS SEED MIXTURE

Kind Of Seed	**Minimum Purity, Percent**	**Minimum Germination, Percent**
Perennial Ryegrass	95	90

(B) Shipment. Each shipment of grass seed mixture shall be accompanied by a certified weight slip and an analysis of the composition, purity and germination of the seed mixture certified by the seed house and furnished at the time of delivery.

(C) *Sampling And Testing.* Sampling and testing shall be done in accordance with the New Jersey State seed Law (Revision of 1963), pl 1963, c.29 (c.4: 8-17.13 et Seq) and with the rules and regulations for testing seeds adopted by the association of official seed analysis.

MEASUREMENT AND PAYMENT

Top soiling, fertilizing, seeding and mulching will be measured and paid for on a square yard basis.

910.06 GRANITE AND BELGIAN BLOCK CURB

Granite curbs shall be new or used and shall be medium grained with uniform texture and distribution of minerals, un-stratified, unlamented, and free from seams and evidence of weathering. The granite shall comply with the geologic classification and quality requirements of subsection 901.04.

Used material shall be free of bituminous or cement grout coatings or other foreign materials. Curbstones shall be from one quarry and of the same color and texture.

Quarry-split stone for curbs shall have the top face machine-finished or dressed to an even surface without depressions or projections of more than 3/8 inch below or above the plane of the face. Edges shall be straight and even, and the ends shall be cut square for the entire depth of exposed curb face. Curbstones shall be so dressed that joints can be made not more than 3/8 inch wide from top to gutter line and not more than 1 inch wide below the gutter line.

Dressed stone for curbs shall be dressed to an even, smooth finish on the top face, on the front face for the entire depth of the exposed curb face, on the back face to a depth of 2 inches, and on the ends to a depth of 1 inch. The projections and depressions on the various faces shall not be greater than the following:

	Depression (inches)	**Projection (inches)**
Top	1/4	1/4
Front, Dressed Part	1/4	1/4
Front, Undressed PART	1 1/2	1/2
Back, Dressed Part	1/2	1/2
Back, Undressed Part	1 1/2	1 1/2
Ends, Dressed Part	1/4	1/4
Ends, Rough-Dressed Part	1/2	1/4
Ends, Undressed Part	1 1/2	1/4

The rough-dressed part of end faces shall extend 25 millimeters below the gutter line. The back edge of the top shall be parallel to the front face. The top and front faces shall be sloped, and the front edge shall be rounded. The stones shall have the width, specified at the top, and the bottom width shall be not less than and not more than 3 inch greater than the top width. The stones shall be furnished in lengths of not less than 4 feet and not more than 8 feet. For Belgian block curb, the stones shall be 4 inches x 7 inches x 10 inches.

Straight-cut stone may be used for curved curb having a radius of not less than 50 feet but shall be dressed to true radius after being set in place. For smaller radii the stone shall be cut to the required radius, and the ends shall be cut so that the joints can be made not more than 1/4 inch wide for full depth.

SECTION 914 PORTLAND CEMENT CONCRETE, MORTAR AND GROUT

914.01 Composition of Portland cement concrete, mortar and grout Portland cement concrete shall be composed of Portland cement, coarse aggregate, fine aggregate, admixtures and water.

Mortar and grout shall be composed of Portland cement, fine aggregate and water.

Materials shall conform to the following section of this RFP

Aggregates for Portland Cement Concrete, Mortar and Grout	*901.13* of this RFP
Admixtures:	
Air-Entraining	*905.01 of this RFP*
Chemical	*905.02* of this RFP
Portland Cement	*919.11* of this RFP
Water	*919.15* of this RFP

A water-reducing admixture may be used when the ambient temperature is 75 degrees F or below. A water-reducing retarding admixture or a water-reducing admixture and retarding admixture may be used when the ambient temperature is above 75 degrees F.

914.02 DESIGN, CONTROL AND ACCEPTANCE REQUIREMENTS

A. General Requirements. The coarse aggregate size, slump and entrained air for each item and class of concrete shall be as specified in Tables 914-1 and 914-2. The concrete shall be designed to conform to Table 914-3. Any of the coarse aggregate sizes in Tables 914-1 and 914-2 may be used for a particular type of construction. Coarse aggregate sizes 357 and 467 shall be produced by weight proportioning directly into the mixer from sizes 3 and 57, and sizes 4 and 67 respectively. Conformance to gradation will be determined on the basis of separate tests on the component sizes prior to proportioning. If the size selected creates a clearance problem with reinforcement steel, a smaller size aggregate shall be used as directed.

B. Proportioning and Verification. At least 45 days prior to the start of concrete placement, trial batches of concrete shall be prepared of the same materials and proportions proposed for use on the project. The designs shall be computed and set up in accordance with ACI standard 211.1 or 211.2 as applicable. Each mix design shall be submitted on Portland cement concrete mix design forms furnished by the department giving the source of materials and test data.

Department personnel shall be present at the trial batching to verify that the proportions and ingredients batched are in accordance with the proposed mix designs. At least 6 by 12 inch compression test cylinders shall be prepared from each batch and cured in accordance with AASHTO T 23 OR AASHTO t 126. Within 2 to 5 days after molding, the cylinders shall be delivered to the department laboratory where they will be tested for 7 and 28-day compressive strength.

At least one trial mix shall be designed to equal or exceed the required verification strengths listed in Table 914-4 for each class of concrete included on the project; however additional verification mixes may be submitted.

At the department's option, verification may be done on an annual basis for a concrete plant rather than on a project-to-project basis provided the properties and proportions of the materials do not change. If the job is the continuation of work in progress during the previous construction season and written verification is submitted that the same source and character of materials are

to be used, the engineer may waive the requirement for the design and verification of previously approved mixes.

Concrete furnished on the project shall conform to the approved mix design. If another previously approved mix design is to be used, the engineer shall be notified at least 1 day prior to such change. Change in the sources, types or proportions of materials shall not be made until approved and the requirements for verification specified herein have been satisfied. The engineer may waive this requirement if the materials or proportions are not appreciably different from those used with a previously approved mix design.

If, based on a series of excessively low strength tests, it is the opinion of the engineer that the mix properties are sufficiently out of control that concrete of unacceptable quality is likely to be produced, the work may be ordered stopped until the cause has been determined and the necessary corrective action has been taken. The corrective action may range from a minor adjustment of proportions to the establishment of a new mix design.

C. Acceptance Procedures For Slump and Air Entrainment. Sampling and testing for slump and air entrainment will be performed by the engineer.

Slump and air-entrainment tests will be made at the same rate as specified for strength tests in Table 914-5 and will be conformed on the same samples of material from which the compressive test cylinders have been molded. While these tests are being performed, discharge from the truck shall be halted. Discharge from other trucks not scheduled for test may proceed. For slump or air entrainment or both, if the measured value is outside the ranges specified in Table 914-1 or 914-2, a second test will be performed on a different portion of material from the same load. If the average of the two test results for either slump or air entrainment exceeds the upper limit, the load of concrete shall be rejected and removed from the job site. If the average of the two test results for either slump or air-entrainment falls below the lower specification limit, a single addition of mix water or air-entraining agent or both will be permitted provided that this additional step can be accomplished without exceeding the time or revolution limits specified in subsection 405.08. When an air-entraining agent is added, it shall be diluted with water prior to addition to the drum and the drum shall be rotated at agitating speed. Following the addition of mix water or air-entraining agent or both, the drum shall be rotated at the recommended mixing speed for 20 to 30 revolutions.

Following the addition of either mix water or air-entraining agent or both, the original test results will be disregarded and a single test for both slump and air-entrainment will be made and further additions of mix water or air-entraining agent shall not be permitted. If the measured values for slump and air entrainment are not within the ranges specified in Tables 914-1 and 914- 2, the load of concrete shall be rejected and removed from the job site.

D. Acceptance Testing for Strength. Sampling and testing for strength will be made by the engineer. A sufficient number of curing facilities for the storage and curing of concrete test cylinders on the project site for the first 24 hours, as required by AASHTO T 23, shall be provided for the sole use of the engineer. The curing facilities shall be provided with a minimum-maximum thermometer and shall be securable with lock and key.

A strength test result is defined in Table 914-5. Each test must meet the required rate of sampling and the acceptance criteria of Table 914-5. If either of the cylinders comprising a test shows definite evidence (other than low strength) of improper sampling, molding, handling, curing or testing, it shall be discarded and the strength of the remaining cylinder shall then be considered the test result. If a batch of concrete from which compression cylinders have been prepared is rejected because it fails to meet the slump or air-entrainment requirements of this

subsection, the cylinders obtained from that batch shall be discarded and additional compression cylinders shall be obtained from a subsequent batch.

E. Provisions for Retesting. Whenever the acceptance criteria of Table 914-5 are not met, the concrete may be retested by coring or other suitable means. When this provision is applied to class p concrete, each beam in the steam bed will be evaluated separately.

If the additional tests meet the retest requirement listed in Table 914-5, the concrete will be acceptable. If this requirement is not met, a plan for corrective action to be taken without cost to the state shall be submitted in writing. If the plan is not approved, the quantity of concrete to which these tests apply shall be removed from the job site.

914.03 MORTAR AND GROUT

Mortar and grout shall consist of one part Portland cement to two parts sand or other fine aggregate. Water shall be added to form the proper consistency. Mortar and grout shall not be re-tempered or used after it has begun to set.

Where nonmetallic or non-shrinking type grout is specified, the grout shall conform to the corps of engineers CRD-C 621. Flow consistency shall depend upon the intended use of the grout.

914.04 SAMPLING AND TESTING METHODS

Sampling and testing shall be made in accordance with the following:

AASHTO	
T 22	Compressive strength of cylindrical concrete specimens
T 23	Making and curing concrete compressive and flexural strength test specimens in the field
T 24	Obtaining and testing drilled cores and sawed beams of concrete
T 119	Slump of Portland cement concrete
T 121	Weight per cubic foot, yield and air content (gravimetric) of concrete
T 126	Making and curing concrete test specimens in the laboratory
T 141	Sampling fresh concrete
T 152	Air content of freshly mixed concrete by the pressure method
T 196	Air content of freshly mixed concrete by the volumetric method
ASTM	
A 567	Unit weight of structural lightweight concrete

914.05 TABLES

TABLE 914-4 VERIFICATION STRENGTH REQUIREMENTS

Class of Concrete	Average Strength
P	42 MPA
A	37 MPA
B, B-1	31 MPA
C, C-1	28 MPA

TABLE 914-5 SAMPLING RATES AND ACCEPTANCE CRITERIA

Class of Concrete	*Original Tests*	*Retests Minimum Strength For Individual Tests*
P	6 Per Lot	6 Per Beam 35 MPA
A	6 Per Lot	6 Per Lot 28 MPA
B, B-1	5 Per Lot	6 Per Lot 21 MPA
C, C-1	4 Per Lot	6 Per Lot 21 MPA
B (TREMIE)	4 Per Lot	6 Per Lot 21 MPA

Note 1 An original test result is defined as the average strength of two 150 by 300 millimeter compression test cylinders, cured for 28 days, and tested in the department laboratory except for Class P cylinders, which may be tested at the fabricator's plant under the supervision of the engineer.

Note 2 No more than one test per truckload or batch of concrete shall be Required.

Note 3 A retest result is the strength obtained by coring or other suitable means and may be required whenever the original tests fail to meet the acceptance criteria.

Note 4 A lot is defined as the amount of concrete of each class produced during a single day's production except that the engineer may elect to subdivide this work into a greater number of separate lots.

Note 5 If the amount of concrete of a particular class consists of 15 cubic meters or less per day, the engineer may waive the sampling requirement.

SECTION 915 REINFORCEMENT STEEL

915.03 Reinforcement steel for concrete base and surface courses reinforcement steel may be either deformed steel bars or cold-drawn steel wire.

A. Tolerances

Fabricating tolerances for deformed reinforcement steel bars shall be in accordance with figures 3 and 4 of the CRSI manual of standard practices, unless otherwise specified.

B. Bar Mats

Bar mats shall be rolled cold-drawn steel wire or deformed steel bars from new billet steel conforming to AASHTO M 31. The bars shall be size No. 3. All bars shall have the tensile requirement of grade 40 or grade 60. The bar mats shall be fabricated in accordance with ASTM A 184. Deformed bar mats shall be assembled by clipping the bars.

C. Welded Steel Wire Fabric

Welded steel wire fabric shall conform to AASHTO M 55. Wire fabric shall be not less than 5 feet in width and shall be shipped in sheets and not in rolls. Fabric for slope protection, gutters, and miscellaneous items may be shipped in rolls. Sheets shall be bent in the shop.

D. Joint Tie Bolt Assembly

The bar used shall conform to subsection 915.01, subpart (A) of this RFP and shall be of the plain type. The tensile strength of the assembly shall be not less than 15,000 pounds. The tie bolt assemblies shall be equipped with an approved fastener for installation of the assembly in the steel pavement form. The fastener shall hold the assembly in the designated position during the placing and finishing of the concrete and subsequent removal of the forms without damage to the concrete or the tie bolt assembly.

E. Dowels.

Dowels for transverse joints shall be carbon steel dowels, part of the length of which shall be encased in stainless steel or metal tubing, or infused with chromium, or shall be solid stainless steel dowels. The carbon steel dowels may be of any grade of carbon steel.

Dowel bars shall be plain round bars. They shall be free from burring or other deformation restricting slippage in the concrete. Dowel bars shall be coated with Asphaltic oil. The sleeve-type end caps for dowel bars shall be metal of approved design covering 4 inches of the dowel, with a closed end containing a cork plug to hold the end of the sleeve at least 1 inch from the end of the dowel bar.

F. Tie Bars.

Tie bars shall conform to section 915.01, subpart (A) of this RFP.

SECTION 919 MISCELLANEOUS

919.09 HYDRATED LIME

Hydrated lime shall conform to ASTM C 207, Type N.

919.11 PORTLAND CEMENT

Portland cement shall conform to the following:

Masonry Cement	ASTM C 91
Portland Cement, Type II and Type III See note 1)	ASTM C 150
White Portland cement, Type I and III (See note 2)	ASTM C 150

Note 1 For Type II, the autoclave expansion shall not exceed 0.5 percent.

Note 2 Shall not contain more than 0.55% by weight of ferric oxide (Fe203).

Different brands of cement, the same brand of cement from different mills or different types of cement shall not be mixed.

Suitable means shall be provided for storing and protecting the cement against dampness. Cement which for any reason has become partially set or which contains lumps of caked cement will be rejected.

The temperatures of the cement at the time of delivery to the mixer shall not exceed 160°F.

4.0 BID PROPOSAL PREPARATION AND SUBMISSION

4.1 GENERAL

The bidder is advised to thoroughly read and follow all instructions contained in this RFP, including the instructions on the RFP's signatory page, in preparing and submitting its bid proposal.

> **Note: Bid proposals shall not contain URLs (Uniform Resource Locators, i.e., the global address of documents and other resources on the world wide web) or web addresses. Inasmuch as the web contains dynamically changing content, inclusion of a URL or web address in a bid response is indicative of potentially changing information. Inclusion of a URL or web address in a bid response implies that the bid's content changes as the referenced web pages change.**

4.2 BID PROPOSAL DELIVERY AND IDENTIFICATION

In order to be considered, a bid proposal must arrive at the Purchase Bureau in accordance with the instructions on the RFP signatory page http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml. Bidders are cautioned to allow adequate delivery time to ensure timely delivery of bid proposals. **State regulation mandates that late bid proposals are ineligible for consideration**. **THE EXTERIOR OF ALL BID PROPOSAL PACKAGES ARE TO BE LABELED WITH THE BID IDENTIFICATION NUMBER AND THE FINAL BID OPENING DATE OR RISK NOT BEING RECEIVED IN TIME.**

4.3 NUMBER OF BID PROPOSAL COPIES

The bidder must submit **one (1) complete ORIGINAL bid proposal**, clearly marked as the "ORIGINAL" bid proposal. The bidder should submit **one (1) full, complete and exact copies** of the original. The copies requested are necessary in the evaluation of the bid proposal. A bidder failing to provide the requested number of copies will be charged the cost incurred by the State in producing the requested number of copies. It is suggested that the bidder make and retain a copy of its bid proposal.

4.4 BID PROPOSAL CONTENT

4.4.1 FORMS THAT MUST BE SUBMITTED WITH BID PROPOSAL

4.4.1.1 SIGNATORY PAGE

The bidder shall complete and submit the Signatory page provided on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml. The Signatory page shall be signed by an authorized representative of the bidder. If the bidder is a limited partnership, the Signatory page must be signed by a general partner. If the bidder is a joint venture, the Signatory page must be signed by a principal of each party to the joint venture. Failure to comply will result in rejection of the bid proposal.

4.4.1.2 OWNERSHIP DISCLOSURE FORM

In the event the bidder is a corporation, partnership or sole proprietorship, the bidder must complete the attached Ownership Disclosure Form. A current completed Ownership Disclosure Form must be received prior to or accompany the bid proposal. Failure to do so will preclude the award of a contract.

The Ownership Disclosure Form is located on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.1.3 DISCLOSURE OF INVESTIGATIONS/ACTIONS INVOLVING BIDDER

The bidder shall provide a detailed description of any investigation, litigation, including administrative complaints or other administrative proceedings, involving any public sector clients during the past five years including the nature and status of the investigation, and, for any litigation, the caption of the action, a brief description of the action, the date of inception, current status, and, if applicable, disposition. The bidder shall use the Disclosure of Investigations and Actions Involving Bidder form located on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.2 PROOFS OF REGISTRATION THAT MUST BE SUBMITTED WITH THE BID PROPOSAL

4.4.2.1 BUSINESS REGISTRATION CERTIFICATE FROM THE DIVISION OF REVENUE

FAILURE TO SUBMIT A COPY OF THE BIDDER'S BUSINESS REGISTRATION CERTIFICATE (OR INTERIM REGISTRATION) FROM THE DIVISION OF REVENUE WITH THE BID PROPOSAL MAY BE CAUSE FOR REJECTION OF THE BID PROPOSAL.

The bidder may go to **www.nj.gov/njbgs** to register with the New Jersey Division of Revenue or to obtain a copy of an existing Business Registration Certificate.

Refer to Section 1.1. of the NJ Standard Terms and Conditions version 07/27/07 located on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.3 FORMS THAT MUST BE SUBMITTED BEFORE CONTRACT AWARD AND SHOULD BE SUBMITTED WITH THE BID PROPOSAL.

4.4.3.1 MACBRIDE PRINCIPLES CERTIFICATION

The bidder is required to complete the attached MacBride Principles Certification evidencing compliance with the MacBride Principles. The requirement is a precondition to entering into a State contract. The MacBride Principles Certification Form is located on the Advertised Solicitation, Current Bid Opportunities webpage: http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.3.2 AFFIRMATIVE ACTION

The bidder is required to submit a copy of Certificate of Employee Information or a copy of Federal Letter of Approval verifying that the bidder is operating under a federally approved or sanctioned Affirmative Action program. If the bidder has neither document of Affirmative Action evidence, then the bidder must complete the attached Affirmative Action Employee Information Report (AA-302). This requirement is a precondition to entering into a State contract. The Affirmative Action Employee Information Report (AA-302) is located on the Advertised Solicitation, Current Bid Opportunities webpage: http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.4 SUBMITTALS

4.4.4.1 BIDDER EXPERIENCE - DATA SHEETS

The bidder must provide all of the information requested in the Bidder's Data Packet located on the Advertised Solicitation, Current Bid Opportunities webpage: http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

4.4.5 FINANCIAL CAPABILITY OF THE BIDDER

Upon request, In order to provide the State with the ability to judge the bidder's financial capacity and capabilities to undertake and successfully complete the contract, the bidder should submit two years of certified financial statements that include a balance sheet, income statement and statement of cash flow, and all applicable notes for the most recent calendar year or the bidder's most recent fiscal year. If certified financial statements are not available, the bidder should provide either a reviewed or compiled statement from an independent accountant setting forth the same information required for the certified financial statements, together with a certification from the Chief Executive Officer and the Chief Financial Officer, that the financial statements and other information included in the statements fairly present in all material respects the financial condition, results of operations and cash flows of the bidder as of, and for, the periods presented in the statements. In addition, the bidder should submit a bank reference.

If the information is not supplied with the bid proposal, the State may still require the bidder to submit it. If the bidder fails to comply with the request within seven (7) business days, the State may deem the proposal non-responsive.

The bidder may designate specific financial information as not subject to disclosure when the bidder has a good faith legal/factual basis for such assertion. The bidder may submit specific financial documents in a separate, sealed package clearly marked "Confidential-Financial Information" along with its Bid Proposal.

The State reserves the right to make the determination whether to accept the bidder's assertion of confidentiality and will advise the bidder accordingly.

The State reserves the right to make the determination whether to accept the bidder's assertion of confidentiality and will advise the bidder accordingly.

4.4.6 PRICING

The bidder must submit its pricing using the format set forth in the State supplied price sheet(s) attached to this RFP. Failure to submit all information required will result in the bid being considered non-responsive. Each bidder is required to hold its prices firm through issuance of contract.

4.4.7 METHOD OF BIDDING

Bidder(s) may bid on any one or more regions of the State. However, to be considered responsive, bidders must submit prices for all items listed in each region. Failure to do so will result in the rejection of your bid proposal for that region only.

4.4.7.1 REGION NORTH: Bidder(s) must submit pricing for line items 00001 to 00044.

4.4.7.2 REGION CENTRAL: Bidder(s) must submit pricing for line items 00045 to 00090.

4.4.7.3 REGION SOUTH: Bidder(s) must submit pricing for line items 00091 to 00136.

Failure to do so will result in the rejection of your bid for that region only.

5.0 SPECIAL CONTRACTUAL TERMS AND CONDITIONS

5.1 PRECEDENCE OF SPECIAL CONTRACTUAL TERMS AND CONDITIONS

The contract awarded as a result of this RFP shall consist of this RFP, addendum to this RFP, the contractor's bid proposal and the Division's Notice of Award.

Unless specifically stated within this RFP, the Special Contractual Terms and Conditions of the RFP take precedence over the NJ Standard Terms and Conditions version 07/27/07 located on the Advertised Solicitation, Current Bid Opportunities webpage: http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.

In the event of a conflict between the provisions of this RFP, including the Special Contractual Terms and the NJ Standard Terms and Conditions version 07/27/07, and any Addendum to this RFP, the Addendum shall govern.

In the event of a conflict between the provisions of this RFP, including any Addendum to this RFP, and the bidder's bid proposal, the RFP and/or the Addendum shall govern.

5.2 CONTRACT TERM AND EXTENSION OPTION

The term of the contract shall be for a period of **one (1) year**. The anticipated "Contract Effective Date" is provided on the signatory page of this RFP: http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml. If delays in the procurement process result in a change to the anticipated Contract Effective Date, the bidder agrees to accept a contract for the full term of the contract. The contract may be extended for all or part of **two (2)** one-year periods, by the mutual written consent of the contractor and the Director. **Purchase orders may be placed against the contract up to and including the end of business on the last day of the contract, for delivery no more than 45 days after contract expiration.**

5.3 CONTRACT TRANSITION

In the event that a new contract has not been awarded prior to the contract expiration date, as may be extended herein, it shall be incumbent upon the contractor to continue the contract under the same terms and conditions until a new contract can be completely operational. At no time shall this transition period extend more than **ninety (90)** days beyond the expiration date of the contract.

5.4 CONTRACT AMENDMENT

Any changes or modifications to the terms of the contract shall be valid only when they have been reduced to writing and signed by the contractor and the Director.

5.5 CONTRACTOR'S WARRANTY

a) The Contractor is responsible for the quality, technical accuracy, timely completion and delivery of all deliverables and other services to be furnished by the Contractor under the Contract. The Contractor agrees to perform in a good, skillful and timely manner all services set forth in the Contract.

b) The Contractor shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in its services and deliverables furnished under the Contract. The approval of interim deliverables furnished under the Contract shall not in any way relieve the Contractor of fulfilling all of its obligations under the Contract. The acceptance or payment for any of the services rendered under the Contract shall not be construed as a waiver by the State or Agency, of any rights under the agreement or of any cause of action arising out of the Contractor's performance of the Contract.
c) The acceptance of, approval of or payment for any of the services performed by the Contractor under the Contract shall not constitute a release or waiver of any claim the State or Agency, has or may have for latent defects or errors or other breaches of warranty or negligence.

5.6 ITEMS ORDERED AND DELIVERED

The **Using Agency is[**authorized to order and **the contractor is** authorized to ship only those items covered by the contracts resulting from this RFP. If a review of orders placed by the Using Agency [Agencies] reveals [reveal] that material other than that covered by the contract has been ordered and delivered, such delivery shall be a violation of the terms of the contract and may be considered by the Director as a basis to terminate the contract and/or as a basis not to award the contractor a subsequent contract. The Director may take such steps as are necessary to have the items returned by the Agency, regardless of the time between the date of delivery and discovery of the violation. In such event, the contractor shall reimburse the State the full purchase price.

The contract involves items which are necessary for the continuation of ongoing critical State services. Any delay in delivery of these items would disrupt State services and would force the State to immediately seek alternative sources of supply on an emergency basis. Timely delivery is critical to meeting the State's ongoing needs.

5.7 REMEDIES FOR FAILURE TO COMPLY WITH MATERIAL CONTRACT REQUIREMENTS

In the event that the contractor fails to comply with any material contract requirements, the Director may take steps to terminate the contract in accordance with the State administrative code and/or authorize the delivery of contract items by any available means, with the difference between the price paid and the defaulting contractor's price either being deducted from any monies due the defaulting contractor or being an obligation owed the State by the defaulting contractor.

5.8 CLAIMS

All claims asserted against the State by the contractor shall be subject to the New Jersey Tort Claims Act, N.J.S.A. 59:1-1.1, et seq., and/or the New Jersey Contractual Liability Act, N.J.S.A. 59:13-1, et seq.

5.9 PERFORMANCE BOND

This section supplements Section 3.3b of the NJ Standard Terms and Conditions version 07/27/07 located on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.
A performance bond is required. The amount of the performance bond is noted on the RFP signatory page located on the Advertised Solicitation, Current Bid Opportunities http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml.The performance bond must be posted within 30 days of the effective date of the contract award. The performance bond must remain in full force and effect for the term of the contract and any extension thereof.

5.10 CONTRACT ACTIVITY REPORT

In conjunction with the standard record keeping requirements of this contract, as required by in paragraph 3.19 of the NJ Standard Terms and Conditions version 07/27/07, located on the Advertised Solicitation, Current Bid Opportunities webpage http://www.state.nj.us/treasury/purchase/bid/summary/09x20549.shtml, contractor(s) must provide, on a calendar quarter basis, to the Purchase Bureau buyer assigned, a record of all purchases made under their contract award resulting for this Request for Proposal. This includes purchases made by all using agencies including the State and political sub-divisions thereof. This reporting requirement includes sales to State using agencies and, if permitted under the terms of the contract, sales to counties, municipalities, school districts, volunteer fire departments, first aid squads and rescue squads, and independent institutions of higher education. The requirement also includes sales to State and County Colleges and Quasi-State Agencies. Quasi-State Agencies include any agency, commission, board, authority or other such governmental entity which is established and is allocated to a State department or any bi-state governmental entity of which the State of New Jersey is a member.

This information must be provided in a tabular format such that an analysis can be made to determine the following:

- Contractor's total sales volume to each purchaser under the contract, subtotaled by product, including, if applicable, catalog number and description, price list with appropriate page reference and/or contract discount applied.
- Total dollars paid to subcontractors.

Submission of purchase orders, confirmations, and/or invoices do not fulfill this contract requirement for information.

Contractors are strongly encouraged to submit the required information in electronic spreadsheet format. The Purchase Bureau uses Microsoft Excel.

Failure to report this mandated information will be a factor in future award decisions.

5.11 PUBLIC WORKS CONTRACT-ADDITIONAL AFFIRMATIVE ACTION REQUIREMENT

N.J.S.A. 10:5-33 requires that:

"During the performance of this contract, the contractor agrees as follows:

a) The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause;

b) The contractor or subcontractor, where applicable will, in all solicitations or advertisements for

employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex;

c) The contractor or subcontractor where applicable, will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment."

6.0 PROPOSAL EVALUATION

6.1 EVALUATION CRITERIA

The following criteria will be used to evaluate all bid proposals that meet the requirements of this RFP. The criteria are not necessarily listed in order of importance:

6.1.1 Price

6.1.2 Experience of the bidder

6.1.3 The bidder's past performance under similar contracts, including if applicable, the Division's vendor performance database.

6.2 ORAL PRESENTATION AND/OR CLARIFICATION OF BID PROPOSAL

After the submission of bid proposals, unless requested by the State as noted below, vendor contact with the State is still not permitted.

The bidder may be required to give an oral presentation to the State concerning its bid proposal. The State may also require the bidder to submit written responses to questions regarding its bid proposal.

The purpose of such communication with the bidder, either through an oral presentation or a letter of clarification, is to provide an opportunity for the bidder to clarify or elaborate on its bid proposal. Original bid proposals submitted, however, cannot be supplemented, changed, or corrected in any way. No comments regarding other bid proposals are permitted. Bidders may not attend presentations made by their competitors.

It is within the State’s discretion whether to require the bidder to give an oral presentation or require the bidder to submit written responses to questions regarding its bid proposal. Action by the State in this regard should not be construed to imply acceptance or rejection of a bid proposal. The Purchase Bureau buyer will be the sole point of contact regarding any request for an oral presentation or clarification.

6.3 BID DISCREPANCIES

In evaluating bids:

- Discrepancies between words and figures will be resolved in favor of words.
- Discrepancies between unit prices and totals of unit prices will be resolved in favor of unit prices.

- Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices.
- Discrepancies between the indicated total of multiplied unit prices and units of work and the actual total will be resolved in favor of the actual total.
- Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the corrected sum of the column of figures.
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6.4 NEGOTIATION AND BEST AND FINAL OFFER (BAFO)

Following the opening of bid proposals, the State shall, pursuant to N.J.S.A. 52:34-12(f), negotiate one or more of the following contractual issues: the technical services offered, the terms and conditions and/or the price of a proposed contract award with any bidder, and/or solicit a Best and Final Offer (BAFO) from one or more bidders.

Initially, the Evaluation Committee will conduct a review of all the bids and select bidders to contact to negotiate and/or conduct a BAFO based on its evaluation and determination of the bid proposals that best satisfy the evaluation criteria and RFP requirements, and that are most advantageous to the State, price and other factors considered. The Committee may not contact all bidders to negotiate and/or to submit a BAFO.

In response to the State's request to negotiate, bidders must continue to satisfy all mandatory RFP requirements but may improve upon their original technical proposal in any revised technical proposal. However, any revised technical proposal that does not continue to satisfy all mandatory requirements will be rejected as non-responsive and the original technical proposal will be used for any further evaluation purposes in accordance with the following procedure.

In response to the State's request for a BAFO, bidders may submit a revised price proposal that is equal to or lower in price than their original submission, but must continue to satisfy all mandatory requirements. Any revised price proposal that is higher in price than the original will be rejected as non-responsive and the original bid will be used for any further evaluation purposes.

After receipt of the results of the negotiation and/or the BAFO(s), the Evaluation Committee will complete its evaluation and recommend to the Director for award that responsible bidder(s) whose bid proposal, conforming to this RFP, is most advantageous to the State, price and other factors considered.

All contacts, records of initial evaluations, any correspondence with bidders related to any request for negotiation or BAFO, any revised technical and/or price proposals, the Evaluation Committee Report and the Award Recommendation, will remain confidential until a Notice of Intent to Award a contract is issued.

7.0 CONTRACT AWARD

7.1 DOCUMENTS REQUIRED BEFORE CONTRACT AWARD

7.1.1 REQUIREMENTS OF N.J.S.A. 19:44A-20.13-25 (FORMERLY EXECUTIVE ORDER 134)

In order to safeguard the integrity of State government procurement by imposing restrictions to insulate the negotiation and award of State contracts from political contributions that pose the risk of improper influence, purchase of access, or the appearance thereof, the Legislature enacted N.J.S.A. 19:44A-20.13 – 25 on March 22, 2005 the “Legislation”), retroactive to October 15, 2004, superseding the terms of Executive Order 134. Pursuant to the requirements of the

Legislation, the terms and conditions set forth in this section are material terms of any contract resulting from this RFP:

7.1.1.1 DEFINITIONS

For the purpose of this section, the following shall be defined as follows:

a) Contribution – means a contribution reportable as a recipient under "The New Jersey Campaign Contributions and Expenditures Reporting Act." P.L. 1973, c. 83 (C.19:44A-1 et seq.), and implementing regulations set forth at N.J.A.C. 19:25-7 and N.J.A.C. 19:25-10.1 et seq. Through December 31, 2004, contributions in excess of $400 during a reporting period were deemed "reportable" under these laws. As of January 1, 2005, that threshold was reduced to contributions in excess of $300.

b) Business Entity – means any natural or legal person, business corporation, professional services corporation, Limited Liability Company, partnership, limited partnership, business trust, association or any other legal commercial entity organized under the laws of New Jersey or any other state or foreign jurisdiction. The definition of a business entity includes (i)all principals who own or control more than 10 percent of the profits or assets of a business entity or 10 percent of the stock in the case of a business entity that is a corporation for profit, as appropriate; (ii)any subsidiaries directly or indirectly controlled by the business entity; (iii)any political organization organized under section 527 of the Internal Revenue Code that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee; and (iv)if a business entity is a natural person, that person's spouse or child, residing in the same household.

7.1.1.2 BREACH OF TERMS OF THE LEGISLATION

It shall be a breach of the terms of the contract for the Business Entity to (i)make or solicit a contribution in violation of the Legislation, (ii)knowingly conceal or misrepresent a contribution given or received; (iii)make or solicit contributions through intermediaries for the purpose of concealing or misrepresenting the source of the contribution; (iv)make or solicit any contribution on the condition or with the agreement that it will be contributed to a campaign committee or any candidate of holder of the public office of Governor, or to any State or county party committee; (v)engage or employ a lobbyist or consultant with the intent or understanding that such lobbyist or consultant would make or solicit any contribution, which if made or solicited by the business entity itself, would subject that entity to the restrictions of the Legislation; (vi)fund contributions made by third parties, including consultants, attorneys, family members, and employees; (vii)engage in any exchange of contributions to circumvent the intent of the Legislation; or (viii)directly or indirectly through or by any other person or means, do any act which would subject that entity to the restrictions of the Legislation.

7.1.1.3 CERTIFICATION AND DISCLOSURE REQUIREMENTS

a) The State shall not enter into a contract to procure from any Business Entity services or any material, supplies or equipment, or to acquire, sell or lease any land or building, where the value of the transaction exceeds $17,500, if that Business Entity has solicited or made any contribution of money, or pledge of contribution, including in-kind contributions to a candidate committee and/or election fund of any candidate for or holder of the public office of Governor, or to any State or county political party committee during certain specified time periods

b) Prior to awarding any contract or agreement to any Business Entity, the Business Entity proposed as the intended awardee of the contract shall submit the Certification and Disclosure form, certifying that no contributions prohibited by the Legislation have been made by the

Business Entity and reporting all contributions the Business Entity made during the preceding four years to any political organization organized under 26 U.S.C.527 of the Internal Revenue Code that also meets the definition of a "continuing political committee" within the mean of N.J.S.A. 19:44A-3(n) and N.J.A.C. 19:25-1.7. The required form and instructions, available for review on the Purchase Bureau website at http://www.state.nj.us/treasury/purchase/forms.htm#eo134, shall be provided to the intended awardee for completion and submission to the Purchase Bureau with the Notice of Intent to Award. Upon receipt of a Notice of Intent to Award a Contract, the intended awardee shall submit to the Division, in care of the Purchase Bureau Buyer, the Certification and Disclosure(s) within five (5) business days of the State's request. Failure to submit the required forms will preclude award of a contract under this RFP, as well as future contract opportunities.

c) Further, the Contractor is required, on a continuing basis, to report any contributions it makes during the term of the contract, and any extension(s) thereof, at the time any such contribution is made. The required form and instructions, available for review on the Purchase Bureau website at http://www.state.nj.us/treasury/purchase/forms.htm#eo134, shall be provided to the intended awardee with the Notice of Intent to Award.

7.1.1.4 STATE TREASURER REVIEW

The State Treasurer or his designee shall review the Disclosures submitted pursuant to this section, as well as any other pertinent information concerning the contributions or reports thereof by the intended awardee, prior to award, or during the term of the contract, by the contractor. If the State Treasurer determines that any contribution or action by the contractor constitutes a breach of contract that poses a conflict of interest in the awarding of the contract under this solicitation, the State Treasurer shall disqualify the Business Entity from award of such contract.

7.1.1.5 ADDITIONAL DISCLOSURE REQUIREMENT OF P.L. 2005, C. 271

Contractor is advised of its responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission (ELEC), pursuant to P.L. 2005, c. 271, section 3 if the contractor receives contracts in excess of $50,000 from a public entity in a calendar year. It is the contractor's responsibility to determine if filing is necessary. Failure to so file can result in the imposition of financial penalties by ELEC. Additional information about this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

7.2 FINAL CONTRACT AWARD

A) Award for NORTH REGION will be made to the lowest total overall bidder for price lines 00001 to 00044.

B) Award for CENTRAL REGION will be made to the lowest total overall bidder for price lines 00045 to 00090.

C) Award for SOUTH REGION will be made to the lowest total overall bidder for price lines 00091 to 00136.

D) Contract award[s] shall be made with reasonable promptness by written notice to that responsible bidder(s), whose bid proposal(s), conforming to this RFP, is(are) most advantageous to the State, price, and other factors considered. Any or all bid proposals may be rejected when the State Treasurer or the Director determines that it is in the public interest to do so.

7.3 INSURANCE CERTIFICATES

The contractor shall provide the State with current certificates of insurance for all coverages required by the terms of this contract, naming the State as an Additional Insured.

8.0 CONTRACT ADMINISTRATION

8.1 CONTRACT MANAGER

The State Contract Manager is the State employee responsible for the overall management and administration of the contract.

The State Contract Manager for this project will be identified at the time of execution of contract. At that time, the contractor will be provided with the State Contract Manager's name, department, division, agency, address, telephone number, fax phone number, and email address.

8.1.1 STATE CONTRACT MANAGER RESPONSIBILITIES

For an agency contract where only one State office uses the contract, the State Contract Manager will be responsible for engaging the contractor, assuring that Purchase Orders are issued to the contractor, directing the contractor to perform the work of the contract, approving the deliverables and approving payment vouchers. The State Contract Manager is the person that the contractor will contact **after the contract is executed** for answers to any questions and concerns about any aspect of the contract. The State Contract Manager is responsible for coordinating the use and resolving minor disputes between the contractor and any component part of the State Contract Manager's Department.

If the contract has multiple users, then the State Contract Manager shall be the central coordinator of the use of the contract for all Using Agencies, while other State employees engage and pay the contractor. All persons and agencies that use the contract must notify and coordinate the use of the contract with the State Contract Manager.

8.1.2 COORDINATION WITH THE STATE CONTRACT MANAGER

Any contract user that is unable to resolve disputes with a contractor shall refer those disputes to the State Contract Manager for resolution. Any questions related to performance of the work of the contract by contract users shall be directed to the State Contract Manager. The contractor may contact the State Contract Manager if the contractor can not resolve a dispute with contract users.