

Bid No. 2022-03-07

TOWNSHIP OF PISCATAWAY
MIDDLESEX COUNTY
NEW JERSEY
TOWNSHIP OF PISCATAWAY

“2022-STERLING VILLAGE PARKING LOT REHABILITATION”

MAYOR
BRIAN WAHLER

PISCATAWAY TOWNSHIP COUNCIL
MICHELE LOMBARDI, COUNCIL PRESIDENT
FRANK UHRIN, COUNCIL VICE PRESIDENT
GABRIELLE CAHILL
JAMES BULLARD
STEVE D. CAHN
KAPIL K. SHAH
LINWOOD D. ROUSE

BUSINESS ADMINISTRATOR
TIMOTHY J. DACEY

TOWNSHIP CLERK
MELISSA A. SEADER

PROJECT MANAGER
GUY GASPARI, P.E. P. L.S, P.P., C.P.W.M /T & M ASSOCIATES
DIRECTOR OF PUBLIC WORKS/ENGINEERING
455 HOES LANE PISCATAWAY, NJ 08854

ANY QUESTIONS MUST BE E-MAILED TO Purchasing@piscatawaynj.org NO LATER THAN MARCH 18, 2022. @ 12noon. PHONE CALLS WILL NOT BE ACCEPTED THERE WILL BE NO EXCEPTIONS.

Bid Opening Date: Thursday, March 31, 2022 AT 2:00 PM

BIDDER: _____

ADDRESS: _____

TEL. NO.: _____

EMAIL: _____

NOTICE TO BIDDERS

BID NO: 2022-03-07

TOWNSHIP OF PISCATAWAY
MIDDLESEX COUNTY, NEW JERSEY

NOTICE IS HEREBY GIVEN that sealed bids will be received by the Business Administrator or designated representative, for the Township of Piscataway, on **THURSDAY, MARCH 31, 2022 at 2:00PM** prevailing time, in the Council Chambers, Township of Piscataway, Administration Building, 455 Hoes Lane, Piscataway, NJ 08854 at which time and place will be publicly read live broadcast via zoom as listed below. Bids will be publicly opened and reviewed for completeness for the following:

“2022-STERLING PARKING LOT REHABILITATION”

Bids must be made on standard proposal form, be enclosed in a sealed package bearing the name and address of bidder and the words **“2022-STERLING VILLAGE PARKING LOT REHABILITATION”** on the outside and delivered to the Township Purchasing office only, 455 Hoes Lane, Piscataway, NJ 08854 during regular business hours, 8:30 am to 12:20 pm and 1:30 pm to 4:30 pm., Monday through Friday, excluding holidays. *Please be advised that the municipal building is closed daily between 12:20 PM and 1:30 PM for lunch.*

Bidders must call the purchasing office at 732-562-2321 to drop off the sealed bid by or before 12noon on 3/31/2022. The Municipal building is closed to the public due to the Covid-19. Bids will be opened via zoom at 2:00pm.

Bids Specifications, Plans and instructions to bidders may be obtained at:
<http://bids.piscatawaynj.org/>

Walk Thru/Site Visit: MARCH 15, 2022 @2:00pm. At 1 Sterling Village Dive, Piscataway, NJ 08854

Question and Answer Due Date: MARCH 18, 2022 by 12 Noon, E-mail only to:
Purchasing@piscatawaynj.org

Addendum may be downloaded from the Township website <http://bids.piscatawaynj.org/>

(1) Bid Packet Marked “ORIGINAL” (1) Photo Copy of the Original “TRUE COPY”

During the Covid-19 pandemic, while the statewide “State of Emergency” declaration is still in effect in according with Executive Order 107 all proposal packets will only be read and opened electronically “BROADCAST LIVE” via ZOOM Bid opening. The Municipal building is closed due to the Covid-19 restrictions. Once the bid opening is concluded bidders must call the Purchasing Agent @ 732-562-2321 to set an appointment if bidders wishes to review any of the bids.

All bids shall be kept sealed , and will be received and publicly opened on the proposal opening date and time in the Township Council Chambers using Virtual teleconferencing which can be access by logging in to zoom in the following manner:

Join Zoom Meeting:

Piscataway Purchasing is inviting you to a scheduled Zoom meeting.

Topic: BID OPENING: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Time: Mar 31, 2022 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/81518025256?pwd=MS9hSUhEbTZSV0tGY2h3MmJabzQxQT09>

Meeting ID: 815 1802 5256

Passcode: 008826

One tap mobile

+16468769923,,81518025256#,,,,*008826# US (New York)

+13017158592,,81518025256#,,,,*008826# US (Washington DC)

Dial by your location

+1 646 876 9923 US (New York)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

Meeting ID: 815 1802 5256

Passcode: 008826

Bids can be hand delivered to the Municipal Building by calling the Purchasing Agent Purchasing@732-562-2321. If using an outside delivery and/or messenger service (i.e. Federal Express, UPS, etc.), please note the following: **The Township will not be responsible for deliveries made prior to or after normal business hours, or to any other office, or for the failure of a bidder to affix the label provided with the bid package on the courier envelope.**

Surety in the form of a bid bond, certified check or Cashier's Check in the amount of ten percent (10%) of the total price bid, but not in excess of \$20,000.00, payable unconditionally to the Township of Piscataway shall submit with the bid. The successful bidder will be required to furnish a Performance Bond in the Amount of 100% of total bid. Bidders shall comply with the requirements of N.J.S.A.10:5-31 and N.J.A.C. 17-27 et seq. Division of Purchasing.

Bid NO: 2022-03-07

TOWNSHIP OF PISCATAWAY: “2022-STERLING VILLAGE PARKING LOT REHABILITATION”

Bidder’s Electronic Question Due Date: MARCH 18, 2022 @12NOON

Official Addenda Process: **MARCH 23, 2022.**

Purchasing@piscatawaynj.org

PRE-BID Conference / Site Visit Date: MARCH 15, 2022 @2PM @ 1 STERLING VILLAGE DRIVE, PISCATAWAY NJ 088854

Bid Submission Due Date: THURSDAY MARCH 31, 2022 @2PM

Bidders must call the purchasing office at 732-562-2321 to drop off the sealed bid. The Municipal building is closed to the public due to the Covid-19.

PLEASE, DROP OFF YOUR SEALED BID BY OR BEFORE 12NOON ON 3/31/2022.

BIDS WILL BE OPENED VIA ZOOM @2PM

Bid Opening via ZOOM: Instructions below:

During the Covid-19 pandemic, while the statewide “State of Emergency” declaration is still in effect in according with Executive Order 107 all proposal packets will only be read and opened electronically “BROADCAST LIVE” via ZOOM Bid opening. The Municipal building is closed due to the Covid-19 restrictions. Once the bid opening is concluded bidders must call the Purchasing Agent @ 732-562-2321 to set an appointment if bidders wishes to review any of the bids.

All bids shall be kept sealed , and will be received and publicly opened on the proposal opening date and time in the Township Council Chambers using Virtual teleconferencing which can be access by logging in to zoom in the following manner:

Join Zoom Meeting

Piscataway Purchasing is inviting you to a scheduled Zoom meeting.

Topic: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

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THE TOWNSHIP OF PISCATAWAY



INSTRUCTIONS TO BIDDERS

PAGES 1-57



MARIA E. VALENTE-CAEMMERER

Purchasing Agent

BID BOILER PLATE

PUBLIC WORKS

Revised June 2018

Piscataway

PUBLIC WORKS

Bid Specifications & General Requirements For

2022-STERLING VILLAGE PARKING REHABILITATION

BID NO: 2022-03-07

THURSDAY, MARCH 31, 2022

Bid Opening Date

2:00 p.m. Via Zoom

Bid Opening Time

Opening Location: 455 Hoes Lane
Piscataway, NJ 08854

MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Purchasing Specialist

The Township of Piscataway

REQUEST FOR BIDS GUY GASPARI, DIRECTOR OF PUBLIC WORKS/T & M ASSOCIATES Bid Advertisement

The Township of Piscataway, New Jersey, hereby advertises for competitive bids in accordance with N.J.S.A. 40A:11 et seq., for

BID NO. 2022-03-07 2022-STERLING VILLAGE PARKING LOT REHABILITATION

All necessary bid specifications and bid forms & Plans may be secured Township website at: <http://bids.piscatawaynj.org/>.

Specifications and instructions to bidders may be obtained on the Township website <http://bids.piscatawaynj.org/>. Bid documents will not be mailed. Bidders may contact the Purchasing office by E-mail only at: Purchasing@piscatawaynj.org regarding questions or additional information about the bid specifications. **By March 18, 2021 by or before 12noon.**

Bids must be submitted to: Township of Piscataway Division of Purchasing
Att: Purchasing Agent
455 Hoes Lane
Piscataway, NJ 08854
Phone: 732-562-2321
E-mail: purchasing@piscatawaynj.org

Guy Gaspari, Director of Public Works/T & M Associates
Project Manager Contact Person
Department of Public works
455 Hoes Lane
Piscataway, NJ 08854
Township of Piscataway, NJ

Bids must be sealed and delivered to the Purchasing Office of the Piscataway Township *on or before* date and time indicated below. **The outside of the envelope to bear the following information:**

Title: **-2022-STERLING VILLAGE PARKING REHABILITATION**
BID NO. **2022-03-07**
Name of the Bidder:
Address of the Bidder:
Date: Thursday **MARCH 31, 2022**
Time: **2:00 p.m.**

The bid opening process will begin on the above advertised date and time **'BROADCAST LIVE VIA ZOOM'** Administrative offices located at 455 Hoes Lane, Piscataway, NJ 08854. Bids may be submitted to the Purchasing office at the bid opening ZOOM meeting, prior to the advertised date and time. On the advertised date and time, the Purchasing Agent shall publicly receive and open all bids. **LIVE BROADCAST VIA ZOOM. No bids shall be received after the time designated in the advertisement.** (N.J.S.A. 40A:11-1 et. seq.,)The Township of Piscataway does not accept electronic (e-mail) submission of bids.

Bidders must call the purchasing office at 732-562-2321 to drop off the sealed bid. The Municipal building is closed to the public due to the Covid-19. PLEASE, MAKE SURE YOUR SEALED BID ARRIVES BY or BEFORE 12noon on 3/ 31/ 2022.

During the Covid-19 pandemic, while the statewide “State of Emergency” declaration is still in effect in according with Executive Order 107 all proposal packets will only be read and opened electronically “BROADCAST LIVE” via ZOOM Bid opening. The Municipal building is closed due to the Covid-19 restrictions. Once the bid opening is concluded bidders must call the Purchasing Agent @ 732-562-2321 to set an appointment if bidders wishes to review any of the bids.

All bids shall be kept sealed , and will be received and publicly opened on the proposal opening date and time in the Township Council Chambers using Virtual teleconferencing which can be access by logging in to zoom in the following manner:

Piscataway Purchasing is inviting you to a scheduled Zoom meeting.

Topic: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Time: Mar 31, 2022 02:00 PM Eastern Time (US and Canada)

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Meeting ID: 815 1802 5256

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PLEASE, MAKE SURE YOU DROP OFF YOUR SEALED BID BY or BEFORE 12NOON 3/31/2022.

BID WILL BE OPENED @2PM VIA ZOOM.

MARCH 15, 2022

There will be a pre-bid meeting on _____ . While attendance is not mandatory, all prospective bidders are **strongly encouraged** to attend this important meeting, which will be held in the at **2:00 p.m. @ 1 STERLING VILLAGE DRIVE, PISCATAWAY, NJ 08854**

All bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq., Affirmative Action Against Discrimination (N.J.A.C. 17:27-1 et seq.) An Initial Project Workforce Report will be required from the successful contractor. (Form AA-201).

Statement of Ownership Requirement: Pursuant to N.J.S.A. 52:25-24.2, Bidders shall submit a statement setting forth the names and addresses of all persons and entities that own ten percent or more of its stock or interest of any type at all levels of ownership.

Each bid shall be accompanied by a bid bond, cashier's check or certified check made payable to the Township of Piscataway, for ten percent (10%) of the amount of the total bid, however, not to exceed \$20,000.00.

Bidders are required by law to submit a Statement of Ownership Disclosure form statement setting forth the names and addresses of all persons and entities that own ten (10%) percent or more of its stock or interest of any type at all levels of ownership.

The bid package will also include other documents that must be completed and returned with the bid. Failure to comply with Instructions to Bidders and to complete and submit all required forms, may be cause for disqualification and rejection of the bid.

All contractors named in this proposal, shall possess a valid Public Works Contractor's Registration Certificate pursuant to N.J.S.A. 34:11-56.48 et seq., at the time the proposal is received by the Township of Piscataway. The Township of Piscataway reserves the right to reject any or all bids, pursuant to N.J.S.A. 40A:11-1 et. seq., and to waive any informalities that may be in the best interest of the Township.

MARIA E VALENTE-CAEMMERER

Purchasing Agent/Purchasing Specialist

THE TOWNSHIP OF PISCATAWAY

GUY GASPARI, PUBLIC WORK DIRECTOR/T & M ASSOCIATES REQUEST FOR BIDS PUBLIC WORKS

Bid Advertisement

The Township of Piscataway, New Jersey, hereby advertises for competitive bids in accordance with N.J.S.A. 40A:11 et seq., for

BID NO. 2022-03-07 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Bid Documents and Specifications, Plans may be obtain on the Piscataway website for free of charge. www.piscatawaynj.org ; Bid documents will not be mailed, and only picked up in person, at the above office location.

Bidders should also login to the Township website at: www.piscatawaynj.org for any Addendums: Home page E-Gov, Bids, download, print the document for free. Bidders may contact the Purchasing office by E-mail only at: Purchasing@piscatawaynj.org regarding questions or additional information about the bid specifications.

Bids must be sealed and delivered to the Office of the Purchasing office of Piscataway Township *on or before* date and time indicated below. The envelope to bear the following information:

Outside of Envelope-Title: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Bid No: **2022-03-07**
Name of the Bidder:
Address of the Bidder:
Date: **THURSDAY, MARCH 31, 2022**
Time: **2:00 p.m. (via zoom)**

The bid opening process will begin on the above advertised date and time in The Township of Piscataway 455 Hoes Lane, Piscataway, New Jersey 08854. **VIA ZOOM. "BROADCAST LIVE ZOOM"** Bids must be submitted to the Purchasing Office at the bid opening meeting, prior to the advertised date and time. On the advertised date and time, the Purchasing Agent shall publicly receive and open all bids **Via ZOOM. No bids shall be received after the time designated in the advertisement.** The Township of Piscataway does not accept electronic (e-mail) submission of bids.

Bidders must call the purchasing office at 732-562-2321 to drop off the sealed bid. The Municipal building is closed to the public due to the Covid-19. PLEASE, MAKE SURE YOUR SEALED BID ARRIVES to Purchasing BEFORE OR BY 12NOON ON 3/31/2022.

During the Covid-19 pandemic, while the statewide “State of Emergency” declaration is still in effect in according with Executive Order 107 all proposal packets will only be read and opened electronically “BROADCAST LIVE” via ZOOM Bid opening. The Municipal building is closed due to the Covid-19 restrictions. Once the bid opening is concluded bidders must call the Purchasing Agent @ 732-562-2321 to set an appointment if bidders wishes to review any of the bids.

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PLEASE, MAKE SURE YOU DROP OFF YOUR SEALED BID BEFORE OR BY 12NOON ON 3/31/2022.

BID WILL BE OPENED @2PM VIA ZOOM.

There will be a pre-bid **Site Visit** meeting on **MARCH 15, 2022**. While attendance is not mandatory, all prospective bidders are **strongly encouraged** to attend this important meeting, which will be held at the, at **2:00 p.m. @ 1 Sterling Village Drive, Piscataway, NJ 08854 (Sterling Village senior Housing)**

All bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq., Affirmative Action Against Discrimination (N.J.A.C. 17:27-1 et seq.). An Initial Project Workforce Report will be required from the successful contractor. (Form AA-201).

Contractors bidding on this project are to comply with the requirements of the New Jersey Prevailing Wage Act pursuant to N.J.S.A. 34:11-56.25 et seq.

Each bid shall be accompanied by a bid bond, cashier's check or certified check made payable to the Township of Piscataway, for ten percent (10%) of the amount of the total bid, however, not to exceed \$20,000.00.

Bidders are required by law to submit a Statement of Ownership Disclosure form statement setting forth the names and addresses of all persons and entities that own ten (10%) percent or more of its stock or interest of any type at all levels of ownership.

Statement of Ownership Requirement: Pursuant to N.J.S.A. 52:25-24.2, Bidders shall submit a statement setting forth the names and addresses of all persons and entities that own ten percent or more of its stock or interest of any type at all levels of ownership.

The bid package will also include other documents that must be completed and returned with 40A:11-1 et seq., the bid. Failure to comply with Instructions to Bidders and to complete and submit all required forms, may be cause for disqualification and rejection of the bid.

The Township of Piscataway reserves the right to reject any or all bids pursuant to N.J.S.A. 40A:11-1 et seq., and to waive any informalities that may be in the best interests of the Township.

MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Purchasing Specialist

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Review all sections that may affect your work and include applicable requirements. All contracts are based on scope information within the whole document set and are not limited to “trade” drawings and specifications.

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Sample of Bid Bond Form

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Sample of NJ AA-201 Forms

Sample of –ST-13 Form

SAMPLE PAGES **DOES NOT** HAVE TO RETURNED WITH BID PACKET.
REQUIRED ONCE CONTRACT IS AWARD.

Ethics in Purchasing

Township Responsibility

Recommendation of Purchases

It is the desire of The Township of Piscataway to have all employees and officials practice exemplary ethical behavior in the procurement of goods, materials, supplies, and services.

Officials and employees who recommend purchases shall not extend any favoritism to any vendor. Each recommended purchase should be based upon quality of the items, service, price, delivery, and other applicable factors in full compliance with N.J.S.A. 40A:11-1 et seq.,

Solicitation/Receipt of Gifts – Prohibited

Officials and employees are prohibited from soliciting and receiving funds, gifts, materials, goods, services, favors, and any other items of value from vendors doing business with The Township of Piscataway or anyone proposing to do business with the Township.

Vendor Responsibility

Offer of Gifts, Gratuities -- Prohibited

Any vendor doing business or proposing to do business with The Township of Piscataway, shall neither pay, offer to pay, either directly or indirectly, any fee, commission, or compensation, nor offer any gift, gratuity, or other thing of value of any kind to any official or employee of The Township of Piscataway or to any member of the official's or employee's immediate family.

Vendor Influence -- Prohibited

No vendor shall cause to influence or attempt to cause to influence, any official or employee of the Township of Piscataway, in any manner which might tend to impair the objectivity or independence of judgment of said official or employee.

Vendor Certification

Vendors or potential vendors will be asked to certify that no official or employee of The Township of Piscataway or immediate family members are directly or indirectly interested in this request or have any interest in any portions of profits thereof. The vendor participating in this request must be an independent vendor and not an official or employee of the Township.

MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Purchasing Specialist

Township of Piscataway

ADVISORY INFORMATION FOR BIDDERS

1. PROMPTNESS OF BID SUBMITTAL

It is the responsibility of the bidder to ensure that their bid is presented in a sealed envelope and submitted to the Purchasing Office, prior to the advertised bid date and time **Via ZOOM**. The advertised bid date and time for this bid is on **THURSDAY, MARCH 31, 2022 @ 2:00pm**. No bids shall be received after the time designated in the bid advertisement. No extensions or exceptions will be made. The Purchasing Office is opened Monday through Friday from 8:30am – 4:30pm and closed for lunch from 12:20pm to 1:30pm. Once again, bids will not be received after the time designated in the advertisement. Bidders must call Purchasing @732-562-2321 to hand deliver the sealed bid. The Municipal Building is closed due to the Covid-19.

2. PARKING

Allow enough time to locate a parking space.

3. MAIL

Mail is brought to the Clerk's Offices in mailbags, approximately 11:30am each day. The mail is then sorted within the Township system, by departments. The Clerk's Office routinely receives its mail at approximately 11:30am.

4. UPS / FED EX / AND OTHER EXPRESS DELIVERY SERVICES

Deliveries of this type usually begin at 9:00 a.m. These items are brought only to the Clerk's Office. The Clerks Office then calls the various departments with a request to pick up their items. **Please, Make Sure Name of the BID IS ON THE OUTSIDE OF THE FEDEX /UPS ENEVELOPE.**

5. HAND DELIVER BIDS – SUGGESTED PRACTICE

Keeping the aforementioned items in mind, the Township suggests that bidders arrange to hand deliver their bid to the Clerk's Office, and the Clerk will personally turn it in to the Purchasing Agent before the advertised date and time. Please understand that bids arriving after the advertised bid date and time, for any reason, cannot be accepted, opened or considered. . CALL 732-562-2321 to drop off the sealed bid. **PLEASE MAKE SURE YOU DROP OFF YOUR SEALED BY OR BEFORE 12NOON 3/31/2022.**

Require: Submission of (1) Original Bid in Blue Ink and Required: (1) Photo Copy of the original marked "TRUE COPY".

Required (1) Original Bid Bond only with the Original bid packet.

All bids are to be submitted in duplicate; one (1) Original; one (1) Photo Copy of the Original Marked "TRUE COPY. No originals in the True copy

Bidders must call the purchasing office at 732-562-2321 to drop off the sealed bid. The Municipal building is closed to the public due to the Covid-19. PLEASE, MAKE SURE YOR SEALED BID ARRIVES BY OR BEFORE 12NOON.

During the Covid-19 pandemic, while the statewide "State of Emergency" declaration is still in effect in according with Executive Order 107 all proposal packets will only be read and opened electronically "BROADCAST LIVE" via ZOOM Bid opening. The Municipal building is closed due to the Covid-19 restrictions. Once the bid opening is concluded bidders must call the Purchasing Agent @ 732-562-2321 to set an appointment if bidders wishes to review any of the bids.

All bids shall be kept sealed , and will be received and publicly opened on the proposal opening date and time in the Township Council Chambers using Virtual teleconferencing which can be access by logging in to zoom in the following manner:

Join Zoom Meeting:

Piscataway Purchasing is inviting you to a scheduled Zoom meeting.

Topic: BID OPENING: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Time: Mar 31, 2022 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/81518025256?pwd=MS9hSUhEbTZSV0tGY2h3MmJabzQxQT09>

Meeting ID: 815 1802 5256

Passcode: 008826

One tap mobile

+16468769923,,81518025256#,,,,*008826# US (New York)

+13017158592,,81518025256#,,,,*008826# US (Washington DC)

Dial by your location

+1 646 876 9923 US (New York)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

Meeting ID: 815 1802 5256

Passcode: 008826

PLEASE, MAKE SURE YOU DROP OFF YOUR SEALED BID TO PURCHASING BY OR BEFORE 12NOON ON 3/31/2022.

BIDS WILL BE OPENING VIA ZOOM @2PM.

Township of Piscataway

BID CHECKLIST (A)

A. Bid packages must be submitted in duplicate on the proposed forms as provided, and in the manner designated. The Township of Piscataway will accept one original bid package and one copy of the bid package. Please include all items, organized as follows:

1. Addenda, Acknowledgement
2. Americans with Disabilities Act—Acknowledgement
Bid Bond Form
3. Bid Proposal Form
4. Bid Guarantee (Bid Bond, Cashier's Check, or Certified Check)
5. Business Registration Certificate -- New Jersey—Submit with bid or prior to award of contract
6. Certificate (Consent) from Surety
7. Acceptable Bid Bond Forms
8. Contractor Questionnaire / Certification
9. Contractor's Registration Certification
10. Contractor Registration Certificate—Submit with bid or prior to award of contract
11. Equipment Certification
12. Iran Disclosure of Investment Activities
13. Non-Collusion Affidavit
14. Notice of Classification Form
15. Prequalification Affidavit—No Material Adverse Change-N/A
16. Prevailing Wages Certification
17. Statement of Ownership Disclosure
18. Subcontractor's Disclosure Statement and all required attachments for subcontractors.
19. Sworn Contractor Certification; Qualifications and Credentials
20. Bidder Comment Form - Optional
21. Bid Cover Page, with name ,address ,phone number, E-mail address
22. Hold Harmless Agreement
23. Subcontractor's forms if not applicable: WRITE **N/A** ON THE FORM AND SIGN BOTTOM OF FORM.
24. Pay to Play Form

Failure to submit the above listed documents with the bid package may be cause for rejection of the entire bid for being non-responsive

THE TOWNSHIP OF PISCATAWAY

BID CHECKLIST (B)

B. Reminder Checklist

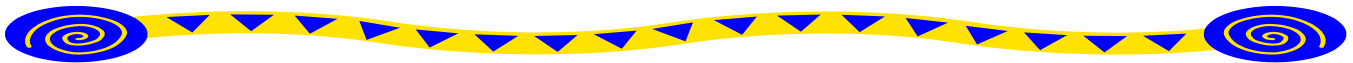
As a courtesy, the Office of the Purchasing Agent has prepared this reminder checklist to items pertaining to this bid. The checklist is not considered to be all-inclusive. Bidders are to read and become familiar with all instructions outlined in the bid package.

<u>Item</u>	<u>Yes</u>	<u>No</u>
1. Have you verified your pricing to ensure accuracy?		
2. Have you answered every question fully and accurately?		
3. Have you signed all your documents (Blue Ink)? No facsimile signature.		
4. Have you prepared all documents for submission?		
5. Did you make a copy of the bid package for your records?		
6. Did you make a duplicate copy of the original bid for the Township? Marked "True Copy"		
7. Did you submit a signed Bid Guarantee? Signed Consent of Surety?		
8. Did you correctly address the envelope, title of bid?		
9. Have you allowed ample time for the bid to reach the Clerk's Office? <hr/>		
10. REQUIRED: Bid Cover Page: Name, Address, Phone Number, E-mail Address?		

COVER PAGE IS REQUIRED BACK FILLED- OUT.

THE TOWNSHIP OF PISCATAWAY

2022-STERLING VILLAGE PARKING LOT REHABILITATION



**GENERAL
SPECIFICATIONS**



MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Purchasing Specialist

THE TOWNSHIP OF PISCATAWAY

INSTRUCTIONS TO BIDDERS

1. BIDS ARE TO BE SUBMITTED TO:

Division of Purchasing/Attention Purchasing Agent
The Township of Piscataway
455 Hoes Lane
Piscataway, New Jersey 08854

BY: **2:00 p.m.** PREVAILING TIME

ON: **THURSDAY, MARCH 31, 2022**

by mail, delivery service or in person. Bids that are submitted are to be sealed and will be unsealed and announced at the bid opening meeting.

- 2. Bid Packages to be submitted in Duplicate.** Bids must be placed in a *sealed* envelope/package marked as shown below on the front of the envelope/package. Bid packages must be submitted **in duplicate** on the proposed bid submittal forms as provided, and in the manner designated. The Township of Piscataway requires one original bid package, one duplicate copy of the bid package. The extra copies are necessary for processing of the bids. Bidders should also keep a complete copy of the bid packet, exactly as submitted.

<u>OUTSIDE OF Envelope Label Information:</u>	Township: <u>The Township of Piscataway</u>
	Bid Number: <u>2022-03-07</u>
	Project: <u>"2022-STERLING VILLAGE PARKING LOT REHABILITATION"</u>
	Bid Date: <u>THURSDAY, MARCH 31, 2022</u>
	Bid Time: <u>2:00pm</u>
Bidder: <i>Name of Company</i> <i>Address</i> <i>City, State Zip</i>	

Failure to properly label the bid envelope may be cause for the rejection of the bid.

The Township of Piscataway does not accept electronic (E-mail) submission of bids.

PLEASE, MAKE SURE YOU DROP OFF YOUR SEALED BID BY OR BEFORE 12NOON
3/31/2022.

BID WILL BE OPENED @2PM VIA ZOOM.

3. BID OPENING MEETING

All bids will be publicly received and unsealed by the Purchasing Agent opened at the above address and read beginning at **2:00pm** on **THURSDAY, MARCH 31, 2022**. Bidders and/or their authorized agents, and the general public are invited to be present at the bid opening. It is the responsibility of each bidder to ensure that their bid is complete and presented to the Purchasing Agent prior to the advertised bid date and time. No bids shall be received or accepted by The Township of Piscataway after the advertised bid date and time. . **PLEASE, MAKE SURE YOUR SEALED BID ARRIVES ON OR BEFORE 12NOON 3/31/2022.**

Join Zoom Meeting:

Piscataway Purchasing is inviting you to a scheduled Zoom meeting.

Topic: BID OPENING: 2022-STERLING VILLAGE PARKING LOT REHABILITATION

Time: Mar 31, 2022 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/81518025256?pwd=MS9hSUhEbTZSV0tGY2h3MmJabzQxQT09>

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+1 646 876 9923 US (New York)

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Meeting ID: 815 1802 5256

Passcode: 008826

PLEASE, MAKE SURE YOU DROP OFF YOUR SEALED BID BY OR BEFORE 12NOON 3/31/2022.

BID WILL BE OPENED @2PM VIA ZOOM.

BIDDING REQUIREMENTS

4. AFFIRMATIVE ACTION—EQUAL EMPLOYMENT OPPORTUNITY IN PUBLIC CONTRACTS--EEO

The construction contractor shall complete and submit an Initial Project Workforce Report, **Form AA-201** upon notification of award by the governing body. Proper completion and submission of this Report shall constitute evidence of the contractor's compliance with the regulations. Failure to submit this form may result in the contract being terminated. The contractor also agrees to submit a copy of the Monthly Project Workforce Report, **Form AA-202** once a month thereafter for the duration of the contract to the Department of Labor Workforce and Development and to The Township of Piscataway Public Agency Compliance Officer.

All bidders should familiarize themselves with N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1.1 et seq. **MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE—EXHIBIT B.** If awarded a contract, your company/firm will be required to comply with the above requirements.

All relevant questions should be related to:

Department of Treasury
Division of Purchase and Property
Contract Compliance and Audit Unit
EEO Monitoring Program—PO Box 206
Trenton, New Jersey 08625-0206
(609) 292-5473

5. AMERICAN GOODS

In accordance with N.J.S.A. 40A:11-1 et seq., only manufactured products of the United States, wherever available, and where possible are to be used with this project.

Access to the Work and Records

The representatives of the Federal Department of Labor, the New Jersey Department of Environmental Protection and the New Jersey Department of Labor and any other governmental entity having jurisdiction shall be afforded access to the work and project records under this contract. The Contractor shall provide proper facilities for such access and inspection

6. AMERICANS WITH DISABILITIES ACT; FACILITIES FOR HANDICAPPED PERSONS

The contractor must comply with all provisions of Title II of the Americans with Disabilities Act (ADA), P.L. 101-336, in accordance with 42 U.S.C. §121.01 et seq. The Township of Piscataway further recognizes that all specifications for the construction, remodeling or renovation of any public building shall provide facilities for the physically handicapped.

It is further recommended that bidders are required to read the Americans with Disabilities language form that is included in these specifications. The form shall be signed to show agreement with the provisions of Title II of the Act and the provisions are to be made a part of the contract. The signed form shall be submitted with the bid proposal. The contractor is obligated to comply with the Act and to hold the owner harmless.

7. ANTI-DISCRIMINATION PROVISIONS—N.J.S.A. 10:2-1

N.J.S.A. 10:2-1. Antidiscrimination provisions. Every contract for or on behalf of the State or any county or municipality or other political subdivision of the State, or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

No provision in this section shall be construed to prevent the township from designating that a contract, subcontract or other means of procurement of goods, services, equipment or construction shall be awarded to a small business enterprise, minority business enterprise or a women's business enterprise pursuant to P.L.).

8. ARCHITECT OR CONSTRUCTION DISPUTES; ALTERNATIVE DISPUTE RESOLUTION PROCESS

All disputes relating to construction contracts or relating to contracts for engineers or architects, surveyors, design or skilled services relating to construction contracts for prompt payment issues shall be submitted to the following Alternative Dispute Resolution process (“ADR”):

All disputes shall first be submitted to the architect of record, if there is one, for a determination. If thirty (30) days pass without a determination by the architect or a determination is made that does not resolve the dispute, then the claims shall be submitted for non-binding mediation by a single mediator.

The mediation shall be held where the project is located before a mediator who is mutually acceptable to the parties. The parties shall share the mediator’s fees equally. If the dispute is submitted for mediation the neutral party involved must demonstrate knowledge of the Local Public Contracts Law.

Nothing shall prevent either party from seeking injunctive or declaratory relief in court at any time.

The alternative dispute resolution practices required by this section shall not apply to disputes concerning the bid solicitation process, or to the formation of contracts.

The Bidder further agrees to include a similar provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors to include similar mediation provisions in all agreements with subcontractors, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements. The arbitration of claims is expressly excluded under this Contract.

If the parties cannot resolve their dispute through the mediation process, the parties are free to file an action in the appropriate court of law.

****AIA- Document's will Not be accepted by The Township of Piscataway. Sample of acceptable Bid Bond Form in the bid**

9. BID GUARANTEE AND BONDING REQUIREMENTS

A. Bid Guarantee Bidders shall submit with their bid package a bid guarantee made payable to: The Township of Piscataway ("Township"). The guarantee shall be in the form of a certified check, cashier's check or bid bond in the amount of 10% of the bid, but not in excess of \$20,000. Such deposit shall be forfeited upon refusal of a bidder to execute a contract. Any bid in the form of a check shall be returned when the contract is executed and surety (performance) bond filed with the Township.

The bid guarantee check for unsuccessful bidders, if requested, will be returned as soon after the bid opening as possible, but in no event later than (10) days after the bid opening.

Please note: Uncertified business checks, personal checks or money orders are not acceptable.

All bid bonds submitted must be signed and witnessed with original signatures. The Township will not accept facsimile or rubber stamp signatures on the bid bond. **Failure to sign the bid bond by either the Surety or Principal, and/or failure to submit the properly executed bid bond with the bid package, shall be deemed cause for disqualification and rejection of the bid.**

The Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the Power of Attorney. The Township of Piscataway will only accept bid bonds from companies that are licensed and qualified to do business in the State of New Jersey. Such a list may be available upon request to the State of New Jersey, Department of Banking and Insurance, P.O. 040, Trenton, New Jersey 08625. **Failure to submit a properly executed bid guarantee shall be cause for disqualification and rejection of bid.**

Please note: The name, address and phone number of the Bond Underwriter as well as the Bond Number shall be included with all bonds submitted to the Township.

****AIA- Documents will Not be accepted by The Township of Piscataway. Bidders must use Township BID BOND Form in the bid.**

B. Certificate (Consent) of Surety—N.J.S.A. 40A:11-1 et seq.,

Each bidder must submit with his bid a certificate from a surety company stating that the surety company will provide the contractor with a performance bond in an amount equal to the amount of the contract (N.J.S.A. 40A-11-1 et seq.). Such surety company must be licensed and qualified to do business in the State of New Jersey. All certificate (consent) of surety documents must be signed with original signatures.

The Township will not accept facsimile or rubberstamp signatures. The certificate (consent) of surety, together with a power of attorney must be submitted with the bid. Submission of a Consent of Surety which contains any prior conditions upon the Surety's issuance of the required Bonds (other than the award of the contract) may be cause for rejection of the bid.

Failure to sign the Certificate (Consent) of Surety by either the Surety or Principal, and/or failure to submit the properly executed Certificate (Consent) of Surety with the bid package, shall be deemed cause for disqualification and rejection of the bid.

**** Bidders must use Township BID BOND Form in the bid**

****Bidders must use Township Performance Payment Bond Form in the bid(-Sample)**

C. Performance Bond--(N.J.S.A. 2A:44-143/2A:44-147)

The successful contractor shall furnish a Performance, Payment and Completion Bond in a sum of at least one hundred percent (100%) of the total amount payable by the terms of his Contract. Such written guarantee shall be made payable to the Township of Piscataway and shall be in the form required by Statute. Attached to the performance bond shall be a Surety Disclosure Statement and Certification which shall be complete in all respects and duly acknowledged according to law. A model Surety Disclosure Statement and Certification is presented in the Appendix Section of this proposal.

Such bond shall further carry a stipulation that no advance, premature, excessive or delayed payments by the Township shall in any way affect the obligation of the Surety on its bond.

Such bond shall further stipulate that no payments made to the contractor, nor partial or entire use of occupancy of the work by the Township shall be an acceptance of any work or materials not in accordance with this Contract and the Surety shall be equally bound to the same extent as the Contractor.

It is expressly stipulated that the Surety for the Contractor on the project shall be obligated to make periodic inquiries of the Township at reasonable times, to determine whether its Principal has performed or was performing the Contract in accordance with all its terms and conditions, particularly in relation to the progress payments scheduled under said Contract with the Township.

In the event the Contractor defaults or fails to perform or finish the work prescribed under the Contract for any reason whatsoever, it shall become the unqualified obligation the Surety for the defaulting contractor to complete the Contract in accordance with its terms following receipt of notice from the Township of such default.

The Township shall only accept one payment and performance bond to cover this public works contract. The performance bond shall contain language as found in N.J.S.A. 2A:44-14. The bond form language is presented in the Appendix Section of this proposal.

Such Performance, Payment and Completion Bond shall be executed and delivered to The Township of Piscataway when so requested by the Notice to Proceed Letter or within ten (10) days after the award of contract.

The Township of Piscataway will only accept performance bonds from surety companies that are licensed and qualified to do business in the State of New Jersey, and if the amount of the bond is \$850,000 but not more than \$3.5 million, the surety shall hold a current certificate of authority, issued by the United States Secretary of the Treasury pursuant to 31 U.S.C. 9305. (N.J.S.A. 2A:44-143 (b))

Please note: The name, address, and phone number of the Bond Underwriter as well as the Bond Number shall be included with all bonds submitted to The Township of Piscataway and must be duly signed with original signatures.

When applicable, for multi-year contracts and for extension of contracts, the Performance Bond may be re-submitted each year on the contract anniversary date for one hundred per cent (100%) of the contract amount.

**** Bidders must use Township Performance Payment Bond Form in the bid. (-SAMPLE)**

10. BID PROPOSAL FORM

All bids are to be written in by typewriter or ink in a legible manner on the official Bid Proposal Form. Any bid price showing any erasure or alteration must be initialed by the bidder in ink, at the right margin next to the altered entry. Failure to initial any erasure or alteration may be cause to disqualify that particular bid entry. If the disqualified entry is a required one, the entire bid may be subject to rejection, so please fill out all entries with care.

Business Organization

Each Bid Proposal Form must give the full business address, business phone, fax, e-mail, the contact person of the bidder, and be signed by an authorized representative as follows:

- Bids by partnerships must furnish the full names of all partners and must be signed in the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing.
- Bids by corporations must be signed in the legal name of the corporation, followed by the name of the State in which incorporated and must contain the signature and designation of the president, secretary or other person authorized to bind the corporation in the matter.
- Bids by sole-proprietorship shall be signed by the proprietor.
- When requested, satisfactory evidence of the authority of the officer signing shall be furnished.

The Bid Proposal Form must be duly signed by the authorized representative of the company, at the end of the Bid Proposal Form. **Failure to sign in [Blue Ink](#) the Bid Proposal Form may be cause to disqualify the entire bid.** If the Bid Proposal Form contains more than one sheet, then bidders are requested to affix the company name and address on each intervening sheet between the front sheet and the signature sheet which already bear the company information.

The Township of Piscataway will not consider any bid on which there is any alteration to, or departure from, the bid specifications. Bidders are not to make any changes on the Bid Proposal Form, or qualify their bid with conditions differing from those defined in the contract documents. If bidders do make changes on the Bid Proposal Form, except as noted above for initialed clerical mistakes, it may be cause to disqualify that particular bid as non-responsive. (N.J.S.A. 40A:11-1 et seq.,)

The bidder also conveys by submitting a bid that the company he represents is financially solvent, experienced in and competent to perform the type of work so specified.

BID RESULTS. Preliminary bid results you can E-mail purchasing@piscatawaynj.org generally within **24-36 hours after date and time of bid opening**

11. BIDDER COMMENT SHEET

This form is for the Bidder's use in offering voluntary alternates, or other comments intended to afford the Township information or opportunities to improve the quality of the project, without invalidating the bid proposal. It may *not* be used to take exception to specific conditions of the project defined in the contract documents which the Bidder does not like. The bid provided must be based upon the plans and specifications, and all contract conditions, as stated. If these documents or conditions contain some untenable item, or extremely expensive provision, for example, to which the Bidder wishes to raise objection, this must be done at the pre-bid meeting, or in writing to the Purchasing office at: Purchasing@piscatawaynj.org through the question process outlined in the Instructions to Bidders. Such inquiries will have response issued by addendum only, and the resulting decision circulated to all bidders of record.

12. BIDDER'S RESPONSIBILITY FOR BID SUBMITTAL

It is the responsibility of the bidder to ensure that their bid is presented to The Township of Piscataway and officially received before the advertised date and time of the bid. It is understood and agreed upon that any person in The Township of Piscataway will be absolved from responsibility for the premature opening of any bid not properly labeled and sealed. Failure to properly label the bid envelope may be cause for the rejection of the bid. **PROPERLY NAME OF THE BID: OUTSIDE OF THE ENVELOPE MUST BE LABEL CLEAR.**

ON YOUR FEDEX OR UPS ENVELPLE THE NAME OF THE BID MUST BE ON THE OUTSIDE.

Reference to General Requirements and Special Conditions

The attention of bidders is specifically directed to the General Requirements, and the Special Conditions of the specifications

BID SUBMITTAL. Bids may be hand delivered or mailed per legal Notice by Bidders. In the case of mailed bids, the Township of Piscataway will **not** assume any responsibility for bids lost in transit at any time before bid opening. All bids received after the designated date and time will be returned unopened to the bidder.

- A. **QUESTIONS REGARDING PLANS & SPECIFICATIONS.** Should any bidder be in doubt as to the intent of the Plans and Specifications, he should immediately notify the Purchasing Agent in writing by E-mail to : Purchasing@piscatawaynj.org , who will send a written addendum to all bidders covering the point in question. Bidders may not rely upon oral before submitting bids, the bidder shall apply in writing to the Purchasing Agent for clarification or interpretation of any conflicting information between two or more statements in the Plans and Specifications. If such clarification is not requested seven business days before bidding, the bidder shall be responsible for doing such work and furnishing such materials, as is necessary to comply with whichever interpretation of the Plans and Specifications the Engineer may, during construction, judge to be proper. . Question to be E-mailed to Purchasing@piscatawaynj.org . **By 12noon on MARCH 18, 2022.**
- B. Official Addenda Process: **MARCH 23, 2022.**

13. BUSINESS REGISTRATION CERTIFICATE (N.J.S.A. 52:32-44)

Pursuant to N.J.S.A. 52:32-44 as amended, a contractor shall provide the contracting agency with the business registration of the contractor and that of any named subcontractor prior to the time a contract, purchase order, or other contracting document is awarded or authorized. At the sole option of the contracting agency, the requirement that a contractor provide proof of business registration may be fulfilled by the contractor providing the contracting agency sufficient information for the contracting agency to verify proof of registration of the contractor, or named subcontractors, through a computerized system maintained by the State.

Request of the Township

All bidders or companies providing responses for requested proposals, are **requested** to submit with their response package a copy of their "New Jersey Business Registration Certificate" as issued by the Department of Treasury of the State of New Jersey.

The Township reminds all respondents that failure to submit the New Jersey Business Registration Certificate prior to the award of contract will result in the rejection of the proposal.

A subcontractor named in a bid or other proposal made by a contractor to a contracting agency shall provide a copy of its business registration to any contractor who shall provide it to the contracting agency pursuant to the provisions of subsection b. of this section. No contract with a subcontractor shall be entered into by any contractor under any contract with a contracting agency unless the subcontractor first provides the contractor with proof of a valid business registration.

The contractor shall maintain and submit to the contracting agency a list of subcontractors and their addresses that may be updated from time to time during the course of the contract performance. A complete and accurate list shall be submitted before final payment is made for goods provided or services rendered or for construction of a construction project under the contract. A contracting agency shall not be responsible for a contractor's failure to comply with this subsection.

A contractor or a contractor with a subcontractor that has entered into a contract with a contracting agency, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury the use tax due pursuant to the "Sales and Use Tax Act," P.L.1966, c.30 (C.54:32B-1 et seq.) on all their taxable sales of tangible personal property delivered into this State.

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

DEPARTMENT OF TREASURY
 DIVISION OF REVENUE
 PO BOX 252
 TRENTON, N.J. 08646-0252


TAXPAYER NAME: TAX REGISTRATION TEST ACCOUNT
 TAXPAYER IDENTIFICATION#: 970-097-382/500
 ADDRESS: 847 ROEBLING AVE
 TRENTON NJ 08611
 EFFECTIVE DATE: 01/01/01
 FORM-BRC(08-01)

TRADE NAME: CLIENT REGISTRATION
 SEQUENCE NUMBER: 0107330
 ISSUANCE DATE: 07/14/04

Acting Director
John S. Tully

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.

SAMPLES OF
NEW JERSEY
BUSINESS REGISTRATION
CERTIFICATES

 **STATE OF NEW JERSEY**
BUSINESS REGISTRATION CERTIFICATE

Taxpayer Name: TAX REG TEST ACCOUNT
 Trade Name:
 Address: 847 ROEBLING AVE
 TRENTON, NJ 08611
 Certificate Number: 1093907
 Date of Issuance: October 14, 2004

For Office Use Only:
 20041014112823533

N.J.S.A. 54:49-4.1: Violations of Registration Requirements; Penalties.

A business organization that fails to provide a copy of a business registration as required pursuant to section 1 of P.L.2001, c.134 (C.52:32-44 et al.) or subsection e. or f. of section 92 of P.L.1977, c.110 (C.5:12-92), or that provides false information of business registration under the requirements of either of those sections, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided under a contract with a contracting agency or under a casino service industry enterprise contract.

14. CHALLENGES TO BID SPECIFICATIONS (N.J.S.A. 40A:11-1 et seq.,)

Any prospective bidder who wishes to challenge a bid specification shall file such challenges in writing with the Purchasing Agent no less than three (3) days prior to the opening of bids. Challenges filed after that date shall be considered void and having no impact on The Township of Piscataway or the award of a contract.

15. CHANGE ORDERS (N.J.A.C. 6A:26-4.9, 4.10 et seq.) (N.J.A.C. 5:30-11.1 et seq.)

The Township Approval Required; Prior to Issuance of Change Order (N.J.A.C. 5:30-11.2)

Change orders may be approved by The Township of Piscataway in an amount up to twenty percent (20%) when necessitated by one of the following:

- Emergencies consistent with N.J.S.A. 40A:11-1 et. Seq.;
- Unforeseeable physical conditions; or
- Minor modification to the project/scope that achieve cost savings, improve service or resolve construction conditions.

Contractors are prohibited to perform any change order unless so directed in writing by the Township, Office of the Purchasing Agent. Project Manager must have Resolution and Certified Funds by CFO/Director of Finance for any Change Orders. No work can be started by the Contractor without a Resolution and Certified Funds, Executed Change Order Contract.

16. CONTRACTS

A. Award of Contract; Rejection of Bid

The contract shall be awarded, if at all, to the lowest responsible bidder as determined by the Township. The Township of Piscataway reserves the right to reject any or all bids as authorized by the Local Public Contracts Law, and to waive any informalities the Township feels are in the best interests of the Township.

Award the Contract or Reject All Bids--Sixty (60) Days

Pursuant to N.J.S.A. 40A:11-1 et seq., The Township of Piscataway shall award the contract or reject all bids within sixty (60) days of the advertised date and time, except that bids of any bidders who consent thereto may, at the request of the Township, be held in consideration for such longer period as may be agreed.

B. Equal Prices

Pursuant to the statute when two or more bidders submit equal prices and the prices are the lowest responsible bids, the Township may award the contract to the vendor whose response, in the discretion of the Township, is the most advantageous, price and other factors considered.

EQUAL OR TIE BID. The Township of Piscataway reserves the right to award at their discretion, in the best interest of the Township and with reference to the information submitted with the proposals, to any of the tie bidders.

UNIT PRICES. All unit prices, and all lump sum prices, in the bid proposal shall include all applicable fees, cost, and tax (if any) relating to project, and all charges for overhead, profit, insurance, etc. The successful bidder will not be responsible for real property tax on any property of the Owner, including the site of the project. Bid proposal amount will exclude all Federal Excise Tax and sales tax of all states, except those if any.

PRICING ERROR. If a pricing error is discovered after bid opening between the unit price and the total extended price, the unit price shall prevail.

RIGHTS RESERVED BY TOWNSHIP. The Township reserves the right to reject any and all bids, to waive any informalities or irregularities in the bids received, and to accept any bid which is deemed most favorable to the Township of Piscataway, New Jersey, at the time and under the conditions stipulated. Proposals incorporating deviations which, in the judgment of the Purchasing Agent, are a clear departure from the intent and purpose of these specifications will not be considered.

C. Return of Contracts and Related Contract Documents

Upon written notification of award of contract by the Township, the contractor shall sign and execute a formal contract agreement between the township and Contractor and return the executed contracts along with:

1. Performance Bond in the total amount of the contract.
2. Insurance Certificate with The Township of Piscataway named as an additional insured.
3. Affirmative Action Form AA-201 - Initial Project Workforce Report.
4. Other required documents as may be outlined in bid specifications.

The above documents may also be required for submission with the official Notice to Proceed. The contracts and related documents shall be returned to the Office of the Purchasing Agent within **ten (10) days of receipt of notification**. Failure to execute the contract and return said contract and related required documents within the prescribed time may be cause for the annulment of award by the Township with the bid security becoming property of the Township.

D. Alterations of Contract

The Township of Piscataway reserves the right to alter or amend the contract by adding to or subtracting from the work herein specified, such additions or omissions being done under the general conditions of these specifications and the terms of the Contract. No changes shall be permitted from the specifications except that the same be in writing and the amount of the extra compensation or credit stipulated therein. Refer to Change Order Section.

E. Term of Contract

The contractor, to whom the contract is awarded, will be required to do and perform the work/services and to provide and furnish the materials in connection therewith in accordance with the plans and specifications on or before the date listed in the Technical Specifications.

TERM/COMPLETION OF PROJECT AS PER SPECIFICATION/PROPOSAL PAGES

F. Purchase Order Required

No contractor shall commence any public works project until he is in receipt of an approved purchase order authorizing work to begin. (See Notice (Authorization) to Proceed)

17. CONTRACTOR'S REGISTRATION EVIDENCE

A. Valid Certificate – Receipt of Bid

All contractors must adhere to the provisions of the Public Works Contractor Registration Act – N.J.S.A. 34:11-56.48 et seq. The PWCRA requires that “*No contractor shall bid on any contract for public work . . . unless the contractor is registered pursuant to this act.*” The law requires that all contractors and sub-contractors named in the proposal possess a valid certificate at the time the proposal is received by the contracting unit, in this case the Township.

B. Submission of Certificate – Receipt of Bid--Requested; Prior to Award--Mandatory

All bidders **are requested** to submit with the bid package a current Public Works Contractor Registration Certificate that was issued prior to the receipt of the bid.

The contractor who most likely is to be considered for the contract award, must submit a copy of the current Public Works Contractor Registration Certificate, and if applicable, copies of certifications of all listed subcontractors, prior to the award of contract. **If the successful contractor fails to provide copies of certificates prior to the award of contract, the bid may be rejected as non-responsive.**

For more information contact:

Contractor Registration Unit
Division of Wage and Hour Compliance
New Jersey Department of Labor & Workforce Development
PO Box 389
Trenton, New Jersey 08625-0389
Tel: 609-292-9464
Fax: 609-633-8591
E-mail: wage.hour@dol.nj.gov
Website: lwd.dol.state.nj.us/labor/wagehour/content/contact_us.html

18. CONTRACTOR/VENDOR REQUIREMENTS—OFFICE OF THE NEW JERSEY STATE COMPTROLLER

Contractors/vendors doing business with The Township of Piscataway are reminded of the following legal requirements pertaining to the Office of the New Jersey State Comptroller:

A. Access to Relevant Documents and Information—N.J.S.A. 52:15C-14 (d)

Private vendors or other persons contracting with or receiving funds from a unit in the Executive branch of State government, including an entity exercising executive branch authority, independent State authority, public institution of higher education, or unit of local government or the township shall upon request by the State Comptroller provide the State Comptroller with prompt access to all relevant documents and information as a condition of the contract and receipt of public monies. The State Comptroller shall not disclose any document or information to which access is provided that is confidential or proprietary. If the State Comptroller finds that any person receiving funds from a unit in the Executive branch of State government, including an entity exercising executive branch authority, independent State authority, public institution of higher education, or unit of local government or the township refuses to provide information upon the request of the State Comptroller, or otherwise impedes or fails to cooperate with any audit or performance review, the State Comptroller may recommend to the contracting unit that the person be subject to termination of their contract, or temporarily or permanently debarred from contracting with the contracting unit.

B. Maintenance of Contract Records—N.J.A.C. 17:44-2.2

Relevant records of private vendors or other persons entering into contracts with covered entities are subject to audit or review by OSC pursuant to N.J.S.A. 52:15C-14(d).

The contractor/vendor to whom a contract has been awarded, shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

19. DEBARMENT, SUSPENSION, OR DISQUALIFICATION – (N.J.A.C. 17:19-1.1 et seq.)

The Township of Piscataway will not enter into a contract for work with any person, company or firm that is on the State Department of Labor and Workforce Development; Prevailing Wage Debarment List, or the State of New Jersey Consolidated Debarment Report (www.state.nj.us/treasury/debarred) or the Federal System for Award—SAM.gov.

All bidders are required to submit a sworn statement indicating whether or not the bidder is, at the time of the bid, included on the State Department of Labor and Workforce Development; Prevailing Wage Debarment List or the State of New Jersey Consolidated Debarment Report, or the Federal Debarred Vendor List--Excluded Parties List System, through the System for Award Management portal—SAM.gov.

20. DOCUMENTS, MISSING/ILLEGIBLE

The bidder shall familiarize himself with all forms provided by the Township that are to be returned with the bid. If there are any forms either missing or illegible, it is the responsibility of the bidder to contact the Purchasing Agent during regular business hours or the **Guy Gaspari, Director of Public Works** as outlined in the bid advertisement for duplicate copies of the forms. This must be done before the bid date and time. The Township accepts no responsibility for duplicate forms that were not received by the bidder in time for the bidder to submit with his bid.

***Forms provided by The Township of Piscataway that must be returned with bid are referenced in the proceeding checklist.**

21. DOCUMENT SIGNATURES – ORIGINAL; BLUE INK

All documents returned to the Township shall be signed in ink (blue) with an original signature. Failure to sign and return all required documents with the bid package may be cause for disqualification and for the bid to be rejected pursuant to N.J.S.A 40A:11-1 et seq., (non-responsive). The Township will not accept facsimile or rubber stamp signatures.

Checklist of Required Documents (Forms Provided in Bid Package)

• Acknowledgement of Addenda
• Americans with Disabilities Act
• Bid Proposal Form
• Bidder Comments Form--optional
• Bid Cover Sheet, Name, Address, Phone Number, E-mail Bid Bond Form-Piscataway Form only
• Contractor Questionnaire/Certification
• Contractor’s Registration Certification
• Equipment Certification Exhibit “B” Hold Harmless Bidders Affidavit Plan & Experience Pay to Play Form
• Iran Disclosure of Investment Activities
• Non-Collusion Affidavit
• Prequalification Affidavit –N/A
• Prevailing Wages Certification
• Statement of Ownership Disclosure
• Subcontractor’s Disclosure Statement
• Sworn Contractor Certification; Qualifications and Credentials

Please check your bid package for these forms!

Reminder – Original Bid and One True Copy of Bid Package

Bid packages are to be submitted in duplicate on the proposed forms as provided and the manner designated. The Township of Piscataway will accept one original bid package, one true copy of the bid package.

22. EQUIPMENT CERTIFICATION (N.J.S.A. 40A:11-1 et seq.,)

Each bidder shall provide a certification showing that he owns, leases or controls all the necessary equipment required by the specifications. If the bidder is not the actual owner or lessee of any such equipment, he shall submit a certificate stating the source from which the equipment will be obtained and shall obtain a certificate from the owner and person in control of the equipment, definitely granting to the bidder the control of the equipment required during such time as may be necessary for the completion of that portion of the contract for which it is necessary.

The certificates are to be submitted with the bid. If the contract involves the installation of a manufactured system which requires the contractor to have special knowledge or training, or to be specifically certified by the manufacturer to install their system, this form is used to submit such required evidence of the bidder's approval from the manufacturer.

23. EXAMINATION OF SPECIFICATIONS, ACKNOWLEDGEMENT

The bidder, by submitting a proposal, acknowledges that he has carefully examined the bid specifications, documents, addenda (if any), and the site; and that from his investigation, he has satisfied himself as to the nature and location of the work, the general and local conditions and all matters which may in any way affect the work or its performance, and that as a result of such examination, he fully understands the intent and purpose thereof, his obligations thereunder, and that he will not make any claim for, or have any right to damages, because of the lack of any information.

Each bidder submitting a bid for a service contract shall include in his bid price all labor, materials, equipment, services, and other requirements necessary, or incidental to, the completion of the work, and other pertinent work as hereinafter described, in accordance with the bid specifications and documents.

Quality of Materials and Workmanship

The attention of bidders is directed to the exacting requirements of the Contract requiring the Contractor to provide safe, watertight and otherwise adequate structures. The bidder shall realize fully that the first class materials and workmanship specified must be supplied in full measure in order to produce acceptable structures and equipment of the kind specified and as designed to give uninterrupted service for an extended period. As per Specifications.

TERM/COMPLETION OF PROJECT AS PER SPECIFICATIONS/PROPOSAL PAGES

24. FALSE MATERIAL REPRESENTATION/TRUTH IN CONTRACTING

A person commits a crime if the person knowingly makes a material representation that is false in connection with the negotiation, award or performance of a government contract. If the contract amount is for \$25,000.00 or above, the offender is guilty of a crime of the second degree. If the contract amount exceeds \$2,500.00, but is less than \$25,000.00, the offender is guilty of a crime of the third degree. If the contract amount is for \$2,500.00 or less, the offender is guilty of a crime of the fourth degree.

Bidder should be aware of the following statutes that represent “Truth in Contracting” laws:

- N.J.S.A. 2C:21-34, et seq. governs false claims and representations by bidders. It is a serious crime for the bidder to knowingly submit a false claim and/or knowingly make material misrepresentation.
- N.J.S.A. 2C:27-10 provides that a person commits a crime if said person offers a benefit to a public servant for an official act performed or to be performed by a public servant, which is a violation of official duty.
- N.J.S.A. 2C:27-11 provides that a bidder commits a crime if said person, directly or indirectly, confers or agrees to confer any benefit not allowed by law to a public servant.
- Bidder should consult the statutes or legal counsel for further information.

25. FORCE MAJEURE

Neither party shall be liable in damages for any failure, hindrance or delay in the performance of any obligation under this Agreement if such delay, hindrance or failure to perform is caused by conditions beyond the control of either party, including, but not limited to, Acts of God, flood, fire, war or the public enemy, explosion, government regulations whether or not valid (including the denial or cancellation of any export or other necessary license), court order, state funding, or other unavoidable causes beyond the reasonable control of the party whose performance is affected which cannot be overcome by due diligence.

Vendors, and/or contractors who have a contract with The Township of Piscataway to provide goods or services cannot unilaterally claim an increase in the cost of the contract because of Force Majeure.

26. INSURANCE AND INDEMNIFICATION

The bidder to whom the contract is awarded for any service work or construction work shall secure, pay the premiums for and keep in force until the contract expires, insurance of the types and amounts listed as listed:

General Liability	\$2,000,000. General Aggregate \$1,000,000. Products \$1,000,000. Bodily Injury Property Damage & Personal Injury Combined \$1,000,000. Each Occurrence \$ 100,000 Pollution Cleanup \$ 50,000. Fire Damage \$ 5,000. Medical Expense
Excess Umbrella Liability	\$4,000,000 \$1,000,000 Sexual Harassment
Comprehensive Automobile Liability Coverage	\$1,000,000 Combined Single Limit Bodily Injury/Property Damage

(A) Insurance Certificate – When Required

- The contractor shall present to The Township of Piscataway an insurance certificate in the above types and limits before any work or service begins.
- Automobile liability insurance coverage shall be included for any vehicle used by the contractor.
- The certificate holder shall be as follows:

The Township of Piscataway
c/o Office of the Purchasing Agent
455 Hoes Lane
Piscataway, New Jersey 08854

Additional Insured Clause-- The contractor must include the following clause on the insurance certificate.

“The Township of Piscataway is named as an additional insured”

OTHER INSURANCES

WORKERS COMPENSATION Evidence of adequate Workers Compensation Insurance as required by the laws of the State of New Jersey and the United States, must be available for perusal. The minimum limits are the following, unless a greater amount is required by law:

Bodily Injury by Accident	\$1,000,000. Each Accident
Bodily Injury by Disease	\$1,000,000. Policy Limit
Bodily Injury by Disease	\$1,000,000. Each Employee
Contract Liability	Same as General Liability

(B) Indemnification

The contractor shall assume all risk of and responsibility for, and agrees to indemnify, defend, and save harmless the Township and its agents, employees and Township members, from and against any and all claims, demands, suits, actions, recoveries, judgments and costs and expenses (including, but not limited to, attorney's fees) in connection therewith on account of the loss of life or property or injury or damage to any person, body or property of any person or persons whatsoever, which shall arise from or result directly or indirectly from the work and/or materials supplied under this contract or the performance of services by the contractor under the agreement or by a party for the whole contract is liable. This indemnification obligation is not limited by, but is in addition to, the insurance obligations contained in this agreement.

The Contractor is to assume all liability of every sort incident to the work, including property damage caused by him or his men or by any subcontractor employed by him or any of the subcontractor's men.

(C) Builders Risk Applicable X Not Applicable

The contractor shall obtain and pay for within their bid, a Builder's Risk Policy providing coverage for all risk of physical loss or damage to the property in an amount equal to the total project value, less excavations and foundations.

The policy must be maintained for the duration of the project from the beginning of construction until:

- (i) written acceptance by **Guy Gaspari**, Director of Public Works, Piscataway STERLING VILLAGE SENIOR HOUSING or substantial completion, and
- (ii) a temporary certificate of occupancy or certificate of occupancy has been issued.

A copy of the policy must be delivered to The Township of Piscataway before construction begins. All of the contractor's policies, with the exception of workers' compensation, shall be endorsed naming the Township, its elected and appointed officials, and employees as additional insureds.

27. INTERPRETATIONS AND ADDENDA (N.J.S.A. 40A:11-1 et seq.,)

No interpretation of the meaning of the specifications will be made to any bidder orally. Every request for such interpretations should be made in writing to the Purchasing Agent or **Guy Gaspari, Director of Public Works/T & M Associates** of Record and must be received by same at least ten (10) business days, not including Saturdays, Sundays and holidays, prior to the date fixed for the opening of bids to be given consideration. Any and all interpretations and any supplemental instructions will be distributed in the form of written addenda to the specifications. The addenda will be provided by The Township of Piscataway in accordance with N.J.S.A 40A:11-1 et. Seq. to the bidder by E-mail , certified fax or delivery service, no later than seven (7) days, not including Saturdays, Sundays, or holidays prior to the date for acceptance of the bids. All addenda so issued shall become part of the contract document.

- C. ADDENDA. It shall be understood that any addendum issued from time to time to provide additional information to the bidders shall become an integral part of this bid package. Receipt of Addendum shall be acknowledged by the bidders in the space provided therefore on the "Bid Proposal Form: Bidders log into Township website for Addendums. www.piscatawaynj.org . By 12noon on **MARCH 18, 2022**.
- D. Official Addenda Process: **MARCH 23, 2022**

28. IRAN DISCLOSURE OF INVESTMENT ACITIVITIES- (N.J.S.A. 40A:11-1 et seq.,)

The Township of Piscataway, pursuant to N.J.S.A. 40A:11-1 et. Seq. shall implement and comply with Public Law 2012, c.25, Disclosure of Investment Activities in Iran—N.J.S.A. 52:32-55 et seq.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract, must complete a certification attesting, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran.

The Chapter 25 list is found on the Divisions website

<http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>.

If the Township determines that a person or entity has submitted a false certification concerning its engagement in investment activities in Iran under section 4 of P.L.2012, c.25 (C.52:32-58), the Township shall report to the New Jersey Attorney General the name of that person or entity, and the Attorney General shall determine whether to bring a civil action against the person to collect the penalty prescribed in paragraph (1) of subsection a. of section 5 of P.L.2012, c.25 (C.52:32-59).

In addition, bidders must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes on the lower portion of the enclosed form.

The Township has provided within the specifications, a Disclosure of Investments Activities certification form for all persons or entities, that plan to submit a bid, respond to a proposal, or renew a contract with the Township, to complete, sign and submit with the proposal.

JANUARY 29, 2021 UPDATE IRAN INVESTMENTS DISCLOSURE DOCUMENT FOR BIDS DOCUMENTS

Subject: Iran Investment Disclosure Now Pre-Award

Effective January 29, 2021, P.L. 2021, c. 4 amends the law requiring vendor and contractor disclosure of investment activities in Iran. The law allows the Iran investment disclosure form to be submitted prior to contract award and at the time the contract is renewed rather than with the bid or RFP submission. Although the law refers to State contracts, it also applies to contracting units subject to the Local Public, Public School, and County College Contracts Laws because N.J.S.A. 40A:11-2.1; 18A:18A-49.4; and 18A:64A-25.43, respectively, require these contracting units to follow the Iran disclosure procedure for State contracts. Contracting units are encouraged to review the new law with legal counsel and revise their procurement forms as necessary.

Failure to complete, sign, certify and submit the Disclosure of Investment Activities in Iran form with the bid/proposal shall be cause for rejection of the proposal.

29. LIABILITY – COPYRIGHT

The contractor (vendor) shall hold and save the Township, its officials and employees, harmless from liability of any nature or kind for or on account of the use of any copyrighted or un-copyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of his contract.

30. LIQUIDATED DAMAGES

The contractor agrees to substantially complete this public works project to the complete satisfaction of The Township of Piscataway by the stated contract completion date or within the number of working days so specified in the contract.

Failure to complete the project within the specified time frame or contract completion date shall lead to The Township of Piscataway assessing liquidated damages against the contractor in accordance with and pursuant to N.J.S.A. 40A:11-1 et. seq.

For each calendar day thereafter that the work included under this contract remains uncompleted in accordance with the provision of the contract or not completed to the satisfaction of the Township, the Township shall assess liquidated damages as follows:

<u>Amount of Contract</u>	<u>Liquidated Damages</u>
<u>Range of Amount</u>	
\$ 20,000 and less than \$ 50,000	\$ 200.00 per calendar day
50,001 and less than \$ 100,000	300.00 per calendar day
100,001 and less than \$ 250,000	500.00 per calendar day
251,001 and less than \$ 500,000	1,000.00 per calendar day
500,000 and less than \$1,000,000	2,000.00 per calendar day
1,000,000 and over	2,500.00 per calendar day

The Township may assess liquidated damages by deducting the amount from monies which may due or become due to the contract.

The Township may also assess the contractor additional damages for costs the Township may incur because each day the project remains uncompleted. These costs include but are not limited to:

- Construction management fees
- Architect/engineer fees
- administrative costs
- Any inspector or inspectors necessarily employed by The Township of Piscataway on the work, for any number of days in excess of the number allowed in the specifications

The Township of Piscataway may also assess against all monies owed to the contractor, liquidated damages for the violation of any terms and conditions of the contract or agreement by the contractor or the failure to perform said contract or agreement in accordance with its terms and conditions or the terms or conditions of the “Local Public Contracts Law,” in accordance with and pursuant to N.J.S.A. 40A:11-1 et seq.,

31. MAINTENANCE BONDS **Required** not Required When required by the Township, the contractor shall furnish a Maintenance Bond for the total sum of the contract price, indemnifying The Township of Piscataway against defects in construction for a period of **Two (2) years** after the completion of the work, general wear and tear excepted.

The condition of this obligation is such that if the successful contractor shall indemnify and hold harmless The Township of Piscataway from and against all losses, costs, damages and expenses, whatsoever, which the Township may suffer or compelled to pay by reason of the failure of the successful contractor to indemnify the Township against defects in construction for a period of **Two (2) years** after the completion of the work. Maintenance Bond must be sent to the project manager at the Township of Piscataway.

32. NON-COLLUSION AFFIDAVIT (N.J.S.A. 52:34-15)

A notarized Non-Collusion Affidavit shall be submitted with the bid/proposal. The bidder/respondent has to certify that he has not directly or indirectly, entered into any agreement, participated in any collusion, discussed any or all parts of this proposal with any potential bidders, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named bid, and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that The Township of Piscataway relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for the said bid.

The respondent has to further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees of bona fide established commercial or selling agencies maintained by the respondent.

The Township of Piscataway has provided a Non-Collusion Affidavit form here within the specifications package. All respondents are to complete, sign, have the signature notarized and submit the form with the proposal response.

Failure to submit the Non-Collusion Affidavit with the proposal may be cause for the disqualification of the proposal.

33. NOTICE (AUTHORIZATION) TO PROCEED

The contractor shall not perform any work, or provide any services, materials, supplies until a Notice (Authorization) to Proceed is received from the Office of the Purchasing Agent/Project Manager.

The Township of Piscataway only recognizes the receipt by the contractor of an approved signed purchase order as a Notice to Proceed. No word of mouth, phone, fax, e-mail, letter or other form of communication to proceed is a valid Notice to Proceed.

It is the intention of the Township to officially notify the Contractor, to whom the contract was awarded, through a Notice to Proceed letter issued by the Purchasing Agent. A purchase order will accompany the Notice to Proceed letter. The contractor shall submit certain documents to the Township as so requested in the Notice to Proceed letter.

34. Pre-Construction and Construction Conferences

Before construction is started, preconstruction conferences shall be held. During the first conference The Township of Piscataway Project Manager, his Engineer, Administrator, Purchasing Agent and the Contractor will discuss the procedures to be followed by the Contractor during the construction process. The Contractor will also be required to attend a preconstruction conference attended by all utility companies and State and local authorities. During the construction, job meetings shall be held at frequent intervals to review construction and restoration progress and to resolve difficulties which might delay completion of the work. Attendees at these meetings shall include representatives of the Township of Piscataway Project Manager, the Engineer, Administrator and Purchasing Agent and the Contractor. A Notice to Proceed must be sent to the awarded Contractor by the Project Manager. A Copy of the Notice to Proceed must be submitted to the Purchasing Agent.

34. PAYMENTS

Every effort will be made to pay vendors and contractors within thirty (30) to sixty (60) days provided The Township of Piscataway receives the appropriate documentation including but not limited to:

- Signed voucher by vendor
- Packing slips
- Invoices

Payment will be rendered upon completion of services or delivery of full order to the satisfaction of the Township, unless otherwise agreed to by written contract or mandated by State Law*. The Township may, at its discretion make partial payments. Township payment dates schedule and holidays list will be attached to the Contract.

*****Contractor, is strongly advised to submit the Invoices on a timely manner to the Project Manager along with the Weekly Certified Payrolls.**

All payments are subject to approval by The Township of Piscataway at a public meeting. Payment may be delayed from time to time depending on The Township of Piscataway meeting schedule.

35. PAYMENT, PARTIAL, WITHHOLDING

A. Contract Thresholds; Partial Payments/Withholding

1. Contracts – Less than \$100,000 – Lump Sum Payment

Public works contracts less than \$100,000 shall be paid in one lump total sum, upon completion of the project and to the satisfaction of the Township

Contracts – Exceeding \$100,000 – Monthly Payments

Public works contracts that exceed \$100,000 shall be paid with partial payments on a monthly basis for work that was completed to the satisfaction of the Township.

3. Withholding of Monies – Percentage to be Withheld

The Township of Piscataway shall withhold the following percentages of outstanding balances of monies owed to contractors:

Balances Exceeding \$500,000 -- Two (2%) Per Cent

Balances Less than \$500,000 -- Five (5%) Per Cent

The amounts withheld shall be returned to the contracts upon fulfillment of the terms of the contract.

B. Prompt Payment

The Township of Piscataway will provide payment in accordance with the “Prompt Payment” law as codified in N.J.S.A. 2A:30A-1 et seq. All payments to contractors are subject to approval by The Township of Piscataway at a public meeting.

The Township of Piscataway generally holds its Agenda, and its Regular Public Meetings twice or more each month. It is at these meetings that The Township of Piscataway reviews payment of bills.

All bills submitted to the Township for approval and payment pursuant to N.J.S.A. 2A:30A-1 et seq. must comply with the following provisions. The “billing date” shall be the date that the contractor signs the certification on the voucher/purchase order that the work has been performed. These bills include all bills for improvements to real property and contracts for engineers, architects, surveyors, design or skilled services relating to construction work.

Bills that are required to be approved by an engineering or architecture firm (prior to submission to the Township for approval) for purposes of confirmation of successful completion of construction work, shall be approved or disapproved within twenty (20) days of submission of same to the architect or engineer. If bills are disapproved or monies withheld from payment, the notice of the reason for same shall be given within the same twenty (20) days to the contract.

The Township must approve payment of all bills. For the Township to consider a bill for approval it must be submitted to the Purchasing Agent at least two weeks prior to a scheduled/or re-scheduled Township meeting date. If the Township, or any agent or officer of the Township, determines that the bill is not approved then notice of the disapproval shall be sent to the contractor with five (5) days of the Township meeting on which the bill was listed for approval. If the bill is approved by the Township, then payment shall be made to the contractor with seven (7) days of the Township meeting as per the “payment cycle.”

Release of Liens

Neither the final payment nor any part of the retained percentage shall become due until the Contractor delivers to The Township of Piscataway a complete Release of all Liens arising out of this Contract and an affidavit that so far as he has knowledge or information, the releases include all labor and material for which a lien could be filed, but the Contractor may, if any subcontractor refuses to furnish a release in full, furnish a bond satisfactory to the Township, to indemnify him against any liens. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to The Township of Piscataway all monies that the latter may be compelled to pay in discharging such a lien, including all costs and reasonable attorney's fees

36. PRE-BID MEETING; ATTENDANCE STRONGLY ENCOURAGED!

The pre-bid meeting is an important part of the bidding process. It permits all bidders to have an equal understanding of the procurement/contracting requirements and of the scope of work involved. Although pre-bid meetings are not mandatory, all potential bidders are strongly encouraged to attend. **Please review the General Specifications for a pre-bid meeting announcement.** Any or all changes to the bid specifications discussed as a result of the pre-bid meeting will be formalized in the form of a written addenda to the specifications and distributed in accordance with N.J.S.A. 40A:11-1 et seq.,

It is anticipated that the pre-bid meeting **SITE/VISIT (MARCH 15, 2022@ 2:00 p.m.)** scheduled for this project : **@ 1 STERLING VILLAGE DRIVE, PISCATAWAY**

E. Registration Period

At this time all attendees will be asked to register to attend this meeting. Proper photo identification is required. Plans and specifications may be available to download on Township bid website from. Attendance will be recorded.

F. Review of Procurement/Contracting Requirements—Purchasing Agent

The Purchasing Agent will review the major components of the procurement and contracting requirements of the bid.

G. Scope of Work and Scheduled Completion Time— Guy Gaspari, Director of Public works.

The Department of Public Works of /T & M ASSOCIATES in conjunction with the Director of Public Works (Buildings and Grounds) , and the Purchasing Agent will review the scope of the work that is requested and completion time requirements (**As per Specification** Number of Working Days). A review of the plans and any drawings may take place.

H. Walkthrough of Facility/Site- MARCH 15, 2022 @ 2 p.m. @ STERLING VILLAGE

Guy Gaspari, Director of Department of Public Works/T & M ASSOCIATES, in conjunction with the Assistant Director of Public Works and or the Purchasing Agent, may conduct a facility site walkthrough with all interested parties.

I. Questions; Clarifications (Due Date for Questions& Answers on the Bid is MARCH 18, 2022 BY 12:00 NOON)

J. Official Addenda Process: MARCH 23, 2022.

Potential bidders are permitted to ask questions during the process. Questions of substantial measure or questions that require clarification of work to be completed may be answered at the meeting, however, **Guy Gaspari , Director of Public Works/T & M ASSOCIATES** shall answer all such questions in writing in the form of an official addenda. To: purchasing@piscatawaynj.org

Any and all answers to questions, interpretations or any supplemental instructions will be distributed in the form of a written official addenda to the specifications. The official addenda will be provided by the Purchasing Agent's Office of the Township in accordance with N.J.S.A. 40A:11-1 et Seq., to the bidder by E-mail to: purchasing@piscatawaynj.org , no later than seven (7) days, not including Saturdays, Sundays, or holidays prior to the date for acceptance of the bids. All addenda so issued shall become part of the bid and contract document.

37. PREVAILING WAGES: CONSTRUCTION, ALTERATIONS, REPAIRS

The State of New Jersey Prevailing Wage Act, Chapter 150 Laws of 1963 with applicable statewide wage Department of Labor and Workforce Development in conformance with N.J.S.A. 34:11-56.25 et seq., may be included in these bid contract documents. Copies of these wage rates may be obtained from the State Department of Labor and Workforce Development, and/or viewed at <http://lwd.dol.state.nj.us/> the Prevailing Wages Determination Section.

Compliance with New Jersey Prevailing Wage Act

Every contractor and subcontractor performing services in connection with this project, shall pay all workers a wage rate not less than the published prevailing wage rates, for the locality the work is being performed, as designated by the New Jersey Department of Labor and Workforce Development.

PREVAILING WAGE ACT.

Pursuant to N.J.S.A. 34:11-56.25 et seq., the Contractors on projects for public work shall adhere to all requirements of the New Jersey Prevailing Wage Act. The contractor shall be required to submit a certified payroll record to the Township within ten (10) days of the payment of the wages. In the event it is found that any worker, employed by the Contractor or any subcontractor has been paid a rate of wages less than the prevailing wage required to be paid, the Township may terminate the Contractor's or subcontractor'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 and the contractor and subcontractor then be required to continue the work to completion or otherwise.

The Contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The Contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c). It is the Contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards.

Additional information is available at http://lwd.dol.state.nj.us/labor/wagehour/wagerate/pwr_construction.html

Certified Payrolls

Every contractor agrees to submit to The Township of Piscataway a certified payroll for each payroll period within ten (10) days of the payment of wages. The contractor further agrees that no payments will be made to the Contractor by the Township, if certified payrolls are not received by the Township. It is the Contractor's responsibility to insure timely receipt by the Township of certified payrolls.

Submission of Affidavit

Before final payment, the contractor shall furnish The Township of Piscataway with an affidavit stating that all workers have been paid the prevailing rate of wages in accordance with State of New Jersey requirements. The contractor shall keep an accurate record showing the name, craft, or trade and actual hourly rate of wages paid to each workman employed by him in connection with this work. Upon request, the Contractor(s) and each Subcontractor shall file written statements certifying to the amounts then due and owing to any and all workmen for wages due on account of the work. The statements shall be verified by the oaths of the Contractor or Subcontractor, as the case may be.

Posting of Prevailing Wages

The contractor and subcontractor shall post the prevailing wage rates for each craft and classification involved in the work, including the effective date of any changes thereof, in prominent and easily accessible places at the Site of the work and in such place or places as used to pay workmen their wages. N.J.S.A. 34:11-56.32.

PREVAILING WAGE ACT.

Pursuant to N.J.S.A. 34:11-56.25 et seq., The Contractors on projects for public work shall adhere to all requirements of the New Jersey Prevailing Wage Act. The contractor shall be required to submit a certified payroll record to the Township within ten (10) days of the payment of the wages. In the event it is found that any worker, employed by the Contractor or any subcontractor has been paid a rate of wages less than the prevailing wage required to be paid, the Township may terminate the Contractor's or subcontractor'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 and the contractor and subcontractor then be required to continue the work to completion or otherwise.

The Contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The Contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c). It is the Contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards.

Additional information is available at http://lwd.dol.state.nj.us/labor/wagehour/wagerate/pwr_construction.html

Prevailing Wages Certification—Submission with Bid

The bidder shall submit a Prevailing Wages Certification with its bid package.

Non-compliance Statement

If it is found that any worker, employed by the contractor or any subcontractor covered by said contract, has been paid a rate of wages less than the prevailing wage required to be paid by such contract, the Township, may begin proceedings to terminate the contractor's or subcontractor'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 and to prosecute the work to completion or otherwise. The contractor and his sureties shall be liable for any excess costs occasioned thereby to the public body.

38. QUALIFICATION OF BIDDERS - Contractor Questionnaire Certification Form

The Township of Piscataway may make such investigations as it seems necessary to determine the ability of the bidder to perform the terms of the contract. The bidder shall complete a Contractor Questionnaire Certification Form and return same with the bid and shall furnish all information to the Township as the Township may require to determine the contractor's ability to perform the duties and obligations as outlined in these specifications.

All bidders are reminded that bids may be rejected as not being responsive pursuant to N.J.S.A. 40:11-1 et seq., and therefore bidders are asked to complete the Questionnaire and to provide any supporting documentation with the bid package.

39. RESIDENT CITIZENS; PREFERRED IN EMPLOYMENT ON PUBLIC WORKS CONTRACTS

All bidders are to familiarize themselves with N.J.S.A. 34:9-2, which requires the contractor of any public work project to give preference in employment on the project, to citizens of the state of New Jersey. If the terms and conditions of N.J.S.A. 34:9-2 are not complied with, the contract shall be voidable. The Township is obligated to file with the Commissioner of Labor, the names and addresses of all contractors holding contracts with this project.

40. RENEWAL OF CONTRACT; AVAILABILITY AND APPROPRIATION OF FUNDS

The Township of Piscataway may, at its discretion, request that a contract that is subject to renewal, be renewed in full accordance with N.J.S.A. 40:11-1 et seq., The Purchasing Agent may negotiate terms for a renewal of contract proposal and present such negotiated proposal to the Township. The Township of Piscataway is the final authority in awarding renewals of contracts. All multi-year contracts and renewals are subject to the availability and appropriation annually of sufficient funds as may be needed to meet the extended obligation.

41. RIGHT TO KNOW LAW

All potentially hazardous materials or substances must be properly labeled in full accordance with the New Jersey Right to Know Law - N.J.S.A. 34:5A-1 et seq. All contractors or vendors who need additional information about the New Jersey Right to Know Law are to contact the:

New Jersey Department of Health and Senior Services
Right to Know Program
CN 368
Trenton, New Jersey 08625-0368
www.nj.gov/health/workplacehealthandsafety/right-to-know/

NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW ACT

The manufacturer or supplier of chemical substances or mixtures shall label them in accordance with the N.J. Worker and Community Right to Know Law (N.J.S.A. 34:5A-1 et seq., and N.J.A.C 8:59-2 et seq.,). All direct use containers shall bear a label indicating the chemical name(s) and Chemical Abstracts Service number(s) of all hazardous substances in the container, and all other substances which are among the five most predominant substances in the container, or their trade secret registry number(s) pursuant to N.J.A.C. 8:59-5. "Container" means a receptacle used to hold a liquid, solid or gaseous substance such as bottles, bags, barrels, cans, cylinders, drums and cartons. (N.J.A.C. 8:59-1.3). Further, all applicable Material Safety Data Sheets (MSDS) - hazardous substance fact sheet - must be furnished. All containers which are stored at owner facilities by subcontractors shall display RTK labeling. Vendors with questions concerning labeling should contact the New Jersey Department of Health and Senior Services Right to Know Program for assistance in developing proper labels.

42. STATEMENT OF OWNERSHIP (N.J.S.A. 52:25-24.2)

Statement of Ownership

No business organization, regardless of form of ownership, shall be awarded any contract for the performance of any work or the furnishing of any goods and services, unless, prior to the receipt of the bid or accompanying the bid of said business organization, bidders shall submit a statement setting forth the names and addresses of all persons and entities that own ten percent or more of its stock or interest of any type at all levels of ownership.

The included Statement of Ownership shall be completed and attached to the bid proposal. This requirement applies to all forms of business organizations, including, but not limited to, corporations and partnerships, publicly-owned corporations, limited partnerships, limited liability corporations, limited liability partnerships, sole proprietorship, and Subchapter S corporations. **Failure to submit a disclosure document shall result in rejection of the bid as it cannot be remedied after bids have been opened.**

Not-for-profit entities should fill in their name, check the not-for-profit box, and certify the form. No other information is required.

43. SUBCONTRACTING: Subcontractor Disclosure Statement

Pursuant to N.J.S.A. 40A:11-1 et seq., any bidder who bids for the overall contract and who will subcontract the following work:

- Plumbing and gas fitting work;
- Refrigeration, heating and ventilating systems and equipment;
- Electrical work, tele-data, fire alarm or security systems; and
- Structural steel and ornamental iron work;

Documents to be Submitted: All Subcontractors

The prime contractor (bidders) who will be using a subcontractor on any part of this bid, shall identify the subcontractor(s) on the appropriate form and submit with the bid package the following subcontractor documents at the time indicated in the box below:

*****IF subcontractor is not applicable please write in N/A on the PAGE.**

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
Estimated Value of Contract – Subcontractor	For Subcontractors in the four major branches listed above: <i><u>Submit with Bid</u></i>	For all other Subcontractors: <i><u>Submit Within ten (10 Days of Receipt of Notice of Award)</u></i>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Failure to identify in the Subcontractor's Disclosure Statement the names and addresses of any or all subcontractors required to be named in the bid, or to submit with the bid the appropriate documents for each such subcontractor, may be cause for the bid to be rejected as being non-responsive.

Contractors are reminded that the subcontractors listed on the forms provided by the township may not be changed later, except in the case of failure in performance or other contract breach where a change is needed to protect the township.

*****IF subcontractor is not applicable please write in N/A on the PAGE.**

44. SUBCONTRACTING: PROHIBITIONS: HOLD HARMLESS

Prime contractors, with whom The Township of Piscataway have an executed contract, may not subcontract any part of any work done for the Township without first receiving written approval from the Township. Contractors seeking to use subcontractors must first complete the Request to Sub Contract Form as provided by the Building Services Department.

Subcontractors Prohibited to Sub Contract

It is the responsibility of the prime contractor to ensure that no subcontractor who has received written permission to do work for the Township, subcontracts any of its/their work without first receiving written approval from the prime contractor **and** the Director of Public Works or his designee.

The prime contractor assumes all responsibility for work performed by subcontractors. The prime contractor must also provide to the Township Purchasing Office the following documents secured from all approved subcontractors:

- Insurance Certificate as outlined in the bid specifications;

- Affirmative Action Evidence as outlined in the bid specifications;
- Written certification that the subcontractor shall adhere to prevailing wages as provided through New Jersey State Law;
- Evidence of Performance Security;
- Documents listed in the Subcontractor Document Submissions list.

In cases of subcontracting, The Township of Piscataway shall only pay the prime contractor. It is the sole responsibility of the prime contractor to ensure that all subcontractors are paid. The Township of Piscataway shall not be responsible for payments to subcontractors and shall be held harmless against any or all claims generated against prime contractors for non-payment to subcontractors.

Penalties – Unauthorized Subcontractors

The Township of Piscataway shall deduct the amount of \$1,000.00 (one thousand dollars) per day as a penalty, for each day a prime contractor uses a subcontractor without first receiving **written** permission from the Building Services Department.

*****IF subcontractor is not applicable please write in N/A on the PAGE.**

45. TAXES; Contractor's Use of Township's Tax Identification Number—Prohibited

As a New Jersey governmental entity, The Township of Piscataway is exempt from the requirements under New Jersey state sales and use tax (N.J.S.A. 54:32B-1 et seq.), and does not pay any sales or use taxes. Bidders should note that they are expected to comply with the provisions of said statute and the rules and regulations promulgated thereto to qualify them for examinations and reference to any and all labor, services, materials and supplies furnished to the Township. Contractors may not use the Township's tax identification number to purchase supplies, materials, service or equipment, for this project.

A contractor may qualify for a New Jersey Sales Tax Exemption on the purchase of materials, supplies and services when these purchases are used exclusively to fulfill the terms and conditions of the contract with the Township. All contractors are referred to New Jersey Division of Taxation—Tax Bulletin S&U-3 and in particular, Contractor's Exempt Purchase Certificate (Form ST-13). Again, contractors are not permitted to use the Township's tax identification number to purchase supplies, materials, services of equipment. **Sample attached in the bid for the Contractor- ST-13 FORM**

(ST-13-FORM)-Once Contract is awarded ST-13 FORM will be attached in the Contract for the Contractor use.

New Jersey State Sales and Use Tax Exemption

Materials and equipment purchases for permanent installation in the project will be exempt from the New Jersey State Sales and Use Tax. Each Bidder shall take this exemption into account in calculating his bid. It shall be the Contractor's responsibility to file the necessary exemption applications.

W-9- Required-Sample in the bid. May/should be submitted with the bid for faster process. Successful bidder/respondent shall complete W-9 Form and submit to Purchasing prior to contract award. Than form is available at the following link: www.irs.gov/pub/irs-pdf/fw9.pdf

Play to Play-NOTICE OF DISCLOSURE REQUIREMENT

Business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A> 19:44A-20.27 if they receive contracts in excess of \$50,000 from public entities in a calendar year. Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elect.state.nj.us.

46. TERMINATION OF CONTRACT

If the Township determines that the contractor has failed to comply with the terms and conditions of the bid and/or proposal upon which the issuance of the contract is based or that the contractor has failed to perform said service, duties and or responsibilities in a timely, proper, professional and/or efficient manner, then the Township shall have the authority to terminate the contract upon written notice setting forth the reason for termination and effective date of termination.

Termination by the Township of the contract does not absolve the contractor from potential liability for damages caused the Township by the contractor's breach of this agreement. The Township may withhold payment due the contractor and apply same towards damages once established. The Township will act diligently in accordance with governing statutes to mitigate damages. Damages may include the additional cost of procuring said services or goods from other sources.

The contractor further agrees to indemnify and hold the Township harmless from any liability to subcontractors or suppliers concerning work performed or goods provided arising out of the lawful termination of this agreement.

TERM/COMPLETION OF THE PROJECT: As per specifications/Proposal pages.

47. WITHDRAWAL OF BIDS

Before the Bid Opening

The Purchasing Agent may consider a written request from a bidder to withdraw a bid if the written request is received by the Purchasing Agent before the advertised time of the bid opening. Any bidder who has been granted permission by the Purchasing Agent to have his/her bid withdrawn cannot re-submit a bid for the same advertised bid project. That bidder shall also be disqualified from future bidding on the same project if the project is re-bid.

After the Bid Opening

The Township of Piscataway may consider a written request from a bidder to withdraw a bid, if the written request is received by the Purchasing Agent within five (5) business days after the bid opening. A request to withdraw a bid after the specified number of days will not be honored.

The contractor/vendor who wishes to withdraw a bid must provide a certification supported by written factual evidence that an error or omission was made by the contractor and that the error or omission was a substantial computational error or an unintentional omission or both.

The request to withdraw a bid after the bid opening may be reviewed by the Purchasing Agent, the Director of Public Works, other interested administrators; and the Department of Public Works of Record for the project (if necessary) and/or the Township Attorney and a recommendation will be made to the Township. If the Township of Piscataway grants permission to have the bid withdrawn the contractor/vendor shall be disqualified from bidding on the same project if the project is re-bid. If the contractor/vendor fails to meet the burden of proof to have the bid withdrawn the request to withdraw the bid will be denied and if the contractor/vendor fails to execute the contract the bid guarantee will be forfeited and become property of the Township.

48. WORK HOURS / INSPECTION

The contractor shall work only during the normal work hours of the Township unless authorized by the Township Engineer/ DPW to do otherwise. Overtime shall be considered those hours before 8:30 A.M and after 4:30 P.M. Monday thru Friday. In addition, Saturday, Sunday and all Township holidays will be considered overtime. The Contractor will be responsible to pay all overtime worked by the Township Inspector or Representative. There shall be an inspector on the job site at all times when the contractor is working.

Supplemental Specifications

STERLING VILLAGE PARKING LOT REHABILITATION

AWARD OF CONTRACT

The Township of Piscataway intends to award the contract for the project as follows:

EXPERIENCE

The Township of Piscataway requires evidence from all bidders that they have completed work or projects of a similar nature as outlined in the bid package. Bidders are to provide evidence of satisfactory completion of work of similar nature as outlined in the bid from other governmental bodies for at least (5) years. **See attached Plan & Experience forms in the bid. As Per Specifications.**

NUMBER OF WORKING DAYS; TIME OF COMPLETION

The contractor agrees to substantially complete this Public Works Project to the satisfaction of The Township of Piscataway within (**AS PER SPEC'S**) working days from the receipt of the official Notice to Proceed and purchase order. The Township has defined a working day as a calendar day. **As Per Specifications/Proposal pages .**

The number of working days set by the Township may be extended by mutual agreement between the contractor and the Township. The mutual agreement shall be in writing and will be considered an addendum to the contract.

PRE-BID MEETING

A pre-bid meeting for this project is scheduled for (Site Visit Not Mandatory) **Strongly Encourage**

MARCH 15, 2022 @ STERLING VILLAGE SENIOR HOUSING

Month / Day / Year

2:00 p.m.

The Township of Piscataway

The purpose of this meeting is to review the legal and technical requirements of the bid proposal. While attendance is not mandatory, prospective bidders are **strongly encouraged** to attend this important meeting. Addenda to this bid proposal may be issued as a result of the pre-bid meeting.

TRADE CLASSIFICATION(S) (Optional)

A. Bidder:

For the purpose of this Public Works bid, each bidder shall be classified by the State of New Jersey—Division of Property Management and Construction in the following trade(s):

Classification Code _____ (List Code #)	Classification Trade Name _____ (List name of trade)
--	---

Proof of classification shall be submitted with the bid package in the form of a current Notice of Classification as issued by the New Jersey Division of Property Management and Construction.

B. Subcontractor:

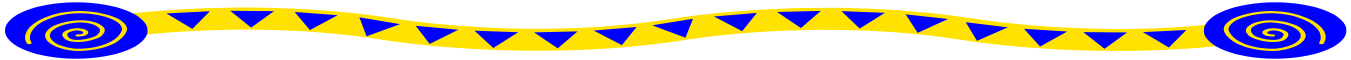
For the purpose of this Public Works bid, each bidder shall use a subcontractor that is properly classified by the State of New Jersey—Division of Property Management and Construction in the following trade(s):

Classification Code _____ (List Code #)	Classification Trade Name _____ (List name of trade)
--	---

Proof of classification, in the form of a current Notice of Classification form, for each Sub-Contractor, shall be submitted by the bidder with the bid package for any estimated subcontractor work exceeding \$20,000.00.

THE TOWNSHIP OF PISCATAWAY

2022-STERLING VILLAGE PARKING LOT REHABILITATION



BID DOCUMENTS AND REQUIRED DOCUMENTATION

All documents in this section shall be completed, signed and submitted with the bid package – Failure to submit the bid documents and other documents so specified may be cause to reject the bid for being non-responsive.



Purchasing Agent/Township Secretary

ACKNOWLEDGEMENT OF ADDENDUM

STERLING VILLAGE PARKING LOT REHABILITATION

Bid No. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

The bidder acknowledges receipt of the hereinafter enumerated Addenda which have been issued during period of bidding and agrees that said Addenda shall become a part of this contract. The bidder shall list below the numbers and issuing dates of the Addenda.

<u>ADDENDA NO.</u>	<u>ISSUING DATES</u>
_____	_____
_____	_____
_____	_____
_____	_____

No Addenda Received

Name of Company _____

Address _____ P.O. Box _____

City, State, Zip Code _____

Name of Authorized Representative _____

Signature _____ **Date** _____

The Township of Piscataway

CONTRACTOR QUESTIONNAIRE/CERTIFICATION

STERLING VILLAGE PARKING LOT REHABILITATION

Bid No. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

Name of Company _____

Street Address _____ P.O. Box _____

City, State, Zip _____

Business Phone Number () _____ Extension _____

Emergency Phone Number () _____

FAX NO. () _____ E-Mail _____

FEIN No. _____

Questionnaire

1. How many years have you been engaged in the contracting business under your present firm or trading name?

_____ Years

2. Have you ever failed to complete any work awarded to your company?

Yes No

If yes, explain _____

3. Have you ever defaulted on a contract?

Yes No

If yes, explain _____

4. Have you or other principals of your company been debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in any public works projects by any federal, state, or local agencies, including any "prior negative experience" disqualification pursuant to N.J.S.A. 40A:11-1 et sq.,?

Yes No

If yes, explain _____

(Form continued on next page)

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

Name of Company

Experience – Township:

The Township of Piscataway requires evidence from all bidders that they have completed work or projects of a similar nature as outlined in the bid package. Bidders are to provide evidence of satisfactory completion of work of similar nature as outlined in the bid from _____ (___) Townships in New Jersey within the past _____ (___5___) years. Bidders are to complete the section on experience and provide supporting documentation with the bid package. **As Per Specifications.**

A. Title of Work/Project: _____
Name of Township: _____
Name of School Official: _____ Title _____
Phone Number _____ E-Mail _____
Date(s) of Project: _____

B. Title of Work/Project: _____
Name of Township: _____
Name of School Official: _____ Title _____
Phone Number _____ E-Mail _____
Date(s) of Project: _____

C. Title of Work/Project: _____
Name of Township: _____
Name of School Official: _____ Title _____
Phone Number _____ E-Mail _____
Date(s) of Project: _____

References

Architects--List names of architects that you have worked with on projects within the last five (5) years.

	<u>Firm</u>	<u>Principal</u>	<u>Phone Number</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

(Form continued on next page)

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

Name of Company

Bank--List name of principal bank with which your company does business.

Bank

Officer

Phone Number

Trade--List names of companies within your trade with which your company does business:

Firm

Principal

Phone Number

1. _____
2. _____
3. _____

(Form continued on next page)

Contractor Questionnaire/Certification--page 4

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

Name of Company

Certifications

• **Debarment**

I certify that the entity listed on the form or any person employed by this entity, are not presently on the following:

- New Jersey Department of Treasury – Consolidated Debarment Report
- NJ Department of Labor and Workforce Development– Prevailing Wage Debarment List
- Federal Debarred Vendor List—System for Award Management (SAM.gov)

• **Direct/Indirect Interests**

I declare and certify that no member of the Township of Piscataway, nor any officer or employee or person whose salary is payable in whole or in part by said the township or their immediate family members are directly or indirectly interested in this bid or in the supplies, materials, equipment, work or services to which it relates, or in any portion of profits thereof. If a situation so exists where a Township member, employee, officer of the Township has an interest in the bid, etc., then please attach a letter of explanation to this document, duly signed by the president of the firm or company.

• **Gifts; Gratuities; Compensation**

I declare and certify that no person from my firm, business, corporation, association or partnership offered or paid any fee, commission or compensation, or offered any gift, gratuity or other thing of value to any school official, Township member or employee of the Township.

• **Vendor Contributions**

I declare and certify that I fully understand N.J.A.C. 6A:23A-6.3 (a) (1-4) concerning vendor contributions to school Township members.

• **False Material Representation/Truth in Contracting**

I further certify that I understand that it is a crime in the second degree in New Jersey to knowingly make a material representation that is false in connection with the negotiation, award or performance of a government contract. I further acknowledge my understanding of the New Jersey Truth in Contracting Laws.

President or Authorized Agent

Signature

CONTRACTOR REGISTRATION CERTIFICATION

Public Works

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

It is the determination of The Township of Piscataway that this is a Public Works project which contract amount in total will exceed \$2,000.00 (two thousand dollars), therefore, pursuant to the Public Works Contractor Registration Act -- N.J.S.A. 34:11-56.48 et seq., contractors are to be aware of the following:

No contractor shall bid on any contract for public work as defined in section 2 of P.L.1963, c. 150 (C.34:11-56.26) unless the contractor is registered pursuant to this act. No contractor shall list a subcontractor in a bid proposal for the contract unless the subcontractor is registered pursuant to P.L.1999, c.238 (C.34:11-56.48 et seq.) at the time the bid is made. No contractor or subcontractor, including a subcontractor not listed in the bid proposal, shall engage in the performance of any Public Work subject to the contract, unless the contractor or subcontractor is registered pursuant to that act.

I certify that our company understands that the project of The Township of Piscataway requires that all contractors and subcontractors listed in this proposal possess a valid Contractor Registration Certificate at the time the proposal is received by the Township and furthermore certify that I will provide copies of the valid certificates prior to the award of contract.

Name of Company _____

Authorized Agent _____ Title _____

Authorized Signature _____

EQUIPMENT CERTIFICATION

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

In accordance with 40A:11-1 et seq., I hereby certify that

A) _____ *(Name of Company)* owns all the necessary equipment as required by the specifications and to complete the specified Public Work project.

or

B) _____ *(Name of Company)* leases or controls all the necessary equipment as required by the specifications and to complete the specified Public Work project.

PLEASE NOTE: If your company is not the actual owner of the equipment, **you shall submit with the bid**

1. A certificate stating the source from which the equipment will be obtained and
2. Obtain and submit with the bid a certificate from the owner and person in control of the equipment, definitely granting to the bidder the control of the equipment required during such time it may be necessary for the completion of that portion of the contract for which said equipment will be necessary.

Name of Company _____

Authorized Agent _____ Title _____

Authorized Signature _____

To be completed, signed and returned with Bid

BID NO. 2022-03-07

STATE OF NEW JERSEY -- DIVISION OF PURCHASE AND PROPERTY DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

Quote Number:

Bidder/Offeror:

PART 1: CERTIFICATION

BIDDERS MUST COMPLETE PART 1 BY CHECKING EITHER BOX.

FAILURE TO CHECK ONE OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website at <http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>. Bidders must review this list prior to completing the below certification. **Failure to complete the certification will render a bidder's proposal non-responsive.** If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party

PLEASE CHECK THE APPROPRIATE BOX:

I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. **I will skip Part 2 and sign and complete the Certification below.**

OR

I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

EACH BOX WILL PROMPT YOU TO PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ADDITIONAL ACTIVITIES ENTRY" BUTTON.

Name	<input type="text"/>	Relationship to Bidder/Offeror	<input type="text"/>
Description of Activities	<input type="text"/>		
Duration of Engagement	<input type="text"/>	Anticipated Cessation Date	<input type="text"/>
Bidder/Offeror Contact Name	<input type="text"/>	Contact Phone Number	<input type="text"/>

ADD AN ADDITIONAL ACTIVITIES ENTRY

Certification: I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder; that the State of New Jersey is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the State, permitting the State to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):

Signature:

Do Not Enter PIN as a Signature

Title:

Date:

NON-COLLUSION AFFIDAVIT

STERLING VILLAGE PARKING LOT REHABILITATION

Re: Bid Proposal for the Township of Piscataway.

BID NO. 2022-03-07

STATE OF _____

Bid Date: THURSDAY, MARCH 31, 2022

COUNTY OF _____ :SS:

I, _____ of the City of _____

in the County of _____ and the State of _____

of full age, being duly sworn according to law on my oath depose and say that:

I am _____ (Position in Company)

of the firm of _____ and the bidder making the Proposal for the above names contract, and that I executed the said Proposal with full authority so to do; that I have not, directly or indirectly, entered into any agreement, participated in any collusion, discussed any or all parts of this proposal with any potential bidder, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named bid, and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the Township of Piscataway relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for the said bid.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees of bona fide established commercial or selling agencies maintained by

(Print Name of Contractor)

(SIGNATURE OF CONTRACTOR)

PREVAILING WAGES CERTIFICATION

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

It is the determination of the Township of Piscataway that this is a public works project that in total will exceed \$2,000.00 (two thousand dollars), therefore prevailing wages rules and regulations apply as promulgated by the New Jersey Prevailing Wage Act and in conformance with N.J.S.A. 34:11-56:25 et seq.

Certification

1. I certify that our company understands that this project of the Township of Piscataway requires prevailing wages to be paid in full accordance with the law.
2. I further certify that all subcontractors named in this bid understand that this project requires the subcontractor to pay prevailing wages in full accordance with the law.

Non-compliance Statement

If it is found that any worker, employed by the contractor or any subcontractor covered by said contract, has been paid a rate of wages less than the prevailing wage required to be paid by such contract, The Township , may begin proceedings to terminate the contractor's or subcontractor'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 and to prosecute the work to completion or otherwise. The contractor and his sureties shall be liable for any excess costs occasioned thereby to the public body.

NOTIFICATION OF VIOLATIONS – New Jersey Department of Labor and Workforce Development

Has the bidder or any person having an “interest” with the bidder, been notified by the New Jersey Department of Labor and Workforce Development by notice issued pursuant to N.J.S.A. 34:11-56:37 that he/she has been in violation for failure to pay prevailing wages as required by the New Jersey Prevailing Wage Act within the last five (5) years?

* Yes _____

No _____

*If yes, please attach a signed document explaining any/or all administrative proceedings with the Department within the last five (5) years. Please include any pending administrative proceedings with the Department if any.

Submission of Certified Payroll Records

All certified payroll records are to be submitted to the person named below who is coordinating the activities for the project:

Guy Gaspari/ Director of Public Works
The Township of Piscataway

Name of Company_____

Authorized Agent_____

Authorized Signature_____

To be completed, signed and returned with Bid/Proposal

STATEMENT OF OWNERSHIP DISCLOSURE

BID NO. 2022-03-07

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

Name of Organization: _____

Organization Address: _____

City, State, ZIP: _____

Part I Check the box that represents the type of business organization:

- Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- For-Profit Corporation (any type) Limited Liability Company (LLC)
- Partnership Limited Partnership Limited Liability Partnership (LLP)
- Other (be specific): _____

Part II Check the appropriate box

The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**

OR

No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Home Address (for Individuals) or Business Address

Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II **other than for any publicly traded parent entities referenced above.** The disclosure shall be continued until names and addresses of every non-corporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Home Address (for Individuals) or Business Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that **The Township of Piscataway** is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with The Township of Piscataway to notify The Township of Piscataway in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting The Township of Piscataway to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

To be completed, signed and returned with Bid

SUBCONTRACTOR'S DISCLOSURE FORM

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

The _____ *(Name of Bidding Company)*

Please Check One! _____ will sub-contract a portion of this project.
 _____ will not sub-contract any portion of this project.

Authorized Agent _____ **Title** _____

Signature of Bidder _____ **Date** _____

If the bidder is not going to subcontract any portion of this project, the bidder need not complete any further part of this document.

If the bidder will subcontract any of the following:

- Plumbing/gas fitting work;
- Refrigeration/heating/ventilating systems & equipment
- Electrical work, tele-data, fire alarm or security systems
- Structural steel/ornamental iron work

the bidder must do the following:

- Identify the contract number and type of work he intends to subcontract;
- Provide the name, address and other pertinent information about the subcontractor;*
- If the cost of the work by the subcontractor shall exceed the amounts listed below, the bidder shall provide in the bid package submission the following documents:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i><u>Estimated Value of Contract – Subcontractor</u></i>	<i>For Subcontractors in the four major branches listed above</i>	<i>For all other Subcontractors</i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Please list subcontractor(s) on the following pages. Bidders may make extra copies of the following pages.

** Failure to identify the names and addresses of any subcontractors required to be named in the bid, or to submit the appropriate documents for each such subcontractor, may be cause for the bid to be rejected as being non-responsive.*

(Form continued on next page)

Subcontractor's Disclosure Statement (Continued)

Return With Bid

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

1. Sub-Contractor for PLUMBING AND GAS FITTING WORK

Name of Subcontracting Company _____

Address _____

City, State, Zip _____

Telephone _____ Fax _____

E-Mail _____ FEIN No: _____

Authorized Agent _____ Title _____

Will the cost of sub-contract exceed \$20,000.00?

_____ Yes Estimated Value of Contract \$ _____

_____ No Estimated Value of Contract \$ _____

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i><u>Estimated Value of Contract – Subcontractor</u></i>	<i>For Subcontractors in the four major branches listed above</i>	<i>For all other Subcontractors</i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Certification of Equipment

The _____ hereby certifies the above named
Name of Bidding Company
subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

Authorized Agent (Print) -- Bidder

Signature of Authorized Agent—Bidder

Subcontractor's Disclosure Statement (Continued)

Return With Bid

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MACH 31, 2022

2. Sub-Contractor for REFRIGERATION, HEATING & VENTILATING SYSTEMS AND EQUIPMENT

Name of Subcontracting Company _____

Address _____

City, State, Zip _____

Telephone _____ Fax _____

E-Mail _____ FEIN No: _____

Authorized Agent _____ Title _____

Will the cost of sub-contract exceed \$20,000.00?

_____ Yes Estimated Value of Contract \$ _____

_____ No Estimated Value of Contract \$ _____

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i>Estimated Value of Contract – Subcontractor</i>	<i>For Subcontractors in the four major branches listed above</i>	<i>For all other Subcontractors</i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Certification of Equipment

The _____ hereby certifies the above named
Name of Bidding Company

subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

Authorized Agent (Print) -- Bidder

Signature of Authorized Agent—Bidder
(form continued on next page)

Subcontractor's Disclosure Statement (Continued)

Return With Bid

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

3. Sub-Contractor for ELECTRICAL WORK; TELE-DATA, FIRE ALARM OR SECURITY SYSTEMS

Name of Subcontracting Company _____

Address _____

City, State, Zip _____

Telephone _____ Fax _____

E-Mail _____ FEIN No: _____

Authorized Agent _____ Title _____

Will the cost of sub-contract exceed \$20,000.00?

_____ Yes Estimated Value of Contract \$ _____

_____ No Estimated Value of Contract \$ _____

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i><u>Estimated Value of Contract – Subcontractor</u></i>	<i><u>For Subcontractors in the four major branches listed above</u></i>	<i><u>For all other Subcontractors</u></i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Certification of Equipment

The _____ hereby certifies the above named
Name of Bidding Company
subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

Authorized Agent (Print) -- Bidder

Signature of Authorized Agent—Bidder

(form continued on next page)

STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

4. Sub-Contractor for STRUCTURAL STEEL & IRON WORK

Name of Subcontracting Company _____

Address _____

City, State, Zip _____

Telephone _____ Fax _____

E-Mail _____ FEIN No: _____

Authorized Agent _____ Title _____

Will the cost of sub-contract exceed \$20,000.00?

_____ Yes Estimated Value of Contract \$ _____

_____ No Estimated Value of Contract \$ _____

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i><u>Estimated Value of Contract – Subcontractor</u></i>	<i>For Subcontractors in the four major branches listed above</i>	<i>For all other Subcontractors</i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Certification of Equipment

The _____ hereby certifies the above named
Name of Bidding Company

subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

Authorized Agent (Print) -- Bidder

Signature of Authorized Agent—Bidder

(form continued on next page)

To be completed, signed and returned with Bid

(IF APPLICABLE)

Subcontractor's Disclosure Statement
Other Trades
STERLING VILLAGE PARKING LOT REHABILITATION

BID NO. 2022-03-07

Bid Date: THURSDAY, MARCH 31, 2022

5. Name of Trade/Type of Work _____

Name of Subcontracting Company _____

Address _____

City, State, Zip _____

Telephone _____ Fax _____

E-Mail _____ FEIN No: _____

Authorized Agent _____ Title _____

Will the cost of sub-contract exceed \$20,000.00?

_____ Yes Estimated Value of Contract \$ _____

_____ No Estimated Value of Contract \$ _____

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

<u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u>		
<i><u>Estimated Value of Contract – Subcontractor</u></i>	<i>For Subcontractors in the four major branches listed above</i>	<i>For all other Subcontractors</i>
	<u>Submit With Bid</u>	<u>Submit Within ten (10 Days of Receipt of Notice of Award</u>
\$2,000 through \$5,999	Contractor's Registration Certificate	
\$6,000 through \$17,499	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$17,500 through \$19,999	Contractor's Registration Certificate New Jersey Business Registration Certificate	
\$20,000 or more	Contractor's Registration Certificate New Jersey Business Registration Certificate	

Certification of Equipment

The _____ hereby certifies the above named
Name of Bidding Company
subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

Authorized Agent (Print) -- Bidder

Signature of Authorized Agent—Bidder

To be completed, signed and returned with Bid

Bid No. 2022-03-07

Sworn Contractor Certification; Qualifications and Credentials

Pursuant to N.J.S.A. 40A:11-1 et seq., a pre-qualified contractor seeking to bid Township projects, and any subcontractors, that are required to be named under N.J.S.A. 40A:11-1 et seq., shall, as a condition of bidding, submit this Sworn Contractor Certification regarding qualifications and credentials.

I, _____, the principal owner or officer of the company certify that the forging statements are true and our firm has the following qualifications and credentials:

1. A current, valid certificate of registration issued pursuant to "The Public Works Contractor Registration Act," N.J.S.A. 34:11-56:48 et seq. A copy of which is submitted with its bid;
2. A current, valid Certificate of Authority (Business Registration) to perform work in New Jersey issued by the Department of Treasury, a copy of which is submitted with its bid;
3. A current valid contractor trade license required under applicable New Jersey Law for any specialty trade or specialty area in which the firm seeks to perform work, a copy of which is submitted with its bid;
4. During the term of The Township project, I as principal owner or officer of the company or corporation, as contractor, will have in place a suitable quality control and quality assurance program and an appropriate safety and health plan.

Name of Company _____

Print Name of Owner or Officer _____

Signature of Owner or Officer _____

**AMERICANS WITH DISABILITIES ACT OF 1990
Equal Opportunity for Individuals with Disability**

The contractor and The Township of Piscataway (hereafter "owner") do hereby agree that the provisions of Title 11 of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. S121 01 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant there unto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event that the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the owner's grievance procedure, the contractor agrees to abide by any decision of the owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the owner, or if the owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim, If any action or administrative proceeding is brought against the owner or any of its agents, servants, and employees, the *owner shall* expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or other process received by the owner or its representatives.

It is expressly agreed and understood that any approval by the owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the owner pursuant to this paragraph.

It is further agreed and understood that the owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

Name of Company _____

Authorized Agent _____

Title or Position _____

Signature _____

Date _____

EXHIBIT B
MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)
N.J.A.C. 17:27-1.1 et seq.
CONSTRUCTION CONTRACTS

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

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 ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, 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 equal employment opportunity 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 Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

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.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, 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.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program, may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- (A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.
- (B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:
 - (1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;
 - (2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;
 - (3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

EXHIBIT B (Continued)

- (4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;
- (5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and nondiscrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;
- (6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:
- (i) The contractor or subcontractor shall interview the referred minority or women worker.
 - (ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.
 - (iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
 - (iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.
- (7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.
- (C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Dept. of LWD, Construction EEO Monitoring Program, and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

- (D) The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

(Revised: January, 2016)

EXHIBIT B (Continued)

(Revised: January, 2016)

DATED: _____

COMPANY NAME: _____

ADDRESS: _____

TITLE: _____

PRINTED NAME _____

SIGNATURE: _____

BID BOND

BOND NO. _____

KNOW ALL MEN BY THESE PRESENTS, That we, _____
as Principal, and _____, a corporation duly organized under the laws of the State of _____, as Surety, are held and firmly bound unto the Township of Piscataway as Obligee, in the sum of Ten Percent (10%) of the Total Bid, Not to Exceed Twenty Thousand Dollars (\$20,000.00) for the payment of which Principal and Surety Bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, Principal has submitted a bid for _____,
the "Project."

NOW, THEREFORE, if the Obligee shall make any award according to the terms of said bid and the Principal shall enter into a contract with said Obligee in accordance with the terms of said bid and give bond for the faithful performance thereof within the time specified; or if no time is specified within thirty days after the date of said award; or if the Principal shall, in the case of failure so to do, shall pay to the Obligee the difference, not to exceed the amount of this Bond, between the amount specified in bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void: otherwise to remain in full force and effect.

Signed and sealed this ___ day of _____, 20__

Surety: _____

By: _____

Witness: _____

Principal: _____

By: _____

Witness: _____

BIDDER'S AFFIDAVIT

I, _____, being duly sworn, deposes that he/she
resides at _____

and that he/she is the _____ of _____
(Title) (Name of Bidder)

I am duly authorized to sign the bid and that bid is the true offer of the bidder, that the seal attached thereto is the seal of the bidder, and that each, every and all the declarations and statements contained in the bid and any and all affidavits, questionnaires and documents submitted pursuant to the proposal forbids are true to the best of my knowledge and belief.

(Affiant)

HOLD HARMLESS AGREEMENT

“To the fullest extent permitted by law, _____
(Name of Contractor/Vendor/Facility User) agrees to defend, pay on behalf of, indemnify, and hold harmless the Township of Piscataway, its elected and appointed officials, its agents, employees and volunteers and others working on behalf of the Township of Piscataway, against any and all claims, demands, suits, or loss including all costs connected therewith, and for any damages which may be asserted, claimed or recovered against or from the Township of Piscataway, its elected and appointed officials, its agents, employees, volunteers or others working on behalf of the Township of Piscataway, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, which arises out of or is in any way connected for associated with this contract”

By: _____
Contractor/Vendor/Facility User

Township Of Piscataway

(Authorized Signature)

(Printed Name of Above)

(Address)

(City, State, Zip)

(Phone)

4.1) How many years has your organization been in business under your present name?

4.2) Have you ever failed to complete any work awarded to you? Yes____No____
(If yes, attach additional sheet with details and explanation.)

5) Do you intend to sublet any portion(s) of this work? Yes____No____
If yes, state amount of sub-contract, and if known, the name and address of the sub-contractor, amount and type of his equipment and financial responsibility.

6.) What equipment do you own that is available for and intended to be used on the present project?

QUANTITY	ITEM	DESCRIPTION, SIZE, CAPACITY, ETC	CONDITION	YEARS OF SERVICE	PRESENT LOCATION

7.) What equipment do you intend to purchase or lease for use on the proposed work, should the contract be awarded to you?

QUANTITY	ITEM	DESCRIPTION, SIZE, CAPACITY, ETC	APPROXIMATE COST	
			PURCHASE	LEASE

8) Have you made contracts or received firm offers for all materials prices used in preparing your proposal ? Yes____No____**Do not** give names of dealers or manufacturers.

STATUS OF PRESENT AND PAST CONTRACTS

9) Give full information about past and present contracts, whether private or governmental contracts, whether prime or sub-contracts; whether completed or in progress or awarded but not yet begun; or whether you are low bidder pending award of contract.

OWNER	LOCATION	DESCRIPTION	ADJUSTED CONTRACT AMOUNT	AMOUNT COMPLETED AND BILLED	ADDITIONAL EARNED SINCE LAST ESTIMATE	BALANCE TO BE COMPLETED	ESTIMATED DATE OF COMPLETION

I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE.

DATED: _____

(Signature)

(Name and Title)

(Company Name)

(Address)

(City, State, Zip Code)

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Public Agency Instructions

This page provides guidance to public agencies entering into contracts with business entities that are required to file Political Contribution Disclosure forms with the agency. **It is not intended to be provided to contractors.** What follows are instructions on the use of form local units can provide to contractors that are required to disclose political contributions pursuant to N.J.S.A. 19:44A-20.26 (P.L. 2005, c. 271, s.2). Additional information on the process is available in Local Finance Notice 2006-1 (www.nj.gov/dca/lgs/lfnslfnmenu.shtml).

1. The disclosure is required for all contracts in excess of \$17,500 that are **not awarded** pursuant to a “fair and open” process (N.J.S.A. 19:44A-20.7).
2. Due to the potential length of some contractor submissions, the public agency should consider allowing data to be submitted in electronic form (i.e., spreadsheet, pdf file, etc.). Submissions must be kept with the contract documents or in an appropriate computer file and be available for public access. **The form is worded to accept this alternate submission.** The text should be amended if electronic submission will not be allowed.
3. The submission must be **received from the contractor and** on file at least 10 days prior to award of the contract. Resolutions of award should reflect that the disclosure has been received and is on file.
4. The contractor must disclose contributions made to candidate and party committees covering a wide range of public agencies, including all public agencies that have elected officials in the county of the public agency, state legislative positions, and various state entities. The Division of Local Government Services recommends that contractors be provided a list of the affected agencies. This will assist contractors in determining the campaign and political committees of the officials and candidates affected by the disclosure.
 - a. The Division has prepared model disclosure forms for each county. They can be downloaded from the “County PCD Forms” link on the Pay-to-Play web site at www.nj.gov/dca/lgs/p2p. They will be updated from time-to-time as necessary.
 - b. A public agency using these forms **should edit them to properly reflect the correct legislative district(s)**. As the forms are county-based, **they list all legislative districts in each county. Districts that do not represent the public agency should be removed from the lists.**
 - c. Some contractors may find it easier to provide a single list that covers all contributions, regardless of the county. These submissions are appropriate and should be accepted.
 - d. The form may be used “as-is”, subject to edits as described herein.
 - e. The “Contractor Instructions” sheet is intended to be provided with the form. It is recommended that the Instructions and the form be printed on the same piece of paper. The form notes that the Instructions are printed on the back of the form; where that is not the case, the text should be edited accordingly.
 - f. The form is a Word document and can be edited to meet local needs, and posted for download on web sites, used as an e-mail attachment, or provided as a printed document.
5. It is recommended that the contractor also complete a “Stockholder Disclosure Certification.” This will assist the local unit in its obligation to ensure that contractor did not make any prohibited contributions to the committees listed on the Business Entity Disclosure Certification in the 12 months prior to the contract. (See Local Finance Notice 2006-7 for additional

information on this obligation) A sample Certification form is part of this package and the instruction to complete it is included in the Contractor Instructions. **NOTE: This section is not applicable to Boards of Education.**

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Contractor Instructions

Business entities (contractors) receiving contracts from a public agency that are NOT awarded pursuant to a “fair and open” process (defined at N.J.S.A. 19:44A-20.7) are subject to the provisions of P.L. 2005, c. 271, s.2 (N.J.S.A. 19:44A-20.26). This law provides that 10 days prior to the award of such a contract, the contractor shall disclose contributions to:

- any State, county, or municipal committee of a political party
- any legislative leadership committee*
- any continuing political committee (a.k.a., political action committee)
- any candidate committee of a candidate for, or holder of, an elective office:
 - of the public entity awarding the contract
 - of that county in which that public entity is located
 - of another public entity within that county
 - or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county

The disclosure must list reportable contributions to any of the committees that exceed \$300 per election cycle that were made during the 12 months prior to award of the contract. See N.J.S.A. 19:44A-8 and 19:44A-16 for more details on reportable contributions.

N.J.S.A. 19:44A-20.26 itemizes the parties from whom contributions must be disclosed when a business entity is not a natural person. This includes the following:

- individuals with an “interest” ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit
- all principals, partners, officers, or directors of the business entity or their spouses
- any subsidiaries directly or indirectly controlled by the business entity
- IRS Code Section 527 New Jersey based organizations, directly or indirectly controlled by the business entity and filing as continuing political committees, (PACs).

When the business entity is a natural person, “a contribution by that person’s spouse or child, residing therewith, shall be deemed to be a contribution by the business entity.” [N.J.S.A. 19:44A-20.26(b)] The contributor must be listed on the disclosure.

Any business entity that fails to comply with the disclosure provisions shall be subject to a fine imposed by ELEC in an amount to be determined by the Commission which may be based upon the amount that the business entity failed to report.

The enclosed list of agencies is provided to assist the contractor in identifying those public agencies whose elected official and/or candidate campaign committees are affected by the disclosure requirement. It is the contractor’s responsibility to identify the specific committees to which contributions may have been made and need to be disclosed. The disclosed information may exceed the minimum requirement.

The enclosed form, a content-consistent facsimile, or an electronic data file containing the required details (along with a signed cover sheet) may be used as the contractor’s submission and is disclosable to the public under the Open Public Records Act.

The contractor must also complete the attached Stockholder Disclosure Certification. This will assist the agency in meeting its obligations under the law. **NOTE: This section does not apply to Board of Education contracts.**

* N.J.S.A. 19:44A-3(s): “The term "legislative leadership committee" means a committee established, authorized to be established, or designated by the President of the Senate, the Minority Leader of the Senate, the Speaker of the General Assembly or the Minority Leader of the General Assembly pursuant to section 16 of P.L.1993, c.65 (C.19:44A-10.1) for the purpose of receiving contributions and making expenditures.”

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Required Pursuant To N.J.S.A. 19:44A-20.26

**This form or its permitted facsimile must be submitted to the local unit
no later than 10 days prior to the award of the contract.**

Part I – Vendor Information

Vendor Name:			
Address:			
City:	State:	Zip:	

The undersigned being authorized to certify, hereby certifies that the submission provided herein represents compliance with the provisions of N.J.S.A. 19:44A-20.26 and as represented by the Instructions accompanying this form.

 Signature Printed Name Title

Part II – Contribution Disclosure

Disclosure requirement: Pursuant to N.J.S.A. 19:44A-20.26 this disclosure must include all reportable political contributions (more than \$300 per election cycle) over the 12 months prior to submission to the committees of the government entities listed on the form provided by the local unit.

Check here if disclosure is provided in electronic form.

Contributor Name	Recipient Name	Date	Dollar Amount
			\$

Check here if the information is continued on subsequent page(s)

List of Agencies with Elected Officials Required for Political Contribution Disclosure
N.J.S.A. 19:44A-20.26

County Name:

State: Governor, and Legislative Leadership Committees

Legislative District #s:

State Senator and two members of the General Assembly per district.

County:

Freeholders

County Clerk

Sheriff

{County Executive}

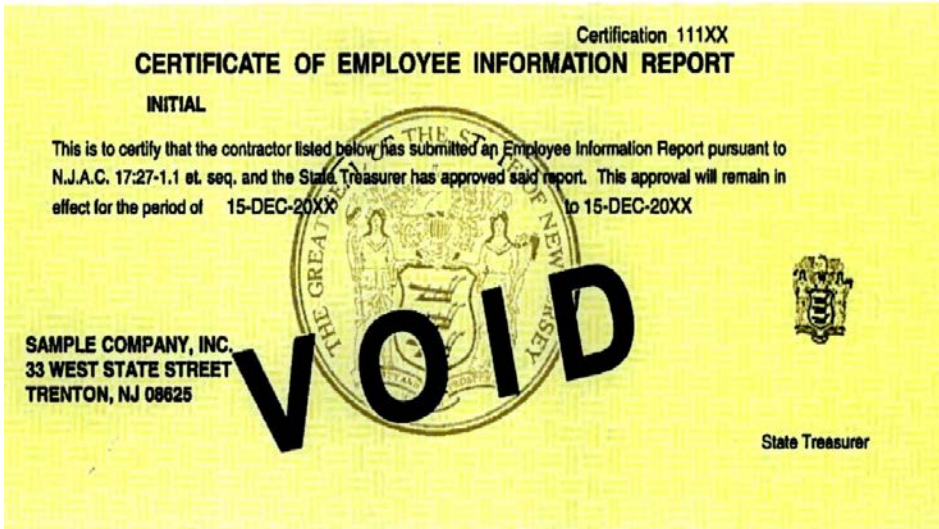
Surrogate

Municipalities (Mayor and members of governing body, regardless of title):

**USERS SHOULD CREATE THEIR OWN FORM, OR DOWNLOAD
FROM WWW.NJ.GOV/DCA/LGS/P2P A COUNTY-BASED,
CUSTOMIZABLE FORM.**

SAMPLE CERTIFICATE OF EMPLOYEE INFORMATION REPORT

TOWNSHIP OF PISCATAWAY



BID NO: 2022-03-07

TOWNSHIP OF PISCATAWAY

REQUIRED FORMS:

HOLD HARMLESS AGREEMENT

PLAN & EXPERIENCE

PISCATAWAY BID BOND FORM

PAY TO PLAY FORM

CERTIFICATION LAST PAGE

**PLEASE COMPLETE & SIGN ALL OF
THE REQUIRED FORMS IN BLUE INK**

TO All Bidders:

REMINDER!

Did you sign all of the bid documents?

All bid documents returned to the Township shall be signed with original signatures. Please use [blue ink](#).

The Township will not accept facsimile or rubber stamp signatures.

Failure to sign and submit all bid documents may be cause for disqualification and rejection of the bid.

One “Original” and One PHOTO Copy of the Original marked “True Copy”.

Cover Page, Name, Address, Phone Number, E-mail Address.

Return the entire original bid packet intact by the indicated deadline.

Bidders, Login to website for any addendums.

Website: www.piscatawaynj.org (Click on Home Page , EGov, Bids)

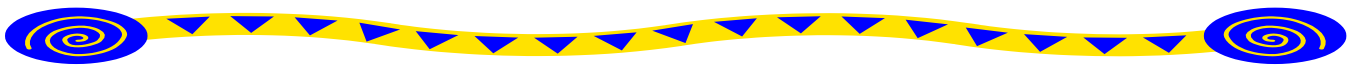
E-mail: purchasing@piscatawaynj.org

732-562-2321 (The Division of Purchasing)

THE TOWNSHIP OF PISCATAWAY

2022-STERLING VILLAGE PARKING LOT REHABILITATION

TECHNICAL SPECIFICATIONS



Pages 1-133

Purchasing Agent/Township Secretary

T & M ENGINEERING TECHNICAL SPECIFICATIONS

PREPARED BY:

T&M ASSOCIATES



PETER F. BONDAR, P.E.
NJ LICENSE NO. GE48108

T&M Associates
Project No. PISC-00250

Piscataway Township
2022 - Sterling Village Parking Lot Rehabilitation

**ENGINEERING
TECHNICAL SPECIFICATIONS**

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SECTION 011000 – SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Contract description.
- B. Contractor's use of site and premises.
- C. Specification Conventions.
- D. Project Duration.

1.2 CONTRACT DESCRIPTION

A. GENERAL

1. The project includes but, is not necessarily limited to, the following list of major Work items. The Contractor is responsible to complete all work as shown on the Contract Documents, and as may reasonably be required and not shown, to fully complete the Work.
 - a. Parking lot mill and overlay, including allowances for replacement of the DGA sub-base and HMA base course.
 - b. Complete curb replacement and installation of supplemental/new curbs (Base Bid to be concrete curbs, Add Alternate #1 to be for granite block curbs).
 - c. Concrete sidewalk replacement, including ADA compliant ramps.
 - d. Traffic and parking striping.
 - e. Complete replacement of the asphalt sidewalk on the west end of the site.
 - f. Reconstruction of the main entrance at the building.
 - g. Restoration of the parking lot planter beds.
 - h. Temporary Measures
 - 1) Provide all necessary pedestrian and traffic control devices and signage to safely prevent unauthorized access and direct traffic around active work areas.
 - 2) Provide temporary ADA parking stalls whenever existing are impacted by construction activities.
 - i. Phasing / Logistical Requirements
 - 1) Coordinate all work with Piscataway Township and Sterling Village.
 - 2) All work shall be executed to minimize impacts to typical building/parking operations. The Contractor will be required to execute the work in phases/stages, at minimum, as follows:
 - a) Three to four phases for the parking lot rehabilitation work.
 - b) Two phases for the entrance area reconstruction unless a suitable means of drop-off/pickup and ADA access to the main entrance can be maintained while executing in a single phase.
2. The building will remain occupied during construction.
3. Typical work hours are 8AM-4PM.
4. See Part 1.5 Project Duration of this section for additional requirements.

- B. Perform Work of Contract under lump sum contract with Owner in accordance with General Conditions (Section GC of this specification).
- C. At time of receipt, contractor shall abide by all conditions of project permits. Construction cannot commence until permits are secured.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - 1. Owner occupancy.
- B. Contractor's access to the premises will be restricted and regulated by the Owner, since the facility serves as an active building.
 - 1. Contractor's staff must wear photo identification displaying the company name and employee name on their person when performing work at any Township building.
 - 2. All personnel or agents or the Contractor must observe all rules and regulations in effect at the buildings.
 - 3. Employees or agents of the Contractor, while on Township of Piscataway property, shall be subject to the control of the Township of Piscataway, but under no circumstances shall persons be deemed to be employees or agents of the Township of Piscataway.
 - 4. Contractor must have personnel capable of passing security screening by the Township of Piscataway, including photo ID/photo license and social security card/employer proof of tax withholding.
 - 5. Clearance authorizations expire one year from date of submission of form. Contractor must track date and update their security clearance prior to its expiration.
- C. Construction Operations: Limited to areas noted on Drawings and Specifications. Facility to remain in operation during construction.
- D. Outages and Shutdown: Shutdown of HVAC equipment is limited to times and periods listed herein and as per direction of the Owner. It is the responsibility of the Contractor(s) to accommodate Owner's schedule and plan for work as acceptable to the Owner.

1.4 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

1.5 PROJECT DURATION

All Work on this Contract shall be completed within one hundred fifty (150) Calendar Days from, and including, the date of the Notice to Proceed.

T&M Associates
Project No. PISC-00250

Piscataway Township
2022 - Sterling Village Parking Lot Rehabilitation

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 011011 - CONSTRUCTION COORDINATION AND SEQUENCING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The work under this section includes all measures necessary to schedule construction operations and coordinate with the Owner's personnel to maintain full service during the course of construction.
- B. Reference Section 011000 Summary of Work for additional requirements.

1.2 SUBMITTALS

- A. This specification shall be considered when preparing the construction schedule.
- B. The Contractor shall submit for review and approval a detailed construction schedule detailing all project activities required from Notice to Proceed to Completion as well as proposed measures for maintaining site operation and services during construction. This schedule which must incorporate the construction sequencing requirements herein and as indicated in Section 011000 "Summary", will be reviewed and approved by the Engineer, and must be submitted 15 calendar days after issuance of the Notice to Proceed. The schedule shall be in the Critical Path Method format and shall show logic ties between all activities.
 - 1) The schedule shall be updated on at least a monthly basis.
 - 2) Submit detailed 2-week look-aheads showing all work to be completed within that duration for detailed coordination purposes. Submit look-aheads no less than weekly.

PART 2 – PRODUCTS – Not Used

PART 3 - EXECUTION

- 3.1 The Contractor shall verify all site conditions and restraints in determining a means and method of executing the work.

Contractor is responsible for all required traffic control measures, coordination and submission of plan for approval. Comply with all Municipal, County, and State requirements. All costs to be included in base bid.

- 3.2 The Contractor shall perform all preliminary preparations, including having on site all necessary material, labor, equipment, etc., for accomplishing all required construction sequencing within a minimal time frame.
- 3.3 The Contractor shall provide all labor, equipment, and material necessary for temporary power

distribution, temporary control schemes, and other measures necessary to install the proposed work without an interruption of services. The Contractor shall also have during the construction sequencing a person available for emergency response through a pager or phone.

- 3.4 The Contractor shall not interfere with the Owner's employees in performance of any work that they may consider necessary to operate and maintain existing equipment or any new equipment placed into service. Where construction operations obstruct or otherwise hinder access to areas necessary for Owner operations, the Contractor shall provide safe access for personnel. All such areas shall be adequately lighted for safe access.
- 3.5 The Owner's personnel shall receive instruction from the respective manufacturers' representative in operation and maintenance once testing of each equipment/system is successfully completed and prior to its placement into service. Three copies of the O&M manuals must also be available three (3) weeks prior to starting the instruction and use by the Owner's personnel. The cost for this instruction shall be included in the Contractor's bid price.
- 3.6 The Contractor must provide the Engineer with 72 hours written notice of the time when any of the steps in the construction staging plan are planned to be initiated. The Engineer reserves the right to delay the request for the start of the activity if operations, emergencies, weather events, etc., require such a delay. The Contractor shall not make any claims for costs or schedule delays on this account.
- 3.7 The proposed improvement work is to be executed in an operating facility. Access to the site and building for removal and replacement of equipment is limited. The Contractor shall take into account the limitations of the construction staging and physical size of the site when estimating expected productivity, establishing a construction schedule, and delivery/storage of equipment and materials.

END OF SECTION

SECTION 011500 - TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary conditions apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Safety, security and protection.
 - 2. Layout and dimensional control.
 - 3. Temporary identification.
 - 4. Temporary utilities
 - 5. Debris removal.

1.3 PRODUCT HANDLING

- A. Protection: Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of the Work.
- B. Replacements: In the event of loss or damage, immediately make all repairs and replacement necessary to the approval of the Engineer and at no additional cost to the Owner.

PART 2 – PRODUCTS

2.1 SAFETY, SECURITY AND PROTECTION

- A. The Contractor shall be solely responsible for jobsite safety.
- B. Maintain access to the building for first responders and emergency vehicles at all times.
- C. The Contractor shall take all necessary precautions to safeguard property and persons. Provide traffic control devices and signage, generally conforming to the Manual on Uniform Traffic Control Devices (MUTCD), as necessary to prevent unauthorized entry into the work areas. All work areas shall be 100% enclosed/barricaded. Provide way-finding and detour signage as necessary, as determined by the Township.
- C. In addition to the foregoing, protections shall be provided and maintained by the Contractor in compliance with all applicable Federal and state safety and labor law requirements, codes, ordinances, rules and regulations, and generally as follows:

1. All necessary temporary closures, guard rails, barricades, screens, ladders, stairs, decking, planking, warning lights, directional signs, overhead protection, temporary walks, steps, bridges, and platforms, to adequately protect all workmen, employees of all contractors, occupants of the building, and the public from possible injury.
- D. All construction personnel are required to complete a background check using the National Instant Criminal Background Check System (NICS), and submit the results to the Township prior to commencing work. The Contractor shall submit a list of all approved project personnel for review/approval by the Township and a list of project personnel approved to be on-site shall be kept on-site at all times. This requirement extends to all sub-contractors and suppliers that will perform work on-site.
- E. The Contractor, at his option, may provide a watchman for protection of his tools, work, material, and supplies at the job site. Neither the Owner nor the Engineer assumes responsibility for any losses during construction. The Owner assumes no responsibility until final completion and acceptance of the Work.
- F. The Contractor shall be responsible for his Work in accordance with the terms of his liability and property insurance.

2.2 LAYOUT AND DIMENSIONAL CONTROL

- A. Location: The Contractor shall be responsible for locating and laying out the Work and all of its parts on the site.

2.3 TEMPORARY IDENTIFICATION

- A. All construction personnel will be required to wear I.D. badges while on site at all times. Personnel without identification badges will not be permitted on site. The Contractor is responsible for supplying and maintaining suitable ID badges.

2.4 TEMPORARY UTILITIES

- A. Electric: Provide temporary portable power required to complete the work.
- B. Water: Provide potable water required to complete the work.
- C. Toilets: Contractor shall provide temporary portable self-contained toilets for use by construction personnel and placed at a location acceptable to the Owner.

- D. Storage Containers: Contractor shall provide temporary storage units as necessary to perform their work. Coordinate with the Owner to determine acceptable location. The Contractor is advised there is no storage available in the existing building.

PART 3 – EXECUTION

3.1 REMOVAL

- A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work. Except as otherwise noted herein, remove all such temporary facilities and controls as rapidly as progress of the work will permit or as directed by the Architect.

3.2 DEBRIS REMOVAL

- A. Each Prime Contractor shall promptly remove all rubbish, refuse and debris material of whatever nature, resulting from his and his Subcontractor's project construction operations, and dispose of them legally off site.
 - 1. Disposal by burning is not permitted.
 - 2. Provide chutes, conveyers, etc. as required to collect debris into containers.
 - 3. Permit no accumulations, clean up daily if necessary.
 - 4. Contractors shall arrange to recycle all glass, paper, cardboard, aluminum, plastic, etc.

3.3 DUST AND DIRT

- A. All Work shall be conducted in such manner to produce the least disturbance and nuisance to surrounding areas. During certain construction operations and when removing debris, the Contractor shall wet down materials to allay dust.
- B. Sidewalks and streets shall be kept clear and clean at all times. Debris removal includes clean up of material spillage along truck access routines.
- C. Conform to all applicable federal, state and local codes.

END OF SECTION

SECTION 012000 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. System Description
- B. Schedule of values.
- C. Applications for payment.
- D. Change procedures.
- E. Defect assessment.

1.2 SYSTEM DESCRIPTION

A. UNIT PRICE ITEMS

1. A Unit Price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for a stated Work item. Payment per unit shall cover the cost to the Contractor for purchase, delivery and installation of materials or equipment at the site and all required taxes, less applicable trade discounts. Contract's costs for unloading, handling, storage, protection, management, supervision, administration, insurance, bonds, overhead, profit and any other expenses contemplated for stated allowance amounts shall be included in the Base Contract Sum.
2. Unit price work shall proceed only after receiving approval from the Owner.
3. Measurement and Payment: Payment for unit price items will be based on in-place/installed measurements. The Owner reserves the right to reject the Contractor's measurement of work-in-place and have the work measured, at Owner's expense. The Owners measurement shall govern.
4. Schedule of Unit Prices:

Unit Price #1 – 6" DGA Base Course

Description: Complete removal of the existing base and subgrade materials from 6"-12" below existing grade, proof roll/compact the existing subgrade and install 6" of dense-graded aggregate (DGA).

Quantity: See Allowance Items below.

Measurement/Payment: Area in square yards as measured at the top surface.

Unit Price #2 – 4” HMA Base Course

Description: Complete removal of the existing hot-mix asphalt (HMA) base course and subgrade materials from 2”-6” below existing grade, proof roll/compact the existing subgrade and install 4” of HMA.

Quantity: See Allowance Items below.

Measurement/Payment: Area in square yards as measured at the top surface.

B. LUMP SUM ITEMS AND LUMP SUM CONTRACTS

1. Items of work will be indicated on the bid schedule.
2. Payment for the items of work indicated in the bid schedule as lump sum will be at the prices stated within the bid. Payment for the work to be performed under the lump sum shall fully compensate the Contractor for furnishing all material, labor, supervision, equipment, services, overhead, profit and all else necessary and incidental to complete the work as shown on the drawings and specifications, including all incidental work necessary to provide a completed project.

C. ALLOWANCE ITEMS

1. Allowances will be established for specific items of work when the extent of work, or quantity and quality of the work cannot be specifically defined in the Contract Documents. Work performed under provisionary allowances shall be at the direction and authorization of the Engineer.
2. Use allowances only as directed by the Engineer. At project closeout, submit final allowance change order proposal, crediting Owner with unused amount, if any, of each allowance.
3. Allowances shall cover the cost to the Contractor for purchase, delivery and installation of materials or equipment at the site and all required taxes, less applicable trade discounts. Contract’s costs for unloading, handling, storage, protection, management, supervision, administration, insurance, bonds, overhead, profit and any other expenses contemplated for stated allowance amounts shall be included in the Base Contract Sum and not in the Allowances.
4. Schedule of Allowances:

Allowance #1 – 6” DGA Base Course

Description: See Unit Price #1 above.

Quantity: 2,000 Square Yards

Total Amount: Per Contractor bid unit price and extended total.

Allowance #2 – 4” HMA Base Course

Description: See Unit Price #2 above.

Quantity: 2,000 Square Yards

Total Amount: Per Contractor bid unit price and extended total.

Allowance #3 – Planting Replacement

Description: For the purchase and delivery of plantings to replace existing plantings in the planter beds impacted/damaged by construction operations. Allowance is for the purchase of material only. The contractor shall include in their Base Bid all equipment, labor and services necessary to restore the planter beds.

Quantity: 1 Lump Sum

Total Amount: \$15,000.00

Allowance #4 – Existing Equipment

Description: For the replacement of items not shown on the Contract Documents but, as may be required and, as directed by the Engineer/Township.

Quantity: 1 Lump Sum

Total Amount: \$50,000.00

D. ALTERNATES

1. Definition: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
2. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
3. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

4. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate. The cost for Alternates shall include the costs of related coordination, revision and/or adjustments.
5. Execute accepted alternates under the same conditions as other Work of the Contract.
6. Schedule of Alternates:

Alternate #1 – Granite Block Curbs In Lieu Of Concrete

Base Bid: Concrete curbs.

Alternate Bid: Granite block curbs.

1.3 SCHEDULE OF VALUES

- A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702.
- B. Submit Schedule of Values (Rev. 0) in duplicate within 15 days after date of Owner-Contractor Agreement or at the preconstruction conference (whichever comes first) which shall subdivide the work into its component items. The resulting breakdown of the contract amount shall indicate the quantities and unit cost assigned to each item of work, along with the associated labor, equipment and material costs for each item of work. Labor costs shall also include the components outlined in the General Conditions. This breakdown may be adjusted by the Engineer if he feels the costs indicated for any part of the work do not accurately reflect the true value. No line item of work may reflect more than 5% of the value of a lump sum item. Schedule shall reflect a minimum of 5% of the total value of the contract for Close Out related work (providing warranties, Maintenance Bond, As-Built information, Operation & Maintenance Information, Spare Parts, Training).
- C. In addition to being used as the basis for preparing progress payments, the Schedule of Values may be used as a basis for negotiations concerning additional work or credits which may arise during the construction.
- D. For items of work which will be performed over a period of more than one (1) month, the cost breakdown shall be in sufficient detail of quantity and unit price so that progress payment estimates may be prepared on the basis of the amount of work performed during that period and not on percentages complete.
- E. Format: Identify each line item with number and title of major specification Section. Identify site mobilization, bonds and insurance, O&M manuals, As-built drawings.
- F. Include in each line item, amount of Allowances where specified. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for each item.

- G. Include within each line item, direct proportional amount of Contractor's overhead and profit.
- H. Revise schedule to list approved Change Orders, with each Application for Payment.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet for G702.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit updated construction schedule with each Application for Payment.
- D. Payment Period: Submit at intervals stipulated elsewhere herein.
- E. Initial Application for Payment. Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of Values.
 - 3. Contractor's Construction Schedule.
 - 4. Products List.
 - 5. Schedule of Unit Prices.
 - 6. Submittals Schedule.
 - 7. List of Contractor's staff assignments.
 - 8. List of Contractor's principal consultants.
 - 9. Copies of Building Permits.
 - 10. Initial Progress Report.
 - 11. Certificate of Insurance and Insurance Policies.
 - 12. Performance and Payment Bonds.
- F. Final Payment Application: Submit Final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of Completion of project closeout requirements.
 - 2. Completion of punchlist items.
 - 3. Insurance Certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 4. Updated final statement, account for final changes to the Contract Sum.
 - 5. Transmittal of required Project Construction records to the Owner.
 - 6. Removal of temporary facilities, services, surplus materials, debris, etc.
 - 7. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims".
 - 8. AIA Document G706A, "Contractor's Affidavit of Release of Liens".
 - 9. AIA Documents G707, "Consent of Surety to Final Payment".
 - 10. Evidence that claims have been settled.
 - 11. Original Voucher form marked "Final Payment".

12. Final, liquidated damages settlement statement.
 13. Prevailing Wage Rate Statement.
 14. Two (2) year 100% Maintenance Bond.
 15. All Operation and Maintenance Manuals, Warranties and Guarantees, Permit Certificate of Approval.
- G. Submit with transmittal letter as specified for Submittals in Section 01 33 00 - Submittal Procedures.
- H. Substantiating Data: When Architect/Engineer requires substantiating information, submit date justifying dollar amounts in question. Include the following with Application for Payment:
1. Current construction photographs.
 2. Partial Release of Liens from major subcontractors and vendors.
 3. Record documents for review by Owner which will be returned to Contractor.
 4. Affidavits attesting to off-site stored products.
 5. Construction progress schedules, revised and current.

1.5 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Architect/Engineer, it is not practical to remove and replace the Work, the Architect/Engineer will direct appropriate remedy or adjust payment.
- C. Where appropriate, defective Work will be partially repaired to instructions of Architect/Engineer and Owner, and unit sum/price will be adjusted to new sum/price reduced at discretion of Owner.
- D. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
1. Products wasted or disposed of in a manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond lines and levels of required Work.
 5. Products remaining on hand after completion of the Work.
 6. Loading, hauling, and disposing of rejected products.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Preconstruction meeting.
- C. Site mobilization meeting.
- D. Progress meetings.
- E. Pre-installation meetings.
- F. Reporting
- G. Cutting and patching.
- H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's occupancy.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 PRECONSTRUCTION MEETING

- A. Owner will schedule meeting after Notice to Proceed.
- B. Attendance Required: Owner, Architect/Engineer and Contractor.

C. Agenda:

1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
5. Designation of personnel representing parties in Contract and Architect/Engineer.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

1.4 SITE MOBILIZATION MEETING

A. Owner will schedule meeting at Project site prior to Contractor occupancy.

B. Attendance Required: Contractor, Contractor's Superintendent and Subcontractors.

C. Agenda:

1. Use of premises by Owner and Contractor.
2. Owner's requirements and occupancy.
3. Construction facilities and controls provided by Owner.
4. Temporary utilities provided by Owner.
5. Construction layout.
6. Security and housekeeping procedures.
7. Schedules.
8. Application for payment procedures.
9. Procedures for testing.
10. Procedures for maintaining record documents.
11. Requirements for start-up of equipment.
12. Inspection and acceptance of equipment put into service during construction period.

1.5 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work as directed.

B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required: Job superintendent, project manager, major subcontractors and suppliers as appropriate to agenda topics for each meeting.

D. Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems impeding planned progress.
5. Review of submittals schedule and status of submittals.

6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

1.6 PRE-INSTALLATION MEETINGS

- A. When required, convene pre-installation meetings prior to commencing work of specific section.
- B. Require attendance of parties directly affecting, or affected by, Work of specific section.
- C. Notify Engineer four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.

1.7 DAILY PROGRESS REPORTS

- A. Prepare a daily construction report recording the following information concerning events at Project site. Daily reports shall be submitted on a weekly basis, or as requested, and shall be generated for every day, including weekends and Holidays, from the issuance of the Notice to Proceed until Completion.
 1. List of subcontractors at the site.
 2. List of separate Contractors and visitors at the site.
 3. Approximate count of personnel at the site.
 4. Equipment at the site.
 5. Material deliveries.
 6. High and low temperatures, humidity and general weather conditions, including wind and precipitation.
 7. Testing and inspection.
 8. Accidents.
 9. Meetings and significant discussions.
 10. Unusual events.
 11. Description of all work activities performed.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Efficiency, maintenance, or safety of element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 - 1. Fit the several parts together, to integrate with other Work.
 - 2. Uncover Work to install or correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of penetrated element.
- J. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- K. Identify hazardous substances or conditions exposed during the Work to Architect/Engineer for decision or remedy.

3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products and salvaged products for patching and extending work.

- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.
- I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes.
- J. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- K. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect/Engineer for review.
- L. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- M. Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 013100 - PROGRESS MEETINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The CONTRACTOR and/or CONTRACTOR'S representatives shall attend regularly scheduled Progress Meetings held for the purpose of coordinating the execution of the work. The Engineer will preside at the Progress Meetings.
- B. The proceedings of these meetings will be recorded by the Engineer and the CONTRACTOR will be furnished a reasonable number of copies of the meeting minutes.
- C. During the progress meeting, the CONTRACTOR shall provide update schedules concerning its plans for carrying out each part of the work.
- D. The CONTRACTOR shall provide a list of all items which are impacting the completion of the work (i.e. decisions required, easements required, shop drawing approvals required, etc.). As the work progress, the CONTRACTOR'S actual progress rate will be compared to the scheduled progress rate.
- E. The CONTRACTOR'S representatives at these meetings shall be empowered to make binding decisions regarding all matters pertaining to the work and to make definite reports as to status and anticipated progress rate.
- F. There will be a scheduled meeting every two weeks that the Contractor and its major subcontractors' representatives shall be required to attend. The hour and day of the week shall be determined by the Engineer. Progress meetings shall be scheduled more frequently if the Engineer decides more frequent meetings are required.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01202

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Samples.
- G. Design data.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.
- L. Erection drawings.

1.2 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Engineer accepted form.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and deliver to Engineer. Coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Engineer review stamps.
- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.

- K. Submittals not requested will not be recognized or processed.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules at Preconstruction meeting or within 15 days after date established in Notice to Proceed, whichever is earlier. After review, resubmit required revised data within ten days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission.
- G. Submit separate schedule of submittal dates for shop drawings, product data, and samples and dates reviewed submittals will be required from Engineer. Indicate decision dates for selection of finishes.
- H. Revisions To Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.

1.4 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.

- B. Submit number of copies Contractor requires, plus two copies Engineer will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00 - Execution and Closeout Requirements.

1.7 SAMPLES

- A. Samples: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
 - 1. Submit to Engineer for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Engineer selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; Engineer will retain one sample.

- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- G. Samples will not be used for testing purposes unless specifically stated in specification section.
- H. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01 70 00 - Execution and Closeout Requirements.

1.8 DESIGN DATA

- A. Submit for Engineer's knowledge as contract administrator or for Owner.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.9 TEST REPORTS

- A. Submit for Engineer's knowledge as contract administrator or for Owner.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.10 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

1.11 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Engineer for delivery to Owner in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.12 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Engineer's benefit as contract administrator or for Owner.

- B. Submit report in duplicate within 5 days of observation to Engineer for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.13 ERECTION DRAWINGS

- A. Submit drawings for Engineer's benefit as contract administrator or for Owner.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by Engineer or Owner.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances.
- C. References.
- D. Labeling.
- E. Mock-up requirements.
- F. Manufacturers' field services.
- G. Examination.
- H. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Neither contractual relationships, duties nor responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.5 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.

1.6 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Engineer 30 days in advance of required observations.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.
- F. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Engineer will consider requests for Substitutions after award of the Contract.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for Substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit request for Substitution for consideration. Limit each request to one proposed Substitution.

2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
3. Write itemized comparison between products.
4. Architect/Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS

2.1 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Wiring Terminations: Furnish terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Include lugs for terminal box.

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 017000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Starting of systems.
- D. Demonstration and instructions.
- E. Testing, adjusting and balancing.
- F. Protecting installed construction.
- G. Project record documents.
- H. Operation and maintenance data.
- I. Manual for materials and finishes.
- J. Manual for equipment and systems.
- K. Spare parts and maintenance products.
- L. Product warranties and product bonds.
- M. Maintenance service.

1.2 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's review.
- B. Provide submittals to Engineer and Owner required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Owner will occupy all portions of building as specified herein.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean surfaces exposed to view; remove temporary labels, stains and foreign substances.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- D. Replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.

- G. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 STARTING OF SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Engineer and Owner seven days prior to start-up of each item.
- C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01 33 00 - Submittal Procedures that equipment or system has been properly installed and is functioning correctly.

1.5 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of final inspection.
- B. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- E. Required instruction time for each item of equipment and system is specified in individual sections.

1.6 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.

- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.7 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 2. Field changes of dimension and detail.
 - 3. Details not on original Contract drawings.
- G. Submit documents to Architect/Engineer with claim for final Application for Payment.

1.8 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch text pages, three D side ring binders with durable covers. Submit three hard copies and 1 electronic of same.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals of warranties and bonds.
 4. Part 4: Warranties
 5. Part 5: Construction Permits and Approvals

1.9 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.

- D. Submit two sets of revised final volumes in final form within 10 days after final inspection.
- E. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- F. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- G. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- H. Additional Requirements: As specified in individual product specification sections.
- I. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.10 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form within 10 days after final inspection.
- E. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- F. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- G. Include color coded wiring diagrams as installed.
- H. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.

- I. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- J. Include servicing and lubrication schedule, and list of lubricants required.
- K. Include manufacturer's printed operation and maintenance instructions.
- L. Include sequence of operation by controls manufacturer.
- M. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- N. Include control diagrams by controls manufacturer as installed.
- O. Include Contractor's coordination drawings, with color coded piping diagrams as installed.
- P. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- Q. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- R. Include test and balancing reports as specified in Section 01 40 00 - Quality Requirements.
- S. Additional Requirements: As specified in individual product specification sections.
- T. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

1.11 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by Owner; obtain receipt prior to final payment.

1.12 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.

- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable cover.
- F. Submit prior to final Application for Payment.
- G. Time Of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 017950 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Maintenance contracts.
 - 2. Operation and maintenance data.
 - 3. Product warranties.
 - 4. Project record documents.
 - 5. Spare parts.

- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

1.2 OPERATION AND MAINTENANCE DATA

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.3 PRODUCT WARRANTIES

- A. Submit Warranties required for specific Products or Work as specified in each individual Section.

- B. Form of Submittals:
 - 1. Bind in commercial quality 8-1/2 x 11 inch three D side ring binders with durable plastic covers.
 - 2. Cover: Identify each binder with typed or printed title WARRANTIES with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
 - 3. Table of Contents: Neatly typed, in sequence of Table of Contents of Project Manual, with each item identified with number and title of specification Section in which specified, and name of Product or Work item.
 - 4. Separate each warranty with index tab sheets keyed to Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

- C. Preparation of Submittals:
 - 1. Obtain warranties executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of applicable item of Work. Except for items put into use with Owner approval, leave date of beginning of time of warranty until the Date of Final Acceptance is determined.

2. Verify that documents are in proper form, contain full information, and are notarized.
 3. Co-execute submittals when required.
 4. Retain warranties until time specified for submittal.
- D. Time of Submittals
1. For equipment or component parts of equipment put into service during construction with Contracting Officer approval, submit documents within 10 days after acceptance.
 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance.

1.4 PROJECT RECORD DOCUMENTS

- A. Project Record Documents required include:
1. Marked-up copies of Contract Drawings.
 2. Marked-up copies of Shop Drawings.
 3. Marked-up copies of Specifications, addenda and Contract Modifications.
 4. Marked-up Product Data submittals.
 5. Field records for variable and concealed conditions.
 6. Record information on Work that is recorded only schematically.
- B. Specific record copy requirements that expand requirements of this Section are included in individual specification Sections of Division 2 through Division 16.
- C. Maintenance of Documents: Store record documents in field office apart from Contract Documents used for construction. Do not permit Project Record Documents to be used for construction purposes. Maintain and protect record documents from damage in a clean, dry, legible condition. Make documents available at all times for inspection by the Owner or Engineer.
- D. Record Drawings:
1. During construction, maintain a set of black-line white-prints of Contract Drawings and Shop Drawings for Project Record Document purposes.
 - a. Mark these Drawings to indicate actual installation where installation varies from installation shown originally. Give particular attention to information on concealed elements which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:
 - 1) Dimensional changes to Drawings.
 - 2) Revisions to details shown on Drawings.
 - 3) Depths of foundations below first floor.
 - 4) Locations and depths of underground utilities.
 - 5) Revisions to routing of piping and conduits.
 - 6) Revisions to electrical circuitry.
 - 7) Actual equipment locations.

- 8) Duct size and routing.
 - 9) Locations of concealed internal utilities.
 - 10) Changes made by Contract Modification.
 - 11) Details not on original Contract Drawings.
 - b. Mark completely and accurately record prints of Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.
 - c. Mark record sets with red erasable colored pencil; use other colors to distinguish between changes for different categories of Work at same location.
 - d. Mark important additional information which was either shown schematically or omitted from original Drawings.
 - e. Note construction change directive numbers, alternate numbers, Change Order numbers and similar identification.
 - f. Responsibility for Markup and Supervision: Individual or entity who obtained record data, whether individual or entity is installer, subcontractor, or similar entity, is required to prepare mark-up on Record Drawings.
 - 1) Accurately record information in an understandable Drawing technique.
 - 2) Record data as soon as possible after it has been obtained. In case of concealed installations, record and check mark-up prior to concealment.
 - 3) Contractor Representative: Affix signature and certify accuracy of Record Drawings.
 - g. At time of Final Acceptance, submit record Drawings to Engineer for Owner's records. Organize into sets, bind and label sets for Owner's continued use.
- E. Additional Record Submittals:
1. Refer to other specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Final Acceptance, complete additional records and place in order, properly identified and bound or filed, ready for use and reference. Submit to Engineer for Owner's records.
 - a. Categories of requirements resulting in miscellaneous records and photographs include, but are not limited to the following:
 - 1) Field records on excavations and foundations.
 - 2) Field records on underground construction and similar Work.
 - 3) Survey showing locations and elevations of underground lines.
 - 4) Invert elevations of drainage piping.
 - 5) Surveys establishing building lines and levels.
 - 6) Authorized measurements utilizing unit prices or allowances.
 - 7) Records of plant treatment.
 - 8) Ambient and substrate condition tests.
 - 9) Certifications received in lieu of labels on bulk products.
 - 10) Batch mixing and bulk delivery records.
 - 11) Testing and qualification of tradesmen.
 - 12) Documented qualification of installation firms.
 - 13) Load and performance testing.
 - 14) Inspections and certifications by governing authorities.

- 15) Leakage and water-penetration tests.
- 16) Fire resistance and flame spread test results.
- 17) Final inspection and correction procedures.

PART 2 PRODUCTS
 Not Used.

PART 3 EXECUTION
 Not Used.

END OF SECTION

SECTION 03 10 00 - CONCRETE FORMING AND ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Formwork for cast-in place concrete.
 - 2. Shoring, bracing, and anchorage.
 - 3. Form accessories.
 - 4. Form stripping.
- B. Related Sections:
 - 1. Section 03 20 00 - Concrete Reinforcing.
 - 2. Section 03 30 00 - Cast-In-Place Concrete.

1.2 REFERENCES

- A. American Concrete Institute:
 - 1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials.
 - 2. ACI 301 - Specifications for Structural Concrete.
 - 3. ACI 318 - Building Code Requirements for Structural Concrete.
 - 4. ACI 347 - Guide to Formwork for Concrete.
- B. American Forest and Paper Association:
 - 1. AF&PA - National Design Specifications for Wood Construction.
- C. The Engineered Wood Association:
 - 1. APA/EWA PS 1 - Voluntary Product Standard for Construction and Industrial Plywood.
- D. West Coast Lumber Inspection Bureau:
 - 1. WCLIB - Standard Grading Rules for West Coast Lumber.

1.3 DESIGN REQUIREMENTS

- A. Design, engineer and construct formwork, shoring and bracing in accordance with ACI 318 to conform to achieve concrete shape, line and dimension as indicated on Drawings.

1.4 SUBMITTALS

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.

- B. For wood products furnished for work of this Section, comply with AF&PA.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver void forms and installation instructions in manufacturer's packaging.
- B. Store off ground in ventilated and protected manner to prevent deterioration from moisture.

1.8 COORDINATION

- A. Coordinate this Section with other sections of work, requiring attachment of components to formwork.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 WOOD FORM MATERIALS

- A. Form Materials: At discretion of Contractor.

2.3 FORMWORK ACCESSORIES

- A. Form Ties: Snap-off type, galvanized metal, capable of leaving holes larger than 1 inch in concrete surface.
- B. Spreaders: Standard, non-corrosive metal form clamp assembly, of type acting as spreaders and leaving no metal within 1 inch of concrete face. Wire ties, wood spreaders or through bolts are not permitted.
- C. Form Anchors and Hangers:
 - 1. Do not use anchors and hangers exposed concrete leaving exposed metal at concrete surface.
 - 2. Symmetrically arrange hangers supporting forms from structural steel members to minimize twisting or rotation of member.
 - 3. Penetration of structural steel members is not permitted.
- D. Form Release Agent: Colorless mineral oil that will not stain concrete or absorb moisture.
- E. Corners: Chamfer 1x 1inch size; maximum possible lengths.
- F. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Size, strength and character to maintain formwork in place while placing concrete.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify lines, levels, and centers before proceeding with formwork. Verify dimensions agree with Drawings.
- B. When formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Engineer.

3.2 INSTALLATION

- A. Formwork - General:
 - 1. Provide top form for sloped surfaces steeper than 1.5 horizontal to 1 vertical to hold shape of concrete during placement, unless it can be demonstrated that top forms can be omitted.
 - 2. Construct forms to correct shape and dimensions, mortar-tight, braced, and of sufficient strength to maintain shape and position under imposed loads from construction operations.
 - 3. Camber forms where necessary to produce level finished soffits unless otherwise shown on Drawings.
 - 4. Carefully verify horizontal and vertical positions of forms. Correct misaligned or misplaced forms before placing concrete.
 - 5. Complete wedging and bracing before placing concrete.
- B. Forms for Smooth Finish Concrete:
 - 1. Use steel, plywood or lined board forms.
 - 2. Use clean and smooth plywood and form liners, uniform in size, and free from surface and edge damage capable of affecting resulting concrete finish.
 - 3. Install form lining with close-fitting square joints between separate sheets without springing into place.
 - 4. Use full size sheets of form lines and plywood wherever possible.
 - 5. Tape joints to prevent protrusions in concrete.
 - 6. Use care in forming and stripping wood forms to protect corners and edges.
 - 7. Level and continue horizontal joints.
 - 8. Keep wood forms wet until stripped.
- C. Forms for Surfaces to Receive Membrane Waterproofing: Use plywood or steel forms. After erection of forms, tape form joints to prevent protrusions in concrete.
- D. Framing, Studding and Bracing:
 - 1. Space studs at 16 inches on center maximum for boards and 12 inches on center maximum for plywood.
 - 2. Size framing, bracing, centering, and supporting members with sufficient strength to maintain shape and position under imposed loads from construction operations.
 - 3. Construct beam soffits of material minimum of 2 inches thick.

4. Distribute bracing loads over base area on which bracing is erected.
 5. When placed on ground, protect against undermining, settlement or accidental impact.
- E. Erect formwork, shoring, and bracing to achieve design requirements, in accordance with requirements of ACI 301.
 - F. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
 - G. Obtain Engineer's approval before framing openings in structural members not indicated on Drawings.
 - H. Install chamfer strips on external corners of work.
 - I. Install void forms in accordance with manufacturer's recommendations.
 - J. Do not patch formwork.

3.3 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Reuse and Coating of Forms: Thoroughly clean forms and reapply form coating before each reuse. For exposed work, do not reuse forms with damaged faces or edges. Apply form coating to forms in accordance with manufacturer's specifications. Do not coat forms for concrete indicated to receive "scored finish". Apply form coatings before placing reinforcing steel.

3.4 INSTALLATION - INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Install formed openings for items to be embedded in or passing through concrete work.
- B. Locate and set in place items required to be cast directly into concrete.
- C. Coordinate with Work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.
- D. Install accessories straight, level, and plumb. Ensure items are not disturbed during concrete placement.
- E. Form Ties:
 1. Use sufficient strength and sufficient quantity to prevent spreading of forms.
 2. Place ties at least 1 inch away from finished surface of concrete.
 3. Leave inner rods in concrete when forms are stripped.
 4. Space form ties equidistant, symmetrical and aligned vertically and horizontally unless otherwise shown on Drawings.

- F. Arrangement: Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.

- G. Construction Joints:
 - 1. Install surfaced pouring strip where construction joints intersect exposed surfaces to provide straight line at joints.
 - 2. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage.
 - 3. Show no overlapping of construction joints. Construct joints to present same appearance as butted plywood joints.
 - 4. Arrange joints in continuous line straight, true and sharp.

- H. Embedded Items:
 - 1. Make provisions for pipes, sleeves, anchors, inserts, and other features.
 - 2. Do not embed wood or uncoated aluminum in concrete.
 - 3. Obtain installation and setting information for embedded items furnished under other Specification sections.
 - 4. Securely anchor embedded items in correct location and alignment prior to placing concrete.
 - 5. Verify conduits and pipes, including those made of coated aluminum, meet requirements of ACI 318 for size and location limitations.

- I. Openings for Items Passing Through Concrete:
 - 1. Frame openings in concrete where indicated on Drawings. Establish exact locations, sizes, and other conditions required for openings and attachment of work specified under other sections.
 - 2. Coordinate work to avoid cutting and patching of concrete after placement.
 - 3. Perform cutting and repairing of concrete required as result of failure to provide required openings.

- J. Screeds:
 - 1. Set screeds and establish levels for tops of concrete slabs and levels for finish on slabs.
 - 2. Slope slabs to drain where required or as shown on Drawings.
 - 3. Before depositing concrete, remove debris from space to be occupied by concrete and thoroughly wet forms. Remove freestanding water.

- K. Screed Supports:
 - 1. For concrete over waterproof membranes and vapor retarder membranes, use cradle, pad or base type screed supports which will not puncture membrane.
 - 2. Staking through membrane is not be permitted.

- L. Cleanouts and Access Panels:
 - 1. Provide removable cleanout sections or access panels at bottoms of forms to permit inspection and effective cleaning of loose dirt, debris and waste material.

2. Clean forms and surfaces against which concrete is to be placed. Remove chips, saw dust and other debris. Thoroughly blow out forms with compressed air just before concrete is placed.

3.5 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
- D. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

3.6 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads and removal has been approved by Engineer.
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.
- D. Leave forms in place for minimum number of days as specified in ACI 347.

3.7 ERECTION TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 301.

END OF SECTION

SECTION 03 20 00 - CONCRETE REINFORCING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Reinforcing bars.
 - 2. Welded wire fabric.
 - 3. Reinforcement accessories.
- B. Related Sections:
 - 1. Section 03 10 00 - Concrete Forming and Accessories.
 - 2. Section 03 30 00 - Cast-In-Place Concrete.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Bar Reinforcement:
 - 1. Basis of Payment: Includes reinforcement, placement, and accessories.
- B. Welded Wire Fabric Reinforcement:
 - 1. Basis of Payment: Includes welded wire reinforcement, placement, and accessories.

1.3 REFERENCES

- A. American Concrete Institute:
 - 1. ACI 301 - Specifications for Structural Concrete.
 - 2. ACI 318 - Building Code Requirements for Structural Concrete.
- B. ASTM International:
 - 1. A185/A185M-07 Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
 - 2. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
- C. Concrete Reinforcing Steel Institute:
 - 1. CRSI - Manual of Standard Practice.
 - 2. CRSI - Placing Reinforcing Bars.

1.4 SUBMITTALS

- A. Shop Drawings: Indicate bar sizes, spacings, locations, and quantities of reinforcing steel and welded wire fabric, bending and cutting schedules, and supporting and spacing devices
- B. Certificates: Submit AWS qualification certificate for welders employed on the Work.

- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
 - 1. Submit certified copies of mill test report of reinforcement materials analysis.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with CRSI - Manual of Standard Practice
- B. Prepare shop drawings in accordance with ACI SP-66.
- C. Perform work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- D. Maintain one copy of each document on site.

1.7 COORDINATION

- A. Coordinate with placement of formwork, formed openings and other Work.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M, 60ksi yield grade, deformed billet bars.
- B. Welded Plain Wire Fabric: ASTM A185/A185M; in flat sheets.

2.3 ACCESSORY MATERIALS

- A. Tie Wire: Minimum 16 gage annealed type
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions.

2.4 FABRICATION

- A. Fabricate concrete reinforcement in accordance with CRSI Manual of Practice
- B. Form standard hooks as indicated on Drawings.
- C. Form reinforcement bends with minimum diameters in accordance with CRSI Manual of Practice.

2.5 SOURCE QUALITY CONTROL

- A. Make completed reinforcement available for inspection at manufacturer’s factory prior to packaging for shipment. Notify Engineer at least seven days before inspection is allowed.
- B. When fabricator is approved by authority having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.

PART 3 EXECUTION

3.1 PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position beyond specified tolerance.
 - 1. Do not weld crossing reinforcement bars for assembly
- B. Accommodate placement of formed openings.
- C. Maintain concrete cover around reinforcement as follows:

Reinforcement Location		Minimum Concrete Cover
Footings and Concrete Formed Against Earth		3 inches
Concrete exposed to earth or weather	No. 6 bars and larger	2 inches
	No. 5 (16) bars and smaller	1-1/2 inches
Supported Slabs, Walls, and Joists	No. 14 bars and larger	1-1/2 inches
	No. 11 bars and smaller	3/4 inches
Beams and Columns		1-1/2 inches
Shell and Folded Plate Members	No. 6 bars and larger	3/4 inches
	No. 5 bars and smaller	1/2 inches

3.2 FIELD QUALITY CONTROL – NOT USED

END OF SECTION

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes cast-in-place concrete for the following:
 - 1. Pavement.
 - 2. Drainage Structures.
 - 3. Slabs on grade.
 - 4. Control, expansion and contraction joint devices.
 - 5. Light pole base.
 - 6. Thrust blocks.
 - 7. Manholes.
- B. Related Sections:
 - 1. Section 31 13 13 - Concrete Paving
- C. Concrete - Slab-on-fill or grade:
 - 1. Basis of Measurement: Lump Sum
 - 2. Basis of Payment: Includes concrete, placement accessories, consolidating and leveling, troweling, curing.
- D. Concrete - Vertical in Forms:
 - 1. Basis of Measurement: Lump Sum
 - 2. Basis of Payment: Includes concrete, placement accessories, consolidating, curing.
- E. Concrete - Miscellaneous Locations:
 - 1. Basis of Measurement: Lump Sum
 - 2. Basis of Payment: Includes concrete, placement accessories, consolidating and leveling, troweling, curing.
- F. Concrete - Grouting:
 - 1. Basis of Measurement: Lump Sum
 - 2. Basis of Payment: Includes preparation of substrate, grout, placement, consolidating, troweling, curing.
- G. Devices: Control and Expansion.
 - 1. Basis of Measurement: Lump Sum
 - 2. Basis of Payment: Includes component, placement with accessories.

1.2 REFERENCES

- A. American Concrete Institute:
 - 1. ACI 301 - Specifications for Structural Concrete.
 - 2. ACI 305 - Hot Weather Concreting.

3. ACI 306.1 - Standard Specification for Cold Weather Concreting.
4. ACI 308.1 - Standard Specification for Curing Concrete.
5. ACI 318 - Building Code Requirements for Structural Concrete.

B. ASTM International:

1. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
2. ASTM C33 - Standard Specification for Concrete Aggregates.
3. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
4. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
5. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic Cement Concrete.
6. ASTM C150 - Standard Specification for Portland Cement.
7. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.
8. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
9. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
10. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
11. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
12. .
13. ASTM C1064/C1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
14. ASTM C1116 - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
15. ASTM C1218/C1218M - Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
16. ASTM D994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
17. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
18. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

1.3 PERFORMANCE REQUIREMENTS

1.4 SUBMITTALS

- A. Product Data: Submit data on joint devices, attachment accessories, and admixtures.
- B. Design Data:
 1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
 - a. Hot and cold weather concrete work.
 - b. Air entrained concrete work.
 2. Identify mix ingredients and proportions, including admixtures.

3. Identify chloride content of admixtures and whether or not chloride was added during manufacture.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of embedded utilities and components concealed from view in finished construction.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Conform to ACI 305 when concreting during hot weather.
- C. Conform to ACI 306.1 when concreting during cold weather.
- D. Acquire cement and aggregate from one source for Work.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Maintain concrete temperature after installation at minimum 50 degrees F for minimum 7 days.

1.9 COORDINATION

- A. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type I or Type II Portland

OR

- B. Normal Weight Aggregates: ASTM C33
 1. Coarse Aggregate Maximum Size: 3 inches

- C. Water: ACI 318; potable

2.3 ADMIXTURES

- A. Manufacturers:

1. BASF Corporation-Construction Systems
2. Cortec Corporation
3. Euclid Chemical Company (The); an RPM company
4. General Resource Technology
5. Grace Construction Products; W.R. Grace & Co.--Conn.
6. Green Umbrella
7. Sika Corporation

B. Air Entrainment: ASTM C260.

C. Chemical: ASTM C494/C494M.

1. Type A - Water Reducing.
2. Type B - Retarding.
3. Type C - Accelerating.
4. Type D - Water Reducing and Retarding.
5. Type E - Water Reducing and Accelerating.
6. Type F - Water Reducing, High Range.
7. Type G - Water Reducing, High Range and Retarding.

D. Fly Ash ASTM C618.

E. Silica Fume: ASTM C1240.

F. Plasticizing: ASTM C1017/C1017M

2.4 ACCESSORIES

2.5 JOINT DEVICES AND FILLER MATERIALS

A. Joint Filler ASTM D1751 or ASTM D994; Asphalt impregnated fiberboard

2.6 CONCRETE MIX

A. Select proportions for concrete in accordance with ACI 318 or field experience.

B. All concrete shall have a minimum compressive strength of 4,000 psi at 28 days, a maximum water/cement ratio of 0.45 and shall have 6% entrained air.

C. Admixtures: Include admixture types and quantities indicated in concrete mix designs only when approved by Engineer.

1. Use accelerating admixtures in cold weather. Use of admixtures will not relax cold weather placement requirements.
2. Do not use calcium chloride or admixtures containing calcium chloride.

D. Ready Mixed Concrete: Mix and deliver concrete in accordance with ASTM C94.

- E. Site Mixed Concrete: Mix concrete in accordance with ACI 318.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify requirements for concrete cover over reinforcement.
- B. Verify anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

3.2 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Remove laitance, coatings, and unsound materials.
- B. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.
- C. Remove debris and ice from formwork, reinforcement, and concrete substrates.
- D. Remove water from areas receiving concrete before concrete is placed.

3.3 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301
- B. Notify testing laboratory minimum 24 hours prior to commencement of operations.
- C. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints, and are not disturbed during concrete placement.
- D. Separate slabs on grade from vertical surfaces with 1/2-inch inch thick joint filler.
- E. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface.
- F. Deposit concrete at final position. Prevent segregation of mix.
- G. Place concrete in continuous operation for each panel or section determined by predetermined joints.
- H. Consolidate concrete.
- I. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

- J. Place concrete continuously between predetermined expansion, control, and construction joints.
- K. Do not interrupt successive placement; do not permit cold joints to occur.

3.4 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
 - 1. Protect concrete footings from freezing for minimum 5 days.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Cure floor surfaces in accordance with ACI 301
- D. Ponding: Maintain 100 percent coverage of water over floor slab areas continuously for 7 days
- E. Spraying: Spray water over floor slab areas and maintain wet for 7days.

3.5 FIELD QUALITY CONTROL

- A. Perform field inspection and testing in accordance with ACI 318
- B. Provide free access to Work and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of Work.
- D. Concrete Inspections:
 - 1. Continuous Placement Inspection: Inspect for proper installation procedures.
 - 2. Periodic Curing Inspection: Inspect for specified curing temperature and procedures.
- E. Strength Test Samples:
 - 1. Sampling Procedures: ASTM C172.
 - 2. Cylinder Molding and Curing Procedures: ASTM C31/C31M, cylinder specimens, standard cured.
 - 3. Sample concrete and make one set of three cylinders for every 75 cu yds or less concrete placed each day and for every 5,000 sf of surface area for slabs and walls.
 - 4. When volume of concrete for any class of concrete would provide less than 5 sets of cylinders, take samples from five randomly selected batches, or from every batch when less than 5 batches are used.
 - 5. Make one additional cylinder during cold weather concreting, and field cure.
- F. Field Testing:
 - 1. Slump Test Method: ASTM C143/C143M.
 - 2. Air Content Test Method: or ASTM C231.

3. Temperature Test Method: ASTM C1064/C1064M.
 4. Measure slump and temperature for each compressive strength concrete sample.
 5. Measure air content in air entrained concrete for each compressive strength concrete sample.
- G. Cylinder Compressive Strength Testing:
1. Test Method: ASTM C39/C39M.
 2. Test Acceptance: In accordance with ACI 318.
 3. Test one cylinder at 7 days.
 4. Test two cylinders at 28 days.
- H. Maintain records of concrete placement. Record date, location, quantity, air temperature and test samples taken.

3.6 PATCHING

- A. Allow Engineer to inspect concrete surfaces immediately upon removal of forms.
- B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.
- C. Patch imperfections as directed by Engineer

3.7 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- B. Repair or replacement of defective concrete will be determined by Engineer.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.

END OF SECTION

SECTION 03 60 00 - GROUTING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Portland cement grout.
2. Rapid curing epoxy grout.
3. Non-shrink cementitious grout.
4. NJDOT Standard Specifications for Road and Bridge Construction are available on the internet at <http://www.state.nj.us/transportation/eng/specs/english/englishStandardSpecification.shtml>

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

A. Grout:

1. Basis of Measurement: Not Measured.
2. Basis of Payment: Includes preparation of substrate, grout, placement, consolidation, troweling and curing.

1.3 REFERENCES

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 318 - Building Code Requirements for Structural Concrete.

B. American Society of Testing and Materials:

1. ASTM C33 - Standard Specification for Concrete Aggregates.
2. ASTM C40 - Test Method for Organic Impurities in Fine Aggregates for Concrete.
3. ASTM C150 - Standard Specification for Portland Cement.
4. ASTM C191 - Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.
5. ASTM C307 - Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing.
6. ASTM C531 - Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
7. ASTM C579 - Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, monolithic Surfacing and Polymer Concretes.
8. ASTM C827 - Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.

C. U. S. Army Corps of Engineers Concrete Research Division (CRD):

1. CRD C621 - Non-Shrink Grout.

1.4 SUBMITTALS

- A. Product Data: Submit product data on grout.
- B. Manufacturer's Installation Instructions: Submit manufacturer's instructions for mixing, handling, surface preparation and placing epoxy type and non-shrink type grouts.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NJDOT Standard Specification for Road and Bridge Construction, as currently amended.
- B. Maintain one copy of each document on site.
- C. All grout used for concrete pipes and drainage structures shall comply to NJDOT Standard Specifications for Road and Bridge Construction, Section 903.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grout in manufacturer's unopened containers with proper labels intact.
- B. Store grout in a dry shelter, protect from moisture.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Maintain minimum temperature of 40 degrees F before, during, and after grouting, until grout has set.

PART 2 PRODUCTS

2.1 PORTLAND CEMENT GROUT MATERIALS

- A. Portland Cement: ASTM C150, Type I and II.
- B. Water:
 - 1. Potable; containing no impurities, suspended particles, algae or dissolved natural salts in quantities capable of causing:
 - a. Corrosion of steel.
 - b. Volume change increasing shrinkage cracking.
 - c. Efflorescence.
 - d. Excess air entraining.

- C. Fine Aggregate:
 1. Washed natural sand.
 2. Gradation in accordance with ASTM C33 and represented by smooth granulometric curve within required limits.
 3. Free from injurious amounts of organic impurities as determined by ASTM C40.
- D. Mix:
 1. Portland cement, sand and water. Do not use ferrous aggregate or staining ingredients in grout mixes.

2.2 RAPID CURING EPOXY GROUT

- A. Furnish materials in accordance with NJDOT Standards for Road and Bridge Construction as currently amended.
- B. Rapid Curing Epoxy Grout: High strength, three component epoxy grout formulated with thermosetting resins and inert fillers. Rapid-curing, high adhesion, and resistant to ordinary chemicals, acids and alkalis.

Property	Test	Result
Compressive Strength	ASTM C579	12,000 psi at 7 days
Tensile Strength	ASTM C307	2,000 psi minimum
Coefficient of Expansion	ASTM C531	30x10 ⁻⁶ in per degree F
Shrinkage	ASTM C827	None

2.3 NON-SHRINK CEMENTITIOUS GROUT

- A. Furnish materials in accordance with NJDOT Standards for Road and Bridge Construction, as currently amended
- B. Non-shrink Cementitious Grout: Pre-mixed ready for use formulation requiring only addition of water; non-shrink, non-corrosive, non-metallic, non-gas forming, no chlorides.
- C. Properties: Certified to maintain initial placement volume or expand after set and meet the following minimum properties when tested in accordance with CRD-C621, for Type D non-shrink grout:

Property	Test	Time	Result
Setting Time	ASTM C191	Initial	2 hours (Approx)
		Final	3 hours (Approx)
Expansion			0.10% - 0.4% Maximum
Compressive Strength	CRD-C621	1 day	4,000 psi
		7 days	7,000 psi
		28 days	10,000 psi to 10,800 psi

2.4 FORMWORK

- A. Refer to Section 03 10 00 for formwork requirements.

2.5 CURING

- A. Prevent rapid loss of water from grout during first 48 hours by use of approved membrane curing compound or with use of wet burlap method.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify areas to receive grout.

3.2 PREPARATION

- A. Remove defective concrete, laitance, dirt, oil, grease and other foreign material from concrete surfaces by brushing, hammering, chipping or other similar means until sound, clean concrete surface is achieved.
- B. Rough concrete lightly, but not enough to interfere with placement of grout.
- C. Remove foreign materials from metal surfaces in contact with grout.
- D. Align, level and maintain final positioning of components to be grouted.
- E. Saturate concrete surfaces with clean water; remove excess water, leave none standing.

3.3 INSTALLATION - FORMWORK

- A. Construct leakproof forms anchored and shored to withstand grout pressures.
- B. Install formwork with clearances to permit proper placement of grout.

3.4 MIXING

- A. Portland Cement Grout:
 1. Use proportions of 2 parts sand and 1 part cement, measured by volume.
 2. Prepare grout with water to obtain consistency to permit placing and packing.
 3. Mix water and grout in two steps; pre-mix using approximately 2/3 of water; after partial mixing, add remaining water to bring mix to desired placement consistency and continue mixing 2 to 3 minutes.
 4. Mix only quantities of grout capable of being placed within 30 minutes after mixing.
 5. Do not add additional water after grout has been mixed.

6. Capable of developing minimum compressive strength of 2400 psi in 48 hours and 7000 psi in 28 days.

OR

- B. Mix and prepare rapid curing epoxy grout in accordance with manufacturer's instructions.
 1. Capable of developing minimum compressive strength of 2400 psi in 48 hours and 7000 psi in 28 days.

OR

- C. Mix and prepare non-shrink cementitious grout in accordance with manufacturer's instructions.
 1. Capable of developing minimum compressive strength of 2400psi in 48 hours and 7000 psi in 28 days.
- D. Mix grout components in proximity to work area and transport mixture quickly and in manner not permitting segregation of materials.

3.5 PLACING GROUT

- A. Place grout material quickly and continuously.
- B. Do not use pneumatic-pressure or dry-packing methods.
- C. Apply grout from one side only to avoid entrapping air.
- D. Do not vibrate placed grout mixture, or permit placement when area is being vibrated by nearby equipment.
- E. Thoroughly compact final installation and eliminate air pockets.
- F. Do not remove leveling shims for at least 48 hours after grout has been placed.

3.6 CURING

- A. Immediately after placement, protect grout from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. After grout has attained its initial set, keep damp for minimum of 3 days.

3.7 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed in accordance with ACI 301 and ACI 318
- B. Submit proposed mix design of each class of grout to inspection and testing firm for review prior to commencement of Work.

- C. Tests of grout components may be performed to ensure conformance with specified requirements.

END OF SECTION

SECTION 31 05 13 - SOILS FOR EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Subsoil materials.
 - 2. Topsoil materials.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Subsoil:
 - 1. Basis of Payment: Includes excavating existing subsoil, supplying subsoil materials, and stockpiling.
- B. Topsoil:
 - 1. Basis of Payment: Includes excavating existing topsoil, supplying topsoil materials, and stockpiling.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
 - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
 - 2. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
 - 3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

1.4 SUBMITTALS

- A. Samples: Submit, in air-tight containers 10 lb sample of each type of fill to testing laboratory.
- B. Materials Source: Submit name of imported materials source.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, Section 804, as currently amended.

- B. Maintain one copy on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 SUBSOIL MATERIALS

- A. Subsoil Type S1: Conforming to NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.

2.3 TOPSOIL MATERIALS

- A. Topsoil Type S3: Conforming to NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.

2.4 ON-GRADE PLANTING MIXTURE

- A. 1. Shall be a mixture by volume of the following materials in quantities specified: 20% peat moss, 70% topsoil, 10% course sand. Add 5 pounds of 0-20-20 fertilizer per cubic yard of planting mixture.
- B. Offsite Topsoil: If on-site topsoil is insufficient in quantity to provide specified thickness, provide topsoil from approved off-site sources as required to complete the work. Off-site topsoil shall meet the following minimum requirements.
 - 1. Topsoil shall be fertile, friable, well drained, pH range of 6.0 to 6.5, free of sub-soil, toxic substances harmful to plant growth without clay lumps, stones, roots or debris. Analysis of content shall be as follows:

(a) Sand	- 35% to 40%
(b) Clay	- 15% to 20%
(c) Organic Matter	- 2% - 10% max.
(d) Silt	- Balance
 - 2. The contractor shall be responsible for the screening of topsoil should the topsoil warrant the need. The topsoil will be tested for both the physical composition and the chemical properties.

2.5 SOURCE QUALITY CONTROL

- A. Testing and Analysis of Subsoil Material: Perform in accordance with ASTM D698.
- B. Testing and Analysis of Topsoil Material: Perform in accordance with ASTM D698.
- C. When tests indicate materials do not meet specified requirements, change material and retest.

- D. Furnish materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.1 EXCAVATION

- A. Excavate subsoil and topsoil from areas designated. Strip topsoil to full depth of topsoil in designated areas.
- B. Stockpile excavated material meeting requirements for subsoil materials and topsoil materials
- C. Remove excess excavated materials not intended for reuse, from site.
- D. Remove excavated materials not meeting requirements for subsoil and topsoil from site.

3.2 STOCKPILING

- A. Stockpile materials on site at locations indicated by Engineer.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate differing materials with dividers or stockpile apart to prevent mixing.
- D. Stockpile topsoil 8 feet high maximum.
- E. Prevent intermixing of soil types or contamination.
- F. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- G. Stockpile unsuitable materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 31 05 16 - AGGREGATES FOR EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Coarse aggregate materials.
 2. Fine aggregate materials.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Aggregate:
1. Basis of Payment: Includes supplying aggregate materials, stockpiling.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
1. AASHTO M147 - Standard Specification for Materials for Aggregate and Soil-Aggregate Subbase, Base and Surface Courses.
 2. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
 3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
 4. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 5. ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.4 SUBMITTALS

- A. Samples: Submit, in air-tight containers, 10 lb. sample of each type of fill to testing laboratory.
- B. Materials Source: Submit name of imported materials suppliers.
- C. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.
- B. Perform Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, Section 901, as currently amended.
- C. Maintain one copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 COARSE AGGREGATE MATERIALS

- A. Coarse Aggregate Type A1: Conforming to NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.

2.3 FINE AGGREGATE MATERIALS

- A. Fine Aggregate Type A5: Conforming to NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.

2.4 SOURCE QUALITY CONTROL

- A. Coarse Aggregate Material - Testing and Analysis: Perform in accordance with ASTM D698.
- B. Fine Aggregate Material - Testing and Analysis: Perform in accordance with ASTM D698.
- C. When tests indicate materials do not meet specified requirements, change material and retest.

PART 3 EXECUTION

3.1 EXCAVATION

- A. Excavate aggregate materials from on-site locations designated by Engineer as specified in Section 31 22 13.
- B. Stockpile excavated material meeting requirements for coarse aggregate materials and fine aggregate materials.
- C. Remove excess excavated materials not intended for reuse, from site.

- D. Remove excavated materials not meeting requirements for coarse aggregate materials and fine aggregate materials from site.

3.2 STOCKPILING

- A. Stockpile materials on site at location designated by Engineer.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.
- D. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- E. Stockpile unsuitable materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 31 10 00 - SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Removing surface debris.
 - 2. Removing designated paving, curbs, and sidewalks.
 - 3. Removing designated trees, shrubs, and other plant life.
 - 4. Removing abandoned utilities.
 - 5. Excavating topsoil.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Site Clearing:
 - 1. Basis of Payment: Includes clearing site, loading and removing waste materials from site, applying herbicide to designated plant life.

1.3 SUBMITTALS

- A. Product Data: Submit data for herbicide. Indicate compliance with applicable codes for environmental protection.

1.4 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.5 QUALITY ASSURANCE

- A. Conform to applicable code for environmental requirements, disposal of debris, burning debris on site, and use of herbicides.
- B. Perform Work in accordance with State and local Public Work's standard.
- C. Perform Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, Section 201.
- D. Maintain one copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 MATERIALS

- A. Herbicide: approved by authority having jurisdiction.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing plant life designated to remain is tagged or identified.
- B. Identify waste area for placing removed materials.

3.2 PREPARATION

- A. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.

3.3 PROTECTION

- A. Locate, identify, and protect utilities indicated to remain, from damage.
- B. Protect trees, plant growth, and features designated to remain, as final landscaping.
- C. Protect bench marks, survey control points, and existing structures from damage or displacement.

3.4 CLEARING

- A. Clear areas required for access to site and execution of Work to minimum depth of 6 inches.
- B. Remove trees and shrubs indicated. Remove stumps, main root ball, root system to depth of 6 inches, and surface rock.
- C. Clear undergrowth and deadwood, without disturbing subsoil.
- D. Apply herbicide to remaining stumps to inhibit growth.

3.5 REMOVAL

- A. Remove debris, rock, and extracted plant life from site.
- B. Partially remove paving, curbs, and, other existing features identified on the site plans. Neatly saw cut edges at right angle to surface.
- C. Remove abandoned utilities. Indicated removal termination point for underground utilities on Record Documents.
- D. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.

- E. Do not burn or bury materials on site. Leave site in clean condition.

3.6 TOPSOIL EXCAVATION

- A. Excavate topsoil marked areas without mixing with foreign materials for use in finish grading.
- B. Do not excavate wet topsoil.
- C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion. Stockpile material on impervious material until disposal.
- D. Remove excess topsoil not intended for reuse, from site.

3.7 SCHEDULES

- A. Remove the following materials: See Site Plans
- B. Protect the following materials: See Site Plans

END OF SECTION

SECTION 31 22 13 - ROUGH GRADING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavating topsoil.
 - 2. Excavating subsoil.
 - 3. Cutting, grading, filling, rough contouring, compacting, and grading for future building pads.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Topsoil Fill Type:
 - 1. Basis of Payment: Includes excavating existing soil, supplying soil materials, stockpiling, scarifying substrate surface, placing where required, and compacting.
- B. Subsoil Fill Type:
 - 1. Basis of Payment: Includes excavating existing subsoil, supplying subsoil materials, stockpiling, scarifying substrate surface, placing where required, and compacting.
- C. Structural Fill Type:
 - 1. Basis of Payment: Includes excavating existing subsoil, supplying structural fill materials, stockpiling, scarifying substrate surface, placing where required, and compacting.
- D. Granular Fill Type:
 - 1. Basis of Payment: Includes supplying granular fill materials, stockpiling, scarifying substrate surface, placing where required, and compacting.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
 - 1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - 2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m<sup>3 - 3. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 - 4. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m<sup>3 - 5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
 - 6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.</sup></sup>

7. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
8. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS

- A. Samples: Submit, in air-tight containers, 10 lb sample of each type of fill to testing laboratory.
- B. Materials Source: Submit name of imported materials suppliers.
- C. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C136 and ASTM D2434.
- B. Perform Work in accordance with State and local Public Work's standard.
- C. Maintain one copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 MATERIALS

- A. Topsoil: Type S3 as specified in Section 31 05 13.
- B. Subsoil Fill: Type S1 as specified in Section 31 05 13.
- C. Structural Fill: Type S1 as specified in Section 31 05 16.
- D. Granular Fill: Type A1 as specified in Section 31 05 16.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify survey bench mark and intended elevations for the Work are as indicated on Drawings.

3.2 PREPARATION

- A. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum.
- C. Notify utility company to remove and relocate utilities.
- D. Protect utilities indicated to remain from damage.
- E. Protect plant life, lawns, rock outcropping, and other features remaining as portion of final landscaping.
- F. Protect bench marks, survey control point, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.3 TOPSOIL EXCAVATION

- A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded, without mixing with foreign materials for use in finish grading.
- B. Do not excavate wet topsoil.
- C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion. Stockpile material on impervious material until disposal.
- D. Remove excess topsoil not intended for reuse, from site.

3.4 SUBSOIL EXCAVATION

- A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded, without mixing with foreign materials for use in finish grading.
- B. Do not excavate wet topsoil.
- C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion. Stockpile material on impervious material until disposal.

- D. Remove excess topsoil not intended for reuse, from site.
- E. Stockpile excavated material in area designated on site in accordance with Section 31 05 13 and 31 05 16.
- F. Benching Slopes: Horizontally bench existing slopes greater than 1: 4 to key placed fill material to slope to provide firm bearing.
- G. Stability: Replace damaged or displaced subsoil as specified for fill.

3.5 FILLING

- A. Fill areas to contours and elevations with unfrozen materials.
- B. Place fill material in continuous layers and compact in accordance with schedule at end of this section.
- C. Maintain optimum moisture content of fill materials to attain required compaction density.
- D. Make grade changes gradual. Blend slope into level areas.
- E. Repair or replace items indicated to remain damaged by excavation or filling.
- F. Install Work in accordance with NJDOT Standards for Road and Bridge Construction as currently amended.

3.6 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 1/10 foot from required elevation.

3.7 FIELD QUALITY CONTROL

- A. Perform laboratory material tests in accordance with ASTM D698.
- B. Perform in place compaction tests in accordance with the following:
 - 1. Density Tests: ASTM D1556.
 - 2. Moisture Tests: ASTM D3017.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

3.8 SCHEDULES

- A. Structural Fill: See Site Plans
- B. Previous Structural Fill: See Site Plans
- C. Subsoil Fill: See Site Plans

D. Topsoil Fill: See Site Plans.

END OF SECTION

SECTION 31 23 16 - EXCAVATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Soil densification.
 - 2. Excavating for paving, roads, and parking areas.
 - 3. Excavating for slabs-on-grade.
 - 4. Excavating for site structures.
 - 5. Excavating for landscaping.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Excavating Soil Materials:
 - 1. Basis of Payment: Includes general excavating to required elevations, loading and placing materials in stockpile. Over Excavating: Payment will not be made for over excavated work or for replacement materials.

1.3 REFERENCES

- A. Local utility standards when working within 24 inches of utility lines.

1.4 SUBMITTALS

- A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.
- B. Shop Drawings: Indicate soil densification grid for each size and configuration footing requiring soils densification.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NJDOT Standards for Road and Bridge Construction, as currently required.
- B. Maintain one copy of each document on site.

1.6 QUALIFICATIONS

- A. Prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of New Jersey.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PREPARATION

- A. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum.
- C. Notify utility company to remove and relocate utilities.
- D. Protect utilities indicated to remain from damage.
- E. Protect plant life, lawns, rock outcroppings, and other features remaining as portion of final landscaping.
- F. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.2 SOIL DENSIFICATION - VIBRO-COMPACTION

- A. Vibro-compact substrates below footing bearing surfaces for footings as indicated on Drawings before excavating site.
- B. Densify existing subsoils with relative density rating of compact to dense to attain relative density rating of very dense.
- C. Densification Equipment:
 - 1. Depth Vibrator: Poker type with follower tubes with visible marking every 12 inches to enable insertion depth measurement.
 - 2. Motion: radial in horizontal plane.
 - 3. Data Acquisition System: Record amps or pressure of the vibrator motor over time and depth.
- D. Perform densification in presence of Geotechnical Engineer directly under each footing with vibrator inserted in grid pattern at maximum 6 feet on center.
 - 1. Arrange compaction grid for each footing for maximum number of insertion points and with outermost insertion points within the bearing area of footings.
 - 2. Adjust compaction grid arrangement and spacing as directed by Geotechnical Engineer to achieve required densification.

- E. Insert vibrator to maximum specified depth. Densify soils for 30 seconds or other time as directed by Geotechnical Engineer. Withdraw vibrator every 12 inches increments and repeat densification at each increment.
 - 1. When subsurface obstruction prevents vibrator insertion to specified depth, request instructions from Geotechnical Engineer to compensate for obstruction.
- F. Tolerances:
 - 1. Maximum Deviation from Center of Completed Compaction: 8 inches from indicated position.
 - 2. Maximum Deviation from Vertical: 4 degrees during vibrator insertion.

3.3 EXCAVATION

- A. Underpin adjacent structures which may be damaged by excavation work.
- B. Excavate subsoil to accommodate slabs-on-grade, paving, and site structures, and construction operations.
- C. Excavate to working elevation for piling work.
- D. Compact disturbed load bearing soil in direct contact with foundations to original bearing capacity; perform compaction in accordance with Section 31 23 23 and Section 31 23 17.
- E. Slope banks with machine to angle of repose or less until shored.
- F. Do not interfere with 45 degree bearing splay of foundations.
- G. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- H. Trim excavation. Remove loose matter.
- I. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume. Remove larger material as specified in Section 31 23 23.
- J. Notify Architect/Engineer of unexpected subsurface conditions.
- K. Correct areas over excavated with as directed by Architect/Engineer.
- L. Remove excess and unsuitable material from site.
- M. Stockpile excavated material in area designated on site in accordance with Section 31 05 13 and 31 05 16.
- N. Repair or replace items indicated to remain damaged by excavation.

3.4 FIELD QUALITY CONTROL

- A. Request inspection of excavation and controlled fill operations in accordance with applicable code.
- B. Request visual inspection of bearing surfaces by inspection agency before installing subsequent work.

3.5 PROTECTION

- A. Prevent displacement or loose soil from falling into excavation; maintain soil stability.
- B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- C. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

END OF SECTION

SECTION 31 23 17 - TRENCHING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating trenches for utilities.
2. Compacted fill from top of utility bedding to subgrade elevations.
3. Backfilling and compaction.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

A. Trenching:

1. Basis of Payment: Includes excavating to required elevations, protecting excavation, and stockpiling excavated materials, and removing excavated materials from site. Over Excavating: Payment is not made for over excavated work or for replacement materials.

B. Subsoil Fill:

1. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

C. Structural Fill:

1. Basis of Payment: Includes furnishing fill material, stockpiling, shaping substrate surface, placing where required, and compacting.

D. Granular Fill:

1. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

E. Concrete Fill:

1. Basis of Payment: Includes furnishing materials, forming, mixing and placing where required, and curing.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:

1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.

3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
5. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
6. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, or cable.

1.5 SUBMITTALS

- A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.
- B. Product Data: Submit data for geotextile fabric indicating fabric and construction.
- C. Samples: Submit, in air-tight containers, 10 lb sample of each type of fill to testing laboratory.
- D. Materials Source: Submit name of imported fill materials suppliers.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements

1.6 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with NJDOT Standards Specifications for Road and Bridge Construction, as currently amended.
- B. Maintain one copy of each document on site.

1.8 QUALIFICATIONS

- A. Prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of New Jersey

1.9 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.10 COORDINATION

- A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Subsoil Fill: Type S1 as specified in Section 31 05 13.
- B. Structural Fill: Type S1 as specified in Section 31 05 13 and 31 05 16.
- C. Granular Fill: Type A1as specified in Section 31 05 16.
- D. Concrete: Structural concrete as specified in Section 03 30 00

2.2 ACCESSORIES

- A. Manufacturers: See Site Plans

PART 3 EXECUTION

3.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

3.2 LINES AND GRADES

- A. Lay pipes to lines and grades indicated on Drawings.
 - 1. Architect/Engineer reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.
- B. Use laser-beam instrument with qualified operator to establish lines and grades.

OR

- C. Maintain grade alignment of pipe using string line parallel with grade line and vertically above centerline of pipe.
 - 1. Establish string line on level batter boards at intervals of not more than 25 feet.
 - 2. Install batter boards spanning trench, rigidly anchored to posts driven into ground on both sides of trench.
 - 3. Set three adjacent batter boards before laying pipe to verify grades and line.
 - 4. Determine elevation and position of string line from elevation and position of offset points or stakes located along pipe route.
 - 5. Do not locate pipe using side lines for line or grade.

3.3 PREPARATION

- A. Call Local Utility Line Information service not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum locations.
- C. Protect plant life, lawns, rock outcropping, and other features remaining as portion of final landscaping.
- D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Maintain and protect above and below grade utilities indicated to remain.
- F. Establish temporary traffic control and detour when trenching is performed in public right-of-way. Relocate controls and reroute traffic as required during progress of Work.

3.4 TRENCHING

- A. Excavate subsoil required for utilities to utility service.
- B. Remove lumped subsoil, boulders, and rock up of 1/6 cubic yard, measured by volume.
- C. Perform excavation within 24 inches of existing utility service in accordance with utility's requirements.
- D. Do not advance open trench more than 200 feet ahead of installed pipe.
- E. Cut trenches sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.
- F. Excavate bottom of trenches maximum 2 feet wider than outside diameter of pipe.
- G. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and pipe utilities
- H. Do not interfere with 45 degree bearing splay of foundations.
- I. When Project conditions permit, slope side walls of excavation starting 2 feet above top of pipe. When side walls can not be sloped, provide sheeting and shoring to protect excavation as specified in this section.
- J. When subsurface materials at bottom of trench are loose or soft, Engineer until suitable material is encountered.

- K. Cut out soft areas of subgrade not capable of compaction in place. Backfill and compact to density equal to or greater than requirements for subsequent backfill material.
- L. Trim excavation. Hand trim for bell Remove loose matter.
- M. Correct areas over excavated areas with compacted backfill as specified for authorized excavation or replace with fill concrete as directed by Engineer.
- N. Remove excess subsoil not intended for reuse, from site.
- O. Stockpile excavated material in area designated on site in accordance with Section 31 05 13 and 31 05 16.

3.5 SHEETING AND SHORING

- A. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- B. Support trenches more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.
- C. Design sheeting and shoring to be left in place as part of the completed Work, cut off minimum 18 inches below finished grade.

OR

- D. Design sheeting and shoring to be removed at completion of excavation work.
- E. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.
- F. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

3.6 BACKFILLING

- A. Backfill trenches to contours and elevations with unfrozen fill materials.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- C. Place geotextile fabric over Fill Type prior to placing subsequent fill materials.

OR

- D. Place material in continuous layers as follows:
 - 1. Subsoil Fill: Maximum 8 inches compacted depth.

2. Structural Fill: Maximum 6 inches compacted depth.
 3. Granular Fill: Maximum 6 inches compacted depth.
- E. Employ placement method that does not disturb or damage foundation perimeter drainage utilities in trench.
 - F. Maintain optimum moisture content of fill materials to attain required compaction density.
 - G. Do not leave more than 50 feet of trench open at end of working day.
 - H. Protect open trench to prevent danger to the public.

3.7 TOLERANCES

- A. Top Surface of Backfilling Under Paved Areas: Plus or minus 0.5 inches, 0.04 feet from required elevations.
- B. Top Surface of General Backfilling: Plus or minus 1 inch, 0.8 feet from required elevations.

3.8 FIELD QUALITY CONTROL

- A. Perform laboratory material tests in accordance with ASTM D698.
- B. Perform in place compaction tests in accordance with the following:
 1. Density Tests: ASTM D1556.
 2. Moisture Tests: ASTM D3017.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

3.9 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION

SECTION 31 23 23 - FILL

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Backfilling site structures to subgrade elevations.
 2. Fill under slabs-on-grade.
 3. Fill under paving.
 4. Fill for over-excavation.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Fill Type:
1. Basis of Payment: Includes supplying fill materials, stockpiling, scarifying substrate surface, placing where required, and compacting.
- B. Structural Fill:
1. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
- C. Concrete Fill:
1. Basis of Payment: Includes supplying fill material, forming, mixing and placing where required, and curing.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
 2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
 4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
 5. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
 6. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS

- A. Product Data: Submit data for geotextile fabric indicating fabric and construction.
- B. Samples: Submit, in air-tight containers, 10 lb sample of each type to testing laboratory.
- C. Materials Source: Submit name of imported fill materials suppliers.
- D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NJDOT Standard Specification for Road and Bridge Construction, as currently amended.
- B. Maintain one copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – not used

2.2 FILL MATERIALS

- A. Subsoil Fill: Type S1 as specified in Section 31 05 13.
- B. Structural Fill: Type S1 as specified in Section 31 05 13 and 31 05 16.
- C. Granular Fill: Type A1 as specified in Section 31 05 16.

2.3 ACCESSORIES

- A. Manufacturers: See Site Plans

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- B. Verify underground tanks are anchored to their own foundations to avoid flotation after backfilling.
- C. Verify structural ability of unsupported walls to support loads imposed by fill.

3.2 PREPARATION

- A. Compact subgrade to density requirements for subsequent backfill materials.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with structural fill and compact to density equal to or greater than requirements for subsequent fill material.
- C. Proof roll to identify soft spots; fill and compact to density equal to or greater than requirements for subsequent fill material.

3.3 BACKFILLING

- A. Backfill areas to contours and elevations with unfrozen materials.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- C. Place geotextile fabric over fill prior to placing next lift of fill.
- D. Place material in continuous layers as follows:
 - 1. Subsoil Fill: Maximum 8 inches compacted depth.
 - 2. Structural Fill: Maximum 6 inches compacted depth.
 - 3. Granular Fill: Maximum 6 inches compacted depth.
- E. Employ placement method that does not disturb or damage other work.
- F. Maintain optimum moisture content of backfill materials to attain required compaction density.
- G. Backfill against supported foundation walls and do not backfill against unsupported foundation walls.
- H. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- I. Make gradual grade changes. Blend slope into level areas.
- J. Remove surplus backfill materials from site.
- K. Leave fill material stockpile areas free of excess fill materials.

3.4 TOLERANCES

- A. Top Surface of Backfilling Under Paved Areas: Plus or minus 6 inches from required elevations.
- B. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.

3.5 FIELD QUALITY CONTROL

- A. Perform laboratory material tests in accordance with ASTM D698.

- B. Perform in place compaction tests in accordance with the following:
 - 1. Density Tests: ASTM D1556 or ASTM D2922.
 - 2. Moisture Tests: ASTM D3017.
 - C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
 - D. Proof roll compacted fill surfaces under slabs-on-grade, pavers, and paving.
- 3.6 PROTECTION OF FINISHED WORK
- A. Reshape and re-compact fills subjected to vehicular traffic.

END OF SECTION

SECTION 32 05 16 - AGGREGATES FOR EXTERIOR IMPROVEMENTS

PART 1 GENERAL

1.1 SUMMARY

a. Section Includes:

- 1) Coarse aggregate materials.
- 2) Fine aggregate materials.

b. Related Sections:

- 1) Section 31 05 16 - Aggregates for Earthwork.
- 2) Section 31 22 13 - Rough Grading.
- 3) Section 31 23 17 - Trenching.
- 4) Section 31 23 23 - Fill.
- 5) Section 32 11 23 - Aggregate Base Courses.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

a. Aggregate:

- 1) Basis of Measurement: Will not be measured.
- 2) Basis of Payment: Payment shall be in the lump sum price.

1.3 REFERENCES

a. American Association of State Highway and Transportation Officials:

- 1) AASHTO M147 - Standard Specification for Materials for Aggregate and Soil-Aggregate Subbase, Base and Surface Courses.
- 2) AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

b. ASTM International:

- 1) ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- 2) ASTM D448 - Standard Classification for Sizes of Aggregate for NJDOT Road and Bridge Construction

- 3)ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³).
- 4)ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³).
- 5)ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
- 6)ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.4 SUBMITTALS

- a.Samples: Submit, in air-tight containers, 10 lb sample of each type of fill to testing laboratory.
- b.Materials Source: Submit name of imported materials suppliers.
- c.Manufacturer's Certificate: Certify Product meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- a.Furnish each aggregate material from single source throughout the Work.
- b.Perform Work in accordance with New Jersey Township of West Windsor standards.
- c.Maintain one copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 COARSE AGGREGATE MATERIALS

- a.Coarse Aggregate Type A1 Conforming to New Jersey Township of West Windsor standard.

1)Percent Passing per Sieve Size:

a)1 Inch	100
b)3/4 Inch	95 to 100
c)1/2 Inch	75 to 100
d)3/8 Inch	55 to 85
e)No. 4	35 to 60
f)No. 16	15 to 35

g)No. 50	10 to 25
h)No. 200	Zero to 10

2.3 FINE AGGREGATE MATERIALS

a.Fine Aggregate Type A5: Conforming to New Jersey Township of West Windsor standards.

1)Percent Passing per Sieve Size:

a)No. 4	100
b)No. 16	10 to 100
c)No. 50	5 to 90
d)No. 100	4 to 30

2.4 SOURCE QUALITY CONTROL

a.Coarse Aggregate Material - Testing and Analysis: Perform in accordance with ASTM D698.

b.Fine Aggregate Material - Testing and Analysis: Perform in accordance with ASTM D698.

c.When tests indicate materials do not meet specified requirements, change material and retest.

PART 3 EXECUTION

3.1 EXCAVATION

a.Excavate aggregate materials from on-site locations as specified in Section 312213.

b.Stockpile excavated material meeting requirements for coarse aggregate materials and fine aggregate materials.

c.Remove excess excavated materials not intended for reuse, from site.

d.Remove excavated materials not meeting requirements from site.

3.2 STOCKPILING

a.Stockpile materials on site at locations indicated.

b.Stockpile in sufficient quantities to meet Project schedule and requirements.

c.Separate different aggregate materials with dividers or stockpile individually to prevent mixing.

- d. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- e. Stockpile unsuitable materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

- a. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- b. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 32 11 23 - AGGREGATE BASE COURSES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aggregate subbase.
 - 2. Aggregate base course.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Aggregate Subbase:
 - 1. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
- B. Aggregate Base Course:
 - 1. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
- B. ASTM International:
 - 1. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 - 2. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
 - 3. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
 - 4. ASTM D2940 - Standard Specification for Graded Aggregate Material For Bases or Subbases for Highways or Airports.
 - 5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS

- A. Product Data:
 - 1. Submit data for geotextile fabric and herbicide.
- B. Samples: Submit, in air-tight containers, 10 lb sample of each type of aggregate fill to testing laboratory.

- C. Materials Source: Submit name of aggregate materials suppliers.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.
- B. Perform Work in accordance with State and local Public Work's standard.
- C. Maintain once copy of each document on site.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 AGGREGATE MATERIALS

- A. Subbase Aggregate: ASTM D2940; graded type.

Sieve Size	Percent Passing
2 inches	100
No. 4	30 to 60
No. 200	0 to 12

- B. Base Aggregate: ASTM D2940; graded type.

Sieve Size	Percent Passing
2 inches	100
1-1/2 inches	95 to 100
3/4 inches	70 to 92
3/8 inches	50 to 70
No. 4	35 to 55
No. 30	12 to 25
No. 200	0 to 8

OR

2.3 AGGREGATE MATERIALS

- A. Coarse Aggregate: Fill Type A1 as specified in Section 32 05 16.

2.4 ACCESSORIES

- A. Geotextile Fabric: AASHTO M288; non-woven, polypropylene.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify compacted substrate is dry and ready to support paving and imposed loads.
 - 1. Proof roll substrate in minimum two perpendicular passes to identify soft spots.
 - 2. Remove soft substrate and replace with compacted fill as specified in Section 31 23 23.
- B. Verify substrate has been inspected, gradients and elevations are correct.

3.2 PREPARATION

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT

- A. Install geotextile fabric over subgrade in accordance with manufacturer's instructions.
 - 1. Lap ends and edges minimum 6 inches.
 - 2. Anchor fabric to subgrade when required to prevent displacement until aggregate is installed.
- B. Place aggregate equal thickness layers to total compacted thickness indicated on Drawings.
 - 1. Maximum Layer Compacted Thickness: 8 inches.
 - 2. Minimum Layer Compacted Thickness: 4 inches.
- C. Roller compact aggregate to 95 percent maximum density
- D. Level and contour surfaces to elevations, profiles, and gradients indicated.
- E. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.
- F. Maintain optimum moisture content of fill materials to attain specified compaction density.
- G. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

- A. Maximum Variation from Flat Surface: ½ inch measured with 10 foot straight edge.
- B. Maximum Variation From Thickness: ¼ inch.
- C. Maximum Variation from Elevation: ½ inch.

3.5 FIELD QUALITY CONTROL

- A. Compaction testing will be performed in accordance with ASTM D698.
- B. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- C. Frequency of Tests: One test for every 1000 square yards of each layer compacted aggregate.

3.6 COMPACTION

- A. Compact materials to 98 percent of maximum density as determined from test strip, in accordance with ASTM D2940.

3.7 SCHEDULES

- A. Asphalt Paving Base Course: See Site Plans.

END OF SECTION

SECTION 32 13 13 - CONCRETE PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aggregate subbase and base course.
 - 2. Concrete paving for:
 - a. Concrete sidewalks.
 - b. Concrete stair steps.
 - c. Concrete integral curbs and gutters.
 - d. Concrete median barriers.
 - e. Concrete parking areas and roads.

1.2 PRICE AND PAYMENT PROCEDURES

- A. Aggregate Base Course:
 - 1. Basis of Payment: Payment shall be in the lump sum price.
- B. Concrete Paving:
 - 1. Basis of Payment: Payment shall be in the lump sum price.

1.3 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
- B. American Concrete Institute:
 - 1. ACI 301 - Specifications for Structural Concrete.
 - 2. ACI 304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
- C. ASTM International:
 - 1. ASTM A184/A184M - Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
 - 2. ASTM A185/A185M - Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 - 3. ASTM A497/A497M - Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
 - 4. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 - 5. ASTM A706/A706M - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
 - 6. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.

7. ASTM A775/A775M - S Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
8. ASTM A884/A884M - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
9. ASTM A934/A934M - Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
10. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
11. ASTM C33 - Standard Specification for Concrete Aggregates.
12. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
13. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
14. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic Cement Concrete.
15. ASTM C150 - Standard Specification for Portland Cement.
16. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.
17. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
18. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
19. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
20. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
21. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
22. ASTM C595 - Standard Specification for Blended Hydraulic Cements.
23. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
24. ASTM C979 - Standard Specification for Pigments for Integrally Colored Concrete.
25. ASTM C989 - Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
26. ASTM C1017/C1017M - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
27. ASTM C1064/C1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
28. ASTM C1116 - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
29. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
30. ASTM C1371-2004a - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
31. ASTM C1549-2004 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
32. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
33. ASTM D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
34. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

35. ASTM E408-1971(1996)e1 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
36. ASTM E903-1996 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
37. ASTM E1918-1997 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
38. ASTM E1980-2001 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

1.4 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.5 SUBMITTALS

- A. Product Data:
 1. Submit data on concrete materials, joint filler, admixtures, and curing compounds.
- B. Samples: Submit two sample panels, 8 x 8-inch size illustrating exposed aggregate finish.
- C. Design Data:
 1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
 - a. Hot and cold weather concrete work.
 2. Identify mix ingredients and proportions, including admixtures.
 3. Identify chloride content of admixtures and whether or not chloride was added during manufacture.
- D. Source Quality Control Submittals: Indicate results of factory tests and inspections.

1.6 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Obtain cementitious materials from same source throughout.
- C. Perform Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- D. Maintain one copy of each document on site.

1.8 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

- B. Installer: Company specializing in performing work of this section with minimum 5 years documented experience.

1.9 MOCKUP

- A. Construct mockup, including paving, joints, surface texture, and exposed aggregate.
- B. Locate where indicated on Drawings.
- C. Incorporate accepted mockup as part of Work.

1.10 AMBIENT CONDITIONS

- A. Do not place concrete when base surface temperature is less than 40 degrees F or surface is wet or frozen.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 AGGREGATE BASE COURSE

- A. Aggregate Base Course: As specified in Section 32 11 23

2.3 CONCRETE PAVING

- A. Performance / Design Criteria:
 - 1. Paving: Design for parking.
- B. Form Materials:
 - 1. Form Materials: Conform to ACI 301.
- C. Reinforcement:
 - 1. Welded Plain Wire Fabric: ASTM A185/A185M; in flat sheets; epoxy coated finish.
 - 2. Dowels: ASTM A615/A615M; 75 ksi yield strength, plain steel bars; cut to length indicated on Drawings, square ends with burrs removed; epoxy coated finish.
 - 3. Tie Wire: Minimum 16 gage annealed type, epoxy coated.
 - 4. Epoxy Coating Patching Material: Type as recommended by coating manufacturer.
- D. Concrete Materials:
 - 1. Concrete Materials: Provide in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 - 2. Chemical Admixture: ASTM C494/C494M.
 - a. Type D - Water Reducing and Retarding.
 - 3. Fly Ash: ASTM C618.
 - 4. Slag: ASTM C989; ground granulated blast furnace slag.

5. Plasticizing: ASTM C1017/C1017M Type I, plasticizing
6. Color Pigment: ASTM C979; mineral oxides, alkali and fade resistant.

2.4 FABRICATION

- A. Fabricate reinforcing in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- B. Form standard hooks for 180-degree bends, 90 degree bend, and seismic hooks as indicated on Drawings.

2.5 MIXES

- A. Concrete Mix - By Performance Criteria:
 1. Mix and deliver concrete in accordance with ASTM C94/C94M, Option A.
- B. Concrete Mix - By Prescriptive Criteria:
 1. Mix and deliver concrete in accordance with ASTM C94/C94M, Option B.

2.6 FINISHES

- A. Shop Finishing - Reinforcement:
 1. Galvanized Finish for Steel Bars: ASTM A767/A767M, hot dip galvanized after fabrication.
 2. Epoxy Coated Finish for Steel Bars: ASTM A775/A775M.
- B. Epoxy Coated Finish for Steel Wire: ASTM A884/A884M; Class A, using ASTM A775/A775M.

2.7 ACCESSORIES

- A. Curing Compound: ASTM C309

OR

- B. Joint Sealers: ASTM D6690; hot applied type.

2.8 SOURCE QUALITY CONTROL

- A. Submit proposed mix design of each class of concrete to appointed firm for review prior to commencement of Work.
- B. Tests on cement, aggregates, and mixes will be performed to ensure conformance with specified requirements.
- C. Test samples in accordance with ASTM C94/C94M.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify compacted subgrade subbase is dry and ready to support paving and imposed loads.
 - 1. Proof roll subbase with minimum two perpendicular passes to identify soft spots.
 - 2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23.
- B. Verify gradients and elevations of base are correct.

3.2 PREPARATION

- A. Moisten substrate to minimize absorption of water from fresh concrete.
- B. Coat surfaces of manhole frames with oil to prevent bond with concrete paving.
- C. Notify Architect/Engineer minimum 24 hours prior to commencement of concreting operations.

3.3 INSTALLATION

- A. Base Course:
 - 1. Aggregate Base Course: Install as specified in Section 32 11 23.
- B. Forms:
 - 1. Place and secure forms and screeds to correct location, dimension, profile, and gradient.
 - 2. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Reinforcement:
 - 1. Place reinforcing as indicated on Drawings.
- D. Placing Concrete:
 - 1. Coordinate installation of snow melting components.
 - 2. Place concrete in accordance with ACI 301.
- E. Joints
 - 1. Place expansion joints at 20 foot intervals. Align curb, gutter, and sidewalk joints.
 - 2. Place joint filler between paving components or any other appurtenances.
 - 3. Provide scored joints at 3 feet intervals between sidewalks and curbs, between curbs and paving.
 - 4. Provide keyed joints as indicated.
- F. Exposed Aggregate:
 - 1. Apply surface retarder where exposed aggregate finish is required.
 - 2. Wash exposed aggregate surface with clean water and scrub with stiff bristle brush exposing aggregate to match sample panel.

- G. Finishing:
 - 1. Paving: Light broom.
 - 2. Sidewalk Paving: Light broom.
 - 3. Median Barrier: Light broom.
 - 4. Curbs and Gutters: Light broom.
 - 5. Direction of Texturing: Transverse to paving direction.
 - 6. Inclined Vehicular Ramps: Broomed perpendicular to slope.
 - 7. Place curing compound on exposed concrete surfaces immediately after finishing.

- H. Curing and Protection
 - 1. Cure floor surfaces in accordance with ACI 301

3.4 TOLERANCES

- A. Maximum Variation of Surface Flatness: 1/2 in 10 ft.

- B. Maximum Variation from True Position: 1/4 inch.

3.5 FIELD QUALITY CONTROL

- A. Perform field inspection and testing in accordance with ASTM C94/C94M

- B. Inspect reinforcing placement for size, spacing, location, support.

- C. Testing firm will take cylinders and perform slump and air entrainment tests in accordance with ACI 301.

- D. Strength Test Samples:
 - 1. Sampling Procedures: ASTM C172.
 - 2. Cylinder Molding and Curing Procedures: ASTM C31/C31M, cylinder specimens, standard cured.
 - 3. Sample concrete and make one set of three cylinders for every 75 cu yds or less of each class of concrete placed each day and for every 5,000 sf of surface area paving.
 - 4. Make one additional cylinder during cold weather concreting, and field cure.

- E. Field Testing:
 - 1. Slump Test Method: ASTM C143/C143M.
 - 2. Air Content Test Method: ASTM C173/C173M.
 - 3. Temperature Test Method: ASTM C1064/C1064M.
 - 4. Measure slump and temperature for each compressive strength concrete sample.
 - 5. Measure air content in air entrained concrete for each compressive strength concrete sample.

- F. Cylinder Compressive Strength Testing:
 - 1. Test Method: ASTM C39/C39M.
 - 2. Test Acceptance: in accordance with State and local Public Work's standards.
 - 3. Test one cylinder at 7 days.

4. Test two cylinders at 28 days.
5. Retain one cylinder for testing when requested by Architect/Engineer.
6. Dispose remaining cylinders when testing is not required.

G. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.6 PROTECTION

- A. Immediately after placement, protect paving from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Do not permit pedestrian traffic over paving for 7 days minimum after finishing.

3.7 ATTACHMENTS

- A. Concrete Sidewalks and Median Barrier: 3,000 psi 28 day concrete, 4 inches thick, buff color Portland cement, exposed aggregate finish.
- B. Parking Area Paving: 4,000 psi 28 day concrete, 5 inches thick, 6/6 - 6 x 6 inch mesh reinforcing, wood float finish.

END OF SECTION

SECTION 32 12 16 - ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Asphalt materials.
 - 2. Aggregate materials.
 - 3. Aggregate subbase.
 - 4. Asphalt paving base course, binder course, and wearing course.
 - 5. Asphalt paving overlay for existing paving.
 - 6. Surface slurry.

1.2 PRICE AND PAYMENT PROCEDURES

- A. Section 01 20 00 - Price and Payment Procedures
- B. Aggregate Subbase:
 - 1. Basis of Payment: Includes supplying and stockpiling aggregate, scarifying substrate surface, placing, and compacting subbase.
- C. Asphalt Paving Base Course:
 - 1. Basis of Payment: Includes priming surfaces, tack coating surfaces, furnishing, placing, compacting, and testing base course.
- D. Asphalt Paving Binder Course:
 - 1. Basis of Payment: Includes priming surfaces, tack coating surfaces, furnishing, placing, compacting, and testing binder course.
- E. Asphalt Paving Wearing Course:
 - 1. Basis of Payment: Includes priming surfaces, tack coating surfaces, furnishing, placing, compacting, and testing wearing course.
- F. Tack Coat:
 - 1. Basis of Payment: Includes preparing surfaces and applying.

1.3 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M17 - Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
 - 2. AASHTO M29 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
 - 3. AASHTO M140 - Standard Specification for Emulsified Asphalt.
 - 4. AASHTO M208 - Standard Specification for Cationic Emulsified Asphalt.
 - 5. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.

6. AASHTO M320 - Standard Specification for Performance-Graded Asphalt Binder.
 7. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
 8. AASHTO MP1a - Standard Specification for Performance-Graded Asphalt Binder.
- B. Asphalt Institute:
1. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot- Mix Types.
 2. AI MS-19 - Basic Asphalt Emulsion Manual.
 3. AI SP-2 - Superpave Mix Design.
- C. ASTM International:
1. ASTM C1371-2004a - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
 2. ASTM C1549-2004 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
 3. ASTM D242 - Standard Specification for Mineral Filler For Bituminous Paving Mixtures.
 4. ASTM D692 - Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
 5. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
 6. ASTM D977 - Standard Specification for Emulsified Asphalt.
 7. ASTM D1073 - Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
 8. ASTM D1188 - Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
 9. ASTM D2027 - Standard Specification for Cutback Asphalt (Medium-Curing Type).
 10. ASTM D2397 - Standard Specification for Cationic Emulsified Asphalt.
 11. ASTM D2726 - Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
 12. ASTM D2950 - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
 13. ASTM D3381 - Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
 14. ASTM D3515 - Standard Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
 15. ASTM D3549 - Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
 16. ASTM D3910 - Standard Practices for Design, Testing, and Construction of Slurry Seal.
 17. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
 18. ASTM E408-1971(1996)e1 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
 19. ASTM E903-1996 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
 20. ASTM E1918-1997 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
 21. ASTM E1980-2001 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

1.4 SUBMITTALS

- A. Product Data:
 - 1. Submit product information for asphalt and aggregate materials.
 - 2. Submit mix design with laboratory test results supporting design.
- B. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Mixing Plant: Conform to State and local Public Work's standard.
- B. Obtain materials from same source throughout.
- C. Perform Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- D. Maintain one copy of each document on site.

1.7 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this section with minimum 3 years documented experience

1.8 AMBIENT CONDITIONS

- A. Do not place asphalt mixture between November 1 and March 1
- B. Do not place asphalt mixture when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
- C. Place asphalt mixture when temperature is not more than 15 degrees F less than initial mixing temperature.

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.2 ASPHALT PAVING

- A. Performance / Design Criteria:
 - 1. Paving: Design for parking.
- B. Asphalt Materials:

1. Asphalt Binder: In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 2. Primer: ASTM D2027; medium curing, cutback asphalt. In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 3. Tack Coat: In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 4. Reclaimed Asphalt Pavement (RAP): Processed material obtained by milling or full depth removal of existing asphalt paving.
 5. Oil: In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- C. Aggregate Materials:
1. Coarse Aggregate: In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 2. Fine Aggregate: In accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
 3. Mineral Filler: ASTM D242; finely ground mineral particles, free of foreign matter.
- D. Aggregate Subbase: Specified in Section 32 11 23

2.3 MIXES

- A. Use dry material to avoid foaming. Mix uniformly.
- B. Asphalt Paving Mixtures: Designed in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- C. Surface Slurry: ASTM D3910, emulsified asphalt slurry.
 1. .

2.4 ACCESSORIES

- A. Geotextile Fabric: AASHTO M288; non-woven, polypropylene.
- B. Sealant: ASTM D6690, hot applied type.

2.5 SOURCE QUALITY CONTROL

- A. Submit proposed mix design of each class of mix for review prior to beginning of Work.
- B. Test samples in accordance with AI MS-2

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.
- B. Verify compacted subgrade subbase is dry and ready to support paving and imposed loads.
 - 1. Proof roll subbase with minimum two perpendicular passes to identify soft spots.
 - 2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23.
- C. Verify gradients and elevations of base are correct.
- D. Verify manhole frames are installed in correct position and elevation.

3.2 PREPARATION

- A. Prepare subbase in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.

3.3 DEMOLITION

- A. Saw cut and notch existing paving as indicated on Drawings.
- B. Clean existing paving to remove foreign material, excess joint sealant and crack filler from paving surface.
- C. Repair surface defects in existing paving to provide uniform surface to receive new paving.

3.4 INSTALLATION

- A. Subbase:
 - 1. Aggregate Subbase: Install as specified in Section 32 11 23.
- B. Primer:
 - 1. Apply primer in accordance with AI MS-2.
- C. Tack Coat:
 - 1. Apply tack coat in accordance with AI MS-19
 - 2. .
 - a. New Surfaces: 1/2 gal/sq yd.
 - b. Existing Surfaces: 1/2 gal/sq yd.
 - 3. Apply tack coat to contact surfaces of curbs, and gutters.
 - 4. Coat surfaces of manhole frames with oil to prevent bond with asphalt paving. Do not tack coat these surfaces.
- D. Single Course Asphalt Paving:

1. Install Work in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
2. Place asphalt within 24 hours of applying primer or tack coat.
3. Place asphalt wearing course to thickness indicated on Drawings.
4. Compact paving by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
5. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.

E. Double Course Asphalt Paving:

1. Place asphalt binder course within 24 hours of applying primer or tack coat.
2. Place binder course to thickness indicated on Drawings.
3. Place wearing course within 24 hours of placing and compacting binder course. When binder course is placed more than 24 hours before placing wearing course, clean surface and apply tack coat before placing wearing course.
4. Place wearing course to thickness indicated on Drawings.
5. Compact each course by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
6. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

F. Asphalt Paving Overlay

1. Apply tack coat to existing paving surface at rate recommended by geotextile fabric manufacturer.
2. Install geotextile fabric in accordance with manufacturer's instructions to permit asphalt saturation of fabric. Lap fabric edge and end joints 4 inches.
3. Place wearing course to thickness indicated on Drawings.
4. Compact overlay by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
5. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

G. Surface Slurry

1. Install uniform thickness surface slurry over existing paving in accordance with ASTM D3910.
2. Allow slurry to cure.
3. Roll paving to achieve uniform surface.

H. Curbs

1. Install extruded asphalt curbs as indicated on Drawings.

3.5 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.

- C. Variation from Indicated Elevation: Within 1/2 inch.

3.6 FIELD QUALITY CONTROL

- A. Take samples and perform tests including mat density tests in accordance with State and local Public Work's Standards.
- B. Asphalt Paving Mix Temperature: Measure temperature at time of placement.
- C. Asphalt Paving Thickness: ASTM D3549; test one core sample from every 1000 square yards compacted paving.
- D. Asphalt Paving Density: ASTM D2950 nuclear method; test one location for every 1000 square yards compacted paving.

3.7 PROTECTION

- A. Immediately after placement, protect paving from mechanical injury for 24 hours or until surface temperature is less than 140 degrees F.

3.8 ATTACHMENTS

- A. Paving at Truck Ramp and Garbage Area: Single course of 3-1/2 inch compacted thickness, with surface slurry.
- B. Paving at Parking Areas: Two courses; binder course of 2-1/2 inch compacted thickness and wearing course of 1 inch compacted thickness.
- C. Paving at Rear Bus Loading Area: Thickness and compaction of subbase to support vehicles up to 30,000 lb.
- D. Paving Front Sidewalks: Thickness and compaction of subbase to support moderate pedestrian traffic.

END OF SECTION

SECTION 32 16 26 - TACTILE WARNING SURFACING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Tactile warning surfacing and accessories.

1.2 LUMP SUM - MEASUREMENT AND PAYMENT

- A. Traffic Warning Surfacing:

1. Basis of Payment: Includes furnishing, installing, inspecting, and maintaining tactile warning surfacing for minimum of three years as well as related maintenance and protection of traffic.

1.3 REFERENCE STANDARDS

- A. American Association of State and Highway Transportation Officials:

1. AASHTO HB-17 – NJDOT Standard Specifications for Highway Bridges.

- B. ASTM International:

1. ASTM C1208 - Standard Specification for Vitrified Clay Pipe and Joints for Use in Microtunneling, Sliplining, Pipe Bursting, and Tunnels.
2. ASTM C1371 - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
3. ASTM C1549 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
4. ASTM D570 - Standard Test Method for Water Absorption of Plastics.
5. ASTM D638 - Standard Test Method for Tensile Properties of Plastics.
6. ASTM D790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
7. ASTM D1044 - Standard Test Method for Resistance of Transparent Plastics to Surface Abrasion.
8. ASTM D2240 - Standard Test Method for Rubber Property - Durometer Hardness.
9. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
10. ASTM E303 - Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
11. ASTM E408 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
12. ASTM E903 - Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.
13. ASTM E1918 - Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field.
14. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

- C. U.S. Architectural and Transportation Barriers Compliance Board (Access Board):
 - 1. Americans with Disabilities Act (ADA) - Accessibility Guidelines for Buildings and Facilities.

1.4 COORDINATION

- A. Coordinate Work of this Section with Work of other Sections.

1.5 PREINSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS

- A. Product Data: Submit manufacturer's information including characteristics, dimensions, domes, and special shapes.
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements
- C. Manufacturer's Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.
- D. Source Quality-Control Submittals: Indicate results of factory tests and inspections.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- F. Manufacturer Reports:
 - 1. Certify that equipment has been installed according to manufacturer's instructions.
 - 2. Indicate activities on Site, adverse findings, and recommendations.
- G. Qualifications Statements:
 - 1. Submit qualifications for manufacturer and installer.
 - 2. Submit manufacturer's approval of installer.

1.7 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.8 QUALITY ASSURANCE

- A. Perform Work according to 2010 ADA Standards for Accessible Design standards.
- B. Maintain one copy of each standard affecting Work of this Section on Site.

1.9 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.
- B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- C. Store and protect materials according to manufacturer's instructions.

1.11 WARRANTY

- A. Furnish five -year manufacturer's warranty for tactile warning surfacing.

PART 2 PRODUCTS

2.1 TACTILE WARNING SURFACING

- A. [Manufacturer List:](#)
 - 1. Detectable Warning Systems, Inc.
 - 2. Engineered Plastics, Inc.
 - 3. Furnish materials according to 2010 ADA Standards for Accessible Design standards.
- B. Description:
 - 1. ADA-compliant tactile warning surfaces for visually impaired pedestrians.
 - 2. Suitable for installation on both asphalt and concrete.
- C. Design and Performance Criteria:
 - 1. Loading: Single-wheel HS20-44, according to AASHTO HB-17.
 - 2. Resistant to impacts, wear, freeze-thaw, UV exposure, and stains.
 - 3. Fire Spread: Less than 15 when tested according to ASTM E84.
 - 4. Slip Resistance: .9 according to ASTM E303.
 - 5. Taber Abrasion: 150 mgs, according to ASTM D1044.
 - 6. Durometer Hardness: 90 according to ASTM D2240, Type A.
 - 7. Water Absorption:
 - a. Comply with ASTM D570.
 - b. Maximum: 0.05 percent.
 - 8. Minimum Strengths:
 - a. Compressive: 30,000 psi, according to ASTM D695.
 - b. Flexural: 18,000 psi, according to ASTM D790.
 - c. Tensile: 19,000 psi, according to ASTM D638.
 - 9. Slip Resistance:
 - a. Dry: 1.03
 - b. Wet: 0.83>.
 - c. Comply with ASTM C1208.
 - d. Wheelchair Safety: Furnish minimum 40, 90-degree raised points per sq. in.

10. Domes:
 - a. Spacing: 2.35 inches, o.c., measured diagonally.
 - b. Size: 0.9 inch base bottom diameter, 0.45-inch top diameter, 0.2 inches high.

- D. Surface-Applied Mat Type:
 1. Material: Polyurethane
 2. Adhesive: Pre-applied.
 3. Edges: Beveled.
 4. Size: See Site Plans
 5. Depth: See Site Plans.
 6. Face Thickness: See Site Plans.
 7. Color: Red
 8. Anchors: Stainless steel.

- E. Surface-Applied Tile Type:
 1. Material: Polymer-concrete composite.
 2. Length and Width: 24 by 48 inches.
 3. Depth: See Site Plan
 4. Face Thickness: See Site Plan.
 5. Color: Grey.
 6. Anchors: Stainless steel.

- F. Modular Pavers:
 1. Material: Polymer/concrete composite.
 2. Length and Width: 12 by 12 inches.
 3. Depth: 1-3/8 inches.
 4. Face Thickness: 3/16 inch.
 5. Color: Grey.

2.2 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.3 SOURCE QUALITY CONTROL

- A. Provide shop inspection and testing of tactile warning surfacing units.
- B. Owner Inspection: Make completed tactile warning surfacing units available for inspection at manufacturer's factory prior to packaging for shipment. Notify Owner at least seven days before inspection is allowed.
- C. Owner Witnessing: Allow witnessing of factory inspections and tests at manufacturer's test facility. Notify Owner at least seven days before inspections and tests are scheduled.
- D. Certificate of Compliance: When fabricator is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
 1. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate is level or to correct grade, is smooth, is capable of supporting tactile warning surface units and imposed loads and is otherwise ready to receive Work of this Section.

3.2 PREPARATION

- A. Maintenance and Protection of Traffic:
 - 1. Prevent interference with operations.
 - 2. Maintain travel lanes between 7:00 AM to 9:00 AM and between 4:00 PM and 6:00 PM.
 - 3. Maintain access to existing businesses and other properties requiring access.
- B. Surface Preparation:
 - 1. Clean and dry paved surface prior to installing tactile warning surface modules.
 - 2. Blow or sweep surface free of dirt, debris, oil, grease, or gasoline.
- C. Existing Work:
 - 1. Remove existing tactile warning surface modules by methods that will cause least damage to pavement surface.
 - 2. Repair pavement or surface damage caused by removal operations.

3.3 INSTALLATION

- A. Installation Standards: Install Work according to 2010 ADA Standards for Accessible Design standards.

3.4 FIELD QUALITY CONTROL

- A. Inspect for correct location, extent of coverage, and final grade.
- B. Manufacturer Services: Furnish services of manufacturer's representative experienced in installation of products furnished under this Section for not less than 2 days on Site for installation, inspection, startup, field testing, and instructing Owner's personnel in maintenance of equipment.
- C. Equipment Acceptance:
 - 1. Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.
 - 2. Make final adjustments to equipment under direction of manufacturer's representative.
- D. Furnish installation certificate from equipment manufacturer's representative attesting that equipment has been properly installed and is ready for startup and testing.

3.5 CLEANING

- A. Clean tactile warning surfacing according to manufacturer's instructions.

3.6 PROTECTION

- A. Protect tactile warning surfacing from vehicular and pedestrian traffic on newly installed tactile warning surface modules for period of time as instructed by manufacturer.

3.7 MAINTENANCE

- A. Furnish service and maintenance of tactile warning surfacing for three years from date of Substantial Completion.

END OF SECTION

SECTION 32 17 23 - PAVEMENT MARKINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Traffic lines and markings.
 - 2. Legends.
 - 3. Paint.
 - 4. Glass beads.

1.2 PRICE AND PAYMENT PROCEDURES

- A. Traffic Lines and Markings:
 - 1. Basis of Payment: Payment shall be in the lump sum price.
- B. Legends:
 - 1. Basis of Payment: Payment shall be in the lump sum price.

1.3 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M247 - Standard Specification for Glass Beads Used in Traffic Paint.
- B. ASTM International:
 - 1. ASTM D34 - Standard Guide for Chemical Analysis of White Pigments.
 - 2. ASTM D126 - Standard Test Methods for Analysis of Yellow, Orange, and Green Pigments Containing Lead Chromate and Chromium Oxide Green.
 - 3. ASTM D562 - Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer.
 - 4. ASTM D711 - Standard Test Method for No-Pick-Up Time of Traffic Paint.
 - 5. ASTM D713 - Standard Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials.
 - 6. ASTM D969 - Standard Test Method for Laboratory Determination of Degree of Bleeding of Traffic Paint.
 - 7. ASTM D1301 - Standard Test Methods for Chemical Analysis of White Lead Pigments.
 - 8. ASTM D1394 - Standard Test Methods for Chemical Analysis of White Titanium Pigments.
 - 9. ASTM D1475 - Standard test Method for Density of Liquid Coatings, Inks, and Related Products.
 - 10. ASTM D1640 - Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature.
 - 11. ASTM D2202 - Standard Test Method for Slump of Sealants.
 - 12. ASTM D2371 - Standard Test Method for Pigment Content of Solvent-Reducible Paints.
 - 13. ASTM D2621 - Standard Test Method for Infrared Identification of Vehicle Solids From Solvent-Reducible Paints.

14. ASTM D2743 - Standard Practices for Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.

1.4 SUBMITTALS

- A. Product Data: Submit paint formulation for each type of paint.
- B. Samples:
 - 1. Submit eight sample plates of each color of material. Prepare four plates without glass beads and four with glass beads for each different batch of material. After approval, Owner will retain these plates for field comparisons of applied paint.
 - 2. Submit two gallons and four one-quart paint samples accompanied by properly executed test reports.
 - 3. Submit samples of glass bead in compliance with AASHTO M247.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
- D. Test and Evaluation Reports: Submit source and acceptance test results in accordance with AASHTO M247.
- E. Manufacturer's Instructions: Submit instructions for application temperatures, eradication requirements, application rate, line thickness, type of glass beads, bead embedment and bead application rate, and any other data on proper installation.

1.5 SUSTAINABLE DESIGN SUBMITTALS – NOT USED

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with State and local Public Work's standard.
- B. Maintain one copy of each document on site.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing work of this section with minimum 3 years documented experience approved by manufacturer.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Minimize exposure to air when transferring paint. Seal drums and tanks when not in use.
- B. Glass Beads. Store glass beads in cool, dry place. Protect from contamination by foreign substances.

1.9 AMBIENT CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
- B. Do not apply exterior coatings during rain or snow when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.
- C. Do not apply paint when temperatures are expected to fall below 50 degrees F for 24 hours after application.
- D. Volatile Organic Content (VOC). Do not exceed State or Environmental Protection Agency maximum VOC on traffic paint.

1.10 WARRANTY

- A. Furnish three-year manufacturer's warranty for traffic paints.

PART 2 PRODUCTS

2.1 PAINTED PAVEMENT MARKINGS

- A. Manufacturers:
 - 1. Aexcel Inc.
 - 2. Color Wheel Paints & Coatings
 - 3. Columbia Paint & Coatings
 - 4. Conco Paints
 - 5. Coronado Paint; Benjamin Moore Company
 - 6. Diamond Vogel Paints
 - 7. Ennis Traffic Safety Solutions, Inc.
 - 8. Ez-Liner Industries
 - 9. Franklin Paint Company
 - 10. McCormick Paints
 - 11. Pathmark Traffic Products of Texas Inc.
 - 12. Safety Coatings, Inc.
 - 13. Scott Paint
- B. Furnish materials in accordance NJDOT Standard Specifications for Road and Bridge Construction, as currently amended.
- C. Performance / Design Criteria:
 - 1. Paint Adhesion: Adhere to road surface forming smooth continuous film one minute after application.
 - 2. Paint Drying: Tack free by touch so as not to require coning or other traffic control devices to prevent transfer by vehicle tires within two minutes after application.

- D. Paint: Ready mixed, conventional and fast dry waterborne traffic paints, lead-free, non-toxic, NASSHTO Test Deck, minimum retroreflectance of 100 mcds, durability rating of 6 or more after in place for 9 months; within following limits:
 - 1. Pigment, percent by weight: 60 plus or minus 2
 - 2. Vehicle, percent by weight: 40 plus or minus 2
 - 3. Non-Volatile, percent by weight of paint: 76.0
 - 4. Weight per gallon, pounds minimum 13.0
 - 5. Viscosity: 80-95 Kreb Units at 77 degrees F.
 - 6. Grind (Hegeman Gauge), minimum Field Tested no tracking time under ambient conditions: 20-90 seconds.
 - 7. Dry Through Time, 15 mils wet at 90 percent relative humidity, 72 degrees F, ASTM D1640: 125 minutes maximum.
 - 8. VOC (Volatile Organic Content): One lbs/gal maximum.

- E. Glass Beads: AASHTO M247, Type 1, coated to enhance embedment and adherence with paint.

2.2 SUSTAINABILITY CHARACTERISTICS – NOT USED

2.3 EQUIPMENT

- A. Continuous Longitudinal Line Application Machine: Use application equipment with following capabilities.
 - 1. Dual nozzle paint gun to simultaneously apply parallel lines of indicated width in solid or broken patterns or various combinations of those patterns.
 - 2. Pressurized bead-gun to automatically dispense glass beads onto painted surface, at required application rate.
 - 3. Measuring device to automatically and continuously measure length of each line placed, to nearest foot.
 - 4. Device to heat paint to 125 degrees F for fast dry applications.

- B. Machine Calibration:
 - 1. Paint Line Measuring Device: Calibrate automatic line length gauges to maintain tolerance of plus or minus 25 feet per mile.
 - 2. Cycle Length/Paint Line Length Timer: Calibrate cycle length to maintain tolerance of plus or minus 6 inches per 40 feet); calibrate paint line length to maintain tolerance to plus or minus 3 inches per 10 feet).
 - 3. Paint Guns: Calibrate to simultaneously apply paint binder at uniform rates as specified with an allowable tolerance of plus or minus 1 mil.
 - 4. Bead Guns: Calibrate to dispense glass beads simultaneously at specified rate. Check guns by dispensing glass beads into gallon container for predetermined fixed period of time. Verify weight of glass beads.

- C. Other Equipment:
 - 1. For application of crosswalks, intersections, stop lines, legends and other miscellaneous items by walk behind strippers, hand spray or stencil trucks, apply with equipment meeting

requirements of this section. Do not use hand brushes or rollers. Optionally apply glass beads by hand.

2.4 SOURCE QUALITY CONTROL

- A. Test and analyze traffic paints in accordance with ASTM D34.
- B. Make paints and glass beads available for inspection at manufacturer's factory prior to packaging for shipment. Notify Engineer and Owner at least seven days before inspection is allowed.
- C. Allow witnessing of factory inspections and test at manufacturer's test facility. Notify Engineer and Owner at least seven days before inspections and tests are scheduled.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not apply paint to concrete surfaces until concrete has cured for 28 days.

3.2 PREPARATION

- A. Maintenance and Protection of Traffic:
 - 1. and Controls.
 - 2. Prevent interference with marking operations and to prevent traffic on newly applied markings before markings dry.
 - 3. Maintain travel lanes between 7: 00 AM to 9: 00 AM, and between 4: 00 PM and 6: 00 PM.
 - 4. Maintain access to existing businesses and other properties requiring access.
- B. Surface Preparation.
 - 1. Clean and dry paved surface prior to painting.
 - 2. Blow or sweep surface free of dirt, debris, oil, grease or gasoline.
 - 3. Spot location of final pavement markings as specified and as indicated on Drawings by applying pavement spots 25 feet on center.
 - 4. Notify Engineer after placing pavement spots and minimum 3 days prior to applying traffic lines.

3.3 DEMOLITION

- A. Remove existing markings in an acceptable manner. Do not remove existing pavement markings by painting over with blank paint. Remove by methods that will cause least damage to pavement structure or pavement surface. Satisfactorily repair any pavement or surface damage caused by removal methods.
- B. Clean and repair existing remaining and/or reinstalled lines and legends.

3.4 APPLICATION

- A. Agitate paint for 1-15 minutes prior to application to ensure even distribution of paint pigment.
- B. Dispense paint at ambient 125 degrees F to wet-film thickness of 15 mils, except dispense edge markings to wet-film thickness of 12 mils.
- C. Apply glass beads at rate of 6 pounds per gallon) of paint.
- D. Apply markings to indicated dimensions at indicated locations.
- E. Prevent splattering and over spray when applying markings.
- F. Unless material is track free at end of paint application convoy, use traffic cones to protect markings from traffic until track free. When vehicle crosses a marking and tracks it or when splattering or over spray occurs, eradicate affected marking and resultant tracking and apply new markings.
- G. Collect and legally dispose of residues from painting operations.
- H. Install Work in accordance with State and local Public Work's standards

3.5 TOLERANCES

- A. Maximum Variation from Wet Film Thickness: 1 mil.
- B. Maximum Variation from Wet Paint Line Width: Plus or minus 1/8 inch.
- C. Maintain cycle length for skip lines at tolerance of plus or minus 6 inches per 40 feet and line length of plus or minus 3 inches per 10 feet.
- D. Maximum Variation from Specified Application Temperature: Plus or minus 5 degrees F

3.6 FIELD QUALITY CONTROL

- A. Inspect for incorrect location, insufficient thickness, line width, coverage, retention, uncured or discolored material, and insufficient bonding.
- B. Repair lines and markings, which after application and curing do not meet following criteria:
 - 1. Incorrect Location: Remove and replace incorrectly placed patterns.
 - 2. Insufficient Thickness, Line Width, Paint Coverage, Glass Bead Coverage or Retention: Prepare defective material by acceptably grinding or blast cleaning to remove substantial amount of beads and to roughen marking surface. Remove loose particles and debris. Apply new markings on cleaned surface in accordance with this Section.
 - 3. Uncured or Discolored Material, Insufficient Bonding: Remove defective markings in accordance with this Section and clean pavement surface one foot beyond affected area. Apply new markings on cleaned surface in accordance with this Section.

- C. Replace defective pavement markings as specified throughout 3 year warranted period. Replace markings damaged by anti-skid materials, studded tires, tire chains, chemical deicers, and snow plowing or other loss of marking material regardless of cause. When markings are damaged by pavement failure or by Owner's painting, crack sealing, or pavement repair operations, Contractor is released from warranty requirements for damaged work.
- D. A three member team will evaluate warranty provisions. Team will consist of one member from Owner, one member from Contractor, and third person who is mutually acceptable to Owner and Contractor. Any costs for third person will be equally shared between Owner and Contractor. At least once each year, beginning with year after acceptance, team shall:
 - 1. Observe Owner taking readings by retroreflectometer, or review Owner records of such evaluation. The number of readings will be as large as necessary to ensure that minimum criteria are satisfied. Readings will be during period from March 15 through October, when pavement is clean and dry.
 - 2. Determine color fade, discoloration or pigment loss based on visual color comparison between original sample plates with glass beads and in-place pavement markings.
 - 3. Determine magnitude of material loss.
- E. Prepare list of defective areas and areas requiring additional inspection and evaluation to decide where material may need replaced. Provide traffic control as necessary if markings require more detailed evaluation.
- F. Replace failed or defective markings in entire section of defective markings within 30 days after notification when any of the following exists during warranty period:
 - 1. Average retroreflectivity within any 528 foot section is less than 1225 mcd/m²/1x for white pavement markings and 100 mcd/m²/1x for yellow pavement markings.
 - 2. Marking is discolored or exhibits pigment loss, and is determined to be unacceptable by three member team based on visual comparison with beaded color plates.
 - 3. More than 15 percent of area of continuous line, or more than 15 percent of combined area of skip lines, within any 528 foot section of roadway is missing.
- G. Replace pavement marking material under warranty using original or better type material. Continue warranty to end of original 3 year period even when replacement materials have been installed as specified.
- H. When eradication of existing paint lines is necessary, eradicate by shot blast or water blast method. Do not gouge or groove pavement more than 1/16 inch during removal. Limit area of removal to area of marking plus 1 inch on all sides. Prevent damage to transverse and longitudinal joint sealers, and repair any damage.
- I. Maintain daily log showing work completed results of above inspections or tests, pavement and air temperatures, relative humidity, presence of any moisture on pavement, and any material or equipment problems. Make legible entries in log in ink, sign and submit by end of each work day. Enter environmental data into log prior to starting work each day and at two additional times during day.

3.7 PROTECTION

- A. Protect painted pavement markings from vehicular and pedestrian traffic until paint is dry and track free. Follow manufacturer's recommendations or use minimum of 30 minutes. Consider barrier cones as satisfactory protection for materials requiring more than 2 minutes dry time.

3.8 MAINTENANCE

- A. Furnish service and maintenance of traffic paints for three years from Date of Substantial Completion.

3.9 ATTACHMENTS

- A. Pavement Markings: See Site Plans

END OF SECTION

SECTION 99 99 01 - FINAL CLEANUP AND SITE RESTORATION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. During the course of the activities all efforts shall be made to maintain a neat and orderly project. Clean-up shall be pursued on a regular basis and in conjunction with the activities. The CONTRACTOR shall be responsible for clean-up during the life of the Contract with the full cooperation of all subcontractors. Upon Completion of all activities, final clean-up shall include removal of all excess materials, equipment, backfill, etc., and the site shall be restored to a condition equal to or better than that existing prior to demolition activities. Should the CONTRACTOR fail to remove such material, equipment and supplies, the OWNER shall have the right to remove them at the expense of the CONTRACTOR.

- B. At the completion of demolition activities, the CONTRACTOR shall tear down and remove all temporary structures unless expressly directed otherwise by the OWNER or the ENGINEER, and shall remove remaining rubbish of all kinds from all Contract structures and from the site occupied during the progress of the work.

The CONTRACTOR shall remove all concrete and debris and shall leave the site in a neat and satisfactory condition. See soil erosion and sediment control plan.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

PART 4 - MEASUREMENT AND PAYMENT (NOT APPLICABLE)

END OF SECTION

Bid No: 2022-03-07

THE TOWNSHIP OF PISCATAWAY



PLANS PAGES

Pages 1 of 9



MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Township Secretary

PLANS FOR 2022 - STERLING VILLAGE PARKING LOT REHABILITATION

TOWNSHIP OF PISCATAWAY
MIDDLESEX COUNTY, NEW JERSEY

UTILITY OWNERS

PSE&G GAS DIVISION
151 HOW LANE
NEW BRUNSWICK, NJ 08901
ATTN: JAMES CAVANAUGH (732) 921-2447

NJ AMERICAN WATER
1341 NORTH AVENUE
PLAINFIELD, NJ 07062
ATTN: RALPH BRIZUELA (908) 791-3449

PSE&G ELECTRIC DIVISION
472 WESTON CANAL ROAD
SOMERSET, NJ 08873
ATTN: MICHELE STILES (732) 764-3161

PISCATAWAY TOWNSHIP SEWER DEPARTMENT
505 SIDNEY ROAD
PISCATAWAY, NJ 08855
ATTN: GUY GASPARI (732) 562-2390

VERIZON
175 WEST MAIN STREET FLOOR 01
FREEHOLD, NJ 07728
ATTN: BILL HIGGINS (732) 357-3026

CABLEVISION
275 CENTENNIAL AVENUE
PISCATAWAY, NJ 08854
ATTN: PETER MANN (732) 317-7070

VERIZON WIRELINE NETWORK
110 S JEFFERSON ROAD SUITE 100
WHIPPANY, NJ 07981
ATTN: NAHED SHAHATA (212) 843-3070

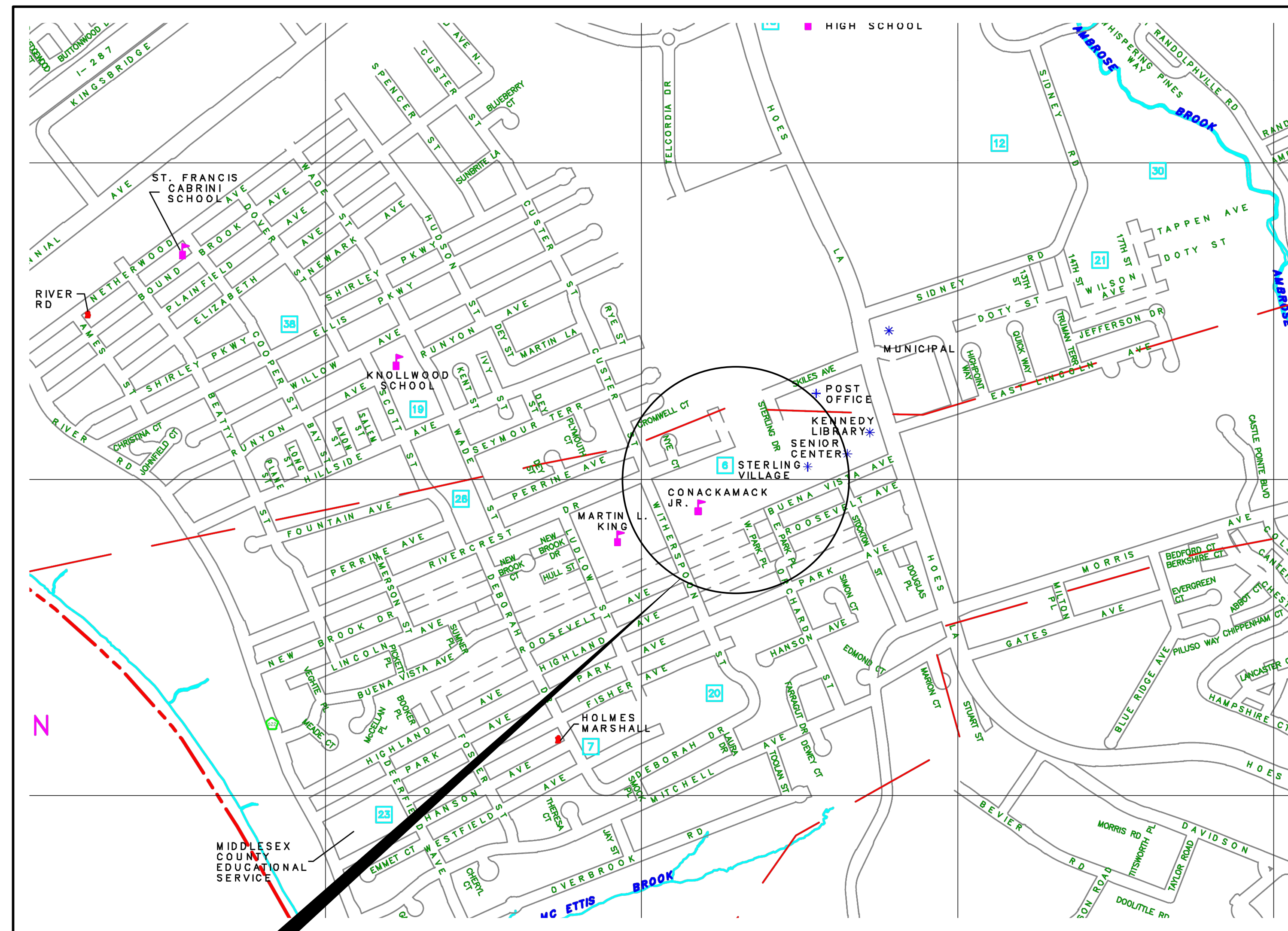
CENTURY LINK
225 OLD NEW BRUNSWICK ROAD
PISCATAWAY, NJ 08854
ATTN: JEFF PENNY (720) 888-4686

LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE NOT WARRANTED AS TO EXACTNESS. CONTRACTOR SHALL DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND OTHER APPLICABLE LAWS.

PRIOR TO DIGGING CALL 1-800-272-1000



Know what's below.
Call before you dig.



KEY MAP
N.T.S.

PREPARED BY
PETER F. BONDAR, P.E.
CONSULTING ENGINEER

PROJECT SITE
TOWNSHIP OF PISCATAWAY
STERLING VILLAGE
1 STERLING DR.
PISCATAWAY, NJ 08854

INDEX

NO.	DESCRIPTION
1	COVER SHEET
2	CONSTRUCTION PLAN
3	SOIL EROSION AND SEDIMENT CONTROL PLAN
4-7	CONSTRUCTION DETAILS
8-9	SOIL EROSION AND SEDIMENT CONTROL DETAILS AND NOTES

PISCATAWAY TOWNSHIP GOVERNING BODY

MAYOR:	BRIAN C. WAHLER
COUNCIL PRESIDENT:	MICHELE LOMBARDI
COUNCIL VICE PRESIDENT:	FRANK UHRIN
TOWNSHIP COUNCIL:	GABRIELLE CAHILL JIM BULLARD KAPIL K. SHAH LINWOOD D. ROUSE STEVEN D. CAHN
BUSINESS ADMINISTRATOR:	TIMOTHY J. DACEY
TOWNSHIP CLERK:	MELISSA A. SEADER
CONTACT INFORMATION:	455 HOES LANE PISCATAWAY, NJ 08854 PHONE: 732-562-2300 FAX: 732-529-2500 WEB: WWW.PISCATAWAYNJ.ORG



YOUR GOALS. OUR MISSION.

11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL: 732-671-4600
FAX: 732-671-7365

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MILL & OVERLAY
 HMA MILLING, 2"
 POLYMERIZED JOINT ADHESIVE
 TACK COAT
 DENSE GRADED AGGREGATE BASE COURSE, 6" THICK (2,000 SY AS DIRECTED)
 HOT MIX ASPHALT, 19M64 BASE COURSE, 4" THICK (2,000 SY AS DIRECTED)
 HOT MIX ASPHALT, 9.5M64 SURFACE COURSE, 2" THICK (TYP.)

TRAFFIC MARKING LINES, 4" THERMOPLASTIC (TYP.)

PROVIDE NEW ADA PARKING SPACES WITH NEW ADA PARKING SIGNAGE (TYP. OF 7)

RESET EXISTING CASTING CLEANING DRAINAGE STRUCTURE

PARKING CALCULATIONS:
 EXISTING NUMBER OF RESIDENTIAL SPACES = 94 TOTAL
 PROPOSED NUMBER OF RESIDENTIAL SPACES = 84 TOTAL
 EXISTING NUMBER OF VISITOR SPACES = 23 TOTAL
 PROPOSED NUMBER OF VISITOR SPACES = 23 TOTAL

NUMBER OF PROPOSED RESIDENTIAL HANDICAP PARKING SPACES = 12 TOTAL INCL. 1 VAN ACCESSIBLE
 NUMBER OF PROPOSED VISITOR HANDICAP PARKING SPACES = 22 TOTAL INCL. 4 VAN ACCESSIBLE

CONSTRUCTION LEGEND

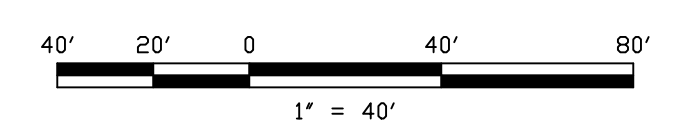
- EX. STORM INLET
- PROPOSED ADA DETECTABLE SURFACE
- PROPOSED PARKING LOT RECONSTRUCTION
- PROPOSED CONCRETE SIDEWALK/REINFORCED CONCRETE DRIVEWAY
- PROPOSED HMA SIDEWALK
- PROPOSED ADA PARKING SIGNAGE
- PROPOSED CURB REPLACEMENT
- PROPOSED NEW CURB

CONCRETE DRIVEWAY, REINFORCED, 6" THICK (TYP.)

ADA ACCESSIBLE RAMP (TYP.)
 9" x 18" CONCRETE VERTICAL CURB
 DETECTABLE WARNING SURFACE
 CONCRETE SIDEWALK, 4" THICK

CONSTRUCTION NOTE:

1. ADDITIONAL SIDEWALK REPLACEMENT AT VARIOUS LOCATIONS THROUGHOUT THE SITE WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
2. CONTRACTOR SHALL ENSURE THAT ALL PLANTER BEDS ARE RESTORED TO EXISTING CONDITIONS.
3. DETECTABLE WARNING SURFACES ARE TO BE AS CLOSE TO THE CURB AS POSSIBLE.



NO.	DATE	ISSUED FOR	BY	CHKD
1	3/10/2022		FS	PB

PETER F. BONDAR, P.E.
 CONSULTING ENGINEER



This item has been electronically signed and sealed by Peter Bondar, PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

3/10/2022
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NJ LICENSE No. GE48108

TOWNSHIP OF PISCATAWAY
 2022 - STERLING VILLAGE PARKING LOT
 REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
 CONSTRUCTION PLAN



11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL 732-671-6400
 FAX 732-671-7365

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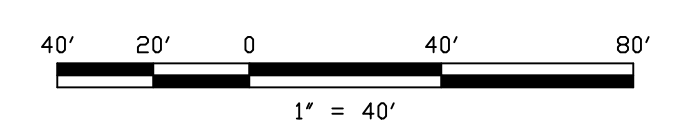
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 OHIO AND PENNSYLVANIA

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CHECKED BY	PB		CSP
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PROJ. NO.	PISC00250	OF	9



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PETER F. BONDAR, P.E.
 CONSULTING ENGINEER



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TOWNSHIP OF PISCATAWAY
2022 - STERLING VILLAGE PARKING LOT REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
SOIL EROSION AND SEDIMENT CONTROL PLAN

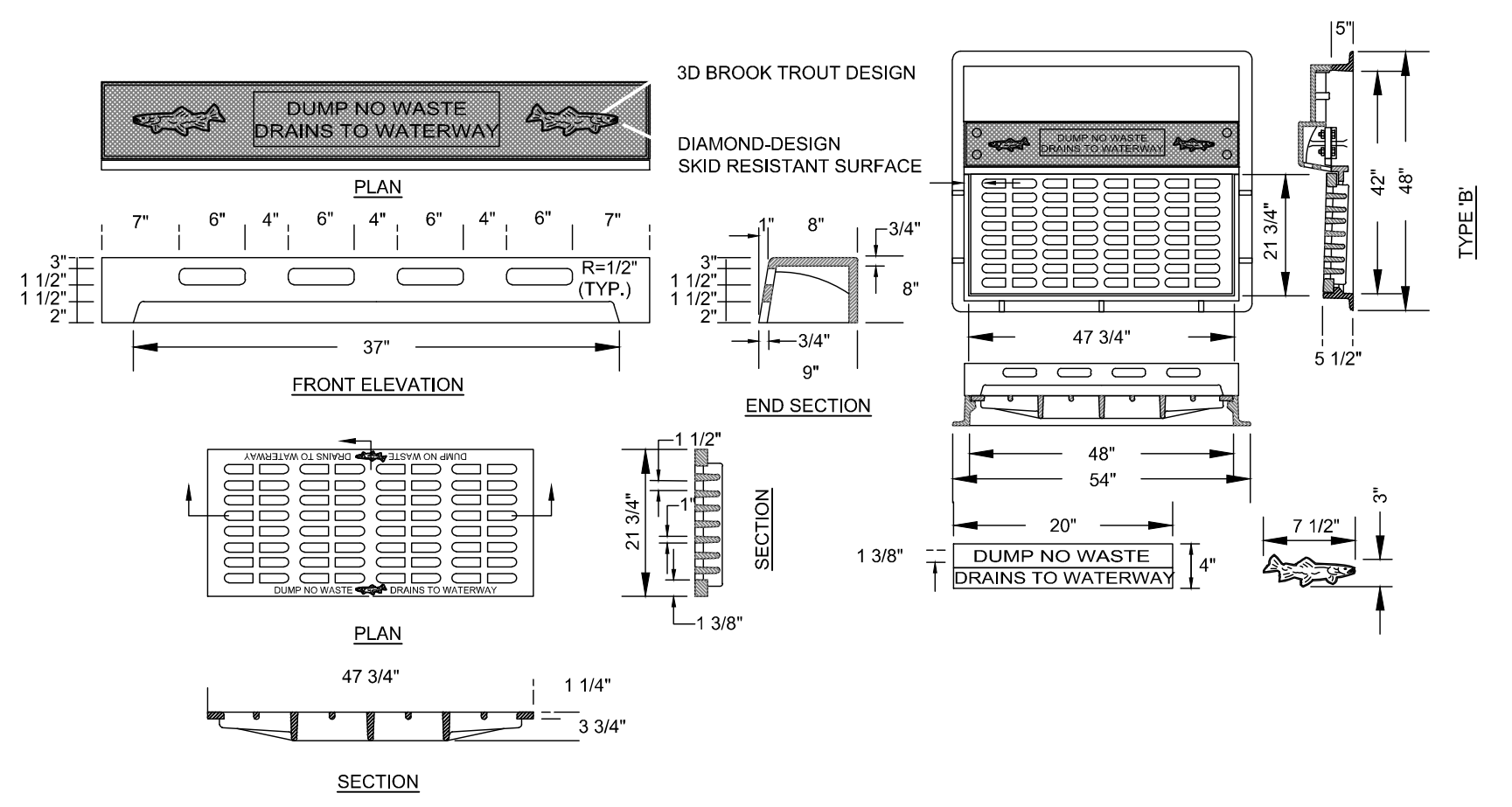


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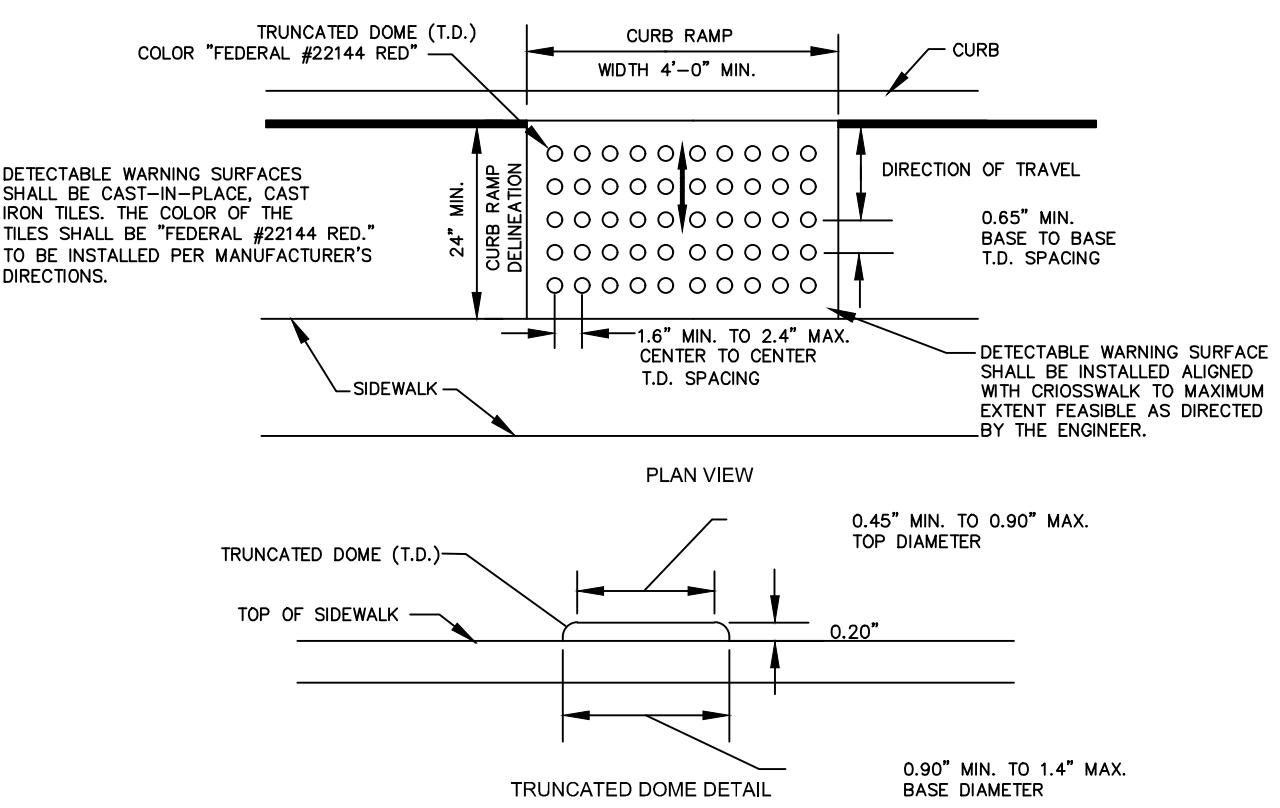
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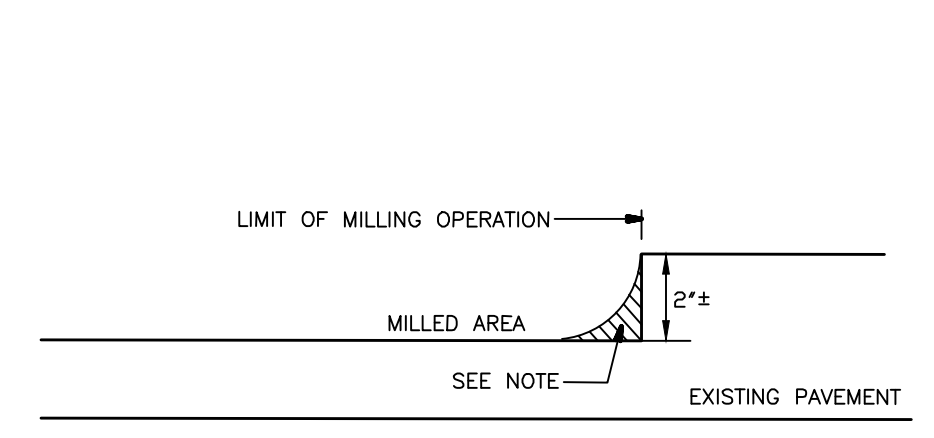
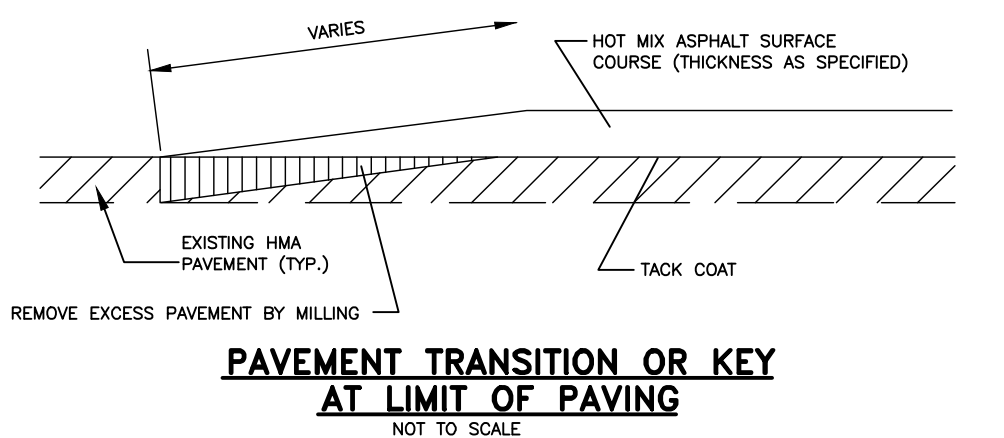


NOTES:
 1. BICYCLE SAFE GRATES SHALL BE PROVIDED ON ALL INLETS WITHIN THE PROJECT LIMITS. TYPE "B" INLET GRATES SHALL BE CAMPBELL FOUNDRY PATTERN NO. 2618 OR APPROVED EQUIVALENT. TYPE "C" INLET GRATES SHALL BE CAMPBELL FOUNDRY PATTERN NO. 3425 OR APPROVED EQUIVALENT.
 2. CURB PIECE SHALL BE TYPE "N-ECO", FOR 6" OR 8" CURB PIECES.

NJDEP APPROVED INLET CASTINGS
 NOT TO SCALE

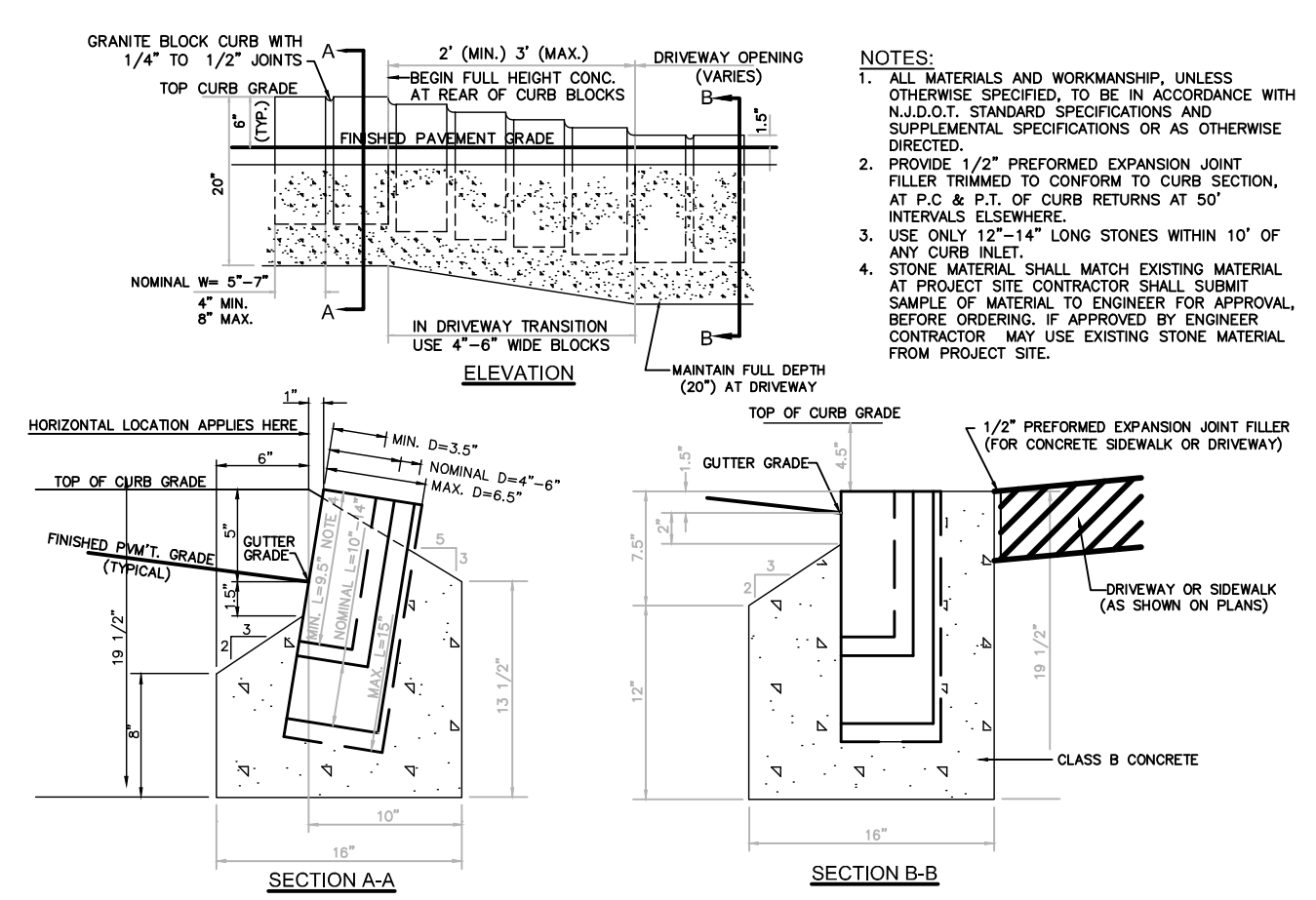


DETECTABLE WARNING SURFACE DETAIL
 NOT TO SCALE

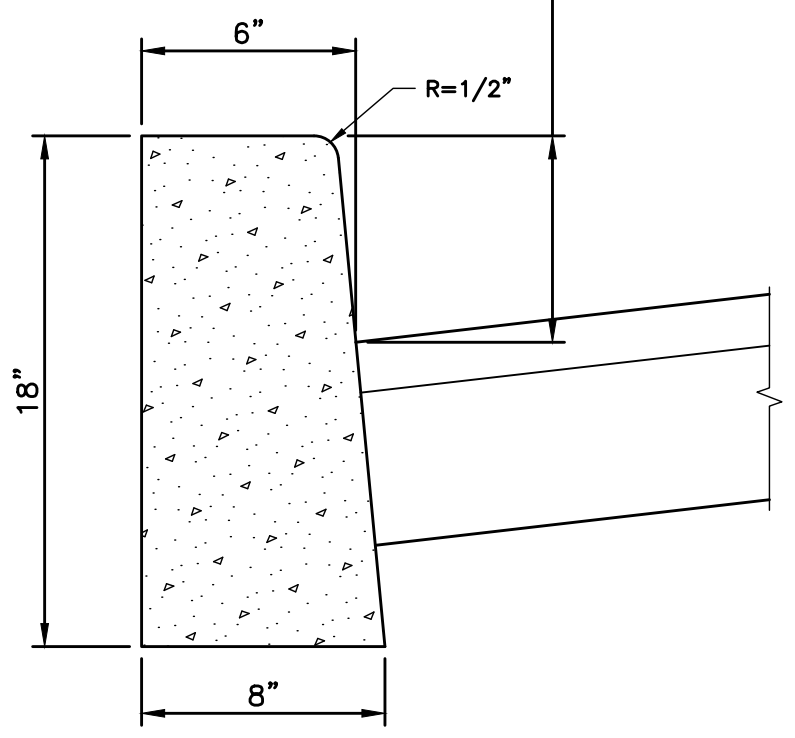


BITUMINOUS MATERIAL LEFT BY THE MILLING DRAWING RADIUS AT THE LIMIT OF THE MILLING OPERATION SHALL BE REMOVED. SAWING OR TRANSVERSE MILLING SHALL BE USED TO INSURE THAT THE EXPOSED FACE IS CLEAN AND VERTICAL. THIS END TREATMENT IS NOT REQUIRED AT TEMPORARY LIMITS OF MILLING (I.E. END OF WORKDAY). IT IS REQUIRED IN ALL INSTANCES AT WHICH THE COMPLETED MILLING OPERATION IS PROPOSED TO MATCH EXISTING PAVEMENT GRADES.

END TREATMENT FOR MILLING OPERATIONS
 N.T.S.



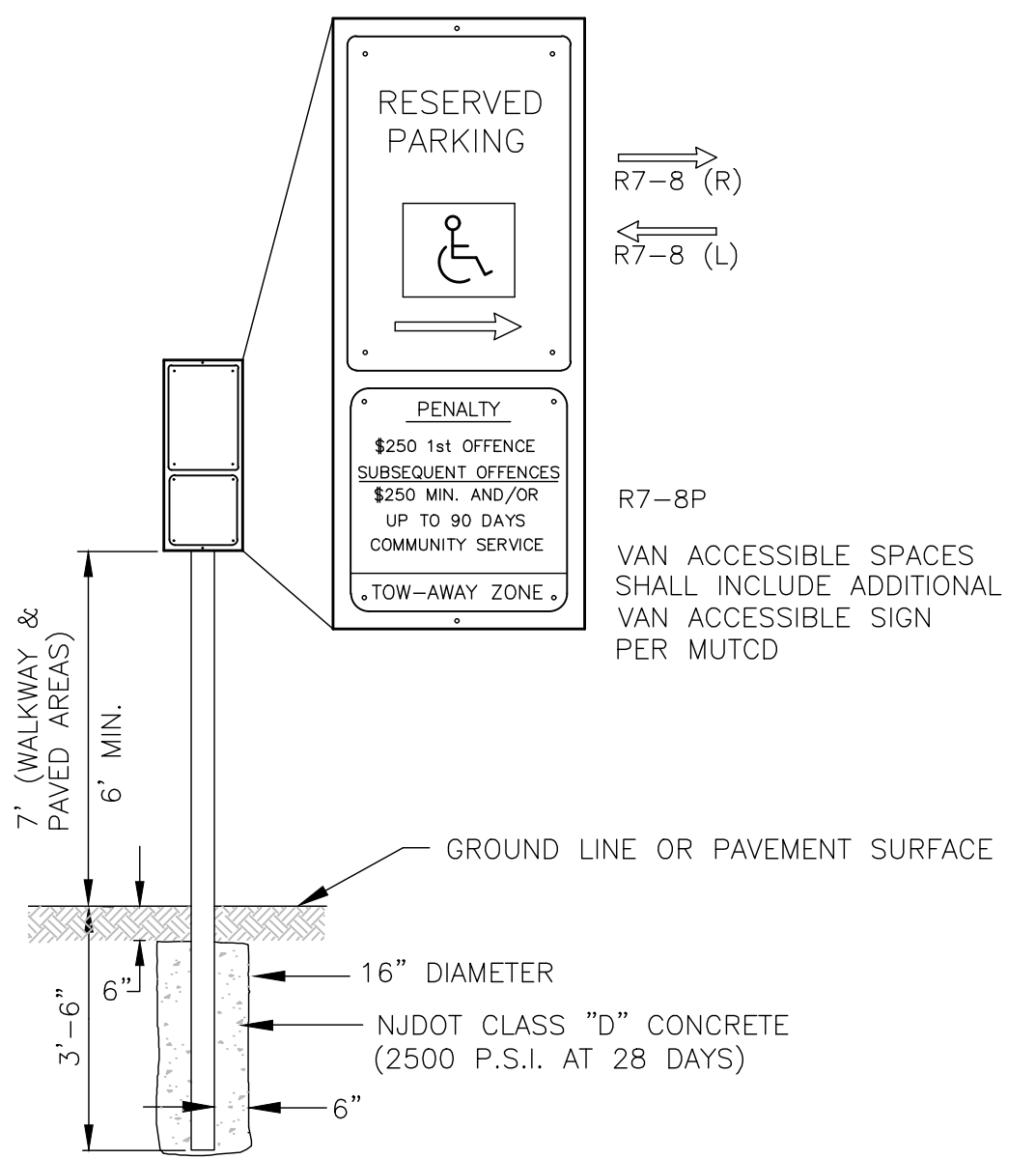
GRANITE BLOCK CURB-ALTERNATE
 N.T.S.



6\"X18\" CONCRETE VERTICAL CURB
 N.T.S.

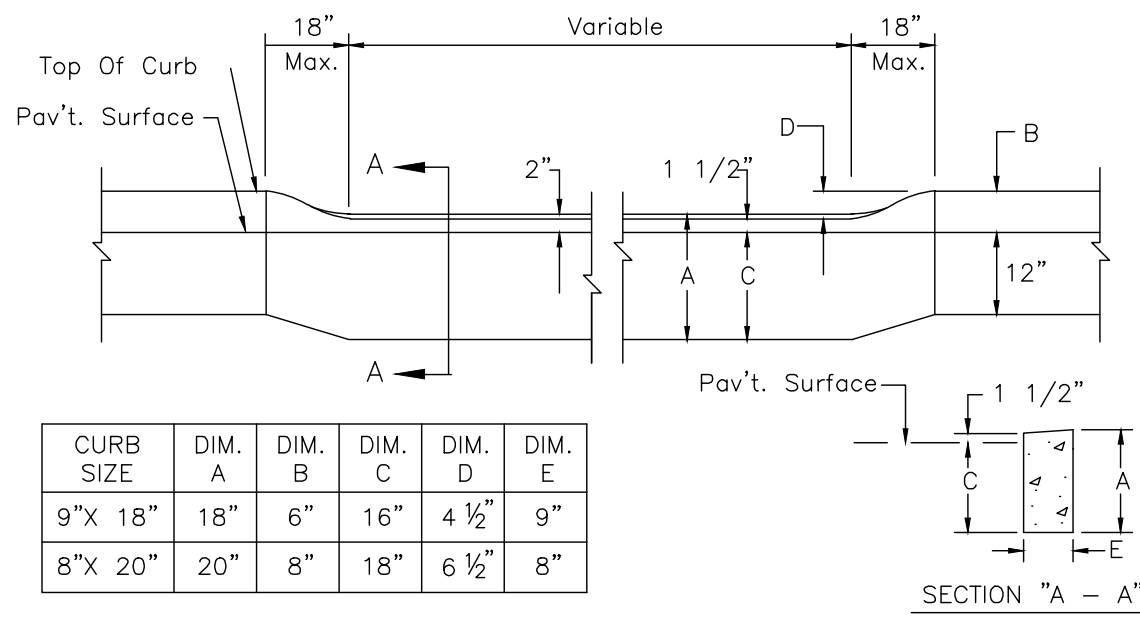
CONSTRUCTION NOTES:

1. ALL CONCRETE SHALL BE N.J.D.O.T. CLASS "B". PROVIDE CURB FACE AS INDICATED ON PLANS.
2. PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20'-0" (MAXIMUM) INTERVALS.
3. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.

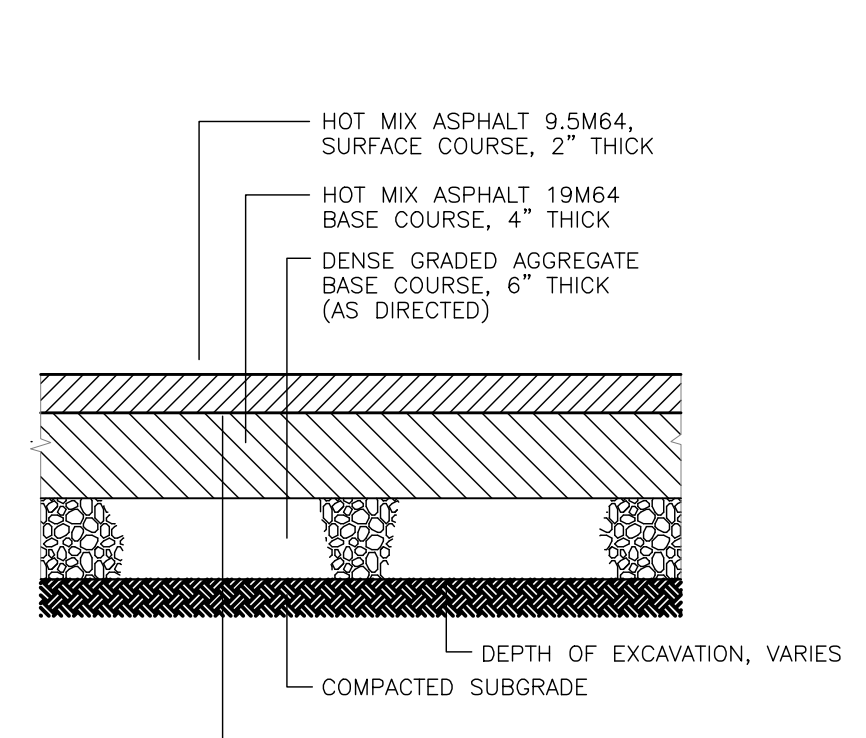


NOTE:
 ALL METAL SURFACES TO HAVE WEATHER PROTECTION FINISHES.

HANDICAP PARKING SIGN
 NOT TO SCALE

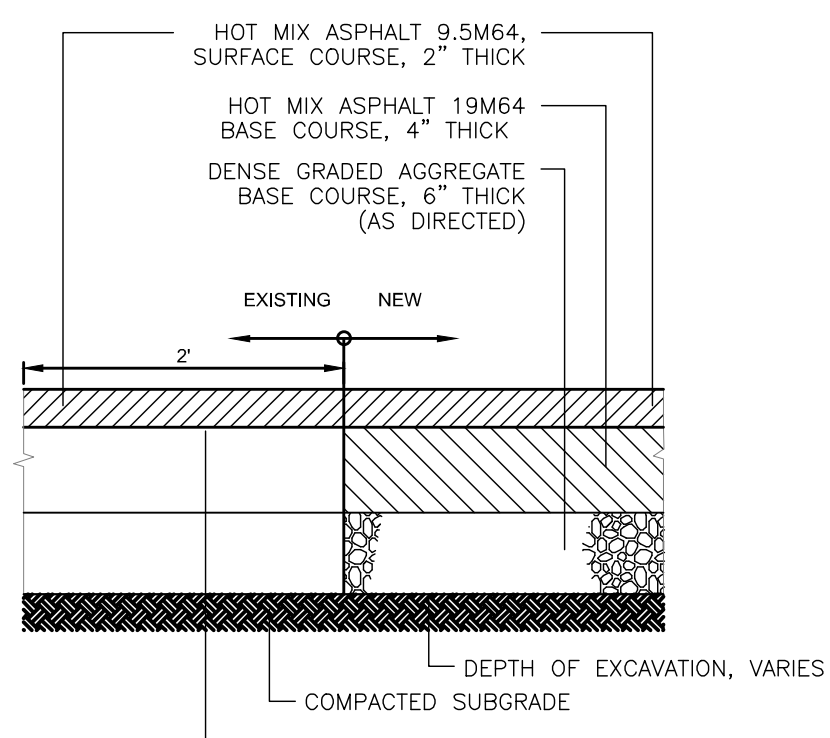


METHOD OF DEPRESSING CURB AT DRIVEWAYS
 NOT TO SCALE

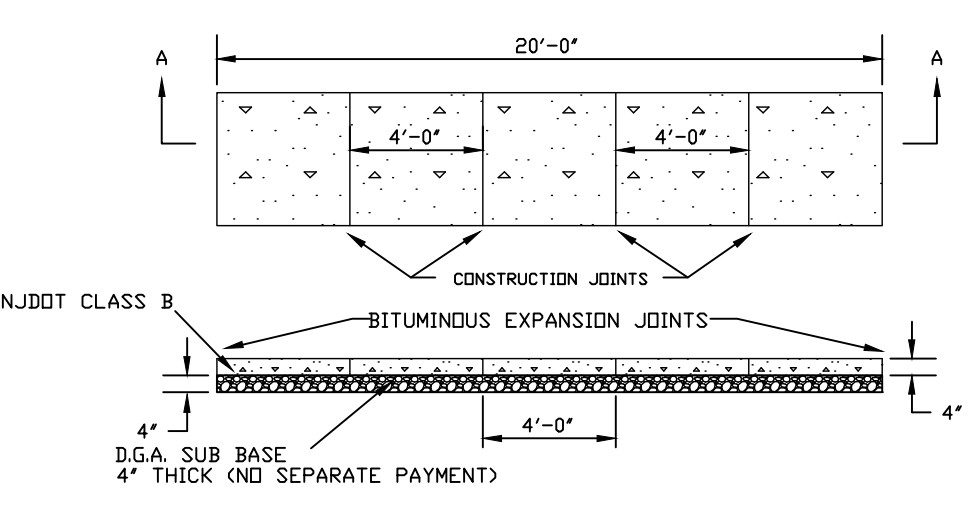


TYPICAL PAVEMENT SECTION
 NOT TO SCALE

- NOTES:**
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR UNSUITABLE SOIL CONDITIONS SHALL BE BACKFILLED WITH DENSE GRADED AGGREGATE. ALL SUBGRADES SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLING PAVEMENT REPAIR.
 2. CONTRACTOR IS TO SUBMIT A PAVING PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION.



PAVEMENT TIE IN DETAIL
 NOT TO SCALE

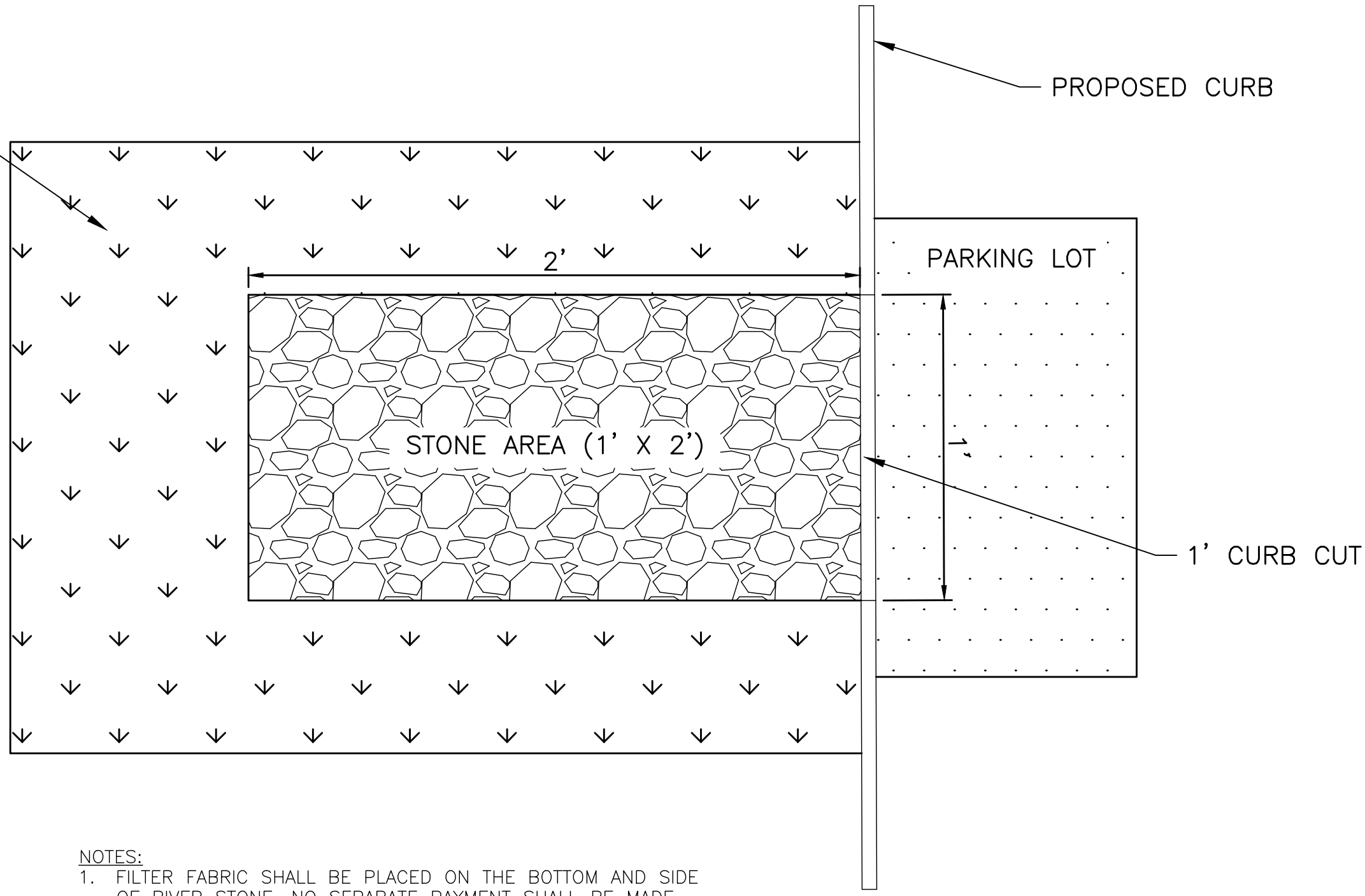


CONSTRUCTION NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE, AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY TWENTY (20) FEET.
2. CONSTRUCTION JOINTS SHALL BE INSTALLED EVERY FOUR (4) FEET THE FULL WALK WIDTH.
3. THERE SHALL BE A FLOAT FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.
4. SUB BASE SHALL BE 4" THICK D.G.A. NO SEPARATE PAYMENT WILL BE PROVIDED.

CONCRETE SIDEWALK
 N.T.S.

EXISTING GRASS (TO BE RESEDED AS NECESSARY)



- NOTES:**
1. FILTER FABRIC SHALL BE PLACED ON THE BOTTOM AND SIDE OF RIVER STONE, NO SEPARATE PAYMENT SHALL BE MADE.

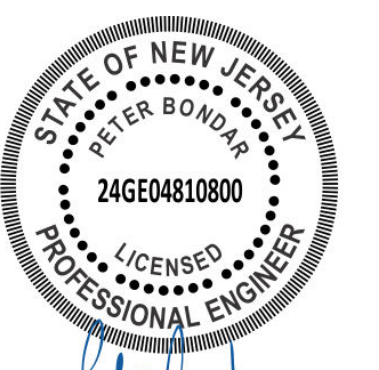
CURB CUT PLAN VIEW
 NOT TO SCALE

PROJECT INFORMATION:
 T&M ASSOCIATES, INC.
 11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL: 732-671-6400
 FAX: 732-671-7365

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NO.	1	DATE	3/10/2022	ISSUED FOR BID	REVISIONS	BY	FS	PB	CHKD
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PETER F. BONDAR, P.E.
 CONSULTING ENGINEER



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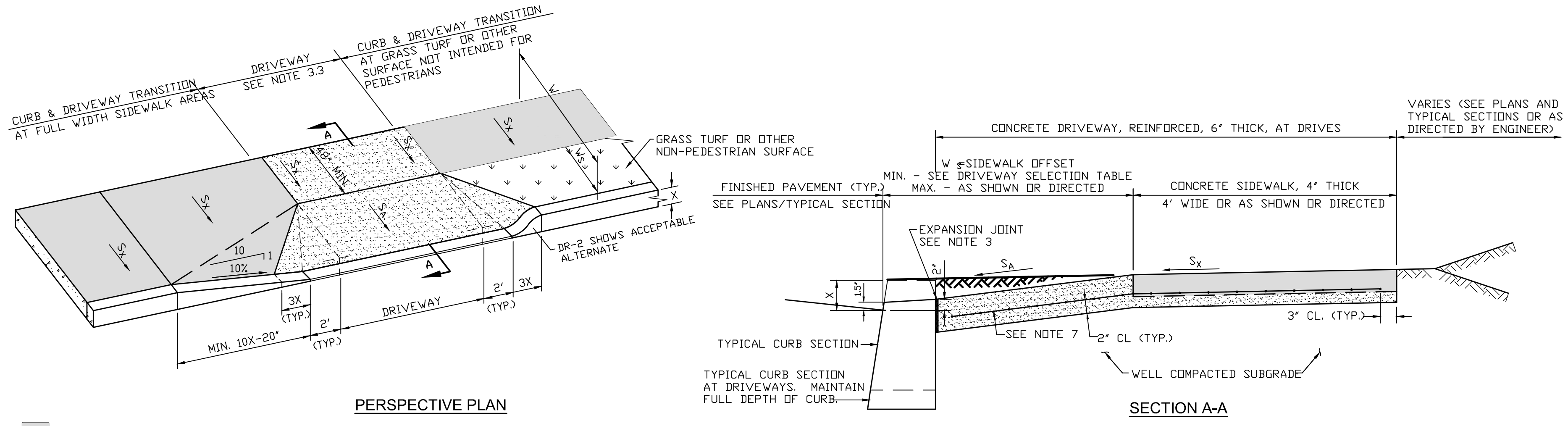
3/10/2022
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NJ LICENSE NO. GE48108

TOWNSHIP OF PISCATAWAY
2022 - STERLING VILLAGE PARKING LOT REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
CONSTRUCTION DETAILS



11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL: 732-671-6400
 FAX: 732-671-7365

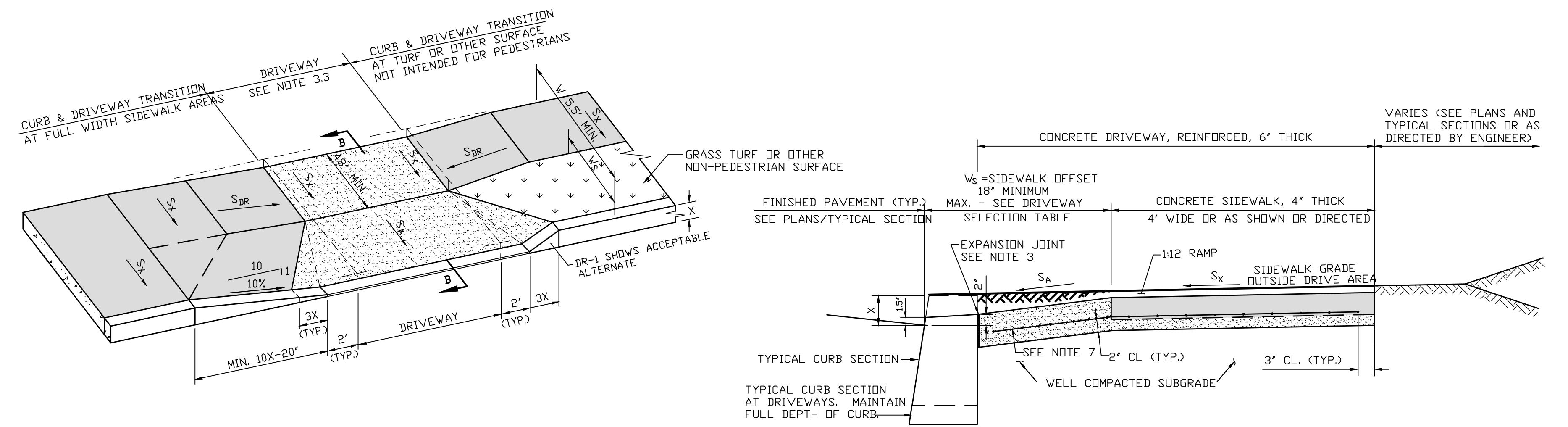
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CHECKED BY	PB	SHEET	4
DRAWN BY	FS	PROJ. NO.	PISC00250
DATE	3/10/2022	OF	9
SCALE	N.T.S.		



PERSPECTIVE PLAN

SECTION A-A

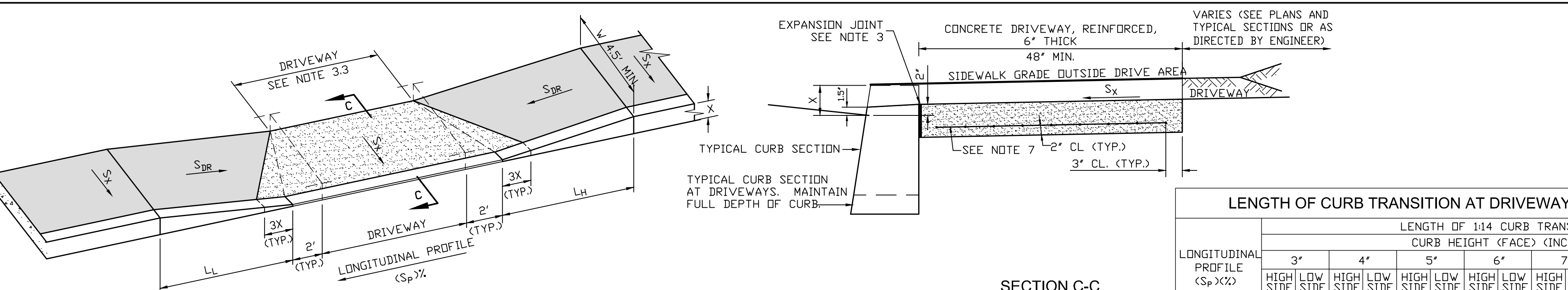
DETAIL DR-1
CONCRETE DRIVEWAY TYPE 1 - LARGE SIDEWALK OFFSET
NOT TO SCALE



PERSPECTIVE PLAN

SECTION B-B

DETAIL DR-2
CONCRETE DRIVEWAY TYPE 2 - INTERMEDIATE SIDEWALK OFFSET
NOT TO SCALE



PERSPECTIVE PLAN

SECTION C-C

DETAIL DR-3
CONCRETE DRIVEWAY TYPE 3 - MINIMUM SIDEWALK OFFSET
NOT TO SCALE

LENGTH OF CURB TRANSITION AT DRIVEWAY TABLE (FOR DR-3)

LONGITUDINAL PROFILE (S _p %)	LENGTH OF 1:4 CURB TRANSITION											
	CURB HEIGHT (FACE) (INCHES)											
	3"		4"		5"		6"		7"		8"	
SEE NOTE 2	HIGH SIDE (L _H)	LOW SIDE (L _L)	HIGH SIDE (L _H)	LOW SIDE (L _L)	HIGH SIDE (L _H)	LOW SIDE (L _L)	HIGH SIDE (L _H)	LOW SIDE (L _L)	HIGH SIDE (L _H)	LOW SIDE (L _L)	HIGH SIDE (L _H)	LOW SIDE (L _L)
0.2	1'2"	1'2"	2'4"	2'4"	3'6"	3'6"	4'9"	4'9"	5'10"	5'10"	7'0"	8'2"
0.3	1'2"	1'1"	2'4"	2'3"	3'7"	3'5"	4'10"	4'6"	6'0"	5'8"	6'10"	7'11"
0.4	1'2"	1'1"	2'5"	2'2"	3'8"	3'4"	4'10"	4'6"	6'1"	4'7"	6'8"	7'10"
0.5	1'2"	1'1"	2'5"	2'2"	3'8"	3'3"	4'11"	4'5"	6'2"	5'6"	6'7"	7'9"
0.75	1'3"	1'0"	2'6"	2'2"	3'9"	3'3"	5'0"	4'4"	6'3"	5'5"	6'6"	7'7"
1.00	1'3"	1'0"	2'7"	2'1"	3'11"	3'2"	5'2"	4'3"	6'5"	5'4"	6'5"	7'6"
1.50	1'5"	1'0"	2'8"	2'0"	4'1"	3'1"	5'3"	4'1"	6'9"	5'1"	6'1"	7'2"
2.00	1'7"	1'0"	2'11"	1'11"	4'5"	2'11"	5'11"	3'10"	7'0"	5'9"	6'9"	7'8"
2.50	1'9"	1'0"	3'2"	1'10"	4'10"	2'9"	6'6"	3'7"	7'4"	5'5"	6'4"	7'3"
3.00	2'0"	1'0"	3'6"	1'8"	5'4"	2'7"	7'3"	3'5"	7'7"	5'2"	6'0"	6'11"
3.50	2'3"	1'0"	4'0"	1'7"	6'0"	2'5"	8'0"	3'3"	8'1"	5'0"	5'9"	6'7"
4.00	2'7"	1'0"	4'6"	1'6"	6'10"	2'4"	9'0"	3'1"	9'0"	4'8"	5'6"	6'3"
4.50	3'1"	1'0"	5'2"	1'6"	7'3"	2'3"	10'0"	3'0"	9'9"	4'6"	5'3"	6'0"
5.00	3'8"	1'0"	6'2"	1'5"	8'2"	2'2"	11'0"	2'9"	10'0"	4'3"	5'0"	5'8"
5.50	4'11"	1'0"	7'4"	1'4"	9'1"	2'1"	12'0"	2'7"	11'0"	4'1"	4'10"	5'6"

NOTES:
 1. INTERPOLATE BETWEEN SLOPES SHOWN AS REQUIRED.
 2. NO ADJUSTMENT FOR PROFILE SLOPES LESS THAN 0.2%.
 3. CONSULT ENGINEER FOR PROFILE SLOPES GREATER THAN 5.5%.

GENERAL NOTES:

- CONCRETE FOR CURBS, DRIVEWAYS AND SIDEWALKS SHALL BE NJDOT CLASS B. DRIVEWAY CONCRETE SHALL ATTAIN A STRENGTH OF NOT LESS THAN 3000 PSI WITHIN 3 DAYS OF PLACEMENT.
- CURB, DRIVEWAYS AND SIDEWALKS SHALL BE CAST IN SEPARATE OPERATIONS UNLESS OTHERWISE PERMITTED BY THE ENGINEER.
- EXPANSION JOINTS WITH PREFORMED EXPANSION JOINT FILLER CONFORMING TO AASHTO M33, PREFORMED EXPANSION JOINT FILLER FOR CONCRETE (BITUMINOUS TYPE), SHALL BE PROVIDED AS FOLLOWS:
 - 1/2" THICK AT LONGITUDINAL INTERVALS OF APPROXIMATELY TWENTY FEET (20');
 - 1/4" THICK BETWEEN CURB AND SIDEWALK OR DRIVEWAYS, AROUND ALL STRUCTURES OR APPURTENANCES, SUCH AS MANHOLES, JUNCTION BOXES AND UTILITY POLES, AND ADJACENT TO ANY FIXED STRUCTURE;
 - 3/4" AT LONGITUDINAL CENTERLINE OF ANY DRIVE WHICH EXCEEDS TWELVE FEET (12') IN WIDTH OR AS DIRECTED BY ENGINEER.
- EXPANSION JOINT MATERIAL SHALL BE TRIMMED AS TO BE SLIGHTLY BELOW THE SURFACE OF THE CONCRETE.
- TOLDED JOINTS SHALL BE PROVIDED WITH A GROOVING TOOL SO AS TO DIVIDE THE CONCRETE SURFACE INTO BLOCKS AS CLOSELY APPROACHING A SQUARE AS PRACTICABLE. GROOVES SHALL BE CUT TO A DEPTH OF AT LEAST 1/2 INCH AND SHALL BE FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/4 INCH.
- UNLESS OTHERWISE DIRECTED BY THE ENGINEER, EXPANSION AND TOLDED JOINTS IN CONCRETE SURFACES SHALL BE ALIGNED WITH JOINTS IN CURBS.
- WELDED WIRE FABRIC IN DRIVEWAYS SHALL BE 6X6-6X6 (OLD DESIGNATION), 6X6-W2.9XW2.9 (NEW DESIGNATION) IN ACCORDANCE WITH ASTM A-185.

DRIVEWAY DESIGN SLOPE AND TOLERANCES TABLE

SYMBOL	DESCRIPTION	SLOPES (NOTE 1)		
		DESIGN (NOMINAL)	MINIMUM	MAXIMUM
S _x	CROSS SLOPE OF PUBLIC SIDEWALK	1:60 1.67% 3/4" PER 4'	1:72 1.4% 5/8" PER 4'	1:50 2% 3/16" PER 1'
S _{DR}	LONGITUDINAL (RUNNING) SLOPE OF DRIVEWAY TRANSITION RAMP	NORMAL RANGE MINIMUM 1:36 2.8% 1 1/4" PER 4'	1:50 2%	1:12 8.3%
S _A	LONGITUDINAL (RUNNING) SLOPE OF DRIVEWAY APRON	1:10 10% 1 1/4" PER 1'	1:50 2%	1:8 12.5% 1 1/2" PER 1'

- NOTES:
- UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CONSTRUCTION WHICH DOES NOT CONFORM TO THE TOLERANCES SPECIFIED (IE, WHICH EXCEEDS THE MAXIMUM OR IS LESS THAN THE MINIMUM) WILL BE REMOVED AND REPLACED WITHOUT COST TO THE OWNER.
 - IF S_{DR} EXCEEDS 1:20 (5%), THE MAXIMUM VERTICAL RISE PERMITTED IS 6'. WHEN THIS CANNOT BE ACHIEVED IN THE ALTERATION OF EXISTING FACILITIES, CONSULT THE ENGINEER.

DRIVEWAY SELECTION TABLE

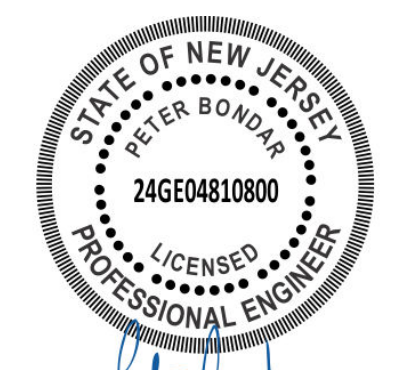
CURB FACE (X) (INCHES)	W LESS THAN 5.5'	W _s (FEET)										
		10	20	30	40	50	60	70	80	90	100	
3	DETAIL DR-3 APPLIES	1'8"										
4		2'8"										
5		3'8"										
6		4'8"										
7		5'8"										
8		6'8"										
9		7'8"										
10		8'8"										

AT DESIGN (NOMINAL) APRON SLOPE (S_{AP})

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 FILE NAME: PISC-00250
 PLOT TIME: 07 May 2022, 9:26AM
 LAST SAVE BY: F568B

NO.	DATE	ISSUED FOR	REVISIONS	BY	CHKD
1	3/10/2022			FS	PB

PETER F. BONDAR, P.E.
CONSULTING ENGINEER



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3/10/2022
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE NO. GE48108

TOWNSHIP OF PISCATAWAY
 2022 - STERLING VILLAGE PARKING LOT REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
 CONSTRUCTION DETAILS

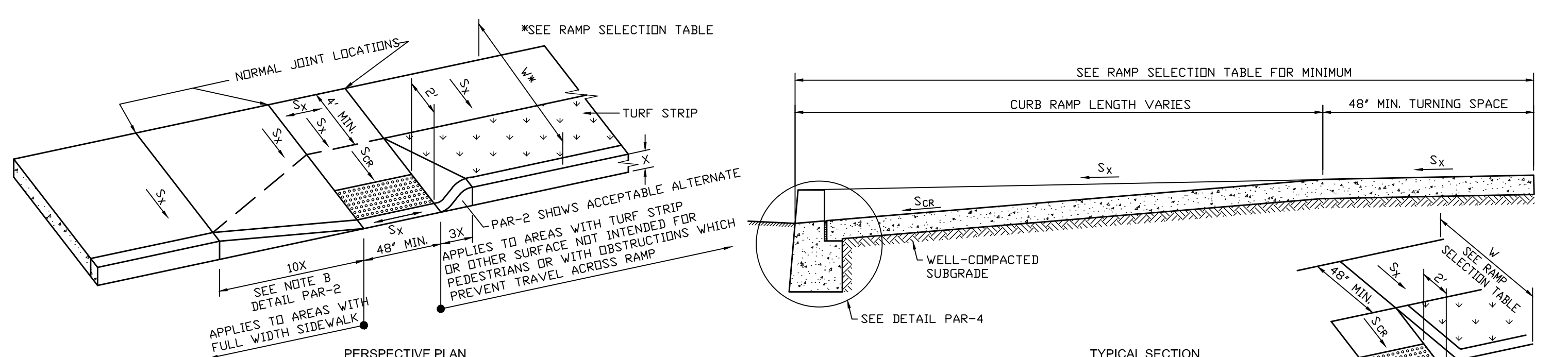


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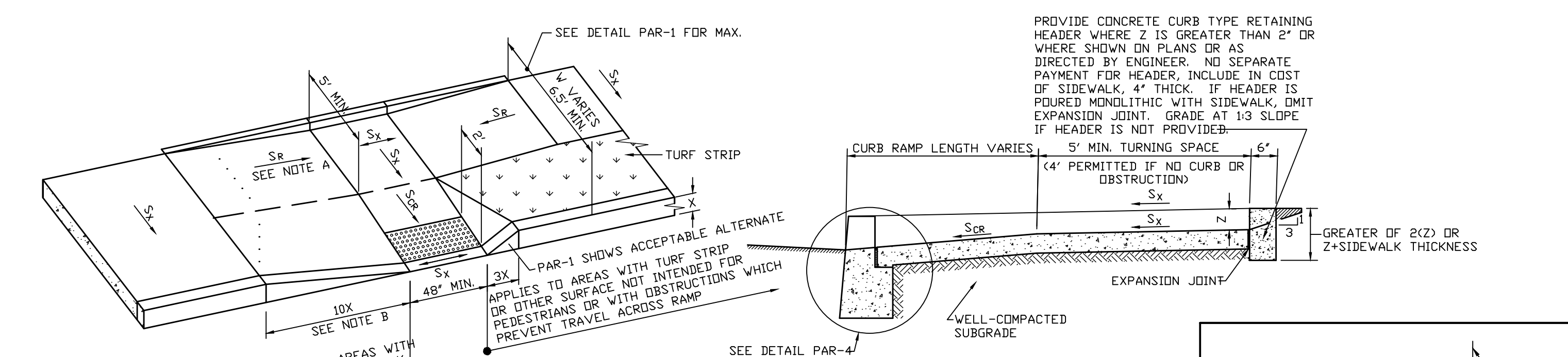
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CHECKED BY	PB	SHEET	5
DRAWN BY	FS	PROJ. NO.	PISC00250
DATE	3/10/2022	OF	9
SCALE	N.T.S.		

PROJECT INFORMATION: C:\Projects\Plan\20250\Plans\...
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 DATE: 03/10/2022 TIME: 07:40:22Z
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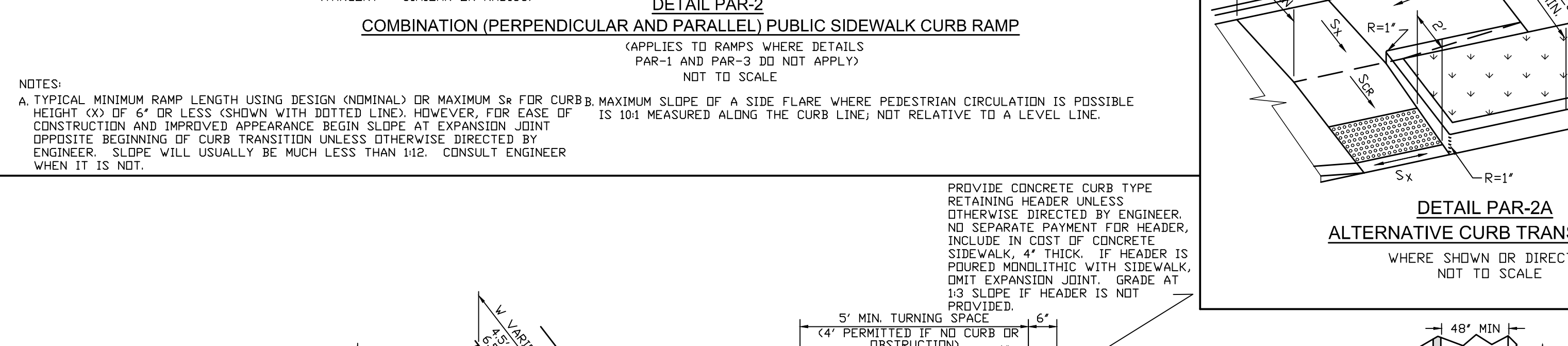
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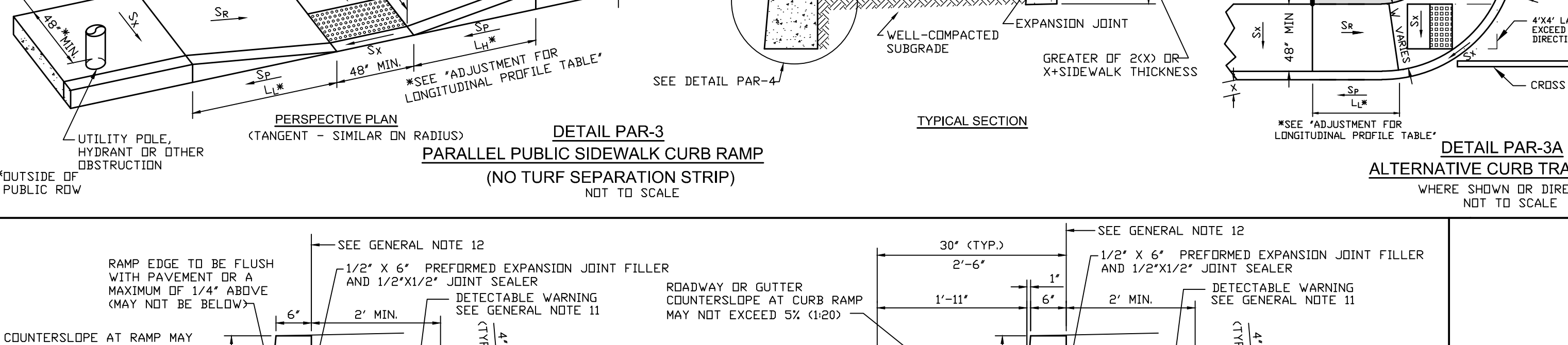
DETAIL PAR-1
PERPENDICULAR PUBLIC SIDEWALK CURB RAMP
 NOT TO SCALE



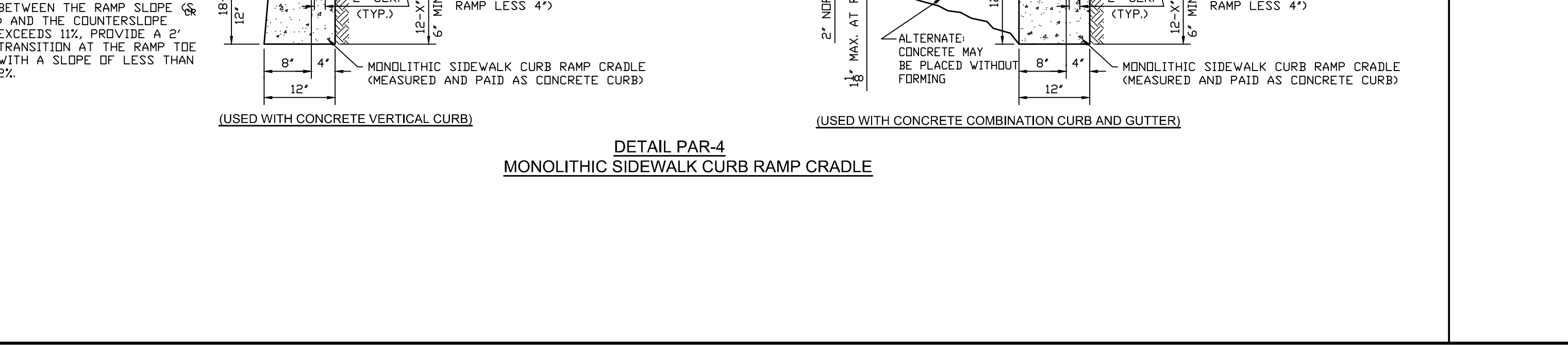
DETAIL PAR-2
COMBINATION (PERPENDICULAR AND PARALLEL) PUBLIC SIDEWALK CURB RAMP
 (APPLIES TO RAMP WHERE DETAILS PAR-1 AND PAR-3 DO NOT APPLY)
 NOT TO SCALE



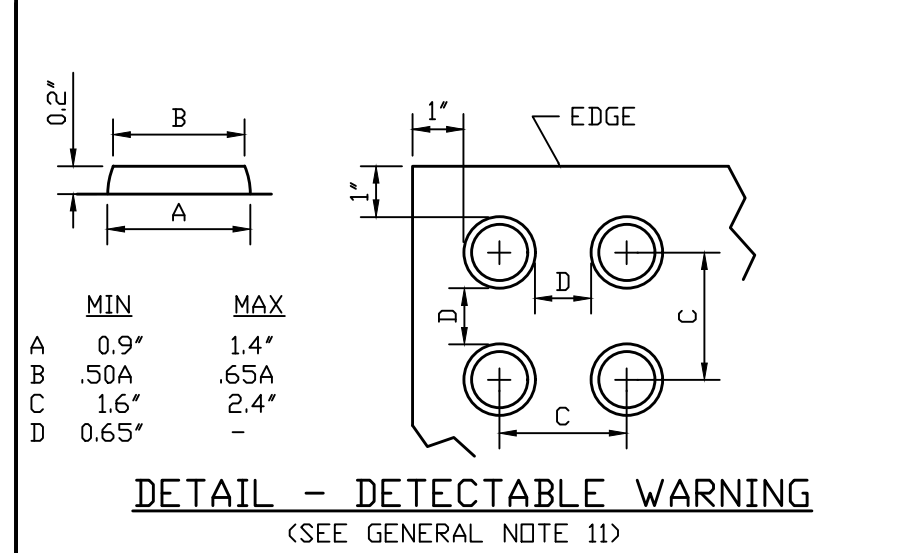
DETAIL PAR-3
PARALLEL PUBLIC SIDEWALK CURB RAMP
 (NO TURF SEPARATION STRIP)
 NOT TO SCALE



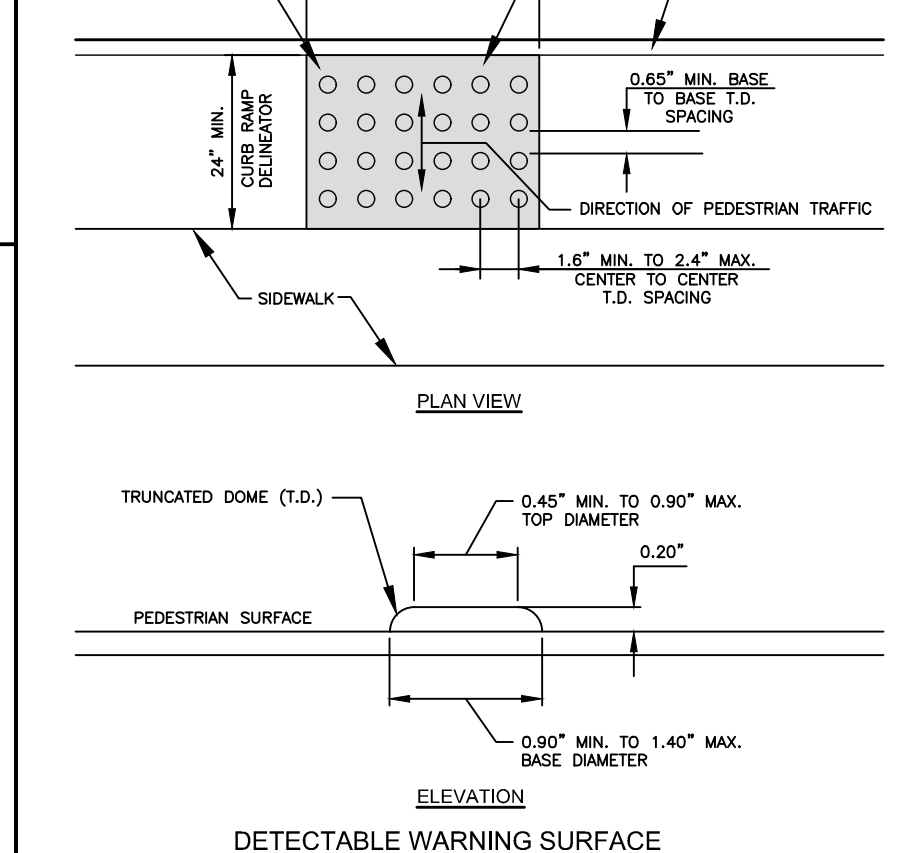
DETAIL PAR-3A
ALTERNATIVE CURB TRANSITION
 WHERE SHOWN OR DIRECTED NOT TO SCALE



DETAIL PAR-4
MONOLITHIC SIDEWALK CURB RAMP CRADLE



DETAIL - DETECTABLE WARNING
 (SEE GENERAL NOTE 11)
 NOT TO SCALE



DETECTABLE WARNING SURFACE

CURB FACE (X) (INCHES)	W (FEET)	DETAIL PAR-1 APPLIES	DETAIL PAR-2 APPLIES
3	88	NO	NO
4	98	NO	NO
5	108	NO	NO
6	118	NO	NO
7	128	NO	NO
8	138	NO	NO
9	148	NO	NO
10	158	NO	NO

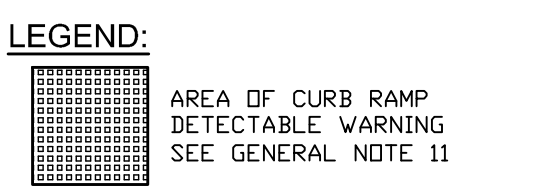
SYMBOL	DESCRIPTION	SLOPES (NOTE 1)		
		DESIGN (NOMINAL)	MINIMUM	MAXIMUM
Sx	CROSS SLOPE OF PUBLIC SIDEWALK OR CROSS SLOPE OF CURB RAMP	1/60 1.67% 3/4" PER 4' 3/16" PER 1'	1/72 1.4% 5/8" PER 4' 3/16" PER 1'	1/50 2% (NOTE 3)
Scr	LONGITUDINAL (RUNNING) SLOPE OF PUBLIC SIDEWALK CURB RAMP	1/14 7.1% 3 1/2" PER 4' (APPROX 7/8" PER 1')	1/50 2% (NOTE 2)	1/12.05 8.3% (NOTE 2)
Sp	LONGITUDINAL (RUNNING) SLOPE OF PARALLEL SIDEWALK CURB RAMP	1/14 7.1% 3 1/2" PER 4' (APPROX 7/8" PER 1')	1/50 2% (NOTE 2)	1/12.05 8.3% (NOTE 2)

LONGITUDINAL PROFILE (% X)	MINIMUM LENGTH OF 14H : 1V CURB TRANSITION (FEET/INCHES)											
	CURB HEIGHT (FACE) (INCHES)						CURB HEIGHT (FACE) (INCHES)					
	3'	4'	5'	6'	7'	8'	3'	4'	5'	6'	7'	8'
0.9'	3'6"	3'6"	4'9"	4'9"	5'10"	5'10"	7'0"	7'0"	8'2"	8'2"	9'5"	9'5"
0.2	3'7"	3'5"	4'10"	4'6"	6'0"	5'8"	7'2"	6'10"	8'4"	7'11"	9'7"	9'1"
0.3	3'8"	3'4"	4'10"	4'6"	6'1"	4'7"	7'4"	6'8"	8'6"	7'10"	9'9"	8'11"
0.4	3'8"	3'8"	4'11"	4'5"	6'2"	5'6"	7'5"	6'7"	8'8"	7'9"	9'11"	8'10"
0.5	3'9"	3'3"	5'0"	4'4"	6'3"	5'5"	7'6"	6'6"	8'9"	7'7"	10'0"	8'9"
0.75	3'11"	3'28"	5'28"	4'3"	6'6"	5'4"	7'10"	6'5"	9'18"	7'6"	10'5"	8'6"
1.00	4'1"	3'1"	5'5"	4'1"	6'9"	5'18"	8'2"	6'8"	9'6"	7'2"	10'10"	8'2"
1.50	4'5"	2'11"	5'11"	3'10"	7'4"	4'10"	8'10"	6'9"	10'4"	6'9"	11'10"	7'8"
2.00	4'10"	2'9"	6'6"	3'78"	8'1"	4'7"	9'8"	5'5"	11'4"	6'4"	12'11"	7'3"
2.50 (NOTE 3)	5'4"	2'7"	7'2"	3'58"	9'0"	4'4"	10'9"	5'2"	12'6"	6'0"	14'4"	6'11"
3.00	6'0"	2'58"	8'0"	3'38"	10'0"	4'18"	12'0"	4'11"	14'1"	5'9"	15'*	6'7"
3.50	6'10"	2'4"	9'2"	3'14"	11'5"	3'11"	13'8"	4'8"	15'*	5'6"	6'3"	7'08"
4.00	7'11"	2'3"	10'7"	3'0"	13'3"	3'9"	15'*	4'6"	5'3"	6'0"	6'9"	7'6"
4.50	9'5"	2'2"	12'7"	2'10"	15'*	3'7"	4'38"	5'0"	5'8"	5'8"	6'5"	7'2"
5.00	11'7"	2'08"	15'*	2'9"	3'5"	4'18"	4'10"	4'10"	5'6"	6'2"	6'10"	6'10"
5.50	15'*	1'11"	1'11"	2'78"	2'78"	3'118"	3'118"	4'78"	5'3"	5'3"	5'11"	6'7"

NOTES:
 1. INTERPOLATE BETWEEN SLOPES SHOWN AS REQUIRED.
 2. NO ADJUSTMENT FOR PROFILE SLOPES LESS THAN 0.2%
 3. CROSS SLOPE OF PUBLIC SIDEWALK CURB RAMP AT GUTTER SHOULD NOT BE GREATER THAN 2% (1/50) OR AS DIRECTED BY ENGINEER.
 4. CONSULT ENGINEER FOR PROFILE SLOPES GREATER THAN 5.5%.

GENERAL NOTES:

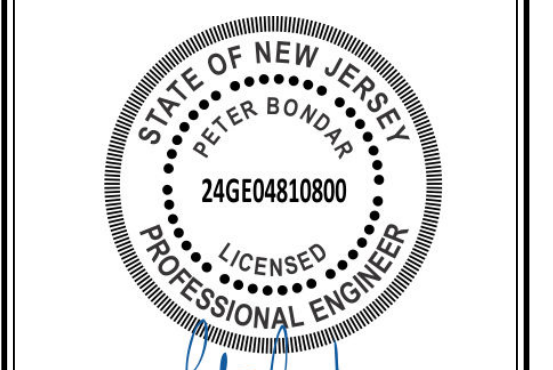
- CONCRETE FOR CURBS, SIDEWALKS, CURB RAMPS AND MONOLITHIC CURB RAMP CRADLES SHALL BE NJDOT CLASS B.
- CURB AND MONOLITHIC CURB RAMP CRADLES SHALL BE Poured IN A SEPARATE OPERATION FROM SIDEWALKS AND CURB RAMPS UNLESS OTHERWISE PERMITTED BY THE ENGINEER.
- EXPANSION JOINTS WITH PREFORMED EXPANSION JOINT FILLER CONFORMING TO AASHTO M33, PREFORMED EXPANSION JOINT FILLER FOR CONCRETE (BITUMINOUS TYPE), SHALL BE PROVIDED AS FOLLOWS:
 - 1/2" THICK AT LONGITUDINAL INTERVALS OF APPROXIMATELY TWENTY FEET (20') AND BETWEEN ALL SIDEWALK CURB RAMPS AND MONOLITHIC CURB RAMP CRADLES.
 - 1/4" THICK BETWEEN CURB AND SIDEWALK, AROUND ALL STRUCTURES OR APPURTENANCES, SUCH AS MANHOLES, JUNCTION BOXES AND UTILITY POLES, AND ADJACENT TO ANY FIXED STRUCTURE.
- EXPANSION JOINT MATERIAL SHALL BE TRIMMED AS TO BE SLIGHTLY BELOW THE SURFACE OF THE CONCRETE.
- JOINT SEALER WHERE SHOWN OR REQUIRED SHALL CONFORM TO NJDOT SPECIFICATION 914. HOT-POURED JOINT SEALER SHALL CONFORM TO ASTM D 6690. COLD-APPLIED JOINT SEALER SHALL CONFORM TO ASTM D 5893, TYPE SL OR TYPE NS.
- TWOLED JOINTS SHALL BE PROVIDED WITH A GROOVING TOOL SO AS TO DIVIDE THE CONCRETE SURFACE INTO BLOCKS AS CLOSELY APPROACHING A SQUARE AS PRACTICABLE. GROOVES SHALL BE CUT TO A DEPTH OF AT LEAST 1/2 INCH AND SHALL BE FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/4 INCH.
- UNLESS OTHERWISE DIRECTED BY THE ENGINEER, EXPANSION AND TWOLED JOINTS IN CONCRETE SURFACES SHALL BE ALIGNED WITH JOINTS IN CURBS.
- WELDED WIRE FABRIC SHALL BE 6X6-6X6 (OLD DESIGNATION), 6X6-W2.9XW2.9 (NEW DESIGNATION) IN ACCORDANCE WITH ASTM A-185.
- PUBLIC SIDEWALK CURB RAMPS, TURNING SPACES, BLENDED TRANSITIONS AND CLEAR SPACES WITHIN THE PEDESTRIAN ACCESS ROUTE SHALL NOT CONTAIN GRATINGS, COVERS, UTILITY BOXES OR SIMILAR OBSTRUCTIONS. OUTSIDE OF THE ABOVE AREAS, GRATINGS IN PUBLIC SIDEWALKS MAY HAVE OPENINGS NO GREATER THAN 1/2 INCH WIDE MEASURED PARALLEL TO DIRECTION OF TRAVEL.
- ALL PUBLIC SIDEWALK CURB RAMPS SHALL BE PROVIDED WITH A SLIP-RESISTANT BROOM FINISH ORIENTED PERPENDICULAR TO THE TRAVEL DIRECTION.
- DETECTABLE WARNING SURFACES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 606 OF THE SPECIFICATIONS AND THE SPECIAL PROVISIONS WHICH INCLUDE A LIST OF ACCEPTABLE SYSTEMS. UNLESS A SPECIFIC DETECTABLE WARNING SYSTEM IS REQUIRED BY THE SPECIAL PROVISIONS, THE CONTRACTOR MAY SELECT THE SYSTEM TO BE USED. ONLY ONE SYSTEM MAY BE USED ON ANY PROJECT. THE COLOR OF THE DETECTABLE WARNING SYSTEM SHALL BE AS REQUIRED BY THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
- IF NO CURB IS PROVIDED, THE EDGE OF THE DETECTABLE WARNING SURFACE SHALL BE AT LEAST 6" BUT NOT MORE THAN 8" FROM THE EDGE OF THE RAMP. THIS SHALL APPLY TO THE CORNERS OF THE DETECTABLE WARNING FOR RAMPS ON A RADIUS.
- DETECTABLE WARNING SIZE, GEOMETRY AND SPACING TO CONFORM TO SECTION 705 OF DEPARTMENT OF JUSTICE STANDARDS FOR ACCESSIBLE DESIGN (2010) OR SECTION R305 OF ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY.



NOTES:
 1. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CONSTRUCTION WHICH DOES NOT CONFORM TO THE TOLERANCES SPECIFIED OR WHICH EXCEEDS THE MAXIMUM OR IS LESS THAN THE MINIMUM WILL BE REMOVED AND REPLACED WITHOUT COST TO THE OWNER.
 2. THE MAXIMUM LENGTH FOR A PARALLEL PUBLIC SIDEWALK CURB RAMP SHALL BE 15 FEET. MAXIMUM LONGITUDINAL (RUNNING) SLOPE LIMITS (Sx) DO NOT APPLY IF LENGTH IS 15 FEET OR GREATER.
 3. CROSS SLOPE OF CURB RAMP (Sx) TO MATCH ROADWAY PROFILE SLOPES (Sp) OF 1/50 (2%) OR LESS. IF Sp EXCEEDS 1/50 (2%), A TRANSITION MUST BE PROVIDED AT CURB RAMPS TO MAINTAIN Sx EQUAL TO OR LESS THAN 1/50 (2%). EXCEPTION THIS DOES NOT APPLY AT MID-BLOCK CROSSINGS WHERE Sx AT CURB RAMPS MAY MATCH Sp, EVEN IF GREATER THAN 1/50 (2%).

NO.	DATE	ISSUED FOR BID	REVISIONS	BY	FS	PB	CHKD
1	3/10/2022						

PETER F. BONDAR, P.E.
 CONSULTING ENGINEER



This item has been electronically signed and sealed by Peter Bondar, PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

3/10/2022
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NJ LICENSE NO. GE48108

TOWNSHIP OF PISCATAWAY
2022 - STERLING VILLAGE PARKING LOT REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
CONSTRUCTION DETAILS

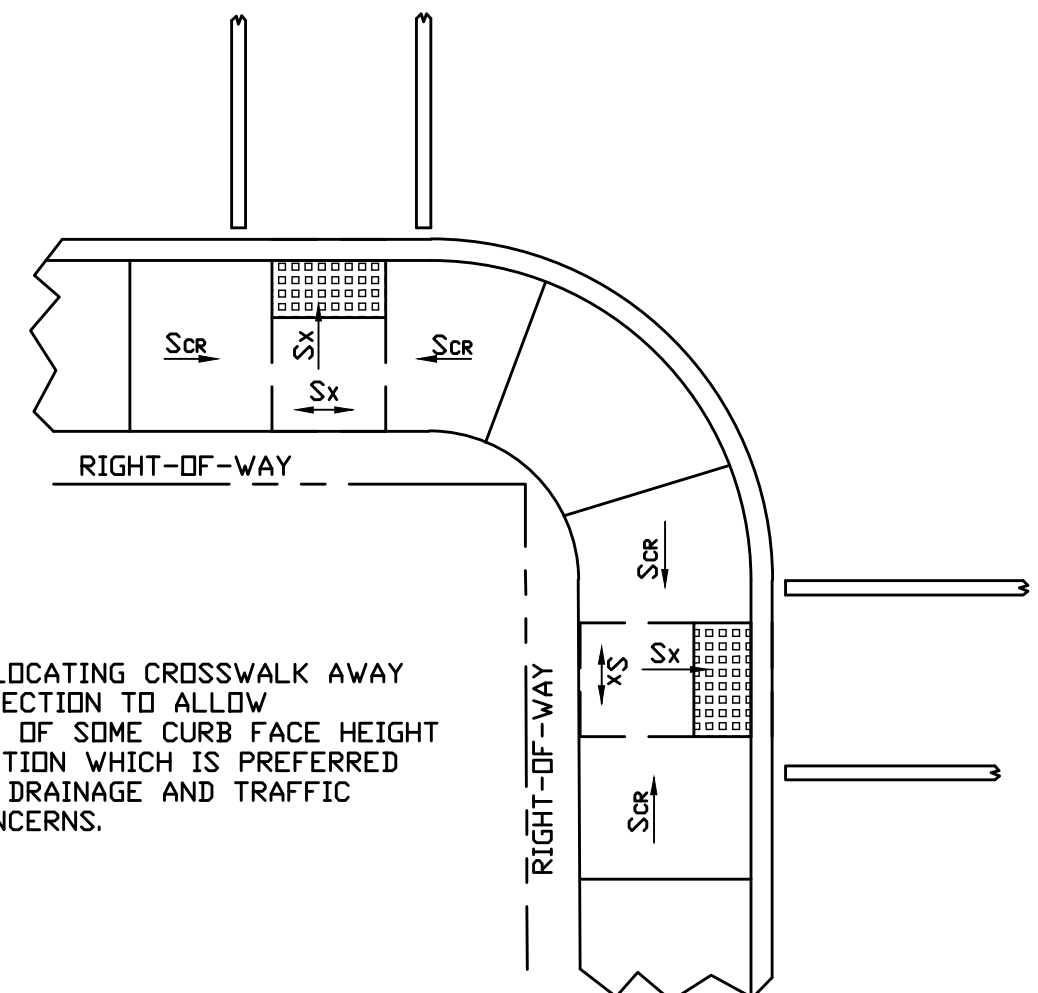
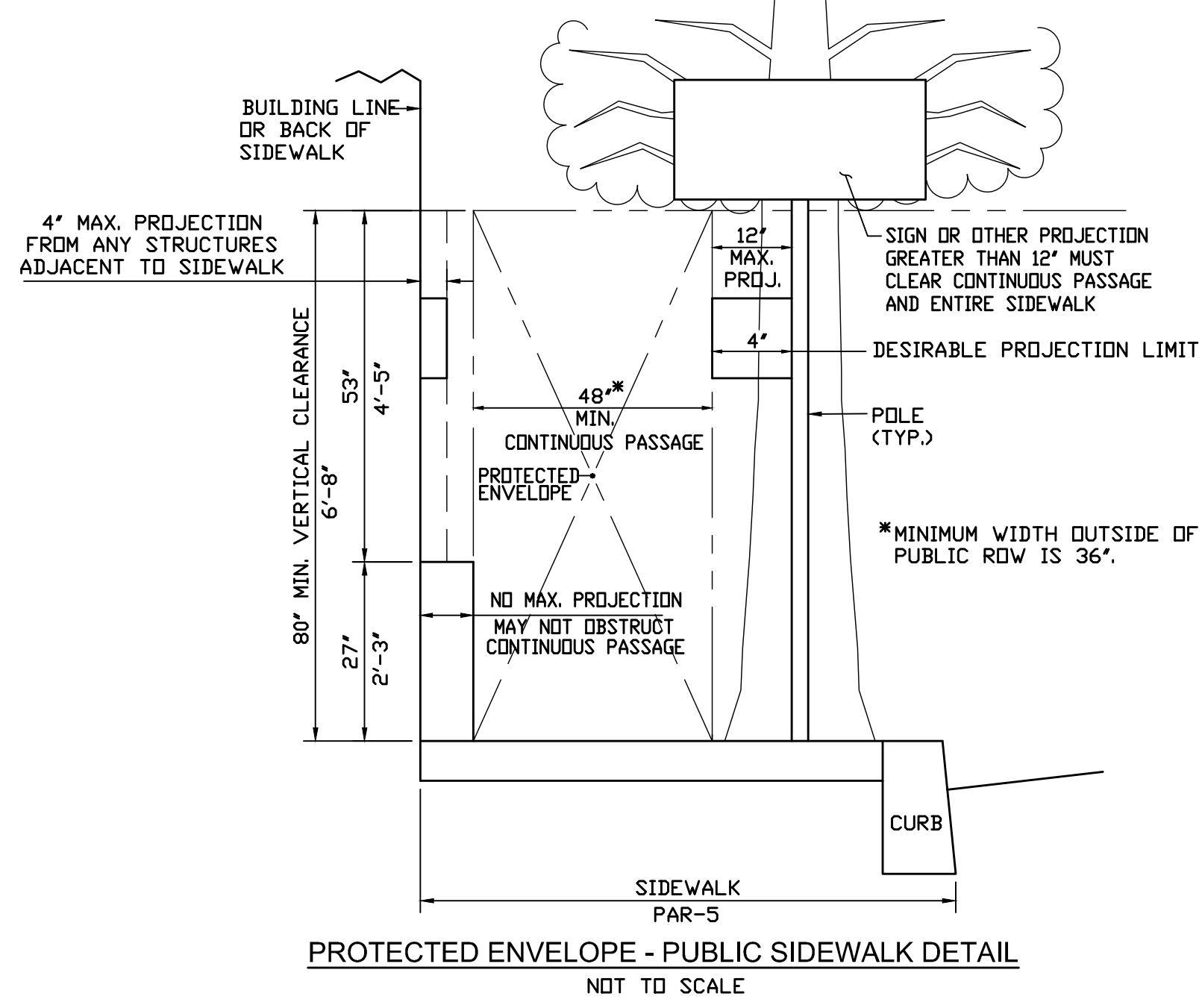
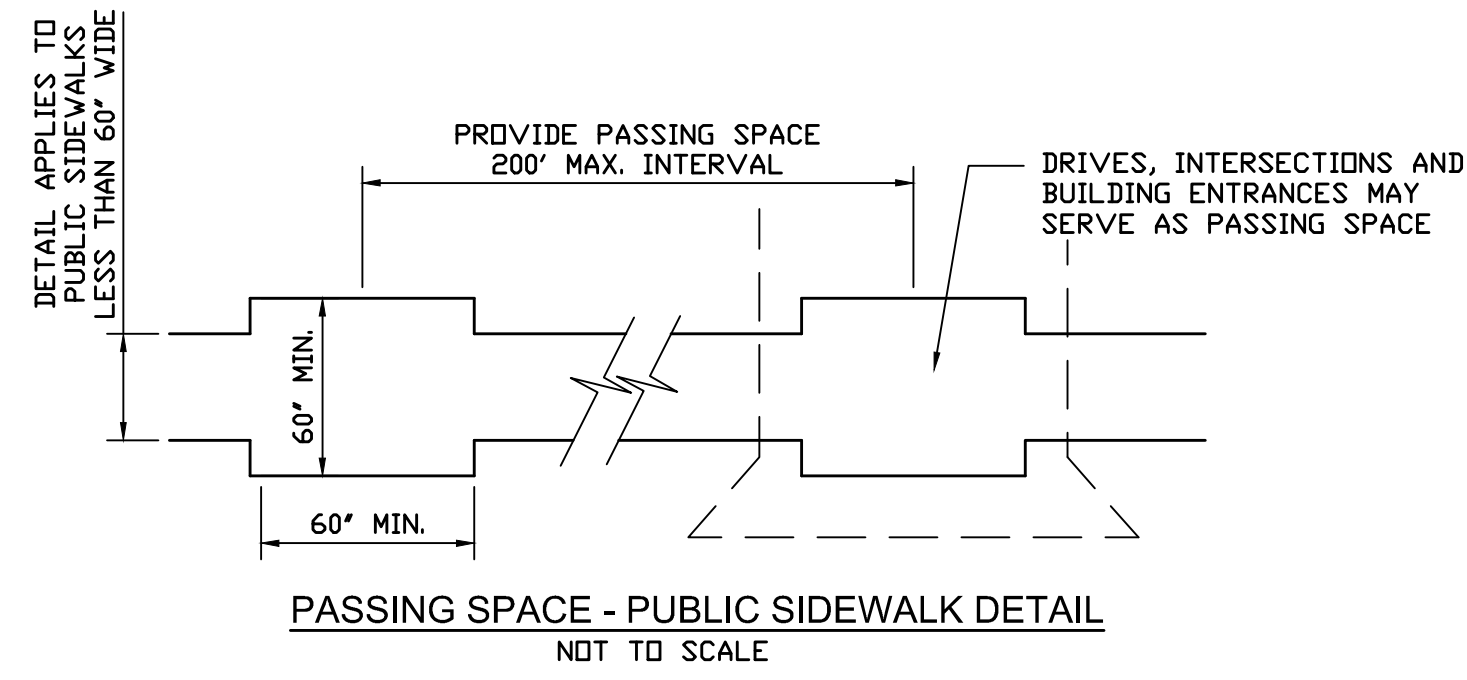


11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL 732-671-6400
 FAX 732-671-7365

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 AND LAND SURVEYORS
 CERTIFICATE OF AUTHORIZATION 2462967500

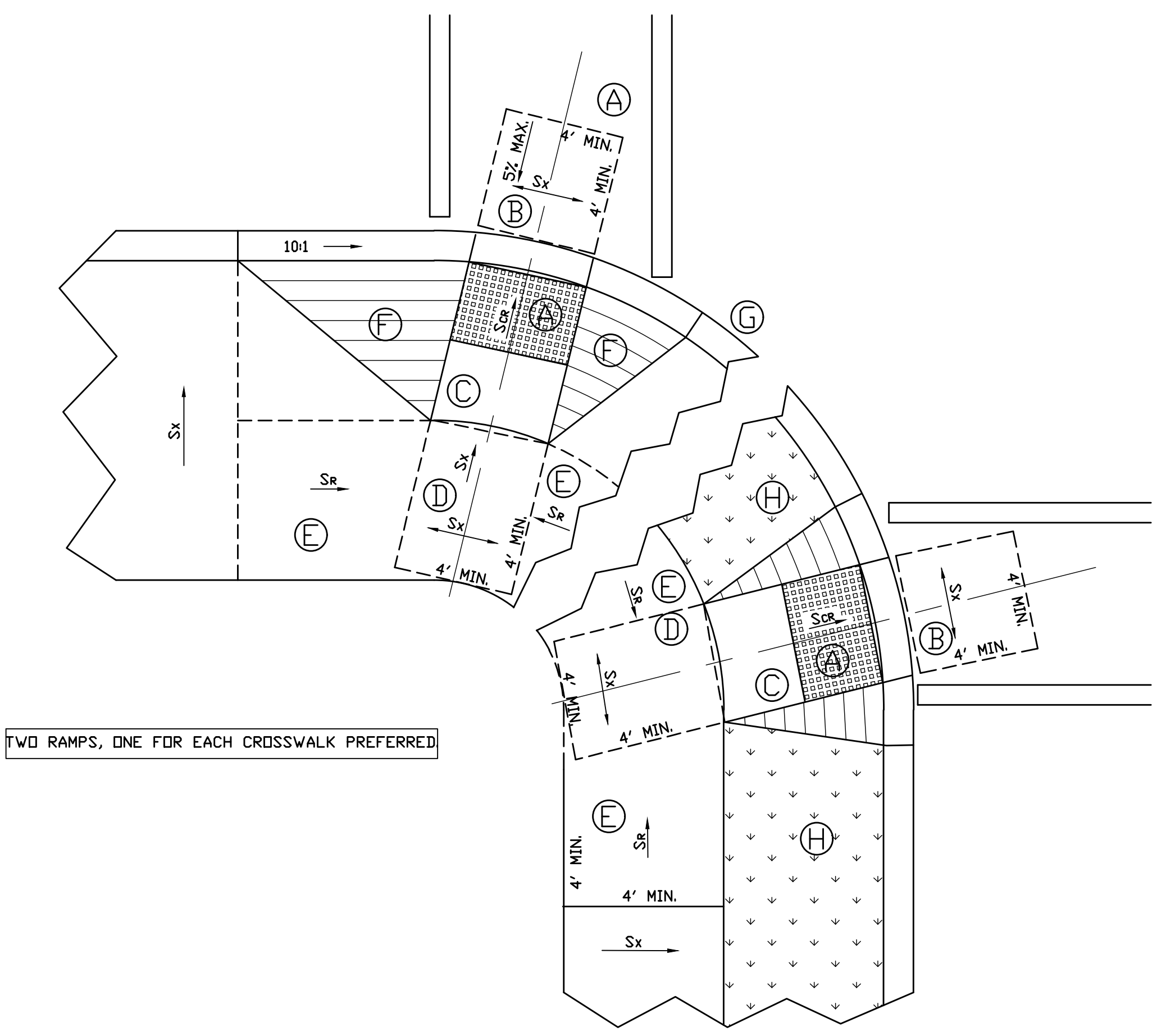
OFFICES LOCATED IN:
 CALIFORNIA, INDIANA, KENTUCKY,
 MASSACHUSETTS, MICHIGAN, NEW JERSEY,
 OHIO AND PENNSYLVANIA

DESIGNED BY	FS	DRAWING	
CHECKED BY	FS		CSD-3
DRAWN BY	PB	SHEET	
DATE	3/10/2022		6
SCALE	N.T.S.		
PROJ. NO.	PSC00250	OF	9



NOTE 1: EXPLORE RELOCATING CROSSWALK AWAY FROM INTERSECTION TO ALLOW MAINTENANCE OF SOME CURB FACE HEIGHT AT INTERSECTION WHICH IS PREFERRED BECAUSE OF DRAINAGE AND TRAFFIC CONTROL CONCERNS.

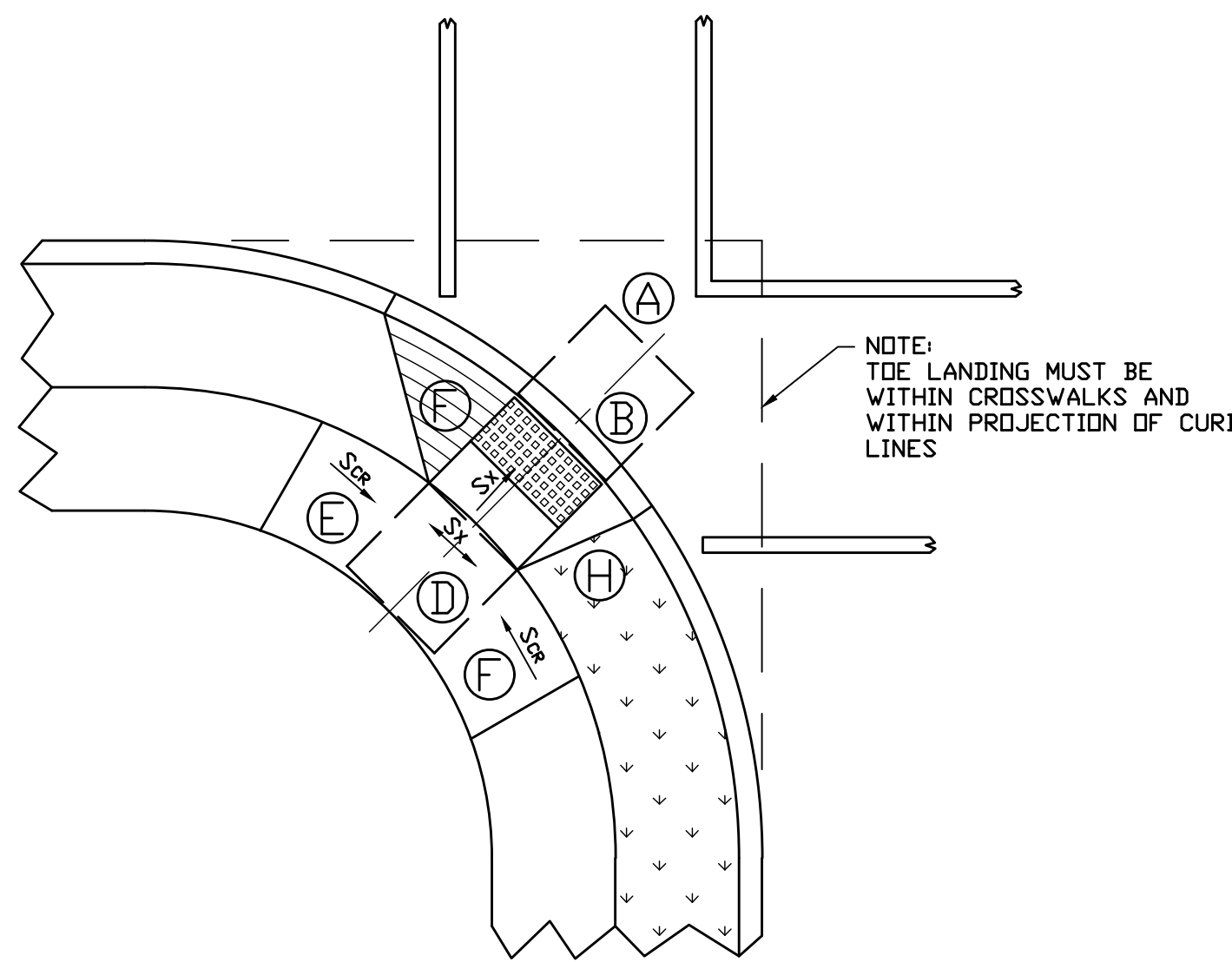
TYPICAL ARRANGEMENTS FOR PARALLEL RAMP ROW RESTRICTED
NOT TO SCALE



PUBLIC SIDEWALK CURB RAMP LAYOUT PRINCIPLES

CONTRACTOR SHALL CONSTRUCT ALL PUBLIC SIDEWALK CURB RAMP IN ACCORDANCE WITH THESE PRINCIPLES. WHEN CONDITIONS DO NOT PERMIT COMPLIANCE, CONSULT ENGINEER.

- (A) LOCATE A 4' X 4' CLEAR SPACE WITHIN CROSSWALK AT TOE OF RAMP CROSS SLOPE (2%). MAXIMUM COUNTERSLOPE S_{cr} AT TOE OF RAMP 1:20 (5%) MAXIMUM.
- (B) RAMP TO BE PERPENDICULAR (RADIAL) TO CURB LINE (OR ROADWAY EDGE), NO LIP AT STREET - CURB TOP TO SLOPE WITH RAMP.
- (C) OBSERVE S_r LIMITS: 1:50 (2%) MINIMUM, (8.3%) MAXIMUM IN NEW CONSTRUCTION. OBSERVE S_x LIMITS: 1:50 (2%) MAXIMUM. SEE SIDEWALK DESIGN SLOPE AND TOLERANCES TABLE. PROVIDE DETECTABLE WARNING SURFACE.
- (D) PROVIDE A 4' X 4' TURNING SPACE AT TOP. OBSERVE S_x LIMITS: 1:50 (2%) MAXIMUM IN ANY DIRECTION. SEE SIDEWALK DESIGN SLOPE AND TOLERANCES TABLE.
- (E) PROVIDE TRANSITION RAMPS AS REQUIRED. OBSERVE S_x LIMITS. SEE SIDEWALK DESIGN SLOPE AND TOLERANCES TABLE.
- (F) WHEN PEDESTRIAN TRAVEL ACROSS RAMP IS POSSIBLE, PROVIDE 10:1 MAXIMUM TRANSITION AT CURB LINE (OR ROADWAY EDGE).
- (G) PROVIDE CURB FACE ON RADIUS AT INTERSECTION TO THE EXTENT POSSIBLE IN PREFERENCE TO DEPRESSING ENTIRE RADIUS.
- (H) WHEN PEDESTRIAN TRAVEL ACROSS RAMP IS OBSTRUCTED BY TURF OR OTHER ELEMENTS, PROVIDE 18' LONG CURB TRANSITION. SEE DETAIL PAR-2.



SINGLE DIAGONAL CURB RAMP

PROJECT INFORMATION:
FILE PATH: G:\Projects\Plan\02250\Plans\CONSTRUCTION PLANS.dwg
FILE NAME: PISC-02250
DATE: 3/10/2022
LAST SAVE BY: F5698

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NO.	DATE	ISSUED FOR	BY	CHKD
1	3/10/2022	BID	FS	PB
		REVISIONS		

PETER F. BONDAR, P.E.
CONSULTING ENGINEER



This item has been electronically signed and sealed by Peter Bondar, PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

3/10/2022
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GE48108

TOWNSHIP OF PISCATAWAY
2022 - STERLING VILLAGE PARKING LOT REHABILITATION
TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
CONSTRUCTION DETAILS

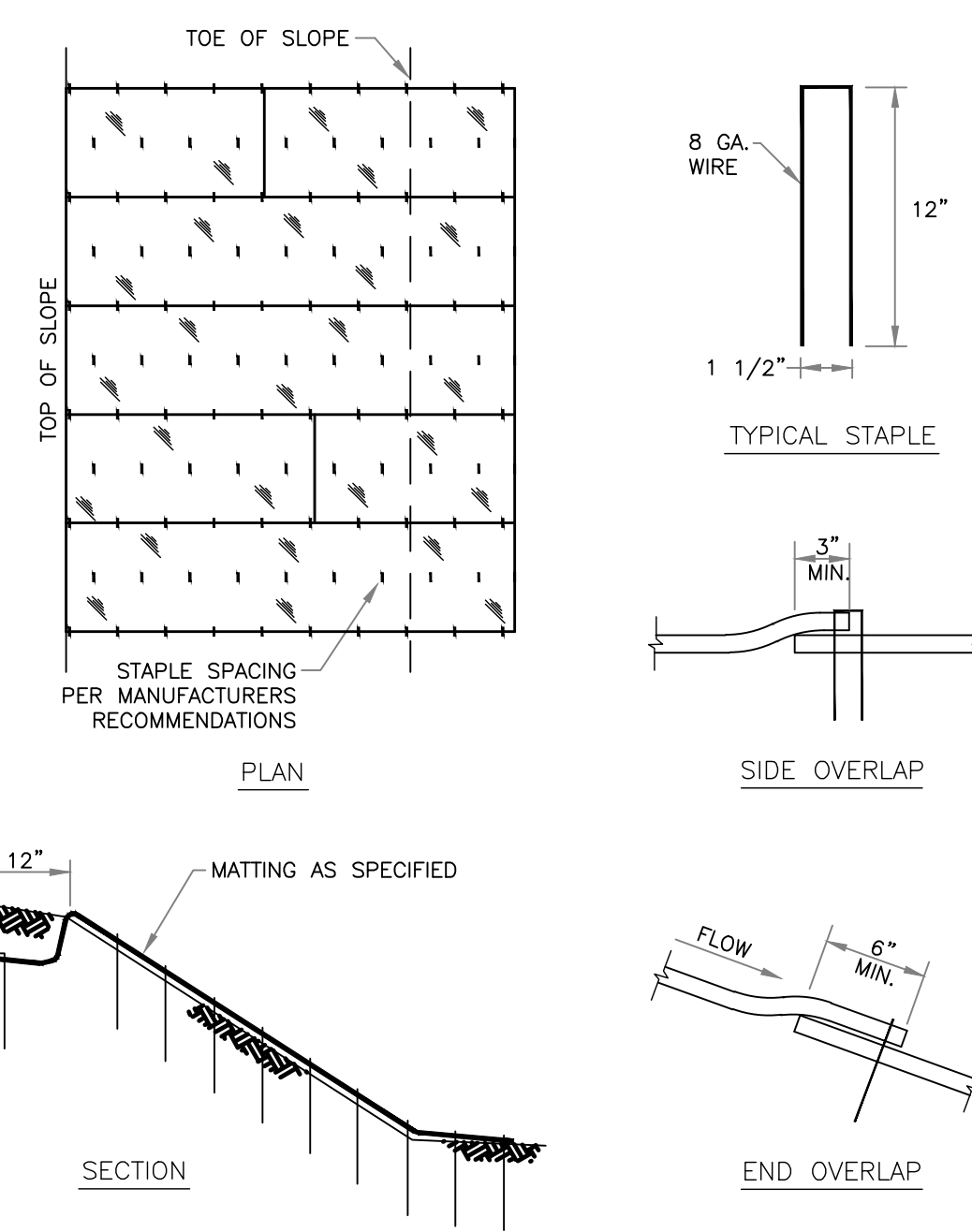
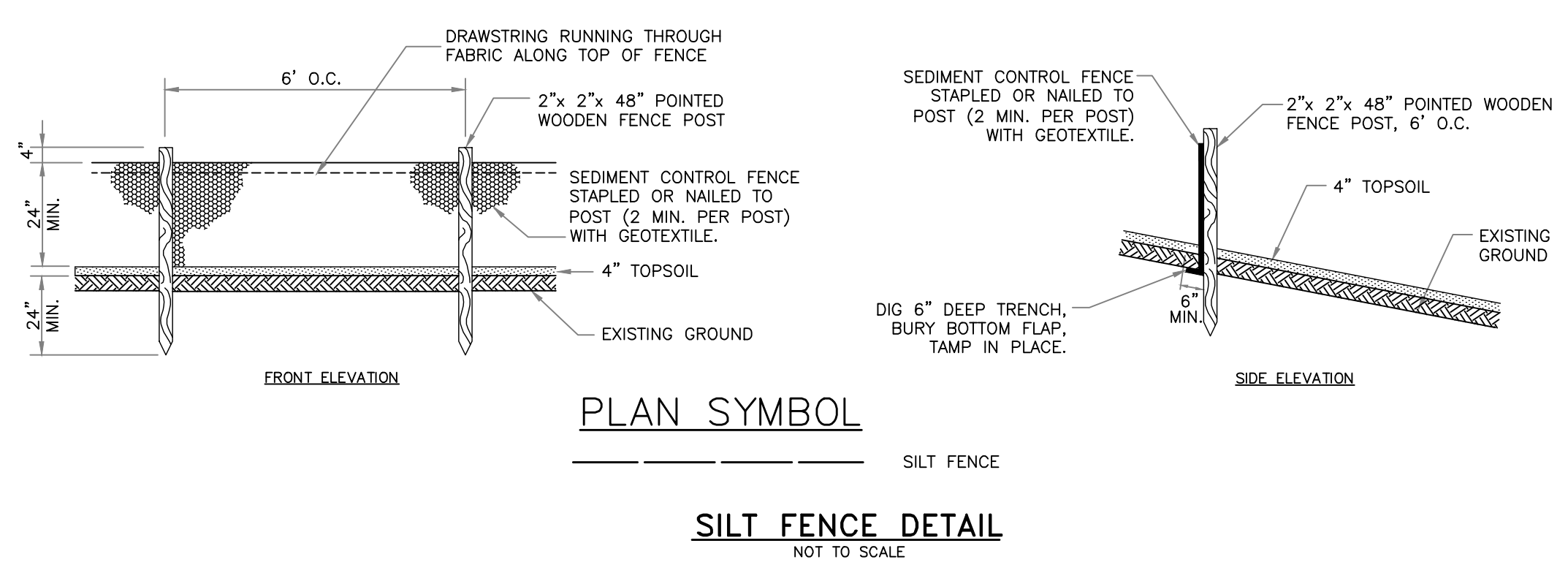


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OFFICES LOCATED IN:
CALIFORNIA, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA

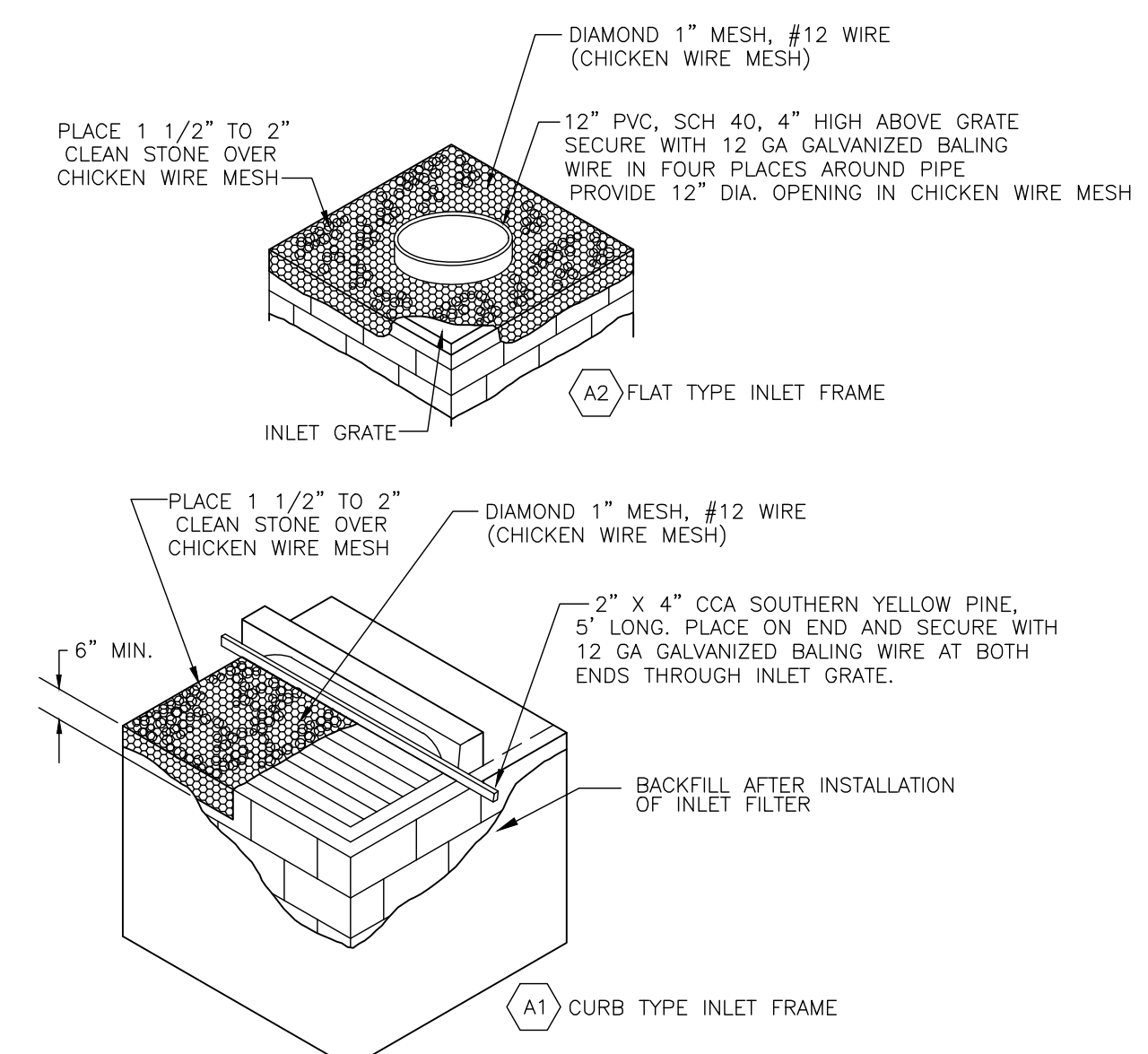
DESIGNED BY	FS	DRAWN	CSD-4
CHECKED BY	PB	SHEET	7
DRAWN BY	FS	PROJ. NO.	PISC00250
DATE	3/10/2022	OF	9
SCALE	N.T.S.		

PROJECT INFORMATION:
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 FILE NAME: PISC-00250_SESC.dwg
 PLOT DATE AND TIME: 07 May 2022, 9:23AM
 LAST SAVE BY: F5699

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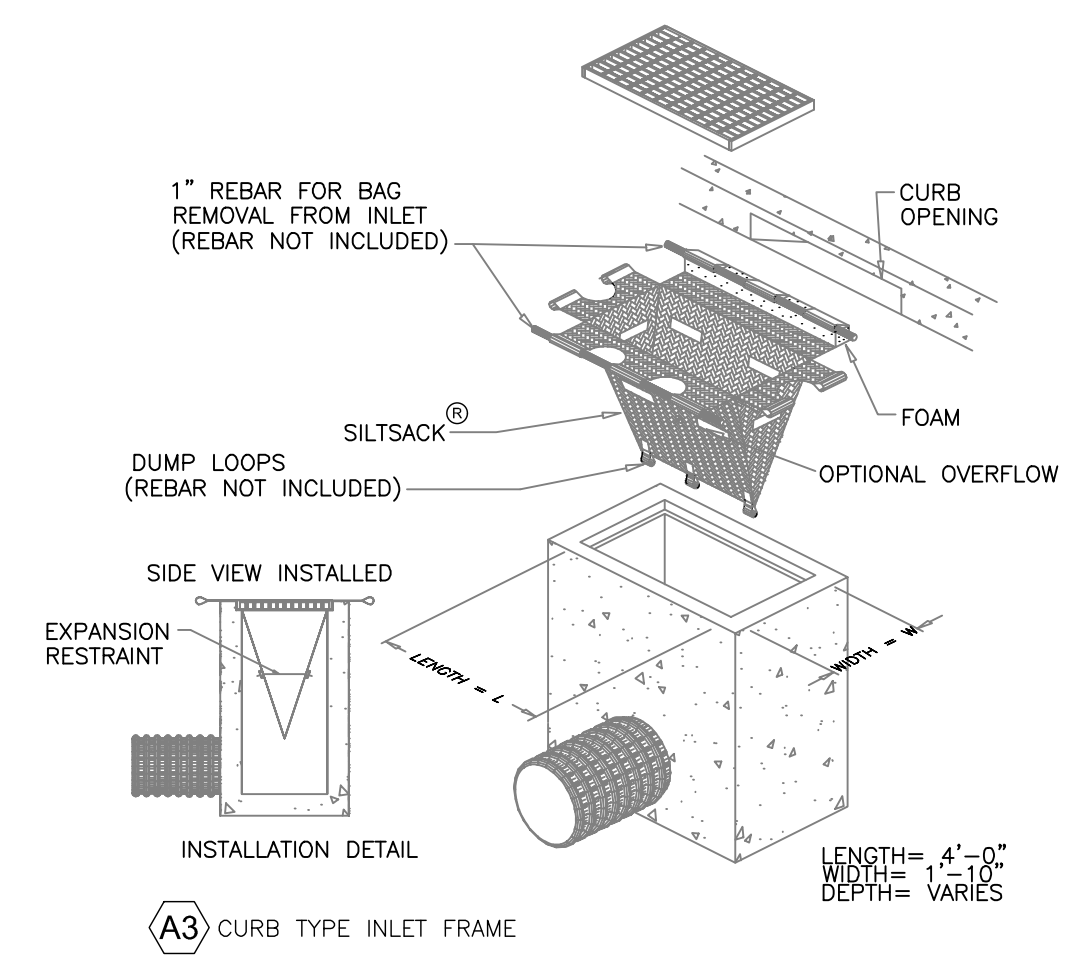


TOPSOIL STABILIZATION-SLOPE APPLICATION
NOT TO SCALE



- GENERAL NOTES:**
1. CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.
 2. FILTER FABRIC, WOOD PIECE OR PVC PIPE TO BE REMOVED AFTER PAVING OR FINAL GRADING AND ESTABLISHMENT OF VEGETATION.
 3. FILTER FABRIC SHALL BE MIRAFI 140N, OR APPROVED EQUAL.

INLET FILTER
NOT TO SCALE



- NOTES:**
1. THE PROTECT DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.
 2. INSPECTIONS SHALL BE FREQUENT MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

INLET FILTER (SEDIMENT TRAP)
NOT TO SCALE

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
 FREEHOLD SOIL CONSERVATION DISTRICT
 400 KOZLOSKI ROAD
 FREEHOLD, NJ 07728
 TEL. 732-683-8500
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
4. N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2-2 1/2 TONS PER ACRE, ACCORDING TO STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR ACCORDING TO STATE STANDARDS.
7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
11. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID LEVEL PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF TWELVE INCHES (12") OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR TWENTY FOUR INCHES (24") WHERE TREES OR SHRUBS ARE TO BE PLANTED.
13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE TAKEN IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
16. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AREAS AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

REVISED JANUARY 2014

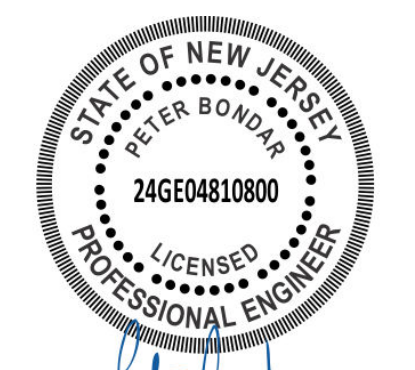
PROPOSED CONSTRUCTION SEQUENCE **APPROX. DURATION:**

- | | |
|--|---------|
| 1. APPLICATION OF PROPER MEASURES FOR THE CONTROL OF SOIL EROSION & SEDIMENT CONTROL. | 2 DAYS |
| 2. CLEANING OF THE SITE. | 10 DAYS |
| 3. TEMPORARY STABILIZATION OF AREAS INITIALLY DISTURBED. STABILIZATION TO BE ACCOMPLISHED BY USE OF TEMPORARY SEEDING AND/OR STRAW MULCHING OR EQUIVALENT MATERIAL AT A RATE OF TWO TONS PER ACRE, ACCORDING TO STATE STANDARDS. | 2 DAYS |
| 4. CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS AS SHOWN ON THE CONSTRUCTION PLANS | 60 DAYS |
| 5. TEMPORARY STABILIZATION OF DISTURBED AREA IN A ROUGH GRADED CONDITION SHALL BE MAINTAINED BY SEEDING AND FOR MULCHING UNTIL PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER. | 2 DAYS |
| 6. MAINTENANCE OF SOIL EROSION PROCEDURES. | 2 DAYS |
| 7. INSTALLATION OF TOPSOILING, FERTILIZING, SEEDING, AND MULCHING. | 2 DAYS |
| 8. REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL DEVICES AFTER ESTABLISHED VEGETATIVE GROWTH HAS OCCURRED. | 1 DAYS |

THE TOTAL ESTIMATED TIME OF CONSTRUCTION IS 101 CALENDAR DAYS

NO.	1	3/10/2022	ISSUED FOR BID	REVISIONS	BY	PB	CHKD
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PETER F. BONDAR, P.E.
CONSULTING ENGINEER



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3/10/2022
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 STATE OF NJ LICENSE NO. GE48108

TOWNSHIP OF PISCATAWAY
 2022 - STERLING VILLAGE PARKING LOT REHABILITATION
 TOWNSHIP OF PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY
 SOIL EROSION AND SEDIMENT CONTROL DETAILS AND NOTES

T&M
 YOUR GOALS. OUR MISSION.
 11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL 732-671-6400
 FAX 732-671-7365

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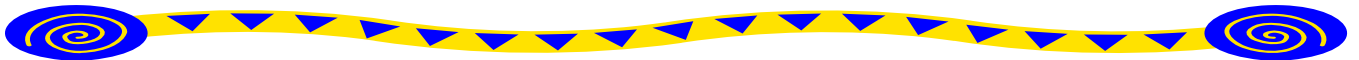
DESIGNED BY	FS	DRAWING	SED-1
CHECKED BY	PB	DRAWN BY	FS
DRAWN BY	FS	DATE	3/10/2022
DATE	3/10/2022	SCALE	N.T.S.
SCALE	N.T.S.	PROJ. NO.	PISC00250
PROJ. NO.	PISC00250	SHEET	8 OF 9

THE TOWNSHIP OF PISCATAWAY



PROPOSAL SHEETS

Page 1-6



MARIA E. VALENTE-CAEMMERER

Purchasing Agent

BID PROPOSAL FORM

BID FOR: 2022 - STERLING VILLAGE PARKING LOT REHABILITATION

**TO: MAYOR & TOWNSHIP COUNCIL
 TOWNSHIP OF PISCATAWAY
 455 HOES LANE
 PISCATAWAY, NJ 08854**

DATE: MARCH 31, 2022

TIME: 2:00 P.M.

STATEMENT OF FACT: The undersigned hereby declares that they have carefully examined the Bidding Documents, Plans, Specifications and addenda issued for the referenced project and have become familiar with all existing conditions affecting proper execution of the work and further offers to furnish all plant, labor, materials, supplies, management, supervision, and equipment and other facilities and things necessary or proper for or incidental to the **2022 - STERLING VILLAGE PARKING LOT REHABILITATION** for the following amounts:

BASE BID Tabulation

ITEM NO.	APPROX QUANT.	BID ITEM DESCRIPTION & WRITTEN BID AMOUNT	UNIT PRICE		ITEM TOTAL	
			DOLLARS	CENTS	DOLLARS	CENTS
1.	1 Lump Sum	Base Bid Amount _____	N/A	N/A	\$	
		Lump Sum Written in Words				
2.	2,000 Square Yards	Allowance #1 – 6” DGA Base Course _____	\$		\$	
		Unit Price Written in Words				
3.	2,000 Square Yards	Allowance #2 – 4” HMA Base Course _____	\$		\$	
		Unit Price Written in Words				
4.	1 Lump Sum	Allowance #3 – Planting Replacement Fifteen Thousand _____	N/A	N/A	\$	15,000 00
		Lump Sum Written in Words				
5.	1 Lump Sum	Allowance #4 – Existing Equipment Fifty Thousand _____	N/A	N/A	\$	50,000 00
		Lump Sum Written in Words				
*TOTAL AMOUNT BASE BID					\$	

*TOTAL AMOUNT BASE BID WRITTEN IN WORDS: _____

Tabulated Total Amount Bid **MUST agree with Total Amount Bid Written in Words.*

ADD ALTERNATE BID#1

ITEM NO.	APPROX QUANT.	BID ITEM DESCRIPTION & WRITTEN BID AMOUNT	UNIT PRICE		ITEM TOTAL	
			DOLLARS	CENTS	DOLLARS	CENTS
AA1.	1 Lump Sum	Granite Block Curbs I.L.O. Concrete _____	N/A	N/A	\$	
Lump Sum Written in Words						
*TOTAL AMOUNT ALTERNATE BID					\$	

*TOTAL AMOUNT ALTERNATE BID WRITTEN IN WORDS: _____

Tabulated Total Amount Bid **MUST agree with Total Amount Bid Written in Words.*

The Owner reserves the right to reject all bids/proposals in accordance with N.J.S.A. 40A:11-13.2 and to waive any non-material informalities in the bidding. The Bidder agrees that his bid proposal may not be withdrawn for a period of SIXTY (60) days from the opening thereof except in accordance with N.J.S.A. 40A:11-23.3.

Conditional bid proposals will not be accepted. Bid Proposal Forms will not be accepted unless signed by the Owner or authorized Officer.

The Undersigned agrees, if awarded the Contract, to execute and deliver the Contract Agreement to the Owner within the timeframe specified in the Instructions to Bidders.

CERTIFICATION

The undersigned hereby affirms that they have carefully examined the Bidding Documents, Plans, Specifications and addenda issued for the referenced project and have become familiar with all existing conditions affecting proper execution of the work and the amounts bid herein represent the total cost for all work involved in the respective items and includes all plant, labor, materials, supplies, management, supervision, and equipment and other facilities and things necessary or proper for or incidental to the respective items, in accordance with the requirements of the Contract Documents.

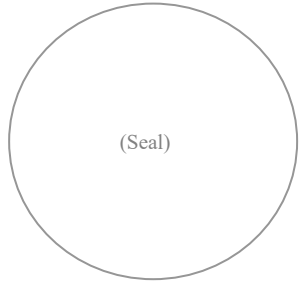
_____	_____
Signature	Name & Title (type or print)
_____	_____
Bid Date	Name of Bidder
Company FEIN # _____	

Notarization Section

Subscribed and sworn before me this _____ day of _____ 20__.

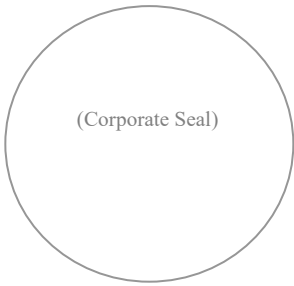
Notary Public of _____

My Commission Expires _____



If a Corporation:

State of Incorporation: _____



Township of Piscataway
2022 - Sterling Village Parking Lot Rehabilitation
Piscataway, NJ

CONTRACTORS DATA SHEET

As evidence of the bidders qualifications, he shall complete and submit with this bid proposal, the "Contractors Data" Sheet information.

PISCATAWAY TOWNSHIP RESERVES THE RIGHT TO REQUEST VENDORS TO EXPLAIN THE METHOD USED TO ARRIVE AT ANY OR ALL FIGURES IN THEIR BID.

ORGANIZATION

Name: _____

Type:

___ Corporation ___ Partnership ___ Individual ___ Joint Venture

Other: _____

Type of Work (General, Electrical, etc.): _____

The number of years your firm has been performing these services _____

How many personnel will be available to work in this contract _____

Name(s) of the Principal in Charge and Responsible Project Manager to be assigned to work on this contract.

Name _____ Name _____

Years of Experience _____ Years of Experience _____

Years Employed by Firm _____ Years Employed by Firm _____

Time Dedicated to Project _____% Time Dedicated to Project _____%

If a Corporation:

Date of Incorporation: _____ State of Incorporation: _____

President's Name: _____

Vice-President's Name: _____

Secretary's Name: _____

Treasurer's Name: _____

Township of Piscataway
2022 - Sterling Village Parking Lot Rehabilitation
Piscataway, NJ

If a Partnership:

Date of Organization: _____

Names of Partners:

If Individually Owned:

Date of Organization: _____

Name of Owner: _____

LICENSING

Provide applicable license numbers for the location the work is to be performed:

EXPERIENCE

List the categories of work that your organization normally performs with its own forces:

EMERGENCY CONTACT INFO

Name(s) and phone number(s) of management personnel to be contacted if problems or emergencies occur:

Name _____

Phone Number _____

Name _____

Phone Number _____

INSURANCE INFORMATION

Name of Insurance Company _____

Name of Insurance Representative _____

SURETY INFORMATION

Name of Bonding Company _____

Name of Bonding Company Representative _____

CLAIMS AND SUITS

If the answer to any of the questions is yes, attach details hereto.

Yes / No Has your organization ever failed to complete any work awarded to it?

Yes / No Are there any judgements, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

Yes / No Has your organization filed any law suits or requested arbitration with regard to construction contracts in the last five years?

CURRENT CONTRACTS

Attach a separate sheet hereto listing major construction projects your organization has in progress, giving the name of the project, owner, architect, contract amount, percent complete and scheduled completion date. Provide a reference name and contact information for each contract that the County may contact for reference.

Total Amount of Current Open Contracts: \$ _____

Total Amount of Bonds in Effect: \$ _____

COMPLETED CONTRACTS

Attach a separate sheet hereto listing major construction projects your organization has completed in the last five years, giving the name of the project, owner, architect, contract amount, percent complete and scheduled completion date. Provide a reference name and contact information for each contract that the County may contact for reference.

Average Annual Amount of Work Performed: \$ _____

BIDDER _____

DATE _____

Bid No: 2022- 03-07

THE TOWNSHIP OF PISCATAWAY

THESE SAMPLE PAGES ARE **NOT** REQUIRED BACK WITH SEALED BID DOCUMENTS



SAMPLE-BID REQUIRED DOCUMENTS ONCE AWARD

All documents in this section must be submitted with the awarded Contract –These documents are **REQUIRED ONCE AWARDED ONLY.** Failure to submit the documents and other documents with the contract may be cause to reject the bid for being non-responsive.



MARIA E. VALENTE-CAEMMERER

Purchasing Agent/Township Secretary

Sample: Required ONLY Once Awarded:

SAMPLE OF FORMS THAT WILL BE REQUIRED ONCE AWARDED

SAMPLE-AA-201

SAMPLE-AA-202

SAMPLE-W-9

SAMPLE-INSURANCE CERTIFICATE

SAMPLE-ST-13 FORM

SAMPLE-PERFORMANCE BOND FORM.

**Sample- AA-202- STATE OF NJ Dept. of Monthly Payroll
Forms**

**SAMPLE- WHD FORMS-U.S. DEPARTMENT OF
LABOR WEEKLY REPORT**

**Sample-W-9- May be submitted for faster
processed.**

**SAMPLE- ST-13 FORM- CONTRACTOR EXEMPT
FORM.**

SAMPLE: PERFORMANCE PAYMENT BOND FORM

**(ANY “AIA Payment Document” ARE NOT
ACCEPTABLE)**

**THESE SAMPLE PAGES DO NOT HAVE TO BE
RETURNED WITH BID.**

STATE OF NEW JERSEY

DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
CONSTRUCTION EEO COMPLIANCE MONITORING PROGRAM

FORM AA-201
Revised 11/11

INITIAL PROJECT WORKFORCE REPORT CONSTRUCTION

Official Use Only

Assignment

Code

For instructions on completing the form, go to: http://www.state.nj.us/treasury/contract_compliance/pdf/aa201ins.pdf

1. FID NUMBER _____ 3. NAME AND ADDRESS OF PRIME CONTRACTOR _____ (Name) _____ (Street Address) _____ (City) (State) (Zip Code)	2. CONTRACTOR ID NUMBER _____ 4. IS THIS COMPANY MINORITY OWNED <input type="checkbox"/> OR WOMAN OWNED <input type="checkbox"/>	5. NAME AND ADDRESS OF PUBLIC AGENCY AWARDING CONTRACT Name: _____ Address: _____ _____ _____ CONTRACT NUMBER DATE OF AWARD DOLLAR AMOUNT OF AWARD _____ 6. NAME AND ADDRESS OF PROJECT Name: _____ Address: _____ _____ 7. PROJECT NUMBER _____ 8. IS THIS PROJECT COVERED BY A PROJECT LABOR AGREEMENT (PLA)? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
---	--	--

9. TRADE OR CRAFT	PROJECTED TOTAL EMPLOYEES				PROJECTED MINORITY EMPLOYEES				PROJECTED PHASE - IN DATE	PROJECTED COMPLETION DATE
	MALE		FEMALE		MALE		FEMALE			
	J	AP	J	AP	J	AP	J	AP		
1. ASBESTOS WORKER										
2. BRICKLAYER OR MASON										
3. CARPENTER										
4. ELECTRICIAN										
5. GLAZIER										
6. HVAC MECHANIC										
7. IRONWORKER										
8. OPERATING ENGINEER										
9. PAINTER										
10. PLUMBER										
11. ROOFER										
12. SHEET METAL WORKER										
13. SPRINKLER FITTER										
14. STEAMFITTER										
15. SURVEYOR										
16. TILER										
17. TRUCK DRIVER										
18. LABORER										
19. OTHER										
20. OTHER										

I hereby certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements are willfully false, I am subject to punishment.

(Signature)

10. _____
(Please Print Your Name) _____
(Title)

(Area Code) (Telephone Number) (Ext.) _____
(Date)

INSTRUCTIONS FOR COMPLETING THE INITIAL PROJECT

WORKFORCE REPORT – CONSTRUCTION (AA201)

DO NOT COMPLETE THIS FORM FOR GOODS AND/OR SERVICE CONTRACTS

1. Enter the Federal Identification Number assigned to the contractor by the Internal Revenue Service, or if a Federal Employer Identification Number has been applied for but not yet issued, or if your business is such that you have not or will not receive a Federal Identification Number, enter the social security number assigned to the single owner or one partner, in the case of a partnership.
2. Note: The Department of Labor & Workforce Development, Construction EEO Monitoring Program will assign a contractor ID number to your company. This number will be your permanently assigned contractor ID number that must be on all correspondence and reports submitted to this office.
3. Enter the prime contractor's name, address and zip code number.
4. Check box if Company is Minority Owned or Woman Owned
5. Enter the complete name and address of the Public Agency awarding the contract. Include the contract number, date of award and dollar amount of the contract.
6. Enter the name and address of the project, including the county in which the project is located.
7. Note: A project contract ID number will be assigned to your firm upon receipt of the completed Initial Project Workforce Report (AA201) for this contract. This number must be indicated on all correspondence and reports submitted to this office relating to this contract.
 8. Check "Yes" or "No" to indicate whether a Project Labor Agreement (PLA) was established with the labor organization(s) for this project.
9. Under the Projected Total Number of Employees in each trade or craft and at each level of classification, enter the total composite workforce of the prime contractor and all subcontractors projected to work on the project. Under Projected Employees enter total minority and female employees of the prime contractor and all subcontractors projected to work on the project. Minority employees include Black, Hispanic, American Indian and Asian, (J=Journey worker, AP=Apprentice). Include projected phase-in and completion dates.
10. Print or type the name of the company official or authorized Equal Employment Opportunity (EEO) official include signature and title, phone number and date the report is submitted.

This report must be submitted to the Public Agency that awards the contract and the Department of Labor & Workforce Development, Construction EEO Compliance Monitoring Program after notification of award, but prior to signing the contract.

THE CONTRACTOR IS TO RETAIN A COPY AND SUBMIT COPY TO THE PUBLIC AGENCY AWARDING THE CONTRACT AND FORWARD A COPY TO:

**NEW JERSEY DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
CONSTRUCTION EEO COMPLIANCE MONITORING UNIT**

**P.O. BOX 209
TRENTON, NJ 08625-0209
(609) 292-9550**

Township of Piscataway

Appendix Section

(Piscataway Township Performance Payment Bond Form only -
Sample in bid)

A. Model Performance Bond Form - *Sample*

B. Surety Disclosure Statement and Certification - *Sample*

C. PISCATAWAY PERFORMANCE BOND FORM- SAMPLE

PISCATAWAY BID BOND FORM ATTACHED.

Sample: Required ONLY Once Awarded:

SAMPLE OF FORMS THAT WILL BE REQUIRED ONCE AWARDED

SAMPLE-AA-201

SAMPLE-AA-202

SAMPLE-W-9

SAMPLE-INSURANCE CERTIFICATE

SAMPLE-ST-13 FORM

SAMPLE-PERFORMANCE BOND FORM.

**Sample- AA-202- STATE OF NJ Dept. of Monthly Payroll
Forms**

**SAMPLE- WHD FORMS-U.S. DEPARTMENT OF
LABOR WEEKLY REPORT**

**Sample-W-9- May be submitted for faster
processed.**

**SAMPLE- ST-13 FORM- CONTRACTOR EXEMPT
FORM.**

SAMPLE: PERFORMANCE PAYMENT BOND FORM

**(ANY “AIA Payment Document” ARE NOT
ACCEPTABLE)**

**THESE SAMPLE PAGES DO NOT HAVE TO BE
RETURNED WITH BID.**

SAMPLE

TO CONTRACTOR:

Have your bonding company complete the enclosed Performance/Payment Bond. In order to expedite the process by which your Performance/Payment Bond will be approved by our township attorney, you must use the enclosed form. Please fill out the numbered highlighted areas and have all required signatures in place. The Township will not review any alternative forms and they will be returned to you.

Please fill out the highlighted areas numbered as follows:

1. Full name of Contractor
2. Indicate whether a Corporation, Partnership or Individual
- 3, 3A, 3B Full name of Bonding Company, State, and Office Address
4. Amount of contract in words and figures
5. Date of Bond (Supplied by bonding company - cannot be prior to date of contract)
6. Date of Contract (Found on first page of contract at top)
7. Title and/or description of contract
8. Full name of Contractor
9. Full name of Contractor
10. Same date as Item # 5

SAMPLE

Accompanying documents from the bonding company must include the following:

1. Financial Statement
 2. Surety Disclosure Statement and Certification
- A Power of Attorney should be provided for the individual executing the bond on behalf of the surety.

**PERFORMANCE PAYMENT BOND MUST BE SIGNED AND SEALED BY ALL
PARTIES INDICATED ON PAGE 2**

SAMPLE

PERFORMANCE PAYMENT BOND

Know all men by these presents, that we, **(1)** _____ a
(2) _____ the undersigned as Principal and
(3) _____ of the State of **(3A)** _____
 duly authorized to do business in the State of New Jersey, having an office at
(3B) _____, New Jersey, as Surety, are
 hereby held and firmly bound unto the Township of Piscataway, 455 Hoes Lane, Piscataway, New Jersey
 08854 in the penal sum of
(4) _____
 (\$ _____) DOLLARS,

for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our
 heirs, executors, administrators, successors and assigns.

(5) Signed this _____ day of _____ 20____.

The condition of the above obligation is such that whereas, the above named principal did on the
(6) _____ day of _____ 20____, enter into a contract with the Township
 of Piscataway, 455 Hoes Lane, Piscataway, New Jersey 08854 for
(7) _____

which said contract is made a part of this the bond the same as though set forth herein;

Now, if the said **(8)** _____ shall well and faithfully do and perform the
 things agreed by **(9)** _____ to be done and performed according to the
 terms of said contract, and shall pay all lawful claims of beneficiaries as defined by N.J.S. 2A:44-143 for
 labor performed or materials, provisions, provender or other supplies or teams, fuels, oils, implements or
 machinery furnished, used or consumed in the carrying forward, performing or completing of said contract,
 we agreeing and assenting that this undertaking shall be for the benefit of any beneficiary as defined in N.J.S.
 2A: 44-143 having a just claim, as well as for the oblige herein; then this obligation shall be void; otherwise
 the same shall remain in full force and effect; it being expressly understood and agreed that the liability of
 the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as
 herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions or additions in or to the
 terms of the said contract or in or to the plans or specifications therefore shall in anywise affect the
 obligation of said surety on its bond.

Recovery of any claimant under the bond shall be subject to the conditions and provisions of this article
 to the same extent as if such conditions and provisions were fully incorporated in the form set forth above.

SAMPLE

Performance Payment Bond

This bond shall not be subject to cancellation either by the principal or by the surety for any reason until such time as all improvements subject to the bond have been accepted by the municipality.

This bond shall be deemed continuous in form and shall remain in full force and effect until the improvements are accepted by the municipality and the bond is released, or until default is declared, or until the bond is replaced by another bond meeting applicable legal requirements. Upon approval or acceptance of all improvements by the municipality, or upon replacement of this bond by another bond, liability under this bond shall cease.

The aggregate liability of the surety shall not exceed the sum set forth above.

In the event that the improvements subject to this bond are not completed within the time allowed under the contract or bid documents (hereinafter the "Contract") between principal and municipality, the municipal governing body may, at its option, and upon at least 30 days prior written notice to the principal and to the surety by personal delivery or by certified or registered mail or courier, declare the principal to be in default and, in the event that the surety fails or refuses to complete the work in accordance with the terms and conditions of said Contract, claim payment under this bond for the cost of completion of the work. In the event that any action is brought against the principal under this bond, written notice of such action shall be given to the surety by the municipality by personal delivery or by registered or certified mail or courier at the same time.

The surety shall have the right to complete the work in accordance with the terms and conditions of said Contract, either with its own employees or in conjunction with the principal or another contractor; provided, however, that the surety in its sole discretion, may make a monetary settlement with the municipality as an alternative to completing the work.

This bond shall insure to the benefit of the municipality only and no other party shall acquire any rights hereunder.

In the event that this bond shall for any reason cease to be effective prior to the approval or acceptance of all improvements, a cease and desist order may be issued by the governing body, in which case all work shall stop until such time as a replacement guarantee acceptable to municipality becomes effective.

SAMPLE

Performance Payment Bond

IN WITNESS WHEREOF , this instrument is executed in two (2) counterparts each of which shall be deemed an original , this the **(10)** _____ day of _____ , 20

Attest :

Principal

(Typed or Printed)

Principal Secretary

(Typed or Printed)

By: _____ (s)

Address

SEAL :

Witness to Princip

SAMPLE

Attest :

Surety
By: _____ (s)
Attorney-in-fact

Surety Secretary

SEAL :

Address

Witness as to Surety

Address

SAMPLE

CONTRACTOR INSURANCE REQUIREMENTS

Contractors

When the municipality lets work to a contractor, it is expected and required the contractor provide the municipality with the following minimum amount of insurance.

a) Small Service and Repair Contractors

- General Liability, including Products/Completed
- Operations – Limit \$500,000 CSL
- Authority to be named as additional insured
- Auto Liability: Limit \$500,000 CSL
- Coverage to include “Non-Owned and Hired Automobiles”
- Workers’ Compensation Insurance – statutory limits

b) Larger Contractors (Includes contractors that are doing new construction or major alterations):

Requirements are same as above with exception of limits which are to be \$ 1 Million CSL for both General and Automobile Liability.

Note: No work shall be allowed to begin without property Insurance Certificates on file with the member municipality and approved by the Insurance producer. Also, refer back to Item #9 in the underwriting section of the Policies and Procedures Manual for Insurance requirements for pyrotechnic contractors.

ADDITIONAL INSURED

The Township of Piscataway must be named additional Insured.
The description of the Goods & Services must be listed.

SAMPLE CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

PRODUCER Applicants Insurance Company Name and Address	THIS CERTIFICATION IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED Applicants Company Name and Address	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIODS INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSURANCE TYPE (ACORD LTR #)	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
1	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GENT. AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PERIOD <input type="checkbox"/> SUBJECT <input type="checkbox"/> LOCATION	Policy Number		Term	EACH OCCURRENCE \$ \$1,000,000 DAMAGE TO RENTED PREMISES (EA OCCURRENCE) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPROP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	Policy Number		Term	CORRECTED SINGLE LIMIT (EA OCCURRENCE) \$ \$1,000,000 BODILY INJURY (EA OCCURRENCE) \$ BODILY INJURY (PER ACCIDENT) \$ PROPERTY DAMAGE (PER ACCIDENT) \$ AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
2	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$	Policy Number		Term	EACH OCCURRENCE \$ \$2,000,000 AGGREGATE \$ \$ \$
3	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETORS/PARTNERS/EXECUTIVE OFFICERS/EMBER EXCLUDED? If yes, describe below SPECIAL PROVISIONS below OTHER	Policy Number If applicable		Term	<input type="checkbox"/> WC STATUS <input type="checkbox"/> OTHER <input type="checkbox"/> TORT LIMITS E.L. EACH ACCIDENT \$ \$100,000 E.L. DISEASE - EA EMPLOYEE \$ \$100,000 E.L. DISEASE - POLICY LIMIT \$ \$500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Leave Blank **NAME OF PROJECT AND LOCATION**

CERTIFICATE HOLDER ATTN: TOWSHIP OF PISCATAWAY 455 HOES LANE PISCATAWAY, NJ 08854	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE
--	--

State of New Jersey
DIVISION OF TAXATION

SALES TAX

CONTRACTOR'S NEW JERSEY
TAX REGISTRATION NUMBER

To be completed by contractor
and retained by seller.

FORM ST-13

CONTRACTOR'S EXEMPT PURCHASE CERTIFICATE

TO: _____
(Name of Seller) (Date)

(Address of Seller)

The materials, supplies, or services purchased by the undersigned are for exclusive use in erecting structures, or building on, or otherwise improving, altering or repairing real property of the exempt organization, governmental entity, or qualified housing sponsor named below and are exempt from Sales and Use Tax under N.J.S.A. 54:32B-8.22.

THIS CONTRACT COVERS WORK TO BE PERFORMED FOR: (Check one)

EXEMPT ORGANIZATION

Name of Exempt Organization _____

Address _____

Exempt Organization Number _____

NEW JERSEY OR FEDERAL GOVERNMENTAL ENTITY

Name of Governmental Entity _____

Address of Governmental Entity _____

QUALIFIED HOUSING SPONSOR

Name of Qualified Housing Sponsor _____

Address of Qualified Housing Sponsor _____

ADDRESS OR LOCATION OF CONTRACT WORK SITE: (property must be owned or leased by one of the above)

I, the undersigned contractor, hereby verify and affirm that all of the information shown on this certificate is true.

Name of Contractor as registered with the New Jersey Division of Taxation

Address of Contractor

Signature of Contractor or Authorized Employee

See INSTRUCTIONS on reverse side.

**INSTRUCTIONS TO SELLERS CONCERNING
CONTRACTOR'S EXEMPT PURCHASE CERTIFICATES - ST-13**

- 1. Good Faith-** To act in good faith means to act in accordance with standards of honesty. In general, registered sellers who accept exemption certificates in good faith are relieved of liability for the collection and payment of sales tax on the transactions covered by the exemption certificate.

In order for good faith to be established, the following conditions must be met:

- (a) Certificate must contain no statement or entry which the seller knows is false or misleading;
- (b) Certificate must be an official form or a proper and substantive reproduction, including electronic;
- (c) Certificate must be filled out completely;
- (d) Certificate must be dated and include the purchaser's New Jersey tax identification number or, for a purchaser that is not registered in New Jersey, the Federal employer identification number or out-of-State registration number. Individual purchasers must include their driver's license number; and
- (e) Certificate or required data must be provided within 90 days of the sale.

The seller may, therefore, accept this certificate in good faith as a basis for exempting sales to the signatory purchaser and is relieved of liability even if it is determined that the purchaser improperly claimed the exemption.

- 2. Improper Certificate** - Sales transactions which are not supported by properly executed exemption certificates are deemed to be taxable retail sales. In this situation, the burden of proof that the tax was not required to be collected is upon the seller.
- 3. Correction of Certificate** - In general, sellers have 90 days after the date of sale to obtain a corrected certificate where the original certificate lacked material information required to be set forth in said certificate or where such information is incorrectly stated.
- 4. Additional Purchases by Same Purchaser** - This Certificate will serve to cover additional purchases by the same purchaser of the same general type of property or service. However, each subsequent sales slip or purchase invoice based on this Certificate must show the purchaser's name, address and Certificate of Authority Number for purpose of verification.
- 5. Retention of Certificates** - Certificates must be retained by the seller for a period of not less than four years from the date of the last sale covered by the certificate. Certificates must be in the physical possession of the seller and available for inspection on or before the 90th day following the date of the transaction to which the certificate relates.

6. Definitions:

"Contractor" - means any individual, partnership, corporation or other commercial entity engaged in any business involving erecting structures for others, or building on, or otherwise improving, altering, or repairing real property of others.

"Exempt Organization" - is any organization which holds a valid exempt organization permit issued pursuant to the provisions of N.J.S.A. 54:32B-9(b) which has issued an ST-5 Exempt Organization Certificate to the contractor.

"New Jersey or Federal Governmental Entity" - is any agency, instrumentality, political subdivision, authority, or public corporation of the governments of the United States of America or the State of New Jersey. Governmental agencies, instrumentalities or political subdivisions of states other than New Jersey do not qualify for exemption.

"Qualified Housing Sponsor" - is any person, partnership, corporation or association certified by the New Jersey Housing and Mortgage Finance Agency to have obtained financing, in addition to federal, state or local government subsidies, for a housing project from the New Jersey Housing and Mortgage Finance Agency pursuant to N.J.S.A. 55:14K-1, et seq. and has issued a New Jersey Sales and Use Tax Housing Sponsor Letter of Exemption to the contractor.

PRIVATE REPRODUCTION of Contractor's Exempt Purchase Certificates may be made without the prior permission of the Division of Taxation.

FOR MORE INFORMATION:

Call the Customer Service Center (609) 292-6400. Send an e-mail to nj.taxation@treas.state.nj.us. Write to: New Jersey Division of Taxation, Information and Publications Branch, PO Box 281, Trenton, NJ 08695-0281.

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)



Rev. Dec. 2008

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

NAME OF CONTRACTOR OR SUBCONTRACTOR ADDRESS OMB No.: 1235-0008
Expires: 01/31/2015

PAYROLL NO. FOR WEEK ENDING PROJECT AND LOCATION PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	(4) DAY AND DATE OT OR ST. HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS					(9) NET WAGES PAID FOR WEEK
							FICA	WITH- HOLDING TAX		OTHER	TOTAL DEDUCTIONS	
			O									
			S									
			O									
			S									
			O									
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SAMPLE

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

SAMPLE

INSTRUCTIONS FOR COMPLETING MONTHLY PROJECT WORKFORCE REPORT- (AA202)

1. Enter the prime contractor's name, address and zip code number.
2. Enter the **CONTRACTOR ID NUMBER** assigned by the Dept. of Labor & Workforce Development Construction EEO Compliance Monitoring Program.
3. Enter the Federal Identification Number assigned to the contractor by the Internal Revenue Service, or if a Federal Employer Identification Number has not been applied for or issued, or if your business is such that it will not receive a Federal Identification Number, enter the Social Security Number of the owner or of one partner, in the case of a partnership.
4. Reporting Period - enter the beginning and ending dates of the month for the report being submitted. (i.e., 1/1/00 – 1/31/00).
5. Enter the complete name of the public agency awarding the contract. Include the date of contract award.
6. Enter the name and location of the project, including the county in which the project is located.
7. Enter the **PROJECT NUMBER** assigned by the Dept. of Labor & Workforce Development Construction EEO Compliance Monitoring Program.
8. Enter the company name(s) of the contractor(s) performing work at the construction site. List the prime contractor first with subcontractor(s) following.
9. Enter the total percent (%) of project work the contractor or subcontractor has completed, to date.
10. Identify the trades or crafts applicable to the prime contractor and each subcontractor listed in column #8. Use a single line for each trade or craft.
11. Enter the total number of employees for each contractor at each level of classification (J=Journeyworker, AP=Apprentice) and the total number of each minority group - Black, Hispanic, American Indian, Asian and Female. Note: Column A shall include Total Number of employees. Columns B-E shall also include minority females. Column F shall include both non-minority and minority females.
12. Enter the total number of minority employees for each employer at each level of classification. Note: This shall be the sum of columns B-E.
13. Enter the Total Monthly work hours for all employees in each craft at each level of classification.
(A) Enter the Total Monthly minority work hours for each craft at each level of classification (Columns B-E).
(B) Enter the Total Monthly female work hours for each craft at each level of classification (Column F).
14. (A) Enter the Total Monthly PERCENT of minority work hours for each craft at each level of classification.
(B) Enter the Total Monthly PERCENT of female work hours for each craft at each level of classification.
15. Enter the Total Cumulative work hours for each craft at each level of classification.
(A) Enter the Total Cumulative minority work hours for each craft at each level of classification.
(B) Enter the Total Cumulative female work hours for each craft at each level of classification.
16. (A) Enter the Cumulative Percent of minority work hours for each craft at each level of classification.
(B) Enter the Cumulative Percent of female work hours for each craft at each level of classification.
17. Print or type the name of the company official submitting the report; include signature, title, telephone number, and date the report is submitted.

THE CONTACTOR SHOULD RETAIN ONE COPY AND SUBMIT A COPY TO THE PUBLIC AGENCY WHICH AWARDED THE CONTRACT. ANOTHER COPY MUST BE FORWARDED TO:

New Jersey Department of Labor & Workforce Development
Construction EEO Compliance Monitoring Program
PO Box 209
Trenton, NJ 08625-0209
609 292-9550

State Of New Jersey

Department of Labor & Workforce Development
Construction EEO Compliance Monitoring Program

MONTHLY PROJECT WORKFORCE REPORT - CONSTRUCTION

For instructions on completing the form, go to: http://www.state.nj.us/treasury/contract_compliance/pdf/aa202ins.pdf		3. F ID or SS Number	
1. Name and address of Prime Contractor (NAME)	2. Contractor ID Number	4. Reporting Period	
(ADDRESS)		5. Public Agency Awarding Contract	Date of Award
(CITY) (STATE) (ZIP CODE)		6. Name and Location of Project County	7. Project ID Number

8. CONTRACTOR NAME (LIST PRIME CONTRACTOR WITH SUBS FOLLOWING)	9. PERCENT OF WORK COMPLETED	10. TRADE OR CRAFT	CLASSIFICATION (SEE REVERSE)	11. NUMBER OF EMPLOYEES						12. TOTAL	13. WORK HOURS		14. % OF WORK HRS		15. CUM. WORK HRS			16. CUM. % OF W/H		
				A.	B.	C.	D.	E.	F.	NO. OF MIN. EMP.	TOTAL WORK HOURS	A.	B.	A.	B.	TOTAL WORK HOURS	A.	B.	A.	B.
				TOTAL	BLACK	HISPANIC	AMERICAN INDIAN	ASIAN	FEMALES			MIN. W/H	FEMALE W/H	% OF MIN. W/H	% OF FEMALE W/H		MIN. HOURS	FEMALE HOURS	% OF MIN. W/H	% OF FEM. W/H
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SAMPLE

17. COMPLETED BY (PRINT OR TYPE)

(NAME)	(SIGNATURE)	(TITLE)
(AREA CODE)	(TELEPHONE NUMBER)	(EXT.) (DATE)

THE TOWNSHIP OF PISCATAWAY



LAST PAGE