

STIPULATION AGAINST LIENS

VS. : IN THE COURT OF COMMON PLEAS
: OF LACKAWANNA COUNTY
:

WHEREAS, the _____, Pennsylvania, is about to execute contemporaneously herewith, a contract, with _____ for the City of Scranton, Bloom Avenue Culvert Replacement Project, in City of Scranton, Lackawanna County, PA.

Now, _____ at the time of and immediately before the execution of the principal contract, and before any authority has been given by the said Owners to the said Contractors to commence work on the said site, or purchase materials for the same in consideration of making of the said contract, with Owner, and the further consideration of One Dollar, to the said Contractor paid by the Owners, it is agreed that no lien shall be filed against the site by the contractor or any sub-contractor nor by any of the materialmen or workmen or any other person for any labor, or materials purchased, or extra labor or materials purchased for the erection of said site, the right to file such liens being expressly waived.

WITNESS, our hands and seals the day and year _____, 20__ aforesaid.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

BY _____

BY _____

BY _____

NOTICE TO PROCEED

TO: _____

PROJECT: City of Scranton – Bloom Avenue Culvert Replacement Project

In accordance with the Agreement for City of Scranton – Bloom Avenue Culvert Replacement Project dated _____, entered into by and between the Owner and _____ (Contractor) you are hereby authorized to proceed with the performance of the work in the Plans and Specifications for improvements, more particularly defined under General Specifications, Special Conditions, Part III, Section 302, "Time for Completion". Services required under this Contract shall commence on _____ and shall be fully completed within 90 consecutive calendar days thereafter, with the completion being _____ (Date) which shall be inclusive of the following timeframes:

Within 5 consecutive calendar days after the issuance of the Notice to Proceed to the Contractor, which shall be issued on the date of contract award, the contractor shall submit all necessary shop drawings to the engineer.

Within 10 consecutive calendar days after the issuance of the Notice to Proceed to the Contractor, which shall be issued on the date of contract award, the contractor shall execute and deliver to the Owner four (4) copies of the executed Agreement, four (4) copies of the executed Performance Bond at One Hundred Percent (100%) of the Contract Amount, four (4) copies of the executed Labor Materialmen's Bond at One Hundred Percent (100%) of the Contract Amount, four (4) copies of the executed Maintenance Bond at Ten Percent (10%) of the Contract Amount, four (4) copies of the Workers Compensation Insurance Certificate, four (4) copies of the Public Liability Insurance Certificate naming the Owner as an additional insured, four (4) copies of the Builders Risk/All Risk Insurance Certificate naming the Owner as an additional insured, and the executed Stipulation Against Liens.

Within 3 consecutive calendar days after approval by the engineer of all necessary shop drawings, the contractor shall order all necessary materials.

Within 10 consecutive calendar days thereafter, the contractor shall complete all necessary work and prepare and submit all necessary Change Orders and/or Payment Applications to the engineer.

Any request for a time extension beyond the designated completion date must be considered by the Governing Body of the Owner.

OWNER

BY _____

PART II - TERMS AND CONDITIONS

1. Termination of Contract for Cause. If, through any cause, the CONTRACTOR shall fail to fulfill in timely and proper manner his obligations under this Contract, or if the CONTRACTOR shall violate any of the covenants, agreements, or stipulations of this Contract, the OWNER shall thereupon have the right to terminate this Contract by giving written notice to the CONTRACTOR of such termination and specifying the effective date thereof, at least five days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by the CONTRACTOR under this Contract shall, at the option of the OWNER, become its property and the CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the OWNER for damages sustained by the OWNER by virtue of any breach of the Contract by the CONTRACTOR, and the OWNER may withhold any payments to the CONTRACTOR for the purpose of set-off until such time as the exact amount of damages due the OWNER from the CONTRACTOR is determined.

2. Termination for Convenience of the OWNER. The OWNER may terminate this Contract at any time by giving at least ten (10) days notice in writing to the CONTRACTOR. If the Contract is terminated by the OWNER as provided herein, the CONTRACTOR will be paid for the time provided and expenses incurred up to the termination date. If this Contract is terminated due to the fault of the CONTRACTOR, Paragraph 1 hereof relative to termination shall apply.
3. Changes. The OWNER may, from time to time, request changes in the scope of the services of the CONTRACTOR to be performed hereunder. Such changes, including any increase or decrease in the amount of the CONTRACTOR'S compensation, which are mutually agreed upon by and between the OWNER and the CONTRACTOR shall be incorporated in written amendments to this Contract.
4. Personnel.
 - a. The CONTRACTOR represents that he has, or will secure at his own expense, all personnel required in performing the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the OWNER.
 - b. All of the services required hereunder will be performed by the CONTRACTOR or under his supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and Local law to perform such services.
 - c. None of the work or services covered by this Contract shall be sub-contracted without the prior written approval of the OWNER. Any work or services subcontracted hereunder shall be specified by written contract or agreement and shall be subject to each provision of this Contract.

5. Assignability. The CONTRACTOR shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written consent of the OWNER. Provided, however, that claims for money by the CONTRACTOR from the OWNER under this Contract may be assigned to a bank, trust company, or other financial institution without such approval. Written notice of any such assignment or transfer shall be furnished promptly to the OWNER.
6. Reports and Information. The CONTRACTOR, at such times and in such forms as the OWNER may require, shall furnish the OWNER such periodic reports as it may request pertaining to the work or services undertaken pursuant to this Contract, the costs and obligations incurred or to be incurred in connection therewith, and any other matters covered by this Contract.
7. Records and Audits. The CONTRACTOR shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the OWNER to assure proper accounting for all project funds. These records will be made available for audit purposes to the OWNER, the Department of Community And Economic Development, or any of their duly authorized representatives, and will be retained for three years after the expiration of this Contract unless permission to destroy them is granted by the OWNER.
8. Confidentiality. All of the reports, information, data, etc., prepared or assembled by the CONTRACTOR under this Contract are confidential and the CONTRACTOR agrees that they shall not be made available to any individual or organization without the prior written approval of the OWNER.
9. Copyright. No report, maps, or other documents produced in whole or in part under this Contract shall be the subject of an application for copyright by or on behalf of the CONTRACTOR.
10. Compliance with Local Laws. The CONTRACTOR, shall give all notices and comply with all laws, ordinances, codes, rules, regulations, and lawful orders of any public authority, bearing upon the performance of the project, and shall commit no trespass on any public or private property in performing any of the work embraced by this Contract. The CONTRACTOR must pay, at the CONTRACTOR'S own expense, any and all costs associated with the above stated compliance.
11. Equal Employment Opportunity. During the performance of this Contract, the CONTRACTOR agrees as follows:
 - a. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, religion, sex, color, national origin, handicap, or familial status. The CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, sex, color, national origin, handicap, or familial status. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provide by the OWNER setting forth the provisions of this non-discrimination clause.

- b. The CONTRACTOR will, in all solicitation 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 race, religion, color, national origin, handicap, or familial status.
- c. The CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract or understanding, a notice to be provided advising the said labor union or worker's representatives of the CONTRACTOR'S commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- e. The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Department of Community And Economic Development and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- f. In the event of the CONTRACTOR'S noncompliance with the nondiscrimination clauses of this Agreement or with any of such rules, regulations or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- g. The CONTRACTOR will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the Department of Community And Economic Development may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Department of Community And Economic Development, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

12. Nondiscrimination Compliance.

- a. It shall be no defense to a finding of noncompliance with this nondiscrimination clause that the CONTRACTOR had delegated some of its employment practices to any union, training program, or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the CONTRACTOR was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.
 - b. Where the practices of a union or any training program or other source of recruitment will result in the exclusion of minority group persons, so that the CONTRACTOR will be unable to meet its obligations under this nondiscrimination clause, the CONTRACTOR shall then employ and fill vacancies through other nondiscriminatory employment procedures.
 - c. The CONTRACTOR shall comply with all state and federal laws prohibiting discrimination in hiring or employment opportunities. In the event of the CONTRACTOR'S noncompliance with the nondiscrimination clause of this Contract or with any such laws, this Contract may be terminated or suspended, in whole or in part, and the CONTRACTOR may be declared temporarily ineligible for further Commonwealth contracts and other sanctions may be imposed and remedies invoked.
 - d. The CONTRACTOR shall actively recruit minority and women subcontractors or subcontractors with substantial minority representation among their employees.
 - e. The CONTRACTOR obligations under this clause are limited to the CONTRACTOR'S facilities within Pennsylvania or, where the Contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.
13. Interest of Certain Federal Officials. No member of or Delegate to the Congress of the United States and no Resident, Commissioner, shall be admitted to any share or part of this Contract or to any benefit to arise from the same.
14. Interest of Members, Officers, or Employees of OWNER, Member of Local Governing Body, or other Public Officials. No member, officer, or employee of the OWNER, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the Contract.
15. Interest of Certain State Officials. No member or Representative to the Legislature of the Commonwealth of Pennsylvania, shall be admitted to any share or part of this Contract or to any benefit to arise from the same.
16. Pennsylvania Human Relations Act, as amended.

- a. The CONTRACTOR shall not discriminate against any employee, applicant for employment, independent contractor or any other person because of race, color, national origin, handicap, familial status, religious creed, ancestry, age, or sex.

The CONTRACTOR shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, national origin, handicap, familial status, religious creed, ancestry, age, or sex. Such affirmative action shall include but is not limited to the following: Employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.

The CONTRACTOR shall post in conspicuous places, available to employees, agents, applicants for employment, and other persons a notice to be provided by the OWNER setting forth the provisions of this nondiscrimination clause.

- b. The CONTRACTOR shall in advertisements or requests for employment placed by it or on its behalf state all qualified applicants will receive consideration for employment without regard to race, color, national origin, handicap, familial status, religious creed, ancestry, age, or sex.
- c. The CONTRACTOR shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this nondiscrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by the CONTRACTOR.
- d. It shall be no defense to a finding of noncompliance with the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission of this nondiscrimination clause that the CONTRACTOR had delegated some of its employment practices to any union, training program or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the CONTRACTOR was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.
- e. Where the practices of a union or of any training program or other source of recruitment will result in the exclusion of minority group persons, so that the CONTRACTOR will be unable to meet its obligations under the Contract Compliance Regulations issued by the Pennsylvania Human Commission, or this nondiscrimination clause, the CONTRACTOR shall then employ and fill vacancies through other nondiscriminatory employment procedures.
- f. The CONTRACTOR shall comply with the Contract Compliance Regulations of the Pennsylvania Human Relations Commission, 16 PA Code Chapter 49 and with all laws prohibiting discrimination in hiring or employment opportunities. In the event of the CONTRACTOR'S noncompliance with the nondiscrimination clause of this Contract or

with any such laws, this Contract may, after hearing and adjudication, be terminated or suspended, in whole or in part, and the CONTRACTOR may be declared temporarily ineligible for further Commonwealth contracts, and such other sanctions may be imposed and remedies invoked as provided by the Contract Compliance Regulations.

- g. The CONTRACTOR shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by, the OWNER and the Human Relations Commission, for purposes of investigation to ascertain compliance with the provisions of the Contract Compliance Regulations, pursuant to 949.35 of these Regulations. If the CONTRACTOR does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the OWNER or the Commission.
 - h. The CONTRACTOR shall actively recruit minority subcontractors or subcontractors with substantial minority representation among their employees.
 - i. The CONTRACTOR shall include the provisions of this nondiscrimination clause in every subcontract, so that provisions will be binding upon each subcontractor.
 - j. The terms used in this nondiscrimination clause shall have the same meaning as in the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission, 16 PA Code Ch. 49.
 - k. The CONTRACTOR'S obligations under this clause are limited to the CONTRACTOR'S facilities within Pennsylvania, or where the Contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.
17. Prohibition Against Payments of Bonus or Commission. The assistance provided under this Contract shall not be used in the payment of any bonus or commission for the purpose of obtaining DCED approval of the application for such assistance, or DCED approval of applications for additional assistance, or any other approval or concurrence of DCED required under this Contract, Title 1 of the Housing and Community Development Act of 1974 as amended or DCED regulations with respect thereto; provided, however, that reasonable fees or bona fide technical, consultant, managerial or other such services, other than actual solicitation, are not hereby prohibited if otherwise eligible as program costs.
18. Interest of CONTRACTOR. The CONTRACTOR covenants that it presently has no interest and shall not acquire any interest direct or indirect which would conflict in any manner or degree with the performance of its services hereunder. The CONTRACTOR further covenants, that in the performance of this Agreement, it will not knowingly employ any person having any such interest.
19. Nonwaiver of Remedies. No provision of this Contract shall be construed in any manner so as to create any rights in third parties not party to this Contract. It shall be interpreted solely to define specific duties and responsibilities between the OWNER and the CONTRACTOR, and shall not provide any basis for claims of any other individual, partnership, corporation, organization, or municipal entity.

20. Construction. This Contract shall be interpreted and construed in accordance with, federal law where applicable, and with the laws of the Commonwealth. All of the terms and conditions of this Contract are expressly intended to be construed as covenants as well as conditions. The titles of the §§ and Subsection herein have been inserted as a matter of convenience and reference only and shall not control or affect the meaning or construction of any of the terms or provisions herein.
21. Defective Work. If the CONTRACTOR fails to correct defective work on the project or consistently fails to carry out the work in accordance with the Contract, the OWNER, by written order, may order the CONTRACTOR to stop the work or any portion thereof until the causes have been eliminated. If the CONTRACTOR neglects to carry out the work in accordance with the Contract, or if the CONTRACTOR fails to correct the defects within Seven (7) days after receipt of written notice, the OWNER may correct the deficiency at the expense of the CONTRACTOR.
22. Patent Rights. Whenever any invention, improvement or discovery is made or conceived or for the first time actually or constructively reduced to practice by the CONTRACTOR, or its employees, in the course of, in connection with, or under the terms of this Contract, the CONTRACTOR shall immediately give the OWNER written notice thereof and shall promptly thereafter furnish the OWNER with complete information thereon. DCED shall have the sole and exclusive power to determine whether or not and where a patent application shall be filed, and to determine the disposition improvement or discovery, including title to and rights under any patent application or patent that may issue thereon. The determination of DCED on all of these matters shall be accepted as final. The CONTRACTOR warrants that all of its employees who may be the inventors will execute all documents and do all things necessary or proper to the effectuation of such determination. Except as otherwise authorized in writing by the OWNER, the CONTRACTOR shall obtain patent agreements to effectuate the provisions of this Article from all persons who perform any part of the work under this Contract, except such clerical and manual labor personnel as will have no access to technical data. If the OWNER obtains patent rights, the CONTRACTOR shall be offered license rights thereto on terms at least as favorable as those offered to any firm.
23. Hold Harmless. The CONTRACTOR shall hold the OWNER harmless from and indemnify the OWNER against, any and all claims, demands, and actions based on or arising out of any activities performed by the CONTRACTOR, and its employees and agents, under this Contract in a manner which is contrary to the direction of the OWNER and shall defend any and all actions brought against the OWNER based upon any such claims or demands. It is understood and agreed that the CONTRACTOR'S standard liability insurance policies shall protect, or shall be endorsed to protect the OWNER from claims of bodily injury and of property damage arising out of any services performed by the CONTRACTOR or its employees or agents under the Contract including business and non-business invitees and their property and all other property sustaining damage as direct or indirect result of the execution of this project when validly present on CONTRACTOR'S premises whether or not actually engaged in the project at the time the claim inures. Such policies shall not include any provision limiting existing sovereign immunity of the OWNER or of its agents or employees. Upon request the CONTRACTOR shall furnish proof of insurance as required by this paragraph to the OWNER.

24. Arbitration. All claims, disputes, and other matters in question between the CONTRACTOR and the OWNER, arising out of or relating to this Contract or any of the documents incorporated herein, shall be interpreted by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. Unless otherwise agreed in writing, the CONTRACTOR shall carry on the work on the project and maintain its progress during any arbitration proceedings.
25. Liens. The CONTRACTOR specifically waives any right to file or claim any Mechanic's or Materialmen's liens, and agrees to execute, simultaneously herewith, and cause to be filed in the records of the Clerk Of Judicial Records of Lackawanna County, A Stipulation Against Liens, which shall be binding upon the CONTRACTOR, his suppliers, and any Sub-Contractors engaged by the CONTRACTOR.
26. Bankruptcy. In the event that the CONTRACTOR becomes party to a bankruptcy proceeding, or if a receiver is appointed, on account of the insolvency of the CONTRACTOR, then this Contract may be terminated by the OWNER without liability, except for the agreed upon prices for the amounts of work actually completed to the time that such proceeding is commenced.
27. Assignment. This Agreement shall be governed by the laws of the Commonwealth of Pennsylvania and shall inure to the benefit of and bind the parties hereto, their successors, personal representatives, and assigns. Neither party shall assign this Contract without the written consent of the other, which consent shall be unreasonably withheld.
28. Severability. Should any section or any part of any section of this Contract be rendered void, invalid or unenforceable by any court of law, for any reason, such a determination shall not render void, invalid or unenforceable any other section or part of any section of this Contract.
29. Entire Agreement. The Contract, when signed by all of the parties hereto, constitutes the full and complete understanding and agreement of all parties and may not be any manner interpreted or fulfilled in contradictions of its express terms and provided above

Change Order

.....
Project: City of Scranton – Bloom Avenue Culvert Replacement Project

Contractor:

Change Order #:

Date:

.....
You are hereby requested to comply with the following changes from the contract plans and specifications:

<u>Item</u>	<u>Description</u>	<u>Decrease</u>	<u>Increase</u>
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.....
Total Increase

Total Decrease

This Change Total
.....

The sum of \$_____ is hereby added to/deducted from the total contract price.

The total contract price was \$_____ and the total adjusted contract price to date thereby is \$_____.

The time provided for completion in the contract is increased by _____ working days. This document shall become an amendment to the contract and all provisions of the contract will apply hereto.

Accepted By:

_____	_____
Contractor	Date

Recommended By:

_____	_____
Engineer	Date

Approved By:

_____	_____
Owner	Date

NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR

State of _____)

County of _____)

_____ being first duly sworn, deposes and says that:

(1) He is _____
(owner, partner, officer, representative or agent)

of _____ hereinafter referred to as the "Subcontractor;"

(2) He is fully informed respecting the preparation and contents of the Subcontractor's Proposal submitted to _____ the Contractor for certain work in _____ connection with the _____ in _____ (City or County or State);

(3) Such Subcontractor's Proposal is genuine and not a collusive or sham Proposal;

(4) Neither the subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Proposal in connection with such Contract or to refrain from submitting a Proposal in connection with such Contract, or has in any manner, directly or indirectly, sought by unlawful agreement or connivance with any other Bidder, firm or person to fix the price or prices in said Subcontractor's Proposal, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and

(5) The price or prices quoted in the Subcontractor's Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, including this affiant.

(Signed) _____

(Title)

Subscribed and sworn to before me

this _____ day of _____, 20 .

(Title)

My commission expires _____

CERTIFICATION OF PROPOSED SUBCONTRACTOR REGARDING
EQUAL EMPLOYMENT OPPORTUNITY

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the subcontractor has not filed a compliance report due under applicable instructions, such subcontractor shall be required to submit a compliance report before the owner approves the subcontract or permits work to begin under the subcontract.

SUBCONTRACTOR'S CERTIFICATION

SUBCONTRACTOR _____

ADDRESS _____

CITY, STATE, ZIP CODE _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.

Yes No

2. Compliance reports were required to be filed in connection with such contract or subcontract.

Yes No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.

Yes No None Required

4. If the answer to item 3 is "No", please explain in detail on reverse side of this certification.

Certification - The information above is true and complete to the best of my knowledge and belief.

NAME _____

TITLE _____

SIGNATURE _____ DATE _____

PARTICIPATION REQUIREMENTS FOR
MINORITY/WOMEN BUSINESS ENTERPRISE (MBE/WBE)

The owner has established minimum levels of participation for minority and women business enterprises (MBE/WBE) for each project in each bid category to be used solely as a guide in determining bidder responsibility. The minimum participation level for MBEs is 5% and for WBEs is 3%.

A. Participation Level.

- (1) The Owner has established minimum participation levels (MPLs) at 5% for minority business enterprises (MBE) and 3% for women business enterprises (WBE) for this project to be used solely as a threshold in determining bidder responsibility. A bidder will not be rejected as not responsible solely because it fails to reach the MPLs. To determine the participation level which has been reached, a bidder may divide the total dollar amount of the commitments by the total dollar amount of the bidder's bid.
- (2) MBE/WBE subcontracts and manufacturers will be credited toward the minimum level at 100%. Stocking suppliers are credited at 100%. Non-stocking suppliers which are commonly and ordinarily the custom in the industry and a part of the industry's trade practices are credited at 100%; non-stocking suppliers which are not commonly and ordinarily the custom in the industry nor a part of the industry's trade practice are not credited.
- (3) A firm which is both an MBE and a WBE will only receive credit toward MPLs as either an MBE or WBE, but not both. Bidders must indicate on MBE/WBE Contact/Solicitation and Commitment Statement whether the firm is being listed as either an MBE or a WBE.
- (4) An MBE/WBE firm who is the prime bidder on a project will receive no MPL credit for its own work effort for services provided. MBE/WBE bidding as prime proposer must solicit other certified MBEs/WBEs participation for material and/or supplies.
- (5) MBE/WBE subcontractors must perform at least seventy-five percent (75%) of the cost of the subcontract, not including the cost of materials, with its own employees.

B. Responsiveness.

- (1) Bidders must complete and submit Form DCED-CCD-286 with the bid. Failure to submit this form with the bid, will result in the bid being rejected as nonresponsive.
- (2) A bidder should only solicit MBE/WBE subcontractors, vendors, manufacturers, or suppliers whose services, material, or supplies are within the scope of work and which the bidder reasonably believes it will choose to subcontract with or purchase from.

- (3) Bidders failing to meet the minimum levels of participation must submit concurrently with the bid, an explanation of why the MPLs have not been met. This explanation must demonstrate that the bidder has not engaged in discriminatory practices in solicitations and utilization of MBE/WBE contained on the solicitation list provided by the owner to perform as subcontractors or suppliers of goods and services related to the performance of the contract. The evidence submitted by the bidder must demonstrate the following:
 - (a) Indicate whether MBEs/WBEs were solicited for each type of work the bidder expects to subcontract for and for all materials which the bidder expects to procure and, if not, reason(s) why no such solicitation was made;
 - (b) Indicate the reason why an MBE/WBE has not been committed to for a type of subcontract work or materials in any area where a quote was received from a MBE/WBE, and;
 - (c) In any case where no quotations are received no commitments made to MBE or WBE firm, indicate on Form DCED-CCD-286 that no quotes were received, and if there is another reason for no commitments being made, the reason for the lack of commitments.
- (4) If the bidder fails to submit such evidence, the bid submission shall be considered non-responsive and the bid rejected.
- (5) Information related to the above may be submitted on Form DCED-CCD-286 or on additional paper.

C. Responsibility.

- (1) The submittals of each bidder are subject to review to determine whether the bidder has discriminated in the selection of manufacturers, subcontractors and suppliers. If a bidder has met the MPLs for MBE/WBE participation, bidder will be presumed not to have discriminated in their selections. Where the MPLs are not met, the Owner will determine whether discrimination has occurred. If, after investigation including a review of Form DCED-CCD-286, it is found that discrimination has occurred, the reviewed bidder shall thereby be deemed to be not responsible and the bid will be rejected.
- (2) Documentation submitted by the bidder should meet the following standards for review:
 - (a) The bidder whose actions resulted in a limited or no commitment to MBEs/WBEs was not motivated by consideration of race or gender.
 - (b) MBEs/WBEs were not treated less favorably than other businesses in the contract solicitation and commitment process.

(c) Solicitation and commitment decisions were not based upon policies which disparately affect MBEs/WBEs.

(3) Commitments to MBE and WBE firms made at the time of bidding must be maintained throughout the term of the contract, unless a change in commitment to these firms is preapproved by the Owner or the administering agency performing the evaluation of the invitation for Bid.

D. Access to Information.

The Owner may obtain documents and information from any bidder, contractor, subcontractor, supplier, or manufacturer that may be required in order to ascertain bidder or contractor responsibility. Failure to provide requested information may result in the contractor being declared not responsible.

PARTICIPATION REQUIREMENTS FOR SECTION 3 RESIDENTS AND BUSINESS CONCERNS

A. Construction Contracts (IFBs)

The Owner has established minimum levels of participation for the employment and/or training of Section 3 residents and for the utilization of Section 3 business for each project in each bid category to be used solely as a guide in determining bidder responsibility. The minimum participation level for employment/training of Section 3 residents is 20% of the aggregate number of new hires and 10% for the utilization of Section 3 business concerns.

The following items will be placed in all bid documents:

1. Participation Level

a. The Owner has established minimum participation levels (MPLs) at 20% for the employment/training of Section 3 residents and 10% for the utilization of Section 3 business concerns for this project to be used solely as a threshold in determining bidder responsibility. A bidder will not be rejected as not responsible solely because it fails to reach the MPLs.

b. A Section 3 business concern who is the prime bidder on a project will receive no MPL credit for its own work effort for services provided. A Section 3 business bidding as prime proposer must solicit other certified Section 3 business concerns for participation for material and/or supplies and attempt to hire Section 3 residents.

2. Responsiveness

a. Bidders must complete and submit the Section 3 Contact/Solicitation and Commitment Statement and the Section 3 Work Force Needs Table with the bid. Failure to submit these forms with the bid, will result in the bid being rejected as nonresponsive.

b. A bidder should only solicit Section 3 subcontractors, vendors, manufacturers, or suppliers whose services, material, or supplies are within the scope of work and which the bidder reasonably believes it will choose to subcontract with or purchase from.

c. Bidders failing to meet the minimum levels of participation must submit concurrently with the bid, an explanation of why the MPLs have not been met. The evidence submitted by the bidder must demonstrate the following:

(1) Indicate whether Section 3 business concerns were solicited for each type of work the bidder expects to subcontract for and for all materials which the bidder expects to procure and, if not, the reason(s) why no such solicitation was made;

(2) Indicate the reason why a Section 3 business concern has not been committed to for a type of subcontract work or materials in any area where a quote was received from a Section 3 business concern, and;

(3) In any case where no quotations are received nor commitments made to a Section 3 business concern, indicate on Contact/Solicitation and Commitment Statement that

no quotes were received, and if there is another reason for no commitments being made, the reason for the lack of commitments.

d. If the bidder fails to submit such evidence, the bid submission shall be considered non-responsive and the bid rejected.

e. Information related to the above may be submitted on the Contact/Solicitation and Commitment Statement or on additional paper.

3. Access to Information

The Owner may obtain documents and information from any bidder, contractor, subcontractor, supplier, or manufacturer that may be required in order to ascertain bidder or contractor responsibility. Failure to provide requested information may result in the contractor being declared not responsible.

SUBCONTRACTOR'S

CERTIFICATION OF COMPLIANCE

SECTION 3

CERTIFICATION OF COMPLIANCE WITH REGULATIONS TO SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968 AS REQUIRED FOR PARTICIPATION IN THE SMALL COMMUNITIES PROGRAM, PURSUANT TO THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974, P.L. 93-383, AS AMENDED.

PURPOSE, AUTHORITY AND RESPONSIBILITY

Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (hereinafter Section 3) requires that to the greatest extent feasible, opportunities for training and employment in a Section 3 covered project be given lower income residents of the project area and that contracts for work in connection with the project be awarded to business concerns which are located in, or owned, in substantial part by persons residing in the area of the project.

(hereinafter called the Subcontractor)

upon being awarded a contract for _____

in the area of the Owner, to the greatest extent feasible, make a good faith effort to utilize the services of businesses located in or substantially owned by persons who live within the project boundaries.

The Contractor has been informed by the Owner, that the Department of Community and Economic Development has determined that the project area boundaries for the Small Communities Program are the municipal limits.

To complete the project it is also estimated that the Subcontractor will be subcontracting for supplies and services for which certain business concerns eligible under Section 3 could provide. In order to comply with the regulations for utilization of businesses under Section 3, the Subcontractor will adopt an Affirmative Action Plan.

**CERTIFICATE FROM CONTRACTOR APPOINTING OFFICER OR
EMPLOYEE
TO SUPERVISE PAYMENT OF EMPLOYEES**

Project Name _____ Date _____

Location _____ Project No. _____

(1) (We) hereby certify that (I am) (we are) (the prime contractor) (a subcontractor) for (General) (Plumbing) (Electrical) (Mechanical) Construction in connection with construction of the above mentioned project, and that (I) (we) have appointed _____

_____ whose signature appears below, to supervise the payment of (my) (our) employees beginning _____ : That he is in a position to have full knowledge of the facts set forth in the payroll documents and in the statement of compliance required by the so-called Kick-Back Statute which he is to execute with (my) (our) full authority and approval until such time as (I) (we) submit to the Owner a new certificate appointing some other person for the purposes hereinabove stated.

(Signature of Appointee)

Attest (if required): _____
(Name of Firm or Company)

(Signature) By: _____
(Signature)

(Title) _____
(Title)

****Note:** This certificate must be executed by an authorized officer of a corporation or by a member of a partnership and shall be executed prior to and be submitted with the first payroll. Should the appointee be changed, a new certificate must accompany the first payroll for which the new appointee executes a statement of compliance required by the Kick-Back Statute.

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

Project Name: Bloom Avenue Culvert Replacement Project

Location: Scranton, PA

A/E#: _____

TO (Owner): City of Scranton Address:

340 North Washington Ave

City/ State/ Zip: Scranton, Pennsylvania, 18512

Contractor: _____

Contract Date: _____

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the (here insert name and address of Surety Company)

_____, Surety Company,

on bond of (here insert name and address of Contractor)

_____, Contractor,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the _____, Owner, as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this _____ day of _____, _____

Surety Company

Signature of Authorized Representative

Attest:
(Seal)

Title

SECTION 31 10 00

SITE CLEARING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil and baseball field infield soils.
5. Temporary erosion- and sedimentation-control measures.

1.3 MATERIAL OWNERSHIP

- A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.4 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

- B. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing. Pennsylvania One-Call System, Inc. design serial number is provided on the Drawings.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- D. Protect existing trees when constructing trail through the Pennsylvania State University property at the eastern portion of the site.

PART 2 - PRODUCTS – NOT USED.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly identify trees, shrubs, and other vegetation to remain.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. General: Protect trees and plants remaining on-site.

- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.

3.4 EXISTING UTILITIES

- A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 - 1. Arrange with utility companies to shut off indicated utilities.
- B. Removal of underground utilities is included in Division 02 Sections.

3.5 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to depth of 4 inches or depth as determined by Geotechnical Inspector in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

3.6 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 31 10 00

SECTION 31 10 01

SOIL EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Temporary erosion- and sedimentation-control measures.

1.3 PROJECT CONDITIONS

- A. All earth disturbance activities on this project shall be conducted in accordance with the term and conditions of Construction Documents.
- B. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing. Pennsylvania One-Call System, Inc. design serial number is provided on the Drawings.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.

PART 2 - PRODUCTS

- A. Products such as compost filter socks, erosion control blankets, water quality inserts, fencing, stakes, and geotextiles shall be as indicated on the Drawings, or approved equal.

PART 3 - EXECUTION

3.1 PERMIT CONDITIONS

- A. Comply with permit construction requirements.

3.2 GENERAL

- A. Utilize erosion and sedimentation control practices as well as protect against the discharge of pollutants during construction. Comply with terms and conditions of PA DEP General Permit Number GP 113502218-502.
- B. Protect the soils by use of temporary vegetation, or seeding and mulch, or by accelerating the establishment or permanent vegetation. Complete and protect segments of work as rapidly as is consistent with construction schedules.
- C. Retard the rate of runoff from the construction site and control disposal of runoff.
- D. Utilize silt fence or other sediment holding devices at inlets, cross drains, etc.
- E. Trap sediment resulting from construction in temporary or permanent silt holding basins. This includes pump discharges resulting from dewatering operations.
- F. Sprinkle or apply dust suppressor, or otherwise keep dust within tolerable limits on haul roads and at the site.
- G. Should construction operations be suspended for any appreciable length of time, temporary measure for control of erosion must be utilized.

3.3 MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL

- A. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- B. All controls shall be inspected weekly or after a storm event greater than 0.5 inches of rain.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.4 POST CONSTRUCTION STORMWATER MANAGEMENT

- A. General: Install Post-Construction Stormwater Management BMPs as indicated on the Drawings.
- B. Inspect, maintain, and repair Post-Construction Stormwater Management BMPs until project is accepted by Owner.

END OF SECTION 31 10 01

SECTION 31 20 00

EARTH MOVING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Preparing subgrades for building pads and parking lots, walks, pavements, stormwater management, turf and grasses, and plants.
 - 2. Excavating and backfilling for buildings and structures.
 - 3. Subbase course and base course for asphalt paving.
 - 4. Excavating and backfilling for utility trenches.

1.3 DEFINITIONS

- A. Backfill: Soil material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect/Engineer.

Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect/Engineer. Unauthorized excavation, as well as remedial work directed by Architect/Engineer, shall be without additional compensation.

- E. Fill: Soil materials used to raise existing grades.
- F. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- G. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- H. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- I. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 REFERENCES

- A. Commonwealth of Pennsylvania Department of Transportation, Specification, Publication 408, latest issue; hereinafter referred to as "Specification, Publication 408."

1.5 QUALITY ASSURANCE

- A. Pre-excavation Conference: Conduct conference at Project site.

1.6 PROJECT CONDITIONS

- A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth moving operations. Pennsylvania One-Call System, Inc. design serial number is provided on the Drawings.
- B. Do not commence earth moving operations until E&S Controls and plant-protection measures are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; meeting the requirements of Section 305.2.
- E. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- F. Bedding Course: Narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; AASHTO #57 aggregate as specified in Specification, Publication 408, Section 703.2.

2.2 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic of core #10 wire encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
- B. Furnish, put in place, and maintain such sheeting, bracing, trench boxes, etc. as may be required to support the sides of the excavation and to prevent any movement of earth which could in any way diminish the width of the excavation below that necessary for proper construction or otherwise injure persons in or about the work or endanger the adjacent structures or delay the work, as set forth in Division 31.

3.3 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.5 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
 - 1. Clearance: As indicated on the Drawings.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 - 1. Excavate trenches to depths indicated on Drawings.
- D. Trenches in Tree- and Plant-Protection Zones:
 - 1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.

3.6 SUBGRADE INSPECTION

- A. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect/Engineer/
- C. Engineer, without additional compensation.

3.7 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect/Engineer.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect/Engineer.

3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.9 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Place and compact initial backfill of bedding course material, to a height of 12 inches over the pipe or conduit.
 - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- D. Place and compact final backfill of satisfactory soil to final subgrade elevation.
- E. Install warning tape directly above utilities, 6 inches below finished grade.

3.10 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use satisfactory soil material.
 - 3. Under steps and ramps, use engineered fill.
 - 4. Under building slabs, use engineered fill.
 - 5. Under footings and foundations, use engineered fill.

3.11 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 6 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 - 4. For utility trenches located under walkways or pavements, compact each layer of initial and final backfill soil material at 95 percent for trenches in under turf or unpaved areas
 - 5. For utility trenches located in under turf or unpaved areas, compact each layer of initial and final backfill soil material at 85 percent..
 - 6. Place rock in uniform loose layers not exceeding in depth the approximate average size of the larger rock but limited to a maximum depth of 36 inches. Remove oversize rock or reduce in size until it can be readily incorporated in a 36 inch layer. When transitioning from rock to other embankment material, place a scratch lift of select granular material of sufficient thickness to completely fill all voids in the rock. Place a second lift of select granular material to a compacted thickness of 6 inches.

3.13 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Turf or Unpaved Areas: Plus or minus 1 inch.
 - 2. Walks: Plus or minus 1 inch.
 - 3. Pavements: Plus or minus ½ inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of ½ inch when tested with a 10-foot straightedge.

3.14 SUBBASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course under pavements and walks as follows:
 - 1. Shape subbase course to required crown elevations and cross-slope grades.
 - 2. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.15 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect/Engineer.
- D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace

soil materials to depth required; recompact and retest until specified compaction is obtained.

3.16 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.17 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

3.18 BLASTING

If blasting is performed, Contractor shall ensure that proper precautions are taken for the safety of all persons, the work, and the property. All damage done to the work or property shall be repaired at the Contractor's expense. All operations of the Contractor in connection with the transportation, storage and use of explosives shall conform to all federal, state and local regulations and explosive manufacturer's instructions, with the applicable approved permits reviewed by the engineer. Any approval given will not relieve the Contractor of his/her responsibility in blasting operations.

Contractor shall use equipment to monitor, document, and record vibrations as noted below.

Blasting Plan: The blasting plan shall be prepared by a Contractor/Firm experienced in this type of work. The blasting contractor shall prepare and submit a comprehensive blasting plan that includes at a minimum, the following:

- 1. List of experience with similar work
- 2. Unique parameters for each phase of the plan
- 3. Pre-blast survey
- 4. Pre-blast meeting

5. Hole size, depth, spacing, burden, type of explosive, type of delay sequence, depth of rock, and depth of overburden if any.
6. Burden delay change, weights, etc.
7. The plan shall be signed and sealed by a registered engineer or geologist experienced with construction related blasting.
8. Blasting plan shall be submitted to the engineer 21 days prior to the planned blasting operations for review.

All blasts should be seismically monitored in accordance with all federal, state and local criteria. Blast vibration should not exceed 1 in/sec at the site boundary. Total peak particle velocity should be in accordance with the criteria established by the USBM RI8506. Blasting mats should be placed over the area to be blasted to minimize fly rock exposure. Upon the completion of excavation, a geologist or geotechnical engineer should inspect the blasted surface to insure all overshot material has been removed from the excavation.

The Contractor shall keep a record of each blast including date, time and location, the amount of explosives used, maximum explosive charge weight per delay period, and recorded vibrations at each monitoring point.

Maximum rock size shall be 2 feet measured in the longest dimension.

All required local, state, and federal approvals should be obtained and forwarded to the engineer for review.

METHOD OF MEASUREMENT

This is a lump sum project, with the exception of Rock Excavation. The quantity of Rock Excavation shall be measured by the Cubic Yard in its final location, installed per the Contract Documents. The Contractor shall employ a PA registered professional surveyor to field measure the initial and final surfaces of rock placed. The contractor and the Engineer's representative shall agree upon a quantity.

BASIS OF PAYMENT

Payment will be made based on percentage complete as indicated in the Contract Documents with the exception of Rock Excavation. This item will be paid per cubic yard.

END OF SECTION 31 20 00

EARTH MOVING

31 20 00 - 10

SECTION 31 23 17

DEWATERING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes construction dewatering.

1.3 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide temporary grading to facilitate dewatering and control of surface water.
- B. Monitor dewatering systems continuously.
- C. Protect and maintain temporary erosion and sedimentation controls, which are specified in Division 31 Section "Site Clearing" during dewatering operations.
- D. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.

1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.

END OF SECTION 31 23 19

SECTION 31 50 00

EXCAVATION SUPPORT AND PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes temporary excavation support and protection systems.
- B. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for excavating and backfilling and for existing utilities.
 - 2. Division 31 Section "Dewatering" for dewatering excavations.

1.3 PERFORMANCE REQUIREMENTS

- A. Design, furnish, install, monitor, and maintain excavation support and protection system capable of supporting excavation sidewalls and of resisting soil and hydrostatic pressure and superimposed and construction loads.
 - 1. Provide professional engineering services needed to assume engineering responsibility, including preparation of Shop Drawings and a comprehensive engineering analysis by a qualified professional engineer.
 - 2. Prevent surface water from entering excavations by grading, dikes, or other means.
 - 3. Install excavation support and protection systems without damaging existing buildings, pavements, and other improvements adjacent to excavation.

1.4 SUBMITTALS

- A. Shop Drawings for Information: Prepared by or under the supervision of a qualified professional engineer for excavation support and protection systems.

1. Include Shop Drawings signed and sealed by the qualified professional engineer responsible for their preparation.
- B. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by the absence of, the installation of, or the performance of excavation support and protection systems.

1.5 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Architect and then only after arranging to provide temporary utility services according to requirements indicated.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
 1. Shore, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- C. Locate excavation support and protection systems clear of permanent construction so that forming and finishing of concrete surfaces is not impeded.
- D. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
- E. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

3.2 SOLDIER BEAMS AND LAGGING

- A. Install steel soldier beams before starting excavation. Space soldier beams at regular intervals not to exceed allowable flexural strength of wood lagging. Accurately align exposed faces of flanges to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment.
- B. Install wood lagging within flanges of soldier beams as excavation proceeds. Trim excavation as required to install lagging. Fill voids behind lagging with soil, and compact.
- C. Install wales horizontally at centers indicated and secure to soldier beams.

3.3 SHEET PILING

- A. Before starting excavation, install one-piece sheet piling lengths and tightly interlock to form a continuous barrier. Limit vertical offset of adjacent sheet piling to 60 inches. Accurately align exposed faces of sheet piling to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment. Cut tops of sheet piling to uniform elevation at top of excavation.

3.4 BRACING

- A. Bracing: Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move brace, install new bracing before removing original brace.
 - 1. Do not place bracing where it will be cast into or included in permanent concrete work, unless otherwise approved by Architect.
 - 2. Install internal bracing, if required, to prevent spreading or distortion of braced frames.
 - 3. Maintain bracing until structural elements are supported by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

3.5 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.
 - 1. Remove excavation support and protection systems to a minimum depth of 48 inches below overlying construction and abandon remainder.

2. Repair or replace, as approved by Architect, adjacent work damaged or displaced by removing excavation support and protection systems.

END OF SECTION 31 50 00

SECTION 31 12 16

ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Hot-mix asphalt paving.
 - 2. Pavement-marking paint.
- B. Related Sections:
 - 1. Division 31 Section "Earth Moving" for aggregate subbase and base courses and for aggregate pavement shoulders.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
 - 1. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.

1.4 REFERENCES

- A. Commonwealth of Pennsylvania Department of Transportation, Specification, Publication 408, latest issue; hereinafter referred to as "Specification, Publication 408."

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by Pennsylvania Department of Transportation.

- B. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of Specification, Publication 408 for asphalt paving work.
 - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.
- C. Preinstallation Conference: Conduct conference at Project site.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
 - 1. Asphalt Base Course: Minimum surface temperature of 35 deg F and rising at time of placement.
 - 2. Asphalt Surface Course: Minimum surface temperature of 40 deg F at time of placement.
- B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature 50 deg F, and not exceeding 95 deg F.

PART 2 - PRODUCTS

2.1 SUPERPAVE BASE COURSE

- A. Superpave base course shall meet the requirements of Specification, Publication 408, Section 309.2.

2.2 SUPERPAVE WEARING COURSE

- A. Superpave wearing course shall meet the requirements of Specification, Publication 408, Section 409.2.

2.3 AUXILIARY MATERIALS

- A. Latex Pavement-Marking Paint:
 - 1. Marking paint shall meet the requirements of Specification, Publication 408, Section 962.2.
 - 2. Color: As indicated on the Drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

3.3 PLACING SUPERPAVE BASE COURSE

- A. Machine place in a manner that meets the requirements of Specification, Publication 408, Section 309.3.

3.4 PLACING SUPERPAVE WEARING COURSE

- A. Machine place in a manner that meets the requirements of Specification, Publication 408, Section 409.3.

3.5 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
- B. Construction joints shall meet the requirements of Specification, Publication 408, Section 409.3(k).

3.6 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect/Engineer.
- B. Allow paving to age for 30 days before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.

- D. Apply paint with mechanical equipment in a manner that meets the requirements of Specification, Publication 408, Section 962.3.

3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Replace and compact hot-mix asphalt where core tests were taken.
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

END OF SECTION 32 16 16

SECTION 32 13 13
CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes exterior cement concrete pavement for the following:
 - 1. Exterior Concrete Slabs
 - 2. Concrete Curbs
 - 3. Concrete Islands
 - 4. Concrete shoulders

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete pavement mixture.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products who complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.

1.4 REFERENCES

- A. Commonwealth of Pennsylvania Department of Transportation, Specification, Publication 408, latest issue; hereinafter referred to as "Specification, Publication 408."

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- B. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.
- C. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.

- D. Plain Steel Wire: ASTM A 82, as drawn.
- E. Deformed-Steel Wire: ASTM A 496.
- F. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice."

2.2 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout the Project:
 - 1. Portland Cement: ASTM C 150, Type I,
- B. Normal-Weight Aggregates: ASTM C 33, coarse aggregate, uniformly graded. Provide aggregates from a single source.
- C. Water: ASTM C 94/C 94M.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: ASTM C 494/C 494M, of type suitable for application, certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.

2.3 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.
- D. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- E. Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
- F. White Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 2, Class B.

2.4 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1752, cork or self-expanding cork.

- B. Penetrating Anti-Spalling Sealer (For exterior concrete sidewalks and curbs)
1. The sealer shall be a siloxane-based compound which has a 96% chloride-ion screen and a repellency factor of 92% when tested in accordance with NCHARP #244, Test Method. In addition, the sealer-treated concrete must exhibit no scaling when exposed to 120 cycles of freezing and thawing in accordance with ASTM C 672. The tests must be made by an independent testing laboratory. The manufacturer shall offer a three-year warranty bond issued by an insurance company in the amount agreed upon by the Manufacturer and the Owner.
 2. The product shall be "Euco-Guard" by the Euclid Chemical Co. or approved equal.
 3. The slab must be cured by a continuous moisturizing method approved by the Architect/Engineer or by using "Kurez DR" by the Euclid Chemical Co.

2.5 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301, with the following properties:
1. Compressive Strength (28 Days): 3500 psi.
 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.47.
 3. Slump Limit: 4 inches, plus or minus 1 inch.
 4. Air Content: 5-1/2 percent plus or minus 1.5 percent.

2.6 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Proof-roll prepared subbase surface below concrete pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

CONCRETE PAVING

- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.4 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness.
- E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 1/4-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.

3.5 CONCRETE PLACEMENT

- A. Moisten subbase to provide a uniform dampened condition at time concrete is placed.
- B. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- D. Screed pavement surfaces with a straightedge and strike off.
- E. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

3.6 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 - 2. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
 - 3. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by moisture curing moisture-retaining-cover curing curing compound or a combination of these methods.

3.8 PAVEMENT TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
 - 1. Elevation: 1/4 inch.
 - 2. Thickness: Plus 3/8 inch, minus 1/4 inch.
 - 3. Surface: Gap below 10-foot-long, unlevelled straightedge not to exceed 1/4 inch.
 - 4. Joint Spacing: 3 inches.
 - 5. Contraction Joint Depth: Plus 1/4 inch, no minus.
 - 6. Joint Width: Plus 1/8 inch, no minus.

3.9 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement.
- C. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 32 13 13

SECTION 33 41 00
STORM UTILITY DRAINAGE PIPING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Pipe and fittings.
 - 2. Manholes.
 - 3. Stormwater inlets.
 - 4. Area drains.
 - 5. Yard drains.
 - 6. Infiltration systems.
 - 7. Snouts.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
 - 1. Manholes: Include plans, elevations, sections, details, frames, and covers.
 - 2. Catch basins, area drains, yard drains, and stormwater inlets. Include plans, elevations, sections, details, frames, covers, and grates.
 - 3. Infiltration system: Include plans, sections, details, end caps, and connections.

- C. Coordination Drawings: Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from storm drainage system piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.
- D. Field quality-control reports.

1.4 REFERENCES:

- A. Commonwealth of Pennsylvania Department of Transportation, Specification, Publication 408, latest issue; hereinafter referred to as "Specification, Publication 408."
- B. Commonwealth of Pennsylvania Department of Transportation, Standards for Roadway Construction, Publication 72M, latest issue; hereinafter referred to as "RC Standards, Publication 72M."

PART 2 - PRODUCTS

2.1 PE PIPE AND FITTINGS

- A. Corrugated PE Drainage Pipe and Fittings NPS 3 to NPS 10 AASHTO M 252M, Type S, with smooth waterway for coupling joints.
 - 1. Silttight Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings.
- B. Corrugated PE Pipe and Fittings NPS 12 to NPS 60: AASHTO M 294M, Type S, with smooth waterway for coupling joints.
 - 1. Silttight Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with pipe and fittings.
- C. Corrugated PE Perforated Pipe and Fittings

2.2 PVC PIPE AND FITTINGS

- A. PVC Sewer Piping:
 - 1. Pipe: ASTM D 3034, SDR 35 PVC Type PSM sewer pipe with bell-and-spigot ends for gasketed joints.
 - 2. Fittings: ASTM D 3034, PVC with bell ends.
 - 3. Gaskets: ASTM F 477, elastomeric seals.

2.3 MANHOLES

A. Standard Precast Concrete Manholes:

1. Description: ASTM C 478 precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
4. Base Section: 8-inch minimum thickness for floor slab and 5-inch minimum thickness for walls and base riser section; with separate base slab or base section with integral floor.
5. Riser Sections: 5-inch minimum thickness, of length to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated; with top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990 bitumen or butyl rubber.
8. Resilient Pipe Connectors: ASTM C 923 cast or fitted into manhole walls, for each pipe connection.
9. Steps: 1/2-inch steel reinforcing rods encased in ASTM D 4101, polypropylene, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals.
10. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.

B. Manhole Frames and Covers:

1. Manhole covers shall meet the requirements of Section 605.2(b), Specification, Publication 408. Include indented top design with lettering cast into cover, using wording equivalent to "STORM SEWER."
2. Manhole frames shall meet the requirements of Section 605.2(b), Specification, Publication 408.

2.4 CONCRETE

- ### A. General:
- Cast-in-place concrete shall meet the requirements of Section 703, Specification, Publication 408.

- B. Manhole Channels and Benches: Factory or field formed from concrete. Portland cement shall meet the requirements of Type AA for structures, Section 703, Specification, Publication 408. Include channels and benches in manholes.
- C. Ballast and Pipe Supports
 - 1. Portland cement shall meet the requirements of Type AA for structures, Section 703, Specification, Publication 408.
 - 2. Reinforcing Fabric: ASTM A 185/A 185M, steel, welded wire fabric, plain.
 - 3. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 deformed steel.

2.5 STORMWATER INLETS

- A. Standard Precast Concrete Inlets shall meet the requirements of standard inlet boxes as shown on RC-46M, RC Standards, Publication 72M.
- B. Standard Precast Concrete Inlet Top Units shall be the type indicated on the Drawings and shall meet the requirements of concrete top units as shown on RC-46M, RC Standards, Publication 72M.
- C. Frames and Grates: shall meet the requirements of Section 605(a), Specification, Publication 408.

2.6 AREA AND YARD DRAINS

- A. Area and Yard Drains shall be Nyloplast drain basins, manufactured by Advanced Drainage Systems, Inc. (www.ads-pipe.com), or approved equal.

2.7 SNOOTS

- A. Snouts shall be Model 36F as manufactured by Best Management Products, Inc. (www.bmpinc.com), or approved equal.
- B. All hoods shall be constructed of a glass reinforced resin compound with iso-gel coated exterior finish with a minimum 0.125" laminate thickness. All hoods shall be equipped with a watertight access port, a mounting flange, and an anti-siphon vent pipe and elbow.
- C. The size and position of the hood shall be determined by the outlet pipe size as per manufacturer's recommendation – snout size should always be larger than pipe size.

2.8 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic of core #10 wire encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 31 Section "Earth Moving."

3.2 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow, nonpressure drainage piping according to the following:
 - 1. Install piping pitched down in direction of flow.
 - 2. Install piping NPS 6 and larger with restrained joints at tee fittings and at changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place concrete supports or anchors.
 - 3. Install piping with 36-inch minimum cover.

4. Install PE corrugated sewer piping according to ASTM D 2321.
5. Install PVC sewer piping according to ASTM D 2321 and ASTM F 1668.

3.3 PIPE JOINT CONSTRUCTION

- A. Join gravity-flow, nonpressure drainage piping according to the following:
 1. Join corrugated PE piping according to ASTM D 3212 for push-on joints.
 2. Join PVC sewer piping according to ASTM D 2321 for elastomeric-seal joints.

3.4 MANHOLE INSTALLATION

- A. General: Install manholes, complete with appurtenances and accessories indicated.
- B. Install precast concrete manhole sections with sealants according to ASTM C 891.
- C. Where specific manhole construction is not indicated, follow manhole manufacturer's written instructions.
- D. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops to elevations indicated on the Drawings.

3.5 INLET INSTALLATION

- A. Install inlets, complete with appurtenances and accessories indicated.
- B. Set frames and grates to elevations indicated.

3.6 CONNECTIONS

- A. Make connections to existing piping.
 1. Make branch connections from side into existing piping by cutting into existing unit and creating an opening large enough to allow 3 inches of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of and be flush with inside wall unless otherwise indicated. On outside of pipe, encase entering connection in 6 inches of concrete for minimum length of 12 inches to provide additional support of collar from connection to undisturbed ground.
 - a. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi unless otherwise indicated.

- b. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.
2. Protect existing piping, manholes, and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.7 INFILTRATION SYSTEMS

- A. Install infiltration systems in accordance with manufacturer's installation instructions.

3.8 SNOOTS

- A. Install snouts in accordance with manufacturer's installation instructions.
- B. The bottom of the hood shall extend downward a minimum distance equal to $\frac{1}{2}$ the outlet pipe diameter with a minimum distance of 6" for outlet pipes with a diameter of less than 12 inches.
- C. The anti-siphon vent shall extend above the hood a minimum of 3 inches and a maximum of 12 inches according to the structure configuration.
- D. The surface of the structure where the hood is mounted shall be finished smooth and free of any loose material and the pipe shall be flush with the

3.9 IDENTIFICATION

- A. Arrange for installation of warning tape directly over piping and at outside edge of underground structures.
 1. Use detectable warning tape over nonferrous piping and over edges of underground structures.
 2. Tape shall include #10 wire as indicated on the Drawings.

3.10 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
 1. Submit separate reports for each system inspection.
 2. Defects requiring correction include the following:

- a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 4. Reinspect and repeat procedure until results are satisfactory.
- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
 2. Test completed piping systems according to requirements of authorities having jurisdiction.
 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 4. Submit separate report for each test.
 5. Gravity-Flow Storm Drainage Piping: Test according to requirements of authorities having jurisdiction.
- C. Leaks and loss in test pressure constitute defects that must be repaired.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

END OF SECTION 33 41 00

SECTION 33 42 14

SPECIFICATIONS FOR MANUFACTURE and INSTALLATION OF CON/SPAN® BRIDGE SYSTEMS

1. Description

- 1.1. Type This work shall consist of furnishing and constructing a CON/SPAN® bridge system in accordance with these specifications and in reasonably close conformity with the lines, grades, design and dimensions shown on the plans or as established by the Engineer. In situations where two or more specifications apply to this work, the most stringent requirements shall govern.
- 1.2. Designation Precast reinforced concrete CON/SPAN® bridge units manufactured in accordance with this specification shall be designated by span and rise. Precast reinforced concrete wingwalls and headwalls manufactured in accordance with this specification shall be designated by length, height, and deflection angle. Precast Reinforced Concrete Express™ foundation units manufactured in accordance with this specification shall be designated by length, height and width.

2. Design

- 2.1. Specifications The precast elements are designed in accordance with the "AASHTO LRFD Bridge Design Specifications" 8th Edition, adopted by the American Association of State Highway and Transportation Officials, 2017. A minimum of one foot of cover above the crown of the bridge units is required in the installed condition. (Unless noted otherwise on the shop drawings and designed accordingly.)

3. Materials

- 3.1. Concrete The concrete for the precast elements shall be air-entrained when installed in areas subject to freeze-thaw conditions, composed of Portland cement, fine and coarse aggregates, admixtures and water. Air-entrained concrete shall contain 6 ± 2 percent air. The air-entraining admixture shall conform to AASHTO M154. The minimum concrete compressive strength shall be as shown on the shop drawings.
- 3.1.1. Portland Cement - Shall conform to the requirements of ASTM Specifications C150-Type I, Type II, or Type III cement.
 - 3.1.2. Coarse Aggregate - Shall consist of stone having a maximum size of 1 inch. Aggregate shall meet requirements for ASTM C33.
 - 3.1.3. Water Reducing Admixture - The manufacturer may submit, for approval by the Engineer, a water-reducing admixture for the purpose of increasing workability and reducing the water requirement for the concrete.
 - 3.1.4. Calcium Chloride - The addition to the mix of calcium chloride or admixtures containing calcium chloride will not be permitted.
 - 3.1.5. Mixture The aggregates, cement and water shall be proportioned and mixed in a batch mixer to produce a homogeneous concrete meeting the strength requirements of this specification. The proportion of Portland cement in the mixture shall not be less than 564 pounds (6 sacks) per cubic yard of concrete.

3.2. Steel Reinforcement

- 3.2.1. The minimum steel yield strength shall be 60,000 psi, unless otherwise noted on the shop drawings.
 - 3.2.2. All reinforcing steel for the precast elements shall be fabricated and placed in accordance with the detailed shop drawings submitted by the manufacturer.
 - 3.2.3. Reinforcement shall consist of welded wire reinforcing conforming to ASTM Specification A 1064, or deformed steel bars conforming to ASTM Specification A 615, Grade 60. Longitudinal distribution reinforcement may consist of welded wire fabric or deformed billet-steel bars.
- 3.3. Steel Hardware
- 3.3.1. Bolts and threaded rods for wingwall connections shall conform to ASTM A 307. Nuts shall conform to AASHTO M292 (ASTM A194) Grade 2H. All bolts, threaded rods and nuts used in wingwall connections shall be mechanically zinc coated in accordance with ASTM B695 Class 50.
 - 3.3.2. Structural Steel for wingwall connection plates and plate washers shall conform to AASHTO M 270 (ASTM A 709) Grade 36 and shall be hot dip galvanized as per AASHTO M111 (ASTM A123).
 - 3.3.3. Inserts for wingwalls shall be 1" diameter Two-Bolt Preset Wingwall Anchors as manufactured by Dayton Superior Concrete Accessories, Miamisburg, Ohio, (800) 745-3700 and shall be electro zinc coated in accordance with ASTM B633 SC-1.
 - 3.3.4. Ferrule Loop Inserts shall be F-64 Ferrule Loop Inserts as manufactured by Dayton Superior Concrete Accessories, Miamisburg, Ohio, (800) 745-3700.
 - 3.3.5. Hook Bolts used in attached headwall connections shall be ASTM A307.
 - 3.3.6. Inserts for detached headwall connections shall be AISI Type 304 stainless steel, Expanded Coil inserts as manufactured by Dayton Superior Concrete Accessories, Miamisburg, Ohio, (800) 745-3700. Coil rods and nuts used in headwall connections shall be AISI Type 304 stainless steel. Washers used in headwall connections shall be either AISI Type 304 stainless steel plate washers or AASHTO M270 (ASTM A709) Grade 36 plate washers hot dip galvanized as per AASHTO M111 (ASTM A123).
 - 3.3.7. Mechanical splices of reinforcing bars shall be made using the Dowel Bar Splicer System as manufactured by Dayton Superior Concrete Accessories, Miamisburg, Ohio, (800) 745-3700, and shall consist of the Dowel Bar Splicer (DB-SAE) and Dowel-In (DI).
4. Manufacture of Precast Elements Subject to the provisions of Section 5, below, the precast element dimension and reinforcement details shall be as prescribed in the plan and shop drawings provided by the manufacturer.
- 4.1. Forms The forms used in manufacture shall be sufficiently rigid and accurate to maintain the required precast element dimensions within the permissible variations given in Section 5 of these specifications. All casting surfaces shall be of a smooth material.
 - 4.2. Placement of Reinforcement
 - 4.2.1. Placement of Reinforcement in Precast Bridge Units - The cover of concrete over the outside circumferential reinforcement shall be 2 inches minimum. The cover of concrete over the inside circumferential

reinforcement shall be 1 1/2 inches minimum, unless otherwise noted on the shop drawings. The clear distance of the end circumferential wires shall not be less than one inch nor more than two inches from the ends of each section. Reinforcement shall be assembled utilizing single or multiple layers of welded wire fabric (not to exceed 3 layers), supplemented with a single layer of deformed billet-steel bars, when necessary. Welded wire fabric shall be composed of circumferential and longitudinal wires meeting the spacing requirements of 4.3, below, and shall contain sufficient longitudinal wires extending through the bridge unit to maintain the shape and position of the reinforcement. Longitudinal distribution reinforcement may be welded wire fabric or deformed billet-steel bars and shall meet the spacing requirements of 4.3, below. The ends of the longitudinal distribution reinforcement shall be not more than 3 inches and not less than 1 1/2 inches from the ends of the bridge unit.

- 4.2.2. Bending of Reinforcement for Precast Bridge Units – The outside and inside circumferential reinforcing steel for the corners of the bridge shall be bent to such an angle that is approximately equal to the configuration of the bridge's outside corner.
- 4.2.3. Placement of Reinforcement for Precast Wingwalls and Headwalls - The cover of concrete over the longitudinal and transverse reinforcement shall be 2 inches minimum. The clear distance from the end of each precast element to the end of reinforcing steel shall not be less than 1/2 inch nor more than 3 inches. Reinforcement shall be assembled utilizing a single layer of welded wire fabric, or a single layer of deformed billet-steel bars. Welded wire fabric shall be composed of transverse and longitudinal wires meeting the spacing requirements of 4.3, below, and shall contain sufficient longitudinal wires extending through the element to maintain the shape and position of the reinforcement. Longitudinal reinforcement may be welded wire fabric or deformed billet-steel bars and shall meet the spacing requirements of 4.3, below.
- 4.2.4. Placement of Reinforcement for Precast Foundation Units – The cover of concrete over the bottom reinforcement shall be 3 inches minimum. The cover of concrete for all other reinforcement shall be 2 inches minimum. The clear distance from the end of each precast element to the end of reinforcing steel shall not be less than 2 inches nor more than 3 inches. Reinforcement shall be assembled utilizing a single layer of welded wire fabric or a single layer of deformed billet-steel bars. Welded wire fabric shall be composed of transverse and longitudinal wires meeting the spacing requirements of 4.3, below, and shall contain sufficient longitudinal wires extending through the element to maintain the shape and position of the reinforcement. Longitudinal reinforcement may be welded wire fabric or deformed billet-steel bars and shall meet the spacing requirements of 4.3, below.

4.3. Laps, Welds, Spacing

- 4.3.1. Laps, Welds, and Spacing for Precast Bridge Units - Tension splices in the circumferential reinforcement shall be made by lapping. Laps may be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 8.30.2 and 8.32.6. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 8.30.1 and 8.32.5. The overlap of welded wire fabric shall be measured between the outer-most longitudinal wires of each fabric sheet. For deformed billet-steel bars, the overlap shall meet

the requirements of AASHTO 8.25. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be not less than 2 inches nor more than 4 inches. The spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 1 foot 4 inches.

- 4.3.2. Laps, Welds, and Spacing for Precast Wingwalls, Headwalls and Foundations - Splices in the reinforcement shall be made by lapping. Laps may be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 8.30.2 and 8.32.6. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 8.30.1 and 8.32.5. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 8.25. The spacing center-to-center of the wires in a wire fabric sheet shall be not less than 2 inches nor more than 8 inches.

- 4.4. Curing The precast concrete elements shall be cured for a sufficient length of time so that the concrete will develop the specified compressive strength in 28 days or less. Any one of the following methods of curing or combinations thereof shall be used:

- 4.4.1. Steam Curing - The precast elements may be low-pressure steam cured by a system that will maintain a moist atmosphere.
- 4.4.2. Water Curing - The precast elements may be water cured by any method that will keep the sections moist.
- 4.4.3. Membrane Curing - A sealing membrane conforming to the requirements of ASTM Specification C309 may be applied and shall be left intact until the required concrete compressive strength is attained. The concrete temperature at the time of application shall be within +/- 10 degrees F of the atmospheric temperature. All surfaces shall be kept moist prior to the application of the compounds and shall be damp when the compound is applied.

- 4.5. Storage, Handling & Delivery

- 4.5.1. Storage

Precast concrete bridge elements shall be lifted and stored in "as-cast" position.

Precast concrete headwall and wingwall units are cast, stored and shipped in a flat position.

The precast elements shall be stored in such a manner to prevent cracking or damage. Store elements using timber supports as appropriate. The units shall not be moved until the concrete compressive strength has reached a minimum of 2500 psi, and they shall not be stored in an upright position.

- 4.5.2. Handling

Handling devices shall be permitted in each precast element for the purpose of handling and setting.

Spreader beams may be required for the lifting of precast concrete bridge elements to preclude damage from bending or torsion forces.

- 4.5.3. Delivery

Precast concrete elements must not be shipped until the concrete has attained the specified design compressive strength, or as directed by the design Engineer.

Precast concrete elements may be unloaded and placed on the ground at the site until installed. Store elements using timber supports as appropriate.

4.6. Quality Assurance The Precaster shall demonstrate adherence to the standards set forth in the NPCA Quality Control Manual. The Precaster shall meet either Section 4.6.1 or 4.6.2

4.6.1. Certification: The Precaster shall be certified by the Precast/Prestressed Concrete Institute Plant Certification Program or the National Precast Concrete Association's Plant Certification Program prior to and during production of the products covered by this specification.

4.6.2. Qualifications, Testing and Inspection

4.6.2.1. The Precaster shall have been in the business of producing precast concrete products similar to those specified for a minimum of three years. He shall maintain a permanent quality control department or retain an independent testing agency on a continuing basis. The agency shall issue a report, certified by a licensed engineer, detailing the ability of the Precaster to produce quality products consistent with industry standards.

4.6.2.2. The Precaster shall show that the following tests are performed in accordance with the ASTM standards indicated. Tests shall be performed as indicated in Section 6 of these specifications.

4.6.2.2.1. Air Content: C231 or C173

4.6.2.2.2. Compressive Strength: C31, C39, C497

4.6.2.3. The Precaster shall provide documentation demonstrating compliance with this section to CONTECH® Engineered Solutions at regular intervals or upon request.

4.6.2.4. The Owner may place an inspector in the plant when the products covered by this specification are being manufactured.

4.6.3. Documentation - The Precaster shall submit Precast Production Reports to CONTECH® Engineered Solutions as required.

5. Permissible Variations

5.1. Bridge Units

5.1.1. Internal Dimensions - The internal dimension shall vary not more than 1% from the design dimensions nor more than 1-1/2 inches whichever is less.

5.1.2. Slab and Wall Thickness - The slab and wall thickness shall not be less than that shown in the design by more than 1/4 inch. A thickness more than that required in the design shall not be cause for rejection.

5.1.3. Length of Opposite Surfaces - Variations in laying lengths of two opposite surfaces of the bridge unit shall not be more than 1/2 inch in any section, except where beveled ends for laying of curves are specified by the purchaser.

- 5.1.4. Length of Section - The underrun in length of a section shall not be more than 1/2 inch in any bridge unit.
- 5.1.5. Position of Reinforcement - The maximum variation in position of the reinforcement shall be $\pm 1/2$ inch. In no case shall the cover over the reinforcement be less than 1 1/2 inches for the outside circumferential steel or be less than 1 inch for the inside circumferential steel as measured to the external or internal surface of the bridge. These tolerances or cover requirements do not apply to mating surfaces of the joints.
- 5.1.6. Area of Reinforcement - The areas of steel reinforcement shall be the design steel areas as shown in the manufacturer's shop drawings. Steel areas greater than those required shall not be cause for rejection. The permissible variation in diameter of any reinforcement shall conform to the tolerances prescribed in the ASTM Specification for that type of reinforcement.

5.2. Wingwalls & Headwalls

- 5.2.1. Wall Thickness - The wall thickness shall not vary from that shown in the design by more than 1/2 inch.
- 5.2.2. Length/ Height of Wall sections - The length and height of the wall shall not vary from that shown in the design by more than 1/2 inch.
- 5.2.3. Position of Reinforcement - The maximum variation in the position of the reinforcement shall be $\pm 1/2$ inch. In no case shall the cover over the reinforcement be less than 1 1/2 inches.
- 5.2.4. Size of Reinforcement - The permissible variation in diameter of any reinforcing shall conform to the tolerances prescribed in the ASTM Specification for that type of reinforcing. Steel area greater than that required shall not be cause for rejection.

5.3. Foundation Units

- 5.3.1. Wall Thickness - The wall thickness shall not vary from that shown in the design by more than 1/2 inch.
- 5.3.2. Length/ Height/Width of Foundation sections - The length, height and width of the foundation units shall not vary from that shown in the design by more than 1/2 inch.
- 5.3.3. Position of Reinforcement - The maximum variation in the position of the reinforcement shall be $\pm 1/2$ inch. In no case shall the cover over the reinforcement be less than 1 1/2 inches.
- 5.3.4. Size of Reinforcement - The permissible variation in diameter of any reinforcing shall conform to the tolerances prescribed in the ASTM Specification for that type of reinforcing. Steel area greater than that required shall not be cause for rejection.

6. Testing/ Inspection

6.1. Testing

- 6.1.1. Type of Test Specimen - Concrete compressive strength shall be determined from compression tests made on cylinders or cores. For cylinder testing, a minimum of 4 cylinders shall be taken for each bridge element. Each element shall be considered separately for the purpose of testing and acceptance.

- 6.1.2. Compression Testing - Cylinders shall be made and tested as prescribed by the ASTM C 39 Specification. Cylinders shall be cured in the same environment as the bridge elements. Cores shall be obtained and tested for compressive strength in accordance with the provisions of the ASTM C42 specification.
- 6.1.3. Acceptability of Cylinder Tests - When the average compressive strength of all cylinders tested is equal to or greater than the design compressive strength, and not more than 10% of the cylinders tested have a compressive strength less than the design concrete strength, and no cylinder tested has a compressive strength less than 80% of the design compressive strength, then the element shall be accepted. When the compressive strength of the cylinders tested does not conform to these acceptance criteria, the acceptability of the element may be determined as described in section 6.1.4, below.
- 6.1.4. Acceptability of Core Tests - The compressive strength of the concrete in a bridge element is acceptable when the average core test strength is equal to or greater than the design concrete strength. When the compressive strength of a core tested is less than the design concrete strength, the precast element from which that core was taken may be re-cored. When the compressive strength of the re-core is equal to or greater than the design concrete strength, the compressive strength of the concrete in that bridge element is acceptable.
- 6.1.4.1. When the compressive strength of any recore is less than the design concrete strength, the precast element from which that core was taken shall be rejected.
- 6.1.4.2. Plugging Core Holes - The core holes shall be plugged and sealed by the manufacturer in a manner such that the elements will meet all of the test requirements of this specification. Precast elements so sealed shall be considered satisfactory for use.
- 6.1.4.3. Test Equipment - Every manufacturer furnishing precast elements under this specification shall furnish all facilities and personnel necessary to carry out the test required.
- 6.2. Inspection The quality of materials, the process of manufacture, and the finished precast elements shall be subject to inspection by the purchaser.
7. Joints The bridge units shall be produced with flat butt ends. The ends of the bridge units shall be such that when the sections are laid together they will make a continuous line with a smooth interior free of appreciable irregularities, all compatible with the permissible variations in section 5, above. The joint width between adjacent precast units shall not exceed 3/4 inches.
8. Workmanship/ Finish The bridge units, wingwalls, headwalls and foundation units shall be substantially free of fractures. The ends of the bridge units shall be normal to the walls and centerline of the bridge section, within the limits of the variations given in section 5, above, except where beveled ends are specified. The faces of the wingwalls and headwalls shall be parallel to each other, within the limits of variations given in section 5, above. The surface of the precast elements shall be a smooth steel form or troweled surface. Trapped air pockets causing surface defects shall be considered as part of a smooth, steel form finish.
9. Repairs Precast elements may be repaired, if necessary, because of imperfections in manufacture or handling damage and will be acceptable if, in the opinion of the purchaser,

the repairs are sound, properly finished and cured, and the repaired section conforms to the requirements of this specification.

10. Rejection The precast elements shall be subject to rejection on account of any of the specification requirements. Individual precast elements may be rejected because of any of the following:

- 10.1. Fractures or cracks passing through the wall, except for a single end crack that does not exceed one half the thickness of the wall.
- 10.2. Defects that indicate proportioning, mixing, and molding not in compliance with section 4 of these specifications.
- 10.3. Honeycombed or open texture.
- 10.4. Damaged ends, where such damage would prevent making a satisfactory joint.

11. Marking Each bridge unit shall be clearly marked by waterproof paint. The following shall be shown on the inside of the vertical leg of the bridge section:

Bridge Span X Bridge Rise
Date of Manufacture
Name or trademark of the manufacturer

12. Installation Preparation To ensure correct installation of the precast concrete bridge system, care and caution must be exercised in forming the support areas for bridge units, headwall, and wingwall elements. Exercising special care will facilitate the rapid installation of the precast components.

12.1. Footings

Do not over excavate foundations unless directed by site soil engineer to remove unsuitable soil.

The site soils engineer shall certify that the bearing capacity meets or exceeds the footing design requirements, prior to the contractor pouring of the footings. The bridge units and wingwalls shall be installed on either precast or cast-in-place concrete footings. The size and elevation of the footings shall be as designed by the Engineer. A keyway shall be formed in the top surface of the bridge footing as specified on the plans. No keyway is required in the wingwall footings, unless otherwise specified on the plans.

The footings shall be given a smooth float finish and shall reach a compressive strength of 2,000 psi before placement of the bridge and wingwall elements. Backfilling shall not begin until the footing has reached the full design compressive strength.

The footing surface shall be constructed in accordance with grades shown on the plans. When tested with a 10-foot straight edge, the surface shall not vary more than 1/4 inch in 10 feet.

If a precast concrete footing is used, the contractor shall prepare a 4-inch thick base layer of compacted granular material the full width of the footing prior to placing the precast footing.

The foundations for precast concrete bridge elements and wingwalls must be connected by reinforcement to form one monolithic body. Expansion joints shall not be used.

The contractor shall be responsible for the construction of the foundations per the plans and specifications.

13. Installation

13.1. General The installation of the precast concrete elements shall be as explained in the publication *CON/SPAN Bridge Systems Installation Handbook*.

13.1.1. Lifting It is the responsibility of the contractor to ensure that a crane of the correct lifting capacity is available to handle the precast concrete units. This can be accomplished by using the weights given for the precast concrete components and by determining the lifting reach for each crane unit. Site conditions must be checked well in advance of shipping to ensure proper crane location and to avoid any lifting restrictions. The lift anchors or holes provided in each unit are the only means to be used to lift the elements. The precast concrete elements must not be supported or raised by other means than those given in the manuals and drawings without written approval from CONTECH® Engineered Solutions.

13.1.2. Construction equipment weight restrictions: In no case shall equipment operating in excess of the design load (HL93) be permitted over the bridge units unless approved by CONTECH® Engineered Solutions.

13.1.2.1. In the immediate area of the bridge units, the following restrictions for the use of heavy construction machinery during backfilling operations apply:

- No construction equipment shall cross the bare precast concrete bridge unit.
- After the compacted fill level has reached a minimum of 4 inches over the crown of the bridge, construction equipment with a weight of less than 10 tons may cross the bridge.
- After the compacted fill level has reached a minimum of 1 foot over the crown of the bridge, construction equipment with a weight of less than 30 tons may cross the bridge.
- After the compacted fill level has reached the design cover, or 2 feet minimum, over the crown of the precast concrete bridge, construction equipment within the design load limits for the road may cross the precast concrete bridge.

13.2. Leveling Pad/ Shims The bridge units and wingwalls shall be set on hardboard shims conforming to ASTM D1037 or plastic shims (Dayton Superior P-80, P-81 or approved equal) measuring 5" x 5", minimum, unless shown otherwise on the plans. A minimum gap of 1/2 inch shall be provided between the footing and the bottom of the bridge's vertical legs or the bottom of the wingwall. Also, a supply of 1/4 inch, 1/2 inch & 1/8 inch thick hardboard or plastic shims for various shimming purposes shall be on site.

13.3. Placement of Bridge Units

The bridge units shall be placed as shown on the Engineer's plan drawings. Special care shall be taken in setting the elements to the true line and grade. The joint width between adjacent precast units shall not exceed 3/4 inches.

13.4. It is the contractor's responsibility to maintain the structure span during all phases of installation. Due to the arch shape, bridge elements will tend to spread under self-weight. It is imperative that any lateral spreading of the bridge elements be avoided during and after their placement. Generally, horizontal cable ties or tie

rods are shipped in the larger bridge elements to assist in preventing this spreading. Cable ties/tie rods shall not be removed until bridge units are grouted and grout has cured. It is recommended that temporary hardwood blocks be used in conjunction with the cable/tie rods to maintain span. If, however, due to site restrictions, these cable ties/tie rods must be removed prior to placement of the bridge elements, the contractor must notify CONTECH (manufacturer) and request a suggested installation procedure.

In addition, if the cable ties/tie rods must be removed prior to setting arch units, the following quality control procedure must be followed:

- 1) Find "measured span" upon arch unit's delivery to site, prior to lifting from truck and removing cable ties/tie rods. "Measured span" shall be the average of (3) span measurements along the lay length of the arch unit.
- 2) After setting of bridge unit on the foundation, verify the span. This "installed span measurement" shall not exceed the maximum of
 - A) The nominal span + ½" OR
 - B) The "measured span".

If the "installed span measurement" exceeds this amount, the arch unit shall be lifted and re-set until the "installed span measurement" meets the limits.

13.5. Placement of Wingwalls ,Headwalls & Foundation Units

The wingwalls, headwalls and foundations shall be placed as shown on the plan drawings. Special care shall be taken in setting the elements to the true line and grade.

13.6. Waterproofing/ Joint protection and Subsurface Drainage

- 13.6.1. External Protection of Joints - The butt joint made by two adjoining bridge units shall be covered with a 7/8" x 1 3/8" preformed bituminous joint sealant and a minimum of a 9-inch wide joint wrap. The surface shall be free of dirt before applying the joint material. A primer compatible with the joint wrap to be used shall be applied for a minimum width of nine inches on each side of the joint. The external wrap shall be CS-212 by CONCRETE SEALANTS INC., EZ-WRAP RUBBER by PRESS-SEAL GASKET CORPORATION, SEAL WRAP by MAR MAC MANUFACTURING CO. INC. or approved equal. The joint shall be covered continuously from the bottom of one bridge section leg, across the top of the bridge and to the opposite bridge section leg. Any laps that result in the joint wrap shall be a minimum of six inches long with the overlap running downhill.
- 13.6.2. In addition to the joints between bridge units, the joint between the end bridge unit and the headwall shall also be sealed as described above. If precast wingwalls are used, the joint between the end bridge unit and the wingwall shall be sealed with a 2'-0" strip of filter fabric. Also, if lift holes are formed in the bridge units, they shall be primed and covered with a 9" x 9" square of joint wrap.
- 13.6.3. During the backfilling operation, care shall be taken to keep the joint wrap in its proper location over the joint.
- 13.6.4. Subsoil drainage shall be as directed by the engineer.

13.7. Grouting

- 13.7.1. Grouting shall not be performed when temperatures are expected to go below 35° for a period of 72 hours. Grouting should be completed as soon as practical after precast arches have been installed.

Fill the bridge-foundation keyway with cement grout (Portland cement and water or cement mortar composed of Portland cement, sand and water) with a minimum 28-day compressive strength of 3000 psi. Vibrate as required to ensure that the entire key around the bridge element is completely filled. If bridge elements have been set with temporary ties (cables, bars, etc.) grout must attain a minimum compressive strength of 1500 psi before ties may be removed.

- 13.7.2. All grout shall have a maximum aggregate size of ¼ inch.
- 13.7.3. Lifting and erection anchor recesses shall be filled with grout.
- 13.7.4. After grout has reached its design strength the temporary hardwood wedges shall be removed and their holes filled with grout.

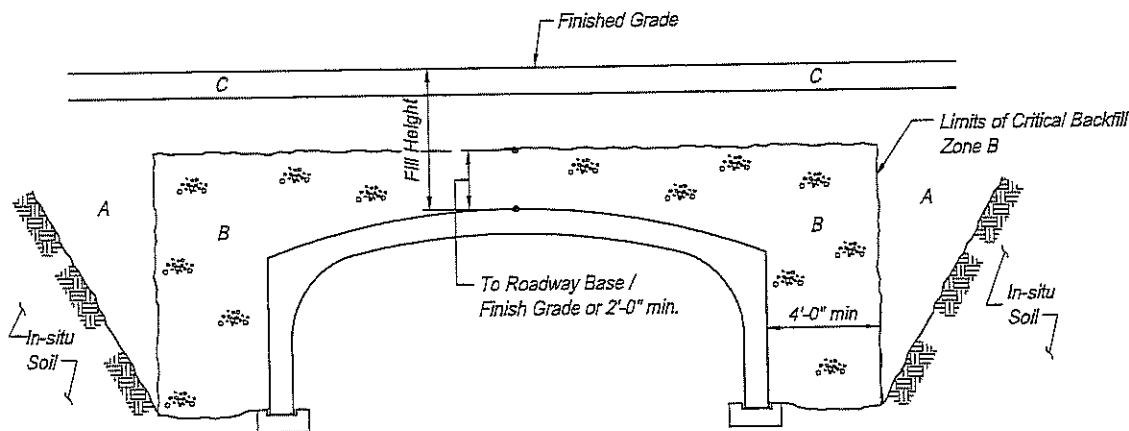
13.8. Backfill

- 13.8.1. Do not perform backfilling during wet or freezing weather.
- 13.8.2. No backfill shall be placed against any structural elements until they have been approved by the Engineer.
- 13.8.3. Backfill shall be considered as all replaced excavation and new embankment adjacent to the precast concrete elements. The project construction and material specifications, which include the specifications for excavation for structures and roadway excavation and embankment construction, shall apply except as modified in this section.

13.8.4. Backfill Zones

- In-situ soil
- Zone A: constructed embankment or overfill.
- Zone B: fill that is directly associated with precast concrete bridge installation.
- Zone C: road structure.

13.8.5. Required Backfill Properties



13.8.5.1. In-situ soil

Natural ground is to be sufficiently stable to allow effective support to the precast concrete bridge units. As a guide, the existing natural ground should be of similar quality and density to Zone B material for minimum lateral dimension of one bridge span outside of the bridge footing.

13.8.5.2. Zone A

Zone A requires fill material with specifications and compacting procedures equal to that for normal road embankments.

13.8.5.3. Zone B

Generally, soils shall be reasonably free of organic matter, and, near concrete surfaces, free of stones larger than 3 inches in

SPAN	FILL HEIGHT	ACCEPTABLE MATERIAL INSIDE ZONE B
≤ 24'-0"	≥ 12'-0"	A1, A3
≤ 24'-0"	< 12'-0"	A1, A2, A3, A4
> 24'-0"	all	A1, A3

Acceptable Soils for use in Zone B Backfill

Typical USCS Materials	AASHTO Group	AASHTO Subgroup	Percent passing US Sieve No.			Character of Fraction passing No. 40 Sieve		Soil Description
			#10	#40	#200	Liquid Limit	Plasticity Index	
GW, GP, SP	A-1	A-1a	50 max	30 max	15 max		6 max	Largely gravel but can include sand and fines
GM, SW, SP, SM		A-1b		50 max	25 max		6 max	Gravelly sand or graded sand, may include fines
GM, SM, ML, SP, GP	A-2	A-2-4			35 max	40 max	10 max	Sands, gravels with low-plasticity silt fines
SC, GC, GM		A-2-5			35 max	41 min	10 max	Sands, gravels with plastic silt fines
SP, SM, SW	A-3			51 min	10 max		non-plastic	Fine sands
ML, SM, SC	A-4				36 min	40 max	10 max	Low-compressibility silts

diameter. See charts for detailed descriptions of acceptable soils.

13.8.5.4. Zone C

Zone C is the road section of gravel, asphalt or concrete built in compliance with local engineering practices.

13.8.5.5. Geotechnical engineer shall review gradations of all interfacing materials and, if necessary, recommend geotextile filter fabric (provided by contractor).

13.8.6. Placing and Compacting Backfill

Dumping for backfilling is not allowed any nearer than 3 ft from the bridge leg.

The fill must be placed and compacted in layers not exceeding 8 inches. The maximum difference in the surface levels of the fill on opposite sides of the bridge must not exceed 2 feet.

The fill behind wingwalls must be placed at the same time as that of the bridge fill. It must be placed in progressively placed horizontal layers not exceeding 8 inches per layer.

The backfill of Zone B shall be compacted to a minimum density of 95% of the Standard Proctor, as required by AASHTO T-99.

Soil within 1 foot of concrete surfaces shall be hand-compacted. Elsewhere, use of rollers is acceptable. If vibrating roller-compactors are used, they shall not be started or stopped within Zone B and the vibration frequency should be at least 30 revolutions per second.

The backfill material and compacting behind wingwalls shall satisfy the criteria for the bridge backfill, Zone B.

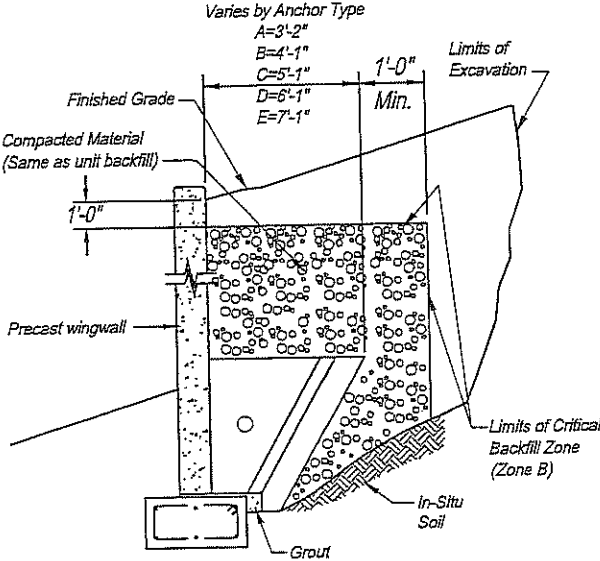
Backfill against a waterproofed surface shall be placed carefully to avoid damage to the waterproofing material.

13.8.7. Bridge Units

For fill heights over 12 feet (as measured from top crown of bridge to finished grade), no backfilling may begin until a backfill compaction testing plan has been coordinated with and approved by CONTECH® Engineered Solutions.

13.8.8. Wingwalls

Backfill in front of wingwalls shall be carried to ground lines shown in the plans.



13.8.9. Monitoring

The contractor shall check settlements and horizontal displacement of foundation to ensure that they are within the allowable limit provided by the engineer. These measurements should give an indication of the settlements and deformations along the length of the foundations.

The first measurement should take place after the erection of all precast bridge system elements, a second after completion of backfilling, and a third before opening of the bridge to traffic. Further measurements may be made according to local conditions.

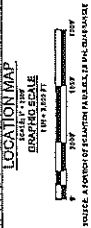
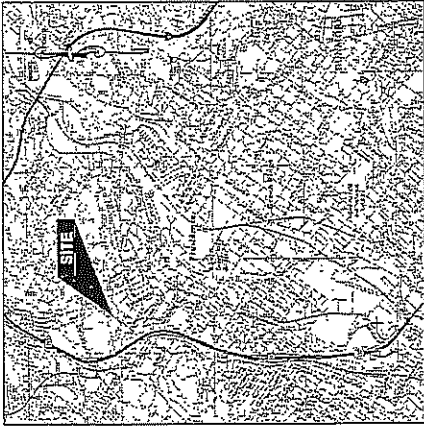
Conditions for an approved equal structure are as follows:

1. If the use of an alternate precast structure culvert, headwall and wingwalls are elected, furnish at no expense to *City of Scranton (City)*, detailed design engineering calculations and drawings on reproducible drafting film of the alternate structure. Provide an alternate design equivalent to the original design and meeting applicable design criteria for strength and serviceability. Submit the alternate design, for acceptance, to the Review Consultant and the City two weeks prior to the advertised bid date. This allows the Review Consultant and the City to issue an addendum for the alternate structure. Provide a complete set of computations for the alternate design, including the designs of the precast span segments, headwalls, wingwalls, all substructure elements and their foundations. Furnish tabulation on the drawings identifying the major differences between the "as designed" structure and the alternate design. Include this tabulation with the alternative submission
2. The alternate structure system must be a Pennsylvania Department of Transportation (PENNDOT) approved opened bottom, pre-cast arch bridge system supplied by a fabricator listed in PENNDOT's Bulletin 15 list of approved fabricators. The fabricator must have a minimum of 15 years of experience as a PENNDOT, approved pre-caster for 3 sided precast arch structures. All precast components must be fabricated within the approved fabricator's facility. Any delay in the submission and/or acceptance of the alternate design will not extend the contract time.
3. The Contractor shall pay a fee to the City's Review Consultant for their costs to review the alternate design. The amount of the fee is \$3,000.00 for each alternate structure. The alternate review fee must be submitted to the Review Consultant with the submission of the alternate design. Acceptance of the alternate design will not be granted until receipt of the alternate design review fee.
4. The minimum wall thickness shall not be less than that shown on the plans.
5. The alternate design must be completed, signed, and sealed by a Professional Engineer registered in the Commonwealth of Pennsylvania and employed by a Consulting Company licensed in the Commonwealth of Pennsylvania. The design must show a load rating table for the appropriate PENNDOT loads. In the first sheet of the computations for the alternate design, show a Professional Engineer's seal, signature, and the date signed.
6. If an alternate is selected, perform required design in accordance with current PENNDOT standards unless otherwise indicated or specified. Current design practice includes the use of all-applicable codes, PENNDOT design specifications, policies, and procedures in effect on the date bids are opened.

7. The alternate design cannot change the indicated horizontal and vertical alignments or the waterway opening of the structure. The top exterior surface shall have positive drainage with a minimum slope of 3 % from the centerline of the span to the exterior corner of the structure.
8. Design the alternate structure to be within the limits of allowable foundation bearing pressures as indicated for the "as designed" structure. Redesign the foundations and compute the actual maximum foundation pressures and settlements and submit to the City for review and acceptance. Do not exceed the allowable bearing capacity as indicated on the plans. Do not change the bottom of footing elevation unless approved by the City.
9. For alternate designs, use the load factor method and the design loads described in PENNDOT's design policies.
10. Use the same design loads, methods, and grade of reinforcement and class of concrete, as indicated for the "as designed" structure.
11. All visible corners and edges to have a minimum of $\frac{3}{4}$ " x $\frac{3}{4}$ " chamfer. All interior surfaces and exterior surfaces of the precast concrete unit to have steel form finish.
12. The interior surfaces of the structure joints shall be in alignment with a tolerance of plus or minus $\frac{3}{8}$ ". This shall be checked by the project engineer and approved as the structure units are placed.
13. The joint width shall be a maximum of $\frac{3}{4}$ " wide. This shall be checked and approved by the project engineer as the structure units are placed.

BLOOM AVENUE CULVERT REPLACEMENT ALONG LEACH CREEK

THE CITY OF SCRANTON
LACKAWANNA COUNTY,
PENNSYLVANIA
MAY 14, 2021



PREPARED BY:
Rutherford-bowen
Engineering, Design, Construction Services
328 WARD ST.
DUNMORE, PA 16812-2424
PHONE (870)498-7020 FAX (870)488-7021

GENERAL NOTES:

1. THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA, IS THE CLIENT AND DEVELOPER.
2. ENGINEERS: RUTHERFORD-BOWEN, P.C., 200 WARD ST., DUNMORE, PA 16811, PH: 870-488-7020
3. DEVELOPMENT PLANS FOR THIS REPLACEMENT PLAN FOR A CULVERT LOCATED AT THE INTERSECTION OF BLOOM AVENUE AND LEACH CREEK.
4. EXISTING TOPOG. SHALL NOT BE REPRODUCED FROM THE PROJECT FILE.
5. EXISTING SOILS SHALL BE OBTAINED FROM THE U.S. DEPARTMENT OF AGRICULTURE, WEB SOIL SURVEY.
6. EXISTING UTILITIES AND TOPOGRAPHY TO BE OBTAINED BY THE SURVEY OF THE PROJECT FILE.
7. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS IS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY THE FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL UTILITIES SHOWN ON THE PLANS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS, INCLUDING EXISTING UTILITIES, BEFORE COMMENCING WORK. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
12. ALL CONTRACTORS SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATORY AGENCIES AND AGENCIES WITH ALL LOCAL, STATE AND FEDERAL REGULATORY AGENCIES.
13. WHEN THE DEPTH OF TRENCH EXCEEDS FEET, A TRENCH BOX OR SHIELDING SHALL BE USED TO PROTECT THE WORKERS AND THE PUBLIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
14. THE CONTRACTOR SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING UTILITY.
15. THE CONTRACTOR SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING UTILITY.
16. UNDESIRABLE MATERIALS (NOT TO BE LISTED FOR DISMANTLEMENT) SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
17. ELEVATION SHOWN HEREON ARE BASED ON ACTUAL FIELD SURVEY DATA (DIN 88 DATUM).
18. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
19. SOILS OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
20. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR AND ALL CONSEQUENCES OF ANY DAMAGE TO THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.
21. SOILS OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF SCRANTON, LACKAWANNA COUNTY, PENNSYLVANIA.

SHEET NUMBER	SHEET TITLE
001	GENERAL NOTES
002	PLAN VIEW
003	CROSS SECTION
004	UTILITY LOCATIONS
005	NOTES & DETAILS
006	NOTES & DETAILS
007	CULVERT NOTES & DETAILS
008	CULVERT NOTES & DETAILS

UTILITY COMPANIES

COMPANY: ELECTRIC UTILITIES CORPORATION
ADDRESS: 300 BROADWAY STREET
SCRANTON, PA 18503
CONTACT: JAMES SHALL
EMAIL: JAMES.SHALL@EUCORP.COM

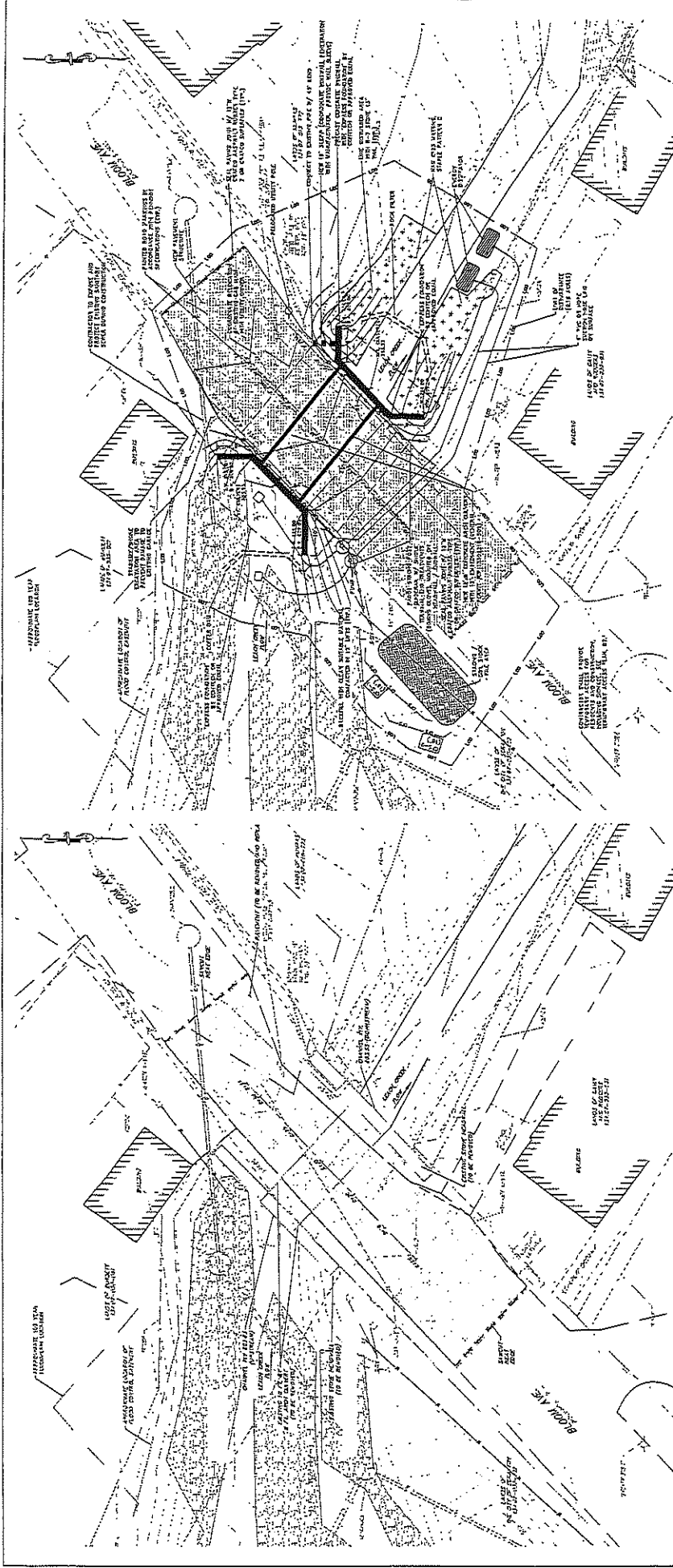
COMPANY: PENNSYLVANIA WATER & SEWER AUTHORITY
ADDRESS: 200 SOUTH 4TH STREET
SCRANTON, PA 18503
CONTACT: JAMES SHALL
EMAIL: JAMES.SHALL@PWSA.PA.GOV

COMPANY: PENNSYLVANIA GAS COMPANY
ADDRESS: 200 SOUTH 4TH STREET
SCRANTON, PA 18503
CONTACT: JAMES SHALL
EMAIL: JAMES.SHALL@PG&E.COM

COMPANY: PENNSYLVANIA TELEPHONE COMPANY
ADDRESS: 200 SOUTH 4TH STREET
SCRANTON, PA 18503
CONTACT: JAMES SHALL
EMAIL: JAMES.SHALL@PTD.COM



C0.1



EXISTING CONDITIONS / DEMOLITION PLAN

SITE LAYOUT & E&S PLAN

UTILITY NOTES:

ALL UTILITIES SHOWN ARE BASED ON THE MOST RECENT RECORD DRAWINGS AND FIELD SURVEY. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL MAINTAIN ADEQUATE RECORDING OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN ADEQUATE RECORDING OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION.

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NO.	DATE	DESCRIPTION	BY	CHECKED

PERINUTRIAL SYSTEMS, INC.
 ENGINEERING, DESIGN, CONSTRUCTION SERVICES
 NOTICE FOR CONSTRUCTION PHASE AND IS VALID FOR 90 DAYS FROM THE DATE OF ISSUANCE.
 PHONE: 610-398-1100
 FAX: 610-398-1101



EXISTING CONDITIONS / DEMOLITION PLAN

SITE LAYOUT & E&S PLAN

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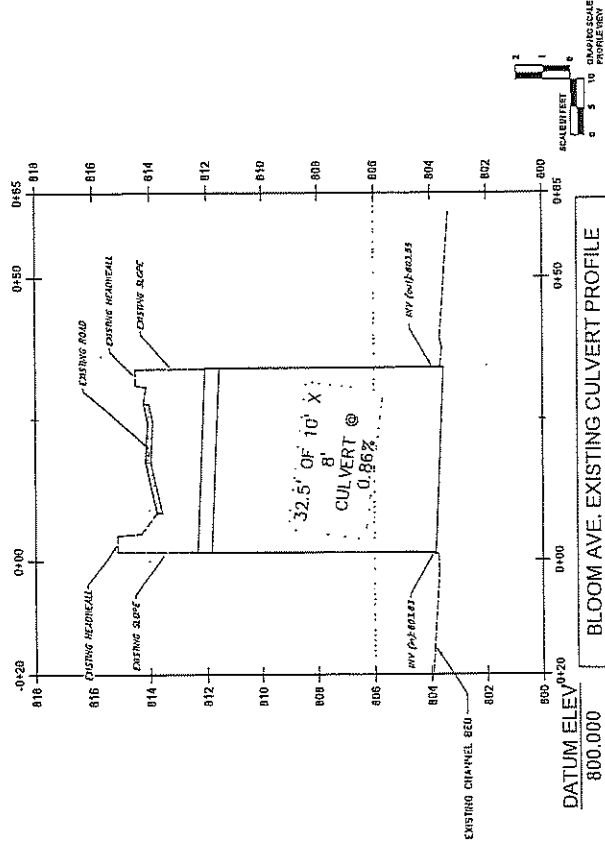
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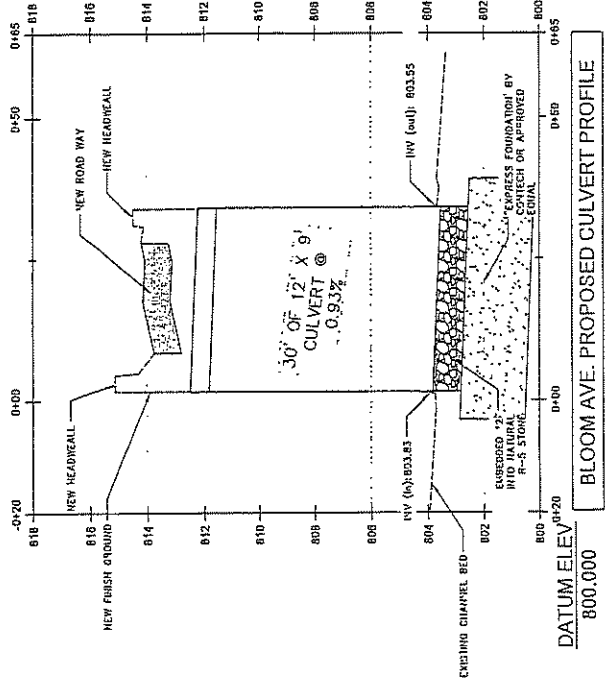
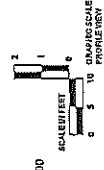
PERINUTRIAL SYSTEMS, INC.
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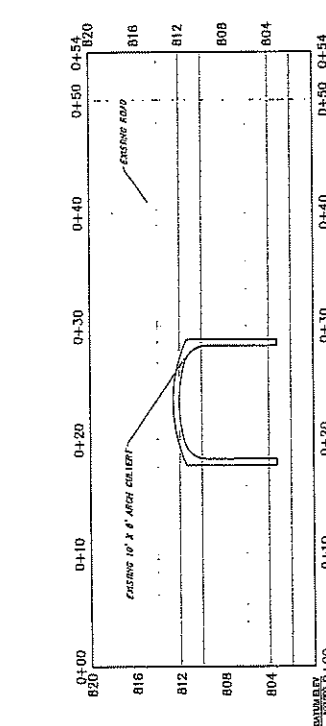
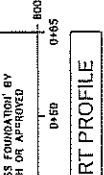
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NO.	DATE	DESCRIPTION																													
DATE	NO.	DESCRIPTION																													
<p>BLOOD AVENUE CULVERT REPLACEMENT THE CITY OF SCRANTON LACKAWANNA COUNTY, PENNSYLVANIA</p>		<p>SCALE: AS SHOWN</p>	<p>RECEIVING WATERSHED AND CHAPTER 93 DESIGNATION WATERSHED: LEACH CREEK - HIGH SEVERED RISK - IMPACT OF PM (UP-UP)</p>																												



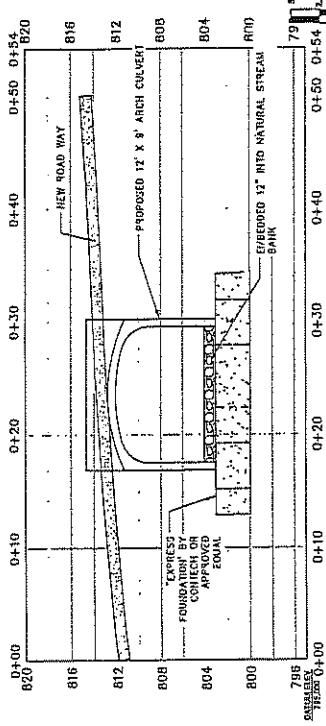
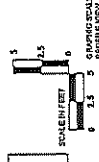
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BLOOM AVE. EXISTING CULVERT PROFILE



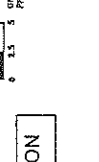
DATUM ELEV. 800.000
BLOOM AVE. PROPOSED CULVERT PROFILE



BLOOM AVE. EXISTING CULVERT SECTION



BLOOM AVE. PROPOSED CULVERT SECTION



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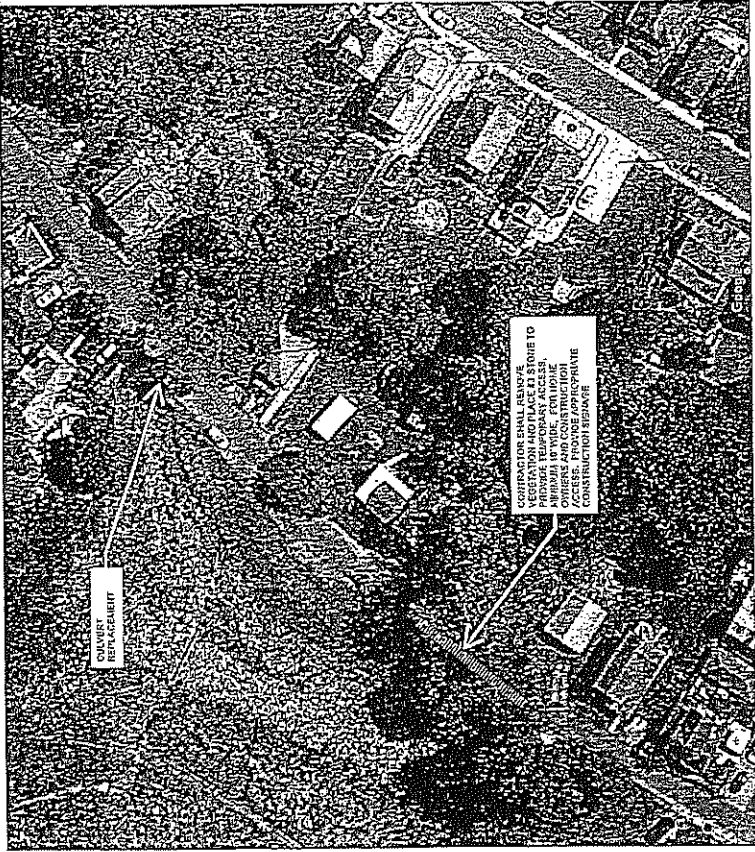
THE CITY OF SCRANTON
340 NORTH WASHINGTON AVE.
SCRANTON PENNSYLVANIA, 18509

BLOOM AVENUE CULVERT
REPLACEMENT
THE CITY OF SCRANTON
LACKAWANNA COUNTY, PENNSYLVANIA

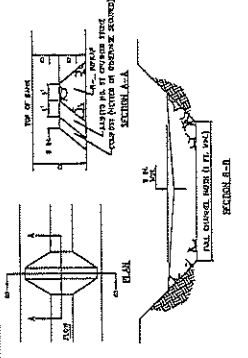
reuther-bowman
Engineering, Inc., Consulting Services
215 WARD ST.
PHILADELPHIA, PA 19106
PHONE (215) 795-1000
FAX (215) 795-1001

CROSS SECTIONS AND PROFILES		
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05/14/2021	BBB	101
AS SHOWN	DPL	
DATE	BY	NO.
3/19/15	MB	

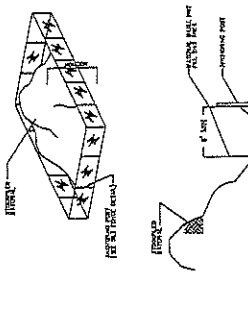
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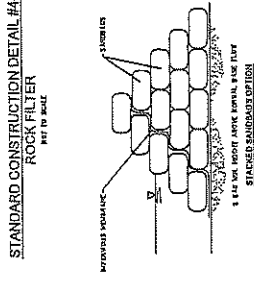
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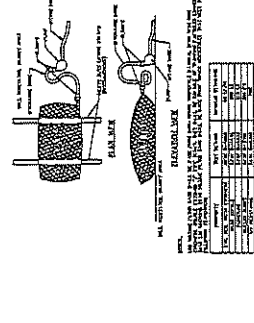
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ROCK FILTER
NOT TO SCALE



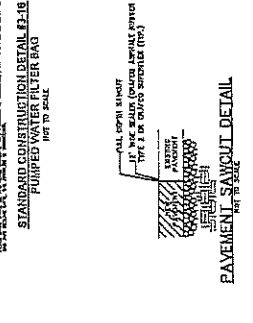
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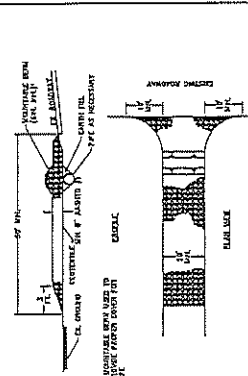
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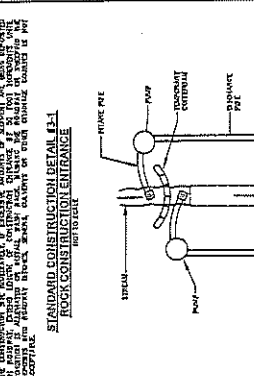
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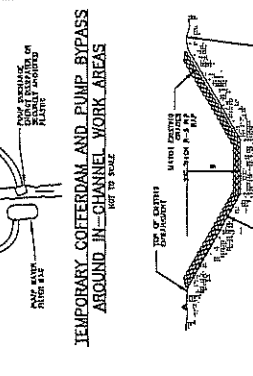
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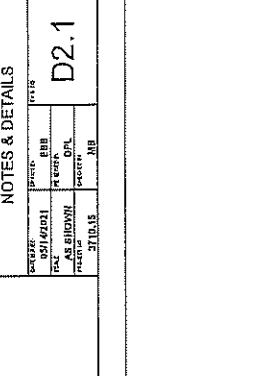


STANDARD CONSTRUCTION DETAIL #4-20
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STANDARD CONSTRUCTION DETAIL #4-21
PUMPED WATER FILTER BAG
NOT TO SCALE

TEMPORARY COFFERDAM AND PUMP BYPASS
AROUND IN-CHANNEL WORK AREAS
NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #4-22
PUMPED WATER FILTER BAG
NOT TO SCALE

NO.	DATE	REVISIONS
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PROJECT: BLOOM AVENUE CULVERT
REPLACEMENT
THE CITY OF SCRANTON
LACKAWANNA COUNTY, PENNSYLVANIA

DATE: 10/15/10

SCALE: AS SHOWN

PROJECT NO: 10087008

NOTES & DETAILS

DESIGNED BY: J. W. BROWN
CHECKED BY: J. W. BROWN
DATE: 10/15/10

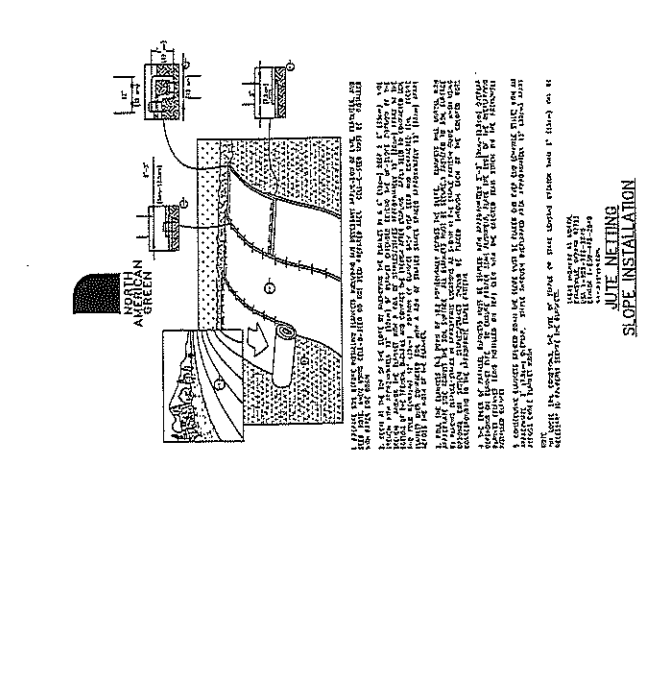
PROJECT NO: 10087008

SCALE: AS SHOWN

PROJECT NO: 10087008

D2.1

ITEM NO.	DESCRIPTION	UNIT	QUANTITY		TOTAL
			AMOUNT	PRICE	
1	1" THICKNESS	sq. ft.	100	1.00	100.00
2	2" THICKNESS	sq. ft.	100	2.00	200.00
3	3" THICKNESS	sq. ft.	100	3.00	300.00
4	4" THICKNESS	sq. ft.	100	4.00	400.00
5	5" THICKNESS	sq. ft.	100	5.00	500.00
6	6" THICKNESS	sq. ft.	100	6.00	600.00
7	7" THICKNESS	sq. ft.	100	7.00	700.00
8	8" THICKNESS	sq. ft.	100	8.00	800.00
9	9" THICKNESS	sq. ft.	100	9.00	900.00
10	10" THICKNESS	sq. ft.	100	10.00	1000.00



REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR PERMIT
2	REVISED TO SHOW CHANGES
3	REVISED TO SHOW CHANGES
4	REVISED TO SHOW CHANGES
5	REVISED TO SHOW CHANGES

NOTES & DETAILS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DETAILS.

2. THE SLOPE SHALL BE MAINTAINED AT ALL TIMES.

3. THE CURB SHALL BE CONCRETE AND SHALL BE 12" HIGH.

4. THE BASE SHALL BE CONCRETE AND SHALL BE 12" THICK.

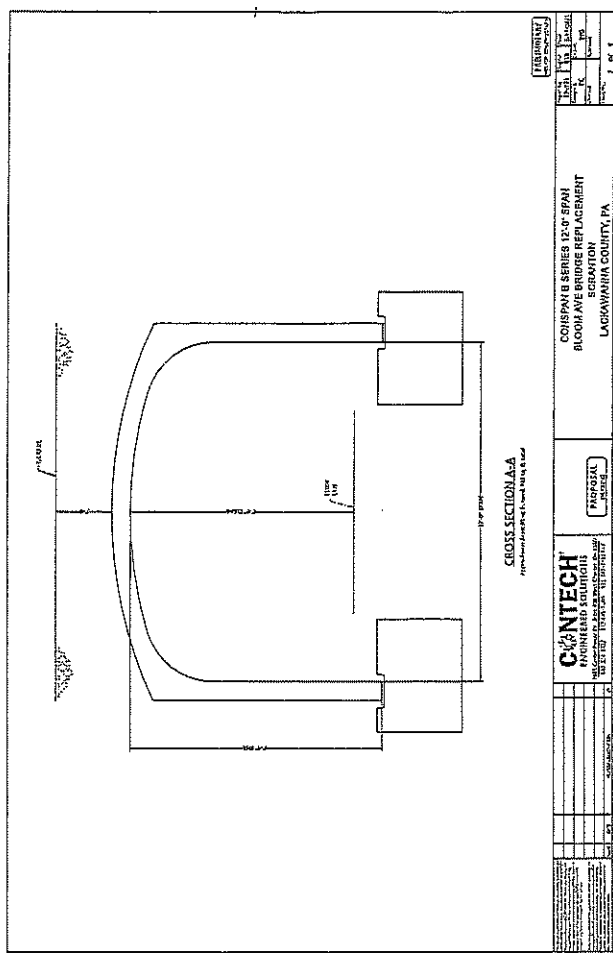
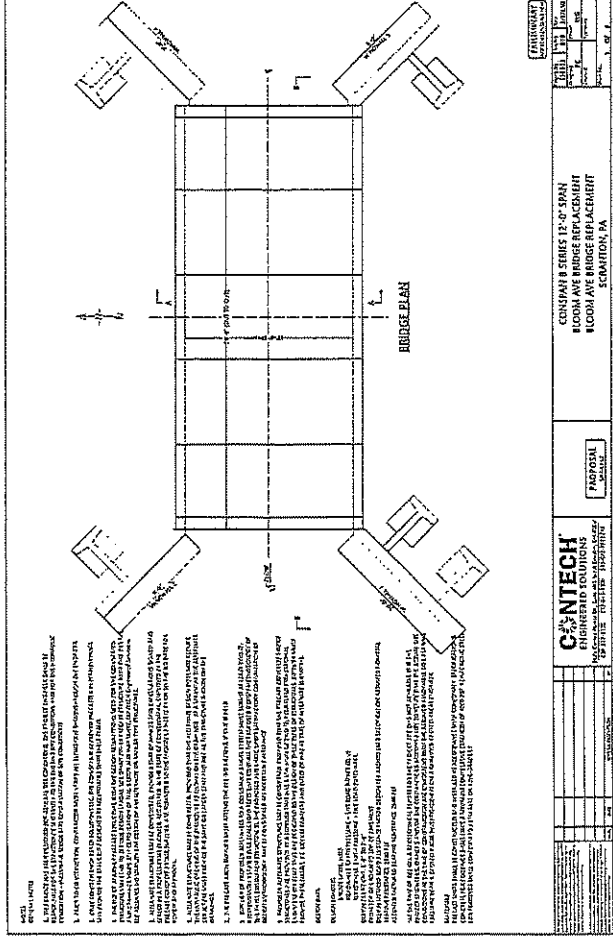
5. THE SLOPE SHALL BE COMPACTED TO 95% RELATIVE DENSITY.

THE CITY OF SCRANTON
 340 NORTH WASHINGTON AVE.
 SCRANTON PENNSYLVANIA, 18508

Blount & Blount
 Engineers, Planners, Architects
 700 Broad Street
 Philadelphia, PA 19106

BLOOM AVENUE CULVERT REPLACEMENT
 THE CITY OF SCRANTON
 LACKAWANNA COUNTY, PENNSYLVANIA

D2.2



REVISIONS

NO.	DATE	DESCRIPTION
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THE CITY OF SCRANTON
340 NORTH WASHINGTON AVE.
SCRANTON PENNSYLVANIA, 18508

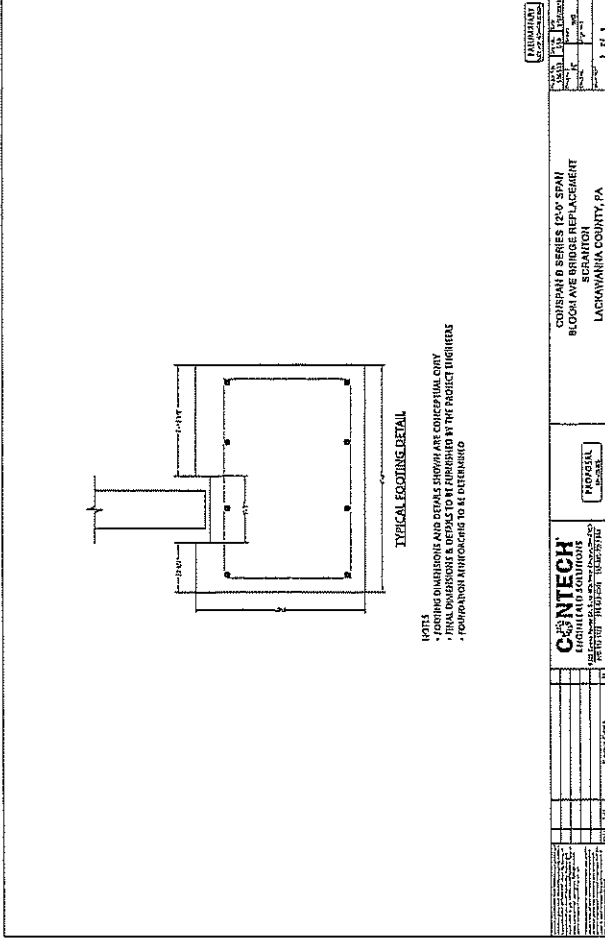
BLOOM AVENUE CULVERT
REPLACEMENT
THE CITY OF SCRANTON
LACKAWANNA COUNTY, PENNSYLVANIA

reuther-bowman
Engineering, Design, Construction Services
318 MARKET STREET, SUITE 100
LEWISTON, PA 15457
PHONE: 717-833-7393
FAX: 717-833-7391

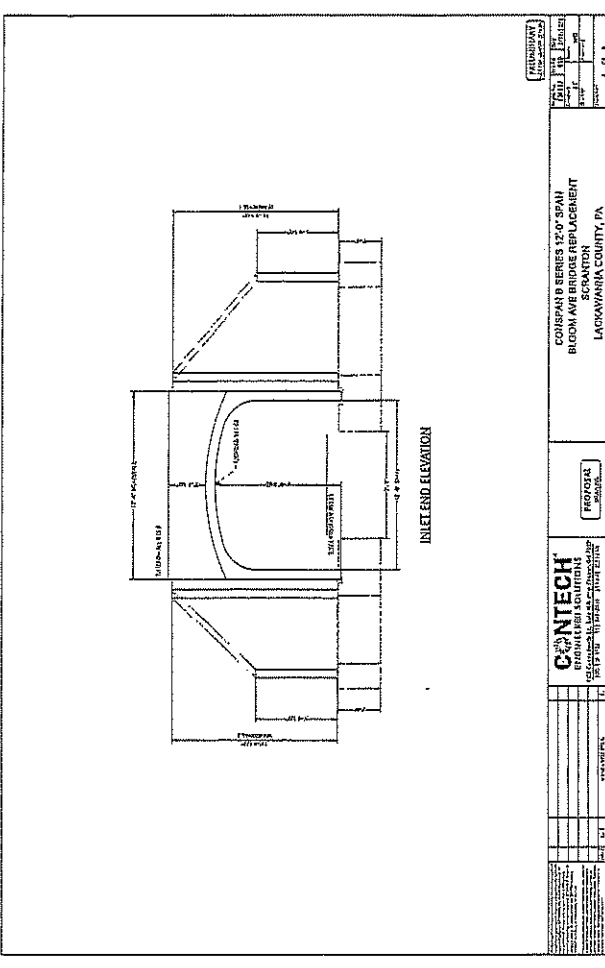
CULVERT NOTES & DETAILS

NO.	DATE	DESCRIPTION
1		
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D2.3



C/NTECH ENGINEERING SOLUTIONS 214 WARDLST SCRANTON, PA 18508 PHONE (717) 353-7800		PROJECT BLOOM AVENUE REPLACEMENT LACKAWANNA COUNTY, PA																			
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE	DESCRIPTION																CONTRACT COUSPAR B SERIES 12'0" SPAN BLOOM AVENUE REPLACEMENT SCRANTON LACKAWANNA COUNTY, PA	
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DESIGNER [Signature]		CHECKED [Signature]																			
DATE 08/14/2021		DATE 08/14/2021																			



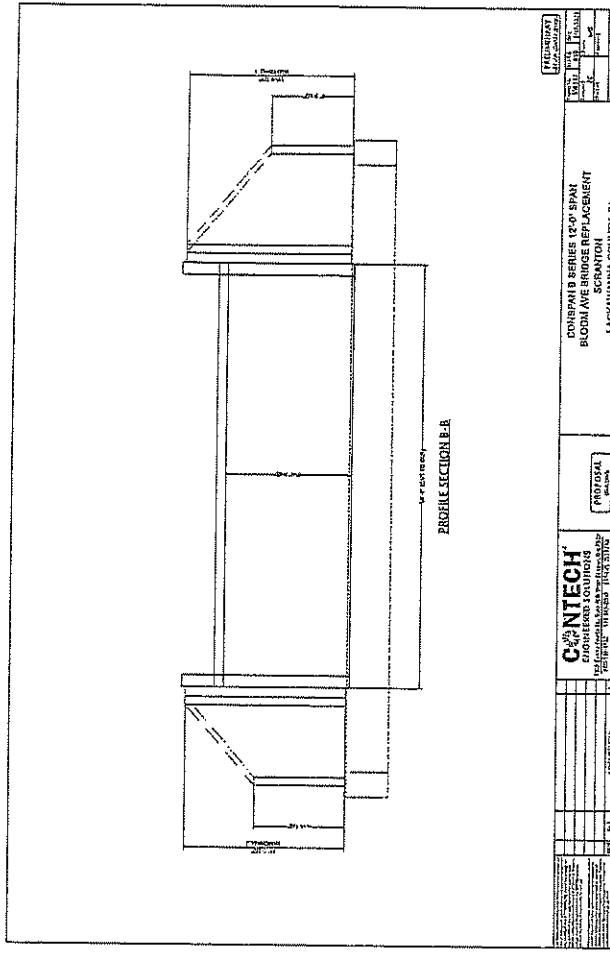
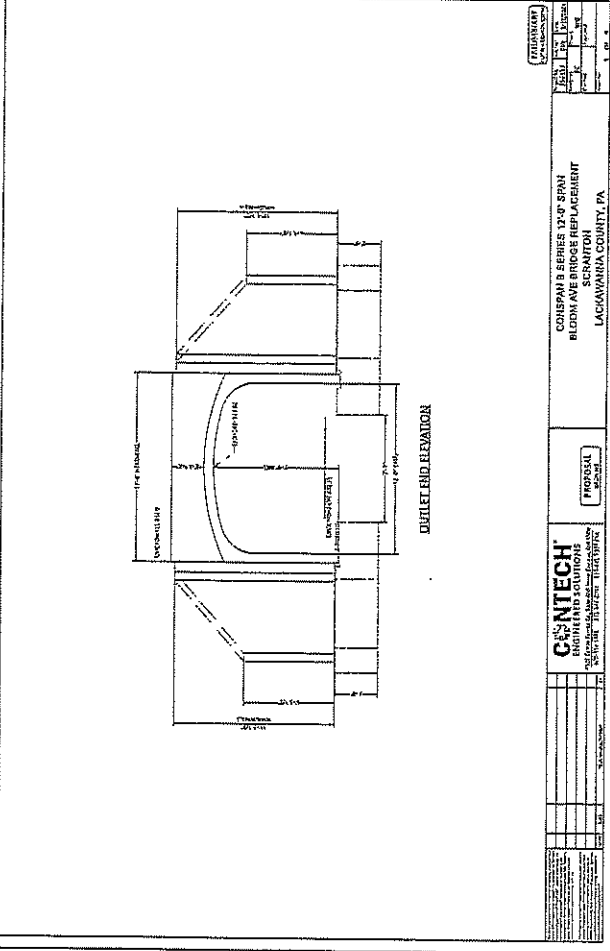
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REVISIONS		DATE		DESCRIPTION	
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1					
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PROJECT:	BLOOM AVENUE CULVERT REPLACEMENT
CLIENT:	THE CITY OF SCRANTON
ADDRESS:	340 NORTH WASHINGTON AVE
CITY:	SCRANTON PENNSYLVANIA 18508
DESIGNER:	CANTECH ENGINEERS, INC.
DATE:	07/14/02
BY:	JAS/SJCH/HT
SCALE:	AS SHOWN
PROJECT NO.:	07140221
DATE:	07/14/02
BY:	JAS/SJCH/HT
SCALE:	AS SHOWN
PROJECT:	BLOOM AVENUE BRIDGE REPLACEMENT
CLIENT:	THE CITY OF SCRANTON
ADDRESS:	340 NORTH WASHINGTON AVE
CITY:	SCRANTON PENNSYLVANIA 18508
DESIGNER:	CANTECH ENGINEERS, INC.
DATE:	07/14/02
BY:	JAS/SJCH/HT
SCALE:	AS SHOWN
PROJECT NO.:	07140221
DATE:	07/14/02
BY:	JAS/SJCH/HT
SCALE:	AS SHOWN

CULVERT DETAILS

PROJECT NO.	07140221
DATE	07/14/02
BY	JAS/SJCH/HT
SCALE	AS SHOWN
PROJECT	BLOOM AVENUE BRIDGE REPLACEMENT
CLIENT	THE CITY OF SCRANTON
ADDRESS	340 NORTH WASHINGTON AVE
CITY	SCRANTON PENNSYLVANIA 18508
DESIGNER	CANTECH ENGINEERS, INC.
DATE	07/14/02
BY	JAS/SJCH/HT
SCALE	AS SHOWN

D2.5

SPECIFICATIONS FOR MANUFACTURE AND INSTALLATION OF CONSPAN® BRIDGE SYSTEMS

DATE	
REVISIONS	
NO.	DESCRIPTION

C-NTECH
 CONSULTING SOLUTIONS
 7515 FRANKLIN UNIVERSITY BLVD.
 STATE COLLEGE, PA 16801-4393
 PH: 814.938.2000 FAX: 814.938.2001
 WWW.CNTECH.COM

**CONSPAN SERIES 17 8X 8 3/4"
 BLOOM AVE BRIDGE REPLACEMENT
 SCRANTON
 LACKAWANNA COUNTY, PA**

SCALE	
DATE	
REV	
BY	
CHK	
APP	
DATE	

PARTIAL FOUNDATION PLAN

SECTION 1

SECTION 2

DATE	
REV	
BY	
CHK	
APP	
DATE	

C-NTECH
 CONSULTING SOLUTIONS
 7515 FRANKLIN UNIVERSITY BLVD.
 STATE COLLEGE, PA 16801-4393
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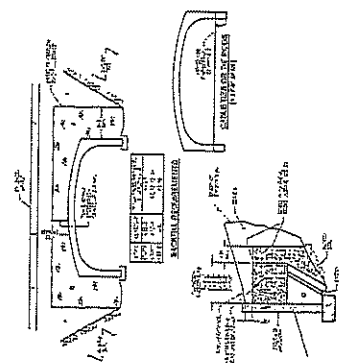
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 SCRANTON
 LACKAWANNA COUNTY, PA**

SCALE	
DATE	
REV	
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CHK	
APP	
DATE	

REVISIONS TOTAL 0 1 2 3 4 5		SHEET 31 OF 111 MB
	CONSPAN BRIDGE BLOOM AVENUE BRIDGE REPLACEMENT SCRANTON PENNSYLVANIA, 18508 LACKAWANNA COUNTY, PENNSYLVANIA	PROJECT
	CONSPAN CONSULTING SOLUTIONS 7515 FRANKLIN UNIVERSITY BLVD. STATE COLLEGE, PA 16801-4393 PH: 814.938.2000 FAX: 814.938.2001 WWW.CNTECH.COM	PREPARED BY MB
	CONSPAN BRIDGE BLOOM AVENUE BRIDGE REPLACEMENT SCRANTON PENNSYLVANIA, 18508 LACKAWANNA COUNTY, PENNSYLVANIA	CHECKED BY EBB
	CONSPAN BRIDGE BLOOM AVENUE BRIDGE REPLACEMENT SCRANTON PENNSYLVANIA, 18508 LACKAWANNA COUNTY, PENNSYLVANIA	DATE 11/11/11
CULVERT NOTES & DETAILS		
D2.6		

SPECIFICATIONS FOR MANUFACTURE AND INSTALLATION OF CONCRETE BRIDGE SYSTEMS (CONT'D)

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	AMOUNT	PERCENT
101	CONCRETE	100	CU YD	100	100%
102	STEEL	100	TONS	100	100%
103	REINFORCING	100	TONS	100	100%
104	FORMWORK	100	SQ YD	100	100%
105	PAINT	100	TONS	100	100%
106	LABOR	100	HOURS	100	100%
107	TRANSPORTATION	100	TON MILES	100	100%
108	INSURANCE	100	PERCENT	100	100%
109	TOTAL				



1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE BRIDGE SYSTEMS TO BE INSTALLED AT THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING OF ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL ACCESS TO ADJACENT PROPERTIES AND HIGHWAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ENVIRONMENTAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL HISTORIC STRUCTURES AND MONUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CULTURAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ARCHAEOLGICAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PALEONTOLOGICAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL BOTANICAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ANIMAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PLANT RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL MINERAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL Fossil RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL GEOLGICAL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SOIL RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL AIR RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CLIMATE RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SOUND RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL VIBRATION RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL LIGHT RESOURCES. 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CNTECH
 ENGINEERING & ARCHITECTURE
 1000 MARKET STREET, SUITE 1000
 PHILADELPHIA, PA 19107
 (215) 562-1000

PROPOSAL

CONSISTENT SERIES 12' SPAN
 BLOOM AVE BRIDGE REPLACEMENT
 SCRANTON
 LACKAWANNA COUNTY, PA

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

THE CITY OF SCRANTON
 340 NORTH WASHINGTON AVE.
 SCRANTON PENNSYLVANIA, 18508

BLOOM AVENUE CULVERT
 REPLACEMENT
 THE CITY OF SCRANTON
 LACKAWANNA COUNTY, PENNSYLVANIA

Frederick + Town
 Engineering, Design, Construction Services
 308 FORD ST.
 SCRANTON, PA 18510
 PHONE (717) 342-1700 FAX (717) 342-1701

CULVERT NOTES & DETAILS

DATE	BY	CHKD	APP'D
12/10/18	ASB	ASB	ASB
	ASB	ASB	ASB
	ASB	ASB	ASB

D2.7

CITY OF SCRANTON
BLOOM AVENUE CULVERT REPLACEMENT PROJECT

BID FORM

NAME: Machiesky Construction LLC

ADDRESS: 661 Laurel Street
Mayfield, PA 18433

PHONE #: 570-575-0749 FAX #: _____

FEDERAL I.D.#: 47-4725073

PRINCIPALS: David Machiesky

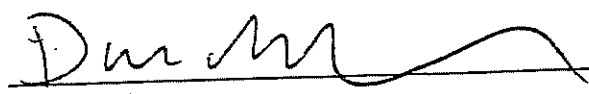
DATE: 7-14-2021

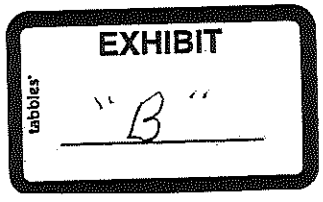
PROJECT: Bloom Avenue Culvert Replacement

- ENCLOSED IS:
- BID BOND, CERTIFIED CHECK, OR CASHIERS CHECK
AND
 - WORKER'S COMPENSATION INSURANCE CERTIFICATE
AND
 - PUBLIC LIABILITY INSURANCE CERTIFICATE

TOTAL: BASE BID \$ 310,000.00

UNIT PRICE FOR ROCK REMOVAL: \$ 125.00 /cy
Assume 75 cy removal with hydro hammer


SIGNATURE



**CITY OF SCRANTON
 BLOOM AVENUE CULVERT REPLACEMENT PROJECT
 BID FORM – UNIT PRICE SHEET**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>COST</u>
1.	MOBILIZATION / DEMOBILIZATION	1	LS		<u>14,500.00</u>
2.	MAINTENANCE & PROTECTION OF TRAFFIC INCLUDING BUT NOT LIMITED TO VEGETATION REMOVAL, BARRIERS, SIGNAGE, STONE PLACEMENT FOR TEMP ROAD, ETC.	1	LS		<u>10,000.00</u>
3.	DEMOLITION INCLUDING REMOVAL AND DISPOSAL OF ALL ITEMS AS REQUIRED FOR COMPLETION OF PROJECT INCL. BUT NOT LIMITED TO EXIST. GUIDERAIL, CULVERT, HEADWALLS, SANITARY WORK, CONCRETE, ETC.	1	LS		<u>33,000.00</u>
4.	EXCAVATION & BACKFILL INCLUDING BUT NOT LIMITED TO SAWCUTTING, REMOVAL AND DISPOSAL OF EXISTING MATERIAL, BACKFILL AND COMPACTION WITH ON SITE MATERIAL OR ENGINEERED FILL, AND FINE GRADING TO PROPOSED ELEVATIONS	1	LS		<u>57,000.00</u>
5.	INSTALL CULVERT INSTALLATION PER CONTECH DOCUMENTS AND CONSTRUCTION PLANS AND SPECS	1	LS		<u>137,000.00</u>
6.	PAVEMENT REPLACEMENT COMPLETE IN PLACE, FULL DEPTH PER PLANS AND DETAILS	300	SY	<u>60.00</u>	<u>18,000.00</u>
7.	GUIDERAIL COMPLETE IN PLACE PER PLANS AND DETAILS, INCLUDING END TREATMENTS	70	LF	<u>230.00</u>	<u>16,100.00</u>
8.	UTILITY COORDINATION COMPLETE IN PLACE, INCLUDING BUT NOT LIMITED TO COORDINATION WITH GAS, WATER, POWER, & SANITARY UTILITY COMPANIES, RELOCATION OF EXISTING, ALL TEMPORARY MEASURES.	1	LS		<u>1,400.00</u>
9.	E&S AND STABILIZATION INCLUDING BUT NOT LIMITED TO RCE, FILTER SOCKS, PUMP BYPASSES, ROCK APRON, ETC.	1	LS		<u>23,000.00</u>
TOTAL BASE BID:				\$	<u>310,000.00</u>

UNIT PRICE FOR ROCK REMOVAL:
 Assume 75 cy removal w hydro hammer

\$125.00/cy

BID PROPOSAL

1. The undersigned, having familiarized himself with the existing conditions on the project area affecting the cost of the work, and with the Contract Documents (including the Plans, the Specification Book, Addenda (if any), the Invitation for Bids, the Instruction to Bidders, the General Specifications General Conditions Part I, the General Conditions Part II State Requirements, the Attachments to General Conditions Part II (State Prevailing Wage Rates), the General Specifications Special Conditions for Site Preparation Part III, Supplemental Conditions, the Technical Specifications, the Drawings (as listed in the Schedule of Drawings), the Part II - Terms and Conditions, and all Modifications) on file at the office of City of Scranton hereby proposes to furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment, and services, including water, heat, utility and transportation services, and other facilities and services necessary to perform and complete all work required for construction of the improvements embraced in the Plans and Specifications; namely City of Scranton, Bloom Avenue Culvert Replacement Project and other work incidental thereto, all in strict accordance with the Contract Documents, for the Total Bid price of THREE HUNDRED TEN THOUSAND Dollars (\$310,000.00).

2. In submitting this bid, the Bidder understands that City of Scranton reserves the right to reject any or all bids or to waive any informalities in the bidding. If written notice of the acceptance of this Bid is mailed or delivered to the undersigned within sixty (60) days after the opening thereof, or at any time thereafter before this Bid is withdrawn, the undersigned agrees to execute and deliver the Agreement in the form prescribed by City of Scranton, and furnish the required Workers Compensation Insurance, the required Public Liability Insurance, the required Builders Risk/All Risk Insurance (if applicable), the required Performance Bond, the required Labor Materialmen's Bond, the required Maintenance Bond, and the required Stipulation Against Liens within ten (10) days after the Agreement is presented to him for signature.

3. Attached hereto are the following forms:
 - a. Bid Form
 - b. Unit Price Sheet (if applicable)
 - c. Bid Bond
 - d. Bid Proposal
 - e. Statement of Bidder's Qualifications
 - f. Non-Collusion Affidavit of Prime Bidder
 - g. Certification of Non Segregated Facilities
 - h. Certification of Bidders Regarding Equal Employment Opportunity

4. The undersigned represents that he is in receipt of the following number of Addenda (if no Addenda have been issued, insert the work "none" in the following space): 1

I. WHEN THE PROSPECTIVE CONTRACTOR IS AN INDIVIDUAL:

If the Prospective Contractor is an individual trading under his own or a fictitious name, this proposal must be signed by the individual owner and his exact post office address must be given. If one other than the owner signs this proposal, then a notarized certificate of authority signed by the owner must accompany this proposal.

[Signature]
Witness Ashley Machiesky

[Signature] (SEAL)
Prospective Contractor David Machiesky

Address: 661 Laurel Street, Mayfield, PA 18433
Trading as: Machiesky Construction LLC

II. WHEN THE PROSPECTIVE CONTRACTOR IS A PARTNERSHIP:

If the Prospective Contractor is a firm or partnership trading under an individual or fictitious name, this proposal must be signed by one or more partners and the exact names and post office addresses of the members of the firm or partnership must be included. If one other than a partner signs this proposal, then a notarized certificate of authority signed by all the partners must accompany this proposal.

Witness Partner _____ (SEAL)

Witness Partner _____ (SEAL)

Address: _____
Trading as: _____

III. *WHEN THE PROSPECTIVE CONTRACTOR IS A CORPORATION:

If the Prospective Contractor is a corporation, the proposal must be signed by the president or vice-president, or by an individual whose notarized certificate of authority to execute must accompany this proposal together with the names, titles, and business addresses of the president, secretary, and treasurer, which must appear on the said certificate.

Secretary President _____ (SEAL)

Address: _____
Trading as: _____

(CORPORATE SEAL)

*The _____ is a corporation organized and existing under the laws of the State of _____ and has been granted a certificate of authority to do business in Pennsylvania, as required by the Business Corporation Law, approved May 5, 1933, P.L. 364, as amended.

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered, and the date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder. Machiesky Construction LLC
2. Permanent main office address. 6661 Laurel Street
Mayfield, PA 18433
3. When organized. 2015
4. If a corporation, where incorporated.
5. How many years have you been engaged in the contracting business under your present firm or trade name? 6 years
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.) See Attached
7. General character of work performed by your company.
Commercial Site Work and Public stormwater project
8. Have you ever failed to complete any work awarded to you? If so, where and why?
None
9. Have you ever defaulted on a contract? If so, where and why?
No
10. List the more important projects recently completed by your company, stating the approximate cost for each, and the month and year completed.
See Attached
11. List your major equipment available for this contract.
See Attached
12. Experience in construction work similar in importance to this project.
See Attached
13. Background and experience of the principal members of your organization, including the officers.
See Attached
14. Credit Available: \$ 150,000.00
15. Give bank reference: Rory McGuire (Dime Bank) 570-281-3330
16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required? Yes
17. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested in verification of the recitals comprising this statement of Bidder's Qualifications.

Dated at 10'00 this 9 day of July, 2021.

David Machiosky

By: David Machiosky

Title: Owner

State of Pennsylvania)

County of ~~Northampton~~ ^{JW} Pike)

Commonwealth of Pennsylvania - Notary Seal
John Douglas Wormuth, Notary Public
Pike County
My commission expires July 3, 2025
Commission number 1315655

Member, Pennsylvania Association of Notaries

David Machiosky being duly sworn deposes and says that he is
Owner of Machiosky Construction LLC

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this 9 day of July, 2021.

John Douglas Wormuth Notary Public

My commission expires July, 3 2025.

QUALIFICATIONS STATEMENT

Schedule A—Current Projects

Name of Organization	Machinsky Construction LLC		Project	New Salt Storage Building Structure		
Project Owner	Dallas Township		Date Project	1-2-2021		
General Description of Project	Installation of Stormwater system and Boring site work for new Building					
Project Cost	15,000.00					
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager		
Name	David Machinsky	David Machinsky	David Machinsky	David Machinsky		
Reference Contact Information (listing names individuals as a reference)						
Owner	Name	Title/Position	Organization	Telephone	Email	
Designer	Guy Van Dulkh	Supervisor	Dallas Twp	570 690-3425		
Construction Manager	Kyon Daughlen	Engineer	Douglas Township	570-382-3178	NDaughlen@Twp-Eng.com	
Project Owner	Lackawanna County		Project	451 Street Culvert Replacement		
General Description of Project	Installation for New Storm water Culvert					
Project Cost	249,000.00					
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager		
Name	David Machinsky					
Reference Contact Information (listing names individuals as a reference)						
Owner	Name	Title/Position	Organization	Telephone	Email	
Designer	Joe Rovinsky	Manager	Lackawanna County	570-299-1089	RovinskyJ@Lackawanna.gov	
Construction Manager	Tony Gerzani	Engineer	WPA	570-341-9908	G122021@Lackawanna.gov	
Project Owner			Project			
General Description of Project						
Project Cost						
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager		
Name						
Reference Contact Information (listing names individuals as a reference)						
Owner	Name	Title/Position	Organization	Telephone	Email	
Designer						

EJCDC® C-451, Qualifications Statement—Schedule A—Current Projects.

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QUALIFICATIONS STATEMENT

Schedule B—Previous Experience with Similar Projects

Name of Organization	Machinsky Construction LLC		Project	New Building	Site/Work
Project Owner	Lake Silworth Volantes Fire Station		Project	Stamwater System and Basin	
General Description of	Installation of underground		Date Project	1-20-20	
Project Cost	\$350,000.00	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager
Key Project Personnel	David Machinsky	David Machinsky	David Machinsky	David Machinsky	David M
Name	Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)				
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)	Name	Title/Position	Organization	Telephone	Email
Owner	Laura Tump				
Designer	Ryan Daughlin	Engineer	Daughlin Engineers	570 287-3438	clay@lthone.com
Construction Manager					
Project Owner	Lipka Farm	Project	Lipka Farm	Drainage	Drainage Plan
General Description of	Installation of stormwater		Drainage	channel	
Project Cost	\$80,000.00	Project Manager	Date Project	10-20-19	
Key Project Personnel	David Machinsky	Project Superintendent	Safety Manager	Quality Control Manager	
Name	David Machinsky	David Machinsky	David Machinsky	David Machinsky	David Machinsky
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)	Name	Title/Position	Organization	Telephone	Email
Owner	Rebecca Lipka	Owner	Lipka Farms	570-287-4700	lola@msa.com
Designer	Bill Zaslak	Inspector/Engineer	NRCS	570 498 2811	bzslak@nrcs.com
Construction Manager	Imanet Linn	Engineer	Luzerne Construction	570-074-7441	Imanet@luzerne.com
Project Owner	Hillside Farms	Project	Hillside Farms	Drainage	Drainage System
General Description of	Site work for new barn		Date Project	2-19-19	
Project Cost	\$212,000.00	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager
Key Project Personnel	David Machinsky	David Machinsky	David Machinsky	David Machinsky	David Machinsky
Name	Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)				
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)	Name	Title/Position	Organization	Telephone	Email
Owner	Chet Crossi	Manager	Hillside Farms	570-332-1366	ch@hillsidefarms.com

QUALIFICATIONS STATEMENT

Designer	Michael Rubin	Engineer	R & R Engineering	814-667-3742	m.rubin@rr-engineering.com
Construction Manager	Jason Lee	Inspector	License Const. John Ds	570-674-7191	Jason@leeconst.com

QUALIFICATIONS STATEMENT

Schedule B—Previous Experience with Similar Projects

Name of Organization		Machinsky Construction LLC		Project	Bickely Complex	
Project Owner		Bickely Boush		Bickely Complex (sub contractor)		
General Description of		Rain. Garden Installation at Rain. Garden (sub contractor)				
Project Cost		\$ 65,000.00	Date Project			
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name		Harold Cornell	David Machinsky	David Machinsky	David Machinsky	
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)						
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)		Name	Title/Position	Organization	Telephone	Email
Owner						
Designer		Paul Bickel	Engineer	Melroe Associates	570-347-3428	pbickel@melroeassociates.com
Construction Manager		Harold Cornell	Project Manager	Staffordsky	570-789-2806	Harold@staffordsky.com
Project Owner						
General Description of		Harveys Lake Boating		Project	Harveys Lake Stormwater	retail
Project Cost		\$ 10,000	Date Project		6-10-17	
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name		David Machinsky	Paul Machinsky	David Machinsky	David Machinsky	
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)						
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)		Name	Title/Position	Organization	Telephone	Email
Owner		Gusco Sutter	Secretary	Harveys Lake	570-634-3300	h1000@gnad.com
Designer		Ray McNamee	Engineer	Precision Hydrac	908-337-5665	amcnamer@precisionhydra.com
Construction Manager						
Project Owner						
General Description of		University of Scranton		Project	Estate Renovations	
Project Cost		\$ 400,000	Date Project		12-15-17	
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name		David Machinsky	David Machinsky	David Machinsky	David Machinsky	
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)						
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)		Name	Title/Position	Organization	Telephone	Email
Owner		Jim Davens	Manager	University of Scranton	570-575-1580	

QUALIFICATIONS STATEMENT

Designer	Jim Hacker	Arch Engineer	Derek Wilson	717-686-2034	ShackletonDerek@shackleton.com
Construction Manager	John Him	Owner GC	W. Suzuki	520 840-3110	Shannon@jcsuzuki.com



661 Laurel St
Mayfield, PA 18433

Phone: (570)-575-0749
Machiesky@outlook.com

Date: 7/10/2021

Machiesky Construction Equipment list

Project Bid: Bloom Avenue Culvert Replacement

2017 Hitachi ZX 160-LC6 Excavator with Allicopco Hammer
2012 John Deere 650J Dozer
2020 Kobuta SVL75 Skid Steer
2018 Hitachi ZX-35 Excavator
2020 F-250 Service Truck
2003 Caterpillar 307C excavator
2006 Kenworth Tri Axle Dump Truck
Topcon Robotic Total Station
Topcon HiperV Gps System

Thanks

Dave Machiesky

Dave Machiesky

David Machiesky

661 Laurel Street ■ Mayfield, PA 18433

Ph: 570-575-0749

Machiesky@outlook.com

EDUCATION: Pennsylvania State University, Associates of Science, Surveying Technology (2006)

CERTIFICATES: Pennsylvania Land Surveyor in Training (October 2006)
Construction Quality Management for Contractors (Corps of Engineers)
OSHA 10 Hour Construction Industry
OSHA 30 Hour Construction Industry

EXPERIENCE **Owner**

Machiesky Construction LLC

2015-Present

- Responsible for completing all project management tasks including job cost analysis, project invoicing, project schedule, change order proposals as well as various administrative task.
- Coordinate company manpower and equipment based on projects activity needs.
- Analyze means and methods for completing projects
- Estimate projects
- Provide onsite supervision of work being completed
- Assist operators and labors with completing daily task

Project Manager/General Superintendent

KC Construction Company, Ivyland, PA www.kcconstruct.com

2013-2015

- Responsible for completing all project management tasks including job cost analysis, project invoicing, project schedule, change order proposals as well as various administrative task.
- Coordinate company manpower and equipment based on projects activity needs.
- Analyze means and methods for completing project with project superintendents and foreman.
- Assist Chief estimator with material and manpower take-offs for project estimates.

Project Example:

Swimming River Reservoir, Lincroft NJ, New Jersey American Water (2014)-Installation of spillway chute cofferdams and sheet pile cofferdams; installation of sheet pile excavation support; demolition of existing spillway retaining/training walls and selective slabs; installation of new under slab drain and collector pipe and manholes, cast-in-place concrete patch in slabs; new cast-in-place retaining walls and side slabs for spillway

Project Superintendent

KC Construction Company, Ivyland, PA

2008- 2014

- Responsible for onsite supervision of heavy civil and site work construction projects, ranging from two million to ten million dollars.
- Assist project manager in preparation and submitting of project schedules, submittals, change orders, request for information as well as various administrative tasks.
- Synchronize the activity of subcontractors, other prime contractors, and company workforces to assure proper sequencing and scheduling to complete projects in a timely manner.
- Coordinate material deliveries to maintain efficient progress.
- Assist Chief estimator with material and manpower take-offs for project estimates.

Example Projects:

Lake Oneida Dam, Bulter PA, Pennsylvania American Water (2013) Rehabilitation of earthen dam consisting of clearing & grubbing, dewatering, sheet pile cofferdams, demolition of the existing concrete spillway, installation of a new cast-in-place concrete spillway (1,800cy), RCC embankment armoring (15,000 cy), relocation of existing outlet conduit, new foundation drainage, installation of new pedestrian bridge to existing gate house and modifications to adjacent road

Palmerton Waste Water Treatment Plant, Palmerton PA (2011) Demolition of Existing Structures, Modifications to the Existing Control Building, Structural and Mechanical Modifications to the existing Contact Tanks, Final Settling Tanks, Chlorine Contact Tanks, Utility Water Pump Station, Belt Filter Press Building, New UV Control Building, New SBR Tank's, Solids Separation Building, and New Operations Control Building.

Roamingwood Lake Dam, Hamlin PA (2010), Roamingwood Dam Overtopping project located in Hamlin, PA. The project consisted of 12,000 CY of RCC placed in 12" lifts for dam overtopping protection and emergency spillway, cast-in place concrete wall, roadway construction and wetland restoration.

Toby Creek Impounding Basin Spillway, Kingston PA, Army Corps of Engineers (2008) - Spillway modifications project located in Luzerne, PA. The project consisted of 3000 CY of RCC placed in 12" steps to act as an emergency spillway.

Site Surveyor

KC Construction Company, Ivyland, PA

2005-2008

- Complete all survey needs using GPS, total station, robotic instrument, and automatic level.
- Prepare GPS models, point files, contour maps and control surveys.
- Troubleshoot GPS problems in the field.
- Work closely with project managers, project superintendents, and subordinates to plan and analyze strategies and methods for completing project tasks exercising discretion and independent judgment.
- Able to analyze job site blue prints and specifications.
- Prepare As-Builts and quantity calculations.
- Comply with all safety policies, practices, and procedures.

Laborer

KC Construction Company, Ivyland, PA

2003- 2005

- Performed a variety of tasks involving strenuous manual labor relative to earth-moving operations, utility installations, and landscaping work.
- Assisted equipment operator in fine grading of roadways.
- Compacted trenches and ditches using hand held compaction equipment.
- Maintained a clean job site and secured job site each day in order to eliminate potential hazards.
- Worked within OSHA and trench excavation safety rules and regulations.
- Worked effectively with pipe crews, dirt crews, and fine grade crews as a team contributor on all assignments.

Affirmative Action Certification

During the term of this contract, Bidder agrees as follows:

- (1) Bidder shall not discriminate against any employee, applicant for employment, independent contractor or any other person because of race, color, religious creed, ancestry, national origin, age, sex or handicap. Bidder shall take affirmative action to insure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age, sex or handicap. Such affirmative action shall include, but is not limited to the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training. Bidder shall post in conspicuous places, available to employees, agents, applicants for employment, and other persons, a notice to be provided by the contracting agency setting forth the provision of this affirmative action certification.
- (2) Bidder shall, in advertisements or requests for employment placed by it or on its behalf, state all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age, sex or handicap.
- (3) Bidder shall send each labor union or workers' representative with which it has a collective bargaining agreement to other contract or understanding, a notice advising said labor union or worker's representative of its commitment to this affirmative action certification. Similar notice shall be sent to every other source of recruitment regularly utilized by bidder.
- (4) It shall be no defense to a finding of noncompliance with this affirmative action certification that bidder has delegated some of its employment practices to any union, training program, or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the bidder was not on notice of the third-party discrimination or made a good faith effort to correct it, such a factor shall be considered in mitigation in determining appropriate sanctions.
- (5) Where the practices of a union or of any training program or other source of recruitment will result in the exclusion of minority group persons, so bidder will be unable to meet its obligations under this affirmative action certification, bidder shall then employ and fill vacancies through other affirmative action employment procedures.
- (6) Bidder shall comply with all state and federal laws prohibiting discrimination in hiring or employment opportunities. In the event of bidder's noncompliance with affirmative action certification of this contract or with any such laws, this contract may be terminated or suspended, in whole or in

part, and bidder may be declared temporarily ineligible for further City of Scranton contracts, and other sanctions may be imposed and remedies invoked.

- (7) Bidder shall furnish all necessary employment documents and records to, and permit access to its books, records, and accounts by, the City of Scranton Department of Business Administration, for purposes of investigation to ascertain Compliance with the provision of this certification. If bidder does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the City of Scranton Department of Business Administration.
- (8) Bidder shall actively recruit minority subcontractors or subcontractors with substantial minority representation among their employees.
- (9) Bidder shall include the provisions of this affirmative action certification in every subcontract, so that such provisions will be binding upon each subcontractor.
- (10) Bidder's obligations under this clause are limited to the bidder's facilities within Pennsylvania, or where the contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.

DATE: 7-10-21

Machirsky Construction LLC
(Name of Bidder)

BY David Machirsky. [Signature]

TITLE Owner

CERTIFICATION OF NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

Date July 10, 2021

Machiesky Construction LLC
(Name of Bidder)

Official Address
(including ZIP CODE):

By David Machiesky

661 Cawel Street
Mayfield, PA 18433

Owner
(Title)

NON-COLLUSION AFFIDAVIT OF PRIME CONTRACTOR

State of Pennsylvania
County of ~~Delaware~~ PIKE

Commonwealth of Pennsylvania - Notary Seal
John Douglas Wormuth, Notary Public
Pike County
My commission expires July 3, 2025
Commission number 1315655
Member, Pennsylvania Association of Notaries

David Machirsky being first duly sworn, deposes and says that:

(1) He is Owner
(owner, partner, officer, representative or agent)


of the Bidder that has submitted the attached Bid;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and not a collusive or sham Bid;


(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid prices or the Bid price of any Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, including this affiant.

(Signed) 
Owner
(Title)

Subscribed and sworn to before me

this 9th day of July, ~~2019~~^{JW} 2021


Notary Public
(Title)

My commission expires July, 3, 2025

Disclosures by Current Contractors

List of Municipal Officials

Mayor of Scranton
Scranton City Councilpersons
Scranton Controller
Scranton Tax Collector

1. Provide the names and titles of all individuals providing professional services to the City including advisors and subcontractors, if any. After each name, please provide the responsibilities of that person with regard to the professional services provided to the City of Scranton.
 - List the names of any of the above individuals who are current or former officials or employees of the City of Scranton and their position;
 - List the names of any of the above individuals who has been a registered federal or state lobbyist and the date of the most recent renewal/registration.
2. Since January 1, 2015, have any of the individuals identified in paragraph two above been employed by the City of Scranton. If yes, please identify the individual by his/her name and position with the City of Scranton and dates of employment.
3. Since January 1, 2015, has the Contractor employed paid compensation to a third party intermediary, agent, or lobbyist to directly or indirectly communicate with any individual on the list of municipal officials in connection with any transaction or investment involving the Contractor and the City of Scranton. This question does not apply to any officer or employee of the Contractor who is acting within the scope of the Contractor's standard professional duties on behalf of the Contractor including the actual provision of legal, accounting, engineering, real estate, or other professional advice, services or assistance pursuant to its professional services contract with the City of Scranton.
4. Since January 1, 2015 has any agent, officer, director, or employee of the Contractor solicited a third party to make a political contribution to any municipal official or candidate for municipal office in the City of Scranton or to the political party or political committee for whom the solicitation was made. If yes, please identify the agent, officer, director, or employee who made the solicitation; the individual or individuals who were solicited; and the municipal officers, candidates, political party, or political committee for whom the solicitation was made.
5. Since January 1, 2015, has the contractor, officer, director, executive-level employee, or owner of at least five percent (5%) of the company made any contribution to a municipal official or candidate for municipal office in the City of Scranton. If yes, please identify the recipient, the amount, and the date of the contribution.
6. Does the Contractor have a direct financial, commercial, or business relationships with any individual on the List of Municipal Officials. With regard to every municipal official for which the answer is yes, identify that individual and provide a detailed written description of that relationship.
7. Since January 1, 2015, has the Contractor, officer, director, executive-level employee, or owner of at least five percent (5%) of the company conferred any gift of more than nominal value to any

individual on the list of Municipal Officials. A gift includes money, services, loans, travel, and entertainment, at value or discounted value. With regard to every municipal official for which the answer is yes, identify the recipient, the gift, and the date it was conferred.

8. Regarding the provision of professional services to the City of Scranton, are you aware of any conflicts of interest, whether apparent, potential, or actual, with respect to any officer, director, or employee of the Contractor and officials or employees of the City of Scranton. If yes, please provide a detailed written explanation of the circumstances which you believe provide a basis to conclude that an apparent, potential, or actual conflict of interest may exist.

9. Please provide the name(s) and person(s) completing this form. One of the individuals identified by the Contractor in paragraph two must participate in completing this form and must sign the verification statement below.

VERIFICATION

I, David Machiesky, hereby state that I am the owner of

Machiesky Construction LLC and that I am authorized to make this verification.

I verify that the facts set forth herein for entities providing professional services to the City of Scranton are true and correct to the best of my knowledge, information, and belief. I understand that false statements herein are made subject to penalties of 18 P.A.C.S section 4904 relating to unsworn falsification to authorities.

Signed: _____

Date: 7-10-21

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION BY BIDDER

BIDDER Machiesky Construction LLC

ADDRESS 661 Laurel Street

CITY, STATE, ZIP CODE Mayfield, PA 18433

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.

Yes No

2. Compliance reports were required to be filed in connection with such contract or subcontract.

Yes No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.


Yes No None Required

4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended?

Yes No

NAME David Machiesky

TITLE Owner

SIGNATURE 

DATE 7-10-21

THE MINORITY BUSINESS ENTERPRISE PROGRAM IN
 CONNECTION WITH SCP PROJECTS
 IN COMPLIANCE WITH EXECUTIVE ORDER 11625
 AFFIRMATIVE ACTION PLAN FOR UTILIZATION OF MINORITY BUSINESS

PROJECT NAME: Bloom Avenue Culvert Replacement PROJECT NO.:

DEVELOPER: City of Scranton
 CONTRACTING

GENERAL CONTRACTOR:
Machiesky Construction

Prior to the signing of contracts, between City of Scranton
 and the General Contractor, the General Contractor shall provide to the City
of Scranton a preliminary statement of Minority
 Business Utilization where known; where not known, such information shall be supplied
 prior to the signing of any contract between the General Contractor and subcontractor (s).

UTILIZATION OF BUSINESSES

Each General Contractor undertaking work on this project shall assure that to the greatest extent feasible, contracts for work to be performed in connection with the project are awarded to minority business concerns.

The General Contractor shall, to the greatest extent feasible, utilize minority business concerns for procurement (materials, supplies, services) to be performed in connection with this project. To this end the General Contractor projects a Utilization Goal of 5 percent (5%).

CATEGORY	Amount Available in Dollars	GOAL ALLOCATION Amount Projected in Dollars
A. Minority Contractors	\$ _____	\$ _____
B. Minority Procurement	\$ _____	\$ _____

GOOD FAITH EFFORT

The following minority business referral agencies will be contacted; SBA, State OMBE, and Others: (List) _____

This is to certify that Machiesky Construction LLC
 will abide by and initiate in all our contracts, to the greatest extent feasible, the requirements of Executive Order 11625.

[Signature]
 Signature
Owner Title 7-10-21 Date

MBE/WBE CONTRACT SOLICITATION AND COMMITMENT STATEMENT

(1) Name of Bidder: Macbrierty Construction LLC

(2) IFB Number: _____

Address: 661 Laurel Street, Mayfield, PA 18433

Bid Opening Date: July 14, 2021

Telephone Number: 570-575-0749

Contact Person: David Macbrierty

(8) NOTE: List those certified minority/women owned businesses from which you solicited quotes or which contacted you and gave you quotes in regard to this invitation for bid. Bidder's contract with subcontractors and suppliers should be at least five days prior to the bid opening date.

*(3) COMPANY NAME EIN/SSN TELEPHONE NUMBER	(4)	(4)	(5) TYPE OF CONSTRUCTION, EQUIPMENT, SERVICES AND/OR SUPPLIES TO BE PROVIDED TO THE PROJECT	(6)	*(7)
	MBE (X)	WBE (X)		TOTAL DOLLAR AMOUNT OF QUOTE RECEIVED	TOTAL COMMITMENT DOLLAR AMOUNT
Due to small size of project could not get quotes from MBE/WBE contractors					

(9) NOTE Minimum Levels (MPL): MBE-5%, WBE-3%.
 A presumption of responsibility may be made if the dollar commitment of MBE/WBE reflects this minimum participation level.

(10) Prepared By: David Macbrierty

Telephone Number/Email Address: 570-575-0749 / david@macbrierty.com

Use additional sheets if necessary.

SECTION 3 CONTRACT SOLICITATION AND COMMITMENT STATEMENT

(1) Name of Bidder: MacNishy Construction LLC
 Address: 601 Laurel Street, Mayfield, PA 18433
 Telephone Number: 570-575-0749
 Bid Opening Date: July 14, 2021
 Contact Person: David MacNishy

(8) NOTE: Let those certified minority/women owned businesses from which you solicited quotes or which contacted you and gave you quotes in regard to this invitation for bid. Bidder's contract with subcontractors and suppliers should be at least five days prior to the bid opening date.

*(3) COMPANY NAME & TELEPHONE NUMBER	*(4) EIN OR SSN	(5) SECTION 3 (X)	(6) TYPE OF CONSTRUCTION, EQUIPMENT, SERVICES AND/OR SUPPLIES TO BE PROVIDED TO THE PROJECT	(7) TOTAL DOLLAR AMOUNT OF QUOTE RECEIVED	*(8) TOTAL COMMITMENT DOLLAR AMOUNT
Due to small size of project MB/E/WB would not give quotes					

10) NOTE Minimum Levels (MPL): Section 3 - 10%
 A presumption of responsibility may be made if the dollar commitment of Section 3's reflect the minimum participation level.

(11) Prepared by: David MacNishy
 Telephone Number/Email Address: 570-575-0749 / david@macnishy.com

Use additional sheets if necessary.

CONTRACTOR'S
CERTIFICATION OF COMPLIANCE
SECTION 3

CERTIFICATION OF COMPLIANCE WITH REGULATIONS TO SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968 AS REQUIRED FOR PARTICIPATION IN THE SMALL COMMUNITIES PROGRAM, PURSUANT TO THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974, P.L. 93-383, AS AMENDED.

PURPOSE, AUTHORITY AND RESPONSIBILITY

Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (hereinafter Section 3) requires that to the greatest extent feasible, opportunities for training and employment in a Section 3 covered project be given lower income residents of the project area and that contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the area of the project.

Machiesky Construction LLC
(hereinafter called the Contractor)
upon being awarded a contract for Bloom Avenue Culvert Replacement

in the area of the Section 3 covered project, will, to the greatest extent feasible, make a good faith effort to utilize the services of businesses located in or substantially owned by persons who live within the project boundaries.

The Contractor has been informed by the Owner, that the Department of Community and Economic Development has determined that the project area boundaries for the Small Communities Program are the municipal limits.

To complete the project it is also estimated that the Contractor will be subcontracting for supplies and services for which certain business concerns eligible under Section 3 could provide. In order to comply with the regulations for utilization of businesses under Section 3, the Contractor will adopt an Affirmative Action Plan. The Contractor will also require each subcontractor, if any, to adopt an Affirmative Action Plan.

Exhibit 5- DCED-CCD 192 (2/08)

Commonwealth of Pennsylvania
 Department of Community and Economic Development
 Center for Community Development

Section 3 Work Force Needs Table - Employees

Occupation Category (1)	Approximate Number of Skilled Employees Required	Total Number of Skilled Employees Presently on Payroll	Total Number of Skilled Employees to be Hired	Total Number of Section 3 Residents to be Hired
22 6	2	20	1	2
TOTALS	2	2	1	1

(1) The following occupational category classifications may be used above.

1. Accounting	13. Electrical	25. Painting
2. Architecture	14. Elevator Construction	26. Payroll
3. Appliance repair	15. Engineering	27. Plastering
4. Bookkeeping	16. Fencing	28. Plumbing
5. Bricklaying	17. Florists	29. Printing
6. Carpentry	18. Heating	30. Research
7. Carpet Installation	19. Iron Works	31. Surveying
8. Catering	20. Janitorial	32. Tile setting
9. Cement/Masonry	21. Landscaping	33. Transportation
10. Computer/Info	22. Machine Operation	34. Word processing
11. Demolition	23. Manufacturing	
12. Drywall	24. Marketing	

Employment Certification

A. The contractor hereby certifies that the above table represents the approximate number of employee positions that are needed and which are not presently filled by regular and permanent employees, and which will require new employees in the execution of the Bloom Avenue Culvert Replacement contract. The table also represents the number of Section 3 project area residents that the contractor proposes to make a good faith effort to employ.

B. The contractor certifies that it will make a good faith effort to employ the number of Section 3 residents stated above.

C. The contractor, prior to subcontracting any portion of the work covered by this contract will require a Work Force Needs Table to be prepared and certification similar to paragraphs A, B, and C to be executed.

MINORITY AND WOMEN BUSINESS ENTERPRISE BIDDER CERTIFICATION

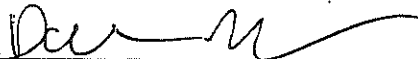
The submittals of each bidder are subject to review to determine whether the bidder has discriminated in the selection of manufacturers, subcontractors and suppliers. If a bidder has met the goals for MBE/WBE participation, the bidder will be presumed not to have discriminated in their selections.

Where the goals are not met, the below statements, if accurate, shall be certified by the bidder:

1. The limited number or no commitment to MBEs/WBEs was not motivated by consideration of race or gender.
2. MBEs/WBEs were not treated less favorably than other businesses in the contract solicitation and commitment process.
3. Solicitation and commitment decisions were not based upon policies which disparately affect MBEs/WBEs.

By signing below, I certify that the above statements are true and accurate.

Machlesky Construction LLC
Company Name


Signature

7-10-21
Date

The City of Scranton
Bloom Avenue Culvert Replacement Project

ADDENDUM NO. 1

July 9, 2021

This addendum shall be made part of the Construction Documents with reference to the specific items contained herein, which shall supersede, nullify, add to, or delete from, these items.

1. The time frame to complete the project shall be 180 days from Notice to Proceed.
2. See attached meeting minutes from the pre bid meeting.
3. The guiderail materials and installation shall be per PennDOT BD 609M standards. The posts will be spaced 6'3" OC. The bolts will be precast into the headwalls by Contech. The contractor will place the posts on the precast bolts.
4. The contractor is required to coordinate with water, gas, and power/communications utilities for relocation of their facilities. These utility companies will relocate their facilities at no cost to the contractor.
5. See attached Affirmative Action Plan, MBE/WBE, Section 3 forms and documents to be completed and submitted with the bid documents.
6. The approximate area of placement of R-7 stone as part of this culvert replacement is 100 sy.
7. See attached updated Contech Conspan Bridge Plans. This plans shall replace the Bridge Plans in the bid documents.
8. The required bearing pressure is 2,620 psi. Contractor shall confirm this minimum required bearing pressure with a geotechnical investigation performed under the supervision of a Geotechnical engineer licensed in the State of Pennsylvania. A report shall be provided to the City of Scranton indicating this minimum bearing pressure is available.

If you have any questions regarding this addendum, feel free to contact me.

Sincerely,

Patrick McLaine, PE
Reuther+Bowen Engineering

Cc: File 3710.15

326 WARD STREET
DUNMORE, PA 18512-2424

PHONE: 570.496.7020 / FAX: 570.496.7021
WWW.REUTHERBOWEN.COM


The City of Scranton
Bloom Avenue Culvert Replacement Project

ADDENDUM NO. 1

July 9, 2021

The undersigned acknowledges receipt of Addendum No. 1.

Name: David Machiesky
(Print)

Signature: 

Firm: Machiesky Construction LLC

Date: 7-10-2021

Provide a signed copy of this Addendum with the bid as verification of receipt.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
9/1/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MCGOVERN INSURANCE AGENCY INC 20 6TH AVE CARBONDALE PA 18407-2319	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">CONTACT NAME:</td> </tr> <tr> <td>PHONE (A/C, No, Ext): 570-282-1531</td> <td>FAX (A/C, No):</td> </tr> <tr> <td colspan="2">E-MAIL ADDRESS:</td> </tr> <tr> <td colspan="2" style="text-align: center;">INSURER(S) AFFORDING COVERAGE</td> </tr> <tr> <td>INSURER A: SELECTIVE INS CO OF AMERICA</td> <td>NAIC # 12572</td> </tr> <tr> <td>INSURER B: SELECTIVE INS CO OF THE SOUTHEAST</td> <td>39926</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	CONTACT NAME:		PHONE (A/C, No, Ext): 570-282-1531	FAX (A/C, No):	E-MAIL ADDRESS:		INSURER(S) AFFORDING COVERAGE		INSURER A: SELECTIVE INS CO OF AMERICA	NAIC # 12572	INSURER B: SELECTIVE INS CO OF THE SOUTHEAST	39926	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
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INSURED WACHLESKY CONSTRUCTION LLC 661 LAUREL ST MAYFIELD PA 18433-2158	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>INSURER A: SELECTIVE INS CO OF AMERICA</td> <td>NAIC # 12572</td> </tr> <tr> <td>INSURER B: SELECTIVE INS CO OF THE SOUTHEAST</td> <td>39926</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER A: SELECTIVE INS CO OF AMERICA	NAIC # 12572	INSURER B: SELECTIVE INS CO OF THE SOUTHEAST	39926	INSURER C:		INSURER D:		INSURER E:		INSURER F:									
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INSURER F:																					

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD 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. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDITIONAL	SUBROGATION	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
							INSUR	WAIVED
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GENL AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:		<input checked="" type="checkbox"/>	S 2183525	8/12/2021	8/12/2022	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 500,000
							MED EXP (Any one person)	\$ 15,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 3,000,000
							PRODUCTS - COMPIOP AGG	\$ 3,000,000
								\$
B	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY		<input checked="" type="checkbox"/>	S 2183525	8/12/2021	8/12/2022	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ ZERO			S 2183525	8/12/2021	8/12/2022	EACH OCCURRENCE	\$ 2,000,000
							AGGREGATE	\$ 2,000,000
								\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N <input type="checkbox"/> N/A	WC 9061200	6/1/2021	6/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
							E.I. EACH ACCIDENT	\$ 1,000,000
							E.I. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.I. DISEASE - POLICY LIMIT	\$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

This Certificate of Liability Insurance was created by Selective on behalf of the agent.

CITY OF SCRANTON is included as additional insured with respect to Automobile, General Liability as required by written contract or agreement.

CERTIFICATE HOLDER CITY OF SCRANTON 340 NORTH WASHINGTON AVE Scranton PA 18503	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	--



ADDITIONAL REMARKS SCHEDULE

AGENCY MCGOVERN INSURANCE AGENCY INC		NAMED INSURED MACIERSKY CONSTRUCTION LLC	
POLICY NUMBER S 2183525		661 LAUREL ST	
CARRIER SELECTIVE INS CO OF THE SOUTHEAST	NAIC CODE 39926	MAYFIELD	PA 18433-2158
		EFFECTIVE DATE: 8/12/2021	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

JOB #

JOB LOCATION

PERFORMANCE BOND

#5948386

KNOW ALL MEN BY THESE PRESENTS, that we, Machiesky Construction, LLC
661 Laurel St., Mayfield, Pa. 18433

as principal, and Old Republic Surety Company
445 W. Moorland Rd., Ste. 200, Brookfield, WI 53005

as ~~sureties~~ ^{Surety} are held and firmly bound unto City of Scranton its certain attorney, successors, or assigns (hereinafter called the Obligee), in the full and just sum of Three Hundred Ten Thousand and 00/100 Dollars (\$ 310,000.00) lawful money of the United States, for the payment of which, well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally firmly by these presents.

WHEREAS, said Principal has entered into a certain contract with the Obligee dated _____, 20____, (hereinafter called the Contract) for Bloom Avenue Culvert replacement project along Leach Creek

which Contract and the Specifications for said work shall be deemed a part hereof as fully as if set out herein:

NOW, therefore, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the principal shall faithfully perform the contract on his part as of the time and in the manner therein provided and satisfy all claims and demands incurred in or for the same, or growing out of the same, or for injury or damages to persons or property in the performance thereof, and shall fully indemnify and save harmless the said Obligee from any and all cost and damage which the said Obligee may suffer by reason of the principal's failure to do so, and shall fully reimburse and repay the said Obligee any and all outlay and expense shall be null and void, otherwise it shall remain in full force and virtue.

The said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

SIGNED, SEALED AND DELIVERED IN FOUR (4) ORIGINAL COUNTERPARTS THIS

Sept. 2 . 2021 .

(Individual Principals sign here)

(b) The surety shall not be liable hereunder for any damages or compensation recoverable under any workmen's compensation or employer's liability statute.

(c) In no event shall the surety be liable for a greater sum than the penalty of this bond, or subject to any suit, action or proceeding thereon that is instituted later than two years after the complete performance of said Contract and final settlement thereof.

(d) As used herein: The term "person" refers to any individual, firm or corporation who have furnished materials or machinery or public utility services to be used on or incorporated in the work or the prosecution thereof provided for in said Contract or in any amendment or extension of or addition to said Contract, and/or to any person engaged in the prosecution of the work provided for in said Contract or in any amendment or Extension of or addition to said contract who is an agent, servant or employee of the principal or of any subcontractor, or of any assignee of said principal of any subcontractor and also anyone so engaged who performs the work of a laborer or of a mechanic regardless of any contractual relationship between the principal, or any subcontractor, or any assignee of said principal or of said subcontractor, and such laborer or mechanic, but shall not include office employees not regularly stationed at the site of the work.

The said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder or the Specifications accompanying the same, shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time alteration or addition to the terms of the Contract or to the work or to the Specifications.

_____ (SEAL)
In the presence of: _____ (SEAL)
_____ (SEAL)
_____ (SEAL)

(Corporate Principal sign here)

Machiesky Construction, LLC

By David Machiesky
(Surety sign here)

Attest: Witness:

Joan M. Evans
Joan M. Evans,

Old Republic Surety Company
Ronald M. Metchko
Ronald M. Metchko, Attorney-in-Fact

The rate of premium charged is \$ 25.00 per thousand.

The total amount of premium charged is \$ 7,750.00.

(The above must be filled in by the Corporate Surety.)

It is hereby further stipulated and agreed that if the Principal is a non-Pennsylvania corporation neither Principal nor the Surety shall be discharged from liability on this bond, nor the bond surrendered, until such Principal files with the obligee a certificate from the Pennsylvania Department of Revenue evidencing the payment in full of all taxes, penalties and interest, and a certificate from the Bureau of Employment and Unemployment Compensation of the Pennsylvania Department of Labor and Industry, evidencing the payment of all unemployment compensation contributions, penalties and interest due the Commonwealth of Pennsylvania from the said penalties and interest due the Commonwealth of Pennsylvania from the said Principal, or any non-Pennsylvania corporation subcontractor thereunder, or for which liability has accrued, but the time for payment has not arrived as required by the Act of June 10, 1947, P.L. 493, 8 P.S. Sec. 23, amended.

LABOR AND MATERIALMEN'S BOND

KNOW ALL MEN BY THESE PRESENTS, that we, Machiesky Construction, LLC

661 Laurel St., Mayfield, Pa. 18433

as principal, and Old Republic Surety Company

445 W. Moorland RD., Ste. 200, Brookfield, WI 53005

~~Surety~~ ^{Surety} as ~~sureties~~ are held and firmly bound unto City of Scranton, its certain attorney, successors, or assigns (hereinafter called the Obligee), in the full and just sum of Dollars (\$310,000.00) lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally firmly by these presents.

WHEREAS, said Principal has entered into a certain contract with the Obligee dated _____, 20____, (hereinafter called the Contract) for Bloom Ave. culvert replacement project along Leach Creek which Contract and the Specifications for said work shall be deemed a part hereof as fully as if set out herein:

NOW, therefore, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal and all subcontractors to whom any portion of the work provided for in said contract is sublet and all assignees of said principal and of such subcontractors shall promptly make payment for all material furnished, labor supplied or performed, rental for equipment employed, and services rendered by public utilities in or in connection with the prosecution of the work, whether or not the said material, labor, equipment or services enter into and become component parts of the work or improvement contemplated in said contract, or in any amendment or extension of or addition to said Contract, then the above obligation shall be void; otherwise to remain in full force and effect. PROVIDED, however, that this bond is subject to the following conditions and limitations.

(a) All persons who have performed labor, rendered services or furnished materials or machinery, shall have a direct right of action against the principal and surety on this bond, which right of action shall be asserted in proceedings instituted in the State in which such labor was performed, services rendered or materials furnished (or where labor has been performed, services rendered or materials furnished under said Contract in more than one state, then in any such state). Insofar as permitted by the laws of such state, such right of action shall be asserted in a proceeding instituted in the name of the Obligee to the use and benefit of the person instituting such action and any or all other persons having claims hereunder, and any other person having a claim hereunder, shall have the right to be made a party to such proceeding (but not later than two years after the complete performance of said Contract and final settlement thereof) and to have such claim adjudicated in such action and judgment rendered thereon.

SIGNED, SEALED AND DELIVERED IN FOUR (4) ORIGINAL COUNTERPARTS THIS THE

Sept. 2, 20 21

(Individual Principals sign here)

_____(SEAL)

In the presence of:

_____(SEAL)

_____(SEAL)

_____(SEAL)

(Corporate Principal sign here)

Machiesky Construction, LLC

By *David Machiesky*

(Surety sign here)

~~Attest~~ Witness:

Joan M. Evans

Joan M. Evans

Old Republic Surety Company

Ronald M. Metcho

Ronald M. Metcho, Attorney-in-Fact

The rate of premium charged is \$ 25.00 per thousand.

The total amount of premium charged is \$ 7,750.00.

(The above must be filled in by the Corporate Surety.)

It is hereby further stipulated and agreed that if the Principal is a non-Pennsylvania corporation neither Principal nor the Surety shall be discharged from liability on this bond, nor the bond surrendered, until such Principal files with the obligee a certificate from the Pennsylvania Department of Revenue evidencing the payment in full of all taxes, penalties and interest, and a certificate from the Bureau of Employment and Unemployment Compensation of the Pennsylvania Department of Labor and Industry, evidencing the payment of all unemployment compensation contributions, penalties and interest due the Commonwealth of Pennsylvania from the said penalties and interest due the Commonwealth of Pennsylvania from the said Principal, or any non-Pennsylvania corporation subcontractor thereunder, or for which liability has accrued, but the time for payment has not arrived as required by the Act of June 10, 1947, P.L. 493, 8 P.S. Sec. 23, amended.

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint:

RONALD M. METCHO, JOAN M. EVANS, MARY JO DAVIS, OF TAYLOR, PA

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guaranties of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits or black lung bonds), as follows:

ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982. This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that, the president, any vice-president, or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

- RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER, that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 22ND day of APRIL, 2021.

OLD REPUBLIC SURETY COMPANY

Karen J. Haffner Assistant Secretary



Alan Pavlic President

STATE OF WISCONSIN, COUNTY OF WAUKESHA-SS

On this 22ND day of APRIL, 2021, personally came before me, Alan Pavlic and Karen J Haffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say; that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Kathryn R. Pearson Notary Public My commission expires: 9/28/2022

CERTIFICATE

(Expiration of notary commission does not invalidate this instrument)

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

66-0017

Signed and sealed at the City of Brookfield, WI this 22nd day of Sept. 2021



Karen J. Haffner Assistant Secretary

METCHO INS & SURETY BONDS INC

OLD REPUBLIC SURETY COMPANY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint:

RONALD M. METCHO, JOAN M. EVANS, MARY JO DAVIS, OF TAYLOR, PA

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits or black lung bonds), as follows:

ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982. This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that the president, any vice-president, or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER, that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 22ND day of APRIL, 2021.

OLD REPUBLIC SURETY COMPANY

Karen J. Staffner

Assistant Secretary



Alan Pavlic
President

STATE OF WISCONSIN, COUNTY OF WAUKESHA-SS

On this 22ND day of APRIL, 2021, personally came before me, Alan Pavlic and Karen J. Staffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say; that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Kathryn R. Pearson
Notary Public

My commission expires: 9/28/2022

CERTIFICATE

(Expiration of notary commission does not invalidate this instrument)

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the Board of directors set forth in the Power of Attorney, are now in force.

66-0017

Signed and sealed at the City of Brookfield, WI this 2nd day of Sept. 2021

Karen J. Staffner

Assistant Secretary



METCHO INS & SURETY BONDS INC