

PROJECT MANUAL
FOR
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET



Bid No. 25-045

CITY OF PENSACOLA
DEPARTMENT OF PUBLIC WORKS AND FACILITIES
ENGINEERING AND CONSTRUCTION SERVICES
SEPTEMBER 2025

INDEX

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THE CITY OF PENSACOLA, FLORIDA
INVITATION TO BID

BID NO. 25-045

SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET

A sealed, complete hardcopy bid **with original (or electronic) signature**, and **one (1) complete and identical electronic copy (PDF) on flash drive or CD** will be received on **October 2, 2025, 2:30 P.M.**, Central time, at the following location.

City Hall (lobby)
222 West Main Street
Pensacola, Florida, 32502
Attention: Purchasing

The OUTER FACE of the sealed submittal package shall **identify the respondent, the bid title, and the bid number** (whether hand-delivered, mailed, or via UPS/FedEx or other courier service). Submittals received after the closing time will not be accepted. Multiple submittals from the same entity will not be accepted. After the submittal deadline those submittals received will be opened and publicly acknowledged. Interested parties may attend.

Alternatively, electronic responses may be submitted to [Demandstar](#) or [Central Bidding](#). Both sites require registration and varying fees for notifications and document downloads.

NOTE: *If submitting an electronic response and if a bid/proposal bond is required:*

- An insurance company's executed bond **may be included with the electronic submittal**.
- A certified check/cashier's check **must be delivered** to the address above.

Those submittals received will be opened and publicly acknowledged the **following business day (October 3, 2025, 10:00 A.M., Central time)** via Microsoft Teams at the following link*: [Microsoft Teams proposal opening](#).

Specifications will be posted to the City's website at www.cityofpensacola.com/bids.aspx. Addenda will be posted to the City's website. Bidders are responsible for obtaining addenda and are advised to check the website frequently. There is no cost to view or download documents from the City website.

In order to review the project requirements, an **optional** pre-bid meeting will be held at **10:00 A.M., September 17, 2025**, via Microsoft Teams at the following link: [Microsoft Team Pre-Bid Meeting Link](#).

Bidders shall submit a cashier's check or bid bond, payable to the City of Pensacola in the amount of **five percent (5%) of the base bid** for a period of sixty (60) days.

Any questions concerning the bid should be addressed and submitted in writing **no later** than 10:00 A.M., Central time, September 22, 2025, to:

Dedria Lunderman, Purchasing Manager
City of Pensacola
222 W. Main St.
Pensacola, FL 32502
purchasing@cityofpensacola.com

A bid tabulation or a Notice of Intent to Award will be posted to the City's website at www.cityofpensacola.com/bids.aspx. Bidders are advised to check the website frequently.

The City of Pensacola adheres to the Americans with Disabilities Act and will make reasonable accommodations for access to City services, programs, and activities. Please email ADACoordinator@cityofpensacola.com or call (850) 436-5600. Requests must be made at least 48 hours in advance of the event in order to allow the City time to provide the requested services.

The City of Pensacola reserves the right to accept or reject any or all bids, to award bids on a split-order basis by item number when applicable, to waive any bid informalities and to re-advertise for bids when deemed in the best interest of the City of Pensacola.

Attest:
Ericka L. Burnett
City Clerk

CITY OF PENSACOLA
D. C. Reeves
Mayor

The City of Pensacola provides equal access in employment and public services.

Participation in a Microsoft Teams meeting requires a microphone and speakers; however, webcams are optional. Participants may join the meeting either via a PC or Smartphone. Please be sure to check the system requirements at the following link: [Microsoft Teams System Requirements Check.](#))

SECURITY NOTICE

Visitors to City Hall are required to stay in the lobby unless otherwise directed.

Late submittals will not be accepted.

PURCHASING GENERAL CONDITIONS

To ensure acceptance, all bidders submitting bids to the City of Pensacola shall be governed by the following conditions, attached specifications, and bid form(s) unless otherwise specified. Bids not submitted on the bid form(s) provided shall be rejected, and bids not complying with these conditions will be subject to rejection. **Multiple submittals from the same entity will not be accepted.**

1. **Approved Equivalents or Equals:** Any manufacturer's names, trade names, brand names, model numbers, etc. listed in the specifications are for information only and not intended to limit competition. The Bidder may offer any brand for which he is an authorized representative, which meets or exceeds the specifications as written. If the bid is based on an "approved equivalent or equal" item(s) or service(s), supportive information in the form of the manufacturer's printed literature or brochures, sketches, diagrams, and/or complete specifications must accompany the bid. The bidder must explain in detail the reasons why the proposed equivalent or equal will meet specifications and not be considered an exception thereto. The City of Pensacola reserves the right to determine acceptance of proposed equivalent or equal item(s) or service(s).
2. **Award of Bids:** Recommendations for award of bids are made to the Mayor or City Council based on the lowest and best responsible bidder meeting all conditions and requirements of the specifications.
3. **Bid Bond:** The particular item(s) or service(s) outlined within the attached specifications require(s) that a cashier's check, or insurance company's **executed** bond made payable to the City of Pensacola in the amount of **five percent (5%) of the base bid** accompany your proposal. To ensure its prompt return, please include the company's name and return address on the face of your good faith check or draft. Checks or drafts accepted as good faith deposits will be retained within the City's Finance Department until award and execution of contract is complete, or until a purchase order is issued to the successful proposer. Any proposer withdrawing his proposal after the proposal opening forfeits the right of return of his good faith deposit.
4. **Bid Withdrawal:** No bid may be withdrawn after closing time for receipt of bids for a period of sixty (60) days thereafter. The contract award shall be legally binding at the time of award by Mayor or City Council.
5. **Delivery:** Bid quotations shall include all freight costs to Pensacola, Florida to a point(s) specified herein or specified at the time the purchase order is placed. No title to the item(s) or service(s) ordered nor any risk of loss shall be passed to the City of Pensacola until after receipt of delivery has been acknowledged by an authorized representative of the City of Pensacola.
6. **Discounts:** Terms offering a discount for prompt payment will be considered in

determining the low bid. The discount period shall begin whenever (1) the conditions of the specifications have been fully met and the product or service judged acceptable to the City of Pensacola or (2) a correct invoice and other required documents have been received, whichever is later. Discounts offered for a period of less than thirty (30) days will not be considered in determining low bid.

7. **E-Verify System (Mandatory):** In compliance with the provisions of F.S. 448.095, the parties to this contract and any subcontractors engaged in the performance of this contract hereby certify that they have registered with and shall use the E-Verify system of the United States Department of Homeland Security to verify the work authorization status of all newly hired employees, within the meaning of the statute.
8. **Exceptions to Specifications:** During the drafting of written specifications, a sincere effort is made to describe products and services best suited to the needs of the City; however, in order that consideration be given in evaluating bids, any exceptions to or deviations from the specifications as written must be noted and fully explained. The Mayor is the final authority in determining the acceptability of any exceptions to specifications.
9. **Governing Law:** The laws of the State of Florida shall be the laws applied in the resolution of any action, claim or other proceeding arising out of this contract.
10. **Identical Tie Bids:** In the event that two or more bids are identical in price, preference shall be given to business with Drug-Free Workplace Programs. A Drug-Free Workplace Certificate is enclosed.
11. **Intent of Specifications:** It is the intent of the specifications attached hereto to set forth and describe a certain item(s) or service(s) to be purchased by the City of Pensacola including all materials, equipment, machinery, tools, apparatus, and means of transportation (including freight costs) necessary to provide the item(s) or service(s).
12. **Interpretations:** All questions concerning the specifications or conditions shall be directed in writing to the Purchasing Office at least ten (10) days prior to submittal deadline, unless otherwise instructed on the Invitation to Bid Page. Inquiries must reference the bid item(s) or service(s) and the date of the bid submittal deadline. Interpretations will be made in the form of an addendum placed on the City's website. The City shall not be responsible for any other explanation or interpretation.
13. **Legal Requirements:** All applicable provisions of Federal, State, County, and local laws including all ordinances, rules, and regulations shall govern the development, submittal and evaluation of all bids received in response to these specifications, and shall govern any and all claims between person(s) submitting a bid response hereto and the City of Pensacola, by and through its officers, employees and authorized representatives. A lack of knowledge by the bidder concerning any of

the aforementioned shall not constitute a cognizable defense against the legal effect thereof. The Bidder agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability.

14. **Licenses, Registration and Certificates:** Each bidder shall possess at the time of submitting its bid all licenses, registration and certificates necessary to engage in the business of contracting (or special contracting if the work to be performed necessitates a particular type of specialty contractor) in the City of Pensacola. Bidder must also possess all licenses, registrations and certificates necessary to comply with federal, state and local laws and regulations. The awarded bidder shall be registered at the time of contract execution as an active vendor with the Florida Department of State, Division of Corporations (www.sunbiz.org).
15. **Mistakes:** Bidders are expected to examine the conditions, scope of work, proposal prices, extensions, and all instructions pertaining to the item(s) or service(s) involved. Failure to do so will be at the bidder's risk. Unit prices bid will govern in award.
16. **Payment of Invoices:** The City of Pensacola issues checks for payment of invoices on the 10th of each month. The signed receiving copy of the purchase order and a correct invoice must have been received by Accounts Payable Activity prior to the 4th of the month. Item(s) or service(s) received on or after the 4th will be processed in the following month. All invoices are payable by the City under the terms of Florida Prompt Payment Act, Florida Statute §218.70. All purchases are subject to availability of funds in the City's budget.
17. **Permits and Taxes:** The bidder shall procure all permits, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Bidders who use public roads of the City of Pensacola, Florida for transport of goods of any kind which said goods were transported from a point without the City of Pensacola, Florida to a point within the City of Pensacola shall obtain a "Use of Streets" permit for a fee not in excess of the license paid for by local licensees engaged in the same business.
18. **Pre-Bid Meetings:** If a bid requires a mandatory pre-bid meeting, any representative of a firm wishing to submit a bid must sign in with the name of the bidding firm.
19. **Prohibited Conduct by Bidders:** Upon the publication of any solicitation for sealed bids, requests for proposals, requests for qualifications, or other solicitation of interest or invitation to negotiate by any authorized representative of the City of Pensacola, any party interested in submitting a bid, proposal, or other response reflecting an interest in participating in the purchasing or contracting process shall be prohibited from engaging in any communication **pertaining to formal solicitations** with the Mayor, any member of Pensacola City Council or any member of a selection/evaluation committee for RFPs/RFQs, whether directly or

indirectly or through any representative or agent, whether in person, by mail, by facsimile, by telephone, by electronic communications device, or by any other means of communication, until such time as the City has completed all action with respect to the solicitation.

20. **Protests:** Protests of the plans, specifications, and other requirements of bids and requests for proposals must be received in writing by the Purchasing Office at least ten (10) business days prior to the scheduled bid submittal deadline. A detailed explanation of the reason for the protest must be included. Protests of the intended award of bid or contract must be in writing and received in the Purchasing Office within five (5) business days of the notice of intent to award. A detailed explanation of the protest must be included.
21. **Public Entity Crimes:** By submitting a proposal each proposer is confirming that the company has not been placed on the convicted vendors list as described in Florida Statute §287.133 (2) (a).
22. **Public Records:** Any material submitted in response to this Invitation to Bid will become a public document pursuant to Florida Statute §119.07. This includes material which the responding bidder might consider to be confidential or a trade secret. Any claim of confidentiality is waived upon submission, effective after opening the bid pursuant to Florida Statute §119.07.
23. **Public Records Law:** The Parties shall each comply with Florida Public Records laws. The Parties hereby contractually agree that each Party shall allow public access to all documents, papers, letters, or other public records as defined in Chapter 119, Florida Statutes, made or received by either Party in conjunction with this agreement, or related thereto, unless a statutory exemption from disclosure exists. Notwithstanding any provision to the contrary, it is expressly agreed that Contractor's failure to comply with this provision, within seven (7) days of notice from the City, shall constitute an immediate and material breach of contract for which the City may, in the City's sole discretion, unilaterally terminate this agreement without prejudice to any right or remedy.
24. **Rejection of Bids:** The City of Pensacola reserves the right to accept or reject any or all bids, to award bids on a split-order basis by item or service number, to waive any minor bid irregularities, technicalities, or informalities, and to re-advertise for bids when deemed in the best interest of the City of Pensacola.
25. **Sealed Response:** All executed City forms must be submitted. All responses must be signed by an authorized representative of the proposer.
 - A. Hardcopy response: In the event more than one submittal deadline is scheduled for the same date and time, do not include responses concerning different sets of specifications within the same envelope. The face of the sealed envelope shall be plainly marked identifying the responder, the bid/RFP/Rfq title and number. It shall be the sole responsibility of the

respondent to assure receipt of the submittal at the Purchasing Office prior to the published time for the submittal deadline.

- B. Electronic response: Respondent may submit an electronic submittal to the sites mentioned on the Invitation To Bid page. Offers by telephone, fax, or email will **NOT BE ACCEPTED**.

26. **Tax:** The City of Pensacola is exempt from all State and local sales tax.
27. **Unauthorized Aliens:** The City of Pensacola shall consider the employment by any contracted vendor of unauthorized aliens a violation of Section 274A of the Immigration and Nationality Act. Such violation shall be cause for unilateral termination of this contract.
28. **Venue:** Venue for any claim, action or proceeding arising out of this contract shall be Escambia County, Florida.

ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THESE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.
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INSURANCE AND INDEMNIFICATION

GENERAL

Before starting and until termination of work for, or on behalf of the **City**, the Contractor shall procure and maintain insurance of the types and limits specified.

The term City, as is used in this section, is defined to mean the City of Pensacola, itself, any subsidiaries or affiliates, elected and appointed officials, employees, volunteers, representatives and agents.

COVERAGE

Insurance shall be issued by an insurer whose business reputation, financial stability and claims payment reputation is satisfactory to the City, for the City's protection only. Unless otherwise agreed, the amounts, form and type of insurance shall conform to the following minimum requirements.

Worker's Compensation

The Contractor shall purchase and maintain Worker's Compensation Insurance Coverage for all Workers' Compensation as legally required. Additionally, the policy, or separately obtained policy, must include Employers Liability Coverage of at least \$100,000 each person – accident, \$100,000 each person – disease, \$500,000 aggregate – disease.

Commercial General, Automobile, Contractor's Pollution Liability and Umbrella Liability Coverages

The Contractor shall purchase coverage on forms no more restrictive than the latest editions of the Commercial General Liability, Business Auto, and Contractor's Pollution Liability policies filed by the Insurance Services Office. **The City of Pensacola shall be an Additional Insured** and such coverage shall be at least as broad as that provided to the Named Insured under the policy for the terms and conditions of this Contract. The City shall not be considered liable for premium payment, entitled to any premium return or dividend and shall not be considered a member of any mutual or reciprocal company. Minimum limits of \$1,000,000 per occurrence, and per accident, combined single limit for liability must be provided, with umbrella insurance coverage making up any difference between the policy limits of underlying policies coverage and the total amount of coverage required. If the required limits of liability afforded should become impaired by reason of any claim, then the Contractor agrees to have such limits of \$1,000,000 per occurrence, reinstated under the policy.

Commercial General Liability coverage must be provided, including bodily injury and property damage liability for premises, operations, products and

completed operations (including pollution related claims), independent contractors, and property damage resulting from, collapse or underground (c,u) exposures. The coverage shall be written on occurrence-type basis.

Business Auto Policy coverage must be provided, including bodily injury and property damage arising out of operation, maintenance or use of owned, non-owned and hired automobiles and employee non-ownership use.

Contractor's Pollution Liability coverage for bodily injury, property damage, fines, penalties, defense, and clean up must be included. Coverage must include both sudden/accidental and non-sudden/gradual.

Umbrella Liability Insurance coverage shall not be more restrictive than the underlying insurance policy coverages. The coverage shall be written on an occurrence-type basis.

CERTIFICATES OF INSURANCE

Required insurance shall be documented in the Certificates of Insurance which provide that the City shall be notified at least thirty (30) days in advance of cancellation, non-renewal or adverse change or restriction in coverage. **The City shall be named as an Additional Insured** and this contract shall be listed. If required by the City, the Contractor shall furnish copies of the Contractor's insurance policies, forms, endorsements, jackets and other items forming a part of, or relating to such policies. Certificates shall be on the "Certificate of Insurance" form equal to, as determined by the City, an ACORD 25. **Any wording in a Certificate which would make notification of cancellation, adverse change or restriction in coverage to the City an option shall be deleted or crossed out by the insurance carrier or the insurance carrier's agent or employee.** If on an ACORD 25 or similar form, the words "endeavor to" and "but failure..." shall be deleted so that the sentence ends with the word "left" or signed endorsements for the cancellation clauses MUST accompany Certificate(s) of Insurance. The Contractor shall replace any canceled, adversely changed, restricted or non-renewed policies with the new policies acceptable to the City and shall file with the City, Certificate of Insurance under the new policies prior to the effective date of such cancellation, adverse change or restriction. If any policy is not timely replaced, in a manner acceptable to the City, the Contractor shall, upon instructions of the City, cease all operations under the Contract until directed by the City in writing, to resume operations.

INSURANCE OF THE CONTRACTOR PRIMARY

The Contractor required coverage shall be considered primary, and all other insurance shall be considered as excess, over and above the Contractor's coverage. The Contractor's policies of coverage will be considered primary as relates to all provisions of the contract.

LOSS CONTROL AND SAFETY

The Contractor shall retain control over its employees, agents, servants, and subcontractors, as well as control over its invitees, and its activities on and about the subject premises and the manner in which such activities shall be undertaken and to that end, the Contractor shall not be deemed to be an agent of the City. Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall make special effort to detect hazards and shall take prompt action where loss control/safety measures should reasonably be expected.

HOLD HARMLESS

The Contractor shall indemnify and hold harmless the City of Pensacola, its officers and employees, from any and all liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of this contract. The Contractor's obligation shall not be limited by, or in any way to, any insurance coverage or by any provision in or exclusion or omission from any policy of insurance.

PAY ON BEHALF OF THE CITY

The Contractor agrees to pay on behalf of the City, as well as provide a legal defense for the City, both of which will be done only if and when requested by the City, for all claims as described in the Hold Harmless paragraph. Such payment on the behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

INSTRUCTIONS TO BIDDERS

1. AWARD OF CONTRACT

- A. The contract will be awarded as soon as practicable to the lowest responsible bidder, price and other factors considered, provided their bid is reasonable and it is to the interest of the City to accept it.
- B. The City reserves the right to waive any informality in bids received when such waiver is in the interest of the City. In case of error in the extension of prices, the unit price will govern.
- C. The City further reserves the right to accept or reject any or all items of any bid, unless the bidder qualifies such bid by specific limitations; also to make an award to the bidder whose aggregate bid on any combination of bid items is low.

2. BID OPENING

At the time fixed for the opening of bids, their contents will be made public for the information of bidders and others properly interested.

3. BIDDERS INTERESTED IN MORE THAN ONE BID

If more than one bid is offered by any one party, by or in the name of their clerk, partner, or other person, all such bids will be rejected. A party who has quoted prices to a bidder is not thereby disqualified from quoting prices to other bidders or from submitting a bid directly for the work.

4. BIDDER'S QUALIFICATIONS

Before a bid is considered for award, the bidder may be requested by the City to submit a statement of facts in detail as to his previous experience in performing similar or comparable work, and of his business and technical organization and financial resources and plants available to be used in performing the contemplated work. A minimum of 5 qualifying project references may be required from previous or current project owners. These references shall be specific to the prime contractor's experience; experience of the subcontractor cannot be substituted should the prime contractor fail to meet the requirements of this section. These references shall be from specific projects of similar size and scope. At least 3 of the 5 shall be from another government municipality, especially if the bidder has not contracted with the City on projects of a same/similar nature within the previous five (5) years of the bid date. No references will be considered in which the bidder worked under a different company name or in which the bidder worked as a subcontractor to a prime contractor. The City reserves the express right to not award a contract to a bidder if the provided references do not reveal that the contractor has ample/adequate experience beyond a reasonable doubt to complete the project according to the plans and specifications and within the time frame stipulated.

5. COMMENCEMENT

The bidder further proposes and agrees hereby to commence the work with an adequate force and equipment within **(10)** consecutive calendar days after being notified by the City of Pensacola to do so.

6. PROJECT COMPLETION, PHASING, AND SCHEDULE

The contractor shall perform all work and testing in accordance with the approved phasing plan and associated schedule outlined below. Strict adherence to these timelines is required, and any deviation may result in applicable penalties. To meet the incentivized completion dates, the contractor is authorized to work 24 hours per day, 7 days per week, including holidays. It is the contractor's responsibility to plan and staff accordingly to maintain continuous progress and meet the project milestones.

The contractor is also responsible for the proper installation and maintenance of temporary construction fencing. For the efforts associated with the bas bid, from the start of Phase A through the completion of Phase D, the entire work area must be fully enclosed with fencing to ensure public safety and allow for unimpeded pedestrian access to all portions of S. Palafox. Additionally, the contractor must implement measures to maintain safe and accessible east-west pedestrian crossings at each intersection during all phases of work.

Upon completing Phases A through D, the contractor shall relocate the fencing to encompass Phases E and F before commencing work in those areas. The same procedure applies to the transition from Phases E–F to Phases G–I. The contractor must ensure fencing placement supports pedestrian walkability and public safety at all times.

Should the City elect to move forward with bid alternates, the same level of construction fencing shall be installed and relocated as necessary to accommodate phasing, and pedestrian accessibility, and pedestrian safety.

To support effective communication with the public, the City of Pensacola will hire a dedicated Marketing and Public Engagement Coordinator. This staffer will work, independent from the construction team, to provide timely updates about fence relocations, changes to pedestrian access, and business accessibility throughout all project phases. The contractor shall coordinate closely with this individual to minimize disruption and confusion for businesses, residents, and visitors.

Finally, while it will not be used as a determining factor in the award of bid, as part of the bid package, the contractor must submit a detailed project schedule to the City. This schedule should follow the below required phasing schedule and outline weekly task milestones based on the project timeline described below and include

plans for the contractor to attend project update meetings. Prior to execution of the contract, the contractor shall reconfirm the submittal project schedule/milestones.

Base Bid = Required Phasing Schedule:

Phase A through Phase D

- Incentivized Completion Date: May 24, 2026
- Incentive for Completion by this Date: 10% of total bid amount – note this incentivized completion date is hard and fast and regardless of holidays, natural disasters, City-created delays, weather conditions, or unforeseen conditions
- Second Incentivized Completion Date: June 13, 2026
- Incentive for Completion by this Date: 5% of total bid amount – note this incentivized completion date is hard and fast and regardless of holidays, natural disasters, City-created delays, weather conditions, or unforeseen conditions
- Non-Incentivized Allowable Completion Date: July 3, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase E through Phase F

- Non-Incentivized Allowable Completion Date: September 3, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase G and Phase I

- Non-Incentivized Allowable Completion Date: November 25, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Bid Alternate #1 = Modified Phasing Schedule:

Phase A through Phase B

- Incentivized Completion Date: April 2, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase C through Phase D

- Incentivized Completion Date: August 23, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase E through Phase F

- Non-Incentivized Allowable Completion Date: November 6, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase G and Phase I

- Non-Incentivized Allowable Completion Date: January 20, 2027
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Bid Alternate #2 = Complete all tasks associated with Phase H of the plans

Bid Alternate #3 = Complete all tasks associated with bollard installation

7. CONDITIONS AT SITE OF WORK

Bidders shall be responsible to visit the site to ascertain pertinent local conditions readily determined by inspection and inquiry, such as the location, and general character of the site, labor conditions, the character and extent of existing work within or adjacent thereto, and any other work being performed thereon.

8. DECLARATIONS

The bidder hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respect fair and in good faith without collusion or fraud.

The bidder further declares that he has examined the site of the work and has informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the plans and specifications for the work and the contractual documents relative thereto, including the Advertisement, Proposal Form, Form of Contract, General Conditions, and all specific conditions; and that he has satisfied himself relative to the work to be performed.

The bidder proposes and agrees, if this Proposal is accepted, that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability and to contract with the City of Pensacola in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and labor necessary to complete the project.

9. LICENSING REQUIREMENT

Each bidder shall possess at the time of submitting its bid all licenses, registration and certificates necessary to engage in the business of contracting (or special contracting if the work to be performed necessitates a particular type of specialty contractor) in the City of Pensacola. Bidder must also possess all licenses, registrations and certificates necessary to comply with federal, state and local laws and regulations. The awarded bidder shall be registered at the time of contract

execution as an active vendor with the Florida Department of State, Division of Corporations (www.sunbiz.org).

Bidder for the project shall hold one or more of the following documents in order to submit a bid. **Copies of the document(s) must be included within the submittal.**

- A. Florida Licensed General Contractor
- B. Florida Licensed Underground Utilities Contractor

10. LIEN RELEASE AND AFFIDAVIT

Each Application for Payment shall be accompanied by a Lien Release and Affidavit from each subcontractor and each supplier showing that all materials, labor, equipment and other bills associated with that portion of the work in which payment is being requested for have been paid in full. The City shall not be required to make payment until and unless these affidavits are furnished by the Contractor.

11. PENALTIES

The bidder further agrees that in case of failure on his part to execute the said Contract and Bond within **(10)** calendar days after written notice being given of the award of the Contract, the check or bid bond accompanying this bid, and the monies payable thereon, shall be paid into the funds of the City of Pensacola as delay day penalties for such failure; otherwise, the check or bid bond accompanying the Proposal shall be returned to the undersigned.

12. PREPARATION OF BIDS

- A. Bids shall be submitted on the forms furnished or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each such erasure or change must be initialed by the person signing the bid.
- B. The form of bid will provide for quotation of a price, or prices, for one or more items which may be lump sum bids, alternate prices, scheduled items resulting in a bid on a unit of construction or a combination thereof. Where required on the bid form, bidders must quote on all items and they are warned that failure to do so may disqualify the bid. When quotations on all items are not required, bidders should insert the words "no bid" or "0" in the space provided for any item on which no quotation is made.

13. RECEIPT AND OPENING OF BIDS

No responsibility will attach to any City employee for the premature opening of, or the failure to open, a bid not properly addressed and identified.

14. REJECTION OF BIDS

The City reserves the right to reject any and all bids when such rejection is in the

interest of the City; to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of a similar nature; and to reject the bid of a bidder who is not, in the opinion of the Engineer, in a position to perform the contract.

15. SPECIAL CONDITIONS

- A. **Public Entity Crimes** - Any person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- B. All bidders are advised that compliance with The Occupational Safety and Health Administration Excavation Safety Standards, 29 C.F.R.s 1926.650-652 of Sub part P will be required.
- C. The Contractor agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability.
- D. Florida State Statute 93.240 under section 556.101 through 556.111 requires that all excavators notify gas companies of their intention to perform any excavation at least forty- eight (48) hours (excluding Saturday, Sundays and holidays) prior to beginning work. If excavating, digging, boring, tunneling, blasting or otherwise disturbing the earth in any manner where a buried gas line may be damaged is proposed, please call the toll free number 1-800-432-4770 between the hours of 6:30 a.m. and 4:00 p.m. CST Monday through Friday, forty-eight (48) hours before starting the proposed work, (weekends and holidays excluded). Contractor shall notify all utility companies to locate and mark all utility facilities forty-eight (48) hours before starting any excavation.
- E. The general contractor will submit a maintenance traffic plan which will satisfy the traffic conditions outlined in the general notes.
- F. The general contractor shall post the construction site with "NO TRESPASSING" signs, to prevent amateur archaeologists from entering the site without authorization.

Bid No. 25-045

SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN STREET TO MAIN STREET

Scope of Work

Scope of Work Prepared by: Baskerville-Donovan, Inc. (Prime Civil Engineer)
Sub-Consultant: Jerry Pate Design (Landscape Architect)
Date: April 11, 2025

1. PROJECT OVERVIEW

The South Palafox Street Pedestrian Improvements Project aims to enhance pedestrian and vehicular circulation in downtown Pensacola, Florida, along South Palafox Street and adjacent areas, while incorporating additional pedestrian safety upgrades. The project focuses on improving the pedestrian experience through thoughtful landscape architecture and engineering services. The design areas include:

- South Palafox Street: From south of Garden Street to north of Main Street.
- Romana Street: Between Baylen Street and Jefferson Street.
- Intendencia Street: Between Baylen Street and Jefferson Street.
- Government Street: Between Baylen Street and Jefferson Street.
- Intersections: South Palafox Street at Garden Street and South Palafox Street at Main Street.
- Additional Areas for Bollard Placement: Along Zarragossa and Garden Streets, as identified in coordination with City staff and the Pensacola Police Department.

The contractor will execute the construction based on the Release for Construction (RFC) set prepared by Baskerville-Donovan, Inc. (BDI) and Jerry Pate Design (JPD). The RFC set is organized into phases (A through I), with each phase representing a miniature plan set covering a block-to-block segment. This structure provides the contractor flexibility to begin and end work in distinct phases, minimizing disruption to the surrounding area. The contractor must ensure compliance with the City of Pensacola codes, Florida Department of Transportation (FDOT) standards, and the project's conceptual design.

2. ROLES AND RESPONSIBILITIES

- Baskerville-Donovan, Inc. (BDI): As the prime civil engineer, BDI is responsible for overall project management, civil engineering design (roads, drainage, signage, pavement markings, bollard layouts), surveying, permitting, value engineering, and coordination with the City of Pensacola, FDOT, and the Pensacola Police Department.

- Jerry Pate Design (JPD): As the sub-consultant landscape architect, JPD is responsible for landscape and hardscape design, including plantings, irrigation, ballast stone planter walls, street furniture, and compliance with City of Pensacola codes.
 - Contractor: The contractor will execute the construction work as per the RFC set, coordinating with BDI and JPD for clarifications, submittals, and inspections. The contractor is also responsible for developing and implementing a robust Maintenance of Traffic (MOT) plan and coordinating with local business owners to minimize disruption during construction.
-

3. SCOPE OF WORK FOR CONTRACTOR

The contractor shall perform the following tasks in accordance with the RFC set, specifications, and permits provided by BDI and JPD. The plan set is organized into phases (A through I), with each phase representing a block-to-block segment, allowing the contractor to work in a phased approach to minimize disruption.

3.1 General Requirements

- Basis of Work: All construction activities shall be based on the Release for Construction (RFC) set.
- Phased Construction:
 - The RFC set is divided into phases (A through I), with each phase representing a miniature plan set for a specific block-to-block segment.
 - The contractor has the flexibility to begin and end work in distinct phases, ensuring minimal disruption to adjacent areas.
- Compliance: Adhere to all City of Pensacola codes, FDOT standards, and project-specific requirements.
- Permits: Work within the boundaries of permits obtained by BDI, including FDOT permits for roadway, landscaping, and bollard installations within state rights-of-way (e.g., Garden Street).
- Schedule: Propose a construction schedule upon award, aligning with the phased approach and the City of Pensacola's expectations. Note that FDOT permitting may take at least 120 days, which could impact the construction timeline.
- Coordination:
 - Attend pre-construction meetings, progress meetings, and coordinate with BDI, JPD, the City of Pensacola, the Pensacola Police Department, and utility providers as needed.
 - Business Owner Coordination: Actively engage with local business owners along South Palafox Street, Zarragossa Street, Garden Street, and adjacent areas to minimize disruption during construction. Provide regular updates on construction schedules, access changes, and MOT plans to ensure business operations are maintained as much as possible.

- Submittals: Submit shop drawings, material samples, and other required documentation to BDI for review and approval prior to construction.
- Safety: Implement safety programs and precautions during construction, ensuring compliance with all applicable regulations.

3.2 Maintenance of Traffic (MOT)

- MOT Plan Development:
 - Develop a comprehensive Maintenance of Traffic (MOT) plan for each phase of construction, ensuring safe and efficient traffic flow for vehicles and pedestrians throughout the project area.
 - The MOT plan must account for the block-to-block phased approach, minimizing disruption to traffic along South Palafox Street, Zarragossa Street, Garden Street, and adjacent streets.
- Implementation:
 - Install temporary signage, barriers, and detours as needed to maintain traffic flow and pedestrian access.
 - Ensure MOT measures comply with FDOT and City of Pensacola standards.
 - Coordinate MOT activities with the Pensacola Police Department and local business owners to address safety concerns and maintain access to businesses.
- Monitoring:
 - Regularly monitor and adjust the MOT plan as construction progresses through each phase, addressing any unforeseen issues promptly.
 - Provide weekly MOT updates during progress meetings with BDI and the City of Pensacola.

3.3 Demolition and Site Preparation

- Demolition:
 - Remove existing pavement, curbs, and other features as indicated in the demolition plans within the RFC set for each phase.
 - Remove raised crosswalks as part of the value engineering efforts, as identified in the RFC set.
- Site Clearing:
 - Clear and grub the project area for each phase, including removal of any vegetation or obstacles not designated for preservation.
- Tree Protection:
 - Protect existing trees identified in the survey (provided by BDI) as per City of Pensacola codes, including protected species.
- Utility Investigations:
 - Account for Subsurface Utility Engineering (SUE) investigations conducted by BDI along Zarragossa and Garden Streets to identify utility elevations and conflicts at proposed bollard installation sites.
 - Report any unforeseen subsurface utility conflicts to BDI immediately for resolution (note: design modifications due to utility conflicts will be addressed separately).

3.4 Roadway and Drainage Improvements (Led by BDI)

- Roadway Modifications:
 - Modify road and curb elevations along South Palafox Street, Romana Street, Intendencia Street, Government Street, Zarragossa Street, and at the intersections of South Palafox Street with Garden Street and Main Street, as per the RFC set.
 - Adjust pavement cross slopes to improve drainage while maintaining existing FPL utility boxes in place, incorporating value engineering outcomes such as the removal of raised crosswalks.
 - Construct new curb layouts, ADA ramps, and crosswalks as specified, ensuring paver installations remain within the limits defined in the RFC set (no expansion of paver installations beyond these limits).
- Intersections:
 - Install paver hardscape at intersections as designed by JPD, following the “pavers to remain” study outcomes from the value engineering efforts.
- Drainage:
 - Modify the existing underground drainage system based on surveyed pipe sizes, inverts, and drainage sub-basins, incorporating stormwater analysis of critical areas conducted during value engineering.
 - Adjust the drainage collection system to accommodate the Phase 1 concept, ensuring effective flow rates and road cross sections for drainage.
- Signage and Pavement Markings:
 - Install signage and pavement markings as per the RFC set, ensuring compliance with FDOT and City standards.

3.5 Pedestrian Safety Upgrades (Bollard Installation)

- Bollard Placement:
 - Install bollards at key locations along Zarragossa and Garden Streets, as identified in the RFC set and coordinated with City staff and the Pensacola Police Department.
 - Bollard placement is included in Phases E, F, G, H, and I of the RFC set, with expanded sheets providing detailed layouts for accurate siting and installation.
 - Ensure bollard installations align with the supplemental survey and SUE investigations conducted by BDI to avoid utility conflicts.
- FDOT Permitting for Bollards:
 - Work within the boundaries of FDOT permits obtained by BDI for bollard installations on Garden Street.

3.6 Landscape and Hardscape Improvements (Led by JPD)

- Landscape Plantings:
 - Install plantings as specified in JPD’s landscape plans within the

- RFC set, including location, species, and size, in compliance with City of Pensacola codes.
 - Ensure proper planting techniques and maintenance during the establishment period.
- Irrigation System:
 - Install irrigation systems as per JPD's plans, including individual head placement, drip irrigation, pipe sizing, control system layout, and features.
 - Follow JPD's specifications for water source requirements, valve schedules, and critical analysis of the irrigation system.
- Hardscape Features:
 - Construct (9) ballast stone planter walls at intersections, ensuring compliance with design vehicle constraints and incorporating value engineering analysis by BDI.
 - Install street furniture, litter receptacles, bike racks, and "Palafox Planters" as specified in JPD's conceptual design
 - Install paver hardscape at intersections, crosswalks, and other designated areas, adhering to the "pavers to remain" study outcomes.
- Compliance:
 - Ensure all landscape and hardscape elements meet City of Pensacola codes and ordinances.

3.7 Permitting and Coordination

- FDOT Permitting:
 - Work within the boundaries of FDOT permits obtained by BDI for roadway, landscaping, and bollard installations, particularly at the intersections of South Palafox Street with Garden Street and Main Street, and along Garden Street for bollards.
- Utility Coordination:
 - Coordinate with utility providers (notified by BDI) to ensure no conflicts with existing utilities, including FPL utility boxes, and account for SUE investigations at bollard sites.
- City Coordination:
 - Address any City of Pensacola review comments incorporated into the RFC set.

3.8 Construction Administration Support

- Requests for Additional Information (RAI):
 - Respond to RAIs during bidding and construction, providing clarifications as needed.
- Change Orders:
 - Consult with BDI on any change order requests, providing necessary documentation and justification.
- Progress Meetings:
 - Attend progress meetings with BDI, JPD, and the City of Pensacola

to report on construction status, MOT updates, and coordination with business owners.

- Punch List:
 - Address items identified in the punch list prepared by BDI after construction activities.
 - As-Builts:
 - Provide as-built drawings to BDI for the preparation of record drawings and close-out documents.
-

4. EXCLUSIONS

The following items are not included in the contractor's scope of work:

- Permit fees and impact fees.
 - Site lighting plans.
 - Phase 1 and 2 Environmental Assessments (EA).
 - Traffic studies and traffic signalization.
 - Geotechnical investigations.
 - Third-party cost estimates.
 - Expansion of paver installations beyond the limits defined in the RFC set.
 - Design modifications due to unforeseen subsurface utility conflicts (to be addressed separately).
-

5. PROJECT COMPLETION, PHASING, AND SCHEDULE

The contractor shall perform all work and testing in accordance with the approved phasing plan and associated schedule outlined below. Strict adherence to these timelines is required, and any deviation may result in applicable penalties. To meet the incentivized completion dates, the contractor is authorized to work 24 hours per day, 7 days per week, including holidays. It is the contractor's responsibility to plan and staff accordingly to maintain continuous progress and meet the project milestones.

The contractor is also responsible for the proper installation and maintenance of temporary construction fencing. For the efforts associated with the base bid, from the start of Phase A through the completion of Phase D, the entire work area must be fully enclosed with fencing to ensure public safety and allow for unimpeded pedestrian access to all portions of S. Palafox. Additionally, the contractor must implement measures to maintain safe and accessible east-west pedestrian crossings at each intersection during all phases of work.

Upon completing Phases A through D, the contractor shall relocate the fencing to encompass Phases E and F before commencing work in those areas. The same procedure applies to the transition from Phases E–F to Phases G–I. The contractor must ensure fencing placement supports pedestrian walkability and public safety at all times.

Should the City elect to move forward with bid alternates, the same level of construction

fencing shall be installed and relocated as necessary to accommodate phasing, and pedestrian accessibility, and pedestrian safety.

To support effective communication with the public, the City of Pensacola will hire a dedicated Marketing and Public Engagement Coordinator. This staffer will work, independent from the construction team, to provide timely updates about fence relocations, changes to pedestrian access, and business accessibility throughout all project phases. The contractor shall coordinate closely with this individual to minimize disruption and confusion for businesses, residents, and visitors.

Finally, while it will not be used as a determining factor in the award of bid, as part of the bid package, the contractor must submit a detailed project schedule to the City. This schedule should follow with the below required phasing schedule and outline weekly task milestones based on the project timeline described below and include plans for the contractor to attend project update meetings. Prior to execution of the contract, the contract shall reconfirm they will stick to their submittal project schedule/milestones.

Base Bid = Required Phasing Schedule:

Phase A through Phase D

- Incentivized Completion Date: May 24, 2026
- Incentive for Completion by this Date: \$1,000,000 – note this incentivized completion date is hard and fast and regardless of weather conditions/delays
- Non-Incentivized Allowable Completion Date: July 3, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase E through Phase F

- Non-Incentivized Allowable Completion Date: September 3, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase G and Phase I

- Non-Incentivized Allowable Completion Date: November 25, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Bid Alternate #1 = Modified Phasing Schedule:

Phase A through Phase B

- Incentivized Completion Date: April 2, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase C through Phase D

- Incentivized Completion Date: August 23, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase E through Phase F

- Non-Incentivized Allowable Completion Date: November 6, 2026
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Phase G and Phase I

- Non-Incentivized Allowable Completion Date: January 20, 2027
- Liquidated Damage Penalty per Day Over Allowable Completion Date: \$1,000

Bid Alternate #2 = Complete all tasks associated with Phase H of the plans

Bid Alternate #3 = Complete all tasks associated with bollard installation

6. PROJECT SCHEDULE

The contractor shall propose a construction schedule upon award, aligning with the phased approach (Phases A through I) and the City of Pensacola's expectations. The RFC set is the basis for construction, with design milestones already completed:

- FDOT Permitting: Permitting through FDOT may take at least 120 days, which may impact the construction start date.

The contractor shall schedule construction activities to align with the block-to-block phased approach, ensuring minimal disruption to traffic and businesses.

7. ALLOWANCE FOR DESIGN AND INSTALLATION OF BANNERS, WAYFINDING SIGNAGE, FENCE SCREEN RENDERING

The bid tab depicts a \$100,000 allowance for the contractor to design and install promotional signage, renderings, and wayfinding signs throughout the limits of the project. Contractor shall work with the City and the City's Marketing and Public Engagement Coordinator to create signage and wind screening for the construction fencing that will serve the purpose of wayfinding and providing businesses a means of their patrons seeing the "finished product" of this project. The contractor and the City's Marketing and Public Engagement Coordinator will work together to get this accomplished and the contractor will submit receipts depicting proof of purchase and a cost for the contractor to install and/or relocate signage through the various phases of the project.

8. BID ALTERNATES

The contractor shall note that this project includes three bid alternates. These alternates are captured in individual sections within the bid tab and are described as follows:

- Bid Alternate #1 = Modified Phasing Schedule = Contractor shall submit a bid alternate price to fully complete all tasks and work items associated with Phase A and Phase B. Then, the contractor shall fully complete all tasks and work items associated with Phase C and Phase D. Then, the contractor shall complete work on all side streets. The required completion for this bid alternate arrangement is described in the Instructions to Bidders portion of this bid package.
 - Bid Alternate #2 = Contractor shall submit a bid alternate price to fully complete all tasks and work items associated with Phase H.
 - Bid Alternate #3 = Contractor shall submit a bid alternate price to fully complete all tasks and work items associated with the installation of bollards.
-

9. DELIVERABLES

The contractor shall provide the following deliverables to BDI:

- MOT Plan: Submit a detailed MOT plan for each phase prior to construction, with updates as needed.
 - Shop Drawings: Submit shop drawings for all materials and systems (e.g., drainage, hardscape, irrigation, bollards) for approval prior to installation.
 - Material Samples: Provide samples of pavers, ballast stone, bollards, street furniture, and other hardscape elements for approval.
 - Progress Reports: Submit monthly progress reports during construction, including an updated construction schedule, MOT updates, and business owner coordination logs.
 - As-Built Drawings: Provide as-built drawings at the completion of construction for BDI to prepare record drawings.
 - Close-Out Documents: Submit any required close-out documents, including warranties, certifications, and maintenance manuals.
-

10. BUDGET AND COMPENSATION

The contractor shall submit a detailed bid for construction, including labor, materials, equipment, MOT implementation, and overhead, based on the RFC set and specifications.

11. COORDINATION AND COMMUNICATION

- Primary Contact (BDI): Mr. Jason Frick, P.E., Project Manager, Baskerville-

- Donovan, Inc., 449 W. Main Street, Pensacola, FL 32502, (850) 438-9661.
- Landscape Architect (JPD): Mr. Steve Dana, Sr. Landscape Architect, Jerry Pate Design, 301 Schubert Drive, Pensacola, FL 32504, (850) 479-4653.
 - City of Pensacola: Brad Hinote, P.E., City Engineer, 222 W. Main Street, Pensacola, FL 32502, (850) 435-1685.
 - Business Owner Coordination: The contractor shall refrain from interaction with property owners. Instead, they shall designate a point of contact to liaise with the City's Marketing and Public Engagement Coordinator in order to establish and maintain regular communication and updates on construction activities, MOT plans, and access changes.
-

The contractor shall coordinate all activities through BDI, with JPD providing support for landscape and hardscape-related items.

PROPOSAL
BID NO. 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET

Base Bid

(Written) (\$_____)

Bid Alternate One (Modified Phasing Schedule)

(Written) (\$_____)

Bid Alternate Two (Phase H)

(Written) (\$_____)

Bid Alternate Three (Bollard Installation)

(Written) (\$_____)

**A quantity sheet must be filled out and included for the submittal to be considered.*

Bid Security in the proper form and in the amount of five percent of the base bid is submitted.

Dunns#/UEID: _____ (Federal Transparency Act Reporting Requirement)

Florida Department of Professional Regulation
Contractor's Certification or Registration

No. _____ Expiration Date _____

Survey: How did you obtain this solicitation?

☐ City of Pensacola website ☐ Central Bidding ☐ Demandstar

Other: _____

Signature _____ Date: _____

Printed Name: _____ Title: _____

Company: _____ Address: _____

Telephone: _____ City: _____

Fax: _____ State: _____ Zip: _____

E-mail: _____

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET – BASE BID (page 1)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
1	Mobilization and Demobilization	1	LS		
2	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS		
3	Maintenance of Traffic (FDOT Standards)	1	LS		
4	Utility Coordination/Relocation	1	LS		
5	Remove Asphalt	1,402	SY		
6	Remove Concrete Curb	6,253	LF		
7	Remove Miscellaneous Concrete (Including Curb Ramps)	1,425	LF		
8	Remove Brick Crosswalk	650	SF		
9	Remove Drainage Structure	18	EA		
10	Remove Valley Gutter	1,200	LF		
11	Remove Type F Modified Curb and Gutter	7000	LF		
12	Saw Cut and Remove Top of Vault Structure	75	CY		
13	Route 12" Watermain Around Drainage Structure, to include all Fittings and Testing	30	LF		
14	Route 10" Watermain Around Drainage Structure, to Include all Fittings and Testing	400	LF		
15	Furnish and Install 12" Top Concrete Slab	45	CY		
16	Adjust/Raise Water Valve to Grade	49	EA		
17	Adjust Drainage Manhole to Grade	13	EA		
18	Adjust Parking Meter	4	EA		
19	Adjust Electrical Manhole to Grade	33	EA		
20	Adjust Communications Manhole to Grade	12	EA		
21	Adjust Sanitary Sewer Manhole to Grade	19	EA		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET – BASE BID (page 2)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
22	Replace Drainage Structure	1	EA		
23	Relocate Light Pole	4	EA		
24	Furnish and Install Junction Box	18	EA		
25	Furnish and Install Type 5 Curb Inlet, <10'	11	EA		
26	Furnish and Install Type 6 Curb Inlet	12	EA		
27	Furnish and Install Type C Ditch Bottom Inlet <10'	6	EA		
28	Furnish and Install 15" RCP	650	LF		
29	Furnish and Install 18" RCP	350	LF		
30	Furnish and Install 2"PVC from Roof Drains to Face of Curb	100	LF		
31	Furnish and Install 3"PVC from Roof Drains to Face of Curb	1	LF		
32	Furnish and Install 4"PVC from Roof Drains to Face of Curb	350	LF		
33	Furnish and Install Roof Drain Aluminum Curb Face Fitting (Curb-o- let) with Pipe	25	EA		
34	Furnish and Install 12"x18" ERCP	150	LF		
35	Furnish and Install 14"x23" ERCP	450	LF		
36	Furnish and Install Riser with Ring and Cover	23	EA		
37	Furnish and Install Petromat	5,000	SY		
38	Type F Curb and Gutter	5,754	LF		
39	3' Valley Gutter	800	LF		
40	Plug/Grout East Pipe Invert	6.5	CY		
41	Raise Roof Drain Sump to Finished Grade	1	EA		
42	Milling Existing Asphalt Paving SP-12.5 1.5"-3" Depth	6,300	SY		
43	Milling Existing Asphalt Paving SP-12.5 3"-6" Depth	8,000	SY		
44	Milling Existing Concrete Paving	2,500	SY		
45	1-1/2" Asphalt Overlay	14,300	SY		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET – BASE BID (page 3)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
46	6" Concrete Slab (Including Welded Wire Fabric)	645	CY		
47	8' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	22	CY		
48	10' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded	65	CY		
49	8' Concrete Curb Ramp (Including Welded Wire Fabric)	30	CY		
50	10' Concrete Curb Ramp (Including Welded Wire Fabric)	40	CY		
51	Roadway Striping (6" Double Yellow) - Painted	0.389	GM		
52	10'-30' Skip Yellow Centerline Stripe	0.247	GM		
53	Handicap Signage	9	EA		
54	W11-2 Crosswalk Sign	8	EA		
55	24" Stop Bar - White Thermoplastic	302	LF		
56	Ramp Chevron w/Approach Marking	8	EA		
57	Relocate Stop Sign	16	EA		
58	Bidirectional Raised Pavement Markers (Yellow)	132	EA		
59	Bidirectional Raised Pavement Markers (Blue)	7	EA		
60	4" White Parking Stripe	0.676	GM		
61	Temporary Striping	1.06	GM		
62	Thermoplastic, White, Preformed, Arrows	9	EA		
63	Quercus V. - 3" DBH	24	EA		
64	Ulmus P 'Bosque' - 3" DBH	13	EA		
65	Sabal Palmetto - 18' CT	12	EA		
66	Ligustrum Japonicum	3	EA		
67	3 Gal - Liriope/ Muhly	1,750	EA		
68	1 Gal - Groundcover - Asiatic Jasmine	1,100	EA		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET – BASE BID (page 4)

No.	Category	Qty	Unit	Unit Price	Total Cost
69	4" Pot - Annuals	1,500	EA		
70	Drip Irrigation - Potable Water Source - No Well	1	LS		
71	2-year Landscape and Irrigation Maintenance - In Accordance with Maintenance Instructions in Plan Set	1	LS		
72	Pedestrian Pavers - 6" Conc Base, 2" Flowable Fill	48,000	SF		
73	Vehicular Pavers - Set on 2" Flowable Fill (Conc by Civil)	17,500	SF		
74	18"H Ballast Stone Seatwalls at Intersections	350	LF		
75	Palafox Planter	460	LF		
76	Bench	18	EA		
77	Litter Receptacle	28	EA		
78	Bike Rack	12	EA		
79	Planters	114	EA		
80	NPDES Permit/SWPPP and Implementation	1	LS		
81	NPDES Permit Fee	1	LS		
82	Allowance = Design and Installation of Banners, Wayfinding Signage, Fence Screen Renderings	1	LS		
BASE BID TOTAL					

1. Bid shall include all associated earthwork and necessary back-sloping as determined by the City of Pensacola.
2. This bid proposal contains line items which may not be called out on the plans. Such items have been included to address potential unforeseen conditions.
3. The City of Pensacola reserves the right to move forward with or opt out of bid alternates in any order.
4. Contractor shall note that relocation of gas mains is performed at no cost to the Contractor but does require coordination and advanced notification of Pensacola Energy is order for work to be completed in a timely manner.

Company_____

Signature_____ Date:_____

Printed Name: _____ Title: _____

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 5)
BID ALTERNATE #1 (p. 1)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
1	Deduct Entirety of Base Bid Items	1	LS		
2	Mobilization and Demobilization	1	LS		
3	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS		
4	Maintenance of Traffic (FDOT Standards)	1	LS		
5	Utility Coordination/Relocation	1	LS		
6	Remove Asphalt	1,402	SY		
7	Remove Concrete Curb	6,253	LF		
8	Remove Miscellaneous Concrete (Including Curb Ramps)	1,425	LF		
9	Remove Brick Crosswalk	650	SF		
10	Remove Drainage Structure	18	EA		
11	Remove Valley Gutter	1,200	LF		
12	Remove Type F Modified Curb and Gutter	7000	LF		
13	Saw Cut and Remove Top of Vault Structure	75	CY		
14	Route 12" Watermain Around Drainage Structure, to include all Fittings and Testing	30	LF		
15	Route 10" Watermain Around Drainage Structure, to Include all Fittings and Testing	400	LF		
16	Furnish and Install 12" Top Concrete Slab	45	CY		
17	Adjust/Raise Water Valve to Grade	49	EA		
18	Adjust Drainage Manhole to Grade	13	EA		
19	Adjust Parking Meter	4	EA		
20	Adjust Electrical Manhole to Grade	33	EA		
21	Adjust Communications Manhole to Grade	12	EA		
22	Adjust Sanitary Sewer Manhole to Grade	19	EA		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 6)
BID ALTERNATE #1 (p. 2)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
23	Replace Drainage Structure	1	EA		
24	Relocate Light Pole	4	EA		
25	Furnish and Install Junction Box	18	EA		
26	Furnish and Install Type 5 Curb Inlet, <10'	11	EA		
27	Furnish and Install Type 6 Curb Inlet	12	EA		
28	Furnish and Install Type C Ditch Bottom Inlet <10'	6	EA		
29	Furnish and Install 15" RCP	650	LF		
30	Furnish and Install 18" RCP	350	LF		
31	Furnish and Install 2"PVC from Roof Drains to Face of Curb	100	LF		
32	Furnish and Install 3"PVC from Roof Drains to Face of Curb	1	LF		
33	Furnish and Install 4"PVC from Roof Drains to Face of Curb	350	LF		
34	Furnish and Install Roof Drain Aluminum Curb Face Fitting (Curb-o-let) with Pipe	25	EA		
35	Furnish and Install 12"x18" ERCP	150	LF		
36	Furnish and Install 14"x23" ERCP	450	LF		
37	Furnish and Install Riser with Ring and Cover	23	EA		
38	Furnish and Install Petromat	5,000	SY		
39	Type F Curb and Gutter	5,754	LF		
40	3' Valley Gutter	800	LF		
41	Plug/Grout East Pipe Invert	6.5	CY		
42	Raise Roof Drain Sump to Finished Grade	1	EA		
43	Milling Existing Asphalt Paving SP-12.5 1.5"-3" Depth	6,300	SY		
44	Milling Existing Asphalt Paving SP-12.5 3"-6" Depth	8,000	SY		
45	Milling Existing Concrete Paving	2,500	SY		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 7)
BID ALTERNATE #1 (p. 3)

Company Name: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
46	1-1/2" Asphalt Overlay	14,300	SY		
47	6" Concrete Slab (Including Welded Wire Fabric)	645	CY		
48	8' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	22	CY		
49	10' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	65	CY		
50	8' Concrete Curb Ramp (Including Welded Wire Fabric)	30	CY		
51	10' Concrete Curb Ramp (Including Welded Wire Fabric)	40	CY		
52	Roadway Striping (6" Double Yellow) - Painted	0.389	GM		
53	10'-30' Skip Yellow Centerline Stripe	0.247	GM		
54	Handicap Signage	9	EA		
55	W11-2 Crosswalk Sign	8	EA		
56	24" Stop Bar - White Thermoplastic	302	LF		
57	Ramp Chevron w/Approach Marking	8	EA		
58	Relocate Stop Sign	16	EA		
59	Bidirectional Raised Pavement Markers (Yellow)	132	EA		
60	Bidirectional Raised Pavement Markers (Blue)	7	EA		
61	4" White Parking Stripe	0.676	GM		
62	Temporary Striping	1.06	GM		
63	Thermoplastic, White, Preformed, Arrows	9	EA		
64	Quercus V. - 3" DBH	24	EA		
65	Ulmus P 'Bosque' - 3" DBH	13	EA		
66	Sabal Palmetto - 18' CT	12	EA		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 8) - BID ALTERNATE #1 (p. 4)

No.	Category	Qty	Unit	Unit Price	Total Cost
67	Ligustrum Japonicum	3	EA		
68	3 Gal - Liriope/ Muhly	1,750	EA		
69	1 Gal - Groundcover - Asiatic Jasmine	1,100	EA		
70	4" Pot - Annuals	1,500	EA		
71	Drip Irrigation - Potable Water Source - No Well	1	LS		
72	2-year Landscape and Irrigation Maintenance - In Accordance with Maintenance Instructions in Plan Set	1	LS		
73	Pedestrian Pavers - 6" Conc Base, 2" Flowable Fill	48,000	SF		
74	Vehicular Pavers - Set on 2" Flowable Fill (Conc by Civil)	17,500	SF		
75	18"H Ballast Stone Seatwalls at Intersections	350	LF		
76	Palafox Planter	460	LF		
77	Bench	18	EA		
78	Litter Receptacle	28	EA		
79	Bike Rack	12	EA		
80	Planters	114	EA		
81	NPDES Permit/SWPPP and Implementation	1	LS		
82	NPDES Permit Fee	1	LS		
83	Allowance = Design and Installation of Banners, Wayfinding Signage, Fence Screen Renderings	1	LS		
BID ALTERNATE #1 TOTAL					

1. Bid shall include all associated earthwork and necessary back-sloping as determined by the City of Pensacola.

2. This bid proposal contains line items which may not be called out on the plans. Such items have been included to address potential unforeseen conditions.

3. The City of Pensacola reserves the right to move forward with or opt out of bid alternates in any order.

4. Contractor shall note that relocation of gas mains is performed at no cost to the Contractor but does require coordination and advanced notification of Pensacola Energy is order for work to be completed in a timely manner.

Company: _____

Signature _____ Date: _____

Printed Name: _____ Title: _____

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 9)
BID ALTERNATE # 2 (p. 1)

Company: _____

No.	Category	Qty	Unit	Unit Price	Total Cost
1	Mobilization and Demobilization	1	LS		
2	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS		
3	Maintenance of Traffic (FDOT Standards)	1	LS		
4	Utility Coordination/Relocation	1	LS		
5	Remove Asphalt	598	SY		
6	Remove Concrete Curb	747	LF		
7	Remove Miscellaneous Concrete (Including Curb Ramps)	75	SY		
8	Remove Drainage Structure	1	EA		
9	Type F Curb and Gutter	696	LF		
10	6" Concrete Slab (Including Welded Wire Fabric)	55	CY		
11	10' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	35	CY		
12	Remove Thermoplastic Markings	690	SF		
13	24" Stop Bar - White Thermoplastic	98	LF		
14	Thermoplastic, Preformed, White, Solid, 12" Crosswalk	340	LF		
15	Bidirectional Raised Pavement Markers (Yellow)	9	EA		
16	2'-4' Skip Yellow Turning (Thermoplastic)	0.07	GM		
17	Quercus V. - 3" DBH	4	EA		
18	3 Gal - Liriope/ Muhly	1,000	EA		
19	1 Gal - Groundcover - Asiatic Jasmine	200	EA		
20	Drip Irrigation - Potable Water Source - No Well	1	LS		
21	2-year Landscape and Irrigation Maintenance - In Accordance with Maintenance Instructions in Plan Set	1	LS		

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 10)
BID ALTERNATE #2 (p. 2)

No.	Category	Qty	Unit	Unit Price	Total Cost
22	Pedestrian Pavers - 6" Conc Base, 2" Flowable Fill	9,500	SF		
23	Vehicular Pavers - Set on 2" Flowable Fill (Conc by Civil)	750	SF		
24	18"H Ballast Stone Seatwalls at Intersections	60	LF		
25	Streetbond 250 Application in FDOT ROW	1000	LF		
26	Litter Receptacle	6	EA		
27	Bike Rack	10	EA		
28	NPDES Permit/SWPPP and Implementation	1	LS		
29	NPDES Permit Fee	1	LS		
BID ALTERNATE #2 TOTAL					
1. Bid shall include all associated earthwork and necessary back-sloping as determined by the City of Pensacola.					
2. This bid proposal contains line items which may not be called out on the plans. Such items have been included to address potential unforeseen conditions.					
3. The City of Pensacola reserves the right to move forward with or opt out of bid alternates in any order.					
4. Contractor shall note that relocation of gas mains is performed at no cost to the Contractor but does require coordination and advanced notification of Pensacola Energy is order for work to be completed in a timely manner.					

Company: _____

Signature _____ Date: _____

Printed Name: _____ Title: _____

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

BID 25-045
SOUTH PALAFOX PLACE PEDESTRIAN IMPROVEMENTS
GARDEN STREET TO MAIN STREET
QUANTITY SHEET (page 11)
BID ALTERNATE #3 (p. 1)

No.	Category	Qty	Unit	Unit Price	Total Cost
1	Mobilization and Demobilization	1	LS		
2	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS		
3	Maintenance of Traffic (FDOT Standards)	1	LS		
4	Utility Coordination/Relocation	1	LS		
5	Remove Existing Bollard and Concrete Footing Trench	99	CY		
6	Install 8" Limerock Base	22	CY		
7	Place Fill	76	CY		
8	Saw Cut New Bollard Location	350	SY		
9	Excavate New Bollard Footing Trench	350	CY		
10	Install New 20 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	130	EA		
11	Install New 30 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	32	EA		
12	Install New 50 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	75	EA		
13	Install Misc. Concrete	25	CY		
14	NPDES Permit/SWPPP and Implementation	1	LS		
15	NPDES Permit Fee	1	LS		
BID ALTERNATE #3 TOTAL					

1. Bid shall include all associated earthwork and necessary back-sloping as determined by the City of Pensacola.

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3. The City of Pensacola reserves the right to move forward with or opt out of bid alternates in any order.

4. Contractor shall note that relocation of gas mains is performed at no cost to the Contractor but does require coordination and advanced notification of Pensacola Energy is order for work to be completed in a timely manner.

Company_____

Signature_____ Date:_____

Printed Name: _____ Title: _____

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

State of Florida
Affidavit Regarding the Use of Coercion for Labor and Services
Pursuant to Florida Statute 787.06(13)

Vendor Name: _____
Vendor FEIN: _____ Phone Number: _____
Vendor's Authorized Representative Name and Title: _____
Address: _____
City: _____ State: _____ ZIP: _____
Email Address: _____

Section 787.06(13) Florida Statutes requires all nongovernmental entities executing, renewing, or extending a contract with a governmental entity to provide an affidavit signed by an officer or representative of the nongovernmental entity under penalty of perjury that the nongovernmental entity does not use coercion for labor or services.

The undersigned hereby certifies that he/she is an officer or authorized representative of the vendor identified above and that said vendor does not use coercion for labor or services as defined in Section 787.06 Florida Statutes.

Florida Statute 787.06

(2)(a) "Coercion" means:

1. Using or threatening to use physical force against any person;
2. Restraining, isolating, or confining or threatening to restrain, isolate, or confine any person without lawful authority and against her or his will;
3. Using lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied toward the liquidation of the debt, the length and nature of the labor or services are not respectively limited and defined;
4. Destroying, concealing, removing, confiscating, withholding, or possessing any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification document, of any person;
5. Causing or threatening to cause financial harm to any person;
6. Enticing or luring any person by fraud or deceit; or
7. Providing a controlled substance as outlined in Schedule I or Schedule II of s. 893.03 to any person for the purpose of exploitation of that person.

(2)(e) "Labor" means work of economic or financial value. (2)(h) "Services" means any act committed at the behest of, under the supervision of, or for the benefit of another. The term includes, but is not limited to, forced marriage, servitude, or the removal of organs

Under penalties of perjury, I declare that I have read the foregoing document and that the facts stated in it are true.

By: _____
AUTHORIZED SIGNATURE

Print Name and Title: _____

Date: _____

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

**52.209-5 FAR Certification Regarding Debarment, Suspension,
Proposed Debarment, and Other Responsibility Matters**

The Offeror certifies, to the best of its knowledge and belief, that the Offeror and/or any of its Principals:

- A. Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.
 - B. Have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
 - C. Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph 1-B of this provision.
2. The Offeror has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
- A. "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

- B. The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- C. A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- D. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- E. The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

Company Name: _____

Date: _____

Authorized

Signature: _____ Printed Name: _____

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

52.209-6 FAR Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment

1. The Government suspends or debarbs Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.
2. The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.
3. A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the Excluded Parties List System). The notice must include the following:
 - A. The name of the subcontractor.
 - B. The Contractor's knowledge of the reasons for the subcontractor being in the Excluded Parties List System.
 - C. The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in the Excluded Parties List System.
 - D. The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

Company Name

Authorized Signature

Printed Name

Date

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

City of Pensacola
Florida

CERTIFICATION
for
EROSION AND SEDIMENTATION COMPLIANCE

All site excavation and site disturbance shall comply with the following federal, state and local regulations related to erosion and sedimentation:

- A. Federal Clean Water Act as amended in 1987
- B. State Florida Statutes, Chapter 373 and 403, and the rules promulgated thereunder
- C. Local Code of the City of Pensacola, Chapter 12-9

By signature of its undersigned authorized representative, the Bidder hereby assures the City of Pensacola that any soil-disturbing activities performed by the Bidder will comply with all applicable federal, state, and local regulations.

The cost of compliance with applicable erosion and sedimentation regulations is estimated by the Bidder to be \$ _____, which cost is included in the amount of the bid.

The specific methods of compliance with applicable federal, state, and local regulations and the associated costs are as follows:

Authorized Official

THIS FORM MUST BE INCLUDED WITH SUBMITTAL.

DRUG-FREE WORKPLACE CERTIFICATE

IDENTICAL TIE BIDS - Pursuant to Florida Statue §287.087, preference shall be given to business with Drug-Free Workplace Programs. Whenever two or more bids which are equal with respect to price, quality, and service are received for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a Drug-Free Workplace Program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a Drug-Free Workplace Program. In order to have a Drug-Free Workplace Program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the Workplace, the business's policy of maintaining a Drug-Free Workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the Workplace no later than five (5) days after such conviction.
- 5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free Workplace through implementation of this section.

AS THE PERSON AUTHORIZED TO SIGN THE STATEMENT, I CERTIFY THAT THIS FIRM COMPLIES FULLY WITH THE ABOVE REQUIREMENTS.

Signature

Printed Name

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

VETERAN BUSINESS ENTERPRISE STATEMENT

In order to foster economic development and business opportunities for service-disabled veterans and wartime veterans who have made extraordinary sacrifices on behalf of the nation, the City of Pensacola has adopted a Veteran Business Enterprise (“VBE”) Preference. For further information regarding this program, please refer to Section 3-3-12 AND 3-3-13 of the Code of the City of Pensacola.

In order for a respondent to receive credit for being VBE vendor, it must perform useful business functions on the contract, have its principal place of business in Escambia or Santa Rosa County and be certified as a veteran business enterprise by the State of Florida Department of Management Services (“DMS”) as set forth in Section 295.187 of the Florida Statutes as of the date set for submittal of bids. For purposes of the City’s VBE Program, the respondent’s principal place of business must be within Escambia County, FL, or Santa Rosa County, FL.

There shall be no third party beneficiaries of the Veteran Business Enterprise Preference provisions of this solicitation or resulting contract. The City of Pensacola shall have the exclusive means of enforcement of the Veteran Business Enterprise Preference Ordinance and any contract terms. The City of Pensacola is the sole judge of compliance. All solicitations and submittals awarded will be evaluated in accordance with the Code of the City of Pensacola.

If the Respondent is a qualifying VBE, please complete the boxes below.

If not, mark “N/A.”

Respondent’s Name:	Respondent’s Principle Place of Business	Florida Certification Number as issued by State of Florida DMS:

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

MINORITY/WOMEN BUSINESS ENTERPRISE STATEMENT

The City has implemented a Minority/Women Business Enterprise (MWBE) program to assist certified minority- and women-owned businesses with identifying and participating in City of Pensacola procurement and construction opportunities as set in the Code of the City of Pensacola, Ordinance No. 4-15.

For a respondent to receive credit for being a MWBE vendor, it must perform useful business functions on the contract, have its principal place of business in Escambia, Santa Rosa, Okaloosa, Walton County in Florida or Mobile, Alabama, and have received a certification letter issued from the City of Pensacola.

There shall be no third party beneficiaries of the Minority and Women Business Enterprise provisions of this solicitation or resulting contract. The City of Pensacola shall have the exclusive means of enforcement of the Minority and Women Business Enterprise Ordinance and any contract terms. The City of Pensacola is the sole judge of compliance. All solicitations and submittals awarded will be evaluated in accordance with the Code of the City of Pensacola.

Respondent's Name:	Respondent's Principal Place of Business

If your firm is partnering with or subcontracting with a certified M/WBE, please provide the information requested below.

<u>NAME OF M/WBE FIRM</u>	<u>PARTNER OR SUBCONTRACTOR</u>	<u>% OF CONTRACT PERFORMANCE</u>
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

CITY OF PENSACOLA
SMALL BUSINESS ENTERPRISE STATEMENT

The Pensacola City Council adopted Small Business Enterprise Ordinance #61-89. This ordinance encourages participation of small businesses in the City procurement process. Participation goals will be provided on a project by project basis, based on the availability of certified small businesses.

A Small Business is defined as an independently owned and operated business employing 50 or fewer permanent full-time employees and having a net worth of not more than \$1 million. The business must be located in Escambia or Santa Rosa County.

If your firm meets the criteria above, please provide the requested information below.

VENDOR QUESTIONNAIRE

Name of Business _____

Address _____

Owner(s)'s Name(s) _____

OR

If your firm is partnering with or subcontracting with a certified SBE, please provide the information requested below.

<u>NAME OF SBE FIRM</u>	<u>PRIME OR SUBCONTRACTOR</u>	<u>% OF CONTRACT PERFORMANCE</u>
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

REQUIRED DOCUMENTS ACKNOWLEDGEMENT
Bid/RFP/RFQ #25-045

Purchasing Forms

Initials

- | | |
|--|-------|
| 1) Proposal Page(s) | _____ |
| 2) Quantity sheet(s) | _____ |
| 3) Bid Bond | _____ |
| 4) State of Florida Affidavit Regarding the Use of Coercion for Labor and Services Pursuant to Florida Statute 787.06(13) | _____ |
| 5) 52.209-5 FAR Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters | _____ |
| 6) 52.209-6 FAR Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment | _____ |
| 7) Certification for Erosion and Sedimentation Compliance | _____ |
| 8) Drugfree Workplace Certificate | _____ |
| 9) Veteran Business Enterprise Statement | _____ |
| 10) Minority/Women Business Enterprise Statement | _____ |
| 11) Small Business Enterprise Statement | _____ |
| 12) Required Documents Acknowledgement | _____ |
| 13) Acknowledgement of addenda (signed signature pages of addenda) | _____ |

Department Requirements

Initials

- | | |
|--|-------|
| 1) Florida Licensed General Contractor OR | _____ |
| 2) Florida Licensed Underground Utilities Contractor | _____ |

Company Name: _____

Authorized Officer's Name: _____ Title: _____

Signature of Officer: _____ Date: _____

THIS FORM MUST BE INCLUDED IN SUBMITTAL.

STATEMENT OF NO PROPOSAL

If you are unable to submit a proposal at this time, please complete the following and return by e-mail to purchasing@cityofpenscola.com. Your choices or comments below will assist us in properly notifying you of future opportunities.

We have declined to respond to **Bid/RFP/RFQ # 25-045** for the following reason(s):

SPECIFICATIONS

☐ Specifications too "tight" (i.e., limited to one brand or manufacturer)

☐ Specifications unclear

☐ Unable to meet specifications

NATURE OF AWARD

☐ Insufficient time to respond

☐ Equivalent options not offered

☐ Other (please explain below)

Explanation:

We request to:

☐ remain in this service category for future City of Pensacola solicitations.

☐ be removed from this service category and remain on the City's solicitation list.

☐ be removed from the City's solicitation list.

Company Name: _____

Officer Name: _____ Title: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Office: (____) _____ Fax: (____) _____

Email: _____

Signature of Officer: _____ Date: _____

**CONTRACT BETWEEN CITY OF PENSACOLA AND
[xxxCONTRACTORxxx]
BASED UPON INVITATION TO BID #_____**

THIS CONTRACT ("Contract") is made this ____ day of _____, 20____, by and between the City of Pensacola ("City"), a Florida municipal corporation created and existing under the laws of the State of Florida, located at 222 W. Main Street, Pensacola, Florida 32502, and _____, ("Contractor"), a corporation authorized to do business in Florida, located at _____, (the City and Contractor collectively referred to hereinafter as the "Parties").

WITNESSETH:

WHEREAS, the City solicited for Invitation to Bid #_____, on _____, 20____ ("Invitation to Bid"), as described in Project Manual/Specifications for _____, Bid #_____, as modified by any addendum to the Project Manual, all as attached hereto as Exhibit A and incorporated herein by this reference (collectively referred to hereinafter as the "Bid Documents"); and

WHEREAS, in response to the Bid Documents, the Contractor submitted to the City a proposal dated _____, 20____, ("Proposal") attached hereto as Exhibit B and incorporated herein by this reference; and

WHEREAS, the City has awarded the Contract to the Contractor; and

WHEREAS, the Parties desire the Contractor to perform the agreement as described in the Bid Documents and the Proposal and pursuant to the terms and conditions of this Contract; and

WHEREAS, the Parties desire to enter into this Contract;

NOW, THEREFORE, in consideration of the work to be performed and the payment for the performance of the work, of the mutual covenants and benefits contained herein, and for other good and valuable consideration, the Parties agree as follows:

Section 1. Recitals.

The recitals contained above are true and correct and are incorporated into this Contract.

Section 2. Contractor's Obligations.

The Contractor shall perform all work and services described in, and in accordance with, the Contract. The Contractor warrants that all equipment, materials, and workmanship furnished, whether furnished by Contractor or its subcontractors or sub-suppliers, will

comply with the Contract and any City specifications, drawings, and other descriptions supplied or adopted. The Contractor further warrants that the supplies and workmanship will be new, fit, and sufficient for the purpose for which they are intended, of good materials, design, and workmanship, and free from defects or failure. The City or its duly authorized representative shall at all times have full opportunity to inspect the materials to be furnished and the work to be done under this Contract. The Contractor shall comply with all applicable federal, state, and local laws, ordinances, rules, and regulations pertaining to the performance of this Contract. The Contractor is responsible for and shall indemnify the City against all damage or loss caused by fire, theft, or otherwise to materials, tools, equipment, and consumables left on City property by the Contractor.

Section 3. Term of Contract.

Subject to the right of termination for cause or convenience, the term of this Contract shall be as specified in the attached Quote Documents and Proposal.

Section 4. Payment.

The Contractor agrees to perform all work and services in Section 2 and to furnish all necessary labor, materials, equipment, machinery, tools, apparatus, and means of transportation related to such work and services at Contractor's sole cost and expense, in consideration of the total amount of _____ (\$_____) to be paid by the City in accordance with the Contract upon the complete performance by Contractor based on unit prices if applicable, or based on partial payments approved by the City, only after written acceptance by the City pursuant to the Contract, and such payment in accordance with the Florida Prompt Payment Act. In the event that the Contractor does not fully perform its obligations under the Contract, the City reserves the right to withhold payments for work not performed, to engage an alternative contractor to complete work not performed, and to withhold such amounts as may be required to hold the City harmless from any claims or damages, direct, indirect or consequential, that may be sustained on account of the Contractor's acts or omissions in the performance of this Contract.

Section 5. Bond.

Is a bond required? ☐ Yes ☐ No

If yes: Contractor shall provide all bond(s) as required in the Contract. Should the City in the City's sole discretion at any time deem any of the sureties upon such bond to be unsatisfactory or if for any reason such bond shall cease to be adequate security for the City, the Contractor shall within five (5) days of written notice from the City furnish a new or additional bond in full sum and satisfactory to the City. No payment shall be deemed to be due or to be made to the Contractor unless and until such new or additional bond shall be furnished and approved in writing by the City. The premium and all expenses associated with such new or additional bond shall be paid by, and the sole responsibility of, the Contractor.

Section 6. Performance Schedule.

The Contractor shall commence and complete all work and services pursuant to the Contract.

Section 7. Necessary Approvals.

Contractor shall procure all permits, licenses, and certificates and any approvals in performance and completion of this Contract as may be required by federal, state, and local laws, ordinances, rules, and regulations, and in accordance with the Contract.

Section 8. No Waiver.

No waiver, alterations, consent or modification of any of the provisions of the Contract shall be binding unless in writing and signed by the Mayor or his/her designee.

Section 9. Governing Law.

This Contract is governed and construed in accordance with the laws of the State of Florida. The law of the State of Florida shall be the law applied in the resolution of any claim, actions, or proceedings arising out of this Contract.

Section 10. Venue.

Venue for any claim, actions, or proceedings arising out of this Contract shall be Escambia County, Florida.

Section 11. No Discrimination.

Contractor shall not discriminate on the basis of any class protected by federal, state, or local law in the performance of this Contract.

Section 12. Assignment.

The rights and privileges conferred by this Contract shall not be assigned or transferred without the written consent of the City, which consent shall not be unreasonably withheld.

Section 13. No Other Agreements.

The Parties agree the Contract contains all the terms and conditions agreed upon by the Parties. No other agreements, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind either Party.

Section 14. Remedies for Failure to Perform or Breach of Contract.

The City reserves the right to seek all remedies available under law in the event of a failure to perform or other breach of this Contract by the Contractor, and the failure of the City to employ a particular remedy shall not be regarded by the Parties as a waiver of that or any other available remedy.

Section 15. Termination for Convenience.

The City may terminate this Contract without cause upon thirty (30) days prior written notice.

Section 16. Public Records Act.

The parties acknowledge and agree to fulfill all obligations respecting required contract provisions in any contract entered into or amended after July 1, 2016, in full compliance

pursuant to Section 119.0701, *Florida Statutes*, and obligations respecting termination of a contract for failure to provide public access to public records. The parties expressly agree specifically that the contracting parties hereto shall comply with the requirements within Attachment "A" attached hereto and incorporated by reference.

Section 17. Mandatory Use of E-Verify System.

In compliance with the provisions of F.S. 448.095, the parties to this contract and any subcontractors engaged in the performance of this contract hereby certify that they have registered with and shall use the E-Verify system of the United States Department of Homeland Security to verify the work authorization status of all newly hired employees, within the meaning of the statute.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed and sealed the day and year first above written.

CONTRACTOR

CITY OF PENSACOLA, FLORIDA

(Contractor's Name)

Mayor, D. C. Reeves

By _____
President

Attest: _____
City Clerk, Ericka L. Burnett

(Printed President's Name)

Approved as to Substance:

Attest _____
Corporate Secretary

Department Director

Legal in form and execution:

(CORPORATE SEAL)

City Attorney

Attachment "A"

PUBLIC RECORDS: Contractor shall comply with Chapter 119, Florida Statutes. Specifically, Contractor shall:

- A.** Keep and maintain public records required by the City to perform the service.
- B.** Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- C.** Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following the completion of the Contract if Contractor does not transfer the records to the City.
- D.** Upon completion of the Contract, transfer, at no cost, to the City, all public records in possession of Contractor or keep and maintain public records required by the City to perform the service. If Contractor transfers all public records to the City upon completion of the Contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of the Contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request of the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

Failure by Contractor to comply with Chapter 119, Florida Statutes, shall be grounds for immediate unilateral cancellation of this Contract by the City.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE PUBLIC RECORDS COORDINATOR AT:

THE OFFICE OF THE CITY CLERK, (850) 435-1715

PUBLCRECORDS@CITYOFPENSACOLA.COM

222 WEST MAIN STREET, PENSACOLA, FL 32502

EXHIBIT A
BID DOCUMENTS

SAMPLE

EXHIBIT B

PROPOSAL

The Proposal dated _____, which Contractor submitted in response to the Bid Documents (Exhibit A), includes all attachments and addenda submitted by Contractor.

SAMPLE

PUBLIC CONSTRUCTION BOND

STATE OF FLORIDA
COUNTY OF _____

BY THIS BOND, WE: _____, as Principal
and _____ a corporation, as Surety, are bound

to **City of Pensacola**, herein called Owner, in the sum of \$_____ for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, 20____, between Principal and Owner for construction of _____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.
5. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provision in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

<u>PRINCIPAL</u>	<u>SURETY</u>	<u>OWNER</u>
Name _____	_____	City of Pensacola
Bus. Addr. _____	_____	P. O. Box 12910 Pensacola, FL 32521
Tel. # _____	_____	(850) XXX-XXXX

IN WITNESS WHEREOF, the said

_____, as Principal herein has caused

these presents to be signed in triplicate in its name, by its _____

under its corporate seal, and the said _____ as surety
herein, has caused these presents to be signed in triplicate in its name by its
_____ under the corporate seal, this _____ day of _____,
20____A.D.

ATTEST:

_____ (Print)	_____ Principal
_____ Signature	By _____ (Print)

ATTEST: _____
(Title)

_____ (Print)	_____ Signature
------------------	--------------------

_____ Signature	
--------------------	--

Surety

By _____
(Print)

(Title)

GENERAL CONDITIONS

2025 ADA SIDEWALK IMPROVEMENT PROJECT

Prepared by
CITY OF PENSACOLA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND CONSTRUCTION SERVICES
July 2025

GENERAL CONDITIONS
SECTION 1
DEFINITIONS

1.0 DEFINITIONS

Whenever in any of the Contract Documents the following terms are used, the intent and meaning shall be defined as follows:

1.1 CONTRACT

The agreement executed by the Owner and the Contractor, of which these General Conditions form a part.

1.2 OWNER

The City of Pensacola, the party of the first part of the Contract.

1.3 CONTRACTOR

A person, firm or corporation with whom a Contract has been made directly or through accredited representatives that may have entered into a Contract with the City of Pensacola, and who is liable for the acceptable performance of all legal debts pertaining to the work, the party of the second part of the Contract.

1.4 ENGINEER

The authorized representative of the Owner employed to provide engineering supervision, and/or inspection of the work performed by the Contractor and where the term "Owner" is used in connection with the interpretation of the drawings and specifications, or in connection with the enforcement of the provisions of same, the Engineer, as the Owner's representative, shall have authority to act.

1.5 SUBCONTRACTOR

A person, firm, or corporation to whom the Contractor sublets any part of the Contract.

1.6 INSPECTOR

The authorized representative of the Engineer, assigned to make all necessary inspections of the materials furnished for the work and of the work performed by the Contractor.

1.7 CONTRACT DOCUMENTS

The Contract Documents are composed of the Invitation to Quote, Instruction to Quoters, Form of Proposal, Form of Contract, General Conditions, Project Specifications, and Drawing(s) if applicable.

GENERAL CONDITIONS
SECTION 2
EXECUTION OF CONTRACT

2.0 ASSIGNMENT

The contractor shall not assign the whole or any part of this contract or any monies due or to become due hereunder without written consent of the City of Pensacola. In case the Contractor assigns all or any part of any monies due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this contract.

2.1 PRECONSTRUCTION CONFERENCE

Within ten (10) days after execution of the Agreement, the Contractor will submit to the City Engineer for approval an estimated progress schedule indicating the starting and completion dates of the various stages of the work and a schedule of shop drawing submissions.

Before starting the work, a conference will be held to review the above schedules, to establish procedures for handling shop drawings and other submissions and for processing applications for payment, and to establish a working understanding between the parties as to the project. Present at the conference will be the Engineer of Record and/or his representatives, and the Contractor and/or his representatives and any others deemed necessary by the City of Pensacola.

2.2 TERMINATION OF CONVENIENCE

A contract may be terminated in whole or in part by the City of Pensacola at any time and for any reason in accordance with this clause whenever the City of Pensacola shall determine that such termination is in the best interest of the City of Pensacola. Any such termination shall be effected by the delivery to the contractor at least five (5) working days before the effective date of a Notice of Termination specifying the extent to which performance shall be terminated and the date upon which termination becomes effective. An equitable adjustment in the contract price shall be made for the completed service, but no amount shall be allowed for anticipated profit on unperformed services.

GENERAL CONDITIONS
SECTION 3
CONTRACTOR

3.0 LICENSES, PERMITS, CONSTRUCTION, AND EMPLOYMENT PRACTICES

All contractors shall secure all licenses and permits and comply with all laws, regulations and building and construction codes as required by the State, City and County in which the project is to be constructed, also with all regulations for the protection of workers and in respect to wages and hours which may be promulgated by the State and Federal Government.

3.1 QUALIFICATIONS FOR EMPLOYMENT

Preference shall be given to qualified local residents in the employment of laborers and mechanics for work on the project under this contract. No person shall be employed in violation of the State or the National labor laws. No person under the age of sixteen (16) years shall be employed on the project under the contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the project under this contract; provided, that this shall not operate against the employment of physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform. Contractor agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age, or disability. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mental defectives shall be employed on the project under this contract.

3.2 CHARACTER OF WORKMEN AND EQUIPMENT

The Contractor shall employ such superintendents, foremen and workmen as are careful and competent. Whenever the Engineer shall determine that any person employed by the Contractor is, in his opinion, incompetent, unfaithful, disorderly or insubordinate, such person shall, upon notice, be discharged from the work and shall not again be employed on it except with the written consent of the Engineer.

Should the Contractor fail to remove such person or persons or fail to furnish suitable or sufficient machinery, equipment or force for the proper prosecution of the work, the Engineer may withhold all estimates which are, or may become due, or may suspend the work until such orders are complied with.

The equipment used on any portion of the work shall be such that no injury to adjacent property, or to streets or highways, will result from its use; equipment shall be modern, in good condition and adequate in size to perform the work in satisfactory time intervals.

3.3 USE OF PREMISES

The Contractor shall confine his apparatus, storage of materials, and construction operations to such limits as may be directed by the Owner and shall not unreasonably encumber the premises with his materials.

The Contractor shall not load or permit any part of any structure to be loaded to such an extent as to endanger its safety.

The Contractor shall enforce any instructions of the Owner regarding signs, advertising, fires, danger signals, barricades, and smoking and shall require all persons employed on the work to comply with all building, post or institutional regulations while on the premises.

3.4 MATERIALS, SERVICES, AND FACILITIES

It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence and temporary construction of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

Any work necessary to be performed after regular working hours, on Sundays or legal holidays, shall be performed without additional expense to the Owner.

3.5 WARRANTY OF TITLE

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the Owner free from any claims, liens, or charges, and further agrees that neither he nor any person, firm or corporation furnishing any materials or labor for any work covered by this contract shall have any right to a lien upon the premises or any improvements or appurtenances thereon, provided that this shall not preclude any contractor from installing metering devices and other equipment of utility companies or of municipalities, the title to which is commonly retained by the utility company or the City. In the event of the installation of such metering device or equipment, the Contractor shall advise the Owner as to the owner thereof. Nothing contained in this section, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due to the Contractor in the hands of the Owner. The provisions of this section shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

3.6 PAYMENTS BY CONTRACTOR

The Contractor shall pay:

1. For all transportation and utility services not later than the 20th day of the calendar month following that in which such services are rendered.
2. For all materials, tools, and other expendable equipment to the extent of ninety (90) percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following the completion of that part of the work in or on which such materials, tools and equipment are incorporated or used.
3. To each of his subcontractors, not later than the 5th day following each payment to the Contractor, the respective amount allowed the Contractor on account of the work performed by his subcontractors, to the extent of each subcontractor's interest therein.

3.7 SUBCONTRACTING

The Contractor shall not award any work to any subcontractor without prior written approval of the Owner, which approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the subcontractors, which statement shall contain such information as the Owner may require.

3.8 REMOVAL AND DISPOSAL OF OBSTRUCTIONS

1. All fences, buildings, or other obstructions upon or within the limits of the work area, shall be removed by the Contractor and carefully placed on the abutting property or otherwise disposed of, if and as required. The cost of removing any existing structure shall be included in the price bid for the construction of new structures.
2. Any artifacts or items of historical value that are discovered in the work area are the property of the City of Pensacola and shall be removed as directed by the Engineer. The Contractor shall take care not to damage said items if at all possible.

3.9 INVESTIGATION, UTILITIES, AND DIFFERING SITE CONDITIONS

1. Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work taking into specific account the Project site and the general and local conditions related thereto, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water and electric power; availability and condition of roads; work area; living facilities; climatic conditions and

seasons; physical conditions at the work-site and the Project area as a whole, topography and ground surface conditions; nature and quality of the surface materials to be encountered; subsurface conditions, equipment and facilities needed preliminary to and during performance of the Work, and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.

2. Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities being referred to in this Section 4 as the "Utilities". Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work.
3. During the Work, the Contractor shall immediately upon the discovery of, and, before such conditions are disturbed, notify the City in writing of: (a) subsurface or latent physical conditions at the site differing materially from those indicated in the Plans and Specifications or other City-furnished information, or (b) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. If, however, a differing or unknown site condition requires immediate action by the Contractor to protect Work in progress from significant damage or to protect the health or safety of persons, the Contractor shall as soon as possible under the circumstances, and before such conditions are disturbed, if reasonably possible, provide the written notice specified herein. The City will promptly investigate the conditions, and if such conditions materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work, whether or not changed as a result of such conditions, the construction completion dates shall be equitably adjusted by Change Order upon timely and proper request for Change Order in accordance with Section 5.
4. No claim by the Contractor under this Section will be allowed unless the Contractor has given the notices required in Section 5. If the City is not given written notice before the conditions are disturbed, or in accordance with the Section 5 for later notice in the case of a condition requiring immediate emergency action to protect the Work in progress or the health or safety of persons, the Contractor will be deemed to have waived its right to assert a claim for additional compensation and time arising out of such conditions.

GENERAL CONDITIONS
SECTION 4
CONTROL OF WORK

4.1 ENGINEER AS REFEREE

It is agreed by the parties hereto that the Engineer of Record shall decide all questions which may arise relative to the interpretation of the plans, specifications, and other contract documents pertaining to the character, quality, amount and value of any work done, and the materials furnished under or by reason of this Contract. His estimates and decisions upon all such claims and questions shall be final and conclusive upon the parties thereto.

4.2 DRAWINGS

1. The general character and scope of the work are illustrated by the drawings accompanying the Contract Documents. Where necessary, the approved plans will be supplemented by the Engineer with such full scale details, sketches, etc., as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given on the approved plans shall be in writing.
The Contractor shall furnish such detailed plans as may be required for the prosecution of the work and are not included in the plans furnished by the Consultant. They shall include shop details, erection plans, masonry layout diagrams and bending diagrams for reinforcing steel, approval of which by the Engineer must be obtained before any work involving these plans shall be performed. Plans for cribs, cofferdams, false work, centering and form work may also be required and such cases shall be likewise subject to approval unless approval is waived by the Engineer.
It is expressly understood, however, that approval by the Consultant of the Contractor's working drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details or of mutual agreement of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his working drawings with the approved plans and specifications. The Contractor shall not attempt to construct the parts of the work for which such detail drawings are required until he has received them.
The contract price shall include the cost of furnishing all working drawings and the Contractor will be allowed no extra compensation for such drawings.
2. Where the word "similar" occurs on the drawings, it shall be interpreted in its general sense and not as meaning identical and all details shall be worked out in relation to their location and their connection to other parts of the work.

3. Where on any of the drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other like portions of the work. Where ornament or other detail is indicated by starting only, such detail shall be continued throughout the courses or parts in which it occurs and shall also apply to all other similar parts in the work, unless otherwise indicated.

4.3 SHOP DRAWINGS

1. The Contractor shall submit for approval of the Engineer of Record, copies of all shop and setting drawings and schedules required for the work and no work shall be fabricated by the Contractor, save at his own risk, until such approval has been given. Copies of these drawings and schedules shall be furnished in such number as the Engineer may direct.
2. The Contractor shall submit all drawings and schedules sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting and rechecking; and no claim by the Contractor for delays, arising from his failure in this respect, shall be allowed.
3. All shop drawings submitted must bear the stamp of approval of the Contractor as evidence that the drawings have been checked by the Contractor. Any drawings submitted without this stamp of approval shall not be considered and will be returned to the Contractor for resubmission. If the shop drawings show variations from the requirements of the Contract documents because of standard shop practice or other reason, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise, the Contractor shall not be relieved of the responsibility for executing the work in accordance with the Contract Documents even though such shop drawings have been approved.
4. Where a shop drawing as submitted by the Contractor indicates a departure from the contract which the Consultant deems to be a minor adjustment in the interest of the City and which does not involve a change in the Contract price or extension of time, the Engineer of Record will approve the drawing.
5. The approval by the Engineer of Record of shop drawings will be general and shall not relieve the Contractor from the responsibility for adherence to the Contract, nor shall it relieve him of the responsibility for any error that may exist.

4.4 INTENT OF CONTRACT DOCUMENTS

1. It is the intent of the Contract Documents to describe a functionally complete Project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied by the Contractor whether or

not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in affect at the time the Work is performed, except as may be otherwise specifically stated herein.

2. If during the performance of the Work Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall report same to the City in writing and before proceeding with the Work affected thereby and shall obtain a written interpretation or clarification from the City. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.
3. Drawings are intended to show general arrangements, design, and extent of Work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the drawings, specifications, or of other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon the Contractor, as determined by the City.

4.5 COORDINATION OF PLANS AND SPECIFICATIONS

The specifications, plans, and all supplementary documents are essential parts of the contract. Any requirement occurring in one is as binding as though occurring in all. Items shown on the plans and not shown on the specifications and items noted in the specifications but not shown on the plans are to be considered as shown on the plans and noted in the specifications. Any errors or omissions as to standards of work in the specifications or on the plans shall not relieve the Contractor of the obligation to furnish a strictly first-class job in strict accord with best practice to be found in structures or work of a similar nature.

4.6 FITTING AND COORDINATION OF THE WORK

The Contractor shall be responsible for the proper fitting of all work for and the coordination of the operation of all trades, subcontractors, or suppliers engaged in the work. He shall be prepared to guarantee to each of his subcontractors the dimensions which they may require for the fitting of their work to all surrounding work and shall do, or cause his agents to do, all cutting, fitting, adjusting, and patching necessary to make the several parts of the work come together properly and to fit the work to receive or be received by that of other contractors.

4.7 OTHER WORK

1. City may perform other work related to the Project at the site by the City's own forces, have other work performed by utility owners or let other direct contracts to other contractors. If the fact that such other work is to be performed is not noted in the Contract Documents, notice thereof will be given to Contractor. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to the City and Architect/Engineer within forty-eight (48) hours of being notified of the other work. If the Contractor fails to send the above required forty-eight (48) hour notice, the Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount.
2. Contractor shall afford each utility owner and other contractor (or City, if City is performing the additional work with City's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the City and the others whose work will be affected.
3. If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or City), Contractor shall inspect and promptly report to the City in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

4.8 CONSTRUCTION STAKING AND PROJECT LAYOUT

1. City shall provide initial vertical and horizontal (h/v) control information for the project, in the form of surveyed benchmarks, at designated coordinate locations as specifically indicated on the plans. The Contractor shall be responsible for the protection and preservation of all benchmarks throughout the duration of the project. The Contractor shall be responsible for all initial, intermediate, and finish h/v layout and staking necessary for the completion of construction. This shall include, but not be limited to, the establishment of finished layout and/or grade points/elevations of intersections, curb islands and drainage structures, etc., based upon the initial h/v control information provided by the City. Replacement of damaged/removed benchmarks by the City shall be handled by the Contractor and done at the Contractor's expense.

2. Should the Contractor, in the course of work, find that the points, grades, and dimensions which are shown upon the plans are not conformable to the physical conditions of the locality at the proposed project site, he shall immediately inform the City of the discrepancy between the actual physical conditions of the locality of the proposed work, and the points, grades and dimensions which are shown on the plans. Should the Contractor, in the course of work, discover/determine that any surveyed benchmark information provided by the City (or other entity) is inconsistent with the plans or has been incorrectly established, he shall notify the City immediately. No claim shall be made by the Contractor against the City for compensation or damages by reasons for failure of the City to represent upon said plans, points, grades and dimensions conformable to the actual physical conditions of the locality of the proposed work.

4.9 INSPECTION

The City and its authorized representatives and agents shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records.

4.10 INSPECTION FACILITIES

The Contractor shall provide and shall maintain, unless otherwise specified, suitable, and adequate facilities at the site of the project for the use of those representatives or agents of the City assigned to the project until the completion of this Contract.

4.11 INSPECTION AND TESTING OF MATERIALS

Unless otherwise specifically provided for in the specifications, the inspection and testing of materials and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories or agencies approved by the City. The Contractor shall furnish evidence satisfactory to the City that the materials and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the work. Testing of all materials shall be paid for by the City. Retesting required because of failure to comply with the specifications shall be paid for by the Contractor.

4.12 "OR EQUAL" CLAUSE

Specified reference in the specifications to any article, device, product, material, fixtures, form, or type of construction, etc., by name, make, or catalogue number, with or without the words "or equal", shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor, in such cases, may at his option use any article, device, product, material, fixture, form, or type of construction which, in the judgment of the City, expressed in writing, is equal to that named.

4.13 TEMPORARY SUSPENSION OF WORK

The Engineer/City shall have the authority to suspend the work wholly or in part for such period or periods as may be deemed necessary, due to unsuitable weather, or such other conditions as considered unfavorable for the suitable prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given or to perform any or all provisions of the Contract.

4.14 SUSPENSION OF WORK

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed for the Contractor, or any of his property, or if he should persistently or repeatedly refuse or fail to supply enough properly skilled workmen or proper materials, or if he should refuse or fail to make prompt payment to persons supplying labor or materials for the work under the contract, or persistently disregard instructions of the Consultant or fail to observe or perform any provisions of the contract documents, or otherwise be guilty of a substantial violation of any provisions of the contract documents, then the City may, by at least five (5) days prior written notice to the Contractor, without prejudice to any other rights or remedies of the City in the premises, terminate the Contractor's right to proceed with the work. In such event, the City may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the City for any excess cost occasioned to the City thereby; and, in such case, the City may take possession of and utilize in completing the work such materials, appliances, and plants as may be on the site of the work and necessary therefore. The foregoing provisions are in addition to, and not in limitation of, the rights of the City under any other provisions of the contract documents.

4.15 DELAYS – DAMAGES

1. If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in the Form of Proposal, or any extension thereof, or fails to complete said work within such time, the City may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event, the City may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor and his sureties shall be liable to the City for any excess cost occasioned the City thereby. If the Contractor's right to proceed is so terminated, the City may take possession of and utilize in completing the work such materials, appliances, and plants as may be on the site of the work and necessary therefore. If the City does not terminate the right of the Contractor to proceed, the Contractor shall continue the work, in which event the actual damage for the delay will be impossible to determine and, in lieu thereof, the Contractor shall pay to the City as fixed, agreed, delay penalties for each calendar day of delay until the work is completed or accepted, the amount as set forth in the Form of Proposal,

and the Contractor and sureties shall be liable for the amount thereof. Provided, that the right of the Contractor to proceed shall not be terminated nor the Contractor charged with delay penalties because of any delays in the completion of the work due to unforeseeable causes beyond the Contractor's control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, acts of the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes, if the Contractor shall within ten (10) days from the beginning of any such delay (unless the City shall grant a further period of time prior to the date of final settlement of the contract) notify the City in writing of the causes of delay, who shall ascertain the facts and the extent of the delay and extend the time for completing the work when in his judgment the findings of fact justify such an extension, and his findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal, within thirty (30) days, by the Contractor to the City, whose decision on such appeal as to the facts of the delay and the extension of time for completing the work shall be final and conclusive on the parties hereto.

2. No interruption, interference, inefficiency, suspension, or delay in the commencement or progress of the Work from any cause whatever, including those for which the City may be responsible, in whole or in part, shall relieve Contractor of its duty to perform or give rise to any right to damages or additional compensation from City. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the City will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damages For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.
3. Where actual damages for any delay in completion contemplated by this section are impossible to determine by reason of the City's election under said sections not to terminate the right of the Contractor to proceed, the Contractor and his sureties shall be liable for and shall pay to the City, as set forth in the form of Proposal, agreed and delay penalties for each calendar day of such delay until the work is completed or accepted. Provided, that the City may accept the work if there has been such a degree of completion as will, in its opinion, make the project reasonably safe, fit, and convenient for the use and accommodation for which it was intended. In such case, the Contractor shall not be charged with delay penalties, but the City may assess damages caused by such delay.

4.16 TIME FOR COMPLETION

The work shall be commenced at the time stated in the notice to the Contractor to proceed and shall be completed in the number of consecutive calendar days stated in the Form of Proposal.

GENERAL CONDITIONS
SECTION 5
PROTECTION OF PERSONS AND PROPERTY

5.0 LAWS

The Contractor shall comply with all federal, state, county, and city laws, ordinances, or regulations controlling the action or operation of those engaged upon the work, or affecting material used, and govern himself in accordance with them. He shall indemnify and save harmless the Owner and all of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders, or decrees, whether by himself or his employees.

5.1 FURNISHING RIGHT OF WAY

All necessary right of way for the proper completion of the work will be secured by the Owner without cost to the Contractor.

5.2 SANITARY PROVISIONS

The Contractor shall provide and maintain at his own expense, in a sanitary condition, such accommodations for the use of his employees as is necessary to comply with the requirements and regulations of the State or Local Board of Health. He shall commit no public nuisance.

5.3 PUBLIC CONVENIENCE AND SAFETY

No street or roadway shall be closed, except when and where directed by the City Engineer, and whenever the street or roadway is not closed, the work must be so conducted that there shall at all times be a safe passageway for traffic. Whenever it is necessary to divert traffic from any part of the street or roadway actually under construction, the Contractor shall provide and maintain a passable driveway as directed by the Engineer.

The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient red lights, danger signals and signs, provide a sufficient number of watchmen, and take all necessary precautions for the protection of the work and safety of the public. Streets or highways closed to traffic shall be protected by effective barricades on which acceptable warning signs shall be placed. The Contractor shall provide and maintain acceptable warning and detour signs at all closures, intersections and along the detour routes, directing the traffic around the closed portion or portions of the work so that the acceptable warning and detour signs at all closures, intersections and along the detour routes, directing the traffic around the closed portion or portions of the work so that the temporary detour route or routes shall be indicated clearly throughout its entire length. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise. Barricades shall be well built and so designed so as not to be blown over by the wind.

Fire hydrants on or adjacent to the premises on streets where construction is in progress shall be kept accessible to the fire apparatus at all times and no material or obstruction shall be placed within ten (10) feet of any such hydrant. Adjacent premises must be given access as far as practicable and obstruction of gutters and ditches will not be permitted. Material stored along the street or roadway must be placed so as to cause as little obstruction to the public as possible.

5.4 PRESERVATION OF PROPERTY

The Contractor shall preserve from damage all property along the line of the work, the removal or destruction of which is not called for by the plans. This applies to public utilities, trees, monuments, fences, pipe, and underground structures, etc., and whenever such property is damaged due to the activities of the Contractors, it shall be immediately restored to its original condition by the Contractor at his own expense.

In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Owner may, upon forty-eight (48) hours' notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any monies due or which may become due the Contractor from receiving property compensation for the removal, damage, or replacement of any public or private property, not shown on the plans, when same is made necessary by alteration of grade or alignment, and such work is authorized by the Owner, provided that such property has not been damaged through fault of the Contractor, his employees, or agents.

GENERAL CONDITIONS
SECTION 6
PAYMENT

6.0 SCOPE OF PAYMENTS

It is understood and agreed that the Contractor shall receive and accept the prices and rates, as herein specified, in full payment for furnishing all materials, labor, equipment and tools, and for performing all the work contemplated and embraced in the attached specifications and proposal; and also, for all loss or damage arising out of the nature of the work aforesaid, or from action of the elements or from any foreseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance, as hereinafter provided for; and also, for all risks of every description and all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein provided for, or for any infringement of patent, trademark, or copyright, and for the completion of the work in accordance with the plans specifications and contract.

6.1 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until acceptance of the work by the City, it shall be under the charge and care of the Contractor and he shall take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

6.2 PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

When alterations in plans or quantities of work as herein provided for are ordered and performed, the Contractor shall accept payment in full at the contract unit price for the actual quantities or work done.

Except as otherwise herein provided, no charge for any extra work or material will be allowed unless the same has been ordered in writing by the City and the price stated in such work order.

6.3 CHANGES IN WORK

A. The City may at any time, by written order and without notice to the sureties, make changes in the drawings and specifications of this contract and within the general scope thereof. In making any change the charge or credit for the change shall be approximately determined by the City in one of the following methods prior to the issuance of the order for the changed work:

1. The order shall fix the total lump sum value of the change in the work of the Contractor, and shall set out the price which shall be added to or deducted from the contract price (which price shall include the Contractor's overhead and profit.) On any change which involves a net credit to the City, no allowance for overhead and profit shall be figured.

2. By estimating the number of unit quantities of each part of the work which is changed and then multiplying the estimated number of such unit quantities by the price (which price shall include the Contractor's overhead and profit) for a unit quantity thereof.
3. By ordering the Contractor to proceed with the work and to keep and present, in such form as the City may direct, a correct account of the cost of the change together with all vouchers therefor.

(Cost applicable to 1, 2, and 3 above may include an allowance for overhead and profit not to exceed 15% of the net cost. The cost may also include all items of labor or materials, the use of power tools and equipment actually used, power and all items of cost such as public liability and workmen's compensation insurance, pro rate charges for foremen, also social security, old age and unemployment insurance; however, no percentage for overhead and profit shall be allowed on items of social security, old age and unemployment insurance. If deductions are ordered, the credits shall be the net cost. Among the items considered as overhead are included insurance other than mentioned above, bond, or bonds, superintendent, timekeeper, clerks, watchmen, use of small tools, incidental job burdens and general office expense.)

- B. The Contractor shall, when required by the City, furnish to the City an itemized breakdown of the quantities and prices used for computing the value of any change that might be ordered.
- A. In figuring changes, instructions for measurement of quantities set forth in the specifications shall be followed.
- B. Should the Contractor encounter, or the City discover, during the progress of the work, sub-surface or latent conditions at the site materially differing from those shown on the drawings or indicated in the specifications, or unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of character provided for in the drawings and specifications, the attention of the City shall be called immediately to such conditions before they are disturbed. The City shall thereupon promptly investigate the conditions, and if he finds that they do so materially differ, the Contract shall, with the written approval of the City, be modified to provide for any increase or decrease of cost or difference in time resulting from such conditions.

6.4 CLAIMS AND DISPUTES

A Claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between City and Contractor arising out of or relating to the Contract Documents. The responsibility to substantiate a Claim shall rest with the party making the Claim.

Claims by the Contractor shall be made in writing to the City within forty-eight (48) hours after the first day of the event giving rise to such Claim or else the Contractor shall be deemed to have waived the Claim. Written supporting data shall be submitted to the City within fifteen (15) calendar days after the occurrence of the event, unless the City grants additional time in writing, or else the Contractor shall be deemed to have waived the Claim. All claims shall be priced in accordance with the provisions of Subsection 6.3.

The Contractor shall proceed diligently with its performance as directed by the City, regardless of any pending Claim, action, suit, or administrative proceeding, unless otherwise agreed to by the City in writing. The City shall continue to make payments in accordance with the Contract Documents during the pendency of any Claim.

6.5 OMITTED ITEMS

The City shall have the right to cancel the portions of the Contract relating to the construction of any time therein by the payment to the Contractor of a fair and equitable amount covering all items of cost incurred prior to the date of cancellation or suspension of work by order of the City.

6.6 DEDUCTIONS FOR UNCORRECTED WORK

If the City deems it inexpedient to require the Contractor to correct the work injured or not performed in accordance with the Contract documents, an equitable deduction from the contract price shall be made by agreement between the City and Contractor.

6.7 CONTRACT TIME AND DELAY PENALTIES

Time is of the essence in the performance of the Work under this Agreement. Contractor shall commence the Work within ten (10) calendar days from the Commencement Date, established in the Notice to Proceed from the City. No Work shall be performed at the Project site prior to the Commencement Date. Contractor shall provide forty-eight (48) hours' notice prior to beginning the Work.

The Work shall be fully/finally completed and deemed ready by the City for final completion within the allotted calendar days from the Commencement Date. The Contract Time shall be the time period from the Commencement Date to the date of Final Completion ("Contract Time")

As the project approaches final completion, the City shall compile a "punch list" of any remaining exceptions to final/full completion of the project. The Project shall be deemed to be fully/finally completed by the City on the date that the City certifies in writing that the construction of it, or specified part thereof, is completed in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended, and all punch list items have been completed to the satisfaction of the City.

6.8 ACCEPTANCE AND FINAL PAYMENT

Whenever the improvement provided for under this Contract shall have been completely performed on the part of the Contractor, and all parts of the work have been approved by the City, according to the Contract, the City shall within ten (10) days unless otherwise provided, make the final inspection and a final estimate showing the value of the work as soon as the necessary measurements and computations can be made. All prior certificates or estimates upon which payments have been made are approximate only, subject to correction in the final payment. The amount of this estimate, less any sums that may have been deducted or retained upon the provision of this contract, will be paid to the Contractor within thirty (30) days after the final estimate has been approved by the City, provided that the Contractor has properly maintained the project as hereinafter specified, and provided he has furnished to the party of the first part a sworn affidavit to the effect that all bills are paid and no suits are pending in connection with the work done under this contract.

The Contractor agrees that the payment of all just claims for materials, against him, or any subcontractor in connection with this contract, and his bond will not be released by final acceptance and payment by the City unless all such claims are paid or released.

6.9 GENERAL GUARANTEE

Neither the final certificate of payment nor any provision in the contract documents nor partial or entire use or occupancy of the premises by the City shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The City will give notice of observed defects with reasonable promptness.

6.10 TERMINATION OF CONTRACTOR'S RESPONSIBILITY

This Contract will be considered complete when all work has been completed and the final inspection made, the work accepted by the City and the final estimate paid. The Contractor will then be released from further obligation except as set forth in Section 6.7 of these General Conditions and the requirement to maintain products and completed operations coverage as contained herein.

6.11 INVOICE SUBMITTAL

The City of Pensacola will accept only one request for partial payment per month. Applications for partial payments must reference subject project, note the City's purchase order number, coincide with the City's percentage of work completed, and be certified by the City Engineer's office before the partial request for payment will be processed. Unless otherwise modified in the contract documents, retainage shall be ten (10) percent until final payment.

The City of Pensacola normally issues checks for payment of invoices on the 10th of each month. The signed and correct Pay Request must have been received by the Engineering Division by the 25th of the prior month or as otherwise requested. Pay requests received after the 25th will be processed by the 10th of the subsequent following month. Each Pay Request shall be accompanied by a (1) Lien Release and Affidavit from each subcontractor and each supplier showing that all materials, labor, equipment and other bills associated with that portion of the work payment is being requested on have been paid in full, and (2) an updated construction project schedule. The City shall not be required to make payment until and unless these documents are furnished by the contractor. All invoices are payable by the City under the terms of Florida Prompt Payment Act, Florida Statute § 218.70. All purchases subject to availability of funds in the City's budget.

6.12 PAYMENTS WITHHELD

The City may decline to approve any Application for Payment, or portions thereof, because of subsequently discovered evidence, subsequent inspections of the Work, or failure of the Contractor to submit pay request as described in Section 6.9 above.

The City may nullify the whole or any part of any approval for payment previously issued and the City may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the City and Contractor, to such extent as may be necessary in the City's opinion to protect it from loss because of: (a) defective Work not remedied; (b) third party claims filed or reasonable evidence indicating probable filing of such claims; (c) failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment; (d) reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount; (e) reasonable indication that the Work will not be completed within the Contract Time; (f) unsatisfactory prosecution of the Work by the Contractor; or (g) any other material breach of the Contract Documents.

If these conditions are not remedied or removed, City may, after three (3) days written notice, rectify the same at Contractor's expense.

The City also may offset against any sums due Contractor the amount of any delay penalty obligations of Contractor to City, whether relating to or arising out of this Agreement or any other agreement between Contractor and the City.

APPLICATION AND CERTIFICATION FOR PAYMENT

Page 1 of 1

To Owner:
City of Pensacola
Engineering and Construction Services
P. O. Box 12910
Pensacola, FL 32521

Project Manager:

Application #:

Period:

☐ OWNER
☐ ENGINEER
☐ CONTRACTOR
☐
☐

From Contractor:

Date Submitted:

Project Name:

Purchase Order #:

CONTRACTORS APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.

1. ORIGINAL CONTRACT SUM	\$
2. Net change by Change Orders	\$
3. CONTRACT SUM TO DATE (Line 1+2)	\$
4. TOTAL COMPLETED & STORED TO DATE	\$
5. RETAINAGE:	
a. 5 % of Completed Work	\$
b. % of Stored Material	\$
Total Retainage (Line 5a+5b)	\$
6. TOTAL EARNED LESS RETAINAGE	\$
(Line 4 less Line 5 Total)	
7. LESS PREVIOUS PAYMENTS	\$
8. CURRENT PAYMENT DUE	\$
(Line 6 less Line 7 Total)	

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
TOTALS		
NET CHANGES by Change order		

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in

accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____
State of: _____
County of: _____
Subscribed and sworn to before me by _____ who is
personally known to me/whose identity I proved on the basis of _____
this _____ day of _____ 2021
Notary Public: _____
My Commission expires: _____

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED\$ _____

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ENGINEER:

By: _____ Date: _____
This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Phone:

Inspector:
Contract Duration:
Start Date:
Date of Completion:

Date of Completion:

[illegible]

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Phone:

Inspector:
Contract Duration:
Start Date:
Date of Completion:

Date of Completion:

[illegible]

PAY REQUEST-SCHEDULE OF VALUES

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Date Received:

City of Pensacola
Engineering and Construction Services

Contractor:

Inspector:

Contract Duration:

Start Date:

Date of Completion:

Phone:

Fax:

Application #: Period:				Contract Amount	Work Completed Previous	Work Completed This Period	Work Completed To Date	% Completed To Date
Bid Alternate #1 Items								
1	Deduct the entirety of the Base Bid Items	1	LS					
2	Mobilization and Demobilization	1	LS					
3	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS					
4	Maintenance of Traffic (FDOT Standards)	1	LS					
5	Utility Coordination/Relocation	1	LS					
6	Remove Asphalt	1,402	SY					
7	Remove Concrete Curb	6,253	LF					
8	Remove Miscellaneous Concrete (Including Curb Ramps)	1,425	LF					
9	Remove Brick Crosswalk	650	SF					
10	Remove Drainage Structure	18	EA					
11	Remove Valley Gutter	1,200	LF					
12	Remove Type F Modified Curb and Gutter	7,000	LF					
13	Saw Cut and Remove Top of Vault Structure	75	CY					
14	Route 12" Watermain Around Drainage Structure, to include all Fittings and Testing	30	LF					
15	Route 10" Watermain Around Drainage Structure, to Include all Fittings and Testing	400	LF					
16	Furnish and Install 12" Top Concrete Slab	45	CY					
17	Adjust/Raise Water Valve to Grade	49	EA					
18	Adjust Drainage Manhole to Grade	13	EA					
19	Adjust Parking Meter	4	EA					
20	Adjust Electrical Manhole to Grade	33	EA					
21	Adjust Communications Manhole to Grade	12	EA					

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Phone:

Date of Completion:

Fax:

Application #: Period:				Contract Amount		Work Completed Previous		Work Completed This Period		Work Completed To Date		% Completed To Date
44	Milling Existing Asphalt Paving SP-12.5 3"-6" Depth	8,000	SY									
45	Milling Existing Concrete Paving	2,500	SY									
46	1-1/2" Asphalt Overlay	14,300	SY									
47	6" Concrete Slab (Including Welded Wire Fabric)	645	CY									
48	8' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	22	CY									
49	10' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	65	CY									
50	8' Concrete Curb Ramp (Including Welded Wire Fabric)	30	CY									
51	10' Concrete Curb Ramp (Including Welded Wire Fabric)	40	CY									
52	Roadway Striping (6" Double Yellow) - Painted	0.389	GM									
53	10'-30' Skip Yellow Centerline Stripe	0.247	GM									
54	Handicap Signage	9	EA									
55	W11-2 Crosswalk Sign	8	EA									
56	24" Stop Bar - White Thermoplastic	302	LF									
57	Ramp Chevron w/Approach Marking	8	EA									
58	Relocate Stop Sign	16	EA									
59	Bidirectional Raised Pavement Markers (Yellow)	132	EA									
60	Bidirectional Raised Pavement Markers (Blue)	7	EA									
61	4" White Parking Stripe	0.676	GM									
62	Temporary Striping	1.06	GM									
63	Thermoplastic, White, Preformed, Arrows	9	EA									
64	Quercus V. - 3" DBH	24	EA									
65	Ulmus P 'Bosque' - 3" DBH	13	EA									

PAY REQUEST-SCHEDULE OF VALUES

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Date Received:

City of Pensacola
Engineering and Construction Services

Contractor:

Inspector:

Contract Duration:

Start Date:

Date of Completion:

Phone:

Fax:

Application #: Period:				Contract Amount		Work Completed Previous		Work Completed This Period		Work Completed To Date		% Completed To Date
66	Sabal Palmetto - 18' CT	12	EA									
67	Ligustrum Japonicum	3	EA									
68	3 Gal - Liriope/ Muhly	1,750	EA									
69	1 Gal - Groundcover - Asiatic Jasmine	1,100	EA									
70	4" Pot - Annuals	1,500	EA									
71	Drip Irrigation - Potable Water Source - No Well	1	LS									
72	2-year Landscape and Irrigation Maintenance - In Accordance with Maintenance Instructions in Plan Set	1	LS									
73	Pedestrian Pavers - 6" Conc Base, 2" Flowable Fill	48,000	SF									
74	Vehicular Pavers - Set on 2" Flowable Fill (Conc by Civil)	17,500	SF									
75	18"H Ballast Stone Seatwalls at Intersections	350	LF									
76	Palafox Planter	460	LF									
77	Bench	18	EA									
78	Litter Receptacle	28	EA									
79	Bike Rack	12	EA									
80	Planters	114	EA									
81	NPDES Permit/SWPPP and Implementation	1	LS									
82	NPDES Permit Fee	1	LS									
83	Allowance = Design and Installation of Banners, Wayfinding Signage, Fence Screen Renderings	1	LS	\$100,000.00	\$100,000.00							
				TOTAL BID ALT#1								

PAY REQUEST-SCHEDULE OF VALUES

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Date Received:

City of Pensacola
Engineering and Construction Services

Contractor:

Inspector:

Contract Duration:

Start Date:

Date of Completion:

Phone:

Fax:

Application #: Period:				Contract Amount	Work Completed Previous	Work Completed This Period	Work Completed To Date	% Completed To Date
Bid Alternate #2 Items								
1	Mobilization and Demobilization	1	LS					
2	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS					
3	Maintenance of Traffic (FDOT Standards)	1	LS					
4	Utility Coordination/Relocation	1	LS					
5	Remove Asphalt	598	SY					
6	Remove Concrete Curb	747	LF					
7	Remove Miscellaneous Concrete (Including Curb Ramps)	75	SY					
8	Remove Drainage Structure	1	EA					
9	Type F Curb and Gutter	696	LF					
10	6" Concrete Slab (Including Welded Wire Fabric)	55	CY					
11	10' Concrete Tray (Underneath Pedestrian and Vehicular Bricks, Including Welded Wire Fabric)	35	CY					
12	Remove Thermoplastic Markings	690	SF					
13	24" Stop Bar - White Thermoplastic	98	LF					
14	Thermoplastic, Preformed, White, Solid, 12" Crosswalk	340	LF					
15	Bidirectional Raised Pavement Markers (Yellow)	9	EA					
16	2'-4' Skip Yellow Turning (Thermoplastic)	0.07	GM					
17	Quercus V. - 3" DBH	4	EA					
18	3 Gal - Liriope/ Muhly	1,000	EA					
19	1 Gal - Groundcover - Asiatic Jasmine	200	EA					
20	Drip Irrigation - Potable Water Source - No Well	1	LS					
21	2-year Landscape and Irrigation Maintenance - In Accordance with Maintenance Instructions in Plan Set	1	LS					

Project Name: **S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.**

S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Phone:

Date Received:

Date of Completion:

Engineering and Construction Services

Application #: Period:				Contract Amount		Work Completed Previous		Work Completed This Period		Work Completed To Date		% Completed To Date
22	Pedestrian Pavers - 6" Conc Base, 2" Flowable Fill	9,500	SF									
23	Vehicular Pavers - Set on 2" Flowable Fill (Conc by Civil)	750	SF									
24	18"H Ballast Stone Seatwalls at Intersections	60	LF									
25	Streetbond 250 Application in FDOT ROW	1000	LF									
26	Litter Receptacle	6	EA									
27	Bike Rack	10	EA									
28	NPDES Permit/SWPPP and Implementation	1	LS									
29	NPDES Permit Fee	1	LS									
				TOTAL BID ALT#2								

PAY REQUEST-SCHEDULE OF VALUES

Project Name: S. PALAFOX PLACE PEDESTRIAN IMPROVEMENTS GARDEN ST. TO MAIN ST.

Contractor:

Phone:

Fax:

Date Received:

Inspector:

Contract Duration:

Start Date:

Date of Completion:

City of Pensacola
Engineering and Construction Services

Application #:	Contract Amount	Work Completed Previous	Work Completed This Period	Work Completed To Date	% Completed To Date
Period:					

Bid Alternate #3 Items

1	Mobilization and Demobilization	1	LS									
2	Erosion Control* (incl. silt fence, outlet protection, haybales, sand bags, turbidity barrier, by-pass piping, by-pass pumping, etc.)	1	LS									
3	Maintenance of Traffic (FDOT Standards)	1	LS									
4	Utility Coordination/Relocation	1	LS									
5	Remove Existing Bollard and Concrete Footing Trench	99	CY									
6	Install 8" Limerock Base	22	CY									
7	Place Fill	76	CY									
8	Saw Cut New Bollard Location	350	SY									
9	Excavate New Bollard Footing Trench	350	CY									
10	Install New 20 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	130	EA									
11	Install New 30 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	32	EA									
12	Install New 50 MPH Bollard (Bollard, Cover, Installation and Concrete Trench Included)	75	EA									
13	Install Misc. Concrete	25	CY									
14	NPDES Permit/SWPPP and Implementation	1	LS									
15	NPDES Permit Fee	1	LS									
				TOTAL BID ALT#3								

GENERAL CONDITIONS
SECTION 7
PREVENTION, CONTROL, AND ABATEMENT OF EROSION
AND WATER POLLUTION

7.1 Description.

Provide erosion control measures on the project and in areas outside the right-of-way where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects to public or private property adjacent to the project right-of-way and damage to work on the project. Construct and maintain temporary erosion control features or, where practical, construct and maintain permanent erosion control features as shown in the plans or as may be directed by the Engineer.

7.2 General.

Coordinate the installation of temporary erosion control features with the construction of the permanent erosion control features to the extent necessary to ensure economical, effective, and continuous control of erosion and water pollution throughout the life of the Contract.

7.3 Control of Contractor's Operations Which May Result in Water Pollution.

Prevent pollution of streams, canals, lakes, reservoirs, and other water impoundments with fuels, oils, bitumens, calcium chloride, or other harmful materials. Also, conduct and schedule operations to avoid or otherwise minimize pollution or siltation of such water impoundments, and to avoid interference with movement of migratory fish. Do not dump any residue from dust collectors or washers into any live stream.

Restrict construction operations in rivers, streams, lakes, tidal waters, reservoirs, canals, and other water impoundments to those areas where it is necessary to perform filling or excavation to accomplish the work shown in the plans and to those areas which must be entered to construct temporary or permanent structures. As soon as conditions permit, promptly clear rivers, streams, and impoundments of all obstructions placed therein or caused by construction operations.

Do not frequently ford live streams with construction equipment. Wherever an appreciable number of stream crossings are necessary at any one location, use a temporary bridge or other structure.

Except as necessary for construction, do not deposit excavated material in rivers, streams, canals, or impoundments, or in a position close enough thereto, to be washed away by high water or runoff.

Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water by one or more of the following methods prior to discharge into State waters: pumping into grassed swales or appropriate vegetated areas or sediment basins, or confined by an appropriate enclosure such as turbidity barriers when other methods are not considered appropriate.

Do not disturb lands or waters outside the limits of construction as staked, except as authorized by the Engineer.

Obtain the Engineer's approval for the location of, and method of operation in, borrow pits, material pits, and disposal areas furnished for waste material from the project (other than commercially operated sources) such that erosion during and after completion of the work will not result in probability of detrimental siltation or water pollution.

7.4 Materials for Temporary Erosion Control.

The Engineer will not require testing of materials used in construction of temporary erosion control features other than as provided for geotextile fabric unless such material is to be incorporated into the completed project. When no testing is required, the Engineer will base acceptance on visual inspection.

The Contractor may use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project, subject to the approval of the Engineer.

7.5 Preconstruction Conference.

At the Preconstruction Conference, provide to the City a special plan to prevent, control, and reduce erosion and water pollution, meeting the requirements or special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the project erosion control plan will be governed by federal, state, and local regulations.

7.6 Construction Requirements.

7.6.1 Limitation of Exposure of Erodible Earth: The Engineer may limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide erosion or pollution control measures to prevent contamination of any river, stream, lake, tidal waters, reservoir, canal, or other water impoundments or to prevent detrimental effects on property outside the project right-of-way or damage to the project. Limit the area in which excavation and filling operations are being performed so that it does not exceed the capacity to keep the finish grading, grassing, sodding, and other such permanent erosion control measures functional.

7.6.2 Incorporation of Erosion Control Features: Incorporate permanent erosion control features into the project at the earliest practical time. Use approved temporary erosion control features to correct conditions that develop during construction which were not foreseen at the time of design, to control erosion prior to the time it is practical to construct permanent control features, or to provide immediate temporary control of erosion that develops during normal construction operations, which are not associated with permanent erosion control features on the project.

The Engineer may authorize temporary erosion control features when

Topsoil is specified in the Contract and the limited availability of that material from the grading operations will prevent scheduled progress of the work or damage the permanent erosion control features.

- 7.6.3 Scheduling of Successive Operations:** Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing so that grading operations can follow immediately thereafter. Schedule and perform grading operations so that permanent erosion control features can follow immediately thereafter if conditions on the project permit.

7.6.4 Details for Temporary Erosion Control Features:

7-6.4.1 General: Use temporary erosion and water pollution control features that consist of, but are not limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, sediment checks, berms, baled hay or straw, floating turbidity barrier, staked turbidity barrier and silt fence. For design details for some of these items, refer to the Water Quality Section of the Roadway and Traffic Design Standards, latest edition of FDOT specifications.

7.6.4.2 Temporary Grassing: The Engineer may designate certain areas of grassing constructed as temporary erosion control features. The Engineer may direct the Contractor to omit permanent type grass seed from grassing and the reduce the specified rate of spread for fertilizer used in conjunction with grassing operations when such work is designated as a temporary erosion control feature.

7.6.4.3 Temporary Sod: Furnish and place sod within areas designated by the Engineer to temporarily control erosion. If the Engineer determines that the sod will be of a temporary nature, he may not require fertilizer and lime. Keep the sod in a moist condition in order to ensure growth. The Contractor will pay for all required watering under erosion control.

7.6.4.4 Temporary Mulching: Furnish and apply a 2 to 4 inch [50 to 100 mm] thick blanket of straw or hay mulch to designated areas, then mix or force the mulch into the top 2 inches [50 mm] of the soil in order to temporarily control erosion. Use only undecayed straw or hay which can readily be cut into the soil. The Contractor may substitute other measures for temporary erosion control, such as hydromulching, chemical adhesive soil stabilizers, etc., for mulching with straw or hay, if approved by the Engineer. When beginning permanent grassing operations, plow under temporary mulch materials in conjunction with preparation of the ground.

7.6.4.5 Sandbagging: Furnish and place sandbags in configurations to control erosion and siltation.

7.6.4.6 Slope Drains: Construct slope drains in accordance with the details shown in the plans, the Roadway and Traffic Design Standards, or as may be approved as suitable to adequately perform the intended function.

7.6.4.7 Sediment Basins: Construct sediment basins in accordance with the details shown in the plans, the Roadway and Traffic Design Standards, or as may be approved as suitable to adequately perform the intended function. Clean out sediment basins as necessary in accordance with the plans or as directed.

7.6.4.8 Berms: Construct temporary earth berms to divert the flow of water from an erodible surface.

7.6.4.9 Baled Hay or Straw: Provide bales having minimum dimensions of 14 by 18 by 36 inches [350 by 450 by 900 mm], at the time of placement. Construct baled hay or straw dams to protect against downstream accumulations of silt. Construct the baled hay or straw dams in accordance with the details shown in the plans or the Roadway and Traffic Design Standards.

Place the dam to effectively control silt dispersion under conditions present on this project. The Contractor may use alternate solutions and usage of materials if approved.

7.6.4.10 Temporary Silt Fences:

7.6.4.10.1 General: Furnish, install, maintain, and remove temporary silt fences, in accordance with the manufacturer's directions, these Specifications, the details as shown on the plans, and the Roadway and Traffic Design Standards.

7.6.4.10.2 Materials and Installation: Use a geotextile fabric made from woven or nonwoven fabric, meeting the physical requirements necessary to accommodate those applications for erosion control.

Choose the type and size of posts, wire mesh reinforcement (if required), and method of installation. Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective temporary silt fence that controls sediment comparable to the Roadway and Traffic Design Standards, Index No. 102.

Install all sediment control devices in a timely manner to ensure the control of sediment and the protection of lakes, streams, gulf or ocean waters, or any wetlands associated therewith and to any adjacent property outside the right-of-way as required.

At sites where exposure to such sensitive areas is prevalent, complete the installation of any sediment control device prior to the commencement of any earthwork.

After installation of sediment control devices, repair portions of any devices damaged at no expense to the City.

Erect temporary silt fence at upland locations across ditchlines and at temporary locations shown on the plans or approved by the Engineer where continuous construction activities change the natural contour and drainage runoff. Do not attach temporary silt fence to existing trees unless approved by the Engineer.

7.6.4.10.3 Inspection and Maintenance: Inspect all temporary silt fences immediately after each rainfall and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, install additional silt fences as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately $\frac{1}{2}$ of the volume capacity of the temporary silt fence or as directed by the Engineer. Dress any sediment deposits remaining in place after

the temporary silt fence is no longer required to conform to the finished grade, and prepare and seed them.

7.6.4.11 Floating Turbidity Barriers and Staked Turbidity Barriers:

Install, maintain, and remove turbidity barriers to contain turbidity that may occur as the result of dredging, filling, or other construction activities which may cause turbidity to occur in the waters of the State. The Contractor may need to deploy turbidity barriers around isolated areas of concern such as seagrass beds, coral communities, etc. both within as well as outside the right-of-way limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Install the barriers in accordance with the details shown in the plans or as approved by the Engineer. Ensure that the type barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the construction site. The Engineer may approve alternate methods or materials. Operate turbidity barriers in such a manner to avoid or minimize the degradation of the water quality of the surrounding waters.

7.6.4.12 Rock Bags: Furnish and place rock bags to control erosion and siltation. Place the bags as shown in the plans, the Roadway and Traffic Design Standards or as directed by the Engineer. Use a fabric material with openings that are clearly visible to minimize clogging yet small enough to prevent rock loss. Use material of sufficient strength to allow removing and relocating bags without breakage. The bag size when filled with rocks shall be approximately 12 by 12 by 4 inch [300 by 300 by 100 mm]. Use No. 4 or No. 5 coarse aggregate rock.

7.6.5 Removal of Temporary Erosion Control Features: In general, remove or incorporate into the soil any temporary erosion control features existing at the time of construction of the permanent erosion control features in an area of the project in such a manner that no detrimental effect will result. The Engineer may direct that temporary features be left in place.

7.7 Maintenance of Erosion Control Features.

7.7.1 General: Provide routine maintenance of permanent and temporary erosion control features, at no expense to the City, until the project is complete and accepted. If reconstruction of such erosion control features is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion control features, failure by the Contractor to install permanent erosion control features as scheduled, the Contractor shall replace such erosion control features at no expense to the City. If reconstruction of permanent or temporary erosion control features is necessary due to factors

beyond the control of the Contractor, the City will pay for replacement under the appropriate Contract pay item or items.

7.7.2 Mowing: The Engineer may direct mowing of areas within the limits of the project. Mow these designated areas within seven days of receiving such order. Do not mow slopes that are steeper than three horizontal to one vertical.

7.8 Protection During Suspension of Contract Time.

If it is necessary to suspend the construction operations for any appreciable length of time, shape the top of the earthwork in such a manner to permit runoff of rainwater, and construct earth berms along the top edges of embankments to intercept runoff water. Provide temporary slope drains to carry runoff from cuts and embankments that are in the vicinity of rivers, streams, canals, lakes, and impoundments. Locate slope drains at intervals of approximately 500 feet [150 m], and stabilize them by paving or by covering with waterproof materials. Should such preventive measures fail, immediately take such other action as necessary to effectively prevent erosion and siltation. The Engineer may direct the Contractor to perform, during such suspensions of operations, any other erosion control work deemed necessary.

7.9 Compliance with NPDES requirements

Contractor shall be solely responsible for ensuring all dirt/sediment/turbid water remains on this jobsite and overall NPDES compliance. Any failure to comply will result in a \$500 penalty per daily occurrence. Contractor will be provided with written notice of failure and funds will be deducted from final payment for contract retainage.

7.10 Basis of Payment.

The lump sum amount listed under erosion control on the proposal shall be the only compensation allowed the contractor. The items covered under this item includes construction and routine maintenance of temporary erosion control features and for moving. Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items. Additional temporary erosion control features constructed as directed by the Engineer will be paid for as unforeseeable work.

In case of failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the City's forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress payment.

PROJECT SPECIFICATIONS

SOUTH PALAFOX STREET PEDESTRIAN IMPROVEMENTS

CITY OF PENSACOLA, FLORIDA

April 2025

Prepared for:

CITY OF PENSACOLA PUBLIC WORKS
2757 N. PALAFOX STREET
PENSACOLA, FL 32501

Prepared by:

Jason Frick, PE
FL License No. 86469



449 W Main Street
Pensacola, FL 32502
EB-0000340

TECHNICAL SPECIFICATIONS

City of Pensacola Standard Specifications

TITLE	SECTION
Demolition, Clearing, & Grubbing	01
Storm and Sanitary Sewers	02
Erosion and Pollution Control	03
Reinforced Concrete	04
Concrete Sidewalks, Curbing, Curb and Gutter, Valley Gutter	05
Subgrade	06
Crushed Stone Base	07
Superpave Asphalt Concrete Pavement	08
Sodding	09
Jack and Bore	10
Monitor Existing Structures	11
Stormwater Treatment Soil	12
Flowable Fill	121
Detectable Warnings on Walking Surfaces	527

SUPPLEMENTAL SPECIFICATIONS

FDOT Standard Specifications Latest Edition	
Crash Rated Bollards	34-71-13

SECTION 1

DEMOLITION, CLEARING AND GRUBBING

1.1 SCOPE OF WORK

The work covered in this section of the specifications consists of furnishing all labor, equipment and material necessary for the removal of all concrete, asphalt, sheet piles, storm sewer pipes, inlets, and undesirable sub-surface material to a depth of 18" below finished subgrade.

1.2 INTERFERENCE WITH UTILITIES

The Contractor shall notify the superintendents of the water, gas, sewer, telephone, cable television and power companies ten days in advance that he intends to start work in a specific area. The City of Pensacola disclaims any responsibility for the support and protection of sewers, drains, water pipes, gas pipes, conduits of any kind, utilities or other structures owned by the City, County, State, or by private or public utilities legally occupying any street, alley, public place, or right of way.

Failure of the plans to show the existence of any underground utility, structures, etc., shall not relieve the Contractor from the responsibility of preserving and protecting said utility or structures.

In case any pipe or public utility or other obstruction so located or placed as to interfere with the work is unexpectedly encountered, the Contractor shall immediately notify the respective owners to relocate same if the Engineer shall determine it necessary to do so. The removal of existing manholes and the adjustment of existing manhole covers and valve boxes shall be the responsibility of the general Contractor. The adjusting to grade of Gulf Power and Telephone Company vaults and manholes shall be the responsibility of the respective utility.

1.3 TRAFFIC AND SAFETY

The safety of workers, pedestrians, and vehicular traffic is paramount and must be conscientiously administered by the Contractor.

Pedestrian traffic shall continue through all phases of construction. The Contractor shall provide temporary sidewalks as required to maintain access to all facilities. The Contractor may request in writing to the Engineer to close specific street blocks to vehicular traffic during certain phases of construction.

Intersections shall remain open throughout all construction.

1.4 SALVAGEABLE MATERIAL

The Engineer shall determine any materials to be salvaged. Any such material shall remain the property of the City of Pensacola.

1.5 PAYMENT

Payment for work under this section shall be the lump sum price, or as specified in construction plans, bid for demolition, clearing and grubbing. The price bid shall be full compensation for all materials, labor, tools, and equipment necessary to complete the work according to the plans and specifications.

SECTION 2

STORM AND SANITARY SEWERS

2.1 SCOPE OF WORK

The work included in this section consists of furnishing and installing all gravity sewers, house lateral connections and lateral lines, manholes, catch basins and appurtenances completely in place, tested and ready for operation. The Contractor shall furnish all labor, materials, tools, equipment and incidentals necessary to complete the installation as shown on the plans and described in these specifications.

All materials used in storm or sanitary sewer construction shall conform to the specifications indicated. Any materials not specifically called for below, or indicated on the plans, shall conform to the current Standard Specifications for Road and Bridge Construction of the Florida Department of Transportation, which are hereby made a part of these specifications. In the event of conflict between the Florida Department of Transportation specifications and the City specifications, the latter shall govern.

2.2 MATERIALS

Materials entering into the construction shall comply with the following appropriate specifications or subsequent revision thereof:

A. Gravity storm sewer pipe. Pipe shall conform to the material designated in the plans.

1. Concrete Pipe: ASTM C76 Class III with rubber gasket unless shown otherwise on the plans. All pipes shall meet D-load strength requirements. All pipe joints to be wrapped with non-woven filter fabric.
2. Ductile Iron Pipe: Ductile iron pipe shall operate at pressures of up to 150 psi, installed in Class 2 Trenching conditions. Increase pressure class or bedding class as required by AWWA C151 for surface loads greater than indicated or operating pressures greater than 150 psi. DIP shall be constructed with push-on joints using rubber gaskets in accordance with AWWA Standard C111. Other methods of joint construction, such as mechanical, flanged, or ball-and-socket, may be required in special applications as appropriate. DIP shall be lined in accordance with AWWA Standard C104, unless otherwise specified and approved. All pipe joints to be wrapped with non-woven filter fabric.

B. Gravity sanitary sewer pipe. Pipe shall conform to the material designated

in the plans.

1. Vitrified Clay Pipe and Fittings: ASTM C-700, extra strength clay pipe. Joints shall be integral bell with a resilient seal of rubber or polyvinyl chloride conforming to ASTM C-425 or compression type couplings for plain end pipe conforming to ASTM C-594.
2. ABC Truss Pipe (as manufactured by Armco Steel Corporation): ASTM D- 2680 T. Joints shall be chemically welded according to manufacturer's recommendations.
3. PVC - to be made of Class 12454-B PVC compound conforming to ASTM D-1784 and manufactured in accordance with ASTM D-3034, SDR-35.
4. Cast Iron, Class 100: ASA-A21.6; AWWA-C106. Joints shall be rubber gasket of either the mechanical or push-on design conforming to ASA- A21.11 and AWWA-C111.
5. Polyethylene Corrugated Pipe

Drainage pipe may be high density polyethylene corrugated exterior/smooth interior pipe in sizes 12 inches through 36 inches and conforming to AASHTO M294, Type S. Material shall meet ASTM D 1248 Type III Category 4, Grade P33, Class C; or ASTM D 3350 Cell Classification 324420C. Minimum conveyance factor shall be a Manning "n" value of 0.010. Acceptable manufacturer shall be Hi-Q, as manufactured by Hancor, Inc., N-12 polyethylene pipe, as manufactured by Advanced Drainage Systems, Inc., or approved equal.

Couplings and Fittings. Coupling bands shall cover at least one full corrugation on each section of pipe. When gasketed coupling bands are required, the gasket shall be made of closed-cell synthetic expanded rubber meeting the requirements of ASTM D 1056, Type 2. Gaskets shall be installed on the coupling band by the pipe manufacturer. All coupling bands shall meet or exceed the soil-tightness requirement of the AASHTO Standard Specification for Highway Bridges, Section

- B. Pressure Pipe. (See Force Main Specifications)
- C. Manholes. Construction shall be of brick or precast reinforced concrete manhole sections conforming to ASTM C-478 with modifications as specified in Section F-2, Manhole Construction.

1. Brick. Hard, burned common ASTM C-32, Grade MA.

2. Precast Concrete Sections. ASTM C-478. Base to extend 6" beyond outer circumference of bottom section. Metal sleeves are to be avoided and step holes are to be tapered outward. Joints are to be "Ram-Neck" or approved equal.
3. Castings for Applications where the pipe size is 48 inches or larger or for Applications where treatment units are larger than 6 feet in diameter. ASTM A-48, Class 35B. Frames and covers shall weigh not less than 377 pounds. Neenah Foundry R-5900-H with locking device Type J -- "T" handle bar lock or approved equal. All frames shall have a clear opening of not less than 32 1/4 inches. The frame and cover seal is to be machined so that no rocking of the cover is possible. Covers must be free of any openings other than a pick hole on the edge and a "T" handle hole. Pattern to include the words Storm Sewer.

Castings for All Other Applications. ASTM A-48, Class 35B. Frames and covers shall weigh not less than 176 pounds. Neenah Foundry R-5900-F with locking device Type J -- "T" handle bar lock or approved equal. All frames shall have a clear opening of not less than 23 1/2 inches. The frame and cover seal is to be machined so that no rocking of the cover is possible. Covers must be free of any openings other than a pick hole on the edge and a "T" handle hole. Pattern to include the words "Storm Sewer".
4. Steps. Construction shall be cast iron applicable for brick manholes (Neenah R-1980-E) or precast concrete manholes (Neenah R-1980-C).
5. Mortar.

Cement	ASTM C-150
Sand	ASTM C-144
Lime	ASTM C-144
6. Concrete Base. 2500 PSI ready mixed concrete conforming to ASTM C-94.

2.3 **EXCAVATION**

All excavation shall be by open cut or by hand unless otherwise stated on the plans. Banks shall be kept as nearly vertical as practical and shall be sheeted and braced if necessary to prevent caving or to confine the construction within a specified area such as an easement or street right of way. In the event a bank caves on a pipe before it has been covered to a depth of two (2) feet, the entire length of such cave-in shall be excavated for inspection of the pipe. Trenches shall be not less than sixteen (16) inches wider than the diameter of the pipe and shall be so dug that the sides shall be eight (8) inches from each side of the pipe. Bell holes shall be dug so as to ensure the pipe resting its entire length on the bottom of the trench. The length of trench that may be opened ahead of the pipe laying is to be controlled by the Owner's inspector.

Except where granular or concrete bedding is to be used, mechanical excavation shall be stopped above the final invert grade elevation and the remaining material carefully hand excavated so that the pipe may be laid on a firm, undisturbed soil.

The location of property obstructions such as sewers, drains, water or gas pipes, cables, conduits, railroads, poles, walls, trees, signs, shrubbery, fences, grassplots, etc., are the responsibility of the Contractor. The location of utilities and obstructions shown on the plans are only approximate and the Owner does not accept any responsibility for the exact location of utilities and obstructions as shown on the plans. The Contractor shall examine all available records and shall actively coordinate with all utilities that may be affected by his work. Property obstructions such as sewer drains, water or gas pipes, cables, conduits, railroads, poles, walls, trees, signs, shrubbery, fences, grassplots, etc., are to be carefully protected from injury. If injured or displaced, the Contractor shall repair at his own expense all damaged or displaced sewers, drains, water or gas pipes, cables, conduits, railroads, poles, walls, streets, signs, shrubbery, fences, grassplots, etc. Where a main is constructed along paved streets, the Contractor shall be responsible for any damage done to paved streets and/or lawns. The Contractor shall excavate the pipe trench by hand where, in the opinion of the Engineer, excavation by machinery would endanger trees or structures which might otherwise be saved by the use of hand excavation.

If undesirable material is encountered in the pipe bed, it shall be excavated to one foot below the invert of the pipe and backfilled with acceptable materials, adequately compacted to the level of the haunches of the pipe, without extra cost to the Owner. Backfilling shall be in six

(6) inch layers (compacted thickness) and shall be compacted to 100% of maximum density as determined by AASHTO T-99 (Standard Proctor). Compaction shall be obtained by use of mechanical tampers.

Acceptable material for rigid conduit shall be classified as any material that is a minimum 110 lb. per cubic ft. at 100% of maximum density by AASHTO T-99 (Standard Proctor Test), or a sand clay mix having a maximum of 20% per volume clay content. The Owner's inspector on the project will determine what is undesirable material. Material for flexible conduits is covered under installation of flexible conduits (PVC, etc.).

If water is encountered, it shall be kept six (6) inches below the bottom of the pipe in a manner acceptable to the Engineer or by pre-drainage of the soil by well points.

All pipes shall be laid in open cuts and tunneling will not be permitted unless specifically called for on the plans.

2.4 SHEETING, SHORING, AND BRACING

The Contractor shall provide and install such sheeting, shoring and bracing as may be required to properly and safely support the sides of any excavation to prevent earth movement that could endanger the work or workmen, or any existing structures, or to confine the construction within a specified area such as an easement, street right of way or City property. It shall be the Contractor's responsibility to place this sheeting, shoring and bracing utilizing sound, safe and practical means/methods without the City Engineer's instructions. Sheeting shall not be installed by vibratory hammer, impact methods or any other method that may cause damage to surrounding structures without prior approval by the City Engineer. Such sheeting, shoring and bracing will be considered as being for the Contractor's convenience and benefit and all costs of furnishing, installing and removing same shall be borne by him unless listed as a separate item in the bid proposal.

All sheeting, shoring and bracing shall be carefully removed when sufficient backfill has been placed to prevent damage to the work and/or existing structures. All voids shall be immediately backfilled with approved materials and compacted.

Steel drag shields, slip joints/bracing or trench boxes may be used at the option of the Contractor, as approved by the City Engineer. Voids left by the advancement of the shield shall be carefully backfilled and compacted in accordance with trench backfill requirements.

2.5 CASING

Where designated on the plans, steel casing shall be provided between the limits shown. Casing shall be Grade B Steel Pipe, minimum yield strength 35,000 PSI, conforming to ASTM A-53 or AWWA C-202 for Mill Pipe and ASTM A-139 for AWWA C-201 for Fabricated Pipe. Diameter shall be as shown on plans.

Casing shall be bored and jacked into place at an elevation and grade compatible with the finished pipe invert as shown on plans.

Casing joints shall be arc welded by operators qualified in accordance with American Welding Society Standard Procedure.

2.6 DEWATERING

Ample means shall be provided during construction to remove and dispose all water entering trench and structure excavations. Said dewatering shall continue during construction to keep the ground water below the level of backfill at all times.

The Contractor may use any dewatering method he deems feasible to comply with the above conditions.

Discharge from the dewatering system shall be such that it will not endanger public health, damage property, or adversely affect any portion of the work under construction. Care should be taken to prevent the washing of soil into watercourses or storm sewers during discharge. The contractor shall be financially responsible for the sampling and testing of up to 5 samples in an effort to obtain an FDEP approved "clean" sample. If after 5 samples a contaminant is still present in the groundwater, the contractor and the City Engineer will develop a plan of action for discharging the groundwater in a method acceptable to FDEP.

Cost for dewatering shall be included in the price for the related items.

2.7 PIPE LAYING

- A. Grade. Three batter boards shall be set at twenty-five (25) foot intervals with a chalk line stretched between batter boards. The line shall be tightly stretched between batter boards. The line shall be tightly stretched on a line parallel with the invert line of the proposed sewer. The exact grade for the sewer shall be obtained by measuring down from the line to the invert of each section of pipe laid.

In lieu of string line, batter boards, and grade rod, electronic instruments such as laser beam and target or other suitable devices may be used in accordance with the manufacturer's recommendations to determine the invert elevation of the pipe. When such electronic devices are used, the invert elevations of the pipe shall be checked by conventional surveying techniques and equipment at each manhole and at intervening distances between manholes not to exceed one hundred (100) feet as directed by the Engineer.

If line and grade of the pipe are found not to agree with the plans, the pipe will be removed from the ditch to a point where the line and grade do agree.

Furthermore, the Contractor at all times will have on the job site an experienced laser beam operator to constantly check the instrument as field conditions affect its accuracy and dependability.

- B. General Installation. Each piece of pipe shall be carefully inspected immediately before it is laid and any defective pipe shall be replaced with suitable pipe. Any defective pipe discovered at any time whether laid in the sewer or not shall be replaced. Pipe shall be kept clean at all times. The laying of pipe in finished trenches shall be commenced at the lowest point, with the spigot ends pointing in the direction of flow. All pipes shall be laid with ends abutting and true to line and grade. They shall be carefully centered, so that when laid they will form a sewer with uniform invert.

Pipe shall be laid accurately to the line and grade as designated on the job plans. Preparatory to making pipe joints all surfaces of the portions of the pipe to be jointed shall be clean and dry. Lubricants, primer, adhesives, etc., shall be used as recommended by the pipe or joint manufacturer's specifications. As soon as possible after the joint is made, sufficient backfill material shall be placed along each side of the pipe to offset conditions that might tend to move the pipe off line and grade.

The excavation of trenches shall be fully completed a sufficient distance in advance of the laying of the sewer, and the exposed end of all pipes shall be fully protected with an approved stopper to prevent earth, water, muck or other substances from entering the pipe.

The interior of the sewer shall be carefully freed from all dirt, cement, or superfluous material of every description as the work progresses. No pipe shall be laid in water or when the trench conditions or weather is unsuitable for such work.

Cutting of pipe for inserting fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe. Connections of incompatible pipe (cast iron to clay, etc.) shall be made with a polyvinyl chloride (PVC) coupler connection. (Fernco Transition Fittings, or approved equal.)

Standard plugs shall be inserted into the bells of all dead ends of pipes, tees, or wyes, and spigot ends shall be capped. Plugs or caps shall be jointed to the pipe or fittings in the manner as recommended by the manufacturer.

When tying into an existing sewer main the new line is to be kept plugged at an accessible downstream point to prevent accidental infiltration of sand, debris, or storm water into the existing system.

- C. Installation of Flexible Conduit (Thermoplastic). This section is intended to provide criteria for the installation of PVC, ABS, or RPM flexible sewer conduit. Installation shall be in accordance with ASTM D-2321 "Standard Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe", with the following special provisions:

1. Class I and II type soils (non-cohesive sand, crushed stone, gravel, etc.). Bedding and backfill requirements shall be similar to rigid conduit specifications. Pipe used in this soil type shall equal or exceed a pipe stiffness of 28 PSI and SDR of 41 (ASTM D-3033).

2. Class III soils (semi-cohesive fine sand, sand-clay and clay-gravel). Bedding and initial backfill to be compacted to a minimum of 90% Standard Proctor Density and excess moisture is to be avoided. Pipe used in this soil type shall equal or exceed a pipe stiffness of 40 PSI and an SDR of 38 (ASTM D-3034).
3. Class IV soil (cohesive silt, silty-clay and clay). This type soil may be used for bedding material only, but extreme care must be taken to provide a uniform, undisturbed trench bottom. It may not be used for initial backfill. Pipe shall meet criteria similar to Class III soils.

Insertion of PVC or ABS type sewers into manholes shall include a water stop to prevent infiltration along the wall of the pipe.

Thermoplastic pipe placed in casing shall be fitted with four treated wood skids to provide circumferential bracing, thereby preventing the pipe bells from resting on the casing wall. Skids should be extended for the entire length of the pipe with the exception of the bell and spigot area. Fasten skids securely with heavy steel strapping or wire. Skids should be lubricated before insertion in the casing. Petroleum products such as oil and grease should not be used.

2.8 BACKFILLING

Backfilling shall be carefully done so as to prevent undue strains on the pipe. No wood, stumps, roots, construction debris, or other deleterious substances shall be incorporated in the backfill.

A. General

The Contractor shall obtain a well compacted bed, and fill and compact along the sides of the pipe to a point one (1) foot above the top of the pipe. Backfill shall be placed in six (6) inch layers (compacted thickness) and shall be compacted to 100% of maximum density as determined by AASHTO T-99 (standard proctor).

Compaction shall be accomplished by the use of mechanical tampers. The working face of the tampers shall not exceed 30 square inches in area. The width of the trench that is to be compacted is the width of the natural ground that is disturbed by excavation.

B. Backfill in areas subject to traffic

Backfill and compaction between the haunches of the pipe and one (1) foot above the top of the pipe shall be accomplished as discussed in Section 2.8.A above.

Above the one (1) foot point, the contractor shall backfill the remainder of the trench in six (6) inch layers (compacted thickness). Each layer shall be compacted to 100% of maximum density as determined by AASHTO T-99 (standard proctor).

C. Backfill in areas not subject to traffic

Backfill and compaction between the haunches of the pipe and one (1) foot above the top of the pipe shall be accomplished as discussed in Section 2.8.A above.

Above the one (1) foot point, the contractor may fill the remainder of the trench in three (3) layers and compact by pounding or other means to a compaction at least equal to the surrounding undisturbed material. The amount of this compaction will be controlled by the City Inspector.

2.9 **MANHOLE CONSTRUCTION**

- A. Brick. Manholes shall be constructed as shown on the plans. The tops shall be set to proper grade as directed by the Engineer. All brick shall have mortar joints both horizontally and vertically. The horizontal mortar joints shall be one-half (1/2) inch. The vertical mortar joints will vary from one-fourth (1/4) inch at the inside face of the manhole to the width necessary to have a uniform joint around the outside of the manhole. The brick pattern for all manholes will be as specified by the Engineer. All brick shall be thoroughly wetted before laying. The mortar shall be composed of one part Portland cement, two (2) parts sand, and one-tenth (1/10) part hydrated lime. Manhole walls will be eight (8) inches thick for twelve (12) feet of depth. At twelve (12) feet, the walls will increase in thickness twelve (12) inches and below that depth, the wall thickness will increase four (4) inches for every additional four (4) feet of depth.

All inside surfaces of the manhole and the outside of the manhole on the corbel bricks shall be plastered and troweled smooth with 3/4 inches of mortar composed of one part cement to two parts sand. Where ground water exists, the outside of the manhole shall be plastered up to a line one foot above the ground water elevation.

- B. Precast Concrete. Manholes shall be constructed of precast sections meeting the requirements of ASTM C-478 except as modified herein.

Bases may be cast integral with bottom section or formed separately and the bottom section set in place just prior to the initial set. In either case the base must project 6" beyond the exterior manhole wall.

Joints are to be pre-primed for RAMNEK premolded Plastic Joint Sealer or tongue recessed for o-ring rubber gasket. No grouting will be permitted.

Coating (applies to sanitary manholes only). Surfaces are to be etched with a 20% solution of muriatic acid, flushed completely to remove all foreign matter, and allowed to dry. The interior surfaces are to be given a primer of thinned coal tar epoxy (Koppers Bitumastic #300-M or approved equal) and subsequent coats should be applied within 48 hours. All surface defects are to be thoroughly coated or, if sufficiently large, mortared prior to etching. The exterior, below ground surfaces are to be given two coats of unthinned coal tar based bituminous paint (Koppers, Super Service Black or approved equal) for a total dry film thickness of 2.4 mils.

- C. General. Invert channels shall be smooth, accurately shaped, and in accordance with the plans. Invert may be formed directly in the concrete of the manhole base; be constructed by laying full section sewer pipe straight through the manhole and cutting out the top half after the concrete base is constructed and sufficiently set; or formed of 1:2:4 concrete properly mixed and finished. The channel depth must be equal or greater than the pipe radius.

Cast iron steps shall be installed as shown on the plans. All holes in precast manhole sections shall be thoroughly plugged with approved non-shrinking grout, applied and cured in conformance with the manufacturer's recommendation. All openings for stormwater pipes shall be provided with a minimum 12" concrete collar poured outside of the manhole. The Contractor is to ensure that all openings are properly sealed, and that the manhole interior has a smooth finish.

Frames and covers shall be set in a full bed of mortar forming a water-proof joint. A ring of mortar at least one inch thick and pitched to shed water away from the frame shall be placed around the outside of the bottom flange. Mortar shall extend to the outer edge of the masonry and be finished smooth.

2.10 TESTING (INFILTRATION)

- A. Sanitary Sewer. Leakage into the sewer shall not exceed a maximum of 200 gallons per inch of diameter per day per mile of sewer for any section between successive manholes. If, in the opinion of the Engineer, infiltration appears excessive, the amount of leakage shall be measured by a suitable weir as directed by the Engineer and at the Contractor's expense. When the infiltration exceeds the specified amount, correction shall be made to the satisfaction of the Engineer.

The City may perform an air test at its own expense to assure a sound sewer main with proper joints. Following cleaning, all outlets will be sealed. Air shall be added slowly until the internal air pressure is 4.0 psig. In cases where the pipe is installed below the water table, the air pressure shall be increased 0.433 psig for each foot or fraction thereof that the ground water is above the pipe invert. The pressure shall be held at 4.0 psig for five minutes to allow the air temperature to stabilize. Additional air shall be added as needed. The air supply is then disconnected. The pressure gauge is carefully observed and when pressure drops to 3.5 psig (or adjusted pressure), the time is observed for an additional one psig drop (3.5 to 2.5 or adjusted pressure).

<u>Pipe size</u>	<u>Minimum Time (min:sec)</u>	<u>Times Per Foot (seconds)</u>
4	1:53	0.190 L
6	2:50	0.427 L
8	3:47	0.760 L
<u>Pipe size</u>	<u>Minimum Time (min:sec)</u>	<u>Times Per Foot (seconds)</u>
10	4:43	1.187 L
12	5:40	1.709 L
15	7:05	2.671 L

- B. Storm Sewer. The Engineer reserves the right to reject any section of the sewer if the infiltration exceeds the allowable rate for the size of pipe as tabulated below:

<u>Pipe Size</u>	<u>Maximum Allowable Rate of Leakage in Gallons per 1000 ft. of Pipe per 24 hrs.</u>
15" & smaller	2000
18" thru 30"	5000

2.11 SERVICE LATERALS

The Contractor shall place 45 degree wyes in the sewer main where directed by the Engineer. A 1/8 bend shall be installed on the wye and service branches run from the bend to points and on grades as designated by the Engineer. Inverts of sewers at property lines are to be so established as to provide a minimum grade of two (2) percent to the house. Wyes and branch extensions shall be suitably plugged with an approved stopper. The Contractor shall be responsible for accurately measuring and reporting the location of all wyes.

2.12 RESTORATION AND CLEAN-UP

- A. Concrete curb and gutter. Concrete curb and gutter removed from sewer installation shall be replaced to the line and grade that existed prior to removal. The removed curb and gutter sections may be reused if, in the opinion of the Engineer, they are not damaged. Otherwise new concrete curb and gutter sections shall be poured.
- B. Driveways and Walks. Sawed joints shall be used where necessary on all concrete driveways and walks to be broken out and replaced. The saw cut shall be not less than one (1) inch deep and shall be made perpendicular to the edge of walks and parallel to the centerline of the ditch for driveways.
- C. Shrubbery, Grass, Fences, etc. All shrubbery and lawn grass lying within the area of excavation shall be removed carefully and protected until they can be replaced in their original locations. When fences, retaining wall, patios, etc., are removed, they shall be carefully restored as nearly as possible to their original condition. Contractor shall adhere to the Engineer's decision regarding the condition of restored property.
- D. Felled trees and unsightly materials and conditions caused by the construction operations shall be removed from the construction site and disposed of in a manner acceptable to the Engineer.

Payment for the above-mentioned items of restoration and clean-up shall be included in the Contractor's unit price bid for sewer pipe unless the item is specifically shown on the proposal form as a separate unit price proposal.

2.13 MEASUREMENT

- A. Gravity sewer pipe will be measured by the linear foot for each different pipe diameter and depth increment in place. Where pipe is not laid through a manhole, the gap across the manhole will not be paid for; however, pipe laid through a manhole will be paid for at the unit price proposal.

- B. Wyes, Tees, Bends, Valves, and Miscellaneous Fittings will be measured as individual units in place, but the length of each section will be deducted from the length of the sewer pipe installed.
- C. Manholes and Lampholes will be measured as individual units in place within specified depth increments. Manholes will be measured from the top of the bottom of the slab to the top of the manhole cover. Lampholes will be measured vertically from the invert of the main pipe to the top of the lamphole cover.

2.14 PAYMENT

Payment for all items will be made at the unit prices as bid in the proposal or as specified in construction plans, and shall be full compensation for all materials, labor, tools and equipment necessary to complete the work according to these specifications and the plans. Method of payment will be as previously described.

SECTION 3 EROSION/POLLUTION CONTROL

3.1. SCOPE

The work consists of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air from construction activities.

3.2. MATERIAL

All material furnished shall meet the requirements of the Erosion Control Notes/Details the Construction Plans

3.3. EROSION AND SEDIMENT CONTROL MEASURES AND WORKS

The measures and works shall include, but are not limited to, the following:

Staging of earthwork activities—The excavation and moving of soil materials shall be scheduled to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.

Seeding—Seeding to protect disturbed areas shall occur as soon as reasonably possible following completion of that earthwork activity.

Mulching—Mulching to provide temporary protection of the soil surface from erosion.

Diversions—Diversions to divert water from work areas and to collect water from work areas for treatment and safe disposition. They are temporary and shall be removed and the area restored to its near original condition when the diversions are no longer required or when permanent measures are installed.

Stream crossings—Culverts or bridges where equipment must cross streams. They are temporary and shall be removed and the area restored to its near original condition when the crossings are no longer required or when permanent measures are installed.

Sediment basins—Sediment basins collect, settle, and eliminate sediment from eroding areas from impacting properties and streams below the construction site(s). These basins are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Sediment filters—Straw bale filters or geotextile sediment fences trap sediment from areas of limited runoff. Sediment filters shall be properly anchored to prevent erosion under or around them. These filters are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Waterways—Waterways for the safe disposal of runoff from fields, diversions, and other structures or measures. These works are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Other—Additional protection measures as specified in section 8 of this specification or required by Federal, State, or local government.

3.4. CHEMICAL POLLUTION

The contractor shall provide watertight tanks or barrels or construct a sump sealed with plastic sheets to dispose of chemical pollutants, such as drained lubricating or transmission fluids, grease, soaps, concrete mixer washwater, or asphalt, produced as a by-product of the construction activities. At the completion of the construction work, sumps shall be removed, and the area restored to its original condition as specified in section 8 of this specification. Sump removal shall be conducted without causing pollution.

Sanitary facilities, such as chemical toilets, or septic tanks shall not be located next to live streams, wells, or springs. They shall be located at a distance sufficient to prevent contamination of any water source. At the completion of construction activities, facilities shall be disposed of without causing pollution as specified in section 8 of this specification.

3.5. AIR POLLUTION

The burning of brush or slash and the disposal of other materials shall adhere to state and local regulations.

Fire prevention measures shall be taken to prevent the start or spreading of wildfires that may result from project activities. Firebreaks or guards shall be constructed and maintained at locations shown on the drawings.

All public access or haul roads used by the contractor during construction of the project shall be sprinkled or otherwise treated to fully suppress dust. All dust control methods shall ensure safe construction operations at all times. If chemical dust suppressants are applied, the material shall be a commercially available product specifically designed for dust suppression and the application shall follow manufacturer's requirements and recommendations. A copy of the product data sheet and manufacturer's recommended application procedures shall be provided to the engineer 5 working days before the first application.

3.6 MAINTENANCE, REMOVAL, AND RESTORATION

All pollution control measures and temporary works shall be adequately maintained in a functional condition for the duration of the construction period. All temporary measures shall be removed, and the site restored to near original condition.

3.7. MEASUREMENT AND PAYMENT

For items of work for which lump sum prices are established in the contract, or as specified in construction plans, payment will be prorated and provided in equal amounts on each monthly progress payment estimate. The number of months used for prorating shall be the number estimated to complete the work as outlined in the contractor's approved construction schedule. The final month's prorate amount will be provided with the final contract payment. Payment as described will constitute full compensation for completion of the work.

Compensation for any item of work described in the contract, but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items, and the items to which they are made subsidiary, are identified in section 8 of this specification.

SECTION 4

REINFORCED CONCRETE

4.1 SCOPE OF WORK

The work covered in this section of the specifications consists of furnishing all materials and equipment and performing all necessary labor for proper execution of the work in strict accordance with the plans and specifications.

4.2 COMPOSITION OF MIX

Unless otherwise shown on the plans the Contractor shall furnish concrete with the following characteristics:

Class of Concrete	Minimum Cement Content Sacks/Cu.Yd	Maximum Water/ Cement Ratio in Gal./Sack	28 Day Min. Compressi on Strength PSI	Slum p Inche s
A	6.0	5.75	3500	2-4
B	5.5	6.50	3000	2-4
C	5.0	7.00	2500	2-4

The quantity of water is the total water allowed in the mix, including the free water in the aggregates and adjustments must be made accordingly during batching.

The Contractor shall submit the exact proportions of the mix he intends to use which must be proved by preliminary cylinder tests at least 20 days before it will be used. The proposed mix is subject to the approval of the Engineer who may call for additional cement without extra cost to the City if the mix adopted does not attain the required strength.

4.3 CEMENT

All cement used shall comply with ASTM specifications C-150-67 for Portland Cement or subsequent revisions thereof. Unless otherwise specified, normal Portland Cement (Type 1) will be used, different brands of cement shall not be mixed and mill certificates for all cement used in the work shall be furnished by the Contractor when requested.

NOTE: FLY ASH is not cement per City of Pensacola specifications.

4.4 COARSE AGGREGATE

Coarse aggregate shall consist of clean, tough, durable gravel (quartz), or stone (rock).

When subjected to the Los Angeles Abrasion Test the loss shall be not more than 45% for gravel or not more than 40% for stone.

All coarse aggregate shall be washed and shall be free from disintegrated pieces, salt, alkali, vegetable matter and adherent coatings. The weight of extraneous substances shall not exceed the following percentages:

Coat and lignite	1.00%
Clay lumps	0.05%
Soft fragments	10.00%
Cinders and clinkers	0.50%
Free shells	1.00%
Sticks (wet)	0.03%
Material passing the No. 200 sieve	1.75%

In addition, the sum of the percentages of all substances noted in the above table shall not exceed 10.

The gradation requirements for coarse aggregate in percent by weight passing square opening sieves shall be as follows:

Sieve	Percent by Weight Passing
1 1/2" Sieve	100
1" Sieve	95-100
3/4" Sieve	75-100
1/2" Sieve	35-70
3/8" Sieve	5-30
No. 4 Sieve	0-7

The gradation represents the extreme limits for the various sizes indicated, which will determine the suitability for use of coarse aggregate from all sources of supply. Once approved, the gradation shall be held reasonably uniform and not subject to the extreme percentages of gradation specified above.

4.5 **FINE AGGREGATE**

Fine aggregate shall consist of sand composed only of strong, durable, uncoated grains of quartz, and reasonably free from lumps of clay, soft or flaky particles, salt, alkali, organic matter, loam or other extraneous substances. The weight of extraneous substances shall not exceed the following percentages:

Material passing the No. 200 sieve	3.0%
Shale	1.0%
Coal and lignite	1.0%
Clay lumps	1.0%
Cinders and clinkers	0.5%

In addition, the sum of the percentages of all materials listed in the above table shall not exceed five (5).

The fine aggregate shall be subjected to the calorimetric test for organic impurities and if the color produced is darker than the standard solution, the aggregate shall be rejected, unless it is shown by adequate tests that the impurities causing the color are not harmful to the Portland Cement concrete.

The fine aggregate shall be reasonably well graded from course to fine and shall meet the following requirements in percent of total weight:

Total Retained On	Percent
No. 4 Sieve	0-5
No. 8 Sieve	0-15
No. 16 Sieve	3-35
No. 30 Sieve	30-75
No. 50 Sieve	65-95
No. 100 Sieve	95-100

The preceding gradation for fine aggregate represents the extreme limits which will determine the suitability for use of fine aggregate from all sources of supply. The gradation of fine aggregate from any one source shall be reasonably uniform and not subject to the extreme percentages of gradation specified previously.

4.6 **WATER**

The water for use with cement shall be fresh, clean, and practically free from oil, acid, alkali, chlorides, organic matter or other deleterious substances. Water from City water supplies or other sources which are approved by a Public Health Department official may be accepted without being tested.

4.7 **REINFORCING**

- A. **Steel:** Reinforcing steel shall be new billet stock of intermediate grade, unless noted otherwise, and shall conform to the requirements of ASTM Serial A 615. Deformations shall comply with ASTM Serial A615-68. Mill certificates for all steel used in the work shall be furnished by the Contractor when requested.

Steel reinforcement shall be stored on platforms above ground and shall be protected from damage and surface deterioration caused by exposure to conditions producing rust. When placed in the work, bars shall be free from dirt, rust, scale, dust, paint, oil, or other foreign matter and shall be free of structural defects.

All reinforcing steel shall be in place, firmly supported and wired before the placing of concrete. Slab bolsters, beam bolsters or high chairs, shall be utilized to insure proper placement of the steel. The wire not smaller than No. 16 gauge black annealed wire shall be used for tying reinforcing steel. Steel placement shall conform to the CRSI Recommended Practice for Placing Reinforcing Bars, latest edition.

Bars shall be cold framed to the dimensions shown on the drawings and shall have standard bends or hooks as specified in the ACI Building Code Requirements for Reinforced Concrete (ACI 318-17). Welded wire fabric shall conform to ASTM Specifications A-87-62T or A-185-64.

- B. **Fiber:** When FIBER REINFORCEMENT is specified, a minimum of one (1) pound of synthetic fibers is required per cubic yard.

4.8 **TESTS**

To determine the quality of concrete used in the work the Engineer shall request test cylinders at no cost to the Contractor. The test cylinders shall be made and cured in accordance with ASTM Designation C39-66. Two (2) cylinders shall be tested at seven (7) days, and two (2) at twenty- eight (28) days.

The two 28-day cylinders shall constitute a strength test. To conform to the requirements of these specifications, the average strength of all the 28-day cylinders representing each class of concrete as well as the average of any five consecutive strength tests representing each class of concrete shall be equal to, or greater than, the specified strength and not more than one strength test in ten shall have an average value of less than 90% of the specified strength.

4.9 MEASURING AND MIXING

Fine and coarse aggregate shall be measured in gated hoppers or weighed. Concrete shall be mixed in a standard type batch mixer until there is a uniform distribution of materials. The entire contents of the drum shall be discharged with a satisfactory degree of uniformity before recharging. The volume of materials placed in the mixer shall not exceed the manufacturer's rated capacity of the mixer. The mixer shall be operating at the speed recommended by the manufacturer. Mixing time shall be measured from the time all cement and aggregates have entered the drum and shall be not less than 90 seconds.

4.10 TRANSIT OR READY MIXED CONCRETE

Transit or ready mixed concrete shall conform to the specifications and tests herein described. The concrete shall be mixed not less than 50 revolutions nor more than 100 revolutions at the rate of rotation designated by the manufacturer of the equipment, after which the concrete shall be agitated at the rate of 2 to 4 r.p.m. until placed. All concrete shall be mixed and delivered in accordance with the standard specifications of the ASTM for ready mix concrete, C-94. Concrete delivered to the job site and rejected for not conforming to specifications shall not be returned for use after alteration of the mix. Water shall not be added to any concrete mixture after departure from the central plant unless supervised by an authority responsible for certification of concrete quality. However, this will not relieve the Contractor from the responsibility of replacing concrete that does not pass the required cylinder compression test. The trip ticket shall clearly state the class of concrete delivered, not the compressive strength;
i.e. for Class A concrete the trip ticket must show: "City of Pensacola Class A Concrete".

4.11 PLACING

Concrete shall be mixed only in such quantity as is required for immediate use and shall be completely discharged within sixty (60) minutes after addition of the cement to the aggregates. A ticket, showing the time of batching the concrete shall accompany each batch.

Forms shall be clean. Cleanouts shall be placed as directed by the Engineer to facilitate the removal of wood chips, sawdust, and other foreign material prior to placing of concrete. Concrete shall be deposited on clean wet forms as nearly as practicable to its final position to avoid segregation. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the spaces between the reinforcement. The placement of concrete shall be carried on as a continuous operation and not more than twenty (20) minutes shall elapse between the depositing of successive batches of concrete in any monolithic unit. At no time shall concrete be placed until all forms and reinforcing steel have been inspected and approved by the Engineer.

4.12 CURING

For surfaces on which forms are kept continuously in place for a period of three days or more no further curing will be required. All other surfaces shall be cured for an initial period of not less than 72 hours by covering completely with wet burlap, sisal paper or other fabric which shall be soaked with water for the entire curing period.

All sections not properly cured or that have been broken or damaged, or that are not true to line and grade, or that are not properly finished, shall be removed and replaced immediately in a satisfactory manner by the Contractor at his own expense.

4.13 PAYMENT

Cost of all work under this section shall be included in the price bid for applicable sections of the work.

SECTION 5

CONCRETE SIDEWALKS, CURBING, CURB AND GUTTER, VALLEY GUTTER

5.1 SCOPE OF WORK

The work specified in this section consists of the construction of sidewalks, curbing, curb and gutter, or valley gutter, of Portland cement concrete. Such work is to be constructed in accordance with the City's Standard Specifications and in conformance with the lines, grades, dimensions, and notes as shown on the plans.

5.2 COMPRESSIVE STRENGTH

All concrete in sidewalks, curbing, valley gutter, and standard curb and gutter shall be Class "B" concrete as specified in Section 3.

5.3 GRADING

Grading shall include the removing and disposing of the existing curb, gutter and sidewalks and the excavation or fill necessary to bring the subgrade to the proper line, grade and contour after compacting and consolidating same by rolling, tamping and watering. Subgrade or base upon which the curb, curb and gutter or valley gutter is to be set shall meet compaction requirements set forth in Section 5. All roots, loam or other objectionable material shall be removed to a depth of at least two (2) feet below the top of the finished subgrade and the resultant holes filled with a suitable material and compacted by tamping.

Excess material not used in constructing fills shall be removed and deposited at a location to be provided by the Contractor.

5.4 FORMS

Forms for this work shall be made of either 2" surfaced lumber or of metal of approved section with a flat surface on top. They shall be straight, free from warp or bends and of sufficient strength, when staked, to resist the pressure of the concrete without deforming. Forms shall have a depth equal to the plan dimensions for the depth of the concrete being deposited against them. Forms for combination curb and gutter shall be so constructed as to insure fastening of the forms to each other.

5.5 PLACING CONCRETE

No concrete shall be placed prior to the approval of the subgrade and form work by the Engineer or his duly authorized representative. No concrete shall be placed in inclement weather. Concrete proportioned as previously specified shall immediately be placed between the forms on the prepared subgrade. It shall, with a minimum amount of handling, be deposited evenly and slightly in excess of the required finished depth. It shall then be screeded to its proper elevation using suitable tools so as to produce a dense homogeneous concrete free from voids and stone pockets (honeycombing).

5.6 **FINISHING CONCRETE**

All surplus water, laitance or inert material shall be worked off the surface of the concrete with a straight edge.

- A. Sidewalks. The concrete shall be given a float finish with tools approved by the inspector. When so finished, surface variations shall not exceed 1/8 inch under a ten (10) foot straight edge, and not more than 1/16 inch on the four (4) foot transverse section. The edges of the sidewalk shall be carefully finished with an edging tool having a radius of 1/2 inch. When the concrete has sufficiently set, the float finish shall be brushed with a broom to the final finish grade. The sidewalk shall be marked into six (6) foot sections with an approved tool that will give a 1/2 inch deep marking. Expansion joints shall be provided at thirty (30) foot intervals.
- B. Curb, Valley Gutter, Curb and Gutter. The top of the curbing or gutter shall be floated smooth and the edges rounded to the radius shown on the plans or City Standards. Unless otherwise shown on the plans, curb, curb and gutter and valley gutter shall be constructed in uniform ten (10) foot intervals.

5.7 **CURING**

The impervious curing compound used shall form a continuous uniform film. It shall be of a consistency suitable for spraying and be free of precipitated matter caused by conditions of storage or temperature.

The compound shall be relatively non-toxic and contain a dye to assist in securing uniform coverage. The liquid curing compound shall be of such nature as not to react harmfully with the wet concrete. It shall leave the concrete free from pronounced change in color other than a slight darkening, and free from objectionable discoloration.

If a delay in application should occur which permits the concrete surface to dry, the surface of the concrete shall be thoroughly moistened with water immediately prior to application of the compound. Upon removal of the forms, the sidewalk sides shall be immediately and thoroughly moistened after which they shall be sprayed with a compound as specified above.

5.8 **PROTECTION**

Concrete surface, after membrane compounds have been applied, shall be kept free from all foot and vehicular traffic or other sources of abrasion for a minimum of 24 hours. Plank crossovers shall be furnished at all building entrances for a period of 24 hours, to protect the finished surface.

5.9 **PAYMENT**

All work specified under this section shall be paid for at the unit price bid per lineal foot of concrete curb, valley gutter, curb and gutter, or the unit price bid per square foot of four (4) inch or six (6) inch sidewalk, or as specified in construction plans.

SECTION 6

SUBGRADE

6.1 SCOPE OF WORK

The work covered by this section of the specifications consists of furnishing all labor, equipment and materials and in performing all operations in connection with the construction of a compacted subgrade complete in strict accordance with the plans and specifications.

6.2 SUBGRADE LIMITS

The work shall consist of bringing the bottom of excavations and top of embankments of the roadway, between the outer limits of the base course, paving or outer line of curb and gutter, to a surface conforming to the grades, lines and cross-sections shown in the plans. All fills shall be constructed in layers not to exceed six (6) inches in thickness and each layer shall be completely compacted before placing the following layer. The entire subgrade in both cuts and fills shall be of uniform density and shall meet compaction requirements to a depth at least six (6) inches below grade.

6.3 REMOVING UNSUITABLE MATERIAL

All soft and yielding material, and other portions of the subgrade which will not compact readily, shall be removed and replaced with suitable material and the whole subgrade brought to line and grade with proper allowance for subsequent compaction. All unsuitable material, submerged stumps, roots and other perishable matter encountered in the preparation of the subgrade shall be removed to a depth at least 18" below finished subgrade.

6.4 SAMPLES AND TESTING

All samples of materials shall be supplied by the Contractor at his expense. All tests necessary to determine the requirements specified herein will be performed under the supervision of the Engineer without cost to the Contractor. All materials shall be approved by the Engineer prior to use in the work.

6.5 COMPACTION

The subgrade sections in both cuts and fills shall be compacted to meet the density requirements shown below. The densities specified are the percentages of the maximum density as determined by the Standard Proctor AASHTO T-99. The minimum density which will be acceptable at any location within the subgrade section will be 100 percent of the maximum density.

Density tests will be made at approximate intervals not exceeding 500 feet. At least three tests shall be made for each lift and area being compacted in one operation.

Blading, rolling, and compacting shall continue until the surface is smooth and free from waves and inequalities and meets the density requirements. If at any time the subgrade is excessively moistened by rain, it shall be aerated by means of blade graders or other approved equipment until the moisture content of the subgrade is satisfactory to the Engineer, and the surface then re-compacted and finished as specified above. In the event the subgrade dries out it shall be scarified to the depth necessary, water shall be added in the necessary increments, and the subgrade re-shaped and re-rolled to meet the requirements of the typical cross-section as well as the density requirements.

6.6 TESTING OF SURFACE

Immediately after the subgrade meets the compaction requirements it shall be tested as to crown and elevation by the use of elevation stakes or by other means approved by the Engineer. Where the subgrade is found not to be at the proper elevation, material shall be removed or added, as the condition necessitates, and compacted to bring all portions of the subgrade to the correct elevation and to the specified density.

6.7 SHOULDERS AND SLOPES

When the work under the contract includes paving, the earthwork, including the slopes, and all drainage structures shall have been substantially completed before the construction of the pavement is started.

Where there are sidewalks, the shoulders shall be dressed to such a grade as to conform with a straight grade from the line of the sidewalk to the top of the curb. The shoulders of streets where there are no sidewalks shall be finished to a slope of four on horizontal to one on vertical. If, in the interest of the property owner, a slope steeper than 4:1 is desirable, the Engineer shall determine the required slope but under no circumstances will it be steeper than 2:1.

6.8 CLEANUP

After completion of the paving in an area the Contractor shall dispose of all surplus earth, debris, and other material in such manner as may be approved by the Engineer. Grass plots or area between the curb and sidewalk line shall be neatly leveled and dressed. The Engineer, in the best interest of the property owners, shall determine the time the cleanup is acceptable.

6.9 PAYMENT

The cost of this work shall include pay items in the unit price bid per unit of base completely in place as shown on the plans, or as specified in construction plans, and shall include all work, labor, material, equipment, and tools necessary to complete the subgrade as planned.

SECTION 7

CRUSHED STONE BASE

7.1 SCOPE OF WORK

This section covers materials and construction for a crushed stone base, composed of limerock, for flexible pavements.

7.2 MATERIALS

The limerock material shall meet the requirements of this section. At the Contractor's option, limerock of either Miami, Ocala, or Greater Bahama formation may be used, but limerock of only one formation may be used on any contract. (Limerock may be referred to hereinafter as "rock".)

- A. Composition. The minimum percentage of carbonates of calcium and magnesium in the rock material shall be seventy (70). The maximum percentage of water-sensitive clay mineral shall be three (3).
- B. Liquid Limit and Plasticity. The liquid limit shall not exceed 35 and the plastic index shall not exceed 10.
- C. Mechanical Requirements.
 - 1. Deleterious Material. Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to proper bonding, finishing or strength of the rock base.
 - 2. Gradation and Size Requirements. At least 97% (by weight) of the material shall pass a 1 1/2" sieve and the material shall be graded uniformly down to dust. The fine material shall consist entirely of dust of fracture. All crushing or breaking up which might be necessary in order to meet such size requirements shall be done prior to placing the material on the road.
- D. Limerock Bearing Ratio (LBR) Requirements. Rock material used in construction of rock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with approved quality control procedures.

7.3 EQUIPMENT

The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness and capable of producing an even distribution of the rock. For crossovers, intersections and ramp areas; for roadway widths of twenty (20) feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders.

7.4 TRANSPORTING AND SPREADING

- A. The rock shall be transported to the point where it is to be used, over previously placed rock if practicable, and dumped at the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when, in the Engineer's opinion, these operations will not be detrimental to the base.
- B. The rock shall be spread uniformly with equipment as specified above. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.
- C. When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

7.5 COMPACTION

- A. Single-Course Bases. For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.
- B. Double-Course Bases. For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and the Engineer shall have determined that the required compaction has been obtained. After the spreading of the material for the second course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and free of scabs and laminations.
- C. Moisture Control. When the material does not have the proper moisture content to insure the required density, wetting or drying will be required. When water is added it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted.

7.6 DENSITY

The laboratory dry-density of the rock shall be a minimum of 130 lbs/ft³. As soon as proper conditions of moisture are attained, the material shall be compacted to a density of not less than 100% of maximum density as determined by the standard proctor - AASHO T99.

7.7 TESTING OF SURFACE

The finished surface of the base course shall be checked with a template cut to the required crown and with a fifteen (15) foot straightedge laid parallel to the center line of the road. All irregularities greater than 1/4" shall be corrected by scarifying and removing or adding rock as required, after which the entire area shall be recompact as specified. In testing the surface the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.

7.8 PRIMING

The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90% of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.

7.9 THICKNESS REQUIREMENT

Thickness of the base shall be measured at intervals of not more than 200 feet. Measurement shall be taken at various points on the cross section, through holes not less than three inches in diameter. If the compacted thickness is deficient by more than 1/2" from the thickness called for in the plans, the Contractor shall correct such areas by scarifying and adding rock. The base shall be scarified and rock added for a distance of 200 feet in each direction from the edge of the deficient area. The affected areas shall then be brought to the required state of compaction and the required thickness and cross section.

7.10 PAYMENT

The cost of this work shall be included in other associated pay items, and shall include the furnishing of all work, labor, materials, equipment and tools necessary to complete the base as planned.

SECTION 8

SUPERPAVE ASPHALT CONCRETE PAVEMENT

PART 1 – GENERAL

8.1.1 GENERAL

- A. Construct a Type SP Asphalt pavement for local agencies using the type of mixture specified in the Contract, or when offered as alternates, as approved.
- B. All references to the Department shall mean City of Pensacola. All references to the Engineer shall mean the designated Engineer of the City of Pensacola.
- C. The Engineer will accept the work based on one of the following methods as described in Part 5: 1) Certification, 2) Certification and process control testing by the Contractor, 3) acceptance testing by the City or 4) other method(s) as determined by the Contract.
- D. GENERAL EXCEPTIONS: Any reference to FDOT Standard Specification for Road and Bridge Construction (latest edition) Division I General Requirements & Covenants shall be excluded and not applicable to any specification referred herein, or otherwise listed in this document.

8.1.2 LAYER THICKNESSES

- A. Use only fine graded Type SP asphalt mixes. Fine graded mixes are defined as having a gradation that passes above the restricted zone when plotted on an FHWA 0.45 Power Gradation Chart.
- B. FINE MIXES: The allowable structural layer thicknesses for fine Type SP Asphalt Concrete mixtures are as follows:

Type SP 9.5 3/4 – 1 1/4 inches
Type SP 12.5 1 1/4 – 2 1/2 inches
Type SP 19.0 2- 2 3/4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on fine mixes when used as a structural course:

Type SP 9.5 - Limited to the final (top) structural layer, one layer only

Type SP 12.5 - May not be used in the first layer of courses over 3 1/2 inches thick, nor in the first layer of courses over 2 3/4 inches thick on limited access facilities.

Minimum thickness shall be 2 inches installed in two layers. The first layer shall be a minimum of 1¼-inches of Type SP 12.5 with asphalt flush with the curb and at curb inlet throat. The thickness of the new pavement may be checked by core samples, where a questionable area is present, as determined by the department.

The Contractor shall be required to correct any deficiency either by replacing the full thickness or overlaying the area as directed by the Engineer of Record and accepted by the City Engineer. City inspection shall be performed and all base failures shall be corrected prior to asphalt installation.

Type SP 19.0 - May not be used in the final (top) structural layer.

C. **ADDITIONAL REQUIREMENTS:** The following requirements also apply to fine Type SP Asphalt Concrete mixtures:

1. A minimum 1 1/2 inch initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).
2. When construction includes the paving of adjacent shoulders (5 feet wide or less), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.
3. Use the minimum and maximum layer thicknesses as specified in 1.2 B above unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by ½ inch, and the maximum allowable thickness may be increased 1/2 inch, unless shown differently in the plans.

PART 2 - PRODUCTS

8.2.1 GENERAL REQUIREMENTS

Meet the material requirements specified in FDOT Standard Specifications Division III. Specific references are as follows:

Superpave PG Asphalt Binder or Recycling Agent – Sections 916-1, 916-2
Coarse Aggregate, Stone, Slag or Crushed Gravel – Section 901
Fine Aggregate – Section 902

Aggregates utilized on City of Pensacola projects must be in accordance with FDOT Qualified Products List

8.2.2 GRADATION REQUIREMENTS

Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this Specification and conform to the gradation requirements at design as defined in Table 2.

Aggregates from various sources may be combined.

Table 2 Aggregate Gradation Control Points (Gradation Design Ranges)						
Sieve Size	Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
	Min.	Max.	Min.	Max.	Min.	Max.
1 inch	-	-	-	-	100	-
¾ inch	-	-	100	-	90	100
½ inch	100	-	90	100	-	90
3/8 inch	90	100	-	90	-	-
No. 4	-	90	-	-	-	-
No. 8	32	67	28	58	23	49
No. 200	2	10	2	10	2	8

8.2.3 RESTRICTED ZONE

The gradation identified in 2.2 shall pass above the restricted zone specified in Table 3.

Table 3 Aggregate Gradation Restricted Zone (Design Only)						
Sieve Size within Restricted Zone	Boundaries of Restricted Zone Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
	Min.	Max.	Min.	Max.	Min.	Max.
No. 4	-	-	-	-	-	-
No. 8	47.2	47.2	39.1	39.1	34.6	34.6
No. 16	31.6	37.6	25.6	31.6	22.3	28.3
No. 30	23.5	27.5	19.1	23.1	16.7	20.7

8.2.4 AGGREGATE CONSENSUS PROPERTIES

A. Meet the following consensus properties at design for the aggregate blend:

1. Coarse Aggregate Angularity: When tested in accordance with ASTM D 5821, meet the coarse aggregate angularity requirement defined in Table 4.

Table 4 Coarse Aggregate Angularity Criteria (Minimum Percent Fractured Faces)			
Depth of Top of Pavement Layer From Surface			
≤ 4 inches		> 4 inches	
1 or More Fractured Faces (%)	2 or More Fractured Faces (%)	1 or More Fractured Faces (%)	2 or More Fractured Faces (%)
85	80	60	-

2. Fine Aggregate Angularity: When tested in accordance with AASHTO T- 304, meet the fine aggregate angularity requirement defined in Table 5.

Table 5 Fine Aggregate Angularity Criteria (Minimum Percent Fractured Faces)	
Depth of Top of Pavement Layer From Surface	
≤ 4 inches	> 4 inches
Minimum Uncompacted Void Content (%)	Minimum Uncompacted Void Content (%)
45	40

3. Flat and Elongated Particles: When tested in accordance with ASTM D 4791, use a ratio of maximum to minimum dimensions of 5:1 and do not exceed 10% as the maximum amount of flat and elongated particles.
4. Clay Content: When tested in accordance with AASHTO T 176, meet the sand equivalent value for fine aggregate blend defined in 45.

Table 6 Clay Content	
SP Mixes	45

8.2.5 USE OF RECLAIMED ASPHALT PAVEMENT

- A. General Requirements: Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture subject to the following:

1. The Contractor assumes responsibility for the design of asphalt mixes which incorporate RAP as a component material.
 2. For design purposes, the Contractor assumes responsibility for establishing accurate specific gravity values for the RAP material. This may be accomplished by one of the following methods:
 - a) Calculation of the bulk specific gravity value based upon the effective specific gravity of the RAP, determined on the basis of the asphalt binder content and maximum specific gravity. The Engineer will approve the estimated asphalt binder absorption value used in the calculation.
 - b) Testing of the extracted aggregate obtained through a vacuum extraction or ignition oven extraction.
 3. The amount of RAP material used in the mix is not to exceed 50% by weight of total aggregate.
 4. Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture. If oversized RAP material appears in the completed recycled mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not immediately taken, stop plant operations.
 5. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles that are soft or conglomerates of fines.
 6. Provide RAP, having minimum average asphalt content of 4.0% by weight of total mix. The Engineer may sample the stockpile to verify that this requirement is met.
- B. Binder for Mixes with RAP: Select the appropriate binder based on Table 7. The Engineer reserves the right to change binder type and grade at design based on the characteristics of the RAP binder, and reserves the right to make changes during production. Maintain the viscosity of the recycled mixture within the range of 4,000 to 12,000 poises. Obtain a sample of the mixture for the Engineer within the first 1,000 tons and at a frequency of approximately one per 4,000 tons of mix.

Table 7 Binder Grade for Mixes Containing RAP	
% RAP	Asphalt Binder Grade
<20	PG 67-22
20-29	PG 64-22
≥ 30	Recycling Agent
Note: When a PG 76-22 Asphalt Binder is called for in the Contract, limit the amount of RAP material used in the mix to a maximum of 15%.	

PART 3 - GENERAL COMPOSITION OF MIXTURE

8.3.1 GENERAL

Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the approved mix design. Aggregates from various sources may be combined.

8.3.2 MIX DESIGN

- A. Design the Type SP asphalt mixture in accordance with AASHTO PP-28, except as noted herein, to meet the requirements of this Specification. Use only previously approved designs. Prior to the production of any Type SP asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all Type SP asphalt mix design criteria. The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.
 1. Grading Requirements: Meet the gradation design ranges of Table 2.
 2. Gyratory Compaction: Compact the design mixture in accordance with AASHTO TP 4. Use the number of gyrations as defined in Table 8.

Table 8 Type SP Design Gyratory Compactive Effort			
SP Mixes	N _{initial}	N _{design}	N _{maximum}
	7	75	115

3. Volumetric Criteria: Use an air void content of the mixture at design of 4.0% at the design number of gyrations (N_{design}). Meet the requirements of Table 9.

Table 9 Mixture Densification Criteria			
SP Mixes	% G_{mm}		
	N_{initial}	N_{design}	N_{maximum}
	≥ 89.0	96.0	≤ 98.0

4. VMA Criteria: Meet the requirements of Table 10 for voids in the mineral aggregate (VMA) of the mixture at the design number of gyrations.

Table 10 VMA Criteria	
Type Mix	Minimum VMA (%)
SP 9.5	15.0
SP 12.5	14.0
SP 19.0	13.0

5. VFA Criteria: Meet the requirements of Table 11 for voids filled with asphalt (VFA) of the mixture at the design number of gyrations.

Table 11 VFA Criteria	
	Design VFA (%)
SP Mixes	65 – 75

6. Dust Proportion: Use a dust to effective asphalt binder content by weight.

Table 12 Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
No. 8 sieve and Coarser	$\pm 5.0\%$
No. 16 sieve	$\pm 4.0\%$
No. 30 sieve	$\pm 4.0\%$
No. 50 sieve	$\pm 3.0\%$
No. 100 sieve	$\pm 3.0\%$
No. 200 sieve	$\pm 3.0\%$
Asphalt Binder Content (1)	$\pm 0.3\%$
(1) Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria.	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The initial mix design will remain in effect until a change is authorized by the Engineer. In no case may the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision. A new design mix will be required for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer.

8.3.4 PAVING EQUIPMENT

- A. Mechanical Spreading and Screeding Equipment:
 - 1. General: Provide mechanical spreading and screeding equipment of an approved type that is self-propelled and can be steered. Equip it with a receiving and distribution hopper and a mechanical screed. Use a mechanical screed capable of adjustment to regulate the depth of material spread and to produce the desired cross-section.
 - 2. Automatic Screed Control: For all asphalt courses, placed with mechanical spreading and finishing equipment, equip the paving machine with automatic longitudinal screed controls of either the skid type, traveling stringline type, or non-contact averaging ski type. Ensure that the length of the skid, traveling stringline, or non-contact averaging ski is at least 25 feet. On the final layer of base, overbuild, and structural courses, and for friction courses, use the joint matcher in lieu of the skid, traveling stringline, or noncontact averaging ski on all passes after the initial pass. Furnish a paving machine equipped with electronic transverse screed controls when required by the Contract Documents.
 - 3. Inflation of Tires: When using paving machines equipped with pneumatic tires, the Engineer may require that the tires be ballasted.
 - 4. Screed Width: Provide paving machines on full width lanes that have a screed width greater than 8 feet. Do not use extendable screed strike-off devices that do not provide preliminary compaction of the mat in place of fixed screed extensions. The Contractor may use a strike-off device on irregular areas that would normally be done by hand and on shoulders 4 feet or less in width. When using the strike-off device on shoulders in lieu of an adjustable screed extension, the Contractor must demonstrate the ability to obtain an acceptable texture, density, and thickness. When using an extendable screed device to extend the screed's width on the full width lane or shoulder by 24 inches or greater, the Engineer will require an auger extension, paddle, or kicker device unless the Contractor provides written documentation from the manufacturer that these are not necessary.

5. Motor Graders: Provide two motor graders for spreading widening courses with prior approval from the Engineer only. Use motor graders that are rated at not less than 6 tons and are self-propelled and power-controlled. Mount them on smooth tread or rib-type tires (no lug types allowed) with a wheel base of at least 15 feet.

Equip the front motor grader with a spreader box capable of spreading the mix at the required rate.

6. Rollers:
 - a. Steel-Wheeled Rollers: Provide compaction equipment capable of meeting the density requirements described in these Specifications. In the event that density testing is not required, provide a tandem steel-wheeled roller weighing a minimum of 8 tons for seal rolling, and for the final rolling, use a separate roller with a minimum weight of 8 tons. Variations from these requirements shall be approved by the Engineer.
 - b. Traffic Rollers: Provide compaction equipment capable of meeting the density requirements described in these Specifications. In the event that density testing is not required, provide a self-propelled, pneumatic-tired traffic roller equipped with at least seven smoothtread, low pressure tires, equipped with pads or scrapers on each tire. Maintain the tire pressure between 50 and 55 psi or as specified by the manufacturer. Use rollers with a minimum weight of 6 tons. Do not use wobble-wheeled rollers. Variations from these requirements shall be approved by the Engineer.
 - c. Prevention of Adhesion: Do not allow the mixture to adhere to the wheels of any rollers. Do not use fuel oil or other petroleum distillates to prevent adhesion. Do not use any method which results in water being sprinkled directly onto the mixture.
7. Trucks: Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down.
8. Coring Equipment: Furnish a suitable saw or drill for obtaining the required density cores.
9. Hand Tools: Provide the necessary hand tools such as rakes, shovels, etc., and a suitable means for keeping them clean.

8.4 CONTRACTOR'S PROCESS CONTROL

- A. Personnel: Provide qualified personnel for sampling, testing and inspection of materials and construction activities. Ensure that qualifications are maintained during the course of sampling, testing and inspection. Construction operations that require a qualified technician must not begin until the Department verifies that the technician is on the CTQP (Construction Training Qualification Program) list of qualified technicians. The CTQP lists are subject to satisfactory results from periodic Independent Assurance evaluations.
- B. Calibration of the Gyratory Compactor: Calibrate the Gyratory Compactor in accordance with the manufacturer's recommendations prior to producing the mixture for any project. Check the height calibration, the speed of rotation, ram pressure and angle of gyration.
- C. Plant Testing Requirements: During the initial production of a mix design, test mix to ensure proper performance and provide results to the department.
- D. Roadway Testing Requirements: Areas that demonstrate concerns of the mix design quality or poor/improper compaction efforts, may be subject to coring and testing as seen fit by the department representative. All tests will be performed at the City's expense.
- E. Extaction Gradation Analysis: Sample the asphalt mixture at the plant and perform extraction test prior to asphalt being delivered to project. The percent asphalt binder content of the mixture will be determined in accordance with FM 5-563 (ignition oven). The gradation of the extracted mixture will be determined in accordance with FM 1-T
030. All test results will be shown to the nearest 0.01. All calculations will be carried to the nearest 0.001 and rounded to the nearest 0.01. All results to be provide to the department prior to placement of asphalt on any project.

Run an extraction gradation analysis on the mixture at a minimum frequency of once per 1,000 tons or a maximum of four consecutive days of paving, whichever comes first.

The target gradation and asphalt content will be as shown on the mix design. Any changes in target will require a change in the mix design in accordance with 4.3. If the percentage of asphalt binder deviates from the optimum asphalt binder content by more than 0.55%, or the percentage passing any sieve falls outside the limits in Table 13, immediately resample the mix and test to validate the previous test result, and if needed, make the necessary correction. If the

results for two consecutive tests deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits in Table 13 for any sieve, notify the Engineer and take immediate steps to identify and correct the problem, then resample the mix. If the results from this test deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits in Table 13 for any sieve, stop plant operations until the problem has been corrected.

Table 13 Tolerances for Quality Control Tests (Extraction Gradation Analysis)	
Xsize	Percent Passing
1 inch	7.0
¾ inch	7.0
½ inch	7.0
No. 4	7.0
No. 8	5.5
No. 16	5.0
No. 30	4.5
No. 50	4.5
No. 100	3.0
No. 200	2.0

- F. Volumetric Control: During production of the mix, monitor the volumetric properties of the Type SP asphalt mix with a Type SP Gyratory Compactor to determine the air voids, VMA, VFA, and dust-to effective asphalt binder ratio (dust proportion) at Ndesign. Take appropriate corrective actions in order to maintain an air void content at Ndesign between 3.0 and 5.0% during production. When the air void content at Ndesign drops below 2.5 or exceeds 5.5%, stop plant operations until the appropriate corrective actions are made and the problem is resolved to the satisfaction of the Engineer. Evaluate any failing material in accordance with 6. Determine the volumetric properties of the mixture at a minimum frequency of once per production day when the daily production is less than 1,000 tons. If the daily production exceeds 1,000 tons, monitor the volumetric properties two times per production day.

During normal production, volumetric properties of the mixture will not be required on days when mix production is less than 100 tons. However, when mix production is less than 100 tons per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons. Testing required for volumetric property determination includes AASHTO TP-4, FM 1-T 209, FM 5- 563 and FM 1-T 030. Prior to testing samples in accordance with AASHTO TP-4 and FM 1-T 209, condition the test-sized sample for one hour at the compaction temperature in a covered container.

- G. Plant Calibration: At or before the start of mix production, perform an extraction gradation analysis of the mix to verify calibration of the plant. The sample tested at the start of any project may be utilized for this requirement.
- H. Process Control of In-Place Compaction: Develop and implement a method to control the compaction of the pavement and ensure its compliance with the minimum specified density requirements. The department may require the use of a nuclear gauge to test areas suspected of not having proper compaction. Testing will be performed at the City's expense. Other density measuring devices may be used in lieu of the nuclear density gauge, provided that it is demonstrated to the satisfaction of the Engineer that the device can accurately measure the relative level of density in the pavement on a consistent basis.

PART 5 - ACCEPTANCE OF THE MIXTURE

8.5.1 GENERAL

The asphalt mixture will be accepted based on one of the following methods as determined by the Engineer and/or Contract Documents:

- 1) Certification by the Contractor
- 2) Certification and Process Control Testing by the Contractor
- 3) Acceptance testing by the Engineer
- 4) Other method(s) as determined by the Contract

8.5.2 CERTIFICATION BY THE CONTRACTOR

Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer that all material produced and placed on the project was in substantial compliance with these specifications.

8.5.3 CERTIFICATION AND PROCESS CONTROL TESTING BY THE CONTRACTOR

Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer that all material produced and placed on the project was in substantial compliance with these specifications, along with supporting test data documenting all process control testing. If so required by the Contract, utilize an Independent Laboratory as approved by the Engineer for the Process Control testing.

8.5.4 ACCEPTANCE TESTING BY THE ENGINEER

- A. Acceptance at the Plant: The asphalt mixture will be accepted, with respect to gradation and asphalt binder content, based on the results from the start up test. However, any load or loads of mixture which, in the opinion of the Engineer, are unacceptable for reasons of excessive segregation, aggregates improperly coated, or of excessively high or low temperature will be rejected for use in the work.
 1. Acceptance Procedures: Control all operations in the handling, preparation, and production of the asphalt mix so that the percent asphalt binder content and the percents passing the No. 8 and No. 200 sieves will meet the targets from the mix design within the tolerances shown in Table 14.

Table 14 Tolerances for Acceptance Tests	
Characteristic	Tolerance*
Asphalt Binder Content	$\pm 0.55\%$
Passing No. 8 Sieve	$\pm 5.50\%$
Passing No. 200 Sieve	$\pm 2.0\%$
*Tolerances for sample size of n=1. See Table 15 for other sample sizes n=2 through n=6.	

Calculations for the acceptance test results for asphalt binder content and gradation (percentages passing the No. 8 and No. 200 sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the 0.001 and rounded to the nearest 0.01 in accordance with the Department's rules of rounding. Payment will be based on the acceptance of the project by the Engineer.

B. Acceptance on the Roadway:

1. **Density Control:** The in-place density of any questionable section of a course of asphalt mix will be evaluated by the use of a nuclear gauge and/or by the testing of 6 inch diameter roadway cores. All tests to be performed at the City's expense. The Engineer will not perform density testing on leveling courses, open-graded friction courses, or any course which does not show signs of poor/improper compaction efforts. In addition, density testing will not be performed on the following areas when they are less than 1,000 feet in length: crossovers, intersections, turning lanes, acceleration lanes or deceleration lanes. Compact these courses (with the exception of open-graded friction courses) in accordance with the rolling procedure as approved by the Engineer.
2. **Acceptance:** The completed pavement will be accepted with respect to overall ride, overall appearance, and overall yield. Areas of question may be tested with a nuclear gauge or by the testing of the density of the cores, as determined by the engineer.
3. **Additional Density Requirement:**
 - a. On shoulders with a width of 5 feet or less, the Engineer will not require density. Compact the pavement in accordance with the rolling procedure (equipment and pattern) approved by the Engineer. Stop the production of the mix if the rolling procedure deviates from the approved procedure.

4. Surface Tolerance: The asphalt mixture will be accepted on the roadway with respect to surface tolerance by the use of a 15 ft rolling straight edge. The department will determine if the use of a straight edge is warranted. Unevenness of the course shall not vary more than plus or minus 3/16 inch in 15 feet.

8.5.5 ADDITIONAL TESTS

The Department reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

PART 6 - DISPOSITION OF FAILING MATERIAL

Any material that is represented by failing test results will be evaluated to determine if removal and replacement is necessary. Remove and replace any material, if required, at no cost to the Department. The evaluation will be conducted by the Engineer. If so directed, obtain an engineering analysis, as directed by the Engineer, by an independent laboratory (as approved by the Engineer) to determine if the material can (a) remain in place, for this case the appropriate pay factor will be applied, or (b) be removed and replaced at no cost to the Department. The analysis will be a signed and sealed report by a Professional Engineer licensed in the State of Florida.

PART 7 - METHOD OF MEASUREMENT

For the work specified under this Section the quantity to be paid for will be the in-place measurement of the area in sy unless otherwise stated in the project plan details. The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

PART 8 - BASIS OF PAYMENT

Price and payment will be full compensation for all the work specified under this section.

SECTION 9

SODDING

9.1 DESCRIPTION OF WORK

This work consists of sodding areas cleared during construction and not paved, or as otherwise shown on the Construction Plans. All material and construction methods shall be in accordance with sections 570, 571, 573, or 575 of the Florida Department of Transportation Standard Specifications, Latest Edition. Sodding: Areas noted on Construction Plans shall be sodded.

9.2 MATERIAL

Use Centipede grass (*Eremochloa ophiuroides*). The sod shall have live, fresh, and uninjured at the time of planting and shall have a thick mat of roots with enough adhering soil to assure growth. Apply sod within 48 hours of cutting or stack and keep moist. Do not plant dormant sod or if ground is frozen.

9.2.1 Placement: Prepare the ground by loosening the soil. Place sod on the prepared soil to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to avoid a continuous downhill seam. Tamp or roll lightly to ensure contact with subgrade. Tamp the outer edges of the sodded area to produce a smooth contour. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass. Immediately after planting, water sod thoroughly with a fine spray.

9.2.2 Watering: Keep sod continuously moist to a depth below the root zone for three weeks after placement. If there is not water available to the site, the Contractor shall provide the water for the sod.

9.2.3 Maintenance: Maintain sod by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, re-grading, and re-planting as required to establish a lawn free of eroded or bare areas and acceptable to the Engineer. Where inspected work and materials do not comply with requirements, replace rejected work and continue maintenance until re-inspected by Engineer and found to be acceptable. Remove rejected materials promptly from the project site.

9.3 WARRANTY

Contractor shall warranty all work and material for a period of 18 months beginning from date of acceptance of substantial completion.

9.4 MEASUREMENT AND PAYMENT:

9.4.1 Sodding shall be measured for payment in square yards or by lump sum only for areas indicated on the plans, or as provided in the proposal and contract.

9.4.2 When not listed as a separate contract pay item, sodding shall be considered as incidental work, and the cost thereof shall be included in such contract pay items as are provided in the proposal contract.

9.4.3 Compensation, whether by contract pay item or incidental work will be for furnishing all materials, labor, equipment, tools and incidentals required for the work, all in accordance with the plans and these specifications.

SECTION 11

JACK AND BORE

11.1 Description

11.1.1 Scope of Work: The work specified in this Section documents the approved construction methods, procedures and materials for Jack and Bore (J&B), also known as auger boring.

11.1.2 General: J&B is a method for installing a product (often called a casing) that may serve as a direct conduit for liquids or gases, or as a duct for carrier (Pipe, cable, or wire line products). It is a multi-stage process consisting of constructing a temporary horizontal jacking platform and a starting alignment track in an entrance pit at a desired elevation. The product is then jacked by manual control along the starting alignment track with simultaneous excavation of the soil being accomplished by a rotating cutting head in the leading edge of the product's annular space. The ground up soil (spoil) is transported back to the entrance pit by helical wound auger flights rotating inside the product. J&B typically provides limited tracking and steering as well as limited support to the excavation face.

Removal and disposition of excess material varies, is the responsibility of the boring contractor and is not covered under this Specification. However, the cost of removal or final disposition is included in the cost of the J&B operation.

No J&B conduit may be left open ended without approval of the Engineer.

11.2 Materials. Select materials approved for installation within the right-of-way based on their suitability for the construction method as defined in Table 11-2.1. After determining product suitability, individual material standards as contained in Table 11-2.2 apply.

Table 11-2.1 Product Suitability by Construction Method

Type	Pipe/Casing Installation Mode	Suitable Pipe/Casing
Jack and Bore	Jacking	Steel

Table 11-2.2 Material Standards Acceptable for J&B

Material Type	Non-Pressure	Pressure
Steel	ASTM A139 Grade B ⁽¹⁾ API 2B ⁽²⁾	AWWA C200 API 2B ⁽²⁾
⁽¹⁾ No hydrostatic test required ⁽²⁾ Dimensional tolerances only		

Unless otherwise tested and approved by the City, only use encasement pipe or uncased carrier pipe material that is new and has smooth interior and exterior walls.

When the Plans show that the casing is to be used as a drainage carrier pipe, extend the casing the entire length from drainage structure to drainage structure. When using uncased carrier pipe, use pipe meeting the requirements in 11-4.3. Maintain a uniform diameter, wall thickness and material type for the entire length of the casing.

11-2.1 Steel Pipe Casing and Welds: In addition to meeting or exceeding the conditions contained in Table 11-2.1 and Table 11-2.2, meet the following requirements:

1. The size of the steel casing must be at least 6 inches larger than the largest outside diameter of the carrier. Casing size must accommodate pressure pipe or carrier pipe joint restraints.
2. The casing pipe must be straight seam pipe, spiral seam pipe, or seamless pipe.
3. All steel pipe may be bare inside and out, with the manufacturer's recommended minimum nominal wall thicknesses to meet the greater of either installation, loading or carrier requirements.
4. All steel casing pipe must be square cut and have dead-even lengths which are compatible with the J&B equipment.

Use steel pipe casings and welds meeting or exceeding the thickness requirements to achieve the service life requirements noted in the FDOT Drainage Manual Chapter 6. For purposes of determining service life, ensure that casings installed under roadways meet or exceed cross drain requirements and casings under driveways meet or exceed side drain pipe requirements. For pipe used in drainage applications, use pipe meeting the requirements in 11-4.3. For purposes of material classification, consider steel pipe casing structural plate steel pipe. Ensure that steel pipe casing of insufficient length achieves the required length through fully welded joints. Ensure that joints are air-tight and continuous over the entire circumference of the pipe with a bead equal to or exceeding the minimum of either that required to meet the thickness criteria of the pipe wall for jacking and loading or service life. All welding shall be done in accordance with the American Welding Society Structural Welding Code- Steel D1.1.

11.3 Construction Site Requirements.

11-3.1 Site Conditions: Carry out excavation for entry, exit, recovery pits, auger slurry sump pits, or any other excavation as specified in Section 120. When using auger fluids, the sump pits must contain auger fluids if vacuum devices are not operated throughout the boring operation.

1. Within 48 hours of completing installation of the boring product, ensure that the work site is cleaned of all excess auger fluids or spoils. Removal and final disposition of excess fluids or spoils is the responsibility of the boring contractor and ensure that the work site is restored to pre-construction conditions or as identified in the Plans.
2. Restore excavated areas in accordance with the specifications and Design Standards.
3. Provide MOT in accordance with the City Design Standards and the MUTCD when and where the former is silent.
4. Ensure that equipment does not impede visibility of the roadway user without taking the necessary precautions of proper signing and Maintenance of Traffic Operations.

11-3.2 Ground Water Control: Investigate all sites for possibility of having to manage groundwater problems that may occur due to seasonal changes or natural conditions.

When ground water level must be controlled, use a system and equipment that is compatible with the properties, characteristics, and behavior of the soils as indicated by the soil investigation report.

11-3.3 Damage Restoration: Take responsibility for restoring any damage caused by heaving, settlement, separation of pavement, escaping boring fluid (frac-out) of the J&B operation at no cost to the City.

11-3.3.1 Remediation Plans: When required by the Engineer, submit detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the As- Built Plans Package. Remediation plans must follow the same guidelines for development and presentation of the As-Built Plans. When remediation plans are required, they must be approved by the Engineer before any work proceeds.

11.4 Quality Control.

11-4.1 General: Take control of the operation at all times. Have a representative who is thoroughly knowledgeable of the equipment, boring, and City procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the Engineer 48 hours in advance of starting work. Do not begin the installation until the Engineer is present at the job site and agrees that proper preparations have been made.

11-4.2 Construction Process and Approval: For all installations, submit sufficient information to establish the proposed strategy for providing the following:

1. An indication of where the leading edge of the casing is located with respect to line and grade and the intervals for checking line and grade. Indication may be provided by using a water gauge (Dutch level) or electronic transmitting and receiving devices. Other methods must have prior approval. Maintain a record of the progress at the job site.

2. Equipment of adequate size and capability to install the product and including the equipment manufacturer's information for all power equipment used in the installation.
3. A means for controlling line and grade.
4. A means for centering the cutting head inside the borehole.
5. Provide a means for preventing voids by assuring:
 - a. The rear of the cutting head from advancing in front of the leading edge of the casing by more than $\frac{1}{3}$ times the casing diameter and in stable cohesive conditions not to exceed 8 inches.
 - b. In unstable conditions, such as granular soil, loose, or flowable materials, the cutting head is retracted into the casing a distance that permits a balance between pushing pressure, pipe advancement and soil conditions.
 - c. Development of and maintaining a log of the volume of spoil material removal relative to the advancement of the casing.
6. Adequate casing lubrication with a bentonite slurry or other approved technique.
7. An adequate band around the leading edge of the casing to provide extra strength in loose unstable materials when the cutting head has been retracted into the casing to reduce skin friction as well as provides a method for the slurry lubricant to coat the outside of the casing.
8. At least 20 feet of full diameter auger at the leading end of the casing. Subsequent auger size may be reduced, but the reduced auger diameter must be at least 75% of the full auger diameter.
9. Water to be injected inside the casing to facilitate spoil removal. The point of injection shall be no closer than 2 feet from the leading edge of the casing.

11-4.3 Testing:

11-4.3.1 Testing Requirements: Ensure all casing joints meet the FDOT's watertight pressure requirements in accordance with FDOT Standard Specifications Section 430. Testing may consist of one of the following methods but must always meet or exceed FDOT testing requirements.

1. Follow the Product Manufacturer's pressure testing recommendations.
2. Carrier pipes installed without a casing must meet the pressure requirements set by the owner. If the owner does not require pressure testing, the Engineer may require at least one test.

11-4.3.2 Drainage Application Testing (Under Pavement): When under pavement (including sidewalk) and front shoulders, all J&B pipe installations must meet or exceed the FDOT's water-tight pipe and joint configuration in accordance with FDOT Standard Specifications Section 430. The Engineer will determine when and where water-tight joint requirements shall be applied to the ultimate roadway section for future widening. When under the pavement, conduct an air pressure test for leaks in the presence of the Engineer at a minimum test pressure of 20 PSI by either of the following methods.

1. 24-hour pressure test with a recording chart or,
2. A dragnet type leak detector or equivalent device capable of detecting pressure drops of 1/2 PSI for a time period recommended by the manufacturer.

11-4.3.3 Drainage Application Testing (Not Under Pavement): When J&B pipe installations are not located under the pavement, the pipe and joint configuration must meet or exceed soil-tight joint requirements. The test for a soil-tight joint allows up to 0.1 gallon of water leakage at a sustained pressure of 2 PSI. Conduct test for joint integrity for one hour.

11-4.3.4 Damaged Product Testing: When there is any indication that the installed product has sustained damage and may leak, stop the work, notify the Engineer and investigate damage. The Engineer may require a pressure test and reserves the right to be present during the test. Perform pressure test within 24 hours unless otherwise approved by the Engineer. Submit the test results to the Engineer for review and approval. The Engineer shall be allowed up to 72 hours to approve or determine if the product installation is not in compliance with specifications. The Engineer may require non-compliant installations to be filled with excavatable flowable fill at no cost to the City.

11-4.4 Product Locating and Tracking: Install all facilities such that their location can be readily determined by electronic designation after installation.

11-4.5 Augering Fluids: Use a mixture of bentonite clay or other approved stabilizing agent mixed with potable water with a minimum pH of 6.0 to create the drilling fluid for lubrication and soil stabilization. Vary the fluid viscosity to best fit the soil conditions encountered. Do not use other chemicals or polymer surfactant in the drilling fluid without written consent of the Engineer. Certify in writing to the Engineer that any chemicals to be added are environmentally safe and not harmful or corrosive to the facility. Identify the source of water for mixing the drilling fluid. Approvals and permits are required for obtaining water from such sources as streams, rivers, ponds or fire hydrants. Any water source used other than potable water may require a pH Test.

11.5 Jack and Bore and Micro-Tunneling Operations:

11.6 Documentation Requirements.

11-6.1 Boring Path Report: Submit a Bore Path Report to the Engineer within 14 days of the completion of each bore path. No payment will be made for directional boring work until the Bore Path Report has been delivered to the City. Include the following information in the report:

1. Location of project and financial project number including the Permit Number when assigned.
2. Name of person collecting data, including title, position and company name.
3. Investigation site location (Contract Plans station number or reference to a permanent structure within the project right-of-way).
4. Identification of the detection method used.
5. Spoils removal log.
6. As-built placement plans showing roadway plan and profile, cross-section, boring location and subsurface conditions as defined in Bore Path Plans below. Reference the shown plan elevations to a USGS grid system and datum.

11-6.2 As-Built Plans: Submit to the Engineer a complete set of as-built-plans showing all bores (successful and failed) within 30 calendar days of completion of the work. As-built plans must be PDF files, in the same scale as the Contract Plans. Include notes on the plans stating the final bore path diameter, facility diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the facility or facility placed out of service. If the facility is a casing, note this, as well as the size and type of carrier pipes to be placed within the casing as part of the Contract work. Produce the plans as follows:

1. On the contract plan view, show the centerline location of each facility, installed or installed and placed out of service to an accuracy within 1 inch at the ends and other points physically observed. They show the remainder of the horizontal alignment of the centerline of each facility installed or installed and placed out of service and note the accuracy with which the installation was monitored.
2. As directed by the Engineer, submit either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the Engineer, or a roadway centerline profile. Also show the ground or pavement surface and the crown elevation of each facility installed, or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed. Show the remainder of the

vertical alignment of the crown of each facility installed or installed and placed out of service and note the accuracy with which the installation was monitored. On profile plans for bore paths crossing the roadway, show the Contract Plans stationing. On the profile plans for bore paths paralleling the roadway show the Contract Plans stationing. If the profile plan for the bore path is not made on one of the contract profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

3. If a bore path is not completed, show on the plans the failed bore path along with the name of the utility owner and the final bore path. Note the failed bore path as "Failed Bore Path." Also show the location and length of the cutting head and any product not removed from the bore path.
4. Show the crown elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during subsoil investigation or the installation, show the type of material, horizontal and vertical location, top elevation and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

11.7 Compensation.

No direct payment will be made under this Section or as specified in construction plans. Include the cost to perform this operation in the Contract unit price for the item being installed.

No compensation will be made for failed bore paths, injection of excavatable flowable fill, products taken out of service or incomplete installations.

No compensation will be made for the pay item associated with the jack and bore until a Bore Path Report has been submitted to the Engineer.

SECTION 12

MONITOR EXISTING STRUCTURES

12.1 Description.

Provide settlement, vibration and groundwater monitoring in accordance with the requirements of this Section. Homes/structures located within the easement property and immediately adjacent to the easement property shall be monitored for settlement and vibration during jack and bore operations.

The work required under this Section does not modify the requirements or responsibilities for preservation of existing property from damage.

Evaluate the need for, design of, and provide any necessary precautionary features to protect existing structures from damage. Employ construction methods that will not produce damaging vibrations, soil movement, soil loss, or instability of existing structures.

12.2 Construction.

12-2.1 Inspection and Settlement Monitoring:

12-2.1.1 Miscellaneous Structures: When constructing foundations for miscellaneous structures such as sign, signal, lighting, intelligent transportation system structures, or jack-and-bore operations, inspect and document the condition of the existing structures shown in the Plans, and survey and monitor for settlement as directed.

12-2.1.2 Structures other than Miscellaneous: When excavating or constructing retaining walls and foundations for bridges, buildings, and structures other than miscellaneous structures, inspect and document the condition of the following existing structures, and survey and monitor for settlement the following existing structures:

1. as shown in the Plans.
2. within a distance of five shaft or auger cast pile diameters, or the estimated depth of drilled shaft or auger cast pile excavation, whichever is greater, measured from the center of these foundation elements.
3. within a distance of three times the depth of any other excavations.
4. within 200 feet of sheet pile installation and extraction operations.
5. within 100 feet of steel soldier pile installation and extraction operations.

6. for projects with pile driving operations, inspect and document the condition of all structures within a distance, in feet, of pile driving operations equal to
0.25 times the square root of the impact hammer energy, in foot-pounds. Survey and monitor for settlement all structures within a distance, in feet, of pile driving operations equal to 0.5 times the square root of the impact hammer energy, in foot-pounds.

12-2.1.3 Roadway Compaction Operations: When performing embankment and asphalt compaction, inspect and document the condition of the following existing structures, and survey and monitor for settlement the following existing structures:

1. as shown in the Plans.
2. within 75 feet of vibratory compaction (in any mode) operations.

12-2.1.4 Inspection and Documentation Requirements: Inspect and document the condition of the existing structures and all existing cracks with descriptions and pictures using a qualified Specialty Engineer. Prepare two reports documenting the condition of the structures: one report before beginning the construction operations that may affect the existing structures such as but not limited to foundation construction, excavations, vibratory compaction, dewatering and retaining wall construction, and a second report after completing such construction operations. Include in the reports the Specialty Engineer's assessment of any damage present, and in the event of damage, the Specialty Engineer's assessment of whether the observed damage is the result of the construction operations. Submit both reports to the Engineer. Inspecting and documenting the condition of bridges, sign, signal, lighting and ITS structures owned by the City is not required except when shown in the Contract Documents.

The City will make the necessary arrangements to provide right of way entry to the existing structures.

12-2.1.5 Settlement Surveying and Monitoring Requirements: Obtain the Engineer's approval for the number and location of monitoring points. Survey and monitor the settlement of structures, recording elevations to 0.001 foot:

1. before beginning construction
2. daily, during the driving of any casings, piling, or sheeting, jack-and-bore

3. daily, during compaction
4. daily, during foundation drilling
5. weekly, for two weeks after stopping pile driving
6. during excavation
7. during blasting
8. or, as directed by the Engineer

Upon either detecting movement of 0.005 feet or damage to the structure, immediately stop the construction operations affecting the structure, backfill any open excavations, notify the Engineer and submit a corrective action plan

SECTION 13

STORMWATER TREATMENT SOIL

1. General Filter Media Physical Composition. The mineral soil texture of the stormwater treatment soil mix should be loamy coarse sand with no more than 10% clay, no more than 20% silt + clay and at least 75% of the sand fraction should be coarse or very coarse sand.
2. To allow for appropriate Cation Exchange Capacity (CEC) and nutrient removal, the mix should contain at least 10% soil fines (silt + clay) while meeting the overall texture specification above. The particle size analysis must be conducted on the mineral fraction only or following appropriate treatments to remove organic matter before particle size analysis.
3. The Filter Media should contain 3% to 5% organic matter by conventional Walkley-Black soil organic matter determination method or similar analysis. Soil organic matter is expressed on a dry weight basis and does not include coarse particulate (visible) components.
4. The following is the recommended composition of the three media ingredients:
 - a. Sand shall consist of silica based coarse aggregate, angular or round in shape and meet the mixture grain size distribution below. No substitutions of alternate materials such as diabase, calcium carbonate, rock dust or dolomitic sands are accepted. In particular, mica can make up no more than 5% of the total sand fraction. The sand fraction may also contain a limited amount of particles > 2.0 mm and < 9.5 mm per the table below, but the overall sand fraction must meet the specification of >75% being coarse or very coarse sand.

Sieve	Size	% Passing
3/8 in	<u>9.50 mm</u>	100
No. 4	<u>4.75 mm</u>	95-100
No. 8	<u>2.36 mm</u>	80-100
No. 16	<u>1.18 mm</u>	45-85
No. 30	<u>0.60 mm</u>	15-60
No. 50	<u>0.30 mm</u>	3-15
No. 100	<u>0.15 mm</u>	0-4
Effective Particle Size (D10) > 0.30 mm		
Uniformity Coefficient (D60/D10) < 4.0		

- b. Topsoil is generally defined as the combination of the other ingredients referenced in the stormwater treatment soil media: sand, fines (silt and clay), and any associated soil organic matter. Since the objective of the specification is to carefully establish the proper blend of these ingredients, the materials supplier must carefully select the topsoil

source material in order to not exceed the amount of any one ingredient. Generally, the use of a topsoil defined as a loamy sand, sandy loam, or loam (per the USDA Textural Triangle) will be an acceptable ingredient and in combination with the other ingredients meet the overall performance goal of the soil media.

- c. Organic matter materials used in the soil media mix should consist of well- decomposed natural C-containing organic materials such as peat moss, humus,compost, pine bark fines or other organic soil conditioning material. However, per above, the combined soil mix should contain 3% to 5% soil organic matter on dry weight basis (grams organic matter per 100 grams dry soil) by the Walkley-Black method or other similar analytical technique.
 - d. It may be advisable to start with an open-graded coarse sand material and proportionately mix in the topsoil materials that may contain anywhere from 10% to 30% soil fines (sandy loam, loamy sand, loam) to achieve the desired ratio of sand and fines. Sufficient suitable organic amendments can then be added to achieve the 3% to 5% soil organic matter target. The exact composition of organic matter and topsoil material will vary, making the exact particle size distribution of the final total soil media mixture difficult to define in advance of evaluating available materials.
- 5. Available Soil Phosphorus (P). Using the Mehlich I extraction procedure, the acceptable range is 5 to 15 mg/kg P. Using the Mehlich III procedure, the acceptable range is 18 to 40 mg/kg P.
 - 6. Cation Exchange Capacity (CEC). The minimum CEC of a stormwater treatment soil media mix for pollutant removal is 5.0 (meq/100 g or cmol+/kg) or greater.

Alternate Stormwater Treatment Soil #1: High Performance Bioretention Soil Mix w/ Polishing Layer

- A. High Performance Bioretention Soil Mix (19")
 - a. 70% sand
 - b. 20% coconut coir fiber
 - c. 10% high carbon wood ash (biochar)
 - i. Classified as "Class 1" Biochar per International Biochar Initiative (IBI) guidelines (IBI 2015)
- B. Polishing Layer (12")
 - a. 90% sand
 - b. 7.5% activated alumina
 - c. 2.5% iron aggregate

Alternate Stormwater Treatment Soil #2: Bio-sorption Activated Media (BAM) Filters

- A. Bold C Gold Clay Tire Sand (CTS) filtration media or approved equal

SECTION 121 FLOWABLE FILL

121-1 Description.

Furnish and place flowable fill as an alternative to compacted soil as approved by the Engineer. Applications for conventional flowable fill include beddings; encasements; closures for tanks and pipes; and general backfill for trenches, embankments and walls. Applications for cellular concrete flowable fill include beddings; encasements; closures for tanks and pipes; and general backfill for embankments and walls.

121-2 Materials.

Meet the following requirements:

Fine Aggregate ⁽¹⁾	Section 902
Portland Cement.....	Section 921
Water	Section 923
Admixtures ⁽²⁾	Section 924
Ground Tire Rubber (GTR) ⁽³⁾	Section 919
Supplementary Cementitious Materials.....	Section 929
Preformed Foam	ASTM C869

1. Any clean fine aggregate with 100% passing a 3/8-inch mesh sieve and not more than 15% passing a No. 200 sieve may be used.

2. High air generators or foaming agents may be used in lieu of conventional air entraining admixtures and shall be added at jobsite and mixed in accordance with the manufacturer's recommendation. GTR may reduce the amount of high air generators or foaming agents used.

3. GTR may replace up to 20% of the fine aggregate.

121-3 Mix Design.

Conventional flowable fill is a mixture of portland cement, coal ash, fine aggregate, admixture and water. Flowable fill contains a low cementitious content for reduced strength development. Cellular concrete flowable fill is a low density concrete made with cement, water and preformed foam to form a hardened closed cell foam material. Cellular concrete flowable fill may also contain fine aggregate, supplementary cementitious materials and admixtures.

Submit mix designs to the Engineer for approval. Table 121-1 below has suggested mix guides for excavatable, non-excavatable and cellular concrete flowable fill:

Table 121-1			
	Excavatable	Non-Excavatable	Cellular Concrete
Cement	75-100 lb/yd ³	75-150 lb/yd ³	Min 150 lb/yd ³
Supplementary Cementitious Materials	None	150-600 lb/yd ³	Optional
Water	*	*	*
Air**	5-35%	5-15%	****
28 Day Compressive Strength**	Maximum 100 psi	Minimum 125 psi	Minimum 80 psi
Unit Weight **	90-110 lb/ft ³	100-125 lb/ft ³	20-80 lb/ft ³
Fine Aggregate	***	***	Optional
<p>*Mix designs shall produce a consistency that will result in a flowable self-leveling product at time of placement.</p> <p>**The requirements for percent air, compressive strength and unit weight are for laboratory designs only and are not intended for jobsite acceptance requirements.</p> <p>***Fine Aggregate shall be proportioned to yield 1 yd³.</p> <p>****In cellular concrete, preformed foam shall be proportioned at the job site to yield 1 yd³ in accordance with the design requirements.</p>			

121-4 Production and Placing.

Use flowable fill manufactured at a production facility that meets the requirements of 347-3. Deliver flowable fill using concrete construction equipment. Revolution counter are waived. Place flowable fill by chute, pumping or other methods approved by the Engineer.

Tremie flowable fill through water. Cellular concrete flowable fill may not be placed within three feet of the bottom elevation for roadway base courses.

121-5 Construction Requirements.

Use straps, soil anchors or other approved means of restraint to ensure correct alignment when flowable fill is used as backfill for pipe or where flotation or misalignment may occur.

Protect flowable fill from freezing for a period of 36 hours after placement.

Place flowable fill to the designated fill line without vibration or other means of compaction. Do not place flowable fill during inclement weather, e.g. rain or ambient temperatures below 40°F. Take all necessary precautions to prevent any damages caused by the hydraulic pressure of the fill during placement prior to hardening. Provide the means to confine the material within the designated space.

121-6 Acceptance.

Acceptance of flowable fill will be based on the following documentation and a minimum temperature of flowable fill at the point of delivery of 50°F.

Submit a delivery ticket to the Engineer for each load of flowable fill delivered to the worksite. Ensure that each ticket contains the following information:

1. Project designation,
2. Date,
3. Time,
4. Class and quantity of flowable fill,

5. Actual batch proportions,
6. Free moisture content of aggregates,
7. Quantity of water withheld.

Leave the fill undisturbed until the material obtains sufficient strength. Sufficient strength is 35 psi penetration resistance as measured using a hand held penetrometer in

accordance with ASTM C403. Provide a hand held penetrometer to measure the penetration resistance of the hardened flowable fill.

121-7Basis of Payment.

When the item of flowable fill is included in the Contract, payment will be made at the Contract unit price per cubic yard. Such price and payment will include all cost of the mixture, in place and accepted, determined as specified above. No measurement and payment will be made for material placed outside the neat line limits or outside the adjusted limits, or for unused or wasted material.

Payment will be made under:

Item No. 121- 70- Flowable Fill - per cubic yard.

SECTION 527 DETECTABLE WARNINGS ON WALKING SURFACES

527-1 Description.

Furnish and install Detectable Warning devices on newly constructed and/or existing concrete curb ramps and sidewalks constructed in accordance with the Design Standards, where indicated in the plans.

527-2 Materials.

527-2.1 Detectable Warning: Provide Detectable Warnings in accordance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) Section 4.29.2 - Detectable Warnings on Walking Surfaces. Use Detectable Warnings of materials intended for exterior use applied to concrete and subject to routine pedestrian traffic and occasional vehicular traffic. Use Detectable Warnings with size and pattern shown in the plans comprised of truncated domes aligned in parallel rows in accordance with Index No. 304 of the Design Standards. Do not use detectable warnings with a diagonal pattern.

527-2.1.1 Preformed Materials: Use Detectable Warnings consisting of weather-resistant tiles, pavers or mats that are adhered to concrete and have mechanical bond or fasteners, or torch-applied preformed thermoplastic. Preformed products may be used only if listed on the Qualified Products List in accordance with 527-2.4.

527-2.1.2 Field-Formed Materials: Use Detectable Warnings applied as a secondary application to cured concrete. Products applied as a secondary application on cured concrete, may be used only if listed on the Qualified Products List in accordance with 527-2.4.

527-2.2 Material Properties: Provide Detectable Warnings that meet the following minimum material property requirements when tested in accordance with the indicated Standard appropriate to the material.

PROPERTY	STANDARD	MINIMUM THRESHOLD
Slip Resistance	ASTM C1028, F609, F1677, F1678, F1679; E303	Dry Coefficient of Friction – 0.8 min. and Wet Coefficient of Friction – 0.65 min.; Or 35 BPN (include recessed areas between truncated domes)
Wear Resistance	ASTM C501	Average wear depth on dome ≤ 0.030 " after 1000 abrasion cycles.
Water Absorption ¹	ASTM D570	Not to exceed 5%.
Adhesion/Bond Strength	ASTM C482	No adhesion failure
Non-Hazardous Classification	RCRA Subtitle C	Non-Hazardous

¹ Applies only to pavers and tiles consisting of concrete materials.

527-2.3 Color/Contrast: Use Safety Yellow, Brick Red or Black colored Detectable Warnings, that provide an acceptable color/contrast on concrete sidewalk. Acceptable Detectable Warnings as listed on the Qualified Products List will meet the following criteria for a duration of three years.

COLOR	LIGHT REFLECTANCE VALUES (LRV) CAP Y*
-------	---------------------------------------

Safety Yellow	25 – 40
Brick Red	5 – 15
Black	0 – 5
*When measured with a spectrophotometer	

527-2.4 Qualified Products List: Methods or products used to form Detectable Warnings in wet concrete will not be permitted. Use Detectable Warnings listed on the Department Qualified Products List (QPL). Manufacturers of Detectable Warnings seeking evaluation of their product shall submit an application in accordance with Section 6. Manufacturers must demonstrate performance in accordance with the requirements of these Specifications and with the acceptance criteria detailed in Index No. 304 of the Design Standards. Submit Applications that include certified test reports from an independent laboratory that shows the Detectable Warning meets the material properties and all requirements specified herein. Application must include manufacturer's installation drawings that describe detailed quality control requirements for installation including, but not limited to: special materials and/or equipment; recommendations for cleaning/preparing substrate surfaces; bonding method describing thickness, spread rate and/or curing time(s) of grout or adhesive materials; mechanical anchorage; and protection of Detectable Warning materials during set-up/curing period.

In addition, manufacturer's drawings must provide recommended quality control procedures for touch-up and repair of localized areas of installations, for compliance with the acceptance criteria provided in Index No. 304 of the Design Standards.

527-3 Installation Procedures.

527-3.1 Surface Preparation and Installation: Prepare the surface in accordance with the Detectable Warning manufacturer's recommendations. Install Detectable Warnings in accordance with the manufacturer's instructions, using materials and/or equipment recommended and approved by the Detectable Warning manufacturer for adherence to cementitious substrate surfaces. Ensure that all installations are made in accordance with the manufacturer's installation drawings referenced by the QPL.

527-4 Method of Measurement.

Detectable Warnings applied to newly constructed concrete sidewalk/curb ramps will be included in the cost of the concrete sidewalk/curb ramp. Detectable Warnings applied to existing curb ramps will be paid per each Detectable Warning that is furnished, installed and accepted.

527-5 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including all labor, surface preparation, materials and incidentals necessary to complete the work for Detectable Warnings installed on each curb ramp.

Payment will be made under:

Item No. 527- 1- Detectable Warnings on Walking Surfaces - each.

Qualified Products List (QPL)

Specification 527 Detectable Warnings on Walking Surfaces

S527 Detectable Warnings on Walking Surfaces

<i>QPL Number</i>	<i>Other References</i>	<i>Product ID</i>	<i>Manufacturer</i>	<i>App Date</i>
S527-0001	<u>S527</u>	TopMark	Flint Trading Inc	5/18/2005
Old #	<u>Vendor Drawing</u>		P.O. Box 160 Thomasville, NC 27361 (850) 223-2155	Last Recert 2/5/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0002	<u>S527</u>	ADA Paver	ECG Incorporated	5/18/2005
Old #	<u>Vendor Drawing</u>		104 Corporate Drive Elizabeth City, NC 27909 2523331002	Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0003	<u>S527</u>	ADA Tile	ADA Solutions	5/18/2005
Old #	<u>Vendor Drawing</u>		1 Survey Circle North Billerica, MA 01862 9782629900	Last Recert 2/5/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0004	<u>S527</u>	Detectable Warning Paver	Hanover Architectural Products	5/18/2005
Old #			240 Bender Road Hanover, PA 17331 7176370500	Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005 and before July 1, 2006			

S527-0005 Old #	S527	Clay ADA Brick Paver	Whitacre-Greer 1400 South Mahoning Avenue Alliance, OH 44601 3308231610	5/31/2005 Last Recert 2/12/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005 and before July 1, 2006			
S527-0006 Old #	S527	Armor-Tile	Engineered Plastics 300 International Drive, Suite 100 Williamsville, NY 14221 8006822525	6/16/2005 Last Recert 1/12/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005 and before July 1, 2006			
S527-0007 Old #	S527 <u>Vendor Drawing</u>	Detectable Warning Mat	Detectable Warning Systems 6435 Joshua Tree Avenue Orange, CA 92867 7149743566	7/8/2005 Last Recert 1/31/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0008 Old #	S527 <u>Vendor Drawing</u>	EZ-Set Warning Tile	Detectable Warning Systems 6435 Joshua Tree Avenue Orange, CA 92867 7149743566	7/8/2005 Last Recert 1/31/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0009 Old #	S527 <u>Vendor Drawing</u>	Cold Spring Granite Truncated Dome Paver	Cold Spring Granite Company 202 South Third Avenue Cold Spring, MN 56320 3206853621	8/2/2005 Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005			
S527-0010	S527	Alertmat	Cape Fear Systems	8/2/2005

Old #	<u>Vendor Drawing</u>	215 South Watter Street, Suite 103 Wilmington, NC 28401 9107627220	Last Recert 1/11/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005		
S527-0011 Old #	S527 <u>Vendor Drawing</u>	ATM Detectable Warning Mat Advance Traffic Markings P. O. Box H Roanoke Rapids, NC 27870 (252) 536-2574	12/22/2005 Last Recert 1/12/2007
Comments and Limitations	Approved for Job lettings on or after July 1, 2005		
S527-0012 Old #	S527 <u>Vendor Drawing</u>	Armorcast Detectable Warning Tile Armorcast Products / Guardian Division 13230 Saticoy Street North Hollywood, CA 91605- (818) 982-3600	5/22/2006 Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005		
S527-0013 Old #	S527 <u>Vendor Drawing</u>	Armorcast Detectable Warning Panel Armorcast Products / Guardian Division 13230 Saticoy Street North Hollywood, CA 91605- (818) 982-3600	5/22/2006 Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005		
S527-0014 Old #	S527 <u>Vendor Drawing</u>	Detectable Warning Wet Set Replacable Armorcast Products / Guardian Division 13230 Saticoy Street North Hollywood, CA 91605- (818) 982-3600	8/30/2006 Last Recert
Comments and Limitations	Approved for Job lettings on or after July 1, 2005		
S527-0015 Old #	S527	Vanguard ADA Systems of America Vanguard of Florida 10693 Wiles Road #202 Coral Springs, FL 33076 (954) 776-0230	11/16/2006 Last Recert
Comments	Conditional Warranty		

and

Limitations Approved for Job lettings on or after July 1, 2005

S527-0016	S527	EJIW Cast iron Detectable Warning	East Jordan Iron Works, Inc.	12/23/2006
Old #	<u>Vendor Drawing</u>		Spring Street	
			East Jordan, MI 49727	Last
Comments	Natural Finish or Black, water-based asphaltic paint only		(800) 874-4100	Recert
and				
Limitations				

Report Created: 8/7/2007

Reliance Foundry Co Ltd

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Reliance Foundry is an award-winning supplier of high-quality stock and custom-designed site furnishings for architectural, traffic management, and industrial applications. Reliance Foundry brings over 90 years of expertise to the design and manufacturing of our products.

Reliance Foundry's crash-rated bollards have exceptional stopping power and impact resistance. They are certified to ASTM ratings with the ability to stop vehicles from intruding into pedestrian zones. Very easy installation for a crash-rated bollard, with no assembly or specialty subgrade required—simply set the prefabricated bollard into the site and pour concrete.

Specification Coordination: Edit this guide specification to meet project requirements. Coordinate with other specification sections as required. If using more than one bollard type, use the same designation in both drawings and specifications. Display hidden text to see or print notes to specifier.

Drawing Coordination: Show locations, sizes, layout, and spacing of each type of bollard or bollard cover required. Show footing and security post details, if required. Soft metric conversion is provided for all measurements.

SECTION 34 71 13.16

VEHICLE BARRIER SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Crash-rated bollards

1.2 REFERENCE STANDARDS

- A. Department of Defense (DoD) approved and listed on Anti-Ram Vehicle Barrier List

1.3 SUBMITTALS

- A. Manufacturer's Product Data
 - 1. Product Data: Provide for each type of bollard, component, finish, and accessory specified.
 - 2. Maintenance Data: Submit manufacturer's field touch-up, cleaning, and maintenance instructions.
 - 3. Warranty Documentation: Submit sample of manufacturer's warranty.

- B. Setting Drawings: Show embedded items and cutouts required for work specified by other Sections.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Protect bollards during delivery, storage, and handling.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Reliance Foundry Co. Ltd.
1. Phone: 604-547-0460 or 1-877-789-3245
 2. Fax: 604-590-8875
 3. Website: <http://www.reliance-foundry.com/bollard>
 4. Email: info@reliance-foundry.com
- B. Manufacturer: 1-800-BOLLARDS
1. Phone: 1-866-748-4676
 2. Website: www.1800bollards.com
 3. Email: info@1800bollards.com

2.2 CRASH-RATED BOLLARDS

- A. Crash-rated bollard [Designer's Designation]:
1. Model: Reliance Foundry; **R-1009-12-R**.
 2. Height: 75.5 inches (191.8 cm)
 3. Height Above Grade: 39 1/2 inches (100.3 cm)
 4. Diameter: 10 inches (25.4 cm)
 5. Weight: 1257 lbs. (570.2 kg)
 6. Design: Removable M50 crash engineered bollard
 7. Material: Steel.
 8. Country of Origin: United States.
 9. Finish: Paint coated.
 10. Color Coating:
 - a. Type: Paint.
 - b. Color: [Black]
 11. Installation:
 - a. Concrete Embedded
- B. Crash-rated bollard [Designer's Designation]:
1. Model: Reliance Foundry; **R-1010-S30**.
 2. Height: 78 inches (198.1 cm)
 3. Height Above Grade: 36 inches (91.4 cm)
 4. Height Below Grade: 42 inches (106.7 cm)
 5. Max Width: 8 3/16 inches (20.8 cm)
 6. Weight: 340 lbs. (154.6 kg)
 7. Design: S30 P2 crash-rated bollard.
 8. Material: Steel.
 9. Country of Origin: Vietnam.
 10. Finish: Hot-dipped Galvanized



11. Installation:
 - a. Concrete Embedded

C. Crash-rated bollard [Designer's Designation]:

1. Model: 1-800-Bollards; **Series CT600 IR.**
2. Height: 36 inches (91.44 cm)
3. Depth: 18 inches (45.72 cm)
4. Pipe Diameter: 6 inches (15.4 cm)
5. Outside Diameter: 6.62 inches (16.82 cm)
6. Design: S20 crash-rated bollard.
7. Material: Steel.
8. Finish: Stainless steel type 316, polished to a #4 satin finish.
9. Color: Carbon steel powder coat available in custom colors.
10. Accessories:
 - a. Bollard covers: stainless steel bollard covers
11. Embedment Sleeve for Removable Bollards
 - a. Size: 6 inch.
 - b. Material: Type 304 stainless steel with attached lid. The lid will lock down when the bollard is removed.
 - c. Lock: Inside embedment sleeve, underground.



PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine paving or other substrates for compliance with manufacturer's requirements for placement and location of embedded items, condition of substrate, and other conditions affecting installation of bollards.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Examine Project conditions and completed Work with Installer present and verify compliance for level finished grade, mounting surfaces, installation tolerances, and other conditions impacting performance of the Work.
- D. Immediately correct all deficiencies and conditions which would cause improper execution of Work specified in this Section and subsequent Work.
- E. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation.
- F. Proceeding with Work specified in this Section shall be interpreted to mean that all conditions were determined to be acceptable prior to start of Work.

3.2 INSTALLATION

- A. General: Comply with manufacturer's installation instructions and setting drawings.
- B. Do not install damaged, cracked, chipped, deformed or marred bollards. Field touch-up minor imperfections in accordance with manufacturer's instructions. Replace bollards that cannot be field repaired.

- C. Ensure all bollard equipment to be installed is located at the site.
- D. Install in accordance with approved submittals and in proper relationship with adjacent construction.
- E. Protect all surfaces from debris, dirt, and concrete pour during installation.
- F. Install 1-800-Bollards Low Speed Bollards level and plumb.
- G. Anchor bollards securely.

3.3 CLEANING & PROTECTION

- A. Protect bollards against damage.
- B. Immediately prior to Substantial Completion, clean bollards in accordance with manufacturer's instructions to remove dust, dirt, adhesives, and other foreign materials.
- C. Touch up damaged finishes according to manufacturer's instructions.
- D. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- E. Store bollards indoors until installation to protect from weather.
- F. Maintenance: Wipe down stainless steel bollards at least once per month to remove oxidants.

3.4 CLOSEOUT ACTIVITIES

- A. Provide executed warranty.

END OF SECTION

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