REQUEST FOR PROPOSAL

FOR

ARCHITECTURAL/ENGINEERING DESIGN SERVICES

FOR

ARDMORE TRANSIT CENTER FACILITIES

FTA GRANT NO. PA-03-0385

November 10, 2008

REQUEST FOR PROPOSAL

Architectural and Engineering Services

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REQUEST FOR PROPOSAL
A/E SERVICES

SECTION 1 - INSTRUCTIONS AND INFORMATION FOR PROPOSERS

I. GENERAL INFORMATION:

A. You (hereinafter referred to as "Proposer") are requested to submit a formal proposal (hereinafter referred to as "Proposal") for the required services detailed in Section 7 Scope of Services (hereinafter referred to as "Project") in accordance with this Request for Proposal (RFP). Any information in addition to that required by this RFP which Proposer feels will help in the evaluation of its Proposal is to be submitted with its Proposal, provided that the additional information does not cause its Proposal to exceed the maximum number of pages prescribed in I - E below.

B. Any Proposal submitted must comply with the requirements of this RFP as herein stated including all applicable Federal, State and Local laws, and is to be signed by an officer legally authorized to bind Proposer to an agreement (hereinafter referred to as "Agreement") and shall be submitted to the Township of Lower Merion (hereinafter referred to as "Township") in writing, in the time and in the manner described herein.

C. Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective response to this RFP are not desired. Elaborate art work, expensive paper and bindings and other expensive visual and other presentation aids are neither necessary nor wanted. If a Proposer feels compelled to submit brochures and other presentations related to its corporate history, it should be submitted in a separate binder or on a CD and clearly marked as to its contents.

D. The Township is issuing this RFP under an agreement between the Township and SEPTA for development of the Ardmore Transit Center on the R5 Regional Rail Line. SEPTA and Amtrak will require certain indemnification forms to be completed for Consultant's employees who are performing services on SEPTA and Amtrak property. The Consultant must secure and provide to SEPTA and Amtrak a separate indemnification release from each of the Consultant's employees, including employees of its subconsultants/subcontractors, prior to their entering SEPTA and Amtrak property to perform any service related to this Agreement. Copies of this release form can be obtained from the SEPTA Project Engineer assigned to this Agreement. A copy of Amtrak's "Exhibit D, Indemnity From Contractors Performing Design or Engineering Functions" is attached as Appendix 8.

E. No discussion of scope understanding and project approach sections shall together exceed twenty-five (25) pages in length. The narrative shall be in Microsoft Word and should use the font CG Times 11 characters per inch (cpi) for consistency. Top and bottom margins shall be set at the beginning of each section, a one line footer shall be allowed, and page numbering shall be sequential.

Exceeding the number of pages for these sections may result in the Township reducing the score given to these sections.

II. FORM OF PROPOSAL

The Proposal must address all items set forth in Section 7, "Scope of Services", and shall be submitted in two (2) separately bound sections, the Technical Proposal and the Cost Proposal, pursuant to II B. in the Cost Proposal Section:

A. **Technical Proposal**. This shall include but shall not be limited to the following information:

1. A statement concerning Proposer's interpretation of the Project objectives.

2. A description of the services as understood by the Proposer.

   The services described by Proposer must be fully responsive to this RFP. Eliminations or qualifications by Proposer of performance of services required by this RFP may result in a Proposal being judged non-responsive.

3. A Project organization chart identifying Proposer's manager of the Project and all other Project personnel, except for drafting/CADD and clerical personnel must be submitted. The Proposer's organization chart shall identify those staff people that the Proposer considers to be "Key Personnel." Resumes shall be provided identifying the qualifications and experience of the proposed manager of the Project and all key personnel. **Except as specified in the Agreement attached as Appendix 1, the Township will not permit a change in the manager of the Project or key personnel after award, if any, to the successful proposing firm.**

4. Based on the schedule set forth in the RFP, please include a schedule for the completion of services for the Project. This shall include a breakdown of estimated man-hours, by position classifications, for each task identified in RFP Section 8. A separate manpower utilization schedule shall also be prepared by Proposer to show the start dates and duration for all of Proposer's manpower. Man-hours by position classification for each task shall be linked to this schedule. Specific salaries and fees shall not be included.

5. A summary of the Proposer's qualifications and experience directly related to the Project shall be submitted on the Architect-Engineer's Qualification Form.

6. If the Proposer is a joint venture, then a copy of any written agreement or understanding which exists between the members of each party to the joint venture shall be included as part of the Technical Proposal. If no written agreement or understanding exists, then the joint venture shall include in its Technical Proposal a written statement explaining how the joint venture will fulfill the requirements of the Agreement included as Appendix 1 of this RFP. Such explanation shall fully discuss and identify the responsibility of the joint venture for performing the services, providing the required insurance and providing coverage for the Agreement and required indemnification of Township, SEPTA and Amtrak.

7. Proposer shall provide certificates of insurance and sample policies evidencing its compliance with the Professional Liability Insurance requirements set forth in RFP Section 1. IV. E.

8. **<u>Certification Regarding Debarment, Suspension, and Other Responsibility Matters</u> -- Lower Tier Covered Transactions (If Cost Proposal is $25,000 or more)**

<u>Suspension and Debarment</u>

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the Proposer is required to verify that none of the Proposer's principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The Proposer is required to comply with 49 CFR 29, Subpart C, and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into. By signing and submitting its Proposal, the Proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by the Township. If it is later determined that the Proposer knowingly rendered an erroneous certification, in addition to remedies available to the Township, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

9. **DISCLOSURE OF CONFLICTS OF INTEREST:** It is the policy of the Township to award consulting contracts for planning, design, project/construction management and/or technical services to only those Proposers whose objectivity is not impaired because of any related past, present or planned interest, financial or otherwise, in organizations whose interests may be substantially affected by Township contracting activities including SEPTA and Amtrak. To implement this policy, the following shall take place:

   i. Proposer shall provide a statement in its Proposal that describes in a concise manner all past, present or planned organizational, financial, contractual or other interest(s) with any organization whose interests may be substantially affected by Township activities, and which is related to or could financially benefit from the work under this solicitation. The interest(s) described shall include those of the Proposer, its affiliates, clients both past and present, proposed subconsultants, proposed subcontractors and key personnel of any of the organizations. Past interest shall be limited to no more than one (1) year from the date of the Proposer's technical proposal. Key personnel shall include any person owning more than 20% interest in the Proposer's organization or of a proposed subconsultant or subcontractor, including the corporate officers of any of these firms, its senior managers and any employee who is responsible for making a decision or taking an action on this contract where the decision or action can have an economic or other impact on the interests of an affected organization.

   ii. The Proposer shall describe in detail why it believes, in light of the interest(s) identified in (A) above, that performance of the proposed contract can be accomplished in an impartial and objective manner.

iii. In the absence of any relevant interest identified in 9.(A) above, the Proposer shall submit in its Proposal a statement certifying that to the best of its knowledge and belief no affiliation exists that presents a possible conflict of interest. The Proposer must obtain the same information from potential subconsultants prior to award of a subcontract.

iv. The Township will review the statement submitted and may require additional relevant information from the Proposer. All such information, and any other relevant information known to the Township, will be used to determine whether an award to the Proposer may create a conflict of interest. If any such conflict of interest is found to exist, the Township may (1) disqualify the Proposer, (2) if the problem exists with a proposed subconsultant/subcontractor, allow the Proposer to offer a substitute subconsultant/subcontractor, or (3) determine that it is otherwise in the best interest of the Township to contract with the Proposer and include appropriate provisions in the Agreement to mitigate or avoid such conflict in the awarded Contract.

v. Refusal by the Proposer to provide the disclosure or representation, or any additional information required, may result in disqualification of the Proposer for award. If non-disclosure or misrepresentation is discovered after award, the resulting Contract may be terminated for cause. If after award the Consultant discovers a conflict of interest with respect to the Contract awarded as a result of this solicitation, which could not reasonably have been known prior to award, an immediate and full disclosure of the conflict, together with a description of the action the Consultant has taken, or proposes to take, to avoid or mitigate such conflict shall be submitted to the Township Manager or his designee within five (5) working days after the discovery of the conflict of interest by the Consultant. The Township may require the Consultant to take further action(s) beyond what the Consultant has proposed to avoid or mitigate the conflict of interest.

10. The Proposer shall submit a signed Certification Regarding Lobbying as set forth in Appendix 5 to this Request for Proposal. See Appendix 1, Agreement, Exhibit A, Federal Transit Administration (FTA) Required Provisions For Contracts, for more information.

B. **Cost Proposal**: The cost of performing all of the required scope of services must be detailed in the Cost Proposal. The Cost Proposal will be submitted to the Township as a separate document in a clearly marked sealed envelope. The Cost Proposal shall be reviewed after the Township has completed the technical evaluation of the Proposers and has determined the top ranked Proposer and/or short listed the top ranked Proposers. **Cost Proposals which exclude or restrict cost items necessary for a Proposer to perform the Township required scope of services are not acceptable and may be considered as non-responsive to the RFP.**

1. The Cost Proposal shall be submitted on a Contract Pricing Proposal Form (Cost Plus Fixed Fee Contracts) (see RFP Appendix 3) along with any other additional information required to make it complete. Separate Contract Pricing Proposals are also required for any proposed subconsultants or subcontractors, including individual contract employees (i.e., individuals who are not regular employees on the payroll of the Consultant or of its proposed subcontractors/subconsultants). The Contract Pricing Proposals shall include all direct labor expense, salary related overhead, general and administrative overhead and all other reimbursable expenditures necessary for the performance of all the services and shall state the proposed fixed fee.

2 The Proposer shall include a detailed breakdown of its current or most recently audited overhead rate(s); if these differ from the rates proposed on the Contract Pricing Proposals, then justification for such variation must be included in the Cost Proposal.

3. The Proposer shall provide the actual salary rates and ranges for all personnel. For Agreements with extended time durations, the Proposer may include projected increases to these rates applicable to the performance of services during such extended time periods. The assumptions used in the development of these extended rates shall be provided by Proposer in the Cost Proposal.

4. The Proposer shall provide a detailed breakdown for all projected travel expenses, materials and other direct costs.

5. The Proposer shall provide the same documentation in the Cost Proposal specified in items 2, 3 and 4 above for each of its subconsultants/subcontractors.

6. The requirements of the Agreement included as Appendix 1 of this RFP should be carefully reviewed by the Proposer prior to preparation of its Cost Proposal. The Proposer must assume that the Township will not make modifications to the terms of the Agreement as attached. The Agreement defines in Paragraph 8, the allowable cost standards which will be applicable. The Township's determination of the allowability of costs shall be final.

III. **Responsibility of Proposer**

The Township will only award a contract to a firm which it has determined to be responsible. The Proposer shall furnish adequate documentation, as determined by the Township, within five (5) days of receipt of the Township's written request to permit the Township to determine the responsibility of Proposer. A responsible Proposer is one that meets the following standards:

A. Has adequate financial resources, or the ability to obtain such resources, as required for the satisfactory performance and completion of the Contract;

B. Provides adequate security (i.e., insurance and bonds), if required by the terms of the solicitation, to insure Contract completion;

C. Is able to comply with the required or proposed delivery or performance schedule;

D. Has a satisfactory performance record;

E. Has a satisfactory record or reputation of integrity; and

F. Has the necessary skill and experience.

IV. **GENERAL REQUIREMENTS**

A. **SUBMISSION OF PROPOSALS:** Twelve (12) copies of the Technical Proposal and twelve (12) copies of the Cost Proposal shall be submitted no later than **3:00 PM on Friday December 19, 2008** to:

Mr. Bo Tymkiw
Purchasing Agent
Lower Merion Township
75 East Lancaster Avenue, 2nd Floor
Ardmore, PA 19003

PRE-PROPOSAL CONFERENCE: A <u>mandatory</u> pre-proposal conference will be held to present the master plan for the Ardmore Transit Center Project and to answer questions about the proposal and the project. The meeting will be held in the Board of Commissioners Room on the second floor of the Township Administration Building at the address noted above.

The date and time of the meeting are Monday, December 1, 2008 at 10:00 AM.

B. **Disadvantaged Business Enterprise (DBE) Participation Requirement:**

1. In connection with this solicitation and any resulting Contract, the Township has established the following goals for Disadvantaged Business Enterprise (DBE) participation:

   General DBE Goal: 15% the total dollar value (Total Price)

2. The Proposer, using the attached DBE Participation Schedule, is required to furnish the following documentation as part of its technical proposal:

   (i) The names and addresses of DBE firms that will participate in the Contract;
   (ii) A description of the work that each DBE will perform; and
   (iii) The percentage of participation of each DBE firm participating.

3. The successful Proposer, will be required to submit the following information to the Township within five (5) days of receiving a written request for the information:

   (i) Written documentation of the Proposer's commitment to use a DBE subconsultant whose participation it submits to meet a Contract goal;
   (ii) Written confirmation from the DBE that it is participating in the Contract as provided in the Proposer's commitment; and
   (iii) If the Contract goal is not met, evidence of good faith efforts must be provided (see Paragraph E of the DBE Participation Section.

See DBE Participation in Appendix 2 for additional information.

C. **RIGHTS RESERVED BY TOWNSHIP:** The Township expressly reserves the right to reject any and all Proposals and/or to negotiate separately with any firm in any manner deemed appropriate to serve its best interest. If any award of Agreement is made as a result of these Proposals, it will be made on the basis of the Proposal which best satisfies the intent of the RFP and other factors considered in the best interest of the Township. The Township is not liable for any expenses incurred by Proposer(s) in the development of its Proposal or any subsequent activity related to the Proposal.

Any Agreement to be entered into pursuant to this RFP is subject to financial assistance grants between the Township, SEPTA, the United States Department of Transportation and the Federal Transit Administration (FTA), and must conform to the requirements thereof.

D. **MODIFICATIONS TO TOWNSHIP'S FORM OF AGREEMENT:** If an award of Agreement is made as a result of this RFP, the proposed form of Agreement which the Proposer will be required to execute is included in Appendix 1 of this RFP, and the Proposers are urged to review the Agreement carefully. **The Township may, at its sole discretion, consider minor modifications to the terms of the proposed Agreement provided the Proposer specifically requests such modifications in the Technical Proposal.**

The Agreement requires that all tasks described in the RFP and/or Proposal shall be the Proposer's sole responsibility and shall be performed by the Proposer and its subcontractors/subconsultants. As part of the negotiation process (see RFP Section 5, "Selection Process"), the Township may elect to consolidate the services described in the RFP and the Proposal into a single document. The single document shall then become an Exhibit to the Agreement instead of the RFP and Proposal. In no event will the Township reduce the scope of services required by this RFP during the negotiation process. The Township expressly reserves the right to approve and/or modify, at its sole discretion, both form and substance of any written Agreement entered into pursuant to this RFP.

E. **INSURANCE:** Proposer and its subcontractor(s)/subconsultant(s) shall be required to provide, **at their own cost and expense,** the following insurance to Lower Merion Township, evidenced by certificates of insurance. Carrier Rating shall be Best's Rating of A-VII or better or its equivalent. Each certificate shall require that notice be given thirty (30) days prior to cancellation or material change in the policies to the Township Finance Department, Purchasing Division:

1. Workers' Compensation Insurance

As required by the applicable laws of the Commonwealth of Pennsylvania. The Consultant must maintain during the life of this contract Workers' Compensation Insurance for their employees. Coverage must be in accordance with statutory requirements of the Commonwealth. Coverage should include Employer's Liability.

2. Public Liability Insurance

Combined Single Limit (Bodily Injury and Property Damage) including Products and Completed Operations per Project aggregate are to apply. The Consultant must maintain during the life of this contract Public Liability Insurance to protect him/her, their employees and subcontractors and the Township for injury or damage caused directly by him or his employees for the following limits:

General Aggregate:	$2,000,000
Per Occurrence:	$2,000,000
Products and Completed Operations	$2,000,000
Personal and Advertising Injury	$2,000,000

3. Automobile Liability coverage

The contractor must maintain during the life of this contract Automobile Liability for all vehicles (owned, non-owned and hired) operating in furtherance of this contract for the following limits:

Combined Single Limit	$1,000,000

4. Professional Liability Insurance

Architects and Engineers Professional Liability with a limit of not less than $2,000,000 per occurrence/claim is required. The successful Proposer shall be required to maintain this limit of coverage for three (3) years after completion of the Project.

5. **Township of Lower Merion and SEPTA shall be named an "Additional Insured."** All contractors are required to procure and maintain the insurance coverages with the Township of Lower Merion and SEPTA named as an "Additional Insured." Only certificates of insurance from companies licensed to do business in the Commonwealth of Pennsylvania and acceptable to the Township will be approved. A copy of the insurance certificate must be provided for each contract document.

6. **Cancellation Notice.**

30-Day Notice of Cancellation must be provided to the Township and if indicated on the Certificate for all policies.

7. **Subcontractors.**

The Contractor shall either require each subcontractor to procure and maintain the required insurance during the life of his subcontract or insure the activities of their subcontractors in his own policy.

SECTION 2 - METHOD OF COMPENSATION

I. Reimbursement for services provided for the Project shall be made on a cost-plus-fixed-fee basis, provided that the total actual and allowable cost for performance of all services under the Agreement shall not exceed a set maximum amount (the "Total Contract Price").

II. Proposer shall submit the Cost Proposal in accordance with Section 1 and Appendix 3 of this RFP, utilizing Contract Pricing Proposals (Cost Plus Fixed Fee Contracts) and shall outline the cost of direct labor, salary related overhead, general administrative overhead, and other reimbursable costs to develop a cost-plus-fixed-fee contract. The fixed fee as applied to direct cost is restricted by Federal procurement standards to a maximum of ten percent (10%) of the direct labor cost and applicable overhead, and a maximum of five percent (5%) of subcontractor/subconsultant costs. Fixed fees are negotiable within parameters of the Federal guidelines.

It is emphasized that the selected Proposer will be obligated to complete all services within the Total Contract Price.

III. METHOD OF PAYMENT: To clarify the issue of Method of Payment as it will be interpreted by the Township, please be advised that payments will be made in accordance with Paragraph 8 of the Agreement (see Appendix 1) only for that portion of services deemed actually and satisfactorily performed to date by Proposer. The Township's Project Manager will have discretion whenever a dispute arises, and the Project Manager's decision shall be binding on both parties for payment matters of this kind. Proposer's attention is also directed to the Billing Guidelines, which are attached to the Agreement included in Appendix 1, to which Proposer will be required to adhere.

SECTION 3 - ORGANIZATION CHART

I. The Proposer is to include an organizational chart(s) based on its understanding of the services required by the Township as set forth in this RFP. The organization chart(s) shall clearly identify the Project Manager and key personnel. The chart(s) shall illustrate the organizational lines of communication to be established to facilitate project management and control.

All personnel proposed to be utilized on this contract with the exception of drafters, technicians and clerical will be shown on the organization chart(s) and shall be identified by name, Project responsibility, or position and the firm with which they are associated. For joint ventures, the individual's originating firm shall be shown.

SECTION 4 - RESPONSIBILITY OF OTHERS

I. **TOWNSHIP:**

A. **PROJECT MANAGER.**

The Township will provide a Project Manager (hereinafter referred to as "Township's Project Manager") and management team which shall provide the technical direction of the Project. The Township team shall also monitor and review the progress of the Proposer's services in order to aid in the program coordination. The participation by the Township's Project Manager shall not relieve the Proposer from its obligations under the terms of the Agreement.

The Township Project Manager will coordinate design review meetings with SEPTA, Amtrak, development team and others as needed to secure approvals in a timely manner. All changes in the services to be performed must receive the **prior written authorization of Township's Project Manager.**

II. OTHERS:

SEPTA:

A. Project Engineer

SEPTA will provide a Project Engineer that will provide technical direction for the Project. The SEPTA Project Engineer will assist in program coordination, schedule compliance and be the point of contact for SEPTA design requirements.

B. Art-in-Transit Manager

SEPTA's Art-in-Transit Manager ("ATM") will be involved in the review and approval of all phases of the art procurement process.

AMTRAK:

A. Inasmuch as Amtrak owns the property involved in the project that is long-term leased to SEPTA, it will have a significant role in the Project design phase and subsequent construction phases. The Consultant shall obtain engineering design approvals from Amtrak as required for the Project.

B. The Township and Amtrak entered into a Preliminary Engineering Agreement dated August 15, 2005, attached hereto as Appendix 11. This agreement provides for the services to be provided by Amtrak to enable the Township to complete the design phase of the Project. The design must incorporate Amtrak standards and requirements as outlined in this agreement. The services include, but may not be limited to, the following:

a. Review of plans, drawings, specifications and schedules;
b. Site inspections;
c. Protection of railroad traffic, such as flagging, controlled power outages and/or track outages;
d. Preparation of cost estimates for Force Account work during the Project construction phase;
e. Environmental review;

f. Additional services as needed and to be agreed upon.

C. It is the responsibility of the Consultant and their sub-consultants to familiarize themselves with the requirements of the Preliminary Engineering Agreement including: Exhibit A, Preliminary Engineering Estimate; Exhibit B, Amtrak Northeast Corridor Overhead Rates; Exhibit C, Amtrak Temporary Permit to Enter Upon Property that include: Attachments A, Specifications Regarding Safety and Protection of Railroad Traffic and Property; and Attachment B, Amtrak Insurance Requirements.

D. Consultant or sub-consultants must be on Amtrak's list of Pre-qualified consultants for Electrification Design and list of Pre-qualified consultants for C&S Design that are attached in Appendix 10.

E. Consultant or sub-consultant must not perform any soil borings, environmental testing or any disturbance of soils without first obtaining a fully executed access agreement from Amtrak.

F. Safety Training and Flagging Services:

Safety Training will be required for any member of the Consultant's team who must perform work in the track area. The Consultant shall request the training sufficiently in advance of the next scheduled training class and the work. Flagging will be required by Amtrak for Consultant Team work that may interfere with train operations.

FEDERAL RAILROAD ADMINISTRATION (FRA)

Plans for platforms, the station and other transit related improvements must be submitted to the FRA for approval at the 45% review level.

SECTION 5 - SELECTION PROCESS

I. **Evaluation Criteria:**

The following criteria will be used for the evaluation of Proposals. The relative importance of the criteria is indicated by the order in which they are placed, with the highest value ones at the top of the list:

A. **Project Approach** - interpreting the Project objectives and describing the services to be provided;

Has the Consultant:

1. Demonstrated a clear understanding of the RFP by providing explicit interpretation of the Project's goals and requirement?

2. Addressed and committed to complete all tasks listed in the RFP?

3. Established a clear and logical approach for the performance of all tasks?

4. Clearly outlined and defined the division of work tasks between the Consultant and the named Sub-Consultants and also if applicable their joint venture partners?

5. Adequately covered construction related services, especially with regard to team building and staff availability?

6. Provided a distinct Quality Assurance/Quality Control approach in the proposal?

7. Added specific tasks and/or procedural commitments that will improve or more completely accomplish the Township's goals - with a commitment to perform this additional work?

B. **Professional Qualifications** - specialized experience and technical competence of the Project team, including the roles and responsibilities of individuals;

Has the Consultant:

1. Appointed a Project Manager (PM) who possesses the appropriate education, technical and administrative experience necessary and has managed similar work?

2. Assigned key Project team members with appropriate professional qualifications, significant past experience and technical competence in key Project areas?

3. Committed to assign a PM and other key Project personnel from start to completion of the work of the Contract?

4. Required the sub-consultants to assign Project team members with the appropriate professional qualifications, significant past experience, and technical competence as detailed in the various Project tasks?

5. Assigned a team member and/or sub-consultant(s) with the appropriate professional qualifications and significant past experience and technical competence to successfully complete the independent ADA review of the work?

C. **Project Design Team & Organization** - capacity to accomplish the services in the required time considering the Project team and its organization and the man-hour estimate;

Has the Consultant:

1. Staffed the project in a manner as required to insure efficiency and control of the work?

2. Reasonably estimated and assigned enough man-hours for each work task to ensure that the Project will be completed within the time and budget without compromising the quality of the work?

3. Successfully worked together on past projects with other members of the Project team?

4. Satisfactorily described its method of project control including design phase and construction phase budgets, critical path tasks, cash flow, schedule and methods of reporting the Project's progress?

D. **Project Location** - of the Proposer in the general geographic area of the Project and knowledge of the locality of the Project;

Have the Consultant and the other parties in the Project team:

1. A general knowledge of Lower Merion Township, SEPTA and Amtrak?

2. A local office in the Philadelphia Metropolitan Area and/or demonstrated in the project approach and/or in the organization chart that they are capable of reacting quickly to the Township's Project needs?

E. **Experience Verification** - of past performance on other relevant projects/contracts with Lower Merion Township, with SEPTA, with Amtrak or with other transit or government agencies? The Township will perform reference checks for each firm. Although the reference checks will not be scored per se, they will be used to validate information contained in the Technical Proposal.

Have the Consultant and other members of the Project Team:

1. Successfully completed similar work for SEPTA, Amtrak and/or other transit agencies?

2. Demonstrated stability and competency through repeat business and successfully meeting contractual obligations with the Township, SEPTA, Amtrak and/or other clients?

II. **Selection:**

The Township staff will review the Proposals based on the above criteria and develop a listing, in order of preference, of the firms considered most highly qualified to perform the services. The Township may also request additional information as it deems necessary from any Proposer. Proposers may be required to hold discussions with the Township staff and team members. Following this technical evaluation, the Township will initiate negotiations, if any, with the Proposer receiving the highest technical rating. The purpose of the negotiations will be to finalize

all terms and conditions of the Agreement, including the Total Contract Price and the rate of retainage. If a mutually satisfactory Agreement cannot be negotiated, the Township will obtain a written best and final offer from the Proposer, and if it is still unacceptable, the Township will notify the Proposer that negotiations have been terminated. The Township will then initiate negotiations with the next highest technically rated Proposer. This procedure shall be continued until a mutually satisfactory Agreement has been negotiated or negotiations have failed with all Proposers who submitted technically acceptable proposals.

III. **Award:**

A. An award, if any, will be authorized in accordance with the Township's procurement procedures.

B. The Township will make an award, if any, only to a firm that has been determined by the Township to be responsive and responsible.

SECTION 6 - PROJECT BACKGROUND

I. Planning Background

In June 2007, after more than four years of planning and preliminary implementation efforts, the Township issued the Ardmore Transit Center and Business District Revitalization Request for Proposals to improve transit and transportation facilities, to revitalize the Ardmore Business District ("ABD"), and to develop transit supportive uses around the Ardmore Septa R5 train station. The ABD is located on the historic "Main Line," just west of Philadelphia. The ABD is on the south side of the railroad tracks, directly across from Suburban Square on the north side, one of America's oldest shopping centers and one that continues to be a regional retail destination.

Through a grant received in 2002 from the Delaware Valley Regional Planning Commission ("DVRPC"), combined with federal Community Development Block Grant funds, the Township engaged a team of planning, parking and traffic consultants to evaluate multi-modal transit, transportation and parking inefficiencies, and economic revitalization needs in Ardmore. The result was the Ardmore Transit Center Plan, a conceptual plan designed to address the concerns and issues expressed by stakeholders and the public at a series of public meetings. The Township sought proposals that built on the ideas generated by the planning process and are creative in their approach to the development on available public and transit-owned properties for transit and other redevelopment opportunities.

In 2004, the Township, in conjunction with the Southeastern Pennsylvania Transportation Authority ("SEPTA"), secured a $5.8 million federal appropriation to support multi-modal bus and rail improvements to the station facilities and platforms. Public funding is envisioned as a catalyst for private investment in the ABD and throughout downtown Ardmore. Since then, the Township enacted a Mixed-Use Special Transit Overlay ("MUST") zoning ordinance (Appendix 12) to encourage development to proceed in the ABD, and has advanced several projects related to revitalization including intersection realignment, railroad underpass improvements and a major bridge reconstruction.

To facilitate revitalization of the ABD, the Township and County certified parts of downtown Ardmore as a redevelopment area in January of 2005. In issuing an RFP for a developer, the Township sought creative development and revitalization ideas for the Transit Center and the broader ABD. In March 2008, the Township selected Dranoff Properties as the Master Developer for the Ardmore Transit Center Project. The selection was made because the proposal included components of development that are of high quality design in every aspect, are architecturally significant, while at the same time sensitive to the historic character of the area, business district and surrounding residential communities.

The schematic design for the Ardmore Transit Center and associated transit facilities submitted by Dranoff Properties in concert with architects JKR Partners will serve as the basis for the design of the Project. These facilities to be designed and constructed are further explained in the Section 7 - Scope of Work below.

II. Property Ownership

The existing transit facilities are owned in their entirety by Amtrak. Amtrak leases to SEPTA the station building, platforms, stairs, and pedestrian underpass, for which SEPTA is responsible for maintenance and improvements. Amtrak retains maintenance responsibility for all items not leased to SEPTA, including the railroad right-of-way, track-work, signal-work and catenary. Both SEPTA and Amtrak trains stop at the Ardmore Station.

On the in-bound side, Amtrak owns the existing 110-space parking lot that is also part of the multi-station lease that controls the Ardmore Station. SEPTA is responsible for maintenance and improvements. This lot has direct access to Station Avenue. There is an existing underpass providing pedestrian access between the in-bound and the out-bound sides of the station. The parking facilities are used by commuters who purchase monthly permits. Bus stops along Lancaster Avenue must be incorporated into the overall design of the Project.

Adjacent to the commuter parking facility are municipal parking areas owned and controlled by Lower Merion Township. These lots are located primarily behind existing structures that face Lancaster Avenue, but have direct ingress and egress to either Station Avenue or Lancaster Avenue.

On the outbound side of the rail line is Suburban Square Shopping Center. SEPTA has several bus stops immediately adjacent to the station that must be incorporated into the overall design of the Project. The parking lot along Coulter Avenue adjacent to the tracks is owned by Suburban Square. Amtrak retains a deed restriction on this lot that requires a certain number of parking spaces be kept available for transit passengers.

III. Existing Facilities

The Ardmore Station is located on the historic Philadelphia to Pittsburgh main line of the former Pennsylvania Railroad at the intersection of Anderson Avenue and Station Avenue in Lower Merion Township, Montgomery County, Pennsylvania. The Pennsylvania Railroad served as a catalyst in the late 1800s for the development of the surrounding suburban communities and was determined eligible for listing in the National Register of Historic Places on September 14, 1993.

The current station facility was built in the 1960's to replace the original building that was destroyed by a fire. The station serves both Amtrak's Keystone Line and SEPTA's R5 Thorndale/Paoli Regional Rail Line with a ridership in excess of 900 passengers per day.

IV. Ardmore Transit Center

The Ardmore Transit Center is conceptualized as a mixed-use development presumably on land assembled from Amtrak property and facilities, and publicly owned parking areas (Township and Amtrak). Amtrak owns the Ardmore Train Station, which it leases to SEPTA pursuant to an agreement and lease dated July 25, 1991.

The following programmatic components for the Ardmore Transit Center are proposed:

A. Minimum two-story bus and train station building with street level retail and upper level commercial uses. The facility should include both passenger waiting facilities and a ticket area leading to new high-level platform facilities adjoining the railroad tracks.

B. Structured parking garage for commuters, the public, commercial clientele and employees, and the Township as well as any parking required by the zoning code for any new mixed-use, residential and/or retail uses.

C. Safe pedestrian crossings, a dedicated commuter pick-up and drop-off area, taxi stand, and ADA accessible pedestrian pathways for station access and vehicular access to the parking structure and integrated bus stops.

D. Improved and enhanced connections over and/or under the railroad tracks to facilitate pedestrian and vehicular movement between Lancaster Avenue, Montgomery Avenue and Suburban Square shopping center.

E. Street level retail and multi-story residential development.

F. Public open space improvements.

SECTION 7 - SCOPE OF WORK

I. GENERAL DESCRIPTION

The Ardmore Transit Center Project is a public-private project that is comprised of both transit improvements and private mixed-use development. The transit improvements are funded, in part, with FTA intermodal funds that are limited to use for the public and transit-related improvements. The mixed-use retail/residential development will be funded separately by Dranoff Properties, the Master Developer.

The master concept for the Ardmore Transit Center Project which includes both the transit improvements and the mixed-use development has been accepted by the Township. This is as conceived in the Master Plan by Dranoff Properties, the Master Developer in collaboration with JKR Partners, the Design Architect. The design of the mixed-use development will be by the Dranoff Properties Design Architect who will be the Architect of Record for the mixed-use improvements.

By way of this RFP, the Township of Lower Merion (Township) is seeking professional architecture/engineering (A/E) services to complete the design of the transit improvements portion that are part of the Ardmore Transit Center Project. The Ardmore Master Developer and Design Architect will coordinate with the Consultant throughout the Ardmore Transit Center Project to assure consistency with aesthetics established in the Dranoff Properties conceptual design.

The Consultant hired through this procurement shall be the Architect of Record for the elements listed below:

Major elements of the transit improvements include the following:

- New station building with retail and commuter facilities including waiting and toilet rooms
- New high-level passenger platforms 530 feet long adjacent to the outside tracks 1 and 4
- New low-level passenger platforms 200 feet long for emergency access to the inside tracks 2 and 3
- New pedestrian overpass and/or rehabilitated existing underpass
- New stairs, ramps, and/or elevators
- New canopies and passenger shelters
- New railings and signage
- New benches, bike racks, waster receptacles and other amenities
- New multi-level parking garage
- New bus intermodal transfer facilities
- New roadway improvements to support the transit operations
- New streetscape improvements such as landscaping, paving, crosswalks and lighting
- New mechanical work to support the transit operation
- New electric power and lighting to support the transit operation
- Bonding and grounding improvements to meet Amtrak requirements
- Complete compliance with the Americans with Disabilities Act Guidelines (ADAG).

The Master Plan proposes that to some extent the transit operations and the mixed-use development will be integrated. Though the work of this RFP is the design of the transit related improvements, it must be within the context of the integrated components of the Master Plan. The Consultant shall coordinate his efforts with those of the Consultant designing the mixed-use development to ensure that the integration of these components is seamless.

The Consultant and each member of its design team shall become familiar with and knowledgeable about the extent of the scope of work and various requirements as described in the Agreement.

A. Work Description:

1. The Consultant shall arrange and conduct a series of meetings with the Township, SEPTA and Amtrak during the scope definition phase of the project to fully understand the specific project elements and to define the basic requirements for each of the project scope elements.

2. The Consultant shall coordinate his efforts with those of the Consultant (Architect) designing the mixed-use development to ensure that the integration of these components is seamless. Overall coordination of these two efforts will be by the Developer's Design Architect who will provide general oversight for design consistency.

3. The Consultant shall be required to develop a comprehensive set of safe and constructible plans and specifications for the construction of the public improvements of the Ardmore Transit Center Project. The Consultant is required to ensure that these improvements be in full compliance with all Federal, State and Township codes, regulations and ordinances. Further, the Consultant shall incorporate all SEPTA and Amtrak requirements, standards and guidelines for design and materials. The Consultant shall be responsible for development of all details for any feature or function that is not covered by applicable standards.

4. The design and construction of this project is to be achieved in the shortest time period, at the most economical cost, and with minimal disruption to SEPTA and Amtrak's daily operations and minimal inconvenience to passengers. Therefore, all work during design and construction must be staged so as to maintain operations and minimize traffic impacts and disruptions to the surrounding areas. The Consultant shall develop staging and phasing plans which will ensure that the construction can be accomplished in this manner.

5. The Consultant shall be responsible for developing constructible contract documents that are sufficiently clear and complete, so that they can be easily interpreted and competitively bid. The Consultant shall anticipate the need to develop construction documents in accordance with Pennsylvania's Separations Act.

6. The Consultant shall develop all necessary submissions for Federal, State, County, and Township agencies. Submissions shall include, but not be limited to, sketch plans, phasing plans, zoning plans, and permit applications. Further, the Consultant shall attend and participate in all meetings necessary to satisfy Federal, State, County, Township, SEPTA and Amtrak requirements.

7. The Consultant is required to satisfy all Federal, State, County and Township ordinances, statutes and other stipulations. If required, the Consultant shall obtain any and all approvals and/or obtain all zoning variances necessary to acquire approval from the relevant agency.

8. Whether or not it is expressly stated, the Consultant shall be responsible for the performance of any work that is either incidental to, or a prerequisite for, any of the tasks or services identified herein. Furthermore, the Consultant shall be responsible for performing tasks and services that may not be specifically identified herein, but are clearly included in the intent of this section. Wherever in this section a task is described, without specifically stating who is responsible for performing said task, it shall be implicit that the responsibility for the completion of the work is that of the Consultant. Sub-consultants may perform portions of the work subject to the conditions of this Contract with review and supervision by the Consultant.

9. The Consultant shall apply its best efforts to meet the criteria for a Certified Leadership in Energy and Environmental Design (LEED) Building as defined by the US Green Building Council (USGBC).

B. Task Phasing

The work comprises distinctive design and construction phases as described below:

1. Phase A: Engineering & Design

   a. Collection of information and data
   b. Establishment of design requirements
   c. Design development
   d. Preparation and delivery of construction documents, inclusive of technical specifications and drawings.

2. Phase B: Construction Related Services

   a. Technical assistance during procurement, including participation in Pre-Bid Meeting and Site Visits and preparation of addenda.
   b. Performance of shop drawing reviews, site meetings, code inspections, field clarifications and as-built/record drawing review.
   c. Provide technical assistance to the Township's Project Manager.

Separate Notice-To-Proceed (NTP) authorizations will be issued for each Phase. Phase A will include Scope Definition (15%), 45%, 90% and 100% design submittals and Bid Documents. The formal design submission review meeting(s) shall be held at a minimum of fifteen (15) calendar days after the design presentation meeting for the 45%, 90%, and 100% stage submittals. The NTP for Phase B will be issued subsequent to the Township's acceptance of Phase A.

The Township stresses the significance of the design review and discussion of the details presented during the 45% design submittal. The 45% design submittal provides the focal point for critical decision making with respect to the project budget and design direction. The Township will "freeze" the design at the completion and acceptance of the 45% submittal, preventing any fundamental changes in the design unless directed and deemed necessary by the Township. Changes in design beyond the 45% milestone shall be incorporated at no added cost should the design element revision in question be determined to be the result of errors or omissions.

II. Furnished Information & Data

A. Ardmore Transit Center Plan

1. Architectural Site Plan, Dranoff Properties / JKR Partners
2. Schematic Plans for the Station Building, Dranoff Properties / JKR Partners
3. Schematic Plans for the Parking Garage, Dranoff Properties / JKR Partners
4. Preliminary Finish Materials, Dranoff Properties / JKR Partners
5. Preliminary Construction Phasing Plan, Dranoff Properties / JKR Partners.
6. Amtrak Preliminary Engineering Agreement

B. Base Information

1. Survey of Project Area, Pennoni Associates Inc, 2005, updated 2008
2. Tax Map of Downtown Ardmore

C. Environmental Documents

1. Draft Preliminary Determination of Effect Report ER# 05-3231-091
2. Historic Resource Survey Form
3. Ardmore Commercial Historic District Map
4. Phase 1A Archaeological Survey
5. Letters of Concurrence from PA Historical & Museum Commission
6. Environmental Assessment (EA) - Draft
7. Environmental Site Assessment (ESA) - Draft

D. Traffic Documents

1. Ardmore Traffic Report 2004
2. Ardmore Traffic Analysis 2004
3. Ardmore Traffic Data, Pennoni Associates Inc., Updated 2008

E. Design Criteria

1. Amtrak Grounding and Bonding Requirements
2. Amtrak Station Design Handbook
3. Amtrak Station Clearance Envelope Diagram
4. SEPTA ADA Check List (preliminary)
5. SEPTA Audio Visual Public Address (AVPA) System Guidelines
6. SEPTA Lighting Design Guidelines
7. SEPTA Station Design Criteria

F. Documentation Standards

1. SEPTA IMOS Engineering CADD Standards (July 7, 2004)
2. SEPTA Standard Form Construction Contract

3. SEPTA Standard Specification Format (SMF)

The Consultant shall certify that it has reviewed and understood these and any additional documents that have been identified or provided by the Township.

III. PHASE A: ENGINEERING & DESIGN

A. Administration

1. The Consultant shall provide administrative project management. Administration shall include, but is not limited to, quality control / quality assurance, design procedures and criteria, coordination of the design team and project elements, monitoring schedules, document control, submittal review, submitting of design deliverables, organizing and conducting progress meetings, monitoring the progress of work, verifying Consultant's expenditures, and oversight of value engineering implementation and construction estimates.

2. The Consultant shall be expected to coordinate the documentation for all design disciplines; including that of the sub-consultants, so that the initial project research and the resulting contract documentation is complete, concise, and without omission, contradiction, or ambiguity.

3. All Consultant personnel who will have occasion to enter the railroad (RRD) track envelope must attend Amtrak safety training and submit a release-for-access form before entering the track area. These seminars are offered at regular intervals and provide certification valid for one year. The proposal shall include the cost of this training.

B. Task 1: Site Evaluation & Investigation

The Consultant shall conduct all research and perform all investigations necessary to develop the design documents for the project. This shall include but not be limited to surveys, geotechnical research, hydraulic and hydrological studies, drainage investigations, environmental research, hazardous materials research and assessments of existing conditions.

1. Existing Conditions

a. Comprehensive Code Review - The Consultant shall research and identify all codes, requirements, guidelines and standards pertaining to the work for inclusion in the Design Manual. If requirements are unclear or contradictory, the Consultant shall obtain clarifications from code enforcing bodies.

b. Existing Information Review - The Consultant shall review all available reports that relate to Ardmore Station. This effort shall be used to verify information regarding this site, including all Township, SEPTA and Amtrak provided information, and to augment or revise it as the existing conditions warrant.

c. Existing Station Facilities - The Consultant shall perform an inspection and assessment of the pedestrian tunnel, stairs, retaining walls, and right-of-way

(ROW) fencing associated with the station. The assessment shall also include an evaluation of the pedestrian sections of the bridge over Anderson Avenue.

d. Amtrak and SEPTA Facilities - The Consultant shall locate and identify on an existing conditions plan all Amtrak and SEPTA facilities, both above and below ground that are within the vicinity of the Project. These facilities shall include, but are not limited to, the station building, platforms, stairs, pedestrian underpass, parking lot, track, power transmission lines and poles, catenary power systems, signals and signal systems, communications systems, supervisory control lines, structures and all other wayside equipment. This effort must also include detail regarding proposed facilities, including types and locations. In addition, the Consultant shall identify any utilities that will require relocation or adjustment, temporary or permanent, for this project.

e. Public Utilities – The Consultant shall locate and identify on an existing conditions plan all public utilities, above and below ground, that are within the vicinity of the project. This effort must include the placement of a PA-One Call. This effort must also include detail regarding proposed service connects, including types and locations, between the utilities and the station. In addition, the Consultant shall identify any utilities that will require relocation or adjustment, temporary or permanent, for this project.

f. Site Documentation - The Consultant shall provide a minimum of thirty individual images using high resolution (8 Mb) digital photography of pertinent site conditions at the station location and along the ROW in the vicinity of the station. All pictures shall be properly captioned or otherwise labeled. Catalog and submit the captioned photographs on compact disc (CD). Captions are to indicate date, time, and direction of images at time of exposure. Provide a plan keyed to each image to indicate camera position and general orientation at time of exposure.

2. Survey Review

a. The Township will provide a survey of the site and will indemnify the Consultant for design errors attributable to the provided information. The following survey information will be provided:

i. Conventional topographical field property survey that determines the condition, nature, dimensions, elevations, grades and locations of all necessary, existing natural and physical features and facilities within the limits of the proposed work or adjacent areas needed to address changes to the track, signals, communication, catenary and other systems.

ii. Boundary land survey, as required by local statutes and ordinances, for all parcels that are within a minimum of 500 feet of the limits (but not less than that required by governing entities) of the proposed work. All boundaries of the identified parcels have been verified through an independent title search.

iii. Horizontal and vertical locations for all track, catenary and supporting structures. The survey provides all alignments and profiles for the tracks including documentation of any super-elevations for approximately 1,000 feet beyond the limits of the proposed improvements. In the vicinity of the platforms and bridge, measurements have been recorded at 10 foot intervals to facilitate the placement of the high-level platforms.

iv. Surface and known subsurface features shown in cross section.

v. The surveys have been performed with adequate detail to establish horizontal and vertical control with offset ties for recovery and maintenance of all control.

vi. Survey Notes have been kept in standard survey notebooks and filed with the Township. The notes have been accurately and neatly kept, fully indexed, dated, signed and sealed by a Professional Land Surveyor licensed in the Commonwealth of Pennsylvania.

b. The Consultant will review and confirm that the surveys have been performed in adequate detail for their preparation of design documents.

c. The Consultant shall provide a fully dimensioned existing conditions plan based on the survey. The plan must show all utilities, property boundaries, set back requirements, and other existing features accurately including, but not limited to, the location, size and type of all structures, roadways, bridges, culverts, and other salient features that are within the limits of the project and those features which may affect or be affected by the project including all aerial and underground utilities within ten (10) feet of the project limits.

d. The Consultant shall provide a list of potentially affected property owners that includes names, addresses, and contact information.

3. Infrastructure Investigation

The Consultant shall be responsible for performing a detailed investigation of the infrastructure at and surrounding the project area. This infrastructure investigation shall include all items necessary to develop the design documents for the project. This effort shall include, but is not limited to, the following items:

a. Utilities - The Consultant shall list and locate on the existing conditions plan, all public utilities, above or below ground, that are within the vicinity of this project. This effort must include the placement of a PA-One Call. This effort must also include detail regarding existing and proposed service connections, including type and locations, between utilities and the station. In addition, the Consultant shall identify any utilities that will require relocation or adjustment, temporary or permanent, for this project.

b. Levels of Service - The Consultant shall evaluate the level of service provided by each utility that serves this facility. If the service is deemed to be inadequate for use in this station, the Consultant must develop a design for providing adequate service levels to the station.

c. Stormwater Management - The Consultant will identify all applicable regulatory requirements and develop a Stormwater Management Plan for the site.

4. Geotechnical Analysis

a. The Consultant shall investigate the subsurface conditions in the area of the project. Substantial effort must be made to minimize the potential for unforeseen conditions. This investigation shall study all impacted areas, potentially including, but not limited to, platforms areas, retaining walls, bridge abutments, foundations, tunnels, yard areas and areas requiring slope stabilization, in a manner suitable for the type of work proposed. The subsurface investigations shall include digging test pits and/or taking soil borings in numbers and locations necessary to develop an accurate profile of the soil conditions in all areas where construction operations will take place and is appropriate for the planned work.

b. The Consultant shall conduct soil borings at a maximum grid spacing of 50 feet to cover the area of the proposed work. Test pits may be substituted where deep (four feet +1- or greater) foundations are not needed, (e.g., in areas only to be paved). The borings shall be developed to refusal depth, with approximately 33% to include rock sampling. Rock sampling shall be a minimum of 10 feet into rock. A minimum of 12 additional borings shall be taken at areas specified by the Township Project Manager and analyzed to provide data and to confirm assertions and assumptions regarding subsurface conditions. The borings delineated above are considered a minimum. If the Consultant determines that it is in their best interest to further the quality of the design, i.e., that additional borings are required, they shall be provided.

c. Soil borings are to be coordinated so as to provide samples for environmental evaluation and to expose such subsurface conditions that will require environmental remediation.

d. The Consultant shall provide a full conditions report on the subsurface conditions. The report shall identify subsurface soil layers, including soil type and pertinent soil properties for each layer, identify underground utility locations, including depth, as well as any other important subsurface locations and items. The report shall also include the soil boring logs and soil design criteria. The Consultant shall provide a plan locating all soil borings, a plot (using electronic and paper media) in three dimensions that indicates the subsurface condition test results. The plot shall have the proposed foundation system projected on it as a reference overlay. The subsurface report, including geotechnical engineering data and plot of the subsurface conditions shall be produced in paper and electronic forms suitable for review by the Township Engineer and compatible with the Township's current software.

e. The Consultant may propose advanced techniques or methods (e.g. geophysical) that have been proven to meet or exceed information obtained from conventional soil borings.

5. Environmental Clearance

a. Environmental Site Assessment (ESA) - The Township has commenced a Phase 1 ESA which is expected to be completed in the winter 2008. The Consultant shall incorporate the "recommendations for further action" of the ESA in the final contract documents.

b. Environmental Assessment (EA) - The Township has commenced an Environmental Assessment including Section 106 of the National Historic Preservation Act and Section 4f of the U.S. Department of Transportation Act of 1966. The EA is currently being conducted and will be completed in the winter 2008. The Consultant shall address the findings of the EA in the final contract documents.

c. Subsoil Evaluation - The Consultant shall report the results of soil sampling, including sampling done in conjunction with structural soil borings, and incorporate necessary environmental remediation efforts into the final contract documents.

6. Operational Issues

a. Rail Service Assessment - The Consultant is to become completely familiar with the operation of all potentially affected passenger and freight rail transportation services including, but not limited to, SEPTA's R5 Thorndale / Paoli Regional Rail Line and Amtrak's Keystone and Pennsylvanian services.

b. Bus Service Assessment - The Consultant is to become familiar with SEPTA bus lines serving the station area and prepare a service assessment of all surface bus routes operating in the vicinity of the station, including SEPTA and private

services. Any modifications required to accommodate these services shall be included in the work.

c. Pedestrian Assessment - The Consultant shall perform an assessment of the pedestrian circulation in and around the Ardmore Station to inform the design and phasing of the project. The investigation should identify problem areas or other areas of note regarding pedestrian movement throughout the site. This investigation must also address problems that may arise based on construction efforts that are associated with this project. For items noted, the affected area must be documented, and recommendations to mitigate or minimize the problems presented.

d. Vehicular Assessment - The Consultant shall perform an assessment of vehicular movement in and around the Ardmore Station. As part of this assessment, the consultant shall prepare the following:

i. Develop a report relating to the maintenance of vehicular movement (including bus service) that might be affected during, or as a result of, the proposed construction.

ii. Determine the number of passengers that currently transfer among rail and bus routes and vice-versa, and between automobile and bus or rail.

iii. Identify permits and other requirements necessary for the Township, PennDOT and other governing traffic authorities to approve temporary and permanent alterations to the cartway such as curb-cuts for egress and access, street closures or traffic detours at locations within their respective jurisdictions.

iv. Investigate and document municipal concerns that need to be addressed.

v. Incorporate findings from the Traffic Impact Study prepared by the Developer and subject to approval by the Township Engineer.

C. Task 2: Site Development

The Consultant shall refine the master development plan provided by the Design Architect and prepare detailed design drawings for the public and transit improvements portion of the project. The drawings shall include, but not be limited to, plans for the station building, parking garage, passenger platforms, pedestrian bridge and other infrastructure improvements such as public roadway and sidewalk improvements.

If additional data are required to meet and comply with the recommendations resulting from the Value Engineering Consultant's efforts described in Section 7-IV.K (Value Engineering) and that were accepted by the Township, the Consultant shall conduct the surveys, studies, investigations, inspections, and research necessary to obtain this data and use it in modifying their design.

1. Structural

a. Station Building - The Consultant shall design a three-story station building with retail and commuter facilities on the ground floor and commercial office space on the second and third stories based on the design provided by the Design Architect. The following information will be provided by the Township:

i. Architectural Site Plan - This plan will include the site area generally between Anderson Avenue and the Public Safety building. The plan will show the proposed location of the train station with elevated platforms, the public garage configuration, surrounding roadway improvements and the limits of the adjacent private development by Dranoff Properties. The plan will also show the proposed layout of the new "main street" connecting to Station Avenue with sidewalks, curb cuts, etc.

ii. Schematic Floor Plans - These drawings include the ground floor plan with all SEPTA requirements, (ticket office, ADA compliant bathroom, waiting area), new ramp to the elevated platform, new stairs, new stairs /ramps to the existing tunnel, new elevators, etc. The drawings will also include schematic plans for upper levels that will be used for commercial office space.

iii. Schematic Sections of the proposed station structure.

b. High-Level Passenger Platforms - The Consultant shall design accessible high-level passenger platforms to serve Tracks 1 and 4. The Consultant shall limit alternative investigations to pre-cast concrete for the high-level platforms. Canopies shall meet SEPTA requirements but, at a minimum, be 25% length on the inbound platform for the full width of the platform and approximately 20% coverage on the outbound side. Windscreens on both platforms shall be included.

c. Low-Level Passenger Walkways and Boardwalks - The Consultant shall design low-level passenger walkways and boardwalks for emergency access to Tracks 2 and 3. The low-level platform on the inbound side that will access Track 2 will provide pedestrian connection from the high-level platforms to the Ardmore West municipal parking lot, which is located to the west of Anderson Avenue and behind the buildings fronting Lancaster Avenue.

d. Parking Garage - The Consultant shall design a multi-deck parking garage that is consistent with the Design Architect’s design and contains approximately 375 above grade spaces and a minimum of 109 below grade parking spaces. The below grade parking must have controlled access and provide through connection to the below grade parking underneath the adjacent mixed use development (to be designed by others). The structural interface between the mixed-use development and the below grade parking must be coordinated. The proposed parking garage shall be furnished with two elevators.

The following schematic drawings for the public parking garage will be provided:

i. The basement plan with the proposed ramp design and areas designated for public and private parking.
ii. The first floor with proposed ramp configuration for both public and private access.
iii. The second level plan with ticket machine locations.
iv. Typical parking levels above.

e. The Consultant shall design a pedestrian bridge (including vertical circulation) over the tracks to connect the inbound and outbound high-level passenger platforms. As currently designed, the bridge will provide an ADA accessible path between the inbound and outbound platforms. However, there has to be both elevator and ground-level ADA accessible paths designed into the project. The design shall be consistent with the design provided by the Design Architect. The bridge is to be developed as an element that may become optional or to be completed in a future phase and coordinated with the design for the mixed-use development.

f. Based on the results of the geotechnical investigation, the Consultant shall review and compare alternative foundation systems for the station building, high-level passenger platforms and the parking garage. The Consultant shall develop cost comparisons for the alternatives. The advantages and disadvantages of each scheme must be noted with respect to construction cost, life cycle cost, constructability and future maintenance.

g. The Consultant will be responsible for the design of retaining structures necessary to stabilize and support elements of the project.

h. The Consultant shall provide calculations in support of all elements of the station site design with regard to sizing, loads, volumes, area, flows, controls, consumption levels and capacities. The calculations for each element provided in support of this task and all other tasks shall be combined and provided in an indexed binder. All calculations shall reference the specific code, requirement or criteria that are the subject of the calculations, and how they are being met.

i. Elements for this work must integrate the mixed-use building which will be designed independently from the public components. Special care and attention shall be given to the interface and connections between the private development and public components. The Consultant shall coordinate designs with the Design Architect.

2. Architectural

a. The Consultant shall develop the architectural designs provided by the Design Architect for the station building, pedestrian bridge, and parking garage. The design of the station building, parking garage and pedestrian bridge must be consistent with that of the mixed use building. The Consultant shall review the design with the Design Architect and incorporate changes requested by the Design Architect and approved by the Township Project Manager. The review and coordination process will apply for the design of all elements.

b. The architectural design shall insure that the spaces are sized properly, have appropriate correspondence and are suitably finished and conditioned for all users and programmed functions, including mechanical, electrical and building systems.

c. The Consultant shall prepare and complete all finish schedules.

d. The Consultant must review all signage requirements and provide for signage at appropriate locations and heights. This project must incorporate required accessibility signage and other wayfinding signage leading to and throughout the entire site. All graphics and signage shall conform to the current SEPTA Graphic Standards and be reviewed and approved by SEPTA's signage task force. Signage shall conform to the Lower Merion Township Zoning Code.

3. Electrical

a. The Consultant shall provide the necessary details for all electrical systems necessary for the proposed improvements and illustrate all electrical spaces with full dimensions. Drawings will show the development of panels and circuits for all electrical systems. Electrical elements comprise all items associated with electrical service and distribution, including but is not limited to, conduits, telephone service, fire alarm systems, cable, emergency back-up power, communications, lighting, electronic ticketing systems, AVPA, CCTV and/or security systems.

b. All electrical systems and distribution shall meet all applicable local, state, and federal codes, requirements and guidelines.

c. All services shall be distributed from centrally located panels.

d. Connections between systems designed by the Consultant and those by the design team of the mixed-use development shall be specifically noted and detailed such that the systems are properly and fully integrated, fully functional as intended, with specific directions provided as to who is responsible for making the connections.

e. The lighting design must conform to Township and SEPTA standards. All lighting in the station facilities including platforms, canopies, tunnels, and access ways shall be provided with emergency back-up systems. The Consultant shall incorporate an energy management system and Energy Efficient Design (EED) components into the lighting design.

f. The Consultant's design shall provide for the installation of an Audio Visual Public Address (AVPA) system that is compliant with SEPTA standards (SEPTA provided AVPA drawings and specification section 16730) and can be easily integrated with SEPTA's existing AVPA System.

g. The Consultant shall identify suitable locations for the Variable Message Sign (VMS) enclosures and account for SEPTA mounting details to the greatest extent possible in the design package; generate new VMS mounting details if

necessary; and include the recommended location of all VMS components in the drawings.

h. Provide electrical and communication conduits for anticipated electronic ticketing systems.

i. The Consultant shall prepare a Life Cycle Cost Analysis for lighting alternatives.

4. Accessibility

a. The Consultant shall provide for ADA compliant access for passengers into and through the station facility and platforms.

b. For all ramps and platforms, the Consultant shall be responsible for developing all related aspects of the design of these elements including, but not limited to, lighting, signage, warning strips, tactile edging, and railings.

5. Mechanical

a. The Consultant shall design and prepare drawings, details, specifications and calculations for all mechanical improvements and systems for the public improvements (i.e. station building, passenger facilities, commuter parking garage).

b. Mechanical improvements shall include, but are not limited to, all items associated with the plumbing, water supply, waste water disposal, garage, storm water collection, heating, air conditioning and ventilation.

c. The Consultant shall provide the necessary details for all mechanical spaces necessary for the transit related improvements and illustrate all mechanical spaces with full dimensions.

d. The Consultant shall design elements of the stormwater systems necessary for all the proposed improvements of the development plan, including the mixed-use development. This includes obtaining all permits necessary for metering and discharging the collected stormwater. Drawings will show all development with drainage systems in plan and profile.

e. The Consultant shall prepare a Life Cycle Cost Analysis for major mechanical systems (e.g. heating, cooling, and elevators).

6. Infrastructure

a. The Consultant shall develop detailed plans showing the roadway improvements, pedestrian access, streetscape, lighting, storm water drainage, retaining walls and other new work. Drawings are to clearly distinguish all new work from existing. The design for the infrastructure improvements will be reviewed and approved by the Design Architect for design consistency with the overall project.

b. The Consultant shall investigate installing right-of-way fencing at selected locations near potential access points to prevent unsafe cross track access. In the event that areas of deficiency with regard to the fencing are identified, corrective actions, including the design of appropriate additional fencing, must be presented within the design of this project.

c. The Consultant shall incorporate existing utility requirements including relocation work to be accomplished by the Contractor into the construction and phasing drawings as approved. Design phase submissions will be submitted to the affected utility companies for review, comments and approval as necessary.

D. Task 3: Design Documentation

The Consultant shall design the necessary elements and prepare complete and coordinated engineering drawings, specifications and calculations for anything related to construction of the public improvements. The improvements are to be constructed in accordance with the standards and guidelines identified in Section 7-II (Existing Information & Data) and Section 7-V.B (Code & Design Criteria).

1. Construction Documents

a. The Consultant shall develop construction drawings to depict all the details, layout, configuration, notes, schedules, and dimensions necessary to enable prospective bidders to make accurate and reliable estimates of the quantities, quality, character, and costs of the labor, materials and equipment required to furnish and install the work in a skillful and well executed manner.

b. The Consultant shall prepare the specifications in accordance with the SEPTA modified format (SMF) and to enable prospective bidders to make accurate and reliable estimates of the quantities, quality, character, and costs of the labor, materials and equipment required to furnish and install the work in a skillful and well executed manner.

2. Design Manual

a. The Consultant shall document all codes, requirements, guidelines and standards pertaining to the work, including SEPTA and Amtrak standards and guidelines, in the Design Manual. If requirements are unclear or contradictory, obtain clarifications from code enforcing bodies.

b. The Design Manual shall incorporate approved resolutions to Value Engineering Consultant comments.

c. The Design Manual shall incorporate all prior comments and their resolutions, including documented references to correspondence, meeting minutes, telephone conferences, emails, memos or other documents supporting the resolution of the comments or specific directions in the Manual.

d. The Design Manual shall include the data and engineering systems criteria for civil, architectural, structural, electrical, mechanical, track, communications and other engineering disciplines, which may have a potential impact on the

project. In addition, this manual shall clearly, concisely and logically compile pertinent information regarding the size, capacity, layout, spacing, quantity, style, type, location, etc. for all material elements of the design, including structures, hardware, finishes, furnishings, amenities, graphics, signage, and specialty items.

e. The final approved Design Manual shall be considered the basis on which the Consultant shall proceed with their final design efforts. Should the Consultant not be able to progress their design or proceed in accordance with the information contained in the final approved Design Manual, the Consultant shall bring the non-compliant issues to the Township's attention for resolution. The Township's decisions on these matters shall be final and binding on the Consultant. Subsequent design work by the Consultant shall be based on the Township's decisions.

f. No requests for additional compensation by the Consultant will be entertained by the Township for items that either were not found or were not able to be completed based on the final approved Design Manual.

3. Agency Coordination & Permitting

a. The Consultant shall list all regulatory authorities, agencies, utilities and jurisdictions that may have regulations relevant to the project.

b. The Consultant shall also provide a detailed written report of all regulatory requirements, approvals and variances for which compliance may be necessary based on the defined scope of the project. The report will also identify permits required for construction.

c. The Consultant shall be responsible for all coordination with relevant agencies that have jurisdiction over the intended work, and to obtain necessary approvals and permits. Requests for modifications or out-of-scope work must be approved by the Township Project Manager. (Refer to Section 7-V.H – Design Approvals). In particular, the Consultant shall satisfy all land development requirements and obtain site plan approval from the Township of Lower Merion.

d. The Consultant shall contact in writing all affected utility companies and private property owners or entities to determine their requirements for protection, relocation or replacement of their facilities as necessitated by the design. The Consultant shall schedule and conduct any necessary meetings between the Township and the affected utilities and private entities to obtain the necessary approvals or develop the necessary agreements so that the work may progress.

e. The Consultant shall confirm the necessity for any utility relocations or special maintenance provisions with the affected utilities and determine if the utilities will accomplish the relocations or maintenance provisions with their own Force Account personnel or request/allow one of the Township construction contractors to perform the work.

f. The Consultant shall coordinate all traffic, vehicular, and pedestrian related activities with other agencies that might be affected during or as a result of this project. The Consultant shall also prepare application(s) for, and obtain, all required permits from PennDOT, Lower Merion Township and other governing traffic authorities to obtain their requirements and approval for temporary and permanent alterations to the cartway such as curb-cuts for egress and access, street closures or traffic detours at locations under their respective jurisdictions.

g. The Consultant shall engage an ADA compliance specialist that is independent from the design process and that is acceptable to the Township to review the construction documents for compliance with ADA regulations. The ADA specialist must submit to the Township, prior to the start of the ADA review, credentials attesting to his experience and knowledge.

4. Construction Cost Estimates & Schedules

a. The Consultant shall develop Construction Cost Estimates as detailed in Section 7-V.G (Construction Cost Estimates & Schedules). These cost estimates shall be prepared and submitted to the Township with the design submittal package at each level of the project as delineated in the project milestones and deliverables listed in Section 7-VII (Schedules & Task Deliverables).

b. The Consultant is required to implement all necessary steps to ensure that the design is constructible.

i. The Consultant shall review and analyze the impact of the project regarding transit operations, services and customer inconvenience with regard to all activities.

ii. The Consultant shall identify and describe during design any and all modifications or adjustments needed to maintain traction power and communication and signal system operations during construction.

iii. Additional Factors to be considered by the Consultant include the following:

- Coordination with PennDOT
- Disruption to street, vehicular and pedestrian traffic
- Disruption to neighboring properties and individuals
- Impacts on and coordination with public utilities
- Material lead and fabrication time
- Staging areas and material deliveries and storage
- Seasonal weather extremes

c. The Consultant shall develop a detailed Construction Schedule as delineated in Section 7-V.G (Construction Cost Estimates & Schedules). The schedule shall be updated and submitted to the Township with the submittal package at each level of the project as delineated in the project milestones and deliverables listed in Section 7-VII (Schedules & Task Deliverables). All activities, whether

or not they are constructed by the Contractor or by the Township shall be shown on the Construction Schedule.

d. The Consultant shall provide a bid analysis that describes factors which may impact the 100% cost estimate in comparison to contractor(s) bids received.

e. The Consultant shall provide proposal forms for all construction contracts and prepare a Construction Cash Flow Forecast for each construction contract based on the final construction cost estimate and schedule.

5. Construction Phasing

a. The Consultant shall provide a comprehensive phasing plan that indicates all construction sequencing necessary to minimize impacts to operations, adjacent properties and roadways.

b. Preliminary construction phasing plans shall be included with each submittal package. Final phasing plans shall have been submitted and approved by the requisite authorities and agencies.

c. The construction phasing plans will detail the limits of work, the specific work elements, and the duration of the phases to meet other related requirements as stated in this scope of work. These phasing plans shall be in accordance with applicable Lower Merion Township, SEPTA, Amtrak, PennDOT, and other agency requirements and guidelines.

d. The Consultant shall keep their construction phasing efforts current with SEPTA and Amtrak policies throughout their entire design effort. The Consultant shall also have knowledge of, and be familiar with, railroad operations and the availability of support services and outages.

i. Track and traction power outages will generally not be permitted on certain holidays and holiday weekends. Holidays are defined to include the Flower Show week, Memorial Day weekend, and Mother's Day weekend, the Fourth of July and the Welcome America Festivities period, and Labor Day weekend.

ii. Outages shall not be permitted during the "holiday season" defined as the period starting on the Wednesday before Thanksgiving Day until January 2, inclusive.

e. The Consultant shall identify means of minimizing disruptions to existing Township, SEPTA and Amtrak parking, as well as locations and methods of providing temporary and contractor parking during construction. The Consultant shall develop and finalize plans for alternate parking to be used by SEPTA / Amtrak commuters, Township fleet vehicles, and Township employees displaced during phased construction.

f. The Consultant shall develop temporary signage to ensure optimum passenger flow through the existing station during construction. The Consultant shall ensure accessibility to the platforms and between platforms.

g. The Consultant shall identify all temporary construction required to maintain safety and operations; provide details of how new construction will be coordinated with temporary operations measures.

h. The Consultant will be responsible for the design of all temporary work necessary to stabilize and suitably support any element affected by the scope of the project.

i. Construction access, including access for material loading, unloading and storage, shall be developed and maintained so as to minimize the interference with businesses, adjacent properties, pedestrian flow, transit operations and vehicular flow. Construction access shall be coordinated with the phasing of the project.

6. Maintenance and Protection of Traffic

a. To minimize disruption to railroad operations, vehicular traffic, SEPTA bus routes, adjacent property owners and pedestrians during construction, the Consultant shall develop a Maintenance and Protection of Traffic Plan and submit an updated version at each submittal level.

b. The Consultant must address any impacts that construction may impose on the traffic amounts and patterns. Additionally, for any predicted lane or street closures, the closure must be identified. As part of identifying the closure, the Consultant must identify the predicted date, frequency and duration of the closures. The Consultant will provide justification and mitigation measures such as detours, temporary paving markers, and time restrictions.

c. The Consultant shall develop and design roadway lane closures in accordance with Lower Merion Township and PennDOT guidelines. The Consultant shall meet with personnel from the Township and PennDOT to ensure that guidelines are met and all related issues are resolved prior to the 90% design submission. The Lower Merion Board of Commissioners must approve the traffic control plans.

7. Art Component

The Consultant shall anticipate the need to incorporate an element of art into the project. This requirement is fully described in Section 7-V F (Art Component). The Consultant and the Artist shall perform the artwork documentation tasks. The Consultant shall be required to document any construction contractor work required for the installation of the art (e.g., structural supports and electrical or mechanical services). If the art is a fabricated piece, which the Artist creates in his or her own studio for erection on the site, then the Consultant shall document the erection of the work in the construction contract documents. The Consultant will be required to document both art construction and installation if assembly of raw or partially completed materials is proposed. It is expected that the art construction / installation will occur at the same time as project construction. The General Contractor shall be responsible for the construction/installation of the artwork.

IV. PHASE B: CONSTRUCTION RELATED SERVICES

The Consultant shall perform construction phase services in an expeditious, reasonable and timely manner. The Consultant shall assist the Township in reviewing the work of the Contractor(s) for conformance with the construction contract requirements. The Consultant shall answer and resolve any questions regarding the design that may impact the quality, cost or schedule of the project.

Construction Related Services (CRS) will be initiated promptly after the receipt of the notice-to-proceed (NTP) for Phase B services. This generally occurs immediately after the Township's acceptance of the 100% Final Submission of the completed contract documents.

A. Task 1: Administration

The Consultant shall provide administrative project management, which primarily consists of, but is not limited to, coordination of the design team, the execution of the construction phase services to meet the needs of the project and schedule, monitoring of document control and its CRS tasks, and verifying consultant expenditures and attendance at construction meetings.

B. Task 2: Bid Cycle Support

Consultant tasks in assisting the Township during the third party Contractor bidding process include, but are not limited to:

1. Attend pre-bid meetings, answer questions related to the design, and provide technical information.

2. Attend pre-bid site inspection(s), if held.

3. Prepare contract documentation for addenda as directed by the Township's Project Manager. The documentation may include, but is not limited to, responses and/or clarifications to contractor's inquiries, redesign or supplementary design, if required, and cost estimates for each addendum. Written documentation, addenda and/or responses to technical questions shall be prepared within five (5) calendar days from the date of the request by the Project Manager.

4. Assist the Township in the evaluation of bids. After bid openings, prepare technical evaluation of bids for responsiveness to the design. The technical analysis shall include market conditions, comparison with the Consultants estimate and any other potential concerns that the Township should consider prior to awarding any contracts. Provide recommendations as to the fairness and reasonableness of price and the technical responsiveness of the bid(s) to the Project Manager within five (5) calendar days of each bid opening date. If rebids are required, as determined by the Township, assist in re-bid procedures, including preparation of addenda.

5. If the Township awards a contract(s), modify Contract Bid Documents (drawings and specifications) to incorporate all addenda to produce a "Conformed Construction Set" of Contract Documents. The fully conformed set shall be submitted to the Township at least fourteen (14) calendar days prior to the contract(s) award. The Contractor(s) shall be requested to review the conformed documents. Upon completion of the Contractor(s) review, revise the "Conformed Construction Set" if required. The

Contractor(s) shall be required to accept the "Conformed Construction Set" as the Contract Documents.

C. Task 3: Meetings and Site Inspections

1. The pre-construction meeting shall be attended by the key technical disciplines of the consulting team to brief the Contractor(s) on any specific issues critical to the project. This meeting is chaired, and the agenda will be established, by the Township's Project Manager. The Consultant shall distribute hard copies of the submittal list to the Contractor(s) at the pre-construction meeting with specific instructions to the Contractor(s) regarding the submittal process, the form and protocol to use, distribution of copies, etc.

2. The Consultant shall be required to visit the job site periodically at predetermined times to attend job progress meetings and construction site inspections. The Consultant shall document the Contractors' progress and quality of work for each Consultant designed element during each site inspection and/or job progress meeting. The Consultant shall file a written report which may include observations, sketches and other supporting information, documenting conformance with the Contract Documents. The Consultant shall provide the written report to the Project Manager within five (5) calendar days of each site visit, or as necessary to support the construction schedule.

   a. Biweekly job progress meetings will be held at the construction site office with the Contractor(s) and the Township to review progress of the work and to help resolve any technical issues that arise. Job progress meetings generally run from one to four hours in duration. The Consultant shall be expected to attend all job progress meetings.

   b. The Consultant shall also be required to visit the site at the request of the Project Manager to resolve any specific issues or problems associated with field conditions and/or contract interpretation, and/or proposed change orders and revisions. The Consultant shall also be required, at the request of the Project Manager, to visit the site to resolve other specific problems, which may arise during construction. Site inspections, exclusively related to errors and omissions, are not included in this task. (Refer to Section 7-IV.G – Errors & Omissions)

   c. The Consultant shall be expected to visit the site to inspect critical design elements during and upon completion of such elements. This inspection shall critique the construction with regard to design conformance. These elements may be predetermined during the design phase. Any discrepancies shall be given immediately to the Township's Project Manager or field representative.

   d. The Consultant shall resolve any design-related constructability issues, and inspect design and structural elements during installation and upon completion of such elements.

3. The Contractor is required to update the as-built records on a weekly basis. The Consultant, on a monthly basis at minimum, shall review the Contractor(s)' records for conformance with the work changes initiated by Requests-for-Information (RFI), supplemental design, change orders, etc. At each job progress meeting, the Consultant shall report on the as-built record documentation by the Contractor(s).

D. Task 4: Submittals & Shop Drawings

1. The Consultant's list of the submittals will be distributed to the Contractors' representatives at the Pre-Construction Meeting.

2. The Township Project Manager (PM) is responsible for coordinating shop drawing reviews. All Contractor shop drawing submittals will be transmitted to the PM. The PM will check each submittal for completeness and administrative compliance. An incomplete or non-compliant submittal will be returned to the Contractor by the PM. The PM will transmit a complete and compliant submittal to the Consultant for processing.

3. The Consultant shall review and return all Contractor submittals, including shop drawings and samples for conformity with the Contract Documents, within ten (10) calendar days of receipt from the PM or sooner if necessary to meet the construction schedule. The review shall be performed under the supervision of an Engineer/Surveyor/Architect, as applicable, licensed by the Commonwealth of Pennsylvania. The Consultant shall coordinate the review of shop drawings with the Design Architect for design consistency.

   a. If the submittal is rejected, reasons must be clearly stated in the submittal or on the transmittal document.

   b. The results of review of submittals will be indicated in terms of status as follows:

      i. NO EXCEPTIONS TAKEN
      ii. PROCEED AS NOTED
      iii. DO NOT PROCEED; REVISE AND RESUBMIT
      iv. REJECTED
      v. NOT APPLICABLE

4. The PM will be responsible for the coordination of internal Township comments, as applicable, concurrent with the Consultant's review. The PM will provide comments to the Consultant for inclusion in the consolidated reviewed submittal. The PM is responsible for transmitting the consolidated comments to the Contractor(s). The initial review cycle for a complete submittal will not exceed twenty-one (21) calendar days.

5. The Consultant shall review and respond to re-submittals within ten (10) calendar days of receipt by the PM, or sooner if necessary to meet the construction schedule. The review cycle for a complete re-submittal will not exceed fifteen (15) calendar days.

E. Task 5: Design Clarifications

Design clarifications are defined as interpretations or additional documentation that does not result in changes in the construction contract cost.

1. The Consultant, when requested by Township and the Contractor, shall provide interpretation of the design documents to Township. The Township PM will be

responsible for coordinating the Contractors' Request For Information with the Consultant and the Consultant's clarification to the Contractor(s).

2. The Consultant shall provide all necessary clarification sketches and written and verbal interpretations required during construction to clarify the intent of the design documents. Such clarification sketches, specification edits, and/or reports, etc., shall be prepared within five (5) calendar days of being so requested by Township or sooner if necessary to meet the construction schedule.

F. Task 6: Design Changes

1. Design Changes are defined as those items, which require adjustment of a Contractor's price due to unforeseen conditions or changes requested by the Township. The Consultant's level of effort under this task will be based on the occurrence of seven (7) unforeseen events. The Consultant shall prepare change order documentation as necessary during the construction phase to support this effort. Such change order documentation shall be prepared within ten (10) calendar days of being so requested by the Township or sooner if necessary to meet the construction schedule.

2. Change Order Documentation:

   a. The minimum level of documentation required for any change order will be as follows:

      i. Detailed description of the scope of the change and/or additions, support sketches, drawings and specifications so that the Contractor(s) can prepare an accurate price proposal.

      ii. Detailed construction cost estimate to implement the change.

      iii. Provide a schedule analysis to determine the estimated amount of time needed by the Contractor(s) to perform the changed work. The Consultant may also be required to provide an analysis of the Contractor's schedule to ascertain the most opportune period to accomplish the change work

      iv. Prepare a comparative price analysis based on the Contractor's proposal and the Consultant's own detailed estimate.

   b. If, in the opinion of the Township, the Consultant's formal revisions (sketches), due to clarifications and design changes, affect the ability of the Contract Documents (drawings or specifications) or the Conformed Construction Set of Contract Documents to be effectively used in Construction, the PM may direct the Consultant to revise the above drawings to incorporate the revisions.

   c. The Township will forward change order proposals to the Contractor for pricing. The Consultant will assist the Township in negotiations and finalizing the price/time extension with the Contractor and submit recommendations to the Township.

G. Task 7: Errors and Omissions

Errors and Omissions are inadequacies in the design documents that require contractor change orders to resolve. The existence of construction contract errors or omissions shall be determined by the Township.

1. The Consultant shall prepare change order information as required to resolve design inadequacies, consisting of errors in, and/or omissions from, the construction contract. This task may require site inspections in addition to those described in Section 7-IV.C (Meetings & Site Inspections).

2. The Consultant shall prepare its own estimate of the additional cost of the work required to be performed by the Contractor(s) as a result of the error or omission. The Consultant shall also review and evaluate the cost proposal(s) submitted by the Contractor(s) and assist the Township in any negotiations with the Contractor(s).

3. Such change order documentation shall be prepared within ten (10) calendar days of being so requested by the Township or as sooner if necessary to meet the construction schedule. The required documentation is defined in Section 7-IV.F (Design Changes).

4. Services provided under this task shall be performed by the Consultant at no additional cost to the Township and shall not be billed against the existing budget for the Construction Related Services Phase of the Contract. The Consultant shall maintain separate direct labor and other cost records for error and omissions changes for review by the Township. If after a thorough review, the Township's initial determination of an error and omission is found not to be justified, separate accounting of the work will allow the Consultant to invoice for documented reimbursable services. The Township shall not, in any event, reimburse a Consultant for services rectifying confirmed errors and omissions.

H. Task 8: Testing

1. The Consultant shall review test procedures and test results for material, equipment and/or systems tested in accordance with the provisions of Township's Contract Documents. The Consultant shall be prepared to assist the Township at the test site wherever located, to witness tests and implementation of fabrication procedures as required. The Consultant shall recommend acceptance or rejection of material, equipment, systems and/or installations that have been tested and/or witnessed. The Consultant shall inform the Township of any corrective action(s) that must be implemented by the Contractor within five (5) calendar days of the test or shop inspection or sooner if necessary to meet the construction schedule.

2. The Consultant shall be prepared to assist the Township in the Quality Assurance oversight of the Contractor and/or their sub-contractors' activities at plant locations determined to be necessary for said oversight. The Consultant, prior to the Contractor initiating any work, is required to visit the plant locations and provide a written report verifying the subcontractor/supplier's Quality Control and the Contractor's Quality Assurance efforts. This report will document that the QA/QC plans are responsive to the specifications and all applicable codes or regulations. A recommendation for corrective action should be provided in the report if the plant procedures are inadequate. The Contractor may not initiate any work until the Project Manager has

approved the report and any recommendations impacting QA/QC have been implemented. The Consultant shall inform the Township of any required recommendation within ten (10) calendar days of the site visit.

3. The Consultant is required to visit all sites where critical manufacturing/fabrication/erection/installation activities are taking place on a regular and frequent basis to observe and determine if all proper QA/QC procedures and controls are being used as specified in the Contractors Quality Program. The Consultant is required to document each site visit with a written report detailing the specific elements of the contractor's Quality Program observed. The report, with recommendations of required corrective measures, shall be submitted within ten (10) calendar days from the site visit.

I. Task 9: Substantial Completion

1. The Consultant shall participate in the inspection of the "substantially complete" work of the Contractor in accordance with the Contract Documents. The Consultant shall review the Township PM's punchlist of incomplete work along with the cost estimate of the value of the work to be completed, and provide a recommendation for issuance of a Certification of Substantial Completion.

2. The Consultant shall participate in the re-inspection of the work of the Contractor(s) when the punchlist work is complete and, when appropriate, recommend final acceptance of the work to the Township. The Consultant shall also be in attendance at the final inspection.

J. Task 10: As-Built and Record Documents

1. At the end of construction for each phase or portion of this project, but prior to the final acceptance of the work, the PM will submit to the Consultant a complete set of the Contractor's Final As-Built Documents. The Contractor will have certified that the Final As-Built drawings and annotated specifications incorporate all addenda, change orders, field orders and shop drawings, etc., which have been altered from the advertised Contract Bid Documents and/or Conformed Construction Documents. The Consultant shall check that all change orders, RFI's, shop drawings, etc., have been incorporated into the As-Built Documents in accordance with Consultant's record of site inspections, clarification sketches, witnessed field and factory testing, shop drawings reviews and other field records. The Consultant shall provide a recommendation regarding acceptance by the Township of the Contractor's Final As-Built Drawings and Annotated Specifications.

2. The Consultant, upon the Township acceptance of the Contractor's Final As-Built Drawings and Specifications, shall amend the Contract Drawings to reflect the Contractor's As-Built conditions and submit Final Record CADD Drawings for the Township's, Amtrak's and SEPTA's records.

3. The Consultant shall, if required, prepare additional CADD sheets of the same size and format as the original contract documents to incorporate any additional work, change order(s), unforeseen conditions, etc., as may be needed to clearly portray the final record of construction.

4. All Record CADD drawings shall be delivered to the Township at the conclusion of the project. The Consultant shall also provide CD-ROMs containing the Final Record CADD Drawings. This final record submission shall also include two (2) half-size sets black-line prints of the Final Record Drawings and supporting studies, field surveys, calculations, etc., (one set of each).

5. Final Record CADD Contract Drawings and the Contractor's Final As-Built drawings shall be returned to the Township within thirty (30) calendar days of the receipt of all available "As-Built" information by the PM.

K. Task 11: Value Engineering

1. The Consultant shall, upon request by the Township, review Value Engineering Cost Proposals (VECP) for material and equipment substitution(s) submitted by the Contractor. The Consultant's review shall be for consistency and compatibility with design intent, and confirmation of cost savings claimed by the Contractor. The Consultant will coordinate their review with the Design Architect. The Consultant shall, based on its review, recommend to the Township VECP acceptance or rejection, and assist the Township in negotiating any resulting change orders with the Contractor(s). The costs for these reviews shall be included in the Consultant's base CRS Services.

2. The Contractor(s) may propose a Value Engineering Cost Proposal (VECP) for alternate construction methods, designs or techniques that may allow the project be completed in a shorter period of time, thereby creating a possible cost saving for the Township. However, the proposal may require the Township to revise its contractual operational constraints, force account support, engineering/design, and/or may possibly impact several related contracts. The Township will undertake an initial review of the VECP to determine the validity and impact on cost and schedule. The Consultant shall take part in this review under terms of K1 above.

   If it is determined that the VECP is viable and further in-depth analysis is required, the Project Manager will require the Consultant to review the VECP not only for consistency and compatibility with the design intent and cost savings claimed by the Contractor, but also for the re-engineering and construction related impact to the project construction schedule and other related work. A VECP of this magnitude will be considered re-engineering, and with proper documentation by the Consultant, the A/E re-engineering effort will be processed as an amendment to the Contract under Section 7-IV.F (Design Changes).

   For purposes of this scope of work, Consultant shall assume three (3) VEs at forty (40) hours of consultant effort each.

L. Task 12: Special Inspections Program

The Consultant, acting as the Township's agent, shall organize, administer, and be fully responsible for the "Special Inspections Program," described by the prevailing Building Code as required by Lower Merion Township. The Consultant shall inspect all design-related and structural elements during installation and upon completion of such elements and resolve any design-related issues. Consultant tasks may include the preparation of a statement of special instructions to support permit applications as well as sufficient special

inspections to allow him to prepare a report documenting compliance with the required special inspection provisions of the governing code.

V. PROJECT TECHNICAL REQUIREMENTS

A. Quality Assurance / Quality Control

1. The Consultant shall be responsible for the professional quality, technical accuracy and the coordination of designs, drawings, specifications, and construction related services to be performed under this Agreement. The Consultant shall furnish a written quality assurance and quality control (QA/QC) plan for this project. The plan shall demonstrate the level of quality to be used and maintained to ensure the project's conclusion within both the prescribed schedule and budget. The Consultant's QA/QC plan and program shall be consistent with FTA QA/QC guidelines. The Consultant shall provide the highest level of quality control in developing and administering the Contract Documents.

2. The Consultant shall identify and submit qualifications of a responsible and responsive professional within the Consultant's organization who is independent of the design team and shall implement and monitor compliance related to quality assurance and control over all elements of the design development process on a day-to-day basis.

3. The Consultant shall develop and submit within twenty-one calendar (21) days of the NTP, a Quality Assurance and Quality Control Program Plan for Township approval. The program shall be tailored for the project and shall include, but not be limited to, the following:

    a. How the Consultant and sub-consultant's drawings will be coordinated.

    b. How the specification sections will be coordinated in order to eliminate conflicts and excessive writing.

    c. Prior to each submission, how all documents to be submitted will be checked and updated to insure completeness and accuracy.

    d. How drawings and specifications will be coordinated in order to eliminate conflicts between these two sets of documents.

    e. How all deficiencies, errors, non-conformance, duplications, conflicts, ambiguities and corrections will be identified and resolved.

    f. How compliance of the Contract Drawings with Township's Drafting Standards will be ensured.

    g. How consistency in drafting will be achieved so that all drawings are legible and reproducible.

    h. How the Consultant will ensure that the specification is tailored and developed in accordance with the specific needs of the Project and Township's, Amtrak's and SEPTA's requirements.

i. How the Consultant will ensure that the coordination of all activities with sub-consultants is occurring in a timely manner.

j. How the Consultant will ensure that accurate meeting minutes and correspondence are being prepared and responded to in a timely manner.

k. How the Consultant will ensure the timely resolution of all project-related comments and their incorporation into the documents.

l. How the Consultant will promptly notify the Township concerning any perceived out-of-scope services that are anticipated to be necessary to be performed by the Consultant.

4. Quality Assurance and Quality Control shall be an agenda item at every biweekly progress meeting. A record must be made of every QA/QC issue and its resolution.

5. The Consultant shall complete and include a "Design Quality Assurance Checklist" or approved equivalent with every submittal. A submittal will not be considered acceptable unless a checklist has been completed and included.

6. The Consultant shall use the attached "Design Review" form to capture comments and responses at design review meetings.

7. The Consultant's project manager shall be a registered Professional Engineer or Architect licensed by the Commonwealth of Pennsylvania.

B. Code and Design Criteria

1. **Required Standards**

The design criteria, in general and as a minimum, will conform to the relevant regulations and the most recently published criteria and standards by selected organizations and agencies. The regulations and publishing organizations include:

- American Association of State Highway and Transportation Officials (AASHTO)
- American Concrete Institute (ACI)
- Americans with Disabilities Act (ADA)
- Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- American Iron and Steel Institute (AISI)
- American National Standards Institute (ANSI)
- American Public Transportation Association (APTA)
- American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
- American Society of Mechanical Engineers (ASME)
- American Society for Testing Materials (ASTM)
- American Institute of Steel Construction (AISCU)
- American Welding Society (AWS)

- American Railway Engineering and Maintenance of Way (AREMA)
- Factory Mutual Engineering Corporation (FM)
- Federal Specifications (FS)
- Federal Railroad Administration (FRA)
- Institute of Electrical and Electronic Engineers (IEEE)
- Insulated Cable Engineers Association (ICEA)
- International Building Code (IBC)
- Manufacturers Standardization Society of the Valve and Fitting Industry (MSS)
- National Electric Manufactures Association (NEMA)
- National Electric Code (NEC)
- National Fire Protection Association (NFPA)
- Pennsylvania Department of Transportation (PennDOT) Publication Form 408
- Pennsylvania Public Utility Commission (PUC) Title 52 33.121-33.127
- Pennsylvania Energy Conservation Act 222
- Structural Steel Painting Council (SS PC)
- Underwriters Laboratories, Inc. (UL)
- U.S. Green Building Council (USGBC)

2. **Code Compliance and Permits**

The Consultant shall continue to coordinate and be fully responsible for code compliance of the design and assurances that the Contractor's work similarly complies. The contractor shall file all necessary Permit Application(s) with Lower Merion Township, Montgomery County, State, Federal and other Regulatory Authorities, and secure their approval(s) and variance(s) after the bid award. If variances are required, the Consultant shall support the Township PM including developing any required documentation.

3. **Township Standards, Guidelines and Details**

The Township's standards and/or guidelines are referenced in Section 7-II. Additional standards and guidelines will be identified as part of the Design Manual Task (Section 7-III.D.2). The Township may elect to provide any applicable design standards/details during the design development stage (45% Design). The Consultant shall incorporate such standards/details in the final design documents or explain in writing as to why application of such standards/details is not in the best interest of the Township. The Township's determination shall be final and binding on the Consultant.

C. Calculations

The Consultant will provide design calculations for each design submittal and construction package of the project. Calculations will be recorded neatly, kept in an orderly fashion for easy review and suitable for a permanent record of the design work. Significant assumptions, calculations and conclusions will be highlighted. All routine calculations and assumptions or other features that have a significant effect on the construction time and costs will be provided. Calculations will include, but not be limited to: Civil, Architectural, Track, Structural, Mechanical, HVAC and Electrical.

The Consultant will provide an original bound copy and two (2) duplicate copies of design calculations within ten (10) calendar days of the Township request for such calculations, but in any case, no later than the submittal dates stated herein. Design calculations will be updated as appropriate for consistency with any subsequent design changes or modifications throughout the design phase.

D. Documentation & Drawing Standards

1. Consultant Responsibilities

a. The Consultant shall be responsible for coordinating and producing complete, consistent and unambiguous contract documents including all documents prepared by its sub-consultant(s). Regardless of type or number of sub-consultants employed by Consultant, all drawings shall appear consistent, as if they were produced by a single source.

b. The Consultant shall consolidate design drawings in all design submissions to conform to SEPTA and Amtrak standards and guidelines. Provide a submission that is uniform in presentation.

c. The Consultant shall consolidate specifications in all design submissions to conform to SEPTA Modified Format (SMF) standards and guidelines. Provide a submission that is uniform in presentation with sections of Division 1 reflecting recommended modifications.

2. Contract Drawings

a. All contract drawings prepared by the Consultant shall be legibly prepared in an electronic application compatible with SEPTA's AutoCAD software in accordance with the current version of the SEPTA IMOS Engineering CADD Standards.

b. Drawing scales are delineated in the SEPTA CADD standards. In all cases, drawings shall be scaled so that they are fully legible when reproduced as 1/2 size (11" x 17") drawings. General plan views drawn at a scale of 1" = 20' meet this criterion. In the station areas and all other areas where structural and earthwork will be taking place, contours at every foot are expected. All levels where work shall take place shall be tied together. Vertical and horizontal track data shall be recorded every ten (10) feet.

c. Final drawings shall be signed and sealed by a Pennsylvania licensed Professional Engineer or Architect, as appropriate, and shall be submitted on three (3) mil, double matte, drafting film 22" x 34" (Mylar, non-diazo).

d. The drafting format to be used for title blocks as well as drawing numbers will be provided to the Consultant by the Township. Reproduced Mylar, if any, shall be wash-off type Mylar prepared from film negatives.

e. Project location plans and access plans shall also be included. The role of the drawings shall be to define the physical relationships of materials upon which a contract is based. Plans, elevations, cross-sections and details shall be provided to allow the Contractor(s) to accurately gauge the nature and complexity of the work and to prepare realistic cost estimates for bid purposes.

f. The project shall be designed in Standard English (U.S.) units of measure

3. **Specifications**

a. Specifications shall be customized for this project and shall be prepared using Microsoft Word. The role of the specifications shall be to define the procedures, and quality and type of workmanship and materials upon which a contract is to be based.

b. The arrangement of specifications into "divisions" and "sections" shall be consistent with SEPTA's Modified CSI (Construction Specifications Institute) Format (SMF). The organization of the specifications and the arrangement of the drawings do not denote or control the division of work between or among separate contractors, subcontractors and/or trades. The organization and page format of the specification sections shall be subject to prior written concurrence of the Township Project Manager. The Township will prepare the Bidding and Contract Requirements. The Consultant, however, shall assist in the preparation of these documents and, if required, provide the necessary information for completion of the Instruction to Bidders, bid forms and possible agreement revisions.

c. Division 1 is extensively developed in the SMF; however, the Consultant shall recommend updates, revisions and/or additions to the sections of this division to provide a complete specification, consistent with the needs of this project. The Consultant is responsible for editing and completing Division 1. The Consultant shall modify technical Divisions 2 through 16 so as not to duplicate, or contradict, the bid documents, the Contract, and/or Division 1.

d. When preparing the specifications, the Consultant shall adhere to the following requirements:

i. Develop quality assurance/quality control requirements for each work element of the specifications and incorporate it in each section. Each "Execution" section (Part 3) shall identify "Field Quality Control" subsections tailored to the need of each work element. Factory Quality Control is usually specified in Part 2, "Products".

ii. Describe the technical requirements in a clear, concise and accurate language that does not restrict competition. Do not include solicitation/contractual language in the technical specifications.

iii. State each requirement only once and in the most logical location. If any sample specification sections are provided by the Township, the Consultant shall modify them to ensure that they are accurate and consistent with the requirements of this project.

e. All brand name specifications must contain an "or approved equal" provision, and must identify the salient physical and functional characteristics, including reliability and testing requirements.

i. The Consultant shall conduct and document a market survey to determine the sources that offer the products to meet the requirements and list a

minimum of three (3) sources of acceptable products which meet the specifications.

ii. The Consultant shall provide a written sole source justification when the product availability is limited to only one source or when the Township requires a single source for operational and maintenance economy, such as in the case of the SEPTA standard Variable Message Signs.

f. The cover sheet of the Final Construction Specification will be signed by the Consultant's project manager and a signature page immediately following the cover sheet signed and sealed by all Professional Architects and/or Engineers, as appropriate, for the specific disciplines. The Architects and/or Engineers shall be licensed in the Commonwealth of Pennsylvania.

4. **Electronic Media**

a. All digital files shall be delivered in a format compatible with computers utilizing the Microsoft Windows XP operating system.

b. All digital-drawing files shall be in the native AutoCAD 2004 format. AutoCAD compatible formats are not acceptable unless the intended format is approved by the Project Manager, in writing, for this project.

c. Submissions in electronic format shall be provided on ISO 9660:1998 CDROM.

d. Electronic submittals shall have an ASCII format drawing index text file included. The text file shall contain project name, Township project number and a descriptive list of the drawings and associated files and creation date. Media shall be labeled in indelible ink indicating project name, township project number and submission date.

e. AutoCAD drawings must have required fonts, standard drawing sheets, templates, symbols and third-party customization files included without directory dependency. AutoCAD external references shall be bound to the parent drawing.

f. Any submittal of electronic data must be accompanied with a signed transmittal letter in hardcopy format.

E. Value Engineering

1. The Township, under the terms of its funding agreement with SEPTA, is obligated to undertake Value Engineering (VE) for all projects with a construction value of $1,000,000 or more. SEPTA has contracted with a Value Engineering Consultant (VEC) who is responsible to value engineer all mandated SEPTA projects. The Consultant shall cooperate fully with the Township and the SEPTA VEC. The Consultant shall submit the 45% design to the VEC for review and will be required to formally present the design to the VEC. The Consultant shall attend a presentation of the VEC's findings and be provided with the VEC's report. The Consultant shall coordinate review with the Design Architect and respond in writing to all VE recommendations. The response will indicate the Consultant's concurrence and/or recommendations that the VEC recommendation(s) require further analysis and/or no

consideration. The Township reserves the right to accept or reject any or all of the VEC recommendations. The Consultant shall incorporate in the subsequent design submittals and task schedule the Township-accepted VEC recommendation(s) at no additional cost to the Township.

2. The Township will have the 90% design reviewed by the VEC to ensure constructability. The Consultant will fully cooperate by attending applicable meetings, answering any concerns raised by the VEC, and implementing all recommendations accepted by the Township to enhance and clarify the constructability of the project, at no additional cost to the Township. This VEC constructability effort must be completed prior to finalizing the 100% design submittal.

F. Art Component

The project will include an art component. The Township desires this art component to be practical and functional in nature. It will therefore be especially important for the Consultant to closely coordinate the art design with the project design. Determination of the type of possible art, artist selection, art design and art documentation shall occur simultaneously with the performance of other activities under the Consultant Agreement. It is expected that the art construction will occur simultaneously with the project construction. The Consultant shall be expected to participate in each stage of the art process.

1. The Consultant shall, in conjunction with the Township, establish an Art Advisory Committee (AAC), to determine possible locations and types of art that could be incorporated into the project, based on the scope of the project. The Consultant, subject to the Township's written approval, shall take the conclusions of this meeting and incorporate these into a Request for Proposals for Artists ("Artists RFP"). The Artists RFP shall be subject to the Township's review and approval prior to solicitation by Consultant.

2. The Consultant shall attend a meeting with the Township and the Art Advisory Committee (AAC) to review and comment on artist proposals submitted in response to the Artists RFP. The final selection of the artist will be made by the Township, taking into account the AAC and Consultant recommendations and comments.

G. Construction Cost Estimates & Schedules

1. Estimating Procedure

Cost Estimates shall be prepared in compliance with the SEPTA *Construction Cost Estimating Practice and Procedures Development Manual*. The Consultant shall prepare the estimate using Microsoft Excel or another electronic application. Copies of the estimate will be submitted in both hard copy and electronic format at each design submittal.

2. Estimating Requirements

The Consultant will submit detailed construction cost estimates conforming to SEPTA standards at the Scope Definition (15%), 45%, 90% and 100% design submittal stages. The level of detail for each estimate submittal must correlate to the level of detail that is included in the drawings and specifications at that level of design. The 100%

estimate, i.e., the Bid Estimate, must be accurate and documented based on the bidding environment at the time of advertising the Bid Documents.

The Consultant shall keep the Township informed of the development of the estimate. The level of detail and structure the Consultant plans to use for the estimate shall be reviewed by the Township prior to its use. Each estimate shall be broken into construction items and location, with unit price and total cost for each item. Each item or location shall be divided into the following elements: labor, material, and equipment. The Consultant's cost estimates shall include detailed calculations, tabulations of quantities and pricing of construction work for each construction package. The Consultant shall include costs for general conditions and all other costs necessary to determine the total cost for all work.

All estimates shall be first developed based on current prices. Escalation factors for labor, material and equipment shall be developed and applied separately by the Consultant to correlate with the construction schedule.

Construction may require work to be accomplished during hours outside the normal workday schedule, where restrictions on the work impacts productivity, and/or where work may have to be performed within the specified time constraints. For a project that requires these types of considerations in its development, special attention must be paid to labor rates, productivity loss, equipment usage, etc.

Accordingly, the Consultant shall prepare and maintain detailed documentation that supports and validates the values contained in the detailed estimating cost sheets. For an estimate to be complete, all values identified on the summary cost sheets are to be traceable to the detailed work sheets of the Consultant.

a. Each estimate submittal will be reviewed in-depth by the Township for adherence with the terms of the Agreement. The Consultant and estimator are to review the site and observe the site conditions first hand with the Township Project Manager. This site review shall take place with a comprehensive set of drawings and no later than prior to the 90% submission. The Consultant shall respond in detail, and in writing, to all of the Township's comments regarding the estimate within ten (10) days of the receipt of the comments from the Township.

b. If the cost estimate varies from the available budget, the Consultant shall provide a recommendation of what items can be added or deleted to meet the budget. The Township will review the list of recommended additions or deletions and direct the Consultant to modify or implement the recommendations and/or revise the design to reflect the available construction budget.

The Consultant shall also be responsible for developing cost estimate(s) as and if necessary for each addendum issued during the construction bid cycle, and immediately update the final project estimate to include the addenda. The updating must be done for each addendum within five (5) days of issuing the addendum.

3. Labor Rate Details

The Consultant shall provide the detail associated with labor rates prior to the Consultant's development of the estimate. The Consultant must identify for the Township the source that it intends to use in its development of wages prior to calculating labor costs in the estimate.

4. Scheduling

a. The Consultant shall prepare an accurate Critical Path Method (CPM) schedule, utilizing project management software such as Primavera Project Planner (P3) or Microsoft Project. The construction schedule shall account for all major elements of work through a realistic network of activity durations in a logical sequence that is the Consultant's best projection on how the work will actually proceed.

b. The Consultant shall determine and establish the duration of the construction project by using this construction schedule. The duration again must be logically and realistically based on the project's activities, technical needs, phasing to minimize disruptions to the public, as well as SEPTA'S and Amtrak's operational requirements and constraints.

c. The construction schedule shall be detailed and be all inclusive. Submission, fabrication and delivery activities as required by the construction specifications shall be included.

d. An updated construction estimate and schedule is required at each design submittal stage and submitted to the Township at the same time as the design submittal.

e. The estimate and schedule will be an agenda item at each design presentation. The estimate reviews will require face to face discussions between the Consultant's Project Manager and Estimator and the Township's Project Manager.

5. Additional Factors

The base estimate and schedule shall be adjusted as necessary to account for the following factors, as they apply to this project:

a. The magnitude of the scope of work and phasing requirements due to contract duration.

b. The coordination of all disciplines defined on the project.

c. Limitations on work hours and limited access to work and/or staging areas due to SEPTA and Amtrak operations, project location, overhead utilities and SEPTA and Amtrak work rules.

d. Working near active lines, including tracks with energized overhead catenary power and overhead structures.

e. Maintaining passenger, pedestrian and vehicle access and egress and safety.

f. Productivity of work crews during nights, weekends and poor weather conditions.

g. Dust and noise control and other environmental protection factors.

h. Track outage moratoriums during the winter and holiday periods.

6. Submittal Stage Requirements

The estimates at each design submittal stage must satisfy the following requirements:

a. Adherence with SEPTA's estimating requirements.

b. Cost itemization for all elements.

c. A basis of estimate and reconciliation with the previous estimate must be substantiated at each design stage.

d. The estimate shall be consistent and coordinated with the construction schedule.

H. Design Approvals

1. To obtain the necessary approvals and insure compliance with applicable laws, regulations and design requirements governing the work, the Consultant shall coordinate and review the project progress and requirements with all government, public agencies, authorities or groups that have need to provide input or review the work. The Consultant shall include any related work by these organizations in progress reports, project schedules, cost estimates, engineering reports and the final design contract documents. The Township Project Manager will be responsible for review of any out of scope work request from outside agencies and internal Township departments for consideration. Incorporation into the contract documents shall not be done without the Townships Project Manager's prior written direction.

2. ADA Review - The Consultant shall have each design submission reviewed by an independent individual and/or firm with expertise and complete knowledge regarding the latest ADA regulations. This individual and/or firm shall review the design utilizing a checklist developed from the most current ADAAG/FTA standards. The Consultant shall verify, and provide a letter of certification, that the design complies with the most current ADA requirements.

I. Project Documents

1. The Consultant shall sign and seal, in accordance with the laws and regulations of the Commonwealth of Pennsylvania, all bidding and construction documents. The consultant shall also be responsible for the design documents and services to be prepared and performed, respectively, by all sub-consultants.

2. The signing and sealing of bid and construction documents represent that the Consultant has developed these documents consistent with the scope of the Agreement and all applicable codes and regulations.

VI. PROJECT PLANNING

A. Design Schedule

1. The Consultant shall prepare an accurate Critical Path Method (CPM) schedule, using project management software such as Primavera Project Planner (P3) or Microsoft Project, detailing the services to be performed under this Agreement. The design schedule shall encompass the period from the Notice-To-Proceed (NTP) of design through the completion of construction. All activities as outlined in the Scope of Work shall be listed in this schedule, including but not limited to, report and milestone submittals, agency review and approvals, including Township, SEPTA, Amtrak reviews and public meetings as required.

2. The Consultant's proposal shall specifically explain in detail how the Consultant will maintain the design schedule. The preliminary design schedule shall be submitted for the Township's approval within fourteen (14) calendar days from the NTP for design. The Final Baseline Design Schedule shall be submitted forty two (42) calendar days from design NTP. The Consultant shall update the design schedule monthly and prepare a narrative that discusses the Consultant's progress during the updating period. The schedule and progress report shall be submitted monthly, one week prior to the progress meeting.

3. If the Consultant decides to request an extension of time due to delays or changes in work scope, the Consultant must notify the Township in writing within five (5) calendar days of the delay or change. The Township will review the Consultant's request and, if appropriate, extend the time of performance. If the Township determines that the Consultant is not entitled to a time extension, the Consultant will be obligated to complete the remaining work within the current time of performance.

4. If, in the Township's opinion, the Consultant has failed to perform the design tasks in a timely manner, or, if the Consultant's schedule shows the design effort to be more than 30 days behind schedule, the Township may request the Consultant to submit a recovery schedule to show how the Consultant plans to complete the project within the time of performance.

B. Submittal Presentations & Reviews

1. **Design Initiation (Kick-Off) Meeting(s)**

This meeting, or series of meetings, immediately follows the Notice to Proceed and initiates the scope definition stage. The Consultant will review the goals and requirements of the contract with the Township, Amtrak and SEPTA. The Consultant will review all planning documents prepared by the Township and developer to date. SEPTA, Amtrak and the Township will provide comments to the Consultant to update the information provided. The Consultant shall use this information to reach the 15% scope definition stage.

The Township's Project Manager will act as a facilitator to arrange the meetings. The Consultant's Project Manager shall chair the meetings, set the agenda and prepare meeting minutes and action item lists at the conclusion of the meetings, which summarize the project goals, potential issues and recommendations. Additional meetings with other review agencies such as PADOT and FTA may be needed during this scope definition period.

2. **Design Presentation Meetings**

a. The Consultant shall formally present the design evolution at the contractually identified 15%, 45%, 90% and 100% submittal stages. As part of these presentations, the Consultant shall prepare appropriate models, visual displays and aids to adequately convey the design development and status. Each presentation shall also incorporate an overview of any revisions and/or emergent issues from the previous submittal and a summary of changes to the cost estimate.

b. The Consultant's estimator and Township PM will review the cost estimate at formal meetings prior to each design presentation for detailed discussions. The estimate meeting will address previous estimate submittals and emergent issues and/or revisions, which impact the estimate.

c. The Consultant shall distribute design submissions to participants at the conclusion of presentation meetings. Design submissions shall, at a minimum, include the following:

- All products (e.g. drawings, specifications, reports, estimates) that have changed from previous submittals. The Consultant will notify and submit to the Township a list of the items that have not changed.
- Consultant's responses to Township, SEPTA, Amtrak and other agency comments.
- Updated action item list.
- Current project schedule status and construction estimates.
- Updated phasing plans with scope narrative.

d. The Consultant will prepare and distribute minutes of each meeting within seven (7) calendar days of the meeting, including a comprehensive list of all unresolved issues.

3. **Design Review Meetings**

a. The formal design submission review meeting(s) shall be held a minimum of fifteen (15) calendar days after the design presentation meeting for the 15%, 45% and 90% stage submittals. In addition, a review meeting for the 100% submittal will be held within fifteen design (15) calendar days after 100% stage submittal.

b. The review meeting(s) shall be held with appropriate members of the Township, Master Developer and Design Architect. The Consultant shall explain the development of the design and conduct a tabletop review of the drawings, including a composite overlay of the interdisciplinary aspects of the design,

where applicable, and appropriate to the level of the submittal. All sections and details shall be checked for clarity, completeness and accuracy of cross-references.

c. The Consultant shall resolve any technical issues during these sessions and maintain a log of all design review questions and responses. Additional meetings may be necessary to resolve any outstanding issues.

d. The Consultant will prepare and distribute detailed minutes of each meeting within seven (7) calendar days of the meeting, including a comprehensive list of all unresolved issues and updated Action Item List.

e. Each design submission will not be considered complete until it is accepted in writing by the Township Project Manager. Revisions may be required to all or part of the submission, and shall be completed before the submission is accepted.

4. **Design Presentation/Approval Meeting**

The Consultant shall formally present the complete, fully realized design to the Township. At the conclusion of the presentation, responsible Township parties will be asked to approve the final design. This approval will include all contract drawings, specifications, contractual deliverables, contract bid package and construction contract.

C. Project Meetings

1. Project progress meetings shall be arranged on a biweekly basis. These meetings shall review progress according to the design schedule, identify outstanding or potential problems and proposed solutions, and consider current expenditures versus budgeted costs.

2. The Township shall be informed of and have the option to attend all meetings including those between the Consultant and sub-consultants, and including any and all design coordination meetings. Both formal and informal methods shall be employed to control the technical effort. Day-to-day liaison shall be used to identify problems and assess their importance, to clarify work objectives, to solve interface problems, and to take timely corrective action whenever needed. Informal coordination meetings shall be held as needed.

3. The Consultant shall arrange and conduct all meetings to accomplish the project objectives with the Township, SEPTA, Amtrak, PADOT, PMHC, Montgomery County, FTA, DER, DEP, utility companies and other private, government, public agencies, authorities, or groups that have been recognized by the Township as a valid stakeholder to provide input or review the work.

4. The Consultant shall prepare accurate minutes of all meetings, including the “Bi-Weekly project progress meetings” and all meetings arranged and chaired by the Township. Meeting minutes shall be distributed to all attendees within seven (7) calendar days of the meeting unless stated otherwise.

5. The Consultant is expressly forbidden to issue or make any public statements concerning any aspect of the project without the prior written approval of the

Township. Township staff will be largely responsible for directing and handling public relations matters for this project and the Consultant's role shall be primarily in support.

D. Presentation Materials

The Consultant shall prepare color coded plans and perspective view renderings for the Township's use and for presentations at appropriate meetings with Amtrak, SEPTA, Montgomery County, PHMC, community groups, local historic preservation groups, public hearings, zoning boards, planning commissions, etc.

The Consultant shall provide at least three (3) artist's renderings of the 90% design, including the design for the mixed-use development as provided by the Developer, for use at the 90% design presentation and public meetings. The renderings shall be in color and represent the design in true perspective, depicting actual use through the inclusion of pedestrians, vehicles, landscaping, lighting, finishes, shadows, etc. The view points for the renderings are to be selected by the artist with consideration to the intended use and approved by the Township Project Manager. The renderings shall be prepared with sufficient detail and resolution to be reproduced at 24" x 36" size. Renderings become the property of Township upon submission of the work.

At the 15% Design Presentation, the consultant shall provide a working model at 1/16"=1-0" scale. This model shall show the massing of the proposed Transit Center and the massing of the buildings surrounding the Transit enter. It should also show the configuration of the proposed spaces with the Transit Center and their physical relationship to the surrounding proposed and existing streets and buildings. This model shall be used to verify that the horizontal and vertical relationships within the Transit Center and between the Transit Center and the surrounding elements are correct.

E. Consultant Billings & Progress Reports

1. The Consultant is herein notified that payment will be made in response to monthly invoices, which reflect actual monthly charges incurred in the preceding period and are consistent with the progress required by design phase, task, deliverable and schedule.

2. The Consultant shall submit monthly progress reports that coincide with the monthly invoices. The reports shall accurately detail the Consultant's services performed during each monthly period. The report shall be comprehensive, including sub-consultants' progress. Separate reports from sub-consultants will not be accepted. The reports shall, at a minimum, include the following:

    a. Detailed description of design progress by task and deliverable

    b. Important events and meetings, both past and future

    c. Unresolved issues, responsible parties and action plan to resolve issues

    d. Problem areas and other concerns

    e. Work to be executed in the following month

    f. Budget Summary

g. Schedule Update

VII. SCHEDULES & TASK DELIVERABLES

A. Schedule of Milestones

The Township's projected schedule for the services under the Agreement is included for information below. This schedule shall be implemented and coordinated with the proposal. The Consultant will be expected to perform the design work so as not to exceed the phased milestones once fixed at the notice to proceed. If the Consultant anticipates needing to deliver items prior to the stated schedule, the early deliveries should be made. Except as noted, provide twelve (12) copies of all deliverables.

Milestone: Consultant may propose an alternate program so as to not exceed phased durations.		Calendar Days / Weeks	Cumulative Days / Weeks
Phase A			
1	NTP For Design	0	0
2	Preliminary Submittals*	42 / 6	
3	15% Scope Definition*	98 / 14	98 / 14
4	Scope Definition Review	28 / 4	126 / 18
5	45% Design	98 /14	224 / 32
6	45% Review	35 / 5	259 / 37
7	90% Design	210 /30	469 / 67
8	90% Review	35 / 5	504 / 72
9	100% Review	35 / 5	539 / 77
10	Design Final Review and Acceptance	28 /4	567 / 81
Phase B			
11	Bid Cycle	133 / 19	700 / 100
12	Construction	728 / 104	1428 / 204
13	Project Closeout	182 / 26	1610 / 230
	* Indicates concurrent tasks		

B. Preliminary Submittals

1. Initial Design Schedule (6 copies), 14 calendars days from design NTP

2. Construction Schedule and Cost Estimate Format Templates, 14 calendar days from design NTP

3. QA/QC Manual (6 copies), 21 calendar days from design NTP

4. Final Baseline Design Schedule (6 copies), 42 calendar days from design NTP

C. Scope Definition (15%)

The Consultant shall provide design drawings that develop the schematic plans provided by

the Township and prepared by the Design Architect. Drawings shall include, but not be limited to, plans for the station building, parking garage, passenger platforms, pedestrian bridge and other infrastructure improvements such as ramps, public roadway and sidewalk improvements. This submission shall have sufficient information, clarity and details to advance the defined scope so that the Township is clearly able to identify the course of action for furthering the design. Structural plans shall indicate sufficient detail to allow the Township to fix the scope of construction for final development.

This submission shall include the following elements and deliverables:

1. **Task 1: Site Evaluation & Investigation**

	Task Description	Task Deliverables
1	Existing Conditions	Summary of Existing Information
		Assessment of Existing Facilities
		Location of Existing Amtrak and SEPTA Facilities
		Digital Photo Catalog of Site Conditions
2	Survey Review	Dimensioned Existing Conditions Plan
		List of Adjacent Property Owners
3	Infrastructure Investigation	List of Potentially Affected Utilities
		Level of Service Analysis
		Draft Stormwater Management Plan and Regulatory Requirements
4	Geotechnical Analysis	Preliminary Subsurface Conditions and Geotechnical Report
5	Environmental Clearance	Preliminary Soil Evaluation Report
6	Operational Issues	Transit Service Assessment
		Pedestrian & Traffic Assessment

2. **Task 2: Site Development**

	Task Description	Task Deliverables
1	Structural	Developed Plan of Station Building
		Developed Concept for Platforms
		Developed Plan of Parking Garage
		Foundation Alternatives Analysis
		Calculations for Major Elements
2	Architectural	List of Indicated Material
		Material Schedules for Electrical Fixtures and Mechanical Equipment
		Preliminary Signage Plan
3	Accessibility	Draft Plan of ADA Route
4	Electrical	Preliminary Electrical Plans
		Preliminary Lighting Plan
		Life Cycle Cost Analysis for Lighting
		Developed Plan for AVPA
		Developed Plan for VMS
5	Mechanical	Developed Mechanical Plans
		Life Cycle Cost Analysis for Major Systems
6	Infrastructure	Developed Landscape Plan
		Developed Roadway Plan

3. Task 3: Design Documentation

	Task Description	Task Deliverables
1	Construction Documents	Detailed Design Drawings
		Consolidated Specifications Outline including Division 1 (SMF standards)
2	Design Manual	Draft Design Manual
		Comprehensive Code Review Section
		Draft Design Criteria and Requirements Section
		List of proposed materials, components, equipment and/or finishes
3	Agency Coordination & Permitting	List of Regulatory Authorities, Agencies, Utilities and Jurisdictions
		Required Regulatory Requirements and Approvals Report
		Preliminary Site Plan Approval
		Copies of Required Permits for Investigation
		ADA Checklist & Compliance Assessment
		Confirmation of Utilities Relocation and Responsibility
		Draft NPDES Application
4	Cost Estimates & Schedules	Construction Schedule
		Construction Estimate
		Constructability Analysis
5	Construction Phasing	Updated Phasing Plan
		Draft MPT Plan

D. Phase A: 45% Design Deliverables

The Consultant shall provide developed, detailed plans, elevations and sections of the improvements which include, but is not limited to, the station building, parking garage, passenger platforms, pedestrian bridge, and infrastructure improvements. Plans should indicate all structural elements, final elevations and grades, clearances, initial details of connections, waterproofing and drainage elements. Details of the structural system connections for the foundation and superstructure shall be supplied. Electrical and Mechanical spaces shall be illustrated with full dimensions, and developed finish schedules shall also be included. The Consultant shall also provide details of how new construction will be incorporated with temporary operations measures and details for all temporary structures required to maintain safety and operations.

Comments to prior submissions shall be resolved and incorporated into the documents at this submission. The Consultant's 45% Design submission will be used by the Township and SEPTA for their value engineering analysis.

The submission shall include the following deliverables:

1. **Task 1: Site Evaluation & Investigation**

	Task Description	**Task Deliverables**
1	Existing Conditions	Final Existing Conditions Report
2	Survey Review	Updated Survey Information
3	Infrastructure Investigation	Final Stormwater Management Plan
4	Geotechnical Analysis	Final Subsurface Conditions and Geotechnical Report
5	Environmental Clearance	Final Soil Evaluation Report
6	Operational Issues	Final Transit Service Assessment
		Final Pedestrian & Vehicular Assessment

2. **Task 2: Site Development**

	Task Description	**Task Deliverables**
1	Structural	Detailed Design Drawings for Station Building
		Detailed Design Drawings for Passenger Platforms
		Detailed Drawings for Selected Parking Garage Alternative
		Updated Calculations
2	Architectural	Detailed Signage Plan
		Final List of Material, Components, Equipment and Finishes
3	Accessibility	Detailed ADA Plan and
4	Electrical	Detailed Electrical Plans
		Detailed Lighting Plan (including Iso-lux drawings)
		Detailed Plan for AVPA
		Detailed plan for VMS
5	Mechanical	Detailed Mechanical Plans
6	Infrastructure	Detailed Landscape Plan
		Detailed Plan for Infrastructure Improvements

3. Task 3: Design Documentation

	Task Description	Task Deliverables
1	Construction Documents	Detailed Design Drawings
		Fully Developed and Updated Technical Specifications for Indicated Materials
2	Design Manual	Final Design Manual (w/ changes form previous version highlighted)
3	Agency Coordination & Permitting	ADA Checklist
		Approvals Documentation
		Final Application for NPDES Permit
		Site Plan Approval
		Draft Agreements for Utility Relocation
		Highway Occupancy Permit Application
4	Cost Estimates & Schedules	Updated Cost Estimate
		Updated Construction Schedule
5	Construction Phasing	Updated Phasing Plan including temporary construction and signage
		Updated MTP Plan

E. Phase A: 90% Design Deliverables

This submittal will show the design of all disciplines as essentially complete and without any ambiguities with regard to the requirements of the project. Comments to prior submissions shall be resolved and incorporated into the documents at this submission. Modification generated from the third party Value Engineering Consultant study and approved by the Township shall have been addressed and incorporated into the drawings.

The Consultant shall provide a comprehensive, fully developed pre-final set of Construction Drawings for all work items designed. These drawings shall, at a minimum, be progressed to the levels indicated in the individual tasks. All drawings shall be developed, all clarifying views and sections shown, all notes included and all details provided. All cover sheets, title pages, index pages, and sheets of legends, abbreviations, quantities and general notes shall be provided. All drawings shall be clear, complete and easily interpreted.

All Specifications for items constructed by the Contractor shall be fully developed, including all General, Products and Execution parts so that the Township can clearly define the finalized course of action for completing the construction package. This includes support for the Township's, SEPTA's and Amtrak's efforts developing the "boiler plate", determining the force account requirements for SEPTA and Amtrak, developing the logical prime contract and subcontract percentages and likely participation by DBE firms.

1. Task 1: Site Evaluation & Investigation

All site investigation and research necessary to finalize the design should be complete at this time.

2. Task 2: Site Development

	Task Group	Task Deliverables
1	Structural	Pre-final Drawings for Station Building
		Pre-final Drawings for Platforms
		Pre-final Drawings for Garage
		Final Calculations (Bound & Sealed)
2	Architectural	Pre-final Signage Plan
		Pre-final Material and Finish Schedule
		Pre-final Submittal Schedule
		Rendering of 90% Design
3	Accessibility	Pre-final ADA Plans and Architectural Provisions
4	Electrical	Pre-final Electrical Plans
5	Mechanical	Pre-final Mechanical Plans
6	Infrastructure	Pre-final Drawings for infrastructure improvements

3. Task 3: Design Documentation

	Task Description	Task Deliverables
1	Construction Documents	Pre-final Construction Plans
		Pre-final Technical Specifications
2	Design Manual	Updated Manual with Final Material and Finish Schedules (including sample boards)
		Preliminary Submittal Schedule
3	Agency Coordination & Permitting	Final ADA Checklist and Independent Review Confirmation
		Documentation of Status for Required Approvals
		NPDES Permit Approval
		Final Site Plan Approval
		Final Utility Reviews, Relocation Approvals and Agreements
4	Cost Estimates & Schedules	Final Constructability Analysis
		Pre-final Construction Cost Estimate

		Preliminary Proposal Forms and Cash Flow Forecasts
		Updated "Near Complete" Construction Schedule
5	Construction Phasing	Pre-final Phasing Plan
		Pre-final MTP Plan

F. Phase A: 100% Design Deliverables

The Township will expect from the Consultant that this level of design shall be fully complete and without any ambiguities as to the requirements of the project, including all pertinent details, so as to allow for construction of the facilities required for all general, electrical and mechanical construction packages. The 100% Bid Documents shall be inclusive of all final comments made by the Township, and the Consultant shall ensure that all of the 90% Constructability Review comments are incorporated.

1. **Task 1: Site Evaluation and Investigation**

All site investigation and research necessary to finalize the design should be complete at this time.

2. **Task 2: Site Development**

	Task Group	**Task Deliverables**
1	Structural	Final Drawings for Station Building
		Final Drawings for Platforms
		Final Drawings for Parking Garage
		Final Drawings for Temporary Construction
2	Architectural	Final Signage Plan
		Final Material and Finish Schedule
		Final Submittals Schedule
3	Accessibility	Final ADA Plans
4	Electrical	Final Electrical Plans
5	Mechanical	Final Mechanical Plans
6	Infrastructure	Final Drawings for Infrastructure Improvements

3. **Task 3: Design Documentation**

	Task Description	**Task Deliverables**
1	Construction Documents	Sealed Final Construction Documents (Reproducible)
		Sealed Final Technical Specifications (Reproducible)
2	Design Manual	Final Addendums
3	Agency Coordination & Permitting	Final ADA Checklist and Review
		Documentation of Approvals
		Documentation of Final Approval of NPDES Permit
		Final Site Plan Approval
		Utility Relocation Approval
4	Cost Estimates & Schedules	Final Detailed Construction Cost Estimate
		Final Proposal Forms and Cash Flow Forecasts
		Final Construction Schedule
5	Construction Phasing	Final Phasing Plan
		Final MTP Plan

SECTION 8 - MAN-HOUR SUMMARY

I. Labor Categories

Proposers shall include in their Technical Proposal a distribution of the total man-hours, which they estimate will be required to perform the work. This estimate shall be submitted using the attached man-hour table. The man-hours shall be shown by Proposers in accordance with the following applicable labor categories:

A. Project Manager

B. Sr. Architect / Sr. Engineer

C. Architect / Engineer

D. Designer / Technician

E. Estimator

F. Specification Writer

G. CADD/Drafter

H. Clerical / Secretarial

Proposers may provide additional labor categories if it is necessary and required for the scope of work.

II. Man-hour Summaries

Using the attached man-hour tables, Proposers shall include in their technical proposals the following:

A. Summary of total hours for the design team for the specific tasks identified under Phase A. Design Related Services.

B. Summary of total hours for each member of the design team for the specific tasks identified under Phase A. Design Related Services.

C. Summary of total hours for the design team for the specific tasks identified under Phase A. Design Related Services.

D. Summary of total hours for each member of the design team for the specific tasks identified under Phase A. Design Related Services.

E. Summary of total hours for each member of the design team for Phase B Construction Related Services.