

Engineering Department



Contract Document Standards

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DOCUMENT CONTROL

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1.0 ENGINEERING DESIGN DIVISION - CONTRACTS UNIT OVERVIEW

The project delivery function of the Engineering Architecture/Design Division (EADD) Contracts Unit is to provide contract development guidance during design stages, assemble the Port Authority (PA)-Wide review package for internal distribution and review, provide comments and input on contractual issues, prepare the Contract book, review Contract book with the Law Department as applicable, package the contract documents for bidding, coordinate reproduction and distribution of contract documents to bidders, prepare and arrange for public advertisement or solicitation of bids, lead coordination of the bidders' questions responses, issue addenda and notices to bidders as needed, conform the Contract book and drawings, and coordinate the distribution of conformed contract documents.

The Contracts Unit Contract Engineer (CE) ultimately prepares the Contract book based on the Contract Questionnaire information and additional elements, such as Engineer's Estimate, grant funding requirements, permits and other required approvals, materials furnished by the Port Authority, minority/women-owned/disadvantaged business enterprise subcontracting opportunity goals, time for completion, milestone completions and liquidated damages, operational conditions, hours of work, construction staging requirements, maintenance of traffic and work area protection, and the technical specifications, all as provided by various disciplines of the Design Division (DD), the Construction Management Division (CMD), the Project Manager (PM), and the Line Department. Treasury-Risk Financing and the Procurement Department provide input on insurance requirements and solicitation methods, respectively. Letters indicating price quotes for sole source items are not part of the contract but must be provided as information to bidders, so prices quoted can be included in the bid process.

In a typical Design-Bid-Build construction Contract book:

- The "front end" portion of the Contract book consists of Information for Bidders, the Form of Contract, the Bid, and Division 01 of the Specifications (General Provisions).
- The "technical specifications" portion of the Contract book consists of the Division 02 through 48 Sections of the Specifications, included as applicable to the project.
- The "back of book" portion of the Contract book consists of contractual documents and forms, such as wage rates, permits and samples, the Bid Submission Checklist, and sometimes non-contractual documents and forms, such as the Analysis of Bid,

The contract payment method is typically dictated by the representation of design information on the Contract Drawings. Different payment methods require different levels of design information to be shown. Agreement among DD staff and the PM as to the proper form of contractor's compensation for a particular contract should be reached as early as possible and prior to initiation of PA-Wide review.

The DD ensures that clear direction is given in the contract documents to promote fair competition among the bidders and, once the contract has been awarded, to enable the contractor and supervising CMD staff to build in accordance with the contract documents. The Contracts Unit endeavors to resolve contractual and biddability, clarity, completeness and other issues with the respective disciplines, divisions, and departments prior to the release of contract documents and during the course of the bid period as required.

The process generally commences when the request for a CE is submitted by the Engineering Department Engineer of Projects (EOP) or the Lead Engineer/Architect (LE/A), or if no designer is required, by the PM. After a CE has been assigned, a link to the initial Contract Questionnaire is automatically sent via e-mail to the PM and the LE/A. The initial questionnaire is filled out by the PM and the LE/A, with CMD input, to provide base information relating to the contract and can be sent electronically, back and forth between PM and CE and between LE/A and CE. Once the Contract Questionnaire is complete, the CE then uploads the information from the Contract Questionnaire to the Contracts Unit Contract Book System (CBS) Questionnaire, which is used in the generation of the Contract book. Any further changes to the contract

information are made to the CBS Questionnaire, or directly to the Contract book if the first draft of the Contract book has already been generated.

1.1 CONTRACTS UNIT QUALITY CONTROL

The CE reviews and coordinates the items related to preparation of the Contract book, such as the Contract Questionnaire and other elements, as prepared by DD and their consultants as well as the contractual elements provided by others, utilizing the basic criteria outlined in these *Contract Document Standards*. The review consists of checking for conflicts, errors, ambiguities, and opportunities for interpretation and misunderstanding. Any identified non-conforming issues are recorded for distribution to the LE/A and the PM.

Established criteria to determine whether construction contracts or portions thereof require review by the Law Department, are evaluated by the CE, the LE/A as well as other stakeholders. The objective is to produce contract documents that are legally enforceable, biddable, and constructible, while maintaining speed to delivery and mitigating risk. (See [Policy on Attorney Review](#) on Engineering On Line (EOL365)).

The utilization by the CE of the Contracts QC Checklist for reviewing/checking the Contract book documents promotes conformance to the *Contract Document Standards* related to the Contract book and Port Authority contractual requirements. The checklist is designed to be a contractual overview of the Contract book documents and not an indication of the checking or approval of the engineering/design itself, nor of the Contract Drawings or the technical specifications nor coordination of related contract elements with the drawings or specifications. The CE reviews items that are needed to prepare and finalize the Contract book.

After incorporation of all applicable comments generated by the PA-Wide review, specific to the Contract book, and after reviewing the completed Contracts QC Checklist, the Chief CE signs the Contracts Unit QA Checklist and signs the DD QA Team Certification - Stage III, acknowledging that the Contract book has undergone the Quality Control procedure.

1.2 ROLES AND RESPONSIBILITIES

1.2.1 CONTRACT ENGINEER

- For projects not designated as a "Small Project" (refer to Engineering Department's *Small Projects Enhanced Delivery Program Policy and Guidelines*), review elements of the contract documents at various completion levels, excluding the Contract Drawings, technical specifications, sole source/sole brand documentation and related information, and excluding individual Work Orders.
- For projects not designated as a "Small Project", assemble and electronically distribute the PA-Wide review package.
- Prepare the Contract book based on contract information provided by the Project Manager, LE/A, and others.
- Submit Contract book to the Law Department as required, and resolve Law Department comments, with input from the PM and LE/A as applicable.
- Arrange for advertisement or solicitation of bids.
- Coordinate with Procurement Department staff for reproduction and distribution of contract documents to bidders.
- Complete and sign the Contracts Unit QC Checklist and QA Checklist.
- Serve as the primary point of contact to the Procurement Department for management of bidders' questions during the bid period, including distribution of questions to the DD, PM,

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and others as required, develop answers to questions, and prepare addenda to clarify and correct the documents, as well as prepare notices to bidders.

- Conform Contract books after award, coordinate distribution of conformed documents, and transmit original documents as required for proper records retention and document archival.

1.2.2 CHIEF/ASSISTANT CHIEF CONTRACT ENGINEER

- Assign Contract Engineer as requested for projects at the Stage III design development.
- Provide guidance, oversight, and review of contract documents during design development and bid period.
- Review Milestone Review table prepared by the CE.
- Review final Contract Questionnaire.
- Review final Contract book.
- Review Contracts Unit QC Checklist completed by the CE.
- Sign the Contracts Unit QA Checklist and the DD QA Team Certification - Stage III.
- Resolve or elevate non-conforming contractual issues presented by the CE.
- Provide guidance, oversight and assist the CE, as needed, to answer bidder questions and prepare addenda as required to clarify and correct the contract documents during the bid period.
- Periodically evaluate and recommend updates to the *Contract Document Standards* as needed.
- Periodically review and update DD standard technical specifications and Standard Drawings Notes and Details.
- Update and maintain the construction Contract book templates on an ongoing basis.

2.0 GENERAL CONTRACT DOCUMENT INFORMATION

2.1 CONTRACT DOCUMENTS AND DEFINITION OF THE "CONTRACT" (FOR DESIGN-BID-BUILD-CONTRACTS)

- Information for Bidders
- Form of Contract (i.e., Chapters I through VII or VIII)
- Bid
- Specifications (i.e., Division 01 through Division 35)
- Contract Drawings
- Addenda
- Authority's acceptance (i.e., Award Letter)

The following is taken from *Form of Contract - Chapter I - General Provisions* of the Contract book:

"Contract" shall mean, in addition to this **Form of Contract**, the **Information for Bidders**, the **Bid**, the **Authority's acceptance**, the **Specifications** and the **Contract**

Drawings (including written **addenda** issued over the name of the Chief Engineer), all of which are made part hereof as though herein set forth in full. The Contract as so defined shall constitute the complete and exclusive statement of the terms of the agreement between the parties and the Contract may not be explained or supplemented by course of dealing, usage of trade or course of performance."

2.2 OTHER CONTRACT DOCUMENTS

These typical Contract book ("back of book") items are made part of the Contract by reference to them in other portions of the Contract documents. When applicable, they follow the technical specifications section in the Contract book or follow Division 01 of the Specifications for contracts with no technical specifications.

- Permits/Access Agreements/Other Governmental Approvals
- Prevailing Wage Rates
- MBE/WBE Schedules
- DBE Schedules
- Federal Appendices
- CMD Forms
- Bid Submission Checklist

Note: Placing miscellaneous documents in the back of the Contract book without incorporating them into the Contract by reference does not make them part of the contract. Also, which documents are appropriately made a part of the contract and those that are not a contract document, must be carefully reviewed and decided.

The following are also part of the contract and are made part of the contract by reference in Division 01 clause "Reference Drawings":

- Reference Drawings

2.3 NOT PART OF THE "CONTRACT"

- Table of Contents in the Contract book
- Advertisement ("A" page)
- Contract Information Summary ("S" pages)
- Available Documents
- Analysis of Bid
- Sole Source Letters
- Notice to Bidders

2.4 COMMON MISCONCEPTIONS REGARDING WORK TO BE PERFORMED BY THE CONTRACTOR

- Contractor does not have to perform Work in the technical specifications if it is not shown on the Contract Drawings. (Not True)
- Contractor does not have to perform Work shown on the Contract Drawings if it is not specified in the technical specifications. (Not True)

- ❑ The Work shown on the Contract Drawings governs over the technical specifications. (Not True)

The following is taken from *Specifications – Division 01 - General Provisions* of the Contract book:

XX. CONSTRUCTION REQUIRED BY THE SPECIFICATIONS

These Specifications relate generally to performing <Description of Work - defined in Definitions and also repeated in General Agreement> at <Construction Site - defined in Definitions and also repeated in General Agreement>.

These Specifications require the doing of all things necessary or proper for or incidental to the matter referred to in the immediately preceding paragraph, as shown on the Contract Drawings in their present form. In addition, all things shown on the Contract Drawings even though not expressly mentioned in these Specifications, all things mentioned in these Specifications even though not shown on the Contract Drawings, and all things not specified either on the Contract Drawings, or in the Specifications but involved in carrying out their intent and in the complete and proper execution of the matter referred to in the immediately preceding paragraph are required by these Specifications; and the Contractor shall perform the same as though they were specifically delineated, described and mentioned.

In case of a conflict between a requirement of the Contract Drawings and a requirement in Division 01 of the Specifications, the requirement of Division 01 shall control. In case of a conflict between a requirement contained in other Divisions of the Specifications and a requirement of the Contract Drawings, the requirement of the Contract Drawings shall control.

The Contract language clearly states that the Contractor has to perform everything shown on the Contract Drawings though not contained in the Specifications; everything contained in the Specifications though not shown on the Contract Drawings; and everything not shown in either but required to be done in order to complete the Work of the Contract. The second paragraph states the hierarchy of control in the case of a conflict due to unintentional error.

Conflict should never be knowingly built into a contract.

3.0 CONTRACT TERMINOLOGY

3.1 COMMAND TERMINOLOGY

Gives clear direction without ambiguity to the Contractor.

Term	Comment
<i>Shall</i>	Correct for direction given to Contractor.
<i>Furnish and Install</i>	Correct for direction given to Contractor.
<i>Furnish</i>	Implies that Contractor does not have to install. (OK to use in Part 2 - Products of a technical specification)
<i>Install</i>	Implies that Contractor does not have to furnish. (OK to use in Part 3 - Execution of a technical specification)
<i>Provide</i>	Implies that Contractor does not have to install. (don't use 'provide' as a substitute for 'furnish and install')
<i>Will or Must or Should</i>	Not optimum for direction given to Contractor as terms can be interpreted as not mandatory.
<i>To Be</i>	Not optimum for direction given to Contractor. Not specific to whom will perform this work in the future. Can be used when mentioning specific work that shall not be performed by the Contractor (ex. "... <i>To Be Performed By Others</i> ").
<i>Past tense ..."-ed" (ex. Painted)</i>	Not optimum for direction given to Contractor. Implies that it has been done in the past and does not have to be performed under this Contract.
<i>Maintain</i>	Not definitive enough to give direction.
<i>Be Responsible For</i>	Not definitive enough to give direction.

3.2 TERMINOLOGY REFERRING TO THE PORT AUTHORITY OF NY & NJ

Only use terms that are defined in the Contract.

Term	Comment
<i>Authority</i>	Defined in Contract.
<i>PATH</i>	
<i>Engineer</i>	
<i>EOR, Engineer of Record, PA Survey Group, Facility, Resident Engineer, Architect, Owner, Discipline/Trade Engineer, Facility Manager, Inspector, Airport Personnel, Operations, SEMAC, TD, and other similar terms</i>	Not defined in Contract and should not be used. Exception for Chief of Materials Engineering.

3.3 TERMINOLOGY REFERRING TO THE CONTRACTOR

Direction can only be given to Contractor since the Contract is between the Port Authority of NY & NJ and the Contractor.

Term	Comment
Contractor	Correct.
General Contractor	Incorrect. Use "Contractor".
Subcontractor	Incorrect. Do not use.
Electrical (or other trade) Contractor or trade	Incorrect. Do not use.
Manufacturer	Incorrect for direct command but Contractor can be directed to use manufacturer to perform services and provide equipment.

3.4 PAYMENT TERMINOLOGY

Term	Comment
Lump Sum (Unclassified)	<ul style="list-style-type: none"> <input type="checkbox"/> Work must be quantifiable, shown and specified in sufficient detail for bidding. <input type="checkbox"/> Do not show quantities on drawings for Lump Sum work. Bidders must be able to calculate quantities based on information provided on the Contract Drawings.
Unit Price (Classified)	<ul style="list-style-type: none"> <input type="checkbox"/> Use when work can be defined but quantities cannot be exactly determined. Work must be shown on the Contract Drawings and specified in the Specifications in sufficient detail for bidding. <input type="checkbox"/> Not to be used for work that may not be required at all, for a way to include 'pre-priced' Net Cost work, for temporary items or to replenish facility inventory. <input type="checkbox"/> Use in accordance with Engineering Department's Classified Work Policy, which appears on EOL365 under "Contracts". <input type="checkbox"/> Estimated quantities should be reasonably accurate. <input type="checkbox"/> Descriptions of Unit Price Items should only define how measurements are taken for payment of those items. They are not to be used to direct the Contractor to perform work or define/delineate the work. <input type="checkbox"/> Ensure that descriptions cannot be misinterpreted to mean payment of "double quantities" through terminology such as "furnished and installed," "removed and disposed of,".
Combination Contract	<ul style="list-style-type: none"> <input type="checkbox"/> Contains both Classified and Unclassified work.
Net Cost (or Field Ordered Work for most Federally – (FTA, FEMA, FHWA) funded contracts)	<ul style="list-style-type: none"> <input type="checkbox"/> Net Cost Work - Time and material payment with percentage markup. <input type="checkbox"/> Field Ordered Work (FOW) - Lump sum payment, or time and material with a markup not to exceed a specified percentage. <ul style="list-style-type: none"> - To be used for undefined items of work encountered during the course of construction and typically paid for in accordance with Compensation for Extra Work clause but not charged against the Extra Work budget allowance. See the standard definitions of Net Cost and Field Ordered Work below. <input type="checkbox"/> Acceptable in cases when it is reasonably certain that during the performance of Work, certain work will be required to be performed but the extent of such work cannot be known.

Term	Comment
	<ul style="list-style-type: none"> <li>❑ Approved Net Cost/FOW items must be mentioned in a note on the drawings or in the Specifications in association with the Work shown in the contract. The note, if not included on the G drawing under the Net Cost/FOW Notes, must cross-reference the note stating the standard definition of Net Cost/FOW, which tells the Contractor how Net Cost/FOW is paid. See Net Cost/FOW Items herein. <li>❑ Net Cost/FOW items should not be shown, detailed or explained on drawings or in Specifications to prevent bidders from mistakenly including them in the bid price, nor should technical specifications be included in the contract for Net Cost or Field Ordered Work. <li>❑ Do not use Net Cost/FOW for scheduling reasons to pay for work that has not been completely designed. <li>❑ The use of Net Cost/FOW for items that the Contractor has control over such as maintenance of traffic, staging requirements, and dewatering operations or for additional work that is already covered under Lump Sum or Unit Price payment is not advisable because of potential financial manipulation by the Contractor. However, for Stage IV administrative purposes, such Net Cost/FOW items may need to be included in the Contract Drawings. <li>❑ A list of Standard Net Cost/FOW Notes has been developed by Engineering's Construction Management Division and Design Division and appears on EOL365 under "Contracts". The Lead Engineer/Architect or respective Design Task Leader must send all Net Cost/FOW items first to the Resident Engineer for input and approval, and then to the EOC-Contract Administration of CMD for final approval prior to the bid period. <li>❑ Standard Definition of Net Cost – See Net Cost Items herein for exact Net Cost wording to appear on the Contract Drawings for contracts with Net Cost (% not bid), for contracts with bid Net Cost, and for contracts with Field Ordered Work (mostly Federally-funded contracts).
Bid Net Cost	<ul style="list-style-type: none"> <li>❑ Where Net Cost work (excluding FOW) is appropriate for a contract, but where the estimated Net Cost dollar value exceeds the prescribed % of the Engineer's Estimate and therefore the % mark-up must be bid. See Net Cost Policy section herein.

The following Payment Terminology should not appear on the Contract Drawings, nor should phrases stating how an item is paid (e.g., "this cost shall be included in the bid price" or "this item shall be a Unit Price item") be included, with the exception of Net Cost/FOW notes:

- ❑ Lump Sum
- ❑ Unit Price
- ❑ Unclassified Work
- ❑ Classified Work
- ❑ Extra Work

3.5 MISCELLANEOUS TERMINOLOGY

Term	Comment
<i>As Directed by the Engineer</i>	Acceptable for the following conditions: <ul style="list-style-type: none"> - When direction given by the Engineer does not have cost impact on bid price. - Item of Work will be paid at Net Cost/FOW.
<i>New</i>	Acceptable for Legend only. Everything in contract is considered "New" unless labeled as " <i>Existing</i> ".
<i>By Others</i>	If work is to be done by someone other than the Contractor, use this term but give some indication of timing if it impacts the Contractor's work. For work by the Authority, may show it as " <i>By Others (The Authority)</i> ". <i>Do not use this term</i> to mean work of another design discipline's drawings in the same contract.
<i>Or Approved Equal</i>	To foster competition, at least three manufacturers' names with their current location should be listed with "or approved equal".
<i>No Substitutions Permitted</i>	This statement must be included whenever there is an approved sole source or sole brand item. If not included, the Contractor is allowed to submit alternates or equals for approval in accordance with the Substitution clause in Division 01.
<i>To Remain</i>	Items are assumed to remain unless stated otherwise, so this term should be used sparingly, if at all, and only to differentiate an item from others being removed.
<i>Remove and retain existing.....; or Remove, retain and store existing....</i>	Include this phrase when there are existing items to be retained for the Authority, or retained for relocation/ reinstallation in the contract.
<i>Proposed; Suggested; Recommended; Intended</i>	Do not use these terms. They are ambiguous and are not definitive indications of work required by the contract.
<i>NIC (Not in Contract)</i>	<i>Do not use this term.</i> Everything shown on the drawings and in the Specifications, should be in the contract unless shown as " <i>existing</i> " or " <i>By Others</i> ". When removing items of work from the contract, do not cross out sections or portions of drawings – delete them completely as if they were never there.
<i>For Reference Only</i>	<i>Do not use this term.</i> If items are shown to indicate existing conditions, call out or label the items as such - " <i>Existing Conditions</i> ".
<i>If Required; If Possible</i>	<i>Do not use these terms.</i> They are vague and do not give definitive direction to the Contractor.
<i>Plans; Sheets; Drawings</i>	<i>Do not use these terms</i> as a substitute for " <i>Contract Drawings</i> " since they are not defined terms in the contract.

Term	Comment
<i>Amount; Balance</i>	Do not use when writing about quantity. Use when writing about money.
<i>Any</i>	Means limited number selected at discretion of reader.
<i>Assure</i>	<i>Do not use this term.</i> Means to give confidence to or convince a person of something.
<i>Basis of Design</i>	<i>Do not use this term.</i> This concept coordinates with AIA contracts (AIA Document A201), the AIA concept of Comparable Products and the AIA concept of substitution. The Authority does not follow these AIA concepts, but instead uses a different concept of Substitution and approved equal, in keeping with government specifying. The Authority requires that minimum 3 manufacturers. be specified. Manufacturers products other than those named are submitted as a Substitution for Engineer review.
<i>Both</i>	Use "both" instead of "either" when the intent is to have something on both sides, e.g., <i>paint both sides of a door.</i>
<i>Either</i>	<i>Do not use this term.</i> Implies a choice between two options.
<i>Ensure</i>	<i>Do use this term.</i> Means to make certain in a way that eliminates the possibility of error.
<i>Insure</i>	<i>Do not use this term.</i> Means to issue or procure an insurance policy.
<i>Entity</i>	Use this term to refer to refer to persons, firms, subcontractors or others who are involved in the construction process but who are not signatories of the contract.
<i>Etc.</i>	Do not use to specify Contractor requirements. Contract requirements should be specific, listing relevant items, not limitless.
<i>In Kind; Match Existing</i>	Use only when requirements for "Existing" item to be matched are specified. "Match Existing" by itself is not biddable.
<i>Lineal</i>	<i>Do not use this term.</i> Means being in direct line as a descendent or ancestor. Use <i>linear</i> instead.
<i>Observe</i>	<i>Do not use this term</i> as a direction to the Contractor. Means to watch or view execution of work.
<i>Quantity</i>	Use when writing about number, linear measure, area, volume.
<i>Supervise</i>	<i>Do not use this term</i> as a direction to the Contractor. Means to oversee and have direction of the work.
<i>Project</i>	<i>Do not use this term;</i> use "Contract" or refer to "Work", as appropriate for the context.

4.0 NET COST

4.1 NET COST POLICY

- Contracts may contain Net Cost provisions when it is reasonably certain that specific items of work will be required but there is no way to sufficiently determine the character or extent of the work until it is actually performed (e.g., rock removal, replacement of unsuitable fill).
- ~~The amount authorized for Net Cost work cannot be exceeded by more than 10% of the total contract authorization without approval by the Deputy Chief Engineer.~~

[second bullet is no longer valid. This was superseded as a result of revised Agency-wide authorization limits effective August 14, 2007]

- An order of magnitude estimate must be prepared for each Net Cost item. An order of magnitude estimate is a "ballpark" amount that is used for budgeting purposes and does not require any design. The order of magnitude Net Cost estimate shall be part of the formal Engineer's Estimate summary and must be included in the Policy MJ briefing folder.
- The value of the Net Cost work in relation to the Engineer's Estimate summary determines whether the Net Cost work is bid by the Contractor (see table below) or included as "clause work" in the contract documents, in which case it is not bid by the Contractor.

<u>Engineer's Estimate</u>	<u>Net Cost must be bid when the Net Cost Estimate is:</u>
\$0 - \$1M	>50% of the EE
\$1M - \$5M	\$500K or 25% of the EE – whichever is greater
\$5M - \$10M	\$1.25M or 15% of the EE – whichever is greater
\$10M - \$20M	\$1.5M or 10% of the EE – whichever is greater
>\$20M	>\$2M

4.2 APPROVAL OF NET COST/FIELD ORDERED WORK NOTES

The LE/A or respective Design Task Leader (TL) must send all Net Cost/Field Ordered Work items first to the Resident Engineer for input and approval, and then the LE/A must send the compiled, RE-approved list to the EOC-Contract Administration of CMD for final approval.

4.3 STANDARD NET COST LANGUAGE FOR CONTRACT DRAWINGS

USE THIS LANGUAGE for contracts in which Net Cost is not bid by the Contractor.

DO NOT USE THIS LANGUAGE for contracts in which Net Cost is bid (BID NET COST), or for FTA, FEMA or FHWA funded contracts. Refer to "NET COST POLICY" included herein, which also appears on EOL365 under "Contracts", for Net Cost guidance and information on when the Net Cost is required to be bid by the Contractor.

Approved Net Cost notes shall be included on the Contract Drawings, stated as follows:

1. WHEN AND AS DIRECTED BY THE ENGINEER, PERFORM THE FOLLOWING WORK. COMPENSATION FOR SUCH WORK WILL BE AT THE "NET COST" THEREOF, AS DEFINED BELOW.
 - A. *[List all standard and non-standard net cost items applicable to the contract.] Do not list "Clause" items already specified in the Contract book. See 4.6 below.*
2. "NET COST" SHALL BE COMPUTED IN THE SAME MANNER AS IS COMPENSATION FOR EXTRA WORK, INCLUDING ANY PERCENTAGE ADDITION TO COST, AS SET FORTH IN THE CLAUSE OF THE FORM OF CONTRACT ENTITLED "COMPENSATION FOR EXTRA WORK". PERFORMANCE OF SUCH NET COST WORK SHALL BE AS DIRECTED BY THE ENGINEER AND SHALL BE SUBJECT TO ALL PROVISIONS OF THE CONTRACT RELATING TO PERFORMANCE OF EXTRA WORK. COMPENSATION FOR SAID NET COST WORK SHALL NOT BE CHARGED AGAINST THE TOTAL AMOUNT OF COMPENSATION AUTHORIZED FOR EXTRA WORK.

4.4 BID NET COST LANGUAGE FOR CONTRACT DRAWINGS

USE THIS LANGUAGE for contracts in which an established Net Cost dollar value is bid (BID NET COST). Refer to "NET COST POLICY" for Net Cost guidance and information on when the Net Cost is required to be bid by the Contractor.

Approved Net Cost notes shall be included on the Contract Drawings, stated as follows:

1. WHEN AND AS DIRECTED BY THE ENGINEER, PERFORM THE FOLLOWING WORK. COMPENSATION FOR SUCH WORK WILL BE AT THE "NET COST" THEREOF, AS DEFINED BELOW.
 - A. *[List all standard and non-standard net cost items applicable to the contract.] Do not list "Clause" items already specified in the Contract book. See 4.6 below.*
2. "NET COST" SHALL BE COMPUTED IN ACCORDANCE WITH THE CLAUSE OF THE FORM OF CONTRACT ENTITLED "NET COST". PERFORMANCE OF SUCH NET COST WORK SHALL BE AS DIRECTED BY THE ENGINEER.

4.5 FIELD ORDERED WORK LANGUAGE FOR CONTRACT DRAWINGS

USE THIS LANGUAGE for certain Federally-funded contracts. (e.g., FTA, FEMA, FHWA)

Approved Field Ordered Work notes shall be included on the Contract Drawings, stated as follows:

1. WHEN AND AS DIRECTED BY THE ENGINEER, PERFORM THE FOLLOWING WORK. COMPENSATION FOR SUCH WORK WILL BE IN ACCORDANCE WITH "FIELD ORDERED WORK", AS DEFINED BELOW.
 - A. *[List all standard and non-standard net cost notes applicable to the contract.] Do not list "Clause" items already specified in the Contract book. See 4.6 below,*
2. "FIELD ORDERED WORK" SHALL BE COMPUTED IN THE SAME MANNER AS IS COMPENSATION FOR EXTRA WORK, AS SET FORTH IN THE CLAUSE OF THE FORM OF CONTRACT ENTITLED "COMPENSATION FOR EXTRA WORK". PERFORMANCE OF SUCH FIELD ORDERED WORK SHALL BE AS DIRECTED BY THE ENGINEER AND SHALL BE SUBJECT TO ALL PROVISIONS OF THE CONTRACT RELATING TO PERFORMANCE OF EXTRA WORK.

Make sure all Net Cost/FOW notes include the appropriate (Net Cost/FOW or Bid Net Cost) standard Net Cost/FOW definition, and that the standard Net Cost/FOW Notes are correctly written. Do not include technical specifications, or drawing notes and details for Net Cost work/FOW.

4.6 STANDARD NET COST/FIELD ORDERED WORK NOTES FOR CONTRACT DRAWINGS

- DO NOT INCLUDE the following items on the Contract Drawings -- the following items are included in the Contract book (either in the 'front end' or in the technical specifications) as 'Clause' items, and are also not necessarily compensated the same way as Net Cost work, even though they may be budgeted as Net Cost work:
 - Premium time required to perform work after hours or on weekends to minimize impact on facility or tenant operations or to accelerate work. (already in "PREMIUM TIME" clause).
 - Compensation for Emergency Delays. (already in "COMPENSATION FOR EMERGENCY DELAYS" clause).
 - Changes to Security Requirements. (already in "CONSTRUCTION SITE SECURITY REQUIREMENTS" clause).
 - Asphalt bonus for pavement density test as per contract provisions. (already in asphalt paving technical specification).
 - Asphalt cost escalation as per contract provisions. (already in asphalt paving technical specification).
- Do not include Discipline name in the Net Cost/FOW notes on the drawings.
- Any revisions to the below net cost items must be approved by CMD.
- The below net cost items also may be used for Field Ordered Work (for certain Federally-funded contracts) as applicable to the specific contract.

ELECTRICAL

1. Furnish and install conduits to replace existing conduits shown on the Contract Drawings that are found to be damaged, crushed or full.
2. Remove existing abandoned cables, not shown on the Contract Drawings to free space for new cables in existing conduits, if no spare is available.
3. Remove and replace existing damaged wiring, not shown on the Contract Drawings.
4. Repair and/or modify existing electrical or communications equipment not shown on Contract Drawings, when such electrical equipment is found to be inaccessible or damaged.
5. Locate and uncover existing buried manholes, handholes, electrical boxes, electrical cans, or traffic signal pull boxes and splice boxes and raise to final grade.
6. Repair, replace or relocate existing underground utilities not shown on the Contract Drawings.
7. Repair and/or replace any existing electrical manholes, handholes and sidewalk signal pull boxes and splice boxes not identified as damaged on the Contract Drawings.
8. Remove water from existing manholes and handholes.
9. Remove debris found in existing electrical manholes and handholes not shown on Contract Drawings.

CIVIL

1. Furnish, relocate and remove low-profile water filled barriers not shown on the Contract Drawings.
2. Repair deteriorated Lime Cement Flyash.
3. Remove and re-install existing chain link fencing.
4. Investigate and repair existing storm drainage system, not shown on the Contract Drawings.
5. Remove existing catch basin frames and grates, and drainage, electrical and communication manhole and handhole frames and covers, found to be damaged beyond repair but not shown on Contract Drawings, and replace in kind with aircraft rated types.
6. Furnish and install temporary airfield pavement markings, at locations not shown on the Contract Drawings.
7. Perform Test pits.
8. Furnish and install Geotextile and I-12 as bedding for utilities in unsuitable sub-grade.
9. Seal pavements cracks after milling.
10. Furnish and install clean backfill material, where subgrade is found to be unsuitable or saturated.
11. Perform clearing grubbing and debris removal to make Area Available for Contractor's Use.

STRUCTURAL

1. Replace deteriorated rivets in addition to those shown on the Contract Drawings.
2. Furnish and install adhesive anchors and WWF for concrete repair areas without exposed reinforcing steel or where spacing of reinforcing steel exceeds 6".
3. Clean existing scuppers and downspouts.

Contract Document Standards

4. Install and remove temporary supports for existing utilities and appurtenances not shown on the Contract Drawings.
5. Repair deteriorated concrete reinforcing bars with cross sectional area loss greater than 25%.

ENVIRONMENTAL

1. Transportation and disposal of excess, unsuitable or contaminated material off-site.
2. Transportation and disposal off-site or treatment, testing and discharge on-site of contaminated effluent from dewatering operations.
3. Abatement of incidental asbestos and lead containing materials not shown or specified on the Contract Drawings or in the Specifications.

MECHANICAL

1. Repair and/or modify existing mechanical equipment including but not limited to ductwork, piping, and associated appurtenances, not shown on the Contract Drawings.
2. Repair and/or modify existing mechanical equipment when such mechanical equipment is found to be inoperable. (Use only when similar work is NOT part of the Lump Sum)
3. Provide fire watch where not shown or specified on the Contract Drawings or in the Specifications.

TRAFFIC

1. Furnish and install Maintenance of Traffic and work area protection devices not shown on the Contract Drawings.

GEOTECHNICAL

1. Remove and dispose of abandoned piles.
2. Perform additional excavation below the mud line.
3. Remove debris between piles and repair underside of piers or decks. (unless is part of the LS Work)
4. Furnish and install settlement or water level monitoring instruments in addition to that shown on the Contract Drawings.
5. Furnish and install tiebacks, soil/rock anchors, or soil/rock berms to respond to unanticipated unstable conditions in addition to those shown on the Contract Drawings.

CONSTRUCTION MANAGEMENT DIVISION

1. Provide Flagman when working on or near railroad tracks, other than PATH.
2. Salvage and deliver to the Engineer additional items not shown on the Contract Drawings.
3. Construction staging and schedule changes to accommodate facility operations requirements.
4. Perform work required to support additional requirements from Federal, state and local authorities.
5. Provide Security personnel and equipment as required to support the Work in aeronautical and/or sensitive areas.

5.0 CONTRACT DRAWINGS

5.1 SIGNATURE/SEALS/STAMPS

- PA Design Division Drawings
 - Original drawings must indicate the first initial and full last name of "designed by, drawn by, and checked by" information in accordance with PA Design Division Advisory Bulletin 07-01 dated 9/25/07 and must be signed by the Functional Chief or designee.
 - Addenda drawings issued during the bid period may either be signed or may state "Original Signed By (O/S/B) <name of functional Chief or designee>".
 - All Addenda drawings issued during the bid period must be initialed by the functional Task Leader in the revision box corresponding to the latest revision, and the revision box must include the sequential drawing revision number, the drawing revision date and the Addendum No.
 - In the event that Contract Drawings are revised during the bid period, via text or sketch of addendum, then Conformed Contract Drawings are required one week from the date of award.
- Consultant Drawings
 - Original drawings, drawings issued during the bid period by Addenda and Conformed drawings issued after Award must be signed and sealed in the title block by a Professional Engineer (PE) or by a Registered Architect (RA) licensed in the state(s) in which the work is being performed.
 - Drawings for New York contracts require a New York stamp, which must be signed and show the name of the person signing, and their PE or RA license number.
 - Drawings for New Jersey contracts require a New Jersey raised and embossed seal, which must be signed and show the name of the person signing and their PE or RA license number.
 - Drawings for bi-state contracts require signatures, seals, and stamps from each state in accordance with the requirements above. At this time, electronically produced seals are not accepted by the Port Authority.
 - All signatures must be in blue ink, originals and not reproductions. At this time, electronically produced signatures are not accepted by the Port Authority, however the Agency is in the process of going to electronic deliverables. When electronic deliverables are required for delivery, Permalife drawings are replaced with PDF files. Plans that are signed and sealed by consultant designers shall be done so in accordance with the State Board requirements. The consultant designer shall provide a statement of such as part of their quality assurance certification.
 - Drawings for New York and New Jersey shall include the consultant's firm name and full business address. However, do not list a phone number for the consultant anywhere on the drawings. This could result in bidders calling consultants directly with questions, rather than contacting the Procurement Department as stated in the Contract book.
 - Certificate of Authorization
 - Is required for Engineering and Architectural design drawings for New York contracts effective March 1, 2018 (See Section 7210 of the NYS Education Law).

Is required for Engineering design drawings for New Jersey contracts except for the Professional Service Corporations established pursuant to the "Professional Service Corporation Act, N.J.S.A. 14A:17 et seq. Such exempt firms shall submit a certification attesting that the firm is a Professional Service Corporation established pursuant to the "Professional Service Corporation Act, N.J.S.A. 14A:17 et seq. and exempt from obtaining a Certificate of Authorization from the New Jersey Office of the Attorney General.

5.2 COORDINATION AND PREPARATION

- All drawings must be prepared using AutoCAD or Revit without manual "hand changes" in accordance with the Engineering CAD Standard.
- Contract title, Contract number, and facility name must be correct and match those indicated on all other drawings, the title sheet, and the Contract book.
- Contract Drawings must be coordinated, correctly cross-referenced, and without conflict between the drawings themselves or between the drawings and the Specifications (Division 01 and the technical specifications).
- Contract Drawings must not repeat requirements already stated in the Specifications or on other drawings. In the contract, say it once, say it correctly, and say it in the right place.
- Contract Drawings must include all applicable information indicated in the "Instructions to Engineer/Architect" pages accompanying each technical specification.
- Consultant drawings must be reviewed/audited by the Design Division staff in accordance with Design Division consultant review procedures.
- Scales
 - Always use graphic scales. Do not use numeric scales in case the drawings are reproduced in a different size.
 - Scales must follow the Port Authority of NY & NJ E/AD Engineering CAD Standard and be consistent with information shown on drawings.
 - Use the term "NTS" or "Not to Scale" where appropriate. Using "NTS" is not appropriate where doing so prevents the bidders/Contractor from quantifying the work from the drawings. Bidder's bid is based on the contract documents, not on field measurements.
- Legends
 - Symbols and hatching patterns shown in the legend must match those used in the drawing views.
 - Legends must indicate to which drawings they apply (e.g., Civil Drawings, Electrical Drawings, Structural Drawings).
 - It is not necessary to repeat the same legend on multiple drawings.
- Construction Staging
 - If Construction Staging drawings are provided, they should be referenced in the Contract book in the Division 01 - "Hours of Work and Construction Staging" section.
 - Construction Staging notes should be included in the Division 01 - "Hours of Work and Construction Staging" section of the Contract book and indicate the order, if any, the stages shall be completed and if one stage shall be completed before proceeding to the next stage, and any other similar restrictions that would impact the bidder's bid prices.

Contract Document Standards

- If different disciplines have individual staging requirements, these requirements must all be coordinated with each other, without conflicts, and be shown on identical staging areas.
- ☐ Available Property
 - If an area or areas to be occupied by the permanent construction will not be made available to the Contractor until some future date, the Division 01 clause entitled "Available Property" should be edited to indicate the date on or about when the property will become available.
- ☐ Terminology (see Contract Terminology)
 - Must be consistent between drawings and Specifications -- Division 01 and technical specifications (e.g., "airside" called out on the plan view does not correlate with "Air Operations Area (AOA) specified in Division 01).
 - Must be consistent among drawings of the same discipline and among drawings of different disciplines.
 - Terms used on drawings with plan views must match those shown on drawings with details (e.g., "Fence" called out on the plan view may not correlate with "Metallic Coated Chain Link Fence" detail).
- ☐ G (General) Drawings
 - Location plan drawing must show a "haul route," if applicable., and Also show the "Area Available for Contractor's Use" and "Stockpile Area" when such areas are provided. Have the Resident Engineer and facility staff make their best estimate of its location and size.
 - Indicate the approximate dimensions of the "Area Available for Contractor's Use" and "Stockpile Area" if the areas cannot accurately be scaled from the drawing. Have the Resident Engineer and facility staff make their best estimate of its location and size.
 - Not providing an "Area Available for Contractor's Use" at all or after the contract is awarded will result in an inflated bid price since the bidders have to include the cost of transporting their equipment and materials daily to and from the site. Providing an area at a later date also gives unfair advantage to bidders that are familiar with a particular facility and 'know' that they will be given an area for use once the contract is awarded.
 - Do not use other terms such as "Storage Area", "Lay-Down Area," or similar terms for "Area Available for Contractor's Use" and "Stockpile Area".
 - Location plan drawing showing overall facility must be up-to-date.
- ☐ Index of Drawings
 - Lead Engineer/Architect should coordinate all in-house and consultants' disciplines' drawings and ensure that drawing numbers and titles of drawings in Index of Drawings are accurate and up to date and marked as Protected Information ("Confidential" or "Confidential Privileged") as applicable.
 - Contract Engineer will verify the list of contract drawings that appears in the Contract book from the actual drawing titles, however, not from the drawing index to ensure correctness.
- ☐ Details
 - Use Port Authority of NY & NJ Standard Details as applicable for the work of the contract, or if not applicable revise the Standard Details to be applicable.
 - Do not use the term "New" in titles of details.

- ❑ Notes
 - Use Port Authority of NY & NJ Standard Drawing Notes as applicable for the work of the contract.
- ❑ Do not include Standard Drawing Notes that are not applicable to the contract. Revise Standard Drawing Notes as applicable to the work of the contract.
 - Do not include superfluous notes (e.g., "All work shall be done in conformance with the contract documents." or "The Contractor shall coordinate all work.") and do not include notes that repeat information already included in the Contract book.
- ❑ Miscellaneous Drawing Comments
 - All existing features should be labeled as such. Items not called out as "Existing" are presumed "New" and are included in the work of the contract. New work is defined by heavy line weights and existing is defined by lighter line weights.
 - No need to call out things like "Furnish" or "Furnish and Install" on drawings where items are indicated in the legend as being "New". Stating this on some items and not others may lead to confusion as to the work actually required.
 - Do not include Standard Notes that are not applicable to the contract. Revise Port Authority of NY & NJ Standard Drawing Notes as applicable to the work of the contract.
 - Avoid the use of superfluous notes (e.g., "All work shall be done in conformance with the contract documents." or "The Contractor shall coordinate all Work") and notes that repeat information already included in the Contract book.
 - Text sizes and fonts must comply with Port Authority of NY & NJ standards, be consistent throughout all drawings, and be legible on half-size drawings.
 - When a Contractor is directed to match an "Existing" item, then information on the "Existing" item is required to be shown. The Authority does not require mandatory site visits by bidders prior to submitting bids. Site visits by bidders during the bidding stage, if undertaken, are not expected to yield adequate information for bidders to "Match Existing". Provide the type and nature of the existing construction and all manufacturers' information available.
 - Quality control testing should be conducted by the Port Authority of NY & NJ or its designees and not performed by the Contractor (exception may be design-build contracts). However, the contract should indicate any items that the Port Authority of NY & NJ requires the Contractor to provide in order to perform the Quality Control testing. The code-required Special Inspections to be performed by the Port Authority of NY & NJ are typically listed on the Contract Drawings.
 - When a manufacturer is called out on the drawings, a current location of the company, along with a telephone number if possible, should also be listed to aid the bidders in contacting the manufacturer for a price. At least three manufacturers should be listed with "Or Approved Equal" noted for those items where substitutions can be made in accordance with the Substitution clause in Division 01.
 - Do not state "Provided by Manufacturer" unless the item is being provided at no cost to the Contractor.
 - If reference is made to "Applicable Codes," then these codes should be indicated on the drawings or in the technical specifications.

- Reference Drawings or Reference Documents
 - Are part of the contract and are listed in Division 01 of the Specifications.
 - Must show work required to be performed by the Contractor, and must actually be referred to in either the Contract Drawings or technical specifications.
 - May be used for showing existing conditions without redrawing them on a Contract Drawing.
 - Carry the same status as Contract Drawings; Contractor is obligated to perform work shown just as for work shown on the Contract Drawings.
 - Must be legible in so far as is possible and clearly show information that is pertinent to the contract.
- Available Documents
 - Are not considered part of the contract.
 - Must not be referenced anywhere in the contract documents except listed in the Information for Bidders clause entitled "Available Documents".
 - Provide information that is not essential for bidding or representative of existing conditions but is information that might possibly be of use to bidders (e.g., soil boring data).
 - Should be readily available during the bid period at the Contract Desk for bidders to come in and review them. All Available Documents, except for physical samples, are transmitted as electronic files with contract documents for the bidders' convenience.

6.0 TECHNICAL SPECIFICATIONS

- All technical specifications noted on the Contract Drawings must be included in the Contract book.
- All technical specifications referred to in other technical specifications must be included in the Contract book if the referred technical specification is applicable to the work in the contract. If it is not applicable, the reference to that technical specification has to be deleted from the specification. The rationale that the specification section is a standard spec and therefore not editable, is not valid.
- All technical specifications in the Contract book must apply directly to the work shown on the Contract Drawings. Do not include specifications for repair of damage caused by the Contractor, or for Net Cost or Field Ordered Work, or for Extra Work.
- Certain technical specifications are only appropriate for specific types of work (e.g., Section 024116 "Structure Demolition" must only be used when an entire structure is demolished – not for partial removals to accommodate new construction, and Section 312319 "Dewatering" must only be used for extensive dewatering operations since it requires inclusion of the instrumentation and monitoring specification).
- Terminology on the Contract Drawings must match the terminology in the technical specifications (e.g., drawings sometimes refer to "Class B Concrete", which is no longer defined in the current standard concrete specification).
- When a manufacturer is called out in the technical specifications, a current location of the company (city and state) should be listed. The telephone number may also be listed to aid the bidders in contacting the manufacturer for a price. At least three manufacturers should be listed

- with "Or Approved Equal" noted for those items where substitutions can be made in accordance with the Substitution clause in Division 01.
- Do not include Drawing Notes that create knowing conflicts between the Contract Drawings and technical specifications. Notes on the Contract Drawings are not capable of negating requirements in the technical specifications. However, requirements in the standard technical specifications may be supplemented by Drawing Notes (e.g., Drawing Note: "Aluminum finish for wall panels shall be 3-coat PVDF, custom color.")
 - M-Specs:
 - Where minor changes are required to be made to a standard technical specification to tailor it to a particular contract (such as revisions to manufacturer, products or installation), then it becomes a Modified Specification (M-Spec).
 - Change the letter preceding the date at the top right of the first page (the 'spec status') to an "M". Mark-up the standard spec with "track changes" feature in Microsoft Word turned on so that the revisions are apparent to the reviewers so only those modified portions of the standard spec need to be reviewed for that contract. Tracked changes should all be accepted by the Designer prior to submitting for inclusion of the spec in the Contract book.
 - C-Specs:
 - Where no PA standard technical specification exists, which is appropriate for a particular scope of work, then a Custom Specification (C-Spec) may be required for the contract.
 - All C-Specs must follow Construction Specifications Institute (CSI) format (3-part format), utilize standard Port Authority of NY & NJ terminology, and conform to the Port Authority of NY & NJ standard technical specification style template. Electronic Microsoft Word files must be provided in order to store the C-Spec in the Contracts Unit "Contract Book System".
 - All C-Specs must be initialed by the appropriate functional Chief or his/her designee prior to initiation of PA-Wide review to denote review and approval.

7.0 SOLE SOURCE/SOLE BRAND ITEMS

- For procedures and documentation templates for sole sourcing of products, services and brands for construction contracts, see the following excerpts from the [Design Division Advisory Bulletin 10-01-REV1](#). (Full policy available on EOL365 under 'Engineering Resources'.)

8.0 COMPLETING CONTRACT DOCUMENTS

8.1 ELECTRONIC PA-WIDE REVIEW (FOR NON-"SMALL PROJECTS" ONLY)

The purpose of the electronic PA-Wide Review is to allow for the review of the 100% complete contract documents in order for all Port Authority stakeholders to provide final comments prior to the contract documents being finalized and released for bidding. The standard duration of the electronic PA Wide Review is 10 business days but should be extended for large or complex contracts.

In accordance with the March 2012 directive, the Chief Engineer's office eliminated Chief Pre-Mylar Review by the Contracts Unit and directed that the PA-Wide Review documents be 100% complete including drawings, staging drawings/criteria, specification, final estimate, sole source documentation, etc.

Contract Document Standards

- All PA-Wide Review documents, not just the Contract Drawings (e.g., drawings, staging drawings/criteria, specifications, construction estimate, sole source documentation) submitted for electronic PA-Wide Review must be at 100% completion.
- The Engineer of Record (Chief Functional Engineer) is responsible to verify that the Contracts Unit's comments are addressed in the final Contract Drawings.
- Prior to presenting the Contract Drawings to the Chief Engineer or his designee for final signature, the LE/A shall certify that all PA-Wide Review comments have been resolved, along with any other items requiring certification.
- No further review of the Contract Drawings or technical specifications will be made by the Contracts Unit and the coordination of the Contract Drawings and technical specifications will become the responsibility of the Design Division LE/A and TLs, as certified in their respective QC Checklist, QA Checklist, and QA Team Certification,

8.2 ITEMS REQUIRED FOR PA-WIDE REVIEW / FOR COMPLETING CONTRACT DOCUMENTS

Below is a list of the items required from the LE/A, the PM and others, as applicable for the PA-Wide Review package to be issued electronically and for PA-Wide Review to begin. Where no PA-Wide Review is required by Engineering Department policy (e.g., a "Small Project") or by management exception, all of the below items are still required in order to prepare the Contract book and to package the contract documents for bidding.

- Items marked as "if any" or "if applicable" are only when they apply to the contract, but when they apply, they are required.
- LE/A and PM should verify that in-house and consultant prepared documents provided are in fact 100% complete before the documents are provided to the Contract Engineer to initiate PA-Wide Review.
- Refer to the Contracts Unit page on EOL365 for links to boilerplate documents and templates.

8.2.1 FOR PA-WIDE REVIEW:

PM

- Electronic Contract Questionnaire**, PM portions completed.
- Distribution List** (Task Leaders, facility personnel, and names of other individuals to receive the link to the electronic PA-Wide Review folder, link to the Out-to-Bid folder, and to receive the conformed contract documents after award).
- Conditions and Precautions / PATH Ops and Conditions / Airport Ops and Conditions** clause - edited.
- Hours of Work and Construction Staging** clause - edited, and fully coordinated with the Contract Drawings. Staging requirements, if any, must be part of the PA Wide Review.
- List and copies of permits/approvals/access agreements (if any)** (actual, or samples of prior similar permits). Coordinate with LE/A.
- List of Materials Furnished/Services Provided by the Authority/PATH (if any)** with quantities and detailed descriptions. Coordinate with LE/A.
- List of Milestone Completions and Damages for Delay (if any)**. Coordinate with LE/A.
- Other customized contract clauses or provisions (if any)**, as indicated on the Contract Questionnaire or Contract Drawings.

Contract Document Standards

- Bidder Prerequisites (if any)** to be included with the Advertisement. Coordinate with the LE/A and obtain approval from Procurement.
- Maintenance Agreement information (if any)**. Provided minimum 2 weeks before the scheduled date of the PA-Wide Review, to allow CE time to prepare the draft Agreement (M-Contract) for the review.

LE/A

- Electronic Contract Questionnaire**, LE/A portions completed.
- Engineer's Estimate - Summary (EES)**, Discipline estimates and list of Net Cost/FOW items and estimate.
- Submittal Management System (SMS)** process completed, "Locked" and "Approved" by the LE/A so that the following can be included in the PA-Wide Review documents:
 - **Specification List** (includes all standard specs and C-Specs/M-Specs).
 - **Edited Appendix "A"s** (Submittals) for standard specs and C-Specs/M-Specs.
- C-Specs (if any)** - Electronic Word files of C-Specs following PA Spec style format.
- M-Specs (if any)** - Electronic Word files of M-Specs with minor modifications to the standard spec "tracked".
- Standard Spec Appendices requiring edits (Appx. B, C, D, if any)** - edited.
- List of Reference Drawings and Available Docs and pdf of Reference Drawings (if any)** (actual Available Documents are not necessary for PA-Wide Review).
- List of Classified (Unit Price) Items, quantities and descriptions (if any)**. (refer to Classified Work Policy on EOL365).
- Maintenance of Traffic (if any)** - edited. Coordinate requirements with PM.
- Sustainability Requirements (if any)** - edited. Coordinate requirements with Engineering Resilience and Sustainable Design (RSD).
- Other customized contract clauses or provisions (if any)**, as indicated on the Contract Questionnaire or Contract Drawings.
- PA-Wide Review Drawings (Contract Drawings and Reference Drawings)**. Notify the CAD support group when the review drawings have been placed on the **M:** drive. (Uploading the drawings to the M: drive does not automatically make the drawings available in the PA-Wide Review folder.)
- Sole Source/Sole Brand approval memos (if any)**, and quotes if ready (refer to [Design Division Advisory Bulletin 10-01-REV1](#) for instructions). Not having actual quotes will not hold up release of PA-Wide Review.
- List of Confidential or Confidential Privileged (CP) documents (if any)**.

8.2.2 AFTER PA-WIDE REVIEW COMMENTS ARE INCORPORATED/RESOLVED:**PM AND LE/A**

- All of the above items**, revised per PA-Wide Review comments. If no change to an item, advise the CE that No Revision to that item was required, PLUS THE BELOW:

PM

- Fully-signed DBE Participation Analysis Form** (if applicable and if not provided with PA-Wide Review) for Federally-funded contracts (FAA, FTA, FHWA).
- Approved Ad Request form or Bidder's List** (Ad form for Advertised; or Bidder's List for SBE Set-Aside, PQL, etc.).

LE/A

- List of Contract Drawings** (Excel document),
- Net Cost/Field Ordered Work items approval** - as they appear on the Contract Dwgs – CMD's (RE and EOC-Contract Administration) approval of non-standard Net Cost items.
- Unit Price items approval (if any).**
- C-Specs approval (if any).**
- Signed, and sealed as applicable, Contract Drawings, and Reference Drawings (if any), on Permalife paper.**
- Available Documents (if any)** - electronic PDF.
- Certification that Consultant drawings were reviewed by in-house staff.**
- Engineer's Estimate** - fully-signed.
- Analysis of Bid** form.

TREASURY-RISK FINANCING

- Insurance by Authority and by Contractor**, approval.

ENGINEERING OPERATIONS-VD&C

- Construction Schedule Sign-off** (projects over \$3M EE).

8.3 PA-WIDE REVIEW MILESTONE COMMENTS AND RESPONSES (FOR NON-"SMALL PROJECTS" ONLY)

At the conclusion of the electronic PA-Wide Review, the LE/A performs the following tasks:

1. Compiles all comments in the [Milestone Review table](#).
2. 'Drags and Drops' the final compiled comment table to the folder entitled **2. PA-Wide Milestone Comments and Responses** in the *Stage III (Final Design)/Contract Engineering* folder in the [Engineering Projects](#) folder and notifies the project team of the location of the compiled comments for response, or transmits the comments to the project team in a different manner.
3. Compiles all responses to the comments and uploads the table with the responses to the **2. PA-Wide Milestone Comments and Responses** folder or transmits the comments to the project team in a different manner.
4. Certifies that all PA-Wide Review comments have been resolved.

8.4 FINAL DOCUMENTS (CONTRACT BOOK)

After all comments from the PA-Wide Review (if a PA-Wide Review was required) have been resolved, the PM and LE/A perform the following tasks:

1. Download the documents from the [PA-Wide Review](#) folder and revise as necessary.
2. 'Drag and Drop' the revised documents and any additional documents to the folder entitled **3. Final Documents (Contract book)** in the *Stage III (Final Design)/Contract Engineering* folder in the [Engineering Projects](#) folder and notify the CE when all updated documents have been uploaded to the folder, or transmit the documents to the CE in a different agreed-upon manner.

9.0 BID SOLICITATION DOCUMENTS

Bid Solicitation	Documents
Publicly Advertised	Advertisement Form signed off by Senior Program Manager or designee.
Publicly Advertised with custom Bidder Prerequisites	Advertisement Form signed off by Senior Program Manager or designee, and written approval of PM, LE/A and Procurement Department.
SBE Set-Aside; (contracts less than or equal to \$2.5M TCC, or as otherwise specially approved by D&I)	List of approved bidders generated by CMD for work category, obtained by the PM. If required, fully-signed D&I approved Opt-Out or Opt-In form, obtained by PM.
Pre-Qualified List	Signed approval memo listing prequalified firms to be solicited for a particular contract.
VVP; or Publicly Advertised with Security Information Requirements	For contracts that contain Confidential and/or Confidential Privileged information: VVP - Signed approval memo listing security validated and verified firms to be solicited for a particular contract which contains Confidential and/or Confidential & Privileged information; or Advertised - Advertisement Form signed off by Senior Program Manager or designee, and list from Procurement Department of firms who have met the information security requirements to whom the bid documents may be sent.
Other Methods (Mentor-Protégé, Publicly Advertised less than \$2.5 million TCC, SBE Set-Asides greater than \$2.5 million TCC, Select List, Negotiated)	Provide appropriate approval documentation as required.

10.0 BID PERIOD PROCEDURES

- Bid period must be a minimum of 3 weeks, or longer for complicated contracts. For Work Order contracts with no drawings, bid period can be a minimum of 2 weeks.

Contract Document Standards

- Including a bidder question "cut-off" period is recommended for non-Work Order contracts, in order to allow time to respond to bidders' questions and issue Addenda if necessary, while maintaining the project schedule.
 - For a cut-off period which is 1 week prior to the Bid Due date, a minimum 4-week bid period is advised.
 - For a cut-off period which is 2 weeks prior to the Bid Due date, a minimum 5-week bid period is advised.
- All extensions to bid dates must have Project Manager concurrence or specific direction from the Procurement Department prior to issuance of bid date extension Addendum by the Contract Engineer.
- Prior to release of bid documents, PMs are encouraged to coordinate with the Resident Engineer to pre-arrange a site visit for the bidders to inspect the site on a date occurring shortly after release of the bid documents, rather than waiting for bidders to request a site visit well into the bid period. Attendance by the bidders is not mandatory but would be strongly recommended. The details of the site visit should be given to the CE as soon as possible, ideally prior to the start of the bid period, so that the CE can prepare a Notice to Bidders to accompany the initial release of the bid documents.

10.1 BIDDERS' QUESTIONS

- Bidder's questions are questions or requests for clarification to the bid documents received during the bid period from prospective bidders, or other plan holders or suppliers. Bidders' questions are not RFIs (Requests for Information). RFIs are questions or requests for clarification during Stage IV-Construction, from the awarded Contractor (and his subcontractors and suppliers). Do not confuse the two – they are not handled in the same manner.
- Prospective bidders' questions are directed to the Procurement Department representative listed in the Contract book. The Procurement Department representative will forward questions to the Contract Engineer. The Contract Engineer will either answer directly or distribute the questions accordingly to obtain the answers.
- All responses to bidders' questions must be through the Contract Engineer to the Procurement Department representative, unless the Procurement Department representative has directed the question to someone other than the Contract Engineer.
- All responses to bidders' questions must either refer to the answer in the contract documents if the answer exists in the documents, or by issuance of Addendum by the Contract Engineer if contract documents require revision or clarification in order to give the appropriate response. Absolutely no interpretation or supplementary information can be given to any bidder in response to a question unless it is issued by Addendum to all bidders. See contract clause entitled, "Questions By Bidders" excerpted below, bolded for emphasis.

XX. QUESTIONS BY BIDDERS

Questions by prospective bidders concerning the Contract may be addressed to <Procurement *contact's name, telephone number, email address*>, **who however is authorized only to direct the attention of prospective bidders to various portions of the Contract so that they may read and interpret such portions for themselves. Neither <Procurement *contact's name*> nor any other employee or representative of the Authority is authorized to give interpretations of any portion of the Contract or to give information as to the requirements of the**

Contract in addition to that contained in the Contract. Interpretations of the Contract or additional information as to its requirements, where necessary, shall be communicated to bidders only by written addendum issued over the name of the Chief Engineer, which addendum shall be considered part of this Contract. Accordingly, nothing contained herein and no representation, statement or promise, oral or in writing, of the Authority, its Commissioners, officers, agents, representatives or employees shall impair or limit the effect of the warranties of the Contractor contained in the clause of the Form of Contract entitled "Contractor's Warranties" or elsewhere in this Contract. The provisions of this clause shall apply to questions addressed by prospective bidders both before and after their receipt of Contract documents.

- An Addendum is the only way to change the contract documents during the bid period. A Notice to Bidders transmits information to the bidders that is not part of the Contract such as Sole Source letters, Available Documents, Analysis of Bid or site visit arrangements.
- If the response to a bidder's question involves no interpretation or clarification of the contract, then the response should reference the specific portions of the Contract Drawings and/or Specifications that fully answer the question posed.
 - An example of a response that answers a question is: "Refer to Note ___ and Detail entitled _____ on Contract Drawing ____." and/or "Refer to the Contract book, Page ___, Section ___, Paragraph ___.", provided that such response does not conflict with another part of the contract documents. The response must be written to fully and correctly answer the question or an Addendum is required.
- If the response to a bidder's question interprets or clarifies the contract, then an Addendum is required.
 - If the Addendum requires revisions to one or more Contract Drawings, the revised Contract Drawings should be prepared and/or approved by the applicable discipline(s) and provided to the Contract Engineer for inclusion in an Addendum.
 - If the Addendum requires revisions to the Contract book, the affected page or pages should be edited by the Task Leader or discipline's design consultant, or by the PM as applicable to the items being revised, with revisions e-mailed by the LE/A to the Contract Engineer.