

---

## Chapter 22 – Facilities Construction

### *1-2201 Overview*

The Department is responsible for the construction and rehabilitation of multiple transportation related facilities throughout the state. Facilities Construction is defined as the type of construction that requires the issuance of a Certificate of Compliance by the State Building Inspector or his authorized representative at the completion of a project, and includes site work considered ancillary to this type of construction. See Figure 1-22.7.

Some typical examples of facilities construction projects administered by the Department would be:

- Airport Facilities (Terminals, Hangers)
- Railroad Stations and Platforms
- Railroad Repair Shops and Administrative Buildings
- Parking Garages
- Bus Facilities
- Roadway Maintenance and Repair Garages
- Salt Sheds
- Piers and Docks
- Other facilities operated by the Department

### *1-2202 Unit Responsibilities*

The successful completion of a facilities construction project requires close coordination and cooperation between several Departmental Units and outside agencies, each with their own unique responsibilities.

- **Construction:** District personnel are responsible to provide Contract Inspection and Administration. During construction, they coordinate with other DOT units, the Contractor and outside agencies. The District processes all correspondence, holds meetings and teleconferences, verifies compliance with Contract Specifications and Requirements, arranges code inspections and maintains project records in accordance with established Departmental standards.
- **Facilities Design:** Acts as the Designer of record (if in-house design) or liaison to Designer (if outside consultant.) They are responsible to respond to Requests for Information (RFI's), resolve design related construction issues by providing clarification or interpretation of Contract Documents, issue Change Orders (CO's) and Field Design Changes (FDC's) as required and attend meetings to monitor and resolve concerns.
- **Properties and Facilities Services:** Provide required code inspections in accordance with governing State Building and Fire Codes (See Section 1-2211 Code Inspections Schedule). Issue a "Notice of Intent to Construct/Renovate/Repair/Retrofit a Non-Threshold Structure" to the Office of the State Building Official (See Figure 1-22.6). Provide clarifications and interpretations of codes as they relate to the Project. Ultimately responsible for the issuance of a Certificate of Substantial Compliance, allowing occupancy of the facility, as well as acceptance of the Project by the Department as being code compliant.

- Bureau of Public Transportation: Both the Office of Rails and the Office of Transit and Ridership are responsible for the financial oversight of rail and transit projects. Representatives of both offices are the liaison between the end-user, Facilities Design, and Construction Units. Review and authorize all non-design related issues, as well as requests for changes from the end-user.
- Bureau of Aviation and Ports: Both the Office of Aviation and the Office of Ports are responsible for the financial oversight of aviation and port projects. Representatives of both offices are the liaison between the end-user, Facilities Design, and Construction Units. Review and authorize all non-design related issues, as well as requests for changes from the end-user.
- Owner: The facilities constructed are generally owned by the State of Connecticut; however, the end-user may be a different entity. The State, or its designee, is responsible for maintaining these facilities.
- Outside Agencies:
  - Department of Public Safety: Building and Fire Officials from the Department of Public Safety (DPS), in conjunction with the Office of Properties and Facilities Services, are responsible to perform code inspections on threshold buildings (see below). DPS Officials also perform code inspections of conveying devices (elevators, escalators, etc.) and boilers, and provide certifications. Upon request of Department's Building Official, provide interpretations of building codes.
  - Department of Environmental Protection: Fuel pumps require DEP inspections prior to being put into service.
  - Others: Department of Weight and Measures (to certify fuel pumps), Department of Public Health (water and septic) and OSHA (safety) may be encountered.

**NOTE:** Threshold Buildings: Pursuant to Connecticut General Statute (C.G.S.) 29.2591a, buildings exceeding any of the following five threshold limits are considered "threshold buildings" and must be inspected for code compliance by the Office of the State Building Official:

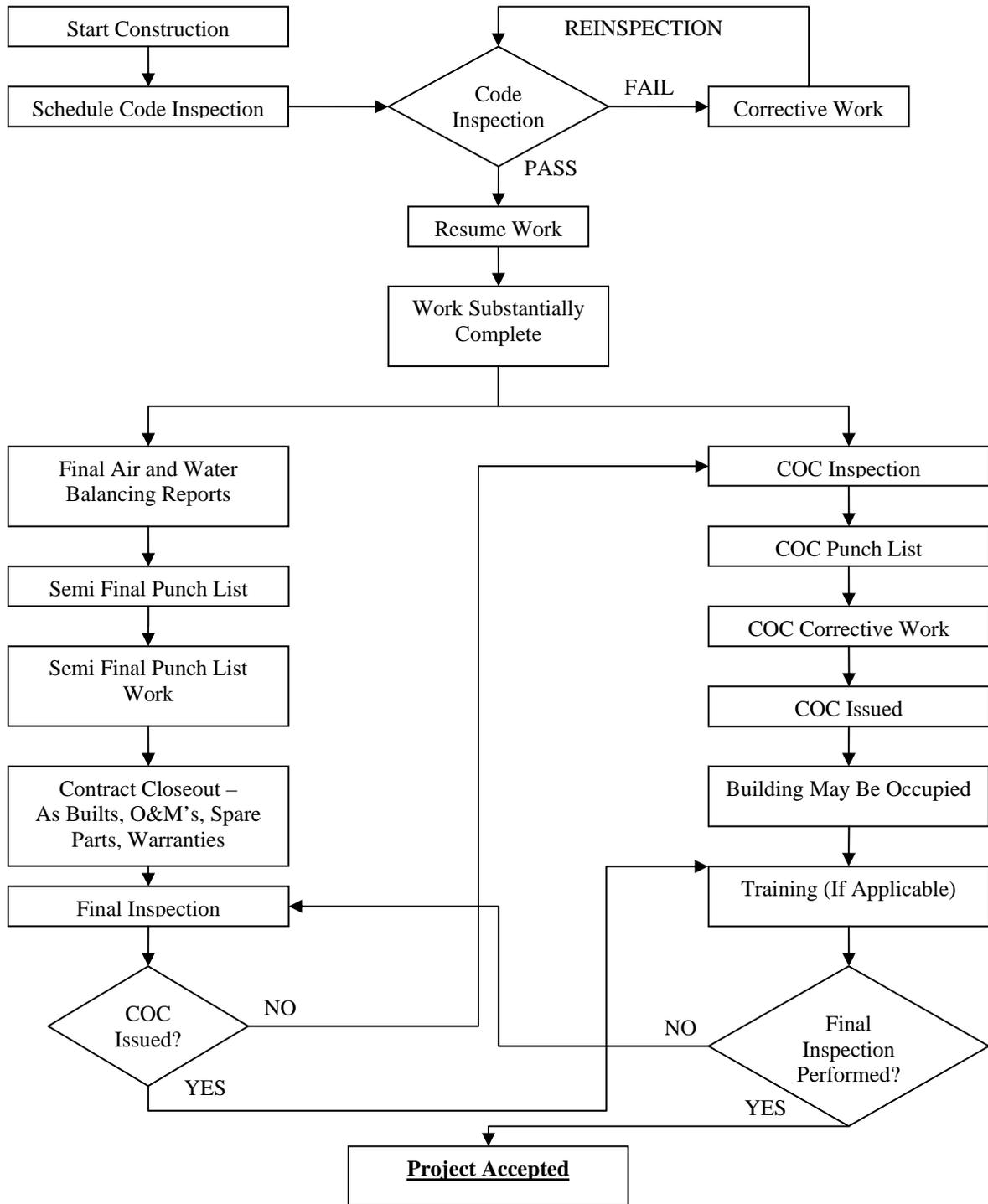
1. Four stories,
2. 60-feet high,
3. A clear span of 150-feet wide,
4. 150,000 square feet of floor space,
5. Occupancy by 1,000 or more people.

These inspections would still be coordinated through the Office of Properties and Facilities Services.

### ***1-2203 Obtaining a Certificate of Substantial Compliance***

The steps needed to obtain a Certificate of Substantial Compliance (COC) are outlined in the following flowchart:

Figure 1-22.1 Certificate of Substantial Compliance Flowchart



### *1-2204 Construction Specification Institute (CSI) Items*

Facilities construction projects consist of standard and special provision items, including as a special provision, a “Major Lump Sum Item” (MLSI). The MLSI is typically assigned a name such as “Rail Facility” or “Bus Facility Upgrade” and includes all the Construction Specification Institute (CSI) items in the Contract. CSI categorizes the individual components of building trades into distinct divisions, with specific sections in each division. Although more divisions exist, generally you will encounter the following:

- Division 01 – General Requirements
- Division 02 – Existing Conditions
- Division 03 – Concrete
- Division 04 – Masonry
- Division 05 – Metals
- Division 06 – Wood, Plastics and Composites
- Division 07 – Thermal and Moisture Protection
- Division 08 – Openings
- Division 09 – Finishes
- Division 10 – Specialties
- Division 11 – Equipment
- Division 12 – Furnishings
- Division 13 – Special Construction
- Division 14 – Conveying Equipment
- Division 21 – Fire Suppression
- Division 22 – Plumbing
- Division 23 – Heating, Ventilating and Air Conditioning
- Division 26 – Electrical
- Division 27 – Communications
- Division 28 – Electronic Safety and Security
- Division 31 – Earthwork
- Division 32 – Exterior Improvements
- Division 33 – Utilities

**NOTE:** Section 1.20 of the Form 816 is used in lieu of Division 1 – General Requirements. Additionally, there are several specialized CSI divisions not listed as well as several reserved for future use. For more information on CSI MasterFormat 2004, see [www.csinet.org](http://www.csinet.org).

### *1-2205 Project Start Up*

Once the Contract is awarded, the Contractor must submit a “Schedule of Values” (See Figure 1-22.2). This schedule associates a dollar amount for each CSI section of the Contract. The values submitted are to be an approximate representation of the value of the work, but are not to be used as the basis for a credit if work is eliminated. The schedule of values total must equal the amount of MLSI. The schedule of values is reviewed and approved by the District. Once approved, the schedule of values will become the template for the monthly AIA payment requisitions submitted by the Contractor (See Section 1-2206 Payment Estimates). Please note that there should be no monetary allowances for any Division 1 items in the schedule of values as is typically indicated in the Contract.

On large complex facilities projects, an internal information only change order may be created, at the discretion of the District, within the SiteManager change order process. This document will facilitate the tracking of the applicable CSI divisions and testing within the project records. This change order is NOT to be issued to the contractor and is optional for each Project. The items are created using item descriptions already existing in SiteManager with the prefix “F”, as appropriate. At a minimum, the first generic item for each applicable CSI Division (ex. F330000 – Utilities) is entered. Additional “F” items may be entered if the project staff necessitates. The items are assigned a quantity of 1 (one) and a unit price of \$0.00 (zero dollars), as payments will still be made under the original MLSI.

Please note that the creation of the CSI oriented item numbers are intended to provide the inspection staff a means to identify and track contractor activity and the various materials for testing that are associated with the various CSI Divisions. The requests by the Prime Contractor to Subcontract (CLA-12) should reference the original bid item (ex. 0101050A – Maintenance Facility) that the subcontractor will be performing work under.

### ***1-2206 Payment Estimates***

At the conclusion of each payment estimate period, the Contractor is required to submit an American Institute of Architects (AIA) Form G702, “Application and Certificate for Payment” (See Figure 1-22.3), and AIA Form G703, “Continuation Sheet” (See Figure 1-22.4). The Chief Inspector reviews the draft requisition prepared by the Contractor, makes any corrections or alterations, and once satisfied, returns a copy to the Contractor. The Contractor then submits a final, notarized version, based on the approved draft. The Project Engineer then signs the front sheet of the (AIA) Form G702 in the Architect’s Certificate for Payment block lower right corner. The final Forms G702 and G703 become the basis of payment for the MLSI. The final AIA Forms G702 and G703, along with the “AIA Certification Statement” (See Figure 1-22.5) and a copy of the annotated draft requisition are to be kept in the Volume 3 with a Payment Summary Sheet for the MLSI.

If payment is requested for any Stored Materials, or any materials not yet incorporated into the Project, the Contractor must supply a receipted bill or Certification of Title, as specified under Article 1.09.06B of the Standard Specifications, Form 816. Additionally, the requested materials must have been submitted to the Designer for review and have a status of ‘Conforms’ or ‘Conforms as Noted’ to be eligible for payment. For lump sum items or other instances when the unit of material being paid under Material Stored on Site does not note the pay unit, a correlation between the two must be determined prior to any payments being made. See Chapter 9, Section 1-909, of the Construction Manual for the requirements prior to paying for Stored Materials. (This applies to materials stored on site, off site, and raw or partially fabricated materials).

Payment for all non MLSI work is to be done in accordance with typical Departmental Procedures and is not to be included in the AIA documents.

### ***1-2207 Testing***

Submittals (shop drawings, product data, product samples, catalog cuts and quality assurance submittals) for items that are not part of the Standard Specifications are submitted by the Contractor to the Designer/Architect for review and will be returned as either ‘Conforms’, ‘Conforms as Noted’, ‘Revise and Resubmit’, ‘Rejected’, or ‘No Action Required’. All remaining items are tested in accordance with established policies (i.e., concrete, HMA, subbase, etc.) in accordance with the Minimum Schedule for Sampling Materials for Test. The field inspector is then required to verify that the material installed matches the acceptable submittal. A submittal log will be kept as part of the project records.

A Final Material Certification provided by the Division Chief of Research and Materials will be required for any projects with FHWA funding or any roadway projects. A request for a Material Certificate will be sent to the DMT from the District which will include information on all the items accepted by the Designer/Architect with a statement indicating the applicable materials conformed to the Contract so that the materials can be excluded from the testing deficiency list. To assist the field inspector the following statement will be incorporated into Site Manager for materials covered by an approved submittal: "No Request for Test Required." A Final Material Certification will not be provided by the DMT for facilities (vertical)/non-roadway projects, this information will be retained by the DMT "for information only purposes."

### ***1-2208 Field Design Changes (FDC's)***

A Field Design Change memorandum is used to initiate a Change Order for minor changes or revisions to the Contract. FDC's provide direction in the form of a narrative, including sketches if necessary, so that issues can be addressed quickly. Provided it does not affect life, safety or structural items, a Field Design Change can be issued by the District for amounts not exceeding \$10,000.00 at the level of a Supervising Engineer or above, with the concurrence of Facilities Design. There is no dollar amount limitation on FDC's from Facilities Design. However, if in the opinion of the District the changes are extensive, then a Change Order, rather than FDC, shall be issued by Facilities Design.

### ***1-2209 Contract Closeout***

The following items are required to be submitted and/or performed prior to the acceptance of a Facilities Construction Project. Detailed requirements will be found in the Special Provisions, including the "Notice to Contractor" section.

- **Warranties:** Projects include a one year general warranty furnished by the Contractor for all materials and workmanship performed under the Contract. Additionally, special warranties may be required for items such as roofs, where a 20-year or longer warranty is typical. All warranties begin on the date of issuance of the Certificate of Substantial Compliance. Contractors are required to maintain all contractually required insurance coverages through the one year general warranty period. Warranties are submitted to the Designer for review and approval.
- **Operation and Maintenance Manuals (O&M's):** O&M's are required per Special Provisions for certain mechanical, electrical and other equipment installed. O&M's are to be formatted in accordance with Section 1.20-1.08.14 of the Form 816. These manuals are submitted to the Designer for review and approval. Once approved, one copy is retained in the Project Records and all remaining copies are transmitted to the unit responsible for the operation and maintenance of the facility.
- **Spare Parts:** Many items include a spare parts schedule in the Special Provisions. Once received from the Contractor, spare parts (sometimes called extra materials, owner's stock or attic stock) are transmitted to the unit responsible for the facility. Care should be taken when storing spare parts, especially any volatile or fragile materials. For instance, paint should not be stored in an unheated room where it may freeze. Also, electrical rooms or closets cannot be used for storage.

- Training: Several items may require training for the end-user to ensure the proper operation and maintenance of the equipment installed. Training must be arranged in advance, but not before the relevant O&M’s have been approved. Training sessions are required to be videotaped for future employees and those unable to attend.
- As-Built: The Contractor is responsible for maintaining as-built record drawings and record specifications during construction and supplying a complete, “red-lined” set at the conclusion of the Project to the Engineer. The Designer may be responsible to produce as-built mylars based on the Contractor’s red lines. If not, the chief inspector is responsible for updating the mylars.

**1-2210 Reports and Records**

The Chief Inspector is required to keep all reports and records as outlined in Volume 1 Chapter 3 “Project Documentation”, Volume I Chapter 10 “Contract Completion” and Volume 1 Chapter 12, “Civil Rights”.

In, addition a daily sign-in sheet is required, signed by the Contractor’s employees and any subcontractors working on the site that day. This sign-in sheet will be attached to that day’s DWR in the Volume I.

**Figure 1-22.2 Schedule of Values**

PROJECT NO. 0123-456		
SCHEDULE OF VALUES		
<b>0100152A - INTERIM SHOP MAINTENANCE FACILITY, \$8,782,700.00</b>		
CSI SECTION	DESCRIPTION	VALUE
033000	CAST-IN-PLACE CONCRETE	\$2,300,000.00
055000	METAL FABRICATIONS	\$74,000.00
055213	PIPE AND TUBE RAILING	\$65,000.00
061053	MISCELLANEOUS ROUGH CARPENTRY	\$14,000.00
072700	AIR BARRIERS	\$20,000.00
079200	JOINT SEALANTS	\$20,000.00
087100	DOOR HARDWARE	\$17,200.00
092613	GYPSON VENEER PLASTERING	\$22,000.00
092900	GYPSON BOARD	\$35,000.00
095113	ACOUSTICAL PANEL CEILING	\$4,000.00
099100	PAINTING	\$109,000.00
102113	TOILET COMPARTMENTS	\$4,000.00
102800	TOILET, BATH, AND LAUNDRY ACCESSORIES	\$5,000.00
104400	FIRE PROTECTION SPECIALTIES	\$2,500.00
105113	METAL LOCKERS	\$51,000.00
133419	METAL BUILDING SYSTEMS	\$1,800,000.00
211313	WET-PIPE SPRINKLER SYSTEM	\$160,000.00
213113	ELECTRIC-DRIVE, CENTRIFUGAL FIRE PUMPS	\$60,000.00
220500	COMMON WORK RESULTS FOR PLUMBING	\$95,000.00
230500	COMMON WORK RESULTS FOR HVAC	\$680,000.00
260500	COMMON WORK RESULTS FOR ELECTRICAL	\$3,200,000.00
283111	DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM	\$45,000.00
TOTAL		<b>\$8,782,700.00</b>

Figure 1-22.3 Sample AIA Form G702 Application and Certification for Payment

APPLICATION AND CERTIFICATION FOR PAYMENT		PAGE 1 OF 2															
<b>TO OWNER:</b> State of Ct Department of Transportation 2800 Berlin Turnpike Newington, CT 06131-7546  <b>FROM CONTRACTOR:</b> ABC CONSTRUCTION 123 Main St. Anywhere, CT 06000  <b>CONTRACT FOR:</b> Interim Shop Maintenance Facility	<b>APPLICATION NO.:</b> 15 <b>APPLICATION DATE:</b> 13-Sep-06 <b>PERIOD TO:</b> 31-Aug-06  <b>PROJECT NOS:</b> 301-0081 <b>MBI Project Nos.</b> 10-50-05023  <b>CONTRACT DATE:</b> 15-Jul-05																
<b>CONTRACTOR'S APPLICATION FOR PAYMENT</b> Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, is attached.		The undersigned Contractor certifies that to the best of the Contractor's Knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.															
1. ORIGINAL CONTRACT SUM \$ 8,782,700.00 2. Net Change By Change Orders \$ N/A 3. CONTRACT SUM TO DATE (Line 1 + 2) \$ 8,782,700.00 4. TOTAL COMPLETED & STORED TO DATE (Column G on Continuation Sheet) \$ 4,478,730.00 5. RETAINAGE: a. 2.5 % of Completed Work (Columns D + E on Continuation Sheet) \$ 111,968.25 b. % of Stored Material (Column F on Continuation Sheet) \$ _____ Total Retainage (Line 5a + 5b or Total in Column I of Continuation Sheet) \$ 111,968.25 6. TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total) \$ 4,366,761.75 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate) \$ 4,025,775.00 8. CURRENT PAYMENT DUE \$ 340,986.75 9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6) \$ 4,415,938.25		CONTRACTOR: ABC CONSTRUCTION  By: _____ Date: _____ State of: Connecticut County of: Hartford Subscribed and sworn to before me this _____ day of _____ Notary Public: _____ My Commission expires: _____															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">CHANGE ORDER SUMMARY</th> <th style="width: 20%;">ADDITIONS</th> <th style="width: 20%;">DEDUCTIONS</th> </tr> </thead> <tbody> <tr> <td>Total changes approved in previous months by Owner</td> <td style="text-align: right;">\$0.00</td> <td></td> </tr> <tr> <td>Total approved this Month</td> <td style="text-align: right;">\$0.00</td> <td></td> </tr> <tr> <td><b>TOTALS</b></td> <td style="text-align: right;"><b>\$0.00</b></td> <td style="text-align: right;"><b>\$0.00</b></td> </tr> <tr> <td>NET CHANGES by Change Order</td> <td style="text-align: right;">\$0.00</td> <td></td> </tr> </tbody> </table>		CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS	Total changes approved in previous months by Owner	\$0.00		Total approved this Month	\$0.00		<b>TOTALS</b>	<b>\$0.00</b>	<b>\$0.00</b>	NET CHANGES by Change Order	\$0.00		<b>ARCHITECT'S CERTIFICATE FOR PAYMENT</b> In accordance with the contract Documents, based of on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.  AMOUNT CERTIFIED ..... \$ _____  (Attached explanation if amount certifies differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.) ARCHITECT: By: NOT APPLICABLE Date: _____ This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.
CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS															
Total changes approved in previous months by Owner	\$0.00																
Total approved this Month	\$0.00																
<b>TOTALS</b>	<b>\$0.00</b>	<b>\$0.00</b>															
NET CHANGES by Change Order	\$0.00																

Figure 1-22.4 Sample AIA G703 Continuation Sheet

CONTINUATION SHEET							PAGE 2 OF 2			
APPLICATION AND CERTIFICATION FOR PAYMENT. Contractor's signed certification is attached. In tabulations below, amounts are stated to the nearest dollar.							APPLICATION NO: 15	APPLICATION DATE: 13-Sep-06		PERIOD TO: 31-Aug-06
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED		MATERIALS PRESENTLY STORED (NOT IN D OR E)	TOTAL COMPLETED AND STORED TO DATE (D+E+F)	% (G + C)	BALANCE TO FINISH (C - G)	RETAINAGE	
			FROM PREVIOUS APPLICATION (D +E)	THIS PERIOD						
0100152A	<b>INTERIM SHOP MAINTENANCE FACILITY</b>									
033000	Cast-in-Place Concrete	2,300,000.00	1,550,000.00	150,000.00		\$1,700,000.00	73.91%	\$600,000.00	\$42,500.00	
055000	Metal Fabrications	74,000.00	71,000.00	0.00		\$71,000.00	95.95%	\$3,000.00	\$1,775.00	
055213	Pipe and Tube Railing	65,000.00	48,000.00	0.00		\$48,000.00	73.85%	\$17,000.00	\$1,200.00	
061053	Miscellaneous Rough Carpentry	14,000.00	6,000.00	0.00		\$6,000.00	42.86%	\$8,000.00	\$150.00	
072700	Air Barriers	20,000.00	0.00	0.00		\$0.00	0.00%	\$20,000.00	\$0.00	
079200	Joint Sealants	20,000.00	1,000.00	7,140.00		\$8,140.00	40.70%	\$11,860.00	\$203.50	
087100	Door Hardware	17,200.00	0.00	0.00		\$0.00	0.00%	\$17,200.00	\$0.00	
092613	Gypsum Veneer Plastering	22,000.00	0.00	0.00		\$0.00	0.00%	\$22,000.00	\$0.00	
092900	Gypsum Board	35,000.00	0.00	35,090.00		\$35,090.00	100.26%	(\$90.00)	\$877.25	
095113	Acoustical Panel Ceiling	4,000.00	0.00	0.00		\$0.00	0.00%	\$4,000.00	\$0.00	
099100	Painting	109,000.00	33,000.00	20,500.00		\$53,500.00	49.08%	\$55,500.00	\$1,337.50	
102113	Toilet Compartments	4,000.00	0.00	0.00		\$0.00	0.00%	\$4,000.00	\$0.00	
102800	Toilet, Bath, and Laundry Accessories	5,000.00	0.00	0.00		\$0.00	0.00%	\$5,000.00	\$0.00	
104400	Fire Protection Specialties	2,500.00	0.00	0.00		\$0.00	0.00%	\$2,500.00	\$0.00	
105113	Metal Lockers	51,000.00	0.00	0.00		\$0.00	0.00%	\$51,000.00	\$0.00	
133419	Metal Building Systems	1,800,000.00	800,000.00	0.00		\$800,000.00	44.44%	\$1,000,000.00	\$20,000.00	
211313	Wet-Pipe Sprinkler System	160,000.00	90,000.00	12,000.00		\$102,000.00	63.75%	\$58,000.00	\$2,550.00	
213113	Electric-Drive, Centrifugal Fire Pumps	60,000.00	20,000.00	5,000.00		\$25,000.00	41.67%	\$35,000.00	\$625.00	
220500	Common Work Results for Plumbing	95,000.00	45,000.00	5,000.00		\$50,000.00	52.63%	\$45,000.00	\$1,250.00	
230500	Common Work Results for HVAC	680,000.00	\$65,000.00	\$15,000.00		\$80,000.00	11.76%	\$600,000.00	\$2,000.00	
260500	Common Work Results for Electrical	3,200,000.00	1,400,000.00	\$100,000.00		\$1,500,000.00	46.88%	\$1,700,000.00	\$37,500.00	
283111	Digital, Addressable Fire Alarm System	45,000.00	0.00	0.00		\$0.00	0.00%	\$45,000.00	\$0.00	
<b>GRAND TOTALS</b>		<b>\$8,782,700.00</b>	<b>\$4,129,000.00</b>	<b>\$349,730.00</b>	<b>\$0.00</b>	<b>\$4,478,730.00</b>	<b>50.99%</b>	<b>\$4,303,970.00</b>	<b>\$111,968.25</b>	

Figure 1-22.5 AIA Certification Form

PROJECT NO. 0123-4567  
DOT Maintenance Facility

THE UNDERSIGNED CHIEF INSPECTOR/RESIDENT ENGINEER CERTIFIES THAT TO THE BEST OF HIS/HER KNOWLEDGE, INFORMATION, AND BELIEF AND BASED ON ON-SITE OBSERVATIONS THE WORK HAS PROGRESSED AS INDICATED, THE QUALITY OF WORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND THE CONTRACTOR IS ENTITLED TO PAYMENT OF THE AMOUNT REQUESTED.

*John Doe*

John Doe, Chief Inspector

FOR PAYMENT REQUESITION PERIOD: 04-01-2006 TO 04-30-2006

Figure 1-22.6 Notice of Intent

[Today's Date]

Mr. Christopher Laoux  
State Building Inspector  
Department of Public Safety  
Division of State Building Inspector  
1111 Country Club Road  
Middletown, CT 06457-9294

Dear Mr. Laoux:

RE: Notice of Intent to (Construct / Renovate / Repair / Retrofit a Non-Threshold Structure

Please be advised that the Department of Transportation, Bureau of Finance and Administration, Division of Property and Facilities Services, intends to construct a state-owned structure or building as described below:

**Agency:** Department of Transportation  
**Agency Representative:** Philip E. Parcak – Tel. (860) 594-2233, Fax (860) 594-2255  
**Project Location:**  
**Address:**

**DOT Project Number:**  
**Permit Number:**  
**Type of Work:** Construct – Renovation – Repair - Retrofit  
**Building Information:** Construction Type \_\_\_\_\_ Height \_\_\_\_\_  
Use Group \_\_\_\_\_ Number of Stories \_\_\_\_\_

**Description of Work:**

The tentative project completion date is estimated as \_\_\_\_\_

Construction inspection will be performed under the direct supervision of Property and Facilities personnel, as they are licensed by your office to insure compliance with the State Building Code.

An application for a Certificate of Compliance will be forwarded to you when the actual project completion date is determined.

If you have any questions, please contact me at telephone number (860) 594-2233.

Sincerely,

Philip E. Parcak (B.O. 017-90)  
Principal Engineer  
Bureau of Finance and Administration

### ***1-2211 Code Inspections Schedule***

This information applies only to building structures that do not exceed the statutory threshold limit as described in C.G.S. 29-276b.

*This document is based upon the 2005 Connecticut State Building Code only and does not include other governing documents such as the ConnDOT Form 816, FM Global standards and Department of Environmental Protection requirements for example. Where other governing requirements are applicable, the most stringent shall apply and shall supersede that of the 2005 Connecticut State Building Code.*

*This list was created for the convenience of the user and identifies most inspection situations requiring the Code Official. It is a general list and may vary based upon the nature of the building project.*

The contractor shall provide the Code Official at least 48 hours notice to schedule the required code inspection and witness of testing.

#### Description of Inspections

- **Footing inspection Prior to Concrete Placement (Sections 1704.4, 109.3.1)**
  - Prepare fill / controlled structural fill, is site prepared per approved report and is placement of fill material compliant. (Section 1803.5)
  - Approved set of footing and foundation plans plus soil boring and sampling records shall be available at all times. (Section 106.3.1)
  - Compaction testing reported. (Section 1803.5)
  - Testing of concrete scheduled by an approved testing agency. (Sections 1704.4, 1905.6)
  
- **Foundation Inspection Prior to Concrete Placement (Section 1704.4)**
  - Reinforcing steel. (Sections 1704.4, 1907.0)
  - Inserts, penetrations, appurtenances and anchoring. (Sections 1604.8, 1704.4)
  - Forms placed and oiled. (Section 1905.7)
  - Testing of concrete scheduled by an approved testing agency. (Sections 1704.4, 1905.6)
  - Temporary Heat (inspected by Code Official) and Cold Weather Protection. (Sections 1905.12, 1905.13, 1905.11.1)
  - Damp proofing, Waterproofing and Subsoil Drainage System. (Section 1807.0)
  
- **Floor Inspection Prior to Concrete Placement**
  - Compaction Testing reported. (Section 1803.5)
  - Approved set of building plans to be available at the site. (Section 106.3.1)
  - Perimeter insulation, vapor barrier and isolation of columns. (Section 1911.0)
  - Reinforcing steel, mesh and haunch placement. (Sections 1905.7, 1907.0)
  - Slab thickness, construction joints and expansion joints. (Sections 1909.3, 1911.0)
  - Testing of concrete scheduled by an approved testing agency. (Sections 1704.4, 1905.6)
  
- **Underground Inspection of Mechanical, Plumbing, Electrical & Fire Protection (IMC 107.1, IPC 107.1)**
  - **Mechanical and Plumbing (IMC 107, IPC 107)**
    - Trench pitch and bedding. (IPC 306.0)
    - Piping installation and pressure test(s). (IPC 305, 312, 702, 704, IMC 1304, 1209.2)
    - Backfill material and placement. (IPC 306.3)
    - **Electrical (Sections 2701, 2702, NEC 2005)**
    - Trenching and bedding. (NEC 300.5)
    - Conduit installation. (NEC 300.5)
    - Backfill material and placement. (NEC 300.5(D))

**Code Inspection Schedule (continued)**

- **Electrical Service Entrance and Temporary Construction Electrical Service (NEC 590.4(A), 230.0)**
  - These services shall be inspected by the Code Official and released to the respective electrical utility company for activation. Sign-off by Code Official is required by the Utility Companies.
  
- **Fire Protection - Underground work including fire service and thrust blocking. (NFPA 13 - 2002, Chapter 10, 10.8.2 (thrust blocks))**
  - Trenching and bedding. (NFPA 13 - 2002, 10.4 – 10.9)
  - Piping installation and pressure test(s). (NFPA 13 – 2002, 10.10.1 – 10.10.2.24)
  - Backfill material and placement. (NFPA 13 – 2002, 10.9)
  
- **Fuel Storage Tank(s) Underground (UST) and Aboveground (AST) Installation (IMC 1301.2, CT Flammable & Combustible Liquids Code, NFPA 30 – 2002 Ch. 2 & 3, CT Oil Burning Equip. Code, NFPA 31 – 2002 Ch. 2 & 3, CT Gas Equipment & Piping Code, NFPA 54 – 2002 Ch. 2, 3, 4, CT LP Gas & LN Gas Code, NFPA 58 – 2002, Ch. 2, 3, 5)**
  - Witness of all manufacturers' required procedures.
  - Hold down structures
  - Backfill material and placement.
  - Piping and appurtenances and testing.
  
- **Structural Steel & Metal Framing Inspection Prior to Concealment**
  - Inspection shall be performed by Special Inspector or Code Official if Special Inspector is not required.
  - Protection of steel by approved methods prior to masonry. (Section 2203.2)
  - Floor, roof and wall members, panels, columns, bracing, bolts, washers and welds. (Sections 1704.3, 1704.3.1.2, 1704.3.3)
  - Spray applied fire resistive material. (Section 1704.11)
  - Third party reports: prefab steel, assemblies, markings, certified test reports, ASTM, weld filler. Fabricator Certification / Quality Control Procedures. (Sections 1704.2, 1704.2.1, 1704.2.2)
  
- **Masonry & Stone Inspection Prior to Concealment (Sections 1704.5, 2104.1)**
  - Anchor ties. (Sections 1704.5, 2104.1.3, 2109.7)
  - Lintel and bond courses. (Sections 1704.5, 2104.1.5, 2109.6)
  - Horizontal and vertical reinforcement. (Sections 1704.5, 2109.6)
  - Certification of block, brick and accessories. (Section 1704.5)
  - Mortar type material, temperature and method of application. (Sections 1704.5, 2104.3)
  - Flashing, dampproofing, weeping, wicking, insulation and penetrations. (Section 1704.5)
  - Third party reports, prefab masonry units, assemblies, markings, certified test reports and ACI Standards. (Section 1704.5)
  - Temporary Heat and Cold Weather Protection (Sections 1704.5, 2104.3.3)
  
- **Wood Construction Roughing Inspection**
  - Fabricator Certification / Quality Control Procedures. (Sections 1704.6, 2303.0)
  - Material Grading. (Section 2303.1.1)
  - Connections. (Section 2304.9)
  - Framing and Details. (Sections 2304.3, 2304.4)
  - Roof and Floor Diaphragms, Interior and Exterior Shear Walls. (Sections 2305.2, 2305.3)

## Code Inspection Schedule (continued)

- **Cast-In-Place Concrete, Pre-Cast Concrete, Exterior Insulation & Finish Systems (EIFS), Structural Insulated Panel Systems, Curtain Wall Systems and all Special Cases (Sections 1903, 1704.4, 3101.1), Mechanical, Plumbing, Electrical & Fire Protection (including Sprinkler Standpipe, Hood Extinguishing, Detection and Fire Alarm) Above Slab / Rough-In Inspection Prior to Concealment**
  - Rough-in inspections shall be made after the roof, framing, fireblocking, firestopping, draftstopping and bracing is in place and all ducting and other components to be concealed are complete, all sanitary, storm, fire protection and water distribution piping is roughed-in & prior to the installation of wall and ceiling coverings.
  - Inspections of MEP & FP work shall also include inspection of fire safing, sleeving, sealants, penetrations & thru-penetration firestop systems as well as seismic bracing and attachment (which may be a part of Special Inspection duties)
- **Mechanical and Plumbing (Sections 2801.1, 2901.1, IMC 107(2))**
  - Piping and duct system installations. (IMC 304, 603, 1107, 1208.1, 1304, 1305, IPC Ch. 6 & 704)
  - Duct and piping support, hanger systems and seismic bracing. (IMC 304, 305, 603, IPC 308, 1621)
  - Fire and smoke dampers. (IMC 716.1, 716.3, 716.5, UL 555, NFPA 90A – 2002)
  - Pipe / duct insulation, identification, valve tags and vibration isolation. (IMC 301.10, 604, 1204, IPC 303, 505, Ch. 6, 719.7)
  - Witness piping system (domestic water, drain-waste-vent, storm, fuel) testing. (IMC 107.2, 1208, 1209.2, 1304.1, IPC 312)
  - Witness refrigerant system test and certification provided. (IMC 1108)
- **Electrical (NEC 2701.0)**
  - Rough-in inspection shall include but not be limited to:
  - General requirements for electrical installations, conduit and feeder installation. (NEC Art. 110)
  - Bonding and grounding of devices, boxes, conduit, equipment and structure. (NEC Art. 250)
  - Service entrance and switchgear installation. (NEC 110.34F, 230, 338, 490 III)
- **Fire Protection**
  - Rough-in inspection shall include but not be limited to:
  - Piping system installation. (Section 903.0, NFPA 13)
  - Hanger systems and seismic bracing. (Section 903.0, NFPA 13)
  - Witness hydrostatic pressure system test. (Section 903.0, NFPA 13)
- **General Inspection (Sections 109.3, 705.0, 706.0, 708.0, 709.0)**
  - This section shall also be done on fire walls, fire and smoke barriers constructed in accordance with referenced test assemblies.
- **Inspections & Testing Prior to Certificate of Compliance and Occupancy (Sections 109.0, 110.0)**
  - Outstanding inspection report violation findings and code discrepancies resolved. (Sections 109.3.10, 113.0)
  - Outstanding Plan Review report comments and code discrepancies resolved. (Sections 109.3.10, 113.0)
  - Testing of the emergency power and standby power systems - witnessed by CA & Engineer of Record. (Sections 2702, NEC 700.4, NFPA 110 – 2002)
  - Testing of fire protection systems. (sprinkler, standpipe, hood and special extinguishing, fire pump, detection & fire alarm systems), special locking area of refuge communication system, emergency lighting and exit signage witnessed by Code Official. (Sections Ch. 9, 1011, 1024, NEC 700, 760, 1021.4)
  - State of Conn. Dept. of Public Safety - Boiler Bureau inspection, testing & operating certificate (860) 685-8320 where applicable. (CT General Statute Chapter 540)

**Code Inspection Schedule (continued)**

- State of Conn. Dept. of Public Safety - Elevator Bureau inspection, testing & operating certificate. (860) 685-8340. (Section 3001.1.1)
- State of Conn. Dept. of Public Health (DPH) approval of sewer, septic and water supply (potability test per IPC 610) Kitchen / food service per Local or Regional Health Department.
- State of Conn. Dept. of Environmental Protection registration of fuel oil, motor and aviation fuel and hazardous materials, Engineer of Record to complete required form for CTDOT to sign.
- Backflow prevention acceptance by water supplier. (IPC 608)
- Certification of HVAC operation and balancing. (IMC 107.2)
- Testing of smoke control system - witnessed by Code Official & Engineer of Record. (Section 909.3)
- Electrical Ground Fault Protection system performance test, witnessed by Code Official. (NEC 230.95C)
- Kitchen Hood exhaust system, laboratory hood and special exhaust system inspection and testing by certified installer / tester, and witnessed by the Code Official. (IMC 507, 510, NFPA 45)
- Explosion Hazard Protection Inspection by Engineer of Record. (Section 414)
- Inspection of accessible components by Code Official and Engineer of Record. (Chapter 11)

Figure 1-22.7 Certificate of Compliance

CERTIFICATE OF COMPLIANCE	
Location :	
Description:	
Town :	
Permit Number :	Project Number :
<p>THIS IS TO CERTIFY THAT to the best of my knowledge and belief , the above described project has been designed in substantial compliance with the requirements of the State of Connecticut Basic Building Code and other applicable codes as required by Section 29 – 252(a) of CGS as amended . Minor deficiencies and approved variances are indicated below :</p>	
<div style="display: flex; justify-content: space-between;"> <span>Engineer of Record</span> <span>Date</span> </div>	
<p>THIS IS TO CERTIFY THAT to the best of my knowledge and belief , the above mentioned project was built in accordance with the plans and specifications and approved change orders, and is in substantial compliance with the Connecticut Building Code and all other applicable codes. Special stipulations are noted below :</p>	
<div style="display: flex; justify-content: space-between;"> <span>General Contractor</span> <span>Date</span> </div>	
<div style="display: flex; justify-content: space-between;"> <span>D.O.T District Engineer</span> <span>Date</span> </div>	
<div style="display: flex; justify-content: space-between;"> <span>D.O.T Trans. Principal Engineer Philip E. Parcak – B.O. 017 – 90</span> <span>Date</span> </div>	
<p>Received by State Building Official :</p>	
By :	Date :