

4.1 General Discussion

The previous three parts of this manual explained how local agencies may qualify to receive Federal Highway Administration (FHWA) funding for their transportation projects. The remainder of the manual explains procedures for developing specific projects.

Once a local agency has qualified to receive FHWA funds, as described in Chapter 2, the next action is to apply for funds to develop specific projects in its transportation program. Depending on their size and complexity, different projects may require different development procedures. The remaining parts of the manual are arranged to reflect these differences.

The next part, “General Project Development,” Chapters 6-12, describe activities required during preliminary engineering on all projects.

The parts entitled “Design” and “Construction and Post Construction,” Chapters 13-17 and 18-20, offer the local agency a choice of procedures, depending on whether the state will administer its construction contracts.

The specific requirements for a project may change as project development progresses and as more information about a project becomes available. Further details of the specific requirements are shown in the Project Development Process Flow Chart and Checklist. The meanings of unfamiliar terms may be found in the Glossary. Once the local agency has identified the steps required on a particular project, only the parts in the manual that deal specifically with those steps need to be referred to.

4.2 Project Development Process Overview

This section describes the project development process by setting forth project phases, documentation requirements, options for construction administration, and required reviews and approvals.

.21 Phases of Authorization

FHWA funds may be authorized for the following project phases:

- a. Preliminary engineering
- b. Right-of-way acquisition
- c. Incidental Construction
- d. Construction

Requests for preliminary engineering funds are required to be made in advance of the right-of-way acquisition, environmental studies, or public hearings to receive proper reimbursement for the costs. Construction funds may be requested with preliminary engineering funds when:

- a project does not require any of the items mentioned in the previous paragraph,
- the final Environmental Document approved, and
- the local agency will start construction within six months of fund authorization.

- e. Construction Engineering

.22 Documentation Required for Authorization of Funds.

- a. Preliminary Engineering Funds. When applying for preliminary engineering funds only, the following documents are required:
 1. Project Proposal (Chapter 6).
 2. Local Agency Agreement (Chapter 7).
 3. Typical sections, vicinity map, and evidence of PCC Approval date, TIP/STIP inclusion.
- b. Right-of-Way Funds. When applying for right-of-way funds, after preliminary engineering funds have developed right-of-way plans, the following documents are required, if appropriate:
 1. Supplement to original Local Agency Agreement (Chapter 7).
 2. FHWA approval of environmental documents (Chapter 9).
 3. Relocation plan, if relocation is required (Chapter 10).
 4. Right-of-way plan (Chapter 10).
 5. Right-of-way Project Funding Estimate or True-Cost estimate (Chapter 10).
 6. Evidence of TIP/STIP inclusion.
- c. Incidental Construction
- d. Construction Funds. The following documents must be submitted to request construction funds:
 1. Supplement to Local Agency Agreement.
 2. Right-of-way certification (if required).
 3. Final FHWA approval of environmental documents (Chapter 9).
 4. Evidence of TIP/STIP inclusion.
 5. PS& E
- e. Combined Preliminary Engineering and Construction Funds (no right-of-way acquired). When applying for preliminary engineering and construction funds simultaneously, the following documents are required:
 1. Project Proposal.
 2. Local Agency Agreement.
 3. Final FHWA approval of environmental documents (Chapter 9).
 4. Typical sections, vicinity map, and evidence of STIP inclusion.

.23 Construction Contract Administration

The local agency has the option of:

- a. Administering the contract if it has approved certification acceptance procedures and operates in compliance with Chapter 3.
- b. Requesting that MDT administer the contract.
- c. Performing contract administration by a consultant (Chapter 12). The local agency still must have a full-time employee in charge.

.24 Reviews and Approvals

The chart below shows required approvals for urban projects using local CA. These actions apply non-NHS, regardless of project funding source.

<u>Action</u>	<u>Local STP-U</u>
a. PE Fund Auth. and Modify./Supp.	F
b. Exceptions to Design Stan.	S
c. Design App. (inc. prelim. And dv. detail br. plan app.)	L
d. Experimental Work Plans	F
e. PS&E Approval	F
f. State furnished mat. Cost- effective determination	L
g. Prop item, pub. mt. find.	F
h. Concurrence in Award	S
i. Buy America Exemption	F
j. Tied Bids	L

F = FHWA

S = State

L = Local Agency

When the local agency is the approving authority for any phase of work, it must operate within the *Local Agency Guidelines* and all applicable federal, state, and local laws and regulations. As outlined in Chapter 3, MDT will monitor the agency's procedure. MDT is the approval authority when the local agency is not certified.

4.3 Standards

STP-Urban standards are addressed in Chapters 14. The local agency and any consultant(s) and/or contractor(s) it may employ will design the project to MDT Geometric Design Standards for Urban and Developed Areas and to serve design year traffic. The following documents provide additional guidance and can be used as long as they do not conflict with the MDT Geometric Design Standards for Urban and Developed Areas: *AASHTO – A Policy on Geometric Design of Highways and Streets*; *Montana Public Works Standard Specifications (MPWSS)*.

4.4 Project Development Process Flow Chart and Checklist

The flow chart (see Appendix 4.51) and checklist (see Appendix 4.52) depict the sequence of major activities necessary to develop transportation projects using FHWA funds. The forms required for a project are shown on the list of forms. Since the type of work varies on projects, see the MDT *Construction Manual*, Chapter 1, "Forms," for additional required forms.

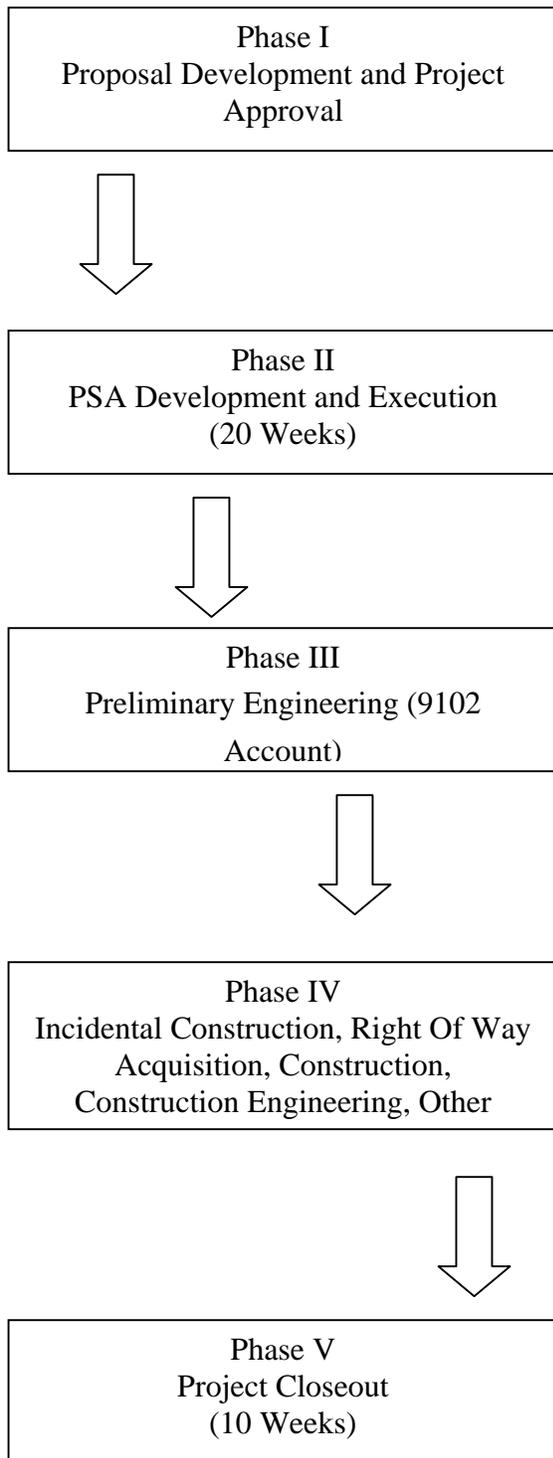
It is recommended that a copy of the checklist be inserted in the project file and used to initiate and document the activities necessary to complete a project.

4.5 Appendixes

4.51 Project Development Process Flow Chart

4.52 Project Development Checklist

Appendix 4.51 Project Development Flow Chart



Appendix 4.52 Project Development Checklist

Project Title: _____

Project Location: _____

Road or Street Number: _____ FA Program: _____

Project Initiation (Chapter 2)

Table with 2 columns: Initials, Date or N/A. Rows include: Project in STIP, Federal aid program form (Sheet 1 of Proposal) to: Metropolitan planning organization Or MDT CTEP Office, Program of projects approved by appropriate agency.

Project Proposal (Chapters 6, 9, 13, and 15)

Table with 2 columns: Initials, Date or N/A. Rows include: Sheet 1 (Project information, local agency project number, Description of proposed work and existing facility, Cost estimate of all phases, Proposed obligation date, Environmental determination (Cat Ex, EIS, EA), Request species listing from USFWS and MNHP, Signature block), Sheet 2 (Geometric design data, Accident data, Environmental considerations, Performance of work), Sheet 3 (Right-of-way relocation, Utility relocations, FAA Involvement, Signature, Resurfacing and Rehabilitation safety checklist, typical roadway, vicinity map), Project application checklist.

Local Agency Agreement
(Chapters 7 and 8)

<u>Initials</u>	<u>Date or N/A</u>	
_____	_____	Billing address
_____	_____	_____ Description of work matches proposal
_____	_____	_____ Check math on agreement
_____	_____	_____ Federal aid matching percentage
_____	_____	_____ Method of financing
_____	_____	_____ Agreement signed by approving authority

Request Preliminary Engineering Funds
(Chapter 4)

_____	_____	Project programmed
_____	_____	Project application package to MDT CTEP Engineer
_____	_____	_____ Project proposal with attachments
_____	_____	_____ Local Agency Agreement
_____	_____	_____ Project application checklist completed
_____	_____	PE funds authorized by MDT CTEP Engineer

Consultant Selection Process
(Chapter 12)

_____	_____	Independent estimate for consultant services and recommendation (request) to approving authority
_____	_____	Receive approval to advertise for consultant services
_____	_____	Advertise for consultant services
_____	_____	Develop consultant evaluation selection criteria
_____	_____	Select minimum of three best-qualified firms
_____	_____	Submit request for approval of selected firm to approving authority
_____	_____	Conduct pre-award audit (if necessary) before negotiations
_____	_____	Approving authority approves selection, negotiation begins
_____	_____	Negotiation completed submit final draft of agreement, etc., to the approving authority
_____	_____	Receive approval from approving authority
_____	_____	Agreement signed by consultant
_____	_____	Agreement executed by approving authority (consultant may now begin work)
_____	_____	Notice to proceed sent to the consultant
_____	_____	Send copy of agreement to MDT CTEP Engineer.

Consultant Administration
(Chapter 12)

_____	_____	Oversee the consultant's work and billings to ensure compliance with the agreement
_____	_____	Prepare diary to record discussions and visitation with the consultant
_____	_____	Check consultant billings regarding employee classification, wage rate, actual invoices for direct non salary costs, etc.
_____	_____	Enter consultant payment on ledger system
_____	_____	Conduct consultant employee interviews

Initials	Date or N/A	
_____	_____	Receive FHWA approval
_____	_____	Circulate final Environmental Impact Statement
_____	_____	Final record of decision approved by FHWA

Location and Design Approval
(Chapter 15)

_____	_____	Submit project proposal
_____	_____	Submit design report
_____	_____	Submit pavement design criteria
_____	_____	Meet public hearing requirements
_____	_____	Meet environmental requirements
_____	_____	Concurrence with BA effect determinations
_____	_____	ECS approval by FHWA
_____	_____	For major bridge project, submit type, size, and location study to MDT CTEP Engineer
_____	_____	Obtain FHWA approval of the type, size, and location study
_____	_____	For traffic signal projects, submit warrants for signalization to MDT CTEP Engineer
_____	_____	Obtain location and design approval
_____	_____	Publish design approval notice

Right-of-Way Funding and Acquisition
Funding (Chapter 4)

_____	_____	Project in STIP
_____	_____	Complete design hearing requirements
_____	_____	Approve right-of-way plan
_____	_____	Submit right-of-way relocation plan (if required) to MDT CTEP Engineer
_____	_____	Submit right-of-way acquisition plan, right-of-way project funding estimate or true cost estimate, supplement to Local Agency Agreement and FHWA approval of environmental documents, to MDT CTEP Engineer with request for right-of-way funds
_____	_____	Receive authorization to acquire ROW from MDT CTEP Engineer

Acquisition (Chapter 10)

_____	_____	Acquisition procedures approved by MDT CTEP Engineer
_____	_____	Set up documentation file for each parcel
_____	_____	Set up commitment file
		<u>Appraisal:</u>
_____	_____	Appraiser meets MDT criteria
_____	_____	Give landowner opportunity to accompany appraiser
_____	_____	Signed appraiser certification in file
		<u>Appraisal Review:</u>
_____	_____	Appraisal reviewer meets MDT criteria
_____	_____	Date of value determination precedes commencement of negotiations
_____	_____	Just compensation set by agency
_____	_____	Signed review appraiser certification in file
		<u>Negotiations:</u>
_____	_____	Ensure that private firms negotiators are licensed and have a licensed broker
_____	_____	Prepare diary of all owner contacts
_____	_____	Make appointment with property owner
_____	_____	Give owner written statement of just compensation
_____	_____	Ensure that settlement contains construction clauses

Initials	Date or N/A	
_____	_____	Obtain evidence of clear title
_____	_____	Specify salvage
		<i>Relocation Plan:</i>
_____	_____	Approved by MDT
_____	_____	Furnished plan to person scheduled to be displaced
_____	_____	Send written notice to vacate
_____	_____	Pay last resort housing costs
_____	_____	Check for filed appeal against local agency offer
_____	_____	Complete relocation
_____	_____	Complete acquisition
_____	_____	Complete administrative settlement documentation
_____	_____	Place a copy of deeds in file
_____	_____	Send:
		___ Letter of certification
		___ LPA coordinator conducts certification review
		___ MDT's certification by MDT CTEP Engineer

Plans, Specifications, and Estimates
(Chapters 9, 11, and 16)

_____	_____	Review commitment and correspondence file
		When applicable, secure the following permits or interagency coordination:
		___ Airport roadway clearance from FAA
		___ Coastal zone management compliance from DOE
		___ For cultural, archeological, or historic sites SHPO contacted
		___ Obtain concurrence letters for environmental determination
		___ Request updated ESA species lists every six months
		___ When waters modified or controlled, USFWS and State Department of Fisheries and Wildlife consulted
		___ When stream is affected, permit from DOE
		___ For timber supporting land, permit from DNR
		___ When construction might reduce water quality, contact DOE
		___ For quarries of <u>2 acres (0.81 ha)</u> and <u>10,000 tons (9,091 metric tons)</u> or more --DNR contacted
		___ Waters/wetlands -- Army Corps of Engineers contacted
		___ For navigable waterways, permit from Coast Guard obtained
		___ If wetlands are affected, U.S. Fish and Wildlife Service or National Marine Fisheries Services contacted
		___ Utility agreement obtained
		___ Railway agreement(s) obtained
_____	_____	PS&E completed:
		___ Vicinity map
		___ Summary of quantities
		___ Pit, quarry, stockpile, and waste sites
		___ Reclamation plans
		___ Roadway sections
		___ Plans/profiles
		___ Utility
		___ Structure notes
		___ Signing
		___ Illumination
		___ Bridge plans
		___ Traffic control

- _____ Standard plans
- _____ Sheets numbered and dated
- _____ Each sheet signed and stamped by Professional Engineer
- _____ Bridge plans, design calculations, and soil report to MDT CTEP Engineer (State Ad and Award only)
- _____ Form FHWA-1273 and latest amendment included
- _____ Log of test borings
- _____ Training requirements
- _____ EEO requirement clauses
- _____ For steel. Included Buy America requirement
- _____ Traffic control special provisions
- _____ Specialty items
- _____ General special provisions and amendments arranged in order and indexed
- _____ Project proposal
- _____ Federal Aid Proposal Notices (2 pages)
- _____ Noncollusion Declaration
- _____ Contract
- _____ Certification for Federal Aid Contracts (Lobbying)
- _____ DBE Utilization Certification
- _____ Engineer's estimate complete
- _____ Documentation for each item in engineer's estimated
- _____ Justification for nonparticipating items
- _____ Detailed documentation for lump sum items available in project files
- _____ Estimate to MDT CTEP Engineer
- _____ Training goal set by MDT CTEP Engineer
- _____ Sources approved by approving authority
- _____ Approval of stockpiling by MDT CTEP Engineer (when payment is requested for material when stockpiling aggregates, etc., for use on a future federal aid project)
- _____ Distribution of preliminary plans as determined by local agency
- _____ Field review of PS&E (State Ad and Award only)
- _____ For tied bids, letter from approving authority
- _____ For State Ad and Award, financial responsibility letter with PS&E documents sent to MDT CTEP Engineer
- _____ PS&E approved by approving authority
- _____ Plans, contract specifications and estimate stamped, signed, and dated, and on file in the local agency office
- _____ State and federal wage rates added to ad plans
- _____ PS&E sent to MDT CTEP Engineer

Request Construction Funds

(Chapter 4)

- _____ Project in STIP
- _____ Send letter with the following attachments to MDT CTEP Engineer requesting construction funds:
 - _____ Supplement to Local Agency Agreement, if project includes other phases
 - _____ Letter of right-of-way certification
 - _____ Final FHWA approval of environmental documents

Local Ad and Award

Advertise for Bids (Chapter 17)

- _____ Get Highways and Local Programs Contract Number _____ from MDT CTEP Engineer
- _____ Approve ad period of less than 3 weeks
- _____ Publish notice of bid opening
- _____ Date of publication for sealed bids

Bid Opening (Chapter 17)

<u>Initials</u>	<u>Date or N/A</u>	
_____	_____	Issued addendum (if within one week of bid opening, bid opening should be delayed)
_____	_____	Opened Bids
_____	_____	Prepared bid tabulation sheet
_____	_____	Checked submitted bids for tabulation errors
_____	_____	Completed bid and bidders tabulation sheet
_____	_____	Checked DBE participation project goals verify DBE certification status
_____	_____	Determine responsive bid
_____	_____	Determine contractor qualifications
_____	_____	Contractor registered by Montana Department of Labor and Industries
_____	_____	Contractor licensed as required by the laws of the state of Montana
_____	_____	Award recommendation sent to approving authority
_____	_____	When low bid is over engineer's estimate, submit justification and letter of award recommendation to approving authority
_____	_____	Submit supplement to Local Agency Agreement
_____	_____	Supplement approved by Assistant Secretary for Highways and Local Programs

Award of Contract (Chapter 17)

_____	_____	Establish contract award date _____, _____
_____	_____	Sent 'Award Letter' to successful low bidder
_____	_____	Sent 'Condition of Award' to successful low bidder if DBE goals are set in the contract
_____	_____	Notify all unsuccessful bidders
_____	_____	Return bid bonds (except for first three)
_____	_____	Notify second and third bidders of holding bid bonds until execution
_____	_____	Sent to MDT CTEP Engineer:
_____	_____	_____ Tabulation of bids
_____	_____	_____ Engineer's estimate
_____	_____	_____ Actual versus estimated costs shown in Local Agency Agreement
_____	_____	_____ Award letter
_____	_____	_____ DBE utilization certification
_____	_____	_____ Estimated date of contract completion
DATE OF AWARD IS CUTOFF FOR CHARGING TO PRELIMINARY ENGINEERING		

Construction Administration

Execution of Contract (Chapter 17)

_____	_____	Sent contract and contract bond papers to contractor for signature
_____	_____	"Certificate of Insurance" received from contractor
_____	_____	Approving authority executed contract documents
_____	_____	Notified the contractor by phone of the execution of the contract
_____	_____	Executed a copy of the contract to contractor
_____	_____	Sent notice to proceed to contractor, with cc to MDT CTEP Engineer
_____	_____	Returned bid bonds to second and third bidders

Preconstruction Conference (Chapter 18)

_____	_____	Notice of preconstruction conference to:
_____	_____	_____ Contractor
_____	_____	_____ MDT CTEP Engineer

- _____ Affected utility companies
- _____ Police department
- _____ Fire department
- _____ Hospital
- _____ Ambulance service
- _____ Post Office
- _____ Others _____
- _____ _____
- _____ _____ Preconstruction conference agenda prepared
- _____ _____ Preconstruction conference held
- _____ _____ Minutes of meeting to:
 - _____ Contractor
 - _____ Subcontractors
 - _____ MDT CTEP Engineer
 - _____ Other attending persons
 - _____ Invited but not represented agencies
 - _____ Project file
- _____ _____ “Training Program”:
 - _____ Received from contractor
 - _____ Approved by agency
 - _____ _____ “Apprentice/Trainee”:
 - _____ Approval request from contractor
 - _____ Approved by agency

Construction Documentation (Chapter 19)

- _____ _____ “Record of Material Testing” received from MDT Materials Laboratory
- _____ _____ Contractor provides copies of permits obtained from other agencies and/or property owners:
 - _____ Montana State Dept. of Wildlife/Fisheries-Hydraulic Permit
 - _____ Montana State Dept. of Ecology
 - _____ Irrigation Regional
 - _____ Burlington Northern Railroad
 - _____ Union Pacific Railroad
 - _____ Air Pollution Control Authority
 - _____ _____
 - _____ _____
- _____ _____ Temporary water pollution control plan approved
- _____ _____ Agency requests updated ESA species listing every six months
- _____ _____ Approved contractor’s progress schedule
- _____ _____ Received railroad insurance from contractor
- _____ _____ Construction diary started
- _____ _____ Inspector’s diary started
- _____ _____ ‘Certification of Materials Origin’ received from contractor
- _____ _____ Material source approval received Plans for falsework and forms:
 - _____ Received from contractor
 - _____ Approved by agency
- _____ _____ Required job site posters placed by contractor
 - _____ FHWA 1495 and 1495A -- “Wage Rate Information”
 - _____ FHWA 1022 --“Fraud Notice Poster”
 - _____ OFCCP-1420 --“FF0 is the Law”
 - _____ WISHA LI-41 6-81 --“Safety and Health Protection on the Job”
 - _____ Industrial insurance poster --LI-242-91
 - _____ Your rights as a worker --F700-053-000
 - _____ Family care and maternity --F700-025-000
 - _____ Approved “Statement of Intent to Pay Prevailing Wage”

- _____ Copy of wage rates from contract documents
- _____ Daily construction signing records started (Checked twice daily and recorded)
- _____ Weekly statement of working days started
- _____ Material acceptance sampler appointed
- _____ Material independent assurance sampler appointed
- _____ Appointed office engineer for progress estimates and final records
- _____ Obtain a copy of the scale certifications
- _____ Daily scale check
- _____ Received FHWA Form 1391 for each July from contractor and subcontractors
- _____ FHWA Form 1392 prepared and sent to MDT CTEP Engineer
- _____ Received "Request to Sublet Work" and "Subcontractor or Agent Certification" from contractor
- _____ Approved request to sublet (subject to 70 percent limit) Received "Intent to Pay Prevailing Wages" from contractor, subcontractors, and agents
- _____ Received approved "Intent to Pay Prevailing Wages" from Labor and Industries (required before first payment)
- _____ Checked first certified payroll from contractor and subcontractors to ensure payment of prevailing wages
- _____ Conducted random check of each successive payroll
- _____ Wage rate interviews conducted
- _____ Checked employee interview wage rate against certified payroll and Labor and Industries approved prevailing rate
- _____ Assigned Change Order Numbers _____
(MDT CTEP Engineer approval required when change order will alter the termini, character, or scope of work. Approval must be obtained before effective date of change order to be eligible for federal participation.)
- _____ Prepare change order that details basis and need for the change
- _____ Extension of time approved _____ days
- _____ Change order signed by contractor
- _____ Change order signed by surety (if required)
- _____ Verbal approval obtained from approving authority
- _____ Signed by approving authority
- _____ Original sent to contractor
- _____ Copy of approved change order sent to MDT CTEP Engineer
- _____ Supplement to Local Agency Agreement approved by MDT CTEP Engineer
- _____ Obtained copy of monthly estimate
- _____ Verified and documented that DBE is performing a commercially useful function prior to making a monthly payment
- _____ Prepared estimate
- _____ Checked estimate
- _____ Estimate sent to contractor
- _____ Estimate received from contractor
- _____ Obtain all "Intent to Pay Prevailing Wages" forms (for first month only; no payment can be made to the contractor until the form is received)
- _____ Overview of DBE Work (Chapter 11):
- _____ Verify work being done per Condition of Award Letter
- _____ Conduct on-site review(s) of each DBE to determine if the DBE is performing a commercially useful function (CUF)
- _____ Review change orders that affected DBE work
- _____ DBE goal change approved by Assistant Secretary for Highways and Local Programs
- _____ Overview of EEO (Chapter 11):
- _____ Agency designates an EEO officer
- _____ Conduct on-site compliance review
- _____ Monitor DOT Form 820-010 each month for each trade
- _____ Notify contractor of compliance or non-compliance with the contract provisions

_____ Ensure EEO signs are posted

Project Completion
(Chapter 19)

<u>Initials</u>	<u>Date or N/A</u>	
_____	_____	Prefinal inspection by local agency and contractor completed
_____	_____	Final inspection by local construction agency and contractor completed
_____	_____	Report of Non-American Made Material (Stand. Specs. 1-06.5) received from contractor
_____	_____	Notice of completion sent to contractor
_____	_____	Extension of time request with justification received from contractor
_____	_____	Extension of time granted, _____ days
_____	_____	Extension of time refused, _____ days
_____	_____	_____ liquidated damages
_____	_____	Letter sent notifying contractor of assessed liquidated damages
_____	_____	Copy of completion notice requesting inspection and acceptance by MDT and FHWA
_____	_____	sent to
_____	_____	MDT CTEP Engineer
_____	_____	Contractor submitted claim
_____	_____	_____ No claim submitted
_____	_____	Notice of completion to:
_____	_____	_____ Department of Labor and Industries
_____	_____	_____ Department of Revenue
_____	_____	_____ Received from contractor
_____	_____	Received "Affidavit of Wages Paid" from contractor and subcontractors
_____	_____	Received ESA species listing for the project every six months
_____	_____	Received "Quarterly Report of Amounts Credited as DBE Participation" from contractor
_____	_____	Release received from Department of Labor and Industries
_____	_____	Release received from Department of Revenue
_____	_____	Comparison of preliminary and final quantities sent to approving authority
_____	_____	Material certification form sent to approving authority
_____	_____	Completed "Report of Contractor's Performance" for prime contractor
_____	_____	As built plan completed (to be retained indefinitely)
_____	_____	Final record book #1 completed
_____	_____	Final estimate approved by the approving authority
_____	_____	Final estimate received from contractor
_____	_____	Paid final estimate
_____	_____	Released retained percentage from escrow or mailed check to contractor

Project Closure
(Chapters 8 and 20)

_____	_____	Completion letter sent to MDT CTEP Engineer (within 15 days after project is completed)
_____	_____	Final billing sent to MDT CTEP Engineer (within 90 days after completion)
_____	_____	Completed final field inspection by the MDT CTEP Engineer. Deficiencies (if any) will be noted on DOT Form 140-500.
_____	_____	Resolve deficiencies found during the above field inspection
_____	_____	Informed by MDT CTEP Engineer of MDT final billing approval