



Consultant Construction Administration Manual

Consultant Contract & Field Administration



Arizona Department of Transportation

Intermodal Transportation Division
Construction Group
February 2011



Arizona Department of Transportation

Consultant Construction Administration Manual

Dallas Hammit
Deputy State Engineer
Operations

Robert Samour
Deputy State Engineer
Valley Transportation

Julio C. Alvarado
Assistant State Engineer
Construction Group

Teresa Welborn
Partnering Section Manager



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INTRODUCTION

ADOT is using Consultant Engineering teams for the management and administration of construction contracts throughout the state. Consultant are used for two purposes

- Balance peak construction workloads
- Projects requiring special technical expertise

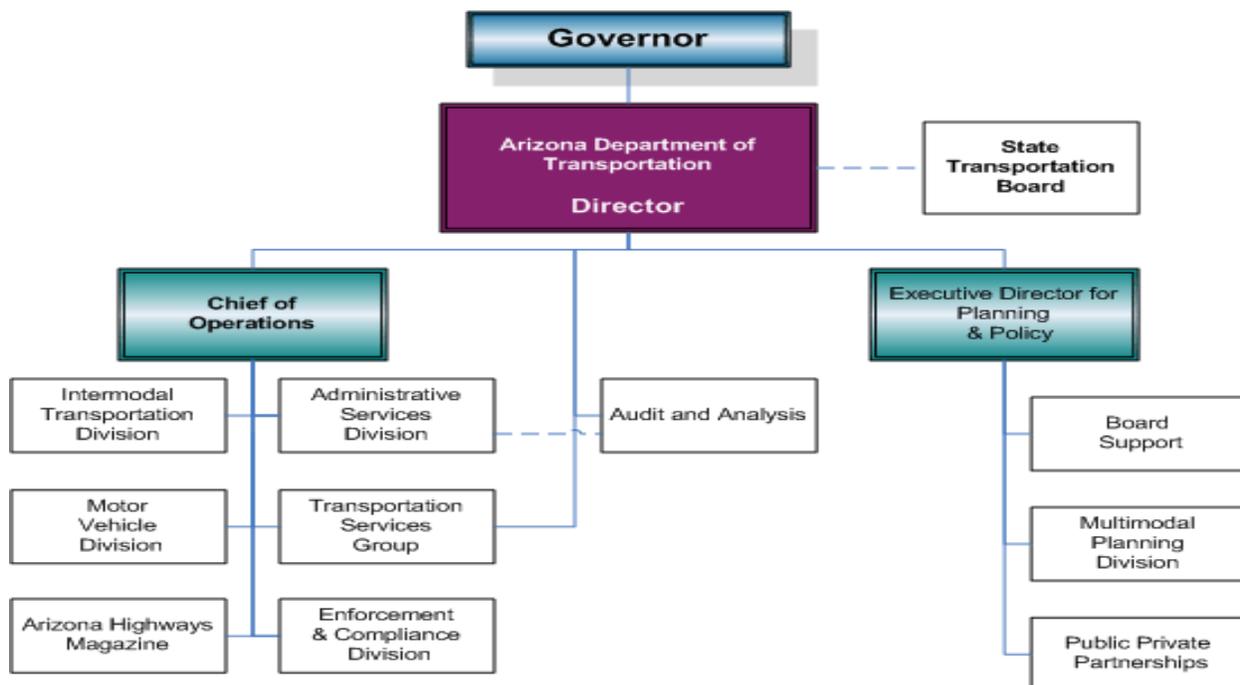
The Consultant work force is an extension of the Intermodal Transportation Group construction management team, performing the same tasks and procedures as ADOT employees assigned to construction orgs. The consultant will perform all work in accordance with ADOT and Federal Standards, Specification and Policies.

The CCA manual is designed to assist the ADOT Project Monitor in coordinating and monitoring the selected Consultant firm. The co-management and administration of a Consultant contract requires more coordination and communication than a typical construction project since we have CCA and the Project Monitor sharing administrative and management responsibilities during the life of contract. Below is the org chart for ADOT. CCA is part of the Intermodal Transportation Division (ITD) Operations Construction Group as shown on the org chart on the next page



Arizona Department of Transportation Organization Chart

July 26, 2010

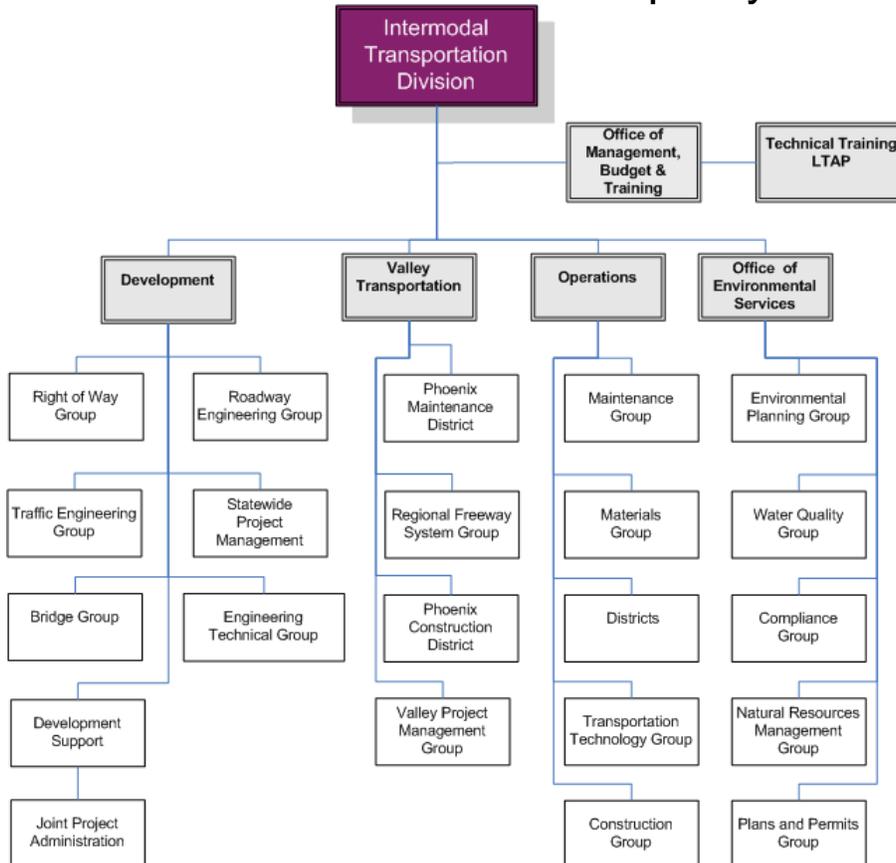




Construction Group
206 South 17th Avenue, Room 171, Mail Drop 172A
Phoenix, AZ 85007

Mission Statement

We will monitor and implement statewide construction policies and procedures that continually improve project cost effectiveness and quality



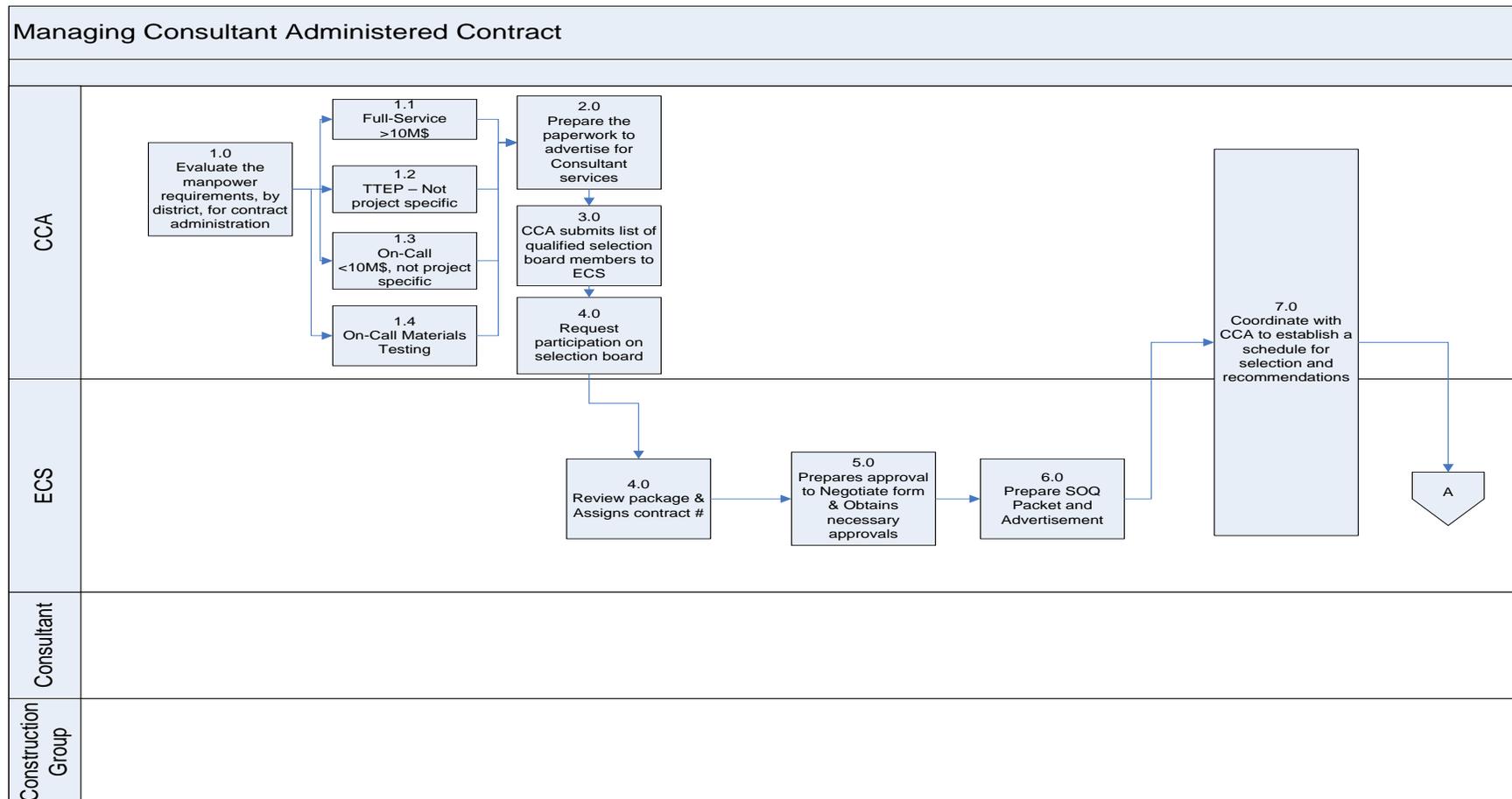
August 14, 2007

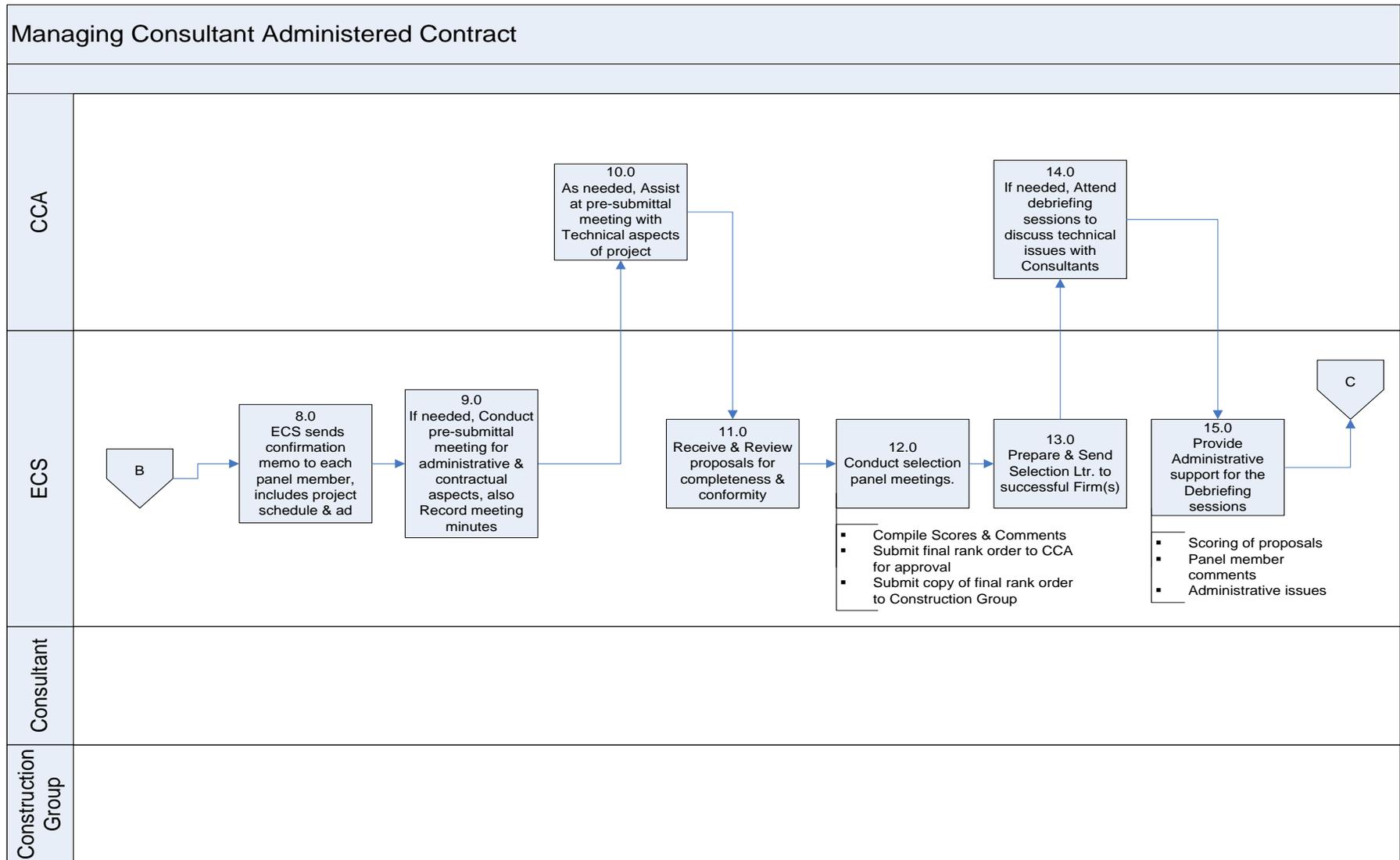
Construction Group - Julio Alvarado, P.E.
Construction Operations & Value Analysis – Paul Hurst, P.E.
Consultant Contract Administration- Michelle Bowser
EIT Coordinator - Dorinda Winrow
Field Reports - Lenyne Hickson

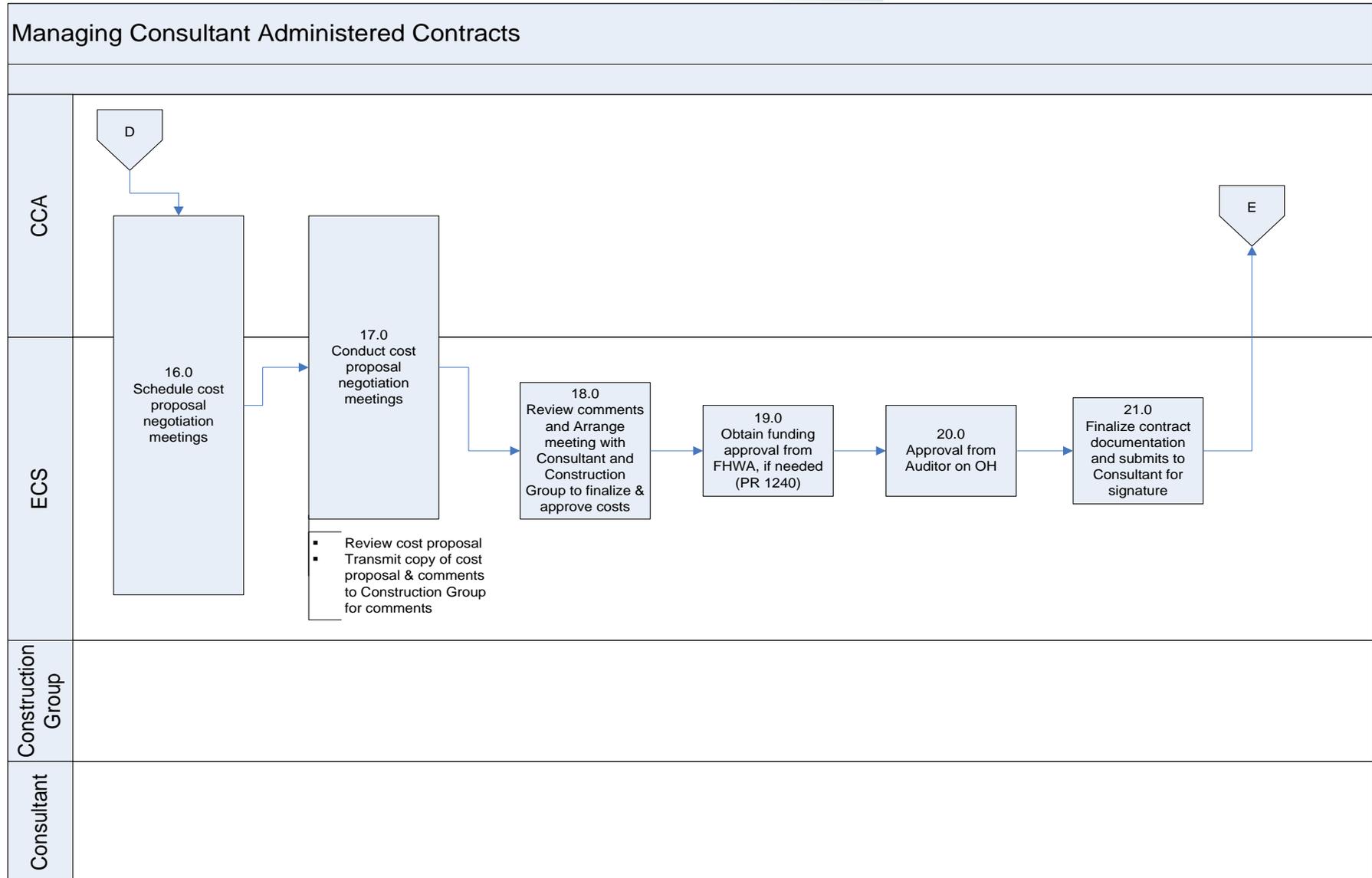


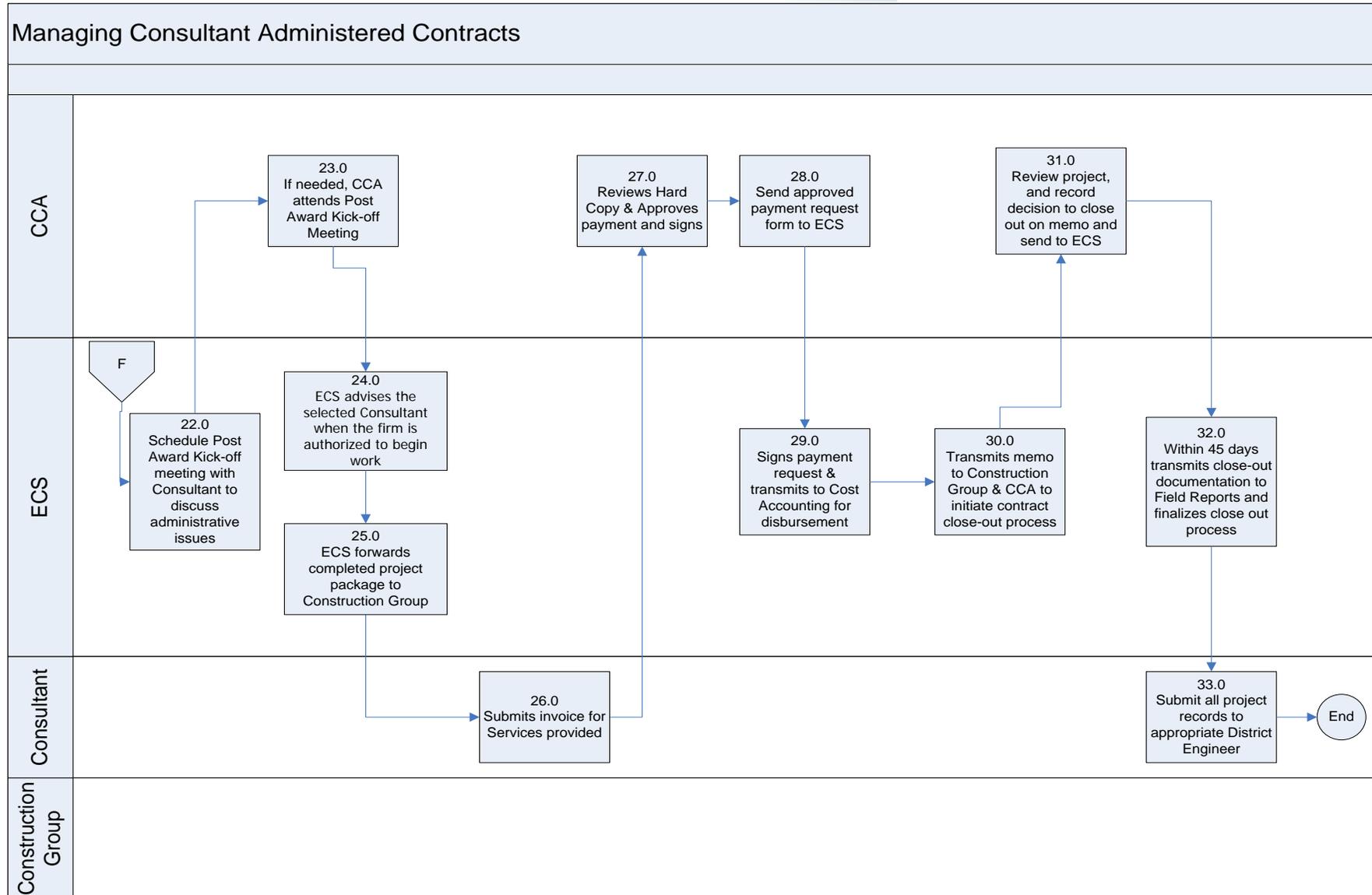
SELECTION, AWARD AND MANAGING A CONSULTANT ADMINISTERED CONTRACT

The following process is used in the selection and monitoring of a Consultant for construction contract administration. The Construction Group evaluates the resource requirements of each Engineering District and coordinates with the District Engineer in identifying projects for Consultant administration and Consultant materials testing.











This expanded procedure includes some key actions and notes required during the process steps.

Selection, Award & Managing a Consultant Administered Contract	
Process Owner:	Date & Revision: 02/22/11 Version 3
Process Step	Key Actions & Notes
1.0 Evaluate the manpower requirements, by district, for contract administration	<ul style="list-style-type: none"> • District Engineer assigns Project Monitor • Coordinate with District Engineer to identify projects for Consultant administration and Consultant materials testing <p>Determine project category</p> <ul style="list-style-type: none"> • Project Specification - Full Service >\$10M – ECS NTP • TTEP – Not project specific – ECS NTP • On-Call <\$10M, not project specific – Multiple task NTP for each task - CCA • On-Call Materials Testing - CCA
2.0 CCA prepares the paperwork to advertise for Consulting Services and Submits through ECMS	<p>Due to last minute changes this coordination is critical to select the right Consultant</p> <p>Prepares information containing</p> <ul style="list-style-type: none"> • Project description • Length of project • Program amount • Project Manager Initiation form <p>Transmits</p> <ul style="list-style-type: none"> • Draft approval to negotiate for Consultant services form (Exhibit 1) • Draft Advertisement form (Exhibit 2) <p>Assign a contract number & Submit through ECMS</p>
3.0 CCA requests participation on selection board from Group Members	Submit through ECMS
4.0 ECS reviews the project package	<ul style="list-style-type: none"> • Complete the documents • Processes for approval



<p>5.0 Prepare approval to PMI form & Obtains necessary approvals</p>	<ul style="list-style-type: none"> • Final Scope of Work • In-house labor estimate by hours • Concept of project <p>This information is developed with knowledge of field review, comments from other ADOT sections (Materials, Structures, Roadside) for each project.</p>
<p>6.0 ECS prepares Statement of Qualifications Packet and Advertisement</p>	<p>CCA makes available Plans and Specials to Consultant</p>
<p>7.0 ECS & CCA establish schedule for selection and recommendations</p>	
<p>8.0 ECS sends confirmation memo to each panel member, includes project schedule and ad</p>	<p>Construction Group covers</p> <ul style="list-style-type: none"> ▸ Technical aspects of project <p>ECS covers</p> <ul style="list-style-type: none"> ▸ Administrative and contractual issues <p>District Representation may attend and covers</p> <ul style="list-style-type: none"> ▸ Short statement concerning project ▸ Q&A
<p>9.0 ECS conducts pre-submittal meeting for administrative & contractual aspects</p>	<ul style="list-style-type: none"> ▸ Conducted as-needed
<p>10.0 CCA – assist at pre-submittal meeting</p>	<ul style="list-style-type: none"> ▸ Conduct as-needed ▸ Technical Project Aspects
<p>11.0 ECS receives and reviews proposals for completeness & conformity</p>	<p>ECS receives and reviews all proposals</p>



<p>12.0 ECS conducts selection panel meeting</p>	<ul style="list-style-type: none"> ▶ Compile scores and comments ▶ Submit final rank order to ECS Contract Specialist ▶ Submit copy of final rank order to Construction Group ▶ Recommend consultant ▶ Approval from Deputy/Deputies
<p>13.0 ECS prepares and sends selection letter to successful Firm(s)</p>	<ul style="list-style-type: none"> ▶
<p>14.0 Attend debriefing sessions – As needed</p>	<ul style="list-style-type: none"> ▶ Discuss technical issues with Consultant
<p>15.0 ECS provides administrative support for the Debriefing sessions</p>	<ul style="list-style-type: none"> ▶ Scoring of proposals ▶ Panel member comments ▶ Administrative issues
<p>16.0 CCA/ECS schedules cost proposal negotiation meetings</p>	
<p>17.0 CCA/ECS conducts cost proposal negotiation meetings</p>	<ul style="list-style-type: none"> ▶ Review cost proposal ▶ Transmit copy of cost proposal & comments to Construction Group for comments
<p>18.0 ECS reviews comments and arranges meeting with Consultant and Construction Group</p>	<ul style="list-style-type: none"> ▶ Finalize & Approve Costs ▶ Update District
<p>19.0 ECS obtains funding approval from FHWA, if needed. (PR 1240)</p>	<ul style="list-style-type: none"> ▶ Verify on FHWA form 1240
<p>20.0 Approval from Auditor on OH</p>	



<p>21.0 ECS finalizes all contract documentation signature</p>	<ul style="list-style-type: none"> ▶ Submit to Consultant for signature
<p>22.0 ECS schedules Post Award Kick-off meeting with Consultant</p>	<ul style="list-style-type: none"> ▶ Invite Consultant ▶ Discuss administrative issues
<p>23.0 CCA attends Post Award Kick-off meeting</p>	<ul style="list-style-type: none"> ▶ As Needed
<p>24.0 ECS advises the selected Consultant when the firm is authorized to begin work</p>	<ul style="list-style-type: none"> ▶ ECS for Full Service contracts ▶ CCA for all other types of contracts ▶ If Consultant must begin work prior to this authorization, Construction group may authorize to incur time prior to contract being fully executed. <i><u>NOT Standard Practice.</u></i> (Exhibit 3 & Exhibit 4)
<p>25.0 ECS forwards completed project package to Construction Group</p>	<p>Construction Group sends copies to</p> <ul style="list-style-type: none"> ▶ District Engineer ▶ Project Monitor with a memo <ul style="list-style-type: none"> ○ Memo will contain <ul style="list-style-type: none"> ▪ Consultant's start date ▪ Names of Consultant's key personnel in Statement of Qualifications ▪ Any other pertinent information agreed on during the negotiations
<p>26.0 Consultant submits invoice for Services provided</p>	<ul style="list-style-type: none"> ▶ Submit through Consultant Invoicing (CI) & Hard Copy ▶ Consultant may only submit one progress payment, per project, per month for approval and payment
<p>27.0 CCA reviews Hard Copy and approves payment and signs</p>	



<p>28.0 CCA sends approved payment request form to ECS</p>	<p>Send Hard Copy as well & approves in CI</p>
<p>29.0 ECS signs payment request & transmits to Cost Accounting for disbursement</p>	<p>Approves in CI</p>
<p>30.0 ECS transmits memo to Construction Group & CCA to initiate contract close out process</p>	
<p>31.0 CCA reviews project and record decision to close out on memo and send to ECS</p>	<ul style="list-style-type: none"> ▸ CCA writes memo ▸ Sends to ECS
<p>32.0 ECS within 45 days transmits close-out documentation to Field Reports and finalized close-out process</p>	
<p>33.0 Consultant submits all project records to Appropriate District Engineer</p>	
<p>If a Contract Modification is Necessary, use the following process</p>	<ol style="list-style-type: none"> 1. Contractor prepares contract modification and submits to CCA 2. CCA approves contract modification and sends to ECS 3. ECS sends formal approval letter to CCA and Firm with changes to contract



ROLE OF THE PROJECT MONITOR

The Project Monitor is responsible for co-managing the Field Administration areas during the project life cycle -

- Surveys
- Materials (Field & Lab)
- Inspections
- Project & Final Documentation
- Monitor Consultant Budget / Supplemental Agreement Project Time
- Monitor Construction Budget

The District Engineer will designate a Project Monitor who must then become familiar with the Consultant's contract requirements, including the construction contract plans and specifications.

One of the Project Monitor's key responsibilities is to observe and ensure ADOT policies, procedures, project plans and specifications are adhered to. The Project Monitor must also be available to assist the Consultant as needed.

How to Manage Consultant Contract - Field Administration	
Process Owner:	Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes
1.0 Project Monitor schedules initial meeting with Consultant	<ul style="list-style-type: none"> • Review the SOW, project site and discuss issues pertinent to the project
2.0 Project Monitor meets with Consultant after cost negotiations are complete <i>For a successful project ADOT's liaison with the Consultant should begin at the very beginning of the project</i>	<ul style="list-style-type: none"> • Establish guidelines and channels for timely flow of all project documentation • Provide information or assistance needed for preconstruction activities • Provide fully executed copy of contract to Consultant • Project Monitor retain copy to use when advising or monitoring • Provide ADOT software (FAST, SATS, CPE, CMP, PEP) • Verify access to ADOT website and information • Verify the Consultant has the complete & latest updates to the ADOT & Technical Library, plus forms <ul style="list-style-type: none"> References for project use <ul style="list-style-type: none"> ○ Standard drawings ○ Standard and Supplemental Specifications ○ Local government agency standards ○ Construction Manual ○ ADOT Materials Testing Manual ○ Materials Policy & Procedure Directives Manual



	<ul style="list-style-type: none"> ○ Manual on Uniform Traffic Control Devices ○ ADOT Traffic Control Manual ○ Forms Warehouse Catalog ○ Others as referenced in Special Provisions • Provide help in completing and submitting project documentation • Recommend pertinent ADOT training for Consultant personnel <ul style="list-style-type: none"> ○ Partnering Evaluation Program (PEP) ○ Construction Progress Estimate software (CPE) ○ Supplemental Agreement Tracking System (SATS) ○ Construction ManPower (CMP)
<p>3.0 Project Monitor encourages the Consultant to contact and communicate with all other necessary ADOT sections and Project Monitor sends email to all ADOT Groups and Sections introducing the Consultant</p>	<ul style="list-style-type: none"> • Project Manager • Materials Group • Regional Materials Engineer • Field Reports Branch • Bridge Group • Roadway Engineering Group • Local Government • Roadside Development Services • Traffic Group • Environmental • Utilities • Right of Way • FHWA • Others depending on Project Scope
<p>4.0 Project Monitor prepares Consultant for Partnering workshop and Preconstruction Conference</p> <p><i>It is possible to combine the Partnering workshop and Preconstruction Conference</i></p>	<p><i>Partnering workshop</i></p> <ul style="list-style-type: none"> • Project Monitor takes lead to work with Consultant to ensure a Partnering workshop is set up per ADOT guidelines • Identify stakeholders and invite to Partnering workshop • ADOT Partnering Section will assist Project Monitor and Consultant set up workshop (Exhibit 6) <p><i>Preconstruction Conference</i></p> <ul style="list-style-type: none"> • Project Monitor helps with agenda and subject matter for in-depth discussion. Refer to Chapter 1 of Construction Manual for additional information. • Project Monitor must attend the Partnering workshop and Preconstruction Conference and most of all of the Consultant meetings throughout the project life cycle. • Project Monitor meeting role is provide Guidance and Technical help and advice.



<p>5.0 Project Monitor coordinates the distribution of required reports, documents and submittal forms</p> <p>Consultant must submit or coordinate the distribution of documents</p>	<ul style="list-style-type: none"> • Partnering Workshop notes • Weekly time reports • Contractor certified payrolls (Consultant verified) • Monthly progress estimates • Concrete mix designs • Asphalt concrete mix designs • Structure reports • Traffic control plans • Falsework drawings and calculations • Electrical materials list • Irrigation and landscaping materials list • Shop drawings (where required) • Daily street an/or lane closures • Weekly narrative report • Weekly staffing plans • Minutes of weekly construction meetings • Weekly materials logs • Materials certifications • Others as required by Project Monitor
<p>6.0 Consultant submits weekly progress reports to Project Monitor</p>	<ul style="list-style-type: none"> • Weekly reports should include Consultant contacts with ADOT or outside organizations during that week
<p>7.0 Project Monitor makes frequent inspections of the project</p>	<ul style="list-style-type: none"> • Ensure contract and specification compliance • All modifications to the Consultant's contract must pass through CCA and ECS for approval • Project Monitor may approve changes in key personnel, general survey staking methods, or approval of overtime, once discussed with CCA • Depending on complexity of project an additional ADOT field representative for technical assistance, may be needed



<p>8.0 Consultant submits final estimate for their work to Project Monitor</p>	<ul style="list-style-type: none"> • Project Monitor reviews final estimate in detail within 45 days • Ensure all changes and costs are justified in accordance with the contract • Project Monitor verifies the Consultant was satisfied all of the contractual obligations, including following – <ul style="list-style-type: none"> ○ Final Estimate submitted to Field Reports with all required documentation ○ Set of “As-Built” plans completed, submitted and signed by the Consultant Engineer ○ Certification stating all work was done in substantial conformance with the Plans and Specifications ○ All payments were made for work performed at agreed bid prices, signed by Consultant Engineer • All Project records sent to District Engineer
<p>9.0 Consultant submits a letter to the Project Monitor stating the project has been completed & all required documents are submitted</p>	<ul style="list-style-type: none"> • If Project Monitor concurs, he will prepare and submit a memo to ECS stating that the project was successfully completed and accepted (Exhibit 14) • List the date of acceptance
<p>10.0 Project Monitor sends copy of Consultant memo and Consultant’s final completion letter to Construction Group</p>	<ul style="list-style-type: none"> • All project documentation has been submitted to appropriate District Engineer • All outstanding Consultant claims are settled or Consultant relived of responsibility for the claim defense
<p>11.0 ECS notifies Consultant, by mail, that contract has been closed out</p>	<ul style="list-style-type: none"> • Complete the contract close-out procedure (Exhibit 15) • Ensure the appropriate documentation is forwarded to FHWA



FIELD ADMINISTRATION CHECKLIST

SURVEY	
	Do I understand the Consultant initial layout
	Aerial Photographs - Are they needed? <i>For help see ADOT Photogrammetry & Mapping Section</i>
	Cross-section material pits – Is it needed?
	Does the existing ground line need to be re-measured (for over 5,000 cubic yard earthwork projects) <i>See Construction Bulletin No. 95-05</i>
	Procedures are used to establish all horizontal and vertical controls
	Field notes are Acceptable <i>Per ADOT Construction Manual</i>
	Consultant personnel are performing all final pay quantities, involving measurement determinations
	Utility Location Ties for all underground utility access in the finished roadway is available and approved
	Utility Location Ties are located in separate field books and in the field office
	All concerned parties understand and agree on the designed structural elevation <i>Look for "dead load" camber designed into structural spans.</i>
MATERIALS	
	Material sampling, testing and reporting is compliant with ADOT procedures <i>See ADOT Materials Testing Manual and Forms Warehouse Catalog</i>
	Consultant coordinated QA Testing by Regional Materials Lab <ul style="list-style-type: none"> <input type="checkbox"/> Acceptance Testing <input type="checkbox"/> Independent Assurance <input type="checkbox"/> Correlation Testing
	Project QC/QA plan is being followed per Special Provisions <ul style="list-style-type: none"> <input type="checkbox"/> Sampling of all materials is ADOT compliant <input type="checkbox"/> Testing of all samples is ADOT compliant <input type="checkbox"/> Test results are reported with time frames <input type="checkbox"/> Test results are logged <input type="checkbox"/> Weekly Materials Reports are accurate and prompt
	Concrete and Asphaltic Concrete mix designs are verified and approved
	Weekly Material Reports and Materials Certifications forwarded to appropriate ADOT office
	Materials Sample Checklist (issued by Materials Section) is itemized by Consultant at project completion



INSPECTION	
	Project involves Clearing and Grading One acre or more <i>See - National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharge</i> <i>See – ADOT Erosion and Pollution Control Manual</i>
	Consultant takes lead during on-site inspections
	Reviewed Consultant's work and discussed concerns or issues promptly
DOCUMENTATION	
	Methods of documentation complies with ADOT Construction Manual
	Consultant utilizes the Construction Progress Estimate (CPE) for payment estimates and other construction documentation
	ADOT developed software requested (Exhibit 16) <i>Include following Attorney General approved language in contract – "ADOT will provide the Consultant with ADOT developed software for the sole purpose of completing this contract, as set forth in the attached Site License Contract (which includes a detailed list of software that will be provided to the Consultant). The software is provided to the Consultant solely for the purpose of completing this contract and for no other purposes. ADOT developed software including: manuals, electronic information, programs, and associated materials remain the property of ADOT. Any use of this software for purposes other than the fulfillment of this contract are strictly prohibited. The Consultant shall not copy the software or provide, distribute or demonstrate the software to other entities. Upon completion of the contract or when otherwise notified by ADOT, the Consultant will return all software, backup copies, manuals, electronic information and associated materials to ADOT."</i>
	Consultant and ECS manager agree to the terms and conditions enumerated with the ADOT Site License Contract (Exhibit 17) and sign <i>Specify</i> <input type="checkbox"/> <i>Number of copies</i> <input type="checkbox"/> <i>Terms and Conditions</i>



ROLE OF CONSULTANT CONSTRUCTION ADMINISTRATION (CCA)

The responsibility of this office is to develop and negotiate all outside service construction contracts. These contracts are developed for projects identified by ADOT districts to be assigned for construction contract administration and construction materials testing assistance.

TYPES OF CONTRACTS

- Temporary Technical Engineering Personnel
- On-Call Construction Contract Administration (\$10million maximum contract estimate)
- Acceptance Materials Testing (\$750,000 contract value)
- Contracts over \$10 million bid estimate are advertised for competitive bidding by qualified consultant firms

The Consultant Construction Administration section co-manages the Contract Administration areas during the project life cycle -

- Contract
- Budget
- Billing
- Reports
- Project Time

CONTRACT & BUDGET

The management of the Consultant contract includes Contract Modifications requiring changes in both the contract and the budget.

Contract Modifications are required if - significant changes in the scope of work, contract duration, or character of work occur; or if significant changes occur in the negotiated cost proposal or if the total negotiated cost increases.

Contract Modification Process	
Process Owner:	Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes
1.0 Need for Contract Mod determined CCA requests Consultant to submit a proposal for a Contract Modification	<ul style="list-style-type: none"> • Submit Change Modification Form (Exhibit 8) and include the following <ul style="list-style-type: none"> ○ Complete SOW for all work that will be accomplished under the Contract Modification ○ Justification for this additional work ○ Complete cost proposal, detailing manhours by tasks, and all additional expenses supported by documentation. Overhead rate and additional net fee must be clearly shown



<p>2.0 CCA reviews Contract Mod to verify its reliability & accuracy</p>	<ul style="list-style-type: none"> • General check for understanding and completeness • Project Monitor review all additional manhour costs, sub-consultant costs and direct expenses, along with accompanying justifications • CCA can provide guidance to Project Monitor for general compliance with federal, state or other internal requirements
<p>3.0 Project Monitor contacts CCA & DE to fully explain the pending Contract Mod, obtain concurrence and determine if it is compatible with original negotiation</p>	<ul style="list-style-type: none"> • CCA will request all documentation be submitted for review before approving • CCA may request they attend meeting for the Mod proposal and are involved in any cost negotiations
<p>4.0 Project Monitor obtains District approval by District Engineer</p>	<ul style="list-style-type: none"> • Do not process any further without District Engineer's verbal approval • Consultant prepares contract modification package and sends to CCA and Project Monitor
<p>5.0 Project Monitor signs Contract Mod and gets Consultant signature</p>	<ul style="list-style-type: none"> • Consultant prepares Contract Mod package <ul style="list-style-type: none"> ○ Contract Modification Form (Exhibit 8) ○ Original letter from Consultant ○ SOW for additional services covered by Contract Mod ○ Detailed Cost Analysis for additional services
<p>6.0 CCA forwards completed package to ECS</p>	<ul style="list-style-type: none"> • Package includes comments and/or recommendations, and transmittal memo
<p>7.0 ECS logs in the package and establishes a file</p>	<ul style="list-style-type: none"> • ECS reviews Contract Mod for general compliance with the contract and other requirements
<p>8.0 ECS obtains additional approvals and distributes</p>	<ul style="list-style-type: none"> • Distribute fully executed Contract Modification to all necessary parties. (Exhibit 9)



CHANGES IN CONTRACT TIME

Time extensions may be necessary under some circumstances. The Consultant contract is generally written to end 45 days after the projected completion of the construction contract.

Changes in Contract Time	
Process Owner:	Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes
1.0 Consultant advises ADOT Project Monitor when 75% of the contract time is used.	<ul style="list-style-type: none"> • Consultant informs CCA & Project Monitor if the project can be completed within the original time frame • If they can't – a detailed analysis outlining the time needed to complete the project must be submitted, along with an extension of time
2.0 Consultant completes request for extension of time and sends to Project Monitor & CCA for review & approval	<ul style="list-style-type: none"> • This must be completed and received by Project Monitor prior to 80% of the contract time being used
3.0 CCA reviews request and justification	<ul style="list-style-type: none"> • If CCA concurs, process changes through CCA for approval
4.0 Consultant submits extension of time request to ECS	<ul style="list-style-type: none"> • Consultant completes Contract Modification form with appropriate signatures from PM. • Forward to CCA for review and approval



CONSULTANT MANPOWER MANAGEMENT

Upon receipt of the Contractor's schedule the Consultant creates a Staffing Plan that is reviewed by the Project Monitor.

Consultant Manpower Management	
Process Owner:	Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes
1.0 Consultant receives schedule and creates Staffing Plan	<ul style="list-style-type: none"> • Guidelines included in ADOT Construction Management Program (CMP) Procedures Manual • Project Monitor determines how Consultant is to complete schedule
2.0 Consultant submits project staffing plan to Project Monitor for approval	<ul style="list-style-type: none"> • ADOT's CMP management system is used for managing and reporting staffing during the project life cycle
3.0 Consultant submits weekly schedule of personnel needed each week to Project Monitor by end of day Friday each week	<ul style="list-style-type: none"> • Reviewed at weekly project meetings • Detail personnel needs for two-week period • Include type and number of technicians for each day over a two-week period
4.0 Project Monitor reviews schedule and reviews with Consultant	<ul style="list-style-type: none"> • Project Monitor approves weekly schedule
5.0 Consultant submits monthly Summary Report of Manhours	<ul style="list-style-type: none"> • Project Monitor provides report format to Consultant • Use activity codes in CMP • Project Monitor reviews and forwards to District Operations Technician for input into CMP database

CONTRACTOR CLAIMS

The current policy is that Consultant Claims are evaluated on an individual basis by ADOT to determine the extent of the role of the Consultant in preparing and presenting evidence of a claim

Contractor Claims



Process Owner:		Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes	
1.0 Project Monitor routes the copies of the claim report to the District Engineer	<ul style="list-style-type: none"> • Procedure for notification is same as current ADOT policy • Project Monitor needs to fully inform District Engineer of any Contractor Claims 	
2.0 On Partnering Projects the Issue Resolution must be followed	<ul style="list-style-type: none"> • The responsibility for pursuing and determining ultimate jurisdictional claim defense comes from ADOT management, either District Engineer and/or CCA 	

DESIGN CONSULTANT ERROR OR OMISSION CLAIMS

When it is determined there is a design error or omission on active construction plans, the Project Monitor is responsible to identify the problem and determine the validity, responsibility and extent of the situation.

Project Monitor should immediately contact CCA when they become aware of any errors or omissions.



CONSULTANT CONTRACT CLOSE-OUT PROCEDURE

At this point in the project the Project Monitor must assure themselves that the Consultant has satisfied all of the contractual obligations relating to the project and the contract, prior to closing the contract.

Consultant Contract Close-Out	
Process Owner:	Date & Revision: 06/06/06 Version 1
Process Step	Key Actions & Notes
1.0 Within 45 days of project acceptance Consultant submits final estimate to Field Reports	<ul style="list-style-type: none"> • Field Reports reviews final estimate, ensuring that changes and costs are justified in accordance with contract
2.0 Project Monitor verifies Consultant satisfied all the contractual obligations	<ul style="list-style-type: none"> • Final estimate submitted to Field Reports with all required documentation • Set of "As-Built" plans completed, submitted and signed by Consultant Engineer • Signed certification from Consultant concerning the results of tests on acceptance samples • Certification stating that all work was done in substantial conformance with Plans and Specifications and all payments have been made for work performed at agreed bid prices • Materials Checklist • Signed by Consultant Engineer
3.0 Consultant submits letter to Project Monitor stating Project completed and all documents have been submitted to appropriate District Engineer	<ul style="list-style-type: none"> • Consultant prepares and submits memo to ECS stating the project was successfully completed and accepted, including date of acceptance (Exhibit 14) • Copy of memo and Consultants final completing letter to CCA
4.0 ECS notifies the Consultant the contract is closed out. ECS completes the contract close-out process	<ul style="list-style-type: none"> • (See Exhibit 15) • ECS contacts Audit & Analysis to evaluate negotiated overheads



BILLING & REPORTS

PAYMENT REPORT PROCESSING

The Consultant may invoice ADOT for each month for work performed on the project. The date of the progress payment report are established with the Consultant, since only one progress payment will be processed per month.

Payment Report Processing – On Call & Full Service	
Process Owner:	Date & Revision: 02/22/11 Version 2
Process Step	Key Actions & Notes
1.0 Consultant sends completed Progress Payment Report Form to the Project Monitor for review & signature	<ul style="list-style-type: none"> • Project Monitor checks payment report and compares it with his monitoring of the contracted services • If necessary, request a complete explanation of any expenditure • Project Monitor approves <p>Categories of review –</p> <ul style="list-style-type: none"> • Are items supported by documentation? • Are expenses reasonable? • Are travel and relocation expenses reasonable in relation to the contract? • Are expenses appropriate and necessary for contract? <p><i>Note</i> – Line items can't be exceeded without approval through a Contract Modification. (exception category – Other Direct Costs)</p> <ul style="list-style-type: none"> ○ <i>Direct Labor</i> – Salaries and wages to employees for direct productive effort on the project. Payment of overtime premium must have prior approval of the Project Monitor ○ <i>Direct Expenses</i> – Normal operating costs from Consultant's facilities including office rental, computers, copy machine, supplies, telephone/fax, utilities, travel, per diem, etc. ○ <i>Sub-consultants</i> – Can us Sub-consultants on as-needed basis, provided the Sub-consultants and rates have prior written approval by a contract modification. The total amount of Sub-consultant cost may not exceed 50% of total contract cost. <p><i>Note</i> – Project Monitor should request detailed billing of all work performed by Sub-consultant. <i>Mark-up of Sub-consultant costs by Consultant is not allowed.</i></p>



2.0 Project Monitor signs Progress Payment Report and forwards Hard Copy to CCA for review & approval	<ul style="list-style-type: none">• CCA will confirm the reports accuracy and compliance with contract documents and payment limitations• CCA forwards Hard Copy to ECS & Approves through CI
3.0 ECS secures additional approvals needed and sends to ECS & Cost Accounting Section for payment processing	<ul style="list-style-type: none">• Consultant can normally expect payment within approximately 21 days, once approved by Project Monitor• Submit through CI• Send Hard Copy electronically



CCA KEY BUSINESS PROCESSES

This section contains Key Business Processes utilized by CCA in their responsibility to co-manage the Consultant Construction Contract and Project.

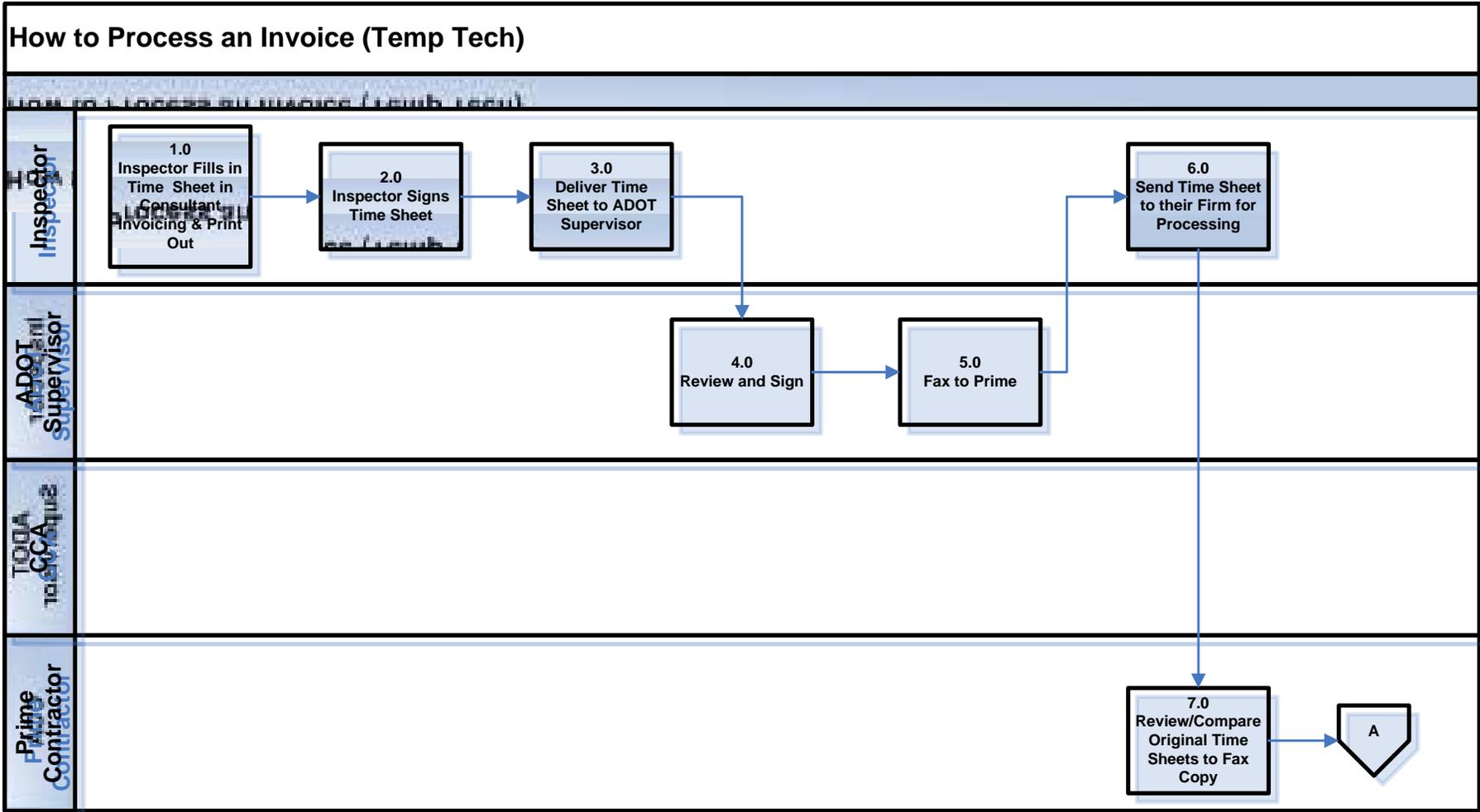
How to Process an Invoice (Temp Tech) in CCA	
Process Owner:	Date & Revision: 02/22/11 Version 4
Process Step	Key Actions
1.0 Inspector Fills in Time Sheet in Consultant Invoicing and Print out	Fill in the following information – <ul style="list-style-type: none"> ▪ Hours ▪ Total ▪ Vehicle expense ▪ Cell Phone (NEW) – <u>MUST BE INCLUDED</u> ▪ Lodging ▪ Meals
2.0 Inspector Signs Time Sheet	
3.0 Deliver Time Sheet to ADOT Supervisor	
4.0 ADOT Supervisor Review & Sign	
5.0 ADOT Supervisor or Employee Fax to Prime	FAX the Time Sheet – Same Day as Signed
6.0 Send Time Sheet to their Firm for processing	Employee delivers their timesheet to their firm for processing Send through Consultant Invoicing
7.0 Review/Compare Original Time Sheet to Fax Copy	Firm reviews/compares Automated Time Sheet to Fax Copy
Is Time Sheet Correct?	Yes – Include Time Sheet in Invoice No – Firm or Employee Corrects time sheet, then sends to ADOT Supervisor ADOT Supervisor Reviews and Signs (Make sure to mark this copy “Revised”. Once correct Fax to Prime

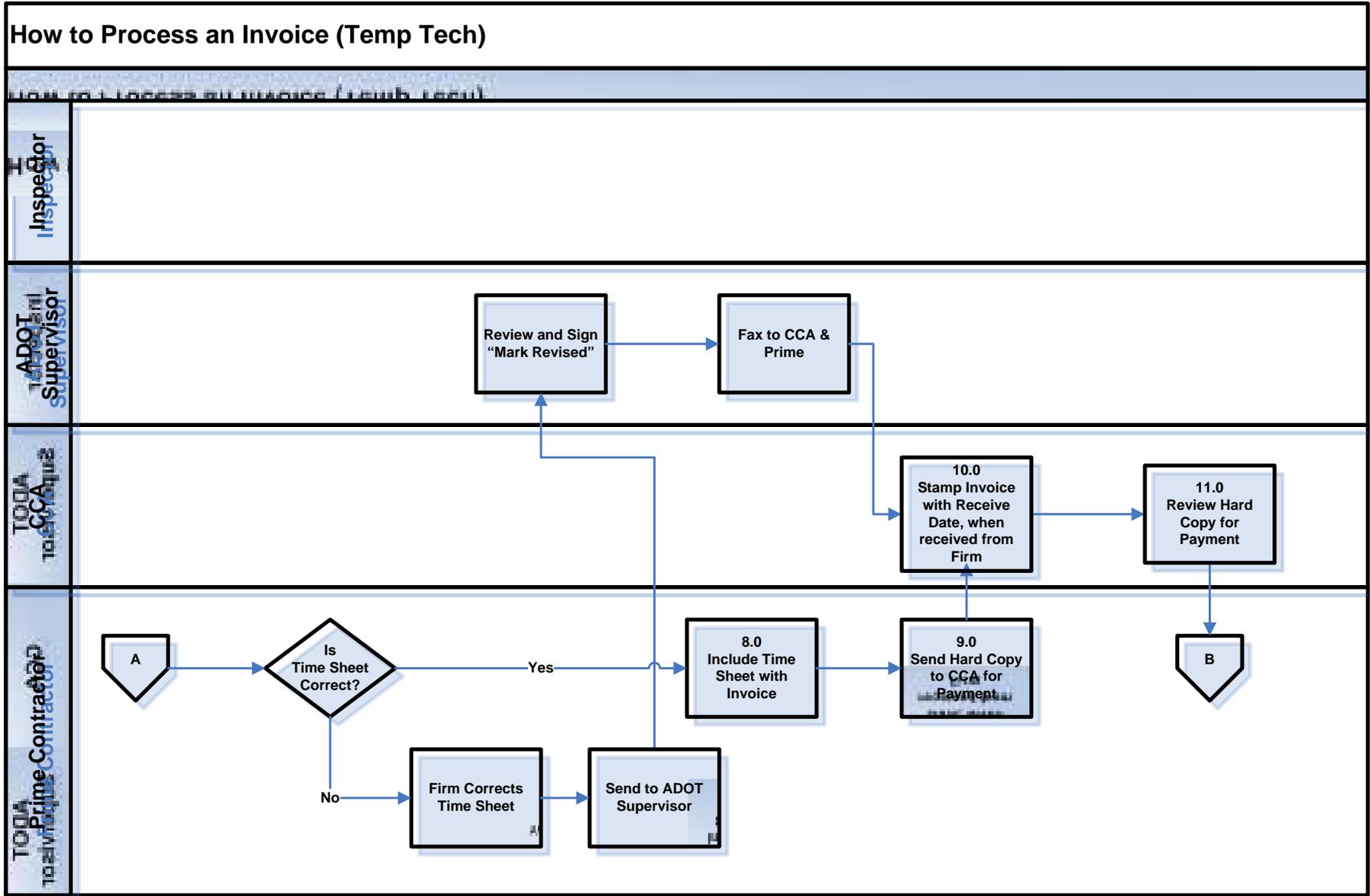


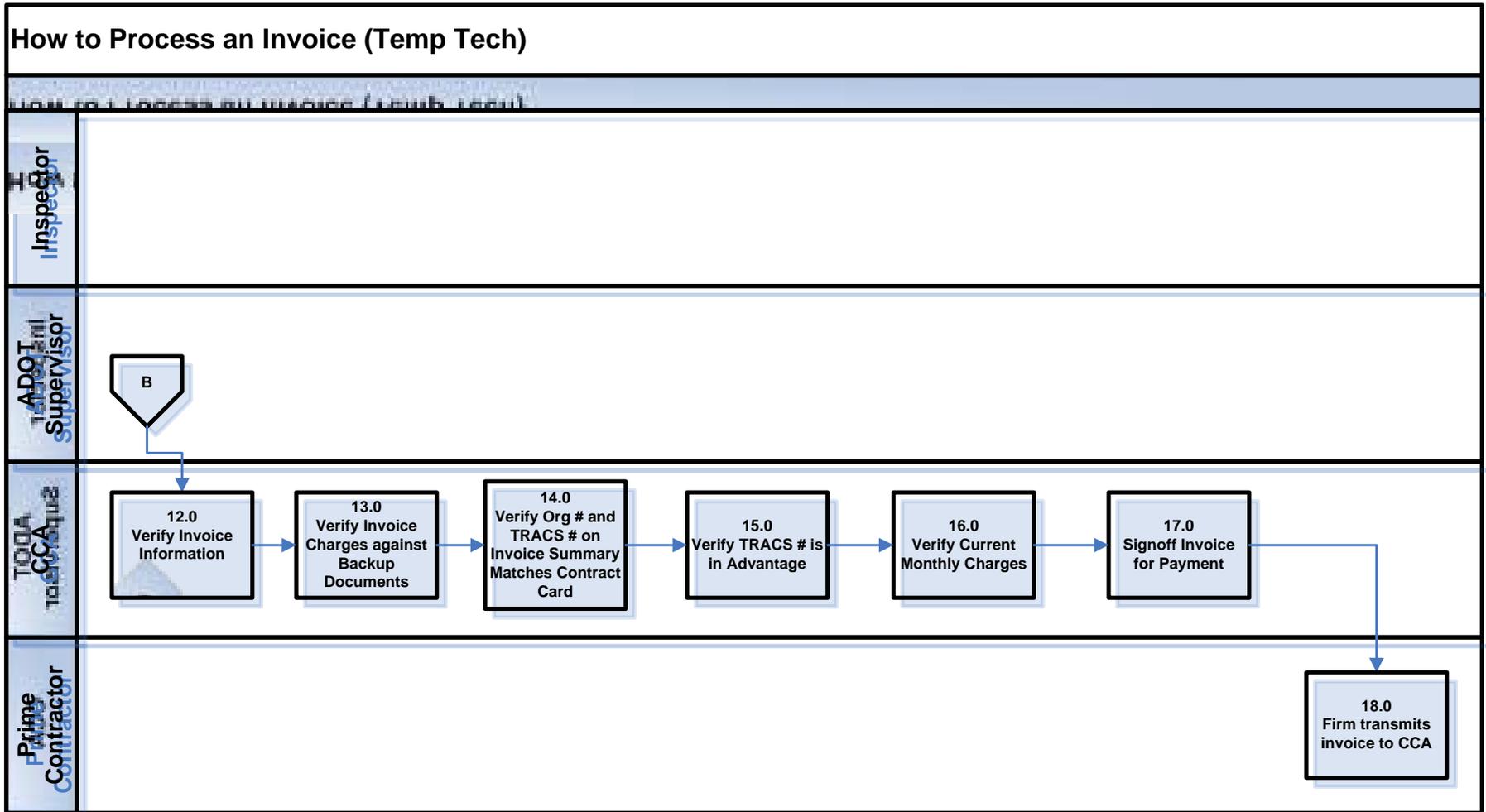
	<p><u>NOTES:</u></p> <p>1. Corrections to the Time Sheet must be completed within 5 days of original submission.</p> <p>2. Reconciliation must be completed during the current billing cycle</p>
8.0 Firm includes Time Sheet with Invoice	
9.0 Firm sends Hard Copy to CCA for Payment	Submit through Consultant Invoicing
10.0 Stamp invoice with receive date, when CCA receives from the Firm	See example in ITT1.1
11.0 CCA reviews Hard Copy for Payment	
12.0 Verify invoice information	<ul style="list-style-type: none"> • Verify the <ul style="list-style-type: none"> ○ Consultant ○ Invoice # ○ Date of Services <p>See Example in ITT1.1</p>
13.0 Verify invoice charges against backup documentation	<ul style="list-style-type: none"> • Backup Documentation includes <ul style="list-style-type: none"> ○ employee time document ITT2.1 ○ expense receipts (hotel) ITT2.2 ○ Auto Lease receipt ITT2.3 • Verify invoice charges against invoice summary (ITT2.4) in the following columns <ul style="list-style-type: none"> ○ Name ○ TRACS ○ Activity ○ Org # ○ ST Rate ○ OT Rate ○ ST Hrs ○ OT Hrs ○ ST Consult \$ ○ OT Consult \$ ○ Miles \$ (individual and total) ○ Vehicle (individual and total)



	<ul style="list-style-type: none"> ○ Air Time (individual and total) ○ TTL Consults (individual and total) <ul style="list-style-type: none"> • Ensure that all Travel Expenses (Per Diem & Hotel rates) meets the ADOT Travel Policy 1/1/2008. See ITT2.5 and ITT2.6
14.0 Verify Org # and TRACS # on invoice summary (ITT2.4) matches Contract Card (ITT3.1)	<ul style="list-style-type: none"> • If the Org # and TRACS # do not match the following is a list of alternate Org #'s that can also be used - <ul style="list-style-type: none"> ○ Central Lab 9958 ○ Tucson Regional 9954 ○ Field Reports 8950 ○ Construction Ops 8999 ○ Holbrook Lab 8740 ○ Flagstaff Lab 8540 ○ Prescott Lab 8840 ○ Landscape 7758 ○ East Area Lab 7755 ○ West Area Lab 7756 ○ Electrical 7759 ○ Survey 7750
15.0 Verify TRACS # in Advantage – • Is Open • Ready for Charges • Has sufficient available balance verify in CPE	<ul style="list-style-type: none"> • Using Advantage Screen, ITT4.1 (Project Budget Line Inquiry), verify the <ol style="list-style-type: none"> 1. Project/Sub-Project # 2. Phase = C 3. Status = O 4. Available Budget Amt • Using Advantage Report, ITT 4.1 to ITT4.2 (Report #22), verify the TRACS # and Total Consultant dollars is correct
16.0 Verify current monthly charges are accurate	<ul style="list-style-type: none"> • Using the current invoice, compare the previous checking accumulative amount to the beginning amount. See example in ITT5.1 • Compare totals and changes made on Previous to current billing • Confirm Project Monitor signoff • Confirm contract amount is sufficient to pay, if not, draft memo to increase contract amount. Must be signed by Julio Alvarado and send to ECS (need location or position). See example in ITT5.2
17.0 Signoff Invoice or Hard Copy for Payment	Must be signed by CCA or Authorized ADOT Representative. See example in ITT5.1
18.0 Firm transmits invoice to CCA	CCA approves and sends to ECS through Consultant Invoicing ECS transmits to Accounting when approved









How to Process an Invoice (On Call) in CCA	
Process Owner:	Date & Revision: 02/22/11 Version 3
Process Step	Key Actions
1.0 Stamp invoice with receive date, when CCA receives from the firm	See example in OC1.1
2.0 Verify invoice information	<ul style="list-style-type: none"> • Verify the <ul style="list-style-type: none"> ○ Invoice # ○ Date of Services ○ Task Order See Example in OC2.1
3.0 Verify invoice charges against backup documentation	<ul style="list-style-type: none"> • Backup Documentation includes <ul style="list-style-type: none"> ○ employee time document OC3.1 ○ expense receipts (hotel) OC3.2 ○ monthly expenses OC3.3 • Verify invoice charges against invoice summary (OC3.4) in the following columns <ul style="list-style-type: none"> ○ Name ○ TRACS ○ Activity ○ Org # ○ ST Rate ○ OT Rate ○ ST Hrs ○ OT Hrs ○ ST Consult \$ ○ OT Consult \$ ○ Miles \$ (individual and total) ○ Vehicle (individual and total) ○ Air Time (individual and total) ○ TTL Consults (individual and total) • Ensure that all Travel Expenses (Per Diem & Hotel rates) meets the ADOT Travel Policy 1/1/2008. See OC3.5 and OC3.6
4.0 Verify TRACS # on invoice summary matches Contract Card (ITT4.1)	<ul style="list-style-type: none"> • On-Call tasks are specific to a project
5.0 Verify TRACS # in Advantage –	<ul style="list-style-type: none"> • Using Advantage Screen, OC4.1 (Project Budget Line Inquiry) and OC4.2, verify the <ul style="list-style-type: none"> 5. Project/Sub-Project #



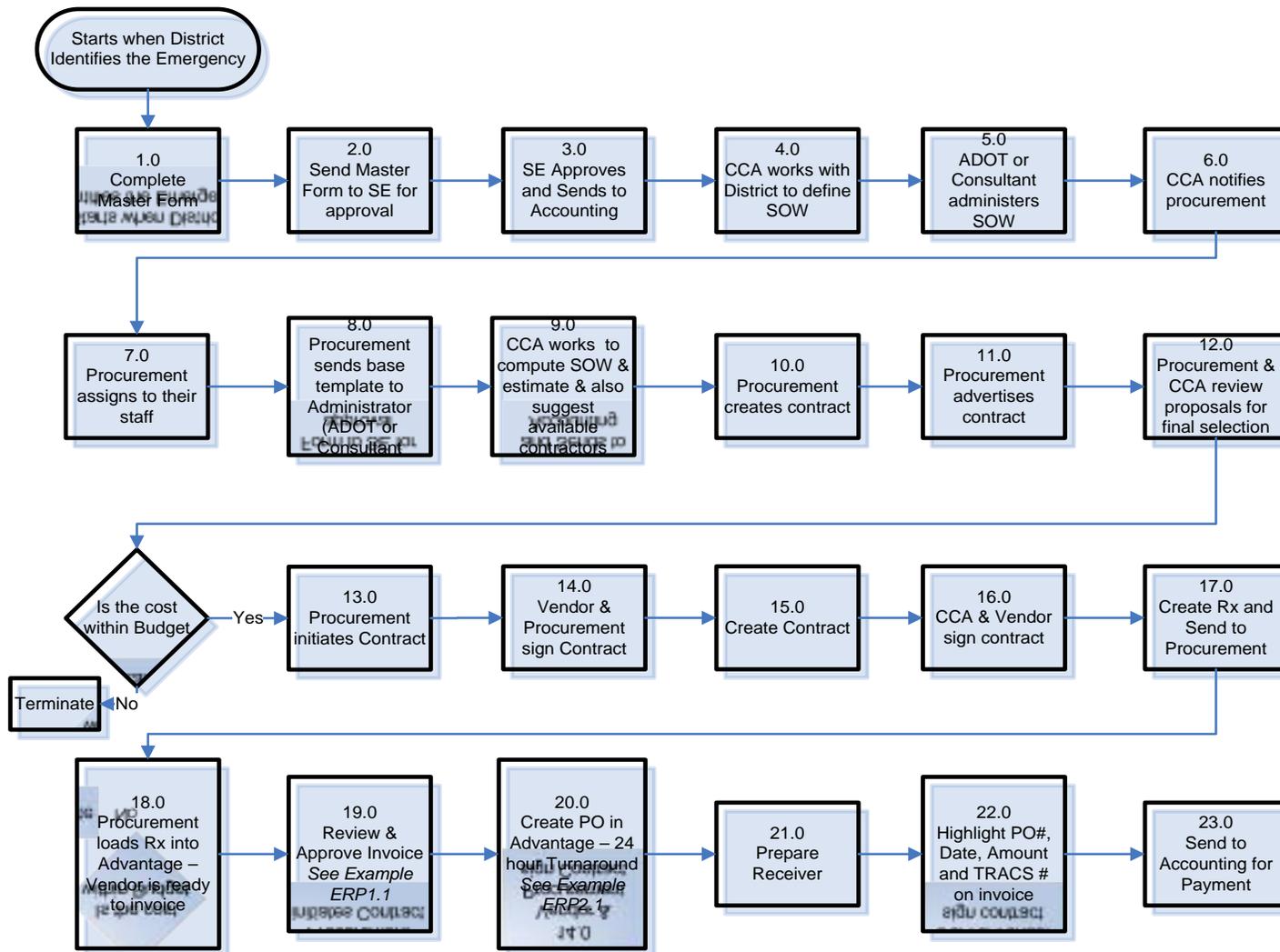
<ul style="list-style-type: none"> • Is Open • Ready for Charges • Has sufficient available balance 	<ul style="list-style-type: none"> 6. Phase = C 7. Status = O or R 8. Available Budget Amt • If funding is insufficient the Consultant requests an increase in funds document (OC5.1) and gets all proper signatures. Forward to Julio Alvarado for Approval & Signature.
<p>6.0 Verify current monthly charges are accurate</p>	<ul style="list-style-type: none"> • Using the current invoice, compare the previous checking accumulative amount to the beginning amount. See example in OC5.1 • Compare totals and changes made on Previous to current billing • Confirm Project Monitor signoff • Confirm contract amount is sufficient to pay <ul style="list-style-type: none"> • Re-Alignment – OC6.1 <ul style="list-style-type: none"> ▪ Consultant submits request for re-alignment of funds to CCA for review & approval. ▪ CCA sends to ECS for approval ▪ ECS sends formal authorization for re-alignment – OC6.2 • Budget Increase – OC6.3 <ul style="list-style-type: none"> ▪ If contract amount exceeds original contract amount, submit formal request to CCA. ▪ CCA sends to ECS for approval ▪ ECS sends formal authorization for budget increase
<p>7.0 Signoff Hard Copy of Invoice for Payment</p>	<p>Must be signed by CCA or Authorized ADOT Representative. See example in OC7.1</p>
<p>8.0 CCA completes invoice</p>	<p>CCA fills out cover sheet and copies invoice, but not backup information. CCA sends Hard Copy to ECS (OC8.1) and files copies by Consulting Firm and approves in Consultant Invoicing</p>



How to Process a Call Out	
Process Owner:	Date & Revision: 02/22/11 Version 2
Process Step	Key Actions
1.0 CCA Receives a Call Out request	The Call Out request (CO1.1) is initiated by the District, Resident Engineer (RE) or Construction Manpower Analyst (CMA) who will then email or fax a formal request to Consultant Contract Administrator (CCA). See completed example in CO2.1
2.0 CCA chooses a Temp Tech Firm currently under contract	CCA selects the firm based on <ul style="list-style-type: none"> ○ Rotational ○ Qualifications ○ Certifications ○ Dollars See example in CO4.1
3.0 CCA contacts the Tech Firm for the assignment to be filled.	<ul style="list-style-type: none"> • The Tech Firm will initially give a verbal confirmation of assignment
4.0 CCA sends confirmation email	<ul style="list-style-type: none"> • Confirmation email is sent to Tech Firm, CMA & Reporting parties • See examples of email • Firm Submits CARF for Consultant Employee assigned • ADOT processes CARF through Data Security • Help Desk assigns Temporary ID until CSA Class is taken • Permanent ID is assigned a Heat # and is opened when a Laptop is needed
5.0 Call Out logged into Manpower	<ul style="list-style-type: none"> • The tracking system is for Temp Techs currently on assignment See example in CO4.1
6.0 Proper documentation is filed	<ul style="list-style-type: none"> • Copy of email confirmation (CO3.1) is filed by Consulting Firm
7.0 Upon completion of assignment an Evaluation is completed	A copy of the Evaluation goes to CCA and the Tech Firm. See example in CO5.1
8.0 Conduct monthly check of Temp Tech Assignments	CCA compares the Consultant Log to Temp Tech Log to ensure accuracy of assignments, using Manpower See example of Primary Work Schedule in CO6.1



Creating an Emergency Repair Procurement Contract





ADOT/FHWA OPERATING PARTNERSHIP

The ADOT-FHWA Operating Partnership shall apply to all Federal-aid projects administered by ADOT under Title 23 U.S.C. ADOT will administer projects according to the following:

- ▶ Guarantee that all eligible projects administered under this ADOT-FHWA Operating Partnership are in full compliance with all applicable Federal statutes, Executive Orders, and FHWA regulations and standards to the same extent as if such statutory provisions, regulations and standards were enacted or promulgated pursuant to laws of the State.
- ▶ Pursuant to the provisions of 23 USC 106(b) perform the responsibilities of the FHWA relating to specific project development functions, including but not limited to, the following:
 - Approve or Reject
 - Project locations and/or designs
 - Concept or design submissions during project development, including basic design features, structural sections, preliminary bridge plans, etc.
 - Project plans, specifications, estimates and related project documentation
 - Other project related contracts or agreements as might be necessary from time to time in the development or execution of projects, such as railroad agreements, utility agreements, etc.
 - Project financial accounting and audit procedures
 - Local government's procurement policies, procedures or practices and ensure compliance with the requirements of 49 CFR 18.36 and 23 CFR 172.
 - Grant or Decline
 - Approvals to advertise for bids from construction contractors
 - Approvals to award construction contracts
 - Oversee and Ensure
 - Proper administration of project construction, construction supplemental agreements, construction engineering, final acceptance or construction projects and final vouchering
- ▶ Accomplish the policies and objectives of the provisions and objectives of 23 U.S.C. by:
 - Involving the public in the development of projects in the location and design stages
 - Application of appropriate design and construction standards
 - Ensuring emphasis on increasing safety in location, design and construction of projects



- Establishing and enforcing controls to assure quality and economy of construction and maintenance
- Establishing and enforcing provisions for adequate signing, marking and traffic control devices
- Minimizing the adverse economic, social or environmental impacts of any project
- Requiring equal employment opportunity and nondiscrimination
- Requiring construction contractor on-the-job training
- Requiring competitive bidding and payment of Davis Bacon rates on project construction contracts
- Preservation of natural beauty
- Compliance with the Disadvantage Business Enterprise program

All Federal-aid projects require a Project Documentation Form. The form may originate in the Roadway Pre-design, Roadway Design or Local Government Section. In addition to project number, location and Five Year Construction Program information, the form requires a description of the proposed work and the estimated construction cost. The originator will forward the form to Project Funding in the Administrative Services Division. Project Funding will assign a "P" to all projects administered by ADOT under the ADOT/FHWA Operating Partnership

ADOT-FHWA OPERATING PARTNERSHIP FOR LOCAL AGENCIES

As noted elsewhere in this ADOT-FHWA Operating Partnership, ADOT will assist a Local Agency in the development and construction of Federal-aid projects except when that Local Agency obtains ADOT approval of it's procedures or is authorized for self-administration.



DEFINITIONS

Construction Contract – The written agreement between ADOT and the contractor setting forth the obligation for the performance of the construction work, the furnishing of labor and materials, and the basis of payment for such work.

Construction Group – The ADOT section, within the Intermodal Transportation Division, that is responsible for all procedures in the selection of a Consultant for Construction Contract Administration.

Consultant – A consultant engineering firm whose members are qualified and capable of performing the intended contract administration and engineering services.

Consultant Contract – The written agreement between ADOT and the selected Consultant setting forth the SOW to provide engineering services necessary to accomplish the contract administration of the construction contract, and the basis of payment to the Consultant for such work.

Consultant Engineer – The Arizona Registered Professional Engineer is provided by the Consultant to function as the Resident Engineer administering the construction project.

Contract Administration – The management of a construction contract by ADOT or a Consultant, including all required engineering services and related measures to administer the construction contract.

Contractor – The successful bidding contractor awarded the Construction Contract by ADOT to build the designated project.

Engineering Consultant Services (ECS) – The ADOT Service, within the Highway Development group, that is responsible for the execution and administration of the Consultant Contract between ADOT and the selected Consultant.

Partnering Process – Is the paradigm of owner/supplier relations with emphasis on up-front team building, clear definition of common objectives, synchronized systems for rapid resolution and frequent, joint evaluation of partnership effectiveness.



Project Leader – The individual assigned by the Construction Group who has the responsibility of ensuring that all Construction Consultant-Administered Projects are completed following all Highway Operations and Valley transportation procedures. The Project Leader;

- ▶ Assist Districts in selecting projects for Consultant Contract Administration
- ▶ Prepares all necessary documents to advertise for outside services (Consultant)
- ▶ Selects committee to reviews the Request for Proposal (RFP) in coordination with ECS and assist in final selection and award
- ▶ Reviews the SOW with Consultant and negotiates a cost proposal submitted by Consultant
- ▶ Assists the Project Monitor in their duties during the construction project

Project – The construction activity to be accomplished by the Contractor. Also can be used to describe the jurisdictional work activities of the Consultant in relation to the designated construction activity.

Project Monitor – The ADOT District representative, appointed by the responsible District Engineer, assigned to function as liaison and to monitor the Consultant's activities.

Scope of Work (SOW) – A detailed description of the work activities required to be performed by the Consultant. The Scope of Work is part of the package included in all ADOT Consultant Contracts issued by ECS.

Sub-consultant – Any consultant hired by the prime Consultant to perform contract-related services. All sub-consultants must be approved by ECS and the Construction group before their contract with the prime Consultant will be recognized for inclusion in the Consultant Contract.

Statement of Qualifications – A very detailed, comprehensive and professional package of information from the Consultant concerning the proposal project. Generally Consultants will address the following areas:

- ▶ Project understanding and approach
- ▶ Project team
- ▶ Firm's capabilities and references
- ▶ Disadvantaged Business Enterprise participation and Affirmative Action Plan
- ▶ Total Quality Management (TQM) within Consultant organization



RESOURCES

Consultant Construction Administration

Julio C. Alvarado

602-712-7323

JAlvarado@azdot.gov

Michelle Bowser

602-712-7325

MBowser@azdot.gov

Partnering Office

Teresa Welborn

602-712-7399

206 South 17th Avenue

Room 192

Mail Drop 175A

Phoenix, Arizona 85007

<http://www.azdot.gov/CCPartnerships/Partnering/index.asp>



REFERENCES

Arizona Department of Transportation

100 Series Workbook – 1993

- Field Sampling and Testing of Earthwork (Course # 101)
- Excavation and Embankment Inspection (Course # 102)
- Pipe Placement Inspection (Course # 103)
- Subgrade and Base Course Inspection (Course # 104)
- Incidentals Inspection (Course # 105)

200 Series Workbook – 1993

- Field Sampling & Testing for Concrete Construction (Course # 201)
- Incidental Concrete Structures Inspection (Course # 202)
- Concrete Paving Inspection (Course # 203)
- Major Concrete Structural Inspection (Course #204)

300 Series Workbook – 1993

- Field Sampling and Testing for Bituminous (Course # 301)
- Prime, Flush and Tack Coat Inspection (Course # 302)
- Chip Seal Inspection (Course # 303)
- Asphaltic Concrete Plant Inspection (Course # 304)
- Asphaltic Concrete Pavement Inspection (Course # 305)
- Inspection of Pavement recycling (Course # 306)

Construction Manual

http://www.azdot.gov/Highways/ConstGrp/const_manual/index.asp

Construction Manual Forms

http://www.azdot.gov/Highways/ConstGrp/const_manual/Alphabetical.asp

Construction Management Program Procedures Manual – 6/95

Construction Office Training Manual – Volumes I & II

Erosion and Pollution Control Manual – 1995

www.azdot.gov/ADOT_and/Storm_Water/PDF/EC_020105/Appendix_C.pdf

Fast Project

- Construction Progress Estimates (CPE) for Windows - 1995

Materials Testing Manual



Materials Policy and Procedures Directives Manual

Partnering Manual for Contractors

http://www.azdot.gov/CCPartnerships/Partnering/PDF/PEP/Const_Contractors_Users_Guide.pdf

Pay Item Documentation for Inspectors - 1995

**US Department of Labor,
Occupational Safety and Health Administration (OSHA)**

OSHA Safety and Health Standards for the Construction Industry (29CFR Part 1926) – 9/95

**US Department of Transportation,
Federal Highway Administration**

Manual of Uniform Traffic Control Devices (MUTCD), Part VI Standards and Guide for Traffic Controls for Street and Highway Construction Maintenance, Utility, and Incident Management Operations, Rev 3 - 9/93

ADOT/FHWA Operating Partnership – Attachment 2
Administrative Procedures for Federal-Aid Projects - 5/96



EXHIBITS

- Exhibit 1 Approval to Negotiate for Consultant Services Memorandum
- Exhibit 2 Request for Statements of Qualification for Consultants
- Exhibit 3 ECS Authorization to Begin Work
- Exhibit 4 Construction Group Memorandum Authorizing Cost to Incur Prior to Execution of Contract
- Exhibit 5 List of Forms for Construction Evaluation
- Exhibit 6 (Fine-Tuned) Partnering Process
- Exhibit 7 ADOT Form 12-6903 (E-form)
- Exhibit 8 Contract Modification
- Exhibit 9 Executed Contract Modification Memorandum
- Exhibit 10 Verbal Authorization Form Letter
- Exhibit 11 Hold Status Letter to Consultant
- Exhibit 12 ECS Hold Status Letter to Consultant
- Exhibit 13 ECS Notification of Hold Status/Completion Date
- Exhibit 14 Project Completion and Acceptance Memorandum
- Exhibit 15 Project Close-Out
- Exhibit 16 TIR Request Form
- Exhibit 17 ADOT Site License Contract
- Exhibit 18 Invoice Processing for Temporary Technical Engineering Personnel