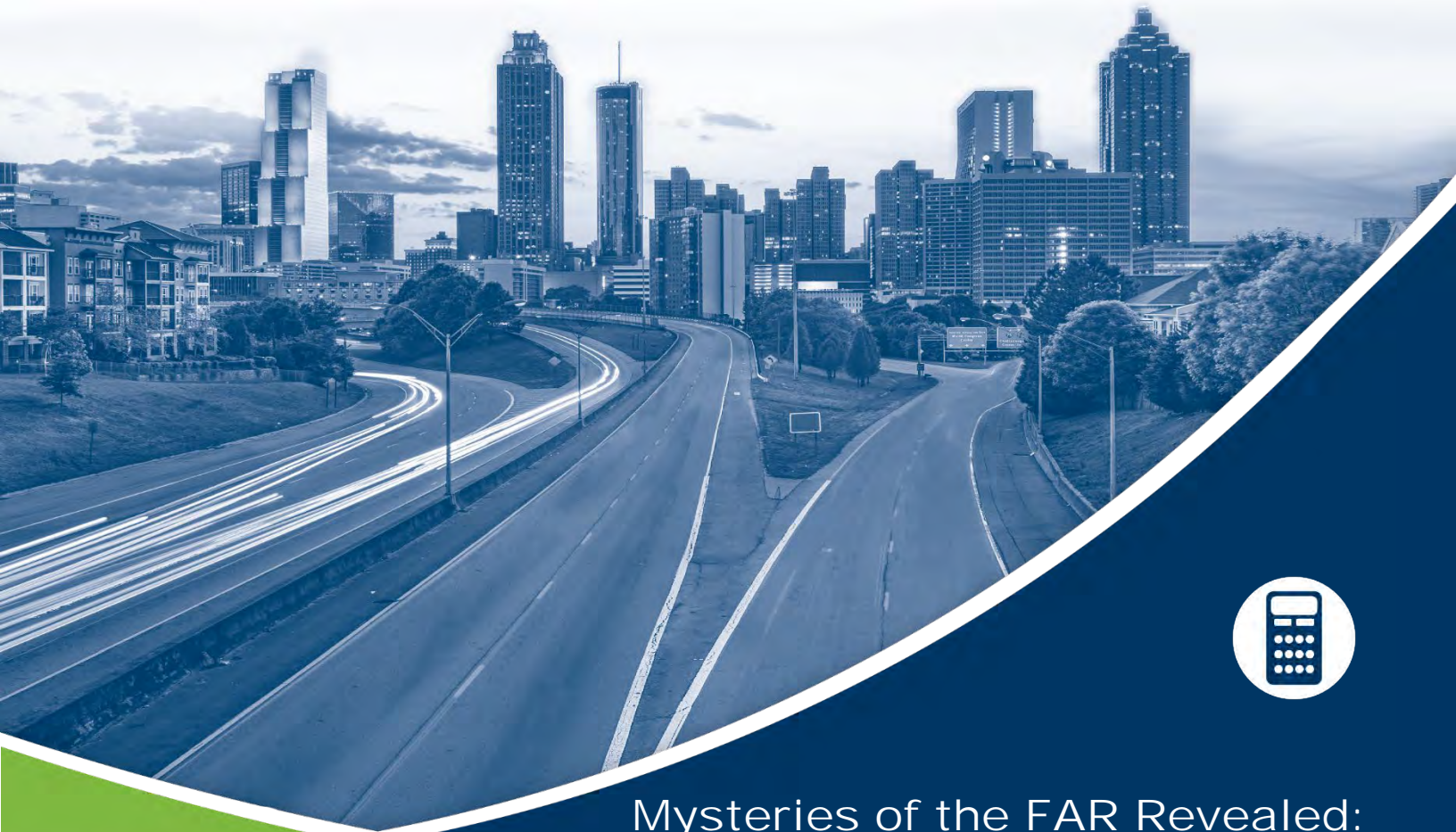




U.S. Department of Transportation  
**Federal Highway Administration**



# Mysteries of the FAR Revealed: Using the AASHTO Audit Guide for Procurement and Administration of A/E Contracts

## **Instructor Guide**

### **July 2021**



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NHI 231028 Mysteries of the FAR Revealed:  
Using the *AASHTO Audit Guide* for the  
Procurement and Administration of A/E Contracts

Instructor Guide

## About the Instructor Guide

The instructor guide is designed to be a comprehensive tool for facilitating the course. Thoroughly reviewing this document, as well as all related course materials and resources, will prepare you to teach the course.

The format for each page of the main instructional content is listed and described below. This information is provided so you can utilize these elements appropriately and effectively as you prepare to teach.

**Slides** – The facilitation of the course is supported by a PPT presentation. Each slide in the presentation is displayed in the instructor guide, with relevant facilitation information below it.

**Key Message** – The key message provides helpful guidance to make transitions between slides, activities, or lessons. It also serves as a summary of the information to be discussed for each slide. The key message is not intended to be a script and should not be read to the class.

**Facilitation Guidance** – It is expected that, as a subject matter expert, you do not need guidance on what to say for each slide beyond that which is provided in the key message and background. However, often a slide contains animation, requires questions be asked, or includes an activity or video. In these instances, instructions are provided so you are able to facilitate the content as the course designer intended. These detailed instructions include information on timing, activity length, materials needed, directions to participants, and answers to questions.

**Background** – Whenever relevant, the background section is included to provide supplemental information to the slide content. Although you, as a subject matter expert, already possess this knowledge, it may serve as a reminder of any content that should be communicated to participants before advancing to the next topic or serve as a handy resource for detailed content, such as legal references, report titles, or dates.

**Notes** – This section lists specific references that support the content and may be of use to participants. It also includes considerations pertaining to facilitation.

**Activity Time** - This section indicates the overall length of the lesson or an activity. It may also be used to indicate recommended timing for breaks.

**Preparation** – This section appears at the beginning of every lesson under the lesson title slide. It indicates all steps you need to take to prepare for facilitation of the lesson.

**Lesson Resources** - This section appears at the beginning of every lesson under the lesson title slide. It indicates all materials that you should have on hand to teach the lesson and any ancillary resources used to develop the content.

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National Highway Institute (NHI) is accredited by the International Accreditors for Continuing Education and Training (IACET) and is authorized to issue the IACET Continuing Education Unit (CEU). As an IACET Accredited Provider, NHI offers CEUs for its programs that qualify under the ANSI/IACET Standard. NHI is authorized by IACET to offer .8 CEU for this program.

## Course Description

This training includes nine lessons as follows:

- Lesson 1 provides an overview of government contracting for A/E services and the related roles and responsibilities.
- In Lesson 2, participants learn about the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each.
- Lesson 3 provides an overview of the A/E project cycle.
- In Lesson 4, a case study approach is used to help participants learn key cost principles related to direct and indirect costs, allowability, allocability, and reasonableness.
- Lesson 5 focuses on the importance of internal controls.
- In Lesson 6, participants discuss key areas of costs and learn to use the *AASHTO Uniform Audit & Accounting Guide* to better understand directly-associated costs and whether specific indirect costs are allowable. A case study helps participants to practice the application of these principles.
- Lesson 7 focuses on audit types, related roles and responsibilities, and the use of audit information in the A/E contracting process.
- Lesson 8 offers a discussion of the risk management framework, oversight, and cognizance. Participants also review a sample cost proposal and related contract language to begin linking audit information, cost proposals, and contracts.
- In Lesson 9, participants review a list of select tools and resources that support the administration of A/E contracts. The instructor also conducts a course review and administers the final assessment.

Detailed lesson plans and visual notes are located in Sections XII and XIII.

The AASHTO Audit Subcommittee initially released the *AASHTO Audit Guide* in 2001. The Guide was subsequently revised in 2005. In 2007, a sub-committee made up of representatives from AASHTO, FHWA, ACEC, and the CPA community began updates to ensure that the Guide was consistent with current auditing standards and procedures, accounting principles, and Federal regulations, as well as that it addressed questions and concerns expressed by various parties, including the FHWA, State DOT audit agencies, A/E firms, and public accounting firms.

The necessity and timeliness of the update is reflected in the findings and recommendations in an audit by the U.S. DOT's OIG, and documented in the audit report, "Oversight of Design and Engineering Firms' Indirect Costs Claimed On Federal-Aid Grants" (Report Number: ZA- 2009-033) issued February 5, 2009.

## Target Audience Description

- Members of the following organizations...
  - Federal Highway Administration (FHWA)
  - State Departments of Transportation (DOTs)
  - Architectural and Engineering (A/E) firms
  - Local governments
  - Certified Public Accountant (CPA) firms
- ... who perform one or more of the following roles:
  - Procure A/E services and administer A/E contracts.
  - Manage A/E contracts.
  - Ensure compliance with A/E contracts.
  - Provide oversight of local A/E contracts.
  - Manage A/E projects.
  - Develop A/E cost proposals.
  - Allocate resources.
  - Manage risk in A/E projects.
  - Pay A/E consultants.
  - Audit A/E projects.
  - Close out and perform final reconciliations of A/E contracts.
  - Design and enforce internal control systems in A/E firms.
  - Sell A/E services to State DOTs and Local Public Agencies.

## Course Goal

The FHWA's program goals for this series of courses related to the *AASHTO Audit Guide* are:

- Increased CPA audit quality
- Clarity on State DOT, A/E firm, and FHWA roles and responsibilities
- Consistency in FAR Part 31 cost principle interpretations
- Compliance with the FAR Part 31 cost principles by A/E firms

## Course Learning Outcomes

Upon completion of this training program, each participant should be able to:

- Explain the Federal and State laws, regulations, policies, and procedures relating to the procurement of A/E services and administration of A/E contracts.
- Describe key components of the A/E project cycle.
- Differentiate between the concepts of allowability, allocability, and reasonableness, and provide examples illustrating the participants' understanding.
- Identify and discuss concepts of direct and indirect, and allowable and unallowable costs in A/E contracts.
- Compare and distinguish among contract types and implications on cost accounting, costing, and billing.
- Explain how to use audit information in the procurement of A/E services and administration of A/E contracts.
- Locate selected tools and resources to assist in the procurement of A/E services and administration of A/E contracts.
- Clearly distinguish/clarify differences between allocated project costs and billed costs.

## Class Size

The maximum class size permitted by NHI is 30 people; however, the smaller the class sizes the better, with a minimum of 20.

## Classroom Setup

NHI will ship 30 copies of the Participant Workbooks and the *AASHTO Uniform Audit & Accounting Guide (AASHTO Audit Guide)*, as well as handouts and the final assessment, and the administrative package to the State DOT Training Coordinator to the address shown on the Course Request Form (1530).

The Participant Workbook and the *AASHTO Audit Guide* should be placed at each participant's seat by the State DOT Training Coordinator prior to the beginning of the first day of class. A writing pad should also be provided for each participant.

NHI will provide rosters and sign-in sheets, tent cards, course evaluation forms, participant registration forms, name tags, pencils, and course certificates. The State DOT coordinator must notify the NHI Course Scheduler concerning any changes to the number of manuals or to the shipping address.

The room will be large enough to accommodate workspace and chairs for up to 30 participants and the instructor plus equipment—a large conference room or classroom.

Instructors will arrange the classroom, as they deem most appropriate given the number of participants. (The ideal arrangement allows participants to interact with the instructor and each other; e.g., a U- or V-shape arrangement, clusters of work areas, etc. Avoid "lecture hall" type of arrangements.) All participants should be able to see the screen and the instructor. Participants and instructor should be able to move about the room without obstruction.

A preparation table and presentation table should be provided for the instructor. The presentation table will be for the audiovisual equipment and the preparation table will be for the instructor's materials. The room should be in a quiet area and have a lighting system that permits convenient dimming of the lights, especially where the screen is located.

### Participant Requirements

In addition to the Participant Workbook and the *Audit Guide*, the State DOT and/or FHWA Field Office should provide notepads and pens, or instruct participants to bring notepads and pens with them.

Participants are required to bring a calculator.

### Course Organization

Lessons
1 – Introduction to Government Contracting for A/E Services
2 – The Statutory and Regulatory Framework
3 – The A/E Project Cycle (Qualifications Based Selection)
4 – Key Cost Principles
5 – Internal Control Systems
6 – Key Areas of Cost, Including Compensation
7 – The Use of Audit Information
8 – The Risk Management Framework, Oversight, and Cognizance
9 – Course Review and Final Assessment

## Course Agenda

Total Time = 7 hours and 45 minutes

Total Desired Contact Time = 6 hours and 40 minutes

Time	Lessons
8:00 – 9:05	1 – Introduction to Government Contracting for A/E Services
9:05 – 9:45	2 – The Statutory and Regulatory Framework
9:45 – 10:00	<i>BREAK</i>
10:00– 10:40	3 – The A/E Project Cycle (Qualifications Based Selection)
10:40 – 11:20	4 – Key Cost Principles
11:20 – 12:00	5 – Internal Control Systems
12:00 – 1:00	<i>LUNCH</i>
1:00 – 2:15	6 – Key Areas of Cost, Including Compensation
2:15 – 3:00	7 – The Use of Audit Information
3:00 – 3:15	<i>BREAK</i>
3:15 – 4:10	8 – The Risk Management Framework, Oversight, and Cognizance
4:10 – 5:15	9 – Course Review and Final Assessment

## Instruction Presentation Checklist

### Request for Training

1. NHI State DOT hosts request training by completing a host request form on-line at the NHI Website <http://www.nhi.fhwa.dot.gov/>. When you receive notice from NHI that a session has been requested, you must contact the designated individual within two weeks to establish the session date.
2. Once the session is confirmed and you have received the session confirmation email from NHI, be sure to complete the following preparation steps:
  - ☐ If you are not listed in the NHI system as the main point of contact for the course, ask the contact person to forward you the session confirmation email. It contains important information such as the course number and session number.

- ☐ Be sure that you are registered with NHI as an instructor and that you have the four-digit instructor code. If you experience problems registering on the website, contact the NHI Instructor Liaison at [NHIInstructorLiaison@dot.gov](mailto:NHIInstructorLiaison@dot.gov)

## Materials

The instructor will use the following curriculum materials:

### 1. Instructor Materials

- ☐ Instructor Guide: Contains introductory information, lesson plans, slides with comprehensive instructional notes, examples and activities with answers, and supporting information such as a list of acronyms, a glossary, and references.
- ☐ PowerPoint slide decks for each lesson
- ☐ Copies of all participant materials

### 2. Participant Materials

- ☐ Participant Workbook: Contains introductory information, screen shots of all slides (exclusive of review questions), examples, activities, and supporting information such as a list of acronyms, a glossary, and references.
- ☐ Reference Manual: Contains reference documents that are used to supplement the course content.
- ☐ The *AASHTO Uniform Auditing & Accounting Guide*
- ☐ Handouts: Answers to Activities 4-1, 7-1, and 8-1.

## Initial Tasks

1. Confirm the training dates, location, and number of participants with the Local Host/Coordinator.
2. Work with the Local Host/Coordinator to set the start and end times for the session.
3. Ask the Local Host/Coordinator for any examples or concerns that will help you provide relevant examples for the local environment.
4. Read and study all participant and instructor materials (see Course Overview section).
5. Ensure the Local Host/Coordinator is aware of and is prepared to adhere to Section VII, Host Agency Responsibilities.

## Three Weeks Before the Course

1. Confirm logistical information with the Local Host/Coordinator and make any final travel arrangements.

2. Confirm that all the course material and the administrative package have been received.
3. We also recommend you identify a potential back-up instructor in case you have any issues getting to the session.
4. Continue reading and studying all participant and instructor materials (see Course Overview section).
5. Prepare local examples, where applicable.
6. Re-confirm that the Local Host/Coordinator is aware of and is prepared to adhere to Section VII, Host Agency Responsibilities. Be prepared to bring any items the Host Agency is not able to provide (e.g., spare LCD bulb, extension cord).
7. Ensure you have all the following:
  - ☐ Computer loaded with Windows 98 and PowerPoint 2000 or higher
  - ☐ List of participants with profiles summarizing their positions, responsibilities, and experience, if available
  - ☐ A watch or clock

## **Host Agency Responsibilities Checklist**

### **Audiovisual Equipment Requirements**

1. Visual aids for this course are comprised of PowerPoint presentations and flip charts.
2. The following audiovisual equipment is necessary for delivery of this course:
  - ☐ LCD projector compatible with a Windows-based notebook computer and cables for proper connection (e.g., InFocus or similar make)
  - ☐ Spare projector bulb
  - ☐ Electronic remote device to advance slides in PowerPoint presentation (if available)
  - ☐ Projection screen (at least 6' x 6')
  - ☐ Laser pointer (if available)
  - ☐ Twenty-foot or longer extension cord
  - ☐ Whiteboard with dry erase pens and eraser
  - ☐ Flip chart
  - ☐ Tape for posting of flip chart responses
  - ☐ Large markers, assorted colors (at least five sets)

- ☐ Large black markers for participant tent cards (one per every two participants)
- ☐ Sticky notes (at least five pads or one pad per table)
- 3. All equipment should be placed in the room for the instructor to check at least one hour prior to the first day of the course. The host State DOT should provide technical assistance during this time and contact information for technical assistance during the presentation of the course.

### **Local Coordinator's Responsibilities Checklist**

The local coordinator is responsible for preparing the site prior to the instructor's arrival. Below is a checklist of the items the local coordinator should prepare prior to the instructor's arrival. It is recommended that the instructor contact the local coordinator to ensure these steps have been taken.

#### **Training Site**

1. Before the instructor's arrival, the local coordinator should verify that accommodations indicated in this section are in place for the training site.
2. Selecting a training room is critical to the success of the course. Great care should be taken to select a room that is handicap accessible and that will not be overcrowded, too hot or too cold, or subject to outside distractions. The instructor should provide any specific requirements for the training facility so that the training coordinator may:
  - ☐ Reserve a training room for the duration of the course.
  - ☐ Check to see if anyone else will be using the room for nighttime functions.
  - ☐ Determine if books and equipment can be left in the room. Training courses requiring special equipment or computers must have after-hours security.
  - ☐ Visit the classroom to make certain it meets all of the instructor requirements.
3. Other considerations for a training room include the following:
  - ☐ Heat or air conditioning; find out if the instructor can control these.
  - ☐ Adequate shape and size with no poles or obstructions.
  - ☐ Special arrangements for demonstrations, labs, and experiments.
  - ☐ Seating arrangements.
  - ☐ Away from kitchen, construction area, or other noise distractions.
  - ☐ Sufficient electrical outlets.
  - ☐ Lighting controls. Almost every training course uses visual aids that require a projection screen. It is important to have a room where lighting can be

controlled to prevent glare on the screen, while not placing the room in total darkness.

4. The following points will be considered for using visual aids:

- ☐ Will shades completely darken all windows?
- ☐ Can the lights be selectively dimmed when showing slides?
- ☐ Will overhead lights shine directly on the screen?
- ☐ Can a bulb be removed above the screen or will the whiteboard be too dark?

**Two Weeks before the Course**

1. An approved copy of COURSE REQUEST AND CONFIRMATION (Form FHWA 1530) will be sent to NHI. If not, the instructor will call the NHI Course Scheduler at (703) 235-0528.
2. Instructors will be responsible for checking that the following training materials have arrived:
  - ☐ Participant Workbooks
  - ☐ Tent cards (large felt tip markers will be needed)
  - ☐ Evaluation forms
  - ☐ Class roster form
  - ☐ Student registration form
  - ☐ Certificates
3. Instructors will also perform the following checks:
  - ☐ Reconfirm the training facilities.
  - ☐ Discuss the seating arrangements and who will set up the room.
  - ☐ Discuss what time the room is unlocked and locked.
  - ☐ Ensure a technician is available in case there are problems setting up the room or something goes wrong during the course.

**One Week before the Course**

1. Prepare directional signs to classroom.
2. Prepare “No smoking in the classroom” signs. Signs should be posted or written on the whiteboard.
3. Identify smoking areas.
4. Determine if snacks are available.

5. Identify where telephones are—both for participants to make outgoing calls and to receive incoming messages.
6. Decide who will welcome the participants and introduce the instructor.
7. Determine whether special check-out arrangements may need to be made to coincide with the course completion time.
8. Determine who will prepare the certificates of training and who will pass them out at the end of the course.

### **One Day Before the Course**

1. Set up the classroom.
2. Organize the participant materials.
3. Post directional signs.
4. Test all equipment.

### **During the Course**

The instructor will do the following:

- ☐ Identify whom to contact if he/she needs assistance.
- ☐ Provide a copy of the class roster for all course participants.
- ☐ Ensure that certificates of training have been prepared.

### **After the Course**

1. The instructor will check to make sure they have the class roster, course evaluation forms, and student registration forms. The instructor will be responsible for sending these items to NHI within two weeks.

## **Instructor-led Training Session Content**

It is important for the instructor to present this course as directed in the instructor guide. **“Hitting the mark” on the course goals and outcomes requires that all questions are answered completely and correctly, all participant activities are explored fully, and all videos are viewed and reviewed properly.** All of the questions and activities must be fully realized so that the learning comes from those activities **and the learning outcomes are mastered by the participants.**

Using knowledge they already have, sharing practices within small and large groups, and building knowledge through critical thinking are all ways that learners acquire. The instructor facilitates the activities and guides the conversation so that learners take away the ability to apply that knowledge in the field and internalize the best practices. It is the instructor’s job to synthesize content and ideas so that participants can have that “Aha!” moment.

In other words, it is up to the instructor—with support and guidance from the instructor guide—to make this course relevant, exciting, and important.

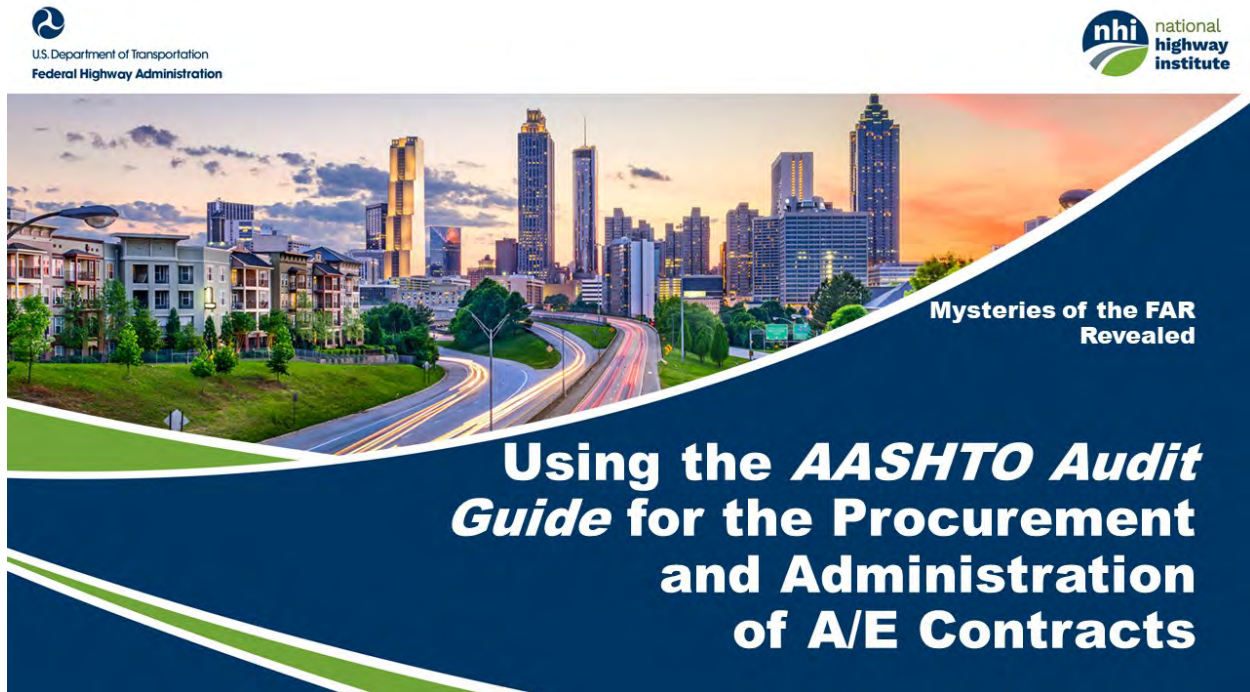
This one-day introductory course is designed for a wide variety of individuals who are involved in procuring A/E services and/or administering A/E contracts. This course is also applicable to many other related roles. Please see the Target Audience section for a more complete description of the intended audience. The course incorporates small- and large-group discussions, case study activities, un-scored pre-assessments, and a scored Final Assessment to reinforce learning.

The material in this series of courses is for training purposes only and NOT intended as a guide to interpret the *AASHTO Audit Guide* or provide FHWA policy and direction.



## Course Overview

### Slide 1



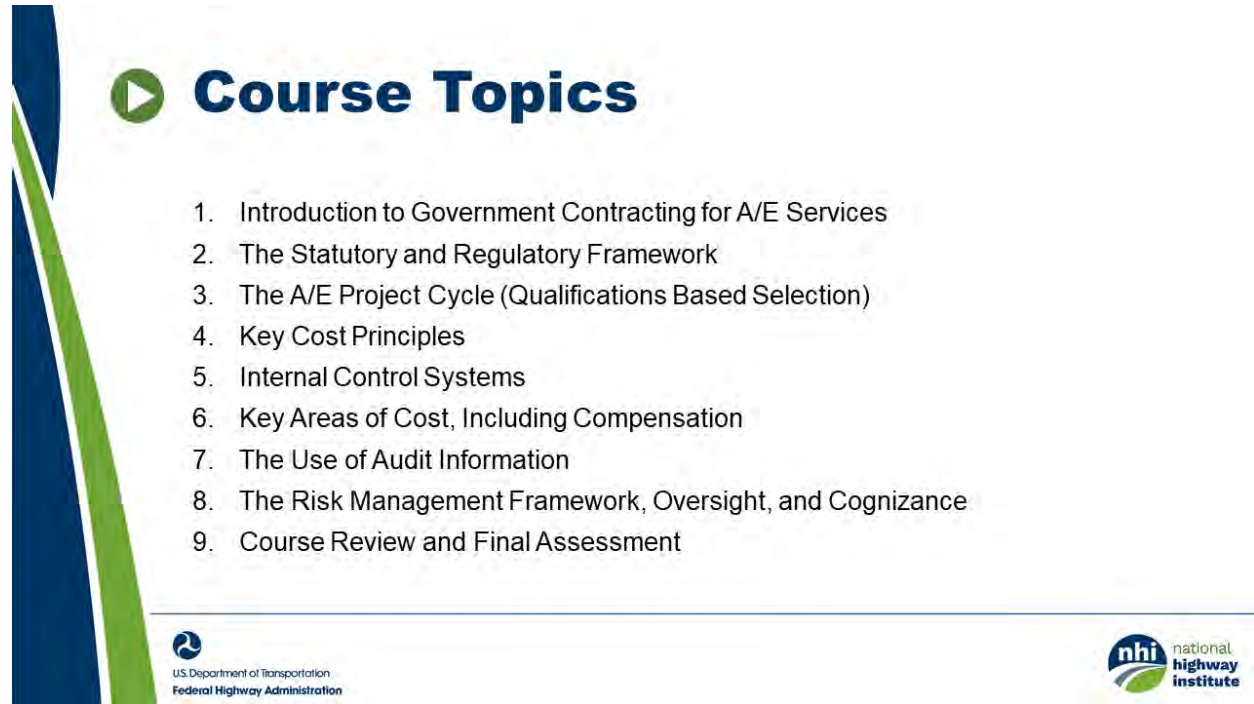
### Key Message

- Welcome to *Mysteries of the FAR Revealed: Course 1*.
- This course is designed to help you use the *AASHTO Uniform Audit & Accounting Guide (AASHTO Audit Guide)* for the procurement and administration of architectural and engineering (A/E) contracts.

### Facilitation Guidance



- Welcome participants to the course and explain the course purpose.
- Introduce yourself and highlight your relevant career experience.

Slide 2

The slide features a dark blue vertical bar on the left with a green diagonal stripe. The title 'Course Topics' is in a large, bold, dark blue font, preceded by a green play button icon. A list of nine topics is presented in a smaller, dark blue font. At the bottom, there are two logos: the U.S. Department of Transportation Federal Highway Administration logo on the left and the NHI National Highway Institute logo on the right.

## Course Topics

1. Introduction to Government Contracting for A/E Services
2. The Statutory and Regulatory Framework
3. The A/E Project Cycle (Qualifications Based Selection)
4. Key Cost Principles
5. Internal Control Systems
6. Key Areas of Cost, Including Compensation
7. The Use of Audit Information
8. The Risk Management Framework, Oversight, and Cognizance
9. Course Review and Final Assessment

**Key Message:**

This one-day course is divided into nine lessons.

**Facilitation Guidance**

- Introduce the course topics and how they link together. Point out that when audits are discussed, the primary focus will be on indirect cost rate audits.
- Explain who the target audience is for the course and that participants will have an opportunity to learn more about their fellow participants later in this lesson.

**Notes**

- It is critical to complete all items on the Instructor's Checklist before facilitating this course.
- In order to properly facilitate this course, it is important to be familiar with both the Instructor Guide (IG) and Participant Workbook (PW).
- In order to cover the breadth of material in this course, it is important to adhere tightly to lesson agenda timings and Facilitation Guidance notes. Efficiency of facilitation will be key to covering core content.

Slides 3 and 4



### Key Message

Upon completion of this course, you should be able to demonstrate mastery of the course learning outcomes in an open-book, application-based, multiple-choice assessment.

### Facilitation Guidance

- Explain the course learning outcomes.
- Explain NHI and International Accreditors for Continuing Education and Training (IACET) CEU requirements.
  - 100% attendance in class (as verified by the registration form and session roster, or sign-in sheet)
  - Score of 70% or higher on the end-of-course assessment (exam)
- Describe the course assessment.
- Explain that the course uses a variety of instructional methods to help participants achieve the learning outcomes.
- Summarize the contents of the Participant Workbook (PW) and point out the key tabbed sections.
- Encourage active listening, discussion participation, and note-taking as means to master the course material.

### Notes

- This course includes a final assessment; participants must score 70 percent or higher on the assessment and attend 100% of class to receive credit for this training.

- This course includes small- and large-group discussions, case study activities, un-scored pre-assessments, and other opportunities to help participants practice the skills and knowledge that are assessed in the final assessment.
- Altering a topic (in part or whole) or skipping a lesson activity may compromise the participants' ability to pass the assessment and receive course credit.

Slide 5

## Housekeeping

- Location-specific instructions
- Ground rules
- Question Parking Lot

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### Key Message

To adhere to the agenda so that everyone has the opportunity to master the course learning outcomes, a Question Parking Lot is used to record off-topic questions. These questions will be addressed in later lessons, at breaks, or during each end-of-day wrap-up discussion.

### Facilitation Guidance

- Note any location-specific instructions (parking validation, location of restrooms, vending machines, etc.).
- Explain any ground rules regarding breaks, technology use, etc.
- Explain the purpose and use of the Question Parking Lot.

## Lesson 1

Slide 6



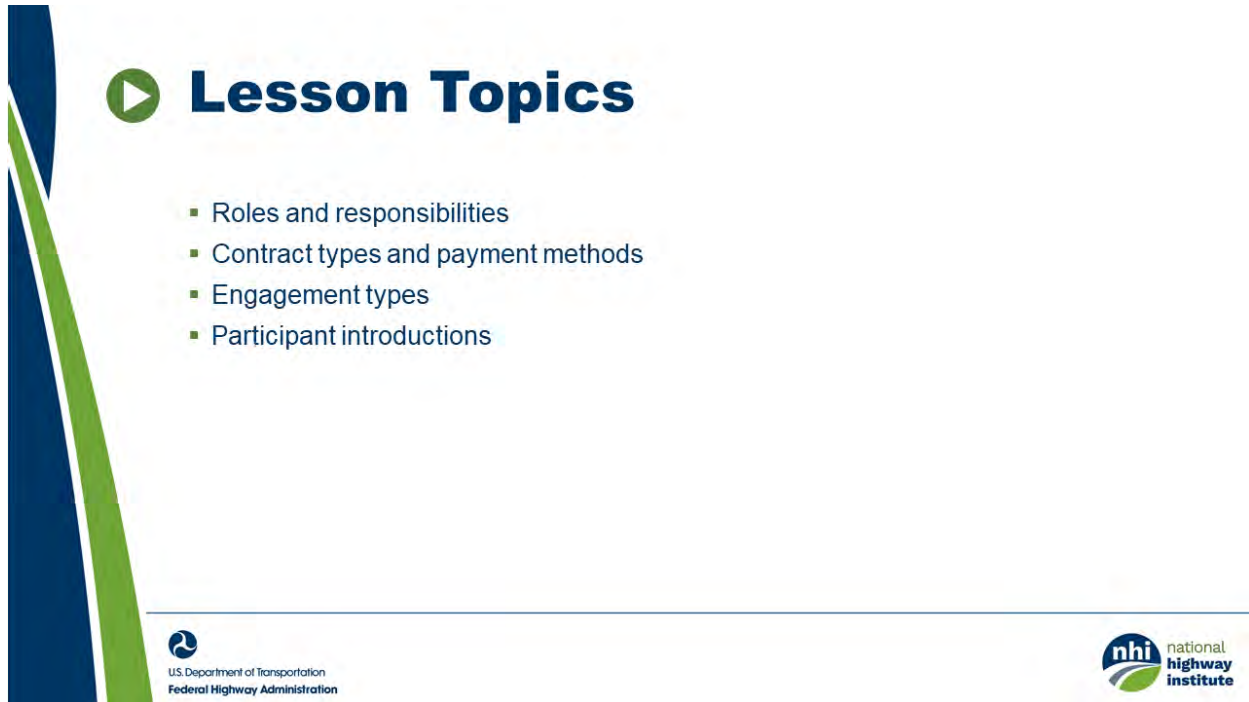
### Key Message

This lesson provides an overview of Government contracting for A/E services and the related roles and responsibilities.

### Facilitation Guidance



- Introduce the lesson.
- Note that in this course, the *AASHTO Audit Guide*, or the “Audit Guide,” refers to the *AASHTO Uniform Audit & Accounting Guide*. Other guides will be referenced by their complete titles.
- Explain that the *AASHTO Audit Guide* and any attachments to it will be periodically reviewed and updated, and are therefore subject to change. Explain that this course was developed around the 2010 version of the guide and updated to the 2016 version.

Slide 7



## ▶ Lesson Topics

- Roles and responsibilities
- Contract types and payment methods
- Engagement types
- Participant introductions

### Key Message

This lesson covers the topics shown.

### Facilitation Guidance

Introduce the topics to be covered in this lesson.

### Notes

This slide sets the agenda for the lesson. Each topic is covered in greater detail throughout the lesson.

Slide 8

## ▶ Lesson 1 Learning Outcomes

After completing this course, you should be able to:

- Summarize the roles and interrelationships of all parties in the administration and completion of A/E contracts
- Cite examples of factors that make A/E contracts unique and/or challenging
- Distinguish between different contract types and payment methods and explain the effects on the project
- Compare and contrast the various types of engagements and how they relate to the contract types and payment methods used



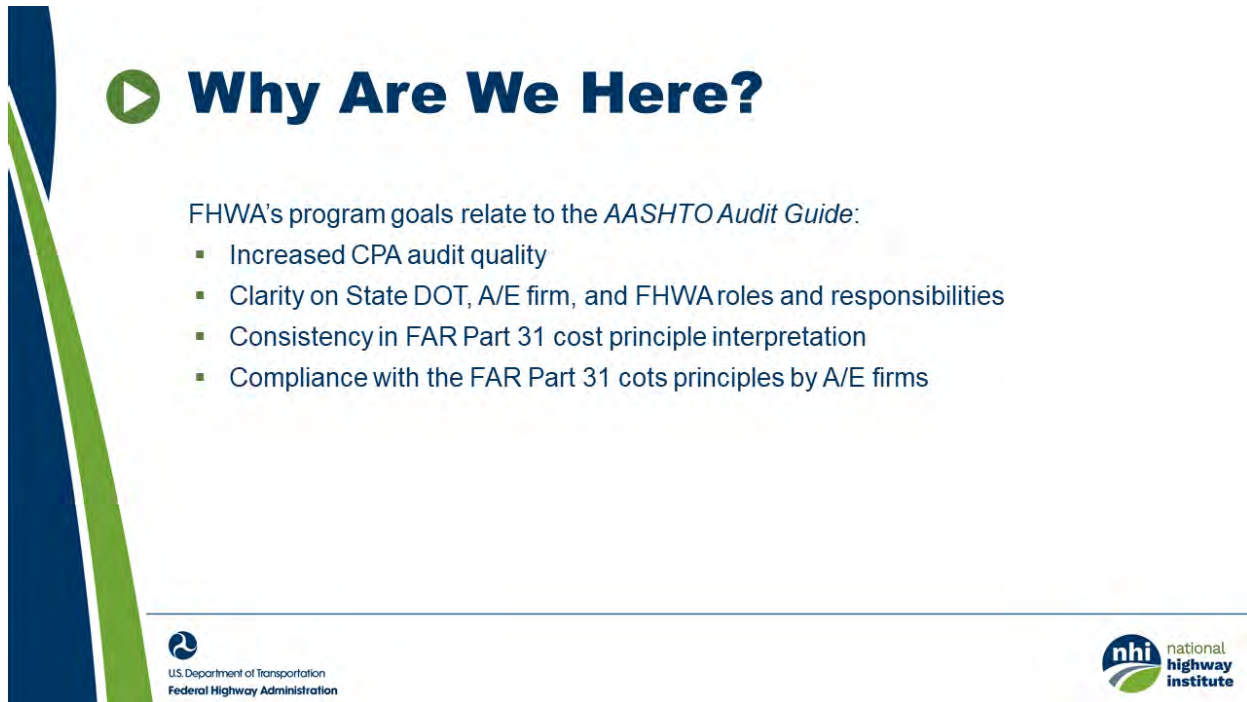
### Key Message

By the end of this lesson, you should be able to demonstrate the outcomes shown on the slide.

### Facilitation Guidance

- Ask questions to help participants draw a connection between this topic and their ability to achieve the course outcomes. In other words, they need to be able to answer the question, “What’s in it for me?” with regard to understanding the content of this lesson.
- Consider these sample questions:
  - Why is it critical that you be able to summarize the roles and relationships of all parties in the administration and completion of A/E contracts? (Example answer: *It is important to understand the role each group plays in the procurement and administration of A/E contracts to better understand how that group interacts with your own role.*)
  - What would be the impact of NOT understanding the concepts in this lesson? (Example answer: *A misunderstanding of the roles and responsibilities or the contract types/payment methods used in A/E contracts may cause you to be less effective in interacting with others involved in the administration and procurement of A/E contracts.*)

Slide 9





The slide features a dark blue background on the left with a green diagonal stripe. The title "Why Are We Here?" is in large blue font with a green play button icon. Below the title, a list of FHWA's program goals is presented. At the bottom, there are logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute.

## ▶ Why Are We Here?

FHWA's program goals relate to the *AASHTO Audit Guide*:

- Increased CPA audit quality
- Clarity on State DOT, A/E firm, and FHWA roles and responsibilities
- Consistency in FAR Part 31 cost principle interpretation
- Compliance with the FAR Part 31 cost principles by A/E firms

### Key Message

Share the background for this course.

### Background

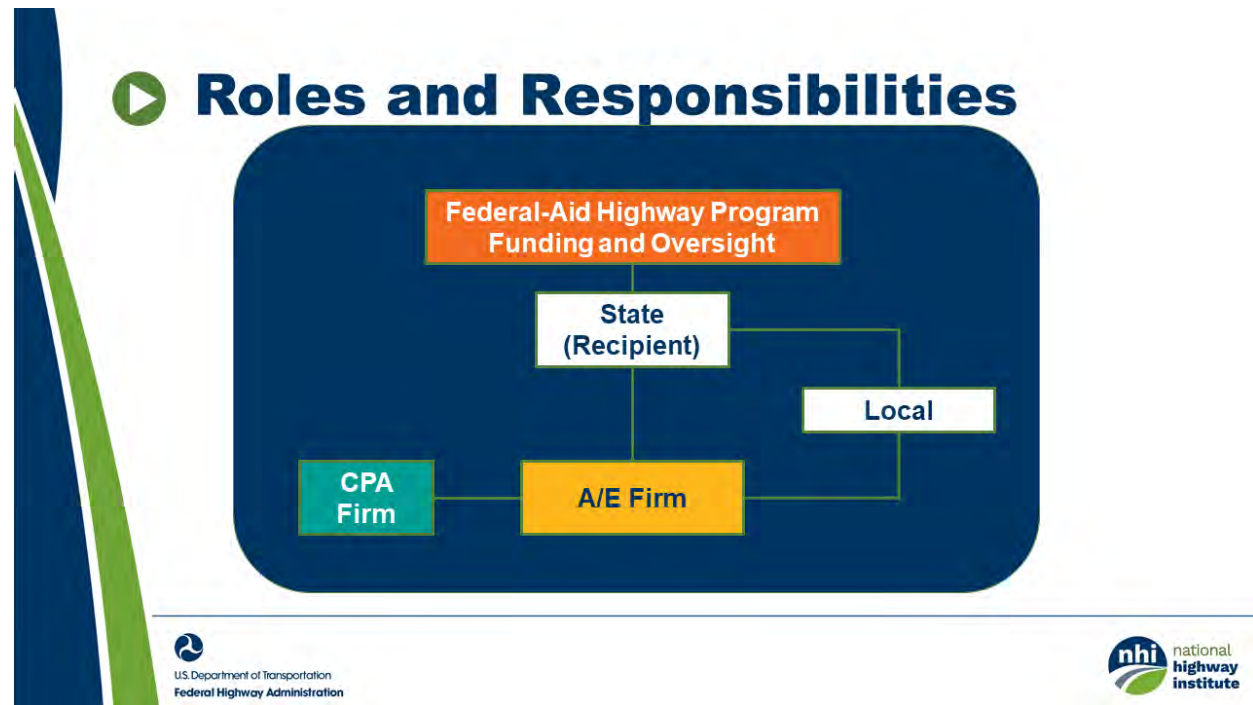
- The AASHTO Audit Subcommittee initially released the *AASHTO Audit Guide* in 2001. The Guide was subsequently revised in 2005. In 2007, a sub-committee made up of representatives from AASHTO, FHWA, ACEC, and the CPA community began updates to ensure that the Guide was consistent with current auditing standards and procedures, accounting principles, and Federal regulations. The 2010 update also addressed questions and concerns expressed by various parties, including the FHWA, State DOT audit agencies, A/E firms, and public accounting firms.
- The AASHTO Audit Guide has subsequently been revised in 2012 and 2016 as part of an ongoing collaborative effort between AASHTO, FHWA, ACEC, and the CPA community.
- The FHWA's program goals for this series of courses related to the *AASHTO Audit Guide* are:
  - Increased CPA audit quality
  - Clarity on State DOT, A/E firm, and FHWA roles and responsibilities
  - Consistency in FAR Part 31 cost principle interpretation

- Compliance with the FAR Part 31 cost principles by A/E firms

**Facilitation Guidance**

- Mention the OIG audit only as necessary.

Slide 10



### Key Message

Each of the groups shown on the flow chart has a role in the oversight of funds administered through the Federal-Aid Highway Program.

### Background

The *AASHTO Audit Guide* applies to funding provided through the Federal-Aid Highway Program. Other Federal contracts not funded through this program, or contracts funded with State or local agency funds only, are outside the scope of this course.

Federal Highway Administration (FHWA) staff:

- Perform oversight of the funds administered through the Federal-Aid Highway Program. The program provided approximately \$44 billion in funding to Federal, State, and local agencies in fiscal year 2017. Projects under the program typically carry a requirement for State/local matching funds and require compliance with Federal laws and regulations, including, but not limited to, those that we will discuss in this course.
- Operate division offices in each state, the District of Columbia, Puerto Rico, and four metropolitan offices, which provide assistance, guidance, and information regarding Federal transportation programs to local, State, and other Federal agencies.
- Operate the FHWA Resource Center, with locations in Atlanta, Baltimore, San Francisco, Matteson, Illinois, and Lakewood, Colorado. The Resource Center provides technical

support and program assistance, training, and technology delivery to FHWA's Division Offices, State Departments of Transportation, Metropolitan Planning Organizations, and other transportation partners to assist in the oversight process.

Federal, State DOT, and Local Contracting Agency Staffs:

- Provide (typically) the first level of oversight for their contracts with A/E firms.
  - In accordance with 23 U.S.C. 106(g)(4), State DOTs have responsibility for oversight of Federal-Aid Highway Program funds administered by local agencies. FHWA has ultimate responsibility for oversight of those funds. (*See Reference Manual*).

A/E Procurement Staff:

- Oversee the procurement and selection process.

A/E Contract Management and Administration Staff:

- Oversee the contract as it progresses.

Audit Staff:

- Develop and implement an effective risk management framework that provides assurance of compliance with Federal requirements for all A/E firms.
- Perform services to provide assurance to the Procurement and Contract Management and Administration staff that proposed costs (in the negotiation phase) and incurred costs (during project performance) are in accordance with applicable laws, regulations, guidance, and the contract terms. May be organized differently in each agency; in some, certain staff may have multiple roles. (E.g., Internal audits and external audits may be performed by the same person.)
- Use professional judgment in performing their roles, with respect to both CPA firm and contracting agency audit staff. It is outside the scope of this course to provide instruction on auditor judgment. Course 2B provides additional discussion on the subject, although it is not the intent of that course to “teach” auditor judgment. A fundamental concept of a financial statement audit is the understanding that an audit provides reasonable, but not absolute, assurance as to the accuracy of the amounts presented.

A/E Firms

- Verify the accuracy and allowability of costs (costs proposed in negotiations and costs incurred and submitted on invoices).
- Establish and maintain appropriate internal controls, systems, and accounting records, and for following all applicable laws, regulations, and guidance.
- Maintain and promote a strong culture of business ethics, and communicating to all staff the importance of applying high ethical standards in all business activities. The standards must apply uniformly to all employees, including owners and/or managers.

## CPA Firms

- Play a critical role by performing indirect cost rate audits and other assurance services on behalf of A/E firms, State DOTs, and/or local agencies.
- Attest to the accuracy and allowability of an A/E consultant's incurred costs and proposed rates.
- Perform audits that are reviewed by State DOTs as part of the State DOTs' risk management frameworks. Some State DOTs perform audits, but many rely on CPA firms' work and perform reviews of the CPA's audit workpapers. Federal rules do not require CPA audits of overhead schedules; however, State DOTs may require such audits.

## Facilitation Guidance

- Clarify that "project," as used in this course, refers to A/E design projects, not construction projects, unless specifically stated.
- Describe how Government highway transportation projects are funded through Federal, State, and local agency funds and the oversight relationship required to ensure funds are administered properly.
- Explain the interrelationships of each role shown.
  - When discussing the role of audit staff, briefly distinguish between the common type of financial statement audits (i.e., audits of General Purpose Financial Statements) versus the audit of a FAR indirect cost rate schedule (these schedules are considered Special Purpose Financial Statements).
- Explain that in rare instances Federal-Aid Highway Program funds may flow directly from FHWA to a local agency. Participants should contact the FHWA Division office for more information on requirements for administering such contracts.
- Ask (*as you explain the role of each entity*): Do any of you fall into this category? (*Show of hands.*)
- Ask: Is there anyone who does NOT fall into one of these categories? (*Ask for a show of hands.*)
- Clarify that CPA firms are an integral part of most State DOTs' risk management frameworks. Some State DOTs perform audits, but many rely on CPA firms' work and perform reviews of the audit workpapers. Federal rules do not require CPA firm audits; however State DOTs may require such audits.
- Explain that this training is focused on the applicability of the *AASHTO Audit Guide* and participants may come across other situations where the *Audit Guide* does not apply. If Federal-Aid Highway funds are not involved, then the contracting agency may not be required to apply FAR cost principles. Through written procedures or specific contract language, the State or local agency may choose to adopt the FAR cost principles.

- Explain the importance of business ethics, both in the context of an A/E firm, as described in the background, and in relation to the other roles presented. Note that business ethics is an essential part of the foundation for many of the topics covered in this course.
- Explain that FAR Part 3 presents more information on ethics; however, FAR Part 3 is not a requirement of FHWA-funded State administered A/E contracts but may be useful for informational purposes.

### **Notes**

- If asked about common sources of funding other than Federal and State DOTs, the answer would be, “Other sources include, but are not limited to, various forms of local agency funding and public-private partnerships.”
- Participants may encounter situations where compliance with FAR cost principles is not required. However, many of the concepts covered in this course may still apply.

Slide 11

## Overview of A/E Contracts

- Role of A/E contracts:
  - Provide flexibility to meet uneven workload demands
  - Provide specialized services
- Factors that make A/E contracts challenging to administer:
  - Complexity
  - Unexpected issues impacting scope
  - Priced/estimated based on actual costs



### Key Message

A/E contracts play an important role in helping contracting agencies meet their outcomes; however, A/E contracts have some unique aspects that often make them challenging to administer.

### Background

- A/E contracts are important to achieving the outcomes of contracting agencies responsible for highway projects.
- Such projects are complex and require specialized knowledge that the contracting agency may not have in-house. Moreover, resource needs vary from project to project, requiring different skill sets and staffing.
- Highway projects do not commence evenly throughout a year (or series of years); accordingly, agencies (even those with a substantial in-house design staff) must contract with A/E firms to meet the workload demands of these projects.
- Some of the factors that make A/E contracts necessary also may make them challenging to administer.
  - Since the projects are complex, it is difficult to develop an accurate project scope and estimate the hours necessary to complete a project. It can be difficult to manage a

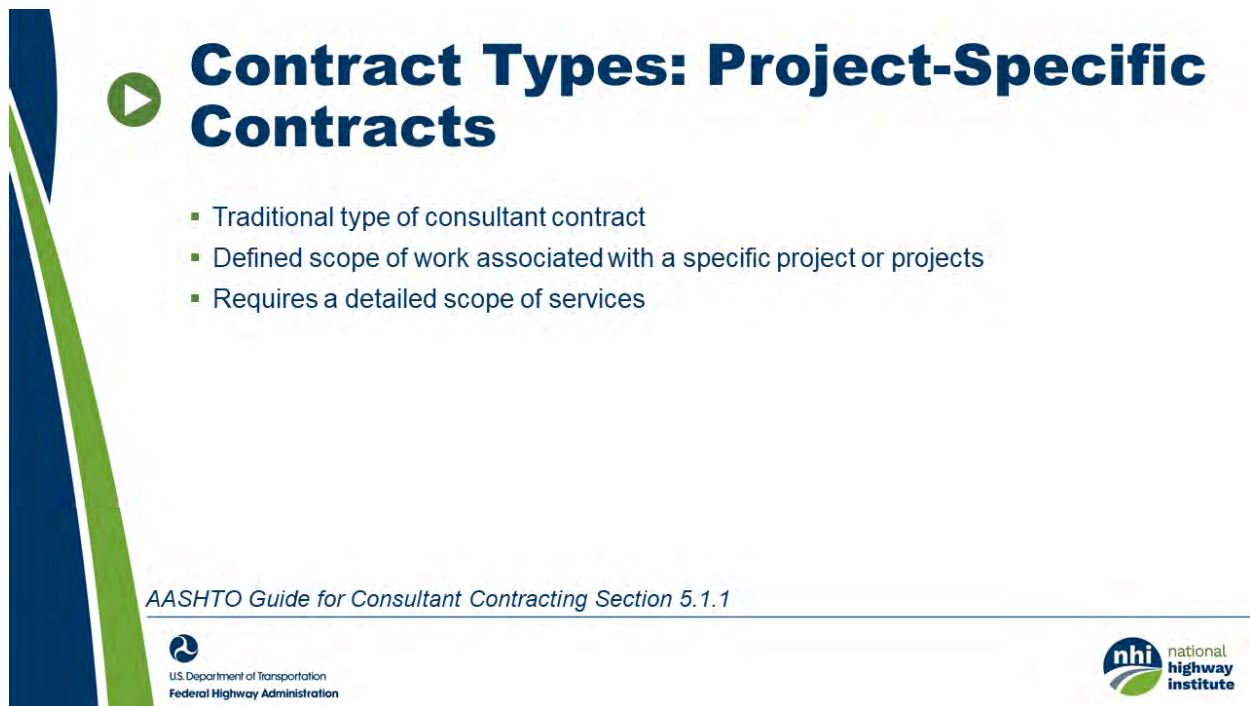
project to stay within scope, especially as unexpected issues may arise that may impact scope.

- Excellent communication is critical between the A/E firm and contracting agency.
- The fact that A/E contracts are typically priced or estimated based on actual costs adds more complexity.
  - Even fixed price contracts use actual costs as the basis for the fixed price.
  - A/E firms must calculate their direct labor rates and their indirect cost rate in accordance with Federal regulations, and auditors must review these costs.

### **Facilitation Guidance**

Discuss the role of A/E contracts and aspects that make them challenging to administer.



Slide 12



## Contract Types: Project-Specific Contracts

- Traditional type of consultant contract
- Defined scope of work associated with a specific project or projects
- Requires a detailed scope of services

*AASHTO Guide for Consultant Contracting Section 5.1.1*

### Key Message

Project-specific contracts are the traditional type of consultant contract for the performance of a defined scope of work associated with a specific project or projects.

### Background

Project-specific contracts are to be used when the scope of the project is well defined and requires a detailed scope of services.

### Facilitation Guidance

Define project-specific contracts and explain when it would be appropriate to use them.

### Notes

This is not intended to be a contracting lesson.

Slide 13

## Contract Types: Multiphase Contracts

- Contract is based on a general scope of work for a specific project with a maximum dollar limit
- One phase is negotiated and commences, while future phases are negotiated as the project progresses
- Contract amendment/supplemental agreement issued as the detailed scope of work for each phase is defined and negotiated

AASHTO Guide for Consultant Contracting Section 5.1.2

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

### Key Message

Multiphase contracts are similar to project-specific contracts except that the work is divided into phases (e.g., environmental assessment, preliminary engineering, final design engineering, and construction engineering and inspection).

### Background

- The contract is based on a general scope of work with a maximum dollar limit and specifies the expertise required.
- Certain phases may be negotiated and the work commenced, while future phases may be negotiated later in the contract period.
- Contract amendments/supplemental agreements are issued as the detailed scope of work for each phase is defined and negotiated.
- Characteristics of multiphase contracts include:
  - Helps complex projects to move forward where scope of future phases is not well-defined.
  - Allows A/E consultant or contracting agency to terminate the contract at the end of a phase.

- Helps Agency to execute contracts for phases of complex projects in a minimal amount of time.
- Reduces time needed for the negotiation of the initial phase, but continual negotiations are required throughout the project as each phase approaches and supplemental agreements are issued.

### **Facilitation Guidance**

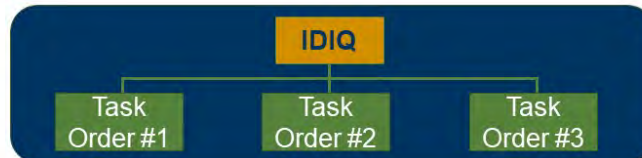
Define and explain when it would be appropriate to use a multiphase contract.

Note that FHWA does not have a regulation or policy prohibiting the same consultant to work on both design and construction phases. It does however, require that appropriate controls are in place to avoid a conflict of interest.

Slide 14

## **Contract Types: IDIQ/On-Call Contracts**

- Cover basic contract requirements without defining specific projects
- These are used for similar and/or specialized services for a number of projects
- Allow for multiple projects under one contract
- Allow starting of projects quickly
- Define a duration limit and dollar limit for the contract



*AASHTO Guide for Consultant Contracting Section 5.1.3*



### **Key Message**

IDIQ (Indefinite Delivery Indefinite Quantity)/On-Call contracts cover basic contract requirements without defining specific projects.

### **Background**

- These are designed to handle a number of projects as established during the contract period, which typically spans multiple years. Each State defines the limits on the number of years (not to exceed 5) over which IDIQ contracts may span.
- These are useful for contracting for similar and/or specialized services for a number of projects.
- The base contract establishes rates, types of services to be provided, length of contract, and the maximum dollar limit. The contract must define a duration limit and dollar limit for the work. Work orders are issued to define the requirements of specific projects.
- When multiple consultants are to be selected for multiple IDIQ/On-Call contracts under a single solicitation, work orders are assigned after another qualifications-based selection process.
- The primary advantage is the ability to get a project underway in minimal time, because the contracting and selection process has been completed.
- These contracts can range in scope from full-service to single-discipline functions.

### **Facilitation Guidance**

Define and explain when it would be appropriate to use this type of contract.

Slide 15

## **Contract Types: IDIQ/On-Call Contracts, cont.**

- 23 CFR 172.9 defines requirements specific to IDIQ/On-Call contracts to be addressed in contracting agency's solicitation and contract provisions
- When multiple consultants are awarded IDIQ/On-Call contracts through a single solicitation, task orders shall be awarded:
  - Through an additional QBS selection procedure OR
  - On a regional basis (subject to specific requirements)

*AASHTO Guide for Consultant Contracting Section 5.1.3*



**Key Message:** When using IDIQ/On-Call contracts to select multiple consultants and award multiple contracts through a single solicitation for specific services, a two-step process must be used.

### **Background:**

- When using IDIQ/On-Call contracts to select multiple consultants and award multiple contracts through a single solicitation for specific services, a 2-step process must be used, as further defined in 23 CFR 172.9(a)(3).
- Step 1 is narrowing down respondents to a short list of firms generally qualified to perform the services defined in the solicitation.
- Step 2 is matching up specific requirements of a task or work order with the strengths of each firm to identify the MOST qualified firm.
- The understanding is that being shortlisted is no guarantee of being awarded task orders.
- A qualifications-based process is required at the second step. First step is not enough to identify the MOST qualified consultant for the specific task order.
  - Examples of acceptable processes for this second step might include phone conversations, presentation, email exchange, two-page technical response, one-page checklist. Note, these are examples only, and the contracting agency must define the processes it will use, which are subject to review and approval by FHWA.

- The requirement is for the contracting agency to develop a process and put it in writing in its policies and procedures.

**Facilitation Guidance**

- Describe the requirements of 23 CFR 172.9 as they relate to the topic described in the Background section.
- Provide some examples, noting that the contracting agency must develop its own procedures to address these requirements, and the procedures need to be approved by FHWA.

Slide 16

## Payment Methods: Fixed Price/Negotiated Price (Lump Sum)

- This method should only be used when the scope of work is well defined
- A/E consultant and the contracting agency/owner share in the risk for scope definition
- Lump sum is the most common example
- The indirect cost rate is a component of a fixed price
- In most cases, cost is subject to a pre-award audit or review

Typically, the fixed price does not change, but if scope is poorly defined or changes materially, adjustments may be needed.

AASHTO Guide for Consultant Contracting Section 5.2



### Key Message

There are two payment methods applicable to A/E contracts. One is *fixed price*.

### Background

- This method only should be used when the scope of work is well defined.
- While the consultant assumes the cost risk of performance, the contracting agency/owner assumes the risk for scope development/definition. Ideally, the fixed price does not change, but if the scope is poorly defined or changes materially, adjustments (often increases) to the lump sum amount may be needed.
- Lump sum is the most common example—price is not subject to any adjustment for cost changes. Used when fair and reasonable prices can be established in negotiation. Changes are only made to the lump sum amount if the scope of work changes materially.
- The indirect cost rate is a component of a fixed price. Typically, the most current audited rate at the time of negotiation is used. Subsequent changes to the indirect cost rate do not affect the fixed price.
- In most cases, cost is subject to a pre-award audit or review. (For example, in many States, closeout audits only are performed for cost-reimbursement contracts. In other instances,

contract language may call for closeout audits for fixed price/lump sum contracts to provide information to help State DOTs gauge the effectiveness of their cost estimation procedures.)

### **Facilitation Guidance**

- Note that the terms “contract type” and “payment method” are often used interchangeably. Fixed price is often referred to as a contract type, but for purposes of this discussion, it is classified as a payment method.
- Explain the bullets on the slide.
- Emphasize that in most cases, cost is subject to a pre-award audit or review.

Slide 17

## Payment Methods: Cost Reimbursement

- This is frequently used when the scope of work is less clearly defined, although many State DOTs use cost reimbursement contracts for a wide range of projects regardless of scope
- This typically includes a maximum limiting amount
- Contracting agency assumes much of the cost risk; however, A/E consultant shares the risk
- Indirect cost rates are used to develop estimated costs in the proposal phase and to set a maximum limit to the contract
- Both pre-award and final audits may be performed

*AASHTO Guide for Consultant Contracting Section 5.2*



### Key Message

The second payment method category applicable to A/E contracts is *cost reimbursement*.

### Background

- The contracting agency assumes much of the cost risk; however, as cost reimbursement contracts typically include a maximum limiting amount, often the A/E consultant shares this risk.
- Indirect cost rates generally should be adjusted to reflect actual audited rates—either periodically throughout the project or upon project completion and final audit.
  - Many State DOTs require the most current audited overhead rate to be used as a provisional rate for progress billings. This may help to minimize final adjustments required at the time of contract close out.
  - In the alternative, some State DOTs treat the most current submitted overhead rate as a contractual annual billing rate to be applied to all labor incurred in the year. In this case, no reconciliation to actual is required.
- Some State DOTs (e.g., Ohio DOT) structure cost plus contracts with maximum limiting amounts established per contract **phase**, rather than for the aggregate contract. For example, consultants are not permitted to use a budget surplus on Phase 2 of a project to subsidize a budget overrun on Phase 1.

### Facilitation Guidance

- Explain the bullets on the slide.
- Note that cost reimbursement is a general payment method category. There are specific types of cost reimbursement payment methods that will be discussed on the next three slides: *cost plus fixed fee*, *cost per unit of work*, and *specific rates of compensation*.
- Note that the *cost plus percentage of cost* method of compensation is expressly prohibited by 23 CFR 172.9(b) because there is no incentive for cost control.

Slide 18

## Types of Cost Reimbursement Contracts: Cost Plus Fixed Fee

- This is used when the scope of work is fairly well defined, but total effort required to complete the project cannot be estimated precisely
- A/E consultant is paid an established fixed fee for the scope of work completed, plus actual costs to perform the work
- This provides for a lower risk to the A/E consultant
- This may result in more variability in the actual profit percentage realized
- Project closeout audits are common for this payment method

*AASHTO Guide for Consultant Contracting Section 5.2.1*



### Key Message

One cost reimbursement contract type is *cost plus fixed fee*.

### Background

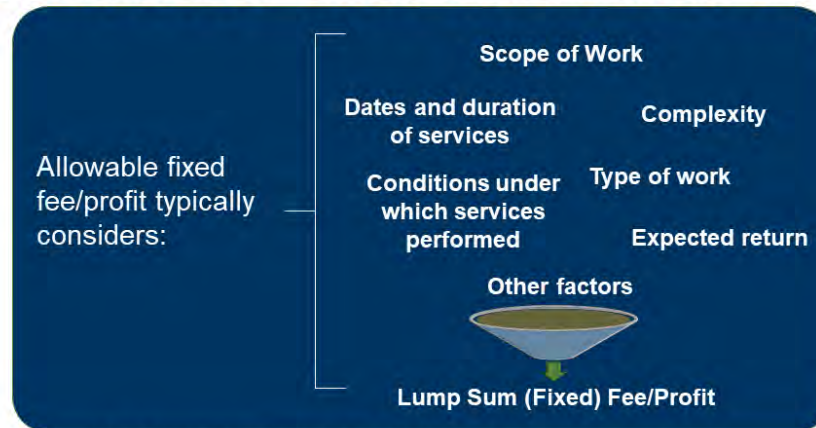
- A/E consultant paid an established fixed fee for the scope of work completed, plus actual costs (direct labor, overhead/indirect costs, subconsultants, and other direct costs) to perform the work.
- Provides for a lower risk to the A/E consultant, but less incentive for effective management of cost than other payment methods, such as fixed price. Project closeout audits are common for this payment type.
- Under this method of payment, there may be more variability in the actual profit percentage realized by the A/E consultant. For example, when total contract costs are below the amount proposed, the actual profit percentage realized will be higher than the percentage that would be realized if total contract costs equal or exceed the contract maximum.

### Facilitation Guidance

Discuss the bullets on the slide.

Slide 19

## ▶ Types of Cost Reimbursement Contracts: Cost Plus Fixed Fee, cont.



AASHTO Guide for Consultant Contracting Section 5.5.7

### Key Message

The allowable fixed fee/profit considers many factors as listed on this slide.

### Facilitation Guidance

Discuss the factors that are considered in determining the allowable lump sum/fixed fee/profit.

Slide 20

## **Types of Cost Reimbursement Contracts: Cost Per Unit of Work**

- This may be used when the effort per unit of work is well defined, but the number of units is unknown at the outset of the contract
- This provides for payment of allowable costs incurred, as defined in the contract

*AASHTO Guide for Consultant Contracting Section 5.2.3*



### **Key Message**

A second cost reimbursement contract type is *cost per unit of work*.

### **Facilitation Guidance**

Discuss the bullets on the slide.

Slide 21

## Types of Cost Reimbursement Contracts: Specific Rates of Compensation (Fixed Billable Rates)

- This is generally used when it is not possible at the time of contracting to estimate the extent or duration of the work or to anticipate costs with any reasonable degree of accuracy
- This provides for reimbursement for services on the basis of direct labor hours at specified fixed hourly rates plus project expenses/other direct costs (ODCs) at cost
- Specific rate of compensation is established for each labor class or employee

AASHTO Guide for Consultant Contracting Section 5.2.4



### Key Message

A third cost reimbursement contract type is *specific rates of compensation*.

### Background

- Provides for reimbursement for services on the basis of direct labor hours at specified fixed hourly rates (including direct labor cost, overhead/indirect costs) plus project expenses/other direct costs (ODCs) at cost.
- This method should only be used when it is not possible at the time of contracting to estimate the extent or duration of the work or to anticipate costs with any reasonable degree of accuracy. This requires close monitoring by the contracting agency to ensure efficient methods and cost controls are employed by the consultant.
- A key distinction with this payment method is that overhead and profit must be recovered as a component of established, fixed hourly billing rates for labor hours worked. Payment of indirect costs and fee as separate percentages based on actual labor costs incurred creates a cost plus percentage of cost arrangement whereby the consultant's fee is increased automatically with increases in a particular cost element.
- Federal laws and regulations for use and application of cognizant approved indirect cost rates still apply in the development of the fixed hourly rate(s) for the specific rates of compensation method.

- Since risk to the consultant is minimal under this payment method, the fee/profit component of the fixed hourly rate(s) should be commensurate with that level of risk.

### **Facilitation Guidance**

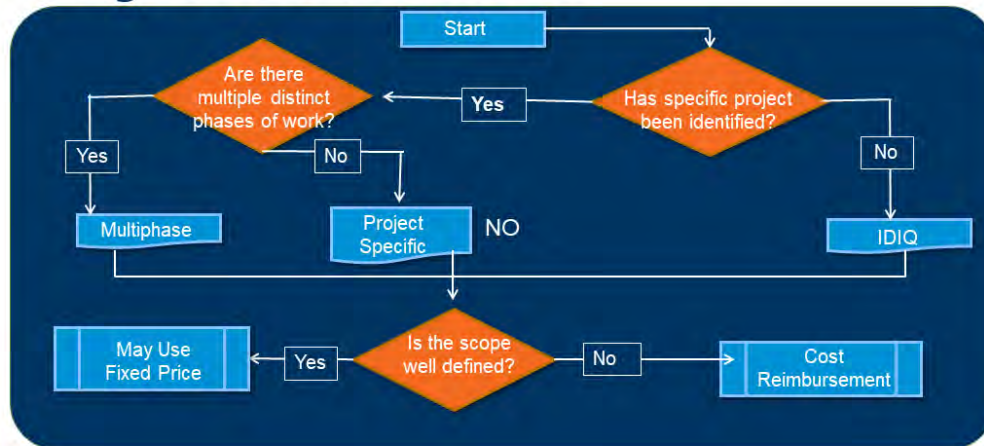
- Discuss the bullets on the slide.
- Discuss the development of the *specific rates of compensation* type of cost reimbursement contract.

### **Notes**

- With respect to the fee component, the questions and answers document on the FHWA Consultant Services website provides more information on this issue.
- For more information regarding the determination of fee percentage, see FAR 15.404-4.
- If a question arises about the use of a multiplier applied to actual salary rates, explain that if the salary rates are not fixed, such an arrangement would not result in specific rates of compensation.

Slide 22

## Summary of Contract Types and Payment Methods



### Key Message

Choice of contract type is primarily based on whether a specific project has been identified and the nature of that project. The appropriate payment method is determined based on how well defined the project scope is.

### Background

In terms of project administration, there is normally a difference in how a project is invoiced based on the payment method.

- Fixed-priced contracts invoiced based on percentage of completion.
- Cost reimbursement contracts invoiced based on costs incurred.

### Facilitation Guidance

- Explain the graphic.
- Discuss how the development of cost proposals and project administration differ based on contract type or payment method.
- Refer participants to the *23 CFR 172* for further information.
- Emphasize that the cost principles discussed in Lesson 4 of this course apply to all A/E contracts, regardless of the contract type or payment method used.

Slide 23

## Management Responsibilities: Indirect Cost Certification

- FHWA requires State DOTs to obtain A/E consultant certification of indirect costs
- Requirement is established in 23 CFR 172.11(c)(3)

### FHWA Sample Wording

- ✓ All costs included in this proposal to establish final indirect cost rates are allowable in accordance with the cost principles of the FAR of 48 CFR 31.
- ✓ This proposal does NOT include any costs which are expressly unallowable under applicable cost principles of the FAR of 48 CFR 31.

23 CFR 172.11



### Key Message

For projects receiving Federal-Aid Highway Program transportation funds, the Federal Highway Administration encourages State DOTs to require A/E consultants to certify that indirect cost rates do not include any unallowable costs.

### Background

- On October 27, 2010, the FHWA issued Order 4470.1A, *FHWA Policy for Contractor Certification of Costs in Accordance with Federal Acquisition Regulations (FAR) to Establish Indirect Cost Rates on Engineering and Design-related Services Contracts*. The 2015 revision to 23 CFR 172 established the cost certification as a requirement.
- State and local agencies administering Federal-Aid Highway Program funding must require contractor certification that proposed indirect cost rates include only allowable costs in accordance with 48 CFR Part 31. Contracting agencies have the flexibility to develop their own procedures in response to this requirement, and may require annual or contract-specific cost certifications.
- This indirect cost certification is similar to the type used on many Federal contracts.
- State DOTs are now required to include this certification requirement as part of the annual indirect cost rate submittal, and/or in connection with cost submittals for individual projects.

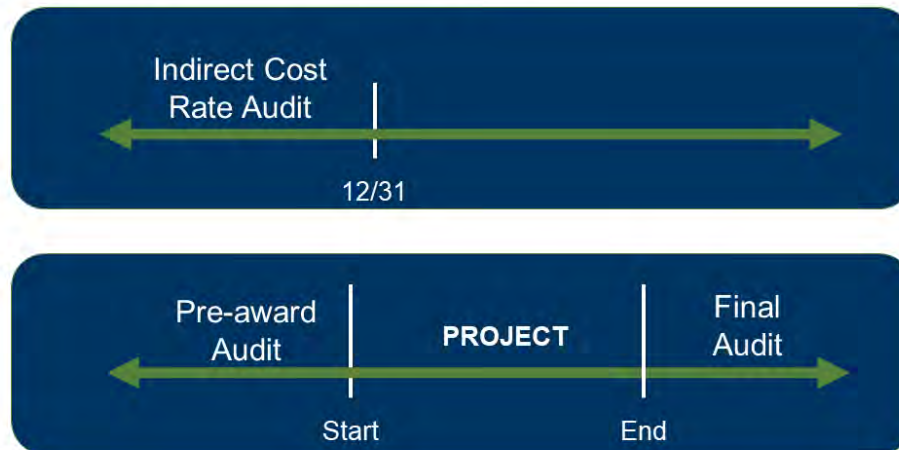
- Each A/E firm is responsible for establishing its own accounting year and calculating their indirect cost rate based upon that accounting year. The firm's accounting year does not have to follow the calendar year nor is it required to mimic the State or Federal Fiscal year. Having 4 different years (calendar, firm, Federal, State) results in each contracting agency developing their own policy for applying indirect cost rates to contracts. For example, some states always apply a consultant's ICR going forward. Some states always reconcile contract costs in arrears. Both are acceptable as long as the policy is consistently applied.

### **Facilitation Guidance**

- Discuss the bullets on the slide.
- Explain to participants that consultants are responsible for establishing their own accounting year, which may not coincide with the state and Federal fiscal years. This results in contracting agencies establishing their own policy regarding application of indirect cost rates to contracts.

Slide 24

## ▶ Engagement Types



### Key Message

There are a number of engagement types applicable to A/E contracts.

### Background

#### Indirect cost rate audits and reviews

- Typically performed on an annual basis, with the resulting rates used to:
  - Establish provisional rates to be used on current and future projects, and
  - Provide the basis for actual indirect costs incurred during the period under audit. The actual indirect cost rate is applied in project closeout and final audits.
- Often performed by an independent CPA firm or by the contracting agency, typically the State DOT.
- 23CFR 172 gives contracting agencies the ability to perform a risk-based analysis as a way of providing reasonable assurance to FHWA that the consultant costs they are paying are compliant with federal cost principles.
  - Safe Harbor Program can be a component of that risk-based analysis
  - Safe Harbor is a voluntary program whereby new and small firms can agree to a selected indirect cost rate prior to contracting that will not require any type of additional audit or review for the life of the specific contract.

- FHWA expects that there would be a natural progression out of the Safe Harbor Program. Once a firm has used the program to get into the market, they will graduate out as fast as they are able so they can start to recoup their actual costs. Or they may get in, realize it's not worth it, and not pursue additional work.
  - FHWA does not want the contracting agency to tell a firm that "if you don't take this rate, you can't work in this state." A firm is always eligible to work even if they don't have an indirect cost rate. However this situation can be burdensome. The Safe Harbor Program is intended to reduce the burden and allow firms to establish a cost history to allow for the development of a FAR compliant indirect cost rate.

#### Pre-award audits and reviews

- May be performed to:
  - Assess the reasonableness and accuracy of cost proposals for specific contracts.
  - Evaluate the cost accounting system and practices of an A/E consultant in support of above.
- Auditors often will rely upon work performed by other auditors.
- Items of cost typically examined include the indirect cost rate, direct labor rates, subconsultant costs, and other direct costs (ODCs).

#### Contract cost reviews/final audits

- Performed to determine actual allowable costs incurred on a contract.
- Auditors often rely upon work performed by other auditors, including conclusions regarding accounting systems and internal controls.
- Final audits are especially applicable to cost plus fixed fee payment types where, in many cases, indirect cost rates are established and billed as provisional rates to be adjusted upon final audit.
- Labor rates, subconsultant costs, and other direct costs are also subject to final audit on cost plus fixed fee and other cost reimbursement type contracts.
- Final audits may be performed on fixed price contracts to evaluate the effectiveness of the agency's cost estimation procedures.

#### **Facilitation Guidance**

- Discuss the various types of engagements and how they relate to the contract or payment types used.
- Explain that many DOTs will only negotiate using actual historical indirect cost rates and will **not** accept forward pricing rates.

Slide 25

## **Table Group Discussion: Your Role**

Discuss with your group:

- Your role as it relates to the procurement and administration of A/E contracts
- One responsibility or task that presents a challenge to those in your role



### **Key Message**

A goal of this training is to promote better communication and understanding among all groups who play a role in the oversight of funds administered through the Federal-Aid Highway Program. Getting to know your colleagues in this room and striving to see the course content from their varied perspectives helps achieve that goal.

### **Facilitation Guidance**

- Explain the table group activity and provide participants three minutes of silence to reflect or record their thoughts in the PW before talking with their group.
- Tell the group you will alert them when three minutes have passed and it is time to begin the discussion.
- Ask participants to hold a ten-minute table discussion as directed on the slide.
- Debrief the activity by asking, “What did you learn?” “What challenges did you hear?”

Slide 26

## Lesson Summary

What questions do you have about:

- The roles of all parties in the administration and completion of A/E contracts?
- Factors that make A/E contracts challenging?
- Contract types and payment methods?



### Key Message

Ask for and address any questions participants have about the topics on the slide.

### Background

Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.

### Facilitation Guidance

- Review the lesson learning outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - How would you summarize the roles and interrelationships of all parties in the administration and completion of A/E contracts?
  - What are some examples of factors that make A/E contracts unique and/or challenging?
  - What are the differences between the different contract types and payment methods and explain the effects on the project?
  - What are some similarities between the various types of engagements and how they relate to the contract types and payment methods used? What are the differences?



## Lesson 2

### Slide 1



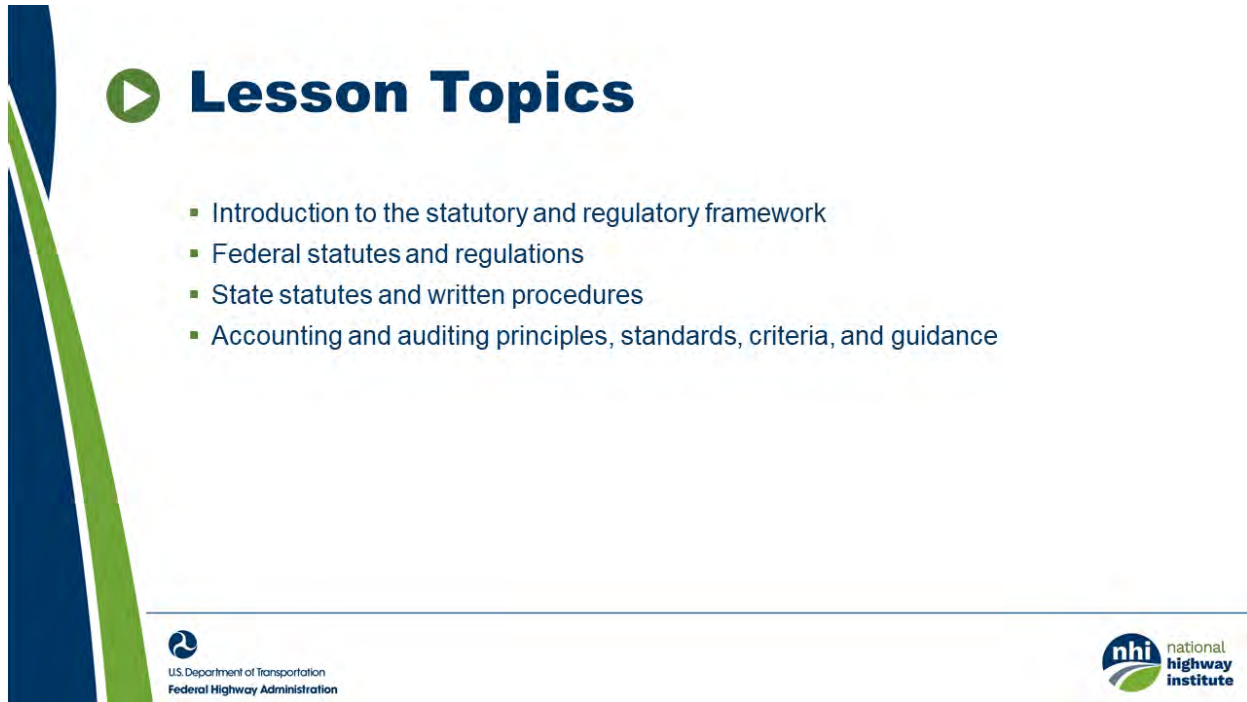
### Key Message

In Lesson 2, participants learn about the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each.

### Facilitation Guidance

Introduce the lesson.



Slide 2



The slide features a dark blue vertical bar on the left with a green diagonal stripe. The title 'Lesson Topics' is in large blue font, preceded by a green play button icon. Below the title is a bulleted list of four topics. At the bottom, there are two logos: the U.S. Department of Transportation Federal Highway Administration logo on the left and the NHI National Highway Institute logo on the right.

## ▶ Lesson Topics

- Introduction to the statutory and regulatory framework
- Federal statutes and regulations
- State statutes and written procedures
- Accounting and auditing principles, standards, criteria, and guidance

### Key Message

This lesson covers the four topics shown.


### Facilitation Guidance

Introduce the topics to be covered in this lesson.

### Notes

This slide sets the agenda for the lesson. Each topic is covered in greater detail throughout the lesson.

Slide 3





## Learning Outcomes

After completing this course, you should be able to:

- Summarize the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each

---



### Key Message

By the end of this lesson, you should be able to demonstrate the outcome shown on the slide.

### Facilitation Guidance

- Ask questions to help participants draw a connection between this topic and their ability to achieve the course outcomes. In other words, they need to be able to answer the question, “What’s in it for me?” alongside understanding the content of this lesson.
- Consider these sample questions:
  - Why is it critical that you be able to summarize the key statutes, regulations, and standards applicable to the administration of A/E contracts? (Example answer: *It is important to understand 1) which rules apply to a given contract; and, 2) the organization of the AASHTO Audit Guide so that we can know where to find more information if a question arises in applying these concepts.*)
  - What would be the impact of NOT understanding the concepts in this lesson? (Example answer: *Misapplication of the rules—e.g., State vs. Federal rules—could result in errors in cost estimation.*)

Slide 4

Step	Timing
1. Complete "Activity 2-1: Pre-Assessment" in the Participant Workbook (PW).	3 min
2. The instructor will provide the correct answers and explain them throughout the lesson.	2 min
<b>Total</b>	<b>5 min</b>

## Activity 2-1: Pre-Assessment

**Objective:** Assess what you already know about the regulatory framework for funds administered through the Federal-Aid Highway Program.

### Key Message

The learning outcome for this lesson is that you can summarize the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each. This pre-assessment will help you identify the lesson topics and outcomes on which you need to focus.

### Facilitation Guidance

- Explain the purpose of this un-scored pre-assessment activity and ask participants to spend five minutes completing the seven true/false questions independently.
- Review the activity by showing the correct answers on the next slide. Do NOT explain the answers at this time (as this will defeat the purpose of the following slides).
- Explain that the rationale behind each answer will be made clear throughout the lesson.

### Notes

- Refer participants to the Activities section of the Participant Workbook (PW) to complete this activity; answers and debrief information are located in the Activities section of the Instructor Guide (IG).
- In this un-scored pre-assessment, participants answer true/false assessments to determine their level of knowledge related to the regulatory framework. By the end of the lesson, they should be able to answer these same questions without assistance.

Slide 5

## Activity 2-1: Answers

Answer	Slide #	Relevant Slide Title
1.	2-5	Key Concepts of the Statutory and Regulatory Framework and Guidance
2.	2-9	Accounting Principles and Auditing Standards
3.	2-5	Key Concepts of the Statutory and Regulatory Framework and Guidance
4.	2-5	Key Concepts of the Statutory and Regulatory Framework and Guidance
5.	2-10	AASHTO Uniform Audit & Accounting Guide
6.	2-8	State Statutes and Written Procedures
7.	2-7	Federal Statutes and Regulations

### Key Message

Check your responses against the correct answers shown. Take note of any lesson topics that are key learning opportunities for you.

### Facilitation Guidance

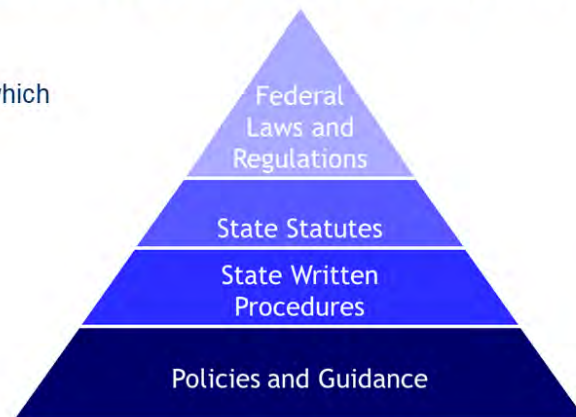
- Direct participants to check their responses against the correct answers shown.
- Suggest that they note any lesson topics that are key learning opportunities for them.

Slide 6



## Key Concepts of the Statutory and Regulatory Framework and Guidance

- Federal or State?
- Funding source critical in deciding which statutes or regulations apply



### Key Message

A hierarchy of Federal and State statutes, regulations, written procedures, policies, and guidance affects the oversight of Federal-Aid Highway Program funding. Where Federal funds are used, Federal laws and regulations take precedence over State statutes and State written procedures. Policies and guidance may be incorporated into any of the State written procedures, State statutes, and Federal laws and regulations.

### Background

- State DOTs may adopt other State requirements that do not conflict with or contradict the Title 23 provisions. To use Federal funds, the Title 23 requirements must be adopted.
- For projects that use Federal-Aid Highway Program funds, the Federal laws and regulations apply. Where there is a conflict between State statutes or written procedures and Federal laws and regulations, the Federal laws and regulations take precedence over State statutes and written procedures.
- For projects that only use State or local funds, certain Federal laws and regulations will not apply. (This will be discussed further, later in this lesson.)
- There are certain exceptions such as projects procured under simplified acquisition threshold provisions where the Federal laws and regulations, including Qualifications Based Selection (QBS), would not apply.

### Facilitation Guidance

- Explain the graphic, noting the relationship between laws, regulations, procedures, policies, and guidance. Note that policies and guidance include accounting principles, auditing standards, and other guidance, such as that contained in the *AASHTO Audit Guide*.
- Ask: Why is it critical to determine the funding source? (Answer: *It enables you to decide which laws, regulations, or statutes apply.*)
- Explain the effects of the funding source and the implications on the applicability of FAR Part 31 and other applicable Federal laws and regulations.

Slide 7

## Federal Statutes and Regulations

Statute or Regulation	Summary
23 U.S.C. 112(b)(2)	<i>Contracting for Engineering and Design Services</i>
23 CFR 172	<i>Administration of Engineering and Design Related Service Contracts</i>
48 CFR Part 31 (FAR Part 31)	<i>Contracts with Commercial Organizations</i>
40 U.S.C. Chapter 11 Sections 1101 to 1104	<i>Selection of Architects and Engineers (Brooks Act)</i>
2 CFR 200	<i>Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards</i>



### Key Message

The Federal statutes and regulations shown form the basis for administration and oversight of A/E firm contracts under the Federal-Aid Highway Program.

### Background

23 U.S.C. 112(b)(2)(A) – (E): (See Reference Manual.)

- Establishes the requirement to audit for compliance with FAR Part 31, governs the acceptance and application of cognizant audits, and establishes Qualifications Based Selection (QBS) procurement in accordance with the Brooks Act.

48 CFR Part 31 (FAR Part 31):

- Defines the requirements for cost allowability:
  - The FAR is written to guide the Federal Government when the Federal Government is the contracting agency. In most cases involving the expenditure of FAHP funds, the State DOT acts as the contracting agency. When the State DOT is the contracting agency and uses FAHP funds to procure professional services in furtherance of a construction contract, the only applicable FAR requirements (unless the state has adopted/ incorporated the entirety of the FAR as its state procedures) are the FAR cost principles found in 48 CFR Part 31. This is as per 23 USC 112(b)(2)(B)-(C).

23 CFR 172:

- Explains requirements for the administration of engineering and design-related service contracts:
  - 172.11: Discusses the requirements related to audits including requirements related to establishment and acceptance of cognizant audits. (*See Reference Manual.*)
  - 172.5: Reviews the items to be covered in a contracting agency's written procedures. (*See Reference Manual.*)

40 U.S.C. Chapter 11 (The Brooks Act):

- Lists requirements for selection of architects and engineers using QBS.

2 CFR 200 (Uniform Requirements): (*See Reference Manual.*)

- 2 CFR 200.317-.326 establishes procurement standards for recipients and subrecipients.
  - 1201.317 is only an exception applicable to Federal awards by the U.S. Department of Transportation. If a State DOT allows a local to use their own procurement procedures and other non-USDOT Federal funds are used for the contract (Key Message in slide 3-8), that other Federal agency would require that procurement procedures in .318-.326 be followed.
- 2 CFR 200.333 Retention Requirements for Records and 2 CFR 200.336 Access to Records

**Facilitation Guidance**

- Note that the list shown is not hierarchical.
- Discuss each of the Federal statutes and regulations listed, and the role it plays in the oversight of A/E firm contracts under the Federal-Aid Highway Program.
  - When discussing QBS, note that exceptions apply for certain situations, including small purchase and emergency purchase procedures.
- Explain that A/E firms should know where the project funding is coming from, as this will affect what statutes and regulations are applicable. Note that it is not always obvious what the funding source is.
- Note that 23 CFR 172 is discussed further on the next slide.
- When discussing 2 CFR 200.317-.326 Procurement:
  - Contrast the definition of a “recipient/subrecipient” vs. an “A/E consultant.”
  - Note that State DOTs fall under 200.317 and other recipients and subrecipients fall under Paragraphs 200.318-.326. State DOTs must ensure that every purchase order or contract includes any clauses required by Federal statutes, executive orders, and their implementing regulations. (Note: Notwithstanding 2 CFR 200.317, subrecipients of States shall follow such policies and procedures allowed by the State when procuring [§1201.317] property and services under a Federal award).

- Reference the list of required contract provisions in 2 CFR 200.326.
- Discuss the relevance of 23 U.S.C. 106 *Project Approval and Oversight* to local public agencies.
- When discussing 48 CFR 31 Procurement:
  - Discuss role in defining requirements for development of A/E firm indirect cost rates.
  - Note that FAR Part 31 applies to A/E firm contracts involving Federal Aid Highway Program funds, but the requirements of other FAR sections do not apply unless specifically incorporated through a state's written procedures or by inclusion in the contract terms.
  - Reference the four relevant Cost Accounting Standards that are incorporated into FAR Part 31 (CAS 401, 402, 405, and 406), noting that the theme of these standards is consistency and allocability.
  - Note that FAR Part 31 is supplemented by case law (court decisions).

## Notes

- Be sure to comment on the applicability to subconsultants. If ARRA/TIGER questions come up, suggest to contracting agencies that they should contact FHWA to ascertain which laws and regulations apply to ARRA and Transportation Investment Generating Economic Recovery (TIGER) discretionary funds.

Slide 8

## State Statutes and State Written Procedures

In what ways might the application of State statutes and procedures differ for the following types of contracts?

Contracts using Federal-Aid Highway Program funds	Contracts using only State and local agency funding
---	---

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

### Key Message

States have a variety of statutes and written procedures affecting contracts for A/E consultant services.

### Background


- Note, regarding Minnesota and West Virginia, these states were able to obtain an exemption from section 174 of the 2006 Transportation Appropriations Act which eliminated the ability of State DOTs to cap indirect cost rates on projects using Federal-Aid Highway Program funds.
- West Virginia subsequently voluntarily eliminated its indirect cost rate cap.
- Minnesota and West Virginia are still required to follow FAR Part 31 and QBS procurement procedures.


### Facilitation Guidance

- Ask the question shown. (*Answers are shown below.*)
- If Federal funding is used:
  - The FAR Part 31 cost principles must be applied and indirect cost rates may not be capped (except for Minnesota).

- State written procedures may not conflict with U.S.C. Title 23.
- Title 23 rules regarding cognizant audits must also be followed.
- For contracts using only State and local agency funding, additional State or local requirements could be applied.



Slide 9



 **Accounting and Auditing Principles, Standards, Criteria, and Guidance**

Publication	Description
<b>FAR Part 31</b>	Federal Acquisition Regulation
<b>GAS or GAGAS</b>	Government Auditing Standards (Also known as the “Yellow Book”)
<b>GAAP</b>	Generally Accepted Accounting Principles
<b>DCAA CAM</b>	<i>Defense Contract Audit Agency Contract Audit Manual</i>
<b>CAS</b>	Cost Accounting Standards
<b>GAAS and AICPA Guidance</b>	Generally Accepted Auditing Standards
<b>AASHTO Audit Guide</b>	<i>AASHTO Uniform Audit &amp; Accounting Guide</i>

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**Key Message**

The slide presents many of the accounting principles and auditing standards as well as other guidance applicable to A/E contracts.

**Background**

- FAR Part 31: Defines the requirements for cost allowability, allocability, and reasonableness. Establishes the primary criteria against which auditors measure compliance of costs incurred by A/E consultants for purposes of the indirect cost rate audit.
- GAAP: Defines requirements for proper accounting treatment in general. Costs typically should be recorded in accordance with GAAP, but there are exceptions. Allowability of costs presented on a basis other than GAAP should be evaluated on a case-by-case basis. The A/E consultant may wish to discuss such cost presentations with the State DOT prior to the audit.
- CAS: Defines specific requirements for certain areas of cost accounting; most sections apply only to certain A/E consultants. Specific sections are incorporated into FAR Part 31 and have wider applicability.
- GAS or GAGAS (aka “Yellow Book”): Defines audit requirements for Governmental audit engagements. GAGAS incorporate all the GAAS standards and requires the CPA to issue a report on the auditee’s internal controls system and compliance with applicable laws and regulations. GAGAS requirements must be used for indirect cost rate audits of A/E firms.

- *DCAA CAM*: Describes DCAA's audit procedures for use in auditing Federal Government contractors. While CPA firms and State DOT auditors are not required to apply DCAA guidance in performing audits, the *DCAA CAM* may be a useful tool in designing and performing audit procedures.
- Generally Accepted Auditing Standards (GAAS) and AICPA Guidance: Defines auditing standards and other guidance.
- *AASHTO Audit Guide*: Includes a description of the relevant accounting principles and auditing standards to be used in developing and auditing A/E consultant indirect cost rates, covered in greater detail on the following screen.

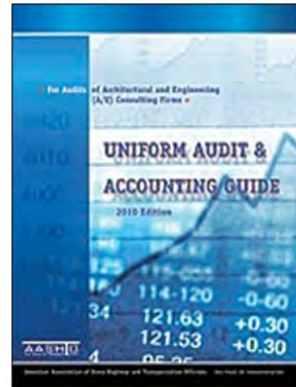
### **Facilitation Guidance**

- Note that the list presented is not hierarchical.
- Explain the use of each item on the list.
  - When discussing the *DCAA CAM*, note that the DCAA performs contracts for various Federal agencies, but does not perform them for State DOTs or local agencies.

Slide 10

## **AASHTO Uniform Audit and Accounting Guide**

- Terms and definitions
- Guidance vs. regulation



### Key Message

The *AASHTO Audit Guide* presents guidance on regulations, accounting principles, and auditing standards relevant to A/E contracts.

### Background


- The *AASHTO Audit Guide* includes the following, all of which serve to improve the quality of all audits of A/E design firm indirect costs, including those performed by CPA firms:
  - Clarification regarding cognizance
  - Specific requirements concerning Governmental auditing standards applicable to Federal-Aid funded engineering contract related engagements
  - Discussions on common interpretations of the FAR Part 31 cost principles
  - Detailed guidance on risk and materiality, and other relevant aspects of this program area
- The *AASHTO Audit Guide* is a tool for use by State DOT auditors, A/E firms, and public accounting firms that perform audits and attestations of A/E firms.
- The FHWA Divisions also use it as a benchmark for evaluating State DOT internal controls over A/E firm compliance with Federal laws, regulations, and cost principles.

- If a CPA performing a FAR audit uses procedures that vary significantly from those described in the *AASHTO Audit Guide*, the CPA must provide an adequate explanation to justify the deviation. If the State DOT conducting a review determines that the deviation is not properly justified, the State DOT may reject the overhead rate. The burden of proof is on the A/E firm to support that it has complied with FAR, and on the CPA to substantiate that adequate audit work has been performed.

### **Facilitation Guidance**



- Introduce the *AASHTO Audit Guide* and the regulations and requirements that will be discussed throughout the training.
- Point out that general terms and other defined terms are found in Sections 1.2 and 1.3.
- Explain that the *AASHTO Audit Guide* is currently guidance, not regulation; however, A/E firm indirect cost rate submissions will be evaluated by State DOTs for compliance with FAR Part 31 based on the content of the *AASHTO Audit Guide*.
- Provide an example from the *AASHTO Audit Guide*, such as minimum audit procedures, where the State DOTs may deem an audit inadequate if it does not adhere to the guidance in the *AASHTO Audit Guide*.
- Explain that CPA firms should note that by not adhering to the *AASHTO Audit Guide*, there could be negative consequences to the A/E firm (e.g., additional work may be necessary, and a State DOT may disallow the audit cost from the next year's indirect cost rate).

Slide 11



## Lesson Review

Question	Answer
The same Federal and State rules apply to A/E contracts, regardless of the funding source.	False
The <i>AASHTO Audit Guide</i> is intended to be used only by State DOT audit staff in performing indirect cost rate audits.	False
The FHWA performs oversight of all transportation funds spending by State DOTs.	False
Most local agency engineering design contracts funded in part with Federal-Aid Highway Program funds are not required to follow Qualifications Based Selection procedures.	False
Federal rules do not require that A/E firms have a CPA firm perform an indirect cost rate audit.	True
Most State DOTs may not apply caps to A/E consultant indirect cost rates if Federal-Aid Highway Program funds are used on the project.	True
A/E consultants must comply with all parts of the Federal Acquisition Regulation in order to contract with a State DOT.	False



### Key Message

As a way to review the information in this lesson, let's review the questions you answered in the pre-assessment at the start of this lesson.

### Facilitation Guidance

- Read each question aloud, and ask if it is true or false.
- Tell participants NOT to look back at their earlier quiz.
- Animate the slide to reveal each answer.
- Clarify any questions that arise.

### Notes

- Do not skip this step, as it is an important step in evaluating whether learning has occurred and in helping participants review for the final assessment.
- Answers and debrief information are located in the Activities section of the IG.

Slide 12

## Lesson Summary

What questions do you have about:

- The key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each?
- The roles of all parties in the administration and completion of A/E contracts?



### Key Message

Ask for and address any questions participants have about key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each.

### Background

Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.

### Facilitation Guidance

- Review the lesson outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - How would you describe the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each?

## Lesson 3

### Slide 1



The slide features a dark blue background on the left with the text "Lesson 3:" in white, followed by a green play button icon. To the right, the title "The A/E Project Cycle (Qualifications Based Selection)" is displayed in a large, bold, dark blue font. The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners. A decorative green and white diagonal stripe runs along the right edge of the slide.

U.S. Department of Transportation  
Federal Highway Administration

nhi national  
highway  
institute

**Lesson 3:**

**The A/E Project  
Cycle  
(Qualifications  
Based Selection)**

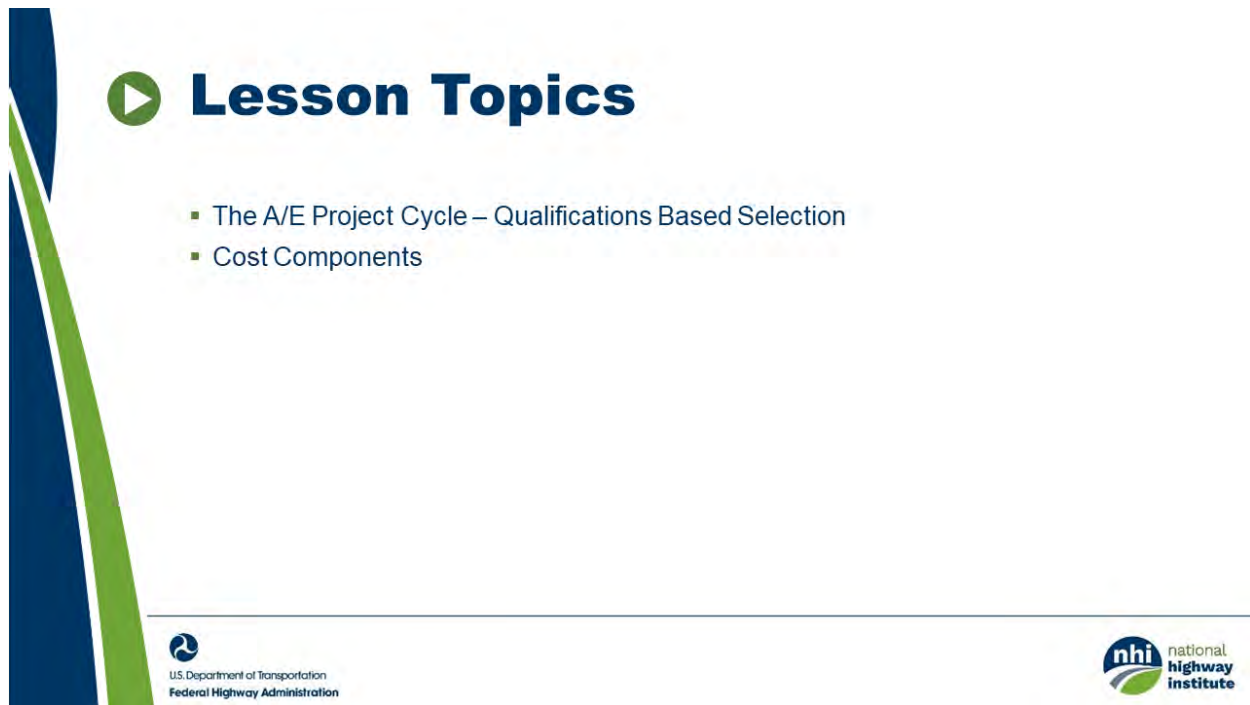
### Key Message

Lesson 3 provides a high-level overview of the A/E project cycle (Qualifications Based Selection or QBS).

### Facilitation Guidance



Introduce the lesson.

Slide 2



## ▶ Lesson Topics

- The A/E Project Cycle – Qualifications Based Selection
- Cost Components

### Key Message

This lesson covers the two topics shown.


### Facilitation Guidance

Introduce the topics to be covered in this lesson.

### Notes

This slide sets the agenda for the lesson. Each topic is covered in greater detail throughout the lesson.

Slide 3





## Learning Outcomes

After completing this lesson, you should be able to:

- Describe key components of the A/E project cycle
- Explain the need for and use of financial information in the cycle
- Explain the key cost components of an A/E project

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### Key Message

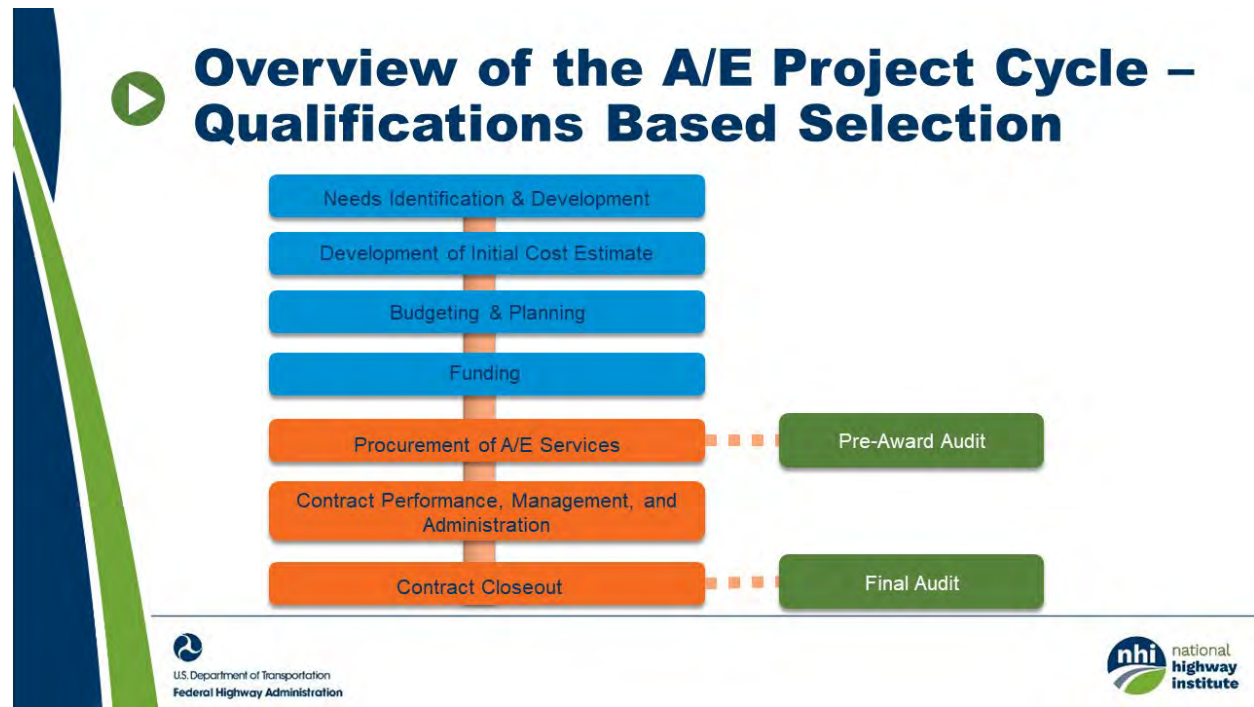
By the end of this lesson, you should be able to demonstrate the outcomes shown on the slide.

### Facilitation Guidance

Ask questions to help participants answer “What’s in it for me?” with regard to understanding the content of this lesson. Consider these sample questions:

- Why is it important to understand the use of financial information in the A/E project cycle? (Example answer: *To promote understanding of how the use of financial information affects the procurement and delivery of A/E consultant services*)
- Why is it important to understand the key components of the A/E project cycle? (Example answer: *To better understand the process and the context in which financial information is used and audits are performed*)

Slide 4



### Key Message

This flowchart shows the components of a typical A/E project cycle for engineering and design-related contracts procured using QBS.

### Facilitation Guidance

- Explain that the slide shows a typical A/E project cycle for engineering and design-related contracts procured using QBS.
- Note that A/E contracts that include any Federal-Aid Highway Program funding must be procured using QBS. QBS is discussed in Lesson 2.
- Emphasize that the flow and some components may not be applicable to every project, contract type, payment method, or agency; however, the fundamental process generally will be consistent with the steps about to be discussed.
- Refer participants to the scrambled list of steps in the Participant Workbook (PW) (beneath the slide image) and ask them to take a minute to order the steps from one to seven as they should appear in the flowchart.
- Ask: Which of the listed steps belongs in the first box? (Answer: *Needs Identification and Development*)
  - Animate the slide to reveal the process step on the slide; repeat for each step.

## Notes

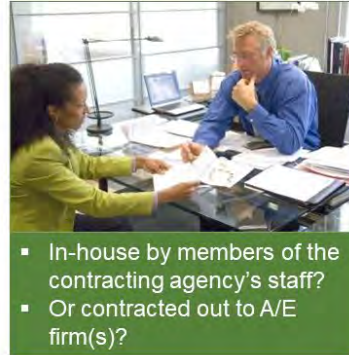
This flowchart initially appears blank without any labels.

Slide 5

## Needs Identification and Development

Contracting agency:

- Identifies the need for the project
- Develops a more formal understanding of the project, including special considerations or challenges
- Determines how each portion of the project design work will be performed and who will perform it



### Key Message

This step involves the identification of the need for the project, development of a more formal understanding of the project, and decisions about who will do the work.

### Background

- Members of the contracting agency's staff identify the need for the project (e.g., a need to extend a roadway from Point A to Point B). The step of the process involves many factors and often includes public input.
- Once the project is identified, members of the agency staff typically develop a more formal understanding of what the project will involve, including any special considerations or challenges.
- The contracting agency then determines what portions of the project design work will be contracted out to one or more A/E firms, and what work, if any, will be performed in-house.

### Facilitation Guidance

- Discuss the bullets on the slide.
- Ask: What are some of the challenges the contracting agency may encounter in this part of the process? (Example answers: *It may be difficult to reach consensus on the need for the*

*project; public involvement may be required; the contracting agency may have limited staff to perform the needs identification and preliminary scoping process.)*

Slide 6

## Development of Initial Cost Estimate by the Contracting Agency

- The cost estimate may be detailed or higher-level, depending on its intended use
- In developing the cost estimate, contracting agency staff must examine expected scope, resources, and schedule



### Key Message

Members of the contracting agency staff typically develop an initial cost estimate for budgeting purposes. The initial cost estimate is used to develop a design cost and not to be confused with a preliminary construction estimate.

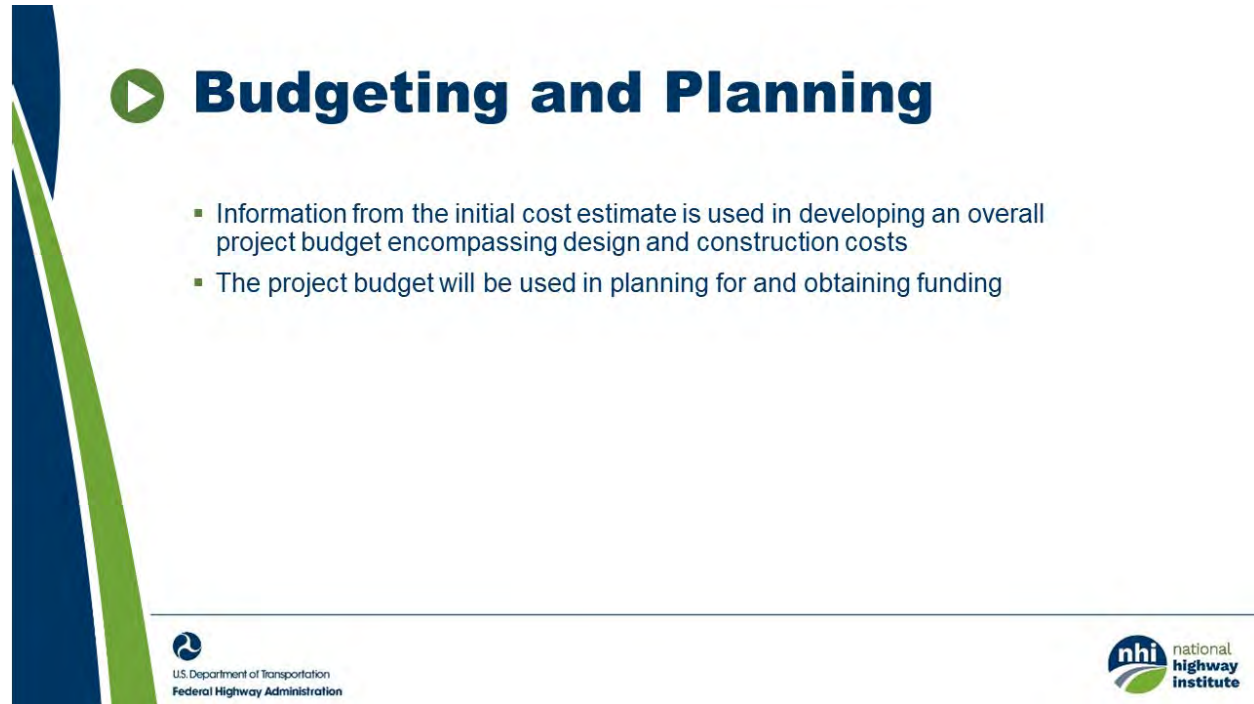
### Background

- The initial cost estimate may be:
  - Detailed for use in the negotiation process, or
  - Higher-level intended only for budgeting purposes
- In developing the initial cost estimate, contracting agency staff must examine expected scope, resources, and schedule.

### Facilitation Guidance



- Discuss the bullets on the slide.
- Ask: What are some of the challenges the contracting agency may encounter in this part of the process? (Example answers: *Estimating the expected scope and costs may be challenging and time consuming, especially for a complex project. Costs change over time which may make it difficult to estimate costs for a multi-year project.*)

Slide 7

The slide features a dark blue background on the left with a green diagonal stripe. The title "Budgeting and Planning" is in large, bold, dark blue font, preceded by a green play button icon. Two bullet points are listed in dark blue text. At the bottom, there are logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI).

## ▶ Budgeting and Planning

- Information from the initial cost estimate is used in developing an overall project budget encompassing design and construction costs
- The project budget will be used in planning for and obtaining funding

### Key Message

The contracting agency uses information from the initial cost estimate to develop an overall project budget that encompasses costs for project design and construction. The agency then uses the project budget to plan for and obtain funding.

### Facilitation Guidance

- Discuss the bullets on the slide.
- Describe the need for, and use of, financial information in this component, referencing the roles and responsibilities discussed in the previous lesson.
- Ask: What are some of the challenges encountered in this part of the process? (Example answers: *Developing a realistic project budget may be challenging, given the substantial number of variables involved. It may be difficult to manage outside pressures to keep the budget at or below a predetermined level.*)

Slide 8

## Funding



The contracting agency may fund the project from one or a combination of local, State, or Federal sources.



### Key Message

The contracting agency may fund the project from one or a combination of local, State, or Federal sources.

### Background

The focus of this course is primarily on contracts funded in whole or in part through the Federal-Aid Highway Program.

### Facilitation Guidance

- Describe the need for and use of financial information in this component, referencing roles and responsibilities.
- Ask: What are some of the challenges faced in this part of the process? (*Answers vary.*)

Slide 9

## The Brooks Act

- Establishes Qualifications Based Selection (QBS)
- Requires:
  - Public announcement of requirements for A/E services
  - Selection based on qualifications using established and advertised criteria
  - Selection and ranking of at least three A/E firms
  - Negotiation of contract starting with the most highly qualified firm

Price may **not** be considered in the selection process in QBS.



### Key Message

The Brooks Act (Public Law 92-582) establishes the procurement process for A/E contracts funded in whole or in part with Federal funds. The Brooks Act is also found in the United State Code at 40 U.S.C. 1101-1104. 23 CFR 172 is FHWA's regulation implementing 40 U.S.C. 1101-1104.

### Background

- The Brooks Act establishes the Qualifications Based Selection (QBS) process that must be used to select A/E firms for contracts funded in whole or in part with Federal funds.
- Under QBS, A/E firms are selected based on their competence and qualifications for the type of services required. Contracts are subsequently negotiated with the most highly qualified A/E firm at a price that the agency determines to be fair and reasonable.
- Price may not be considered in the selection process in QBS. In addition, at least three A/E firms must be selected and ranked under QBS.

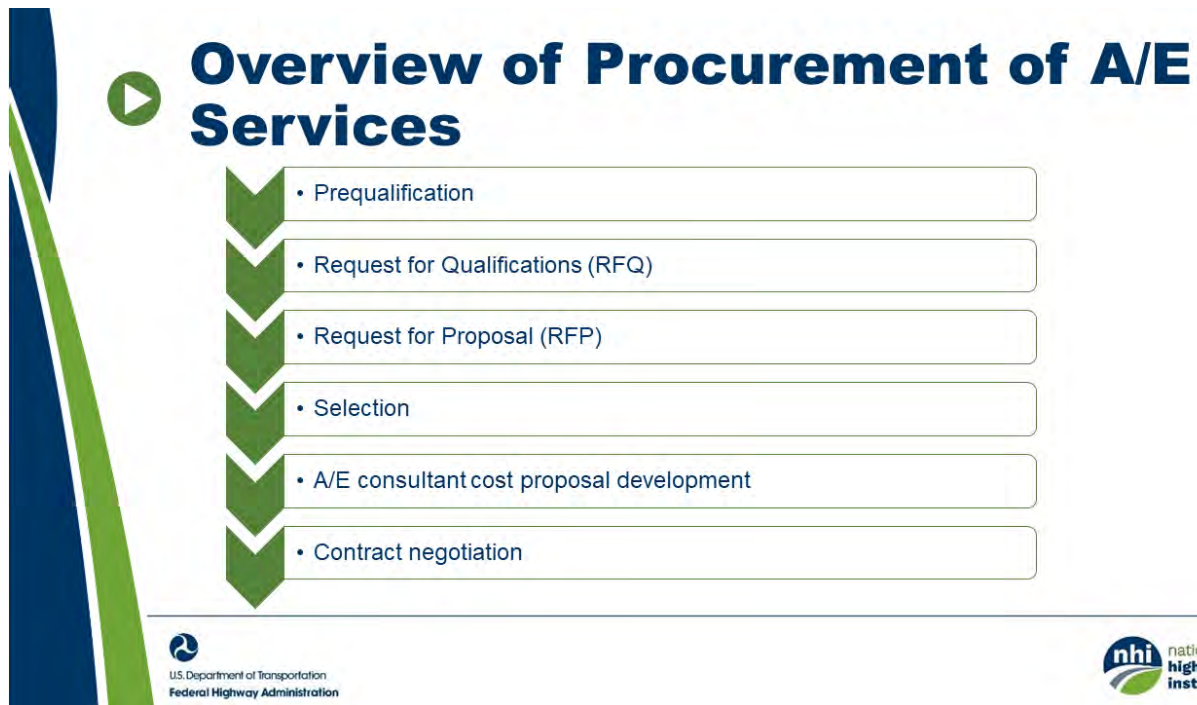
### Facilitation Guidance

Provide an overview of Qualifications Based Selection procedures and their regulatory basis in the Brooks Act, noting that the procurement process will be discussed in further detail in the slides that follow.

## Notes

If a question arises about the definition of public announcement, direct participants to the definition provided in 23 CFR 172.7(a)(1)(i). In regard to public announcement, it states, “The solicitation process shall be by public announcement, public advertisement, or any other public forum or method that assures qualified in-State and out-of-State consultants are given a fair opportunity to be considered for award of the contract.”

Slide 10



### Key Message

Procurement involves multiple steps ranging from the prequalification of A/E firms to contract negotiation.


### Facilitation Guidance

- Ask participants to silently review the six steps of the procurement stage of the A/E project cycle.
- Explain that these steps will be covered in greater detail on each of the next six slides.
- Emphasize that not all steps will apply to all participants. For example, some contracting agencies may not use RFQs in their procurement process, or the agency might use RFQs for some procurements, but not others.

Slide 11

## Prequalification – Establish Indirect Cost Rate

- Purposes:
  - To identify A/E consultants who are interested in and qualified to contract for projects with the agency
  - To facilitate the process of getting those A/E consultants under contract, if selected
- Approved indirect cost rate often established during this phase



Types of  
information  
gathered in  
this phase?

### Key Message

Many contracting agencies using Federal-Aid Highway Program funds have an annual prequalification process for A/E consultants during which consultants submit both financial and non-financial information.

### Background

- The purpose of the prequalification process is to identify A/E consultants who have interest in, and qualifications for, contracting for projects with the agency, and to facilitate the process of getting those A/E consultants under contract, if selected.

### Facilitation Guidance

- Explain the purpose of a contracting agency's prequalification process for A/E consultants.
- Explain that the pre-qualification process here is not to be confused with an ID/IQ type selection.
- Ask: What types of information might the contracting agency gather during the prequalification stage? (Example answers: *A description of the A/E firm's services and capabilities, a list of key staff, labor rate information, and the most current indirect cost rate audit*)
- Write responses on a flipchart.

- Explain that the approved indirect cost rate is often established during the prequalification phase.
- Ask: Why do you think this is so? (Answer: *This expedites the process of reviewing cost proposals and negotiating contracts when an A/E firm is selected for a contract.*)

Slide 12

## ▶ Request for Qualification (RFQ)

- Some agencies use the RFQ process
- Helps identify A/E firms that have the interest and qualifications necessary to perform a proposed project
- Responses used to develop a short list of at least three highly qualified A/E firms to perform the required work
- May not be necessary if prequalified A/E firms exist

Types of  
information  
requested in  
this phase?



### Key Message

Contracting agencies often distribute a Request for Qualification (RFQ) to identify interested A/E firms that have the necessary qualifications to perform a proposed project.

### Facilitation Guidance

- Explain that the responses to the RFQ are evaluated and used to develop a short list of at least three A/E firms that are considered the most highly qualified to perform the required work.
- Ask: What types of information might the contracting agency gather during the RFQ stage? (Example answers: *Information on A/E firms interested in the proposed project, including the firms' qualifications, prior experience on similar projects, overall understanding of the project, and the types of services required*)
- For some projects, an RFQ is not considered necessary, and the contracting agency proceeds directly to distributing a Request for Proposal (RFP) to prequalified A/E firms, thus bypassing the RFQ step.
- Emphasize the need for public announcement of the RFQ and fair and open competition in accordance with the Brooks Act.

- Explain that the terms RFP, RFQ, SOI (statement of interest), and SOQ (statement of qualifications) are all terms contracting agencies use in correspondence to solicit interest from qualified A&E firms.

Slide 13

## ▶ Request for Proposal (RFP)

- Advertise/distribute to qualified A/E firms
- Must provide evaluation criteria and relative weight
- Requires, in part, submission of the technical proposal
- May include a pre-proposal scoping meeting
- In QBS, shall not require or consider cost information

Types of  
information  
requested in  
this phase?



### Key Message

An RFP is distributed to short-listed A/E firms.

### Background

- For complex projects, it is customary to hold a pre-proposal project scoping meeting after the short-listed A/E firms have been notified and the RFP distributed.
  - The purpose is to clarify the scope of the project and respond to questions from the short-listed firms.
  - The intent is to resolve any misunderstandings regarding the scope of the project; this improves the quality of proposals submitted and avoids surprises during negotiations with the selected firm.
- The evaluation criteria and their relative weight of importance must be advertised in the RFP.

### Facilitation Guidance

- Explain that the RFP is distributed to the short-listed A/E firms.
- Emphasize the need for public announcement of the RFP and fair and open competition in accordance with the Brooks Act.

- Ask: What types of information is usually requested in the RFP? (Answers: *The technical proposal; technical review procedures; expected schedule of activities; scope of work; project description; and proposal delivery details, such as due date, number of copies, and delivery location*)
- Ask: What is typically included in the technical proposal? (Answers: *A work plan and schedule, organizational chart, staffing plan, resumes of proposed staff, list of subconsultants, technical approach to the project, and examples of similar work previously completed by the firm*)
- Explain when a pre-proposal scoping meeting may be held and the purpose and intent of this meeting.

Slide 14

## Selection

- Selection committee is established early in process to review proposals
- If necessary, short-listed A/E firms are interviewed using a structured process
- Short-listed firms are ranked in accordance with advertised criteria
- Upon approval, final selection is made, and firms are notified

What types of  
criteria are used  
to evaluate  
proposals?



### Key Message

Contracting agencies normally will assign a selection committee early in the contracting process for a given project. This committee will conduct interviews, rank the short-listed firms, make a recommendation, and notify the firms of the outcome.

### Background

- The selection committee will evaluate proposals according to advertised criteria, which typically include some, or all, of the areas listed below.
  - Project understanding
  - Demonstrated competence
  - Innovative concepts
  - Approach to quality control
  - Comprehensiveness of proposal
  - Staffing quality and availability
  - Staffing leadership and experience
  - Reasonableness of work schedule to meet agency timeframe
  - Past performance of prime and subconsultants

- Interviews: The contracting agency will follow its written policies to determine when to conduct formal interviews with the short-listed A/E firms. In such interviews:
  - It is important that each firm be treated in the same manner and follow the same rules for the interview, so that no firm is given an advantage over another.
  - The interview provides A/E firms an opportunity to present their qualifications and provides the contracting agency the opportunity to ask questions to clarify qualifications or other information provided.
- Ranking: After the proposal and, if applicable, the interview, the selection committee ranks all of the short-listed firms that submitted proposals.
  - The committee documents these rankings based on the advertised evaluation factors.
- The committee's recommendation is then submitted through the agency's approval process.
- Short-listed firms that submitted proposals should be notified of the final selection.
- Debriefings may be provided to A/E consultants, if requested.

### **Facilitation Guidance**

- Ask: Who has been part of a selection committee? What criteria were used to evaluate the proposals? (*Answers will vary.*) Expand on participant answers using information from the Background section.
- Discuss the bullets shown on the slide.

Slide 15

## **A/E Consultant Cost Proposal Development**

- Cost proposal may vary in form based on payment method used
- A/E firm and contracting agency may meet to continue to refine scope
- Contracting agency must develop an independent cost estimate to be used in negotiation



**Cost proposal incorporates all elements necessary to accomplish the project scope:**

- Direct labor hours and cost
- Indirect costs
- Subconsultant costs
- Other direct costs
- Profit or fee



### **Key Message**

After selection, the A/E consultant develops a cost proposal for the project, incorporating all elements necessary to accomplish the project scope.

### **Background**

- Additional scoping meetings may be necessary to refine the A/E firm's and contracting agency's understanding of the project scope and to reach ultimate agreement on scope.
- The cost proposal is developed based on the agreed upon scope. Cost proposals may vary in form based upon the payment method used; however, this list of cost elements is common to most A/E firm cost proposals. Cost elements are discussed in more detail later in this lesson.
- As discussed previously in this lesson, the contracting agency must develop an independent cost estimate to be used in the negotiation process. The agency may use the same estimate developed in the budgeting and planning phase of the procurement process or may develop a more detailed cost estimate for negotiation.
- When the selected firm does not have an indirect cost rate established by a cognizant agency, the firm and the contracting agency may agree to establish a provisional indirect cost rate for the specific contract and then adjust contract costs based upon an audited final rate at the completion of the contract.

### **Facilitation Guidance**

Discuss the A/E Consultant Cost Proposal Development stage as covered in the Background section.

Slide 16

## ▶ Contract Negotiation

- Indirect cost rate\* is not subject to negotiation
- Once the submitted indirect cost rate has been accepted by the contracting agency, such rate should be used in cost estimation, negotiation, and contract payment



In Minnesota, the DOT may apply caps to the indirect cost rate for projects involving Federal-Aid Highway Program funds.

*\* For projects involving any Federal-Aid Highway Program funds.*



### Key Message

Once the A/E consultant has developed its cost proposal, and, the contracting agency has developed its independent cost estimate, the two parties begin negotiations.

### Background

- Generally, with the exception of an indirect cost rate audited in accordance with 48 CFR 31 and/or approved by the contracting agency, any of the components of the cost proposal may be negotiated. The goal is to determine a total contract price that is reasonable and acceptable to both the A/E consultant and contracting agency for the agreed upon scope of work. The agency is required to negotiate a contract at compensation which the agency determines is fair and reasonable.
- Generally, when projects are funded partially or fully with Federal-Aid Highway Program funds, the indirect cost rate is not subject to negotiation; instead, once the consultant's submitted indirect cost rate has been accepted by the contracting agency, such rate should be used in cost estimation, negotiation, and contract payment.
- The contract maximum and fixed fee that are established may ultimately affect the total overhead and fee that are recovered on the project.

### Facilitation Guidance

- Discuss the Negotiation stage, as covered in the Background section.
- Emphasize that in Minnesota, the Department of Transportation (DOT) has the ability to apply caps to the indirect cost rate for projects involving Federal-Aid Highway Program funds.

Slide 17

## Pre-Award Audits

- Used to verify financial information included in cost proposal
- Normally provide assurance regarding A/E consultant's accounting system
- Support contract negotiations



### Key Message

Pre-award audits may be used as an integral part of the procurement process.

### Background

- Pre-award audits are frequently used by contracting agencies to gain assurance regarding the proposed costs and rates included in A/E consultant cost proposals.
- All costs included in the cost proposal (discussed later in this lesson) are subject to verification in the pre-award audit. Pre-award audits are discussed further in Lesson 7.

### Facilitation Guidance

Explain the role of pre-award audits in the procurement process.

Slide 18

## **Contract Performance, Management, and Administration**

- Typically, contract performance, management, and administration formally begin with a Notice to Proceed and end as defined in the project contract



### Key Message

Typically, contract performance, management, and administration formally begin with a Notice to Proceed and end as defined in the contract.

### Facilitation Guidance

- Briefly define contract performance, management, and administration.
- Note that contract performance, management, and administration typically involve members of the contracting agency's contract management and administration staff, A/E firm project managers, and finance and accounting staff. These activities may also involve members of the contracting agency's audit staff.

Slide 19

## ▶ Contract Closeout

- Depending on the contract type and payment method, there may be adjustments to amounts previously paid based upon the outcome of the final audit
- Following final audit and acceptance of the work, the contracting agency closes out the contract
- Federal regulations specify the number of years that the A/E consultant must maintain project records



### Key Message

The final audit is often an important step in the closeout process. Following final audit and acceptance of the work, the contracting agency closes out the contract.

### Background

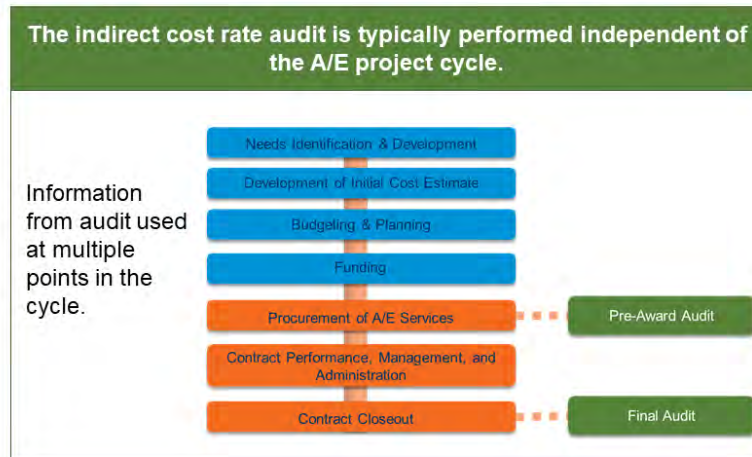
- Federal regulations specify the number of years that the A/E consultant must maintain project records (including financial records) after the date of final payment to the A/E consultant. The contract typically incorporates these regulations. In some cases, the record retention requirement is based on another event, such as the completion of project construction.

### Facilitation Guidance

- Discuss the bullets on the slide.
- Note that contracting agency contract management staff, audit staff, and A/E consultant staff may be involved in the contract closeout process.
- Ask: What are some of the challenges faced in this part of the process? (Example answers: *The process can be lengthy and time consuming, and often occurs years after the design work has been completed. It may be difficult to locate all of the requested documentation. However, the consultant is required to have documentation available.*)

Slide 20

## ▶ Indirect Cost Rate Audit



### Key Message

The indirect cost rate audit is typically performed independent of the A/E project cycle, usually on an annual basis. Information from the audit is used during the procurement process in cost proposal development, pre-award audits, project invoicing, and final audits.

### Facilitation Guidance

Discuss annual indirect cost rate audits and how they fit into the project cycle.

### Notes

This audit is discussed more fully in Lesson 7.

Slide 21

## ▶ Cost Components



Direct Labor



Indirect Costs



Direct Materials



Other Direct  
Costs (ODCs)



Subconsultants



Facilities Capital  
Cost of Money



Profit/Fee/  
Fixed Fee/Net Fee

### Key Message

This slide provides an overview of seven cost components common to A/E design contracts.

### Facilitation Guidance

- Briefly introduce the seven cost components common to A/E contracts.
- Explain that each component will be discussed in more detail on the slides that follow in the context of an A/E cost proposal.
- Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW.
- Explain that cost proposals may take many different forms and be broken down differently than the sample provided. Explain that this sample has been simplified for illustration purposes.

### Notes

“Example 3-1: Sample Contract Cost Proposal” is located in the Instructor Guide and PW. Refer to this sample contract cost proposal when walking through the next six slides to illustrate each of the relevant cost components. Note that FCCM is not included in the cost proposal.

Slide 22

## ▶ Cost Components: Direct Labor

- Labor costs expected to be incurred on a project, excluding fringe benefits, indirect costs, and profit
- Generally:
  - Total actual hourly salary or wage for each assigned staff member x expected hours for staff member
- Direct labor rates may only be limited based on an evaluation consistent with FAR cost principles



### Key Message

Direct labor costs consist of the labor costs expected to be incurred on a project, exclusive of any fringe benefits, indirect costs, or profit.

### Background

- Direct labor cost typically is calculated as the total of the actual hourly salary or wage for each staff member assigned to the project, multiplied by the number of hours that staff member is expected to work on the project.

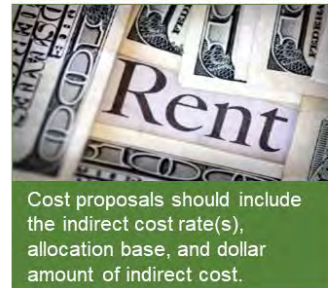
### Facilitation Guidance

- Define direct labor costs.
- Explain how direct labor costs typically are calculated.
- Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW to see an example of direct labor costs.
- Explain that some cost proposals may show labor hours and costs by employee, while others may show labor hours and costs by classification.

Slide 23

## ▶ Cost Components: Indirect Costs

- “Overhead” costs allowable under FAR Part 31 and allocable to the project
- Allocated to project based on allocation base (e.g., direct labor cost)



### Key Message

This component represents the A/E consultant's indirect costs, which are allowable under FAR Part 31 and allocable to the project.

### Background

- Indirect costs are any costs that are not specifically identified with a project. Indirect costs are often referred to generically as “overhead” and might include fringe benefits, rent, office supplies, indirect labor costs, and other general and administrative costs. Other categories of indirect costs might be included depending on the A/E consultant's rate structure.
- Each component of indirect cost must be allocated to the project based on an allocation base. The most common allocation base is direct labor cost. However, other allocation bases may be acceptable, if they are supported and the result is an equitable distribution to the benefitted cost objectives.
- The indirect cost allocable to the project is calculated by multiplying the indirect cost rate by the units of the allocation base estimated to be consumed by or applied to the project. For example, in a cost proposal for which the allocation base is direct labor cost, the proposed indirect costs allocable to the project would be calculated by multiplying the indirect cost rate by total proposed direct labor costs.

- The cost proposal typically should reflect the indirect cost rate(s), the allocation base, and the dollar amount of indirect cost.

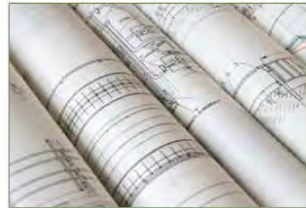
### **Facilitation Guidance**

- Discuss indirect costs as covered in the Key Message and Background sections.
- Refer participants to “Example 3-1: Sample Contract Cost Proposal” to see an example of indirect costs.
- Explain that the sample refers to “indirect costs,” “indirect cost rate,” and “allocation base.” A variety of terms may be used in actual cost proposals, including “overhead,” “labor overhead,” and “base.” The term “overhead” is often used generically to refer to indirect costs; whereas, indirect costs might actually include separate fringe benefits, general and administrative (G&A) costs, and overhead costs.

Slide 24

## ▶ Cost Components: Direct Materials and Other Direct Costs

- Direct Materials
  - Costs expected to be incurred for materials used in completing the project
- Other Direct Costs
  - All other direct costs expected on a project other than direct labor, direct materials, and subconsultant costs



### Key Message

*Direct Materials* are the expected expenses for materials to be used in completing a project. *Other Direct Costs* include all direct costs of a project other than direct labor, direct materials, and subconsultant costs.

### Background

#### Direct Materials Costs

- Direct materials costs typically include project-specific materials to be used in the completion of the project (e.g., testing materials or supplies).
- Direct materials would **not** include:
  - Office supplies or other costs that are generally treated as indirect costs
  - Direct costs, such as project-related travel, that are typically included in other direct costs.
- In many cases, A/E consultants and contracting agencies do not list direct materials costs separately in the cost proposal. Instead they include such costs in the other direct costs category.

#### Other Direct Costs (ODCs)

- As with all other proposed costs, ODCs should be supported by documentation and are subject to audit examination.
- State DOTs have different methods and limitations which they apply to ODCs. This is discussed in greater detail in the next lesson.

### **Facilitation Guidance**

- Discuss direct materials costs and other direct costs as covered in the Key Message and Background sections.
- Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW to see an example of direct materials costs and other direct costs.

### **Notes**

Contracting agencies may require additional details to be included in the cost proposal to support these costs.

Slide 25

## **Cost Components: Subconsultant Costs**

- Typically include the same cost categories as the primary A/E consultant's
- Must comply with contract terms
- Support for costs should be available upon request



### **Key Message**

Subconsultant costs typically include the same categories of cost as those discussed for the prime consultant.

### **Background**

- Subconsultant costs should be presented consistent with the requirements of the RFP or contract. If presented as a lump sum amount, additional detail may be required.
- Support for subconsultant costs should be available upon request.

### **Facilitation Guidance**

- Discuss subconsultant costs as covered in the Key Message and Background sections.
- Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW to see an example of subconsultant costs.

Slide 26

## **Cost Components: Facilities Capital Cost of Money (FCCM)**

- An imputed cost, expressed separately from the indirect cost rate
- Allowable if in compliance with the requirements of FAR 31.205-10

The *AASHTO Audit Guide* Section 8.6 defines FCCM as: "...an imputed cost related to an engineering consultant's investment in contract performance, regardless of whether the source of the investment is equity or borrowed capital..."

*AASHTO Audit Guide* Section 8.6



### Key Message

Facilities capital cost of money (FCCM) is an imputed cost, expressed separately from the indirect cost rate, that is allowable, provided it complies with the requirements of FAR 31.205-10.

### Background

The *AASHTO Audit Guide* Section 8.6 defines facilities capital cost of money as listed below.

**[Reference: *AASHTO Audit Guide* Section 8.6])**

Facilities capital cost of money is an imputed cost related to an engineering consultant's investment in fixed assets/facilities used in contract performance, regardless of whether the source of the investment is equity or borrowed capital. Cost of money is charged as a rate, in a manner similar to overhead. The resulting cost of money is *not* a form of interest on borrowing. The costs of the capital investment must be determined, measured, and allocated to contracts in accordance with CAS 414.

Engineering consultants are not *required* to propose facilities capital cost of money in pricing and performing a contract. However, when an engineering consultant chooses to claim cost of money, the estimated facilities capital cost of money must be specifically identified in the cost proposals relating to the contract under which the cost is to be claimed.

### **Facilitation Guidance**

- Discuss facilities capital cost of money as covered in the Background and Key Message sections.

Slide 27

## **Cost Components: Profit/Fee/Fixed Fee/Net Fee**

- Reasonable amount over the A/E consultant's allowable costs
- Typically a fixed lump sum
- Usually calculated as a percentage of proposed costs (direct labor and allowable indirect costs)



### **Key Message**

The terms “profit,” “fee,” “fixed fee,” and “net fee” are often used interchangeably. They refer to the amount over and above the A/E consultant’s actual allowable costs (direct and indirect) that is intended to provide the A/E firm a reasonable profit for performance of the contract.

### **Background**

- Typically, the fee amount is established as a lump sum which is not changed based on the actual costs incurred on the project (hence the term “fixed fee”). The cost proposal should include negotiated profit/fixed fee.
- Typically, the proposed fixed fee is calculated as a percentage of the sum of the direct labor costs and allowable indirect costs presented in the cost proposal. Generally, the fixed fee is not applied to facilities capital cost of money or other direct costs.

### **Facilitation Guidance**



- Define the terms “profit,” “fee,” and “fixed fee.”
- Explain the lump sum nature of the fixed fee amount.
- Explain how the fixed fee is calculated.

- Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW to see an example fee.

### **Notes**

Profit is an area where it is important to understand the host State DOT’s rules.



Slide 28



## Cost Components: Concept Review

- What are ODCs?
- List some examples of indirect costs
- Does direct labor cost include fringe benefits, indirect costs, or profit?
- An A/E consultant's contract includes a lump sum amount over the consultant's actual allowable costs. The lump sum will not change, regardless of actual costs incurred. What type of cost is this amount?

---



### Key Message

One of the learning outcomes for this lesson is that you be able to explain the key cost components of an A/E project. This review will allow you to practice these skills in preparation for the Course Assessment.

### Facilitation Guidance

- Ask: What are ODCs? (Answer: *All direct costs of the project other than direct labor, direct materials, and subconsultant costs*)
- Ask participants to list some examples of indirect costs. (Answer: *Fringe benefits, rent, office supplies, indirect labor costs, etc.*)
- Ask: Does direct labor cost include fringe benefits, indirect cost, or profit? (Answer: *No.*)
- State that an A/E consultant's contract includes a lump sum amount over the consultant's actual allowable costs. The lump sum will not change, regardless of costs incurred.
  - Ask: What type of cost is this amount? (Answer: *Profit/Fixed Fee/Net Fee*)

Slide 29

## Lesson Summary

- What questions do you have about:
  - Key components of the A/E project cycle?
  - The need for and use of financial information in the cycle?
  - The key cost components of an A/E project?



### Key Message

Ask for and address any questions participants have about the key components of the A/E project cycle, the need for and use of financial information in the cycle, and the key cost components of an A/E project.

### Background


Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.

### Facilitation Guidance

- Review the lesson outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - How would you describe key components of the A/E project cycle?
  - How would you explain the need for and use of financial information in the cycle?
  - How would you explain the key cost components of an A/E project?

## Lesson 4

### Slide 1



The slide features a dark blue rectangular area on the left containing the text "Lesson 4:" in white. To the right of this area is a green circular play button icon. Further to the right, the text "Key Cost Principles" is displayed in a large, dark blue font. In the top left corner of the slide, there is a small logo for the U.S. Department of Transportation Federal Highway Administration. In the top right corner, there is a logo for the National Highway Institute (nhi). A decorative green and white diagonal line runs along the right edge of the slide.

U.S. Department of Transportation  
Federal Highway Administration

nhi national  
highway  
institute


**Lesson 4:**

**Key Cost  
Principles**

### Key Message



The next topic to be covered is *Key Cost Principles*.

Slide 2



## ▶ Lesson Topics

- Allowability, FAR 31.201-2
- Reasonableness, FAR 31.201-3
- Allocability, FAR 31.201-4
- Direct and indirect costs

### Key Message

This lesson distinguishes between direct and indirect costs and differentiates between the concepts of allowability, allocability, and reasonableness.

### Facilitation Guidance

Introduce the topics to be covered in this lesson.

### Notes

- Know that little in this section is "black and white."
- Familiarize yourself with any local controversies when planning to facilitate this lesson.
- Avoid opening a discussion about compensation. Compensation is covered in Lesson 6 and in further detail in NHI courses 231029 and 231030.

Slide 3

## Learning Outcomes

After completing this lesson, you should be able to:

- Distinguish between direct and indirect costs and discuss the importance of proper classification of each
- Differentiate between the concepts of allowability, allocability, and reasonableness, and provide appropriate examples illustrating your understanding
- Apply knowledge of key cost principles to practical examples



### Key Message

After completing this lesson, you should be able to demonstrate the outcomes shown on the slide.

### Facilitation Guidance

- Ask questions to help participants draw a connection between this topic and their ability to achieve the course outcomes. In other words, they need to be able to answer the question, “What’s in it for me?” with regard to understanding the content of this lesson.
- Consider these sample questions:
  - Why is it critical that you be able to distinguish between direct and indirect costs? (Example answers: *A/E firm—it helps you to invoice your clients properly, properly calculate your indirect cost rate, and to achieve accurate project costing. Contracting agency procurement staff—it is important to be able to recognize if costs are misclassified between the two categories when reviewing a cost proposal.*)
  - What would be the impact of NOT understanding the concepts in this lesson? (Example answers: *A/E firm—the indirect cost rate will be incorrect and projects will not be costed correctly. Contracting agency procurement staff—you might not recognize items in a cost proposal that should be questioned.*)

Slide 4

## Allowability: Criteria for Determining Costs

- FAR 31.201-2(a) lists five criteria for determining allowability of costs

### FAR 31.201-2(a) states:

“A cost is allowable only when the cost complies with all of the following requirements:

- (1) Reasonableness.
- (2) Allocability.
- (3) Standards promulgated by the CAS Board, if applicable, otherwise, generally accepted accounting principles and practices appropriate to the circumstances.
- (4) Terms of the contract.
- (5) Any limitations set forth in this subpart.”



### Key Message

FAR 31.201-2(a) lists five criteria for determining allowability of costs; all must be met for the cost to be allowable.

### Background

- In relation to the five criteria listed:
  - 1) The following question addresses reasonableness: “Would it be reasonable for a company executive to have a Ferrari as a company car?”
  - 2) The following question addresses allocability: “If an employee travels to a different office to work on a specific project, would the travel cost be allocated to the direct cost pool, regardless of whether the costs are billable to the client?”
  - 3) A/E consultants are not all subject to full Cost Accounting Standards (CAS) coverage. When A/E consultants are subject to full CAS coverage for Federal contracts, these consultants should use the same CAS for State DOT contracts.
  - 4) Terms of contract determine the cost eligibility for billing. For example, if a contract states mileage is not reimbursable, it may not be billed to the client. But if mileage is incurred, it is still a cost of the project. The cost should go to the direct cost pool (assigned to the project) regardless of whether it is billable to the client.

- 5) “Limitations set forth in this subpart” refer to requirements for allowability of specific costs defined in FAR 31.2. See Lesson 6 for further discussion.

### **Facilitation Guidance**

- Introduce the five FAR 31.201-2(a) criteria for allowability.
- Emphasize that FAR Part 31 incorporates certain CAS by reference; accordingly, those standards apply to all A/E consultants governed by FAR Part 31. The other CAS apply only to “CAS-covered contracts.”
- Explain that requirements for allowability of specific types of costs are discussed in greater detail in Lesson 6.



### **Notes**

For more information on the applicability of CAS standards, see FAR Part 31.

Slide 5

## ▶ Allowability, Cont.

Must be excluded from claimed costs:

Unallowable Costs	Directly Associated Costs
	
E.g., Direct advertising costs	E.g., Portion of marketing coordinator's salary related to advertising activities, associated payroll taxes, and travel expenses

### Key Message

Unallowable costs and any related costs directly associated with the unallowable costs must be excluded from claimed costs.

### Background

- In an A/E firm that employs a marketing coordinator to conduct the firm's advertising activities, all directly associated costs of unallowable advertising activities would be unallowable in accordance with FAR 31.205-1. Note, however, that it is likely that not all of the marketing coordinator's time would be spent on unallowable activities.
- The directly associated costs of the marketing coordinator's salary, benefits, and travel expenses allocable to the unallowable advertising activities would also be unallowable.

### Facilitation Guidance

- Explain that unallowable costs must be excluded from:
  - Any billings, claims, or proposals applicable to Government contracts.
  - Direct costs and from claimed (FAR allowable) indirect costs to satisfy this requirement.
- Ask: How would you define directly associated costs? (Answer: *A cost incurred only as a result of incurring another cost.*)
- Explain the examples of directly associated costs shown on the slide.

## **Notes**

For more information on unallowable advertising costs, see FAR 31.205-1.

Slide 6

## Reasonableness

- Is the cost consistent with that which would be incurred by a prudent person in a similar situation?

### FAR 31.201-3(a) states, in part:

“A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business. Reasonableness of specific costs must be examined with particular care in connection with firms or their separate divisions that may not be subject to effective competitive restraints.”



### Key Message

The primary FAR part 31 criteria for determining reasonableness is whether the cost is consistent with that which would be incurred by a prudent person in a similar situation.

### Background

Additional requirements for determining reasonableness are stated in FAR 31.201-3(b) as follows:

#### [Reference: FAR 31.201-3(b)]

(b) What is reasonable depends upon a variety of considerations and circumstances, including:

- (1) Whether it is the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or the contract performance;
- (2) Generally accepted sound business practices, arm's-length bargaining, and Federal and State laws and regulations;
- (3) The contractor's responsibilities to the Government, other customers, the owners of the business, employees, and the public at large; and

(4) Any significant deviations from the contractor's established practices.

### Facilitation Guidance

- Explain the FAR 31.201-3(a) criteria.
- Note that the term "contractor" as used in FAR Part 31 refers to any firm with a Government contract not specifically a construction firm.
- Ask: What are some typical costs for an A/E firm that might fit the criteria? (Example answers: *rent, insurance, vehicle expenses, and travel*)
- Add to or clarify participant responses.
- As necessary, refer participants to the additional requirements of FAR 31.201-3(b), also printed in the Participant Workbook (PW).
- Explain that for certain areas of cost, such as executive compensation, specific procedures have been defined in audit guidance for determining reasonableness; for other cost categories, various methods of quantitative analysis may be performed to evaluate reasonableness of costs (e.g., ratio analysis, analysis of trend/historical data, analysis of variances).

### Notes

- This area is, by its nature, somewhat subjective.
- What may seem reasonable to some participants may not seem reasonable to others, and may not comply with the FAR Part 31 criteria.

Slide 7

## ▶ Reasonableness, Cont.

- Burden of proof rests with the A/E consultant
- Costs incurred by the A/E consultant are not presumed to be reasonable

### FAR 31.201-3(a) states:

“No presumption of reasonableness shall be attached to the incurrence of costs by a contractor. If an initial review of the facts results in a challenge of a specific cost by the contracting officer or the contracting officer’s representative, the burden of proof shall be upon the contractor to establish that such cost is reasonable.”



### Key Message

The burden of proof rests with the A/E consultant to establish that costs are reasonable; no costs are to be presumed to be reasonable simply because they were incurred by the A/E consultant.

### Facilitation Guidance

- Explain that it is the responsibility of the A/E consultant to support reasonableness of costs incurred.
- Explain that this responsibility includes the requirement to maintain appropriate supporting documentation to address challenges of specific costs by auditors, contracting officers, or others, as applicable.

Slide 8

## Allocability

- What is meant by allocability?



### Key Message

FAR 31.201-4 defines a cost as “allocable” if it is assignable to one or most cost objectives on the basis of relative benefits received or some other equitable relationship.

### Facilitation Guidance

- Ask: What is meant by “allocability?” (Answer: *It is the overall concept that governs the classification of costs incurred as either direct or indirect, and the assignment of such costs to intermediate and final cost objectives. As a result, allocability ultimately determines the types and amount of costs allocated directly to projects and those allocated to the indirect cost pool.*)
- Animate the slide to reveal the definition of allocability as stated in FAR 31.201-4.

Slide 9

## ▶ Allocability, Cont.

A cost is allocable to a Government contract if it —		
Is incurred specifically for the contract	Benefits both the contract and other work, and can be distributed to them in reasonable proportion to the benefits received	Is necessary to the overall operation of the business, although a direct relationship to any particular cost objective cannot be shown

FAR 31.201-4



### Key Message

A cost is allocable to a Government contract if it is incurred specifically for the contract, benefits the contract and other work, or is necessary to the overall operation of the business.

### Facilitation Guidance

- Explain the three categories of cost allocable to Government contracts, and that there are other costs that are NOT allocable to Government contracts.
  - E.g., costs that are incurred specifically for a non-Government contract would be allocable to that contract only and therefore would not be allocable to Government contracts.
- Provide examples, such as those shown below, to illustrate the determination of allocability of typical costs of an A/E firm.
  - Labor costs that are incurred for a specific project/contract are allocable to that project/contract only.
  - By contrast, a cost such as rent for the A/E firm's corporate office is necessary to the overall operation of the business and therefore would be allocable to the indirect cost pool.
- Ask participants to suggest additional examples. Clarify as necessary.

Slide 10

## **Billable/Nonbillable**

- Whether a cost is billable or nonbillable is based on contract terms
- Often, costs are allocable to a project but are not billable



### Key Message

Costs that may be allocable to a project are not always billable to the client. Allocability is based on established standards of cost accounting, while the determination of whether a cost is billable to a client is based on contract terms.

### Background

- A cost is allocable to a project if it was incurred because of the project and would not have been incurred otherwise.
- Costs are often *allocable* to a project but are not *billable* to a client based on contract terms. These nonbillable costs may adversely affect the financial performance (profitability) of the project.
- An example which illustrates this concept is outlined below.
  - Direct labor hours are incurred to complete a project after the maximum contract billing has been reached. No additional labor costs can be billed to the client.
  - In this case, an employee might be inclined to charge these hours as indirect labor hours or charge them to another project; however, either practice would be improper and would constitute a serious violation of FAR Part 31 and the Cost Accounting Standards (CAS). The labor cost must be allocated to the project, even though the client will not be invoiced for hours that exceeded the contract limit.

## Facilitation Guidance

- Explain the difference between “allocable costs” and “billable costs.”
- Emphasize that all billable costs are allocable costs, but not all allocable costs are billable costs.
- Clarify that costs that benefit the project, and were incurred as a result of the project, should be allocated to the project, regardless of whether they can be billed to the client.
- Illustrate these concepts using the Background example.

## Notes

- The terms “allocable” and “billable” are sometimes confused or incorrectly used interchangeably. It is important to ensure that participants understand that the terms have very different meanings. Confusion in this area arises more often in relation to direct costs, rather than in relation to indirect costs.
- Ensure that participants understand the importance of accurate project costing, and that the allocability of costs is not dependent on contract terms.

Slide 11



## ▶ Direct and Indirect Costs

- Direct Costs:
  - All costs specifically identified with a project
  - May not be charged to another project, either directly or indirectly
- Indirect Costs:
  - Any costs not specifically identified with a project

### Key Message

Direct costs are those specifically identified with a project, while indirect costs are not specifically identified with a project. FAR Part 31 defines requirements for each.

### Background

- As discussed in Lesson 3, direct costs include direct labor cost, direct materials or supplies, subconsultants, and other direct costs. The concepts addressed on this slide relate to all of these categories of direct costs.

### Facilitation Guidance

- Explain the difference between direct and indirect costs, noting that direct and indirect costs need to be accounted for consistently.
- Ask: Why is it important to segregate direct and indirect costs? (Answers: *A cost charged as a direct cost may not also be included in an indirect cost pool. This requirement is fundamental to proper project costing and the accurate calculation of the indirect cost rate.*)

## Notes

When referring to costs “specifically identified with a project,” be sure participants understand that the reference is to costs that were incurred as a direct result of the project and would not have been incurred had the project not required the incurrence of the costs.

Slide 12

## ▶ Direct and Indirect Costs, Cont.

- Indirect costs typically should be recorded in accordance with GAAP
- If a non-GAAP basis of accounting is used, the A/E consultant should discuss the accounting treatment of indirect costs with the Home State DOT



A/E consultants must determine appropriate policies and procedures for compliance, and follow them consistently.



### Key Message

Indirect costs typically should be recorded in accordance with GAAP to support allowability under FAR Part 31. However, there may be circumstances in which another basis of accounting would be appropriate. The selected accounting methods must be applied consistently.

### Background

- Indirect costs typically should be recorded in accordance with GAAP to support allowability under FAR Part 31. However, there may be circumstances in which another basis of accounting would be appropriate.
- If a non-GAAP basis of accounting is used, then the A/E consultant should discuss the accounting treatment of indirect costs with the Home State DOT.
- A/E consultants are required to comply with the cost principles described in FAR Part 31.
- A/E consultants must determine appropriate policies and procedures for compliance, and must follow them consistently.
- Often, A/E consultants may have a choice of multiple methods to account for certain costs, each resulting in proper costing. For example, the A/E consultant may have a policy that overtime premium incurred on a project is accounted for as a direct cost, or it may allocate all overtime premium to the indirect cost pool. Either method would be appropriate.

- Note: Generally, any significant cost that is allocable to a project should be recorded as a direct cost of that project. Accordingly, the adoption of a policy to treat certain costs as indirect may be challenged if such costs are properly allocable to a project.
- An exception is described in FAR 31.202(b) as follows:

**[Reference: FAR 31.202(b)]**

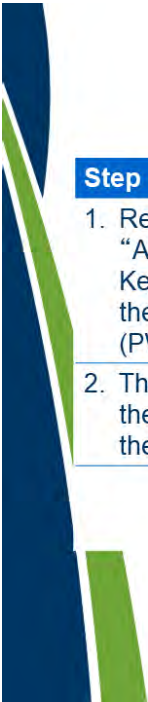
...For reasons of practicality, the contractor may treat any direct cost of a minor dollar amount as an indirect cost if the accounting treatment—(1) Is consistently applied to all final cost objectives; and (2) Produces substantially the same results as treating the cost as a direct cost.”

- The A/E firm bears the burden to establish that the FAR 31.202(b) exception applies.
- A/E consultants must consistently apply the methods they select. If the A/E firm establishes a policy to treat a cost type as a direct cost, it should always treat that cost type as a direct cost. The A/E firm should not treat the cost as direct in some cases and indirect in others.
- Contracting agencies must understand the A/E firm’s policies and procedures with respect to the treatment of costs as direct or indirect. It would be improper to require an A/E firm to treat a cost as an indirect cost if the firm consistently follows a policy in which the cost type is treated as a direct cost.

**Facilitation Guidance**

- Explain the compliance requirements for recording indirect costs as discussed on the slide and in the Background notes.
- Ask: What happens if you are an A/E consultant who has recorded costs on the cash basis? (Answers: *You may be required to convert your books to GAAP in order to compute an indirect cost rate in compliance with FAR Part 31. You should discuss the treatment of costs with your Home State DOT.*)
- Explain why it would be improper to require an A/E firm to record costs in a specific category (e.g., indirect).
- Explain that any cost that is allocable to a project, as discussed in previous slides, should be recorded as a direct cost of that project.
  - Explain the exception described in FAR 31.202(b).

Slide 13



## Activity 4-1: Applying Key Cost Principles

**Objective:** Apply knowledge of key cost principles to practical examples.

Step	Timing
1. Read and complete “Activity 4-1: Applying Key Cost Principles” in the Participant Workbook (PW).	10 min
2. The instructor will review the activity by explaining the correct answers.	5 min
<b>Total</b>	<b>15 min</b>

### Key Message

One of the learning outcomes for this lesson is that you be able to apply knowledge of key cost principles to practical examples. This activity will allow you to practice that skill in preparation for the course assessment.

### Facilitation Guidance

Conduct “Activity 4-1: Applying Key Cost Principles.” Introduce the activity, including the activity purpose, timing, and participant instructions.

- Conduct the activity.
- Review the activity. After the review, hand out “Activity 4-1: Applying Key Cost Principles Answers.”

### Notes

- The participants should not be expected to know all the details for Example 2, Question 1 related to allowability. The details are covered in Lesson 6. Participants should, however, be able to understand and apply the concepts of allowability.
- Refer participants to the Activities section of the PW to complete this activity; answers and debrief information are located in the Activities section of the IG.

- In this activity, participants will work independently to read two practical examples and answer the related questions which allow them to practice applying key cost principles.

Slide 14

## Lesson Summary

What questions do you have about:

- Distinguishing between direct and indirect costs?
- Differentiating the concepts of allowability, allocability, and reasonableness?
- Key cost principles?



### Key Message

Ask for and address any questions participants have about distinguishing between direct and indirect costs, differentiating the concepts of allowability, allocability, and reasonableness, and applying knowledge of key cost principles to practical examples.

### Facilitation Guidance

- Review the lesson outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - How would you distinguish between direct and indirect costs and discuss the importance of proper classification of each?
  - What are the differences between the concepts of allowability, allocability, and reasonableness, and provide appropriate examples to illustrate their understanding?
  - How can you apply knowledge of key cost principles to practical examples?

### Notes

Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.



## Course Overview



### Slide 1



### Key Message

The next topic to be covered is *Internal Control Systems*.



Slide 2



## Lesson Topics

- Introduction to internal controls
- Key internal controls
- Assessment tools

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### Key Message

This lesson introduces the concept of internal controls and explains why internal control systems and practices are necessary. The lesson also discusses tools that help provide assurance that internal controls have been implemented.

### Facilitation Guidance

Introduce the key topics to be covered in this lesson.

Slide 3



## Learning Outcomes

After completing this lesson, you should be able to:

- Demonstrate an understanding of the importance of internal controls



### Key Message

After completing this lesson, you should be able to demonstrate an understanding of the importance of internal controls.

### Facilitation Guidance

- Ask questions to help participants draw a connection between this topic and their ability to achieve the course outcomes.
- Consider these sample questions:
  - What are the consequences of an A/E firm having inadequate internal controls? (Example answer: *The risk of misstatement of the A/E firm's costs, including the indirect cost rate, increases significantly.*)
  - Why is it important for A/E consultants to have strong internal controls? (Example answer: *Internal controls support preparation of accurate financial statements and help to ensure that clients are properly invoiced.*)

Slide 4

## ▶ Introduction to Internal Controls

**What**



Internal controls are systems, policies, and procedures that prevent or detect misstatements.

**Responsibility**

It is the responsibility of the A/E consultant to establish and maintain strong internal controls.

**Importance**

Strong internal controls are critical to proper contract costing and FAR compliance.

### Key Message

It is the A/E consultant's responsibility to maintain strong internal controls to prevent and detect misstatements. Strong internal controls are critical to proper costing and compliance with FAR Part 31.

### Background

- AICPA Statement on Auditing Standards No. 78 defines internal control as follows:

**[Reference: AICPA Statement on Auditing Standards No. 78]**

A process—effected by an entity's board of directors, management, and other personnel—designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (a) reliability of financial reporting, (b) effectiveness and efficiency of operations, and (c) compliance with applicable laws and regulations.

- The primary focus of this lesson is internal controls that prevent or detect financial misstatements, and those that facilitate compliance with FAR Part 31 and other applicable laws and regulations.
- Internal controls are critical to proper contract costing and FAR Part 31 compliance. Note that:

- A/E firm contracts for Government clients are generally costed, and often billed, based on actual costs incurred.
- Indirect cost rates are calculated based on actual FAR allowable costs incurred.
- Internal controls are essential to provide assurance that costs incurred are properly stated in accordance with Generally Accepted Accounting Principles (GAAP) (or other approved basis, if applicable), costs are allocated properly, costs are properly classified as FAR allowable or unallowable, and that the A/E consultant has complied with all applicable laws and regulations.

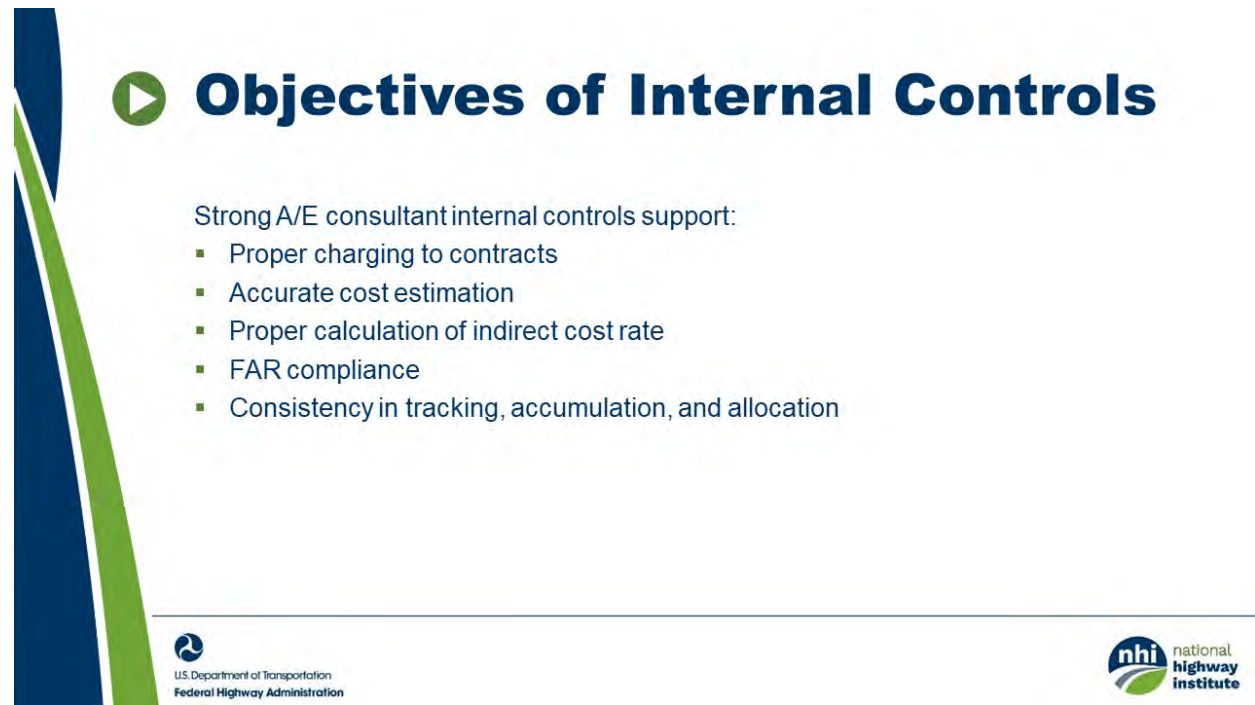
### **Facilitation Guidance**

- Introduce the concept of internal controls.
- Emphasize that it is the A/E consultant's responsibility to establish and maintain internal controls; it is not the responsibility of the CPA firm or State DOT that may perform an indirect cost rate audit.
- Explain the importance of internal controls and why they are necessary. (See Background information).
- Explain that, for many participants who are not directly responsible for establishing, maintaining, or testing internal controls (e.g., State DOT procurement staff), this lesson will help them to:
  - (1) understand some key areas where strong internal controls are necessary, and
  - (2) identify situations where there is an increased risk that internal controls are not sufficient.
- Note that A/E firm internal controls are relevant to all participants involved in A/E consultant contracts, regardless of their roles.

### **Notes**

- Many A/E consultants, especially smaller firms, do not have sophisticated systems of internal controls. The effectiveness of internal controls, however, is not solely based on the size of the A/E firm or the sophistication of its systems. A simple system of internal controls may be effective, while a complex system may have areas in which controls are inadequate.
- It is important to understand the composition of the audience, including whether those participants representing A/E consultants are from small or large firms, and to discuss internal control systems in that context.



Slide 5



## ▶ Objectives of Internal Controls

Strong A/E consultant internal controls support:

- Proper charging to contracts
- Accurate cost estimation
- Proper calculation of indirect cost rate
- FAR compliance
- Consistency in tracking, accumulation, and allocation

### Key Message

Strong internal controls support accurate project costing, cost estimation, and calculation of the indirect cost rate. They also help ensure FAR compliance.

### Background

The objectives featured on this slide are a subset of the many objectives of internal controls. The featured objectives are specifically relevant to an A/E consultant and illustrate the importance of internal controls to an A/E consultant's work.

### Facilitation Guidance

- Discuss the broad objectives of internal controls in the context of an A/E consultant.
- Note that:
  - Underlying the FAR cost principles is a fundamental concept that costs must be properly stated in accordance with GAAP.
  - Strong internal controls support compliance with GAAP.
  - There are possible exceptions where costs may be stated on a basis of accounting other than GAAP. These costs are subject to review and approval by the Home State DOT.

- Additional internal controls beyond those necessary for GAAP compliance are necessary to comply with FAR Part 31 and Government contract provisions.

Slide 6

## ▶ Internal Control Pyramid



DCAA CAM Section 5-102c



### Key Message

The pyramid of internal controls illustrates the five critical components of a system of internal controls.

### Background

- Per *DCAA Contract Audit Manual (DCAA CAM)* Section 5-102c:

**[Reference: *DCAA CAM* Section 5-102c]**

A contractor's internal controls consist of the five interrelated components:


- Control environment—sets the tone of an organization, influencing the control consciousness of its people
- Risk assessment—the entity's identification and analysis of relevant risks to achievement of its objectives, forming a basis for determining how the risks should be managed
- Control activities—the policies and procedures that help ensure that management directives are carried out
- Information and communication—the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities

- Monitoring—the process that assesses the quality of internal control performance over time
- Additional notes about the key components of an internal system appear below.
  - The pyramid shown is one of many schemas that can be used to illustrate the key components.
  - Components of the “control environment” include, but are not limited to: integrity and ethical values, commitment to competence, management’s philosophy and operating style, and organizational structure. The tone set at the top, that is, management’s commitment to a strong system of internal control, is a key component of the control environment.
  - In an A/E firm, management and staff involved in implementing and monitoring internal controls should identify key risk areas and establish controls to address those risks. Risk assessment should not be viewed as a one-time process; rather, it is an ongoing process, as risk areas change over time.
  - Ensuring that employees are aware of established policies and procedures is part of the “information and communication” component.
  - Monitoring activities should be performed to evaluate employee compliance with policies and procedures to ensure that controls are functioning properly.

### **Facilitation Guidance**

- Describe each of the key components of the internal control pyramid and note how they are interrelated.
- Emphasize that the “tone at the top” set by management is critical to establishing a strong control environment and encouraging employees to take personal responsibility for effective internal controls.
- Note that many of the most important internal controls are based on the actions of all employees—a key example is labor charging.
- Explain how the internal control pyramid relates to some of the various roles represented by participants. For example, A/E firm senior management is responsible for setting the “tone at the top” in their firm; contracting officers are responsible for communicating with their audit group to understand possible issues with an A/E consultant’s internal controls that might affect the contract.



Slide 7



## **Key Internal Controls: Attributes of a Properly Designed Accounting System**

- Please see the *AASHTO Audit Guide* Section 6.4.A for a list of “Attributes of a Properly Designed Accounting System”

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### **Key Message**

To facilitate effective internal control, an A/E firm’s accounting system should include the list of attributes found in the *AASHTO Audit Guide* Section 6.4.A.

### **Background**

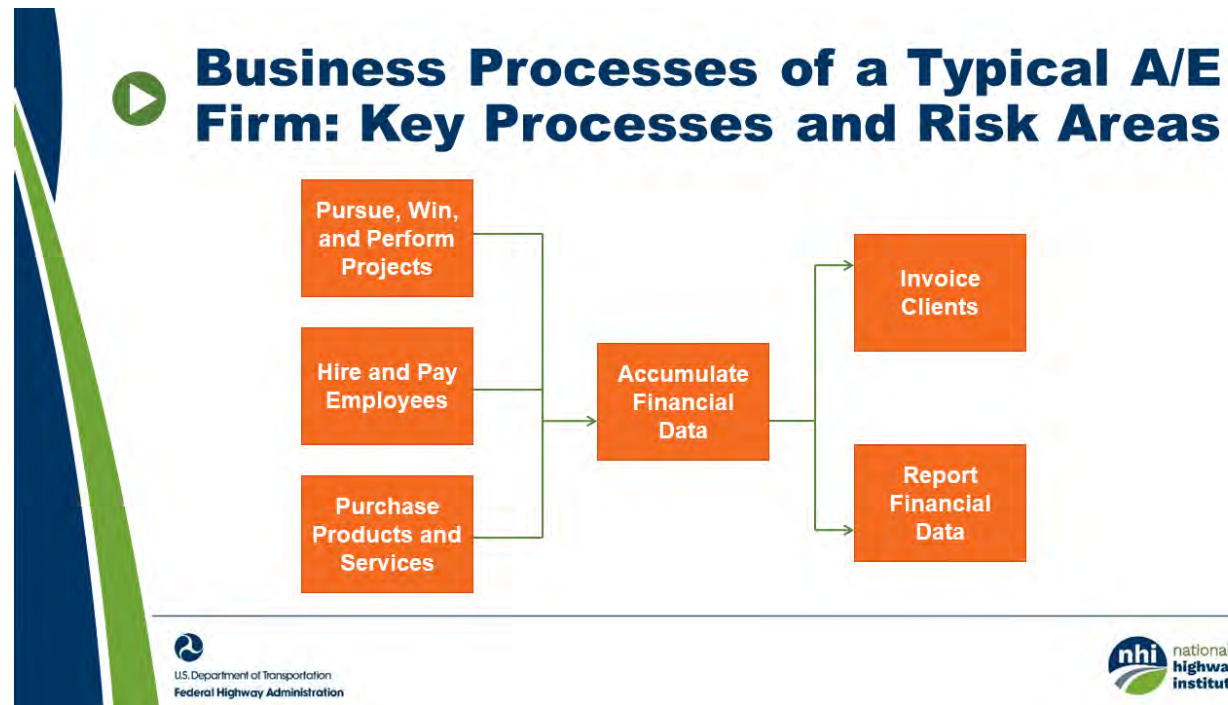
- The *AASHTO Audit Guide* Section 6.4.A lists key attributes of a properly designed accounting system, but is not an exhaustive list.
- The importance of some of the key attributes is described below.
  - Proper segregation of direct and indirect costs: Proper segregation of direct and indirect costs is critical to proper job costing and FAR compliance, as a misallocation of direct and indirect costs will misstate the indirect cost rate and may impact project invoicing.
  - Identification and accumulation of direct costs by contract: Accurate project invoicing of direct costs can only be achieved by properly allocating costs to the correct contract.
  - Logical, consistent method of allocating indirect costs: The A/E consultant’s approach to allocating indirect costs must be supportable and consistently applied, or the indirect cost rate and project costing will be adversely affected.
  - Accumulation of costs under general ledger control: An adequate chart of accounts, with logical cost groupings, must be maintained. Incurred costs should be recorded

in a timely fashion. General ledger control allows for accurate recording of amounts and proper classification of amounts to facilitate GAAP and FAR compliance.

### **Facilitation Guidance**

- Refer participants to the *AASHTO Audit Guide* Section 6.4.A to review the list of “Attributes of a Properly Designed Accounting System.”
- Explain the importance of some of the key attributes to achieving proper project costing and FAR compliance. (See Background information.)

Slide 8



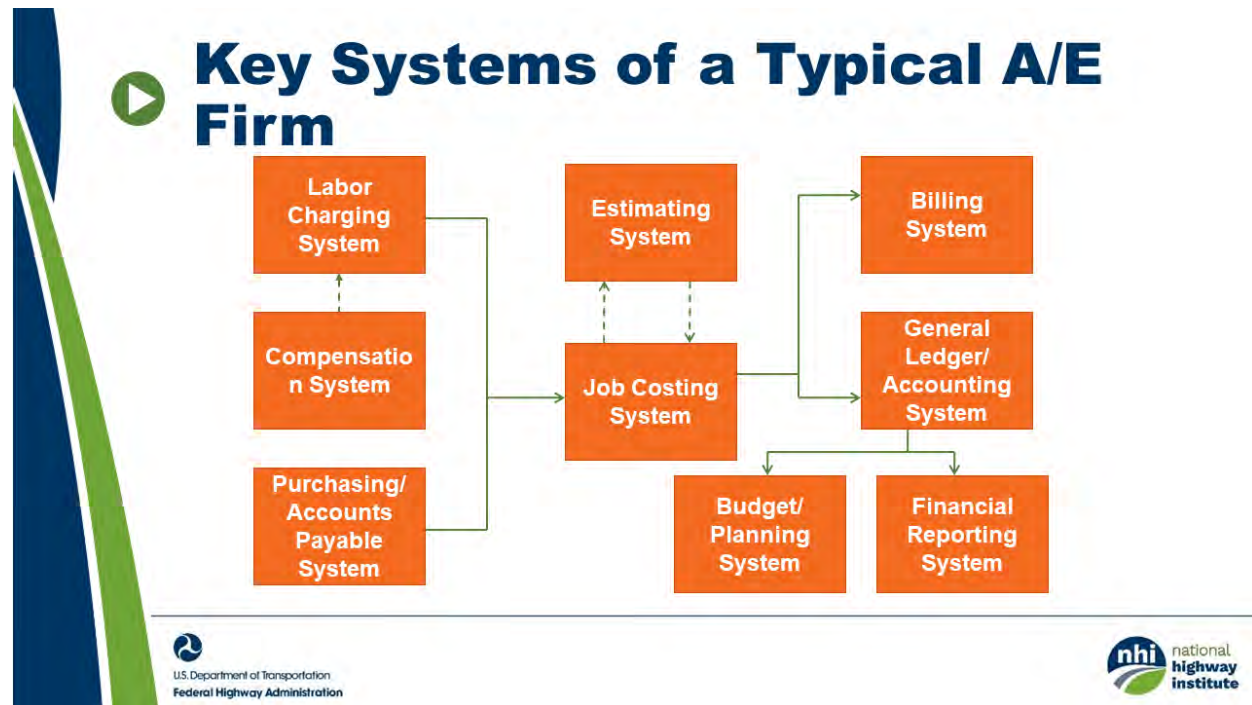
### Key Message

This slide presents an overview of the business processes of a typical A/E firm.

### Facilitation Guidance

- Walk through the business processes of a typical A/E firm (shown on slide).
- Note that “key systems” refers to manual processes and procedures as well as technology-based systems.

Slide 9



### Key Message

This slide illustrates the interaction of several key systems that would be in use in a typical A/E firm.

### Background

#### Labor Charging System

- Risk: Hours worked are not properly recorded.
- Control: A well-documented timekeeping policy that is communicated to all employees, reviewed, and monitored, would help to provide assurance that all hours worked are recorded and properly allocated.

#### Compensation System

- Risk: Supplemental benefits provided to executives are not reviewed for allowability.
- Control: Examination by accounting staff of all executive compensation for allowability in connection with the analysis of compensation reasonableness performed annually would help to address this risk.

#### Purchasing System

- Risk: Purchases are not supported by adequate documentation.

- Control: Education of Accounts Payable staff and those initiating purchases and appropriate monitoring of purchases would help to provide assurance that purchases are properly supported.

#### Budget/Planning System

- Risk: Budgets are prepared, but there is no process for comparing actual results to budgeted amounts.
- Control: A well-documented and consistently applied process to develop budgets and compare actual results to the budget would help to address this risk.

#### Job Costing System

- Risk: Labor costs per the job costing system exceed labor costs recorded in the labor charging system.
- Control: A reconciliation between the two systems would help to identify errors.

#### Cost Estimating System

- Risk: Cost proposals contain inaccurate rates for direct costs.
- Control: Formal policies and procedures defining how direct cost rates are established and used in the cost estimating process would help to address this risk.

#### Billing System

- Risk: Invoices are prepared manually and do not match the job costing system.
- Control: A process in which invoices are prepared from or reconciled to data from the job costing system to ensure that hours and amounts billed match costs incurred would help to address this risk.

#### Accounting System

- Risk: Costs are routinely recorded to the incorrect general ledger accounts.
- Control: Education of Accounting staff and appropriate monitoring and review of expense accounts would help to provide assurance that expenses are properly classified.

#### Financial Reporting System

- Risk: Uncorrected errors occur in the entity's monthly internal financial statements.
- Control: Review of financial statements by management knowledgeable in the financial aspects of the entity would help to uncover potential errors.

#### Facilitation Guidance

- Provide a brief overview of the business processes of a typical A/E firm (shown on slide).
- Discuss key systems and systems interactions.

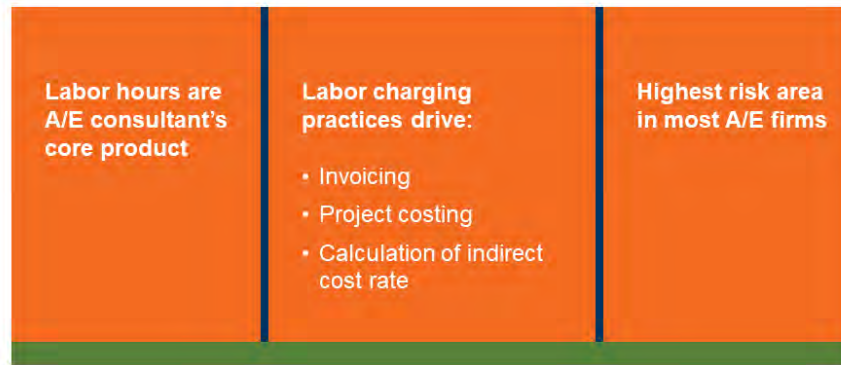
- Ask participants to provide examples of risk areas and controls for two or three of the systems shown on the slide.
- Identify other key risk areas or controls not yet mentioned for the two or three systems discussed.

### **Notes**

It is not necessary to discuss every risk and internal control outlined in the Background information for the systems discussed. Use the examples outlined to validate participant responses and expand on participant responses as time permits.

Slide 10

## ▶ Importance of Labor Charging



### Key Message

Labor charging is the most critical area of internal controls in an A/E firm.

### Background

- The majority of a project's direct cost is labor.
- The cost of labor is the most significant factor in the indirect cost rate.
- Improper labor charging can result in substantial errors in project costing and invoicing. For example, if direct labor hours are misallocated as indirect labor hours, the hours allocated/costed to the contract will be understated. Direct labor cost invoiced also will be understated, and indirect labor cost will be overstated. Because indirect labor cost is overstated and direct labor cost is understated, the indirect cost rate will be overstated.

### Facilitation Guidance

- Discuss the importance of an A/E firm's labor-charging practices.
- Explain how labor charging impacts project costing.
- Define the terms "overstated" and "understated" as they pertain to direct labor.

- Note that labor charging is one of the highest risk areas in an A/E firm because all of an A/E firm's employees are involved in labor charging and because labor charging has such a significant impact throughout the business.
- Emphasize the need for a strong culture of proper labor charging, starting with the “tone at the top” set by management. Stress that owners, managers, and executives must be subject to the same internal controls as other employees.

### **Notes**

- Participants may not understand the terms “overstated” and “understated.” It is important to define these terms clearly.
- Labor charging practices vary among A/E firms, especially smaller firms. Small firms may not understand the importance of having strong internal controls in this area.

Slide 11

## Cost Allocation and Segregation: Allocability

**Allocability: Is the cost properly assigned to the cost objective(s) based on benefits received?**



**Direct or Indirect cost?**

**Assigned to proper project or cost center?**

**Adequately recorded to facilitate proper invoicing and determination of FAR allowable costs?**

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

### Key Message

Proper allocation of labor costs is a critical aspect of the labor charging system. It is important to have strong internal controls in this area.

### Background

An example of allocability within an A/E firm is listed below.


- An A/E firm has a labor charging policy that requires all direct labor hours be recorded by project number and all indirect labor hours be classified by category of activity.
- Timesheets require comments to explain the activities performed, including any milestones achieved or project deliverables produced, and to address any other specific contract requirements.
- Indirect labor cost is properly documented to allow correct classification by general ledger account and to determine FAR allowability.

### Facilitation Guidance

- Explain the concept of allocability in the context of an A/E firm and the importance of internal controls in this area. Relate the three criteria listed on the slide to the Background example.

- Note that there are often competing priorities that may affect the behavior of individual employees. For example, most A/E consultants identify direct labor by project number to facilitate invoicing. A project manager might be motivated to limit the labor hours charged to his or her project in order to improve the internally reported financial performance of the project.
- Explain the importance of a strong culture of business ethics to support strong internal controls and encourage proper labor charging.



Slide 12



## **Cost Allocation and Segregation: Allowable/Unallowable**

- To be allowable, labor costs must be:
  - Reasonable
  - Allocable
  - Incurred for allowable activities
- Labor rates must be calculated properly to ensure proper costing

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### Key Message

Labor costs must meet the listed criteria to be considered allowable under FAR Part 31. Labor rates must be calculated properly to ensure proper costing.

### Facilitation Guidance

- Present the criteria for allowability of labor costs.
- Note that ensuring costs are properly *allocated* is an important objective of labor charging controls. Allocability is also a specific FAR requirement for *allowability*. That is, labor costs must be allocable to be allowable under FAR Part 31.
- Note that reasonableness and allowability of labor costs will be discussed further in Lesson 6.
- Explain that:
  - Labor rates must be calculated to accurately reflect the actual cost of the services performed.
  - Inaccurate calculation of the labor rate may result in some portion of the labor cost being unallowable.

Slide 13

## **Cost Allocation and Segregation: Billable/Nonbillable**

- A cost may be allocable to a project, but may not be billable
- A cost is allocable to a project if it was incurred because of the project and would not have otherwise been incurred



### Key Message

Costs are often allocable to a project, but not billable to the client because of contract limitations. Costs should be allocated to cost objectives based upon the benefits received. Contract terms determine whether a cost is billable to a client.


### Background

- A cost is allocable to a project if such cost was incurred because of the project and would not have been otherwise incurred.
- Often costs are *allocable* to a project, but are not *billable* to a client based on contract terms. These nonbillable costs may adversely affect the profitability of the project.

### Facilitation Guidance

- Review the difference between “allocable costs” and “billable costs” introduced in Lesson 4.
- Clarify that costs that benefit the project, and were incurred as a result of the project, should be allocated to the project, regardless of whether they can be billed to the client.
- Ask: Why is this concept important in the context of internal controls? (Answer: *Costs that are allocable to a project, but are not billable can have a negative impact on the profitability of projects. This may lead to improper labor charging and represents a risk area. Internal controls should support proper labor charging.*)

Slide 14





## **AASHTO Internal Control Questionnaire (ICQ)**

- Assists the auditor in reviewing the internal control structure in place
- Must be completed by the A/E consultant
- Developed to help increase consistency and minimize redundancy between State DOTs
- Not mandatory unless the State DOT requires it
- Other assessment tools: any internal controls and/or process documentation prepared by the A/E consultant or CPA firm auditor

*AASHTO Audit Guide*, Appendix B

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### **Key Message**

The *AASHTO Audit Guide* includes a uniform Internal Control Questionnaire (ICQ) for use in identifying A/E consultant internal controls and possible areas for additional evaluation.

### **Background**

Other tools may include any internal controls and/or process documentation prepared by the A/E consultant or CPA firm auditor. Such documentation may consist of flowcharts, system walkthroughs, or other information describing internal controls.

### **Facilitation Guidance**

- Explain that the AASHTO ICQ assists the auditor in reviewing the internal control structure in place. This questionnaire must be completed by an appropriate employee of the A/E consultant with the necessary knowledge and authority to complete it.
- Note that the ICQ was developed to help increase consistency and minimize redundancy between State DOTs; however, it is not mandatory unless the State DOT requires it.

### **Notes**

The Internal Control Questionnaire is contained in Appendix B of the *AASHTO Audit Guide*.

Slide 15

## Lesson Summary

What questions do you have about the  
importance of internal controls?



### Key Message

Ask for and address any questions participants have about the importance of internal controls.

### Facilitation Guidance

- Review the lesson outcome (shown below) and lead a discussion of any remaining questions.
- Ask: What makes internal controls so important?

### Notes

Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.



## Lesson 6

### Slide 1



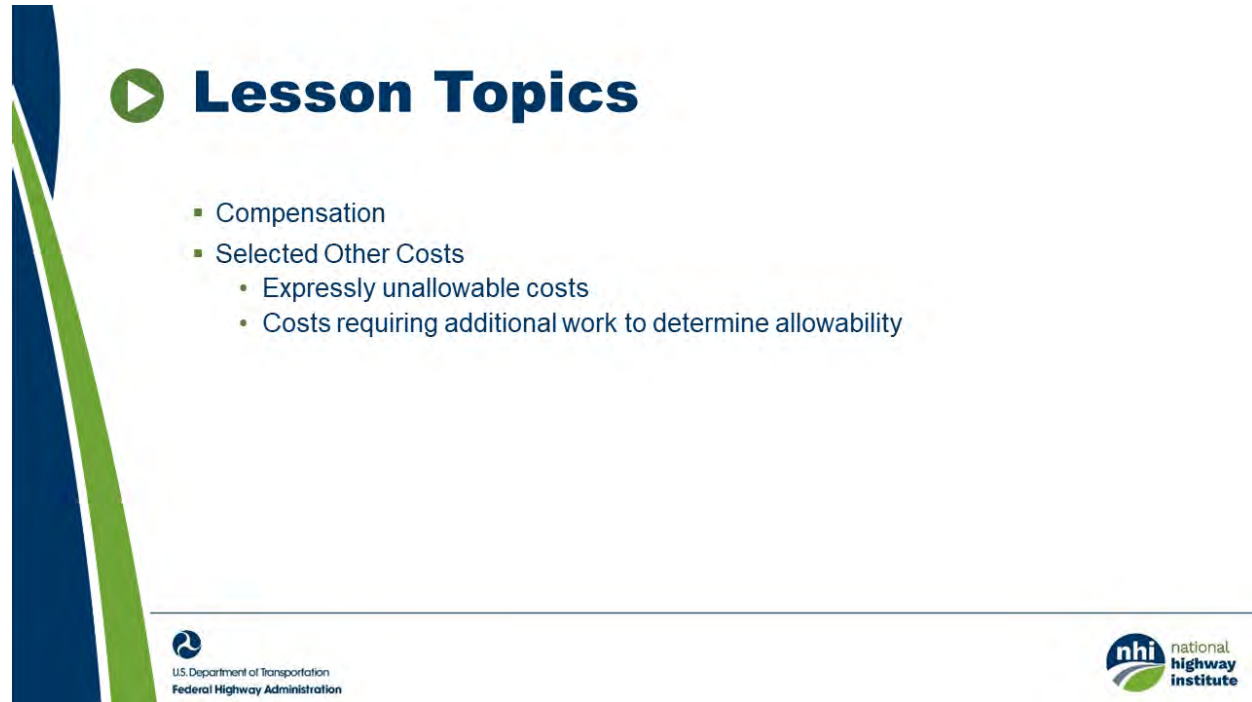
### Key Message

The next lesson to be covered is *Key Areas of Cost, Including Compensation*.

### Notes



Prior to teaching this lesson, it is important to understand the host State DOT's policies.

Slide 2



## ▶ Lesson Topics

- Compensation
- Selected Other Costs
  - Expressly unallowable costs
  - Costs requiring additional work to determine allowability

### Key Message

This lesson covers cost criteria for determining allowability of selected areas of cost, including compensation, one of the most important and challenging areas of cost. For purposes of discussion, costs are segregated into the groups shown.

### Background

The OIG Audit reported findings that A/E consultants and CPAs are not doing enough to monitor reasonableness of compensation, and noted issues with CPA audit quality. The revised *AASHTO Audit Guide* is intended to be part of the solution by clarifying existing guidance.

### Facilitation Guidance

- Introduce the topics to be covered in this lesson as shown on the slide, noting that this lesson also discusses the concept of directly associated costs and the importance of proper documentation to support allowability.
- Explain that coverage of all these topics is intended as a broad overview; it would take several hours to discuss these topics fully.

## Notes

- Based on the target audience for this course, the focus of this lesson is to provide a high-level overview of the topics presented and guide participants to additional resources for more information.
- When possible, relate these issues to the roles represented by participants.

Slide 3

## Learning Outcomes

After completing this lesson, you should be able to:

- Distinguish between the concepts of allowability and reasonableness of compensation
- Describe the process to evaluate compensation costs for allowability and reasonableness
- Define directly associated costs and explain its applicability to allowability
- Evaluate and discuss examples of expressly unallowable cost categories and those costs requiring additional analysis to determine allowability



### Key Message

After completing this lesson, you should be able to demonstrate the outcomes listed on the slide.

### Background

- The *AASHTO Audit Guide* provides further information on allowability of specific costs, while FAR 31.205 contains detailed guidance on areas of cost NOT covered in this lesson that may be relevant in some situations.
- Participants should review FAR 31.205 for more details on areas that are challenging or costs that are identified as a risk area.


### Facilitation Guidance

- Ask participants to review the learning outcomes.
- Note that requirements for allowability of specific areas of costs are included in FAR 31.205 and Chapter 8 of the *AASHTO Audit Guide*.
- Explain that cost allowability is also dependent on adequate documentation. Any cost inadequately supported may be challenged, and the A/E consultant bears the burden of proof of cost allowability.
- Ask: What questions do you have about the learning outcomes?

## **Notes**

Activity 6.1, at the end of this lesson, provides participants the opportunity to apply some of the concepts learned in the lesson.

Slide 4



## Overview of Compensation

- Direct Labor
- Indirect Labor
- Allowability
- Reasonableness

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

### Key Message

The primary focus of the compensation section of this lesson is on allowability and the reasonableness of total compensation costs.

### Facilitation Guidance

Explain the focus of this section of the lesson.

### Notes

In Lesson 5, participants learned about the importance of segregating direct and indirect labor costs. Many participants review direct labor costs and rates in their roles; some review indirect labor costs, while others do not. For example, a contracting officer likely would see direct labor costs and rates as part of a cost proposal, but would often rely on the contracting agency's auditors to evaluate the allowability and reasonableness of indirect labor costs. It is important to understand the roles represented by participants in the course, and the way in which they interact with compensation costs.

Slide 5

## Selected Compensation Regulations and Guidance

- FAR 31.205-6**
  - Discusses allowability and reasonableness of compensation
- AASHTO Audit Guide Chapter 7**
  - Presents further clarification of FAR and other guidance
  - Primary focus: reasonableness of executive compensation
- DCAA Contract Audit Manual (DCAA CAM)**
  - Covers allowability, reasonableness, compensation systems, and internal controls

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

### Key Message

Compensation is one of the most complex, important, and misunderstood areas of FAR Part 31. FAR Part 31 represents a set of rules governing cost accounting and reporting, while the *DCAA Contract Audit Manual (DCAA CAM)* presents audit guidance. The *AASHTO Audit Guide* presents both the rules and audit guidance.

### Background

#### FAR 31.205-6:

- Defines “compensation”
- Discusses allowability and reasonableness of compensation

#### AASHTO Audit Guide Chapter 7:

- Presents further clarification of FAR and other guidance
- Focuses primarily on reasonableness of executive compensation
- Is influenced by the outcome of the OIG Audit and the perception that A/E consultants and CPA firms have not done enough in the past to support reasonableness of executive compensation
- Is discussed in greater detail later in this lesson

**DCAA CAM:**

- Covers allowability, reasonableness, compensation systems, and internal controls
- Is referenced numerous times by the *AASHTO Audit Guide*
- Includes these key sections:
  - 5–800 Compensation System Internal Controls
  - 6–400 Audit of Incurred Labor Costs

**Facilitation Guidance**

- Provide a brief overview of regulations and guidance related to compensation.
- Explain that participants are advised to read FAR 31.205-6 carefully.

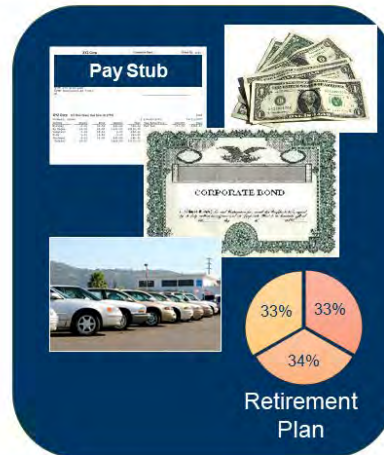
**Notes**

- When discussing compensation, tie back to the regulatory framework. Have a State DOT resource available for discussion of State DOT policies.
- Compensation is a sensitive area. While the *AASHTO Audit Guide* is considered guidance, many State DOTs require A/E firms to follow the *AASHTO Audit Guide* before an indirect cost rate will be approved.

Slide 6

## ► Definition of Compensation

- Amounts paid or accrued for work in the current period
- Cash, corporate securities, or other assets or services
- Salary, bonuses, incentive compensation, deferred compensation, employer contributions to retirement plans, etc.



FAR 31.205-6



### Key Message

The definition of compensation according to FAR 31.205-6 is summarized on this slide.

### Facilitation Guidance

- Discuss how compensation is defined in FAR 31.205-6.
- Include examples of specific items that are included in or excluded from allowable compensation. Note that:
  - Employer contributions to retirement plans are included in compensation while employer-paid health insurance premiums are generally excluded.
  - For practical purposes, compensation typically includes W-2 compensation plus certain other compensation. There may be exceptions to this general rule, so it is important to evaluate the specifics of the situation.
  - Compensation may be accrued for an employee in the current year, but not paid until the following year. In such a case, the current year W-2 would not reflect the compensation, since W-2 income is based on amounts paid. However, the A/E firm would report the compensation expense in the current year.

Slide 7

## ▶ Allowability

- Individual elements of compensation must be reviewed for allowability
- To be allowable:
  - The nature or form of the compensation must be allowable under FAR 31.205-6
  - The compensation must be for allowable activities

FAR 31.205-6



### Key Message

Individual elements of compensation must be reviewed for allowability. FAR 31.205-6 discusses the allowability of compensation.

### Facilitation Guidance

- Note that there are a number of requirements affecting allowability of compensation.
- Explain that the nature or form of the compensation must be allowable, and that the compensation must be incurred for allowable activities.

Slide 8

## Examples of Unallowable Compensation

Examples of Unallowable Compensation Types	Examples of Unallowable Compensation Costs for Certain Activities
<ul style="list-style-type: none"><li>• Compensation tied to changes in value of corporate securities (stock options, etc.)</li><li>• Payments in the event of a change in ownership</li></ul>	<ul style="list-style-type: none"><li>• Lobbying activities</li><li>• Advertising activities</li><li>• Charitable activities</li><li>• Entertainment activities</li><li>• Mergers and acquisitions</li></ul>

FAR 31.205-6





### Key Message

To determine allowability, it is important to consider both the nature of the compensation and the activities or purpose for which the compensation has been incurred.

### Facilitation Guidance

- Provide examples of unallowable types of compensation and unallowable activities.
- Explain that it is important to identify and segregate unallowable types of compensation and unallowable activities in the accounting records.



Slide 9



## General Criteria for Allowability of Compensation

- Compensation must meet FAR 31.205-6(a) criteria to be allowable
- Refer to “General Criteria for Allowability” in the Reference Manual (RM) for more information

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### Key Message

Compensation must meet the criteria listed under FAR 31.205-6(a) to be allowable.

### Facilitation Guidance

- Explain that compensation must meet the criteria listed under FAR 31.205-6(a) to be allowable.
- Refer participants to the “General Criteria for Allowability,” per FAR 31.205-6(a) in the *Reference Manual*.

Slide 10

## Reasonableness of Total Allowable Compensation

- Holds that compensation must be evaluated for reasonableness in total
- Focuses on executive compensation, but all compensation is subject to FAR reasonableness provisions
- Addresses concept of offsets

### **FAR 31.205-6(b)(2) states that:**

“Compensation for each employee or job class of employees must be reasonable for the work performed. Compensation is reasonable if the aggregate of each measurable and allowable element sums to a reasonable total.”

*AASHTO Audit Guide* Chapter 7:



### Key Message

Compensation is reasonable if the aggregate of each measurable and allowable element sums to a reasonable total.

### Background

- FAR Part 31 changed in 2004 to clarify the requirement for reasonableness of compensation.
- Prior to the 2009 revision of the *AASHTO Audit Guide*, there were varying interpretations of FAR requirements for reasonableness. A number of State DOTs had policies focused on reasonableness of individual elements of compensation, for example, limits on bonuses. The *AASHTO Audit Guide* clarifies that compensation must be evaluated for reasonableness in total. Most State DOTs have now removed these policies for contracts involving Federal-Aid Highway Program funds.
- Regarding the concepts of offsets, *DCAA CAM* Section 6-413.7a-b states the following:

**[Reference: *DCAA CAM* Section 6-413.7a-b, FAR 31.205-6(b)(2)]**

- a. FAR 31.205-6(b)(2) provides that compensation is reasonable if the aggregate of each measurable and allowable element sums to a reasonable total. Offsets between individual compensation elements are implied in this concept. By using offsets, the contractor can provide

proof that, in total, the cost of the compensation package is reasonable.

- b. An element of compensation proposed as an offset must be an otherwise allowable element of compensation, and it must be quantifiable for comparison with the compensation elements deemed unreasonable.
- All compensation is subject to FAR reasonableness provisions, as discussed in FAR 31.201-3 and FAR 31.205-6.
- However, it is generally expected that market forces help to maintain non-executive compensation at reasonable levels, especially for A/E consultants with substantial amounts of non-Government work.

### **Facilitation Guidance**

- Discuss the requirements of FAR 31.205-6(b)(2).
- Discuss the focus on reasonableness of executive compensation per the *AASHTO Audit Guide* Chapter 7.
- Emphasize that:
  - Compensation must be evaluated for reasonableness in total.
  - All compensation is subject to FAR reasonableness provisions.
- Explain the concept of offsets between individual elements of compensation and provide an example. For example, if an employee has a salary that is below average, but has fringe benefits that are above average, the employee's total compensation may still be considered reasonable.
- Emphasize that executives generally are not considered a "class" of employees because their job duties are not homogeneous. Accordingly, executives must be evaluated individually for compensation reasonableness. Non-executives may be evaluated by job level or classification, allowing offsets between higher and lower paid employees within each job classification.

Slide 11

## **Bonuses and Incentive Compensation**

- Bonus plans
  - Performance-based
  - May be based in part on total funds available for distribution
  - Not based on ownership
- Profit-distribution plans
  - Distribution of net earnings to owners based on their amount or percentage of ownership

FAR 31.205-6(a)(6); *AASHTO Audit Guide* Section 7.12



### **Key Message**

Bonus plans and profit-distribution plans have specific characteristics which can be used to identify and distinguish each.

### **Background**

- There is a commonly held misconception that bonuses that are paid from, or in any way based upon, a company's profits are by definition a distribution of profits.
- References for this topic include FAR 31.205-6(a)(6) and the *AASHTO Audit Guide* Section 7.12.

### **Facilitation Guidance**

- Compare and contrast bonus plans and profit-distribution plans.
- Discuss criteria for determining whether compensation under a plan represents a bonus or a distribution of profits.
- Explain that:
  - Typically, bonus plans are funded based on a company's profitability; however, that does not imply that bonuses are a distribution of profits.
  - Bonuses are intended to reward performance, and must therefore be tied to performance, not distribution of profits to owners.

- The amount of total bonuses awarded may increase or decrease based upon the company's level of profitability, but individual awards must be performance-based.
- Emphasize that total compensation is still subject to reasonableness provisions of FAR 31.205-6.
- Note that for certain individuals, such as owners of closely-held firms, compensation that is determined to be a distribution of profit is unallowable under FAR 31.205-6(a)(6).

Slide 12

## Compensation System Documentation

- Compensation policies and procedures
- Written plans highly recommended

### Components of a Written Bonus Plan

- Eligibility criteria
- Period of plan
- Performance criteria – measurable and verifiable
- Form of payment
- Distribution timeline

*AASHTO Audit Guide* Section 7.12



### Key Message

It is recommended that A/E consultants document their compensation system policies and procedures in writing, including any bonus or other incentive compensation plans. Written documentation of bonus plan provisions will help to support allowability of bonuses. The *AASHTO Audit Guide* Section 7.12 lists components to be included in a written bonus plan.

### Background

Many A/E consultants, especially smaller firms, do not have written compensation policies and procedures or bonus plans.

### Facilitation Guidance

- Discuss documentation for compensation policies and procedures, noting that written policies and procedures are highly recommended but not required.
- List the components that should be included in a written bonus plan.
- Emphasize that the A/E consultant bears the burden to establish that the bonus was compensation for performance in the period (not a buyout or a dividend based on ownership interest).
  - This burden is easier to meet with written plans as compared to plans not documented in writing.

- Performance metrics should exist in the firm so that auditors can obtain reasonable assurance that an employee's performance was the principal determinant of the bonus.

Slide 13



## Evaluating Reasonableness of Executive Compensation

- A/E firms must prepare a compensation analysis
- Two options:
  - National Compensation Matrix (NCM)
  - Survey-based analysis



U.S. Department of Transportation  
Federal Highway Administration





### Key Message

A/E firms are required to evaluate the reasonableness of executive compensation. This can be done one of two ways: using the National Compensation Matrix (NCM) or using a survey-based analysis.

### Facilitation Guidance

- Discuss the necessity for evaluating the reasonableness of executive compensation for A/E firms.



Slide 14



## Overview of Compensation Analysis Using NCM

- NCM tool provides reasonable compensation amount by positions
- Amounts vary based on firm size (revenue)
- No adjustments may be made to NCM amounts
- Advantages/disadvantages
- Consult the NCM tool available on AASHTO website for more information and instructions

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### Key Message

A compensation analysis consists of a benchmarking process to compare actual allowable elements of compensation to survey data. The *AASHTO Audit Guide* Section 7.5.C presents a process for conducting this analysis using surveys.



### Facilitation Guidance

- Present a brief overview of the process for performing an analysis of compensation reasonableness using surveys, briefly defining Steps 1-9.
- Note that the numbered steps correspond to the process for a survey-based analysis outlined in the *AASHTO Audit Guide* Section 7.5.C.
- Explain that firms choosing to prepare a survey-based analysis should follow this process to evaluate reasonableness of executive compensation as described in the *AASHTO Audit Guide*.
- Explain that firms may choose to use the National Compensation Matrix, as described in the next slide.

### Notes

This process is covered more fully in Course 231029, *Mysteries of the FAR Revealed: Using the AASHTO Audit Guide for the Development of A/E Consultant Indirect Cost Rates*.



Slide 15



## Overview of Compensation Analysis Using Surveys

- A/E firm must determine reasonable compensation amounts based on A/E industry executive compensation surveys
- Allows adjustments for geographic differences or other factors
- Advantages/disadvantages

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### Key Message

Performing a compensation analysis using the National Compensation Matrix (NCM) involves many of the same steps as performing a survey-based analysis. However, the process is simplified, because many of the more difficult steps have already been performed in the development of the NCM.

### Background

A/E firms may choose to use the NCM to perform the executive compensation analysis. The NCM is updated annually, and provides an easier solution to prepare the analysis, as compared to the use of a survey-based approach.

### Facilitation Guidance

- Explain that the NCM is an optional approach to performing an executive compensation analysis. A/E firms may choose to use a survey-based approach as an alternative to the NCM.
- Explain that many of the same steps apply to both methods.
- Briefly describe each of the steps listed on the slide.

Slide 16

## ▶ Expressly Unallowable Costs



### Key Message

This slide shows common types of costs that are specifically categorized as expressly unallowable by the FAR.

### Background

The Reference Manual (“Expressly Unallowable Costs: Where to Learn More”) lists the FAR Part 31 references and the *AASHTO Audit Guide* references shown below. The Notes column is shown in the Instructor Guide only. It lists additional background information that may be helpful in answering participant questions.

Cost Category	FAR Reference	<i>AASHTO Audit Guide</i> Reference	Notes
Entertainment	FAR 31.205-14	Section 8.9	Any directly associated costs, such as tickets to shows or sports events, meals, lodging, rentals, transportation, and gratuities, are unallowable. Costs of entertainment which are expressly unallowable under FAR 31.205-14 may not be made allowable by categorizing them as another type of cost, to which a different cost principle applies.
Alcohol	FAR 31.205-51	Section 8.29	The costs of alcoholic beverages are unallowable.

Cost Category	FAR Reference	AASHTO Audit Guide Reference	Notes
Interest	FAR 31.205-20	Section 8.16	Examples of directly-associated costs include, but are not limited to, legal and professional fees paid in connection with preparing a prospectus or costs associated with issuing stock rights.
Advertising	FAR 31.205-1	Section 8.2	Costs related to the use of media to promote the sale of products or services when the advertiser has control over the form and content are expressly unallowable. (e.g., convention booths, trade shows, free goods or samples, direct mail, outdoor advertising, print media, and radio and television advertising). Exception: Help wanted advertising for specific positions is allowable.
Bad debts	FAR 31.205-3	Section 8.2	FAR 31.205-3 states, “Bad debts, including actual or estimated losses arising from uncollectible accounts receivable due from customers and other claims, and any directly associated costs such as collection costs, and legal costs are unallowable.”
Contributions and donations	FAR 31.205-8	Section 8.5	Contributions and donations (e.g., cash, property, and services), regardless of recipient, are unallowable. Exceptions are described in FAR 31.205-1(e)(3).  Exception: As noted in public relations, costs of participation in certain community service activities are allowable. However, donations of cash, property, or services are unallowable.
Public relations	FAR 31.205-1	Section 8.2	FAR 31.2 discusses public relations and advertising in the same section, and there is not always a clear distinction between the two categories. Some costs could fall into either category. FAR 31.205-1 defines public relations as activities, “... enhancing the image of a firm or its products, or promoting favorable relations with the public.” FAR 31.205-1 also specifies unallowable categories.  Exception: The cost of participation in <b>certain</b> community service activities is allowable. However, note that employee time spent on charity work is <b>generally unallowable</b>
Lobbying and political activities	FAR 31.205-22	Section 8.17	Any costs associated with activities intended to influence the outcome of elections or legislation are unallowable.

Cost Category	FAR Reference	AASHTO Audit Guide Reference	Notes
Organization and reorganization costs	FAR 31.205-27	Section 8.19	FAR 31.205-27 classifies costs of the following activities as unallowable: (1) Planning or executing the organization or reorganization of the corporate structure of a business, including mergers and acquisitions; (2) Resisting or planning to resist the reorganization of the corporate structure of a business or a change in the controlling interest in the ownership of a business; and (3) Raising capital.

### Facilitation Guidance

- Refer participants to the Reference Manual to see a list of the FAR Part 31 references and the *AASHTO Audit Guide* references for each topic shown on the slide.
- Explain why it is important to train staff throughout an A/E firm on the requirements for determining FAR allowable and unallowable costs.
  - At minimum, management and finance/accounting staff must be knowledgeable in these requirements in order to establish and monitor appropriate controls for determining FAR allowability.
  - If other staff are also involved in implementing the necessary controls on a day-to-day basis, these individuals should also be educated on the requirements.
  - Explain that for those in a procurement or oversight role, it is important to verify that A/E consultants have the necessary controls in place to identify and segregate these unallowable costs.
- Explain that one recommended internal control is to have separate general ledger accounts for FAR allowable costs. When employees submit expense reports or approve vendor invoices, they must properly explain the purpose of each expense, so that it will be recorded to the correct general ledger account and properly classified as allowable or unallowable.
- The types of costs listed on the slide are treated as expressly unallowable under FAR Part 31.205.
- Directly Associated Costs: It is also important to identify and treat as unallowable any directly associated costs incurred as a result of the incurrence of unallowable costs. For example, bad debts are an unallowable cost; related bad debt collection costs are also unallowable.
- Ethics: Relate to the ethics discussion in Lesson 1, noting that identifying unallowable costs as they are incurred is a far more accurate method than conducting the activity at year-end.

Slide 17

## Directly Associated Costs

- When a cost is determined to be unallowable, the directly associated costs are also unallowable

### FAR 31.201-6 states:

“A directly associated cost is any cost that is generated solely as a result of incurring another cost, and that would not have been incurred had the other cost not been incurred. When an unallowable cost is incurred, its directly associated costs are also unallowable.”



### Key Message

When a cost is determined to be unallowable, the directly associated costs are also unallowable.

### Facilitation Guidance

- Explain that when a cost is determined to be unallowable, the directly associated costs are also unallowable. For example, if a Marketing Coordinator's salary is unallowable, any benefits and travel expenses related to that marketing coordinator's advertising activities would also be unallowable.

### Notes

- The concept of “directly associated costs” was defined in Lesson 3.
- Directly associated costs is an area which is sometimes overlooked. This lesson refers to them throughout and provides several examples.

Slide 18

## **Introduction to Costs Requiring Additional Analysis to Determine Allowability**

- Depreciation
- Selling costs
- Bid and proposal
- Conferences and seminars
- Taxes
- Miscellaneous (other)
- Related party transactions
- Rent (Common Control)
- Travel, airfare, per diem
- Vehicle costs
- Insurance
- Professional and consultant service costs (legal)
- Employee morale

### **Key Message**

We will now review common types of costs that may require additional analysis to determine allowability.

Slide 19

## ▶ Related-Party Transactions

- Must be evaluated for reasonableness and allowability based on the economic substance of the transaction
- Unallowable: Amounts paid exceeding what would be paid to an unrelated third party for similar products or services



*AASHTO Audit Guide* Section 8.23



### Key Message

Related-party transactions must be evaluated for reasonableness and allowability based on the economic substance of the transaction.

### Background

- Related parties include affiliates, owners or management and their immediate families, and any other parties that can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests.
- Common control, as defined in FASB Statement No. 57 – Related Party Disclosures, is “The possession, direct or indirect, of the power to direct or cause the direction of the management and policies of an enterprise through ownership, by contract or otherwise.” It is important to note that ownership of 50 percent or more is not required to have control.
- Closely-held companies are those companies with a small group of controlling shareholders. In the context of A/E firms, one of the risks associated with closely-held companies is the ability of certain individuals to circumvent certain internal controls, increasing the risks that transactions will occur and not be properly recorded in compliance with FAR Part 31 cost principles.
- Goodwill: FAR 31.205-49 states that any costs for write-off of goodwill are unallowable. Under current GAAP, goodwill is not amortized, but would only be written off if impaired.

Goodwill impairment losses are unallowable, as was goodwill amortization under prior GAAP.

### **Facilitation Guidance**

- Explain that related-party transactions are common in some A/E firms and represent a risk area; these transactions are often found in the areas of compensation and leasing transactions/rent expense.
- Explain that, in general, amounts paid to related parties exceeding what would be paid to an unrelated third party for similar products or services are unallowable.
- Explain the two bullets shown on the slide.

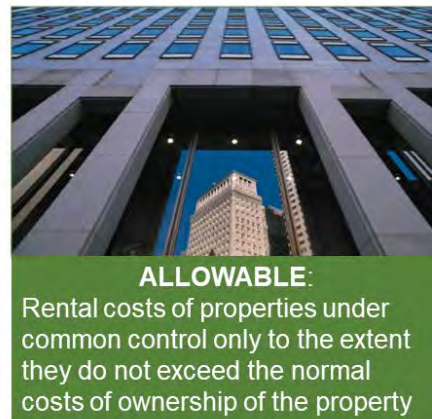
### **Notes**

- This slide is related to the next slide. (Rent: Common Control)
- For more information on related-party transactions, see the *AASHTO Audit Guide* Section 8.23.

Slide 20

## ▶ Rent (Common Control)

- Allowability of rental costs of properties under common control
- Allowability of leased personal property



FAR 31.205-36; 31.205-36(b)(1); *AASHTO Audit Guide* Section 8.23



### Key Message

Rental costs of properties between entities under common control are allowable only to the extent they do not exceed the costs of ownership of the property.

### Background

FAR 31.205-36 states that the following rental costs of properties under common control are allowable:

**[Reference: FAR 31.205-36(b)(3)]**

Charges in the nature of rent for property between any divisions, subsidiaries, or organizations under common control, to the extent that they do not exceed the normal costs of ownership, such as depreciation, taxes, insurance, facilities capital cost of money, and maintenance (excluding interest or other unallowable costs pursuant to Part 31), provided that no part of such costs shall duplicate any other allowed cost. Rental cost of personal property leased from any division, subsidiary, or affiliate of the contractor under common control, that has an established practice of leasing the same or similar property to unaffiliated lessees shall be allowed in accordance with paragraph (b)(1) of this subsection.

## Facilitation Guidance

- Explain that A/E firms often engage in transactions with related parties, including the leasing of real or personal property from entities under common control, and provide an example.
  - An A/E firm may rent office space in a building owned by the company's owner or a group of owners. In such cases, it is important to ensure that amounts allocated to rent and included in the indirect cost rate comply with FAR requirements.
- Ask: What do you think is included under "normal costs of ownership of the property?" (Answers: *Depreciation, taxes, insurance, facilities capital cost of money, and maintenance.*)
- Note that facilities capital cost of money (FCCM) is allowable, but interest is not (and therefore should be excluded from normal costs of ownership). Explain that the owner will not have FCCM on its books, but the A/E firm (or CPA) would need to calculate FCCM for purposes of this analysis.
- **Note that the costs must be incurred by the property owner, not the A/E firm, to be considered normal costs of ownership for this analysis.**
- Note that it is not sufficient to apply an estimated market rental rate for the property. Instead, it is necessary to calculate the normal costs of ownership of the property, and apply this as the upper limit of FAR-allowable rental costs.
- Discuss the following example, which is also included in the PW.

Net book value as of 1/1: \$1,025,0000			
Net book value as of 12/31: \$975,000			
Average net value of building: \$1,000,000.			
Annual Rent	-	-	\$95,000
-	-	-	
Cost of Ownership:	-	-	
Depreciation	\$25,000	-	
Taxes	\$5,000	-	
Insurance	\$4,000	-	
Maintenance	\$5,000	-	
FCCM*	\$30,625	-	
-	-	-	\$69,625
Unallowable portion of rent			\$25,375
-	-	-	
-	-	-	
* Average interest rate for 2018 is 3.0625%			
January 1, 2018 interest rate			2.625%
December 31, 2018 interest rate			3.500%
Average	-		3.0625%

- Note that for personal property leased under such an arrangement, the above approach should be followed unless the company also leases such property to unaffiliated lessees. If

so, then allowable costs are limited to reasonable rental costs as outlined in FAR 31.205-36(b)(1). **Clarify that this exception relates only to *personal* property, not real estate.**

Slide 21

## ▶ Travel, Airfare, and Per Diem

- Allowability of travel costs
  - Lodging, meals, and incidentals
  - Transportation and airfare
- Documentation



- FAR 31.205-46, 31.205-46(a)(7), 31.205-46(b), 31.205-46(c);
- *AASHTO Audit Guide* Section 8.26



### Key Message

Travel costs are typically allowable; however, a number of specific requirements apply.

### Background

*AASHTO Audit Guide* Section 8.26 explains that:

- Travel costs incurred in the overall administration of the business are allowable as an indirect cost; whereas, travel costs incurred in specific contract (project) performance are direct costs of the contract (project).

FAR 31.205-46 explains that:

- Lodging, meals, and incidental expenses may be based on per diem, actual expenses, or a combination. The method used must result in a reasonable charge. The expenses must be disallowed to the extent that they exceed, on a daily basis, the maximum per diem rates in effect at the time of travel as set forth in the Federal Travel Regulations as published by the General Services Administration (GSA) for travel in the contiguous United States. These maximum per diem rates are specific to the location of travel, so it is important to identify the appropriate rate for the travel destination. Note that State DOTs may have specific rules that affect direct costs or overhead. There may be specific limitations on direct costs in the contract. Any travel costs incurred as a result of the project must be allocated as a direct cost of the project regardless of whether such costs are billable to the client. Other limits apply to travel outside the contiguous United States.

- Transportation costs may be based on mileage rates, actual costs incurred, or a combination of the two.
- With respect to airfare, costs in excess of the lowest priced airfare available to the contractor during normal business hours are unallowable.
  - Exceptions: When such accommodations require circuitous routing, require travel during unreasonable hours, excessively prolong travel, result in increased cost that would offset transportation savings, are not reasonably adequate for the physical or medical needs of the traveler, or are not reasonably available to meet mission requirements.
  - A/E consultants should develop written policies and procedures for compliance with this requirement, including how airfare costs will be managed and what documentation shall be maintained to demonstrate compliance.
- For travel costs to be allowable, the following information must be documented: date and place (city, town, or other similar designation) of the expenses, purpose of the trip, and the name of person on the trip and that person's title or relationship to the contractor.

#### **Facilitation Guidance**

- Explain the basis for calculating allowable costs for lodging, meals, and incidental expenses, noting that these costs are limited to the maximum rates established by the Federal Travel Regulations.
- Explain the "lowest price" rule for airfare, possible exceptions to the rule, and the importance of documenting exceptions.
- Discuss documentation required for travel costs to be allowable.

#### **Notes**

For more information on travel, airfare, and per diem, see FAR 31.205-46 and the *AASHTO Audit Guide* Section 8.26.

Slide 22

## ▶ Vehicle Costs

- Allocation to direct/indirect
- Unallowable:
  - Personal use of company-owned or -leased vehicle
  - Directly associated costs
- Documentation critical



FAR 31.205-46(d); 31.205-6(m)(2); *AASHTO Audit Guide* Section 8.26



### Key Message

Vehicle costs are typically allowable; however, a number of specific requirements apply.

### Background

*FAR 31.205-46(d)* explains that for A/E consultant-owned or -leased automobiles the following are unallowable:

- Personal use (including travel to and from work)
- Any directly associated costs incurred as a result of any unallowable vehicle costs

The following are allowable (if reasonable) to the extent that the automobiles are used for company business: (Note: This list is not exhaustive.)

- Lease costs
- Operation (including personnel) costs
- Maintenance
- Depreciation
- Insurance
- Consultant reimbursement for employee business use of personal vehicles

The *AASHTO Audit Guide* Section 8.26 explains that:

- A/E consultants are encouraged to maintain mileage logs.
- Auto lease payments incurred without a documented business purpose are considered unallowable.
- Extra scrutiny should be applied to costs of luxury vehicles.

### Facilitation Guidance

- Explain what is allowable and unallowable with regard to A/E consultant-owned or -leased automobiles.
- Explain the importance of documentation and what to document (e.g., the business purpose of any leased or owned vehicles, mileage logs documenting the mileage driven on company business).
- Note that any mileage for personal use of the vehicle should be segregated and treated as unallowable.
- Explain that it is important to properly allocate vehicle costs as direct or indirect. This requirement is sometimes overlooked. Consistency between billing and accounting treatment is critical.
- If time permits, review “Example: 6-1: Sample Vehicle Cost Allocation” in the PW, illustrating that only **allowable** indirect vehicle costs may be included in overhead.
  - Note that the indirect cost pool must be reduced for unallowable indirect vehicle costs, and project-related vehicle usage must be accounted for consistently. Note that costs associated with luxury vehicles should be examined for reasonableness, and appropriate eliminations from indirect costs made if costs are determined to be unreasonable.

### Notes

For more information on vehicle costs, see FAR 31.205-46(d), 31.205-6(m)(2) and the *AASHTO Audit Guide* Section 8.26.

Slide 23

## Insurance

- Allowability of:
  - Costs of purchased/full insurance
  - Costs of self-insurance
  - Costs of key personnel life insurance
  - Professional liability insurance
  - Losses



FAR 31.205-19(e)(3); *AASHTO Audit Guide* Section 8.15



### Key Message

Insurance costs are typically allowable if specific criteria are met.

### Background

- Insurance costs fall into two categories: 1) purchased/fully insured and 2) self-insured.
- FAR 31.205-19 states that the following general rules apply to both:

**[Reference: FAR 31.205-19]**

- (1) Costs of insurance required or approved pursuant to the contract are allowable.
- (2) Costs of insurance maintained by the contractor in connection with the general conduct of its business are allowable subject to limitations, including the following (not the entire list):
  - (i) Types and extent of coverage shall follow sound business practice, and the rates and premiums shall be reasonable.
  - (ii) Costs allowed for business interruption or other similar insurance shall be limited to exclude coverage of profit.

- A/E firms may decide to self-insure for certain risks, based on a determination that the costs of self-insurance do not exceed the costs of equivalent coverage through purchased insurance.
- If purchased insurance is available, the costs of self-insurance plus insurance administration expenses in excess of the cost of comparable purchased insurance plus associated insurance administration expenses are unallowable. The A/E firm bears the burden of proof that claimed costs for self-insurance are in compliance with this requirement.
- FAR 31.205-19(c)(4) states: “Self-insurance charges for risks of catastrophic losses are unallowable...” Note that “catastrophic loss” is not clearly defined in the FAR, and must be determined on a case-by-case basis. It is recommended that A/E firms incurring a substantial self-insured loss that may be considered catastrophic should discuss with their Home State DOT to determine allowability.
- For key personnel life insurance, the costs of insurance on officers, owners, or employees are allowable to the extent they represent compensation. Compensation must be reasonable in total, as discussed further beginning in Lesson 8. Additionally, this life insurance is unallowable if the A/E firm is the beneficiary.
- For professional liability (also referred to as errors and omissions) insurance, FAR 31.205-19(e)(3) specifies the following:
  - Unallowable: “The cost of insurance to protect the contractor against the costs of correcting its own defects in materials and workmanship.”
  - Allowable: “Insurance costs to cover fortuitous or casualty losses resulting from defects in materials or workmanship are allowable as a normal business expense.”
- With regard to losses, FAR 31.205-19(d)(3) specifies the following:
  - Unallowable: Losses in general
  - Allowable: Losses provided for by contract; losses incurred under the nominal deductible provisions of purchased insurance; minor losses (e.g., spoilage, breakage, and disappearance of small hand tools)

### Facilitation Guidance

- Explain that costs of self-insurance are allowable only to the extent that the costs plus any administrative expenses do not exceed the cost of purchased insurance for the risks covered.
- Explain that key personnel life insurance where the employee’s family or estate is the beneficiary is only allowable to the extent the costs are included in compensation. Key personnel life insurance where the company is the beneficiary is unallowable.



## **Notes**

For more information on insurance, see FAR 31.205-19 and the *AASHTO Audit Guide* Section 8.15.

Slide 24

## Professional and Consultant Services Costs

- Factors to consider:
  - Nature and scope of the service
  - Necessity of contracting the service
  - Whether contracting is most economical
  - Qualifications of the provider and fee charged
  - Adequacy of the contractual agreement
- Documentation



FAR 31.205-33(f); 31.205-38(c)



### Key Message

Professional/consultant service costs are typically allowable if specific criteria are met.

### Background

In determining allowability, A/E firms should consider, and should provide documentation as necessary to support:

- The nature and scope of the service rendered in relation to the service required
- The necessity of contracting for the service, considering the contractor's capability in the particular area
- Whether the service can be performed more economically by employment rather than by contracting
- The qualifications of the individual or concern rendering the service and the customary fee charged, especially on non-Government contracts
- Adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation, termination provisions)

FAR 31.205-33(f) states the following with regard to documenting the agreement and purpose of the services:

**[Reference: FAR 31.205-33(f)]**

(f) Fees for services rendered are allowable only when supported by evidence of the nature and scope of the service furnished (see also 31.205-38(c)). However, retainer agreements generally are not based on specific statements of work. Evidence necessary to determine that work performed is proper and does not violate law or regulation shall include:

- (1) Details of all agreements (e.g., work requirements, rate of compensation, and nature and amount of other expenses, if any) with the individuals or organizations providing the services and details of actual services performed;
- (2) Invoices or billings submitted by consultants, including sufficient detail as to the time expended and nature of the actual services provided; and
- (3) Consultants' work products and related documents, such as trip reports indicating persons visited and subjects discussed, minutes of meetings, and collateral memoranda and reports.


**Facilitation Guidance**

- Discuss the factors to consider when determining the allowability of professional/consultant services costs, as listed on the slide. Note the importance of maintaining proper documentation to support allowability.
- Note that the "prudent person" standard must be applied in evaluating whether it is appropriate for the A/E firm to contract the service, rather than perform it in house.

**Notes**

For more information on professional and consultant services costs, see FAR 31.205-33(f) and 31.205-38(c).

Slide 25





## **Employee Morale**

- Allowable:
  - Certain activities intended to improve working conditions, employer-employee relations, employee morale, and performance
  - Company publications, health clinics, fitness centers, employee counseling services, and cafeterias\*
- Unallowable: Cost of gifts and recreation

• \* Restrictions apply.  
• FAR 31.205-13; *AASHTO Audit Guide* Section 8.8

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### Key Message

Employee morale costs are subject to specific requirements for allowability; certain categories are allowable, while others are not.

### Background

FAR 31.205-13 specifies the following as allowable and unallowable. This list is not exhaustive.

- Allowable: Company publications, health clinics, fitness centers, employee counseling services, and cafeterias (although certain restrictions apply)
- Unallowable: Costs of gifts are unallowable and costs of recreation (with minor exceptions, for example, a company softball team)

### Facilitation Guidance

Discuss allowable and unallowable costs related to employee morale.

### Notes

For more information on the allowability of costs related to employee morale, see FAR 31.205-13 and the *AASHTO Audit Guide* Section 8.8.

Slide 26

## Depreciation

- May not exceed the amount used for financial accounting purposes
- Depreciation for tax vs. financial reporting



FAR 31.205-11; *AASHTO Audit Guide* Section 8.7



### Key Message

Depreciation expense is typically allowable to the extent reported under GAAP.

### Background

- Depreciation shall not exceed the amount used for financial accounting purposes.
- Companies use different methods of depreciation for tax vs. financial reporting. Only the amount of depreciation cost based on methods and useful lives used for financial reporting in accordance with GAAP is allowable.

### Facilitation Guidance

- Explain that the amount of depreciation expense allowable under FAR is normally limited to the amount calculated under GAAP. If the A/E consultant does not calculate depreciation under GAAP, it is recommended that the A/E firm contact its Home State DOT to discuss the allowability of such costs.
- Distinguish depreciation methods used for financial reporting in accordance with GAAP from those used for calculating depreciation for tax purposes. For example, depreciation under Internal Revenue Code Section 179, bonus, or special depreciation is unallowable.

## Notes

For more information on the allowability of costs related to depreciation, see FAR 31.205-11 and the *AASHTO Audit Guide* Section 8.7.

Slide 27

## ▶ Selling Costs

- Criticality of proper categorization and segregation
- Generally Allowable:
  - Market planning
  - Direct selling
  - Bid and proposal costs

### FAR 31.205-38 defines these selling categories:

- Advertising
- Corporate image enhancement
- Bid and proposal
- Market planning
- Direct selling



FAR 31.205-12 ; FAR 31.205-38; *AASHTO Audit Guide* Section 8.24



### Key Message

Selling costs, as defined by FAR Part 31, include a number of cost categories, some of which are allowable, and others which are unallowable. Properly categorizing and segregating costs incurred is critical to determine allowability.

### Background

- “Selling” is a broad term. FAR 31.205-38 defines five categories of selling costs (see slide), each of which must be considered separately.
- Consultants frequently use the term “marketing” to refer to selling costs. The FAR does not use the term “marketing,” but many A/E firms use it to refer to a wide range of selling activities.
- Market Planning: FAR 31.205-38 defines market planning as “Market research analysis and general management planning concerned with the development of the contractor’s business.” Long-range market planning costs are defined in FAR 31.205-12 and are generally allowable.
- Direct Selling: FAR 31.205-38 defines direct selling as “acts or actions to induce particular customers to purchase particular products or services...characterized by person-to-person contact.” Includes negotiation, demonstrations, liaison between customer and contractor personnel, any efforts having as their purpose the application of the contractor’s products or services for a particular customer’s use. Cost of direct selling is allowable.

- Bid and Proposal: Bid and proposal costs are generally allowable.

### **Facilitation Guidance**

- Explain that A/E firms should develop a process to properly classify selling and related costs.
  - The general ledger must include appropriate accounts to support cost segregation.
  - The labor charging system must support the process. It is important to segregate costs by category by using separate charge codes for each type of activity—B&P, direct selling, etc. A/E consultants should not simply use one account labeled “Marketing” to record all of these costs. It is important to educate all staff involved in these activities to recognize the differences.
  - Emphasize that the A/E firm bears the burden of establishing allowability of selling costs. Inadequate documentation may result in a contracting officer disallowing claimed selling costs.
- Discuss the allowability of bid and proposal, market planning, and direct selling costs.
- Explain that costs incurred in preparing, submitting, and supporting bids and proposals are generally allowable.

### **Notes**

For more information on the allowability of selling costs, see FAR 31.205-12, FAR 31.205-38 and the *AASHTO Audit Guide* Section 8.24.

Slide 28

## ▶ Conferences and Seminars

- Allowable:
  - Dissemination of trade, business, technical, or professional information
  - Stimulation of production or improved productivity
- Documentation



FAR 31.205-43



### Key Message

Costs related to conferences and seminars must be examined for allowability, based upon the purpose of the activities.

### Background

According to FAR 31.205-43, the primary test for allowability is whether the purpose is “the dissemination of trade, business, technical or professional information or the stimulation of production or improved productivity.” Activities with any of those purposes are allowable.

### Facilitation Guidance

- Explain the primary test for allowability.
- Note that it is important to document the business purpose of attendance at a conference or seminar to support allowability.
- Compare and contrast conference and seminar activities with those intended to promote the A/E firm’s services, such as hosting a booth or exhibit at a trade show.
- Remind participants that directly associated costs related to any unallowable activities should be examined.

## **Notes**

For more information on the allowability of conferences and seminars, see FAR 31.205-43.

Slide 29

## Taxes

- Typically allowable (limitations apply)
  - Includes State income taxes
- Critical to properly classify taxes and eliminate unallowable taxes
- Unallowable: Federal income taxes and deferred income taxes



FAR 31.205-41; *AASHTO Audit Guide* Section 8.25



### Key Message

In general, taxes paid or accrued are allowable; however, Federal income taxes and deferred income taxes are unallowable.

### Facilitation Guidance

- Note that there are other unallowable taxes, but these are the most common categories.
- Explain that fines and penalties are not considered taxes and are not allowable.
- Explain that the A/E firm should examine taxes carefully in preparing their indirect cost rate to verify that taxes are properly classified and unallowable taxes are eliminated.

### Notes

For more information on the allowability of taxes, see FAR 31.205-41 and the *AASHTO Audit Guide* Section 8.25.

Slide 30

## ▶ Miscellaneous

- Gains and losses on depreciable property or capital assets
- Pre-contract costs (FAR 31.205-32)
- Relocation costs (FAR 31.205-35)
- Training and education costs (FAR 31.205-44)
- Costs of legal proceedings (FAR 31.205-47)
- Goodwill (FAR 31.205-49)



*AASHTO Audit Guide* Section 8.25



### Key Message

This slide provides an overview of allowability requirements for a number of other cost categories.

### Background

Gains and losses recorded on disposition of depreciable property or capital assets:

- Typically allowable in the year they occur.
- Gains or losses on other types of assets (e.g., investment accounts) are not allowable.

Pre-contract costs:

- FAR 31.205-32 states, "Costs incurred before the effective date of the contract directly pursuant to the negotiation and in anticipation of the contract award when such incurrence is necessary to comply with the proposed contract delivery schedule. These costs are allowable to the extent that they would have been allowable if incurred after the date of the contract." It is highly recommended that A/E firms obtain written approval from the contracting officer before incurring these pre-contract costs.
- Note that it is important to examine the contract to determine proper treatment.

Relocation costs:

- FAR 31.205-35 explains that employee relocation costs are allowable if specific requirements and limitations are met.
- Limitations apply. Unallowable costs include, but are not limited to, loss on the sale of a home, principal payments, and others. Training and education costs:
- FAR 31.205-44 explains that costs are generally allowable, with certain exceptions.

Costs of legal proceedings:

- FAR 31.205-47 explains that the costs of legal proceedings must be examined in detail to determine allowability. Often, allowability will be determined by the result of the legal proceeding.
- Note the possibility of directly associated costs such as salaries of employees involved in extended court proceedings where the A/E firm is found to be at fault.
- A/E firms incurring significant costs related to legal proceedings may want to discuss such costs with their Home State DOT to determine allowability.

**Facilitation Guidance**

Briefly discuss areas of miscellaneous costs requiring additional work to determine allowability.

Slide 31

## **Remember: Adequate Documentation Is Important**

- Cost allowability is dependent on adequate documentation
- A/E consultant bears burden of proof of cost allowability



FAR 31.205



### **Key Message**

Cost allowability is dependent on adequate documentation. Any cost inadequately supported may be challenged, and the A/E consultant bears the burden of proof of cost allowability.

### **Facilitation Guidance**

Explain the bullets on the slide.

Slide 32

Step	Timing
1. Read and complete “Activity 6-1: Applying Cost Criteria” in the Participant Workbook (PW).	10 min
2. The instructor will review the activity by explaining the correct answers.	5 min
<b>Total</b>	<b>15 min</b>

## Activity 6-1: Applying Cost Criteria

**Objective:** Answer ten multiple-choice questions related to the criteria to determine allowability of specific areas of cost.

### Key Message

One of the learning outcomes for this lesson is that you be able to evaluate and discuss examples of expressly unallowable cost categories and those costs requiring additional work to determine allowability. This activity will allow you to practice that skill in preparation for the Course Assessment.

### Facilitation Guidance

Conduct “Activity 6-1: Applying Cost Criteria.”

- Introduce the activity, including the activity purpose, timing, and participant instructions.
- Conduct the activity.
- Review the activity.

### Notes

- Refer participants to the Activities section of the PW to complete this activity; answers and debrief information are located in the Activities section of the Instructor Guide.
- In this activity, participants will work with a partner to read practical examples related to the lesson content and answer questions requiring them to demonstrate achievement of the lesson learning outcomes.

Slide 33

## Lesson Summary

- What questions do you have about:
  - Describing the process for evaluating compensation costs for allowability and reasonableness?
  - Defining directly associated cost and explaining its applicability to allowability?
  - Evaluating examples of expressly unallowable cost categories and those requiring additional analysis to determine allowability?



### Key Message

### Facilitation Guidance

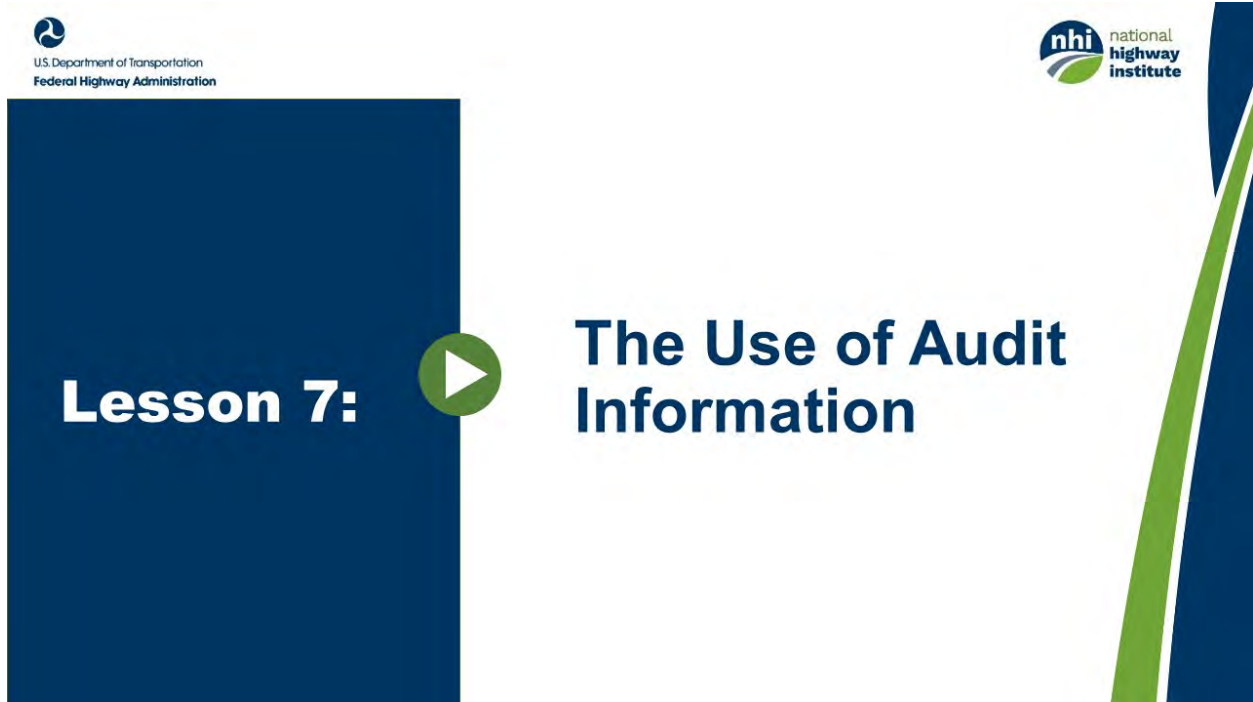
- Review the lesson outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - What are the differences between the concepts of allowability and reasonableness of compensation?
  - What is the process to evaluate compensation costs for allowability and reasonableness?
  - What are directly associated costs and explain its applicability to allowability?
  - What are some examples of expressly unallowable cost categories and those costs requiring additional analysis to determine allowability?

### Notes

Write off-topic questions on the Question Parking Lot for possible resolution at end of day.

## Lesson 7

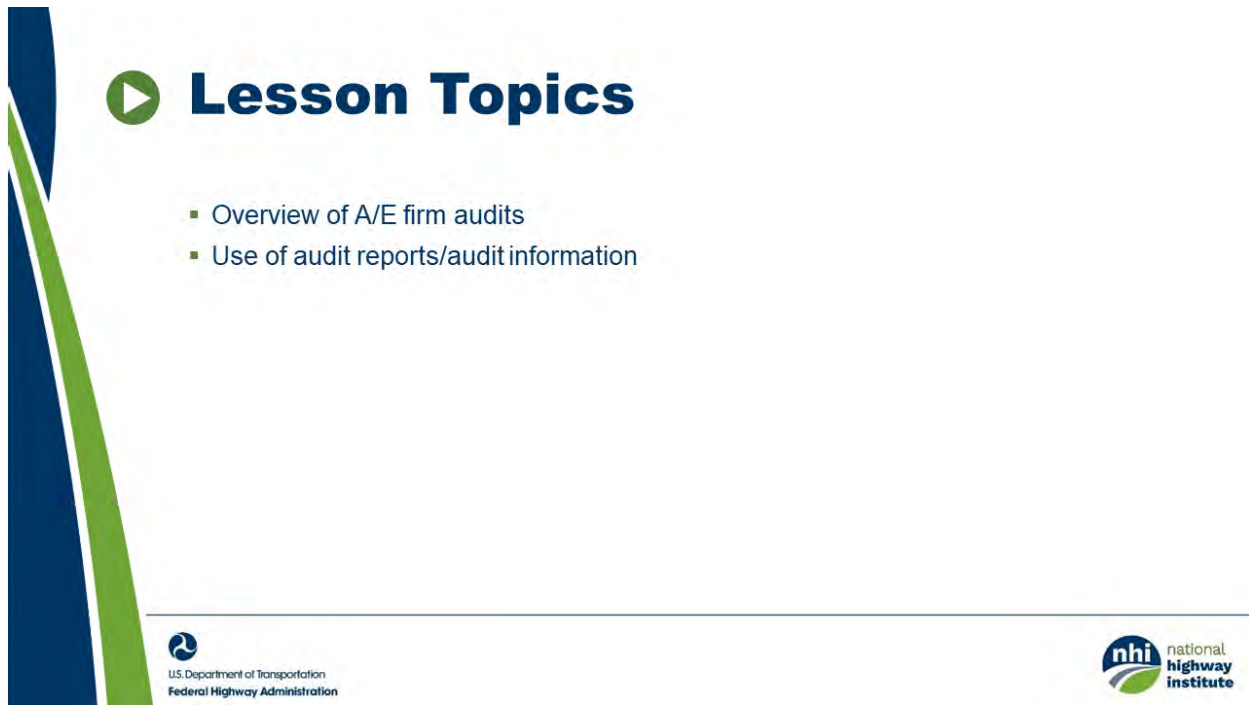
### Slide 1



### Key Message

The next topic to be covered is *The Use of Audit Information*.



Slide 2



The slide features a decorative graphic on the left side consisting of a dark blue vertical bar and a green diagonal bar. The title "Lesson Topics" is displayed in a large, bold, dark blue font, preceded by a green play button icon. Below the title, two bullet points are listed in a smaller, dark blue font. At the bottom of the slide, there are two logos: the U.S. Department of Transportation Federal Highway Administration logo on the left and the NHI National Highway Institute logo on the right.

## ▶ Lesson Topics

- Overview of A/E firm audits
- Use of audit reports/audit information

### Key Message

This lesson provides an overview of A/E firm audits and related roles and responsibilities and also discusses how audits are used.

### Facilitation Guidance

Introduce the key topics to be covered in this lesson.

Slide 3

## Learning Outcomes

After completing this lesson, you should be able to:

- Describe the purpose and use of indirect cost rate audits, pre-award audits, and incurred cost audits
- Describe the roles and responsibilities of involved parties to administer and manage A/E contracts related to audits
- Describe the role of audits in the administration of A/E contracts, linking audit information, cost proposals, and contracts



### Key Message

After completing this lesson, you should be able to demonstrate the outcomes listed on the slide.

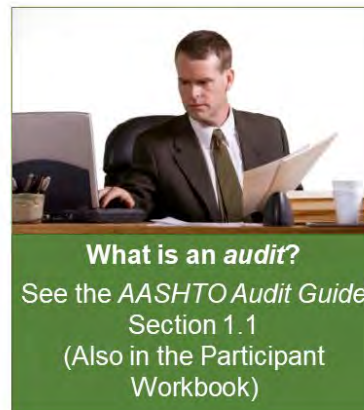
### Facilitation Guidance

Explain the learning outcomes of this lesson.

Slide 4

## Types of A/E Firm Audits and Reviews

- Indirect Cost Rate
- Pre-Award
- Incurred Cost



### Key Message

There are three main types of audits typically performed for an A/E firm: indirect cost rate audit, pre-award audit, and incurred cost audit.

### Background

The *AASHTO Audit Guide* defines *audit* in the context of A/E firms as shown below.

**[Reference: *AASHTO Audit Guide* Section 1.1]**

A formal examination, in accordance with professional standards, of accounting systems, incurred costs records, and other cost presentations to verify their reasonableness, allowability, and allocability for negotiating agreement fees and for determining allowable costs to be charged against Government contracts. Audits include an evaluation of an engineering consultant's policies, procedures, controls, and actual performance. Audit objectives include the identification and evaluation of all activities that contribute to, or have an impact on, proposed or incurred costs related to Government contracts.

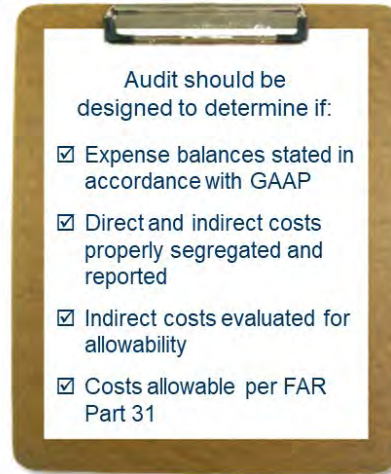
## Facilitation Guidance

- Ask: Generally speaking, in the context of an A/E firm, what is an *audit*? (Answer: *See Background section. Explain that this definition relates to various types of audits and is not focused on only one type.*)
- Ask: What are some types of audits performed on A/E firms? (Expected answers: *Indirect cost rate, pre-award, incurred cost, and financial statement audit/review*)
- Write responses on a flipchart; then load the bullets on the slide.
- Explain that this lesson covers the audit types shown, including their key components, related terms, and the roles and responsibilities associated with each type.
- Explain that the type of contract may—but is not always required to—play a role in the type of audit emphasis. For example:
  - Pre-award audits and incurred cost audits are generally performed by the contracting agency for a specific contract. There may be a stronger emphasis placed on a pre-award audit for fixed-price contracts, while cost reimbursement contracts may be more likely to include an incurred cost audit.
- Explain that State DOTs may claim costs associated with project specific audits conducted in accordance with Government Auditing Standards. Such costs are eligible as direct project costs per 23 CFR 140.803.

Slide 5

## ▶ Indirect Cost Rate Audits

- Performed to provide reasonable assurance as to the accuracy of the indirect cost rate
- Primarily focused on the income statement
- Involve understanding and testing an A/E consultant's internal controls
- May be required by state DOT policy
- Typically performed annually by a CPA firm



### Key Message

An indirect cost rate audit is performed to provide reasonable assurance as to the accuracy of an A/E consultant's indirect cost rate. Such audited indirect cost rates are used to establish allowable indirect costs for contracts with Federal, State, and local agencies.

### Background

- An indirect cost rate audit must be designed to determine whether each of the following is true.
  - Expense balances are properly stated in accordance with GAAP (or, in some instances, another acceptable basis of accounting).
  - Direct and indirect costs are properly segregated and reported.
  - Indirect costs have been properly evaluated for allowability.
  - Costs presented on the indirect cost rate schedule as allowable are allowable per FAR Part 31.
- Whereas general purpose financial statement (GPFS) audits focus on both balance sheet and income statement amounts, indirect cost rate audits focus primarily on the income statement. Additionally, the objectives for these audits are different:

- GPFS audits are designed to provide reasonable assurance that the financial statements are free of material misstatement. This generally means that the financial statements are not misleading to investors and creditors.
- Indirect cost rate audits are designed to provide reasonable assurance that the indirect cost rate schedule presents costs in conformance with FAR Part 31. This generally means that the schedule does not include material amounts of costs ineligible for reimbursement (unallowable) by FAR Part 31.
- Indirect cost rate audits are typically performed on an annual basis coinciding with the A/E firm's fiscal year.
- Typically, an essential element of an indirect cost rate audit is to obtain an understanding of, and perform testing on, the A/E consultant's internal controls.
  - Such procedures help the auditor to obtain reasonable assurance that the A/E consultant's controls are sufficient to prevent or detect misstatements that might affect the indirect cost rate.
  - Practice aids and tools, such as the Internal Control Questionnaire included in the *AASHTO Audit Guide*, assist auditors in this process.

### **Facilitation Guidance**

- Discuss the purpose and focus of an indirect cost rate audit. Explain how the objectives of an indirect cost rate audit differ from those of a GPFS audit.
- Emphasize that because the expenditure of public funds is affected by the rates developed or verified in the audit, the materiality thresholds and sampling techniques used by auditors are significantly different for GPFS audits than those used in indirect cost rate audits. Although FAR Part 31 does not specifically address materiality, the threshold for allowable misstatement (precision level) generally is set much lower for indirect cost rate audits.
- Explain that an indirect cost rate audit is typically performed by a CPA firm or State DOT auditor.

Slide 6

## Indirect Cost Rate Information Uses



### Key Message

Information from an indirect cost rate audit is used in multiple ways, including applying indirect cost rates to current or prior periods, establishing provisional or fixed rates to be used prospectively, and as a tool to refine and improve the A/E consultant's systems, procedures, and internal controls.

### Background

Applying actual indirect cost rates to work performed in current or prior periods:

- For contracts using provisional indirect cost rates, the provisional rates may be adjusted to actual audited rates periodically (often annually) during contract performance, or at contract completion.
  - Adjusting the rate annually allows for a better matching of invoiced amounts to the A/E consultant's actual costs. This reduces the amount of any cost adjustment necessary upon final audit.
  - Periodic adjustments may include adjustments of amounts previously billed, or may only reflect a change in the indirect cost rate invoiced in current and future periods.
  - Upon final audit of cost reimbursement contracts, indirect cost rates for the entire period of project performance are typically examined and compared to rates invoiced, and an adjustment is calculated for the entire contract. Note that the audit adjustment may include items other than indirect costs.

- Appropriate payment is made to or from the contracting agency based on the audit adjustment, subject to contract provisions including maximum total fees established.

Establishing provisional or fixed rates to be used prospectively:

- Contracting agencies typically utilize the most recent audited indirect cost rate in setting provisional rates (e.g., cost reimbursement contracts) or in determining fixed rates (e.g., the fixed indirect cost component of a fixed price contract).
- Generally, the indirect cost rate is examined and established through an annual prequalification process or a pre-award audit of the specific contract.

Improving A/E consultant systems, procedures, and internal controls:

- A significant outcome of the audit process is often the identification of possible improvements in the A/E consultant's systems, procedures, and internal controls which affect project costing and the establishment of the indirect cost rate.
- A/E consultants should be encouraged to discuss audit findings with their CPA firm auditors or State DOT auditors to identify potential improvements. Coordinating with the Home State DOT during the audit planning phase will assist in this process.

### **Facilitation Guidance**

Discuss how information from an indirect cost rate audit may be used.

Slide 7

# **Sample Indirect Cost Rate Audit Report**

- Refer to “Example 7-1: Sample Indirect Cost Rate Audit Report” in the Examples section of the Participant Workbook

Example 7-1: Sample Indirect Cost Rate Audit Report

**ENGINEERING CONSULTANTS, INC.**  
Schedule of Indirect Expenses (Home)  
Year Ended December 31, 2010  
(This Independent Auditor's Report Applies)

**Engineering Consultants, Inc.**  
Schedule of Indirect Costs  
Year Ended December 31, 2010

Description	Total Costs (\$)	Unallocable Costs (\$)	Not Ref. (\$)	Total Unallocated Costs (\$)	Home Office Costs (\$)	Field Office Costs (\$)
Direct Labor	10,435,887	-	-	10,435,887	8,842,816	886,451
<b>P fringe Benefits</b>						
Vacation/Holiday/Paid Leave	1,889,421			1,889,421	1,510,224	79,197
Payroll Taxes	1,251,258			1,251,258	1,482,848	88,410
Group Insurance	1,288,789			1,288,789	1,288,789	81,810
Retirement	208,779			208,779	186,579	11,900
Interim Compensation	2,012,816	812,887	NAK \$1,105,456	1,810,149	1,422,011	88,848
Employee Welfare	10,881	4,131	NAK \$1,105,456	8,960	8,960	488
<b>Total Fringe Benefits</b>	<b>6,260,774</b>	<b>818,018</b>		<b>5,776,946</b>	<b>6,121,000</b>	<b>272,880</b>
<b>General Overhead</b>						
Non-Payroll Labor	4,858,139	187,808	NAK \$1,105,456	4,858,139	4,858,000	100,000
Printing	208,724			208,724	186,541	11,783
Building Costs (Rent)	1,510,761	180,800	NAK \$1,105,456	1,418,161	1,512,217	28,944
Other Occupancy Costs	886,430			886,430	186,448	7,881
Supplies	208,430			208,430	208,430	8,288
Field Supplies & Equipment	98,881			98,881		98,881
Travel & Shipping	81,810			81,810	88,783	8,888
Recruitment						
Post/Charter/Travel	208,280			208,280	208,280	21,781



## Key Message

The Participant Workbook (PW) presents a sample indirect cost rate audit report that includes a home rate and a field rate.

## Background

- A/E consultants are not specifically directed by regulations to have home and field rates—even if some employees work in a client office; however, a field rate may be required by contract or may make good business sense for the A/E consultant. A more detailed review of home and field rates is outside the scope of this course.
- Although they may vary somewhat, indirect cost rate audit reports will typically follow the sequence presented in the sample. However, the sample should not be interpreted as the only proper way to present an indirect cost rate audit report.
- Indirect cost rate audit reports will have many elements in common, such as the audit opinion, schedule of indirect costs, calculation of indirect cost rate, and footnotes.

## Facilitation Guidance

- Refer participants to “Example 7-1: Sample Indirect Cost Rate Audit Report.”
- Explain that the example report has been adapted from the sample provided in the *AASHTO Audit Guide* Sections 11.2 – 11.3 (e.g., different numbers and company name).

- Walk through the report, pointing out the indirect cost rate schedule and recommended footnotes.
- Explain that the example presents a single FAR reference for each line item with unallowable costs. In some cases, more than one FAR section will apply and should be listed.
- Explain that A/E consultants are not specifically directed by regulations to present separate home and field rates in the indirect cost rate audit, although a field rate may be required by contract or may make good business sense for the A/E consultant.
- Explain how an indirect cost rate audit report would differ from the sample if only a company-wide rate were presented.

### Notes

“Example 7-1: Sample Indirect Cost Rate Audit Report” is located in the Examples section of the PW and Instructor Guide (IG).

Slide 8

## Pre-Award Audit/Review

- Pre-award audits/reviews are typically performed:
  - On behalf of State DOT procurement or contracting staff
  - To obtain reasonable assurance that financial information provided by the A/E consultant is materially correct
  - During an annual prequalification process and/or during the contract negotiation process
- A pre-award audit may also be performed in order to determine whether the A/E firm's internal controls are adequate to support accurate project costing and invoicing



### Key Message

A pre-award audit is typically conducted on behalf of State DOT procurement or contracting staff during an annual prequalification process and/or during the contract negotiation process in order to obtain reasonable assurance that the financial information provided by an A/E consultant is materially correct.



### Background

- Pre-award audits take different forms and serve a variety of purposes; however, the main purpose is to obtain reasonable assurance that the financial information needed to support the procurement and contracting process is materially correct.
- A pre-award audit may be performed during an annual prequalification process, and/or during the negotiation process. For example, the indirect cost rate may be examined on an annual basis, but proposed direct labor rates may be reviewed only after submittal of a cost proposal.
- In some cases, the State DOT may perform a pre-award audit of an A/E firm's accounting system to determine whether the firm's internal controls are adequate to provide for proper tracking and segregation of costs, accurate timekeeping, etc. to support accurate project costing and invoicing.

### Facilitation Guidance

- Explain what a pre-award audit is and how it is typically used.
- Emphasize that there may be a stronger emphasis placed on a pre-award audit for fixed-price contracts, while cost reimbursement contracts may be more likely to include an incurred cost audit.



Slide 9



## Pre-Award Audit/Review: Costs Typically Examined

- Direct labor cost (especially labor rates)
- Indirect costs
- Direct materials costs, if applicable
- Subconsultant costs
- Other direct costs
- Facilities capital cost of money (FCCM) rates and amounts proposed, if applicable
- Profit/fixed fee
- Overall presentation and mathematical accuracy of the cost proposal

---



### Key Message

Pre-award audits examine many different types of costs submitted in an A/E consultant cost proposal.

### Background

- Typically, pre-award audits examine the following types of costs submitted in an A/E consultant cost proposal:
  - Direct labor cost, with a focus on verifying direct labor rates
  - Indirect costs, generally by examining the indirect cost rate
  - Direct materials costs, if applicable
  - Subconsultant costs, which may include all of the individual categories of costs listed here. The dollar amount of the subconsultant contract may influence the type and amount of pre-award audit work performed in this area.
  - Other direct costs, often including a review of supporting documentation for amounts proposed
  - Facilities capital cost of money (FCCM) rates and amounts proposed, if applicable
  - Profit/fixed fee
  - Overall presentation and mathematical accuracy of the cost proposal

### **Facilitation Guidance**

- Explain that the pre-award audit may involve a desk review performed at the audit office and/or fieldwork at the A/E consultant's place of business.
- Explain the types of costs that are typically examined in a pre-award audit.

Slide 10

## Incurred Cost Audit

- An incurred cost audit may be performed:
  - By the State DOT or local agency auditor or by a CPA firm hired by the contracting agency
  - During the course of the project or after an A/E consultant completes all scheduled work on the project
  - To verify invoiced costs for a project, including direct costs, indirect costs, and subconsultant costs
- Results are used to determine whether project billing was accurate, and/or necessary corrections were made



### Key Message

An incurred cost audit is typically performed by the State DOT or local agency auditor or by a CPA firm hired by the contracting agency, during the course of the project or after an A/E consultant completes all scheduled work on the project in order to verify that costs incurred and invoiced were in accordance with the terms of the contract.

### Background

- The *DCAA Contract Audit Manual* does not establish audit requirements for State DOT or local agency auditors (only for DCAA auditors); however, the objectives described below are generally applicable to incurred cost audits:

**[Reference: *DCAA Contract Audit Manual*, Chapter 6-102.1 Audit Objectives]**



...the auditor's primary objective [in an incurred cost audit] is to examine the contractor's cost representations, in whatever form they may be presented...and to express an opinion as to whether such incurred costs are reasonable, applicable to the contract, determined under generally accepted accounting principles and cost accounting standards applicable in the circumstances, and not prohibited by the contract, by statute or regulation, or by previous agreement with, or decision of, the contracting officer. In addition, the auditor must determine whether the accounting

system remains adequate for subsequent cost determinations which may be required for current or future contracts...

### Facilitation Guidance

- Explain what an incurred cost audit is and how it is typically used as shown on the slide; note applicability of the *DCAA Contract Audit Manual* reference, above.
- Explain that the scope of the audit may include all costs invoiced for the project, including direct costs, indirect costs, and subconsultant costs.
- Emphasize that it is important to review contract terms in performing the incurred cost audit.
- Explain that audit procedures vary depending upon the agency performing the audit.
- Explain that if the audit is performed after an A/E consultant completes all scheduled work on a project, it may also be called a *post audit* or *closeout audit*.
- Explain that contracting agencies will typically place an emphasis on the use of incurred cost audits for contracts using a cost reimbursement payment method.



Slide 11



## **Responsibilities in the Performance of Audits and Use of Audit Reports/Information**

- Review the role and responsibilities related to the performance of audits and use of audit reports and information
- Consult the Participant Workbook for Activity 7-1: Responsibilities in the Performance of Audits and Use of Audit Reports and Information”

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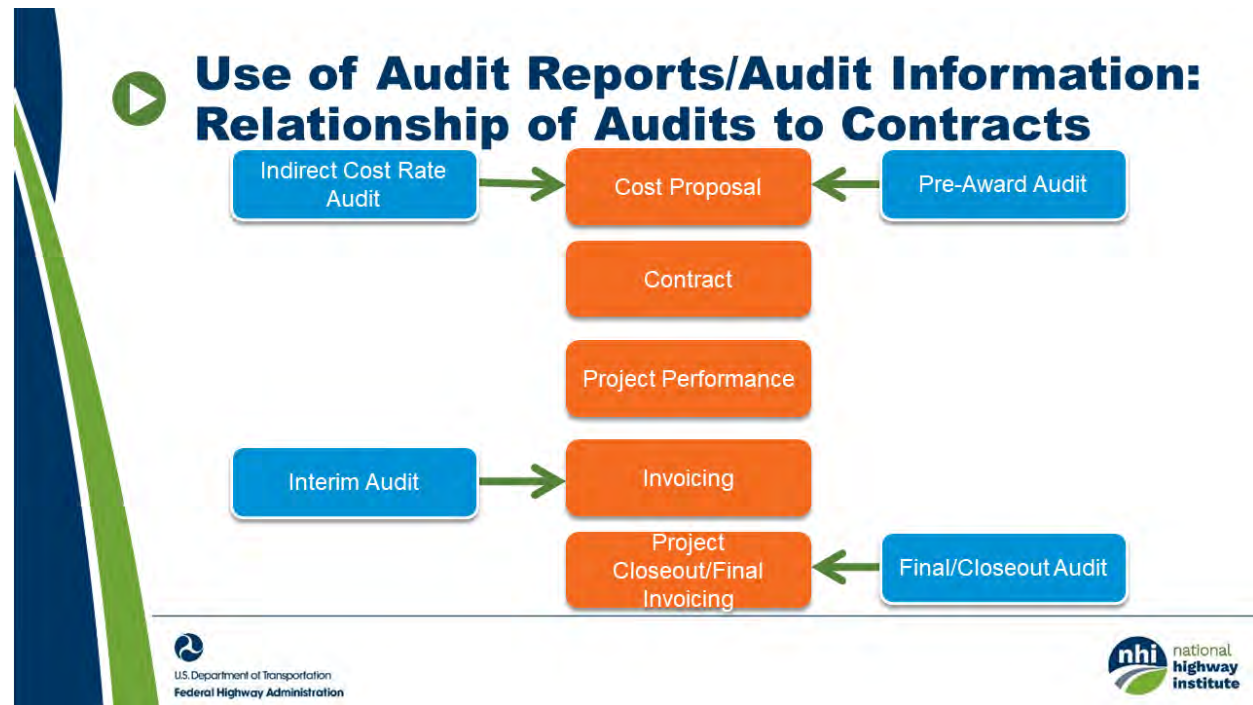
### **Key Message**

The ultimate responsibility for accurate financial information rests with management of the A/E consultant. The auditors are responsible for performing appropriate procedures to obtain reasonable assurance that costs are properly stated.

### **Facilitation Guidance**

- Discuss “Activity 7-1: Roles and Responsibilities in the Performance of Audits and Use of Audit Reports and Information.”
- Emphasize that management of the A/E consultant has ultimate responsibility for the accuracy of financial information.

Slide 12



### Key Message

Audit information plays an important role in supporting the estimation, negotiation, administration and invoicing of A/E consultant contracts.

### Background

- Audit information is most often used during the negotiation phase and contract closeout phase of an A/E contract; however, audits may be performed periodically during the course of the contract.
- Indirect cost rate audit information is used during the negotiation phase to verify that the indirect costs included in the A/E consultant's cost proposal are consistent with the audited information.
- A pre-award audit is often performed to provide reasonable assurance that direct and indirect costs included in the cost proposal are not materially misstated. The cost proposal typically establishes the A/E consultant's compensation, and is often incorporated into the contract as an exhibit or attachment.
- Incurred cost audit: As A/E consultant costs are invoiced throughout the course of performance under the contract, the contracting agency may perform, or hire a CPA firm to perform, an incurred cost audit at any time to verify the invoiced costs are accurate and comply with the terms of the contract. As such, it is critical for the auditor to understand the terms of the contract, including any communications between the contracting officer

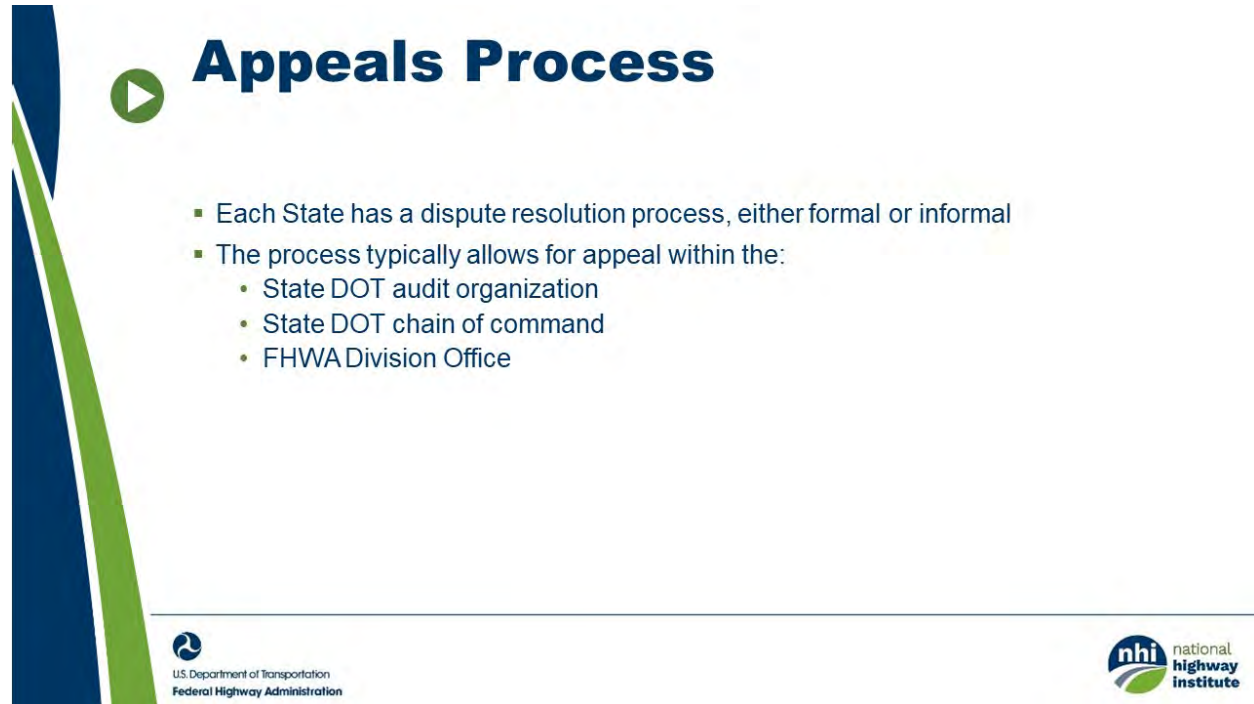
and A/E consultant which affect or are incorporated into the contract after the contract is executed.

- Interim Audit: When an incurred cost audit is performed during a project, it is often referred to as an interim audit.
- Final/Closeout Audit: When an incurred cost audit is performed upon contract completion, it is often referred to as a final audit or closeout audit.

### **Facilitation Guidance**



- Discuss how the indirect cost rate audit and the process for developing this audit provide assurance to the A/E contracting process. Note especially the importance of verifying the accuracy of costs and determining an accurate indirect cost rate to use on contracts.
- Describe how the audit information links back to the cost proposal and to compliance with the contract.
- Explain how the cost proposal relates to the various audits that are performed.
- Show the trail or links between the audits.

Slide 13



## Appeals Process

- Each State has a dispute resolution process, either formal or informal
- The process typically allows for appeal within the:
  - State DOT audit organization
  - State DOT chain of command
  - FHWA Division Office

### Key Message

Each State DOT has an appeals process to address dispute resolution. The slide summarizes a typical dispute resolution process.

### Background

- For purposes of this discussion, the terms “appeals process” and “dispute resolution process” are used interchangeably.
- Each State DOT should have an appeals process in place, although the processes may vary in degree of formality.
- Dispute resolution policies and procedures may be cited or referenced in the provisions of a State DOT’s procurement process, or within the contract document itself.
- The typical process follows the hierarchy listed in the slide, with the first level of appeal to the State DOT audit organization. If the dispute cannot be resolved at that level, an appeal would be made to others in the State DOT designated to handle such appeals.
- The final level of appeal would be made to the FHWA Division Office if it is not possible to resolve the issue at the State DOT level of appeal. Most contract appeals will be resolved within the State DOT; however, the FHWA Division Office is available as a resource to resolve disputes.
- Local contracting agencies may also have formal or informal dispute resolution processes.

### **Facilitation Guidance**

- Discuss the typical appeals process, as well as any host State DOT specific information, if applicable.
- Explain that additional information can be found in the *AASHTO Audit Guide* Section 12.8, question 13.

### **Notes**

- To prepare for this topic, request information in advance about the appeals process of the States represented by course participants, and of the host State DOT, if applicable.

Slide 14

## Lesson Summary

- What questions do you have about:
  - The purpose and use of indirect cost rate audits, pre-award audits, and incurred cost audits?
  - Roles and responsibilities related to these audits?
  - The role of audits in the administration of A/E contracts?



### Key Message

Ask for and address any questions participants have about the use of audit information.

### Background

Write off-topic questions on the Question Parking Lot for possible resolution at the end of the day.

### Facilitation Guidance

- Review the lesson outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - How would you describe the purpose and use of indirect cost rate audits, pre-award audits, and incurred cost audits?
  - What are the roles and responsibilities of A/E consultants, Federal, State DOT, and local auditors, CPA firms, and those who procure A/E services and/or administer and manage A/E contracts with regard to indirect cost rate audits, pre-award audits, and incurred cost audits?
  - What are the role of audits in the administration of A/E contracts, linking audit information, cost proposals, and contracts?



## Lesson 8

### Slide 1



U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

**Lesson 8:**


**The Risk Management Framework, Oversight, and Cognizance**

The slide features a dark blue rectangular area on the left containing the text "Lesson 8:" in white, followed by a green play button icon. To the right of this area, the title "The Risk Management Framework, Oversight, and Cognizance" is displayed in a large, bold, dark blue font. The slide is decorated with logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (nhi) in the top corners, and a decorative green and blue graphic element on the right side.

### Key Message

The next topic to be covered is *The Risk Management Framework, Oversight, and Cognizance*.



Slide 2



## Lesson Topics

- Use of audit information throughout the project cycle
- State DOT risk management framework
- Cognizance/reliance on other audits

---




### Key Message

This lesson covers the use of audit information throughout the project cycle, the state DOT risk management framework, and the concept of cognizance or reliance on other audits.

### Facilitation Guidance

Introduce the key topics to be covered in this lesson.

Slide 3





## **Learning Outcomes**

After completing this lesson, you should be able to:

- Describe the use of cognizant audits and other risk management tools
- Explain the risk management framework and correlate it to your role in administering A/E contracts

---



### **Key Message**

After completing this lesson, you should be able to demonstrate the outcomes listed on the slide.

### **Facilitation Guidance**

Explain the learning outcomes of this lesson.

Slide 4

Step	Timing
1. Work alone to answer the six questions presented in “Activity 8-1: Cost Proposal Analysis” in the Participant Workbook.	10 min
2. Discuss your answers in groups of four. Your group will be asked to report your answers for at least one of the questions.	5 min
3. The instructor will review the activity with the large group.	10 min
<b>Total</b>	<b>25 min</b>



## Activity 8-1: Cost Proposal Analysis

**Objective:** Analyze and discuss a cost proposal in light of the related indirect cost rate audit report and contract wording.

### Key Message

The sample cost proposal, audit report and contract wording reviewed as a part of this activity are intended to present a typical “real-life” scenario, demonstrating the types of information that participants are likely to see in their roles. This activity brings together several concepts addressed in the course in a practical application.

### Facilitation Guidance

Conduct “Activity 8-1: Cost Proposal Analysis.” This activity has a handout that provides target answers. Distribute this handout after you have conducted the activity debrief.

- Introduce the activity including the activity purpose, timing, and participant instructions.
  - Explain that there are a number of ways in which audit information is used. This activity will help participants gain a better understanding of how the roles represented by course participants use audit information.
  - Explain that certain information in the sample documents is intended to raise questions or represent areas of risk. Participants should identify risk areas and questions that would require further follow up work.
  - Note that even though this lesson primarily deals with indirect cost audits, other types of audit information aid in improving the cost estimation and negotiation processes.
  - Refer participants to the “Activity 8-1: Cost Proposal Analysis” in the Activities section of the Participant Workbook (PW) and discuss the instructions. Explain that “Example 8-1:

“Sample Cost Proposal” and “Example 8-2: Sample Wording from a Contract for Engineering Services” will be used to complete this activity.

- Remind participants that cost proposals may be presented in many different formats and the sample provided is just one example.
- Explain that you will prompt participants to form groups of four when it is time, and that you will also tell each group which question(s) on which to focus.
- Conduct the activity.
- Review the activity. After the review, hand out the answers, “Activity 8-1: Cost Proposal Analysis Answers.”

### Notes

- Answers and debrief information are located in the Activities section of the Instructor Guide.
- Participants will use “Example 8-1: Sample Cost Proposal” and “Example 8-2: Sample Wording from a Contract for Engineering Services” as well as “Activity 8-1: Cost Proposal Analysis” to complete this activity.

Slide 5

## State DOT Risk Management Framework: Tools Used



Audits Performed  
to Determine  
Compliance with  
FAR Part 31



Desk Reviews



Alternate  
Procedures



### Key Message

There are a number of tools employed by State DOTs to manage risk by obtaining reasonable assurance that A/E consultant indirect cost rates comply with FAR Part 31.

### Background

- State DOTs have limited audit resources and, therefore, may not perform extensive procedures for each A/E consultant operating in their state. As a result, each State DOT has established a risk management framework to determine the procedures and processes in place to obtain reasonable assurance that the costs and the indirect cost rates submitted by A/E consultants are compliant with Federal regulations.
- A State DOT's risk management framework includes the concept of allocating available resources to address the risks that exist. For example, there are x number of A/E firms in the state, and x number of local agencies for which the State DOT has an oversight responsibility. The risk management framework encompasses how the State DOT will address issues such as these with limited resources.
- It is important to note that a State DOT's risk management framework extends beyond indirect cost rate audits to include pre-award and incurred cost audits, and extends beyond the audit organization (i.e., it includes contracting, procurement, etc.). It even extends beyond the State DOT to local agencies. All A/E consultants in the state should be considered in the State DOT's risk assessment.

- The State DOT should consider its oversight responsibility for Federal-Aid Highway Program funding to local agencies as part of the overall risk management framework.
- Explain that the workpaper review program presented in the *AASHTO Audit Guide* is one tool that may be used. State DOTs normally perform a risk analysis involving all firms performing business in their state to determine the appropriate tool or mix of tools to be applied to gain reasonable assurance.
- FAR Audits: These may be performed by the State DOT, a CPA firm hired by the A/E consultant, or a CPA firm hired by the State DOT. For those not performed by the State DOT, there must be procedures in place for review and acceptance of the audit.
- Desk reviews: These typically consist of a review of the indirect cost rate audit and appropriate supplemental documentation.
- Alternate/additional procedures: These may include (but are not limited to) site visits, correlation analysis using data from prior years, and additional inquiries of A/E consultant management and/or the CPA firm preparing the indirect cost rate.

### **Facilitation Guidance**

- Explain why each State DOT has established a risk management framework.
- Explain why State DOTs should perform a risk analysis to determine the appropriate tool or tools to be applied to gain reasonable assurance.
- Explain how the scope of the risk management framework extends beyond the audit organization to other State DOT functions and to oversight of local agencies.
- Discuss the three tools shown on the slide. Explain that pre-award audits and incurred cost audits may be used in connection with the tools presented.

Slide 6

## Risk Analysis Performed by State DOT: Risk Criteria

- Dollar Thresholds
- Experience in Working With State DOT Contracts
- Size, History, and Reputation of the A/E Consultant
- Number of States in Which the A/E Consultant Does Business
- Date of the Last Audit
- Type and Complexity of the Accounting System
- Experience of the CPA Firm
- Responses to AASHTO ICQ
- Changes in Organizational Structure
- Other Risk Criteria

### Key Message

The slide presents risk criteria to be considered by the State DOT in performing a risk analysis.

### Background


Sample steps a State DOT may take to conduct a risk analysis:

- Review prior year audits.
- Examine current year indirect cost reports and financial statements.
- Review the A/E consultant's responses to the ICQ in the *AASHTO Audit Guide*.
- Perform other analyses.

### Facilitation Guidance

- Explain that State DOTs may perform a risk analysis to accept rates without performing a comprehensive workpaper review.
- Ask: What steps do you think State DOTs may take to conduct a risk analysis? (Example answers: *See the bulleted list in the Background section above.*)
- Discuss the risk criteria (shown on the slide) to be considered in performing such a risk analysis.



Slide 7



## State DOTs and 23 CFR 172.5 Requirements

- State written procedures must cover:
  - Scope of work – evaluation factors and cost estimate
  - Soliciting of proposals
  - Evaluation of proposals and selection of consultants
  - Negotiation
  - Monitoring and performance evaluations
  - Liability for errors or deficiencies

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### Key Message

The slide demonstrates the process and procedures that State DOTs use to address the requirements of 23 CFR 172.5.

### Background

- 23 CFR 172.5 states written procedures to be followed for agencies receiving Federal-Aid Highway Program funds. See 23 CFR 172 in the *Reference Manual* for more information.
- State DOTs often address compliance with these requirements by publishing and following an approved consultant procedures manual which incorporates the items above.

### Facilitation Guidance

- Explain the process and procedures that State DOTs use to address the requirements of 23 CFR 172.5.
- Emphasize that the State DOT risk management framework is implicit in the requirements under 23 CFR 172.5
- State DOTs are responsible for ensuring that local agencies receiving Federal-Aid Highway Program funds have appropriate written procedures.

Slide 8

## ▶ State DOT Peer Review Process

- A peer review consists of:
  - Review of audit organization policies and procedures
  - Review of a sample of audit engagements
  - Communication of results
- Role of FHWA
- Findings of OIG audit

### Elements Supporting Risk Management

- Training
- Guidance
- Contract language
- Cost certification



### Key Message

The slide provides an overview of the State DOT peer review process.

### Background

- AASHTO established and operates a peer review program to support and improve the quality and effectiveness of each State DOT's audit function. The peer review program is similar in many ways to those used by CPA firms to monitor and support audit quality.

#### **[Reference: AASHTO Peer Review Program Policies and Procedures]**

Peer reviews provide an opportunity to enhance audit quality and confidence in the audit function by providing an independent assessment of the adequacy of the system of quality control and compliance with policies and procedures.

- Peer review teams consist of volunteer members of State DOT audit organizations, appointed by a Peer Review Panel.
- The peer review consists of:
  1. A review of the audit organization's policies and procedures, especially those focused on quality control;

2. A review of a sample of audit engagements to determine whether the organization followed the quality control policies and procedures and complied with applicable auditing standards; and
  3. Communication and reporting of the results of the peer review.
- Audit quality is essential to the State DOT's objectives of managing risk, and an effective audit function supports the process of A/E consultant contracting.
  - A number of other factors supplement the role of effective audits in managing risk, including training, guidance, contract language, and cost certification.
  - FHWA is responsible for verifying that State DOT controls ensure compliance with Federal requirements and are sufficient. FHWA performs this oversight role primarily through its division offices located in each state.
  - The OIG audit highlighted the importance of continuously monitoring and strengthening the risk management framework. The OIG audit was a catalyst for improvement of the process of oversight of Federal-Aid Highway Program funds.

### **Facilitation Guidance**

- Explain the bullets on the slide.
- Explain that risk management and mitigation may be supplemented through training, guidance, contract language, and cost certification.

Slide 9

## Overview of Cognizance and Reliance on Other Audits

In the course of performing audit and attest functions, auditors often rely on the work of other auditors, with appropriate procedures established to do so.



\* Or another State DOT granted cognizance by the Home State DOT

### Key Message

In the course of performing audit and attest functions, auditors often rely on the work of other auditors, with appropriate procedures established to do so. The rules establishing cognizant audit requirements are not new, but date back to 1995.

### Background

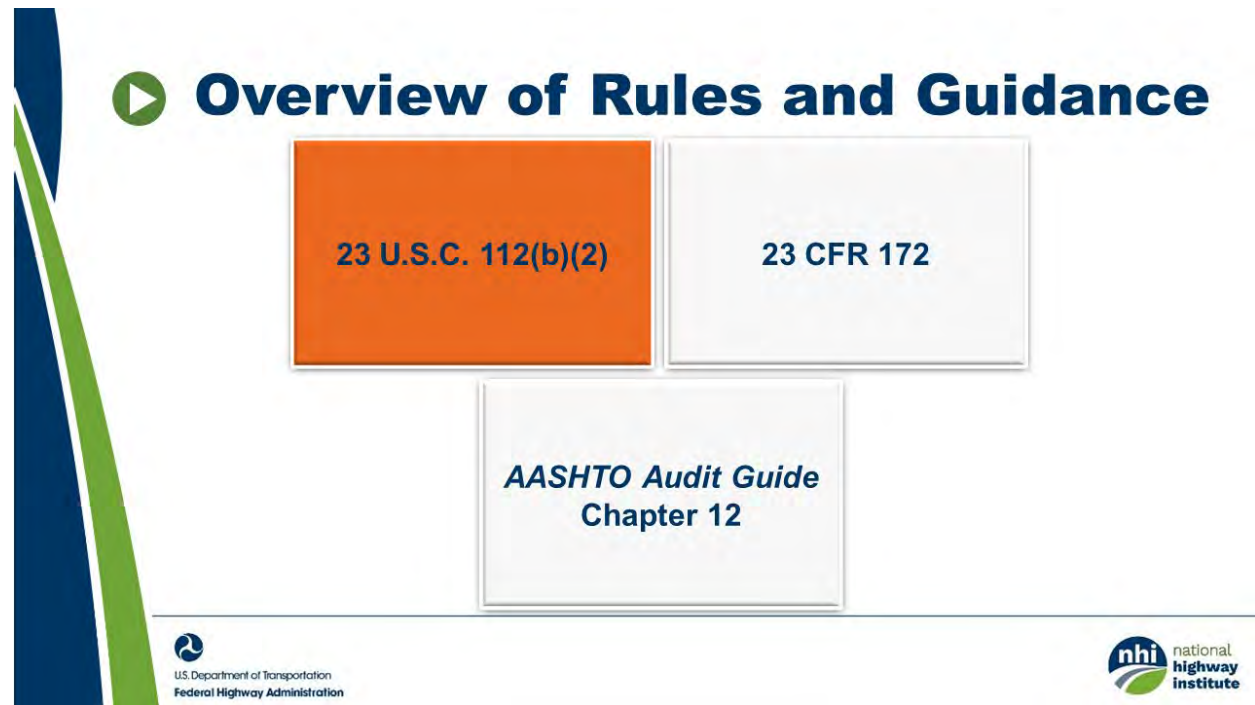
- A cognizant audit is an audit performed by a Federal agency, or a State DOT acting as the cognizant agency, or an audit performed by a CPA firm which is made a cognizant audit through a review of CPA work papers and a letter of concurrence by the cognizant agency.
- Cognizance was established in Section 307 of the 1995 National Highway System Designation Act. The focus of this section of the Act was to remove caps on overhead rates and indirect salaries, to avoid duplicate audits, and to reinforce the need for auditors to use the FAR cost principles to determine cost allowability.
- The purpose of cognizance is to avoid duplicate audits and to better manage the limited audit resources of State DOTs.
  - The concept is that the Home State DOT, or another State DOT granted cognizance by the Home State DOT, either performs the indirect cost rate audit or reviews the audit performed by a CPA firm, using established procedures.

- Acceptance by the Home State (or designee) using these procedures establishes a cognizant approved indirect cost rate to be accepted by all other State DOTs.
- By having an established set of procedures for audit reviews, State DOTs can have confidence in the work performed by other State DOTs, minimizing the overall audit work for multi-state A/E firms.

### **Facilitation Guidance**

- Explain that in the course of performing audit and attest functions, auditors often rely on the work of other auditors, with appropriate procedures established to do so.
- Explain the concept of cognizance and its background.

Slide 10



### Key Message

There are several Federal rules and additional guidance governing cognizance.

### Background

23 U.S.C. 112(b)(2):

- Establishes the requirements for acceptance of cognizant audits. If a cognizant rate has been established, it must be accepted (for contracts using Federal-Aid Highway Program funds).
- Requires the acceptance of cognizant approved indirect cost rates unless under dispute. Such rates shall be applied for purposes of contract estimation, negotiation, administration, reporting, and contract payment.
- Applies to prime contracts using any Federal-Aid Highway Program funds.
- Prohibits caps or limitations where a cognizant indirect cost rate exists except for Minnesota and West Virginia.

23 CFR 172:

- Defines FHWA rules.

*AASHTO Audit Guide* Chapter 12:

- Includes Q&A regarding cognizance in Section 12.8.


**FHWA Expectations:**

- Re-emphasizes cognizant audits in the 2006 Transportation Appropriations Act, Section 174.

**Facilitation Guidance**

- Explain the rules and guidance governing cognizant audits and the goals of the use of cognizant audits.
- Discuss the move toward more uniformity.
  - Note that with the publication of the *AASHTO Audit Guide*, A/E consultants, CPA firms, and AASHTO audit agencies now have a generally accepted, uniform interpretation of the FAR and related rules and guidance.
  - FHWA is strongly encouraging all parties to adopt the *AASHTO Audit Guide* for use in preparing, auditing, and reviewing indirect cost rates.
- Note that there are many instances where a cognizant audit is not necessary (for example, for A/E consultants operating in only one state). State or local agencies may accept an indirect cost rate audit performed by a CPA firm without a cognizant letter of concurrence.



Slide 11



## **Processes Used by State DOTs to Issue a Cognizant Letter of Concurrence**

- Home State DOT performs audit
- Non-home State DOT performs audit, and home State DOT issues a cognizant letter of concurrence
- CPA firm performs audit, and home State DOT reviews audit report and workpapers, and issues cognizant letter of concurrence
- Non-home State DOT reviews audit report and workpapers, and issues cognizant letter of concurrence, which is accepted by home State DOT

---




### **Key Message**

There are four ways that a cognizant audit or cognizant letter of concurrence may be issued.

### **Facilitation Guidance**

- Explain that State DOTs issue cognizant audits or letters of concurrence using the four processes shown on the slide.
- Note that if a cognizant audit is desired, it generally must be requested by the A/E consultant; however, State DOTs also may request these letters and reports from other State DOTs.
- Note that local public agencies may not act as the cognizant agency per statute and regulation.
- Explain that many State DOTs are conducting multi-state cognizant team reviews of large A/E firms, and coordinating their reviews with other State DOTs on regional or multi-state A/E firms.
- Discuss the use of cognizant audits and the reliance on other audits in general.



Slide 12



## **Current State of Compliance**

- States are encouraged, but not required, to perform cognizant approvals
- All State DOTs should accept cognizant audits
- Some State DOTs are issuing cognizant audits
- FHWA is promoting cognizance
- USDOT OIG audit emphasized the importance of cognizant audits

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### **Key Message**

State DOTs are required to accept cognizant audits, and several state DOTs, though not all, are currently issuing cognizant audits or cognizant letters of concurrence.

### **Background**

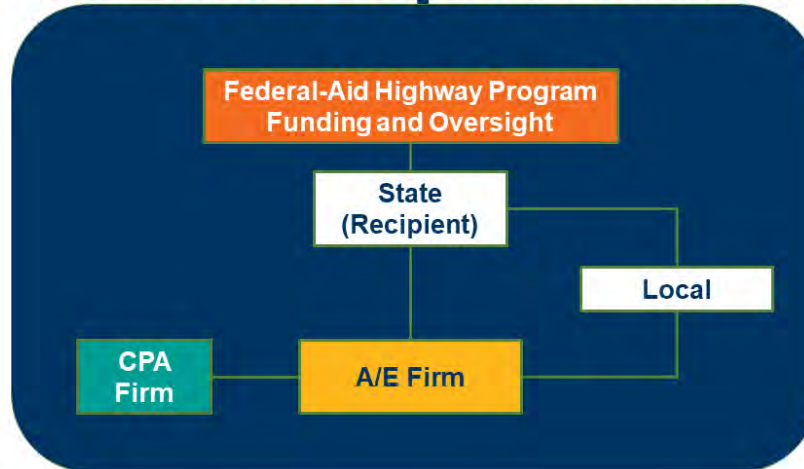
- States are not required to perform cognizant approvals, but are strongly encouraged to do so.
- Currently, all State DOTs should be accepting cognizant audits (note that Minnesota maintained the ability to apply overhead caps).
- A number of State DOTs, though not all, are issuing cognizant audits or cognizant letters of concurrence.
- FHWA is promoting cognizance to achieve uniformity and make efficient use of limited audit resources.
- The USDOT OIG audit emphasized the importance of uniform application of the FAR principles and the use of cognizant audits as a method to aid in achieving uniformity.

### **Facilitation Guidance**

Discuss each bullet on the slide.

Slide 13

## ▶ Roles and Responsibilities



### Key Message

Each of the groups shown on the flow chart has a role in the oversight of funds administered through the Federal-Aid Highway Program.

### Background

The *AASHTO Audit Guide* applies to funding provided through the Federal-Aid Highway Program. Other Federal contracts not funded through this program, or contracts funded with State or local agency funds only, are outside the scope of this course.

Federal Highway Administration (FHWA) staff:

- Perform oversight of the funds administered through the Federal-Aid Highway Program. Projects under the program typically carry a requirement for State/local matching funds and require compliance with Federal laws and regulations, including, but not limited to, those that we will discuss in this course.
- Operate division offices in each state, the District of Columbia, Puerto Rico, and four metropolitan offices, which provide assistance, guidance, and information regarding Federal transportation programs to local, State, and other Federal agencies.
- Operate the FHWA Resource Center, with locations in Atlanta, Baltimore, San Francisco, and Matteson, Illinois. The Resource Center provides technical support and program assistance, training, and technology delivery to FHWA's Division Offices, State Departments of

Transportation, Metropolitan Planning Organizations, and other transportation partners to assist in the oversight process.

Federal, State DOT, and Local Contracting Agency Staffs:

- Typically provide the first level of oversight for their contracts with A/E firms.
- In accordance with 23 U.S.C. 106(g)(4), State DOTs have responsibility for oversight of Federal-Aid Highway Program funds administered by local agencies. FHWA has ultimate responsibility for oversight of those funds. (*See Reference Manual*).
- A/E Procurement Staff: Oversee the procurement and selection process.
- A/E Contract Management and Administration Staff: Oversee the contract as it progresses.
- Audit Staff:
  - State DOTs are responsible for development and implementation of an effective risk management framework that provides assurance of compliance with Federal requirements for all A/E firms.
  - Perform services to provide assurance to the Procurement and Contract Management and Administration staff that proposed costs (in the negotiation phase) and incurred costs (during project performance) are in accordance with applicable laws, regulations, guidance, and the contract terms. May be organized differently in each agency; in some, certain staff may have multiple roles. (E.g., Internal audits and external audits may be performed by the same person.)
  - With respect to both CPA firm and contracting agency audit staff, auditors are required to use professional judgment in performing their roles. It is outside the scope of this course to provide instruction on auditor judgment. Course 2B provides additional discussion on the subject, although it is not the intent of that course to “teach” auditor judgment. A fundamental concept of a financial statement audit is the understanding that an audit provides reasonable, but not absolute, assurance as to the accuracy of the amounts presented.

A/E Firms:

- Ultimately responsible for the accuracy and allowability of costs (costs proposed in negotiations and costs incurred and submitted on invoices).
- Responsible for establishing and maintaining appropriate internal controls, systems, and accounting records, and for following all applicable laws, regulations, and guidance.
- Responsible for maintaining and promoting a strong culture of business ethics, and communicating to all staff the importance of applying high ethical standards in all business activities. The standards must apply uniformly to all employees, including owners and/or managers.

CPA Firms:

- Play a critical role by performing indirect cost rate audits and other assurance services on behalf of A/E design firms, State DOTs, and/or local agencies.
- Attest to the accuracy and allowability of an A/E consultant's incurred costs and proposed rates.
- Perform audits that are reviewed by State DOTs as part of the State DOTs' risk management frameworks. Some State DOTs perform audits, but many rely on CPA firms' work and perform reviews of the CPA's audit workpapers. Federal rules do not require CPA audits of overhead schedules; however, State DOTs may require such audits.

**Facilitation Guidance**

Briefly review the roles and responsibilities listed on the slide and relate to the topics covered in this lesson.

Slide 14

## Lesson Summary

- What questions do you have about:
  - The use of audit information throughout the project cycle?
  - The risk management framework and its correlation to your role in administering A/E contracts?
  - The use of cognizant audits and other risk management tools?



### Key Message

What questions do you have about the topics shown on the slide?

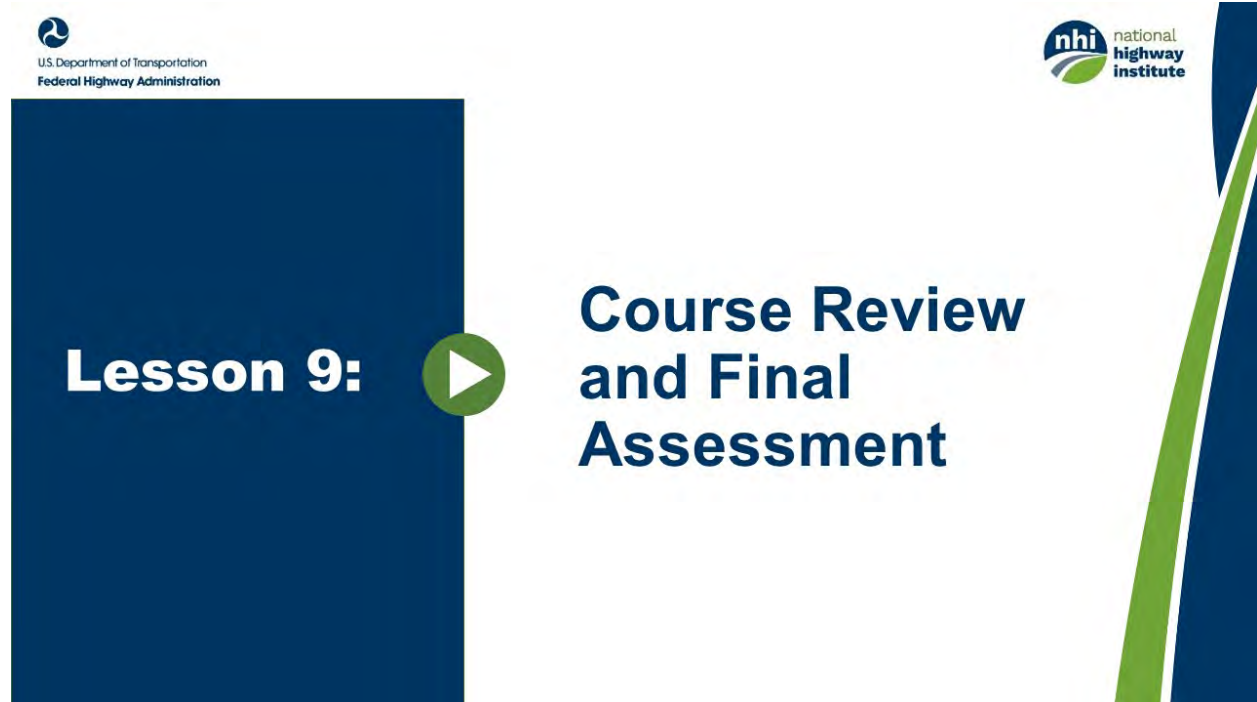
### Facilitation Guidance

- Review the lesson learning outcomes (shown below) and lead a discussion of any remaining questions.
- Ask participants:
  - Can you describe the use of audit information throughout the project cycle?
  - Can you explain the risk management framework and correlate it to your role in administering A/E contracts?
  - Can you describe the use of cognizant audits and other risk management tools?




## Lesson 9

### Slide 1



U.S. Department of Transportation  
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**Lesson 9:** 

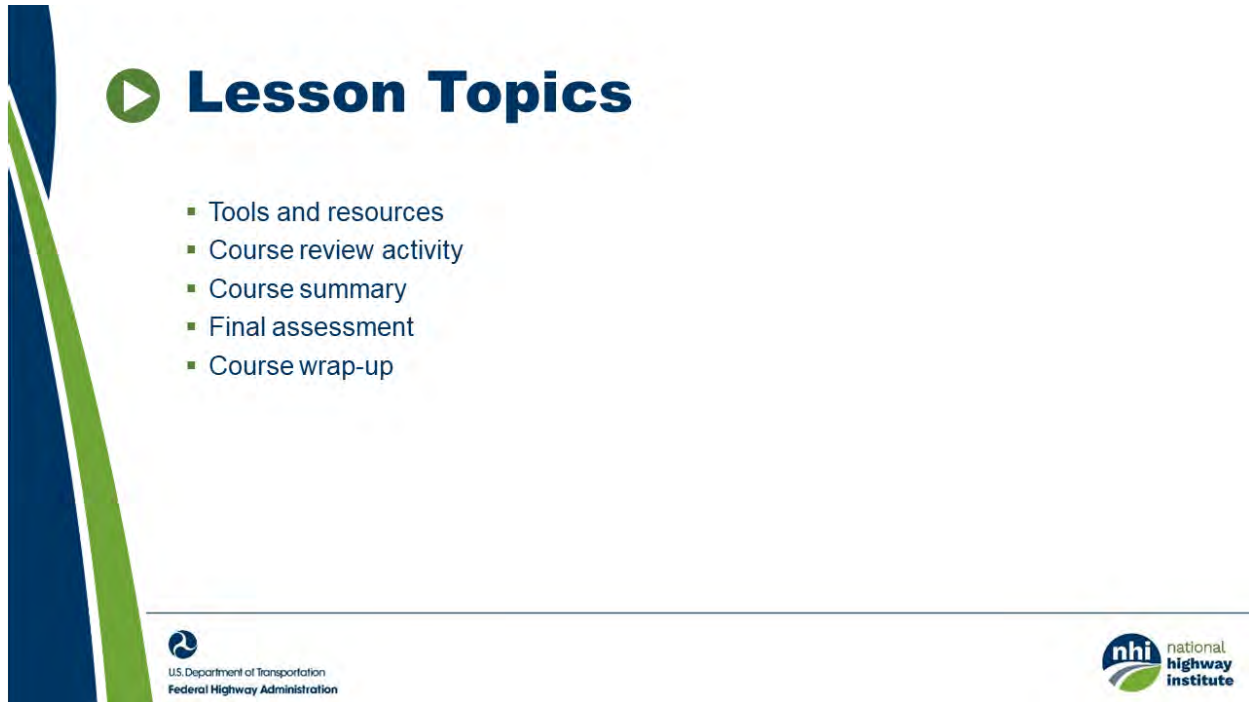
**Course Review  
and Final  
Assessment**

The slide features a dark blue rectangular area on the left containing the text "Lesson 9:" in white, followed by a green circular play button icon. To the right of this area, the text "Course Review and Final Assessment" is displayed in a large, bold, dark blue font. The slide is framed by a white border. In the top left corner, the U.S. Department of Transportation Federal Highway Administration logo is visible. In the top right corner, the NHI National Highway Institute logo is present. A decorative green and white curved line runs vertically along the right edge of the slide.

### Key Message

The last course topic is *Course Review and Final Assessment*.



Slide 2



The slide features a dark blue vertical bar on the left with a green diagonal stripe. The title 'Lesson Topics' is in large blue font with a play button icon. Below it is a bulleted list of five topics. At the bottom, there are logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute.

## ▶ Lesson Topics

- Tools and resources
- Course review activity
- Course summary
- Final assessment
- Course wrap-up


### Key Message

In this lesson, we will review tools and resources that will assist in the procurement and administration of A/E contracts, review key course concepts and address any remaining questions, and complete the Final Assessment.

### Facilitation Guidance

Introduce the key topics to be covered in this lesson.

Slide 3





## **Learning Outcomes**

After completing this lesson, you should be able to:

- Identify tools and resources to support the procurement and administration of A/E contracts
- Successfully complete the course assessment

---




### **Key Message**

After completing this lesson, you should be able to demonstrate the outcomes listed on the slide.

### **Facilitation Guidance**

Explain the learning outcomes of this lesson.



Slide 4



## **Tools and Resources Overview**

- FAR Part 31
- *AASHTO Audit Guide* (including the AASHTO ICQ)
- National Compensation Matrix
- *AASHTO Guide for Consultant Contracting*
- 23 CFR 172
- FHWA Consultant Services website
- CPA Workpaper Review Program
- *DCAA Contract Audit Manual*
- *DCAA Publication 7641.90: Information for Contractors*
- *Government Auditing Standards* (GAGAS or “Yellow Book”)

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9-4

### **Key Message**

This slide lists tools and resources that offer assistance in the procurement and administration of A/E contracts. A list of resources referenced, including URLs (where applicable), is provided in the Participant Workbook (PW).

### **Facilitation Guidance**

- Refer participants to the “References” section in the PW.
- Point out that FAR Part 3 is only guidance.
- Answer any questions related to the list of tools and resources and their locations.

Slide 5

## **Course Review**

- Review key concepts in preparation for the final assessment
- Take notes in the Participant Workbook



### **Key Message**

The questions on the next series of slides provide you an opportunity to practice some of the skills and knowledge that will be assessed in the Final Assessment.

### **Facilitation Guidance**

- Explain that before taking the Final Assessment, participants will have an opportunity to practice what they learned through a series of review questions.
- Direct participants to the note space in the Participant Workbook.

### **Notes**

- The questions included in this review are closely aligned with the Final Assessment and are designed to review key points tested in the assessment.
- It is important for the effectiveness of this activity that participants not be permitted to shout out the answers before everyone has had a chance to read the question and think about it.

Slide 6

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Federal Highway Administration

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Name the contract type illustrated by each graphic below.

Phase Phase Phase  
Negotiate Negotiate Negotiate

Contract  
Task Order #1 Task Order #2 Task Order #3

**Key Message**

This review will allow you to practice Lesson 1 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on the screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer (Answer: *Multiphase and IDIQ/On-Call*). Emphasize that IDIQ/On-Call contracts are useful for contracting for similar specialized services for a number of projects.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 1 in the Final Assessment.

Slide 7

The slide features a dark blue background on the left with the text "Course Review: Question 2" in white. A green play button icon is positioned to the right of this text. On the right side, the text "True or False?" is followed by the question: "The funding source for a specific highway contract has no bearing on the applicability of Federal and State laws, regulations, and guidance." The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners. A decorative green and white diagonal stripe runs along the right edge.

**Key Message**

This review will allow you to practice Lesson 2 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on the screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer (Answer: *False*). Emphasize that the funding source is critical in deciding which statutes and regulations apply.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 2 in the Final Assessment.

Slide 8

The slide features a dark blue background with a large white play button icon in the center. To the left of the play button, the text "Course Review: Question 3" is displayed in white. To the right of the play button, the text "True or False?" is displayed in white, followed by the question "Under Qualifications Based Selection (QBS), cost information should be reviewed during the selection process." in a smaller white font. The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners.

U.S. Department of Transportation  
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**Course Review: Question 3**

**True or False?**  
Under Qualifications Based Selection (QBS), cost information should be reviewed during the selection process.

**Key Message**

This review will allow you to practice Lesson 3 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *False. A/E firms must be selected based on their competence and qualifications for the type of services required. Price quotes or other cost information may not be considered in the selection process in QBS.*)
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 3 in the Final Assessment.

Slide 9

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## Course Review: Question 4

**Fill in the Blank**  
In QBS, the contracting agency must develop an independent \_\_\_\_\_ to be used in contract negotiations.

### Key Message

This review will allow you to practice Lesson 3 skills in preparation for the Final Assessment.

### Facilitation Guidance

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer Answer: *Independent cost estimate*).
- Correct any misconceptions and address any questions that remain about this topic.

### Notes

- This question is aligned to question 4 in the Final Assessment.

Slide 10

U.S. Department of Transportation  
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## Course Review: Question 5

**Read the scenario and then answer the question.**

Armin is assigned to a project with a contract that allows for lease reimbursement of a project vehicle. ABC Consulting, an A/E firm, leased an expensive sports car for Armin's use on the project.

What FAR criteria for allowability would this lease likely violate?

### Key Message

This review will allow you to practice Lesson 4 skills in preparation for the Final Assessment.

### Facilitation Guidance

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer Answer: *Reasonableness*). Remind participants that there are five criteria for FAR allowability defined in FAR 31.201-2(a). Stress that the cost must be **allocable, reasonable, and comply with the terms of the contract**. In addition, the cost must comply with 1) standards promulgated by the CAS Board, if applicable, otherwise generally accepted accounting principles and practices appropriate to the circumstances, and 2) any limitations set forth in FAR Part 31.2.
- Correct any misconceptions and address any questions that remain about this topic.

### Notes

- This question is aligned to question 5 in the Final Assessment.

Slide 11

U.S. Department of Transportation  
Federal Highway Administration

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## Course Review: Question 6

**Read the scenario and then answer the question.**  
A direct cost of a project was erroneously recorded as an indirect cost. What FAR cost principle does this concern?

### Key Message

This review will allow you to practice Lesson 4 skills in preparation for the Final Assessment.

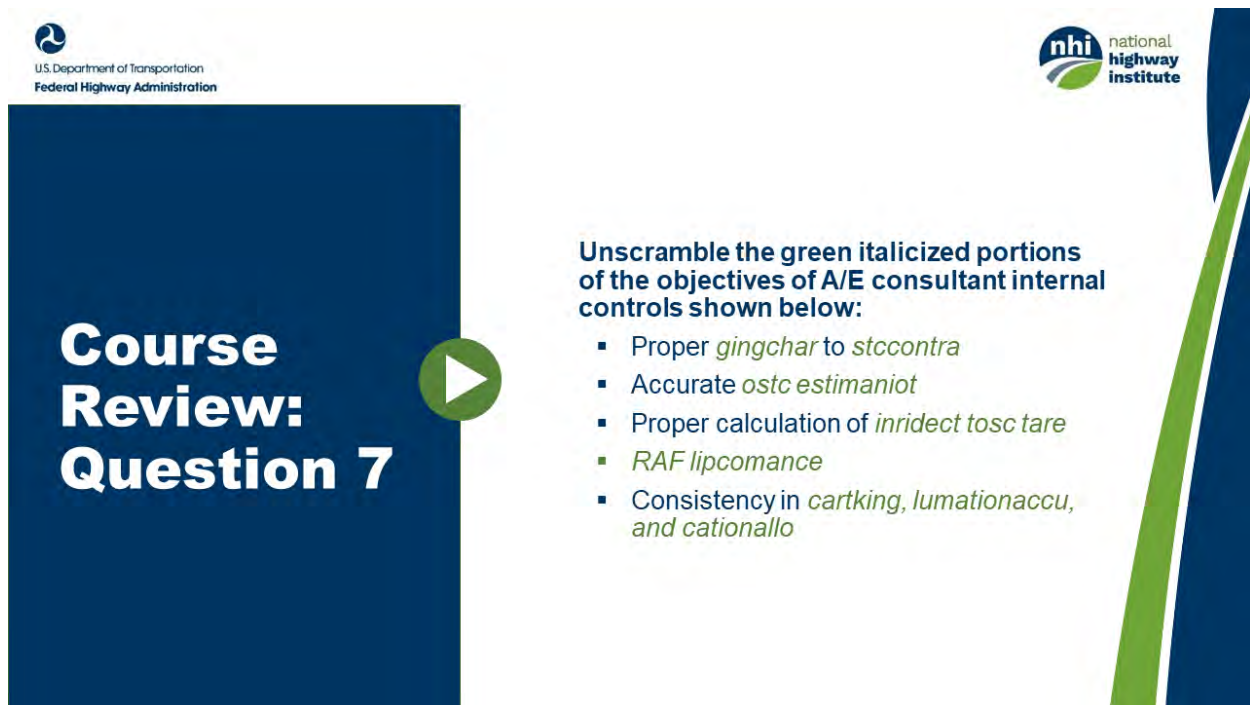
### Facilitation Guidance

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer Answer: *Allocability*). Stress that internal controls should be in place to help ensure costs are properly allocated.
- Correct any misconceptions and address any questions that remain about this topic.

### Notes

- This question is aligned to question 6 in the Final Assessment.

Slide 12



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**Course Review: Question 7**

Unscramble the green italicized portions of the objectives of A/E consultant internal controls shown below:

- Proper *gingchar to stccontra*
- Accurate *ostc estimanlot*
- Proper calculation of *inrirect tosc tare*
- *RAF lipcomance*
- Consistency in *cartking, lumationaccu, and cationallo*

**Key Message**

This review will allow you to practice Lesson 5 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer *Answers are shown below*).
  - *Proper charging to contracts*
  - *Accurate cost estimation*
  - *Proper calculation of indirect cost rate*
  - *FAR compliance*
  - *Consistency in tracking, accumulation, and allocation*

**Notes**

- This question is aligned to question 7 in the Final Assessment.

Slide 13

U.S. Department of Transportation  
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**Course Review: Question 8**

**Read the scenario and then answer the question.**

ABC Consulting is reviewing the actual costs of a project. The labor costs expended on the project to date exceed the maximum billable labor costs specified in the terms of the contract.

Are the costs allocable and billable to the project? Why or why not?

**Key Message**

This review will allow you to practice Lesson 5 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (*Answer: The costs are allocable, but are not billable.*) A cost is allocable to a project if it was incurred because of a project and would not have otherwise been incurred. The terms of a contract determine whether a cost is billable or nonbillable. The labor costs were incurred because of the project so should be allocated accordingly; however, they exceed the maximum allowed by the contract and therefore should not be billed.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 8 in the Final Assessment.

Slide 14

**Course Review: Question 9**

**Read the scenario and then answer the question.**

Wynona is a manager at ABC Consulting. Last year, she received a salary and a performance bonus. The company also contributed to her 401K. She spent some of her time during normal business hours doing charity work and lobbying.

What portions of Wynona's compensation are not allowable under FAR Part 31?

Salary associated with time volunteering and lobbying  
Bonus  
Company 401K Contributions  
Salary  
Allowable?  
Unallowable?

**Key Message**

This review will allow you to practice Lesson 6 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (*Answers are shown below.*)

Allowable components:

- Salary
- Company contributions to employee retirement accounts are allowable.
- Performance-based bonuses are allowable, subject to certain criteria listed in FAR 31.205-6.

Unallowable components:



- Compensation for time spent on unallowable activities, such as charitable and lobbying activities, is not allowable under FAR Part 31.

- Ask: Is Wynona's compensation subject to reasonableness provisions? (*Answer: Yes.*) Stress that total compensation is still subject to reasonableness provisions of FAR 31.205-6 **regardless of the employee's role.**
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 9 in the Final Assessment.


Slide 15



# Course Review: Question 10

**Read the scenario and then answer the question.**

Phillip, an executive with ABC Consulting, took a client to a baseball game Thursday afternoon. Which of the costs below would be considered allowable under FAR Part 31?




Cost of tickets



Transportation to and from the game



Food and beverage while at the game



Cost of Phillip's salary and benefits for time he was at game

## Key Message

This review will allow you to practice Lesson 6 skills in preparation for the Final Assessment.

## Facilitation Guidance

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *None of the costs are allowable.*)
- Correct any misconceptions and address any questions that remain about this topic.

## Notes

- This question is aligned to question 10 in the Final Assessment.

Slide 16

U.S. Department of Transportation  
Federal Highway Administration

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**Course Review: Question 11**

**Read the scenario and then determine if the answer is True or False.**

ABC Consulting's field engineers drive company cars, which they use mostly for business and some personal use. They do not maintain documentation of use (e.g., mileage logs).

All costs of the cars are paid for by the company and have been determined to be reasonable in amount.

True or False: These costs would likely be considered allowable because the cars are used mostly for business and the costs are reasonable.

**Key Message**

This review will allow you to practice Lesson 6 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *False*.) In this situation, the auditor would likely question all or a portion of the cost of the vehicles as unallowable, as the company has not maintained adequate documentation to segregate personal and business use. It is critical to maintain adequate supporting documentation for vehicle costs and usage, to properly segregate business use from personal use, and direct project-related use from use for indirect activities.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 11 in the Final Assessment.

Slide 17

The slide features a dark blue background on the left with the text "Course Review: Question 12" in white. A green play button icon is positioned to the right of this text. On the right side of the slide, the text "True or False?" is followed by the question "A pre-award audit is not typically performed for a lump sum project." The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners.

### Key Message

This review will allow you to practice Lesson 7 skills in preparation for the Final Assessment.

### Facilitation Guidance

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *False*.) Pre-award audits are often used to obtain reasonable assurance that A/E consultant proposed costs are not materially misstated, including costs proposed for lump sum contracts. **In the case of lump sum contracts, pre-award audits may be even more important**, as the contract price is fixed, therefore there is no ability to adjust amounts paid based upon an incurred cost audit.
- Correct any misconceptions and address any questions that remain about this topic.

### Notes

- This question is aligned to question 12 in the Final Assessment.

Slide 18

The slide features a dark blue background with a large white play button icon in the center. To the left of the play button, the text "Course Review: Question 13" is displayed in white. To the right, the text "True or False?" is followed by the question: "The external CPA who audits the indirect cost rate has the primary responsibility for the accuracy of an A/E firm's indirect cost rate." The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners.

**Key Message**

This review will allow you to practice Lesson 7 skills in preparation for the Final Assessment.

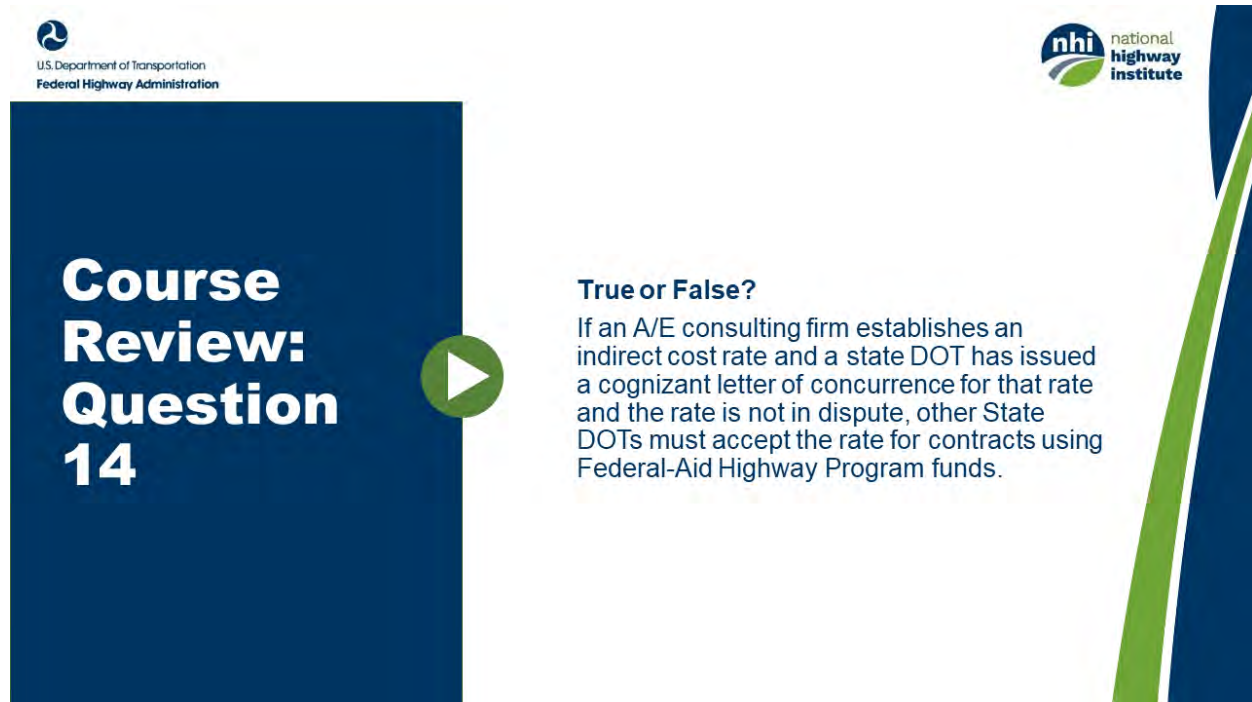
**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *False*.)
  - Management of an A/E firm has the primary responsibility for the accuracy of the firm's financial information, including the firm's indirect cost rate. Management also has responsibility for the accounting systems and internal controls that support the indirect cost rate.
  - CPA firms and State DOT auditors perform audits and other procedures to obtain reasonable assurance as to whether the A/E firm's indirect cost rate is properly stated, but do not assume responsibility for its accuracy.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 13 in the Final Assessment.

Slide 19



The slide features a dark blue background on the left with the text "Course Review: Question 14" in white. A green play button icon is positioned to the right of this text. On the right side, the text "True or False?" is followed by a paragraph: "If an A/E consulting firm establishes an indirect cost rate and a state DOT has issued a cognizant letter of concurrence for that rate and the rate is not in dispute, other State DOTs must accept the rate for contracts using Federal-Aid Highway Program funds." The slide includes logos for the U.S. Department of Transportation Federal Highway Administration and the National Highway Institute (NHI) in the top corners.

**Key Message**

This review will allow you to practice Lesson 8 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask a volunteer to share the answer.
- Review the correct answer. (Answer: *True*.)
  - U.S.C. 112(b)(2) states that if a cognizant rate has been established, it must be accepted (for contracts using Federal-Aid Highway Program funds). This regulation applies only to contracts for which all or a portion of the funding is provided through the Federal-Aid Highway Program.
  - State DOTs and local agencies must accept the indirect cost rate if part or all of the funding source for a project comes from Federal-Aid Highway Program Funds, unless such rate is in dispute. Other Federal agencies are not required to accept the cognizant indirect cost rate for contracts funded entirely outside of the Federal-Aid Highway Program.
- Correct any misconceptions and address any questions that remain about this topic.

**Notes**

- This question is aligned to question 14 in the Final Assessment.

Slide 20

U.S. Department of Transportation  
Federal Highway Administration

nhi national highway institute

**Course Review:  
Question  
15**

**List three tools and resources that are relevant to the procurement and administration of A/E contracts.**

**Key Message**

This review will allow you to practice Lesson 9 skills in preparation for the Final Assessment.

**Facilitation Guidance**

- Ask participants to read and consider the question on screen.
- Allow participants time to read and form an answer to the question. Then, ask volunteers to share their answers.
- Review the correct answer. Any of the following tools are acceptable:
  - *AASHTO Audit Guide* (including the AASHTO ICQ)
  - *AASHTO Guide for Consultant Contracting*
  - CPA Workpaper Review Program
  - *DCAA Contract Audit Manual*
  - *DCAA Publication 7641.90: Information for Contractors*
  - FAR Parts 3 and 31
  - *Government Auditing Standards* (GAGAS or “Yellow Book”)

- “Oversight of Design and Engineering Firms’ Indirect Costs Claimed On Federal-Aid Grants” (US DOT OIG Audit Report)

**Notes**

- This question is aligned to question 15 in the Final Assessment.

Slides 21 and 22



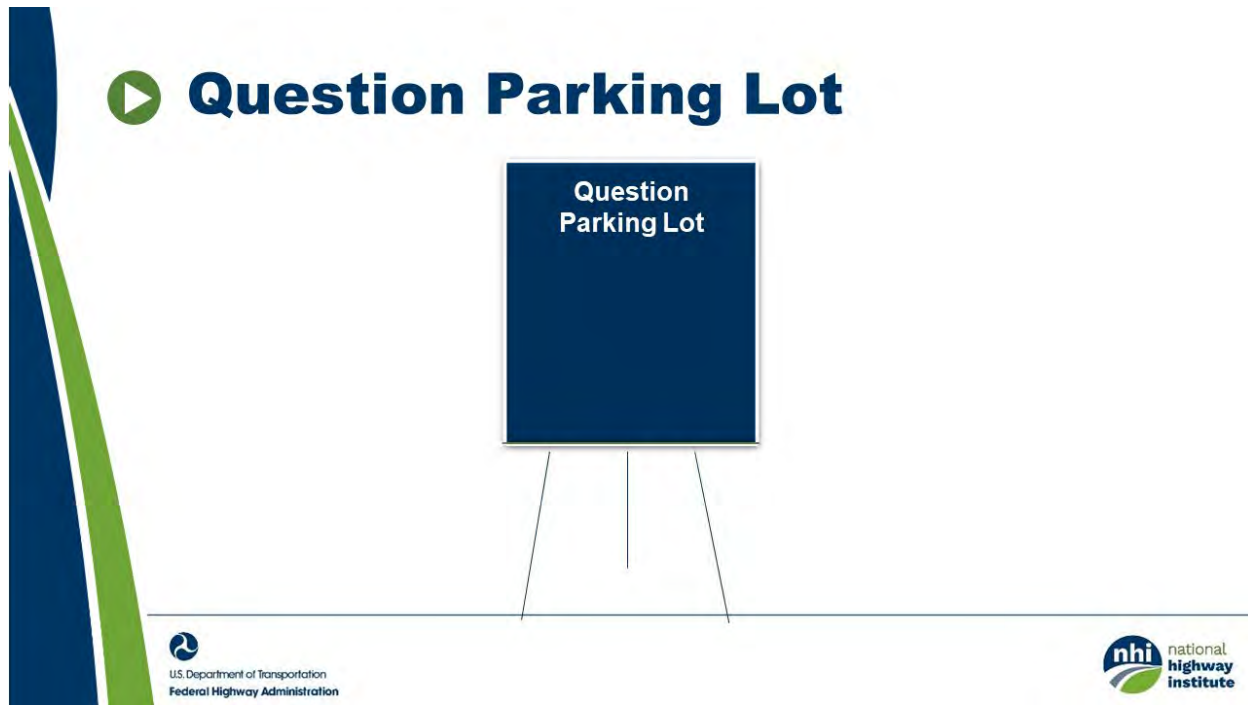
### Key Message

At this time, you should be able to demonstrate the learning outcomes shown.

### Facilitation Guidance

- Ask participants to review the learning outcomes silently.
- Ask: What remaining questions do you have about any of the topics related to these learning outcomes?

Slide 23



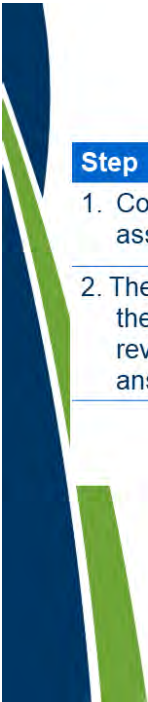
### Key Message

This is the last opportunity to clear any questions on the Question Parking Lot.


### Facilitation Guidance

- Answer any questions on the Parking Lot that are related to the course outcomes.
- Mark those that are unrelated. If participants are still interested in discussing those questions, advise them to see you after the class.

Slide 24



Step	Timing
1. Complete the final assessment.	30 min
2. The instructor will collect the final assessment and review the correct answers.	10 min
<b>Total</b>	<b>40 min</b>

 **Final Assessment**

**Objective:** Assess your ability to demonstrate the course learning outcomes.

### Key Message

Now that you have completed this course, you should be able to demonstrate mastery of the course learning outcomes in an open-book, application-based, multiple-choice assessment.

### Facilitation Guidance

Administer the Final Assessment.

- Introduce the assessment including the purpose, timing, and participant instructions.
  - Participants may use the Participant Workbook, Reference Manual, and the *AASHTO Audit Guide*; however, they may not speak to one another.
  - When participants have completed the assessment, they should bring it to the front.
  - Participants should not leave until after the assessment has been reviewed. Leaving early disrupts others and prevents the participant from hearing the final explanations.
  - Explain that you will give a 5-minute warning before the assessment period is over. Explain that those who have not completed the assessment during that timeframe will be asked to take the assessment into the hall or nearby classrooms to complete it while you go over the answers with the large group.
- Hand out the assessment and advise participants to begin.

- After 30 minutes, collect all remaining assessments.
- Review the answers.

**Notes**

Participants must score 70 percent or higher on the assessment to receive credit for this training.

Slide 25



Slide 25 features a blue and green abstract graphic on the left side. The main content area has a light blue background. At the top, there is a green play button icon followed by the text "Course Wrap-Up" in a bold, dark blue font. In the center, the NHI logo is displayed, consisting of a blue circle with "nhi" in white, a green swoosh, and the text "national highway institute" to the right. Below the logo, the text "Thank you for your participation in this course!" is centered. At the bottom, there is a horizontal line. Below the line, on the left, is the U.S. Department of Transportation Federal Highway Administration logo. On the right is the NHI logo.

## Course Wrap-Up

national highway institute

Thank you for your participation in this course!

U.S. Department of Transportation  
Federal Highway Administration

national highway institute

### Key Message

Thank participants for their participation in the course.

### Facilitation Guidance

- Thank participants for their participation in the course.
- Distribute the course evaluation and ask participants to complete it before leaving.
- Make any necessary end-of-course announcements.



## XII. Lesson Plans

### Lesson 1: Course Introduction: Government Contracting for Architectural and Engineering Design Services

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Summarize the roles and interrelationships of all parties in the administration and completion of A/E contracts.	Table group discussion
Cite examples of factors that make A/E contracts unique and/or challenging.	Same as above
Distinguish between different contract types and payment methods and explain the effects on the project.	Class discussion
Compare and contrast the various types of engagements and how they relate to the contract types and payment methods used.	Same as above

Time Allocation	Topics and Subtopics	Instructional Methods
7 mins	<b>Course Introduction</b> <ul style="list-style-type: none"> <li>• Welcome Participants</li> <li>• Facilitator Introduction</li> <li>• Course Topics and Learning Outcomes</li> <li>• Housekeeping <ul style="list-style-type: none"> <li>○ Location-Specific Instructions</li> <li>○ Ground Rules</li> <li>○ Question Parking Lot</li> </ul> </li> </ul>	<b>Presentation</b> <p>Welcome participants to the course and explain the course purpose.</p> <p>Introduce yourself and highlight your relevant career experience.</p> <p>Introduce the course topics, the course learning outcomes, and the course final assessment.</p> <p>Explain housekeeping issues. These may vary depending on where the course is being presented.</p>
2 mins	<b>Lesson 1 Introduction</b> <ul style="list-style-type: none"> <li>• Lesson Topics</li> <li>• Lesson Learning Outcomes</li> </ul>	<b>Presentation</b> <p>Introduce the topics to be covered in this lesson. Ask questions to help participants draw a connection between this topic and their ability to achieve the course learning outcomes.</p>

Time Allocation	Topics and Subtopics	Instructional Methods
3 mins	<b>Why Are We Here?</b> <ul style="list-style-type: none"> <li>“Oversight of Design and Engineering Firms’ Indirect Costs Claimed On Federal-Aid Grants” (US DOT Office of the Inspector General Audit Report)</li> <li>Outcome of the Report</li> </ul>	<b>Presentation</b> <p>Discuss the OIG audit and the outcome of its findings.</p> <p>Explain any further outcomes of the OIG audit (cost recovery, etc.)</p> <p>Note that while this audit served as a catalyst for revision of the <i>AASHTO Audit Guide</i>, collectively, the collaborative groups wanted to go much further and achieve the desired future state of increased consistency and quality of indirect cost rate development and related oversight.</p>
5 mins	<b>Roles and Responsibilities</b> <ul style="list-style-type: none"> <li>Overview of Roles and Responsibilities <ul style="list-style-type: none"> <li>Federal-Aid Highway Program Funding and Oversight</li> <li>State DOT and Local Contracting Agency Staff</li> <li>A/E Procurement Staff</li> <li>A/E Contract Management and Administration Staff</li> <li>Audit Staff</li> <li>A/E Design Firms</li> <li>Certified Public Accountant (CPA) Firms</li> </ul> </li> </ul>	<b>Presentation</b> <p>Referring to the flowchart, describe how government highway transportation projects are funded through Federal, State, and local agency funds and the oversight relationship required to ensure funds are administered properly. Explain the interrelationships of each role shown, including the role of the A/E design firm and the CPA firm.</p> <p>As you explain the role of each entity, ask for a show of hands of those in the room who fall into that category.</p>

Time Allocation	Topics and Subtopics	Instructional Methods
25 mins	<b>Contract Types and Payment Methods</b> <ul style="list-style-type: none"> <li>• Overview of A/E Contracts</li> <li>• Contract Types <ul style="list-style-type: none"> <li>○ Project-Specific</li> <li>○ Multiphase</li> <li>○ Indefinite Delivery Indefinite Quantity (IDIQ)/On-Call Contracts</li> </ul> </li> <li>• Payment Methods <ul style="list-style-type: none"> <li>○ Fixed Price/Negotiated Price (Lump Sum)</li> <li>○ Cost Reimbursement <ul style="list-style-type: none"> <li>▪ Cost Plus Fixed Fee</li> <li>▪ Cost Per Unit of Work</li> <li>▪ Specific Rates of Compensation (Fixed Billable Rates)</li> </ul> </li> </ul> </li> <li>• Management Responsibilities: Indirect Cost Certification</li> </ul>	<b>Presentation/ Discussion</b> <p>Discuss the role of A/E contracts and aspects that make them challenging to administer.</p> <p>Define each contract type and explain when it would be appropriate to use them.</p> <p>Define and discuss the two payment methods applicable to A/E contracts.</p> <p>Refer participants to the <i>23 CFR 172</i> for further information.</p> <p>Explain that for projects receiving Federal-Aid Highway Program transportation funds, <i>23 CFR 172</i> now requires State DOTs to require A/E consultants to certify that indirect cost rates do not include any unallowable costs.</p>
10 mins	<b>Engagement Types</b> <ul style="list-style-type: none"> <li>• Indirect Cost Rate Audits and Reviews</li> <li>• Pre-Award Audits and Reviews</li> <li>• Contract Cost Reviews/ Final (Closeout) Audits</li> </ul>	<b>Presentation</b> <p>Discuss the various types of engagements and how they relate to the contract or payment types used.</p>
13 mins	<b>Lesson Summary</b> <ul style="list-style-type: none"> <li>• Table Group Discussion</li> </ul>	<b>Table Group Discussion/Presentation</b> <p>Ask participants to briefly describe their role to others at their table and to name the one thing that they find most challenging in their role.</p> <p>Review the lesson learning outcomes and lead a discussion of any remaining questions.</p>

Time Allocation	Topics and Subtopics	Instructional Methods
<b>Total:</b> 65 mins		
References		
<ul style="list-style-type: none"><li>DCAA Publication 7641.90, Information for Contractors</li></ul>		

## Lesson 2: The Statutory and Regulatory Framework

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Summarize the key statutes, regulations, and standards applicable to the administration of A/E contracts and the role of each.	Activity 2-1: Pre-Assessment

Time Allocation	Topics and Subtopics	Instructional Methods
5 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Lesson Topics</li> <li>Lesson Learning Outcomes</li> </ul>	<b>Presentation</b> Introduce the topics to be covered in this lesson. Ask questions to help participants draw a connection between this topic and their ability to achieve the course learning outcomes.
5 mins	<b>Activity 2-1: Pre-Assessment</b>	<b>Activity</b> The purpose of this pre-assessment is for participants to assess what they already know about the regulatory framework for funds administered through the Federal-Aid Highway Program. Explain the purpose of this un-scored activity and ask participants to spend five minutes completing the true/false questions independently. Review the activity by showing, but not yet explaining, the correct answers.
5 mins	<b>Key Concepts of the Statutory and Regulatory Framework and Guidance</b> <ul style="list-style-type: none"> <li>Federal Laws and Regulations</li> <li>State Statutes</li> <li>State Written Procedures</li> <li>Policies and Guidance</li> <li>Determination of Funding Source</li> </ul>	<b>Presentation</b> Explain the pyramid graphic noting the relationship between laws, regulations, procedures, policies, and guidance. Note that policies and guidance include accounting principles, auditing standards, and other guidance such as that contained in the <i>AASHTO Audit Guide</i> . Explain the effects of the funding source and the implications on the applicability of FAR Part 31 and other applicable Federal laws and regulations.
5 mins	<b>Federal Statutes and Regulations</b>	<b>Presentation</b> Note that the list shown is not hierarchical.

Time Allocation	Topics and Subtopics	Instructional Methods
	<ul style="list-style-type: none"> <li>• 23 U.S.C. 112(b)(2) Contracting for Engineering and Design Services</li> <li>• 48 CFR Part 31 Contracts with Commercial Organizations (FAR Part 31)</li> <li>• 23 CFR 172 Administration of Engineering and Design Related Service Contracts</li> <li>• 40 U.S.C. Chapter 11 <i>Selection of Architects and Engineers</i> Sections 1101 to 1104 ("Brooks Act")</li> <li>• 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance")</li> </ul>	<p>Discuss each of the Federal statutes and regulations listed, and the role it plays in the oversight of A/E design firm contracts under the Federal-Aid Highway Program.</p> <p>Explain that A/E design firms should know where the project funding is coming from as this will affect what statutes and regulations are applicable. Note that it is not always obvious what the funding source is.</p>
5 mins	<b>State Statutes and State Written Procedures</b>	<p><b>Presentation</b></p> <p>Explain that if Federal funding is used, the FAR Part 31 cost principles must be applied and indirect cost rates cannot be capped (except for Minnesota).</p> <p>Note that State written procedures may not conflict with U.S.C. Title 23. For contracts using only State and local agency funding, State statutes and procedures will apply.</p>

Time Allocation	Topics and Subtopics	Instructional Methods
10 mins	<b>Accounting and Auditing Principles, Standards, Criteria, and Guidance</b> <ul style="list-style-type: none"> <li>• Federal Acquisition Regulation (FAR) Part 31</li> <li>• Generally Accepted Accounting Principles (GAAP)</li> <li>• Cost Accounting Standards (CAS)</li> <li>• <i>Government Auditing Standards</i> (GAS or GAGAS; Also Known as the “Yellow Book”)</li> <li>• <i>DCAA Contract Audit Manual</i> (DCAA CAM)</li> <li>• Generally Accepted Auditing Standards (GAAS) and AICPA Guidance</li> <li>• <i>AASHTO Uniform Audit &amp; Accounting Guide</i></li> </ul>	<b>Presentation</b> Note that the list presented is not hierarchical. Explain the use of each item on the list.
5 min	<b>Lesson Review and Summary</b>	<b>Presentation/Discussion</b> Review the Pre-Assessment given in the beginning of the lesson. Read each question aloud, and ask if it is true or false. Tell participants NOT to look back at their earlier quiz. Click to load each answer. Clarify any questions that arise. Review the lesson learning outcomes and lead a discussion of any remaining questions.
<b>Total:</b> 40 mins		

## References

- *AASHTO Audit Guide*
- *AASHTO Audit Guide for Consultant Contracting*
- FAR Part 31
- *DCAA Contract Audit Manual*
- DCAA Publication 7641.90: *Information for Contractors*
- *Cost Accounting Standards (CAS)*

### Lesson 3: The A/E Project Cycle

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Describe key components of the A/E project cycle.	Interactive presentation and flowchart completion in the Participant Workbook (PW); review of sample cost proposal.
Explain the need for and use of financial information in the cycle.	Same as above
Explain the key cost components of an A/E project.	Large-group discussion, and question and answer period

Time Allocation	Topics and Subtopics	Instructional Methods
5 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Lesson Topics</li> <li>Lesson Learning Outcomes</li> </ul>	<b>Presentation</b> Introduce the topics to be covered in this lesson. Ask questions to help participants draw a connection between this topic and the course learning outcomes.
20 mins	<b>The A/E Project Cycle</b> <b>Qualifications Based Selection</b> <ul style="list-style-type: none"> <li>Overview</li> <li>Needs identification and development</li> <li>Development of Initial Cost Estimate by the Contracting Agency</li> <li>Budgeting and Planning</li> <li>Funding</li> <li>The Brooks Act</li> <li>Procurement of A/E Design Services               <ul style="list-style-type: none"> <li>Prequalification (Establish Indirect Cost Rate)</li> </ul> </li> </ul>	<b>Interactive Presentation and Flowchart Completion</b> Present the flowchart showing the typical A/E project cycle for engineering and design-related contracts procured using QBS. Emphasize that the flow and some components may not be applicable to every project, contract type, payment method, or agency; however, the fundamental process generally will be consistent with the steps about to be discussed. Refer participants to the scrambled list of steps in the PW (beneath the slide image) and ask them to take a minute to order the steps from 1 to 7 as they should appear in the flowchart. Discuss each step, pausing to explain the Brooks Act (Public Law 92-582) which establishes the procurement process for A/E design contracts funded in whole or in part with Federal funds.

Time Allocation	Topics and Subtopics	Instructional Methods
	<ul style="list-style-type: none"> <li>○ Request for Qualification (RFQ)</li> <li>○ Request for Proposal (RFP)</li> <li>○ Selection</li> <li>○ A/E Consultant Cost Proposal Development</li> <li>○ Contract Negotiation</li> <li>● Pre-Award Audits</li> <li>● Contract Performance, Management, and Administration</li> <li>● Contract Closeout</li> <li>● Indirect Cost Rate Audit</li> </ul>	
15 mins	<p>Cost Components</p> <ul style="list-style-type: none"> <li>● Direct Labor</li> <li>● Indirect Costs</li> <li>● Direct Materials and Other Direct Costs (ODCs)</li> <li>● Profit/Fixed (Net) Fee</li> <li>● Subconsultant Costs</li> <li>● Facilities Capital Cost of Money (FCCM)</li> <li>● Profit/Fee/Fixed Fee/Net Fee</li> </ul>	<p><b>Presentation/ Discussion/Document Review</b></p> <p>Refer participants to “Example 3-1: Sample Contract Cost Proposal” in the PW. Refer to this sample contract cost proposal when walking through the next six slides to illustrate each of the relevant cost components. Note that FCCM is not included in the cost proposal.</p> <p>Define the cost components that are common to A/E contracts.</p> <p>Lead a class discussion and conduct a question and answer period on this topic to ensure understanding.</p>
	<b>Lesson Summary</b>	<p><b>Presentation/Discussion</b></p> <p>Review the lesson learning outcomes and discuss any remaining questions.</p>
<b>Total:</b> 40 mins		
References		
<ul style="list-style-type: none"> <li>● N/A</li> </ul>		

## Lesson 4 : Key Cost Principles

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Distinguish between direct and indirect costs and demonstrate the importance of proper classification of each.	Activity: 4-1: Applying Key Cost Principles
Differentiate between the concepts of allowability, allocability, and reasonableness, and provide examples illustrating your understanding.	Same as above
Apply knowledge of key cost principles to practical examples.	Same as above

Time Allocation	Topics and Subtopics	Instructional Methods
5 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Lesson Topics</li> <li>Lesson Learning Outcomes</li> </ul>	<b>Presentation</b> Introduce the topics to be covered in this lesson. Ask questions to help participants draw a connection between this topic and the course learning outcomes.
5 mins	<b>Allowability, FAR 31.201-2</b> <ul style="list-style-type: none"> <li>Criteria for Determining Costs</li> </ul>	<b>Presentation</b> Introduce the five FAR 31.201-2(a) criteria for allowability.  Emphasize that FAR Part 31 incorporates certain CAS by reference; accordingly, those standards apply to all A/E consultants governed by FAR Part 31. The other CAS apply only to "CAS-covered contracts".

Time Allocation	Topics and Subtopics	Instructional Methods
5 mins	<b>Reasonableness, FAR 31.201-3</b>	<p><b>Presentation/Large-Group Discussion</b></p> <p>Explain the FAR 31.201-3(a) criteria and discuss typical costs for an A/E design firm that might fit the criteria.</p> <p>As necessary, refer participants to the additional requirements of FAR 31.201-3(b), also printed in the PW.</p> <p>Explain that the burden of proof rests with the A/E consultant to establish that costs are reasonable; no costs are to be presumed to be reasonable simply because they were incurred by the A/E consultant.</p>
5 mins	<b>Allocability, FAR 31.201-4</b> <ul style="list-style-type: none"> <li>• Billable/Nonbillable</li> </ul>	<p><b>Presentation</b></p> <p>Explain allocability concepts through examples and illustrations, noting that FAR 31.201-4 defines a cost as “allocable” if it is assignable to one or most cost objectives on the basis of relative benefits received or some other equitable relationship.</p> <p>Explain that a cost is allocable to a Government contract if it is incurred specifically for the contract, benefits the contract and other work, or is necessary to the overall operation of the business.</p> <p>Explain that costs that may be allocable to a project are not always billable to the client. Allocability is based on established standards of cost accounting, while the determination of whether a cost is billable to a client is based on contract terms.</p>
5 mins	<b>Direct and Indirect Costs</b>	<p><b>Presentation</b></p> <p>Explain the difference between direct and indirect costs, noting that direct and indirect costs need to be accounted for consistently.</p> <p>Explain the compliance requirements for recording indirect costs.</p> <p>Explain why it would be improper to require an A/E design firm to record costs in a specific category (e.g., indirect). Note that any cost that is allocable to a project should be recorded as a direct cost of that project.</p>

Time Allocation	Topics and Subtopics	Instructional Methods
15 mins	<b>Activity: 4-1: Applying Key Cost Principles</b>	<b>Activity</b> In this activity, participants will work independently to read two practical examples and answer the related questions which allow them to practice applying key cost principles.
	<b>Lesson Summary</b>	<b>Presentation/Discussion</b> Review the lesson learning outcomes and discuss any remaining questions.
<b>Total:</b> 40 mins		
References		
<ul style="list-style-type: none"> <li>• <i>AASHTO Audit Guide</i>, Chapter 4.</li> </ul>		

## Lesson 5: Internal Control Systems

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Demonstrate an understanding of the importance of internal controls.	Class discussion

Time Allocation	Topics and Subtopics	Instructional Methods
5 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Objectives</li> <li>Key Points</li> </ul>	<b>Presentation</b> Conduct a discussion of the lesson objectives and give an overview of the general plan to accomplish each.
10 mins	<b>Introduction to Internal Controls</b> <ul style="list-style-type: none"> <li>Introduction to Internal Controls</li> <li>Objectives of Internal Controls</li> <li>Internal Control Pyramid</li> </ul>	<b>Presentation</b> Introduce the concept of internal controls, emphasizing that it is the A/E consultant's responsibility to establish and maintain internal controls; it is not the responsibility of the CPA firm or State DOT that may perform an indirect cost rate audit. Explain the importance of internal controls and why they are necessary, noting that A/E firm internal controls are relevant to all participants involved in A/E consultant contracts, regardless of their roles. Discuss the broad objectives of internal controls in the context of an A/E consultant. Describe each of the key components of the internal control pyramid and note how they are interrelated.
20 mins	<b>Key Internal Controls</b> <ul style="list-style-type: none"> <li>Attributes of a Properly Designed Accounting System</li> <li>Business Processes of a Typical A/E Design Firm</li> <li>Key Systems and Risk Areas</li> <li>Importance of Labor Charging</li> </ul>	<b>Presentation/Discussion</b> Refer participants to the <i>AASHTO Audit Guide</i> Section 6.4.A to review the list of "Attributes of a Properly Designed Accounting System". Explain the importance of some of the key attributes to achieving proper project costing and FAR compliance. Walk through the business processes and key systems of a typical A/E design firm. Ask participants to provide examples of risk areas and controls for two or three of the systems shown on the slide.

Time Allocation	Topics and Subtopics	Instructional Methods
	<ul style="list-style-type: none"> <li>Cost Allocation and Segregation (Labor and Expense) <ul style="list-style-type: none"> <li>Allocability</li> <li>Allowable vs. Unallowable</li> <li>Billable vs. Non-billable</li> </ul> </li> </ul>	<p>Discuss the importance of an A/E design firm's labor-charging practices, explaining how labor charging impacts project costing.</p> <p>Explain the concept of allocability in the context of an A/E design firm. Relate the three criteria listed on the slide to the example.</p> <p>Present the criteria for allowability of labor costs. Clarify that costs that benefit the project, and were incurred as a result of the project, should be allocated to the project, regardless of whether they can be billed to the client.</p>
5 mins	<b>Internal Control Questionnaire (ICQ)</b>	<p><b>Presentation</b></p> <p>Explain that the AASHTO ICQ assists the auditor in reviewing the internal control structure in place. This questionnaire must be completed by an appropriate employee of the A/E consultant with the necessary knowledge and authority to complete it.</p> <p>Note that the ICQ was developed to help increase consistency and minimize redundancy between State DOTs; however, it is not mandatory unless the State DOT requires it.</p>
	<b>Lesson Summary</b>	<p><b>Presentation/Discussion</b></p> <p>Review the lesson objectives and lead a discussion of any remaining questions.</p>
<b>Total:</b> 40 mins		
<b>References</b>		
<ul style="list-style-type: none"> <li><i>AASHTO Audit Guide</i>, Chapter 6 and Appendix B</li> <li><i>DCAA Contract Audit Manual</i></li> <li>DCAA Publication 7641.90: <i>Information for Contractors</i></li> </ul>		

## Lesson 6: Key Areas of Cost, Including Compensation

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Distinguish between the concepts of allowability and reasonableness of compensation.	Group discussion/document review
Describe the process to evaluate compensation costs for allowability and reasonableness.	Same as above
Define directly associated costs and explain its applicability to allowability.	Same as above
Evaluate and discuss examples of expressly unallowable cost categories and those costs requiring additional analysis to determine allowability	Activity 6-1: Applying Cost Criteria

Time Allocation	Topics and Subtopics	Instructional Methods
3 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Objectives</li> <li>Key Points</li> </ul>	<b>Presentation</b> Conduct a discussion of the lesson objectives and give an overview of the general plan to accomplish each.
25 mins	<b>Compensation</b> <ul style="list-style-type: none"> <li>Selected Compensation Regulations and Guidance</li> <li>Definition of Compensation</li> <li>Allowability <ul style="list-style-type: none"> <li>Examples of Unallowable Compensation</li> <li>General Criteria for Allowability of Compensation</li> </ul> </li> <li>Reasonableness of Total Allowable Compensation <ul style="list-style-type: none"> <li>Bonuses and Incentive Compensation</li> </ul> </li> </ul>	<b>Presentation</b> Provide a brief overview of regulations and guidance related to compensation. Discuss how compensation is defined in FAR 31.205-6. Include examples of specific items that are included in or excluded from allowable compensation Note that there are many requirements affecting allowability of compensation. Explain that the nature or form of the compensation must be allowable, and that the compensation must be incurred for allowable activities. Discuss the requirements of FAR 31.205-6(b)(2) and the focus on reasonableness of executive compensation per the <i>AASHTO Audit Guide</i> Chapter 7.

	<ul style="list-style-type: none"> <li>• Compensation System Documentation</li> <li>• Introduction to Performing a Compensation Analysis</li> </ul>	<p>Compare and contrast bonus plans and profit-distribution plans.</p> <p>Discuss documentation for compensation policies and procedures, noting that written policies and procedures are highly recommended, but not required.</p> <p>Present a brief overview of the process for performing an analysis of compensation reasonableness, briefly describing the processes applied when using surveys and when using the National Compensation Matrix.</p>
30 mins	<p><b>Selected Other Costs</b></p> <ul style="list-style-type: none"> <li>• Expressly Unallowable Costs</li> <li>• Directly Associated Costs</li> <li>• Costs Requiring Additional Analysis to Determine Allowability (FAR Part 31.205)</li> <li>• Importance of Adequate Documentation</li> </ul>	<p><b>Presentation/Document Review</b></p> <p>Refer participants to the Reference Manual to see a list of the FAR Part 31 references and the <i>AASHTO Audit Guide</i> references for each expressly unallowable cost shown on the slide.</p> <p>Explain that when a cost is determined to be unallowable, the directly associated costs are also unallowable. Give examples of directly associated costs.</p> <p>Review common types of costs that may require additional analysis to determine allowability (related-party transactions, rent, travel, airfare, per diem, vehicle costs, etc.).</p> <p>When discussing vehicle costs, refer to “Example: 6-1: Sample Vehicle Cost Allocation” in the PW.</p> <p>Discuss the importance of adequate documentation.</p>
15 mins	<p><b>Activity 6-1: Applying Cost Criteria</b></p>	<p><b>Activity</b></p> <p>In this activity, participants will work with a partner to read practical examples related to the lesson content and answer questions requiring them to demonstrate achievement of the lesson learning outcomes.</p>
2 mins	<p><b>Lesson Summary</b></p>	<p><b>Presentation/Discussion</b></p> <p>Review the lesson objectives and lead a discussion of any remaining questions.</p>

<b>Total:</b> 75 mins		
References		
<ul style="list-style-type: none"><li>• <i>AASHTO Audit Guide</i>, Chapters 7 and 8.</li><li>• Applicable sections of FAR</li><li>• <i>DCAA Contract Audit Manual</i> and other DCAA guidance at <a href="http://www.dcaa.mil">www.dcaa.mil</a></li></ul>		

## Lesson 7: The Use of Audit Information

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Describe the purpose and use of indirect cost rate audits, pre-award audits, and incurred cost audits.	Cost proposal document review activity with large-group review
Describe the roles and responsibilities of A/E consultants, Federal, State DOT, and local auditors, CPA firms, and those who procure A/E design services and/or administer and manage A/E contracts with regard to indirect cost rate audits, pre-award audits, and incurred cost audits	Activity 7-1: Responsibilities in the Performance of Audits and Use of Audit Reports and Information
Describe the role of audits in the administration of A/E contracts, linking audit information, cost proposals, and contracts	Class discussion

Time Allocation	Topics and Subtopics	Instructional Methods
3 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Objectives</li> <li>Key Points</li> </ul>	<b>Presentation</b> Conduct a discussion of the lesson objectives and give an overview of the general plan to accomplish each.
15 mins	<b>Overview of A/E Design Firm Audits</b> <ul style="list-style-type: none"> <li>Introduction</li> <li>Indirect Cost Rate Audits               <ul style="list-style-type: none"> <li>Indirect Cost Rate Information Users</li> <li>Sample Indirect Cost Rate Audit Report</li> </ul> </li> <li>Pre-Award Audit</li> <li>Incurred Cost Audit</li> </ul>	<b>Presentation/Document Review</b> Ask participants to suggest the different types of audits performed on A/E design firms (e.g., indirect cost rate, pre-award, incurred cost). Write these on a flipchart. Discuss the purpose and focus of each type of audit and how the information is used. Walk through “Example 7-1: Sample Indirect Cost Rate Audit Report”, pointing out the indirect cost rate schedule and recommended footnotes.
17 mins	Activity 7-1: Responsibilities in the Performance of Audits and	<b>Activity</b> Ask participants work in groups of 2-3 to complete a chart of roles and responsibilities related to the

Time Allocation	Topics and Subtopics	Instructional Methods
	Use of Audit Reports and Information <ul style="list-style-type: none"> <li>• A/E Consultant</li> <li>• Those who Procure A/E Design Services and/or Administer or Manage A/E Contracts</li> <li>• Auditors</li> </ul>	performance of the audits described in this lesson. Review the chart, emphasizing that management of the A/E consultant has ultimate responsibility for the accuracy of financial information.
10 mins	<b>Use of Audit Reports/Audit Information</b> <ul style="list-style-type: none"> <li>• Relationship of Audits to Contracts</li> <li>• Appeals Process</li> </ul>	<b>Presentation</b>  Discuss how the indirect cost rate audit and the process for developing this audit provide assurance to the A/E contracting process. Note especially the importance of verifying the accuracy of costs and determining an accurate indirect cost rate to use on contracts.  Describe how the audit information links back to the cost proposal and to compliance with the contract. Explain how the cost proposal relates to the various audits that are performed.  Discuss the typical appeals process, as well as any host State DOT specific information, if applicable, noting that additional information can be found in the <i>AASHTO Audit Guide</i> Section 12.8, question 13
	<b>Lesson Summary</b>	<b>Presentation/Discussion</b>  Review the lesson objectives and lead a discussion of any remaining questions.
<b>Total:</b> 45 mins		
<b>References</b>		
<ul style="list-style-type: none"> <li>• <i>AASHTO Audit Guide</i>, Chapter 11</li> </ul>		

## Lesson 8: The Risk Management Framework, Oversight, and Cognizance

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Describe the use of audit information throughout the project cycle.	Activity 8-1: Cost Proposal Analysis
Explain the risk management framework and correlate it to your role in administering A/E contracts.	Same as above
Describe the use of cognizant audits and other risk management tools.	Same as above

Time Allocation	Topics and Subtopics	Instructional Methods
3 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Objectives</li> <li>Key Points</li> </ul>	<b>Presentation</b> Conduct a discussion of the lesson objectives and give an overview of the general plan to accomplish each.
25 mins	<b>Activity 8-1: Cost Proposal Analysis</b>	<b>Activity/Document Review</b> Refer participants to the “Activity 8-1: Cost Proposal Analysis” in the Activities section of the PW and discuss the instructions. Explain that “Example 8-1: Sample Cost Proposal” and “Example 8-2: Sample Wording from a Contract for Engineering Services” will be used to complete this activity.  The sample cost proposal, audit report, and contract wording reviewed as a part of this activity are intended to present a typical “real-life” scenario, demonstrating the types of information that participants are likely to see in their roles. This activity brings together several concepts addressed in the course in a practical application.  Ask participants to work alone to answer the six questions. Form groups of four to allow for the sharing of answers. Groups will report back to the large group on at least one of the questions.

Time Allocation	Topics and Subtopics	Instructional Methods
15 mins	<b>State DOT Risk Management Framework</b> <ul style="list-style-type: none"> <li>• Tools Used</li> <li>• Risk Analysis Performed by State DOT: Risk Criteria</li> <li>• State DOTs and 23 CFR 172.9 Requirements</li> <li>• State DOT Peer Review Process</li> </ul>	<b>Presentation/Discussion</b> <p>Explain why each State DOT has established a risk management framework.</p> <p>Explain why State DOTs should perform a risk analysis to determine the appropriate tool or tools to be applied to gain reasonable assurance and discuss the three tools shown on the slide.</p> <p>Explain that State DOTs may perform a risk analysis to accept rates without performing a comprehensive workpaper review. Discuss the steps.</p> <p>Discuss the risk criteria to be considered in performing such a risk analysis.</p> <p>Explain the process and procedures that State DOTs use to address the requirements of 23 CFR 172.11, emphasize that the State DOT risk management framework is implicit in the requirements under 23 CFR 172.11.</p> <p>Discuss the State DOT Peer Review process, explaining that risk management and mitigation may be supplemented through training, guidance, contract language, and cost certification.</p>
10 mins	<b>Cognizance and Reliance on Other Audits</b> <ul style="list-style-type: none"> <li>• Overview of Cognizance and Reliance on Other Audits</li> <li>• Overview of Rules and Guidance <ul style="list-style-type: none"> <li>○ Title 23 U.S.C. 112(b)(2)</li> <li>○ 23 CFR 172</li> <li>○ <i>AASHTO Audit Guide</i> Chapter 12</li> <li>○ FHWA Expectations: 2006 Transportation Appropriations Act</li> </ul> </li> <li>• Process Used by State DOTs to Issue a Cognizance Letter</li> </ul>	<b>Presentation</b> <p>Explain that while performing audit and attest functions, auditors often rely on the work of other auditors, with appropriate procedures established to do so. Discuss the concept of cognizance and its background.</p> <p>Explain the rules and guidance governing cognizant audits and the goals of the use of cognizant audits. Discuss the move toward more uniformity.</p> <p>Note that there are many instances where a cognizant audit is not necessary. State or local agencies may accept an indirect cost rate audit performed by a CPA firm without a cognizant letter of concurrence.</p> <p>Explain the four processes used by State DOTs to issue a cognizance letter. Discuss the use of</p>

Time Allocation	Topics and Subtopics	Instructional Methods
	<ul style="list-style-type: none"> <li>Current State of Compliance</li> </ul>	<p>cognizant audits and the reliance on other audits in general.</p> <p>Discuss the current state of compliance.</p>
2 mins	<b>Lesson Summary</b>	<p><b>Presentation/Discussion</b></p> <p>Review the lesson objectives and lead a discussion of any remaining questions.</p>
<b>Total:</b> 55 mins		
<b>References</b>		
<ul style="list-style-type: none"> <li><i>AASHTO Audit Guide</i>, Chapter 12</li> </ul>		

## Lesson 9: Course Review and Final Assessment

Performance-Based Learning Outcomes Participants will be able to:	Evaluation Plan (See Instructional Methods section for details.)
Locate tools and resources that will assist in the procurement and administration of A/E contracts.	Group Discussion
Successfully complete the course assessment.	Activity 9-1: Final Assessment

Time Allocation	Topics and Subtopics	Instructional Methods
2 mins	<b>Lesson Introduction</b> <ul style="list-style-type: none"> <li>Objectives</li> <li>Key Points</li> </ul>	<b>Presentation</b>  Conduct a discussion of the lesson objectives and give an overview of the general plan to accomplish each.
3 mins	<b>Tools and Resources Overview</b> <ul style="list-style-type: none"> <li><i>AASHTO Audit Guide</i> (including the AASHTO ICQ)</li> <li><i>23 CFR 172</i></li> <li><i>FHWA Consultant Services website</i></li> <li>CPA Workpaper Review Program</li> <li><i>DCAA Contract Audit Manual</i></li> <li>DCAA Publication 7641.90: Information for Contractors</li> <li>FAR Parts 3 and 31</li> <li>Generally Accepted Government Auditing Standards (GAGAS or “Yellow Book”)</li> </ul>	<b>Presentation/Discussion</b>  Refer participants to the “References” section in the PW, and review the list of resources.  Point out that FAR Part 3 is only guidance.  Answer any questions related to the list of tools and resources and their locations.

Time Allocation	Topics and Subtopics	Instructional Methods
	<ul style="list-style-type: none"> <li>“Oversight of Design and Engineering Firms’ Indirect Costs Claimed on Federal-Aid Grants” (US DOT OIG Audit Report)</li> </ul>	
10 mins	<b>Course Review</b>	<b>Structured Q&amp;A and Discussion</b>  Explain that as you display each question, participants should read the question and think about it silently until you have called for a volunteer to answer the question.  Display Question 1. Call on a volunteer to answer it. Review the correct answer.  Repeat until all questions have been reviewed.
5 mins	<b>Course Summary</b> <ul style="list-style-type: none"> <li>Course Learning Outcomes</li> <li>Question Parking Lot</li> </ul>	<b>Discussion</b>  Review the course learning outcomes and lead a discussion of any remaining questions.  Clear any questions on the Question Parking Lot.
40 mins	<b>Activity 9-1: Final Assessment</b> <ul style="list-style-type: none"> <li>Introduction</li> <li>Assessment</li> <li>Review</li> </ul>	<b>Assessment</b>  Ask participants to demonstrate mastery of the course material by taking the open-book, multiple-choice assessment.  Introduce the assessment, including the purpose, timing, and participant instructions.  Hand out the assessment and advise participants to begin. When participants complete the assessment, they should turn them in. After thirty minutes, review the answers with those who have completed it. Others should be sent to another location to complete the assessment.
5 mins	<b>Course Wrap-Up</b>	Make any necessary end-of-course announcements. Thank the participants for their participation in the course.
<b>Total:</b> 65 mins		

Time Allocation	Topics and Subtopics	Instructional Methods
References		
<ul style="list-style-type: none"><li>• Reference materials referred to in Tools and Resources above.</li></ul>		

## XIV. Examples

### Example: 3-1: Sample Contract Cost Proposal

SAMPLE CONTRACT COST PROPOSAL				
Name of Proposer: Company A			CONTRACT NO. XXXXX	
1. Direct Labor (Specify)	Estimated Hours	Rate/Hour	Estimated Cost	Total Estimated Cost
Classification A	40.5	\$58.41	\$2,365.61	-
Classification B	202	\$47.63	\$9,621.26	
Classification C	769.5	\$39.12	\$30,102.84	
Classification D	270	\$32.75	\$8,842.50	
Classification E	68	\$25.38	\$1,725.84	
Total Direct Labor Cost	1,350	-	-	\$52,658.05
2. Indirect Costs	Indirect Cost Rate	X Allocation Base =	Estimated Cost	
-	174.20%	\$52,658.05	\$91,730.31	-
Total Indirect Costs	-	-	-	\$91,730.31
3. Direct Materials			Estimated Cost	
a. Testing Supplies			\$1,450.00	-
Total Direct Materials			-	\$1,450.00
4. Subconsultant Costs *			Estimated Cost	
a. XYZ Surveying			\$24,352.00	-
Total Subconsultant Costs			-	\$24,352.00
5. Other Direct Costs				
a. Mileage (6 site visits)			\$720.00	-
b. Lodging (6 site visits)			\$900.00	
c. Meals (6 site visits)			\$520.00	
Total Other Direct Costs				\$ 2,140.00
6. Fee (9%)				\$12,994.95
<b>TOTAL ESTIMATED COST AND FEE</b>				<b>\$185,325.31</b>
* Complete form for all proposed subcontractors				

## Example 6-1: Sample Vehicle Cost Allocation

### Mileage, Per A/E Consultant's Vehicle Logs

Vehicles	Miles Allocable to Projects	Allowable Indirect Miles	Personal Miles	Mileage for Unallowable Activities	Total Miles
2007 Chevrolet Tahoe	4,100	6,200	2,600	1,100	14,000
2009 Honda Civic	5,400	7,500	1,000	-	13,900
2006 Dodge Caravan	6,800	3,900	4,000	1,200	15,900
2008 Toyota Corolla	3,100	8,200	800	500	12,600
<b>Total Miles</b>	<b>19,400</b>	<b>25,800</b>	<b>8,400</b>	<b>2,800</b>	<b>56,400</b>
Percentages	34.40%	45.74%	14.89%	4.96%	100.00%

### Calculation of Allowable Indirect Vehicle Costs

Total Vehicle Costs (from General Ledger)	Percentage Allowable as Indirect	Amount Allowable as Indirect	Amount Unallowable as Indirect
\$39,688	45.74%	\$18,155	\$21,533

### Notes

1. **Miles Allocable to Projects** must be excluded from indirect costs, regardless of whether the mileage was actually billed to clients.
2. **Allowable Indirect Miles** is mileage that is not allocated to projects, and is for business use, and not for unallowable activities.
3. **Personal Miles** consist of non-business miles, including commuting miles and miles driven in connection with personal errands.
4. **Mileage for Unallowable Activities** consists of miles driven related to activities that are unallowable under FAR Part 31, such as advertising, public relations, lobbying, or charitable activities.
5. **Percentage Allowable as Indirect** is the percentage of **Allowable Indirect Miles** to **Total Miles**.
6. **Amount Unallowable as Indirect** equals **Total Vehicle Costs** minus **Amount Allowable as Indirect**.

### **Example 7-1: Sample Indirect Cost Rate Audit Report**

**[Adapted from the *AASHTO Audit Guide* Sections 11.2 – 11.3]**

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ABC ENGINEERING CONSULTANTS, INC.  
Statement of Direct Labor, Fringe Benefits, and General Overhead  
Year ended December 31, 2018  
(With Independent Auditors' Report Thereon)

**INDEPENDENT AUDITOR’S REPORT ON THE  
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS, AND GENERAL OVERHEAD**

Board of Directors  
ABC Engineering Consultants, Inc.

We have audited the Statement of Direct Labor, Fringe Benefits, and General Overhead (hereinafter referred to as “overhead schedule” or “the Schedule”) for the fiscal year ended December 31, 2010. The Schedule is the responsibility of the Company’s management. Our responsibility is to express an opinion on the Schedule based on our audit.

We conducted our audit in accordance with generally accepted auditing standards and the financial audit standards contained in the *Government Auditing Standards* issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedule is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Indirect Cost Schedule. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the Schedule. We believe that our audit provides a reasonable basis for our opinion.

The accompanying overhead schedule was prepared on a basis of accounting practices prescribed by Part 31 of the Federal Acquisition Regulation (FAR) and certain other Federal and State regulations as discussed in Note 2, and is not intended to be a presentation in conformity with generally accepted accounting principles.

In our opinion, the overhead schedule referred to above presents fairly, in all material respects, the direct labor, fringe benefits, and general overhead of the Company for the year ended December 31, 2018 on the basis of accounting described in Note 2.

In accordance with the *Government Auditing Standards* we have issued a report dated April 4, 2019 on our consideration of the Company’s internal controls and its compliance with laws and regulations.

This report is intended solely for the use and information of the Company and government agencies or other customers related to contracts employing the cost principles of the Federal Acquisition Regulation and should not be used for any other purpose.

(Signature of Official Representative / CPA Firm)

April 4, 2019

**ABC Engineering Consultants, Inc.  
Schedule of Indirect Costs  
Year Ended December 31, 2010**

Description	Total Costs (\$)	Unallowable Costs (\$)	FAR Ref	Total Proposed Costs (\$)	Home Office Costs (\$)	Field Office Costs (\$)
<b>Direct Labor</b>	10,438,957	-	-	10,438,957	9,842,526	596,431
-	-	-	-	-	-	-
<b>Fringe Benefits</b>	-	-	-	-	-	-
Vacation/Holiday/Paid Leave	1,389,421	-	-	1,389,421	1,310,224	79,197
Payroll Taxes	1,551,268	-	-	1,551,268	1,462,846	88,422
Group Insurance	1,098,769	-	-	1,098,769	1,036,139	62,630
Retirement	208,779	-	-	208,779	196,879	11,900
Incentive Compensation	2,032,846	512,697	FAR 31.205-6(a)	1,520,149	1,433,501	86,648
Employee Welfare	12,691	4,131	FAR 31.205-14	8,560	8,072	488
<b>Total Fringe Benefits</b>	6,293,774	516,828	-	5,776,946	6,251,000	272,880
-	-	-	-	0	-	-
<b>General Overhead</b>	-	-	-	0	-	-
Non-Project Labor	4,658,159	157,908	FAR 31.202	4,500,251	4,808,000	102,007
Recruiting	206,724	-	-	206,724	194,941	11,783
Building Costs (Rent)	1,539,762	190,500	FAR 31.205-36	1,349,262	1,322,277	26,985
Other Occupancy Costs	398,620	-	-	398,620	390,648	7,972
Supplies	259,431	-	-	259,431	254,242	5,189
Field Supplies & Equipment	99,687	-	-	99,687	-	99,687

Postage & Shipping	62,333	-	-	62,333	58,780	3,553
Equipment Rent/Maintenance	381,590	-	-	381,590	359,839	21,751
Interest	21,350	21,350	FAR 31.205-20	-	-	-
Telephone	295,301	-	-	295,301	278,469	16,832
Business Insurance	198,365	-	-	198,365	187,058	11,307
Legal & Other Professional Fees	389,621	36,965	FAR 31.205-27	352,656	332,555	20,101
Administrative Travel	599,308	39,650	FAR 31.205- 6(m)	559,658	527,757	31,901
Dues, Memberships & Reg.	168,993	-	-	168,993	159,360	9,633
Subscriptions & Publications	41,359	-	-	41,359	39,002	2,357
Depreciation/Amortization	635,661	-	-	635,661	599,428	36,233
Outside Payroll Service	42,697	-	-	42,697	40,263	2,434
State Income & Personal Property Taxes	28,439	-	-	28,439	26,818	1,621
Direct Cost Credit	(825,149)	-	=	(825,149)	(778,116)	(47,033)
<b>Total General Overhead</b>	<b>9,202,251</b>	<b>446,373</b>	=	<b>8,755,878</b>	<b>8,801,322</b>	<b>364,312</b>
-	-	-	-	-	-	-
<b>Total Indirect Costs</b>				<b>14,532,824</b>	<b>15,052,322</b>	<b>637,192</b>
-	-	-	-	-	-	-
<b>Indirect Cost Rate (% of Direct Labor)</b>				-	<b>152.93%</b>	<b>106.83%</b>
-	-	-	-	-	-	-
<b>Facilities Capital Cost of Money (FCCM)</b>				-	<b>99,673</b>	<b>1,019</b>
-	-	-	-	-	-	-
<b>Facilities Capital Cost of Money Rate (% of Direct Labor)</b>				-	<b>1.01%</b>	<b>0.17%</b>

## **Description of the Company**

ABC Engineering Consultants, Inc. (the Company) is a professional engineering services firm. The Company was founded and incorporated in 1985 and its customers include private sector businesses and various levels of government. The Company focuses mainly on transportation and roadway projects. The Company has 3 offices in 2 states.

### **(1) Basis of Accounting**

The Company's indirect cost rate schedule was prepared on the basis of accounting practices prescribed in Part 31 of the Federal Acquisition Regulation (FAR). Accordingly, the indirect cost rate schedule is not intended to present the results of operations of the Company in conformity with accounting principles generally accepted in the United States of America.

### **(2) Description of Accounting Policies**

The Company utilizes a job cost accounting system for recording costs incurred under its contracts. All projects are segregated by individual project numbers so that costs may be clearly identified in the Company's job cost accounting system.

### **(3) Description of Indirect Cost Rate Structure**

The Company presents separate indirect cost rates for home office and field office cost pools. Direct costs specifically identified on a contract are not included in any indirect cost pool. These costs include subconsultants and other direct costs.

### **(4) Description of Labor-Related Costs**

**Paid Time Off:** The Company provides paid personal leave to all employees according to job classification and length of service. Remaining personal leave is paid to employees upon termination.

**Premium Overtime:** This includes costs incurred in meeting certain deadlines. If an employee is eligible for overtime, they have their choice of a cash payment equal to time and a half (premium portion), or compensatory time off at time and a half. The premium portion of paid overtime is included in the indirect cost pool.

**Uncompensated Overtime:** The Company did not pay certain salaried employees for time worked in excess of 40 hours per week. The labor cost for time in excess of 40 hours was credited to the indirect cost pool. The credited amount (\$157,908) consisted of hours worked in excess of 40, times the employees' standard hourly rates.

**Retirement Plan:** The Company operates a 401(k) pension plan, meeting the requirements of FAR 31.205-6(j), to which it makes a cash contribution of 2 percent of participating employees' salaries per year.

- (5) **Contract Labor:** The Company uses contract labor for engineering related services, and bills this labor as if it were for regular employees. The Company provides office space, administrative support, and controls the contract laborers. Therefore, contract laborers are considered employees, and their labor costs (\$10,945 for the period audited) have been included in the direct labor base.

(6) **Description of Depreciation and Leasing Policies**

Certain assets are purchased and depreciated, while others are leased and considered operating leases, and the annual lease costs are included in the overhead pool. The depreciation reflected on the Company's financial statements differs from the acceptable depreciation for Federal income tax purposes. Since the financial statement amounts included in the overhead pool are lower than the amounts used for Federal purposes, the amounts included in the Schedule of Indirect Costs are allowable under FAR 31.205-11(e).

(7) **Description of Related Party Transactions**

The Company rents one of its two offices from a Limited Liability Partnership (LLP) partially owned by a company shareholder. The actual occupancy costs of \$350,000 include interest expense of \$140,500. The rent expense recorded in the Company's financial statements includes a \$400,000 charge from the related party LLP. The calculation to determine the allowable portion of the rent follows:

Total rent expense recorded (from related LLP)	\$400,000
Less: Profit included in rent charges	( 50,000)
Less: Unallowable interest expense	<u>( 140,000)</u>
Allowable portion of related party rent:	\$209,500

Consequently, rental expense has been adjusted downward by \$190,500 to reflect the provisions of FAR 31.205-36(b)(3).

The officers of the Company have personal usage of Company vehicles. Amounts attributable to this personal use (\$39,650 for 2010) were disallowed.

(8) **Facilities Capital Cost of Money (FCCM)**

The cost-of-money rate has been calculated in accordance with FAR 31.205-10, using average net book values of equipment and facilities multiplied by the average treasury rate for the applicable period. Equipment and facilities include furniture and fixtures, computer equipment, vehicles, and leasehold improvements. The calculation was made as follows:

	<u>Field Office</u>	<u>Home Office</u>
Net Book Value of Corporate Assets	\$ 20,380	\$ 1,993,460
Average Treasury Rate	5%	5%
Computed Facilities Capital	<u>\$ 1,019</u>	<u>\$ 99,673</u>

NHI 231028 Mysteries of the FAR Revealed:  
Using the *AASHTO Audit Guide* for the  
Procurement and Administration of A/E Contracts

Instructor Guide

Direct Labor Base	\$ 596,431	\$ 9,842,526
Cost-of-Money Rate	<u>0.17%</u>	<u>1.01%</u>

## **INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL AND COMPLIANCE**

Board of Directors  
ABC Engineering Consultants, Inc.

We have audited the overhead schedule of the Company for the fiscal year ended December 31, 2010, and have issued our report thereon dated April 4, 2011. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits (or examination level attestation engagements) contained in the *Government Auditing Standards* issued by the Comptroller General of the United States of America.

### **Internal Control Over Financial Reporting**

In planning and performing our audit, we considered the Company's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing an opinion on the schedule, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting.

The management of the Company is responsible for establishing and maintaining internal control over financial reporting. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control over financial reporting. The objectives of internal control over financial reporting are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with the Federal Acquisition Regulation Part 31. Because of inherent limitations in any internal control structure, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the Company's ability to initiate, authorize, record, process, or report financial data reliably in accordance with Part 31 of the Federal Acquisition Regulation such that there is more than a remote likelihood that a misstatement of the Company's overhead schedule that is more than inconsequential will not be prevented or detected by the Company's internal control. A material weakness is a significant deficiency, or combination of significant deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Company's overhead schedule will not be prevented or detected, and corrected, on a timely basis.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weakness, as defined above.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Company's overhead schedule is free from material misstatement, we performed tests of the Company's compliance with certain provisions of laws, regulations and contracts, including the provisions of the applicable sections of Part 31 of the Federal Acquisition Regulation, noncompliance with which could have a direct and material effect on the determination of the schedule amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under Government Auditing Standards.

We noted certain matters that we reported to management of the Company in a separate letter dated (April 4, 2011).

This report is intended solely for the use and information of the Company and government agencies or other customers related to contracts employing the cost principles of the Federal Acquisition Regulation, and should not be used for any other purpose.

(Signature of Official Representative of Firm)

(April 4, 2011)

## Example 8-1: Sample Cost Proposal

### ATTACHMENT B: COST PROPOSAL

CONTRACT COST PROPOSAL				
Name of Proposer: ABC Engineering Consultants, Inc.			CONTRACT NO. XXXXX	
1. Direct Labor (Specify)	Estimated Hours	Rate/Hour	Estimated Cost (\$)	Total Estimated Cost
Classification A	40	\$51.25	\$2,050.00	-
Classification B	200	\$46.21	\$9,242.00	-
Classification C	440	\$37.63	\$16,557.20	-
Classification D	280	\$ 32.50	\$9,100.00	-
Classification E	60	\$23.19	\$1,391.40	-
Total Direct Labor Cost	1,020	-	-	\$38,340.60
2. Labor Overhead	Overhead Rate	X Allocation Base =	Estimated Cost	
	152.93%	\$38,340.60	\$58,634.28	-
Total Labor Overhead	-	-	-	\$58,634.28
3. Direct Materials			Estimated Cost	
a. Testing Supplies			\$3,000.00	-
			-	-
Total Direct Materials			-	\$3,000.00
4. Subconsultant Costs			Estimate Cost	
a. XYZ Surveying			\$20,684.00	-
b. ABC Planners and Consultants, Inc.			\$10,000.00	-
Total Subconsultant Costs			-	\$30,684.00
5. Other Direct Costs				
a. Local Mileage (\$.60/mile)			\$240.00	-
b. Car Rental (4 site visits)			\$670.00	-
c. Lodging (4 site visits / 2 people)			\$1,200.00	-
d. Meals (4 site visits / 2 people)			\$450.00	-
Total Other Direct Costs			-	\$2,560.00
				-
6. Fee (10%)				\$ 13,321.89
7. FCCM (1.28%)				\$ 1,875.72
TOTAL ESTIMATED COST AND FEE				\$148,416.49

## **Example 8-2: Sample Wording from a Contract for Engineering Services**

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Now therefore, in consideration of the premises and of the mutual covenants set forth, it is agreed by and between the parties hereto as follows:

1. The scope of services and schedule specifically defined in ATTACHMENT A represents the total services and schedule required of the CONSULTANT by this Contract for the project which is also defined in ATTACHMENT A. ATTACHMENT A is attached hereto and specifically made a part hereof.
2. The CONSULTANT's Engineering fee for this Contract shall not exceed \$135,094.60 for salaries, labor overhead, direct materials, subconsultant costs, subconsultant fixed fee of \$2,700.19, other direct costs, and facilities capital cost of money, plus a fixed fee of \$13,321.89, resulting in a maximum upper limit of \$148,416.49. The CONSULTANT's Engineering fee is specifically defined in ATTACHMENT B. ATTACHMENT B is attached hereto and specifically made a part hereof.

### **FEE AND COSTS**

For the services covered under this agreement, the Consultant shall be compensated by the Department as follows:

- A. It is mutually agreed by and between the Consultant and the Department that compensation to the Consultant will be the basis of the Consultant's actual cost of performing all phases of the work, plus a fixed amount to cover net fee only.
- B. The actual costs of the Consultant eligible for reimbursement are those directly attributable to the accomplishment of the specific work of the Consultant. These may include:
  1. Actual salaries of productive personnel for work time directly connected with the project.
  2. The overhead costs of Consultant as determined by audit of Consultant's operations.
  3. Out-of-pocket direct project expenses at actual cost to Consultant. Any non-salary cost identified specifically with the project is a direct charge to the project and is eligible for compensation. Such out-of-pocket costs shall include, but not necessarily be limited to, travel and subsistence for Consultant's personnel on the project, project materials and supplies, telephone and communications, printing and

reproduction, and computer services. Automobile mileage will be reimbursed at the actual cost per mile incurred provided such cost per mile does not exceed the rate established by the Internal Revenue Service for the period. Billings for any actual out-of-pocket expenses directly identifiable with the project shall be supported by actual account records, expense accounts, receipts and other miscellaneous supporting materials and shall be made available by Consultant for review and audit by the Department or authorized Department representative.

- C. The amount of compensation to Consultant for costs of subconsultants will be established on the same basis as costs of the Consultant as specified in Paragraph B.

## XV. Activities

### Activity 2-1: Pre-Assessment Answers

**Objective:** Assess what you already know about the regulatory framework for funds administered through the Federal-Aid Highway Program.

**Instructions:** Read each statement below and note whether the statement is true or false. You will have five minutes to complete this activity.

After you have completed the activity, the instructor will provide the correct answers and explain them throughout the lesson.

	Statement	True/False?	Slide #
1.	The same Federal and State rules apply to A/E contracts, regardless of the funding source.	False  <b>To determine which rules apply, it is important to determine the funding source for projects.</b>	2-5
2.	The <i>AASHTO Audit Guide</i> is intended to be used only by State DOT audit staff in performing indirect cost rate audits.	False  <b>The <i>AASHTO Audit Guide</i> provides information on accounting principles and auditing standards to be used by A/E firms, CPA firms, and Federal, State, and local agency audit and oversight staff.</b>	2-9
3.	The FHWA performs oversight of all transportation funds spending by State DOTs.	False  They provide oversight of funds through the Federal-Aid Highway Program. States could spend their own funds. FHWA's oversight also extends to local agencies using Federal-Aid Highway Program funds. Other Federal agencies have oversight over their own funds.	2-5
4.	Most local agency engineering design contracts funded in part with Federal-Aid Highway Program funds are not required to follow Qualifications Based Selection procedures.	False  Most projects with Federal-Aid Highway Program funds must follow applicable Federal regulations, including QBS procedures.	2-5
5.	Federal rules do not require that A/E firms have a CPA firm perform an indirect cost rate audit.	True  A/E firms are not required to have indirect cost rate audits performed. An audit may be required by the policies of the specific contracting agency.	2-10

6.	Most State DOTs may not apply caps to A/E consultant indirect cost rates if Federal-Aid Highway Program funds are used on the project.	True  Of the 13 states that had the ability to cap indirect cost rates in 2005, the 2006 Transportation Appropriations Act eliminated the ability of 11 states to cap indirect cost rates. Two states (Minnesota and West Virginia) still have the ability to cap indirect cost rates.	2-8
7.	A/E consultants must comply with all parts of the Federal Acquisition Regulation in order to contract with a State DOT.	False  A/E firm indirect cost rates for contracts funded in part with Federal-Aid Highway Program funds must comply with FAR Part 31.	2-7

## Activity 4-1: Applying Key Cost Principles

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**Objective:** This activity will help you apply knowledge of key cost principles to practical examples.

**Instructions:** Working independently, read the background information for each of the two examples and answer the related questions. Note that for purposes of this activity you should focus on the general cost principles of allowability, allocability, and reasonableness. The intent of this activity is not to assess your knowledge of specific exceptions from the FAR cost principles that we have not yet addressed in this course. For example, if a type of cost is generally allowable, the answer would be “allowable,” even if specific exceptions to the FAR cost principle might apply.

You will have ten minutes to complete this activity. After you have completed the activity, the instructor will discuss the correct answers.

Example 1 Background	Example 2 Background
<p>An employee from Company A went to a technical training course which required an overnight stay. For the course, the employee incurred the following costs:</p> <ul style="list-style-type: none"><li>• Hotel: \$500/night for two nights</li><li>• Meals, including alcoholic beverages: \$125</li><li>• First class airfare: \$700</li><li>• Conference registration: \$150</li></ul> <p>During the month, the company also incurred the following costs for this employee:</p> <ul style="list-style-type: none"><li>• Compensation: \$4,000 (of which 80% is project related)</li><li>• Fringe benefits: \$900</li></ul>	<p>The Company is working on a project locally and has three employees working on the project. The employees incur mileage costs to travel from the office to the project site (\$150). While working on the project, the Company purchases specialized software with the intent that it will be used on this project and future projects (depreciation of the software is \$800/year).</p> <p>In addition, the Company incurs the following costs this month:</p> <ul style="list-style-type: none"><li>• Rent: \$15,000</li><li>• Compensation costs: \$20,000 (95% of hours this month are spent on the project.)</li><li>• Fringe benefits: \$3,200</li></ul> <p>The contract does not allow local mileage costs to be billed.</p>

## Example 1 Questions and Answers

Note: The participants should not be expected to know all the details for Example 1, Question 1 related to allowability as the details are covered later in the course; however, they should be able to understand and apply the concepts of allowability.

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**1. Which of the above costs are allowable? Explain your answers.**

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Answers:

- Hotel: Some portion should be allowable, but \$500 per night would likely be considered unreasonable. In addition, as will be discussed later in the course, lodging costs are subject to specific Federal Travel Regulations that limit the daily amount allowable.
- Meals: Allowable up to specific per diem limits listed in the Federal Travel Regulations. Alcoholic beverages are expressly unallowable.
- Airfare: As will be discussed later in the course, FAR Part 31 requires using the lowest available airfare. Typically, first class airfare would exceed the lowest available price; therefore, a portion of the airfare would be unallowable.
- Registration fees: Allowable
- Compensation: Allowable, subject to evaluation of reasonableness, as applicable.
- Fringe benefits: Typically allowable, although certain restrictions may apply.

**2. Which of the above costs should be allocated to direct expenses?**

Answers:

- Compensation of \$3,200 ( $\$4,000 * 80\%$ )

**3. Which of the above costs should be allocated to indirect expenses?**

Answers:

- Hotel (allowable portion of the \$500)
- Meals (allowable portion of the \$125)
- Airfare (allowable portion of the \$700)
- Registration fees
- Compensation of \$800 ( $\$4,000 * 20\%$ )
- Fringe benefits of \$900

## Example 2 Questions and Answers

### 1. Which of the above costs are allowable? Explain your answers.

Answers:

- Mileage costs: Not allowable and may not be billed to the client due to contract limitations. Refer to FAR criteria for allowability which include compliance with the terms of the contract.
- Depreciation of specialized software: \$800
- Rent: \$15,000
- Compensation: \$20,000
- Fringe benefits: \$3,200 (assuming that fringe benefits do not include any costs that are specifically identified as unallowable under FAR Part 31)

### 2. Which of the above costs should be allocated to direct expenses? Explain your answers.

Answers:

- Local Mileage: \$150 should be allocated to direct costs of the project but not billed to the client. Clarify that this is an example of a cost that is allocable but not allowable or billable (due to contract limitations).
- Compensation: \$19,000

### 3. Which of the costs above should be allocated to indirect expenses? Explain your answers.

Answers:

- Specialized software: \$800 (because the software benefits multiple projects, including future unspecified projects)
- Compensation: \$1,000
- Fringe benefits: \$3,200
- Rent: \$15,000

## Activity 6-1: Applying Cost Criteria

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**Objective:** This activity will allow you to check your knowledge related to the application cost criteria to determine allowability of specific areas of cost.

**Instructions:** Read each question and choose the best answer. After you have completed the activity, the instructor will provide the correct answers.

**Questions:**

1. An A/E firm President has total compensation of \$252,390, consisting of salary, bonus, and company retirement plan contributions. He spends a portion of his time during normal working hours on client lobbying activities to influence State and Federal legislation. Which of the following is true?
  - a) Retirement plan contributions are generally not considered a form of compensation under FAR Part 31.
  - b) Bonuses are unallowable, as they are an expressly unallowable cost.
  - c) **The portion of the President's salary and related benefits attributable to hours spent on lobbying activities would be considered unallowable under FAR Part 31.**
  - d) All of the above.
  
2. An A/E consultant is preparing to perform an analysis of the reasonableness of executive compensation. What information would be most relevant to such an analysis?
  - a) Estimated percentage of chargeable time for the executives.
  - b) Average direct salary rates for similar labor categories submitted to the Home State DOT.
  - c) **Industry salary surveys of executive compensation.**
  - d) None of the above.
  
3. Bob, an A/E firm project manager, takes a client to attend a basketball tournament during normal working hours. The A/E firm pays all of the expenses of the outing. Which of the following costs would typically be considered unallowable under FAR Part 31?
  - a) Tickets for the event
  - b) Transportation to and from the event
  - c) The cost of Bob's salary and benefits for the portion of his time spent attending the event
  - d) **All of the above**
  
4. Which of the following would be considered an allowable cost under FAR Part 31?

- a) Expenses for running a booth at a trade show
  - b) Help wanted advertising for a specific position**
  - c) Shirts with the company's logo given to the public
  - d) All of the above
5. An A/E firm leases its office building from a related entity consisting of current owners of the company, at a rental rate of \$60,000 per year. The current market rent for similar space is \$70,000 per year. Annual normal costs of ownership incurred by the related entity, including facilities capital cost of money (FCCM), total \$50,000. What amount of rent expense should be considered allowable under FAR Part 31?
- a) \$70,000
  - b) \$50,000**
  - c) \$0
  - d) \$60,000
6. An A/E consultant owns a car that is used by the company President for a combination of business and personal use. Which of the following is most accurate?
- a) The costs are allowable, because vehicle costs are allowable under FAR Part 31.
  - b) The costs are unallowable, because there is personal use of the vehicle.
  - c) The costs may be questioned, especially if there is not sufficient documentation to segregate business and personal use.**
  - d) The costs are allowable only as a direct cost.
7. In response to a Request for Proposal, an A/E consultant incurs time and expenses to develop a proposal and presentation for a specific project. Which of the following is true?
- a) Because they relate to a specific project, these costs should be a direct cost of the project.
  - b) These costs are unallowable marketing costs.
  - c) The proposal would be considered advertising costs, and therefore would be unallowable.
  - d) The A/E consultant should be careful to segregate these costs from other types of selling activities to support allowability.**
8. Which of the following costs are typically allowable under FAR Part 31?
- a) Bad debt expenses and related collection costs
  - b) Expenses related to a conference where the primary purpose is technical training**

- c) Donations of property to a charitable organization
  - d) Contributions to a political action committee (PAC) made in connection with a membership renewal in a professional organization
9. An A/E firm project manager travels to a professional meeting, staying one night, and incurs the following expenses: Airfare - \$900, Hotel - \$550, and Meals - \$125. Which of the following statements is true?
- a) All of the expenses should be examined for reasonableness and business purpose.
  - b) The allowable airfare should be limited to the lowest available airfare and should comply with the A/E consultant's policies.
  - c) The allowable amount of hotel expense would depend upon the location.
  - d) **All of the above.**
10. Which of the following is most likely unallowable?
- a) Retirement plan contributions, assuming total compensation is determined to be reasonable
  - b) **Costs of alcohol, when associated with a client meeting for the purposes of direct selling**
  - c) Professional liability insurance premiums
  - d) Depreciation recorded on the GAAP basis

## Activity 7-1: Responsibilities in the Performance of Audits and Use of Audit Reports and Information

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**Objective:** Describe the role and responsibilities related to the performance of audits and use of audit reports and information.

**Instructions:** Working with 2-3 people, complete the chart below by filling in the responsibilities of each party related to each type of audit shown. You will have ten minutes to complete this activity.

This activity helps you determine how much you already know about audit roles and responsibilities. After you have completed the activity, the instructor will help fill in any knowledge gaps you have by providing the correct answers.

	<b>A/E Consultant</b>	<b>Those who Procure A/E Services and/or Administer or Manage A/E Contracts</b>	<b>Auditors</b>
Indirect cost rate audit	Ultimate responsibility for the accuracy of the company's financial data.	Responsible for verifying that approved indirect cost rates, once established, are properly applied for purposes of contract estimation, negotiation, and billing.	Responsible for knowledge of applicable laws, regulations, accounting principles, and auditing standards and for designing audit procedures to determine if the indirect cost rate is calculated and presented in accordance with applicable requirements.
Pre-award audit	Responsible for providing accurate information regarding costs and the company's accounting systems and internal controls. Should be able to provide supporting documentation for all costs listed in a cost proposal.	Responsible for obtaining information, including coordinating with auditors, to determine if the cost proposal contains accurate financial data.	When working for a contracting agency to perform a pre-award audit, responsible for obtaining information and performing necessary procedures to determine whether the cost proposal contains accurate financial data.
Incurred cost audit	Responsible for providing accurate information regarding costs and the company's accounting systems and internal controls. Should be able to support all costs invoiced, including the accuracy of the indirect cost rate.	Responsible for coordinating with in-house auditors and/or an external CPA firm to audit costs invoiced.	When working for a contracting agency to perform an incurred cost audit, responsible for verifying that costs invoiced to a project, including direct costs, indirect costs, and subconsultant costs were incurred and invoiced in accordance with the terms of the contract.

## Activity 8-1: Cost Proposal Analysis Answers

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**Objective:** Analyze and discuss a cost proposal in light of the related indirect cost rate audit report and contract wording.

**Instructions:**

1. Work alone to answer the questions below. You will have ten minutes.
2. In answering the questions, refer to the following documents:
  - “Example 7-1: Sample Indirect Cost Rate Audit Report” (*Same report referenced in the previous lesson*)
  - “Example 8-1: Sample Cost Proposal”
  - “Example 8-2: Sample Wording from a Contract for Engineering Services”
3. After ten minutes, you will be prompted to work in a group of 4 to discuss the questions. Your group will be assigned one question on which to report back to the larger group.
4. The instructor will review all questions with the large group, calling on each group to provide their input on a specific question.

**Questions:**

1. What additional information would you request in order to analyze this cost proposal?

Possible Answers: Support for employee labor rates, details supporting the costs of testing supplies, subconsultant cost proposals supporting their proposed costs, detailed calculations to support the amounts proposed for other direct costs.

2. Is the payment method reflected in the cost proposal consistent with the contract?

Answer: Yes, both the cost proposal and contract reflect a cost plus fixed fee payment method.

3. Are subconsultant costs presented consistent with the requirements of the contract? Is additional information necessary to make this determination, and if so, what information would you request?

Answer: a) Costs of both subconsultants should be presented on a cost plus fixed fee basis, consistent with the contract wording under Fees and Costs – item C. requiring that subconsultant costs be established on the same basis as the prime consultant’s costs. The costs for ABC Planners and Consultants, Inc. appear to be presented on a fixed price basis, since they are exactly \$10,000. b) It would be important to examine the cost proposals of each subconsultant to verify that they are in accordance with the contract.

4. On what basis was the fixed fee in the cost proposal calculated? How does this compare to what you expected to see?

Answer: The fixed fee was calculated as a percentage of the sum of direct labor cost, labor overhead, direct materials, subconsultant costs, and other direct costs. This differs from what we would typically expect. The proposed fixed fee is typically calculated a percentage of the sum of the direct labor cost and total labor overhead, which would have resulted in a fee of \$9,697.49.

5. What information would you audit or request to have audited related to this contract? What type or types of audits would you expect to be most appropriate? Would your answer differ if this were a lump sum contract?

Possible Answers: a) Information related to any costs proposed may be subjected to audit. Obtaining support for direct labor rates, an examination of the A/E consultant's overhead audit, and auditing of subconsultant costs would address the highest cost areas and might be the primary areas of focus. b) A pre-award audit would be most useful to help ensure that the costs proposed are accurate and the contract limits are established properly; however, an incurred cost audit performed during or after the performance of the contract might be useful as well. c) If this were a lump sum contract, the audit focus should be on a pre-award audit, as there would not be an ability to adjust the contract price based on an incurred cost audit.

6. Are there any errors in the cost proposal that you see from your review of the cost proposal, indirect cost rate audit report, and contract wording?

Possible Answers: The Facilities Capital Cost of Money (FCCM) rate included in the cost proposal (1.28%) does not match the rate in the indirect cost rate audit report (1.01%). As mentioned in question 4, the fixed fee is miscalculated. In the Other Direct Costs section, local mileage is listed at \$.60/mile, which exceeds the current IRS limits and, as a result, does not comply with section B.3. of the contract.

## Activity 9-1: Final Assessment

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**Outcome:** This assessment measures your mastery of the course outcomes. A score of 70 percent is required to receive credit for this training.

**Instructions:** Working independently, read each question and write the letter of the best answer on the answer blank.

- You may use the Participant Workbook, Reference Manual, and the *AASHTO Audit Guide* to assist you in answering these questions.
- Questions related to allowability should be considered in their most general sense, recognizing that the FAR may allow for exceptions in specific situations that we have not covered in this course.
- When you are done, please bring the assessment to the front and return to your seat to await the final review.
- The assessment is intended to be completed in 30 minutes. At 25 minutes, the instructor will issue a five-minute warning. After 30 minutes, if you have not completed the assessment, you will be asked to move to another room to complete it.
- After 30 minutes, the instructor will state the correct answers and explain them to those who have completed the assessment.

## Lesson 1:

1. The State DOT is planning to contract with an A/E firm to perform specialized intelligent transportation systems (ITS) consulting services on an undetermined number of projects over a five-year period. What contract type would be most appropriate?
  - a) Lump sum contract
  - b) Multi-phase contract
  - c) Project-specific contract
  - d) IDIQ/On-Call contract**

Debrief notes:

IDIQ/On-Call contracts are 1) designed to handle a number of projects which are established during the contract period, which typically lasts several years, and 2) useful for contracting for similar specialized services for a number of projects.

## Lesson 2:

2. Which of the following statements is true regarding laws and regulations?
  - a) The Federal laws and regulations discussed in this course apply to all highway contracts administered by State DOTs.
  - b) The Federal laws and regulations discussed in this course apply only to highway contracts utilizing a cost reimbursement payment method, and do not apply to contracts using a fixed price payment method.
  - c) The applicability of Federal and State laws, regulations and guidance to a specific highway contract must be determined based on a review of the funding source for the contract.**
  - d) State laws and written procedures take precedence over Federal laws and regulations in cases where there is a conflict.

Debrief notes:

- For projects that use Federal-Aid Highway Program funds, the Federal laws and regulations apply. Where there is a conflict between State statutes or written procedures and Federal laws and regulations, the Federal laws and regulations take precedence over State statutes and written procedures.
- For projects that only use State or local funds, certain Federal laws and regulations will not apply.

### Lesson 3:

3. A state agency is planning an RFP for A/E services on a project that will be partially funded with Federal funds. Which of the following is the agency not required to do under Qualifications Based Selection (QBS)?
- a) Publicly announce the requirements for A/E services.
  - b) Consider cost information in the selection process.**
  - c) Select and rank at least three A/E consultants.
  - d) Negotiate the contract with the most highly qualified A/E firm.

Debrief notes:

- Under QBS, requirements for A/E services must be publicly announced.
  - A/E firms must be selected based on their competence and qualifications for the type of services required. Price quotes may not be considered in the selection process in QBS.
  - At least three A/E firms must be selected and ranked under QBS.
  - Contracts are subsequently negotiated with the most highly qualified A/E firm at a fair and reasonable price.
4. Which of the following is true regarding the A/E project cycle under QBS?
- a) A pre-award audit would typically be performed to verify A/E consultant costs during the selection process.
  - b) The contracting agency must develop an independent cost estimate to be used in contract negotiations.**
  - c) For projects involving Federal-Aid Highway funds, the contracting agency may negotiate any components of the A/E consultant's cost proposal, including direct labor costs, the indirect cost rate, and other direct costs.
  - d) It is not necessary to publish the evaluation factors for A/E consultant selection in the RFP unless specifically requested by bidding A/E firms.

Debrief notes:

- The contracting agency must develop an independent cost estimate to be used in contract negotiations. The agency may use the same estimate developed in the budgeting and planning phase of the procurement process or may develop a more detailed cost estimate for negotiation.
- Answer a) is incorrect, as A/E consultant costs would not be considered in the selection process under QBS. Answer c) is incorrect, as the contracting agency may not negotiate the

indirect cost rate for projects involving Federal-Aid Highway funds. Answer d) is incorrect, as the evaluation factors for A/E consultant selection must be published in the RFP.

#### **Lesson 4:**

5. Which of the following is (are) required for a cost to be allowable?

- a) The cost must be reasonable.
- b) The cost must be properly allocable to the cost objective.
- c) The cost must comply with the terms of the contract.
- d) All of the above**

Debrief notes:

FAR 31.201-2(a) defines five criteria for allowability, including the three listed above, plus 1) standards promulgated by the CAS Board, if applicable, otherwise generally accepted accounting principles and practices appropriate to the circumstances, and 2) any limitations set forth in FAR Part 31.2.

6. An A/E consultant establishes internal controls to help ensure that employee travel costs are properly recorded as direct or indirect costs, based on the activities for which the travel is required. This is most properly characterized as an illustration of which FAR cost principle?

- a) Allocability**
- b) Allocation bases
- c) Allowability
- d) Reasonableness

Debrief notes:

- FAR 31.201-4 defines a cost as “allocable” if it is assignable to one or most cost objectives on the basis of relative benefits received or some other equitable relationship.

## Lesson 5:

7. Which of the following are objectives of strong A/E consultant internal controls?

- a) Support proper calculation of the indirect cost rate.
- b) Help to ensure accurate cost estimation.
- c) Support FAR compliance.
- d) All of the above**

Debrief notes:

All of the items listed are examples of the objectives of A/E consultant internal controls. This is not an exhaustive list of the objectives of internal controls.

8. ABC Design Engineering, an A/E consultant, is nearing the end of a large project. The labor costs expended on the project to date exceed the maximum billable labor costs specified in the terms of the contract. Which of the following statements is true about the labor costs that exceed the contract maximum?

- a) The labor costs are not billable to the client or allocable to the project.
- b) The labor costs are billable to the client and allocable to the project.
- c) The labor costs are not billable to the client, but are allocable to the project.**
- d) None of the above.

Debrief notes:

- A cost is allocable to a project if it was incurred because of a project and would not have otherwise been incurred.
- The terms of a contract determine whether a cost is billable or nonbillable.
- The labor costs were incurred because of the project, so should be allocated accordingly. However, they exceed the maximum allowed by the contract and therefore should not be billed.

## Lesson 6:

9. Nora is a senior engineer with an A/E firm. In addition to her regular salary, Nora's compensation includes a performance bonus. During the year, Nora spent some of her time during normal business hours volunteering with a local charity. Which of the following statements is (are) true about Nora's compensation?
- a) The performance bonus Nora received is expressly unallowable under FAR Part 31.
  - b) The portion of Nora's salary and related benefits attributable to the hours she spent on charitable activities would be considered unallowable under FAR Part 31.**
  - c) Nora's salary is not subject to FAR reasonableness provisions because she is not an executive of the firm.
  - d) All of the above.

### Debrief notes:

- Performance-based bonuses are allowable, subject to certain criteria listed in FAR 31.205-6. Note that total compensation is still subject to reasonableness provisions of FAR 31.205-6.
  - Compensation for time spent on unallowable activities, such as charitable activities, is not allowable under FAR Part 31.
  - All compensation is subject to FAR reasonableness provisions, regardless of the employee's role.
10. Bill, a principal of an A/E firm, takes a client out to play golf during normal working hours. The A/E firm pays for all expenses of the outing. Which of the following costs would typically be considered unallowable under FAR Part 31?
- a) Golf fees
  - b) Transportation to and from the golf outing
  - c) The cost of Bill's salary and benefits for the portion of his time spent playing golf
  - d) All of the above**

### Debrief notes:

- FAR 31.205-14 specifies that "costs of amusement, diversions, social activities, and any directly associated costs such as tickets to shows or sports events, meals, lodging, rentals, transportation, and gratuities are unallowable." In addition, the directly associated costs of employee salary and benefits for those participating in such activities would generally be unallowable.

11. XYZ Consultants, an A/E firm, has a company car that is used for both business and personal use. No mileage log or other record of car usage is maintained. The company pays for all costs of the car, totaling \$4,700 this year. The most likely treatment of these costs by an auditor would be:
- a) **All or a portion of the amount would be questioned as potentially unallowable because adequate documentation has not been maintained.**
  - b) The portion billable to clients would be considered a direct cost, and the remainder would be considered an indirect cost.
  - c) The entire amount would be questioned as potentially unallowable, because they are unreasonable in amount.
  - d) The entire amount would be treated as an indirect cost, if the costs are not billable.

Debrief notes:

- In this situation, the auditor would likely question at least a portion of the vehicle cost, as the company has not maintained supporting documentation to segregate personal and business use. In addition, the lack of documentation would likely make it difficult or impossible to properly classify direct and indirect costs related to the vehicle. It is critical to maintain adequate supporting documentation for vehicle costs and usage, to properly segregate business use from personal use, and direct project-related use from use for indirect activities.
- The portion of the vehicle cost that is for business use might be allowable, if properly supported. There is not sufficient information to indicate that the amounts are unreasonable, as noted in c). Answers b) and d) are incorrect, as the allocability of a cost is not based on whether or not it is billable to the client. A cost may be allocable to a project as a direct cost but not billable based on contract terms. It is important to allocate costs properly, regardless of whether such costs are billable.

## Lesson 7:

12. Which of the following statements is false regarding the use of audit information in the procurement of A/E services and administration of A/E contracts?

- a) Information from the indirect cost rate audit may be used to establish rates for current or prior periods, or to set provisional or fixed rates to be used in future periods.
- b) A pre-award audit may be performed to provide reasonable assurance regarding the accuracy of an A/E consultant's proposed costs, or to determine whether the A/E firm's internal controls are adequate to support project costing and invoicing.
- c) One of the purposes of an incurred cost audit is to determine whether costs invoiced to the contracting agency were in accordance with the terms of the contract.
- d) A pre-award audit typically would not be performed for a lump sum project.**

Debrief notes:

Pre-award audits are often used to obtain reasonable assurance that A/E consultant proposed costs are not materially misstated, including costs proposed for lump sum contracts. In the case of lump sum contracts, pre-award audits may be even more important, as the contract price is fixed, therefore there is no ability to adjust amounts paid based upon an incurred cost audit.

13. Who has the primary responsibility for the accuracy of an A/E firm's indirect cost rate?

- a) Management of the A/E firm**
- b) The external CPA who audits the indirect cost rate schedule
- c) The State DOT auditors
- d) All of the above

Debrief notes:

- Management of an A/E firm has the primary responsibility for the accuracy of the firm's financial information, including the firm's indirect cost rate. Management also has responsibility for the accounting systems and internal controls that support the indirect cost rate.
- CPA firms and State DOT auditors perform audits and other procedures to obtain reasonable assurance as to whether the A/E firm's indirect cost rate is properly stated, but do not assume responsibility for its accuracy.

## Lesson 8:

14. ABC Design Engineering, an A/E consultant, has a cognizant letter of concurrence from the Florida Department of Transportation, approving the submitted indirect cost rate, and such rate is not in dispute. Which of the following is a true statement?
- a) All federal agencies must accept the indirect cost rate on all projects.
  - b) State DOTs must accept the indirect cost rate if part or all of the funding source for a project comes from Federal-Aid Highway Program funds.**
  - c) Local agencies must accept the indirect cost rate on all projects.
  - d) All of the above.

Debrief notes:

23 U.S.C. 112(b)(2) establishes the requirements for acceptance of cognizant audits. If a cognizant rate has been established, it must be accepted (for contracts using Federal-Aid Highway Program funds). This regulation applies only to contracts for which all or a portion of the funding is provided through the Federal-Aid Highway Program. State DOTs and local agencies must accept the indirect cost rate if part or all of the funding source for a project comes from Federal-Aid Highway Program funds, unless such rate is in dispute. Other Federal agencies are not required to accept the cognizant indirect cost rate for contracts funded outside of the Federal-Aid Highway Program.

#### **Lesson 9:**

15. Which of the following tools and resources is (are) relevant to the procurement and administration of A/E contracts?
- a) *23 CFR 172*
  - b) *DCAA Contract Audit Manual*
  - c) *AASHTO Uniform Audit & Accounting Guide*
  - d) All of the above**

Debrief notes:

All of the items noted represent tools and resources that may be useful in the procurement and administration of A/E contracts.



## XVI. Acronyms and Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ACEC	American Council of Engineering Companies
A/E	Architectural and Engineering
AICPA	American Institute of Certified Public Accountants
ASCBA	Armed Services Board of Contract Appeals
B&P	Bid and Proposal
BBA	Bipartisan Budget Act of 2013
BCA	Benchmark Compensation Amount
CAM	Contract Audit Manual
CAS	Cost Accounting Standards
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CPA	Certified Public Accountant
CPE	Continuing Professional Education
DCAA	Defense Contract Audit Agency
D&E	Design and engineering
DOT	Department of Transportation
ESOPs	Employee Stock Ownership Plans
FAR	Federal Acquisition Regulation
FCCM	Facilities Capital Cost of Money
FHWA	Federal Highway Administration
FTE	Full Time Equivalent
G&A	General and Administrative
GAAP	Generally Accepted Accounting Principles
GAAS	Generally Accepted Auditing Standards
GAGAS	Generally Accepted Government Auditing Standards (Also known as the “Yellow Book”); See GAS.
GAS	Government Auditing Standards (Also known as the “Yellow Book”); See GAGAS.
GPS	Global Positioning System

GSA	General Services Administration
ICQ	Internal Control Questionnaire
IDIQ	Indefinite Delivery Indefinite Quantity
IG	Instructor Guide
LDS	Large Dollar or Sensitive
LTI	Long-Term Incentive
MACRS	Modified Accelerated Cost Recovery System
NCM	National Compensation Matrix
ODC	Other Direct Costs
OIG	Office of Inspector General
OFPP	Office of Federal Procurement Policy
PW	Participant Workbook
Q&A	Question and Answer
QBS	Qualifications Based Selection
RFP	Request for Proposal
ROR	Range of Reasonableness
SERP	Supplemental Executive Retirement Plan
U.S.C.	United States Code
USDOT	United States Department of Transportation
VP	Vice President

## XVII. Glossary

Definitions of relevant terms can be found in the *AASHTO Audit Guide* Sections 1. 2 and 1.3. Terms contained in each section are listed below.

### Terms defined in *AASHTO Audit Guide* Section 1.2

AASHTO	Generally Accepted Accounting Principles (GAAP)
A/E firm	Generally Accepted Auditing Standards (GAAS)
AICPA	Government Accounting Standards
CPA	Management
Code of Federal Regulations (CFR)	Overhead
Cost Accounting Standards (CAS)	Overhead rate
DCAA Contract Audit Manual	Overhead schedule
Federal Acquisition Regulation (FAR)	State DOT
Federal Travel Regulation	Statement on Auditing Standards

### Terms defined in *AASHTO Audit Guide* Section 1.3

Actual Costs	Exit Conference
Actual Cost Agreement	Federal-Aid Contracts
Advance Agreement	Field Office
Agreement	Financial Statements
All-Inclusive Hourly Rate Agreement	Finding (Audit Finding)
Allocable Cost	General and Administrative (G&A) Expenses
Allowable Cost	Interim Audit
Audit	Internal Controls
Audit Cycle	Limited Liability Companies (LLCs) and Limited Liability Partnerships (LLPs)
Audit Resolution Process	Lump Sum (Fixed Price) Agreement
Audit Trail	Negotiated Hourly Rate Agreement
Billing Rates	Overtime Compensation
Contracting Officer	Partnership
Corporation	Post Audit (Project Close-Out) Audit
Cost Center	Pre-Award Review
Cost Objective	Provisional Hourly Rate Agreement
Cognizant Audit	Reasonable Cost
Common Control	Sole Proprietorship
Cost Plus Fixed Fee Agreement	Source Documents

Cost of Money (Facilities Capital Cost of Money)	Task Assignment (Task Order) Agreement
Cost Principles of FAR Subpart 31.2	Total-Hour Accounting System
Directly Associated Cost	Unallowable Cost
Direct Cost	Uncompensated Overtime
Entrance Conference	

## **XVIII. References**

*AASHTO Peer Review Program Policies and Procedures.* (American Association of State Highway and Transportation Officials, 2005).

AICPA Audit Sampling Guide, (American Institute of CPAs, 2008).

ASBCA No. 41470, 96-2, BCA 28426.

ASBCA No. 47849, 97-2 BCA ¶ 29132, 1997 WL 381263 (July 7, 1997).

*Code of Federal Regulations*, 23 CFR 172; 48 CFR Part 31; 2 CFR 200.

*Cost Accounting Standards.* (Cost Accounting Standards Board, CASB).

*DCAA Contract Audit Manual.* (United States Department of Defense, Defense Contract Audit Agency, 2010).

*DCAA Publication 7641.90 Information for Contractors.* (United States Department of Defense, Defense Contract Audit Agency, 2005).

*Federal Acquisition Regulation*, Parts 3, 15, 31.

*Federal Highway Administration Consultant Services website.*

<https://www.fhwa.dot.gov/programadmin/consultant.cfm>

*Federal Travel Regulation.*

Financial Accounting Standards Board (FASB), Statement 57.

*Generally Accepted Accounting Principles.*

*Generally Accepted Auditing Standards.*

*Generally Accepted Government Auditing Standards.*

Internal Revenue Code, Section 179.

*Modified Accelerated Recovery System.*

*National Highway System Designation Act of 1995*, Section 307.

National Compensation Matrix. <https://audit.transportation.org>

*“Oversight of Design and Engineering Firms’ Indirect Costs Claimed On Federal-Aid Grants”.* Report Number: ZA- 2009-033 issued February 5, 2009. (United States Department of Transportation Office of Inspector General, 2009).

*Transportation Appropriations Act of 2006.* Section 174.

*Uniform Audit and Accounting Guide: 2016 Edition* (American Association of State Highway and Transportation Officials, 2016).

U.S. Code, 23 U.S.C 106, 112.