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The New Revenue Recognition Standard
<u>Industry Impacts: Engineering & Construction – Part I</u>

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We continue our revenue recognition series on implementation issues from FASB Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers*. The new revenue recognition standard in ASU 2014-09 is primarily codified in FASB *Accounting Standards Codification* (FASB ASC) 606, with the same title. This is a longform report focusing on how the new revenue recognition standard will impact the engineering and construction (E&C) industry. To do so, we'll briefly summarize each of the five steps included in FASB ASC 606, highlight aspects of each step that may be more challenging for the E&C industry to implement, and finally provide illustrative examples. Part I of this report covers steps one through three of the FASB ASC 606 model. Part II, which will be issued in February, covers steps four and five of the model, plus other matters.

Practice Note: As this report will only briefly summarize each of the five steps to implementing FASB ASC 606, if practitioners are not already familiar with the steps, the CPEA has authored multiple reports which explore each step in much greater depth. The reports, which explore various aspects of the revenue standard, are included in a table which can be found in the Appendix to this report.

Step 1: Identify the Contract with a Customer

To apply the new revenue recognition standard, an entity first must identify the contract to provide goods and services to a customer. The contract may be written, oral, or implied by customary business practices for the industry. Regardless of the form of the contract, it must be enforceable by law and meet five criteria:

- All parties have approved the contract and are committed to perform their respective obligations
- Each party's rights regarding the goods and services to be transferred can be identified

- The entity can identify the payment terms for the goods and services to be transferred
- The contract has commercial substance
- It is probable that the entity will collect substantially all of the consideration to which it will be entitled in exchange for the goods and services that will be transferred to the customer

Once an entity determines that a contract has met the five criteria above, they are not required to reassess the contract unless there is a significant change to facts and circumstances, such as a significant deterioration of a customer's ability to pay (which we'll discuss later in the report). For consideration received from a customer before the contract criteria have been met, the amounts received should be recorded as a contract liability, not revenue. If an arrangement does not meet the criteria for a contract, the entity will only be able to recognize consideration received once the criteria are met, or:

1. The entity has no remaining obligations to transfer goods or services and substantially all consideration received is nonrefundable, or
2. The contract has been terminated and the consideration received is nonrefundable
3. The entity has transferred control of the goods or services to which consideration received to date relates, they have no obligation to transfer additional goods and services, and the consideration received is nonrefundable

Industry Issue: Collectability

The fifth criteria to meet the accounting definition of a contract is that it is probable that the entity will collect substantially all of the consideration to which it will be entitled in exchange for the goods and services that will be transferred to the customer. As a result, contractors will be required to assess the customer's ability and intention to pay the promised consideration at the inception of the contract. While many contractors may have well designed and implemented internal control systems surrounding contracts and granting credit, others may need to develop significant new processes and policies related to granting credit.

> **Illustration 1: Collectability Assessment**
> *Adapted from FASB ASC 606, Example 1, Case A*
>
> A contractor enters into a construction contract to build restaurant space for a new establishment. The consideration in the contract is $100,000. Since the client is just starting the business, they have no past financial statements and are seeking capital to start the business. The customer has paid $20,000. The contractor has agreed to begin construction with the understanding that they may not be paid in full for the work performed until the customer can obtain sufficient financing and, potentially, until after the restaurant has opened.

> The contractor is likely to determine that there is too much uncertainty about the restaurant's ability to pay the full amount of consideration agreed upon based on a combination of uncertainty related to financing and the high-degree of failure in the restaurant industry. As a result, there is not a contract which meets the accounting definition of a contract under the revenue recognition standard. The $20,000 received should be recorded as a liability and any costs incurred in construction should be recorded as prepaid construction costs until the collectability threshold has been met.

Industry Issue: Master Service Arrangements

Contractors frequently enter into agreements that serve as frameworks for additional arrangements, such as Master Service Agreements (MSAs). In many cases, the MSAs may only establish basic terms and conditions with customers and may require purchase orders to be submitted which include the specific goods and services that will be provided. In these cases, enforceable rights and obligations of the parties may not be included in the MSAs alone, and a contract, under Step 1, would not exist until a purchase order was issued to detail the enforceable rights and obligations. At that point, the purchase order would need to be evaluated along with the MSAs in order to determine if criteria for a contract has been met. Individual MSAs need to be evaluated to determine if the MSAs alone create enforceable rights and obligations.

Industry Issue: Combining Contracts

Under legacy U.S. generally accepted accounting principles (U.S. GAAP), contractors had the option to combine contracts if certain criteria were met. The option to combine contracts has been removed in FASB ASC 606 and replaced with the requirement to combine contracts with the same customer (or related party) entered into at or near the same time when one or more of the following criteria are met:

- Contracts were negotiated as a package with a single commercial objective
- Consideration to be paid in one contract is dependent on either the price or performance of the other contract
- Goods or services (or some of the goods and services promised in each contract) form a single performance obligation

There is no definition of what period would be considered "at or near the same time," so an entity will need to use judgment to determine what time frame is most appropriate based on their normal industry operations. For contractors, the period may be longer than in other industries due to the complexities of negotiating the contracts they typically enter.

Illustration 2: Combining Contracts

An E&C entity is negotiating a contract to design and build a new high school. The design bid is submitted on October 15 in the amount of $2M where the bid to actually build the school is submitted on November 1 in the amount of $28M. The bid includes a caveat that the price of construction is contingent on accepting the design bid as well. Otherwise, the construction bid would be $29M. At their December meeting, the school board evaluates the proposal and approves and accepts the contract totaling $30M.

While the design and build components were not submitted at the same time, the E&C entity could support the position that they were at or near the same time as they were submitted a few weeks apart with a clear single commercial objective- to construct a new high school. While only one criterion is required to be met, this scenario also meets the second criterion as the price of one service is contingent on acceptance of the other service. Finally, the third criterion also is met as the design and construction of the new high school likely will be considered a single performance obligation when evaluated under step 3 of the model.

Illustration 3: Combining Contracts

A contractor enters into a contract with a customer who owns several office buildings in one office complex. On November 15, the contractor agrees to a contract to remodel a floor in building A. On November 20, the parties agree to a separate contract to replace the elevators in building B. Finally, on December 1, an additional contract to add a parking deck to building C is signed. Each project is priced independently.

The contracts have been deemed entered into “at or near the same time” and with the same customer, the entity will need to carefully evaluate if there is a single commercial objective. There is currently no interpretive guidance which provides additional criteria to consider in determining if there is a single commercial objective so, judgment will be required. In this situation, the other two criteria which would require combination would not be met as each project is priced independently and it is unlikely that they would be considered a single performance obligation.

Industry Issue: Contract Modifications and Change Orders

Modifications or change orders are exceedingly common within the construction industry as customers make both small and large changes throughout the construction process. A contract modification exists if three conditions are met:

1. There is a change in the scope, price, or both in the contract
2. The change is approved by both the entity and the customer
3. The change is enforceable

The key principle in modification accounting in FASB ASC 606 is the creation of an enforceable obligation, opposed to agreeing on a final approved contract. As a result, an entity may have to begin accounting for a modification before the final contract is signed or the parties have reached a final agreement on the scope and price (or both in some cases) of the modification of the contract. To determine whether the rights and obligations that are created or changed by the modification are enforceable, the entity needs to consider all relevant facts and circumstances including the terms of the contract and other evidence. If the parties have approved a change in scope but are still negotiating the price, the contractor is required to estimate the consideration that it expects to receive from the modification as variable consideration.

Once a contractor determines that a contract has been modified, they need to determine if the modification should be accounted for as a separate contract or combined with the original contract. The modification is considered a separate contract if both:

- The scope of the contract increases due to additional promised goods or services that are distinct; and
- The price of the contract increases by an amount of consideration that reflects the standalone selling price

If the modification is not accounted for as a separate contract, the promised goods or services not yet transferred as of the date of the modification, including those in the original contract, should be accounted for in whichever of the following ways is applicable:

1. When the goods and services to be provided after the modification are distinct from the goods or services that were already provided, the modification is accounted for **prospectively**. This method effectively treats the modification as if it were the termination of the old contract and the creation of a new contract at the modification date. Revenue recognized to date would not be adjusted (FASB ASC 606-10-25-13.a).
2. When the remaining goods or services are not distinct and are part of a single performance obligation which is partially satisfied, the modification is accounted for on a **cumulative catch-up basis**. This method effectively treats the modification as if it were part of the original contract. Revenue recognized to date is adjusted, either upwards or downwards, to reflect the impact the modification has on both the transaction price and progress towards completion (FASB ASC 606-10-25-13.b).

3. In cases where the remaining goods or services provided after the modification are a combination of distinct and non-distinct goods and services, the modification is accounted for as a **combination of the approaches**- the remaining distinct goods or services are accounted for prospectively and the non-distinct goods and services are accounted for on the cumulative catch-up basis (FASB ASC 606-10-25-13.c).

While there are some similarities to legacy U.S. GAAP, contractors should not assume that modifications and change orders should be treated in the same manner without carefully considering how the modifications interact with the original contract. As discussed further in the next section of this report, many change orders may be distinct on a standalone basis; however, when considered within the context of the modified contract, they may no longer be distinct.

Illustration 4: Unpriced Change Order

A contractor has a single performance obligation to build a home. During construction, the homeowner requests a change in the design of the second floor. Often, once they agree on the scope, the contractor begins work on the design change but prior to agreement on the price of the change order.

The contractor first needs to determine if the change order meets the criteria for a contract modification. After doing so, the contractor will need to determine if the change order should be accounted for as a separate contract or as a modification of the original contract. Typically, change orders fail to meet both criteria, as they do not generally provide goods or services which are distinct within the context of the contract. In addition, while there is no indication of pricing in this example, change order pricing often does not represent the standalone price of the goods or services. As the change order is unpriced, the contractor then would need to evaluate the guidance on variable consideration to determine the transaction price.

Illustration 5: Contract Modification

An E&C entity enters into an agreement with a customer to build a new distribution center on the customer's land for $15M. As construction progresses, the customer determines that the space will not be sufficient and determines that an additional separate warehouse is needed. The price for the entire project is increased to $20M. The E&C entity typically would charge $5.25M to build a similar warehouse.

While the warehouse is not priced at its standalone price in the contract, the new revenue recognition standard does allow the E&C entity to consider price adjustments for the circumstances of the contract. In this case, as with many construction contracts, they likely already will have some of the required equipment, infrastructure, and labor onsite for the original project. As a result, they may determine that the warehouse is priced at its standalone price when considering the specific circumstances of this contract in accordance with FASB ASC 606-10-25-12. They also would evaluate whether the warehouse was a distinct performance obligation within the context of the contract. In this case, it is possible the warehouse would meet the criteria for being distinct and, if so, the modification would be accounted for as a separate contract.

Illustration 6: Contract Modification

Adapted from FASB ASC 606, Example 8

A construction company enters into a contract to construct a commercial building for a customer on their land for promised consideration of $1M, and a bonus of $200,000 if the building is completed within 24 months. The entity accounts for the promised bundle of goods and services as a single performance obligation satisfied over time because the customer controls the building during construction. At the inception of the contract, the construction company expects total costs to be $700,000, resulting in a gross profit of 30%.

At contract inception, the entity excludes the $200,000 bonus from the transaction price because the entity cannot conclude that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Completion of the building is highly susceptible to factors outside the entity's influence, including weather issues and regulatory approvals. In addition, the entity has limited experience with similar types of contracts.

At the end of the first year, the entity determines that 60% of its performance obligation has been satisfied based on costs incurred to date of $420,000, compared to total expected costs of $700,000. As a result, 60% of the expected revenue, or $600,000 is recognized.

Early in the second year, the parties agree to modify the contract by changing the floor plan of the building. As a result, the fixed consideration and expected costs increase by $150,000 and $120,000, respectively. Total potential consideration after the modification is $1,350,000 ($1,150,000 fixed consideration + $200,000 completion bonus). In addition, the allowable time for achieving the $200,000 bonus is extended by 6 months to 30 months from the original contract inception date.

The construction company determined that the modified floor plan is not distinct from the original contract, meaning the original contract is still a single performance obligation. In addition, since the timeframe to earn the bonus has been extended, the construction company concludes it is probable they will meet the deadline. As a result, the $200,000 bonus would be included in the transaction price. On the date of the modification, the construction company would make a catch-up adjustment based on the updated transaction price and completion percentage of the project:

	Year One	Catch-up on modification date
Cost Incurred to Date	$ 420,000	$ 420,000
Estimated Total Costs	$ 700,000	$ 820,000
Percent Complete	60%	51.2%
Transaction Price	$ 1,000,000	$ 1,350,000
Revenue Earned to Date	$ 600,000	$ 691,463
Less Revenue Earned in Previous Period	-	$ 600,000
Catch-Up Adjustment on Modification Date	**-**	**$ 91,463**

Illustration 7: Unapproved Change in Scope

Adapted from FASB ASC 606, Example 9

A construction company enters into a contract to build a commercial building for a customer on their land. The terms of the contract indicate that the construction company will have access to the land within 30 days of contract signing; however, due to storm damage at the site, they were not granted access until 120 days after the contract was signed. The contract specifically outlines that any delay that results in a delay in access to the land is an event which entitles the construction company to compensation equal to actual costs incurred as a result of the delay. The entity is able to demonstrate that specific costs were incurred as a result of the delay and prepares a claim in accordance with the contract terms. The customer initially disagrees with the claim.

The construction company would then assess the legal basis of the claim and determine, based on the underlying contractual terms that, they have enforceable rights. As a result, the claim would be accounted for as a contract modification which does not provide any additional goods or services to the customer. All remaining goods and services after the modification are not distinct and form part of a single performance obligation and, as a result, the modification is accounted for by updating the transaction price and the measure towards complete satisfaction of the performance obligation. In estimating the transaction price, the construction company also would need to consider the constraint on estimates of variable consideration included in the transaction price.

Step 2: Identify separate performance obligations

Performance obligations are promises made within a contract to provide customers distinct goods or services. Promises made can be explicitly indicated within the contract, or implied by an entity's published policies and customary business practices. Identification of performance obligations in a contract is a critical step in the model since revenue is recognized as performance obligations are satisfied. Promised goods and services are separate performance obligations either when they are distinct or if they are part of a series of distinct goods/services that are substantially the same and have the same pattern of transfer to the customer.

Distinct Goods

To determine if promised goods or services are distinct, FASB ASC 606 includes two questions to be evaluated:

1. Are the promised goods or services capable of being distinct
2. Are the promised goods or services separately identifiable from other promises within the contract, or said another way, are they distinct within the context of the contract

In order for promised goods or services to be distinct performance obligations, both of the criteria must be met. When the criteria are met, the individual performance obligations must be separated. When the promised goods or services do not meet both criteria, they are combined (bundled) into a single performance obligation.

In many situations, the goods or services meet the first criteria- they are capable of being distinct- but fail to meet the second criteria. Determining if the goods or services are distinct within the context of the contract will require judgment in many circumstances; however, FASB ASC 606 provides a list of factors that indicate a bundle of goods and services should be combined:

- The entity provides a significant service of integrating goods or services with other goods and services promised in the contract into a bundle which represents the combined output for which the customer has contracted
- One or more goods or services significantly modifies or customizes other goods or services promised in the contract
- The goods and services are highly interrelated or dependent on other goods and services promised within the contract

Series of Distinct Goods & Services
Goods and services which are part of a series which has the same pattern or transfer to the customer may be considered a single performance obligation if both criteria noted below are met:

1. Each distinct good or service in the series that the entity promises to transfer to the customer would meet the criteria to be recognized over time
2. The same method to measure progress for each distinct good or service in the series would be used

As the transaction price is allocated to each performance obligation, the determination of whether a series should be recognized as a single performance obligation or multiple performance obligations may have a significant impact on allocation and timing of revenue being recognized.

<u>Industry Issue: Distinct within the Context of the Contract</u>

A typical contract within the E&C industry would, by its nature, include a variety of subcomponents which would provide a benefit on their own, or with other readily available resources, to a customer meaning they are capable of being distinct. As a result, the key evaluation in step two is whether the goods and services are distinct within the context of the contract. Consider a contract with a customer to build a home. The contractor will provide a variety of individual services, which can include clearing land, pouring a foundation, framing the house, installing wiring and plumbing, putting on a roof, installing flooring, painting, and installation of fixtures and appliances. However, when a customer enters into an agreement with a contractor, they typically are not purchasing each of the individual services, they are purchasing a combined output- a house.

In evaluating the indicators noted above for determining if a promise is distinct within the context of the contract, many in the E&C industry will meet the first indicator:

- The entity provides a significant service of integrating goods or services with other goods and services promised in the contract into a bundle which represents the combined output for which the customer has contracted

Goods or services are not separable from other promises in the contract when significant integration services result in a combined output. It was specifically noted this may be relevant in the construction industry as contractors provide significant integration services in bringing together and managing the multiple construction tasks required to produce the output.

Practice Note: While many construction contracts may only include a single performance obligation, when contracts also provide additional maintenance services, warranties, or customer options to additional goods or services which constitute a material right, there likely will be additional performance obligations.

> **Illustration 8: Determining Performance Obligations**
> *Adapted from FASB ASC 606, Example 10, Case A*
>
> A contractor enters into a contract to build a hospital for a customer. The entity is responsible for the overall management of the project and identifies various promised goods and services, including engineering, site clearance, foundation, procurement, construction of the structure, piping, wiring, installation of equipment, and finishing.
>
> The promised goods and services are capable of being distinct - the customer can benefit from the goods and services either on their own or together with other readily available resources. However, the promises are not distinct within the context of the contract. This is evidenced by the fact that the entity provides a significant service of integrating the goods and services into the hospital for which the customer has contracted. Because both criteria are not met, the goods and services are not distinct and the entity accounts for the contract as a single performance obligation.

> **Illustration 9: Determining Performance Obligations**
>
> A contractor enters into a contract with a customer to install new elevators in their office building. The contractor manufactures parts of the equipment and purchases other components from third-party vendors. The contractor does not have any input into the design of the purchased components. In addition, the contractor provides a two-year preventative maintenance warranty, a service they offer to other customers.
>
> In evaluating the contract, the contractor determines there are four potential goods and services which are capable of being distinct- the purchased components, the manufactured components, the installation, and the two-year maintenance agreement. In evaluating within the context of the contract, because the contractor provides a significant integration service through installing the purchased and manufactured materials at the office building, they likely would be considered a single performance obligation. The maintenance service is not highly integrated with the other items included within the contract and, therefore, would be considered a second performance obligation.

Industry Issue: Principal vs. Agent Considerations

Note: The CPEA issued a full report on the intricacies of principal vs. agent considerations, which can be found on our website.

Construction contractors frequently engage other parties to help complete projects. As a result, careful consideration is required to determine if their performance obligation is to coordinate for other parties to provide goods or services (act as an agent) or to provide goods or services themselves (act as a principal). Control of the goods or services is the decisive factor in making that determination. An entity is a principal if it controls the goods or services before they are transferred to the customer. Said another way, in order for an entity to provide the goods or services, it must first control the goods or services.

That determination is critical as it impacts the amount of revenue which will be recognized by the contractor. The guidance in FASB ASC 606 is similar to legacy U.S. GAAP in this area in that, if the contractor is acting as a principal, the revenue recognized is the gross amount received and, if the contractor is acting as an agent, the revenue recognized is the net amount entitled to be retained for the services.

As situations are not always clear cut, criteria are included in the new standard which provide indicators of when an entity controls the goods or services, before they are transferred to the customer and, therefore, the entity would be acting as a principal. These indicators are:

- The entity is primarily responsible for fulfilling the promise to provide the specified goods or services
- The entity has inventory risk
- The entity has discretion in establishing the price for the specified goods or services

Illustration 10: Principal v. Agent

A customer enters into an agreement with a contractor for them to build a new production facility. A specialty oven, purchased from a third party, is required to bake one of the cookies which will be manufactured at the facility. The customer is responsible for negotiating the price, specifications, and installation of the oven with the third-party; however, the contractor will procure the oven and must ensure that the production facility will allow adequate space for the oven to be installed. The terms of agreement allow the contractor to include the price of the oven in the contractor profit.

Since the supplier of the oven is primarily responsible for delivery and installation of the oven, the contractor determines they are acting as an agent related to the oven in this contract since they are not providing any significant integration services with relation to the oven. The oven would be considered a separate performance obligation within the contract and the contractor would recognize profit on a net basis related to the oven based on the terms of the contract.

Illustration 11: Principal v. Agent

A retailer enters into an agreement with a local contractor to remodel one of their stores. As part of the terms of the agreement, the contractor is permitted to engage subcontractors to perform any work they deem necessary; however, the contractor is responsible for ensuring that all work performed meets the high standards of the customer.

The contractor would be acting as the principal in this situation since the contract clearly indicates that they are responsible for completion of the project in accordance with the terms of the contract. In addition, they have the ability to negotiate prices with the subcontractors, providing further evidence to support that they are acting as the principal.

Industry Issue: Series Guidance

Arrangements may include maintenance services for a period of time after design and construction are completed. When evaluating maintenance services, the first step is to consider the nature of the maintenance to be provided. When the maintenance is on an ‘as needed’ basis or periodically over a set term, it may be considered a stand ready obligation. Under FASB ASC 606, stand ready obligations are evaluated in units of time where the entity stands ready as opposed to when the goods or services are actually provided. As a result, contractors who provide ‘stand ready’ maintenance agreements also likely would determine that those agreements should be accounted for as a sole performance obligation based on the series guidance.

When a contract includes specific services to be provided over a series of time, the maintenance would no longer be considered a ‘stand ready’ obligation. However, these types of maintenance agreements also may be considered a series if the types of services are substantially the same on a day to day basis. No matter what form the promised maintenance services take, the objective of the standard is to match the performance of the maintenance with the timing of revenue recognized from the performance obligation.

Illustration 12: Series Guidance & Maintenance

Adapted from the AICPA Revenue Recognition Guide, Example 11-2-1

An E&C entity enters into a contract with the State Transit Authority to design and construct a new high-speed rail line and maintain the new line as well as all existing lines. In the contract, maintenance services consist of regularly scheduled maintenance only that will commence immediately for existing lines and, once construction is completed, on the new high-speed line. The maintenance contract is for a period of 20 years.

> The E&C entity determines that the contract includes three items which are capable of being distinct- design of the new line, construction of the new line, and the maintenance services of the new and existing lines. As a significant integration service is provided in combining the design and construction into the desired output, a new high-speed rail line, the E&C entity determines the service should be accounted for as a single performance obligation.
>
> The maintenance services are not highly integrated or dependent on the other promises within the contract and, therefore, would be a separate performance obligation. The E&C entity then evaluates the maintenance services to be provided and determines that the services are substantially the same and have the same pattern of transfer to the State Transit Authority. As a result, the maintenance services are a series of distinct goods and services and are accounted for as a single performance obligation, apart from the design and construction performance obligation.

Step 3: Determine transaction price

The objective of step three is to estimate the total amount of consideration that the entity will be entitled to in exchange for the goods and services promised in the contract. Depending on the contract, the consideration may include fixed amounts or variable amounts. When contracts include variable components, the determination of the transaction price can become much more complex. Variable consideration can be included in contracts in many different forms, including award fees, discounts, unpriced change orders, incentives, performance bonuses, credits, penalties, and many more.

When variable consideration is included in a contract, the standard requires entities to estimate the amount of consideration expected at contract inception, to determine the transaction price. To estimate variable consideration, two approaches are available - the expected value approach or the most likely value approach. The approach selected is not a free policy choice, but should be based on the individual facts and circumstances in each contract. However, once an approach is chosen it should be applied throughout the contract term, as well as to other similar contracts.

The expected value approach is most appropriate to use when there are multiple possible outcomes. The probability of each outcome is estimated, with the probability weighted sum of each outcome added together to determine the variable consideration. The most likely amount approach is most appropriately used when there are only two possible outcomes, with the outcome that is most likely being the amount which is included in variable consideration.

The amount of variable consideration is only included if it is probable that a significant reversal in the amount of revenue recognized will not occur in the future, a concept known as a constraint. There is a significant amount of judgment required in that determination and FASB ASC 606 provides indicators of when revenue reversal may be probable which should be evaluated. The estimated amount of variable consideration included in the transaction price is then reevaluated at each reporting period and updated if necessary.

Industry Issue: Variable Consideration

Many contracts within the construction industry have elements that are variable consideration which include awards for incentive payments to either complete the project within a certain time period or to achieve an industry certification, incur penalties for failure to achieve defined goals, make claims for liquidating damages, and more.

Contractors also will need to give additional consideration in determining if variable consideration, in a long-term contract, is constrained. Among the factors that are most relevant to consider are their experience with similar projects, uncertainties that may exist in the latter portion of contracts, and other factors outside of their control such as weather issues which could impact the likelihood of reaching a completion target.

Practice Note: Many E&C entities already may estimate variable consideration for items such as awards or incentive fees expected to be earned under legacy U.S. GAAP; however, many entities may need to change those processes. Under FASB ASC 606, variable consideration that the entity expects to earn may be recognized at a different time, and the estimate needs to be made both at contract inception and updated at each reporting period.

Illustration 13: Award Fees

A contractor enters into a contract to build an additional wing onto a local high school by the start of the following school year. The contract price is $90M, with an additional $10M award payment if the new wing is completed prior to the first day of school. If the new wing is not completed prior to the first day of school, the contractor will receive no award payment. The contractor has a lengthy history of school construction and is 85% confident the new wing will be completed prior to the first day of school.

The $10M award payment is variable consideration which must be estimated by the contractor at inception of the contract to determine the total transaction price of the contract. Given that there are only two possible outcomes- they make or miss the deadline- the contractor will likely determine that the most likely amount method will best predict the appropriate amount of variable consideration to be included in the transaction price. Since the contractor is confident in meeting the deadline, the total transaction price would be $100M, a long as it is determined the variable consideration is not constrained.

In making that determination the entity would consider the factors in the standard which include experience with similar projects, the length of time to complete the project, and the absence of variables outside of their control which would prevent them from achieving the deadline. Those factors would support the conclusion that the variable consideration is not constrained, and should be included within the transaction price. The estimate related to the variable consideration, including the constraint, would then be re-evaluated if the expected outcome changes from the initial expectation.

Illustration 14: Award Fees

Adapted from the AICPA Revenue Recognition Guide, Example 11-3-2

An E&C entity enters into a contract to build a solar energy plant for a customer for a fixed price plus an incentive fee that varies depending on the objectively determinable key performance indicators (KPIs) associated with energy savings over a one-year period. They have extensive experience with determining energy savings under various conditions that impact solar energy

At contract inception, they would need to estimate the expected amount of variable consideration to include in the transaction price. To do so, they would consider their experience and the data available related to expected power savings based on various environmental conditions. Since there are a multitude of potential outcomes and associated amounts of potential consideration, management likely would use the expected value method to determine the amount of variable consideration. To do so, they would assign probability to each outcome based on their estimated likelihood of occurrence. The total variable consideration would then be evaluated to determine if it should be constrained, and re-evaluated as the expected outcome changes from the initial expectation.

Contracts which include penalties such as liquidating damages or other penalties also may represent an area in which significant changes to policies are required. Under the variable consideration guidance, any contract which includes liquidating damage provisions will need to be evaluated to determine the impact on the transaction price. In theory, this would mean that every contract which includes liquidating damage provisions may initially be recorded at a transaction price lower than what is indicated in the contract, as contractors would need to determine the likelihood of incurring those costs.

CPEA Observation: Liquidating damage clauses typically are a scenario which include many possible outcomes in the terms of how much additional cost will be incurred, using the expected value approach may be more appropriate based on the standard. However, the standard does not prohibit management from using the most likely value in situations where the possible outcome is not binary. As a result, if management determines that the most likely amount that will have to be paid in liquidating damages is zero, they would be permitted to do so under the guidance, even though there are many other potential outcomes. Practitioners will have to carefully evaluate all judgments made by management with regard to variable consideration to ensure that they are reasonable.

> **Illustration 15: Penalties**
> *Adapted from the AICPA Revenue Recognition Guide, Example 11-2-2*
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> Only July 1, an E&C entity enters into an agreement to build an outdoor ice skating area at a local shopping plaza. The agreement requires the ice skating area to be completed by Thanksgiving. The contract includes a base fee of $25,000, and requires the contractor to pay damages to the customer if construction is not completed by Thanksgiving. Specifically, a penalty of $1,000 per day will be assessed for each day late the project is completed.
>
> In determining the transaction price, the E&C entity will need to estimate the amount of variable consideration to include in the transaction price. While it may at first appear that the situation only has two outcomes- they make the deadline or miss it- that is not entirely accurate in this case. While there is a binary trigger in the completion date, the number of potential days for incurring the penalty is highly variable, creating more than two potential outcomes. The E&C entity would need to determine whether the expected value or most likely method would better predict the amount of revenue they expect to be entitled to under the contract.

The guidance requires all entities to estimate variable consideration at contract inception and update those estimates at each reporting period to determine if the amount still represents the amount of consideration the entities are expecting. The re-evaluation can result in either increases or decreases to revenue recognized on a contract depending on the individual facts and circumstances that have changed.

> **Illustration 16: Change in Circumstances**
>
> An E&C entity enters into a contract with a customer to build a new office building. The promise to transfer the asset is a performance obligation that is satisfied over time since the building is on the customer’s land and, therefore, they control the asset during construction. The promised consideration is $10M, but that amount will be reduced or increased depending on the timing of completion of the asset. Specifically,

for each week that the asset is incomplete after March 31, 20X7, the promised consideration is reduced by $100,000. For each week that the asset is complete before March 31, 20X7, the promised consideration increases by $100,000. In addition, upon completion of the asset, a third party will inspect the asset and assign a rating based on metrics that are defined in the contract. If the asset receives a specified rating, the entity will be entitled to an incentive bonus of $1.5M.

To determine the transaction price, the E&C entity would need to prepare separate estimates for each element of variable consideration.

As there are only two possible outcomes related to the incentive, the most likely method is most appropriate. As the E&C entity has extensive experience with similar projects receiving that certification they are confident that they will be able to achieve that rating, and that there will not be a significant reversal in the future. As such, they include the $1.5M in the transaction price.

Because there are multiple potential outcomes related to the daily incentive/penalty, the E&C entity has determined that the expected value method to estimate the variable consideration will most accurately estimate the consideration to which they expect to be entitled. Based on their experience with similar projects, they have performed the following evaluation of expected outcomes:

Target Date		Incentive (penalty)	Probability	Projected Variable Consideration
Weeks	5	$ 500,000	5%	$ 25,000
Early	4	400,000	5%	20,000
	3	300,000	10%	30,000
	2	200,000	10%	20,000
	1	100,000	15%	15,000
On Time		-	20%	-
Weeks	1	(100,000)	10%	(10,000)
Late	2	(200,000)	10%	(20,000)
	3	(300,000)	10%	(30,000)
	4	(400,000)	5%	(20,000)
	5	(500,000)	0%	-
Total			**100%**	**$ 30,000**

Based on their estimate of both elements of variable consideration, combined with the fixed component, the initial transaction price is $11,530,000.

At year-end, the E&C entity has completed 50% of the work related to the project and has recognized revenue to date of $5,765,000, half of the initial transaction price. In re-evaluating the variable consideration as of year-end, due to unforeseen weather delays during the early part of the project, the likelihood of completing the project early have decreased dramatically. As a result, the E&C entity has updated their estimate related to that element of variable consideration as follows:

Target Date		Incentive (penalty)	Probability	Projected Variable Consideration
Weeks	5	$ 500,000	0%	-
Early	4	400,000	0%	-
	3	300,000	0%	-
	2	200,000	10%	20,000
	1	100,000	10%	10,000
On Time		-	30%	-
Weeks	1	(100,000)	20%	(20,000)
Late	2	(200,000)	10%	(20,000)
	3	(300,000)	10%	(30,000)
	4	(400,000)	5%	(20,000)
	5	(500,000)	5%	(25,000)
Total			**100%**	**$ (85,000)**

Based on the updated estimate of variable consideration, the total transaction price they expect to be entitled to would now be only $11,415,000. As construction of the office building still is 50% complete, the total revenue that should be recognized in relation to the contract is $5,707,500. As a result, the E&C entity would decrease revenue recognized as follows:

	Amount
Initial amount of revenue recognized	$ 5,765,000
Revenue after adjustment	5,707,500
Decrease in revenue recorded	**(57,500)**

Industry Issue: Noncash Consideration/ Customer-furnished Materials

When customers provide either goods or services to be used to fulfill the performance obligations in a contract, they are accounted for as noncash consideration when the E&C entity obtains control over the contributed goods or services. To determine if control was obtained the same criteria used to evaluate the principal v. agent determination are used. When the contractor obtains control of the contributed items they are included in the transaction price at fair value. In the event that fair value cannot be reasonably estimated by the contractor, the contractor then would estimate the standalone selling price of the promised goods or services.

Illustration 17: Customer Provided Materials

A contractor enters into an agreement with a national chain of hardware stores to build a new storage facility at one of their store locations. The terms of the contract allow

> the customer to provide the majority of materials needed for construction. The contract price is for $10,000,000 excluding any materials expected to be provided by the customer.
>
> To determine if the materials provided by the customer would be part of the transaction price, the contractor needs to evaluate if they obtained control over the materials. Since the contractor is responsible for evaluating the materials prior to using them, they determine that they obtained control and, therefore, the fair value of the materials should be included in the transaction price, as well as the costs of the contract in equivalent amounts.

<u>Industry Issue: Significant Financing Component</u>

FASB ASC 606 requires all entities to evaluate at contract inception if the contract includes a significant financing component. Significant financing components may exist when there is a difference between the timing of when consideration is received and when goods or services are transferred under the contract. Since there will be at least slight differences between the timing of those events, there is a practical expedient allowing entities to ignore a significant financing component if the timing difference between consideration being received and transfer of the goods or services is less than one year.

Practice Note: Many E&C entities enter into contracts which exceed one year so, determination as to whether the contracts include a significant financing component likely will represent a significant change, requiring new procedures and controls. In evaluating contracts, it is important to remember that a financing component can either be explicitly outlined within the contract, or implied by the payment terms. In addition, the financing component can benefit either the E&C entity, by requiring payment in advance of performance, or the customer, by allowing payments after performance.

To determine if contracts include a significant financing component, the entity should consider all relevant factors, including:

- The difference, if any, between the promised consideration and the cash price the customer would have paid as the goods or services were delivered
- The combined impact of time between when goods or services were transferred and consideration was received, and the prevailing interest rates in the relevant market

The standard also provides guidance for specific situations in which there would **not** be a significant financing component:

- Advance payments are made and the customer controls when the goods or services will be provided
- Consideration is mostly variable and based on factors outside of the entity's or customer's control
- The difference between the promised consideration and the cash price relates to something other than financing, such as protection for nonperformance by one of the parties, and the difference is proportional to the reason for the difference.

Practice Note: FASB ASC 606 includes guidance for determining when a contract includes a financing component, but it remains silent on determining if it is significant to the contract. As a result, entities will need to use judgment in making this estimate and document their thought process for doing so. Practitioners also will need to be alert when evaluating long-term contracts to ensure that clients are taking implicit & explicit financing components into account when evaluating their contracts as this will be a change for many entities.

Many E&C contracts will include contract provisions allowing customers to withhold a portion of payments until the project is successfully completed, a milestone is reached, or another contractual obligation is achieved. The main objective of these types of payment terms is to ensure that the E&C entity performs under the contract, opposed to providing financing to one of the parties. As a result, contracts that include payment terms allowing for retainage would meet the third criteria and, therefore, not be considered a significant financing component.

> **Illustration 18: Significant Financing Component**
> *Adapted from FASB ASC 606, Example 27*
>
> An E&C entity enters into a contract for the construction of a community center which includes various milestone payments for performance of the E&C entity over the three-year term of the contract. Performance will be satisfied over time, and the milestone payments are schedule to coincide with expected performance to date. The contract payment terms specify that the customer will retain 7% of each milestone payment, with the retainage due to the E&C entity at completion of the community center.
>
> The E&C entity would need to evaluate the contract to determine if there is a significant financing component. As the milestone payments are expected to match performance at that time and the retainage appears to be for reasons other than financing (intended to protect the customer from the contractor failing to complete the project), the E&C entity likely would conclude that the contract does not include a significant financing component.

When an entity determines that a contract includes a significant financing component, the transaction price is discounted using the same discount rate that would be used if the entity were to enter into a separate financing arrangement. The entity then would recognize either interest income or expense based on prevailing interest rates and the timing of the payments.

Illustration 19: Significant Financing Component

Adapted from FASB ASC 606, Example 29

A contractor enters into a contract with a customer to build a new office building on the contractor's property. The contractor provides two payment options within the contract, one of which must be selected when the contract is signed:

1. A lump sum payment of $4.2M is due when the office building is completed
2. A lump sum payment of $3.8M is due when the contract is signed

The customer elects Option 2, and makes a lump sum payment of $3.8M when the contract is signed. The contract does not meet the criteria to recognize revenue over time and, as a result, revenue will be recognized at a point in time- when control of the office building is transferred at completion.

The contractor will need to evaluate the contract to determine if there is a significant financing component. Due to the length of time between when the customer transfers consideration for the asset and when control of the asset is transferred, and the prevailing interest rates, the contractor determines that there is a significant financing component included within the contract. As a result, the contractor will need to determine the appropriate interest rate to use- the rate it would use were it to enter into a separate transaction with the customer. Based on their evaluation, the contractor determines the appropriate interest rate to be 5%. As a result, the contractor would make the following journal entries:

1. Recognize a contract liability for the $3.8M payment received:

Cash	$ 3,800,000	
Contract Liability		$ 3,800,000

2. During the 2 years between contract inception and transfer of control of the office building, the contractor adjusts the amount of promised consideration and accretes the contract liability by recognizing interest on the $3.8 million at 5% for 2 years:

Interest Expense	$ 389,500	
Contract Liability		$ 389,500

3. When control of the building is transferred, recognize revenue:

Contract Liability	$4,189,500	
Revenue		$4,189,500

Industry Issue: Termination Clauses

FASB ASC 606 provides guidance for situations in which both parties have the right to cancel a contract; however, construction contracts frequently include clauses which allow the customer to cancel the project for convenience which do not provide the same rights to contractors. Termination clauses must be evaluated as they impact both the transaction price and the term of the contract. The guidance provided indicates that termination clauses which result in a substantial penalty to the customer are not likely to be exercised and, therefore, would not impact the term or transaction price. However, there is no authoritative guidance when the termination clause is at the option of the customer for convenience.

Construction projects are rarely terminated for several reasons, including the fact that partially completed projects hold little use to the customer and the additional costs associated with doing so, which are in effect similar to termination penalties (such as cost of shutting down the work and subsequent restart costs). As a result of these costs and the lack of value of a partially completed asset, FinREC and the Transition Resource Group (TRG) view convenience clauses within the construction industry as having substantial penalties associated with them and, therefore, the contract price and the duration of the contract would not be impacted by the existence of the termination provisions.

Illustration 20: Termination Clause

Adapted from Working Draft of AICPA Revenue Recognition Task Force Issue 4-5

A contractor enters into a contract to design and build a high-tech manufacturing facility. The terms of the contract allow the customer to cancel the contract at any time during construction, with no indicated termination penalty in the contract.

The contractor needs to evaluate the termination clause to determine if the customer incurs a substantial penalty for exercising the clause. In this situation, the customer incurs a significant economic penalty if they choose to cancel the contract, as there would be significant wind-down costs and a partially completed facility is of no use to the customer.

Illustration 21: Termination Clause

Adapted from Working Draft of AICPA Revenue Recognition Task Force Issue 4-5

A contractor enters into a contract with a customer to provide maintenance services over a ten-year period. The contract includes a termination clause which allows either party to cancel the contract for convenience upon a 30-day notice. The terms of the contract make clear that the customer will compensate the contractor for all service provided through the termination date.

In evaluating this contract, the contractor likely will determine that the customer will not incur a substantial termination penalty. That determination is based on there being no explicitly indicated costs in the contract, no assets that do not provide economic value to the customer, and little, if any, costs associated with ending the maintenance agreement. As a result, despite the contract being for an indicated period of 10 years, the contract will be accounted for on a month-to-month basis due to the lack of a substantial termination penalty.

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APPENDIX

The CPEA Revenue Recognition Series — Fortune Favors the Prepared	
Part I:	Key concepts, including the minimum requirements to recognize revenue, long-term contracts, variable consideration, and other topics.
Part II:	Key concepts, including application of the terms “Distinct” and “Separately Identifiable,” methods for measuring progress on contracts, and significant financing component.
Part III:	Contract costs, warranties, and bill and hold arrangements.
Part IV:	Accounting for licenses.
Part V:	Principal versus agent considerations
ASU 2016-10:	Identifying performance obligations, and licensing implementation guidance.
ASU 2016-20:	FASB ASC 606 Technical Corrections & Improvements – Implementation Issues on New Revenue Recognition Standard
Sales of nonfinancial assets:	Scope of the new revenue recognition standard as it relates to sales of nonfinancial assets, as well as the accounting for such transfers.
Disclosure of impact:	CPEA recommendation that non-SEC registrants consider making disclosures about the impact of the Big Three new accounting standards (revenue recognition, leases, financial instruments credit losses)
Auditing Implementation of ASU 2014-09:	Addresses some of the risks associated with pre-adoption date activities and requirements, and identifies procedures that are or could be responsive to those risks.
NFP Entities - Part I:	General implementation issues in the not-for-profit sector.
NFP Entities - Part II:	Higher education sector implementation issues.
Real Estate Industry:	General implementation issues in the real estate sector.
Customer Options & Material Rights:	Exploring two aspects of the new revenue standard that can have a significant impact across multiple industries