



INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

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Michael R. Pence, Governor
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April 22, 2014

CONSTRUCTION MEMORANDUM
14-05

TO: District Deputy Commissioners
District Construction Directors
District Technical Services Directors
District Area Engineers
District Project Management Director
Project Management Director
District Traffic Engineers
District Testing Engineers
District LPA Coordinators
Project Engineers/Supervisors
Field Engineers
Office of Material Management

FROM: Mark A. Miller, Director *Mark Miller*
Division of Construction Management and District Support

SUBJECT: Change Orders on Construction Contracts Policy

SUPERSEDES: Construction Memorandum 10-01

Attached is the revised change order policy which is effective immediately. This policy supersedes the previous policy issued with Construction Memorandum 10-01.

As we work to accomplish the goals of completing contracts on time and within budget, please be reminded to communicate the need and reasons for change orders to the Project Manager. Sections 4.3 & 5.4 of this policy introduce new communication requirements when cumulative changes to budget or time approach the targeted tolerances. Section 6.1.8 has included additional instructions for changes due to a design error or omission. Early involvement of the PM is necessary in order to evaluate the options to obtain the best possible solution to the problem and begin the process to recover costs when appropriate.

Once a change order is approved, the PE/S should make sure the change order is processed in Site Manager and monitor available contract funds. Additional funds should be requested when needed so that payment to the contractor is not delayed for any work completed.

Additional instructions for completing change orders are provided in the General Instructions to Field Employees. Please review changes made to change order instructions in Chapter 2.

ATTACHMENT: Change Orders on Construction Contracts Policy

MAM



CHANGE ORDERS ON CONSTRUCTION CONTRACTS POLICY

Policy Department: Division of Construction Management

PURPOSE

The purpose of this Policy is to formalize the requirements related to Change Orders on Construction Contracts

EFFECTIVE DATE

April 16, 2014

SUPERSEDES

This Policy supersedes the previously published Construction Change Order and Time Extension Policies issued with Construction Memorandum 10-01

APPROVAL

A handwritten signature in black ink, appearing to read "Samuel Sarvis", is written over a horizontal line.

Samuel Sarvis

Deputy Commissioner of Capital Program Management

Date: 4/16/14

1. GENERAL PROVISIONS

- 1.1 Change Orders are utilized to document an impact to a Construction Contract and authorize the changes required to mitigate the impact. These changes include, but are not limited to, monetary adjustments, time adjustments, plan revisions, and specification changes.
- 1.2 This Policy is implemented in conjunction with Section 104 of the Standard Specifications. The Policy is not to be construed to supersede the Standard Specifications or any State or Federal statute.
- 1.3 The provisions contained herein are to be applied in a consistent manner that strives to complete INDOT projects by the originally established completion date at the lowest cost possible as compared to the contract award amount.

2. RESPONSIBILITIES

- 2.1 The Project Engineer or Project Supervisor (PE/S) who initiates the Change Order will provide for notification to be sent to the Project Manager (PM) when a Change Order is being drafted.
- 2.2 The PE/S is responsible for notifying FHWA of Change Orders on Contracts that have been pre-selected by the Federal Highway Administration (FHWA) for oversight. The Change Orders will require documented FHWA approval prior to proceeding with the work.
- 2.3 Change Orders on Local Public Agency (LPA) Contracts require documented approval from the LPA prior to proceeding with any change to the Contract.

- 2.4 The District Construction Office will review Change Orders to ensure compliance with the Policy.
- 2.5 The State Construction Engineer in the Division of Construction Management will conduct process reviews to verify compliance with the Policy.

3. GENERAL INSTRUCTIONS

- 3.1 Each Change Order is to only address one specific impact to a Contract and clearly identify the reason for the change. Multiple items may be included on a Change Order, but all are to be related to the same specific impact and are to indicate the same reason for the change.
- 3.2 Change Orders require authorization by the appropriate authority, as shown in the tables in 4.2 & 5.1, prior to proceeding with any change to the Contract.
- 3.3 When a Change Order includes both monetary and time adjustments, the appropriate approval authority is the higher authority required when considering the monetary and time adjustments separately.
- 3.4 Change Orders are not to be split into multiple documents to reduce the approval authority level required.
- 3.5 A Change Order is not to be used to purchase any equipment intended to remain the property of the State without documented approval from the Director of the Division of Construction Management (DDCM) prior to proceeding with any change to the Contract.
- 3.6 A Change Order is not to be used to authorize a Contractor to perform work on State property such as buildings, vehicles, equipment, or other items not included in the Contract without documented approval from the DDCM prior to proceeding with the work.
- 3.7 A Change Order will include documentation necessary to describe the impact to the contract and the justification for the change. The documentation is to be of sufficient detail that a person generally familiar with the construction process, but not associated with the specific contract, is able to understand the impact and the justification for change.
- 3.8 Justification of new unit prices is to be documented along with the Change Order.
- 3.9 Additional instructions are provided in the General Instructions to Field Employees.

4. MONETARY ADJUSTMENTS

- 4.1 A Change Order is not required to authorize minor changes in existing Contract pay item quantities that are typically necessary to meet the scope and design of the Contract. Changes are considered minor if the total impact to the Contract is less than \$20,000.00 in increased or decreased costs compared to the current approved Contract amount. Once this limit is exceeded, a Change Order that includes all increases or decreases in existing Contract pay item quantities is required to authorize the revisions. Additional Change Orders due to further changes in existing Contract pay item quantities are not required until the \$20,000.00 limit is again exceeded.
- 4.2 The Department's level of authority for per Change Order for monetary adjustments to a Contract is as shown in the following table:

Monetary Adjustment Approval Authority

Approval Authority	Maximum Adjustment (Positive or Negative)
Project Engineer/Supervisor	\$50,000.00
Area Engineer	\$250,000.00
District Construction Director	\$750,000.00
State Construction Engineer	\$2,000,000.00
Director, Division of Construction Management	Over \$2,000,000.00

- 4.3 Once Change Orders for a contract cumulatively reach the 4% level, the PE/S will need to forward a draft of the Change Order to the following positions; the District Construction Director, the Director Division of Construction Management and the Director of Capital Program Management, at the same time that it is sent to the PM as per 2.1, to address the cause of the cost overrun and to see if measures can be taken to correct and adjust as necessary to meet agency goals.

5. TIME ADJUSTMENTS

- 5.1 The Department's level of authority for approval per Change Order for time adjustments to a Contract is as shown in the following table:

Time Adjustment Approval Authority

Approval Authority	Maximum Adjustment (Positive or Negative)
Project Engineer/Supervisor	10 days
Area Engineer	50 days
District Construction Director	100 days
State Construction Engineer	200 days
Director, Division of Construction Management	Over 200 days

- 5.2 For Change Orders which extend any combination of an Intermediate Contract Completion Date, a Closure Period or the Contract Completion Date, the appropriate approval authority is based on the longest time adjustment included in the Change Order.
- 5.3 For Change Orders which delete an Intermediate Completion Date, a Closure Period, or any other milestone date or time period from a Contract, the approval authority is the DDCM.
- 5.4 Once time extension Change Orders for a contract cumulatively reach 25 days or more, the PE/S will need to forward a draft of the Change Orders to the following positions: the District Construction Director, the Director Division of Construction Management and the Director of Capital Program Management, at the same time that they are sent to the PM as per 2.1, to address the cause of the time overrun and to see if measures can be taken to correct and adjust as necessary to meet agency goals.

6. SCOPE OR DESIGN CHANGE APPROVAL

- 6.1 The approved scope or design of a Contract is not to be changed without documentation of approval from the appropriate authority, obtained through the PM, in addition to the approval authority based on the magnitude of the Change Order monetary and time adjustments. Any of the following are classified as changes to scope or design elements of the Contract:
- 6.1.1. Alterations to the intent or scope of the Contract or character of the work, including significant revision of the project limits.

6. 1.2. Revisions to geometric design of the mainline roadway, ramps, frontage roads or crossroads.
6. 1.3. Revisions to structural section of the pavement, including, but not limited to subgrade, subbase, PG binder grade, pavement type, pavement depth, individual pavement courses and aggregate designations.
6. 1.4. Additions, deletions, changes or relocations to bridges or structures that affect the functional scope and intent of the approved design.
6. 1.5. Deviations from planned access control, including drives or pedestrian access features.
- 6.1.6. Revisions to the specifications, special provisions or other contract requirements, including approved provisions for maintaining traffic.
- 6.1.7. Revisions that result in new environmental impacts, changes in previously permitted activities or reductions in environmental mitigation measures provided for in the Contract.
- 6.1.8. When the Change Order is potentially due to a design error or omission (E&O), the PE/S will notify the PM as soon as the potential error or omission is found. For projects designed by a consultant, the PM will promptly notify the Consultant Engineer of Record (EOR) of the potential E&O. A solution will then be determined by the EOR, INDOT or a combination of the two. The PE/S will track the costs associated with the solution and prepare the necessary Change Order. This procedure will be used for all projects whether designed in-house or by consultant.

For projects designed by a consultant, a recovery process may be started as determined by the PM. An assessment, if requested by the EOR, will be made by the PM, PE/S and EOR to better determine the Consultants responsibility for the possible E&O. If the EOR does not agree with the assessment it may request an INDOT Staff Review through INDOT Legal for further assessment. Based on the assessment, INDOT will pursue recovery of any premium costs that are the result of Consultant E&O, guided by the anticipated recovery amount and the likelihood of a successful recovery effort. If at any point in the process, INDOT decides not to pursue recovery, the PM will document the decision in the project file and notify the EOR. INDOT Legal will maintain a database of identified E&O along with a record of the final disposition of each, including disposition on appeal by the EOR if applicable.

The complete process can be found in chapter 6 of the **INDOT Professional Services Contract Administration Manual**.

If the contractor assures you that the insurance filing or renewal has been made, but the DO is unable to verify this fact through the computer terminal, the DO may contact the Contract Management Supervisor in the Division of Contract Administration for verification and assistance.

2.18 CONTRACT TIME ADJUSTMENTS AND TIME WAIVERS (Rev. 04-22-14)

The primary difference between a contract time adjustment and a time waiver is that a contract time adjustment is associated with changes in the physical work performed on the contract and a time waiver is not. Physical work is work performed by the contractor, a subcontractor or a third party such as a utility or railroad. A contract time adjustment is typically used when necessary to revise the contract time up until substantial completion. A time waiver is typically used to eliminate liquidated damages for delays that are not the fault of the contractor after substantial completion.

The following guidance should be followed for all contract time adjustments and time waivers. This guidance is in addition to the requirements of the Department's policy for time extensions and is not intended to supersede any part of the policy.

2.18.1 Contract Time Adjustments

A contract time adjustment is used when it is necessary, as defined in the contract documents, to modify a contract's original completion date for specified contract work. Contract time adjustments also apply to all types of intermediate contract dates, such as intermediate completion dates, closure periods, mowing cycles, and any other date or time specified in the contract, either original or by change order. Intermediate contract dates are referenced as Milestones within SiteManager.

For an intermediate contract date, completion of the work means that the portion of work specified in the contract for that date or period has been completed and can be used for its intended purpose as defined in the contract. This is typically the date that the portion of work is opened to traffic or is otherwise placed into service for its intended purpose.

An intermediate contract date is to be documented within the Milestone module of SiteManager. The following Milestone information is recorded:

- Description of intermediate contract date
- Type of time charged
- Rate of time charged
- Bid time, if applicable
- Time charged, if applicable
- Time remaining, if applicable
- Incentive/Disincentive rate amount, if applicable
- Intermediate contract start date
- Original intermediate contract completion date
- Adjusted intermediate contract completion date
- Actual intermediate contract completion date

The initial Milestone information is usually uploaded at the beginning of the contract. If not, the PE/S will need to create a new Milestone for the intermediate contract date and follow the prompts accordingly. To verify if intermediate contract dates are applicable to the contract, refer to the contract information book under "Contract Completion Information". Milestones should be monitored and completed as the event occurs and not entered at the end of the contract. Consult the SiteManager User Reference Manual for further information and definitions.

For a contract completion date or time, completion is defined as the last day of work. However, when the work is substantially complete in accordance with 101.59 and the contractor and Department agree that the project is ready for pre-final inspection, additional time is given in accordance with 108.09 for punchlist work and removal of signs, which generally constitutes the last day of work. Time given for punchlist work and removal of signs should be addressed by a time waiver and not a contract time adjustment.

A contract time adjustment is to be documented on an approved change order and is to be made as soon as the adjustment is agreed to by the contractor and the Department. When a change order is generated to add new work or significantly change the quantities of existing work, the time associated with the work should be addressed in the same change order if possible. In cases where the time associated with a change may not be immediately known, it is permissible to adjust the time on a future change order. All change orders should address contract time with one of the following statements in the explanation portion of the document:

- "A contract time adjustment is required for this change and has been addressed herein."
- "A contract time adjustment is potentially required for this change, but cannot be quantified at this date. Any contract time adjustment required for this change will be addressed by change order at a future date."
- "A contract time adjustment is not required for this change."

When a contract time adjustment is not made at the same time as the change order revising the work, the future change order that addresses the time must include a reference in the explanation to the original change order that revised the associated work.

2.18.2 Time Waivers

A time waiver is typically used in order to eliminate liquidated damages after substantial completion of the work due to time allowed by 108.09 for completion of punchlist work and removal of signs. A time waiver may also be used to excuse chargeable time for any Department delay in performing the final inspection.

A time waiver is not appropriate to excuse time for additional work that is added to the contract after substantial completion. If additional contract work is added at the time of the pre-final or final inspection, then a contract time adjustment should be included in the same change order that adds the additional work.

A time waiver is to be documented on form IC 632, Completion Date and Liquidated Damages Data. If the reason for a time waiver cannot be fully explained on the IC 632, a letter is to be written by the granting authority and included with the IC 632 in the Final Construction Record.

Questions about the use and documentation of contract time adjustments and time waivers should be addressed to the appropriate Division of Construction Management Field Engineer for the district.

2.19 CHANGE ORDERS (Rev. 04-22-14)

A Change Order is a written agreement executed by the Department and the Contractor that modifies an existing contract.

In order to allow the Department to manage Change Orders, each Change Order must accurately identify the reason for the contract modification for future reference.

2.19.1 Contract Modifications

A Change Order must be executed to document any of the following changes to a contract:

- Monetary Adjustment
- Time Adjustment
- Scope or Design Change

Monetary adjustments may result in additional compensation for the Contractor or a credit to the Department. They may result from changes in quantities associated with existing contract pay items or the addition of new pay items to the contract.

Time adjustments may result in either increased or reduced contract time to perform work associated with closure periods, intermediate completion dates, or the contract completion date. Once the time adjustment change order for an intermediate contract date is approved in SiteManager, the time adjustment will be conveyed to the appropriate Milestone.

One form of scope and design change is a Construction Change. Construction changes occur when issues are found after the letting which require that change in the scope or design. Construction changes typically include revised plan sheets or specifications related to revised design or a changed condition. Construction changes for contracts can be found on INDOT's Website, where they are posted for viewing or download. These scope or design changes may result in monetary or time adjustments or both.

2.19.2 Procedure for Documenting Non-Participation Pay Items

Prior to executing change orders that add new pay items to the contract, the PE/S should check the list of non-participating work categories, provided below, to verify whether any of the pay items included in the change order require the "non-participating" designation. In situations where the "non-participating" designation is required, it is necessary to designate the affected pay items as "non-participating" and purchase orders utilizing

100% State or 100% LPA funds must be utilized to pay for these “non-participating” items.

“Non-participating” means that a pay item is not eligible for federal funding and “participating” means that an item is eligible for federal funding. Federal regulations prohibit the use of federal funds for payment of some pay items.

An item should only be checked as “non-participating” if it is an item that is being added to the contract that is one that FHWA would not normally agree to participate in the funding. To make a pay item “non-participating”, assure the check box inside the “Change Order Items” tab is selected, within the “Change Orders” window of SiteManager.

Below is a list of frequent federal non-participating categories:

- Work outside the highway right-of-way without permits, etc.
- Work outside the limits of the project (unless necessary to implement project; traffic control, etc.) Work performed outside the NEPA limits of the project may jeopardize federal funding for the project.
- Work not necessitated by the highway project (i.e. fence upgrades, utility upgrades, etc.)
- Adjustment of private facilities (signs, fences, lawn sprinklers, etc., unless covered as a part of a right-of-way agreement or permit)
- Storm and sanitary sewer work and other drainage or utility work that is not a result or purpose of the road or bridge work. Example: replacing sewer leads that were not in conflict with the construction activity proposed.
- Excessively expensive treatments that do not appear to be in the public interest. This could include expediting the project for a questionable purpose, or proposing the use of *very* extravagant roadway treatments or street side appurtenances.
- *Significant* hauling or transportation charges of salvaged items to INDOT’s or agency garages or storage sites for future use on non-federal projects. Hauling for less than 5 miles from the project site has been used by some state transportation department’s construction engineers as a reasonable distance to haul material.
- Non-conforming work such as substandard details, designs determined undesirable or discontinued because of poor performance. Example: A588 guardrail, salt susceptible roadside plantings, etc.
- Payment for items that are the responsibility of others. Such as relocation of utilities located within the right-of-way, relocation of public facilities outside their

corporate limits, accident damage that is the responsibility of others (driver, owner, insurance company, etc.)

- Payment for work done by an unapproved subcontractor.
- Payment for betterments that are not currently part of the project. Example: payment for excess sizing of sanitary sewer adjustment for future development. The additional cost over replacement-in-kind should be borne by the owner of the facility being adjusted.
- Payment for work that should typically be considered maintenance work by the owner agency. Examples: graffiti removal, snow plowing, trash removal, moving roadsides, etc.
- Payment for rework (including incorporated materials, etc).
- Payment of work and materials not meeting specifications that are incorporated into the project.
- Contact claim awards if state transportation department is determined to be negligent. Example: utility and right-of-way claims.
- Administrative settlements not adequately supported and justified.
- Specifying use of proprietary items, (i.e. specific brand name or single manufacturer items such as *Eagle* controllers, *3M* sign sheeting, *Caterpillar* diesel, *Hewlett Packard* computer) unless:
 - Suitable number of other proprietary items or generic items is allowed.
 - INDOT certifies (via public information finding) proprietary item is essential for synchronization with existing highway facilities or that no equally suitable alternate exists.
 - Proprietary item is used for experimental purposes.
 - FHWA finds it is in the public interest to use a proprietary item.

The PE/S will need to work with District personnel to either add the required funds to an existing 100% State funded or 100% LPA funded purchase order as appropriate or to establish new 100% State funded or 100% LPA funded purchase orders to facilitate payment for the “non-participating” work.

- An item on a change order is “non-participating” does not mean that the entire change order itself will be non-participating. If you have both “participating” and “non-participating” items on the same change order make sure that the amounts get split up when adding the funds to purchase orders.

Once the “non-participating” item is added to the contract an “*” will be included with the item on the estimate. Please note that it is not necessary to designate the item as “non-

participating” in the item name but it should be explained that the item is non-participating when the change order explanation is prepared in SiteManager.

2.19.3 Procedure for Documenting Non-Participation in Time Extensions

When FHWA determines they will not participate in state-approved time extensions, the non-participation time period and costs will be documented through the use of the field office pay item and payroll records for construction inspection. During the timeframe for a standard contract from beginning of construction until the final construction record (FCR) is complete, the contract is kept open and the field office and administrative costs of the inspection staff are compensated. This procedure will extract only the portion of the non-participating time out of the standard process.

For example:

A contract is to be completed on November 15. Time extensions totaling 45 days are granted to the contractor for reasons that the state has determined are outside of the contractor’s control. Fifteen of the 45 days are granted from November 16 to November 30 and the remaining 30 days extend into the following construction season from April 1 to April 30. Therefore the contract completion date is extended to April 30. FHWA agrees to participate in only 30 days of the state-approved, 45-day extension. Therefore, 15 days of the state-approved time extension need to be paid for by a non-participating item and employee time charged to a state funded labor code.

Suggestion:

- 1. Place non-participating time at the end of the state-approved time extension period.** For time period, April 16 - April 30 (the final 15 days of the time extension) the field office will be paid for by a non-participating item and employees will charge time to a state funded labor code so no federal reimbursement will be sought. Beginning May 1, the field office will be paid again through the original item and employees will revert to charging time to the federal project number. The non-participating time is clearly separated in this option. The pay items are on record and a note can be included in the project files and FCR showing the times charged to a separate time and labor code.
- 2. Place non-participating time at the end of the contract.** If there are 15 non-participation days, then continue to charge for the field office using the participating item until the last month the field office is used, and then create a new non-participating item. Likewise, continue charging time to the federal project number and switch to the state labor code during the last month. This scenario could be more difficult to determine exactly when to switch the pay item and labor codes. This time period will be after construction is complete and during the time the staff is working on the final. This could be particularly difficult if the non-participating time period is large.

Essentially, we will not charge FHWA for the construction inspection costs for the non-participating timeframe by adding the field office as a non-participating item by change order and using this item for the time of the non-participating delay. The non-

participating costs will be based on construction inspection costs alone and will not include, or be based upon, the value of the Liquidated Damages amount waived. This process will not be utilized when the time extension is for an intermediate completion date, as the inspection costs would still be incurred beyond that time regardless. Furthermore, if the Contractor substantially completes the work prior to the adjusted non-participating time extension date, we would stop using the state-only code and the non-participating field office item at that date and go back to charging our time to the project, using the participating field office item until the completion of the final.

2.19.4 Extent of Work Covered by Change Order

In order to facilitate management of Change Orders, it is necessary to limit pay items included in a Change Order to those required to mitigate a specific event. It is possible for a Change Order to include monetary adjustments, time adjustments, and Scope or Design changes as long as each Change Order component is related to the mitigation of the same event.

For example, if an unknown existing utility facility is found to be in conflict with a planned storm sewer trunk line and it is determined that the appropriate mitigation for the conflict is to split the trunk line into two smaller pipes that are installed around the utility, it is acceptable for all of the following to be included in the same Change Order:

- Monetary adjustments resulting from quantity changes for existing pay items and the addition of new pay items required to construct the revised storm sewer structures around the utility facility.
- Time adjustments to closure periods, intermediate completion dates, and the contract completion date as required for construction of the revised storm sewer facilities.
- Scope or Design changes consisting of revised plans and new specifications required to construct the revised storm sewer.

It would not be acceptable to include a monetary adjustment associated with changing the pavement marking material throughout the contract area from paint to thermoplastic on the above noted Change Order. The type of pavement marking materials is not affected by the revised storm sewer layout, so a separate Change Order would be required to document the change in pavement marking material.

2.19.5 Reason Codes

Reason codes are used to categorize Change Orders so that the Department can track the cause of changes, assess the extent and source of accountability and work to minimize similar changes on future contracts.

Each Change Order requires selection of a reason code from the drop down menu within the SiteManager Change Order module. Only one reason code may be selected per Change Order. The AE and the Division of Construction Management Field Engineer assigned to the District are available for guidance regarding selection of the proper reason code for individual Change Orders.

Below is a list of the available reason codes:

Errors and Omissions	Design/Plan Related Specification Related Special Provision Related Environmental Related Item Related Permits Related Quantity Related, Minor Quantity Related, Major R/W Related Geotechnical Related Traffic Control Related Utility Related Railroad Related Constructability Related
Scope Changes	Work Outside Construction Limits Work On Private Facilities Project Acceleration Project Upgrades Material Related Added Quantities/Items Deleted Quantities/Items
Changed Conditions	Constructability Related Permits Related Environmental Related Materials Related R/W Related Geotechnical Related Utility Related Railroad Related Weather Related Quantity Related
Payment Adjustments	Quality Related Material Related Contract Liens Related
Incentive/Disincentive	Contract Completion Intermediate Completion Closure Times Cost Reduction Incentive A+B Contract A+B+C Contract

contract documents. For example an underground storage tank is found on newly purchased property and the designer should have been able to tell that it was there but did not show it in the contract documents or give a way to handle its removal. Evidence of this could be that there are visible signs at ground level that the tank exists beneath the surface. In this case, one might also consider the Design/Plan Related reason code because it was left off the plans. Such a situation should be viewed in a manner that the reason code that best represents the situation should be used. In this case, it is an omission from the plans but because it is environmental in nature this reason code is more exact in description and should be used. (As additional information, this situation would merit a reason code of Changed Condition Environmental Related if a tank was found but there was no means to tell that it existed other than discovering it during excavation.) Another example would be if there was an erosion and sediment control plan shown in the plans but no items were placed in the itemized proposal to cover the work.

Item Related: This reason code should be used for items that are missing from the contract and the design would dictate that they be in the Itemized Proposal. For example this reason code could be used if an HMA overlay was being placed that required that the existing surface be milled first and there was no item in the contract to cover the work.

Permits Related: This reason code should be used when extra costs are incurred because a permit was not obtained for the contract either by the Design Consultant or by INDOT.

Quantity Related, Minor: This reason code should be used when there is a quantity increase or decrease that is caused by a mistake made by the designer of the contract and the result was less than 5% of the original contract award amount or \$250,000.00 whichever is less. An example of this would be where the item for HMA surface overran on a project because the designer did not add in the quantities for the S-lines on the project.

Quantity Related, Major: This reason code should be used when there is a quantity increase or decrease that is caused by a mistake made by the designer of the contract and the result was more than 5% of the original award amount or \$250,000.00 whichever is less. An example for this could be the same as above in minor.

Right-of-Way Related: This reason code should be used when extra costs are incurred because of right-of-way problems. An example of this could be when there was only enough right-of-way purchased for the building of the face panels for an MSE retaining wall but the amount of right-of-way did not allow for the placement of the straps behind the wall.

Geotechnical Related: This reason code should be used when extra costs are incurred which are related to soils information on the project. An example of this is when the geotechnical report for the project says that the project will need to be undercut by 2 feet and the material replaced with 53 aggregate and the designer did not take this into account in the plans and then the costs for the undercut and aggregate had to be added by change order.

Traffic Control Related: This reason code should be used when extra costs are incurred related to problems with traffic control on the project. An example of this could be when a contract requires lane shifts and lane closures and no items were included in the contract to cover temporary pavement markings.

Utility Related: This reason code should be used when extra costs are incurred related to problems with utilities that should have been foreseen by the designer. An example of this would be where there is a conflict between an existing water line and a new sewer line to be installed where the water valve present in the area can be seen and there was no prior coordination done with the water line owner to move the line. If the water line existed in the area and could not be seen and is only found after installation of the water line has started, the reason code for a changed condition should be used.

Railroad Related: This reason code should be used when extra costs are incurred related to problems with railroad concerns that should have been able to be foreseen by the designer. An example of this would be if the plans show constructing a temporary railroad bridge and shifting train traffic to the new bridge that will require that there can be no train traffic for 2 weeks while the tie-ins are completed, but the railroad determines that they cannot allow a 2-week shutdown of train traffic at that time. This situation should have been coordinated prior to letting and should have been resolved. This will now cause a delay for the contractor and extra costs to be incurred. In addition, note that these extra costs and the corresponding time extension may potentially be non-participating by FHWA.

Constructability Related: This reason code should be used when the plans did not take into account a physical condition that exists on a project and then the condition requires extra costs to be incurred to remedy the situation. An example of this would be where the plans call for common excavation be used to build the required embankments for phase 1 of a project but the common excavation exists under the roadway which will be used to maintain traffic during phase 1 and because of this it is a requirement to pay to bring in borrow on the project and then to remove and waste the common after phase 1 is complete.

- **Scope Changes** - Scope changes are situations where the Department determines that it is necessary to either add items unrelated to the current scope to the contract, delete items related to a portion of the current scope of the contract, or increase or decrease the area over which the current contract scope will be constructed. Scope changes are the responsibility of the Department and consideration of monetary and time adjustments is warranted. Scope changes may not be implemented without the approval of the PM. Approval from the PM must be included on the allotted section of the Change Order Form. Scanned e-mail or other documentation from the PM is also acceptable.

Work Outside Construction Limits: This reason code should be used when work is performed outside of the construction limits of the contract. Outside of the construction limits should be taken to mean off the right-of-way or beyond the station limits of the work area in the contract. Note that traffic control items that are needed for pre-warning are not a part of the discussion under this reason code. This is important because when work beyond the construction limits of the contract is undertaken, this work is outside of what has been approved in the NEPA documents. An example of this would be if concrete patching is required to be added to the contract that is a mile from the end of the contract. Another example would be where the HMA overlay on the project was to be stopped before entering an intersection and it was decided to continue the HMA through the intersection because the pavement was rough. In both of these cases this work should not take place unless approved by the Project Manager.

Work On Private Facilities: This reason code should be used when work is performed for items that are not owned by INDOT or the LPA and are not a part of the original contract. An example of this might be where a utility line running through the project is in the way of the work that is needed to be performed but it is decided not to wait for the utility to move the facility, so a decision is made to move it for them (with their permission).

Project Acceleration: This reason code should be used when a decision has been made to make up lost time on a project, which could be caused by issues that delayed the project. One example of this would be if a very rainy construction season occurred and a time extension is warranted that would move the completion of the project into the spring but commitments have been made to have the work completed before the end of the year.

Project Upgrades: This item code should be used when a decision has been made to add an element to a project or enhance an existing element on a project. An example of this would be to add a conduit to the project in order to place communication cable through it at a later date. Another situation would be if lighting items already exist in the contract but a decision was made to make the light poles decorative in design. It is

important for the PM to be involved in project upgrades to ensure that the costs for the upgrades are accepted by the responsible entity.

Material Related: This item code should be used when a decision has been made to change a type of material that is being used to construct the contract. An example would be if the road was designed to use an HMA pavement and a decision was made to change the road to PCCP.

Added Quantities: This item code should be used when a decision has been made to add additional quantities of an item that would utilize the item in a way or in an area in which it was not approved for use in the original scope of the project. An example of this would be if the original scope of the project included sidewalk on only one side of road and it was then decided after the letting to add sidewalk to the other side of the road as well. This may make sense from a cost standpoint since the Contactor is already in the area and it would not be a challenge to add the additional quantity. However, it should be noted that because the scope of the original project included sidewalk on only one side of the road, adding this would be a scope change and may not get approval from FHWA for participation.

Deleted Quantities: This item code should be used when a decision has been made to delete quantities of an item and thus construct a project that does not fulfill the original scope of the contract. An example of this could be when the original project scope included sidewalk on both sides of the road and because of other overruns on the contract it was decided to delete the sidewalk from one side because there is not enough money left to complete the work. However, it should be noted that if the sidewalk is not built on both sides as originally approved, FHWA could consider not funding the entire project since the original scope is not being fulfilled.

- **Changed Conditions** - Changed conditions are defined in Section 104.02 of the Standard Specifications. They include differing site conditions, suspension of work by the Department, and significant changes in the character of the work. Differing site conditions are the most common type of changed conditions encountered in the field. In most situations, it is the Contractor that discovers a potential differing site condition and is required to provide notice prior to performing any work at the affected location. It is the Department's responsibility to verify whether the situation represents a differing site condition and if so, to determine the required work to mitigate the problem. Examples of differing site conditions include the presence of an underground storage tank that is not indicated on the plans, discovery of a peat deposit at a location where peat is not anticipated, and discovery of an existing concrete base under the asphalt pavement on a contract that includes no pay item for pavement removal.

Suspensions of work included in 104.02 are related to suspensions directed by the Department for the benefit of the Department or the motoring public. Examples of these suspensions include those for holidays or community festivals not noted in the contract documents. Suspensions of work related to poor workmanship, contract breaches by the Contractor, or operational problems of the Contractor are not covered by 104.02.

The most common occurrence of significant changes in the character of the work is related to a major pay item that has its quantity increase or decrease by more than 25%. Typically, increases in quantities usually justify a lower unit price and reductions in quantities normally justify a higher unit price. Consideration for monetary and time adjustments is usually required when changed conditions are encountered on a contract.

Constructability Related: This reason code should be used when there is an issue that changes how the project is to be constructed. An example of this would be where the contractor bid to build a bridge with the road closed to traffic and it was determined after letting that the contractor would need to build the bridge under traffic.

Permits Related: This reason code should be used when the cause of the changed condition and extra costs are permit related. An example would be if the contract stated that the permit would be obtained so that the contractor could start work on August 1st but it was not obtained until December 1st. This could potentially cause a project delay and extra costs if the work is a controlling item.

Environmental Related: This reason code should be used when the reason is environmental in nature. Examples would be finding an underground storage tank, historic artifact, asbestos, contaminated soil or an endangered species, any of which were not known to exist at the time of letting.

Material Related: An example would be encountering a different material that anticipated in the plan documents such as rock at an elevation where soil was expected. This would require a change to incorporate rock excavation.

Right-of-Way Related: This reason code should be used when the issue is related to the availability of right-of-way on the project. An example of when this is when the right-of-way is supposed to be already cleared so that the contractor can access it to work and it is found that it is not cleared and causes a delay or extra cost. It should be noted that delays in availability of right-of-way may not be reimbursable by the FHWA.

Geotechnical Related: This reason code should be used when there is an unforeseen geotechnical issue found on the project. An example would be

where the soils report and borings do not show peat in an area but it is in found where the end of a tie back is to go and will no longer work and causes delay or extra costs.

Utility Related: This reason code should be used when there is a changed condition caused by a utility related issue. For example the contract book states that a utility will be relocated 30 days after the right-of-way is staked and cleared but it takes the utility 100 days which causes extra cost and/or extra time to be needed on the contract.

Railroad Related: This reason code is used when extra costs are incurred related to railroad work on a contract where it is a changed condition to the contract but that could not have been foreseen beforehand by the designer under normal due diligence. An example of this would be where the contractor tried to get railroad flagmen as required by the contract but the railroad for whatever reason would not supply them which causes a delay to the contract and thus extra costs.

Weather Related: This reason code should be used when the above normal inclement weather days for the year exceed the yearly allotted number days in the Standard Specifications. This would normally be needed for time extension purposes only as weather is normally non-compensable. However, there could be times where the contract may be written that would allow compensation.

Quantity Related: This reason code should be used when there is a large change in the quantity of either a major or minor item do to unforeseen circumstances that would allow by specification a change in the unit price for the item. An example of this would be that during a resurface contract it is required to remove the overlay and perform pavement patching and when the overlay is removed, the pavement is in worse shape than the pavement cores led the designers to believe and additional patching work is required.

- **Payment Adjustments** - The reason codes for Payment Adjustments are used when there are credits to the contract or extra payments to the contractor which are either overruns to the \$1 items usually found in the beginning of the itemized proposal, with the exception of Liquidated Damages which is a part of Incentive/Disincentive and are self explanatory, Quality Adjustments for HMA, Quality Adjustments for Erosion and Sediment Control, Quality Adjustments for Temporary Traffic Control, Quality Adjustments for Failed Materials, Binder Adjustments or Liens, etc. Payment Adjustments will all fall into one of the following reason codes:

Quality Related: Examples include HMA Adjustments, Erosion and Sediment Control Adjustments, Temporary Traffic Control Adjustments,

Failed Materials: For example if there are adjustments that need to be made to the payment to the contractor after the pay factors are reviewed in accordance with 401.19 for HMA then this reason code will be used. This would be the same for concrete pavements in accordance with 501.28. Other examples of when this reason code will be used are when either erosion and sediment control devices, or traffic control devices do not meet the quality standards within the specifications.

Material Related: An example is Binder Adjustments which are used when the Contractor accepts this contract provision at letting time and then the price for HMA binder goes up or down by enough that the provision is invoked.

Contract Liens Related: This reason code is to be used when the item for contract liens is utilized. This item is used when INDOT is required to hold or payout money when there is a lien brought against a contractor because they are not making payments. The non-payment could be to sub-contractors, suppliers or others. When this occurs, this code will be used.

- **Incentive/Disincentive** - Incentive and Disincentive language is included in contracts to provide a financial motivation to a Contractor to complete work associated with a closure period, an intermediate completion date, or an early contract completion date. If such language is included in a contract, a Change Order is required to incorporate the additional compensation earned by the Contractor due to early completion of the required work or a credit to the Department, in the form of Liquidated Damages, resulting from late completion of the required work. In addition, this reason code is also used for Change Orders which are necessary to incorporate a Contractor submitted Cost Reduction Incentive, CRI, into a contract as per 109.04 of the Standard Specifications.

Contract Completion: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work before or after the contract completion date shown on the proposal page.

Intermediate Completion: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work required before or after an intermediate completion date as shown on the proposal page of the contract.

Closure Times: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work before or after the allotted number of days for a closure as shown on the proposal page.

Cost Reduction Incentive: This reason code is used when an incentive payment is made to the Contractor for a percentage of a cost savings to the

contract for an idea presented by the contractor. It is made in accordance with 109.04. An example of this would be where a 3 span bridge is to be constructed and the Contractor presents a new design for the bridge that uses post tensioning elements and is only 2 spans and results in a savings of \$500,000.00. If the redesign is approved then the Contractor and INDOT split the savings and the contractor is paid on a change order using this reason code.

A+B Contract: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work required on an A + B Contract.

A+B+C Contract: This reason code is used when the incentive payment or liquidated damage credit is as a result of either completing the contract work required on an A+ B+C Contract.

- **Standards/Specifications Change** - The Department may elect to incorporate a new standard detail or specifications change into a contract after it is let. In these situations, a Change Order is required to modify the contract to add the new standard detail or specification. There may be monetary or time adjustments associated with these types of Change Orders. This reason code should only be used when the directive for this change comes from Central Office normally as part of a Construction Memorandum. If a change is being made to a specification, special provision or standard by any other means then it would be a changed condition to the contract and fall under another reason code.
- **Final Quantity Adjustment** - This reason code is used on Change Orders which are required when the overruns or underruns for individual pay items result in monetary adjustments that exceed the thresholds included in the Change Order Policy. These are sometimes referred to as balancing Change Orders.
- **Damage to State Property** - This reason code is used on Change Orders that are a result of payments made to the Contractor for repairs that are made to State property, normally as a result of a traffic accident.
- **Contract Renewal** - This reason code is used when the change order is for the renewal of the contract as allowed in the special provisions. Contract renewals are generally for an additional 365 days at a time for the number of renewals as allowed in the contract. These contracts are usually for mowing and traffic signal and lighting maintenance but could be for other types as well.

2.19.6 Change Order Approval Authority

The Change Order Policy assigns Department approval authority based on the magnitude of the overall monetary or time adjustment involved. If a Change Order includes both monetary and time adjustments, the approval authority is the higher authority required for approval of the monetary adjustment or time adjustment if considered separately.

The approval authority for a Change Order is based on the monetary adjustment and time adjustment associated with that document. The Change Order approval authority is based on the adjustments of each individual Change Order and is not cumulative throughout the Contract. It is possible for Change Order No. 1 to require State Construction Engineer approval while it would be appropriate to approve Change Order No. 2 at the PE/S level.

However, in order to meet INDOT goals, once Change Order dollar amounts for a contract cumulatively reach the 4% overrun level, or where time adjustments cumulatively reach the 25 day overrun level, the PE/S will need to forward a draft of the Change Order to the District Construction Director, the Director Division of Construction Management and the Director of Capital Program Management, at the same time that it is sent to the PM. This is done as a way to address the cause of the cost or time overrun and to see if measures can be taken to correct and adjust as necessary in order to make proper decisions as contracts proceed to completion.

Work associated with a Change Order cannot begin until documented approval is provided by the approval authority and has been coordinated with the PM. In addition to the Department approval authority, LPA documented approval is required for LPA contracts and FHWA documented approval is required on contracts with FHWA oversight.

The Change Order Policy also states that there are two situations which require the documented approval of the Director, Division of Construction Management in addition to the approval authority based on the magnitude of the monetary or time adjustment. The situations are described below:

- Change Orders which involve work on property, equipment, buildings or other items owned by the State of Indiana and not included in the original or modified contract.
- Change Orders which involve the purchase of equipment that will remain the property of the Department after completion of the contract.

The Change Order Policy also indicates that the approval authority for Change Orders which establish or delete intermediate completion dates, closure periods, etc. is the Director, Division of Construction Management.

2.19.7 Existing Contract Pay Item Overruns and Underruns

The Change Order Policy allows for individual existing contract pay items to overrun or underrun without processing a Change Order if both of the following conditions are met:

- The overrun or underrun of the pay item does not result from a change in scope of the contract.
- The monetary adjustment associated with the overrun or underrun of the existing contract pay item is less than \$20,000.00.

If either of the above conditions is not met, it is necessary to execute a Change Order to document the monetary adjustment associated with the overrun or underrun of the existing contract pay item.

Once a Change Order is executed to document a monetary adjustment related to the overrun or underrun of an existing contract pay item, a subsequent Change Order is not required until an additional monetary adjustment of \$20,000.00 related to overruns or underruns of the pay item is achieved unless it is due to a change in contract scope.

2.19.8 Contract Scope/Design Element Change Orders

The Change Order Policy requires that Change Orders involving changes to the scope or design elements of a contract are coordinated with the PM and receive approval from the party responsible for the design element involved in addition to the Change Order's required approval authority. This is necessary to ensure that contract specific design criteria or Department commitments made prior to construction are not changed without the input of personnel familiar with these issues. The Change Order Policy lists several such items which are considered changes in scope or design elements.

2.19.9 Determination of Required Change Order Work/Work Order Issuance

For situations when the Contractor is delayed due to a changed condition in accordance with Section 104.02 of the Standard Specifications or other issue, it is the Department's first priority to authorize the Contractor to perform the work associated with the required Change Order. A Work Order is used to authorize a Contractor to perform work associated with a Change Order prior to full execution of the official document.

Prior to issuing a Work Order, the following steps are required once it is determined that a Change Order is required:

- **Notify AE of Need for Change Order** - The AE needs to be notified of the situation that requires a Change Order. Discuss the situation with the AE to determine if the work associated with the Change Order can be determined at the project level with input from the Contractor or if it will be necessary to enlist the assistance of the PM to contact the appropriate parties to determine the required work.
- **Notify PM of Need for Change Order** - In order to manage the project, the PM must be notified when Change Order situations occur. The notification should also include the results of the discussions with the AE regarding where the work associated with the Change Order will be determined - at the project level or with the assistance of the PM. If the Change Order work will be determined at the project level, the PM is to be kept informed as the scope is developed and finalized.

In situations where the work associated with the Change Order cannot be determined at the project level and the Change Order is necessary due to a design error or omission made by a designer, the PM will initiate contact with the designer for input regarding the required Change Order work. It is important that

the PM is notified and contacts the designer to involve them in developing the Change Order work to mitigate a design error or omission. Not doing so may affect the Department's ability to seek reimbursement from the designer for the additional costs incurred due to the error or omission.

- **Determine Work Elements Included in Change Order** - If it has been decided that the Change Order work can be determined at the project level, communicate with the Contractor as appropriate to determine the required mitigation work. Once the Change Order work is determined at the project level, the details are to be provided to the PM and AE. If it is determined that the Change Order work cannot be determined at the project level or it is found to involve a scope change or design element change as defined by the Change Order Policy, the PM is to be contacted to request assistance with determination of the required mitigation work. After this coordination is complete, the PM will make a recommendation regarding the proposed Change Order work to the PE/S. The PE/S should coordinate with the AE and PM to ensure that the Change Order work is determined in a timely manner.
- **Review Contractor Submittals** - After the Change Order work is determined, request the Contractor to submit proposed unit prices for all new pay items and proposed contract time adjustments, if required. Review the Contractor's proposals utilizing available bid history and operation production data. Bid history data is available on the INDOT Intranet and operation production data is available at the District Office. Consult the AE and the Division of Construction Management Field Engineer assigned to the District if assistance in evaluation of this data is required. Generate hard copies of all documents used in the review of Contractor proposed new pay item unit prices as well as time adjustments and maintain these documents along with related notes in a cost analysis file in the field office. If the Contractor's proposals are determined to be reasonable based on comparison to the bid history or operation production data; no additional information is required from the Contractor. If the Contractor proposed unit prices or time adjustments do not appear to be consistent with the historical data, contact the Contractor and request backup information to justify the proposed unit prices or time adjustments. Backup unit price information should include breakdowns for labor, equipment, materials, etc. Scheduling information should be provided to justify any requested time adjustments that are not consistent with historical data. Maintain Contractor provided backup data in the above noted cost analysis file in the field office. Review the requested time adjustment in accordance with Section 105.16 of Standard Specifications.
- **Determine the Change Order Monetary and Time Adjustments** - Once the Change Order work is determined and all required Contractor submittals are approved, it is necessary to determine the monetary and time adjustments associated with the work. For work covered by existing contract pay items, the monetary adjustment is based on the existing contract unit prices and the proposed Change Order quantities. For work associated with new pay items, the monetary adjustment is based on the proposed estimated quantities and associated unit

prices. If any of the Change Order work will be performed as a force account, estimate the monetary adjustment associated with the force account. Incorporation of this force account estimate into the resulting Change Order will allow the Contractor to be paid for force account work as soon as it is performed after Change Order approval. If the actual force account costs exceed the estimate, a subsequent Change Order can be processed to cover the excess costs.

If the Contractor's proposed time adjustments apply to closure periods, intermediate completion dates, incentive/disincentive dates, etc. as well as the contract completion date, for approval purposes the requested time adjustment is the maximum duration. For example, if a Contractor requests time adjustments of 10 days to Intermediate Completion Date 1, 15 days to Intermediate Completion Date 2, 15 days to Intermediate Completion Date 3, and 15 days to the Contract Completion Date, the magnitude of the time extension request is 15 days.

For situations where a time adjustment is necessary to mitigate a delay which is the Department's responsibility and the mitigation results in application of a portion of the adjustment prior to December 1 and the remainder is applied after March 31 in accordance with the Standard Specifications, the magnitude of the time adjustment is the number of calendar days that the intermediate completion or contract completion date was shifted, including the period starting December 1 and ending March 31. For example, if a thirty day Department responsible delay was experienced on a contract with an intermediate completion date of November 15 and the Standard Specifications permit the exclusion of the period beginning on December 1 and ending on March 31, the remaining fifteen days of the adjustment would be applied from April 1 to April 15. In this situation, the time adjustment requiring approval would be 151 calendar days, or 152 calendar days if a leap year is involved.

- **Obtain Documented Approval** - After the monetary and time adjustments for the Change Order are determined, refer to the Change Order Policy to determine the required approval authority for the Department. In addition, obtain documented approval from representatives of the LPA or FHWA, if applicable, prior to issuing the Work Order directing the Contractor to perform the Change Order work.
- **FHWA Prior Approval** - On Contracts where there is FHWA oversight, prior approval is required before work can start on changes which are considered Major Changes. Changes are considered Major if there is a cost increase of 5% of the contract award amount or \$250,000.00, whichever is less, changes in project termini, or changes in scope as given below:
 - Time extensions due to scope changes.
 - Scope revisions due to a Cost Reduction Incentive proposal.

- Alterations to the intent or scope of the Contract or character of the work.
- Revisions to the geometric design of the mainline roadway, ramps, frontage roads or crossroads.
- Revisions to the structural section of the pavement, including, but not limited to subgrade, subbase, performance graded binder grade, pavement type, pavement depth, individual pavement courses and aggregate designations, type or quality of materials to be furnished, such as changing the individual aggregate base to an asphalt concrete material.
- Additions, deletions, changes or relocations to bridges or structures that affect the functional scope and intent of the approved design.
- Revisions that result in new environmental impacts, changes in previously permitted activities or reductions in environmental mitigation measures provided for in the Contract.
- Changes to limited access control lines.

For the purpose of processing Change Orders to meet FHWA policy, 23 CFR 635.120/121/124, all other changes that do not fall under the above categories are processed as minor changes and do not require FHWA Prior Approval.

FHWA will give verbal approval on Major Changes if an emergency or unusual condition exists.

On state delegated projects, prior approval of Major Changes is delegated to the state.

If the PE/S is the Department approval authority and all required outside agency documented approvals have been obtained, issue a Work Order to direct the Contractor to perform the Change Order work.

If the required Department approval authority is above the PE/S level, forward information related to the required Change Order work; the recommended monetary adjustment amount including all affected pay items, quantities, and unit prices; and the recommended time adjustment to the AE via e-mail. Include information related to how the recommended monetary and time adjustments were determined to be appropriate for the proposed scope of work - i.e. review of bid history, schedule information, backup information provided, etc. Attach backup documentation provided by the Contractor to the e-mail so it can be referenced by the approval authority. If the approval authority is above the AE level, the AE will review the packet prior to sending it to the DCD, and the process will be repeated up the Department approval chain of command until reaching the approval authority. Each individual in the approval chain of

command should indicate his or her concurrence with the recommendations until it reaches the approval authority. This will ensure that everyone who will be involved in the Change Order approval process is informed regarding the situation and supports the recommended solution.

The Department approval authority will review the forwarded packet. If it is acceptable, the approval authority will provide the PE/S with documented approval of the Change Order via e-mail. After receiving Department as well as LPA and FHWA approval via e-mail, if applicable, direct the Contractor in writing via a Work Order to begin Change Order work. If additional information is required prior to Change Order approval, the approval authority will notify the PE/S and copy all in the approval chain via e-mail of the desired additional information. Provide the desired information to the approval authority via e-mail and copy all in the chain of command below the approval authority.

If anyone in the approval chain of command does not agree with the recommended Change Order, it will be necessary to notify all individuals who have previously concurred with the recommendation and the PM of the denial and to determine the appropriate course of action. The individual who denied the recommendation may provide an alternate solution or reject the Change Order altogether. However, modifying or rejecting Change Order work should be a last resort. It will be necessary to work with the PM to seek the input of the appropriate individuals to verify the adequacy of the alternate solution or whether it will be necessary to perform this work on a future contract.

After all required Department and outside agency documented approvals are obtained, the Work Order sent to the Contractor should include the following information:

1. Date
2. Change Order Work Elements
3. Affected Existing Pay Items and Estimated Quantities
4. New Pay Items Established, Associated Quantities, and Unit Prices
5. Estimated Monetary Adjustment
6. Contract Time Adjustments to Affected Closure Periods, Intermediate Completion Dates, and Contract Completion Dates, as Applicable
7. Date Work is Expected to Begin

A sample Work Order is provided at the end of these instructions.

- **Other Change Order Issues** - After documented approval of the Change Order work is obtained, forward information regarding the Change Order scope, affected pay items and quantities, and the unit prices to the District EEO Officer and to the PM.

2.19.10 Execution of Change Order Document

After issuance of the Work Order, it is important to execute the Change Order document as quickly as possible. Since Contractors cannot be paid for work associated with new pay items included in a Change Order until the document is fully executed, completing the Change Order approval process must be a top priority. In addition, while the Change Order is being processed, verify that the purchase orders associated with the work have sufficient funds to allow for payment of the Change Order work. If insufficient funds remain in the purchase orders, initiate the process to add the necessary funds.

Because the Change Order has received Department approval from the approving authority and any required LPA or FHWA approvals have also been obtained, the approval process can be expedited. It may be necessary to work with LPAs to arrange for the County Commissioners, City Council, Board of Public Works, or other governmental entity acting on behalf of the LPA to approve the Change Order in a timely manner for LPA contracts.

The following instructions are intended to provide points of emphasis regarding the Change Order execution process:

- **Initiate SiteManager Change Order Module Data Entry** - The first step in the execution process is the entry of the necessary data within the Change Order module within SiteManager. The data associated with pay items and quantities must be entered in accordance with the PCNs under which the work will be performed. Time adjustment data is entered on a contract basis, but separate entries are required for each closure period, intermediate completion date, contract completion date, etc. Complete SiteManager Change Order header data entry and place the Change Order in "Draft" status within two business days of issuance of the Work Order.
- **Assign Appropriate Reason Code** - In order to identify recurring Change Order patterns, it is necessary for the correct reason code to be identified on the Change Order. Criteria for determining reason code categories appear earlier in this document. Within these categories, select the most appropriate subcategory to describe the situation related to the Change Order. All possible reason codes appear on a drop down menu within the Change Order module of SiteManager.
- **Scan Appropriate Change Order Attachments into SiteManager** - The documented approvals received from the Department approval authority, PM, FHWA, or the LPA should be scanned into SiteManager as attachments to the Change Order. In addition, documented approvals required from the Director, Division of Construction Management for the special situations listed in the Change Order Policy should be scanned into SiteManager.
- **Document Cost Analysis Process for Change Orders with New Pay Items or Time Adjustments** - Change Orders which include new pay items or time adjustments are required by the Federal Code of Regulations, 23 CFR 635.120 to have a cost analysis performed. The previously cited review of unit price bid

history and operation production data satisfies this requirement. In order to document that this requirement has been met, a statement should be included in the Explanation Section of the Change Order that indicates that the unit prices for all new pay items and the time adjustments have been deemed reasonable based on a review of documents included in the cost analysis file located in the field office. Scan the cost analysis file for new pay items into the header tab of SiteManager.

- **Place Change Order in Pending Status** - Prior to beginning the actual approval process, it is necessary to revise the Change Order status to "Pending". Verify that the noted Department approval authority level is correct. If it is not, contact the District SiteManager trainer for additional guidance. Once it has been determined that the Department approval chain of command is correct, select the appropriate individuals for the AE, DCD, SCE, and DDCM menus as appropriate.
- **Produce Change Order Hard Copy for Contractor Signature** - Since Contractors do not have access to SiteManager, it is necessary to produce a hard copy of the Change Order and scanned documented approvals so that the Contractor's approval can be noted by signature. *Do not share any bid history data or operation production data from the cost analysis file with the Contractor.*
- **Document Contractor Approval in SiteManager Change Order Module** - Upon receipt of the Contractor signed Change Order hard copy, indicate the Contractor approval of the Change Order within SiteManager. Scan the Contractor signed Change Order hard copy into SiteManager. If no LPA approval is required, maintain the Contractor signed hard copy in a project file in the field office.
- **Forward Contractor Signed Change Order Hard Copy to LPA, if Applicable** LPAs do not have SiteManager access, so forward the Contractor signed hard copy to the LPA for signature by the official representatives on LPA contracts.
- **Document LPA Approval in SiteManager Change Order Module, if Applicable** - Upon receipt of the LPA signed Change Order hard copy, if applicable, indicate LPA approval of the Change Order within SiteManager. Scan the LPA signed hard copy into SiteManager and maintain the hard copy in a project file in the field office.
- **Obtain Department Approval** - If the PE/S is the approval authority, approve the Change Order within SiteManager. If the contract has FHWA oversight, notify FHWA that the Change Order is available within SiteManager for FHWA approval via e-mail. If the contract does not have FHWA oversight, the Change Order approval process is complete.

If the approval authority is at the AE level or above, notify the AE via e-mail that the Change Order is ready for approval. If the AE is the Department approval authority, the approval process is complete once AE approval is granted unless

the contract has FHWA oversight. For FHWA oversight contracts, the AE notifies FHWA that the Change Order is available for approval within SiteManager via e-mail.

For Change Orders with an approval authority above the AE level, each individual within the approval chain of command will recommend the Change Order for approval and forward it to the next level until the Change Order is approved by the approval authority. Once the Change Order is approved by the approval authority, the Change Order approval process is complete unless the contract has FHWA oversight. If the contract has FHWA oversight, the approval authority needs to notify FHWA that the Change Order is ready for approval within SiteManager.

If anyone in the approval chain requires additional information prior to approving the Change Order, the PE/S will be contacted and notified of the required additional information. While preparing the requested additional information, modify the SiteManager Change Order status to "Draft". Once the requested additional information is forwarded to the individual that requested it, change the status of the Change Order back to "Pending" and notify the AE that the Change Order and additional information is ready for the approval process.

- **Distribute Copies of Executed Change Order to All Signatories** - After all required approvals have been obtained, supplement the Change Order/attachment hard copy that includes the Contactor signature and LPA signature, if applicable, with a SiteManager generated Department and FHWA approval page to serve as the original Change Order document. Maintain this document and attachments in a project file at the field office. From this original document, produce hard copies of the Change Order and all attachments for distribution to:
 1. Contractor
 2. LPA, if applicable
 3. FHWA, if contract has FHWA oversight
 4. District Office file
 5. Project Manager

2.19.11 Documentation Requirements

Change Order related correspondence which is exchanged between the Department and the Contractor should be entered into the SiteManager Correspondence Log. It is acceptable to scan these documents into SiteManager or maintain them in project files in the field office as long as the document location is noted on the Correspondence Log. Following are examples of documents related to Change Orders which should be entered into the Correspondence Log as applicable:

- a. Contractor Notice of Changed Condition
- b. Department Issued Concurrence or Denial of Changed Condition
- c. Correspondence Related to Required Change Order Work
- d. Contractor Supplied Extra Work Quotes

- e. Department Request for New Pay Item Unit Price or Time Adjustment Backup Documentation
- f. Contractor Supplied Backup Documentation
- g. Department Issued Work Order
- h. Department Issued Executed Change Order Hard Copies to Contractor, LPA, and FHWA
- i. Change Order Signature Page