

## 5. Project Support – Utility Construction Phase

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The Department is required to coordinate the relocation and/or adjustment of facilities found to be in conflict with DOT&PF construction projects (AS 19.25.20).

This chapter outlines the process, procedures, and practices for construction activities relating to inspection, including documentation, processing of change orders, reviewing and certifying billings for payment and project close out as it relates to utilities.

### 5.1. Purpose

The construction activities of the regional Utility Sections should have the following goals:

- Complete utility relocations per plan and in a timely manner,
- Be as cost effective as possible, and;
- Maintain the safety of the facility users.

The Department is responsible for reimbursement to the utility for relocation work based on an executed utility relocation agreement. The regional utility engineer decides the level of inspection required to verify field changes, to certify that utility billings are true and correct for payment, and that the project can meet the requirements of project close out.

### 5.2. General

The Federal Highway Administration (FHWA) and the Federal Aviation Administration (FAA) provide requirements for utilizing federal funding. DOT&PF adopts these requirements when state funding is also involved.

Regulations for inspecting, billing, and closing out utility phase relocation work for federal-aid highway projects are found in 23 CFR parts 645 and 646. Regulations for federal-aid airport projects are in 14 CFR Parts 151 and 152.

A Project Development Authorization (PDA) must be submitted to the Project Control Section through the engineering manager, requesting ATP through Utility phase Relocation (Phase 7) funding for all utility construction related activities.

Utility relocation work cannot occur until ATP for the appropriate phase has been approved. On state funded projects approval goes through DOT&PF Headquarters based on project certification.

### 5.3. Utility Coordination and Construction Support through the Construction Phase

The regional Utility Section administers the DOT&PF utility construction program, which includes coordinating utility relocations/adjustments or new utility services in support of the project. Coordination and inspection of utility relocations may be performed by Utility Section staff, consultant inspectors, or construction staff, to accomplish the following goals:

- Coordinate and support utility company relocation;
- Inspect and document relocation, address changes to the agreement or estimate prior to implementation that may result in funding changes;
- Document relocation activities providing proper support for certification and payment of utility billings; and
- Obtain documentation necessary for project close out

Ensure that the utility companies meet certain responsibilities during the construction process that allow DOT&PF to meet its goals. Ensure the relocation work is completed to both the satisfaction of the utility and the Department by having the utility company:

- Coordinate relocation activities with the Department’s representatives to ensure proper alignment and grade;
- Complete relocations in a safe, timely and most cost effective manner;
- Provide documentation to support billings;

**5.3.1. Initial Process Prior to Relocation**

When a project is certified through design and has met the requirements to proceed to utility relocation, it follows these initial steps:

1. Exhibit A from the utility agreements will form the basis for a Phase 7 Project Development Authorization (PDA), which is submitted to the Project Control Section through the engineering manager. The appropriate funding is then requested through the federal funding source or through state headquarters.
2. The regional utility engineer determines the level of inspection and assigns an inspector. Inspections may be done by the DOT&PF Construction Section.
3. While the project awaits funding approval, an inspector should perform an initial review of the utility agreements and project plans. The review should address any special circumstances laid out within the agreements, such as the following:
  - a. Non-reimbursable/betterment credits and the methodology for accepting those credits; such as;
    - i. Reimbursable percentage
    - ii. Lump sum
  - b. Joint use installations for portions or all of the work and which party is responsible for the lead on the installations;
  - c. Work being done by the Department’s contractor versus work by the utility company; and
  - d. Lump sum reimbursement for all or a portion of the relocation costs;

The agreement should also be reviewed for the use of utility purchase order contracts, verifying that the contracts are on file and

updated to reflect current rates. Comply with DOLWD “Little Davis Bacon” requirements, which apply to all construction contracts on publicly funded projects. Utility work performed under a Line Extension agreement is exempted from DOLWD requirements.

4. After Phase 7 funding approval, the final utility agreements are transmitted to the regional preconstruction engineer for final signature.
5. Once the agreements are fully executed, an ATP letter is sent to the applicable utility companies with a copy of the executed utility agreement.
6. Department of Labor (DOL) is sent the appropriate contract construction costs for each agreement by the regional Utility Section. This information is provided electronically utilizing DOLWD’s online form (ref. Appendix page A-7-125). This establishes the basis of payment of fees by the utility company to DOLWD.

It is at this point in the process that requirements change based on whether relocation is in advance or concurrent of construction.

**5.4. Advance Utility Relocation**

Removing the impacts of coordinating utility relocations from the project schedule can result in faster completion times and potentially reduced bid costs. But advance utility relocations have inherent risks that need to be evaluated prior to the final decision to proceed. These risks include:

- Potential for incorrect installations that create conflicts with project construction; and
- Potential for design changes that increase, reduce or alter the nature of utility conflicts

**5.4.1. Preconstruction Process**

Once funding has been received and the agreements have been executed, the utility company may advertise contracts to complete the relocation work.

These contracts are subject to DOT&PF approval. Verify that the work within the contract is representative of the work required under the agreement. Ensure the utility bid documents comply with the Buy America requirements. Once the contract is acceptable, the Department shall authorize

the utility in writing to proceed with bidding of the contract.

Concurrently with contract bidding or prior to relocation work, the utility must prepare a project Stormwater Pollution Prevention Plan (SWPPP), which is required regardless of whether utility disturbance is less than one acre. DOT&PF may review the SWPPP before it is submitted to the Department of Environmental Conservation (DEC). It may also be reviewed before a Notice of Intent (NOI) is submitted. Once the NOI has been electronically filed, a seven-day waiting period is required prior to commencing ground disturbing activities.

The utility contract bids must be reviewed and approved in writing prior to contract award or the utility may jeopardize full Department participation.

Upon receipt of the utility's recommendation for contract award, the contract costs are reviewed against the agreement costs to determine whether adequate funding is available to proceed. If the contract costs exceed the funding under the agreement, then a change order shall be developed which outlines the difference in costs and the total additional funding required.

After the change order is signed by DOT&PF and the utility, the construction project manager submits it to Project Control with a revised PDA. After the funding is requested the utility is authorized in writing to award the contract.

Since advance utility relocation occurs prior to project construction, the utility may be required to provide work normally performed by the general contractor, such as:

- Securing clearances or permits, such as SHPO, Fish & Game, SWPPP approvals, etc.,
- Reviewing project environmental documents and complying with permits acquired by the Department for project.
- Ensuring project survey control is in place before relocation, allowing the utility to stake relocation alignments. (Coordinate with the Location Section or Design Consultant, as appropriate.)
- Establishing responsibilities for SWPPP Best Management Practices (BMP) prior to and

during the relocations, including inspections and reporting.

- Developing procedures for timely submittal of traffic control plans and notifications to emergency services, school bus services, businesses and residents.

If right-of-way was acquired for the utility relocation, review the documents to determine if there are requirements tied to the parcels that may require special work by the utility or their contractor. These may include the following:

- Clearing restrictions on the parcel, possibly to avoid specific trees or shrubs;
- Restrictions on work, such as time restrictions;
- Special contact notifications prior to starting construction;
- Access requirements (handicap or business),
- Security issues such as placement of temporary or permanent fence; and
- Restrictions on permanent aboveground structures due to access or storage restrictions.

#### **5.4.2. Construction Process**

Once the utility company and the Department have coordinated and completed the preconstruction requirements, the utility or its contractor can commence with relocation activities.

After survey control is in place, the extent of clearing and grubbing required for the relocations should be determined and coordinated between the utility companies.

Joint relocation is encouraged whenever possible to narrow the overall utility footprint in the right-of-way as well as reducing costs and overall installation time. Weekly coordination meetings with the utility companies, the Utility Section, and Construction Section representatives can be helpful. This allows for minimizing duplication of items such as traffic control, surveying, and temporary patching.

Ideally, relocation activities should be completed prior to freezing conditions to allow stabilization of work areas, placement of asphalt patches, and cleanup for winter shut down. However, DOT&PF may determine that it is in the best interest of the project to

continue work and complete the relocation. Possible ramifications would be ripping or thawing of frozen materials or minimized production due to reduced daylight and colder temperatures. These additional costs may well be offset by the timing of construction activities and the fact that coordination of utility relocation has been drastically minimized.

Once the advance utility relocation has been completed and the old facilities removed, all disturbed areas must be stabilized as a requirement of the SWPPP. When stabilization has occurred to the Department's satisfaction, the utility will file a Notice of Termination (NOT) to terminate the SWPPP and construction activities.

If during advance relocation the Department's contractor submits an NOI for the project, the utility company performing advance relocation work under a separate SWPPP files a NOT terminating their SWPPP. Remaining utility relocation work would then be included in and performed under the project SWPPP.

## **5.5. Utility Relocation Concurrent with Project Construction**

Relocating utility facilities concurrent with project construction is becoming a more common method. Several issues make it more conducive to complete the relocation concurrent with the project construction, they are:

- Timing of project certification;
- Ability to work under the project's SWPPP;
- Eliminates duplication of items such as surveying, clearing and grubbing, traffic control, and SWPPP management; and
- Portions of the relocation included in the general contract.

Frequently the schedule for project certification is not conducive to advance relocation. For example, if certification occurs in late Fall or early Spring, utility relocation can wait until the project contract is awarded and the contractor can complete items such as the surveying, clearing and grubbing, and provide an overall project SWPPP.

In most cases, it is more cost effective to include the relocation under the contractor's SWPPP and require the utilities to work closely with the general contractor.

In many cases, it is beneficial to include the utility relocation in the general contract. That is particularly the case for underground utility relocations, such as water and sewer on urban projects. In cases where the project includes tight right-of-way or large cuts or fills it may be more cost effective to have the contractor install facilities such as casings or conduits to facilitate the relocation. These types of installations require close coordination through the project special provisions and coordination during construction between the general contractor, the Department, and the utility companies.

### **5.5.1. Preconstruction Process**

If the utility agreement is funded from Phase 4, it cannot be executed until the project has Authority to Advertise (ATA). The executed utility agreements will be provided to the utility with an ATP, addressing items such as a proposed schedule for relocation contingent on the general contractor's schedule.

Utility contracts are subject to Department review and approval to verify that the work within the contract is representative of the work required under the agreement. Once the contract is acceptable, the Department authorizes the utility in writing to proceed with contract bidding. Bidding should occur concurrent with bidding of the general contract.

Award of the relocation contracts may be based on the schedule of the general contract award to assure that the project SWPPP is in place and required surveying and clearing and grubbing are completed. As with advance relocation, utility contract bids must be reviewed and approved in writing prior to award of any contract, otherwise the utility may jeopardize full Department participation.

Once a low bidder is determined for the general contract, any contract items relating to utility relocations should be evaluated and the Phase 4 (construction) costs updated to reflect actual contract costs. Utility relocations under a Utility Reimbursable Services Agreement (URSA) shall be recalculated to reflect contract costs. Work by DOT&PF for a utility company under a Utility Reimbursable Services Agreement (URSA) shall be updated to reflect actual bid unit prices. The revised estimate is submitted to the utility company for review, and to the Project Control Section.

As with advance relocation, right-of-way documents should be reviewed for stipulations that may affect the utility relocation work.

Once the project has been awarded and the general contractor has completed the appropriate documentation to receive an ATP, then a preconstruction meeting or partnering meeting will be scheduled.

It is common for a separate utility preconstruction meeting to be scheduled with the appropriate utility companies. The Department's utility representative should attend the preconstruction meeting as well as be involved in scheduling the utility preconstruction meeting.

### **5.5.2. Construction Process**

Once the SWPPP is in place and the general contractor has provided surveying, and clearing and grubbing as required under the project special provisions, utility relocation may commence with DOT&PF approval.

Weekly project scheduling meetings are commonly used to assure that the relocation work proceeds on schedule with the contractor's work. It is imperative that utility representatives attend to confirm schedules and to coordinate work so that the contractor's SWPPP Best Management Practices (BMPs) are in place for all work. Items such as traffic control need to be coordinated to avoid duplication or conflicts.

As relocation progresses, the Department's utility inspector needs to work closely with the construction project engineer to assure that relocations are proceeding as scheduled. If field changes occur to the project design, they should be evaluated to determine if they impact proposed relocations. Coordinate changes with the construction project engineer.

As relocations progress, the utility inspector should verify whether hours or units in the agreement estimate are being overrun. If overages or changes to the agreement occur, the utility inspector shall initiate a change order document to the agreement addressing additional funding required to complete all required relocations and to document the reasons.

As relocations are completed, the work areas are cleaned up and final inspections made to ensure that work is satisfactory to the construction project engineer.

## **5.6. Partial Advance Utility Relocation**

In certain situations, relocation activities may begin prior to ATA and continue into the construction phase. This would occur where certain utility relocations

would put restrictions on the contractor's construction activities. The items addressed under Section 5.4 of this manual will be required, such as preparation and implementation of a SWPPP by the lead utility.

Once the general contract has been awarded and the contractor's NOI is in place, the utility company will file a Notice of Termination (NOT) on the utility SWPPP and all work will continue under the project SWPPP. From this point forward the process will move to the process under Section 5.5 of this manual.

## **5.7. Inspection**

One of the duties of a Department inspector whether from the regional Utilities Section, Construction Section, or a contract inspector, is to act as the liaison between the utility company and DOT&PF. For advance relocation, this only involves a general liaison with the construction project engineer. In the case of concurrent relocation with project construction, this will involve liaison with both the construction project engineer and general contractor as well.

The inspector maintains records that allow for verifying and certifying utility billings and documents all changes to the scope of work and cost estimates.

Relocation inspection reports are maintained either utilizing a pre-established form or daily diary with records of units or appropriate time and material records. Force account records should be maintained in accordance with the applicable utility company's audit system. Accounting methods approved by audit determine how the utility can recover costs. The inspection records should mirror how reimbursement is to be made to the utility.

Although records should be coordinated with the utility's construction representative, the records maintained should in no way be solely based on the records of the utility. The records should be maintained in a method where on a routine basis the overall work completed can be compared to the agreement to evaluate the overall budget of the relocation costs. If at some point the records indicate that the total hours estimated are nearly exhausted but the relocation is not completed, then a change order to the agreement shall be prepared estimating hours remaining to complete the relocation. The current overheads need to be applied to the hours to assure adequate funds are represented through the change order.

The regional utility engineer determines the actual inspection levels. The following are presented as general guidelines only for determining the frequency and level of inspection:

- Complexity of the utility relocation
- Cost of the relocation
- Location of work and impact to the travelling public, businesses, and residences
- Duration of relocation
- Sensitivity of location in terms of environmental, historical, as well as potential contaminated areas

Weekly utility scheduling meetings can help coordinate the work and promote cooperation between the parties. Coordinate work so traffic control and SWPPP BMPs do not create conflicts.

## 5.8. Change Orders

When substantial changes to the scope of work, quantities or cost of a utility relocation agreement occur use one of the following methods to modify the agreement:

- **Utility Change Order** – An order written by the Department to document changes to the utility agreement within its general scope of work, establishing the basis for payment for all affected work. The document should address items such as cost changes and time adjustments required. Use Utility Change Order Form 25D-256A (see Chapter 7, Appendix A-124).
- **Supplemental Utility Agreement** — DOT&PF negotiates a written agreement with the utility authorizing any work beyond the general scope of the original utility agreement. The agreement must address the basis for payment by the Department. Use Supplemental Utility Agreement Form 25D-254 (see Chapter 7, Appendix A-114).

If the utility contract bid results differ from the agreement estimated cost use the bid prices for documentation in a utility change order. The utility change order can be used to document funding changes in a Phase 7 PDA request if needed.

The Department approves any changes to a utility agreement for additional work. If they are accepted, DOT&PF will execute a utility change order to the utility agreement addressing the changes in scope and the basis of payment.

Minor changes occurring throughout the relocation process may be documented and incorporated into a single change order. Minor changes are those that individually do not warrant a utility change order but, taken in the aggregate, substantially affect the overall scope or cost estimate of the utility agreement.

Changes to the Department’s construction contract that affect utility facilities require concurrence from the regional utility engineer and approval of the affected utility.

## 5.9. Billings

DOT&PF reimburses the utility for actual costs of adjustment, removal, or relocation of facilities incidental to project construction in accordance with Title 17 of the Alaska Administrative Code. The basis for reimbursement is an executed utility agreement between the Department and the utility.

Only those costs incurred by the utility after authorization of the work will be eligible for reimbursement. For preliminary engineering (PE), the authorization will occur at the beginning of the design process by a letter authorizing PE and providing a notice to relocate. All construction related costs are based on the date the preconstruction engineer or a designated signatory signs the utility agreement, or the date the ATP was issued if different.

Utility billings are submitted for payment to the regional utility engineer in accordance with applicable statutes, codes, and procedures. The utility may bill on a partial or final basis depending on project duration and costs. Utility billings must reflect actual costs that can be traced through the utility’s accounting records by a work order number assigned to the project.

A DOT&PF billing information packet (see Chapter 7, Appendix A-130) outlines the requirements for submitting billings for payment. They shall include the following attachments:

- Summary sheet indicating all previous partial billings submitted;

- Breakdown of billings costs by appropriate category, PE, construction engineering (CE), contract construction, etc.;
- Invoices for all contractors or suppliers within the billing;
- Backup for all in-house labor charges reflecting hours and rates;
- Backup for material issues reflecting quantities and unit costs; and
- Application of credits or percentages as per the utility agreement.

#### **5.9.1. Billing Review and Verification**

The regional utility engineer reviews billings in a manner that they can be certified for payment. The initial billing review verifies that the referenced utility agreement number is correct as well as the utility work order number(s) and is accompanied by the proper certifications required by the agreement. The billing should indicate the correct billing number as well as previous billing amounts. The billing time frame should be indicated addressing the period of cost accumulation. For FHWA funded projects, a signed certification stating the utility has complied with Buy America and that the material certifications will be maintained for review.

When the initial review confirms that the information is correct, the detailed information is reviewed. If the utility agreement has established a reimbursable/betterment percentage, the review process ensures that it is applied correctly, and credits have been applied. Contractor costs must include invoices to substantiate the costs, verify that sub-contracts are on file for rate verification or units. Material purchases must include vendor invoices. Materials issued and in-house labor should include appropriate backup with enough detail to verify hours and quantities billed. All billed units or hours will be compared to field documentation and the utility agreement to ensure the billing represents the work performed.

After reviewing billings and verifying costs, the regional utility engineer can approve for payment through the regional fiscal section. The billing should be transmitted to the regional fiscal section by memorandum indicating the approved billing amount and appropriate coding for the costs by collocate, program code, ledger code and account number.

Once the project is complete, the utility submits a final billing to certify that costs are complete as per the utility agreement and any approved change orders.

#### **5.10. Audits**

The Department requests system audits of the utility companies that are anticipated to have project work in the next calendar year. The audits establish applicable overhead rates and other costs that are applied to billings during that calendar year.

Completed projects may also be audited with a final audit report determining whether all cost billed and payments issued were done so correctly.

#### **5.11. Project Close out**

When all financial obligations are satisfied with utility companies, the regional utility engineer will commence the utility project close out process.

The Department sends a Project Close-Out letter to all utilities listing projects which are ready to close.

Internal Review will audit the Final Projects for each utility and provide an audit memo to the regional utility engineer and to the utility with a Final Audit Number.

Any audit required credits are debits are paid and the project files are closed.

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