

SECTION 105.00 - CONTROL OF WORK

Department representatives should produce correspondence in accordance with [Administrative Policy A-06-02](#) and [ITD Style and Communications Guide](#). Treat e-mail messages the same as an [ITD 0500](#). Carbon copy (i.e. cc) the appropriate individuals. Write e-mail messages in a professional manner.

Place pertinent communications in the official project file in ProjectWise. Pertinent communications include:

- The construction contract documents.
- Federal and State regulations pertaining to the contract.
- Disputes that impact the contract or have the potential to escalate to a significant or sensitive issue.
- Change orders or potential change orders.
- Expenditure of Department funds.

105.01 Authority of the Engineer and Suspension of Work. The Engineer may suspend, delay, or interrupt the Contractor's operation at his or her discretion. The suspension must be in writing. If such suspension or delay is for an unreasonable time, and the Contractor's costs are increased by an unreasonable delay, prepare a change order to pay for the increased costs in accordance with ITD Standard Specifications For Highway Construction (SSHC) [104.02.D](#) and [109.03.D](#). Keep accurate force account records as supporting documentation. The Contractor is required to send written notice to the Engineer when the Contractor considers a delay or interruption unreasonable. The notice must be received within 7 calendar days of the receipt of notice to resume work in accordance with [SSHC 104.02.D](#). Written notice for the Contractor to resume work is also required.

Write the reason for the delay in the space provided on the appropriate form.

105.02 Plans and Working Drawings. The Contractor must have a copy of the contract and a complete set of plans and approved working drawings at the project site at all times. Make this requirement clear at the preconstruction conference. Also discuss submittal requirements for working drawings including the additional requirements for structures and submittal timeframes.

Retain the consultants who designed the project to check and approve working drawings on those projects or project portions which they designed. The District Engineer, or the District-appointed consultant agreement administrator, and the local sponsor (if one is involved) will be responsible for negotiating a supplemental agreement with the consultant for construction engineering. The Consultant Administration Unit (CAU) will process the supplemental agreement. The consultant cannot be requested to do this work without a supplemental agreement.

An ITD 2101, Project Authorization and Agreement, must be approved for obligating increased funds in construction engineering (CE) to cover the estimated cost of the agreement before authorizing the

consultant to proceed with any work. Consultant work done on construction projects before approval of an ITD 2101 will not be eligible for federal-aid participation.

Once authorized, the Engineer will transmit project documents from the Contractor to the consultant and from the consultant back to the Contractor.

105.03 Conformity with Plans and Specifications. Non-specification material or work that will perform as intended may be accepted with a price adjustment based on engineering judgment. A price adjustment may be applied by the Engineer based on engineering judgment. The Engineer must document the basis of acceptance in writing. Accept material and work under this condition by change order except as described below.

When price adjustments are specified [ITD SSHC 502.01.B](#) and [Laboratory Operations Manual](#), these provisions must be followed instead of the preceding procedure.

105.04 Coordination of Contract Documents. The intent of contract documents is to work together and read as a whole. Discrepancies between the contract documents are addressed in [ITD SSHC 105.04](#). The Contractor is obligated to immediately notify the Engineer when a conflict, error, or omission is discovered so the Engineer has the opportunity to make corrections and interpretations as necessary.

105.07 Utility Facilities (Including Railroads). The Engineer must be familiar with the work to be done by the various utility/railroad companies and the time limits, including material delivery, needed to complete the work. He or she must make this information available to the Contractor as part of the bid package.

Railroad orientation and safety training is mandatory **before** entering railroad right-of-way. Details regarding the required orientation and safety training can be found at the following link: http://www.fra.dot.gov/eLib/details/L04906#p1_z25_gD_ILR_ILI_ICM. District and consultant personnel should contact the district training specialist and ITD HQ personnel should contact the HQ training specialist for instructions on how to obtain the required training.

105.07.01 Notice to Proceed with Work. On all projects, utility adjustment work cannot be performed until written authority to proceed is issued by the Idaho Transportation Board. Any necessary utility/railroad agreements will be issued by the District Engineer. Verify that copies of the utility/railroad agreements for work at State expense are in the Engineer's office, and examined before the utility/railroad company starts work so that inspection requirements are met.

Before allowing work by utilities or railroads that involve or is intended to involve Federal-aid participation, the Engineer should verify that an approved ITD 2101 obligates funds for such work. If authorization is not obtained before work performance, the work may not be eligible for federal-aid participation.

105.07.02 Preparation. Performance of the Contractor's work may be delayed because utilities or railroads fail to remove, relocate or alter their facilities when scheduled. Every effort should be made to invite the utility/railroad company to the preconstruction conference so their schedule for doing the work can be discussed and incorporated into the Contractor's CPM schedule.

The Engineer should take the following actions to prevent delays:

- 1) During project advertisement, contact the utility/railroad representative listed in the proposal to ensure that they are the correct contact and aware that the project will soon be let.
 - a) Verify that they have a copy of the plans and specifications, and that their facilities are correctly shown to the best of their knowledge.
 - b) Determine how much advance notification is needed from the Contractor for ordering materials and scheduling, and how much time they will need to complete the work.
 - c) Discuss work requirements.
 - d) Discuss the billing procedure shown on the agreement.
 - e) Discuss where and when recovered materials can be inspected.
 - f) Ensure that the Utility/Railroad Company shall notify the Department of work completion.
 - g) Emphasize to the utility/railroad representative that any proposed modification from that shown on the plans and agreement shall be bilaterally approved in advance by change order. Deviation from the plans and agreement without such prior approval will remove that portion of the work from any financial obligation by the State of Idaho or FHWA.
- 2) When notice of award is sent to the successful bidder, share the information obtained from the utility/railroad during project advertisement with the Contractor. This information should be provided to the Contractor for inclusion in the CPM schedule.
- 3) Invite utility/railroad owner representative to the preconstruction conference and include their work as a topic. It is recommended that this discussion occur early in the conference to reduce their representatives' time commitment.

At the preconstruction conference, the Engineer shall:

- 1) Discuss the items outlined above.
- 2) Emphasize that it is the Contractor's responsibility to coordinate the work which includes:
 - a) **Timely** prior notification of when utilities/railroads need to perform their work, and
 - b) Providing utility companies and railroads sufficient notice and time in the schedule to do the work.
- 3) Inform the Contractor that if delays occur because of their company's failure to properly communicate and coordinate with the utilities or railroads (e.g. untimely notification, not enough time given to utilities/railroads to accomplish their work) it will be considered a non-excusable delay in accordance with ITD [SSHC 108.07.E](#).
- 4) Adequately document in the meeting minutes the necessary utility/railroad notification and work schedule requirements.
- 5) Ensure the CPM schedule shows utility/railroad work as activities and verify that their representatives agree with the durations shown. Verify the Contractor's communication protocol

satisfies utility/railroad communication requirements for schedule adjustments and updates. This can be accomplished by the following:

- a) Include as a topic during the preconstruction meeting, regular weekly progress meetings, or both
- b) Open discussion with the utility or railroad representatives.

Remember that there is no contractual relationship between the Contractor and the utilities/railroad. The preceding activities help facilitate communications between the Contractor and the utility/railroad.

At the preconstruction conference, document that the Contractor understands that the communication, coordination and scheduling must be with the utility/railroad **owner** throughout the project and not the utility/railroad **subcontractor**. Utility/railroad owners could justifiably claim that they were unaware of project requirements and therefore are not liable for project delay costs. If delays occur at no fault of the Contractor, and the Contractor has done everything possible to mitigate the delay impacts, an adjustment to the contract; i.e. time and costs, may be justified as an excusable, compensable delay in accordance with ITD [SSHC 108.07.D](#). The FHWA will participate in utility compensable delay costs, provided that:

- Utilities were either relocated and/or adjusted before advertising for bids, or necessary coordination was arranged with the appropriate utility companies to avoid causing any delay to the construction contractor;
- The approved procedures in the Department's utility accommodation policy were followed in making arrangements for utility relocation and/or adjustment;
- The construction work was actually delayed by the utility work through no fault of the construction contractor;
- The Department exercised reasonable efforts to control the situation.

Take the following actions at the first indication of project delays due to utility/railroad work:

- Discuss the situation with the Contractor. Verify that the Contractor has been complying with ITD [SSHC 105.07](#). If the Contractor indicates that the delay will have an impact to the project, remind the Contractor of their duty to mitigate damages and provide written notice of project delay to both the Department and the utility/railroad **owner**.
- If applicable, contact the utility/railroad **owner** and discuss the potential project delay. Follow up with written correspondence documenting the discussion. The correspondence should indicate that the Department may pursue reimbursement for costs associated with the delay from the utility/railroad company if it is deemed that the utility/railroad company caused the delay.
- If it is deemed that the utility/railroad company is at fault, contact ITD's Legal Section to determine which actions, if any, should be pursued to recover delay costs from the utility/railroad company.

105.07.03 Construction. The Engineer should maintain frequent contact with the utility/railroad company regarding any changes in operations such as delays to equipment, forces, or schedule.

The Engineer must:

- 1) Oversee inspection of utility/railroad work for compliance with plans and agreement requirements. One individual should be assigned the responsibility for inspection and completion of "utility and railroad records." That person:
 - a) Inspects the work in sufficient detail to ensure that the exact work contemplated by the agreement is accomplished.
 - b) Determines that only authorized work is charged to the State.
 - c) Determines that credit is received for salvaged material.
 - d) Maintains proper records. Fill out an adequate diary, [ITD 0025, Standard Construction Diary](#), to support the work. The diary entries for actual cost agreements should be complete enough to cover:
 - i. the utility/railroad company's personnel and equipment;
 - ii. date work started and stopped;
 - iii. verification of work done, activity, and for posting to the utility/railroad ledger.
 - e) Reference marks can be used in the reporting portion of the diary so office staff is alerted to record pertinent information in the ledger. Diaries maintained for fixed-cost, lump-sum agreements do not require as much detail as actual cost agreements. The records should support work accomplished and necessary information to be posted in the utility/railroad ledger, and ensure that proposed work in the agreement was completed. Copies of daily work orders or other reports can be obtained from the utility/railroad company to further support the work.
 - f) Inspect recovered materials before disposal per Utility/Railroad Agreement. The method used for inspecting recovered materials should be arranged with the company supervisor. Most utility/railroad companies have a limited stockpile area for recovered materials; therefore, they usually salvage or dispose of materials on a daily basis. Reviewing daily retirement reports for disposition of recovered material can satisfy inspection requirements. Normally, the company will dispose of any material classified as junk. Make sure junk is not reused on the project.
- 2) Complete and Oversee Utility Change Orders:
 - a) If there are changes from the plans or agreement for utility/railroad work to be done at Department expense, a utility change order ([ITD 0403](#)) must be approved and executed before the work begins. When the utility or railroad company desires to have work performed by the Contractor or his subcontractor at unit bid prices, an [ITD 0403](#) must be initiated to remove the work from the utility agreement. The utility or railroad company then prepares an [ITD 0400](#) authorizing the Contractor to perform the work.
 - b) Approval from the District Engineer is required on the [ITD 2317](#). The [ITD 0403](#) must be signed by the District Engineer or an authorized utility/railroad representative. Send a copy of the executed change order to the Contracting Services Engineer.

- c) Reflect these changes on as-built drawings before the project is closed out.
- d) Verify funds are obligated on an ITD 2101 for any additional cost for utility/railroad work before the work begins.
- 3) Review and pay billings from the utility/railroad companies:
 - a) Utility/railroad companies shall submit billing(s) to the Engineer for reimbursement of facility relocation costs in accordance with a Utility/Railroad Agreement. Supporting cost documentation shall be provided for Actual Cost Agreements. If there are changes in the scope of work, extra work, or major changes in the planned work covered by the approved agreement, plans, and estimates, then reimbursement will be limited to costs covered by an approved utility change order modifying the agreement.
 - b) Billing(s) and supporting cost documentation are to be reviewed by the Engineer for obvious errors or discrepancies with the understanding that ITD personnel are not necessarily experts in utility/railroad work.
 - c) Questions regarding billings are to be directed to the billing company. Any billing disputes or adjustments are to be resolved with the company before final payment.
 - d) Established rates for overhead, equipment and other items may be obtained from the Department's Internal Review section. An audit, by Internal Review, of either the billings or billing procedures of a utility/railroad company can be requested at any time by the District.
 - e) Payments are to be made by the District in accordance with the railroad or utility agreement and the [Financial Services Manual](#). The District prepares an Invoice and Tracking form that in turn will generate a warrant from the State Controller.
 - f) Payments are to be made within 60 days in accordance with [§67-2302 of Idaho Code](#) or as specified by the agreement. Otherwise, the billing utility or railroad company may assess a late fee and/or interest charge.
 - g) Payments are to be reviewed by the District Records Inspector in accordance with Section V of the District Record Inspector Manual.

105.07.04 Post Construction. Generate a new utility permit to cover each utility (excluding railroads) that crosses or occupies the right-of-way of a project. The utility permit requirement applies to all utility installations, regardless of whether covered by a utility agreement or not. A permit is required for existing facilities relocated at company expense, even though the proposed new locations are shown on the construction plans. Existing facilities not relocated and remaining within the highway right-of-way after construction also require permits unless those facilities are covered by existing utility permits.

Utility permit preparation is the Engineer's responsibility. Finalize the permit before receiving the final billing from the company and after the utility work is complete so that the exact location of the utility is known. The policy for the accommodation of utilities is defined in the Guide for Utility Management manual. Processing and maintaining utility permits is the District's responsibility.

Review claims by a utility or railroad company for additional money in regard to an agreement with the company. Some agreements, like railroad agreements, require that ITD reimburse the company for additional costs or losses. Generally, a claim is evaluated by the District for payment, the same as the

procedure used for Contractor's claims including appeals. A claim may be paid by an insurance company or bonding company associated with the project, or by ITD.

Obtaining funding for any claim payments is a district responsibility. Claim payments are made in accordance with the [Financial Services Manual](#). No retained amount is withheld from a claim payment.

Final payments and any retained amount withheld from previous payments are paid in full in accordance with the [Financial Services Manual](#) and Section V of the District Record Inspector Manual. An [ITD 1865](#), Utility Railroad Fiscal Final Review Report, is prepared by the Engineer and submitted to the District Records Inspector with the final billing. Send these forms to the Financial Services Controller with a copy to the Contracting Services Engineer. Instructions for completing the form are shown on the reverse side of the form. An audit by Internal Review of either the billings or billing procedures of the railroad or utility company can be requested through the [ITD 1865](#). Generally, audits are not conducted on agreement amounts less than \$200,000 or for agreements where the actual cost exceeds the estimated amount by less than 15% or \$50,000.

105.07.05 Local Forces and Railroad Projects by Agreement (Non-Bid Projects). The District will generate the plans, estimate, and the ITD 2101. A copy of the Railroad Agreement is provided to Financial Services so the project can be considered contractual with the Federal Highway Administration via the ITD 2101. The District will send an Authorization to Proceed letter to the railroad owner with the original signed agreement after funding approval.

105.08 Construction Stakes, Lines, and Grades. Unless otherwise specified, initial surveying is provided by the Engineer in accordance with ITD [SSHC 105.08](#). Other lines and grades needed to perform the work such as offset points, string lines for surface courses, location of dowel baskets, tie bars, saw lines, stripe spotting, etc., are the Contractor's responsibility. The Engineer will provide copies of necessary notes or drawings to accomplish the work.

The Engineer will provide roadway centerline and a benchmark for bridges, and an accessible control line and benchmark for other major structures such as retaining walls. The Engineer will also set structure centerline and benchmarks for minor structures and culverts. The Contractor is responsible for supplementary lines and grades.

The Engineer will spot check survey work performed by the Contractor. Surveying errors are to be corrected at no additional cost to the Department.

105.08.01 Monuments. The Engineer or the Contractor's surveyor shall set public land corners, street monuments, and right-of-way monuments from references provided by a Professional Land Surveyor licensed in the State of Idaho.

Before final acceptance of projects that include contract surveying work, a Professional Land Surveyor licensed in the State of Idaho shall certify that street monuments, right-of-way monuments, and public land corners are recorded in accordance with [Title 55, Chapter 16 of Idaho Code](#) for perpetuation and

filing. For all other projects, the Department is responsible for survey monument work. The Engineer should address the status of this work in the final inspection report.

105.09 Authority of the Resident Engineer. [Title 23 CFR 635.105](#) entrusts the Department with the responsibility for construction of Federal-aid projects. The Department is not relieved of this responsibility when authorizing a local public agency (LPA) or other federal agency, or when employing a consultant to provide construction engineering and inspection (CE&I) services, unless specifically allowed by a Department-local stewardship agreement, State-local agreement, or memorandum of understanding. The regulation requires the Department to employ a full-time Engineer to be in responsible charge of these projects.

The Engineer in immediate and responsible charge shall:

- 1) Be aware of the day-to-day operations on the project
- 2) Be aware of and involved in decisions, including those for changes and extra work, and supplemental agreement requirements for consultants
- 3) Ensure inspector qualifications, assignments and job performance meet project requirements
- 4) Visit the project on a frequency that is commensurate with the magnitude and complexity of the project.

105.10 Duties of the Inspector. Personnel working on Department projects must be qualified in accordance with [Section 114](#) of this manual. Inspectors must take care that they do not “alter or waive the contract requirements, issue instructions contrary to the contract, or direct the Contractor’s work.” Such actions can lead to constructive changes to the contract. Inspectors should not allow work to continue if it is not in compliance to the contract.

105.11 Inspection of Work. Materials incorporated in a project and the details of the work are subject to inspection by the Engineer. The Contractor is to provide the necessary access and information, so the Engineer can inspect the work and materials. See ITD [SSHHC 105.11](#) for requirements.

Project inspection and materials testing are important and necessary activities to guarantee the desired quality of highway construction. The inspection activities, however, also represent a large portion of the cost of construction engineering. The Department will ensure that an adequate construction inspection staff is available to control the work and to eliminate unnecessary work.

Construction/Materials (CM) Section reviewer(s) will periodically review projects under construction to assist the District and promote statewide contract administration uniformity.

The CM reviewer will hold a closeout conference with the Engineering Manager, or a delegate, at the end of all inspections and before publishing the report and document the results of this discussion, and with whom, at the end of the inspection report. If it is not practical to hold the closeout conference while still in the field, it may be held by telephone or e-mail correspondence after returning to the office.

If any other unit of government, political subdivision, or utility is going to pay for a portion of the work being done, they have the right to inspect the work under their jurisdiction. If they have any suggestions as to work or materials, their comments are to be submitted to the Engineer, since the Department administers the contract.

Maintenance personnel should be provided an opportunity to identify potential problems. The Engineer should review the work with the maintenance foreman who will maintain the finished project. During this review, the Engineer should explain any unusual features of the project and ask for maintenance suggestions.

The Engineer will notify the Headquarters Bridge Engineer and Geotechnical Engineer before the substructure completion on any new bridge construction project that includes any substructure part constructed in the water or that will be underwater. This notification will allow for an underwater inspection of structures that might be scour critical, and provide corrective actions before project completion. In addition, the Engineer will review newly constructed bridges with the Bridge Inspection Engineer. During this review, the Engineer will point out any problem areas noted during construction. The Bridge Inspection Engineer should note any areas that will require follow-up during routine bridge inspections. Diary entries of these reviews should be made showing dates, participant's names, suggestions, and problems discussed.

105.13 Load Regulations. The Contractor, subcontractor, and materials suppliers must follow legal load regulations when material is hauled on public roads beyond the project limits. Use the Motor Carrier Services web page to obtain the Department's legal allowable gross load chart and 129,000 lb. legal allowable load chart:

<http://www.itd.idaho.gov/dmv/poe/documents/LegalAllowableGrossLoadsChart.pdf>

<http://www.itd.idaho.gov/dmv/cvs/129k/129klegalallowableloadschart.pdf>

or

http://www.itd.idaho.gov/dmv/cvs/129k/RoutesApproved_129k.pdf (which shows the 129k approved routes that may be used)

Use the charts to calculate the total gross legal weight allowed for each vehicle configuration and take into account applicable "Notes, Explanations and Restrictions". When calculating axle spacing to determine legal weight, round up or down to the nearest foot (e.g. six inches or more – round up to the next foot). Interior axle spacing must also be measured to determine allowable weights on the axle combinations involved.

Idaho law requires that owner/operators obtain an overlegal permit or establish intent to obtain an overlegal permit by contacting the Overlegal Permit office before moving a vehicle on a public road.

Check vehicle registration to ensure that trucks are licensed to carry their legal allowable weight. (Some trucks will be registered for weights exceeding legal allowable gross loads or practical axle loadings.) Do not allow vehicles to exceed legal gross weight and axle weights unless registered to haul this weight.

All highways are limited to 80,000 lb. gross weight unless an excess weight permit is obtained or the route is approved for 129k loads.

The Department has the discretion to reduce the maximum allowed listed weight limits to reduce the potential for damage to public roads, bridges and the project.

In addition to enforcing legal load regulations, control the loads hauled within project limits in connection with other operations such as earthwork, borrow and delivered materials (e.g. hotmix or concrete). The Engineer should also review bridges on potential haul routes to assess their condition, and if they are H-15 or lessor design. A list of posted bridges on the State Highway System that have load restrictions is on the Motor Carrier Services web page containing the legal allowable gross loads chart.

Operation of combinations of vehicles exceeding legal length limits, but that do not exceed 105 ft. permit limit, are allowed on routes designated by the Idaho Transportation Board. The following are legal length limits:

<http://www.itd.idaho.gov/dmv/poe/LegalWidthHeightLength.htm>

If the Contractor obtains permission from a County to haul over-legal loads and/or over-length on county roads, the Engineer should request a copy of the agreement. Review the agreement before authorizing the Contractor to proceed.

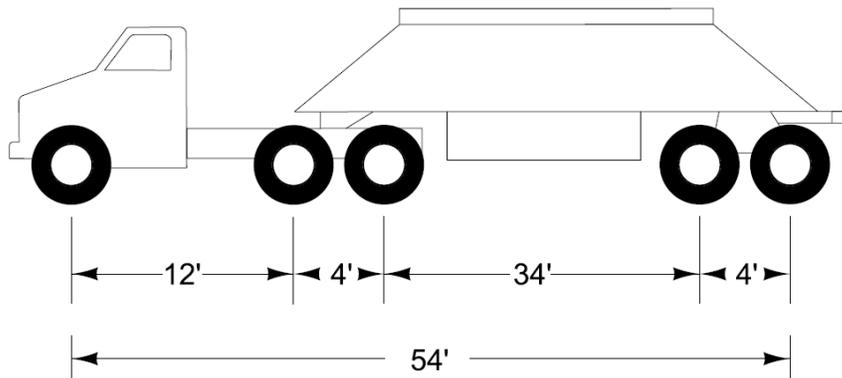
The Engineer, accompanied by the Contractor, should arrange an inspection of public haul roads before starting hauling operations. Governmental and county representatives should be present when inspecting their routes. Everyone involved should be encouraged to take before and after pictures, and document the inspection.

To satisfy the requirements of ITD [SSHC 105.14.C](#), Maintenance of Public Haul Roads, a final inspection should be made of the restored haul roads with concerned parties present. The Engineer should document this inspection and advise the Contractor in writing of deficiencies.

105.13.01 Hauling Over-Legal Loads within Construction Projects. The Contractor is allowed to haul unlimited weights on the subgrade providing no damage is caused to structures, roadway, or other construction types. However, the Contractor can only haul legal weight on the sub-base, base and surfacing courses, unless otherwise granted written permission by the Engineer.

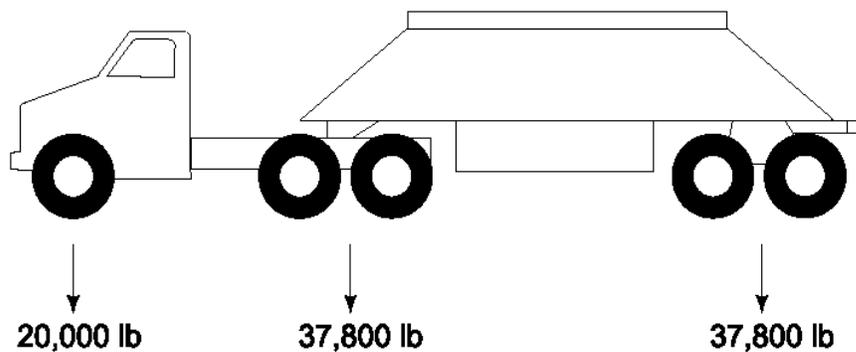
105.13.02 Examples of Computing Legal Weights. Following are examples of two different truck-trailer combinations for which legal weights are calculated.

Example #1: The Resident tells the Contractor that legal weights will be hauled. The Contractor wants to know what the legal weights will be for the configuration they are using. The Engineer can show them the following sample diagrams and verify the following information: 1. A copy of the vehicle registration to see what they are registered for (vehicles must be registered for the legal gross weight they can carry). 2. Does the carrier have overlegal permits (if needed). 3. Axle spacing's of the vehicle configuration to determine legal weight that can be carried.

Sample Vehicle

1. 49-1001(9)

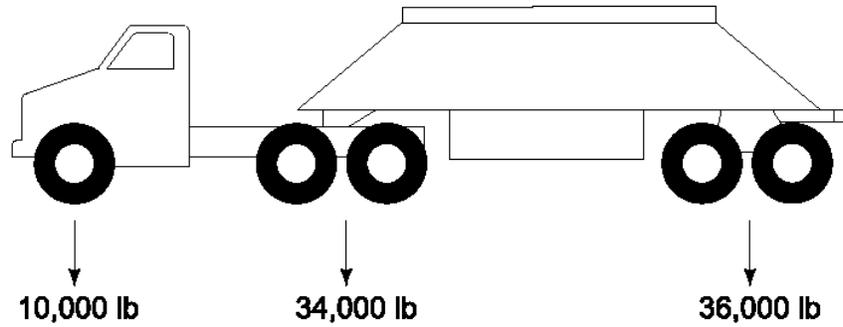
From the legal allowable gross loads chart [49-1001\(9\)](#) columns K & L the maximum gross weight is 80,000 lbs. for non-interstate routes with any commodity. A tandem axle may go up to a maximum of 37,800 lbs. and the steer axle weight is figured at 600 lbs. per inch width of tire.



$$20,000 \text{ lb} + 37,800 \text{ lb} + 37,800 \text{ lb} = 95,600 \text{ lb}$$

This is not a legal weight and is 15,600 lbs. over the gross legal weight of 80,000 lbs. Therefore, it would be necessary to reduce individual axle and tandem loading to achieve a gross weight of 80,000 lbs. or less.

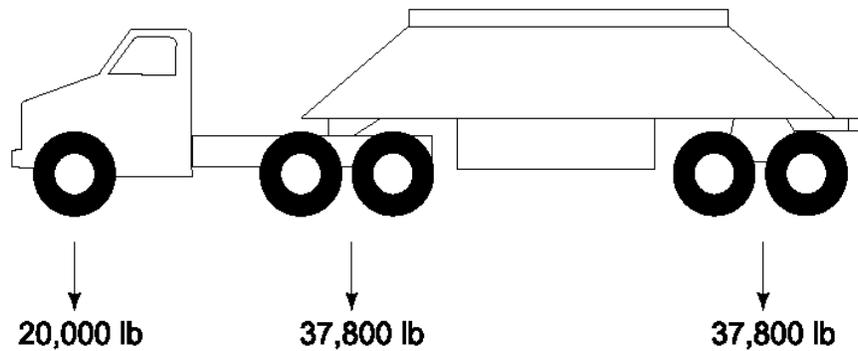
Practical load on the front axle is 10,000 lbs. So 70,000 lbs. would need to be distributed over the two tandem axles, not exceeding 37,800 lbs. on either tandem.



$$10,000 \text{ lb} + 34,000 \text{ lb} + 36,000 \text{ lb} = 80,000 \text{ lb}$$

2. 49-1001(2):

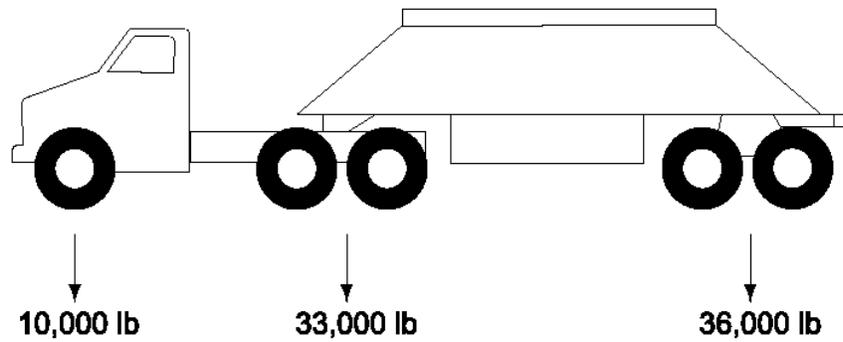
From the legal allowable gross loads chart [49-1001\(2\)](#) columns A & B the maximum gross weight is 79,000 lbs. for interstate routes with exempt commodities (listed on back of chart). A tandem axle may go up to a maximum of 37,800 lbs. and steer axle weight is figured at 600 lbs. per inch width of tire.



$$20,000 \text{ lb} + 37,800 \text{ lb} + 37,800 \text{ lb} = 95,600 \text{ lb}$$

This is not a legal weight and is 16,600 lbs. over the gross legal weight of 79,000 lbs. Therefore, it would be necessary to reduce individual axle and tandem loading to achieve a gross weight of 79,000 lbs. or less.

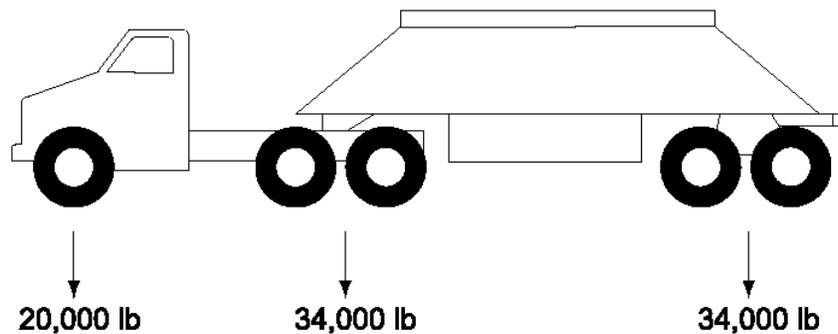
Practical load on the front axle is 10,000 lbs. So 69,000 lbs. would need to be distributed over the two tandem axles, not exceeding 37,800 lbs. on either tandem.



$$10,000 \text{ lb} + 33,000 \text{ lb} + 36,000 \text{ lb} = 79,000 \text{ lb}$$

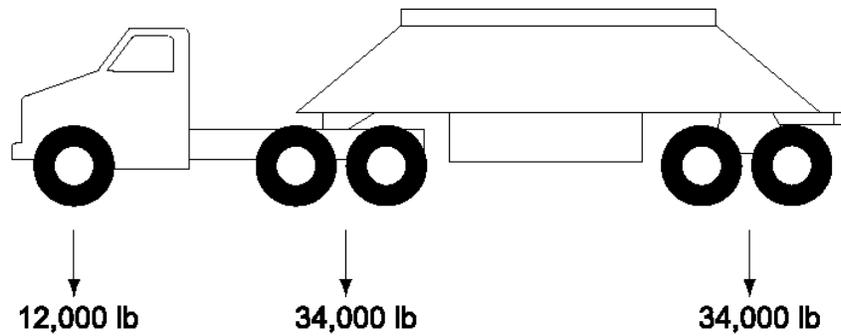
3. 49-1001(1)

From the legal allowable gross loads chart [49-1001\(1\)](#) columns C thru J the maximum gross weight is 105,500 lbs. for interstate routes and non-interstate routes. A tandem axle may go up to a maximum of 34,000 lbs. and steer axle weight is figured at 600 lbs. per inch width of tire. They must also meet the internal bridge weights from groups of axles to groups of axles.



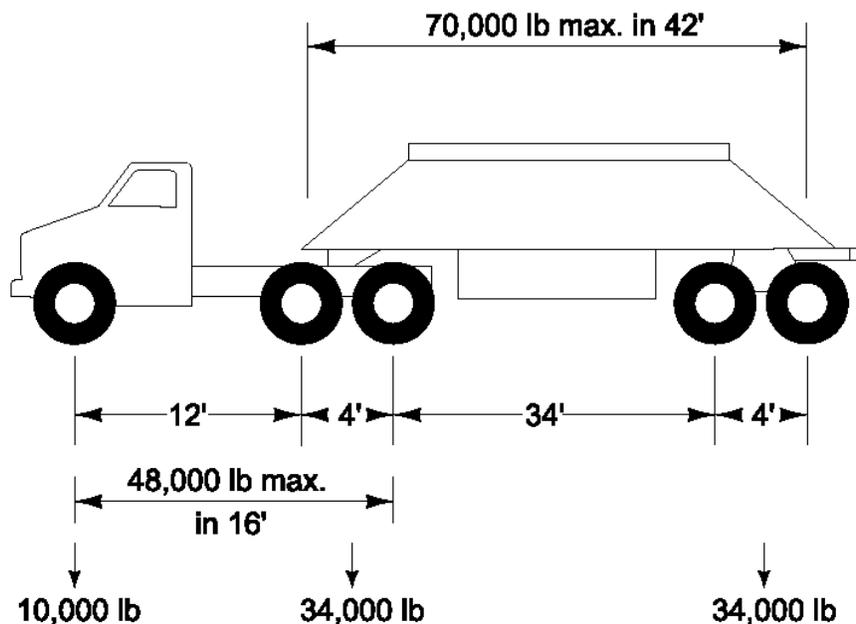
$$20,000 \text{ lb} + 34,000 \text{ lb} + 34,000 \text{ lb} = 88,000 \text{ lb}$$

This exceeds the maximum legal weight of 80,000 lbs. by 8,000 lbs. Therefore, the individual and tandem axle loadings will need to be reduced to stay within the 80,000 lb. weight allowance. The front axle must be reduced to practical loading of 12,000 lb.



$$12,000 \text{ lb} + 34,000 \text{ lb} + 34,000 \text{ lb} = 80,000 \text{ lb}$$

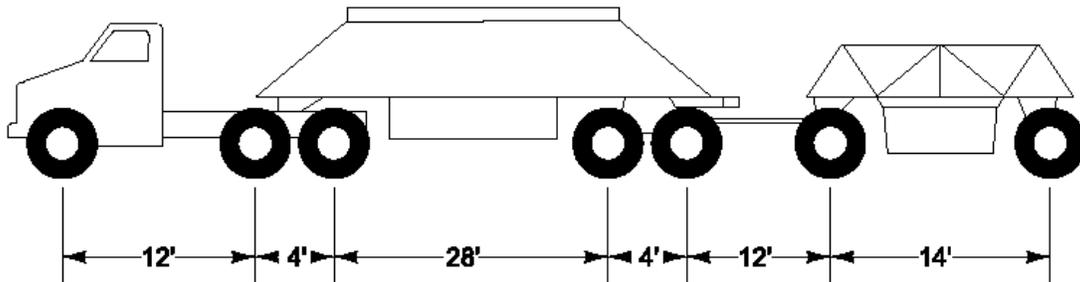
This looks okay and maybe we can add more to the front axle, but when using [49-1001\(1\)](#) all axle combinations have to be checked.



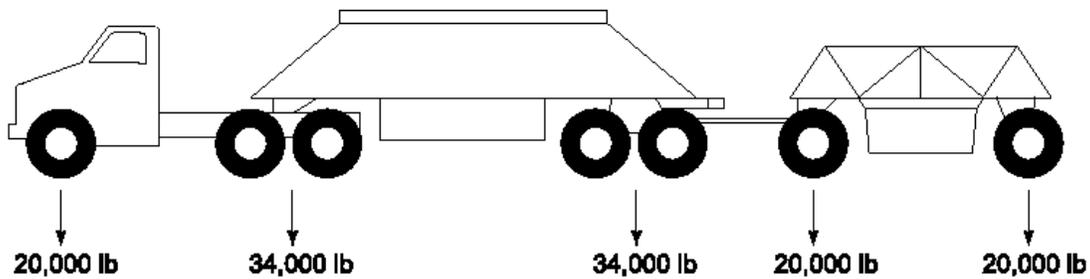
In 16 ft., three axles can only have 48,000 lbs. and two tandem axles can only carry 68,000 lbs. under [49-1001\(1\)](#). Therefore, the truck is okay. In 42 ft., four axles can have 70,000 lbs. but cannot exceed legal axle weights; in this case 34,000 lbs. on tandems. [49-1001\(2\) and \(9\)](#) will allow greater weights on the tandem axles. The front axle could carry 3,500 lbs. additional load and be legal. However, the front axle cannot exceed 600 lbs. per inch of tire width.

In the above example, use of either [49-1001\(2\) and \(9\)](#) or [49-1001\(1\)](#) give about the same results, except that [49-1001\(1\)](#) results in a more strict adherence to axle legal weights. No tolerances are allowed. If there are any questions concerning axle weight distribution, actual loaded truck axle weights should be determined. Not every truck-trailer combination must be weighed. However, a few representative loads should be checked to determine actual single and tandem axle weights, as well as the gross vehicle weight.

Example #2: Compute the legal gross weights and axle weights for truck, semi-trailer, and pup trailer combination to determine the legal allowable weights. The Contractor's vehicles are registered for 106,000 lbs. Loads can be hauled on interstate and non-interstate highways. Contractor's hauling units are as follows:

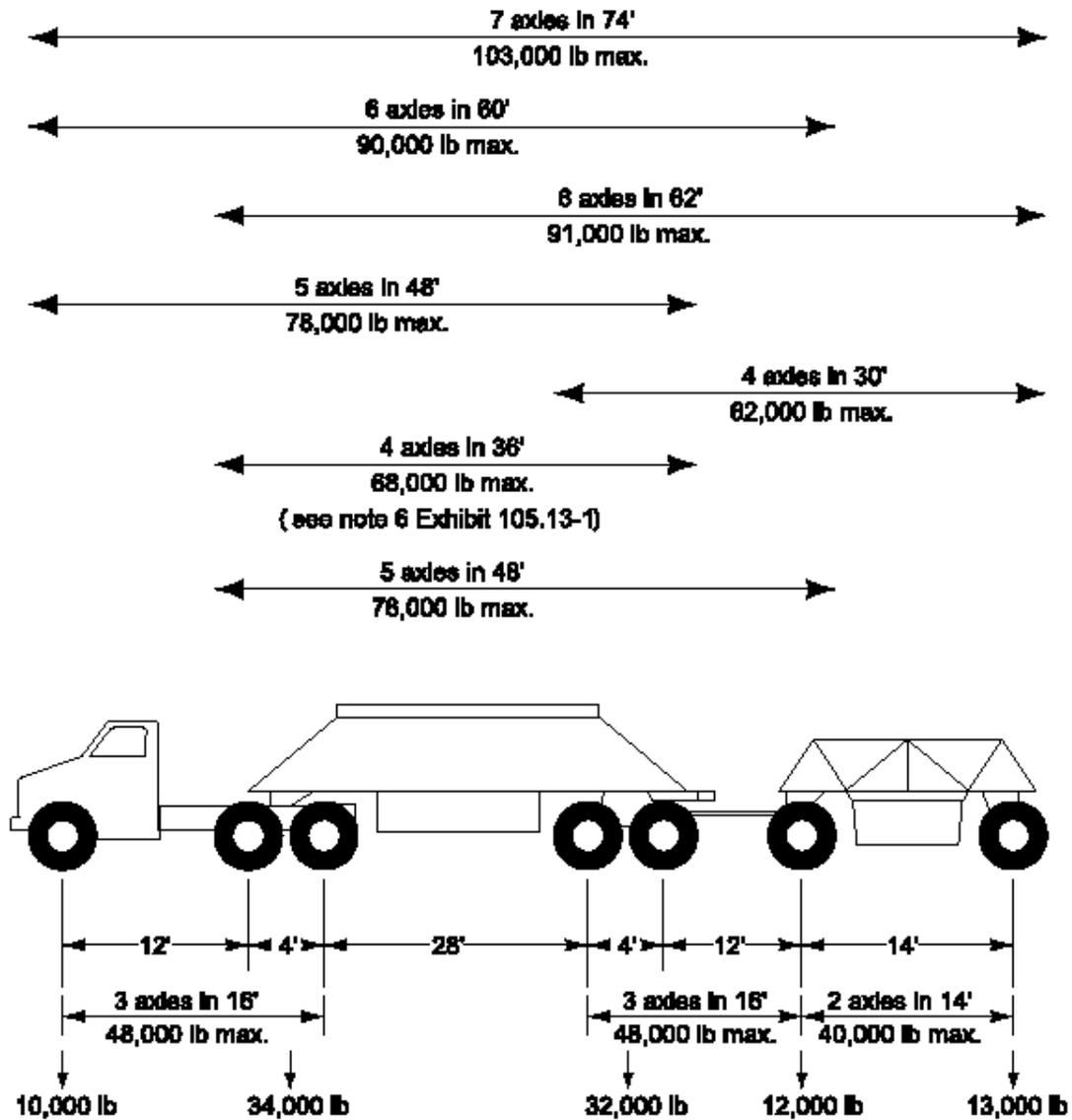


Solution: [49-1001\(1\)](#) has to be used, since the maximum weight exceeds both the 79,000 lbs. and 80,000 lbs. weight limits.



$$20,000 \text{ lb} + 34,000 \text{ lb} + 34,000 \text{ lb} + 20,000 \text{ lb} + 20,000 \text{ lb} = 128,000 \text{ lb}$$

For an overall axle length of 74ft, the total gross load for 7 axles is 103,000 lbs. Obviously, the loaded truck in the example above is too heavy with a total gross weight that exceeds 103,000 lbs. by 25,000 lbs., and it would exceed various combinations of the axles. Using [49-1001\(1\)](#) to check axle combinations, the following is obtained:



The overall spacing is usually not a problem, unless a short wheel base tractor is used. Also the critical areas are the internal bridge measurements for axles 2-5 and 4-7.

The diagram above shows what would be a legal weight loading for this vehicle. Various small changes could be made, but axle loading, combination axle loading, and total gross loading must meet [49-1001\(1\)](#) requirements to be acceptable. No tolerances are allowed. If there are any questions concerning axle weight distribution, actual loaded truck axle weights should be determined.

For additional assistance and information contact the Overlegal Permit office at (208) 334-8420 or 1-800-662-7133.

105.14 Maintenance During Construction.

105.14.01 Snow Removal. Snow Removal is not the Contractor's responsibility unless it has been made part of the contract either through a special provision or by change order.

105.14.02 Maintenance of the Work. Maintenance of work is the Contractor's responsibility until the work is accepted in accordance with [SSHC 105.14](#).

105.14.03 Maintenance of Public Haul Roads. The Contractor is required to maintain public highways and streets over which contract materials are hauled. Hauling over the State Highway System is not normally a problem. However, hauling over locally administered roads and streets can result in rapid deterioration of these facilities, due to their reduced structural capacities. ITD [SSHC 105.14.C](#) requires the Contractor to restore such public haul roads to a condition equal to that which existed when hauling started. Typical questions that arise when the local agency demands repair of their facilities are as follows:

- What was the condition of the facility before the Contractor's hauling operation began?
- Did other heavy loads contribute to the deterioration?
- What constitutes restoration to an equally-as-good condition?

The Contractor should be encouraged to meet with the local road officials before hauling to discuss these points. The Engineer should take a series of photographs or video log of the roadway before and after hauling.

105.14.04 Maintenance of Traffic. The Contractor must maintain the road for use by traffic, either on the roadway through the construction site, or on approved temporary detours.

Adequate maintenance of traffic includes the following:

- Dust control
- Sufficient roadway width to safely accommodate the traffic volume
- A reasonably smooth surface that will not result in vehicle or tire damage
- Roadway horizontal and vertical alignment features to safely accommodate traffic
- Proper and sufficient traffic control devices (i.e. adequate delineation, channelization or both are employed to guide motorists safely day and night).

The roadside must be reasonably free of unnecessary obstacles that are not properly protected. Require the Contractor to park equipment and store materials behind guardrail or at least thirty feet from the traveled way (preferably much further away to reduce potential errant vehicle collisions).

105.14.05 Maintenance of Temporary Detours. ITD [SSHHC 105.14.E](#) allows the Contractor to request detours constructed and maintained by the Contractor instead of carrying traffic through the construction areas. The Contractor is responsible for detour construction and maintenance costs. However, if it can be shown that the detour can result in substantial cost savings to the Department, it may be appropriate to revise the specifications by change order, allowing Contractor payment for items other than traffic control. Evaluation of environmental impacts is necessary when considering detour requests, to assure that regulatory requirements are met.

105.15 Acceptance.

105.15.01 Prefinal Inspection. Prefinal inspection will be arranged by the Engineer before project completion and before the Contractor's equipment is removed. The prefinal inspection should be scheduled far enough in advance to allow stakeholders to attend. Notify involved entities, such as:

- Contractor
- District Engineer
- District Engineering Manager
- Construction/Materials Engineer
- District Maintenance Engineer
- FHWA (FHWA Projects of Interest)
- Port of Entry (when applicable)
- Local Agencies (when applicable).

Inform the Contractor in writing of the prefinal inspection results.

105.15.02 Final Inspection. The Contractor must notify the Engineer upon physical completion of the work. The Engineer will then conduct a final inspection. Schedule the final inspection to allow all interested agencies or stakeholders to attend. Send copies of the letter to the Contractor confirming the final inspection date to the stakeholders listed for the prefinal inspection. Make a final inspection to determine the acceptability of the work and immediately notify the Contractor in writing of the results. Do not declare the work complete until deficiencies have been corrected.

105.15.03 Final Acceptance. Final acceptance occurs after the Engineer declares the work is complete and the Contractor has submitted all documents, certificates, and proofs of compliance. The District Engineer writes the final acceptance letter.

The final acceptance letter should contain the following:

- Applicable District distribution.

A final inspection should also be made by an FHWA representative on FHWA Projects of Interest. Generally, the FHWA will participate at the same time as other agencies, but may choose to do so at a different time. All FHWA concerns must be addressed before the Engineer declares the work complete.

105.16 Administrative Process for Resolution of Disputes. A dispute is a disagreement between the Contractor and the Department over the need to revise the contract. Resolving a dispute involves ascertaining the relevant facts, determining responsibilities and compensating the Contractor if merit (entitlement) exists, or refusing compensation with clear reasons when no merit exists.

The Resident Engineer is responsible for administering the dispute resolution process, and makes the initial determination whether a dispute by the Contractor is contested by the Department, or is resolved by the change order process.

Unrelated disputes must be processed separately. The term unrelated means that the basis (entitlement) for the dispute is different. Do not allow the Contractor to submit a written dispute, or notice of intent to dispute, with more than one entitlement issue. One entitlement issue, such as redesign of the road alignment, can cause several different types of damages (quantum) such as increased labor cost, increased equipment costs, increased time, etc., but all the damages must be caused by that one entitlement issue. This way, each claim issue will require its own notice of intent to claim and will have an individual schedule regarding submittal and review times.

The Department only processes disputes through the prime Contractor. Subcontractors must go through the prime if they have a dispute. The prime Contractor must certify the subcontractor's dispute before the Department will review the dispute.

105.16.01 Project Documentation. Accurate and complete documentation is the key to successfully settle disputes. Generally, the side with the best documentation prevails in the majority of disputes.

Documentation includes the original contract documents, any addenda, project schedules, pay estimates, construction diaries, sampling and testing results, laboratory reports, pay records, change orders, memorandums, meeting minutes, and correspondence. One of the very best forms of documentation is a picture (i.e. photographs or video).

Concurrent documentation is often a major factor in determining the weight or impact of a given document during administrative and legal considerations. Documentation at the time of occurrence will likely have more validity than documents prepared weeks or months after the fact.

Project personnel should contemporaneously document (e.g. construction diaries, meeting minutes, correspondence) the dispute and describe events or record their observations of the situation at the time of occurrence, and take dated photographs or video of the conditions. The documentation should be objective and professional, relating to the facts, without bias or opinions. Keep accurate force account records of the operations to eliminate subsequent arguments related to work costs. During

progress of the disputed work, make regular agreements with the Contractor for the labor, equipment or materials quantities per [SSHC 109.03.C.5](#).

105.16.02 Contractor Recordkeeping during Disputed Work. The Contractor bears the burden of proving both entitlement and damages. Per [SSHC 105.16](#), the Contractor is required to: “contemporaneously provide the Resident Engineer with daily records of actual costs incurred performing the disputed work” and “During performance of disputed work, keep complete records of extra costs and time incurred. Provide copies of these records to the Resident Engineer during performance of disputed work (daily if necessary) so that they can be verified contemporaneously”.

It is the Contractor’s responsibility to keep complete records of claim costs, and it is the Department’s responsibility to review and verify the records as the costs are accrued. The purpose is to verify the labor and equipment hours and material costs that the Contractor is claiming as extra costs, whether or not entitlement is eventually found.

Review the Contractor’s records as received, with notations indicating any conflicts or inconsistencies with the Department’s project records as well as any discussions held with the Contractor regarding discrepancies. If the Contractor fails to provide contemporaneous records, notify the Contractor in writing of their obligation under the contract to keep such records and provide them to the Department.

105.16.03 Contractor Notice. SSHC Subsection [105.16](#) requires the Contractor to provide a signed written notice of intent to file a construction dispute to the Resident Engineer. The purpose of this notice is to allow the Resident Engineer the opportunity to mitigate the impacts, or begin documenting the impacts and actual costs associated with the dispute. The Contractor’s rights may be waived if timely notice is not given and the Department’s position has been compromised.

To manage a claim effectively, enforce the notice requirement. If the Contractor indicates verbally during the prosecution of the work that added costs are being incurred, or changes to the contract are occurring, the Resident Engineer should instruct the Contractor to provide the required written notice of the intent to file any disputes using an [ITD 2055](#) Avoid Verbal Order (AVO) which includes the Contractor’s acknowledgement of receipt. The AVO should make clear to the Contractor that adequate written notice of intent to file a construction dispute is required if the dispute is to be considered by the Department.

Even if notice is not received as required by the specification, the Contractor’s rights may not be waived. In most instances the Department is aware of the dispute even though timely notice is not given. Waivers are usually only enforceable if timely notice has not been received and the Department’s position has been compromised. The Department’s position is compromised if the Engineer is unable to reasonably verify the Contractor’s claimed costs. If the Engineer cannot reasonably verify the cost then the Engineer cannot justify payment, even if there is entitlement.

105.16.04 Contractor Supplemental Information to Notice. Per [SSHHC 105.16](#), the Contractor is required to provide supplemental information within 15 calendar days of the written notice. This supplement defines the entitlement issue and the critical elements of the claim, and provides additional facts which may aid in early resolution of the claim. The supplemental information must include:

- 1) Date of the dispute
- 2) Nature and circumstances causing the dispute
- 3) Contract provisions that support the dispute
- 4) Estimated cost of the dispute and supporting calculations
- 5) An analysis of the schedule showing schedule changes, disruptions and delays.

The Engineer should also request the Contractor to provide timely updates to the above information if the circumstances causing the dispute continue. This is required by [SSHHC 105.16](#).

105.16.05 Formal Dispute Submittal and Certification. The Contractor is required to submit full and final documentation to support the dispute no later than 60 days following the date the claim has fully matured (see [SSHHC 105.16](#) for the required documentation). On some claims, such as a delay claim, the Contractor might say the delay will have a ripple effect and will have impact damages until the end of the project thus extending the maturity date. Per [SSHHC 105.16](#): “Impact damages may be submitted later as separate disputes if and when they occur. The possibility of impact damages should not delay the submittal of full and final documentation of disputes with direct damages.”

The Contractor must provide a signed and notarized certified statement along with the submittal. See [SSHHC 105.16](#) for the required language. A subcontractor must submit a dispute through the Contractor. The prime Contractor must certify the subcontractor’s dispute before the Department will review the dispute. Do not accept a submittal directly from a subcontractor.

105.16.06 Contractor’s Right to be Heard. Per [SSHHC 105.16](#): “*The Department will allow the Contractor to make oral presentations in support of a dispute, at any level of review in accordance with this subsection.*”

The opportunity to make oral presentations should be offered to the Contractor. The appropriate project personnel should be present at these meetings so that they can verify and/or question what the Contractor is saying.

If this meeting is requested by the Contractor, it should be scheduled after the Contractor’s claim submittal has been reviewed and a preliminary decision has been made. Explain to the Contractor that this meeting is not a negotiation session but rather an opportunity to verbalize and clarify. It is the Contractor’s meeting. Request the Contractor to provide an agenda and have the proper Department personnel in attendance. These meetings have been very helpful in clarifying the dispute for both parties.

105.16.07 Resident Engineer Review. Make sure the submittal is complete. Review the Contractor's dispute submittal as soon as it is received for completeness. At a minimum, the Contractor is required to provide all of the information specified in [SSHHC 105.16](#). If the Contractor has not provided all of the necessary information, make a request in writing for the missing information and send to the Contractor.

Review for completeness as soon as possible. The review timeline begins as soon as the formal submittal is received. If the submittal is incomplete, the written request will stop the timeline until the additional information is received or the Contractor indicates that it is not available.

Keep in mind at all times that the purpose is to **review** the Contractor's submittal, not guess or interpret. Do not try to figure out how the Contractor came up with the submitted data or what the Contractor is trying to say. Request the Contractor to clarify the submittal, or portions of it, if it is unclear.

Review of a dispute involves two key elements: entitlement (which refers to the merits of a claim) and quantum (which refers to the time and costs involved). The entitlement element of the claim involves answers to the questions: What has changed? Who caused the change? The quantum element answers the questions: What then were the impacts from the change? What were the costs?

The initial source of information and facts are contained in the Contractor's submittal.

Also review Department records to determine if the facts presented by the Contractor can be verified and to determine if the Contractor's information is incomplete or misleading. Some of the most important types of documentation are excerpts from the contract documents specifically related to the dispute. Ascertain exactly what the contract says with respect to the dispute. Identify and reference all pertinent drawings, notes, specifications, and special provisions. Identify any relevant additional information and any conflicting information. Separate the facts into three categories:

- 1) Those the Department and the Contractor agree on
- 2) Those which are unsubstantiated or incomplete- these need to be clarified
- 3) Those which are disputed by the Department.

For disputed facts, identify what the correct facts are believed to be, with references to backup documentation.

Keep the following questions in mind when reviewing the Contractor's submittal:

- 1) Did the Contractor provide the required notice of intent to claim?
- 2) If the Contractor did not provide the required notice, was the Department aware that there was a dispute?
- 3) If the Contractor did not provide the required notice and the Department was not aware there was a dispute, was the Department harmed in any way?

- 4) Was there a change to the original contract requirement that led to the claim?
- 5) Who or what caused the identified change?
- 6) Were the impacts unexpected or unreasonable?
- 7) Could the Contractor have avoided any adverse impacts through proper action?
- 8) Was it reasonable to have anticipated the identified changes at the time of bid?
- 9) Did the Contractor attempt to mitigate the claim or its effects?
- 10) Was complete claim documentation provided in the timeframe outlined in the contract as specified in [SSHC 105.16](#)?
- 11) Has the Contractor met their burden of proof? It is a well-established principle of contract law that the claimant (typically the Contractor) bears the burden of proving entitlement, damages (quantum) and causation by a preponderance of evidence. The claimant does not have to prove the case with absolute certainty or beyond a shadow of doubt. The Contractor must show: (1) a contractual or legal basis for the claim, (2) that the claimed damages are a reasonably accurate representation of the actual damages and, (3) that the claimed damages were caused by the entitlement issue.

The Resident Engineer may consult with the District Engineer as needed throughout the review process for concurrence and completeness.

The Resident Engineer should prepare a written analysis in support of the Resident Engineer's decision, and to ensure all relevant documentation has been reviewed. If any new claim documentation becomes available after the Resident Engineer's decision is issued, it will be reviewed at the district level and the Resident Engineer's decision amended as required before a claim appeal will be considered by the Chief Engineer. Figure 105.16.08.1 provides a suggested outline.

105.16.08 Resident Engineer Decision. The Resident Engineer must issue a written decision within the time frames specified in [SSHC 105.16](#). The decision should be sent to the Contractor via certified mail, return receipt requested.

Lack of response within the time frames (unless extended based on mutual agreement) is an automatic denial decision, and the Contractor may proceed to the next level of review.

If full or partial entitlement is found, a change order should be issued as soon as possible in accordance with [SSHC 104.02](#).

The following figure illustrates the RE decision format:

CLAIM TITLE:

Claim Amount:

Project:

Contractor:

Subcontractor (if applicable):

Claim Review by:

Review Date (provide both start and end dates):

THE DISPUTE

Give a brief description of the dispute here including the amount of money and/or contract time the contractor is requesting. Most of the details about the dispute will be dealt with elsewhere in the analysis.

CHRONOLOGY

NOTICE

Based on the Chronology of Events and the contract, determine if proper notice of intent to claim was given.

ENTITLEMENT

Review the Contractor's submittal and pick out the sentences or paragraphs where it is most clearly described what the contractor is alleging. These are the allegations that the Department needs to respond to. It is best to use contractor quotes as the allegations but it can be paraphrased. Do not attempt to interpret or clarify the allegation. There should be enough Allegations listed to completely cover the entitlement issue, or crime.

Respond to each of the contractor's allegations by clearly and concisely stating the Resident Engineer's position using the contract and project documentation in support.

Allegation #1:

Response #1:

Allegation #2:

Response #2:

Etc.

QUANTUM

This portion addresses the amount of money and/or contract time the contractor is requesting.

Contractor's Request:

Response:

FINDINGS SUMMARY

Give the bottom-line findings of entitlement and quantum here. Don't restate the details already given under ENTITLEMENT and QUANTUM.

EXHIBITS

Exhibit A – Chronology of Events. This is the most important part of the claim analysis. It is a summary of key events (dates and short description). The review will be based on the information in this section.

Exhibit B – Cost Analysis. This is for the contractor's claim costs and our verification of those costs. If we do not agree with the contractor on some of the costs, this is the section for explaining why we agree or disagree. Use this section to verify whether or not the contractor's claim costs are reasonably accurate and in accordance with the contract, (i.e., Blue Book rates, allowable mark-ups, etc.). If the contractor kept daily records of extra hours and costs and submitted them daily per contract, then the dispute should be minimized.

Exhibit C – Documentation. This section is for copies of any documentation that is important in support of the analysis. The documentation should be reference, where appropriate, in the body of the claim analysis, including other exhibits, especially Exhibit A. The documentation should be placed in chronological order.

Etc.

Figure 105.16.08.1: RESIDENT ENGINEER DECISION FORMAT

105.16.09 Chief Engineer Review. If the Contractor disagrees with the Resident Engineer's decision, the decision may be appealed to the Chief Engineer. The Chief Engineer will review the appeal based on the information provided by both the Resident Engineer and the Contractor. The Chief Engineer will review the Contractor's appeal basis against the Resident Engineer's analysis and render a decision only if a new perspective is presented that could show the initial claim analysis was deficient.

When a dispute is appealed to the Chief Engineer, the Resident Engineer assembles the written decision and other documents as a dispute package, and submits it to the Chief Engineer. The dispute package should include at least the following:

- 1) **RE decision letter.** The RE's decision letter to the Contractor.
- 2) **RE written analysis.** Include the following:
 - a) **Claim Summary** - Include title, amount claimed, project name, contractor, subcontractors, person doing the review, and date of review.
 - b) **The Dispute** - Summary of what the contractor's claim is about.
 - c) **Chronology** - Detailed timeline of events related to the claim.

- d) **Notice** - Summary of notice time frame given by the Contractor.
- e) **Entitlement** - Detailed analysis of entitlement broken into the different allegations the contractor has made related to the claim. The analysis should discuss the specifications and contract requirements that either support the contractors' claim or support the Department's position about the claim. At the end of the entitlement section, state the conclusion of entitlement.
- f) **Quantum** - Detailed review of the costs submitted by the Contractor. State what the Contractor's request is and the information received from the Contractor to verify the costs. If the Contractor has not submitted documentation to verify costs, the individual conducting the analysis should do an independent verification of costs based on best available knowledge about the work and costs being disputed. At the end of the quantum section, state the conclusion of quantum.
- g) **Findings Summary** – Summarize entitlement and quantum findings without restating details.
- h) **Exhibits** (if needed) - Details regarding the chronology, cost analysis or other relevant documentation are put into the Exhibits section. Any other needed exhibits are put at the end of this section.

The Chief Engineer will review both the Contractor's submittal and the claim package supplied by the Resident Engineer, and render a written decision within the timeframes specified in [SSHC 105.16](#), unless a time extension is mutually agreed upon.

105.16.10 FHWA Review and Federal-Aid Participation. On FHWA Projects of Interest, the FHWA must be kept informed about the details and handling of claims at all stages of review.

Federal-aid participation must be based on the requirements of [23 CFR 635.124](#). Federal-aid participation in non-NHS project claim settlements must be based on the allowable cost principles of [OMB Circular A-87](#).

105.16.11 Audits. The Department has the right to perform inspections and audits. As part of the Contractor's submittal, [SSHC 105.16](#) requires that the Contractor identify the amount and provide justification for several categories (e.g. labor, material, and equipment costs).

Typically, the Contractor's submittal will include cost summary sheets showing the costs broken into the specified categories. Usually the Contractor's claimed field cost summaries can be verified by the Resident Engineer by reviewing the daily records that the Contractor submitted for review during the disputed work, or by reviewing the project's own cost records and diaries. However, where the Contractor's claim costs cannot be verified by the project records, the contract allows the Department access to all the Contractor's and Subcontractor's cost records pertaining to the claim. The auditor can be a Department employee or a consultant. The records to which the Contractor may be asked to allow ITD access are listed in [SSHC 105.16](#).

105.16.12 Dispute Review Board. If the dispute has not already been heard by a Dispute Review Board (DRB), and the Contractor wishes to appeal the District Engineer's written decision, the Contractor may request a hearing by a DRB in accordance with [SSHHC 105.19](#). If the dispute has been heard by a DRB, the District Engineer's decision is the end of the administrative process. At this point, the Contractor may request binding arbitration in accordance with [SSHHC 105.18](#) within 120 days of the District Engineer's decision.

105.16.13 Dispute Avoidance. Good communication is particularly important to prevent disputes; therefore, maintain open lines of communication, especially between the project staff and the Contractor. If at any time a problem arises that cannot be resolved at the Resident Engineer's level, hold a meeting involving the Contractor's personnel, project and other District staff and, if appropriate, headquarters staff. Record and distribute copies of any decisions reached at such meetings to all concerned parties.

The best way to handle disputes is to prevent or avoid conditions and situations from which claims are likely to arise. The following methods can be used to minimize the number and severity of claims:

- 1) Participate in the final design review, especially the special provisions, for clarity, bidability, and constructability. Suggested corrections should be transmitted to the District Project Development Engineer. The Resident Engineer and staff should follow through to ensure the district design section addresses suggestions and corrections.
- 2) Provide a complete and accurate set of plans and specifications. The Resident Engineer should review these documents prior to advertisement. If problems are noted, addendums should be issued.
- 3) Correct or adjust plan and specification errors or inconsistencies that may be discovered in advance of work being performed. This may require negotiations and issuance of contract change orders.
- 4) Listen to the Contractor's alternatives. An alternative method, equipment, or materials may give equal or better results.
- 5) Explain if necessary, the reasons why the plans or specifications require a specific performance, method, or end result.
- 6) Stay advised of the Contractor's continuing plans of operation. Knowing the Contractor's plans help with deployment of personnel and other resources and can avoid delay of the work. Ensure that the CPM schedule is accurately updated and in accordance with the contract. The initial schedule must comply with the terms of the contract which includes meeting contract milestones and completion dates. Contract work should not begin until the initial (baseline) CPM is approved.
- 7) Promote preoperational conferences with the Contractor. Preoperational conferences held in advance of major phases of the construction provide ideal opportunities for the Contractor to communicate how the work will be accomplished and the Resident Engineer to communicate how the work will be inspected and accepted.
- 8) Avoid directing the Contractor's work or personnel.

- 9) Maintain adequate records of the work, progress, contractor's resource deployment, and conditions affecting the work. Maintain complete job diaries. Use letters or AVO's to confirm verbal orders to the Contractor. Take photographs or video before and during construction and document location, date, subject, project identification, and person taking the photo or video.

105.16.14 Consultants. Sometimes hiring a claims consultant can assist in the reviews because of time constraints, the specialty nature of the work involved, complexity of the claim, or a high dollar value of the claim. If a consultant is considered for claims management or analysis, the Engineer will contact Legal for assistance.

105.16.15 Claims Tracking. The Claims Tracking System is designed to keep all levels of management informed about all construction claims. It is designed to capture pertinent claim administration events. It is not designed to contain details of the claim. The RE provides updates to the Construction/Materials Engineer when the claim is at the RE and CE level (including disputes that are being presented to DRB's) for monthly reporting to ITD senior management. All claims are archived by the RE once the claim has been resolved.