2.50 CONTRACTOR PAYMENTS AND PRICE ADJUSTMENTS

2.51 PAYMENT FOR MATERIAL ALLOWANCE

Specification 1109.05 allows for payment of material stored at the project site or, under certain conditions, at other locations. NOTE: The phrase “material allowance” is also referred to as “stockpiled material.”

Payment for stockpiled material may be allowed for materials that will be incorporated in the project. Payment will not be considered for contracts with an award amount less than $10,000. When reimbursement is allowed, payment will be based on:

- 100% of invoice cost for material properly documented and properly stored at the project, or
- 90% of invoice cost for material properly documented and stored elsewhere. Storage locations must facilitate routine inspection by Iowa DOT personnel.

Material allowances could be extended to "raw" structural steel provided:

a. "Raw" as used in this context means steel products that have been processed by a steel mill into plates, sheets, or shapes of standard mill dimensions. "Fabrication" is then taking these mill run products, and fabricating them into usable structural shapes as specified in the contract documents.
b. Mill Certifications and Heat Numbers have been submitted and approved by the Office of Materials.
c. All shop drawings have been submitted and approved, including development of a fabrication shop "cutting diagram."
d. Iowa DOT shop fabrication inspector has verified and inspected all "raw" steel as being delivered, properly marked for the project, and properly stored at the fabrication shop.

Pre-conditions for Material Allowances

- Payment for material allowances is based on actual invoiced cost. This means the contractor has ownership and/or control of any stockpiled material. Checking or verification of a contractor's payment may be required in instances where a project engineer deems it necessary. In lieu of checking, certification that the contractor owns or controls the material may suffice.
- Off-site material should be clearly identifiable to the project.
- Material considered for material allowances shall be specifically fabricated or processed for that project. By definition, fabricated items will require shop drawings or shall be fabricated from standard Iowa DOT detail sheets.
  NOTE: Aggregate is obviously not "fabricated," but is "processed" and can be considered unique as long as the material meets other applicable requirements of this pre-condition section and has been certified by the producer.
- The project engineer shall confirm the following items before payment is made.
  a. Inspection or certification reports, test reports, and invoices are included in the project file or in the Office of Materials.
  b. Processed or fabricated material is satisfactorily stored, correctly identified, reserved for the project, and available for inspection to verify existence and quantity.
  c. Provisions should be made for inspection to verify that quality has not deteriorated and that material has not been utilized for other projects. This inspection can be arranged through Materials, resident, or county offices near location of stored material.

The preconstruction conference is a good place to identify items for, or begin the discussion of, potential stockpiled material. Potential items can be identified, but no action needs to be taken until the material is available at the project or at other agreed locations.

Stockpile Documentation Work Sheet
Payment for material allowances must be documented and monitored. It will be necessary to maintain a project level work sheet covering:

- value and quantity of material being stockpiled
- location of stockpile (not on the project)
- dates of Iowa DOT inspections
- basis for material approval

The work sheet must show a running total for materials delivered and those used in construction of the project, including the total quantity and value of the remaining stockpiled materials. As materials are placed into "the stockpile," payment may be made by properly including the new amount to Item 8999 on the progress voucher.

Voucher Entries
An 8999 item number will be preprinted on the Contract Construction Progress Voucher for Stockpiled Material. (If an 8999 item number is not provided, one can be added by writing a Change Order to the contract for Stockpiled Material.) Field entries (dollars) in this item number authorize contractor payment for stockpiled materials. Payment will be based on the actual cost as shown by an invoice.

Value of the 8999 item will be decreased as stockpiled material is incorporated in the project and included as an appropriate contract pay item. The value of 8999 may fluctuate up or down during the project because of:

- Increased value as more material is stockpiled, or
- A decreased value as material is used on the project, i.e., stockpile is being depleted.

The final entry made concerning stockpiled material must:

a. Zero (0) Item 8999 on the final voucher **AND**
b. Zero (0) all stockpile quantities documented on the project work sheet

Instructions for processing material allowances in the FieldBook / FieldManager systems are detailed in their respective user's guide.

Miscellaneous
The term "material allowance" is used to designate material which will later be incorporated in the project and ultimately paid at contract unit prices. The term "unincorporated material" is used for material ordered for use on the project, but not used. Payment for material ordered, but not used and taken over by the contracting authority must be paid by change order. (Refer to *Construction Manual 2.36* for procedure used to process a change order.)

2.52 PAYMENT FOR UNEXPECTED CLASS 12 ROCK EXCAVATION

When Class 12 excavation is unexpectedly encountered and there is no contract item for Class 12, the quantity of Class 12 will be paid for as Extra Work. (Refer to *Construction Manual 2.36* for procedure used to process a Change Order.)

Approval for Work

- CASE I (Contract has an item for Class 10.)
  Specification 2102.05, A, 1 establishes a price of ten times the Class 10 contract unit price for unexpected Class 12 excavation.
- CASE II (Contract does not have an item for Class 10.)
  In this case a change order price will have to be negotiated.

  NOTE: When the contract contains items for special categories of Class 12, such as Class 12 (channel) or Class 12 (boulders), these items are not considered as representing normal Class 12 roadway and borrow excavation work.

2.53 PRICE ADJUSTMENT GUIDE FOR REASONABLY CLOSE CONFORMING, REASONABLY ACCEPTABLE, AND DEFICIENT WORK

Every effort should be made to prevent substandard work and/or noncomplying material from being incorporated into the project. However, when work and/or materials are deemed to be noncomplying, *Specifications 1105 and 1101* give authority to the project engineer for determining if construction work or materials are acceptable and/or within reasonably close conformity to the plans and specifications. Therefore, the project engineer must decide whether deficient work is to be removed and replaced or left in place with a price adjustment. Unusual situations or circumstances may warrant consultation with the Office of Construction and the Office of Materials.

NOTE: A price adjustment is no substitute for specification compliance and "unacceptable work" shall always be removed and replaced with acceptable work. Further, contractors need to be given an option of removing deficient work and replacing with acceptable work in lieu of a price adjustment.

Price adjustments of $100 or less need not be formalized in a change order.

Guide Schedules for Price Adjustments

A. Gradation
   Unless otherwise specified, variations in the gradation of aggregates shall be price adjusted as prescribed by "Price Adjustment for Aggregate Gradation Test Deviation in *Appendix 2-34(A).* These adjustments apply to variations in gradations for:
   - Portland Cement Concrete

B. PCC Slump, Air Content, Rain Damage, and Edge Damage
   1. Concrete Slump Price Adjustments are prescribed in *Appendix 2-34(B).* Concrete Air Content, Water Cement Ratio, Vibrator Frequency, Certified Plant Inspection, and Late Curing Application Price Adjustments are prescribed in *Appendix 2-34(C).*

   2. Rain Damaged Portland Cement Concrete
      When rain damage occurs, removal and replacement may be required by the project engineer in accordance with *Specification 2301.03, K,4*. However, damage must be determined to be severe enough to warrant such action. Contact the District Construction Engineer and the Office of Construction for assistance, if needed.

      If work is allowed to remain, *Specification 1109.03 C* requires the project engineer to determine "... a modification of the contract unit price." The following CASES shall be used for determining rain damage price adjustments. NOTE:

Price adjustments are applied to an entire area encompassing the damage. (This means full width placed when damage occurred, beginning at the first transverse joint before any damage and ending at the first transverse joint after damage.)

ADJUSTMENT SCHEDULE

CASE I (Payment is 95% of contract unit price.)
Texture is absent from practically all of surface area. Surface appearance may have a "sandy" appearance or may be "pock" marked from the rain droplets. An occasional edge repair may be required due to excess edge slump or from edge rounding. Small areas along edge may have coarser particles of fine aggregate exposed. Surfaces finished in the rain or after a rain are also included in Case I.

CASE II (Payment is 90% of contract unit price.)
Texture is totally absent from the surface and cement mortar has been eroded to an extent that coarser particles of the fine aggregate fraction are generally exposed. Some slight troughs or depressions are apparent, exposing coarse aggregate particles, but this damage is confined to a limited area or randomly spread intermittently throughout damaged area. Some edge repairs may be required to restore eroded edges. Surface mortar that was removed by rain water, but later replaced or supplemented with plastic concrete is included in Case II since a cold joint or sand lens with minimal portland cement paste contact may have been inadvertently incorporated into the slab.

CASE III (Payment is 85% of contract unit price.)
Surface mortar has been practically all removed to an extent that coarse particles of the coarse aggregate fraction are visible. Considerable erosion of edges has occurred, but not to an extent that pavement width is affected. Intermittent edge repair may be required as well as some surface patching of slight troughs or depressions that may have formed in pavement surface due to flowing water. Pavement that has been rain damaged with no attempt of covering or protection by the contractor is also included in Case III.

Severe rain damage may require "localized area" repair by bridge deck overlay procedures. Full depth removal and replacement may be required if edge damage is severe. Severe cases of rain damage should be referred to the Office of Construction for review prior to determination of repair or replacement.

In addition to above described price adjustments and repairs, slab surfaces with missing, omitted, or damaged texturing shall have macrotexture re-established by grooving prior to acceptance by project engineer. As an alternative to price adjustment and grooving, for CASE I and CASE II corrections, the contractor may elect to diamond grind the entire affected area to remove questionable surface mortar and re-establish texture. When this option is chosen, payment for CASE I rain damage will be 100% of the contract unit price, and the payment for CASE II rain damage will be 95% of the contract unit price.

3. PCC Pavement Edge Damage
Price adjustments and recommended repairs for PCC pavement edge damage are included in Appendix 2-34(N). Typically PCC pavement edge damage does not affect the structure of the pavement, but it is unsightly and a result of

substandard workmanship. Therefore, in moderate cases, a price adjustment is warranted over repair. In severe cases, price adjustment and repair may be appropriate.

C. "L" Joint Tie Steel Deficiencies
Tolerance problems with "L" joint tie steel shall be corrected according to procedures established in *Construction Manual 9.26*. (Note: "BT" and "KT" deficiencies usually require field correction.)

An adjustment in the contract unit price shall be made for out of tolerance "L" joint tie steel areas. This price adjustment should be a reduction of 5% to the contract unit price per m^2 (sq. yd.) for affected areas. It should be applied to a computed effective area bounded by one half the distance to closest adjacent "in tolerance" (in each direction) multiplied by the placement width. This price adjustment is intended not to apply to individual out of tolerance tie steel.

D. Bridge Floor Overlay price adjustments are prescribed in *Appendix 2-34(D)*.

E. Macro texture adjustments will be determined by the project engineer on a case-by-case basis depending on severity and amount of surface area involved.

For texture depth measurement criteria, refer to *Construction Manual 9.43*. Texture depths less than 1.5 mm 1/16 inch) shall be corrected by sawing in grooving or diamond grinding. Texture depth exceeding 4.5 mm (3/16 inch) may require price adjustment as directed by the project engineer. Price adjustments for over depth grooving are found in *Appendix 2-34(E)*.

F. Traffic Control

1. Price adjustments may be applied for failure to comply with traffic control requirements in the contract documents. Contract price adjustments will be determined by the project engineer, based on magnitude and frequency of violations. A suggested sliding scale is $500 for the first violation, $1,000 for the second violation, $2000 for the third and subsequent violations. See flowchart in Appendix 2-15 for further guidance. After the third violation has occurred, work may be suspended. If the traffic control violation is serious, a higher price adjustment may be used based on the Engineer's discretion.

For projects on the Interstate system, when the Contractor is not off the road at the time defined in the contract documents, a price adjustment based on user delay costs may be assessed instead of the previously noted sliding scale formula. Contact the Office of Construction for help in determining the appropriate user delay cost since this cost is based on the average daily traffic for a specific section of Interstate.

Price adjustment violations will be counted from first violation through last violation for an entire contract. It is a prime contractor's responsibility to ensure a safe work zone for all construction activities regardless of work in progress or who is doing that work. Therefore, violations will accumulate against the "contract" and not be separated or individualized by subcontractor.

Examples of situations where a price adjustment would be appropriate include:

- Failure to maintain traffic control devices (costs incurred by the contracting authority may be recovered against this item)
- Working without proper traffic control setup
- Unauthorized crossing of interstate or other multilane divided highway median
- Use of unauthorized, substandard, or non-standard traffic control items such as incorrect sign sheeting or unapproved floodlights
- Violations of, or failure to comply with, traffic control requirements in the contract documents

It is not intended that minor deficiencies be price adjusted if corrected in a timely manner.

In addition to price adjustments, project engineers may suspend work for irresponsible and/or repeated failure to conduct construction activities using proper traffic control procedures.

It is acceptable for contractors to work beyond the specified work hours when all of the following conditions are met:

- Contractor is working behind temporary barrier rail
- inspection is not required
- no vehicles are entering the work area
- traffic control is in accordance with the Night Work Lighting requirements (Section 2550)
- the work continues only for a short time frame to complete a specific work task

Copies of traffic control non compliance notices should be provided to both the Prime and Subcontractor if the Subcontractor was issued the non compliance notice.

2. Failure to maintain traffic control devices and signs on a daily basis continues to be a concern of the Department. Price adjustments are appropriate for failure to adequately maintain these devices and signs. To determine an appropriate daily price adjustment for lack of maintenance, the total bid price for the traffic control item should be divided by the number of working days allowed on the contract. This calculated amount should then be divided in two to determine an appropriate daily maintenance value. This daily maintenance value would be the appropriate price adjustment for failure to maintain traffic control devices and signs.

   The daily maintenance price adjustment calculated below is in addition to other traffic control price adjustments.

   An example calculation to determine this daily maintenance value follows:

   Traffic control bid item amount (TC) = $25,000
   Number of contract working days (WD) = 100
   Daily maintenance price adjustment (PA)
   PA = (TC/WD)/2
   PA = ($25,000/100)/2 = (250)/2 = $125

PA = $125

3. Occasionally contractors fail to provide the required traffic control technician or have the daily traffic control diary completed during the construction of the project.

   - An appropriate price adjustment for failure to provide a traffic control technician is 5% of the traffic control bid item price or $250, whichever is greater.
   - An appropriate price adjustment for failure to provide a traffic control diary for review during construction activities is an additional 5% of the traffic control bid item or $250, whichever is less.
   - An appropriate price adjustment for failure to submit to the engineer upon project completion a traffic control diary is an additional 5% of the traffic control bid item price or $250, whichever is greater.
   - These price adjustments are independent of each other and are also in addition to other traffic control price adjustments.

4. When a flagger is incorrectly flagging according to the Flagger's Handbook, as referenced in Standard Specification 2528.03, K, the project should have the Flagger bid item price adjusted. This price adjustment should be one half of the daily unit bid price for the Flagger item.

   Examples of situations where a flagger price adjustment would be appropriate include:

   - Incorrect flagging procedures
   - Nighttime flagging without a correctly lighted flagger station or without appropriate nighttime flagging equipment or apparel
   - Incorrect, inappropriate, or incomplete flagger attire
   - Use of incorrect STOP/SLOW paddle
   - Failure to carry their flagger training card

   When an untrained flagger is used in violation of the specifications, the flagger shall not be measured and paid. The flagger shall continue to flag for the remainder of the day and a trained flagger shall be substituted the next day. Unattended flagger stations are not allowed by specifications. Any unattended flagger station is considered a severe violation of the specifications and should be price adjusted per Item 1 price adjustments.

   When an untrained flagger is used in violation of the specifications, the flagger shall not be measured and paid. The flagger shall continue to flag for the remainder of the day and a trained flagger shall be substituted the next day. Unattended flagger stations are a severe violation of the specifications and should be price adjusted per Item 1 price adjustments.

   These price adjustments are also in addition to other traffic control price adjustments.

G. Asphalt
   1. Liquid Asphalt

a. Viscosity or Penetration
When noncomplying tests occur, determine the quantity affected. Average all noncomplying quality control tests and use that average in conjunction with *Appendix 2-34(F)* to determine if, or how much, price adjustment is warranted.

b. Residue
The determination of compliance for emulsions used as tack coats shall be based on residue percentage. Undiluted emulsion contains a minimum of 57% asphalt residue. Emulsion diluted with one part emulsion to one part water shall contain a minimum of 28.5% residue.
When noncomplying tests occur, determine the quantity affected. Average all noncomplying quality control tests and use that average in conjunction with *Appendix 2-34(G)* to determine if, or how much, price adjustment is warranted.

2. Asphalt Binder - Viscosity
When a noncomplying viscosity test occurs, establish the quantity of material affected. This quantity may be the total asphalt binder used that day, unless intermediate quality measurements have been made during the day. The quantity affected shall be in relation to the proportion of noncomplying samples to the total number of asphalt binder samples obtained that day.

Example:

Total samples taken during the day	=	5
Number of failing samples for the day	=	2
Total asphalt binder used that day	=	200 Mg (tons)
Quantity affected = (2 ÷ 5) x 200	=	80 Mg (tons)

Noncomplying test results for the day shall be averaged to determine the amount of deviation from specification requirements. This average will be used to apply the appropriate percent of payment for the quantity affected. Use the Price Adjustment schedule in *Appendix 2-34(H)* to obtain the applicable payment adjustment.

The materials, both liquid asphalt and asphalt binder, are used on the basis of certification. The follow-up acceptance testing is performed to verify the compliance so work will not be delayed pending the test results. However, if the material has not been incorporated and acceptance tests indicate noncompliance, the material will be rejected.

Unless indicated otherwise in the contract documents, the contractor must use performance graded (PG) asphalt binders. If a PG asphalt binder is used but the properties do not comply with specifications, consult with the Office of Materials, the Office of Construction, and the District Materials Engineer for appropriate resolution. A price adjustment may or may not be appropriate depending upon the circumstances involved in each situation.

3. Asphalt Binder Content
The determination for compliance with the specifications of the asphalt binder content control shall be made for periods not exceeding one day in length. Determinations shall be made for shorter time intervals when noncompliance for the shorter intervals has occurred.

The specifications for hot mix asphalt construction require the contractor to maintain the asphalt binder content within plus or minus 0.3 percentage points of the percent intended. The percent intended is given on the job-mix formula sheet. No payment will be made for asphalt binder used in a mixture in excess of tolerance specified.

Excessive asphalt binder content can result in low lab voids which can, in turn, result in a high potential for pavement failure due to flushing and rutting. When the deviation from intended asphalt binder content is greater than 0.3% and the lab voids for the lot are extremely low, the District Materials Engineer should be consulted regarding the rutting potential of the pavement. In cases where severe rutting or flushing develops or is likely to develop, removal and replacement of the noncomplying HMA pavement should be considered.

When the asphalt binder quantity involved is 200 Mg (tons) or less, tank-stick measurements lack precision and cannot be used as a basis for determining asphalt binder content. In this case, the average of tank-stick measurement results from the day before and the day after may be used to provide further verification.

The procedures listed in *Materials I.M. 508* and *I.M. 509* should be followed closely in making tank-stick measurement calculations.

The contractors are cautioned to observe the following procedures in order to help insure accuracy of the determinations:

a. Keep the storage tank level and in good condition
b. Make sure that the asphalt binder in the surge tank is exactly the same level each time that measurements are made
c. Try not to drain the asphalt binder level in the tanks into the heater coil area when measurements are made
d. See that rail cars and transport trucks are completely unloaded or any unused asphalt binder returned is weighed or measured

To eliminate misunderstandings and uncertainties, it is strongly urged that an authorized representative of the contractor observe all sampling and tank-stick measurements and check all calculations. A contractor's representative should also be requested to initial or sign the field book or record sheet containing the measurements and results as they are made.

4. Segregation in Hot Mix Asphalt Pavement

When mixture segregation occurs in the pavement such that the composition and quality of the mixture required by specification are not uniformly attained, the sections judged deficient may be required to be removed and replaced as defective work. An adjustment in contract price may be made for deficient work for the cases described in the following schedule.

a. Pavement Surface

The adjustments in contract price are to be applied to the entire paver lane width and lift thickness between extreme areas of segregation. Price adjustment shall apply only to the payment for the HMA mixture. Price adjustments are defined in *Appendices 2-34(K.1) and 2-34(K.2)*.

ADJUSTMENT SCHEDULE

Case I (Payment is 80% of contract unit price.)
When uniform surface texture and mixture composition is evident (by visual observation) except for occasional and random areas of segregation, the mix shall be subject to price adjustment if the area determined segregated equals or exceeds 3 square meters per metric station (1 sq. yard per station) per paver width (length determined by longitudinal distance both directions from segregated area).

Case II (Payment is 50% of contract unit price.)
When a nonuniform surface texture and mixture composition is evident (by visual observation) and there is a regular interval of numerous areas of segregation connected or nearly connected with longitudinal traces of segregation, the mix shall be subject to price adjustment if the total area segregated equals or exceeds 9 square meters per metric station (3 sq. yards per station) per paver lane width (length determined by longitudinal distance both directions from the extreme ends of areas of segregation).

Case III Longitudinal Streaks (Payment is 80% of contract unit price.)
When a nonuniform surface texture and mixture composition is evident (by visual observation) and in the form of longitudinal streaks of 75 mm (3 inches) or more in width, the mix shall be subject to price adjustment if the segregation occurs at a rate that exceeds 3 square meters per metric station (1 sq. yard~~.~~ per station). The rate is determined by multiplying approximate width by length of the streaks to determine area and dividing by the length of the streaks (in stations). Longitudinal streaks most commonly occur with the windrow-pickup process, particularly when resurfacing superelevated curves. Streaks are typically seen in the wheelpath areas and occasionally in the center of the lane. Streak widths typically vary from 75 to 300 mm (3 to 12 inches) and may be continuous or intermittent. This type of segregation results in longitudinal cracking.

More severe surface and mixture segregation may require corrective procedures as:

- full width thin layer 25 mm (1 inch) thick resurfacing or
- removal of HMA mixture course with no extra payment and replacement with construction that fully complies

Note: Determination of segregation in HMA pavement is by visual examination in accordance with current specifications. The engineer may consider further verification through coring and extraction tests. Segregation case examples, with corresponding price adjustment calculations, are illustrated in *Appendices 2-34(K.1) and 2-34(K.2)*.

b. Fillets & Runouts
This price adjustment procedure does not apply to fillets, bridge runouts, or other hand-worked areas outside of the normal paver lane width.

c. Base & Intermediate Courses
The price adjustment percentages shall be reduced as indicated in *Appendices 2-34(K.1) and 2-34(K.2)* for all base or intermediate courses, except when such mixture is specified and used as the surface course.

d. Procedure for Determination of Price Adjusted Quantities
The segregation case examples shown in *Appendices 2-34(K.1) and 2.34(K.2)* illustrate a concept that may be used to define the severity of segregation and appropriate price adjustment factor. It is not required, however, to physically measure each area of segregation to determine a quantity of HMA mixture that is subject to price adjustment. The intent is to define the quantity subject to price adjustment by identifying the number of truckloads in which segregated areas are evident. This obviously takes some judgment to decide how large or severe an area must be before it is price adjusted. The 1 square meter (sq. yard) area shown in examples is a "rule-of-thumb." Most importantly, segregated areas that exhibit an obvious concentration of coarse aggregate resulting in a nonuniform open texture should be price adjusted.

Whenever segregation is observed, the contractor shall be advised immediately and the inspector must document the deficiency with a Noncompliance Notice. The notice should reference the applicable specification and indicate the project engineer will review the work to determine the acceptability of the work. It is recommended that a Noncompliance Notice be issued when segregation is initially observed with final evaluation and price adjustment determined later but prior to project acceptance.

Timeliness is important for two reasons. First, the contractor must take corrective action immediately. Failure to do so should result in suspension of work. Secondly, early identification of unacceptable work allows for resolution of any disputes before there is an "implied" acceptance. *Construction Manual 1.12* discusses the enhancement of working relationships by timely notification of unacceptable work.

For streak type segregation, it will be necessary to identify and tabulate the location and length of the segregated streak areas subject to price adjustment and base the price adjustment on the mix quantity within the beginning and ending station limits of the streaks.

Normally this procedure should be repeated for each day from header to header on the day following placement. Each day's run can be tabulated showing a summary of affected megagrams (tons) of HMA mixture subject to price adjustment.

5. Asphalt Binder Film Thickness
Film thickness, as calculated in *Materials IM 501*, provides a general indication of an HMA pavement's potential long-term durability. When asphalt binder content changes are considered to adjust air voids, caution must be used to assure that adequate film thickness required in *Materials I.M. 510 Appendix A, Table 1* is maintained. When the resulting film thickness is outside the specified range, procedures given in *Appendix 2-34 (Table M)* should be used to determine the

appropriate price adjustment or alternate course of action.

6. Laboratory Voids and Field Voids
   Production control and compaction requirements are covered in the current specifications for Hot Mix Asphalt Mixtures. Price adjustment is made through use of Pay Factors for laboratory voids and field voids determined for the lot. The Pay Factors are applied to the unit price for HMA mixture only.

H. Adjustments for Other Contract Administration Issues
Price adjustments for noncomplying work are occasionally appropriate when the issue relates to other incidental items in the contract documents. Price adjustments shall not be considered unless there is willful or repeated reoccurrences indicating lack of due consideration on the contractor's part. In such cases, the following will apply:

- Provide a clear and concise notification to all parties involved with the incident. (This could be a verbal notification or a written noncompliance without price adjustment.)
- Subsequent violations would result in additional noncompliances and could be reason for price adjustments starting at $100, then $250, $500 etc. (progressively doubling the amount of each following violation).

NOTE: It is NOT intended that minor deficiencies be price adjusted if corrected in a timely manner. Situations and circumstances will dictate how this portion should be applied.

I. Steel H-Pile Weight Deficiency
Materials I.M. 467 specifies a mass tolerance of 2.5 percent on steel H-pile weight deficiency. Steel H-pile that are deficient by more than 2.5 percent of theoretical weight should not be accepted for incorporation into the work except when:

- The need for the steel H-pile is immediate and considered critical by the project engineer.
- Replacement of steel H-pile is not reasonably possible due to short supply and availability.

In the above cases, the project engineer may decide to approve the use of deficient steel H-pile and apply a price adjustment in contract unit price for the material as prescribed by “Steel H-Pile Weight Deficiency Price Adjustments” in *Appendix 2-34(L)*.

2.54 PRICE ADJUSTMENT CHANGE ORDERS

Price adjustment deductions are processed by change orders using an 8xxx change number. If additional price adjustments come up later, a second change order must be prepared; but such increases or decreases are processed as 7xxx change numbers. (Refer to *Construction Manual 2.36* for information about processing change orders.)

2.55 FINAL PAYMENT TO CONTRACTOR

Iowa Code allows a maximum of 5 percent to be retained until a contract is completed. Iowa DOT specifications require that 3 percent will be retained on the first $1,000,000 paid on a contract.
This retainage is specifically withheld to cover:

- Unpaid creditors who file claims against a contract. The Iowa DOT is obligated by *Iowa Code, Section 573*, to withhold at least double the amount of any claims on file.

If retention is reduced just to avoid paying interest, the Iowa DOT could be responsible to pay these claims.

Iowa Code also requires payment of interest on retained contract funds. For all State projects (NHS, Non-NHS, and Maintenance) interest shall begin to accrue on retained funds when the first progress payment is issued. The Office of Finance assigns a pre-established interest rate at this time and that rate applies for the contract's duration. Interest on retained funds will cease to accrue:

- 90 days after Form 830435 is signed by the District Construction Engineer **AND** the contractor has not submitted all required final paperwork, or
- When minimal funds are retained due to processing a Retention Release, or
- When funds are withheld due to a 573 claim and a lawsuit has been filed.

For county or city projects, refer to Local Systems I.M. 3.930, Interest Payment Procedures, for the applicable interest payment requirements.

Payment Terminology

- Final Acceptance Date (FAD)
  The "FAD" is the date Form 830435, Final Acceptance of Work, is signed by the District Construction Engineer.

- 90 Day Period (after processing Form 830435)
  The "90 Day Period" is the maximum "grace period" allotted by *761 IAC, Chapter 27* for a contractor to submit final contract documentation and still accrue interest on retainage. Time starts the first calendar day following the District Construction Engineer's signature on Form 830435. Assessment of days will not be suspended for any reason. However, if the 90th day occurs on a Sunday or legal holiday, the contractor will be given to the close of business the following day.

  NOTE: It is a contractor's responsibility to provide all necessary contract documentation. However, the project engineer is responsible for timely notification of missing or unacceptable documentation. Both parties are jointly responsible to conclude contracts in a timely manner.

- 30 Day Period (after processing Form 830435)
  Iowa Code provides a 30-day window for creditors to file claims of unpaid invoices against a contract. Therefore, the Office of Finance will not process a retention release request until the thirty-first calendar day after the District Construction Engineer signs Form 830435. If no claims are on file, a retention release or final payment may be made.

- 573 Claim
  A "573 Claim" is a term used to signify an *Iowa Code Chapter (573)* that establishes procedures by which unpaid subcontractors, material suppliers, etc. may file a claim for payment against the contract. These claims are formally filed with the Office of Finance.
  "If a claim is filed," Iowa Code mandates that the Iowa DOT shall withhold an amount of 2 times any claim. Following resolution of a "573 claim" or 60 days after the final (if no lawsuit has been filed), the Office of Finance issues payments as required.

Recommended Guidelines

At the preconstruction conference, contractors should be advised that all required forms,

documents, and certifications must be properly prepared and forwarded to the project engineer before a final progress voucher can be processed. Forms required for contractor submittal are explained in *Construction Manual 2.20* and the contractor is expected to read and be knowledgeable of these requirements.

It is important that required forms, documents, and certifications are dated when received from the contractor. Every effort should be made to have all documentation and Change Order issues resolved on, or soon after, accepting the project.

Soon after processing a Form 830435, the contractor should be provided a written list of missing, incomplete, or unacceptable documentation. If issues remain unresolved, this list should be updated and retransmitted on or about days 30, 60, and 90. Unresolved documentation at the end of day 90 shall be placed and tracked on the Interest Payment Information sheet (Form 830235).

Interest Payment Information (Form 830235)
The project engineer shall submit Interest Payment Information (Form 830235) with the Final Progress Voucher. Copy of form is provided in *Appendix 2-32*. One Interest Payment Information form is required for each "contract."

Completing the form is self-explanatory, however note:

- Final Acceptance Date is the District Construction Engineer's signature date of Form 830435.
- 90th Day is 90 calendar days after Final Acceptance Date. If this date occurs on a weekend or holiday, record the next Iowa DOT working date.
- A table is provided to track requests for contractor submittals of required documentation beginning on or about day 89 and continuing until information has been submitted.

Distribution: Original is to be included in the final progress voucher packet. (Project engineers should check with their District Office to determine if an additional copy is needed for that District.) During processing, the Office of Finance will compute interest due and make payment.

Form 830235 is available through Office Supplies.

2.56 FUEL ADJUSTMENT

The specification for Fuel Adjustment, Section 2103 (Section 2120 in 2009 Specification Book) of the Standard Specifications, applies to a contract only when specified in the Proposal with the appropriate note. When specified, all categories (i.e. Roadway & Borrow, Unsuitable, Waste, Channel, etc.) of the following items are subject to fuel adjustment:

- Class 10, 12, & 13 excavation
- Select Backfill
- Topsoil
- Embankment-in-place

The Current Price Index (CPI) will be printed in the Office of Contract's Weekly Letting Report. The Letting Reports list CPI's for several past months. The Base Price Index (BPI) for fuel adjustment calculations will be the CPI listed for the month prior to the letting date of the contract.

Fuel Adjustment Calculation

The fuel adjustment calculation is dependent on the contract's letting date.

- For contracts let prior to April 21, 2009 - based on the first $0.15 of adjustment (Form 105Oct05)
- For contracts let on or after April 21, 2009 - based on the first $0.15 of adjustment and added increased fuel usage factor (FUF) for embankment-in-place (Form 105Apr09 or Form 105Oct10)

Standardized Fuel Adjustment work sheets (Form 105) and are available in electronic format under the "Inspection Tools" tab on the Office of Construction's "Contract Administration" webpage: http://www.iowadot.gov/construction/contract_admin.html

Based on specification changes in October 2010, Form 105Oct10 includes revised formulas. The changes were to improve clarity only, and the calculated fuel adjustment does not differ between Form 105Apr09 and Form 105Oct10.

Form 105 is usable as either a preprinted form for manual usage or as EXCEL applications. Only raw data inputs are required for those who choose to utilize the EXCEL spreadsheets. Once raw data is entered, the computer calculates adjusted fuel payment from formulas and the user can print a completed monthly adjustment report. Refer to *Appendix 2-35* for a completed adjustment work sheet using English units.

Payment for fuel adjustments is to be calculated at the end of each month for all qualifying work accomplished that month.

For contracts let on or after October 18, 2005, the contractor shall provide to the Engineer, on a monthly basis, a spreadsheet with quantities and the calculated amount of fuel adjustment.

Instructions for Fuel Adjustment Calculation Spreadsheet (Form 105Apr09 or 105Oct10)

(Following instruction also available at http://www.iowadot.gov/construction/contract_admin/fuel_adj.html

1. Download the appropriate spreadsheet (English or Metric units) and save file to user's computer.
2. Complete contract information in header of spreadsheet
3. Obtain BPI, from the Weekly Letting Report by selecting Price Index for month previous to month of the letting. (For example: Letting Date is October 18, select CPI for September)
4. Enter the BPI in the designated space. Form M105 will convert the BPI to the metric equivalent ($/GAL to $/Liter).
5. Enter the contract quantity of the items in the designated rows in the "Estimated Project Quantities". Other items included in the contract, but not listed, shall be added.
6. Obtain the Current Price Index (CPI) for a month from the Weekly Letting Report
7. Enter the CPI in the column "CPI" for the designated month. Form M105 will convert the CPI to the metric equivalent ($/GAL to $/Liter).
8. Enter the quantities that have been hauled in the appropriate item columns and month row. For example, Selected Backfill and Class 10 Excavation were hauled in June. In the June row, the Selected Backfill quantity is entered in Cell E35 English or Cell I36 metric and Class 10 Excavation quantity in Cell F35 English or Cell F36

metric. The total quantity for the month will be automatically computed and shown in the column labeled “Total CY” (or “Total M^3”).

9. When adding an item not already shown in the spreadsheet, use one of the columns designated for the applicable Fuel Usage Factor (FUF). The spreadsheet uses yellow shading for items which use a FUF of 0.20 English (1.0 metric) and green shading for Embankment-in-Place items which use a FUF of 0.27 English (1.3 metric).
10. The fuel adjustment amount for the month will be automatically computed and shown in the column “NFA” (Net Fuel Adjustment) in Form 105Apr09 or “FA” (Fuel Adjustment) in Form 105Oct10.
11. Submit a copy of the completed form to the Project Engineer. Payment or credit will be made by processing a Contract Modification. The form shall be completed and submitted on a monthly basis. The monthly quantities shall be added to the previous month’s spreadsheet.
12. The Contractor and Project Engineer shall agree upon the frequency of payment or credit.

Fuel Adjustment Payment

Payment shall be by a Change Order using the item numbers of 6200-500171 (metric) and 6200-5000171 (English). With the contractor's approval, one Change Order may be executed at the end of the project or at intervals agreeable to both the project engineer and the contractor. Regardless of payment intervals, calculations on Form 105 shall be made at the end of each month with a copy forwarded to the project engineer for their files.