



Payment



Payment: Objectives



Be able to...

- Understand a progress payment
- Properly measure item quantities
- Understand payment scope
- Create proper “source” documents
- Calculate force account payments
- Adjust unit prices of quantities increased or decreased by more than 25%



Payment: Resources



- CTSS, Section 9 Payment
- Green Book; Section 9, Measurement and Payment
- CM; Section 3-9, Payment
- LAPM; 16.9 Construction Records and Accounting Procedures



Payment: Progress Payments



Monthly Progress Pay Estimates

1. Total work completed during the pay period (**Items**)
2. Change order bills
3. Amount for materials on hand
4. Amount earned for mobilization
5. Deductions
6. Withholds
7. Payment adjustments



CTSS 9-1.16

CM 3-907



Payment: Bid Item Quantity Measurement



“Except for final pay quantities, the Engineer **measures** quantities for payment.”

CTSS 9-1.02 Measurement

Payment will be made only for **actual quantities** of Contract Items constructed in accordance with the Contract Documents.

Greenbook 9-3 Payment



Payment: Bid Item Quantity Measurement



Bid Item Work Units of Measure

- Count
- Length
- Area
- Volume
- Weight
- Lump sum

Contract Bid Item Quantity = Estimate
Payment = Work **Actually Performed**



Payment:

Bid Item Quantity Measurement



Materials and items of work which are to be paid for on basis of measurement shall be measured in accordance with methods stipulated in the particular sections involved.

Greenbook 9-1.2 Payment



Payment: Bid Item Quantity Measurement



19 Earthwork

19-2 Roadway Excavation

19-2.04 PAYMENT

The payment quantity for roadway excavation is the volume of roadway excavation material, including volume of material involved in:

1. Embankment construction unless a separate bid item for constructing embankments is shown on the Bid Item List
2. Ditch or channel excavation if the bottom width of the ditch or channel is 12 feet or more
3. Local borrow excavation

The volume of material for roadway excavation is determined from the average end areas and the distances between them.



Payment: Bid Item Quantity Measurement



Section 84-1 Traffic Stripes and Pavement Markings (SS2020)

The payment quantity for a traffic stripe is the length measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

The payment quantity for a pavement marking is the area covered.

Section 84-2 Thermoplastic Traffic Stripes and Pavement Markings

A double extruded thermoplastic traffic stripe consisting of two 4-inch-wide yellow stripes is measured as 2 traffic stripes.

A double sprayable thermoplastic traffic stripe consisting of two 4-inch-wide yellow stripes is measured as 1 traffic stripe.



Payment: Bid Item Quantity Measurement



Section 39, Hot Mix Asphalt Section 39-6, Payment

SECTION 39

HOT MIX ASPHALT

The Department does not adjust the unit price for an increase or decrease in the tack coat quantity.
Section 9-1.06 does not apply to tack coat.

Place hot mix asphalt dike of the type specified is measured along the completed length.

Place hot mix asphalt (miscellaneous areas) is measured as the in-place compacted area.

HMA dike is paid for as place hot mix asphalt dike of the type specified in the Bid Item List and by weight for hot mix asphalt.

HMA specified to be placed in miscellaneous areas is paid for as place hot mix asphalt (miscellaneous area) and by weight for hot mix asphalt.



Payment: Bid Item Quantity Measurement



Section 65, Concrete Pipe

Section 65-**2.04**, Payment **(2010)**

Section 65-**1.04**, Payment **(2015)**

*RCP is measured **along the centerline of the pipe and parallel with the slope line**. The payment quantity includes the length of bends, wyes, tees and other branches to the point of intersection. The payment quantity is the length designated by the Engineer. **If pipes are cut to fit a structure or a slope**, the payment quantity is the length of pipe necessary to be placed before cutting, measured in 2-foot increments. If you choose to construct a cast-in-place connection instead of cutting off the pipe to fit the structure, the payment quantity is the length of pipe measured along the centerline of the pipe to the inside face of the structure.*

2010 CTSS 65-2.04 Payment (Concrete Pipe)



Payment: Bid Item Quantity Measurement




Construction Manual Guideline:

The length of pipe to be paid for is the slope length designated by the engineer. This slope length is the length shown on the plans, plus or minus any changes the engineer makes, or the length as determined from the surveyors' staking notes. If pipe is cut to fit a structure or a slope, the pay length is the length necessary to be placed before cutting, rounded up to the nearest 2-foot increment. If the contractor forms the pipe out from a structure, the formed distance is also part of the length of the pipe necessary before cutting. If the pipe joins a structure at a skew, the length of pipe necessary to be placed before cutting is the longer side of the pipe. Pipe bends, wyes, tees, and other branches must be field measured in accordance with the specifications. The following are examples for measuring culvert pipe when the length to be paid for is the slope length designated by the engineer.

CM 4-6504 Measurement and Payment



4-6504A Case I

| PIPE PLACEMENT | CUT OR UNCUT PIPE | PAYMENT METHOD |
|---|---|---|
| Pipe between two structures (inside face to inside face of two drop inlets) | Cut  | Pay to the nearest 2-foot increment equal to or longer than the pipe necessary before cutting |

Example 1:

The length along centerline between the two faces and additional length required due to skew = 62.33 ft

Individual lengths of pipe placed total 60.08 ft, plus additional length made up in joints and by forming out from one structure.

Pipe is cut due to skew at the other structure.

Therefore:

Pay for 64 ft

Example 2:


Centerline length between inside faces not on a skew = 60.75 ft

Lengths of pipe placed total 64.25 ft

Therefore:

Pay for 62 ft

4-6504B Case II

| PIPE PLACEMENT | CUT OR UNCUT PIPE | PAYMENT METHOD |
|------------------------------|---|----------------------------|
| Pipe between two structures. | Uncut  | Pay the designated length. |

Example:

- Slope length along centerline of the pipe between the two inside faces = 145.5 ft
- Individual lengths of pipe placed total 144 ft, plus additional length made up in joints or forming out from one structure, or both.

Therefore:

Pay for 145.5 ft

Measurement and Payment

CM 4 Construction Details

(Handout Pg. 1)



Payment:

Bid Item Quantity Measurement



General Measurement Specifications:

- Contractor must measure material paid for by weight on **sealed scales**.
- Teamsters must submit a **weight or load slip** at delivery point.

CTSS 9-1.02 Measurement

Greenbook 9-1.3 Certified Weights



Payment: Bid Item Quantity Measurement



- Collect weight/load slips at point of delivery
- Initial weight/load slips
- Verify “California Test 109” Sticker

CM 3-903E Weighing and Metering Procedures



Payment: Payment Scope



Payment is full compensation for:

- Furnishing the resources and activities required to complete the work
- All work involved in each bid item

CTSS 9-1.03 Payment Scope



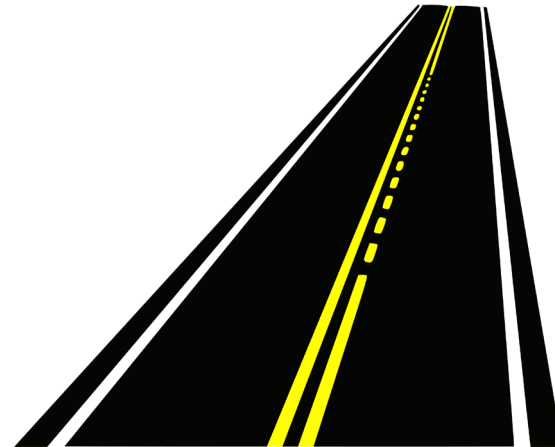
Payment:

Payment Scope



84-2 Thermoplastic Traffic Stripes and Pavement Markers

- Provide submittals: COC, MSDS
- Furnish materials
- Establish layout
- Prepare surface
- Apply primer
- Apply thermo
- Apply glass beads
- Meet tolerances and QC
- Protect from damage
- Test retroreflectivity under ASTM E 1710





Payment: Payment Scope



Work paid for under one bid item is not paid for under any other bid item.

CTSS 9-1.03 Payment Scope



Payment: Payment Scope



Payment for a bid item includes payment for work in sections referenced by the section set forth by that bid item.

CTSS 9-1.03 Payment Scope



Payment: Payment Scope



19-2 Roadway Excavation

19-2.03 CONSTRUCTION

19-2.03A General

Excavate to the described or authorized grade. If you overexcavate, backfill with authorized material and compact.

Where a portion of the existing pavement is to be removed, cut the outline of the area to be removed on a neat line with a power-driven saw to a depth of at least 0.17 foot before removing surfacing.

Construct embankments under section 19-6.



Payment:

Payment Scope



Full compensation for work specified in divisions I, II, and X is included in the payment for the bid items *unless bid item for the work is shown on the Bid Item List.*

CTSS 9-1.03 Payment Scope



Payment: Payment Documentation



Source documents:

- Permanent record sheets supporting payments made to the contractor.
- Provide an Audit trail.
- Examples:
 - Daily reports.
 - Quantity Calculation Sheets
 - Weigh Tags
 - Invoices (for force account work).

CM 3-902C Source Documents

Payment: Payment Documentation

Sample Quantity Calculation Sheet (Handout Pg. 2)

QUANTITY CALCULATIONS
CEM-4801 (REV 11/1992) CT# 7541-3520-0

05 - OM7504
05-SCR-1-R0.0/10.2
Place HMA

ITEM # 17 - TEMP RAILING (TYPE K)
LOCATION Hwy 1 - PM 0.0/10.2
CALC. BY K. NGO
CHK. BY P. Duxdal
DATE 4/15/12
4/19/12

ITEM # 17 - TEMP RAILING (TYPE K): (FIELD MEASURED)

| ITEM # | DATE | DESCRIPTION | QUANTITY | UNIT | PRICE | TOTAL |
|---------|--------|--------------|----------------|------|-----------|----------|
| 17 | Apr 15 | PAVEX PLACED | 80 LF AT OC 12 | LF | PM R 4.09 | |
| | | | 80 LF | LF | PM R 3.68 | |
| | | | 80 LF | LF | PM R 0.72 | |
| | | | 80 LF | LF | PM R 1.01 | |
| | | | 80 LF | LF | PM R 1.14 | |
| | | | 80 LF | LF | PM R 1.35 | |
| | | | 80 LF | LF | PM R 1.59 | |
| 17 | Apr 16 | | 80 LF | LF | PM R 0.72 | |
| | | | 80 LF | LF | PM R 0.04 | |
| | | | 80 LF | LF | PM R 0.19 | |
| | | | 80 LF | LF | PM R 1.37 | |
| | | | 80 LF | LF | PM R 1.74 | |
| | | | 80 LF | LF | PM R 4.19 | |
| TOTAL = | | | | | | 1,140 LF |



Payment: Payment Documentation



Quantity Calculation Sheets:

- 1 per Bid Item Paid, per Pay Estimate!
- Show *measurements and calculations* supporting item quantity paid.
- Show location of installation.
- Cite source of figure, calculation, or quantity

CM 3-902C Source Documents



Payment: Payment Documentation



Include (cont.):

- Source of figure, calculation, or quantity
 - Field measured
 - Field counted
 - Scale weights
 - Calculations based on planned dimensions

CM 3-902C Source Documents



Payment: Payment Documentation



Include (cont.):

- Name and date of preparer.
- Name and date of checker.

CM 3-902C Source Documents

Payment: Payment Documentation

Sample Quantity Calculation Sheet (Lump Sum) (Handout Pg. 3)

QUANTITY CALCULATIONS CEM-4801 (REV 11/1992) CT# 7541-3520-0

05 - 0M7504

05-SCR-1-R0.0/10.2

Place HMA

| | | | |
|----------|---------------------|-------------------|--------------------------|
| ITEM # | 16-PORTABLE CMS | FILE NO. | 48-16-3 |
| LOCATION | HWY 1 - PM 0.0/10.2 | SEGREGATION - YES | <input type="checkbox"/> |
| CALC. BY | K. NGO | DATE | 6/13/12 |
| CHK. BY | B. ROMAN | DATE | June 13, 2012 |

| | |
|--|-----|
| ITEM # 16 - PORTABLE CMS : | |
| * This sheet will pay for the portable CMS' used for Traffic Control | |
| During this pay estimate B/W May 21 and June 20, 2012. | |
| Days used in this pay estimate : | 22 |
| Total contract days : | 120 |
| $L.S. = \frac{22}{120}$ | |
| $= 0.18 L.S.$ | |
| $\$30K \times 0.18 = \$5,400$ | |
| Planned Quantity 1.0 L.S. | |
| CCO revisions <input checked="" type="checkbox"/> | |
| Authorized Quantity 1.0 L.S. | |
| Item Complete <input checked="" type="checkbox"/> yes <input checked="" type="checkbox"/> no | |
| Total Paid to date 0.375 ✓ | |
| Previous Paid 0.195 ✓ | |
| sheet 48-16-2 | |
| Pay this sheet 0.18 L.S. ✓ | |

POSTED BY

DATE

POSTED TO

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OSP 08 108626



Payment: CCO Work



Methods to Pay for CCO Work

1. Bid prices
2. Bid prices with adjustment
3. Agreed price (lump sum or by unit)
4. Force account
5. Specialist billing

9-1.03 Payment Scope



Payment: CCO Work



Agreed Price:

- First Choice if No Bid Item exists
- Easier to measure and pay
- More upfront time to reach a FAIR agreed price
- Less staff time overall
- Preferred option by FHWA



Payment: CCO Work



Force account:

**Time and Materials
With Markups**

CTSS 9-1.04

CM 3-904



Payment: Force Account



- Get a CCO signed!
- Discuss operation prior to work.
- Write a quality daily report.
- Agree on hours with contractor daily.
- Sign tentative agreements.



Payment: Force Account



Labor Payment

Cost of labor used in the direct performance of the work **plus a 35 percent markup.**

Labor payment:

1. Basic Hourly Wages plus Fringe Benefits
2. Labor surcharge percentage (currently about **12%**)
3. Subsistence and travel allowance



$$\text{FA labor costs} = [(1 \times 2) + 3] \times 135\% \times \text{hrs}$$

CTSS 9-1.04B Labor



- **Construction's Website**
- **FHWA Approved**

State of California
California State Transportation Agency

Department of Transportation
Division of Construction

Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)



Effective April 1, 2019 through March 31, 2020





**USER'S GUIDE
FOR LABOR SURCHARGE AND EQUIPMENT RENTAL RATES
April 1, 2014 - March 31, 2015**

Equipment Rental Rates are available on the Internet at:

<http://www.dot.ca.gov/hq/construc/equipmnt.html> Miscellaneous

Equipment Rental Rates are available on the Internet at:

<http://www.dot.ca.gov/hq/construc/misceqrr/index.htm>

The miscellaneous listing is updated daily.

Labor Surcharge

% Changes

Note – Exceptions

Changes

Books are no longer available in hard copy and should be downloaded from the internet and printed.

Changes to the equipment rates in the April 1, 2014 book are the result of: 1) fuel costs decreased; 2) interest rates increased; 3) Producers' Price Index increased; 4) no change in sales tax; and 5) no change in freight (F.O.B.) rates.

Labor Surcharge

The labor surcharge compensates the contractor for statutory payroll items stipulated by various governmental agencies. The six items included are worker's compensation, social security, Medicare, Federal unemployment insurance, State unemployment insurance, and State training taxes. The general rate is an average of the job classifications common to Caltrans projects. The labor surcharges in the April 1, 2014 book are the result of changes in worker's compensation rates. The rates were derived from using the pure premium rate approved by the Insurance Commissioner effective January 1, 2014 and increasing it by the historical statewide average expense. In the calculation of the labor surcharge for overtime work, the worker's compensation is not included on the premium portion of overtime, as provided by worker's compensation regulations.

The surcharge percentage to be applied to the actual wages paid as provided in Section 9-1.04B [9-1.03A(1b)] of the *Standard Specifications* will be **12 percent for regular time (RT) and 12 percent for overtime (OT)**.

Exceptions to the general rate are listed below. These classifications were chosen because of high worker's compensation insurance costs. Forward questions, regarding worker's compensation rating and proper labor surcharge usage, to the rental rate personnel in the Division of Construction.



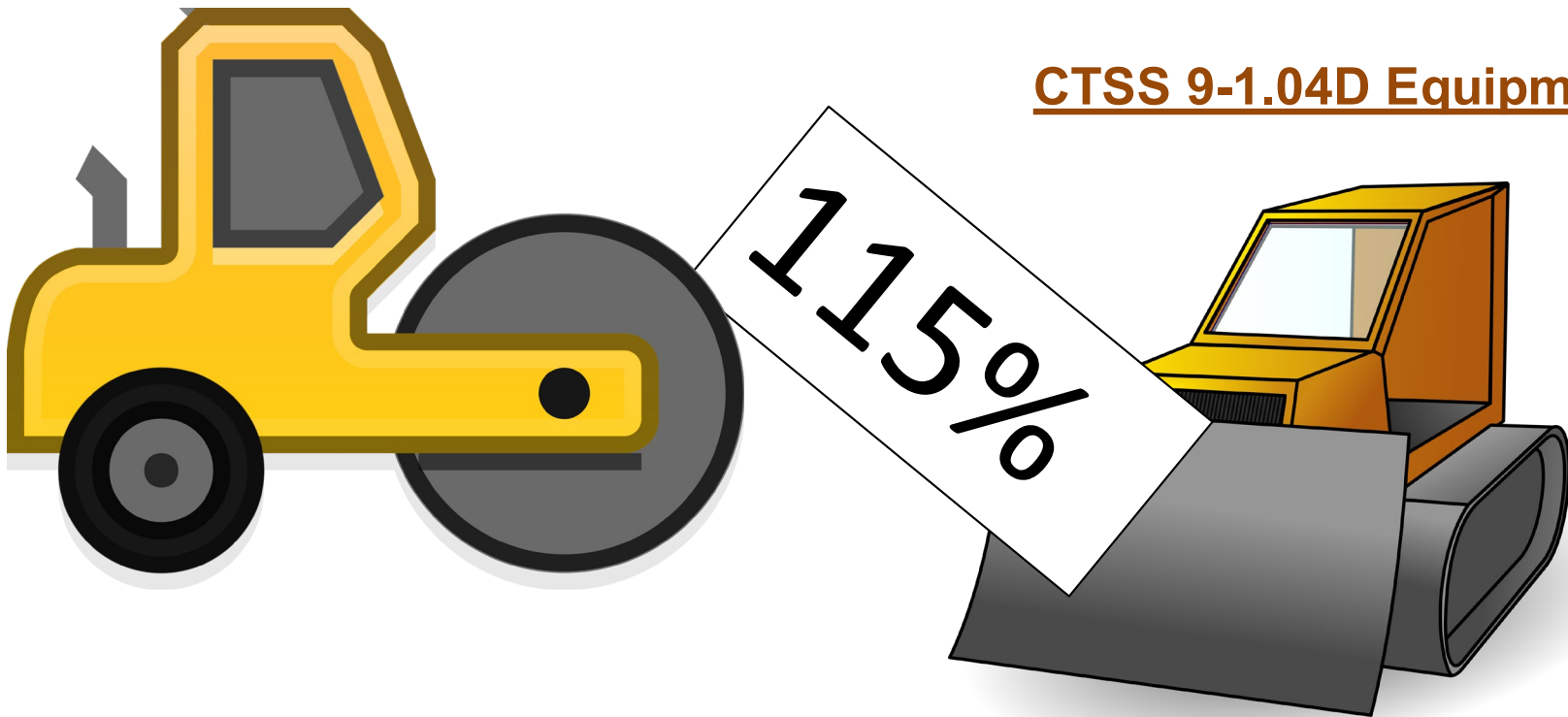
Payment: Force Account



Equipment Payment

Rental Rate x 115% x hrs (Including transport)

CTSS 9-1.04D Equipment



LOADERS, RUBBER TIRE

[LDRRT]

DELAY FACTOR = 0.12

OVERTIME FACTOR = 0.89

Includes all attachments and accessories. Clam-action buckets, 4WD and backhoes are excluded unless otherwise noted.

ALLIS-CHALMERS

[A-C]

| <u>Model</u> | <u>Code</u> | <u>Rate</u> |
|-----------------|-------------|-------------|
| 710C | 0747 | \$33.82 |
| 714B | 0750 | \$32.93 |
| 714C w/ backhoe | 0752 | \$35.40 |
| 715B w/ backhoe | 0765 | \$34.82 |
| 715C w/ backhoe | 0767 | \$35.66 |

CASE

[CASE]

| <u>Model</u> | <u>Code</u> | <u>Rate</u> |
|---------------------|-------------|-------------|
| W-11 | 1365 | \$31.79 |
| W-11B | 1368 | \$38.68 |
| W-18 | 1444 | \$53.47 |
| W-18 9213140 serial | 1450 | \$56.92 |

**Need to know
exact model #**

**Request
equipment
list from
contractor
BEFORE
start of work**



Payment: Force Account



Equipment

Equipment rental rates include the cost of:

- Fuel
- Repairs and Maintenance
- Oil
- Lubrication
- Supplies
- Small tools not consumed
- Necessary Attachments
- Depreciation
- Insurance
- Incidentals

Agency pays for small tools consumed by use.

CTSS 9-1.04D Equipment



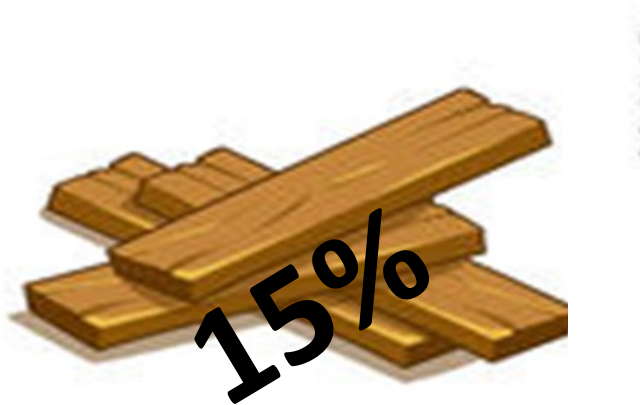
Payment: Force Account



Materials

Materials furnished and *used in the work*.

(Purchase Price + Delivery Charges) x 115%



CTSS 9-1.04C Materials



Payment: Force Account



Subcontractor Markup

10%

(Force Account Costs) x 110%

CTSS 9-1.04C Materials



Payment: Force Account



Summary of Markups

| | |
|---------------|------------|
| Labor | LS and 35% |
| Equipment | 15% |
| Material | 15% |
| Subcontractor | 10% |

CTSS 9-1.04

Contract Change Orders: Force Account



Supporting Documentation

Extra Work @ FA Payment Report

| Extra Work Detail Report | | | | | | | | | | | | | | | Page 3 of 4 | |
|---|----------|---------------|---------------|------------|-----------|-----------|-----------|------------|--------------|--------------|--------------|-------------------------|--------------|-------------------------|---------------------------------|--|
| | | | | | | | | | | | | | | | Date Report Received 03/17/2017 | |
| Contract No: 05 1H7304 CCO No: 001 Pay Method: +EW@FA RE Report No: 0001 | | | | | | | | | | | | | | | | |
| County/Rte/PMKP: SCR 1 Contractor Job No: 673494 Contractor Report No: 0001.0 | | | | | | | | | | | | | | | | |
| Date Performed: 12/09/2016 Work Performed By: Granite Construction Company Contractor Rev No: 1 | | | | | | | | | | | | | | | | |
| RESIDENT ENGINEER: BEACH, KATIE RE Correction No: 0 | | | | | | | | | | | | | | | | |
| Status: 04/07/2017 CASPD EWB Scheduled by CAS for Payment | | | | | | | | | | | | | | | | |
| Description of Work: Pre Job With Tony To Set Up For Monday. Place Rock & Clean Up Road | | | | | | | | | | | | | | | | |
| EQUIPMENT CHARGES | | | | | | | | | | | | | | | | |
| Line | Equip ID | Equip Class | Equip Make | Equip Code | Reg Hours | Rate | O/T Hours | O/T Factor | Delay Factor | Attach Code1 | Attach Rate1 | Attach Code2 | Attach Rate2 | Rejection Code/Comments | Amount | |
| 04 | 06.18981 | TRUCK | T&T | 06-12 | 2.00 | 22.76 | .00 | .85 | 1.00 | .00 | .00 | .00 | .00 | | 45.52 | |
| 05 | MESSAGE | TRAFA | CMSN | SOL2 | 8.00 | 11.03 | .00 | .69 | 1.00 | .00 | .00 | .00 | .00 | | 88.24 | |
| 06 | CONES | TRAFC | 2TC | D100 | .20 | 22.29 | .00 | 1.00 | 1.00 | .00 | .00 | .00 | .00 | | 4.46 | |
| 07 | LIGHTPL | ELGEN | LITE | 4 LIGHT | 8.00 | 7.56 | .00 | .88 | 1.00 | .00 | .00 | .00 | .00 | | 60.48 | |
| 08 | 06.738 | TRUCK | T&T | 06-12 | 8.00 | 22.76 | .00 | .85 | 1.00 | .00 | .00 | .00 | .00 | | 182.08 | |
| 09 | 04.1481 | TRUCK | T&T | 12-20 | 8.00 | 28.17 | .00 | .85 | 1.00 | .00 | .00 | .00 | .00 | | 225.36 | |
| 10 | 08.1118 | LDRRT | DEER | 2722 | 8.00 | 70.66 | .00 | .88 | 1.00 | .00 | .00 | .00 | .00 | | 565.44 | |
| Subtotal Equipment \$ | | | | | | | | | | | | | | | 1,171.58 | |
| 21 % Markup \$ | | | | | | | | | | | | | | | 246.03 | |
| Total Equipment \$ | | | | | | | | | | | | | | | 1,417.61 | |
| LABOR CHARGES | | | | | | | | | | | | | | | | |
| Line | Craft ID | First Initial | Last Name | Reg Hours | Reg Rate | Reg Surch | O/T Hours | O/T Rate | O/T Surch | Sub Units | Sub Rate | Rejection Code/Comments | Amount | | | |
| 34 | OE | BH | CAVANAGH | 2.00 | 73.100 | .12 | .00 | 0.000 | .12 | .00 | .00 | | 163.74 | | | |
| 35 | OE | DM | JOHNSON | 2.00 | 71.570 | .12 | .00 | 0.000 | .12 | .00 | .00 | | 160.32 | | | |
| 36 | OE | JJ | CAVANAGH | 8.00 | 73.100 | .12 | 8.00 | 94.435 | .12 | .00 | .00 | | 1,501.11 | | | |
| 37 | LBR | PE | BLOOM | 8.00 | 58.970 | .12 | 7.00 | 77.345 | .12 | .00 | .00 | | 1,134.76 | | | |
| 38 | LBR | JL | CERNA MURILLO | 8.00 | 51.210 | .12 | 7.00 | 65.705 | .12 | .00 | .00 | | 973.97 | | | |
| 39 | OE | DJ | ZACHARY | 8.00 | 70.090 | .12 | 2.00 | 86.920 | .12 | .00 | .00 | | 829.43 | | | |
| Subtotal Labor \$ | | | | | | | | | | | | | 4,763.33 | | | |
| 21 % Markup \$ | | | | | | | | | | | | | 1,000.30 | | | |
| Total Labor \$ | | | | | | | | | | | | | 5,763.63 | | | |
| Total Labor, Other and Markup \$ | | | | | | | | | | | | | 5,763.63 | | | |

Supporting Daily Report

| JOB STAMP | | | | | | | | | | Sheet # 1 of 1 | |
|---|---------|----------------------------------|-------------------------|--------------|--------------------------|---------------------------|--|--|--|-----------------------------------|--|
| STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | | | | | | | | | | Report No. 929 | |
| 05 - 1H7304 (0516000146) | | | | | | | | | | Date 12/9/2016 | |
| 05 - SCr - 1 - 3.7 / 3.9 | | | | | | | | | | S M T W TH F S Circle Day | |
| Reconstruct Slope and Drainage System | | | | | | | | | | Shift Hours Start 7:00 Stop 21:00 | |
| ASSISTANT RESIDENT ENGINEER'S DAILY <i>Emergency Force Account Work</i> REPORT | | | | | | | | | | | |
| Location & Description of Operation 11:00-21:00, Granite Construction Company crews continue work the Emergency Force Account work, they continue work on placing the filter fabric (100 feet long by 60 feet long) on the bottom of the trench on Hwy 1 N/B shoulder around PM 3.75. Next, they assisted Assured Aggregate Company crews with the rock placement in the trench (on top of the filter fabric) on Hwy 1 N/B shoulder around PM 3.75. They place a total of 355.04 ton of rock (see attached sheet for load # | | | | | | | | | | | |
| and weight). Then they sweep the roadway clean of all the debris from the operation of work. | | | | | | | | | | | |
| EQUIPMENT AND/OR LABOR: | | | | | | | | | | | |
| EQUIP. NO. | NO. MEN | DESCRIPTION (Equipment or Labor) | Emergency Force Account | IDLE OR DOWN | REMARKS | Company | | | | | |
| 6-738 | 1 | 1/2 Tine Pickup (P-250) | 15 | | Jaime Caranagh, Foreman | Granite Construction | | | | | |
| 4-1481 | 1 | 1/2 Tine Pickup (P-250) | 15 | | Jorge Cerna, Labor | | | | | | |
| 4-1128 | 1 | Cone Truck | 15 | | Paul Blom, Labor | | | | | | |
| | 1 | Trailer | 8 | | | | | | | | |
| | 10 | | | | Doug Zachary, Operator | | | | | | |
| Cresco | 1 | Loader (Cat 950M) | 8 | | | | | | | | |
| | 1 | Portable CMS | 8 | | | | | | | | |
| 8-1118 | 1 | Backhoe (JD 710G) | 8 | | | | | | | | |
| 6-18981 | 1 | 1/2 Tine Pickup (P-250) | 2 | | Brady Caranagh, Foreman | | | | | | |
| | 2 | | 2 | | Dennis Johnson, Operator | | | | | | |
| CAD3 | 1 | 18 Wheel Trail dump rock grader | 19 | | Charles Ayala, Transfer | Assured Aggregate Company | | | | | |
| Family, they pickup the lane closure on Hwy 1 N/B lane # 3 between PM 3.65 to 4.10. I did call San Luis Obispo Dispatch to notify that we pickup the emergency lane closure on Hwy 1 N/B lane # 3 between PM 3.65 to 4.10 (no log ID). | | | | | | | | | | | |
| 09:00-12:00, Caltrans Maintenance crews begin work on setting up and maintenance the lane closure on Hwy 1 N/B lane # 3 between PM 3.65 to 4.10. I did verify that all the signs, cones, CMS and etc. are in place for the closure and the closure meet the requirement of Standard Plans -T11, page 239). Then they work on removing all the trees in the trench on Hwy 1 N/B shoulder around PM 3.75 and haul it off the jobsite. | | | | | | | | | | | |
| 11:00-21:00, Assured Aggregate Company crews continue work the Emergency Force Account work, they begin work by providing a 10 wheel rock spreader truck for placing to rock in the trench on Hwy 1 N/B shoulder around PM 3.75. | | | | | | | | | | | |
| Note: Granite Construction have a 18 wheel transport truck that deliver a backhoe onto the jobsite around 11:00 They also have a 18 wheel transport that deliver a loader on the jobsite around 13:00 and haul off the jobsite around 20:00. They also brought material (filter fabric and rope - invoice #22876319). | | | | | | | | | | | |
| Total Cost for Today : \$26,909.56 | | | | | | | | | | | |
| Total Cost for To date : \$29,638.32 | | | | | | | | | | | |
| INTERMITTENT INSPECTION <i>[Signature]</i> Assistance Resident Engineer Title | | | | | | | | | | | |



Payment: Progress Payments



Deductions

- Subcontracting Act Violation
- DBE Utilization Violation
- Liquidated damages
- Out of Specification Material
- Source Inspection Expense Deduction (6-2.01E)

CTSS 1-1.07B

CM 5-103F(1c)



Payment: Progress Payments



Withholds for Noncompliance

- Lack of Progress (10% of PP)
- Performance Failure (25% to 100% of PP)

CTSS 9-1.16E





Payment: Progress Payments



Payment Adjustments

Changed Quantity:

- Decreases of More than 25%.

CTSS 9-1.06B

- Increases of More Than 25%.

CTSS 9-1.06C

Price Index Fluctuation:

- Asphalt in materials.

CTSS 9-1.07C Payment Adjustments for Price Index Fluctuations

CM 3-904B and CM 5-3, “Change Orders” sample



Payment: Poll





Payment: Poll

Quantity Calculations for Progress Payments must:

- a. Contain measurements and calculations**
- b. State source of any figure, calculation, or quantity shown**
- c. Placed in the project files each time the item is paid**
- d. Provide a clear and easy to follow trail**
- e. All of the above**



Payment: Poll

Quantity Calculations for Progress Payments must:

- a. Contain measurements and calculations**
- b. State source of any figure, calculation, or quantity shown**
- c. Placed in the project files each time the item is paid**
- d. Provide a clear and easy to follow trail**
- e. All of the above**



Payment: Poll





Payment: Quiz

True or False

**Per the 2010 Standard Specifications
Section 9-1.04, force account labor
payment is full compensation for the cost
of labor used in the direct performance
of the work plus a 33 percent markup.**



Payment: Quiz

True or False

**Per the 2010 Standard Specifications
Section 9-1.04, force account labor
payment is full compensation for the cost
of labor used in the direct performance
of the work plus a 33 percent markup.**

False

2006 CTSS: 33%

2010 CTSS: 35%

2015 CTSS: 35% (w/TRO 30%)



Payment: Poll





Payment: Poll

Which of the following is not true?

The RE can withhold a portion of the progress payment for contractor's failure:

- a. To deliver documents.**
- b. To be a nice person.**
- c. To make adequate progress.**



Payment: Poll

Which of the following is not true?

The RE can withhold a portion of the progress payment for contractor's failure:

- a. To deliver documents.**
- b. To be a nice person.**
- c. To make adequate progress.**



Payment Exercise

(Small group work in Google slides.
Please paste the URL into your
Chrome internet browser)



QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CT# 7541-3520-0

Lock Data on Form

| | | |
|---|----------------------------------|--|
| JOB STAMP | ITEM | FILE NO. |
| (01-0F8604) Project ID # 0116000075 | Item 9 - Shoulder Backing | 48 - 9 - 1 |
| 01-Hum/DN-Route 101-R131.7/137.2, M0.0/M0.2 | LOCATION | SEGREGATION YES <input type="checkbox"/> |
| In Humboldt and Del Norte Counties, about 9 Miles | Various Project Locations | NO <input checked="" type="checkbox"/> |
| N. of Orick from 2.5 Miles N. of Boyes Creek | CALC. BY | DATE |
| Viaduct to N. Prairie Creek Undercrossing | Inspector A | 02/15/2018 |
| (AC Grind and Overlay) | CHK. BY | DATE |
| | Inspector B | 02/20/2018 |

| | | | |
|---|-----------------------|-----|------|
| Progress Payment No. 1: | Engineer's Estimate : | 210 | Tons |
| For work performed from 1/20/18 to 2/19/18. | | | |

| Date: | Ticket Number: | Location(s) | Quantity (Tons) |
|---------|----------------|-------------------------------------|-----------------|
| 2/5/18 | 86326 | SB Route 101, PM R134.50 to R134.65 | 27.26 |
| 2/5/18 | 86417 | SB Route 101, PM R134.81 to R134.88 | 22.72 |
| 2/6/18 | 86944 | SB Route 101, PM R135.66 to R135.87 | 27.26 |
| 2/6/18 | 86958 | SB Route 101, PM R136.38 to R136.43 | 27.12 |
| 2/6/18 | 86973 | SB Route 101, PM R136.73 to R136.80 | 20.27 |
| 2/7/18 | 86684 | NB Route 101, PM R135.33 to R135.39 | 27.26 |
| 2/7/18 | 86698 | NB Route 101, PM R132.87 to R132.98 | 12.75 |
| 2/9/18 | 86944 | NB Route 101, PM R132.03 to R132.11 | 27.26 |
| 2/9/18 | 86944 | NB Route 101, PM R131.97 to R132.03 | |
| 2/9/18 | 86982 | NB Route 101, PM R131.97 to R131.82 | 13.75 |
| TOTAL = | | | 205.65 Tons |

Field observation that all material brought to the jobsite were incorporated into work per project plan locations.

Quantity paid per weigh tickets /load slips collected at the job site. (See Attached as backup)

All work completed on 2/9/18 as noted.

[illegible]

| | | |
|------------------------|--------|---------------------------|
| Pay Previous: | 0 | Tons |
| Pay This Estimate: | 205.65 | Tons |
| Total Paid up to date: | 205.65 | Tons (97.9%) of the E. E. |

[illegible]

| POSTED BY | DATE | POSTED TO |
|-----------|------|-----------|
| | | |

ADA Notice

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Exercise Answer - 2

QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CT# 7541-3520-0

Lock Data on Form

JOB STAMP

(01-0F8604) Project ID # 0116000075
01-Hum/DN-Route 101-R131.7/137.2, M0.0/M0.2
In Humboldt and Del Norte Counties, about 9 Miles
N. of Orick from 2.5 Miles N. of Boyes Creek
Viaduct to N. Prairie Creek Undercrossing
(AC Grind and Overlay)

ITEM
Item 2 - Construction Area Signs (CAS)
LOCATION
Per Project Plan Sheet CS-1
CALC. BY
Inspector A
CHK. BY
Inspector B

DATE
02/20/2018

Progress Payment No. 1: Engineer's Estimate : 1 Lumpsum
For work performed from 1/20/18 to 2/19/18.

Progress Payment Schedule for this item:

(Eliminate the Sign Maintenance Payment portion, due to this project's short duration of 40 working days.)

For complete Sign Installation: Pay 70 %

For complete Sign Removal: Pay 30 %

Date: Signs Installed

1/22/18 NB Rte 101, Sign # E, A, B, D, D, F & C (8 EA signs installed)

1/23/18 SB Rte 101, Sign # E, A, B, C, D, F & C (7 EA signs installed)

(Note: Plan Sheet CS-1 showed 15 signs per the drawing, but the sign table only showed 14 signs with a (N) designation of "Not a Separate Bid Item." After discussion with the project RE and the subcontractor, it was agreed by both parties to install additional sign # C as shown on the plan drawing, at no additional cost.)

15 EA of the CAS shown on the sheet CS-1 are installed and completed on 1/22/18 to 1/23/18.

All CAS are field counted and verified by Inspector A

TOTAL = 0.7 LS

* The Contractor has not submitted the required Certificate of Compliance for the CAS..... Hold 40% - 0.4

PAY THIS ESTIMATE: 0.3 LS

Pay Previous: 0 LS

Pay This Estimate: 0.3 LS

Total Paid up to date: 0.3 LS (30 %) of the E. E.

POSTED BY

DATE

POSTED TO

Exercise Answer - 3

QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CTR# 7541-3520-0

Lock Data on Form



| JOB STAMP | | ITEM | |
|---|--|----------------------------------|------------|
| (01-0F8604) Project ID # 0116000075 | | Item 17 - Cold Plane AC Pavement | |
| 01-Hum/DN-Route 101-R131.7/137.2, M0.0/M0.2 | | LOCATION | |
| In Humboldt and Del Norte Counties, about 9 Miles | | Various Project Locations | |
| N. of Orick from 2.5 Miles N. of Boyes Creek | | CALC. BY | |
| Viaduct to N. Prairie Creek Undercrossing | | Inspector A | |
| (AC Grind and Overlay) | | CHK BY | DATE |
| | | Inspector B | 02/20/2018 |

Progress Payment No. 1:
For work performed from 1/20/18 to 2/19/18.

| Date: | Location(s) | Field Measurements (LF) | Quantity (SQYD) |
|---------|-------------------------------------|--|-----------------|
| 1/25/18 | NB Rte 101: PM R131.7 to R137.44 = | 351 LF x 4 LF / 9 | = 156.00 |
| | NB Rte 101: PM R131.76 to R131.85 = | 720 LF x 4 LF / 9 | = 320.00 |
| | NB Rte 101: PM R131.88 to R132.56 = | 5412 LF x 4 LF / 9 | = 2405.33 |
| | NB Rte 101: PM R132.57 to R132.65 = | 420 LF x 4 LF / 9 | = 186.67 |
| | NB Rte 101: PM R132.85 to R132.85 = | 82 LF wide x 20 LF length / 9 (Road Connect) | = 182.22 |
| | NB Rte 101: PM R132.97 to R133.00 = | 162 LF x 4 LF / 9 | = 72.00 |
| | NB Rte 101: PM R133.13 to R133.31 = | 945 LF x 4 LF / 9 | = 420.00 |
| | NB Rte 101: PM R133.31 to R133.77 = | 3645 LF x 4 LF / 9 | = 1620.00 |
| 1/26/18 | NB Rte 101: PM R133.76 to R133.91 = | 799 LF x 4 LF / 9 | = 355.11 |
| | NB Rte 101: PM R133.98 to R134.02 = | 202.5 LF x 4 LF / 9 | = 90.00 |
| | NB Rte 101: PM R134.02 to R135.02 = | 7987.5 LF x 4 LF / 9 | = 3550.00 |
| | NB Rte 101: PM R134.40 to R134.47 = | 365 LF x 4 LF / 9 | = 162.22 |
| | NB Rte 101: PM R135.05 to R135.33 = | 2227.5 LF x 4 LF / 9 | = 990.00 |
| | NB Rte 101: PM R135.40 to R135.50 = | 529 LF x 4 LF / 9 | = 235.11 |
| | NB Rte 101: PM R135.61 to R135.61 = | 82 LF wide x 20 LF length / 9 (Road Connect) | = 182.22 |
| | NB Rte 101: PM R135.65 to R135.94 = | 2306 LF x 4 LF / 9 | = 1024.89 |
| | NB Rte 101: PM R135.98 to R136.15 = | 900 LF x 4 LF / 9 | = 400.00 |
| TOTAL = | | | 12,351.77 |

- All quantities have been field measured and calculated by Inspector A.
- All daily quantities have been verified and agreed with the Contractor's foreman - Jose Guzman

PAY THIS ESTIMATE: 12,351.77 SQYD

Engineer's Estimate (E.E.): 36,400 SQYD

Pay Previous: 0 SQYD

Pay This Estimate: 12,351.77 SQYD

Total Paid up to date: 12,351.77 SQYD (33.9 %) of the E. E.

| POSTED BY | DATE | POSTED TO |
|-----------|------|-----------|
| | | |