

DOCUMENTATION MANUAL

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**DOCUMENTATION REQUIREMENT
SECTION A
ORGANIZATION OF PROJECT DOCUMENTS**

All field office records must be organized in a standardized filing system with a separate file drawer (if room allows) for each major file category. By each field office maintaining the same filing system, this will enable crew personnel, Headquarters personnel, District personnel, FHWA, etc. to locate information consistently. The four major file categories are:

1. CONTRACT FILES
2. MATERIALS AND TESTING FILES
3. GENERAL CORRESPONDENCE
4. PERSONNEL RECORDS

There shall be a separate category 1 and 2 for each contract. Category 3 is for the Resident Engineer's office records. Category 4 must be maintained continuously and secured and locked at all times.

Each filing system category is divided into divisions as described in this Chapter. Each division listed shall be set up with a titled file divider and the dividers may be used on subsequent contracts. A divider shall be set up even if no activity for that division is anticipated. This will provide room in the file for unanticipated material as it is received.

Each division in the filing system is further divided into subdivisions, representing the individual file folders for each contract item. **All file folders, except progress payments must be 8-1/2" x 11"**. Certified payrolls can also be placed in legal (8-1/2" x 14") size files if needed. There may be times when additional file subdivisions may have to be created that are not shown in this Chapter. Care must be taken to cross reference material that may be filed elsewhere in the office such as in loose leaf binders, etc.

Every filing system shall contain the major divisions listed. The subdivisions, however, are utilized only when relative to a specific contract.

1. CONTRACT FILES

DIVISION NO. 1 - INFORMATION FURNISHED AT THE START AND DURING THE CONTRACT

This division is for documents furnished to the Resident Engineer at the beginning and during the contract. **Separate file folders are required for each.** Listed are some of the documents provided:

- 1.1 Agreement Estimate Breakout
- 1.2 Bid Summary Tabulation and Contract Record
- 1.3 Notice of Award of Contract
- 1.4 Special Provisions (executed)
- 1.5 Pre-bid Conference
- 1.6 Preconstruction Conference
- 1.7 CPM (sequence of operation)
- 1.8 CPM Monthly Schedule Updates
- 1.9 CPM Schedule, Misc.
- 1.10 Partnering Information
- 1.11 Delegation of Superintendent, Signature for Change Orders
- 1.12 Safety Program
- 1.13 EEO Program
- 1.14 Pollution Control Plan
- 1.15 Dust Permit
- 1.16 Others as required

DIVISION NO. 2 - GENERAL CORRESPONDENCE

This division is for correspondence relative to the contract. Correspondence, as listed below are samples of those, which may conceivably develop under this division. There could be more or less, depending on the volume of correspondence that develops. **Separate file folders are required for each.**

- 2.1 To District
- 2.2 From District
- 2.3 To Headquarters
- 2.4 From Headquarters
- 2.5 To Contractor
- 2.6 From Contractor
- 2.7 To/From Property Owners
- 2.8 To/From Utility Companies
- 2.9 To/From Miscellaneous
- 2.10 To/From Designer
- 2.11 Weekly Meeting Minutes
- 2.12 Customer Service Work Orders
- 2.13 Others as required

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DIVISION NO. 3 – MEDIA RECORDS

This division is for all media records. Large files of photographs, videos, or CD's may be stored elsewhere, providing the new location is referenced. **An Index for CD's and Videos are required. Any printed pictures are to be placed on photo cards (Form No. 040 029) along with a complete description of each picture. Separate file folders are required for each.**

- 3.1 Photographs with description cards (Form No.040-029)
- 3.2 Video tapes with index
- 3.3 CD's with index

DIVISION NO. 4 -POSSIBLE CLAIMS

This division is for any claims or information concerning claims pertaining to the contract. **Separate file folders are required for each individual claim.**

- 4.1 Notice of Claim by Contractor
- 4.2 Acknowledgment of Contractor's letters of potential claim
- 4.3 Contractor's claims for time extension
- 4.4 Acknowledgment of claim for time extension
- 4.5 On Project accident reports (ex: NHP, Metro, etc.)
- 4.6 Outside Claims to Contractor
- 4.7 Claim information from the Attorney General's Office
- 4.8 Other correspondence/force account relating to claims
- 4.9 Conflict Resolution information

DIVISION NO. 5 - CHANGE ORDERS

This division is for the prior approval, initial change order (**backup is required**), related correspondence prior to approval, transmittal letter, the executed change order, and the change order report received from Headquarters. **Separate file folders are required for each individual change order.**

- 5.A Change Order Reports
- 5.1 Change Order No. 1
- 5.2 Change Order No. 2
- 5.2A Change Order No. 2A
- 5.3 Change Order No. 3
- 5.4 Others as required

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DIVISION NO. 6 - FORCE ACCOUNT

This division is for the original/copy of the daily force account sheets, invoices, fringe benefit statement, force account recap and other required information described in Chapter 3 of this Manual. **Separate file folders are required for each force account item and each individual AEB.**

- 6.1 Remove Portion of Bridge (AEB #1)
- 6.1A Remove Portion of Bridge (AEB #2)
- 6.2 Temporary Pollution Control
- 6.3 Change Order No. 1 - Extend Pipe
- 6.4 Change Order No. 4 - Construct Foundation
- 6.5 Others as required

DIVISION NO. 7 - PROGRESS PAYMENTS AND RELATED DATA

This division is for the bi-weekly progress payments filed by payment number. Each file shall contain any copies of worksheets, turnaround document, the CM02 and CM03 reports from Headquarters, (by item and by AEB), and AEB dollar amounts (CM01) for fuel escalation. **Separate file folders (legal size, 8 ½" x 14") are required for each progress payment.** Bi-Working Day Reports, Asphalt, Fuel, and Steel Escalation worksheets, liquidated damage information and Request for Materials on Hand forms with backup data shall also be filed in this division, **with a separate file folder for each item.**

- 7.A Bi-Weekly Working Day Reports (Form No. 040-057)
- 7.B Requests for Materials on Hand (Form No. 040-015)
- 7.C Asphalt Escalation
- 7.D Fuel Escalation
- 7.E Steel Escalation
- 7.F Liquidated Damages-PG 76-22 NV
- 7.G Liquidated Damages-wage complaints
- 7.1 Payment No. 1
- 7.2 Payment No. 2
- 7.3 Others as required

DIVISION NO. 8 - LUMP SUM (Form No. 040-039)

This division is for the **original** Letter of Authorization and the **original** lump sum sheet with all backup and items paid by lump sum. The Contractor will sign the original L.O.A. and return to the Resident Engineer to signify acceptance. **L.O.A.s (Incidental Construction) will be filed according to AEB numbers and lump sum items will be filed in a separate file folder for each item and AEB.**

- 8.1 Traffic Signal System (AEB #1)
- 8.2 Traffic Signal System (AEB #2)
- 8.3 Incidental Construction (file per AEB number not L.O.A. number)
- 8.4 Others as required

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DIVISION NO. 9 - TRAINEE HOURS (Form No. 040-042)

This division is for the **original** Weekly Trainee Reports with spreadsheets and all documents pertaining to trainees.

- 9.1 Weekly Trainee Reports and spreadsheet
- 9.2 Apprenticeship Agreements
- 9.3 Trainee Identification Forms
- 9.4 Others as required

DIVISION NO. 10 - RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL OFFICER, OFFICE SPACE, & BIOLOGIST (Form No. 040-037)

This division is for the **original** Rent Equipment, Pilot Car, Survey Crew, Traffic Control Officer, Office Space, & Biologist sheets with spreadsheets. **Separate file folders are required for each item.**

- 10.1 Traffic Delay Logs (To be filled out by the Flagger and the **original** log will be submitted to the Resident Engineer and a copy to the Contractor)
- 10.2 Pilot Car and spreadsheet
- 10.3 Motor Grader and spreadsheet
- 10.4 Survey Crew Hours and spreadsheet
- 10.5 Traffic Control Supervisor (paid by the day) and spreadsheet
- 10.6 Office Space (paid by the month) and spreadsheet
- 10.7 Biologist (paid by the hour or day) and spreadsheet
- 10.8 Others as required

DIVISION NO. 11 – FLAGGING (Form No. 040-036)

This division is for the **original** Flagging/Uniformed Traffic Control Officer sheets with spreadsheets. **Separate file folders are required for each item.**

- 11.1 Flagger and spreadsheet
- 11.2 Uniformed Traffic Control Officer (paid by the hour) and spreadsheet

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DIVISION NO. 12 - DAILY RECORD OF SCALE WEIGHTS

This division is for the 40-Load sheets or the last computerized ticket for the day with spreadsheets for items paid by the ton, the signed written report submitted each day by the Contractor to indicate the amount of aggregate and emulsion delivered for micro-surfacing, and for the bill of ladings (B/L) (**only**) for Asphalts, Portland cement, and mineral filler. **A copy of the B/L along with the certification and the SAMPLE TRANSMITTAL FOR ASPHALT (Form No. 020-016), Portland cement, and mineral filler shall be filed in Section 2-Material and Testing Files, Division No. 4 as described in this chapter. Separate file folders are required for each item.**

- 12.1 Misc weights (rollers, trucks, scale checks, etc.)
- 12.2 Type 1 Class B Aggregate Base and spreadsheet
- 12.3 PBS Type 2 scale tickets, copy of the mix design(s) used, and spreadsheet
- 12.4 Open Grade scale tickets, copy of the mix design(s) used, and spreadsheet
- 12.5 Mineral Filler B/L (without the certifications or sample transmittal)
- 12.6 SS-1h B/L (without the certifications or sample transmittal)
- 12.7 PG 76-22NV (without the certifications or sample transmittal)
- 12.8 Portland Cement B/L (without the certifications or sample transmittal)
- 12.9 Micro-surfacing reports
- 12.10 Others as required

DIVISION NO. 13 - EARTHWORK CALCS

This division is for any worksheet **not** used for payment. If the worksheet is backup for payment, make sure to attach the worksheet to a CALCULATION sheet and place in the CALCULATION book or SURVEY book. **Separate file folders are required for each item.**

- 13.1 Roadway Excavation
- 13.2 Borrow (Pit No. _____)
- 13.3 Others as required

DIVISION NO. 14 - AGREEMENTS

This division is for any agreements received pertaining to utilities, right-of-way, developers, land owners, entities, etc. **The agreements received concerning manholes shall be compared to the quantity paid. If there are discrepancies the manholes in the field must be rechecked for accuracy. Separate file folders are required for each item.**

- 14.1 Southwest Gas
- 14.2 City of Reno
- 14.3 Private
- 14.4 Others as required

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DIVISION NO. 15 - DAILY CONSTRUCTION REPORTS, DAILY DIARIES, TRAFFIC CONTROL SUPERVISOR REPORTS, AND DAILY BIOLOGICAL FIELD REPORT

This division is for Daily Construction Reports, Daily Diaries, The Contractor's Traffic Control Supervisor's Work Zone Traffic Control Checklist, and the Daily Biological Field Report. Large files may be stored elsewhere, providing the new location is referenced. **Separate file folders are required for each item.**

- 15.1 Construction Reports (Form No. 040-056)
- 15.2 Daily Diaries (Form No. 040-056A) (electronic printed or hardcopy)
- 15.3 Work Zone Traffic Control Checklist (Form No. 040-056B) (Traffic Control Supervisor's report with qualification certificates.)
- 15.4 Biological Field Reports (Form No. 040-088)

DIVISION NO. 16 - REQUEST TO SUBLET/SUBCONTRACT AGREEMENT

This division is for requests to sublet, subcontract agreements, and any other correspondence relative to contract agreements. **Separate file folders are required for each subcontractor.**

- 16.1 Subcontractor No. 1 (name of firm)
- 16.2 Subcontractor No. 2 (name of firm)
- 16.3 Others as required

DIVISION NO. 17 - CERTIFIED PAYROLLS

This division is for information from Contract Compliance before and during a contract (prevailing wage information, etc), Monthly Report of Payments to Subcontractor, fringe benefit statements and certified payrolls for the prime contractor and all subcontractors performing work on the project. If a contract has LCP Tracker, then hard copies of payrolls are not needed unless working on force account. **Separate file folders are required for each contractor/subcontractor.**

- 17.1 Information from Contract Compliance (Prevailing Wage Information, etc)
- 17.2 Monthly Report of Payments to Subcontractor (Form No. 052-060)
- 17.3 Prime contractor (name of firm)
- 17.4 Subcontractor No. 1 (name of firm)
- 17.5 Subcontractor No. 2 (name of firm)
- 17.6 Others as required

DIVISION NO. 18 – MISCELLANEOUS

This division is for any items that may be necessary and are not covered elsewhere. **Separate file folders are required for each item.**

- 18.1 Job pickup documents/checkoff list/CM19I
- 18.2 NDOT and Contractor's survey calculations/notes
- 18.3 MSDS sheets (contract specific)
- 18.4 Others as required

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DIVISION NO. 19 – CHECKLISTS AND REPORTS

This division is for any checklist and report that is not covered elsewhere. **Separate file folders are required for each item.**

- 19.1 Weekly NDOT Construction Site Discharge Inspection Checklist
- 19.2 Safety Inspection Checklist
- 19.3 SWPPP (Storm Water Pollution Prevention Plan)
- 19.4 Others as required

DIVISION NO. 20 – RFI's and PRELIMINARY RFI's

This division is for the filing of RFI'S. All original RFI will be distributed and **only a copy will be placed in this division. Separate file folders are required for each RFI.**

- 20.1 Pipe Installation @ "X" 222+00 LT
- 20.2 Structure I-1942
- 20.3 Others as required

DIVISION NO. 21 – SUBMITTALS

This division is for the filing of submittals. **One copy of the submittal will be retained and filed, the rest will be distributed.** When the approved/stamped copies are returned, retain and file one or more as needed and send the remainder to the contractor. Also, filed with the submittal are all related backup and correspondence. **Separate file folders are required for each submittal.**

- 21.1 Submittal Log
- 21.2 Electrical Conduit to be used @ Lamb & Charleston
- 21.3 Others as required

DIVISION NO. 22 – SHOP DRAWINGS

This division is for the filing of Shop Drawings. **One copy of the shop drawing will be retained and filed, the rest will be distributed.** When the approved/stamped copies are returned, retain and file one or more as needed and send the remainder to the contractor. Also, filed with the shop drawings are all related backup and correspondence. **Separate file folders are required for each shop drawing.**

- 22.1 Shop Drawing Log
- 22.2 Structure I-1942 Details
- 22.3 Others as required

DIVISION NO. 23 – PLAN SHEET REVISIONS AND QUANTITY REVISIONS

This division is for the filing of all plan sheets and quantity revisions. All information in this division shall be used to complete the AS BUILTS before the final closeout.

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2. MATERIALS AND TESTING FILES

Direct any questions concerning filing in this section to Headquarters Construction Quality Assurance.

DIVISION NO. 1 - MATERIALS INSPECTION, SAMPLING AND TESTING PACKET AND QUALIFIED PRODUCT LIST

This division is for the Materials Inspection, Sampling and Testing Packet and the Qualified Product List (QPL) received at the start of a contract from the Materials Division. The Materials Inspection, Sampling and Testing Packet and the Qualified Product List will include important information and **should be reviewed upon receipt. Separate file folders are required for each item.**

- 1.1 Materials Checklist
- 1.2 Qualified Product List

DIVISION NO. 2 - DISTRICT AND QUALITY ASSURANCE AUDIT REPORTS

This division is for all audit results conducted by the District Tester and Quality Assurance. **Separate file folders are required for each item.**

- 2.1 District Audits
- 2.2 Project Construction Reports (QA reports)

DIVISION NO. 3 - SOURCE MATERIALS INFORMATION AND REQUIREMENTS

This division is for the contractor's sources of materials and deposit information. **Separate file folders are required for each material type and source.** Any questions contact Headquarters Construction Quality Assurance.

- 3.1 Type 1 Class B Aggregate Base
- 3.2 Drain Backfill
- 3.3 Plantmix

DIVISION NO. 4 - MATERIALS DIVISION CERTS AND TEST REPORTS

This division is for certifications, transmittals and test results to/from the Materials Division. **Separate file folders are required for each item.** In a separate file, a **copy** of all failing material/tests shall be filed in this division. **This information shall be used to complete the Acceptance Test Summary Sheet (ATSS) at project closeout.** When a contract is complete make sure there is a yellow copy attached to every green copy of a transmittal. If a yellow copy is missing, notify the Materials Division to see what action is needed. **Make sure the certifications for asphalt, portland cement, and mineral filler are filed here and not in Section 1-Contract Files, Division No.12 as described in this chapter.**

- 4.1 Failing Material/Tests
- 4.2 Metal Pipe
- 4.3 Reinforcing Steel

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DIVISION NO. 4 - MATERIALS DIVISION CERTS AND TEST REPORTS cont...

- 4.4 PG 76-22NV-copy of B/L and certification
- 4.5 Mineral Filler-copy of B/L and certification
- 4.6 Portland Cement-copy of B/L and certification
- 4.7 Stability/air voids
- 4.8 Lottman results
- 4.9 Reflectivity
- 4.10 Paint thickness
- 4.11 Others as required

DIVISION NO. 5 - PROFILOGRAPH RESULTS

This division is for the **copies** of profilograph reports taken from the profilograph rolls. **The original test reports are sent to Headquarters Construction Quality Assurance. Separate file folders are required for each item.** When the contract is complete, the Resident Engineer retains the profilograph rolls. Any questions contact Headquarters Construction Quality Assurance.

- 5.1 Dense-grade-profilograph reports
- 5.2 Open-grade-profilograph reports

DIVISION NO. 6 - COMPACTION

This division is for the **copies** of field compaction tests (acceptance and informational). **The original test reports are sent to Headquarters Construction Quality Assurance.** Any retests shall be attached to the original test to which it pertains. **Separate file folders are required for each type of material and compaction requirements.** (See the Construction Manual for numbering of test reports.) Any questions contact Headquarters Construction Quality Assurance.

- 6.1 Borrow
- 6.11 Borrow (informational)
- 6.2 Type 1 Class B Aggregate
- 6.21 Type 1 Class B Aggregate (informational)
- 6.3 Nuclear Compaction
- 6.4 PBS Type IIC
- 6.5 Others as required

DIVISION NO. 7 - AGGREGATE GRADATION RESULTS

This division is for the **copies** of field gradation tests and worksheets (acceptance and informational), including all aggregate sieve analysis whether for roadway, stockpile materials or concrete aggregates. **The original test reports are sent to Headquarters Construction Quality Assurance. Separate file folders are required for each type of material and source.** (See the Construction Manual for numbering of test reports.) Any questions contact Headquarters Construction Quality Assurance.

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DIVISION NO. 7 - AGGREGATE GRADATION RESULTS cont...

- 7.1 Type 2 Class B Aggregate
- 7.2 Shoulder Material
- 7.2I Shoulder Material (informational)
- 7.3 Others as required

DIVISION NO. 8 - PLANT REPORTS

This division is for the **copies** of all mix designs, jobmix formulas, the Daily Plant Report of Asphalt Mixtures (Form No. 040-011), (including all aggregate sieve analysis, rice test reports, burnoff reports, etc. attached together as a packet **per day**). **The original test reports are sent to Headquarters Construction Quality Assurance. Separate file folders are required for each type of material and source.** See the Construction Manual for numbering of test reports. Any questions contact Headquarters Construction Quality Assurance. **A copy of all mix designs used in the paving operations shall be filed in the appropriate files in Section 1-Contract files, Division No. 12 as described in this chapter.**

- 8.1 Mix designs
- 8.2 Jobmix formulas
- 8.3 PBS Type 2
- 8.4 PBS Type 2 Coarse
- 8.5 Open-Graded PBS
- 8.6 Others as required

DIVISION NO. 9 - STRUCTURE FOUNDATION INSPECTION REPORTS

This division is for the **copies** of Foundation Pile Driving Records, Pile Load Test Data Sheet, Drilled Shaft Inspection Reports, Structure Foundation Inspection Records, Cross-hole Sonic Logging Sheets, and any other information relating to pile driving and structure foundation. **The original test reports are sent to Headquarters Construction Quality Assurance. Separate file folders are required for each type of report.** Any questions contact Headquarters Construction Quality Assurance.

- 9.1 Foundation Pile Driving Record (Form No. 040-058)
- 9.2 Pile Load Test Data Sheet
- 9.3 Drilled Shaft Inspection Reports (Form No. 040-060)
- 9.4 Others as required

DIVISION NO. 10 - CONCRETE REPORTS

This division is for the **copies** of the concrete mix designs, cylinder breaks, and any other information relating to concrete. Cylinder breaks are filed by the mix design number and **separate file folders are required for each**. In subdivision 10.2, file the 7-day cylinder breaks. When the 14-day cylinder break is received, discard the 7-day cylinder break and replace it with the 14-day cylinder break. When the 28-day cylinder break is received, discard the 14-day cylinder break and replace it with the 28-day cylinder break. Any questions contact Headquarters Construction Quality Assurance.

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DIVISION NO. 10 - CONCRETE REPORTS cont...

- 10.1 Concrete mix designs
- 10.2 Cylinder breaks-mix design #1258901
- 10.2A Cylinder breaks-mix design #1259021
- 10.3 Concrete Batch Tickets
- 10.4 Evaporation Rates
- 10.5 Pull Off Test on Polymer Concrete
- 10.6 Others as required

DIVISION NO. 11 – PAINT

This division is for the test reports on paint thickness, retroreflectivity, and marking film pull tests, etc. **Separate file folders are required for each item.** Any questions contact Headquarters Construction Quality Assurance.

- 11.1 Paint Thickness
- 11.2 Retroreflectivity Test
- 11.3 Marking Film Pull Tests
- 11.4 Others as required

DIVISION NO. 12 – MISCELLANEOUS

This division is for any other items that may be necessary and are not covered elsewhere in the Materials and Testing section. **Separate file folders are required for each item.** Any questions contact Headquarters Construction Quality Assurance.

- 12.1 Others as required

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3. GENERAL CORRESPONDENCE

DIVISION NO. 1 - GENERAL CORRESPONDENCE

This division is for Policy & Procedure Directives, Construction Division Procedure Memos all correspondence **not** pertaining to a particular contract. Policy & Procedure Directives and Construction Division Procedure Memos may be placed in a file folder or a three-ring binder. **Separate file folders are required for each item.**

- 1.1 Incoming correspondence
- 1.2 Outgoing correspondence
- 1.3 Fuel, asphalt, and steel escalation memo
- 1.4 Construction Contract Closeout Status report
- 1.5 Construction Division Policy & Procedure Directives (filed chronologically)
- 1.6 Construction Division Procedure Memos (filed chronologically)

DIVISION NO. 2 - OFFICE EQUIPMENT, SUPPLIES, AND VEHICLES

This division is for all documents relating to the equipment, supplies, and vehicles required by the Resident Engineer. **Separate file folders are required for each item.**

- 2.1 Equipment/property inventory
- 2.3 State vehicle oil change invoice (copy)
- 2.4 State vehicle information, memos, and correspondence
- 2.5 Supply Issue Charge Tickets
- 2.6 Request for supplies (51 Form)
- 2.7 Property transfers
- 2.8 Others as required

DIVISION NO. 3 - SERVICE CONTRACTS

This division is for Purchase Order Voucher logs, purchase orders, payment vouchers, and any agreements for utilities, rent, services, etc. **Separate file folders are required for each agreement.**

- 3.1 Purchase Order Voucher logs and purchase orders attached
- 3.2 Payment Vouchers for office bills
- 3.2 Rent
- 3.3 Electricity
- 3.4 Water
- 3.5 Telephone
- 3.6 Others as required

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DIVISION NO. 4 - SAFETY

This division is for all documents relating to safety regulations and precautions, fire regulations, OSHA, etc. **Separate file folders are required for each item.**

- 4.1 Safety information
- 4.2 Crew safety meetings
- 4.3 MSDS sheets (general)
- 4.4 Others as required

DIVISION NO. 5 – MATERIALS AND TESTING

This division is for all material and testing items **not** pertaining to a particular contract. **Separate file folders are required for each item.**

- 5.1 Lab Safety Inspection Reports
- 5.2 Materials and Testing memos
- 5.3 Nuclear Guage transfer forms
- 5.4 Lab inventory reports
- 5.5 Lab calibration reports
- 5.6 Others as required

DIVISION NO. 6 - ACCIDENT REPORTS

This division is for documents relating to equipment and personnel accidents. Personnel medical reports will be sent to Human Resources per “HIPPA” and a copy will be given to the employee. Do **not** keep a copy of a personnel’s medical report in the office. **Separate file folders are required for each item.**

- 6.1 State equipment
- 6.2 State personnel
- 6.2 Others as required

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4. PERSONNEL RECORDS

DIVISION NO. 1 - CONSTRUCTION CREW PERSONNEL

This division is for all documents relating to employees assigned to a Resident Engineer. Individual personnel files (**separate folder for each employee**) **must be locked at all times, as required by State law. Hint: Use a separate filing cabinet.**

- 1.1 Leave cards and copies of time sheets
- 1.2 Employee information on raises and Merit Salary Increase/evaluation dates (EMST Form A and B).
- 1.3 Personnel requisitions
- 1.4 Employee files
- 1.5 Travel expense vouchers
- 1.6 Training information
- 1.7 Others as required

DIVISION NO. 2 – WORKMAN’S COMP

This division is for all documents relating to Workman’s Comp claims. These files should be kept in a locked cabinet or drawer.

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**DOCUMENTATION REQUIREMENT
SECTION B
ABBREVIATIONS**

Throughout this Manual, abbreviations are used to reduce repetition. Some of the more common abbreviations are listed below:

| | |
|-------|-------------------------------------------|
| AEB | Agreement Estimate Breakout |
| AP | Agreed Price |
| B/L | Bill of Ladings |
| BMP | Best Management Practices |
| CMP | Corrugated Metal Pipe |
| CP | Contract Payment |
| CPM | Critical Path Method |
| CTB | Cement Treated Base |
| DI | Drop Inlet |
| EEO | Equal Employment Opportunity |
| FA | Force Account |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| GASB | Governmental Accounting Standards Board |
| GM MS | Ground Mounted Metal Supports |
| GM TS | Ground Mounted Timber Supports |
| HMA | Hot Mix Asphalt |
| LOA | Letters of Authorization |
| LS | Lump Sum |
| MSDS | Material Safety Data Sheet |
| MEAS | Measure |
| NE | No Estimate |
| NDOT | Nevada Department of Transportation |
| PBS | Plantmix Bituminous Surface |
| PCCP | Portland Cement Concrete Pavement |
| Pmt | Payment (refers to progress payment, TAD) |
| PR | Prorated |
| Qty | Quantity |
| RCB | Reinforced Concrete Box |
| RCP | Reinforced Concrete Pipe |
| SID | Special Improvement District |
| TAD | Turnaround Document |
| UOM | Unit of Measure |

Unit of Measure (UOM) English (Metric)

| | | | |
|----------------|-------------|------------------|------------------|
| GALLON (LITER) | EACH (EACH) | POUND (KILOGRAM) | YDMI (CUMKM) |
| LINFT (LINM) | SQYD (SQM) | LS (LS) | STA (STA) |
| TON (MTON) | SQFT (SQM) | CUYD (CUM) | MILE (KILOMETER) |
| ACRE (HECTARE) | HOUR (HOUR) | DAY (DAY) | MONTH (MONTH) |
| CUFT (CUM) | FA (FA) | | |

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**DOCUMENTATION REQUIREMENT
SECTION C
AGREEMENT ESTIMATE BREAKOUT**

The Agreement Estimate Breakout (AEB), used by many divisions at NDOT is necessary to identify construction type codes and funding sources. A different breakout is established for each different type of construction on a contract (major structure, urban roadway, rural roadway, maintenance stockpiles, cattleguards, etc.) and different funding sources (SID, State, Federal, County, City, Railroads, Developers, etc.). The Construction Division, only deals with breakouts containing construction bid item numbers. The first page of each breakout next to the breakout number you will see either a C1 C for state funds, C2 C for federal funds, and C3 C for third party funds.

The "Preliminary" Agreement Estimate outlining AEB's is generated by Design prior to the contract advertising. The estimated quantities and engineer's reasonable price for each item are listed in each AEB. When the contract is awarded, the reasonable prices are replaced with the contractor's bid prices and a new Agreement Estimate as illustrated on pages 1-15 thru 1-26 is generated.

When making out field books at the beginning of a contract make sure the final plan quantities used are according to the Agreement Estimate that is received after the contract has been awarded. If using the Preliminary Agreement Estimate to start the field books, make sure all plan quantities are rechecked when the awarded Agreement Estimate has been received.

All construction personnel shall receive and be familiar with the AEB list, and are expected to record all quantities of items used on the contract according to the breakouts shown therein. The AEB numbers assigned by Design shall be used when documenting or posting pay items, and may not be changed or modified. **Original contract bid items not planned in a particular AEB but used in that AEB, may be added to the appropriate AEB by the Resident Engineer, (pay for the item, where it's placed).** Occasionally, a change order is processed for work requested by a developer or city and an additional AEB is required to capture costs. Headquarters Construction shall obtain the additional AEB number and the Resident Engineer shall be notified. **When requesting a new AEB it is the Resident Engineer's responsibility to let Headquarters staff know:**

1. **Who will be paying (signed agreement)**
2. **How much will it cost**
3. **What the work entails**
4. **Where the work is being done**
5. **Why the new AEB is needed and who authorized it**
6. **What GASB coding will be used**

Planned quantity for items in an SID breakout are based on a standard width of roadway determined by the participating entity, making it impossible for construction personnel to differentiate between quantities in an SID breakout and a roadway breakout. Final quantities for SID breakouts shall be planned quantity, with the remaining quantity placed in the roadway breakout.

Monthly billings to cities, counties, developers, etc. and billings to the FHWA are generated from the amounts paid in each breakout on the progress payments; therefore, it is crucial that the quantities be accurate.

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DEMOGRAPHY: RURAL
 ROUTE SECTION: IR080 - 5 MILE-POST: EL - 83.330 TO: EL - 102.790
 CONTRACTOR: ROAD & HIGHWAY BUILDERS LLC
 PO BOX 1034
 DICKINSON ND 58601
 DESIGNER: VICTORIA HARRIS
 PHONE #: 888-7672

MEASUREMENT SYSTEM: ENGLISH
 CONSULTANT DESIGN: N
 CONSULTANT PARTNERING: N
 * UNIT PRICE USED: AWARDED

CONSTRUCTION TYPE CODE: 1000 ROADWAY
 BREAKOUT DESCRIPTION: Cold-In-Place Recycle with 4 inch plantmix bituminous surface with open grade

BREAKOUT NO: 01 C2 C 1490 CNTR
 FROM STATION: "PE" 142+15.05
 COUNTY: ELKO
 TO STATION: "PE" 1176+82.81
 GASB34: EXISTING

| UNIT OF WORK | QUANTITY | UNIT MEAS | DESCRIPTION | * UNIT PRICE | ITEM COST |
|--------------|-------------|-----------|----------------------------------------------|--------------|------------|
| 2020328 | 9.000 | EACH | REMOVAL OF DROP INLET | 1,500.00 | 13,500.00 |
| 2020432 | 3.000 | EACH | REMOVAL OF CATTLE GUARD | 4,000.00 | 12,000.00 |
| 2020436 | 6.000 | EACH | REMOVAL OF CATTLE GUARD WING | 300.00 | 1,800.00 |
| 2021020 | 62,654.000 | LINFT | REMOVE AND RESET GUARDRAIL | 15.00 | 939,810.00 |
| 2021080 | 22.000 | LINFT | REMOVAL OF CULVERT PIPE | 200.00 | 4,400.00 |
| 2021104 | 99,329.000 | LINFT | REMOVAL OF GUARDRAIL | 2.00 | 198,658.00 |
| 2021152 | 119,150.000 | SQYD | REMOVAL OF BITUMINOUS SURFACE (COLD MILLING) | 5.00 | 595,750.00 |
| 2021292 | 14,499.000 | LINFT | REMOVAL OF BITUMINOUS SHOULDER DIKE | 12.00 | 173,988.00 |
| 2030508 | 2,540.000 | CUYD | ROADWAY EXCAVATION | 20.00 | 50,800.00 |
| 2060500 | 4,500.000 | CUYD | STRUCTURE EXCAVATION | 15.00 | 67,500.00 |

| UNIT OF WORK | QUANTITY | UNIT MEAS | DESCRIPTION | * UNIT PRICE | ITEM COST |
|--------------|-------------|-----------|----------------------------------------------------------|--------------|--------------|
| 2070500 | 710.000 | CUYD | BACKFILL | 50.00 | 35,500.00 |
| 2070536 | 1.000 | CUYD | SLURRY CEMENT BACKFILL | 1,500.00 | 1,500.00 |
| 3020500 | 6,000.000 | TON | TYPE 1 CLASS B AGGREGATE BASE | 10.00 | 60,000.00 |
| 3050532 | 5,260.000 | SQYD | PULVERIZE EXISTING SURFACE | 7.00 | 36,820.00 |
| 3070500 | 163,510.000 | TON | SHOULDERING MATERIAL | 8.00 | 1,308,080.00 |
| 4020660 | 18,230.000 | SQYD | PLANTMIXING MISCELLANEOUS AREAS | 10.00 | 182,300.00 |
| 4026002 | 215,650.000 | TON | PLANTMIX SURFACING (TYPE 2C)(WET) | 45.00 | 9,704,250.00 |
| 4030558 | 76.480 | MILE | MILLED RUMBLE STRIPS | 500.00 | 38,240.00 |
| 4036000 | 37,640.000 | TON | PLANTMIX OPEN-GRADED SURFACING (3/8-INCH)(WET) | 90.00 | 3,387,600.00 |
| 4040553 | 2,200.000 | TON | LIME (COLD RECYCLE) | 200.00 | 440,000.00 |
| 4040570 | 2,200.000 | TON | EMULSIFIED ASPHALT, TYPE CMS-2S | 400.00 | 880,000.00 |
| 4040571 | 362.000 | TON | EMULSIFIED ASPHALT, TYPE CMS-2S (DILUTED) | 70.00 | 25,340.00 |
| 4040581 | 859,590.000 | SQYD | RECYCLED BITUMINOUS SURFACE (3 1/2-INCH DEPTH) | 4.00 | 3,438,360.00 |
| 4040584 | 500.000 | TON | PREMIXED BITUMINOUS PAVING MATERIAL | 80.00 | 40,000.00 |
| 4040608 | 500.000 | TON | HAUL AND PLACE PREMIXED BITUMINOUS PAVING MATERIAL | 5.00 | 2,500.00 |
| 4050516 | 570.000 | TON | EMULSIFIED ASPHALT, TYPE SS-1H (DILUTED) | 400.00 | 228,000.00 |
| 4060502 | 10.000 | TON | LIQUID ASPHALT, TYPE MC-70WV | 200.00 | 2,000.00 |
| 4060536 | 6,540.000 | TON | SAND BLOTTER | 1.50 | 9,810.00 |
| 5020632 | 19,800.000 | LINFT | CONCRETE BARRIER RAIL (TYPE FA) | 30.00 | 594,000.00 |
| 6090596 | 880.000 | LINFT | ABANDON PIPE * | 2.00 | 1,760.00 |
| 6100501 | 20.000 | CUYD | RIPRAP (CLASS 150) | 300.00 | 6,000.00 |
| 6100601 | 10.000 | CUYD | RIPRAP BEDDING, (CLASS 150) | 250.00 | 2,500.00 |
| 6180038 | 46.000 | EACH | TRAILING END ANCHOR | 1,500.00 | 69,000.00 |
| 6180073 | 54.000 | EACH | GUARDRAIL TERMINAL (FLARED) | 2,500.00 | 135,000.00 |
| 6180088 | 46.000 | EACH | GUARDRAIL - BARRIER RAIL CONNECTION (TRIPLE CORRUGATION) | 2,500.00 | 115,000.00 |
| 6180100 | 21.000 | EACH | GUARDRAIL-BRIDGE RAIL CONNECTION (TRIPLE CORRUGATION) | 1,000.00 | 21,000.00 |
| 6180528 | 55,865.000 | LINFT | GALVANIZED GUARDRAIL (TRIPLE CORRUGATION) | 15.00 | 837,975.00 |
| 6190040 | 3,366.000 | EACH | GUIDE POSTS (RIGID) | 15.00 | 50,490.00 |
| 6230076 | 19.000 | EACH | NO. 5 PULL BOX | 400.00 | 7,600.00 |
| 6230568 | 1.000 | EACH | SPECIAL DETECTOR SENSOR PROBES | 2,000.00 | 2,000.00 |
| 6230570 | 4.000 | EACH | SPECIAL DETECTOR SURFACE SENSOR | 5,000.00 | 20,000.00 |
| 6231020 | 60.000 | LINFT | 2-INCH CONDUIT | 15.00 | 900.00 |
| 6231028 | 1,128.000 | LINFT | 3-INCH CONDUIT | 20.00 | 22,560.00 |
| 6231200 | 900.000 | LINFT | 12 PAIR CONDUCTOR NO 16 MESSENGER CABLE | 2.00 | 1,800.00 |
| 6231724 | 58.000 | EACH | LOOP DETECTOR (6-FOOT X 6-FOOT) | 300.00 | 17,400.00 |
| 6232083 | 60.000 | LINFT | DIRECTIONAL DRILLING | 100.00 | 6,000.00 |

| UNIT OF WORK | QUANTITY | UNIT MEAS | DESCRIPTION | * UNIT PRICE | ITEM COST |
|----------------------------------------|---------------|-----------|-----------------------------------------------------------|--------------|------------------|
| 6250120 | 1,644,434.900 | LS | RENT TRAFFIC CONTROL DEVICES | 1.00 | 1,644,434.90 |
| 6270508 | 4,026.000 | SQFT | PERMANENT SIGNS (GROUND MOUNTED) (METAL SUPPORTS) | 8.00 | 32,208.00 |
| 6270512 | 96.000 | SQFT | PERMANENT SIGNS (GROUND MOUNTED) (SPECIAL METAL SUPPORTS) | 1,625.00 | 156,000.00 |
| 6270516 | 340.000 | SQFT | PERMANENT SIGNS (GROUND MOUNTED) (TIMBER SUPPORTS) | 40.00 | 13,600.00 |
| 6270532 | 4,462.000 | SQFT | PERMANENT SIGNS, REMOVE | 0.50 | 2,231.00 |
| 6280004 | 2,856,000.000 | LS | MOBILIZATION | 1.00 | 2,856,000.00 |
| 6321124 | 42.540 | MILE | EPOXY PAVEMENT STRIPING (8-INCH BROKEN WHITE) | 1,000.00 | 42,540.00 |
| 6321128 | 42.470 | MILE | EPOXY PAVEMENT STRIPING (8-INCH SOLID WHITE) | 2,800.00 | 118,916.00 |
| 6321132 | 42.480 | MILE | EPOXY PAVEMENT STRIPING (8-INCH SOLID YELLOW) | 2,800.00 | 118,944.00 |
| 6321152 | 0.870 | MILE | EPOXY PAVEMENT STRIPING (DOUBLE SOLID YELLOW) | 5,000.00 | 4,350.00 |
| 6321156 | 1.760 | MILE | EPOXY PAVEMENT STRIPING (SOLID WHITE) | 3,500.00 | 6,160.00 |
| 6321188 | 11,920.000 | LINFT | EPOXY PAVEMENT STRIPING (12-INCH SOLID WHITE) | 2.00 | 23,840.00 |
| 6321200 | 300.000 | LINFT | EPOXY PAVEMENT STRIPING (24-INCH SOLID WHITE) | 5.00 | 1,500.00 |
| 6321224 | 46.000 | SQFT | EPOXY PAVEMENT STRIPING (VARIES) | 1,150.00 | 52,900.00 |
| 6370003 | 5,000.000 | LS | TEMPORARY POLLUTION CONTROL | 1.00 | 5,000.00 |
| 6370090 | 4,760.000 | LS | DUST CONTROL | 1.00 | 4,760.00 |
| 6410552 | 2.000 | EACH | IMPACT ATTENUATOR (70 MPH) | 30,000.00 | 60,000.00 |
| 7360000 | 53,800.000 | LS | ASPHALT ESCALATION | 1.00 | 53,800.00 |
| 7360050 | 141,000.000 | LS | INCIDENTAL CONSTRUCTION | 1.00 | 141,000.00 |
| 7360088 | 52,590.000 | LS | MINERAL FILLER | 1.00 | 52,590.00 |
| 7360090 | 52,590.000 | LS | ASPHALT CEMENT | 1.00 | 52,590.00 |
| SUB TOTAL | | | | | 28,932,874.90 |
| CONTINGENCIES (3.00%) | | | | | 867,986.25 |
| TOTAL COSTS | | | | | 30,100,841.15 |
| COUNTY: ELKO | | | | | |
| PRIMARY AMOUNT: INTERSTATE MAINTENANCE | | | | | (L010) AT (95%) |
| MATCHING AMOUNT: STATE | | | | | (E11) |
| SUB TOTAL | | | | | 28,595,799.00 |
| TOTAL | | | | | 1,505,042.00 |
| SUB TOTAL | | | | | 30,100,841.00 |
| TOTAL | | | | | 30,100,841.00 |

CONSTRUCTION TYPE CODE: Y080 TRAINING
 BREAKOUT DESCRIPTION: Training hours
 BREAKOUT NO: 02 C2 C 1490 CNTR
 FROM STATION: "PE" 142+15.05
 TO STATION: "PE" 1176+82.81

GASB34: EXISTING

COUNTY: ELKO

UNIT OF WORK
 QUANTITY
 UNIT MEAS

1100100 1,000.000 HOUR TRAINING (1 TRAINEES) 0.80 800.00

SUB TOTAL 800.00
 CONTINGENCIES (0.00%) 0.00

TOTAL COSTS 800.00

COUNTY: ELKO

PRIMARY AMOUNT: INTERSTATE MAINTENANCE
 MATCHING AMOUNT: STATE

(L010) AT (95%) 760.00
 (E11) 40.00
 SUB TOTAL 800.00
 TOTAL 800.00

CONSTRUCTION TYPE CODE: X220 STRUCTURE REPAIR
 BREAKOUT DESCRIPTION: Structure repair
 BREAKOUT NO: 03 C2 C 1490 CNTR
 FROM STATION: "PE" 142+15.05
 COUNTY: ELKO
 TO STATION: "PE" 1176+82.81
 GASB34: EXISTING

| UNIT OF WORK | QUANTITY | UNIT MEAS | DESCRIPTION | * UNIT PRICE | ITEM COST |
|--------------|------------|-----------|-------------------------------------------------------|--------------|-----------|
| 2020056 | 1,500.000 | LS | REMOVAL OF PORTION OF REINFORCED CONCRETE BOX CULVERT | 1.00 | 1,500.00 |
| 2021004 | 697.000 | LINFT | REMOVAL OF EXPANSION JOINTS | 30.00 | 20,910.00 |
| 2021144 | 1,090.000 | SQYD | REMOVAL OF BITUMINOUS SURFACE | 8.00 | 8,720.00 |
| 2021184 | 10.000 | CUYD | REMOVAL OF COMPOSITE SURFACE | 80.00 | 800.00 |
| 2060500 | 860.000 | CUYD | STRUCTURE EXCAVATION | 15.00 | 12,900.00 |
| 2070500 | 230.000 | CUYD | BACKFILL | 50.00 | 11,500.00 |
| 2070504 | 220.000 | CUYD | GRANULAR BACKFILL | 90.00 | 19,800.00 |
| 3020500 | 790.000 | TON | TYPE 1 CLASS B AGGREGATE BASE | 10.00 | 7,900.00 |
| 4020676 | 122.000 | LINFT | PLANTMIX BITUMINOUS SHOULDER DIKES | 30.00 | 3,660.00 |
| 4026002 | 2.000 | TON | PLANTMIX SURFACING (TYPE 2C)(WET) | 45.00 | 90.00 |
| 4050516 | 1.000 | TON | EMULSIFIED ASPHALT, TYPE SS-1H (DILUTED) | 400.00 | 400.00 |
| 4960508 | 120.000 | SQYD | BRIDGE DECK PREPARATION AND CONCRETE PLACEMENT | 220.00 | 26,400.00 |
| 4960524 | 29,021.000 | POUND | POLYMER CONCRETE AGGREGATE | 0.10 | 2,902.10 |
| 4960528 | 3,484.000 | POUND | POLYMER CONCRETE RESIN | 2.00 | 6,968.00 |
| 5020017 | 22,000.000 | FA | CONCRETE BRIDGE DECK REPAIR | 1.00 | 22,000.00 |
| 5020019 | 12,000.000 | FA | CONCRETE SUPERSTRUCTURE REPAIR | 1.00 | 12,000.00 |
| 5020021 | 72,000.000 | FA | REINFORCED CONCRETE BOX REPAIR | 1.00 | 72,000.00 |
| 5020085 | 16,500.000 | FA | CRACK SEALING | 1.00 | 16,500.00 |
| 5020652 | 536.000 | LINFT | CONCRETE BARRIER RAIL (TYPE D) | 100.00 | 53,600.00 |
| 5020653 | 456.000 | LINFT | CONCRETE BARRIER RAIL (TYPE D)(MODIFIED) | 120.00 | 54,720.00 |
| 5020856 | 87.000 | CUYD | CLASS DA CONCRETE, MODIFIED (MAJOR) | 500.00 | 43,500.00 |
| 5020909 | 857.000 | LINFT | EXPANSION JOINT SEALANT | 30.00 | 40,800.00 |
| 5050105 | 300.000 | POUND | REINFORCING STEEL (EPOXY COATED) (DOMELED) | 30.00 | 25,710.00 |
| 5050500 | 5,340.000 | POUND | REINFORCING STEEL | 8.00 | 42,720.00 |
| 5050502 | 2,950.000 | POUND | REINFORCING STEEL (DOMELED) | 12.00 | 35,400.00 |
| 5050504 | 500.000 | POUND | REINFORCING STEEL (EPOXY COATED) | 7.00 | 3,500.00 |
| 6280004 | 66,900.000 | LS | MOBILIZATION | 1.00 | 66,900.00 |
| 6370090 | 111.000 | LS | DUST CONTROL | 1.00 | 111.00 |
| 6460503 | 320.000 | GAL | CRACK SEALANT | 100.00 | 32,000.00 |
| 6460516 | 31,926.000 | SQFT | BRIDGE DECK PREPARATION | 0.50 | 15,963.00 |

SUB TOTAL

664,874.10

CONTINGENCIES (3.00%)

| | | | | | |
|---------|-----------|----|----------------------------------------|------|------------|
| 7360050 | 3,500.000 | LS | INCIDENTAL CONSTRUCTION | 1.00 | 3,500.00 |
| | | | TOTAL COSTS | | 688,320.32 |
| | | | COUNTY: ELKO | | |
| | | | PRIMARY AMOUNT: INTERSTATE MAINTENANCE | | 653,904.00 |
| | | | MATCHING AMOUNT: STATE | | 34,416.00 |
| | | | (L010) AT (95%) | | 688,320.00 |
| | | | (E11) | | 688,320.00 |
| | | | SUB TOTAL | | 688,320.00 |
| | | | TOTAL | | 688,320.00 |

CONSTRUCTION TYPE CODE: 1000 ROADWAY
 BREAKOUT DESCRIPTION: INSTALL GUARDRAIL
 INSTALL STORM DRAIN FACILITY
 BREAKOUT NO: 04 C2 C 1490 CNTR COUNTY: ELKO GASB34: NEW
 FROM STATION: "PE" 142+15.05 TO STATION: "PE" 1176+82.81

| UNIT OF WORK | QUANTITY | UNIT MEAS | DESCRIPTION | * UNIT PRICE | ITEM COST |
|--------------|------------|-----------|-------------------------------------------------------|--------------|------------|
| 2070504 | 1,800.000 | CUYD | GRANULAR BACKFILL | 90.00 | 162,000.00 |
| 5020516 | 35.000 | CUYD | CLASS AA CONCRETE (MINOR) | 2,000.00 | 70,000.00 |
| 5050500 | 1,940.000 | POUND | REINFORCING STEEL | 8.00 | 15,520.00 |
| 6030520 | 5,711.000 | LINFT | 18-INCH REINFORCED CONCRETE PIPE, CLASS III | 35.00 | 199,885.00 |
| 6030840 | 14.000 | EACH | 18-INCH PRECAST END SECTION | 2,000.00 | 28,000.00 |
| 6090190 | 3.000 | EACH | TYPE 1 MANHOLE (MODIFIED) | 7,000.00 | 21,000.00 |
| 6090500 | 2,160.000 | POUND | CASTINGS | 6.00 | 12,960.00 |
| 6090504 | 10,530.000 | POUND | STRUCTURAL STEEL GRATES | 4.00 | 42,120.00 |
| 6090544 | 4.000 | EACH | 48-INCH PRECAST REINFORCED CONCRETE MANHOLE, TYPE 1 ✓ | 7,000.00 | 28,000.00 |
| 6090604 | 1.000 | EACH | 72-INCH PRECAST REINFORCED CONCRETE MANHOLE, TYPE 2 ✓ | 10,000.00 | 10,000.00 |
| 6180528 | 4,538.000 | LINFT | GALVANIZED GUARDRAIL (TRIPLE CORRUGATION) | 15.00 | 68,070.00 |
| 6280004 | 77,100.000 | LS | MOBILIZATION | 1.00 | 77,100.00 |
| 6370090 | 129.000 | LS | DUST CONTROL | 1.00 | 129.00 |

SUB TOTAL 734,784.00
 CONTINGENCIES (3.00%) 22,043.52

| | | | | | |
|-------------|-----------|----|-------------------------|------|------------|
| 7360050 | 5,500.000 | LS | INCIDENTAL CONSTRUCTION | 1.00 | 5,500.00 |
| TOTAL COSTS | | | | | 762,327.52 |

COUNTY: ELKO
 PRIMARY AMOUNT: INTERSTATE MAINTENANCE (L010) AT (95%) 724,212.00
 MATCHING AMOUNT: STATE (E11) 38,116.00
 SUB TOTAL 762,328.00
 TOTAL 762,328.00

CONSTRUCTION ENGINEERING

| | | | |
|-----------------|-------------------------|-------------------------------|---------------|
| BREAKOUT NO: 01 | CONSTRUCTION TYPE: 1000 | DESCRIPTION: ROADWAY | 30,100,841.15 |
| BREAKOUT NO: 02 | CONSTRUCTION TYPE: Y080 | DESCRIPTION: TRAINING | 800.00 |
| BREAKOUT NO: 03 | CONSTRUCTION TYPE: X220 | DESCRIPTION: STRUCTURE REPAIR | 688,320.32 |
| BREAKOUT NO: 04 | CONSTRUCTION TYPE: 1000 | DESCRIPTION: ROADWAY | 762,327.52 |
| TOTAL | | | 31,552,288.99 |

CONSTRUCTION TYPE CODE: CENG STATE FORCES
 BREAKOUT DESCRIPTION: Construction Engineering @ 5%
 COUNTY: ELKO GASB34: NEW
 BREAKOUT NO: C0 CE N 1490 CENG
 FROM STATION: "PE" 142+15.05
 TO STATION: "PE" 1176+82.81

| | | | |
|--------------|----------------------------------------|------------------|--------------|
| COUNTY: ELKO | PRIMARY AMOUNT: INTERSTATE MAINTENANCE | (L010) AT (95%) | 1,571,155.00 |
| | MATCHING AMOUNT: STATE | (E11) | 82,692.00 |
| | | SUB TOTAL | 1,653,847.00 |
| | | TOTAL | 1,653,847.00 |

CONSTRUCTION TYPE CODE: PENG STATE FORCES
BREAKOUT DESCRIPTION: Preliminary Engineering
BREAKOUT NO: PO E1 P 1490 PENG
FROM STATION: "PE" 142+15.05

COUNTY: ELKO GASB34: NEW
TO STATION: "PE" 1176+82.81

COUNTY: ELKO

PRIMARY AMOUNT: INTERSTATE MAINTENANCE
MATCHING AMOUNT: STATE

(H010) AT (95%
(E11)

1,755,600.00
92,400.00
1,848,000.00
1,848,000.00

SUB TOTAL
TOTAL

CONSTRUCTION TYPE CODE: ROMA STATE FORCES
BREAKOUT DESCRIPTION: Right-of-Way Engineering
BREAKOUT NO: R0 E1 R 1490 ROMA
FROM STATION: "PE" 142+15.05

COUNTY: ELKO
TO STATION: "PE" 1176+82.81

GASB34: NEW

COUNTY: ELKO

PRIMARY AMOUNT: INTERSTATE MAINTENANCE
MATCHING AMOUNT: STATE

(H010) AT (95%
(E11)

50,160.00
2,640.00
52,800.00
52,800.00

SUB TOTAL
TOTAL

| JUT | CONSTRUCTION CODE | COUNTY | TOTAL | WORK BY CONTRACTOR | WORK BY OTHER | WORK BY UTILITY | CONSTRUCTION ENGINEERING | PRELIMINARY ENGINEERING | RIGHT OF WAY |
|------|-------------------------------------|--------|---------------|--------------------|---------------|-----------------|--------------------------|-------------------------|--------------|
| I000 | ROADWAY | EL | 28,595,799.00 | 28,595,799.00 | | | | | |
| I000 | ROADWAY | EL | 1,505,042.00 | 1,505,042.00 | | | | | |
| Y080 | TRAINING | EL | 40.00 | 40.00 | | | | | |
| Y080 | TRAINING | EL | 760.00 | 760.00 | | | | | |
| X220 | STRUCTURE REPAIR | EL | 653,904.00 | 653,904.00 | | | | | |
| X220 | STRUCTURE REPAIR | EL | 34,416.00 | 34,416.00 | | | | | |
| I000 | ROADWAY | EL | 38,116.00 | 38,116.00 | | | | | |
| I000 | ROADWAY | EL | 724,212.00 | 724,212.00 | | | | | |
| | TOTAL CONSTRUCTION ITEM COST | | 31,552,289.00 | 31,552,289.00 | | | | | |
| CENG | STATE FORCES | EL | 1,571,155.00 | | | | 1,571,155.00 | | |
| CENG | STATE FORCES | EL | 82,692.00 | | | | 82,692.00 | | |
| | TOTAL CONSTRUCTION ENGINEERING COST | | 1,653,847.00 | | | | 1,653,847.00 | | |
| | TOTAL CONSTRUCTION COST | | 33,206,136.00 | 31,552,289.00 | | | 1,653,847.00 | | |
| PENG | STATE FORCES | EL | 1,755,600.00 | | | | | 1,755,600.00 | |
| PENG | STATE FORCES | EL | 92,400.00 | | | | | 92,400.00 | |
| | TOTAL PRELIMINARY ENGINEERING COST | | 1,848,000.00 | | | | | 1,848,000.00 | |
| ROMA | STATE FORCES | EL | 2,640.00 | | | | | | 2,640.00 |
| ROMA | STATE FORCES | EL | 50,160.00 | | | | | | 50,160.00 |
| | TOTAL RIGHT OF WAY COST | | 52,800.00 | | | | | | 52,800.00 |
| | TOTAL COSTS | | 35,106,936.00 | 31,552,289.00 | 0.00 | 0.00 | 1,653,847.00 | 1,848,000.00 | 52,800.00 |

| APPROPRIATION DESCRIPTION | TOTAL | WORK BY CONTRACTOR | WORK BY OTHER | WORK BY UTILITY | CONSTRUCTION ENGINEERING | PRELIMINARY ENGINEERING | RIGHT OF WAY |
|---------------------------|---------------|--------------------|---------------|-----------------|--------------------------|-------------------------|--------------|
| | 1,805,760.00 | | | | | 1,755,600.00 | 50,160.00 |
| | 31,545,830.00 | 29,974,675.00 | | | 1,571,155.00 | | |
| TOTAL FEDERAL AMOUNT | 33,351,590.00 | 29,974,675.00 | | | 1,571,155.00 | 1,755,600.00 | 50,160.00 |
| STATE | 1,755,346.00 | 1,577,614.00 | | | 82,692.00 | 92,400.00 | 2,640.00 |
| TOTAL STATE AMOUNT | 1,755,346.00 | 1,577,614.00 | | | 82,692.00 | 92,400.00 | 2,640.00 |
| TOTAL COSTS | 35,106,936.00 | 31,552,289.00 | 0.00 | 0.00 | 1,653,847.00 | 1,848,000.00 | 52,800.00 |

**DOCUMENTATION REQUIREMENT
SECTION D
MISCELLANEOUS TOOLS**

Bid Tab-Chapter 1

Common Abbreviations-Chapter 1

Materials Checklist-Chapter 1

AEB List-Chapter 1

Significant Figure sheet-Chapter 2

Metric Conversion Factors-Chapter 2

Method of Measurement and Payment (outline)-Chapter 2

CM19I Report-Chapter 24

Specials and plans for the contract

Standard Plans for Road and Bridge Construction

Standard Specifications for Road and Bridge Construction

Pocketbook of Useful Information

Construction Manual

Testing Manual

Sharepoint

Intra-net Phone Book

NDOT Web-site

Experienced co-workers

CHAPTER 2
Setting up a Contract, Book Format,
Calc Book, Diaries & Construction Reports,
Field Lab Books, Sig Figs, Metric Conversion Factors,
and Method of Payment

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Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION A
SETTING UP A CONTRACT**

The first item of business is setting up the files for the contract following the outline as described in Chapter 1, (Organization of Project Documents, etc.). Each filing system category is divided into divisions. Each division listed shall be set up with a titled file divider and the dividers may be used on subsequent contracts. A divider shall be set up even if no activity for that division is anticipated. This will provide room in the file for unanticipated material as it is received.

There shall be a separate category 1 is for Contract Files and 2 is for Material and Testing files for each contract. Every filing system shall contain the major divisions listed in Chapter 1 (Organization of Project Documents, etc.). Each division in the filing system is further divided into subdivisions, representing the individual file folders for each contract item. **The subdivisions, however, are utilized only when relative to a specific contract.** The Materials Checklist, Chapter 1 (Organization of Project Documents, etc.), shall be used to assist in setting up the subdivisions for the Material and Testing section of the contract files. By using the Material Checklist a file shall be done on all the items on the checklist that need a sample or certification. Make sure to check with the Materials Division on items that are added to the contract through LOA's and Change Orders to see if samples or certifications are required.

All file folders, except progress payments must be 8-1/2" x 11". Certified payrolls can also be placed in legal (8 1/2" x 14") size files if needed. There may be times when additional file subdivisions may have to be created that are not shown in Chapter 1 (Organization of Project Documents, etc.) or on the Material Checklist. Care must be taken to cross reference material that may be filed elsewhere in the office such as in loose leaf binders, etc.

When the Resident Engineer receives the plans for a project, the Resident Engineer shall evaluate the items and quantities involved, and then by using this Manual set up the books accordingly.

This manual is based on the Unit of Measure (UOM) in making out field books. When making out the field books if a required item of work is not illustrated in a particular chapter, use an illustration that has the same UOM. Remember, some UOM's have several different formats. Make sure to use the appropriate format for the item you are working on. If you are not sure, please call Headquarters Construction for assistance.

The information for book preparation is taken from the estimate of quantities (aka "3 sheets", 3A, 3B, etc.), profile sheets, summary sheets, and all structure lists in the contract plans.

Only a hard-leaded (3H or 4H) pencil shall be used in the books. The Officeperson may use red ink or red pencil to indicate the progress payment number, any corrections made, and initials. Headquarters Construction Staff shall use green ink.

Do not tape drawings in books and do not use corrective tape, ink, correction fluid or erase in the books. If mistakes are made or stationing varies in any book, line them out and write the correction above it. Ditto marks and arrows for consecutive entries are not allowed.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

All forms (excluding scale sheets) must be done in black or blue ink. Do not use correction fluid on any original forms used as source documents.

All field books used on the project (survey books, field lab books, field books for pay quantities, record of delivery books, and load books) as described in this Manual **shall have each page numbered 1 thru 80 at the top right-hand corner.**

Field books used for documentation of pay quantities and Record of Delivery (for bill of ladings) books as described in this Manual shall have the significant figure written at the top of the right-hand side of the page, according to the item placed on the page. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **Place one item per page in the field books.**

The outline of the individual books can be done by the **Officeperson** in advance or by the **Inspector** during a slack period. By entering as much information as possible in the books **(including significant figures, AEB numbers, and formulas for each item as shown throughout this Manual)** prior to construction, it will be easier to document the work as it is performed. This will allow more time to be spent at the primary job of quality control.

The “Preliminary” Agreement Estimate outlining AEB’s is generated by Design when a contract is advertised. The estimated quantities and engineer’s reasonable price for each item are listed in each AEB. When the contract is awarded, the reasonable prices are replaced with the contractor’s bid prices and an Agreement Estimate as described and illustrated in Chapter 1 (Organization of Project Documents, etc.), is generated.

When making out field books at the beginning of a contract make sure the final plan quantities used are according to the Agreement Estimate that is received after the contract has been awarded. If using the Preliminary Agreement Estimate to prepare the field books. Make sure all plan quantities are rechecked when the awarded Agreement Estimate has been received.

Major structure books shall only list **one** structure per field book. On smaller projects where the documentation does not take up too much room in the books, it is permissible to record the documentation for several closely related items in one field book. When this is done, the books shall be setup as illustrated in Chapter 13 (Pipe, RCB, Misc Structures, etc.). Care must be taken to properly label and index the books to make it easy to locate the documentation for these items. **Be sure to avoid crowding the books!**

All new items (AP0 0000 or PR0 0000) created by approved change orders shall be documented in the appropriate book with like items in accordance with this Manual. **Books for CHANGE ORDER items exclusively (original and/or new items) are not acceptable.**

When a change order has been approved, it is the responsibility of the **Officeperson** to assure that all items listed on the Estimate of Cost (attached to the change order) have been documented properly. **When increasing or decreasing an existing (numeric, AP0, or PRO) item, the plan quantity at the top of the page must be adjusted and the change order number placed next to the updated plan quantity.** An entry in the field book, either an alpha or numeric item, which has been added or adjusted per a change order, must have the change order number in the remarks column. **If an item on the Estimate of Cost is an AP0 or PR0 item it will be placed on a new page in the field book with the AP0 or PR0 number and change order number. These items shall be entered as the item number and the plan quantity will be the plan on the Estimate of Cost.**

If the AP0 or PR0 is replacing an existing item, the existing item shall be crossed off and the AP0 or PR0 number will be written above. **Remember, both items shall be recapped on the books recap page.** If the change order addresses items entered on a spreadsheet, make sure to update the plan quantity at the top of the spreadsheet and place the change order number next to it. It is the responsibility of the **Officeperson** to assure that the **Inspectors** receive a copy of the change order.

Plan quantity can only be changed by a supplemental notice or a Change order. Design changes, E-mails, memos, etc. do not change the plan quantity. Design changes on plan sheets are to become part of the As Built. E-mails and memos shall be attached to a Calculation sheet (Form No. 040-034). The top portion of the Calculation sheet is to be completed and then filed in the CALCULATION FOLDER. This information will be the backup for any change under or over the plan quantity.

An explanation is required in the field books, on all items that either under or overrun the plan quantity.

When an error is made in a field book, **DO NOT** enter a negative entry to correct the error. Cross out the incorrect amount on the original entry and place the correct amount above it. Place the payment number where the correction was made next to the original payment number. Example: the original payment # was 5 and the payment # where the correction was made is 7, so the Pmt# column will show 5/7.

A helpful tool to get a start on where items shall be placed when setting up a contract is using the Estimate of Quantities in the contract plans. An outline shall be done as illustrated on pages 2-4 thru 2-6.

At the beginning of each chapter in this manual there will be instructions on how to setup the documentation for that particular chapter.

If an item has a small plan quantity, it is acceptable to place that item in a MISC book.

ESTIMATE OF QUANTITIES

Quantities Shown are Approximate Only and are Subject to Increase or Decrease

TO BE CONTRACTED

| ITEM NO. | Project No. STP-0160(016) | Project No. IM-015-1(126) | TOTAL | UNIT | ITEM |
|----------|------------------------------|------------------------------|---------|--------|-----------------------------------------------------------------------|
| 110 0100 | 300 | --- | 300 | HOUR | TRAINING (4 TRAINEES)-Trainee Report & spreadsheet |
| 200 0001 | 40 | 10 | 50 | HOUR | SURVEY CREW - Rent Equipment sheet & spreadsheet |
| 201 0032 | LS | --- | LS | --- | URBAN CLEARING-Lump Sum sheet |
| 201 0512 | 2 | --- | 2 | EACH | REMOVE TREES (6-INCHES TO 12-INCHES)-Removal book |
| 202 0008 | LS | --- | LS | --- | REMOVAL OF BRIDGE-Lump Sum sheet |
| 202 0076 | 5 | --- | 5 | EACH | REMOVE END SECTION-Removal book |
| 202 0256 | LS | --- | LS | --- | REMOVAL OF SIGNAL SYSTEM-Lump Sum sheet |
| 202 0417 | --- | 2 | 2 | EACH | REMOVE AND RESET GUARDRAIL END TREATMENT-Removal book |
| 202 1052 | --- | 3,190 | 3,190 | LINFT | REMOVE AND RESET CONCRETE BARRIER RAIL-Removal book |
| 202 1056 | 1,000 | --- | 1,000 | LINFT | REMOVE & RESET CHAIN-LINK FENCE-Removal book |
| 202 1152 | 10,200 | 5,800 | 16,000 | SQYD | REMOVAL OF BITUMINOUS SURFACE (COLD MILLING)-Removal book |
| 202 1160 | 4 | 1 | 5 | MILE | REMOVAL OF BITUMINOUS SURFACE-Removal book |
| 202 1184 | 150 | --- | 150 | CUYD | REMOVAL OF COMPOSITE SURFACE-Removal book |
| 202 1304 | 1,690 | --- | 1,690 | LINFT | REMOVAL OF FENCE-Removal book |
| 202 2020 | 600 | --- | 600 | LINFT | REMOVE & RESET GUARDRAIL-Removal book |
| 203 0508 | 8,820 | --- | 8,820 | CUYD | ROADWAY EXCAVATION-Earthwork book |
| 203 0520 | 3,000 | --- | 3,000 | CUYD | CHANNEL EXCAVATION-Earthwork & Pipe book |
| 203 0540 | 2,210 | --- | 2,210 | CUYD | BORROW EMBANKMENT-Earthwork book |
| 203 0548 | 2,159 | --- | 2,159 | CUYD | SELECTED BARROW EMBANKMENT-Earthwork book |
| 203 0556 | 3 | 1 | 4 | STA | V-TYPE DITCHES-Misc book |
| 203 0656 | 1,230 | --- | 1,230 | SQYD | GEOTEXTILE-Pipe book |
| 206 0500 | 15,620 | 20 | 15,640 | CUYD | STRUCTURE EXCAVATION-Pipe, Structure, & Retaining Wall book |
| 207 0504 | 12,220 | 10 | 12,230 | CUYD | GRANULAR BACKFILL-Pipe, Structure, Retaining Wall, & Landscaping book |
| 211 0524 | 3 | --- | 3 | ACRE | SEEDING (TYPE A)-Landscaping or Misc book |
| 211 0604 | 68 | 5 | 73 | ACRE | SOIL STABILIZER-Landscaping or Misc book |
| 212 0028 | 150 | --- | 150 | EACH | PLANTS (GROUP A-5)-Landscaping book |
| 212 1000 | 3 | --- | 3 | ACRE | SITE PREPARATION)-Landscaping book |
| 212 1004 | 220 | --- | 220 | CUYD | TOPSOIL-Landscaping book |
| 212 1032 | 100 | --- | 100 | POUND | FERTILIZER (COMMERCIAL)-Landscaping book |
| 212 1040 | 490 | --- | 490 | GALLON | FERTILIZER-Landscaping book |
| 212 1060 | 2,860 | --- | 2,860 | SQYD | GRANITE MULCH-Landscaping book |
| 213 1004 | 2,710 | --- | 2,710 | LINFT | 1/2-INCH POLYCHLORIDE PIPE (FLEXABLE)-Landscaping book |
| 302 0500 | 80,000 | --- | 80,000 | TON | TYPE 1 CLASS B AGGREGATE BASE-Load book & spreadsheet |
| 302 0592 | 2,000 | --- | 2,000 | CUYD | TYPE 1 CLASS A AGGREGATE BASE-Misc book |
| 305 0300 | 6 | 4 | 10 | MILE | PULVERIZE EXIST SURFACE-Roadbed Mod book |
| 305 0516 | 60,779 | 21,354 | 82,133 | SQYD | PROCESSING FOR ROADBED MODIFICATION-Roadbed Mod book |
| 402 0660 | 1,500 | 520 | 2,020 | SQYD | PLANTMIXING MISCELLANEOUS AREAS-Misc book |
| 402 6002 | 22,000 | --- | 22,000 | TON | PLANTMIX SURFACING (TYPE 2C)(WET)-Load book & spreadsheet |
| 403 0554 | 8,000 | --- | 8,000 | TON | PLANTMIX OPEN-GRADED SURFACING (1/2-INCH)(WET)-Load bk & spreadsheet |
| 404 0570 | 419 | 111 | 530 | TON | EMULSIFIED ASPHALT, TYPE CMS-2S-Cold-recycled book |
| 404 0571 | 92 | 25 | 117 | TON | EMULSIFIED ASPHALT, TYPE CMS-2S (DILUTED)-Cold-recycled book |
| 404 0580 | 187,000 | 50,000 | 237,000 | SQYD | RECYCLED BITUMINOUS SURFACE (3-INCH DEPTH)-Cold-recycled book |
| 404 2053 | 332 | 88 | 420 | TONS | LIME (COLD RECYCLE)-Cold-recycled book |
| 405 0516 | 275 | --- | 275 | TON | EMULSIFIED ASPHALT, TYPE SS-1H (DILUTED)-Liquid Asphalt book |
| 406 0500 | 260 | --- | 260 | TON | LIQUID ASPHALT, TYPE MC-70-Liquid Asphalt book |
| 408 0512 | 25 | --- | 25 | POUND | RUBBER ADDITIVE-Misc book |

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| STATE | NEVADA |
| PROJECT NO. | STP-0160(016) |
| COUNTY | CLARK |
| SHEET NO. | 32E |

ESTIMATE OF QUANTITIES (continued)

| ITEM NO. | Project No. STP-0160(016) | Project No. IM-015-1(126) | TOTAL | UNIT | ITEM |
|----------|------------------------------|------------------------------|---------------------------|--------|--------------------------------------------------------------------|
| 408 2108 | 800 | --- | 800 | TON | PORTLAND CEMENT-PCCP book |
| 409 0508 | 3,200 | --- | 3,200 | SQYD | PORTLAND CEMENT CONCRETE PAVEMENT (8-INCHES)-PCCP book |
| 409 0666 | 2,500 | --- | 2,500 | GALLON | PCCP CURING COMPOUND, WAX BASE-PCCP book |
| 409 0560 | 284,000 | --- | 284,000 | LINFT | SAW & SEAL TRANSVERSE WEAKENED PLANE JOINTS-PCCP book |
| 502 0065 | 42 | --- | 42 | EACH | LAMINATED ELASTOMERIC BEARING PAD-Structure book |
| 502 0504 | 434 | --- | 434 | CUYD | CLASS A CONCRETE (MINOR)-Pipe book |
| 502 0508 | 8 | --- | 8 | CUYD | CLASS A CONCRETE (ISLAND PAVING)-C & G book |
| 502 0616 | 667 | --- | 667 | LINFT | PORTABLE PRECAST CONCRETE BARRIER RAIL-C & G or Misc book |
| 502 0628 | 1,995 | --- | 1,995 | LINFT | CONCRETE BARRIER RAIL (TYPE A)-C & G book |
| 502 0828 | 4,500 2,643 | Supp #2 | 4,500 2,643 | CUYD | CLASS A CONCRETE, MODIFIED (MAJOR)-Structure & Retaining Wall book |
| 502 0848 | 4,500 | --- | 4,500 | CUYD | CLASS D CONCRETE, MODIFIED (MAJOR)-Structure book |
| 502 0936 | 320 | --- | 320 | LINFT | STRIP SEAL EXPANSION JOINT (4-INCH MOVEMENT)-Structure book |
| 502 0976 | 10 | 200 | 210 | CUFT | ELASTOMERIC CONCRETE-Structure & Misc book |
| 502 1008 | 5,170 | --- | 5,170 | SQYD | GROOVE CONCRETE DECK SLAB-Structure book |
| 502 1010 | 490 | --- | 490 | GAL | BRIDGE DECK CURING COMPOUND-Structure book |
| 505 0500 | 1,164,058 | --- | 1,164,058 | POUND | REINFORCING STEEL-Structure, Retaining Wall, & Pipe book |
| 603 0520 | 4,298 | --- | 4,298 | LINFT | 18-INCH REINFORCED CONCRETE PIPE, CLASS III-Pipe book |
| 604 2182 | 15 | --- | 15 | EACH | 18-INCH METAL END SECTION (SAFETY TYPE)-Pipe book |
| 609 0112 | 6 | --- | 6 | EACH | ADJUSTING COVERS (METHOD A)-Misc book |
| 609 0116 | 5 | --- | 5 | EACH | ADJUSTING COVERS (METHOD B)-Misc book |
| 609 0120 | 4 | --- | 4 | EACH | ADJUSTING COVERS (METHOD C)-Misc book |
| 609 0500 | 1,080 | --- | 1,080 | POUND | CASTINGS-Misc book |
| 609 0504 | 27,000 | --- | 27,000 | POUND | STRUCTURAL STEEL GRATES-Pipe book |
| 610 0501 | 100 | --- | 100 | CUYD | RIPRAP (CLASS 150)-Pipe book |
| 610 0601 | 80 | --- | 80 | CUYD | RIPRAP BEDDING, (CLASS 150)-Pipe book |
| 611 0508 | 15,000 | 6,500 | 21,500 | CUYD | CLASS A CONCRETE APRONS-C & G or Misc book |
| 612 0100 | 1,980 | --- | 1,980 | SQYD | GRAFFITI RESISTANT COATING-Retaining Wall book |
| 613 0604 | 3,026 | --- | 3,026 | LINFT | CLASS A CONCRETE GLUE DOWN CURB (TYPE A)-C & G book |
| 613 0732 | 5,485 | --- | 5,485 | LINFT | CLASS A CONCRETE CURB & GUTTER (TYPE 5)-C & G book |
| 613 0864 | 26 | --- | 26 | SQYD | CLASS A CONCRETE SIDEWALK (4-INCH)-C & G book |
| 614 0000 | 7,820 | --- | 7,820 | SQFT | PAINTING (CONC. WALL GRAPHICS)-Landscaping book |
| 616 0712 | 7,900 | --- | 7,900 | LINFT | 72-INCH CHAIN LINK FENCE-Fence book |
| 616 0916 | 2 | --- | 2 | EACH | 12-FOOT SWING GATE (DOUBLE)-Fence book |
| 618 0038 | 10 | --- | 10 | EACH | TRAILING END ANCHOR-Guardrail book |
| 618 0524 | 2,500 | --- | 2,500 | LINFT | GALVANIZED GUARDRAIL-Guardrail book |
| 619 0044 | 25 | 244 | 269 | EACH | GUIDE POSTS (FLEXIBLE)-Guidepost book |
| 619 0077 | --- | 18 | 18 | EACH | OBJECT MARKERS, TYPE 2 (MODIFIED)-Guidepost book |
| 621 0006 | --- | 8 | 8 | EACH | PERPETUATE SURVEY MONUMENTS-Misc book |
| 623 0080 | 15 | --- | 15 | EACH | NO. 7 PULL BOX-Electrical book |
| 623 0084 | 2 | --- | 2 | EACH | NO. 9 PULL BOX-Electrical book |
| 623 0088 | 3 | --- | 3 | EACH | JUNCTION BOX-Electrical book |
| 623 0590 | 2 | --- | 2 | EACH | VEHICLE TRAFFIC CLASSIFIER (TYPE 1)-Electrical book |
| 623 0764 | LS | --- | LS | --- | REMOVAL OF EXISTING LIGHTING SYSTEM-Lump Sum sheet |
| 623 1028 | 10,850 | --- | 10,850 | LINFT | 3-INCH CONDUIT-Electrical book |
| 623 1036 | 2,265 | --- | 2,265 | LINFT | 6-INCH CONDUIT-Structure, Misc, & Electrical book |
| 623 1269 | 5,590 | --- | 5,590 | LINFT | SINGLE MODE FIBER OPTIC CABLE (72 FIBER)-Electrical book |
| 623 1724 | 16 | --- | 16 | EACH | LOOP DETECTOR (6 FOOT X 6 FOOT)-Electrical book |

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ESTIMATE OF QUANTITIES (continued)

| ITEM NO. | Project No. STP-0160(016) | Project No. IM-015-1(126) | TOTAL | UNIT | ITEM |
|----------|------------------------------|------------------------------|--------|--------|---------------------------------------------------------------------------|
| 623 1269 | 5,590 | --- | 5,590 | LINFT | SINGLE MODE FIBER OPTIC CABLE (72 FIBER)- Electrical book |
| 623 1724 | 16 | --- | 16 | EACH | LOOP DETECTOR (6 FOOT X 6 FOOT)- Electrical book |
| 623 1732 | 572 | --- | 572 | LINFT | LEAD-IN CABLE FOR LOOP DETECTORS- Electrical book |
| 623 2083 | 200 | --- | 200 | LINFT | DIRECTIONAL DRILLING- Electrical book |
| 624 0004 | 1,700 | 300 | 2,000 | HOUR | FLAGGER- Flagging sheets & Spreadsheet |
| 624 0016 | 210 | 90 | 300 | DAY | TRAFFIC CONTROL SUPERVISOR- Rent Equipment sheet & spreadsheet |
| 624 0036 | 50 | --- | 50 | HOUR | RENT EQUIPMENT (DUMP TRUCK)- Rent Equipment sheet & spreadsheet |
| 624 0052 | 50 | --- | 50 | HOUR | RENT EQUIPMENT (PILOT CAR)- Rent Equipment sheet & spreadsheet |
| 624 0151 | 10 | 2 | 12 | MONTH | RENT EQUIPMENT (OFFICE SPACE)- Rent Equipment sheet & spreadsheet |
| 625 0004 | 420 | --- | 420 | EACH | RENT TRAFFIC CONES- Rent Const. Signs, Etc. book |
| 625 0036 | 150 | --- | 150 | EACH | RENT CONSTRUCTION BARRICADES (TYPE 111B)- Rent Const. Signs, Etc. book |
| 625 0044 | 6 | --- | 6 | EACH | RENT CHANGEABLE MESSAGE SIGN- Rent Const. Signs, Etc. book |
| 625 0060 | 2 | 1 | 3 | EACH | RENT ARROW BOARD (TYPE C)- Rent Const. Signs, Etc. book |
| 625 0072 | 202 | --- | 202 | EACH | RENT TRAFFIC DRUMS- Rent Const. Signs, Etc. book |
| 625 0089 | 2 | --- | 2 | EACH | RENT IMPACT ATTENUATOR (45 MPH)- Rent Const. Signs, Etc. book |
| 625 0091 | --- | 1 | 1 | EACH | RENT IMPACT ATTENUATOR (65 MPH)- Rent Const. Signs, Etc. book |
| 625 0092 | 1 | --- | 1 | EACH | RENT TRUCK-MOUNTED IMPACT ATTENUATOR- Rent Const. Signs, Etc. book |
| 625 0500 | 2,942 | 344 | 3,286 | SQFT | RENT CONSTRUCTION SIGNS- Rent Const. Signs, Etc. book |
| 625 0512 | 42 | 420 | 462 | LINFT | RENT PORTABLE PRECAST CONCRETE BARRIER RAIL- Rent Const. Signs, Etc. book |
| 627 0012 | --- | 1 | 1 | EACH | PERMANENT OVERHEAD SIGN SUPPORT STRUCTURES, REMOVE -Signs book |
| 627 0508 | 1,700 | 517 | 2,217 | SQFT | PERMANENT SIGNS (GROUND MOUNTED) (METAL SUPPORTS)- Signs book |
| 627 0516 | 900 | 200 | 1,100 | SQFT | PERMANENT SIGNS (GROUND MOUNTED) (TIMBER SUPPORTS)- Signs book |
| 627 0520 | 3 | --- | 3 | SQFT | PERMANENT SIGN PANELS (OVERHEAD)- Signs book |
| 627 0524 | 5 | 1 | 6 | SQFT | PERMANENT SIGN PANELS (PANELS ONLY)- Signs book |
| 627 0532 | 2,643 | 1,200 | 3,843 | SQFT | PERMANENT SIGNS, REMOVE- Signs book |
| 627 0536 | 61 | --- | 61 | SQFT | PERMANENT SIGNS, REMOVE AND RESET- Signs book |
| 629 0100 | 210 | 90 | 300 | DAY | TIME RELATED OVERHEAD- No Documentation |
| 632 2026 | 8 | --- | 8 | MILE | EPOXY PAVEMENT STRIPING (SOLID WHITE)- Misc. or Striping book |
| 633 0000 | 3,586 | 6,447 | 10,033 | EACH | NON-REFLECTIVE PAVEMENT MARKERS- Misc. or Striping book |
| 634 0620 | 5,795 | --- | 5,795 | SQFT | PERMANENT PAVEMENT MARKING FILM (TYPE 2) (VARIES)- Misc. or Striping book |
| 646 0516 | 2,000 | --- | 2,000 | SQFT | BRIDGE DECK PREPARATION- Structure book |
| 647 0508 | 300 | 200 | 500 | GALLON | PAINT-ON-WATERPROOFING- Misc book |
| 680 0510 | 210 | 90 | 300 | DAY | BIOLOGIST- Rent Equipment sheet & spreadsheet |

Once the outline is complete, go through the plans and tag each structure list, the Summary of Construction Signs, the Sign Summary sheets, the Summary of Earthwork sheets, the Profile sheets, and any other areas that show information on items and quantities that will assist in setting up the field books. Compare all items to the Estimate of Quantities outline and address any items that have not already been addressed.

| | | | | |
|--------|--------|---------------|--------|-------|
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Page 2 - **Index** (left-side of page)

This page shall contain a detailed index of the contents of each book (**including the book recap in the appropriate books on page 75**). When closing out the books make sure there are beginning and ending page numbers for each item listed (including the book recap) if more than one page was used. If room permits skip a line between entries.

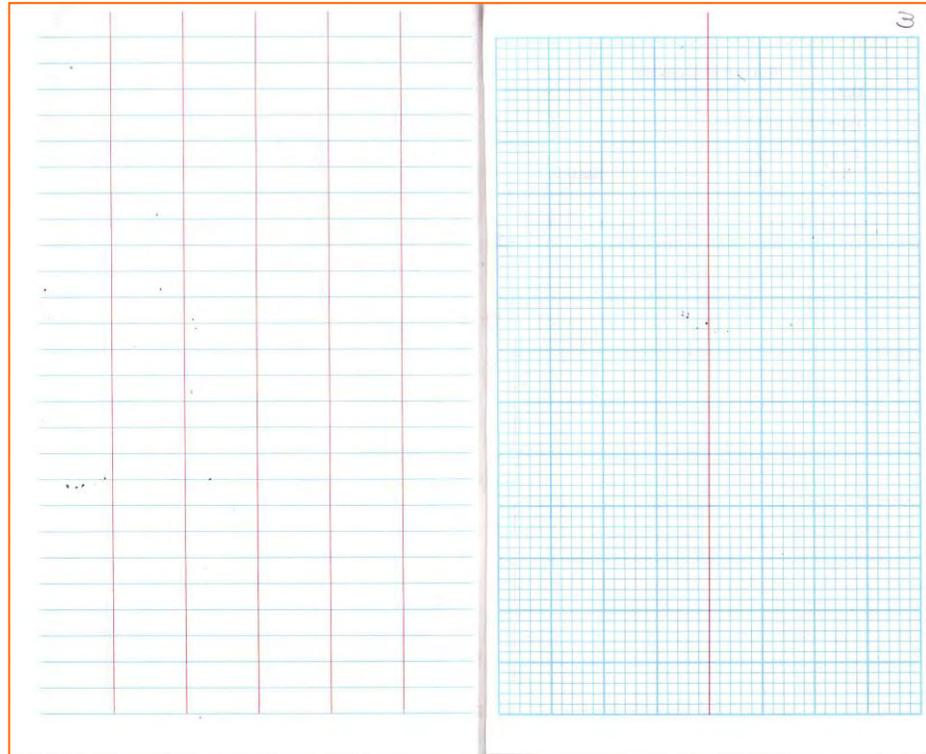
Initial Key (right-side of page)

Every person who makes entries in the field book must sign the initial key page (**including the person who made out the book**). If a person initials a book more than one way, both sets of initials must be entered or if your name is changed, you must sign again with your new name and initials. This is merely to identify those persons responsible for making entries in the books. If the signature is not legible, have the person print his/her name under the signature.

| Index | | Initial key | | |
|-------|---------------------------------------|-------------|----------------------------------|---------|
| Page | Description | Initials | Signature | Title |
| 4-8 | MC-70 Record of Delivery | SS | Shelli Jones | Tech IV |
| 10-16 | MC-70 Record of Application & Payment | VT | Van Thomas | Tech II |
| 20-25 | SS-1h Record of Delivery | MD | Mary Davis | Tech I |
| 30-50 | SS-1h Record of Application & payment | LP | Lynne Phillips Lynne Phillips | Tech II |
| 75 | Book Recap | | | |

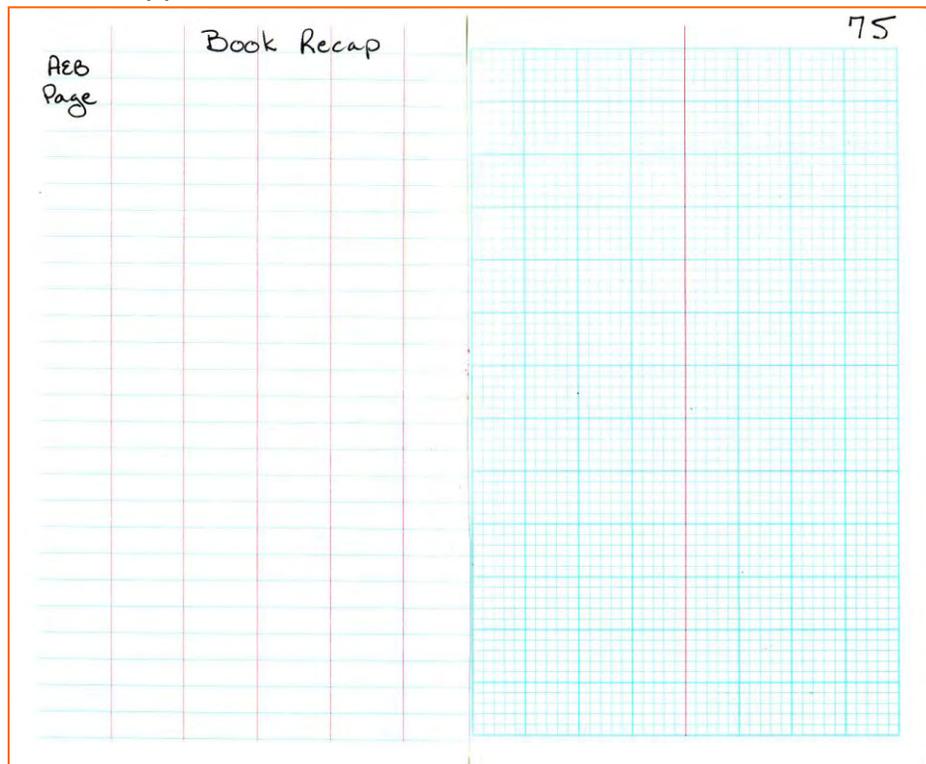
The illustration above is an index and an initial key page for a Liquid Asphalt Book.

Page 3 - Shall be left blank or can be used for the continuation of the Index. Begin documentation on page 4.



Page 75 - Book Recap

When the contract is complete, the page numbers shall be documented down the left side of the page, and item numbers (with change order number for AP0 and PR0) and AEB numbers across the top as illustrated in Chapter 24 ("Finaling Out" a Contract). If more pages are needed to complete the book recap, follow the illustrations in Chapter 24 ("Finaling Out" a Contract). Zero page totals must be recapped.



**DOCUMENTATION REQUIREMENT
SECTION C
CALCULATION BOOK
CALCULATION SHEET
(Form No. 040-034)**

Calculations made for determining pay quantities (final or estimated) for contract items requiring computations that are too extensive to place in the field book shall be made on a CALCULATION sheet as illustrated on page 2-11 and filed in a loose-leaf binder labeled CALCULATION book. This book shall be kept in the field office.

All calculations and backup shall be placed on a CALCULATION sheet or attached to the back of the CALCULATION sheet and filed in the CALCULATION book. The top portion of the CALCULATION sheet must be completed. **Each page in the CALCULATION book must be numbered consecutively and referenced to the field book(s) and page(s) and the quantities shown in the field books must be referenced to the page in the CALCULATION book where the calculations can be found.**

The CALCULATION book shall be setup in the same manner previously described for the field books but done on an 8½" by 11" white piece of paper.

The Title page will be page number 1 as illustrated on page 2-7.

The Index (excluding the book recap page) will be page number 2 and will follow the illustration on page 2-8.

The Initial Key will be page number 3 and will follow the illustration on page 2-8.

A blank page will be page number 4 and the first CALCULATION sheet will be page number 5.

Each page in the CALCULATION book must have the following information:

Page number
Contract number
Initials of the person responsible for the calculation
Initials of the checker
Date
Description
Location
Reference field book number or the field book title
Page(s) of the field book(s)

The CALCULATION book serves two important purposes:

1. It will reduce congestion in the field books.
2. It will eliminate the necessity of re-copying figures from worksheets into the field books, and thereby decreases the chance of errors in transferring numbers.

Upon completion of a contract, the calculations shall be removed from the three-ring binder by the Headquarters Construction Staff and placed in a file folder, which will be filed in Engineering Files with the other project records.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

DEPARTMENT OF TRANSPORTATION
CALCULATION SHEET

CONTRACT NO. 3247 CALCS BY JT CHECKED BY RP DATE 6/3/06
 DESCRIPTION Retaining Wall-A Structure Excavation
 LOCATION STA. "BD" ~ 48+31.65 to STA. "BD" ~ 45+35.45 206 0500

REFERENCE FIELD BOOK NO. RetWall.BK1 PAGE(S) 8/10 FIELD MEASURED

| | |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| From: STA. "BD" ~ 48+31.65 To: STA. "BD" ~ 47+89.36 | $\text{Avg C} = \frac{(4.61' + 5.02')}{2} = 4.82'$ $(42.29') (9') = 380.61 \text{ sf}$ $(380.61 \text{ sf}) (4.82') = 1834.54 \text{ cf}$ $\frac{1834.54 \text{ cf}}{27} = 67.95 \text{ cy}$ |
| From: STA. "BD" ~ 47+89.36 To: STA. "BD" ~ 47+47.04 | $\text{Avg C} = \frac{(5.02' + 5.12')}{2} = 5.07'$ $(42.32') (9') = 380.88 \text{ sf}$ $380.88 \text{ sf} (5.07') = 1931.06 \text{ cf}$ $\frac{1931.06 \text{ cf}}{27} = 71.52 \text{ cy}$ |
| From: STA. "BD" ~ 47+47.04 To: STA. "BD" ~ 47+00.72 | $\text{Avg C} = \frac{(5.12' + 5.03')}{2} = 5.08'$ $(46.32') (9') = 416.88 \text{ sf}$ $416.88 \text{ sf} (5.08') = 2117.75 \text{ cf}$ $\frac{2117.75 \text{ cf}}{27} = 78.44 \text{ cy}$ |
| From: STA. "BD" ~ 47+00.72 To: STA. "BD" ~ 46+62.40 | $\text{Avg C} = \frac{(5.03' + 4.58')}{2} = 4.81'$ $(38.32') (9') = 344.88 \text{ sf}$ $(344.88 \text{ sf}) (4.81') = 1658.87 \text{ cf}$ $\frac{1658.87 \text{ cf}}{27} = 61.44 \text{ cy}$ |
| From: STA. "BD" ~ 46+62.40 To: STA. "BD" ~ 46+02.08 | $\text{Avg C} = \frac{(4.58' + 3.89')}{2} = 4.24'$ $(60.32') (9') = 542.88 \text{ sf}$ $(542.88 \text{ sf}) (4.24') = 2301.81 \text{ cf}$ $\frac{2301.81 \text{ cf}}{27} = 85.25 \text{ cy}$ |
| From: STA. "BD" ~ 46+02.08 To: STA. "BD" ~ 45+77.22 | $\text{Avg C} = \frac{(3.89' + 4.31')}{2} = 4.10'$ $(24.31') (9') = 218.79 \text{ sf}$ $(218.79 \text{ sf}) (4.08') = 892.66 \text{ cf}$ $\frac{892.66 \text{ cf}}{27} = 33.06 \text{ cy}$ |
| From: STA. "BD" ~ 45+77.22 To: STA. "BD" ~ 45+35.45 | $\text{Avg C} = \frac{(4.31' + 6.13')}{2} = 5.22'$ $(42.32') (9') = 380.88 \text{ sf}$ $(380.88 \text{ sf}) (5.22') = 1988.19 \text{ cf}$ $\frac{1988.19 \text{ cf}}{27} = 73.64 \text{ cy}$ |
| PAGE TOTAL: <u>471.30 cy</u> | |

**DOCUMENTATION REQUIREMENT
SECTION D
DAILY DIARIES (Form No. 040-056A)
CONSTRUCTION REPORTS (Form No. 040-056)**

For every contract, daily diaries must be kept by the Resident Engineer, Supervisor III, Supervisor I on the survey crew, Hotplant Inspector, Marination Plant Inspector, and Batch Plant Inspector.

There are two versions of the DAILY DIARY REPORT (Form No. 040-056A). Hard copies are available in the Stockroom or the Electronic version in Sharepoint. Follow the distribution instructions at the bottom of each form. For the electronic version, a copy will be printed and signed by the employee and copies will be made and distributed.

The DAILY DIARY REPORT (Form No. 040-056A) will be submitted weekly.

If a **hotplant or marination** plant supplies material for multiple projects for different Resident Engineers, it is up to the **Hotplant and/or Marination Inspector** to find out the contract numbers and record those numbers at the top of each diary page. The original diary shall be sent to the appropriate department for review and a copy kept with the Inspector's contract. Copies shall be made and sent to the other Resident Engineers for the remainder of the projects. This does not relieve any of the other documentation requirements. Follow the distribution instructions on the bottom of the form.

Copies of the diaries shall be filed in Section 1-Contract Files, Division No. 15 as described in Chapter 1 (Organization of Project, etc.).

Construction Inspectors assigned to a particular phase of construction activity are required to prepare a DAILY CONSTRUCTION REPORT. This report shall be completed and submitted to the field office daily and signed by the **Inspector** and reviewed and signed by the Resident Engineer. The original shall be submitted to the appropriate department for review. Follow the distribution instructions on the bottom of the form. The **Inspector** shall retain a copy and a copy shall be filed in Section 1-Division No. 15 as described in Chapter 1 (Organization of a Project, etc.).

If there are any questions concerning the DAILY DIARIES (Form No. 040-056A) or the CONSTRUCTION REPORTS (Form No. 040-056), please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION E
SIGNIFICANT FIGURES**

The following list of significant figures shall be used for all contract quantities from the beginning of the project thru the final documentation. **Each entry in a field book and on a form must be in accordance with the significant figures.** All field books with pay quantities shall have the significant figure for the appropriate pay item on the top right-hand side on each documented page. If entries are documented using too many places, each entry shall be rounded and adjusted each payment cycle. All accumulative totals shall also be rounded to significant figures.

| <u>ENGLISH</u> | | | <u>METRIC</u> | |
|----------------|----------------------|-----------------|---------------|----------------------|
| gal | 1 | | liter | (L) 1 |
| each | 1 | | each | 1 |
| pound | 1 | | kilogram | (kg) 1 |
| ydm | 1 | | cumkm | 1 |
| linft | 1 | | linm | 0.1 |
| sqyd | 0.1 | (calc quantity) | sqm | 0.1 |
| dollars | 0.01 | | dollars | 0.01 |
| station | 0.01 | | station | * 0.1 |
| ton | 0.01 | | mton | ** 0.01 |
| sqft | 0.01 | ← (Signs) → | sqm | 0.01 |
| cuyd | 1, .1, .01 | (plan quantity) | cum | 1, .1, .01 |
| cuyd | 0.01 | (calc quantity) | cum | 0.01 |
| mile | 0.001 | | kilometer | (km) 0.001 |
| acre | 0.001 | | hectare | *** (hect) 0.001 |
| hour | 0.5 | | hour | 0.5 |
| day | 0.5 | | day | 0.5 |
| month | 0.25, 0.5, 0.75, 1.0 | | month | 0.25, 0.5, 0.75, 1.0 |
| cuft | 0.01 | ← (concrete) → | cum | 0.01 |
| cuyd | 0.01 | ← (riprap) → | cum | 1, .1, .01 |

- (*) metric station = 100 linear meters
- (**) metric ton = 1000 kilograms
- (***) hectare = 10,000 square meters

ROUND AS FOLLOWS:

| | | |
|---------------|-----------|--------------|
| 3.25 linft | rounds to | 3 linft |
| 3.21 linm | rounds to | 3.2 linm |
| 3.5 linft | rounds to | 4 linft |
| 3.46 linm | rounds to | 3.5 linm |
| 1.3278 mi/km | rounds to | 1.328 mi/km |
| 1.3273 mi/km | rounds to | 1.327 mi/km |
| 4.42 sqyd/sqm | rounds to | 4.4 sqyd/sqm |
| 4.47 sqyd/sqm | rounds to | 4.5 sqyd/sqm |

NOTE: Significant figures in the structure list may be used for guardrail documentation during construction of a contract. When recapping the GUARDRAIL books, final totals shall be rounded to match the significant figures shown above.

Contact Headquarters Construction if a different significant figure is required on an item. For example: An Each item's significant figure is 1. If the Resident Engineer does not want to pay for the entire item in one entry or the Contractor wants part of his money because the item has been partially installed, then a new significant figure may be request.

**DOCUMENTATION REQUIREMENT
SECTION F
METRIC CONVERSION FACTORS**

The following list of metric conversion factors (refer to Standard Specifications for Road and Bridge Construction (Silver book) page 570) shall be used for all quantity conversions for daily calculations:

| <u>QUANTITY</u> | <u>FROM ENGLISH</u> | <u>TO METRIC</u> | <u>MULT QUANTITY BY</u> |
|-----------------------|---------------------|------------------|-------------------------|
| Length | inch | mm | 25.4 |
| | ft | mm | 304.8 |
| | ft | m | 0.3048 |
| | yd | m | 0.9144 |
| | mile | km | 1.609344 |
| | mile | m | 1609.344 |
| | in/mi | mm/km | 15.7828 |
| Area | sqin | sqmm | 645.16 |
| | sqft | sqm | 0.092903 |
| | sqyd | sqm | 0.836127 |
| | acre | sqm | 4046.873 |
| | acre | hect | 0.404687 |
| | sqmi | sqkm | 2.59 |
| Volume | cuin | cumm | 16387.06 |
| | cuft | cum | 0.0283168 |
| | cuyd | cum | 0.764555 |
| | gallon | L | 3.78541 |
| | gal/yd | L/m | 4.1398 |
| | gal/sqyd | L/sqm | 4.5273 |
| | gal/cuyd | L/cum | 4.9511 |
| | gal/acre | L/hect | 9.3539 |
| | gal/ton | L/t | 4.1727 |
| | Mass | ounces | g |
| pound | | kg | 0.453592 |
| kip (1,000 lbs.) | | t | 0.453592 |
| ton | | t | 0.907185 |
| Force | pound | N | 4.44822 |
| | kip | kN | 4.44822 |
| Force/ Unit Length | lb/ft | N/m | 14.5939 |
| | lb/in | N/mm | 0.175127 |
| Pressure, Stress | lbs/sqft | Pa | 47.8803 |
| | kips/sqft | kPa | 47.8803 |
| | lbs/sqin | kPa | 6.89476 |
| | lbs/sqin | MPa | 0.006895 |
| | kips/sqin | MPa | 6.89476 |

| <u>QUANTITY</u> | <u>FROM ENGLISH</u> | <u>TO METRIC</u> | <u>MULT QUANTITY BY</u> |
|-----------------|---------------------|------------------|-------------------------|
| Energy | foot pound | J | 1.35582 |
| Mass/ Length | ounces/sqyd | kg/sqm | 0.0339057 |
| | lbs/sqft | kg/sqm | 4.8824 |
| | lbs/sqyd | kg/sqm | 0.54249 |
| | lbs/cuft | kg/cum | 16.01846 |
| | lbs/cuft | Mg/cum | 0.01601846 |
| | lbs/cuyd | kg/cum | 0.593276 |
| | lbs/acre | kg/hect | 1.1208 |
| | tons/acre | t/hect | 2.2417 |
| Temperature | °F | °C | (°F-32)/1.8 |

**DOCUMENTATION REQUIREMENT
SECTION G
STANDARD SPECIFICATIONS – METHOD OF MEASUREMENT AND PAYMENT**

The following is a list of the correct method of measurement and payment that shall be used on all contracts. If there are any questions concerning an item that is not shown in the following list, please call Headquarters Construction for assistance.

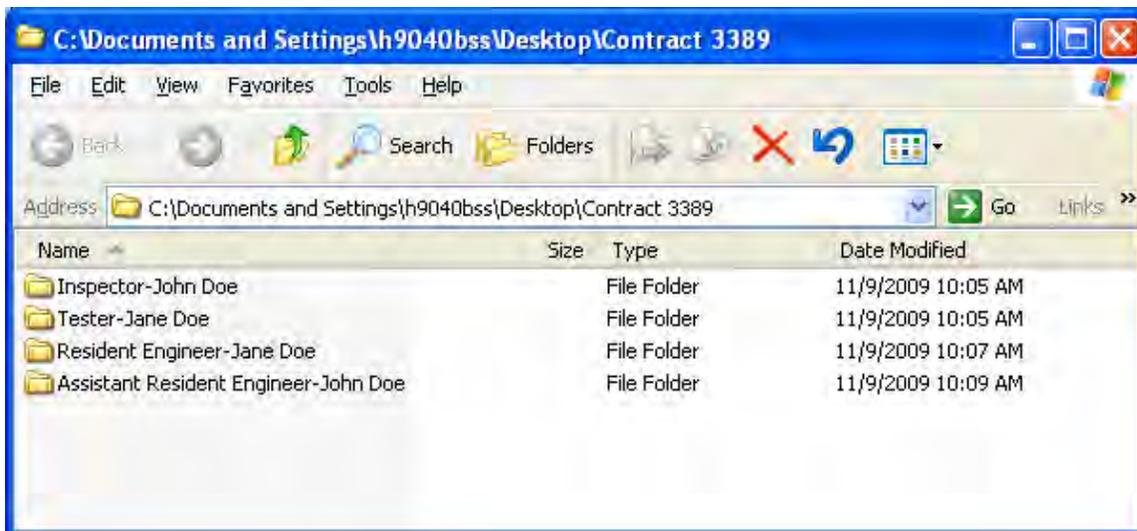
| <u>Unit</u> | <u>Sig fig</u> | <u>Requirements</u> | <u>Remarks</u> |
|-------------|----------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Each | 1 | counted | |
| Linft | 1 | field meas | |
| Sqft | .01 | field meas & calcs | If taking quantities from the Standard Plans for marking film or sign quantities from the Contract Plans, plan qty may be paid. Otherwise, calculations are required or in the Remarks column, state where the dimensions were found. If signs are added, an explanation is required in the Remarks column. |
| Sqyd | .1 | field meas & calcs | If an area is too difficult to calculate, please call Headquarters Construction for assistance. |
| Cuft | .01 | field meas & calcs | |
| Cuyd | .01 | plan qty or field meas & calcs if different than plan qty | Cannot pay plan on removal items, RipRap items, or items being weighed. Removal items must be measured before removed. |
| Acre | .001 | field meas & calcs | |
| Station | .01 | field meas & calcs | |
| Mile | .001 | field meas & calcs | |
| Ton | .01 | weighed over scales | Scale sheets, delivery tickets, load books & spreadsheets, or field meas & calcs |
| Gallon | 1 | field meas & calcs | Must take a picture of the container label and place on a CALCULATION sheet and place in the CALCULATION book for backup |
| Pound | 1 | plan qty or field meas & calcs if different than plan qty | If an item is delivered in a container or sack, a picture of the container label must be taken and placed on a CALCULATION sheet and placed in the CALCULATION book for backup |

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**DOCUMENTATION REQUIREMENT
SECTION H
PHOTO IDENTIFICATION GUIDE LINES**

Basic Guidelines

1. Make sure the time and dates are correct in the camera's Daylight Saving Time on each camera
2. If storage Disk Space on the computer becomes an issue, then limit the Photo size to 1MB
3. On a computer that is accessible to everyone on the crew. Create a new folder and label it with the contract number. Within the newly created folder, create additional folders, one for each inspector and tester and for anyone who will be taking pictures for documentation.
4. The camera's software will automatically assign a name with both a date and time. DO NOT change the given file name of the photo



5. Copy all photos/files to a CD before the final job pickup that will become part of the Contract Documents.
6. Provide a detailed description of each picture listed on the CD utilizing the digital file name of the photo.

CHAPTER 3
Force Account Work

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CHAPTER 3
Force Account Work

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**DOCUMENTATION REQUIREMENT
SECTION A
FORCE ACCOUNT WORK
INSPECTOR'S RESPONSIBILITY**

The source documentation requirement for any work to be paid on a force account basis is the DAILY COSTS OF FORCE ACCOUNT (Form No. 040-008). Refer to subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book) for specific requirements relating to force account.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

As illustrated on page 3-2, it will be the **Inspector's** responsibility to:

Record the contract number, date performed, Change Order number, description of work, AEB number and item number. The **Inspector** must complete all this information so the **Officeperson** can identify the work done.

Record the names, classification and hours worked of each person performing work on the force account. Overtime hours shall be listed separate from straight time hours.

Record the year and a complete description of each piece of equipment such as make, model, horsepower, capacity, size, etc. and the actual hours worked. Also record any attachments and give a description. Prior to recording the hours involved, the **Inspector** must be thoroughly familiar with subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book) as related to standby time on equipment rental. According to subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book), there is no compensation for shop tools with a rate less than \$10.00/day.

Record the materials used by giving a complete description and the quantities used on the force account work.

Review the force account sheet with the Contractor and obtain the Contractor's signature after the work for the day is completed. Do not fill in hourly rates, extended amounts, or material prices at this time, but turn the partially completed sheet into the field office. After the sheets are fully extended, a copy shall be forwarded to the Contractor.

Turn the force account sheets into the field office daily.

**DOCUMENTATION REQUIREMENT
SECTION B
FORCE ACCOUNT WORK
OFFICEPERSON'S RESPONSIBILITY
(LABOR SECTION)**

After the force account sheets have been received in the field office and filled out in the manner described on page 3-1 and as illustrated on page 3-2, it will be the responsibility of the **Officeperson** to:

Obtain the actual hourly rates, remote area pay and vacation rate paid to each person listed from the Contractor's payroll.

Determine if the hourly rate on the payroll includes vacation and remote area pay. If the total hours multiplied by the hourly rate equals the job gross, then the hourly rate includes vacation and remote area pay, if applicable. The hourly rate is entered on the force account sheet, leave the vacation and remote area pay columns blank. There is no need to separate the vacation or remote area pay, as long as it is included.

If the total hours multiplied by the hourly rate are less than the job gross, add the total hours multiplied by the hourly vacation rate from the fringe benefit statement. If the two amounts added together equal the job gross, record the base rate and vacation rate on the force account sheet. Some Operating Engineers are paid time and one-half for vacation for overtime hours.

In order for the Contractor to be reimbursed for vacation, remote area pay and/or subsistence, it must be included in the job gross. If force account hours are less than a full day, make sure an hourly rate is calculated and paid under subsistence.

Obtain the labor surcharge from Headquarters Construction. The labor surcharge is to reimburse the Contractor for his percentage paid on FICA, Workman's Compensation, and State and Federal unemployment taxes. Use the applicable labor surcharge in effect at the time the work was performed.

Indicate the amount per hour for fringe benefits obtained from the FRINGE BENEFIT STATEMENT (Form No. 052-062) as illustrated on page 3-4, and the total hours for each labor classification. The fringe benefit rate must be verified either by checking the rates against the payroll or contacting the Contractor for a breakdown. If the fringe benefits on the FRINGE BENEFIT STATEMENT do not match the fringe benefits on the payroll, verify the correct wage from the Contractor. If the FRINGE BENEFIT STATEMENT is in error, a revised one must be submitted. Non-union Contractors pay fringe benefits in cash to employees as part of their wage. There will be no fringe benefits listed on the force account sheet.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
FRINGE BENEFIT STATEMENT

| CONTRACT 3333 | PROJECT NUMBER STP-015-1(133) | DATE 3-20-09 | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------|---------------------|----------------|
| TO: RESIDENT ENGINEER Ed Homes | ADDRESS 1202 S Mary St Reno, NV 89503 | | | |
| <p>In order that the proper Fringe Benefit rates be used for checking payrolls or applied to Force Account work which may be done on the above contract, the rates for fringe benefits, subsistence and/or travel allowance payment (as required by the State Labor Commissioner and the U.S. Department of Labor) made for employees on the various classes of work are tabulated below.</p> | | | | |
| CLASSIFICATION | SUBSISTENCE OR TRAVEL ALLOWANCE | FRINGE BENEFITS | | EFFECTIVE DATE |
| | | VACATION | TOTAL OTHER FRINGES | |
| Operators | | 3.05 | 11.72 | 7/01/08 |
| Laborers | | 3.00 | 10.74 | 7/01/08 |
| Teamsters | | 2.25 | 10.06 | 7/01/08 |
| Cement Masons | | 2.00 | 9.60 | 7/01/08 |
| Carpenters | | 2.90 | 9.80 | 7/01/08 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| <p>Supplemental statements will be furnished during the progress of the work should a change in any rate of the classifications be made.</p> | | | | |
| SUBMITTED: CONTRACTOR/SUBCONTRACTOR Keep on Trucking | | | BY: Sally Fields | |

NDOT
052-065
Rev. 10/06

Obtain subsistence and/or travel expense (if any) from the Contractor's payroll. (Remember that subsistence and remote area pay are two different things and are shown differently on the force account sheet in the labor section.) Record this information in the spaces provided. Complete the extension and total all labor costs.

Make certain that the actual wage rates verified do not include any additives except vacation pay. (Be sure to read the specifications regarding force account.) The Contractor's percentage of labor costs will be as specified in subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book).

No payment shall be made for labor performed on force account until the Contractor has furnished certified copies of payrolls covering the period when the force account work was performed. **No payment will be made to superintendents paid on a salary basis.**

- NDOT Intranet-click on Sharepoint, click on Construction 040, click on Blue Book Equipment Rental Rates.
- Select a Category of equipment
- Select a Sub Category
- Select the Configuration of the equipment

EQUIPMENT WATCH

Thursday, June 25, 2009
On-Highway Light Duty Trucks
 Miscellaneous Models

Configuration for On-Highway Light Duty Trucks

Power Mode: Gasoline Cab Type: Conventional
 Axle Configuration: 4X2 Ton Rating: 1 1/2
 Horsepower: 300.0

Blue Book Rates

Rate Effective Dates: Jul 1, 2008 - Present

| Published Rates | Ownership Costs | | | | Estimated Operating Costs | | FHWA Rate |
|--------------------------|-----------------|-----------------|----------------|----------------|---------------------------|----------------|-----------|
| | Monthly | Weekly | Daily | Hourly | Hourly | Hourly | |
| | \$925.00 | \$260.00 | \$65.00 | \$10.00 | \$23.40 | \$28.66 | |
| Adjustments | | | | | | | |
| Region (100%) | | | | | | | |
| Model Year (2003: 95.7%) | -\$39.77 | -\$11.18 | -\$2.79 | -\$0.43 | | | |
| Ownership (105%) | +\$44.26 | +\$12.44 | +\$3.11 | +\$0.48 | | | |
| Operating (100%) | | | | | | | |
| Total: | \$929.49 | \$261.26 | \$65.32 | \$10.05 | \$23.40 | \$28.68 | |

For details, see Rate Element Allocation

Adjustments

Model Year: 2003
 Region: Please Select
 Canadian Regions Alaskan Regions

User Defined
 Ownership: 105.0 %
 Operating: %

Adjust Rates

Rate Element Allocation

| Element | Percentage | Value |
|---------------------------|------------|---------------|
| Depreciation (ownership) | 56% | \$518.00 / mo |
| Overhaul (ownership) | 25% | \$231.25 / mo |
| CFC (ownership) | 9% | \$83.25 / mo |
| Indirect (ownership) | 10% | \$92.50 / mo |
| Fuel (operating) @ \$3.38 | 82% | \$19.27 / hr |

Revised Date: 2nd Half 2008

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 Email: customerservice@equipmentwatch.com
 Phone: (800) 669-3282
 Version: 3.3.6B

A number is assigned to each of the Equipment Watch printouts used on a force account. When completing the Equipment Watch Recap sheet (Form No. 040-040) this number will be placed in the Page Number column.

5. Round to the nearest 10 cents as per Standard Spec. =28.70

- When the configuration comes up on the screen:
- Use the rate for the time period of the FA sheet
 - Enter the Model Year
 - Do not change the ownership
 - Click on the Adjust Rate button
 - Round to the nearest 10 cents when entering on the FA sheet

See pages 3-8 through 3-22 for instructions on how to acquire the above sheet.

The following illustrations show step by step instructions on how to retrieve a rate for a piece of equipment used on a force account. If there are any questions, contact Headquarters Construction.



Rental Rate Blue Book Online

Prepared for
Nevada Department of
Transportation
February 2009

NDOT Intranet Homepage - Microsoft Internet Explorer provided by Nevada DOT

Address: http://intranet/newIntranet/default.aspx

Home || Admin || Engineering || Human Resources || Operations || Planning || Director

NEVADA DOT NDOT INTRANET

Featured Links - [Also Available on Sharepoint](#)

- Director's Office Updates
- E-mail IS HelpDesk
- HELP
- FTP Instructions
- Milepost Index Report
- MMS System - *password required*
- NDOT Mission, Vision, Core Values and Goals
- NDOT Organizational Chart
- NEATS
- NDOT Phone Book
- Web Mail and Remote Access

What's Up?

Over the next few weeks we will be removing all remaining content* from the intranet to NDOT's Sharepoint site. On the left are the featured links that you've used for this entire millennium. They will be disappearing one by one until they are gone. But don't fret, they will be on the [Sharepoint](#) site in a better organized form. So check back often to see what is no longer here.

The Intranet Menu will continue functioning for some time. But Intranet home pages are gone.

*Content: n. Just about anything on a web site that is not an application.

You've been deprecated!*

This site is being replaced by sharepoint and will eventually not be available. Start your transition now! For starters, you can go here for a different way to launch your NDOT applications: [NDOT Application Launch Pad](#). This link is also available on the sharepoint site.

*Deprecated: adj. Said of a program or feature that is considered obsolescent and in the process of being phased out, usually in favor of a specified replacement. Deprecated features can, unfortunately, linger on for many years but not this time.

To access the Rental Blue Book, click on [Sharepoint](#).

Page 1 Sec 1 1/18 At 9" Ln 23 Col 1

Start | office class... | Inbox - Micro... | Chapter 3 rev... | NDOT Intr... | Doc-equipme... | 3:17 PM

Home - NDOT Sharepoint Home - Microsoft Internet Explorer provided by Nevada DOT

Address: http://shpstrv1/default.aspx

Home Documents and Lists Create Site Settings Help

NEVADA DOT SharePoint Home

For technical Sharepoint problems, please contact the HelpDesk - HelpDesk@dot.state.nv.us
For Home Page questions or additions, please contact Meg Ragonese - MRagonese@dot.state.nv.us

Web Site Portals

- Application Launch Pad
- Web Mail and Remote Access
- Dashboard of NDOT Project Status
- PSAM
- IRWIN - *password required*
- NDOT Secure Meeting Portal
- Milepost Index Report
- Nevada State Level Emergency Operations Plan
- Financial Management Project Reports
- MMS System - *password required*

General NDOT Reference

- NDOT Organizational Chart

NDOT Division Web Sites

Alphabetic Name

- Accounting - 060
- Administrative Services - 001
- Civil Rights Office - 005
- Construction - 040
- Design Division - 010
- Director's Office - 002
- District One
- District Two
- District Three
- Environmental Services - 100
- Equipment Division - 737
- Financial Management Bureau - 003
- Flight Operations - 059
- Human Resources - 076
- Information Services - 067
- Intermodal Planning - 802
- Internal Audit - 007
- Location - 017
- Maintenance, Operations, Materials Division - 020
- Operations Analysis - 006
- Project Management - 015
- Public Information Office - 008

Click on [040 Construction](#)

Page 9 Sec 1 9/38 At Ln Col REC TRK EXT OVR

Start | office class... | Inbox - Micro... | Chapter 3 rev... | Home - ND... | Doc-equipme... | 3:20 PM

Home - NDOT HQ Construction Division - Microsoft Internet Explorer provided by Nevada DOT

Address: http://shp1sv1/040/default.aspx

Site Administration/Contact - Jeff Freeman- email: jfreeman@dot.state.nv.us

V&T RAILWAY 3/31/09



Announcements
There are currently no active announcements.

Links

- Blue Book Equipment Rental Rates - NDOT's Online Access
- NDOT Sharepoint Home
- Approved Concrete Mix Designs
- Materials Test Manual
- Work Zone Safety and Mobility Implementation Guide

Click on Blue Book Equipment Rental Rates-NDOT's Online Access

Security Alert

Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.

- The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.
- The security certificate date is valid.
- The security certificate has a valid name matching the name of the page you are trying to view.

Do you want to proceed?

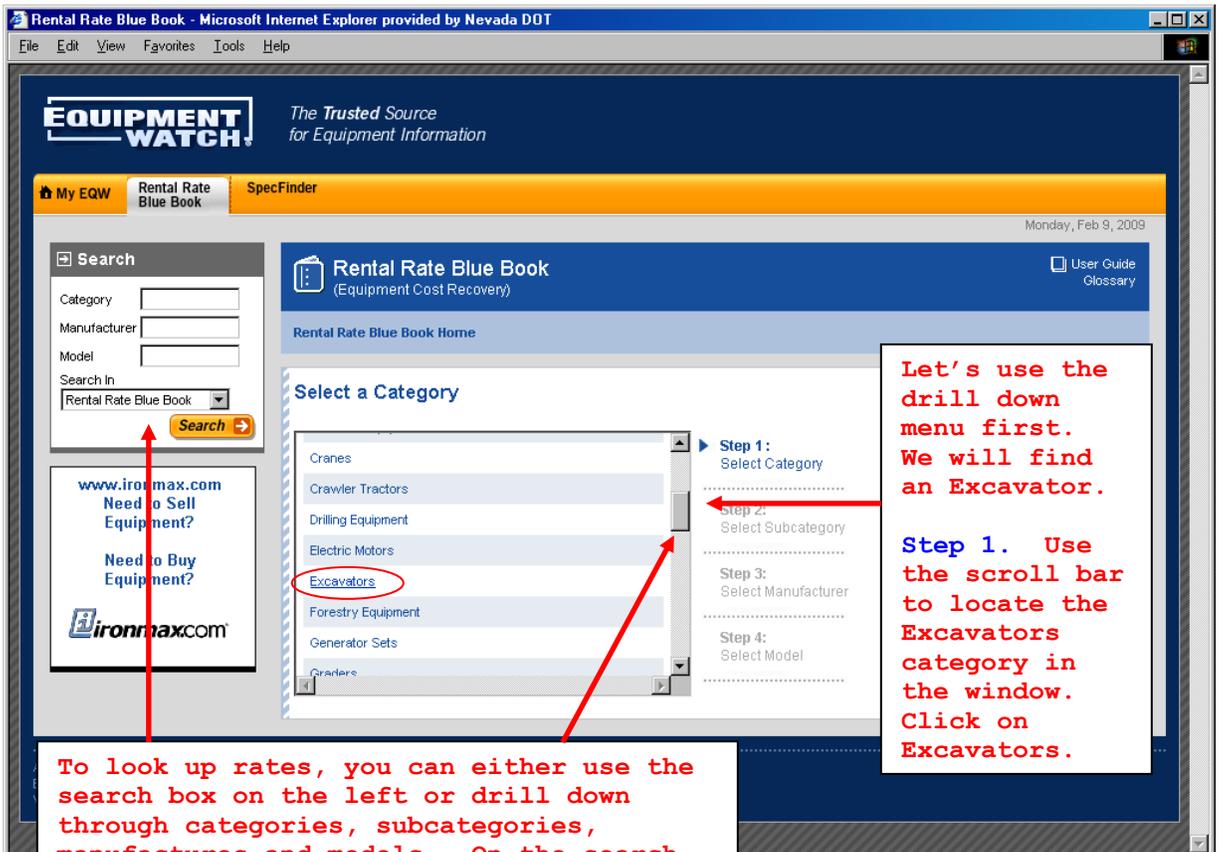
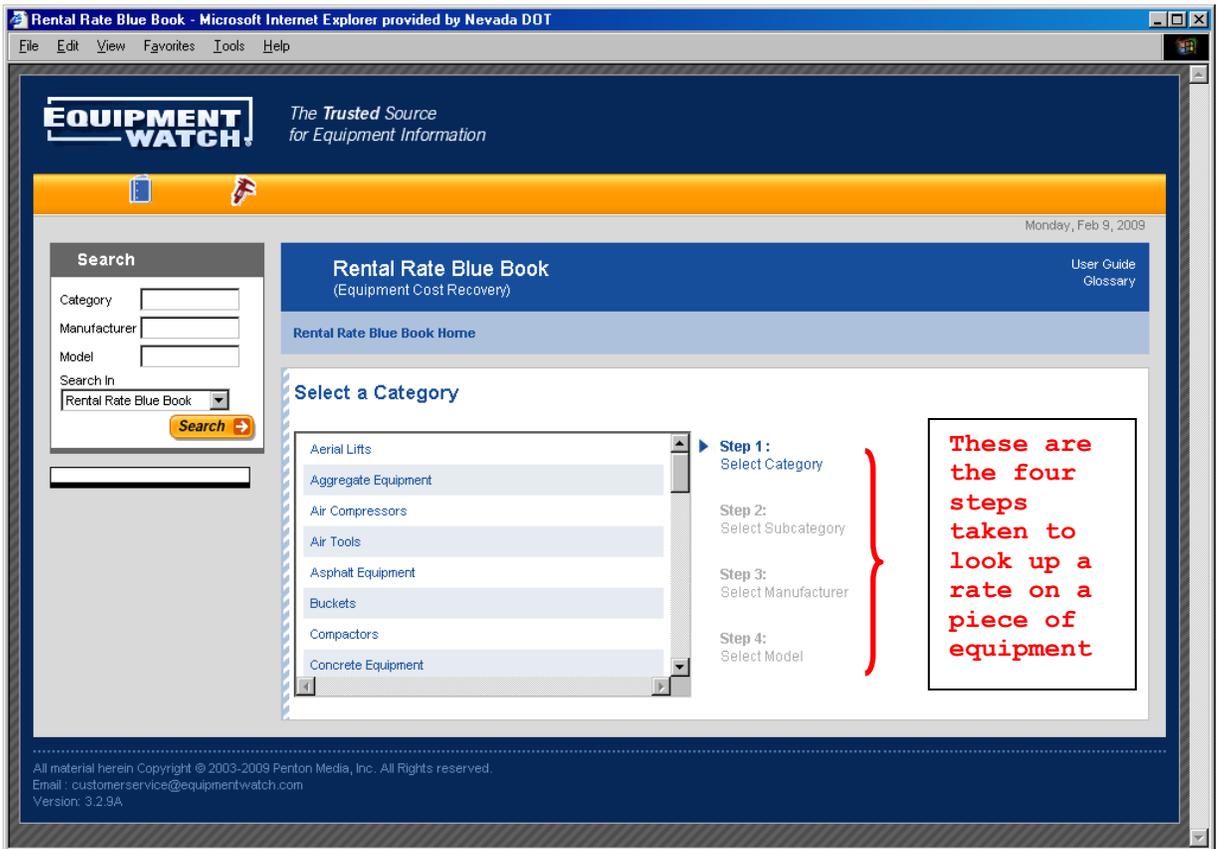
Click on Yes

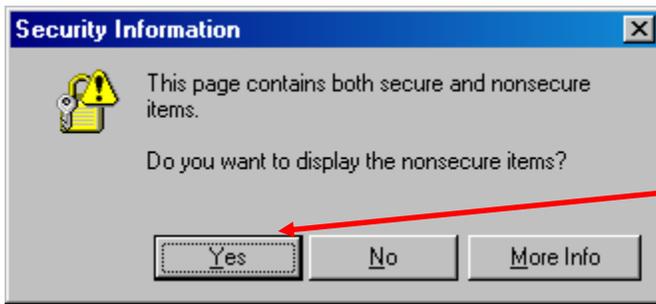
Security Information

This page contains both secure and nonsecure items.

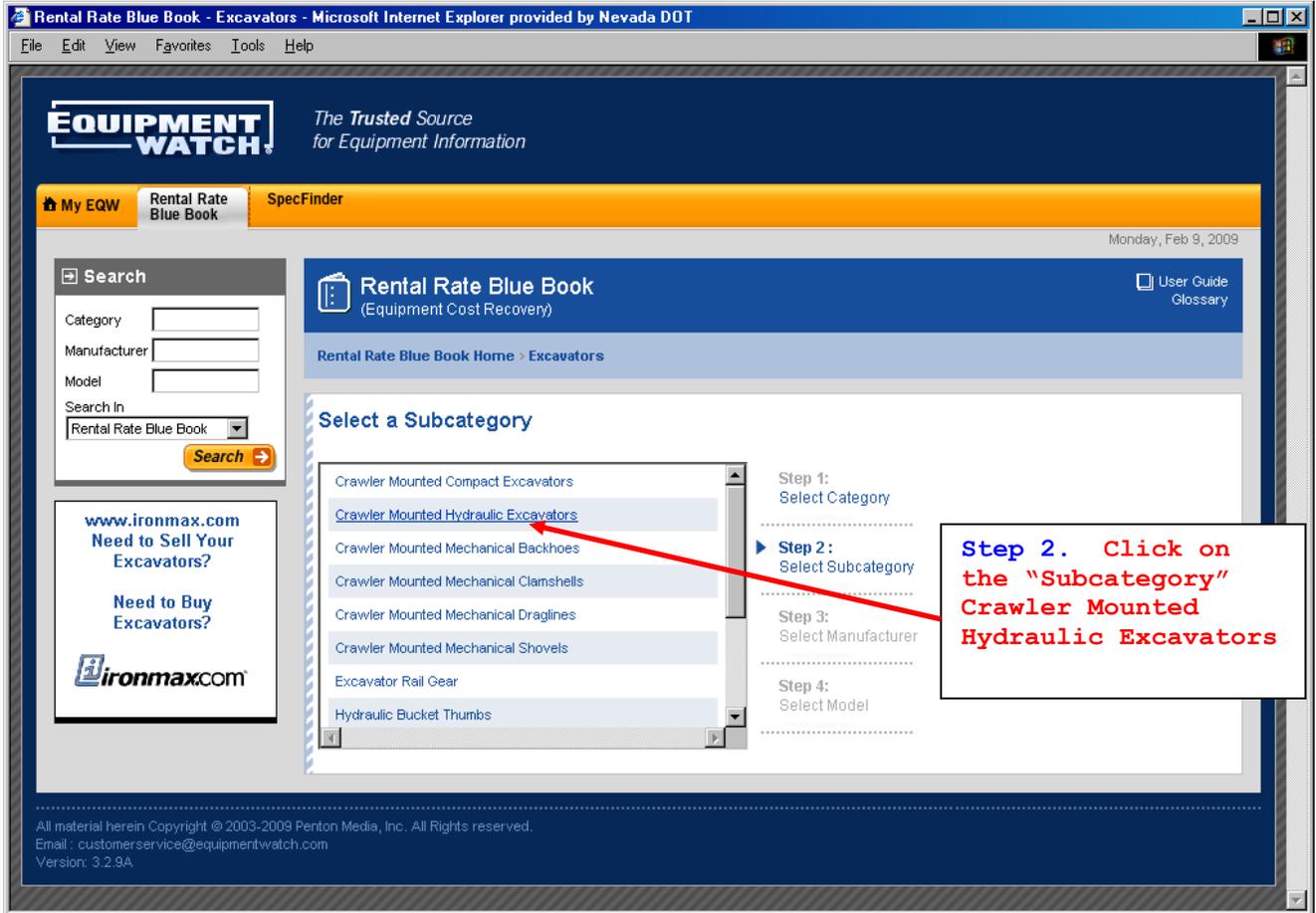
Do you want to display the nonsecure items?

Click on Yes

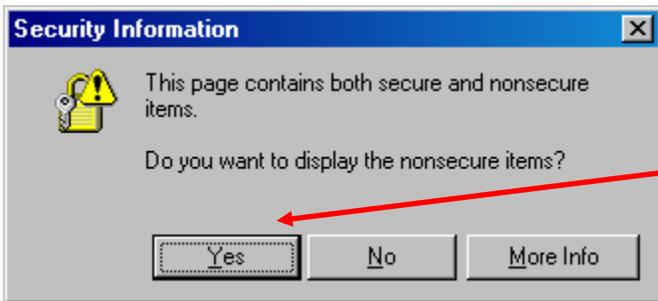




Click on Yes



Step 2. Click on the "Subcategory" Crawler Mounted Hydraulic Excavators



Click on Yes

Rental Rate Blue Book - Excavators - Crawler Mounted Hydraulic Excavators - Microsoft Internet Explorer provided by Nevada DOT

File Edit View Favorites Tools Help

EQUIPMENT WATCH The Trusted Source for Equipment Information

My EQW Rental Rate Blue Book SpecFinder

Monday, Feb 9, 2009

Rental Rate Blue Book
(Equipment Cost Recovery)

User Guide
Glossary

Rental Rate Blue Book Home > Excavators > Crawler Mounted Hydraulic Excavators

Select a Manufacturer

Akerman
Badger
Benati
Bobcat
Case
Caterpillar
Coyote
Daewoo

Step 1:
Select Category
.....
Step 2:
Select Subcategory
.....
Step 3:
Select Manufacturer
.....
Step 4:
Select Model

**Step 3.
Click on
Caterpillar**

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Need to Sell Your
Excavators?
Need to Buy
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Do you want to display the nonsecure items?

Click on Yes

Yes No More Info

Rental Rate Blue Book - Excavators - Crawler Mounted Hydraulic Excavators - Caterpillar - Microsoft Internet Explorer provided

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EQUIPMENT WATCH The Trusted Source for Equipment Information

My EQW Rental Rate Blue Book SpecFinder

Monday, Feb 9, 2009

Search

Category

Manufacturer

Model

Search In
Rental Rate Blue Book

Search →

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Need to Sell Caterpillar Equipment?
Need to Buy Caterpillar Equipment?
ironmax.com

Rental Rate Blue Book
(Equipment Cost Recovery)

User Guide
Glossary

Rental Rate Blue Book Home > Excavators > Crawler Mounted Hydraulic Excavators > Caterpillar

Select a Model

- 325 (Disc. 1994)
- 325 L (Disc. 1996)
- 325B L (Disc. 2003)
- 325C L (Disc. 2006)
- 325D L
- 330 (Disc. 1994)
- 330 L (Disc. 1996)
- 330B L (Disc. 2003)

Step 1: Select Category

Step 2: Select Subcategory

Step 3: Select Manufacturer

Step 4: Select Model

Step 4. Click on the model 325DL. In parenthesis after the model numbers you can also see when and if a model was discontinued.

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Click on Yes
This screen will come up each time you make a change to the screens that show on page 3-15.

Rental Rate Blue Book - Excavators - Crawler Mounted Hydraulic Excavators - Caterpillar - 325D L - Microsoft Internet Explorer p

Monday, Feb 9, 2009

Rental Rate Blue Book
(Equipment Cost Recovery)

User Guide
Glossary

Rental Rate Blue Book Home > Excavators > Crawler Mounted Hydraulic Excavators > Caterpillar > 325D L

Caterpillar 325D L
Crawler Mounted Hydraulic Excavators

Size Class:
28.1 - 33.0 MTons
Weight:
64,500 lbs.

See more data for this model:
Custom Cost Evaluator 0
Green Guide 0
Last Bid 0
Serial Number Guide 0
SpecFinder

Compare Similar Models

Configuration for 325D L

Power Mode: **Diesel** Bucket Capacity - Heaped: **1.44 cy**
Operating Weight: **29.24 MT** Net Horsepower: **188.0**

Equipment Notes: General Purpose bucket included in rate, u

Blue Book Rates

Rate Effective Dates: Jul 1, 2008 - Present

printable report

| | Ownership Costs | | | | Estimated Operating Costs | FHWA Rate |
|-----------------|-----------------|------------|----------|----------|---------------------------|-----------|
| | Monthly | Weekly | Daily | Hourly | | |
| Published Rates | \$12,580.00 | \$3,520.00 | \$880.00 | \$130.00 | \$65.45 | \$136.93 |

Adjustments

Here is the page with the Blue Book Rate. It has a lot of other useful information like size, class, weight, bucket capacity, Horsepower, etc.

The "breadcrumb" trail is a handy reference of your navigation. These are all clickable links.

Clicking the "Printable Report" will format the page so you can print the rate.

Use the rate for the time period of the FA.

Rental Rate Blue Book - Excavators - Crawler Mounted Hydraulic Excavators - Caterpillar - 325D L - Microsoft Internet Explorer p

Region (100%) - - - -

Model Year (2003: 95.1%) -\$616.42 -\$172.48 -\$43.12 -\$6.37

Ownership (105%) +\$598.18 +\$167.38 +\$41.84 +\$6.18

Operating (100%) - - - -

Total: \$12,561.76 \$3,514.90 \$878.72 \$129.81 \$65.45 \$136.82

For details, see Rate Element Allocation

Adjustments

Model Year: 2003

Region: Please Select
Canadian Regions Alaskan Regions

User Defined

Ownership: 105.0 %

Operating: %

Adjust Rates

Rate Element Allocation

| Element | Percentage | Value |
|---------------------------|------------|-----------------|
| Depreciation (ownership) | 38% | \$4,780.40 / mo |
| Overhaul (ownership) | 41% | \$5,157.80 / mo |
| CFC (ownership) | 13% | \$1,635.40 / mo |
| Indirect (ownership) | 8% | \$1,006.40 / mo |
| Fuel (operating) @ \$3.96 | 48% | \$31.27 / hr |

Revised Date: 2nd Half 2008

Once the Adjust Rates button is clicked, you can see the impact of your adjustments.

Used rate rounded to the nearest 10 cents, \$136.80

Enter Model Year

Do Not change Region

Do Not change Ownership

Do Not change Operating

Click Adjust Rates to get the used rate.

Rental Rate Blue Book - Excavators - Crawler Mounted Hydraulic Excavators - Caterpillar - 325D - Microsoft Internet Explorer p

File Edit View Favorites Tools Help

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Search

Category
 Manufacturer
 Model
 Search In
 Rental Rate Blue Book

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Caterpillar 325D L
 Crawler Mounted Hydraulic Excavators

Size Class:
28.1 - 33.0 MTons
 Weight:
64,500 lbs.

[Compare Similar Models](#)

See more data for this model:
 Custom Cost Evaluator
 Green Guide
 Last Bid
 Serial Number Guide
 SpecFinder

Configuration for 325D L

| | | | |
|-------------------|-----------------|---------------------------|----------------|
| Power Mode: | Diesel | Bucket Capacity - Heaped: | 1.44 cy |
| Operating Weight: | 29.24 MT | Net Horsepower: | 188.0 |

Equipment Notes: General Purpose bucket included in rate, unless otherwise noted.

Blue Book Rates

Rate Effective Dates: Always Use Current Rate

[printable report](#)

| Ownership Costs | | | | Estimated Operating Costs | FIHWA Rate |
|-----------------|--------|--------|--------|---------------------------|------------|
| Monthlr | Weeklr | Dailyr | Hourlr | Hourlr | Hourlr |

A useful feature of the Online Blue Book is "Compare Similar Models." This feature allows the user to compare other brands and models for a given size class. A common use for this would be if a Contractor has equipment not listed in the Blue Book. If you determine the size, simply select any model from that size and click the "Compare Similar Models" button to view other models.

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File Edit View Favorites Tools Help

My EQW Rental Rate Blue Book SpecFinder

Tuesday, Feb 10, 2009

Search

Category
 Manufacturer
 Model
 Search In
 Rental Rate Blue Book

www.ironmax.com
 Need to Sell
 If you want to view all 84 results, click "View All."

Compare Similar Models

Showing Results 1 - 20 of 84 | [View All](#)
 1 | 2 | 3 | 4 | 5

[printable report](#)

| Model | | | Ownership Cost | Estimated Operating Cost | Year Discontinued |
|---------------------------------------------|------------|-----------------------------------------------------------------------------------------|----------------|--------------------------|-------------------|
| Name | Power Mode | Specifications | Monthly | Hourly | Year |
| Akerman H14BLC (disc. 1992) | Diesel | Bucket Capacity - Heaped: 1.33 cy Operating Weight: 31.4 MT Net Horsepower: 209.0 | \$8,175.00 | \$86.47 | 1992 |
| Benati 3.28 LC (disc. 1991) | Diesel | Bucket Capacity - Heaped: 1.66 cy Operating Weight: 30.3 MT Net Horsepower: 172.0 | \$7,770.00 | \$59.15 | 1991 |
| Case 170B (disc. 1989) | Diesel | Bucket Capacity - Heaped: 1.00 cy Operating Weight: 31.4 MT Net Horsepower: 212.0 | \$6,135.00 | \$62.57 | 1989 |
| Case 170C (disc. 1992) | Diesel | Bucket Capacity - Heaped: 1.62 cy Operating Weight: 32.8 MT Net Horsepower: 201.0 | \$7,010.00 | \$62.06 | 1992 |

The list of similar models displays the rates and year if discontinued. In this example these are all excavators similar to a Caterpillar 325DL.

If you want to view all 84 results, click "View All."

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File Edit View Favorites Tools Help

EQUIPMENT WATCH The Trusted Source for Equipment Information

My EQW Rental Rate Blue Book SpecFinder

Search

Category: loader
Manufacturer:
Model:
Search In: Rental Rate Blue Book
Search

Rental Rate Blue Book
(Equipment Cost Recovery)

Rental Rate Blue Book Home

Select a Category

- Aerial Lifts
- Aggregate Equipment
- Air Compressors
- Air Tools
- Asphalt Equipment
- Buckets
- Compactors
- Concrete Equipment

Step 1: Select Category
Step 2: Select Subcategory
Step 3: Select Manufacturer
Step 4: Select Model

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Now let's find a piece of equipment using the "Search" feature instead of the drill down menu. Let's find a loader.
Step 1. Type the word "loader" (or even just the first few letters) in the window for "Equipment Category." You could optionally enter information into the other two boxes to narrow down your initial results. Click the "Search" button or hit the enter key. You'll see all the types of equipment in the Blue Book that contain the word "loaders"

Security Information

 This page contains both secure and nonsecure items.

Do you want to display the nonsecure items?

Click on Yes

Rental Rate Blue Book - Search Results for Category loader - Microsoft Internet Explorer provided by Nevada DOT

File Edit View Favorites Tools Help

My EQW Rental Rate Blue Book SpecFinder

Tuesday, Feb 10, 2009

Search

Category: loader
 Manufacturer:
 Model:
 Search In: Rental Rate Blue Book
 Search

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Rental Rate Blue Book
 (Equipment Cost Recovery)

User Guide
 Glossary

Rental Rate Blue Book Home > Search Results

Search Results

Your search for **Category** "loader" returned 23 matches.

Matching Categories (2)

- 1 Skid Steer Loaders
- 2 Wheel Loaders

Matching Subcategories (21)

Showing Results 1 - 20 of 21 | View All
 1 | 2

| Category | Subcategory |
|----------------------|----------------------------------------|
| 1 Crawler Tractors | Standard Crawler Loaders |
| 2 Crawler Tractors | Lgp Crawler Loaders |
| 3 Crawler Tractors | Compact Track Loaders |
| 4 Crawler Tractors | Crawler Loader Multi-Purpose Buckets |
| 5 Crawler Tractors | Crawler Loader Hydraulic Rear Rippers |
| 6 Crawler Tractors | Crawler Loader Rear Mounted Winches |
| 7 Crawler Tractors | Crawler Loader General Purpose Buckets |
| 8 Forestry Equipment | Crawler Mounted Log Loaders |

Note the results in this example display both "Matching Categories" and "Matching Subcategories." You can click on any of the blue links to see a list of manufacturers in that category or subcategory.

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File Edit View Favorites Tools Help

My EQW Rental Rate Blue Book SpecFinder

Tuesday, Feb 10, 2009

EQUIPMENT WATCH
 The Trusted Source for Equipment Information

Search

Category:
 Manufacturer:
 Model: dd
 Search In: Rental Rate Blue Book
 Search

www.ironmax.com
 Need to Sell Equipment?
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 ironmax.com

Rental Rate Blue Book
 (Equipment Cost Recovery)

User Guide
 Glossary

Rental Rate Blue Book Home

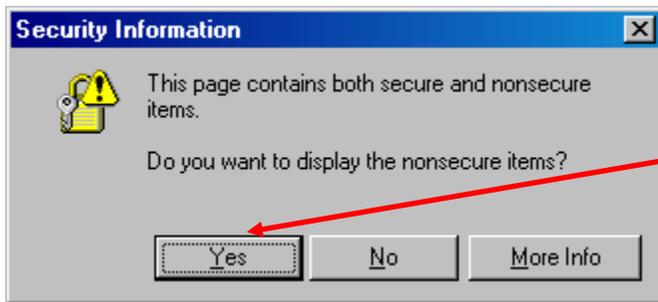
Select a Category

- Aerial Lifts
- Aggregate Equipment
- Air Compressors
- Air Tools
- Asphalt Equipment
- Buckets
- Compactors
- Concrete Equipment

Step 1: Select Category
 Step 2: Select Subcategory
 Step 3: Select Manufacturer
 Step 4: Select Model

If you decide to search on just the model, listing a portion of the model number will offer better results. It's possible that a Contractor will describe a model differently than the manufacturer, which is how we standardize model names in the Blue Book. You'll have to look through more listings to find the one you want, however. Try entering "dd."

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Click on Yes

Rental Rate Blue Book - Search Results for Model dd - Microsoft Internet Explorer provided by Nevada DOT

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Tuesday, Feb 10, 2009

Search

Category

Manufacturer

Model

Search In

Search

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ironmax.com

Rental Rate Blue Book
(Equipment Cost Recovery)

User Guide
Glossary

Rental Rate Blue Book Home > Search Results

Search Results

Your search for **Model "dd"** returned **93** matches.

Showing Results **1 - 20** of **93** | [View All](#)
1 | 2 | 3 | 4 | 5

Matching Models (93)

| | Category | Subcategory | Manufacturer | Model |
|----|---------------------|---------------------------------|---------------|----------------------|
| 1 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 11' XHD DOUBLE |
| 2 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 14' XHD DOUBLE |
| 3 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 16' XHD DOUBLE |
| 4 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 18' XHD DOUBLE |
| 5 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 20' XHD DOUBLE |
| 6 | Aggregate Equipment | Extra Heavy Duty Apron Feeders | Miscellaneous | 48" X 22' XHD DOUBLE |
| 7 | Aggregate Equipment | Double Impeller Impact Breakers | Miscellaneous | 4350 HD DOUBLE |
| 8 | Aggregate Equipment | Double Impeller Impact Breakers | Miscellaneous | 6372 HD DOUBLE |
| 9 | Aggregate Equipment | Pugmill Plant Accessories | Miscellaneous | 3" ASPHALT ADD |
| 10 | Aggregate Equipment | Pugmill Plant Accessories | Miscellaneous | 3" HOT ASPHALT ADD |
| 11 | Aggregate Equipment | Pugmill Plant Accessories | Miscellaneous | 5" ASPHALT ADD |

Note that the results contain any model with two consecutive "d's" in the model name, even if they are separated by a space.

Rental Rate Blue Book - Search Results for Model DL - Microsoft Internet Explorer provided by Nevada DOT

File Edit View Favorites Tools Help

My EQW Rental Rate Blue Book SpecFinder

Tuesday, Feb 10, 2009

Search

Category

Manufacturer

Model

Search In

Search

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Need to Buy Equipment?

ironmax.com

Rental Rate Blue Book
(Equipment Cost Recovery)

User Guide
Glossary

Rental Rate Blue Book Home > Search Results

Search Results

Your search for **Manufacturer "cat" Model "DL"** returned **8** matches.

Showing Results **1 - 8** of **8** | [View All](#)

1

Matching Models (8)

| | Category | Subcategory | Manufacturer | Model |
|---|------------|--------------------------------------|--------------|----------------------|
| 1 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 215D LC (Disc. 1992) |
| 2 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 219D LC (Disc. 1992) |
| 3 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 225D LC (Disc. 1992) |
| 4 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 231D LC (Disc. 1993) |
| 5 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 235D LC (Disc. 1994) |
| 6 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 324D L |
| 7 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 325D L |
| 8 | Excavators | Crawler Mounted Hydraulic Excavators | Caterpillar | 330D L |

Showing Results **1 - 8** of **8** | [View All](#)

1

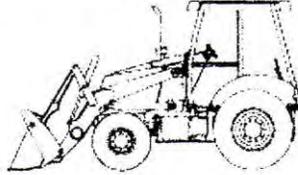
Since you usually know the manufacturer and model, an efficient way to use the search function is to enter the first few characters of the manufacturer name and model.

Results

Using Equipment Watch to calculate Standby Time.



Thursday, May 28, 2009



Case 480F LL (discontinued 1994)

Tractor-Loaders

Size Class:
Net Hp: 60 - 69 HP
 Weight:
7,733 lbs.

[Compare Similar Models](#)

Find the equipment needed following the steps on page 3-8 thru 3-20. So in this example we found a Case 480FLL. To calculate Standby time you need to enter the Rate Effective Dates, Model Year, and place a zero (0) percent in the Operating field, then hit the Adjust Rates button.

Configuration for 480F LL

Power Mode: Diesel Drive: 2WD
 Loader Bucket Capacity - Heaped: .75 cy Net Horsepower: 63.0
 Operator Protection: N/A

Equipment Notes: Includes General Purpose bucket and ROPS, unless otherwise noted.

Blue Book Rates

Rate Effective Dates: Jul 1, 1999 - Jun 30, 2000

Enter the correct Rate Effective Dates.

* Non-current (i.e. archived) rates: Jul 1, 1999 - Jun 30, 2000

| | Ownership Costs | | | | Estimated Operating Costs | FHWA Rate |
|--------------------|-------------------|-----------------|----------------|----------------|---------------------------|----------------|
| | Monthly | Weekly | Daily | Hourly | | |
| Published Rates | \$1,350.00 | \$380.00 | \$95.00 | \$14.00 | \$4.90 | \$12.57 |
| Adjustments | | | | | | |
| Region (100%) | - | - | - | - | | |
| Model Year (100%) | - | - | - | - | | |
| Ownership (105%) | +\$67.50 | +\$19.00 | +\$4.75 | +\$0.70 | | |
| Operating (100%) | | | | | | |
| Total: | \$1,417.50 | \$399.00 | \$99.75 | \$14.70 | \$4.90 | \$12.95 |

For details, see Rate Element Allocation

Adjustments

Model Year: 1987
 Region: Please Select
 Canadian Regions Alaskan Regions
 User Defined
 Ownership: 105.0 %
 Operating: 0 %

Enter the Model Year

Enter zero (0) percent in the Operating field. A zero is ONLY entered on standby time.

[Adjust Rates](#)

Hit the Adjust Rates button.

See page 3-22 for the next step in calculating standby time.

EQUIPMENT WATCH

Thursday, May 28, 2009



Case 480F LL (discontinued 1994)

Tractor-Loaders

Size Class:
 Net Hp: 60 - 69 HP
 Weight:
 7,733 lbs.

Compare Similar Models

Configuration for 480F LL

| | | | |
|----------------------------------|--------|-----------------|------|
| Power Mode: | Diesel | Drive: | 2WD |
| Loader Bucket Capacity - Heaped: | .75 cy | Net Horsepower: | 63.0 |
| Operator Protection: | N/A | | |

Equipment Notes: Includes General Purpose bucket and ROPS, unless otherwise noted.

Blue Book Rates

Rate Effective Dates: Jul 1, 1999 - Jun 30, 2000

* Non-current (i.e. archived) rates: Jul 1, 1999 - Jun 30, 2000

| | Ownership Costs | | | | Estimated Operating Costs | FHWA Rate |
|------------------------|-------------------|-----------------|----------------|----------------|---------------------------|---------------|
| | Monthly | Weekly | Daily | Hourly | | |
| Published Rates | \$1,350.00 | \$380.00 | \$95.00 | \$14.00 | \$4.90 | \$12.57 |
| Adjustments | | | | | | |
| Region (100%) | | | | | | |
| Model Year (1987: 95%) | -\$67.50 | -\$19.00 | -\$4.75 | -\$0.70 | | |
| Ownership (105%) | +\$64.12 | +\$18.05 | +\$4.51 | +\$0.66 | | |
| Operating (0%) | | | | | -\$4.90 | |
| Total: | \$1,346.62 | \$378.05 | \$94.76 | \$13.96 | \$0.00 | \$7.65 |

For details, see Rate Element Allocation

Adjustments

Model Year

Region
 Canadian Regions Alaskan Regions

User Defined

Ownership %

Operating %

The rate was reduced by putting the zero (0) percent in the Operating field. The next step is to take the new rate under FHWA Rate (7.65) and multiply by 50%. $7.65 \times .5 = 3.825$ rounded to the nearest 10 cents = 3.80. 3.80 will be the standby rate for this equipment.

**DOCUMENTATION REQUIREMENT
SECTION D
FORCE ACCOUNT WORK
OFFICEPERSON'S RESPONSIBILITY
(MATERIALS SECTION)**

Obtain copies of supplier's invoices from the Contractor to verify actual costs and quantities of materials used on the force account. To be eligible for payment, invoices for materials must:

- (1) Substantiate at least the total quantity of materials to be paid for on the force account.
- (2) Be extended to show totals and sales tax.
- (3) Must be dated or have a pick up date **prior** to the date on the force account sheet.

Record the invoice number on the force account sheet next to the materials listed.

For materials not specifically purchased for force account work, but are taken from the Contractor's stock, an affidavit may be supplied in lieu of an invoice. The affidavit must be signed by the Contractor and notarized. The affidavit must certify that such materials were taken from stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost. An illustration of an affidavit is shown on page 3-24.

No payment shall be made for materials used on force account until these documents have been supplied to the Resident Engineer. Freight charges for materials delivered for use on force account shall be paid if properly documented and included in the sub-total to which the markup is applied. State sales tax is to be included for reimbursement if it is properly documented on the materials invoice.

Sales tax amounts are not subject to the markup on materials costs. Complete all extensions and total the materials costs. The Contractor's percentage of material costs will be as specified in subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book).

Rev 10/10

Las Vegas Paving Corp
4420 S Decatur Blvd
Las Vegas, NV 89103
702-870-5567

June 20, 2009

Mr. Ed Homes
State Of Nevada
Department of Transportation
123 E Washington Ave
Las Vegas, NV 89101

RE Contract No. 3247 SR 160, Blue Diamond Road

Dear Mr. Homes;

I certify that the materials used on contract No. 3247 force account for Change Order No. 3 were taken from my stock. The quantity claimed was actually used, and the price and transportation claimed represent the actual cost as listed below:

| | | | |
|---------------------------|----------|---|--------------------|
| 24-inch RCP | 10 linft | @ | \$ 30.00 per linft |
| 24-inch Metal End Section | 1 each | @ | \$200.00 |

Signed:

Joe B. Wilson
Joe B. Wilson

6/20/09
Date

Joseph Henry Doll

6/20/09

Rev 10/10

**DOCUMENTATION REQUIREMENT
SECTION E
FORCE ACCOUNT WORK
OFFICEPERSON'S RESPONSIBILITY
(COMPLETED FORCE ACCOUNT)**

DAILY COSTS OF FORCE ACCOUNT sheets shall also be used when documenting "Claims for Adjustments and Disputes" as set forth in subsection 105.17 of the Standard Specifications for Road and Bridge Construction (Silver book). These amounts would not be payable until such time as the claim or dispute has been formally approved.

Each force account item shall have a separate file folder including the following documents:

- A. Force account sheets (Form No. 040-008) (prepared by **Inspector**)
- B. Fringe Benefit Statement (Form No. 052-062) (prepared by **Contractor**)
- C. Force Account Equipment Listing (Form No. 040-033) (prepared by **Contractor**) listing only the equipment that will be used on force account work
- D. Equipment Watch sheet shall be calculated, printed out and numbered (prepared by **Officeperson**) and attached to the Equipment Watch Recap sheet (Form #040-040)
- E. Equipment Watch Recap sheet, listing all Equipment Watch sheets (prepared by **Officeperson**)
- F. Force account recap (one for each AEB) (prepared by **Officeperson**)
- G. Extended Invoices (**original** or copy)/affidavit (**original**)

The **handwritten** force account sheet **signed by the Contractor** and submitted by the **Inspector** shall be the source document. The **Officeperson** shall enter the information into the computer and complete all the extensions. When the force account sheet is complete, the handwritten sheet will be attached to the back of the computerized force account sheet and they both will become the source document. **If the force account sheets will be done by hand and extended, then correction fluid or correction tape is not allowed.** If mistakes are made, line through the error and write in the corrected figure.

If a company is a service provider, they must complete a service provider form and the Resident Engineer will approve and sign. This form shall be submitted to Contract Compliance. The service provider will also provide certified payrolls. If the company is doing force account work, the labor will be based off the certified payrolls and the equipment rates will be based on Equipment Watch, not an invoice. If there are any questions concerning the service provider form, please call Contract Compliance.

All force account sheets must be checked by someone other than the person making the **original** extensions. The checker shall duplicate the same procedure **as the first person by checking payrolls, equipment rates, invoices and calculations.**

Total sums of A, B and C.

| | | | | | | | | |
|---------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------|--------------------------|---------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------|-------------------|-------------------|
| Contract No. <u>3333</u> | | STATE OF NEVADA | | Date Performed <u>3/25/09</u> | | | | |
| Change Order No. <u>003</u> | | DEPARTMENT OF TRANSPORTATION | | Report No. <u>1</u> of <u>1</u> | | | | |
| DAILY COSTS OF FORCE ACCOUNT | | | | | | | | |
| Description of Work: <u>Repairing Drainage problems @ "X" 100 + 30 RT</u> | | | | | | | | |
| Agreement Estimate Breakout No. <u>01</u> | | | Item No. <u>FA0 0001</u> | | | | | |
| (LABOR) | | | | | | | | |
| | Name | Classification | Hour | Rate | Vacation | Remote Area Pay | Total | |
| | Wayne Postma | Mason/Jrnyman | 4.0 | 24.91 | | | 99.64 | |
| | Terrence Pugh | Carpenter | 4.0 | 29.93 | | | 119.72 | |
| | | | | | | | | |
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| | | | | | | | | |
| Rates verified against payroll no. <u>5</u> | | Total Payroll | | | | | 219.36 | |
| for contractor: <u>Keep on Trucking</u> | | Labor Surcharge (see special provisions) @ <u>21.66</u> % | | | | | 47.51 | |
| | | (Mason/Jrnyman) other fringe benefits @ <u>9.60</u> /hr. for <u>4</u> hrs. | | | | | 38.40 | |
| for week ending: <u>3/28/2009</u> | | (Carpenter) other fringe benefits @ <u>9.80</u> /hr. for <u>4</u> hrs. | | | | | 39.20 | |
| | | () other fringe benefits @ /hr. for hrs. | | | | | | |
| | | () other fringe benefits @ /hr. for hrs. | | | | | | |
| | | () other fringe benefits @ /hr. for hrs. | | | | | | |
| | | Subsistence and/or travel | | | | | | |
| | | Subtotal..... | | | | | 344.47 | |
| | | + 25.00 % on labor costs..... | | | | | 86.12 | |
| Verified by: <u>Sherri Brown</u> | | Total cost of labor..... | | | | | (A) 430.59 | |
| (EQUIPMENT) | | | | | | | | |
| Description | | | Year | Page No. | Hours | Rate | | |
| Chevy Truck, 4x2, gas, 1 1/2 ton | | | 2003 | 1 | 4 | 28.70 | 114.80 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Rental rates obtained from: <u>Bluebook</u> | | | Other -Equipment Watch | | Subtotal..... | | 114.80 | |
| | | | | | + 20.00 % on equipment costs..... | | 22.96 | |
| | | | | | Total cost of equipment..... | | (B) 137.76 | |
| (MATERIALS) | | | | | | Invoice No. | | |
| 24-inch RCP 10 linft @ \$30.00/linft price per affidavit | | | | | | | 300.00 | |
| 24-inch End Section 1 @ \$200.00 price per affidavit | | | | | | | 200.00 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Approved: | | | | | | Subtotal..... | | 500.00 |
| | | | | | | + 20.00 % on material costs..... | | 100.00 |
| | | | | | | Sales tax (if paid) <u>0.00</u> %..... | | 0.00 |
| | | | | | | Total cost of materials..... | | (C) 600.00 |
| | | | | | | Total (A)+(B)+(C)..... | | 1168.35 |
| _____ State's Representative | | | | | | _____ Title | | |
| _____ Contractor's Representative | | | | | | _____ Title | | |
| NDOT 040-008 Rev. 10/01 | | | | | | Rates and extensions by <u>Sherri Brown</u> Checked by <u>Ted Smith</u> Payment no. _____ | | |

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION F
FORCE ACCOUNT
(UNIFORMED TRAFFIC CONTROL OFFICER)**

Uniformed Traffic Control Officers paid as force account shall be Highway Patrol (only). The information shall be entered in the Materials section with a 10% mark up as illustrated on page 3-29. Payment will be processed when the Highway Patrol submits an invoice as illustrated on page 3-30. After each force account sheet is completed it shall be listed on the FORCE ACCOUNT RECAP sheet as illustrated on page 3-31. There is no need to submit the completed force account to Headquarters Construction. The original force account, after the Contractor has signed and received a copy shall be filed in Section 1-Contract files, Division No. 6 as described in Chapter 1 (Organization of Project, etc.).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

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Contract No. 3245

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

Date Performed 6/30-7/01/09

Change Order No. _____

Report No. 1 of 1

DAILY COSTS OF FORCE ACCOUNT

Description of Work: Uniformed Traffic Control Officer

Agreement Estimate Breakout No. 01

Item No. 624 0010

| (LABOR) | Name | Classification | Hour | Rate | Vacation | Remote Area Pay | Total |
|---------|------|----------------|------|------|----------|-----------------|-------|
| | | | | | | | |
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| | | |
|------------------------------------|-------------------------------------------------------|-----|
| Rates verified against payroll no. | Total Payroll | |
| for contractor: | Labor Surcharge (see special provisions) @ _____ % | |
| | () other fringe benefits @ _____ /hr. for _____ hrs. | |
| for week ending: | () other fringe benefits @ _____ /hr. for _____ hrs. | |
| | () other fringe benefits @ _____ /hr. for _____ hrs. | |
| | () other fringe benefits @ _____ /hr. for _____ hrs. | |
| | () other fringe benefits @ _____ /hr. for _____ hrs. | |
| | Subsistence and/or travel | |
| | Subtotal..... | |
| | + 25.00 % on labor costs..... | |
| Verified by: | Total cost of labor..... | (A) |

| (EQUIPMENT) | Description | Year | Page No. | Hours | Rate | |
|-------------|-------------|------|----------|-------|------|--|
| | | | | | | |
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|-----------------------------|----------|------------------------|-----------------------------------|
| Rental rates obtained from: | Bluebook | Other -Equipment Watch | Subtotal..... |
| | | | + 20.00 % on equipment costs..... |
| | | | Total cost of equipment..... (B) |

| (MATERIALS) | Invoice No. | |
|------------------|-------------|--------|
| NHP 6/30-7/01/09 | LV05-074 | 513.00 |
| | | |
| | | |
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| | | |
| | | |
| | | |

Approved:

Sam Jones State's Representative *R.E.* Title

Rick Hue Contractor's Representative *Super* Title

| | |
|----------------------------------|------------|
| Subtotal..... | 513.00 |
| + 10.00 % on material costs..... | 51.30 |
| Sales tax (if paid) 0.00 %..... | 0.00 |
| Total cost of materials..... | (C) 564.30 |
| Total (A)+(B)+(C)..... | 564.30 |

Rates and extensions by Joe Spade

Checked by Sally White

Payment no. 10

NDOT
040-308
Rev. 10/01

**DEPARTMENT OF MOTOR VEHICLE AND PUBLIC SAFETY
HIGHWAY PATROL DIVISION**

Invoice
SUPPLEMENT TO SECURITY SERVICES CONTRACT #LV05-074
 Frebner
 June 30, 2009.

| NAME | ID NO | BUDGET ACCOUNT | HOURS WORKED | DOLLAR AMOUNT |
|------------------------------------------|-------|----------------|--------------|---------------|
| 1. Trip Corcoran 6/30-7/1/09 | 548 | 4713 | 9.0 | \$513.00 |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
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| 7. | | | | |
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| 10. | | | | |
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| | | | | |
| CONTRACT TOTALS (DUE AND PAYABLE) | | | 9.0 | \$513.00 |

| | | | | |
|---------------------------|-------|----------|-------|-------|
| DISTRIBUTION OF CONTRACT | #4712 | #4713 | #4726 | #4728 |
| DEPOSIT TO BUDGET ACCOUNT | | \$513.00 | | |

FORM 138a

**DOCUMENTATION REQUIREMENT
SECTION G
FORCE ACCOUNT
(PARTNERING)**

The costs for providing the Partnering Facilitator, Partnering Trainer, and Workshop Sites will be paid by the Department. The Contractor shall pay all initial costs incurred. The Department will reimburse the Contractor all of the costs as evidenced by copies of invoices as illustrated on page 3-34, from the Facilitator, Trainer, and Workshop Site provider. Markup or profit added to the invoices will not be allowed. All other costs associated with Partnering shall be paid separately by the party incurring the cost. Partnering will be paid by force account, as illustrated on page 3-33. An illustration of the FORCE ACCOUNT RECAP sheet is on page 3-35. There is no need to submit the completed force account to Headquarters Construction. The original force account, after the Contractor has signed and received a copy shall be filed in Section 1-Contract files, Division No. 6 as described in Chapter 1 (Organization of Project, etc.). **Make sure to check the Special Provisions to assure there are no changes in the above information.**

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).



February 20, 2007

Mr. Randy Rosenberg, Proj. Mgr.
 LAS VEGAS PAVING CORP.
 4420 South Decatur Blvd.
 Las Vegas NV 89103-5803

Our Invoice No.: 710
Project: US-95 Widening
 Partnering Workshop with NDOT
Workshop Date: February 12, 2007
Location: Canyon Gate Club, Las Vegas, NV

Facilitation Fee:

Preparation of workshop materials, agenda, etc.
 Pre-workshop communications and arrangements.
 LD telephone calls with all key representatives.
 Facilitate 1/2-day tailored workshop.
 Prepare *Summary Report*..... \$2,000.00

Other Expenses:

| | |
|------------------------------------------------------------------------------|------------|
| Airfare (\$59.40 + \$81.90) | \$141.30 |
| Hotel (-0-) & Meals (8:00) | 8.00 |
| Rental Car, Airport Pkg, Gas (\$56.19 + \$10.00 +\$2) | 68.19 |
| Materials, ___ attendees @ \$5.00 each | -0- |
| Copies of Project Charters in plaques and Summary Reports (plus S&H)..... | <u>-0-</u> |

Subtotal..... \$ 217.49

TOTAL AMOUNT DUE..... \$2,217.49

Receipts enclosed.

**DOCUMENTATION REQUIREMENT
SECTION H
“IN-KIND” FORCE ACCOUNT WORK**

On some contracts, in lieu of a monetary contribution to NDOT for a portion of the work, local entities (city, county, railroad, etc.) perform work utilizing their own forces, referred to as “in-kind” services. The local entity is credited with the amount calculated on a force account basis. At the completion of the contract, the entity is either billed for or refunded the difference between their portion and the amount of “in-kind” services performed.

For force account work performed with “in-kind” services, the source documentation requirement for any work to be paid on a force account basis is the DAILY COSTS OF FORCE ACCOUNT (Form No. 040-008), to be completed as described below and on page 3-33 and illustrated on page 3-34 thru 3-37.

1. Record the contract number, date, change order number, description of work, AEB number and item number. The **Inspector** must complete all this information so the **Officeperson** can identify the work done.
2. Record the names, classification and hours worked of each person performing work on the force account. Overtime hours shall be listed separate from straight time hours.
3. Record the equipment being used and the actual hours worked. Record the year and a complete description of each piece of equipment such as make, model, horsepower, capacity, size, etc. Also record any attachments and give a description. Prior to recording the hours involved, the **Inspector** should be thoroughly familiar with subsection 109.03 of the Standard Specifications for Road and Bridge Construction (Silver book) as related to standby time on equipment rental.
4. Record the materials used by giving a complete description and the quantities used on the force account work.
5. Review the force account sheet with the local entity and obtain their signature after the work for the day is completed. Do not fill in hourly rates, extended amounts, or material prices at this time, but turn the partially completed sheet in to the field office. After the sheets are fully extended, a copy shall be forwarded to the local entity.
6. Obtain the actual hourly labor rates from a letter submitted by the local entity’s treasurer. Make certain the actual wage rates verified do not include any additives. Once labor rates have been obtained, complete all extensions and total the labor costs. No markup is allowed for labor for “in-kind” force account.
7. Obtain hourly rates for each piece of equipment listed by using FEMA rates supplied by Headquarters Construction or local entity supplied equipment rates, provided the rates are comparable with Equipment Watch rates. If a particular type of equipment is not shown on the FEMA list, contact Headquarters Construction for the necessary rate. Headquarters Construction has access to sources for equipment rentals for this purpose. When equipment rates have been obtained, complete all extensions and total the equipment costs. No markup is allowed for equipment for “in-kind” force account.

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8. Obtain copies of suppliers' invoices to verify actual costs and quantities of materials used on the force account. Invoices for materials purchased must be extended. Invoices or affidavits for materials taken from stock must be submitted to substantiate at least the total quantity of materials to be paid for on the force account. No payment shall be made for materials used on force account until these documents have been supplied to the Resident Engineer. When invoices are obtained, complete all extensions and total materials costs. No markup is allowed for materials for "in-kind" force account.
9. Total sums of A, B and C. All force account sheets must be checked by someone other than the person making the original extensions. The checker shall duplicate the same procedure as the first person by checking labor and equipment rates, invoices and arithmetic.
10. After the force account sheet(s) have been completed and checked for accuracy in the manner described, forward a copy to the local entity and send the **original** to Headquarters Construction for processing of payment.
12. All force account submitted to Headquarters Construction for payment shall include the following:
 - A. Force account sheets (Form No. 040-008) (prepared by **Inspector**)
 - B. Letter indicating labor rates (prepared by **local entity**)
 - C. Force Account Equipment Listing/FEMA equipment rates (obtained from local entity or Headquarters Construction) equipment specific to force account or an agreement
 - D. Force account recap (prepared by **Officeperson**)
 - E. Extended invoices (**original** or copy)

Upon receipt of the completed force account sheets, Headquarters Construction shall review and process for payment. The "in-kind" agreement with the local entity will define the payment schedule (monthly, completion, etc.). **Inspectors** shall note completion of final payment to Headquarters Construction, who requests a final audit of the contract costs.

For "in-kind" contracts involving railroad companies as the local entity, force account sheets shall be prepared by Right-of-Way or Utility **Inspector** and forwarded to the Right-of-Way Division for processing of payment. All other local entity force account sheets shall be processed through Headquarters Construction. If a contract includes, both a railroad and other local entity (City, County, etc.), the railroad force account work shall be forwarded to Right-of-Way and the remaining force account shall be forwarded to Headquarters Construction for processing of payment.

The **handwritten** force account sheet **signed by the Contractor** and submitted by the **Inspector** shall be the source document. The **Officeperson** shall enter the information into the computer and complete all the extensions. When the force account sheet is complete, the handwritten sheet will be attached to the back of the computerized force account sheet and they both will become the source document. **If the force account sheets will be done by hand and extended, then correction fluid or correction tape is not allowed.** If mistakes are made, line through the error and write in the corrected figure.

Lyon County Road Dept. Employees List

| ID No. | Name | Title | Reg. Pay | Overtime pay |
|---------------|---------------|----------------|-----------------|---------------------|
| 507 | Jim Rogers | Mechanic | \$18.63 | \$27.00 |
| 641 | Joe Moore | Welder | \$23.79 | \$34.47 |
| 866 | Bill Dixon | Road Worker II | \$16.89 | \$25.53 |
| 1123 | Mike Woods | Crew Foreman | \$26.61 | \$38.56 |
| 1363 | Ron Gate | Road Worker II | \$17.74 | \$26.61 |
| 1972 | Bruce Stevens | Maintainer II | \$20.58 | \$29.82 |
| 2813 | Alan Parin | Admin Clerk | \$13.28 | \$19.92 |
| 3170 | Ron Block | Road Worker I | \$18.63 | \$27.00 |
| 3336 | Carl Weed | Road Worker II | \$16.89 | \$25.53 |
| 4300 | David Diehl | Maintainer II | \$20.58 | \$29.82 |

I certify wages are true and accurate *Lulu Malzeet*
 Lyon County Treasurer

5-2-08
 Date

Road Dept Equipment List

| <i>Equ. No.</i> | <i>Year</i> | <i>Equipment Description</i> | <i>Usage Rate</i> |
|-----------------|-------------|----------------------------------|-------------------|
| 0 | 0 | NO-EQUIPMENT | \$0.00 |
| 1 | 1991 | FORD PICKUP | \$5.00 |
| 2 | 1973 | INTERNATIONAL PICKUP | \$5.00 |
| 3 | 1983 | FORD PICKUP 1/2 TON | \$5.00 |
| 4 | 1982 | FORD PICKUP | \$5.00 |
| 5 | 1991 | FORD F350 | \$5.00 |
| 6 | 1978 | CHEVY PICKUP | \$5.00 |
| 7 | 1995 | FORD PICKUP 3/4 TON | \$5.00 |
| 8 | 1991 | FORD PICKUP 1 TON | \$5.00 |
| 9 | 1991 | FORD TAURUS | \$5.00 |
| 10 | 1975 | CAT MOTOR PATROL | \$51.00 |
| 11 | 0 | PORTABLE LINCOLN WELDER | \$5.00 |
| 12 | 1987 | CHEVY PICKUP 3/4 TON | \$5.00 |
| 13 | 1970 | DODGE PICKUP | \$5.00 |
| 14 | 1952 | CHEVY FLATBED | \$5.00 |
| 15 | 1981 | GMC PICKUP | \$5.00 |
| 16 | 1990 | INTERNATIONAL STAKE TRUCK | \$20.00 |
| 17 | 1974 | KENWORTH TRACTOR DIESEL | \$36.00 |
| 18 | 1975 | INTERNATIONAL DUMP TRUCK | \$25.00 |
| 19 | 1975 | CHEVY DUMP TRUCK | \$25.00 |
| 20 | 1975 | INTERNATIONAL TRACTOR DIESEL | \$36.00 |
| 21 | 1971 | INTERNATIONAL DUMP TRUCK | \$25.00 |
| 22 | 1974 | INTERNATIONAL DUMP TRUCK | \$25.00 |
| 23 | 1978 | INTERNATIONAL DIESEL WATER TRUCK | \$40.00 |
| 24 | 1961 | INTERNATIONAL DISTRIBUTOR TRUCK | \$35.00 |
| 25 | 1976 | WHITE TRACTOR DIESEL | \$36.00 |
| 26 | 1953 | INTERNATIONAL DUMP TRUCK | \$15.00 |
| 27 | 1965 | DODGE DUMP TRUCK (SANDER) | \$25.00 |

| <i>Equ. No.</i> | <i>Year</i> | <i>Equipment Description</i> | <i>Usage Rate</i> |
|-----------------|-------------|--------------------------------|-------------------|
| 28 | 1966 | INTERNATIONAL WATER TRUCK | \$25.00 |
| 29 | 1969 | CHEVY DUMP TRUCK (SANDER) | \$25.00 |
| 30 | 1971 | INTERNATIONAL DUMP TRUCK | \$25.00 |
| 31 | 1972 | CAT 950 LOADER | \$39.00 |
| 32 | 1969 | CAT 12F MOTOR PATROL | \$30.00 |
| 33 | 1990 | JOHN DEER 510 BACKHOE | \$39.00 |
| 34 | 1983 | CAT 12G MOTOR PATROL | \$51.00 |
| 35 | 1979 | CAT D6 DOZER | \$54.00 |
| 36 | 1988 | CAT 12G MOTOR PATROL | \$51.00 |
| 37 | 1988 | CAT 12G MOTOR PATROL | \$51.00 |
| 38 | 1955 | MARLOW 4" PUMP | \$10.00 |
| 39 | 1984 | SWEEPSTER BROOM | \$10.00 |
| 40 | 1963 | GALLION STEEL ROLLER | \$11.00 |
| 41 | 0 | CAT 3304 GENERATOR | \$10.00 |
| 42 | 1982 | HONDA GENERATOR | \$5.00 |
| 43 | | WAYNE PORTABLE COMPRESSOR | \$5.00 |
| 44 | 1980 | FORD COURIER UTILITY BED | \$5.00 |
| 45 | 1988 | DEUTZ ALLIS TRACTOR W/ MOWER | \$25.00 |
| 46 | 1958 | D8 CAT DOZER | \$40.00 |
| 47 | 1984 | CHEVY DUMP TRUCK (CEMETERY) | \$25.00 |
| 48 | 1970 | MILLER TILT TOP TRAILER | \$7.00 |
| 49 | | DEUTZ GORMAN 4" PUMP | \$10.00 |
| 50 | 1993 | RANCO BOTTOM DUMP TRAILER | \$12.00 |
| 51 | 1965 | WISCONSIN POWER BROOM | \$10.00 |
| 52 | | SWEEPSTER PULL BROOM | \$10.00 |
| 53 | 1980 | CAT 950 LOADER | \$39.00 |
| 54 | 1966 | BARNES PUMP | \$10.00 |
| 55 | 1979 | CHEVY PICKUP (SHOP TRUCK) | \$5.00 |
| 56 | 1985 | FORD PUMP (STATE PURCHASING)6" | \$5.00 |
| 57 | 0 | INGERSOLE RAND COMPRESSOR | \$0.00 |

Wednesday, December 23, 2007

Page 2 of 5

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CHAPTER 4
Removal Items

| SECTION A | PAGE |
|-----------------------------------------------------------|-----------|
| Instructions..... | 4-1 |
| SECTION B | |
| Structure List..... | 4-2 – 4-3 |
| SECTION C | |
| Index and Initial Key..... | 4-4 |
| SECTION D | |
| Each Item | |
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| Remove and Reset Item listed on a structure list..... | 4-7 |
| SECTION E | |
| Linear Foot Item | |
| Remove and Reset Item listed on a structure list..... | 4-8 |
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| Linear Foot Item listed on a structure list..... | 4-10 |
| SECTION F | |
| Mile or Station Item | |
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| Square Foot or Square Yard Item | |
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| Cubic Foot or Cubic Yard Item | |
| Cuyd Item listed on a structure list..... | 4-13 |

Rev 04/11

DOCUMENTATION REQUIREMENT
SECTION A
REMOVAL ITEMS

Removal items (201 and 202) shall be documented in a REMOVAL book. Documentation is different for each unit of measure (UOM). All removal items must be counted, measured, calculated, etc. prior to or during removal.

To setup the field books, the information on removal items shall be found in the contract plans on the Main Structure list, or on a Removal Structure list, or on the Estimate of Quantities. An illustration of a Removal Structure list is shown on pages 4-2 thru 4-3 and an illustration of an Estimate of Quantities is shown in Chapter 2 (Setting up a Contract, Book Format, etc.).

Documentation for only a few selected removal items are illustrated in this chapter. Documentation for practically any removal item can be provided by setting up the books in the same manner according to the **UOM**. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following examples, please call Headquarters Construction for assistance.

Any items requiring measurements or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be set up according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
REMOVAL ITEMS
(BOOK INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

| Index | | Initial Key | | |
|-------|------------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4 | Removal of Trees (6-inches to 12-inches) | SB | Dheri Brown | Tech IV |
| 6 | Remove END Section | JD | Joel Dougherty | Tech III |
| 8 | Remove & Reset Guardrail END Treatment | TC | Terri Carson | Tech I |
| 10-14 | Remove & Reset Conc Barrier Rail | MD | Mary Davis | Tech I |
| 20-25 | Removal of Bituminous Surface | VT | Van Thomas | Tech II |
| 30-40 | Removal of Bit. Surface (Cold Milling) | | | |
| 44 | Removal of Composite Surface | | | |
| 48 | Removal of fence | | | |
| 50-55 | Remove & Reset Chain-Link Fence | | | |
| 58-62 | Remove & Reset Guardrail | | | |
| 75-76 | Book Recap. | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
REMOVAL ITEMS
(WHEN PAID BY EACH)**

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on pages 4-2 thru 4-3 and has each item listed separately. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and the station and plan for each location if indicated on a structure list. If a removal item with a UOM of Each is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the trees to be removed, counted by, date counted, trees removed, date, initials, stations and AEB# if not already entered, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No. 201 0512 Item: Removal of Trees (6" to 12") Plan Qty: 2 EACH | | | | Sig Fig = 1 | | | | 4 | | |
|-----------------------------------------------------------------------------|------|---------------------|------------|--------------|---------------|--------------|-----------|------|---------|---------|
| Station | Plan | Trees to be Removed | Counted By | Date Counted | Trees Removed | Date Removed | Inspector | AEB# | Permit# | Remarks |
| 'BD" 55+43.72 RT | 1 | 1 | JD | 6-10-08 | 1 | 6-12-08 | JD | 2 | 19 | |
| 'BD" 56+72.94 LT | 1 | | | | | | | 2 | | |
| Page total: | | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the same UOM.

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on the structure list from the contract plans as shown on pages 4-2 thru 4-3 and has each item listed separately. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and the station and plan for each location if indicated on a structure list. If a removal item with a UOM of Each is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, qty (removed), date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 202 0076 Item: Remove End Section Plan Qty: 5 EACH | | | | Sig fig = 1 | | | 6 |
|-------------------------------------------------------------------|----------|---------|------|-------------|------|---------|---|
| Station | Plan Qty | Date | Insp | AEB# | PMT# | Remarks | |
| 'X' 310+62.92, 88.95' LT | 1 | 7-28-08 | TC | 4 | 23 | | |
| 'X' 311+93.96, 98.22' LT | 1 | 7-31-08 | TC | 4 | 23 | | |
| 'BD' 57+89.98, 88.44' LT | 1 | 8-25-08 | TC | 4 | 25 | | |
| 'BD' 57+98.14, 85.41' RT | 1 | | | 4 | | | |
| 'Pe' 62+29.53, 80.15' RT | 1 | | | 4 | | | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on pages 4-2 thru 4-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Remove and Reset headings, page total in the bottom left-hand corner of the page, the AEB number, and the station for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, remove and reset work being done, **entered in .5 increments**, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No. 202 0417 | | | | Sig fig = 1 | | | 8 |
|------------------------------------|--------|-----|---------|-------------|------|------|---------|
| Item. Remove & Reset Guardrail END | | | | 50% Removed | | | |
| Treatment | | | | 50% Reset | | | |
| Plan Qty: 2 Each | | | | | | | |
| Station | | Qty | Date | Insp | AEB# | Pmt# | Remarks |
| "Lne" 363+20.47 LT | Remove | .5 | 8-18-08 | MD | 9 | 25 | |
| | Reset | .5 | 8-19-08 | MS | 9 | 25 | |
| "Lne" 367+32.02 LT | Remove | | | | 9 | | |
| | Reset | | | | 9 | | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

All 201 and 202 items shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on pages 4-2 thru 4-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Remove and Reset, page total in the bottom left-hand corner of the page, the AEB number and the station to station and plan if indicated on a structure list. If an item with a UOM of Linft is not on a structure list, omit the plan column. **Skip at least one line between areas on the same page. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB#, if not already entered, meas linft, pay qty for remove and reset, date, initials and any remarks that are needed. **Skip at least one line between areas on the same page.**

Note: After each section of fence has been completed, the final in-place measurement, date, and initials of the person responsible for the measurements shall be documented. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | Plan | meas Linft | Remove | Reset | Pay Qty | Final in-place meas. | Date | Insp | AEB* | Pmt* | Remarks |
|------------------------------------------------------------------------------------|------|------------|--------|-------|---------|----------------------|------|------|------|------|----------|
| Item No: 202 1036 Item: Remove & Reset Chain-Link Fence Plan Qty: 1000 Linft | | | | | | | | | | | |
| Sig fig = 1 50 50% Remove 50% Reset | | | | | | | | | | | |
| BD' 57+63.45 TO | 500 | 500 | Remove | | 250 | 9-10-08 | TS | | 2 | | |
| BD' 62+63.45 LT | | | Reset | | 250 | 9-11-08 | TS | | 2 | | |
| | | | | | 500 | 9-15-08 | TS | | 2 | | complete |
| BD' 58+90 TO | 200 | 212 | Remove | | 106 | 9-10-08 | TS | | 2 | | |
| BD' 60+90 RT | | | Reset | | | | | | | | |
| BD' 61+00 TO | 100 | | Remove | | | | | | 2 | | |
| BD' 62+00 LT | | | Reset | | | | | | 2 | | |
| Page total: | | | | | | | | | | | |

This illustration shows a remove and reset fence, documented with a pay qty of 50% for remove and 50% for reset. The pay qty is based on the measured linft of fence to be removed.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION E
REMOVAL ITEMS
(WHEN PAID BY LINEAR FOOT)**

Removal items (201 and 202) shall be documented in a **REMOVAL** book.

The following is an illustration for an item with a UOM of Linft.

The illustration on this page shows a remove & reset item that is not located on a structure list shown on pages 4-2 thru 4-3 of the contract plans. This item will be listed on the Estimate of Quantities, illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Remove and Reset headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Linft is located on a structure list, insert the plan column between station to station and meas linft. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, remove and reset quantity (pay qty), date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: When the removal is complete for a measured area, payment for 50% of the item is allowed. The remaining 50% shall be paid when the reset or replacement is complete. When the remove and reset is complete, the final in-place measurement, date, and initials of the person responsible for the measurements shall be documented. It is acceptable to pay .5 on remove and reset as long as the total meas. linft for a section equals a whole number. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | meas Linft | | Pay Qty | Final In-Place meas | Date | Insp | Age# | Pay# | Remarks |
|----------------------------------------------------------------------------------------------------------------------------------|------------|--------|---------|---------------------|---------|------|------|------|----------|
| Item No: 202 1052 Item: Remove & Reset Conc Barrier Rail Plan Qty: 3190 Linft Sig Fig = 1 14 50% Remove 50% Reset | | | | | | | | | |
| Line 366+89.22 To | 283 | Remove | 141.5 | | 8-17-08 | JD | 9 | 25 | |
| Line 369+72.22 LT | | Reset | 141.5 | 160 | 8-19-08 | JD | 9 | 25 | |
| | | | | 283 | 8-19-08 | JD | 9 | | Complete |
| Line 359+68 To | 701 | Remove | 361 | | 8-17-08 | JD | 9 | 25 | |
| Line 366+89 LT | | Reset | 360 | 150 | 8-19-08 | JD | 9 | 25 | |
| | | | | 781 | 8-19-08 | JD | 9 | | Complete |
| | | Remove | | | | | | | |
| | | Reset | | | | | | | |
| | | Remove | | | | | | | |
| | | Reset | | | | | | | |
| Page Total. | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Officeperson's Hint:
The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on pages 4-2 thru 4-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and station to station and plan qty for each location if indicated on a structure list. If an item with a UOM of Linft is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, actual length, meas by, date meas, length removed, date removed, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: The actual length and the length removed for each area must match, if they don't a complete explanation is required. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Tip: Be sure to measure Linft items before they are removed because once removed, you cannot go back and measure and a measurement is **required**.

Payment for Linft items will be based on field measure.

| Item No. | Item Description | Plan Qty | Actual Length | meas. By | Date meas. | Length removed | Date removed | Insp | AEB# | Prnt# | Remarks |
|----------------|------------------|------------|---------------|----------|------------|----------------|--------------|------|------|-------|----------|
| 2021304 | Removal of fence | 1690 Linft | | | | | | | | | |
| BD 27+63.45 To | | 449 | 449 | JD | 9-18-08 | 449 | 9-21-08 | JD | 2 | | Complete |
| BD 31+04.41 To | 135.09' RT | | | | | | | | | | |
| | 151.81' LT | | | | | | | | | | |
| BD 45+29.66 To | | 832 | 829 | JD | 9-18-08 | 829 | 9-21-08 | JD | 2 | | Complete |
| BD 53+80.11 To | 114.21' LT | | | | | | | | | | |
| | 85.42' LT | | | | | | | | | | |
| BD 50+03.98 To | | 399 | | | | | | | 2 | | |
| BD 53+94.69 To | 133.23' RT | | | | | | | | | | |
| | 41.24' RT | | | | | | | | | | |
| BD 53+94.69 To | | 10 | | | | | | | 2 | | |
| BD 53+95.05 To | 5123' ET | | | | | | | | | | |
| | 41.24' ET | | | | | | | | | | |
| Page total: | | | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
REMOVAL ITEMS
(WHEN PAID BY MILES OR STATIONS)**

Removal items (201 and 202) shall be documented in a **REMOVAL book**.

The following is an illustration for an item with a UOM of Mile.

The illustration on this page shows a mile item that is not located on the structure list shown on pages 4-2 thru 4-3 of the contract plans. This item will be listed on the Estimate of Quantities, illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Miles or Sta is located on a structure list, insert the plan column between station to station and meas linft. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft (removed), meas mile, date, initials, mile calculations from linft to miles (Linft/5280), and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is in Sta. The meas mile column shall be changed to the heading of meas stations (sta). The calculations will be the length removed converted to stations. There are 100 linft per station. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Mile or Sta items will be based on field measure and calculations.

| Item No: 2021160 | | | | Sg. Pq. = .001 | | 20 |
|-------------------------------------|---------------|--------------|--------|---------------------------------------|------|------------------|
| Item: Removal of Bituminous Surface | | | | linft = 5280 = mile linft per mile | | |
| Plan Qty: 5.000 mile | | | | | | |
| Station to Station | meas linft | meas mile | Date | Insp | AEB# | Prnt* |
| | | | | Calcs/Remarks | | |
| "L" 0+00 to "L" 4+00 RT | 400 | .076 | 9-1-08 | MD | / | 400/5280=.076 ✓K |
| "L" 4+00 to "L" 10+90 RT | 690 | .131 | 9-1-08 | MD | / | 690/5280=.131 ✓K |
| Page total: | | | | | | |

Calcs for sta:

Linft ÷ 100 = sta

Officeperson's Hint:
The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION G
REMOVAL ITEMS
(WHEN PAID BY SQUARE FOOT OR SQUARE YARD)**

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Sqyd.

The illustration on this page shows a sqyd item that is not located on the structure list shown on pages 4-2 thru 4-3 of the contract plans. This item will be listed on the Estimate of Quantities, illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Sqyd is located on a structure list, insert the plan column between station to station and sqyd. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, sqyd (removed), date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is in Sqft. The sqyd column shall be changed to the heading of sqft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqyd and Sqft items will be based on field measure and calculations.

| Station to Station | Sqyd | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
|------------------------------|--------|---------|------|------|------|------------------------------|
| BD' 27+63.45 To BD' 53+95.05 | 7456.2 | 8-17-08 | MD | 2 | 25 | 2631.6 X 25.5 / 9 = 7456.2 ✓ |
| LT' 352+90 To LT' 380+20 | 5854.3 | 8-17-08 | MD | 9 | 25 | 2730 X 19.3 / 9 = 5854.33 ✓ |
| Pe' 25+53.57 To Pe' 36+99.91 | 2674.8 | 8-18-08 | MD | 2 | 25 | 1146.34 X 21 / 9 = 2674.79 ✓ |
| Page total. | | | | | | |

Calcs for sqft:

L x W = sqft

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION H
REMOVAL ITEMS
(WHEN PAID BY CUBIC FOOT OR CUBIC YARD)**

Removal items (201 and 202) shall be documented in a REMOVAL book.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on pages 4-2 thru 4-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and station to station and plan qty for each location if indicated on a structure list. If an item with a UOM of Cuyd is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document station to station and AEB# if not already entered, cuyd (removed), date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is in Cuft. The cuyd column shall be changed to the heading of cuft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd and Cuft items will be based on field measure and calculations.

| Station to Station | Plan | cuyd | Date | Insp | AEB* | Pmt* | Calcs/Remarks |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|------|------|------|------------------------------------------------|
| Item No: 202 1184 Item: Removal of Composite Surface Plan Qty: 150.00 cuyd | | | | | | | |
| Sig Fig = .01 44 | | | | | | | |
| $L \times W \times D \div 27 = \text{cuyd}$ | | | | | | | |
| BD 52+43 to BD 62+93 RT | 150.00 | 154.44 | 9-2-08 | MD | 2 | | $1000 \times 5.56 \times .75 \div 27 = 154.44$ |
| When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM. | | | | | | | |
| Page total: | | | | | | | |

Calcs for cuft:

L x W x D = cuft

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

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CHAPTER 5
Earthwork Items

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DOCUMENTATION REQUIREMENT SECTION A EARTHWORK ITEMS (PROFILE SHEET)

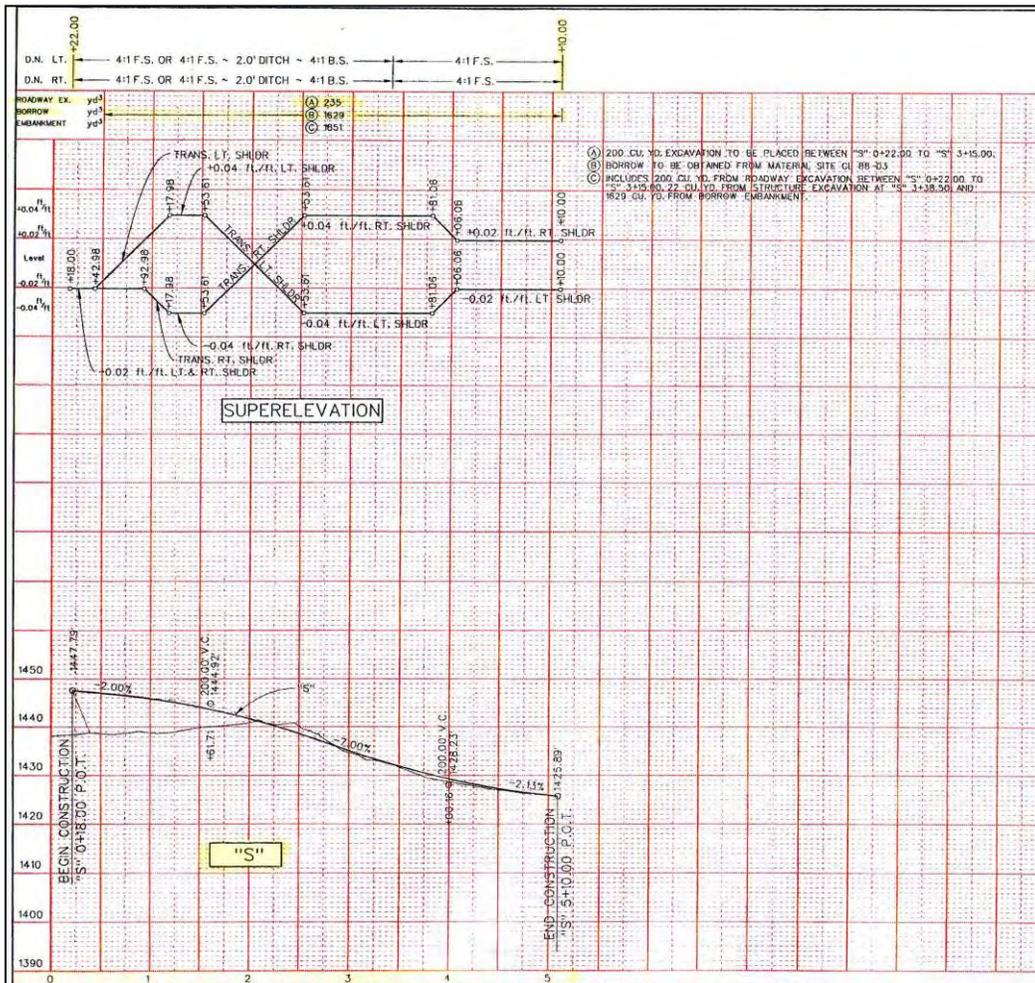
Earthwork items shall be documented in an EARTHWORK book. If only one type of earthwork item is being placed in a field book then the title will be the name of that item (example: if Roadway Excavation is placed in a field book by itself then the book will be named ROADWAY EXCAVATION.)

To setup the field books, the information on earthwork items shall be found in the Profile sheets and/or the Summary of Earthwork sheets.

A balance on a Profile sheet is from arrow to arrow, as illustrated below. Matching the ends of the arrows to the stations at the bottom of the plan sheet will give you the station to station for that balance.

Always use the Profile sheets to setup the earthwork books. Then compare the Profile sheets to the Summary of Earthwork to assure they match. An illustration of a Summary of Earthwork is shown on page 5-2. There might be areas that only appear on the Summary of Earthwork sheets. If this is the case then both the Profile sheets and the Summary of Earthwork sheets will be used in making out the field books for the earthwork items.

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).



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**DOCUMENTATION REQUIREMENT
SECTION B
EARTHWORK ITEMS
(SUMMARY OF EARTHWORK)**

To setup the field books, the information on earthwork items shall be found in the Profile sheets and/or the Summary of Earthwork sheets.

Always use the Profile sheets, as illustrated on page 5-1, to setup the earthwork books. Compare the Profile sheets to the Summary of Earthwork to assure all areas have been addressed. There may be areas that only appear on the Summary of Earthwork sheets. If this is the case then both the Profile sheets and the Summary of Earthwork sheets will be used in making out the field books for the earthwork items. An illustration of a Summary of Earthwork sheet is shown below.

| SUMMARY OF EARTHWORK | | | TOTAL | UNIT |
|----------------------------------------------------|----|---------------|-------------|--------------|
| ITEM AND LOCATION | | | | |
| <u>ROADWAY EXCAVATION</u> | | | | |
| SR 170 | | | | |
| "X" 172+49.82 | TO | "X" 205+34.99 | 8538 | CUYDS |
| SIDE ROAD | | | | |
| "S" 0+22.00 | TO | "S" 5+10.00 | 235 | CUYDS |
| FRONTAGE ROAD | | | | |
| "FR" 0+18.00 | TO | "FR" 5+20.98 | 41 | CUYDS |
| TOTAL | | | 8814 | CUYDS |
| USE TOTAL | | | 8820 | CUYDS |
| <u>STRUCTURE EXCAVATION</u> | | | | |
| STRUCTURE B-85 | | | | |
| | | | 108 | CUYDS |
| SIDE ROAD RT. CMP | | | | |
| | | | 30 | CUYDS |
| TOTAL | | | 138 | CUYDS |
| USE TOTAL | | | 140 | CUYDS |
| <u>* BORROW EMBANKMENT</u> | | | | |
| SR 170 | | | | |
| "X" 172+49.82 | TO | "X" 205+34.99 | 338 | CUYDS |
| SIDE ROAD/BERM | | | | |
| "S" 0+22.00 | TO | "S" 5+10.00 | 1629 | CUYDS |
| "S" 3+36.70 | | | 4 | CUYDS |
| FRONTAGE ROAD | | | | |
| "FR" 0+18.00 | TO | "FR" 5+20.98 | 234 | CUYDS |
| TOTAL | | | 2205 | CUYDS |
| USE TOTAL | | | 2210 | CUYDS |
| <u>SELECT BORROW</u> | | | | |
| STRUCTURE B-85 | | | | |
| | | | 2159 | CUYDS |
| TOTAL | | | 2159 | CUYDS |
| USE TOTAL | | | 2160 | CUYDS |
| * 15% SHRINKAGE FACTOR USED FOR ROADWAY EXCAVATION | | | | |

| | | | | |
|---|--------|-------|---------------|--------------|
| 9 | NEVADA | CLARK | STP-0180(016) | SHEET NO. 3A |
| 9 | NEVADA | CLARK | STP-0180(016) | SHEET NO. 3A |

**DOCUMENTATION REQUIREMENT
SECTION C
EARTHWORK ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

**EARTHWORK
book** →

Use when
multiple items
are placed in a
book.

| Index | | Initial Key | | |
|-------|--------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-16 | Roadway Excavation | SB | Sheri Brown | Tech II |
| 18-34 | Borrow Embankment | JD | Jack Dougherty | Tech III |
| 36-50 | Channel Excavation | TC | Terr Carson | Tech I |
| | | Ⓢ | Shelley Jones | Tech II |
| 75-76 | Book recap | | | |

**ROADWAY
EXCAVATION
book** →

Use when
only one item
is placed in a
book.

| INDEX | | Initial Key | | |
|-------|--------------------------------------------|-------------|----------------|----------|
| Page | DESCRIPTION | Initials | Signature | Title |
| 4-8 | 'X' 172+49.82 To 'X' 205+34.99 Lt to Rt | SB | Sheri Brown | Tech II |
| 10-14 | 'S' 0+22.00 To 'S' 5+10.00 Lt to Rt | JD | Jack Dougherty | Tech III |
| 16-20 | 'FR' 0+18 To 'FR' 5+20.98 Lt | TC | Terr Carson | Tech I |
| | | Ⓢ | Shelley Jones | Tech II |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
ROADWAY EXCAVATION
(WHEN PAID BY CUBIC YARD)**

To provide documentation for the above item, it will be necessary to prepare a field book labeled ROADWAY EXC. If there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

When stakeout or planned quantities are to become final quantities, after the balance is 100% complete, the plan quantity total shall be reflected as the last entry in the accum. total column. No other documentation is required.

When quantities change and are re-computed for any reason, the change will be adjusted upward or downward accordingly from the plan quantities. **Any payment other than plan quantity must have documentation to support the new total.** When **Eaglepoint or other computer programs** are used to determine final quantities, hard copies are required for the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). They must indicate station, end areas, etc., accompanied by an explanation of how quantities are arrived, so any individual unfamiliar with road construction or engineering can retrace the calculation of quantities.

When quantities are recalculated at the request of the Contractor or Resident Engineer, the new calculated quantity shall be used for payment. If the contractor requests final measurement and the quantities determined are equal to or less than the plan quantities plus authorized changes, the Contractor shall reimburse NDOT for NDOT's expenses incurred by the final measurement.

Any change in planned quantities, such as reworked balances, flattened back slopes, removal of soft spots, etc., must show calculations in the field book or on a CALCULATION sheet (Form No. 040-034). Be sure to cross reference the CALCULATION sheet to the field book(s) and page(s), rolls, CROSS SECTION book(s) and page(s) and the field book(s), rolls, CROSS SECTION book(s) and page(s) to the CALCULATION sheet.

As the job progresses and estimates of earthwork quantities are made, no payment in excess of plan quantities shall be allowed unless:

- OR A. It is based on quantities justified in a change order.
- OR B. It is substantiated by final cross sections and computerized sheets or other actual field measurements.
- OR C. It is based on quantities from a memo sent by Design, which must be referenced in the field book and attached to a CALCULATION sheet (complete top of form) and file in the CALCULATION book.

Should the estimate be based on a change order, it will be necessary to make final computations to verify the actual quantity of the change order before the contract can be finalized.

Roadway Excavation items shall be documented in a ROADWAY EXC. book or if there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

The following is an illustration for an item with a UOM of Cuyd.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, the balance (stations this balance), this section (plan this balance), all column headings, and page total in the bottom left-hand corner of the page. **Each balance will be placed on a separate page. The balances for earthwork items shall be found in the contract plans on the Profile sheets and/or the Summary of Earthwork sheets.** Leave at least one blank page in the book between each balance. In some cases of very large balances that may require considerable time to complete, leave additional pages. The final total of a balance should equal the quantity shown in "This Section" for the balance. If it does not equal, then calculations or backup are required. The sum of all balances should equal the total plan quantity for that item. If a large discrepancy exists, an error has been made or an error exists on the plan quantity and must be investigated. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between balances and items for any added or missed items. Calculations must be checked and initialed.**

As construction progresses throughout each balance, it will be the Resident Engineer's or his designated **Inspector's** responsibility at the end of each payment cycle, to estimate, to their best ability, the percent complete of each balance. The **Inspector** shall document the est qty, accum. total, date, initials, AEB#, and any calculations and remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on planned quantity or if different than plan, calculations or backup are required. If calculations are too extensive to place in the book, then a CALCULATION sheet must be done (See Chapter 2).

| | | | | | | | | |
|---------------------------------------|-------------|--------|------|------|------|--------------------------------------------|--|----|
| Item No: 2030508 | | | | | | Sig fig = .01 | | 10 |
| Item: Roadway Excavation | | | | | | L X W X D = 27 = cuyd | | |
| Plan Qty: 8820.00 cuyd | | | | | | o/c Complete / Calcs / Remarks | | |
| Balance: 5'0+22.00 To 5'5+10.00 LT+RT | | | | | | Complete | | |
| This Section: 235.00 cuyd | | | | | | 200 X 7 X 1.5 / 27 = 77.78 ^{1.50} | | |
| Est Qty | Accum Total | Date | Insp | AEB# | PMT# | additional qty to correct cross slope. | | |
| 235.00 | 235.00 | 9-1-08 | JD | 2 | | Complete | | |
| 77.78 | 312.78 | 9-5-08 | JD | 2 | | | | |
| Page total: | | | | | | | | |

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION E
UNSTABLE MATERIAL, BORROW, SELECTED BORROW,
AND BORROW EMBANKMENT,
(WHEN PAID BY CUBIC YARD)**

To provide documentation for the above items, it will be necessary to prepare a separate field book for each item labeled BORROW, SELECTED BORROW, etc. as outlined in this chapter. If there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

These items shall be documented in the same manner as described under Roadway Excavation and the illustration on page 5-7.

For making progress payments, the Resident Engineer or **Inspector** shall base the estimate on the percent of embankment completed.

Estimated borrow quantities shown on the plans, plus or minus authorized changes, may be used for payment unless a final measurement is requested by the Contractor or Resident Engineer. Final measurements may be necessary when pits are used where a royalty must be paid to property owners. In any event, original cross sections must be taken of the pit area in case recalculation is later requested.

Whenever final measurements are taken and a recalculation is made, it is necessary to adjust the quantity in each AEB. This may be done by prorating and must be shown in the book recap.

An optional method of prorating the final quantities, is to calculate a prorating factor and apply the factor as illustrated in Chapter 25 (Calculations and Reports), to the borrow quantities in each roadway balance.

Selected borrow or selected borrow excavation with a UOM of ton, shall be measured and documented in the same manner as illustrated in Chapter 8, (Roadway Aggregates).

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Be sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Borrow, Selected Borrow, etc., if each item is placed in its own book, then the title will be the same as the item placed in the book or if there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

The following is an illustration for an item with a UOM of Cuyd.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, the balance (stations this balance), this section (plan this balance), all column headings, and page total in the bottom left-hand corner of the page. **Each balance will be placed on a separate page. The balances for earthwork items can be found in the contract plans on the Profile sheets and/or the Summary of Earthwork sheets.** Leave at least one blank page in the book between each balance. In some cases of very large balances that may require considerable time to move, leave additional pages. The final total of a balance should equal the quantity shown in "This Section" for the balance. If it does not equal, then calculations or backup are required. The sum of all balances should equal the total plan quantity for that item. If a large discrepancy exists, an error has been made or an error exists on the plans and must be investigated. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between balances and items for any added or missed items. Calculations must be checked and initialed.**

As construction progresses throughout each balance, it will be the Resident Engineer's or his designated **Inspector's** responsibility at the end of each payment cycle, to estimate, to their best ability, the percent complete of each balance. The **Inspector** shall document the est qty, accum. total, date, initials, the AEB#, and any calculations and remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on planned quantity or if different than plan, calculations or backup are required. If calculations are too extensive to place in the book, then a CALCULATION sheet must be done (See Chapter 2).

| <p>Item No. 2030540 Item: Borrow Embankment Plan Qty: 2210.00 cuyd</p> <p>Balance: S' 0182.00 TO S' 5110.00 LT to RT This Section: 1629.00 cuyd</p> <table border="1"> <thead> <tr> <th>EST Qty</th> <th>Accum Total</th> <th>Date</th> <th>Insp</th> <th>AEB#</th> <th>PMT#</th> </tr> </thead> <tbody> <tr> <td>244.35</td> <td>244.35</td> <td>8/18/08</td> <td>TC</td> <td>2</td> <td></td> </tr> <tr> <td>749.34</td> <td>993.69</td> <td>9/1/08</td> <td>TC</td> <td>2</td> <td></td> </tr> <tr> <td>635.31</td> <td>1629.00</td> <td>9/15/08</td> <td>TC</td> <td>2</td> <td></td> </tr> </tbody> </table> <p>Page total:</p> | EST Qty | Accum Total | Date | Insp | AEB# | PMT# | 244.35 | 244.35 | 8/18/08 | TC | 2 | | 749.34 | 993.69 | 9/1/08 | TC | 2 | | 635.31 | 1629.00 | 9/15/08 | TC | 2 | | <p>Sig fig = .01 22</p> <p>L X W X D = .27 = cuyd</p> <p>% complete / calcs / Remarks</p> <p>15% complete ✓ SB</p> <p>61% complete ✓ SB</p> <p>100% complete 1629.00 - 993.69 = 635.31 ✓ SB</p> <p>Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|------|------|------|------|--------|--------|---------|----|---|--|--------|--------|--------|----|---|--|--------|---------|---------|----|---|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EST Qty | Accum Total | Date | Insp | AEB# | PMT# | | | | | | | | | | | | | | | | | | | | |
| 244.35 | 244.35 | 8/18/08 | TC | 2 | | | | | | | | | | | | | | | | | | | | | |
| 749.34 | 993.69 | 9/1/08 | TC | 2 | | | | | | | | | | | | | | | | | | | | | |
| 635.31 | 1629.00 | 9/15/08 | TC | 2 | | | | | | | | | | | | | | | | | | | | | |

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

DOCUMENTATION REQUIREMENT
SECTION F
CHANNEL EXCAVATION
DRAINAGE EXCAVATION
(WHEN PAID BY CUBIC YARD)

To provide documentation for the above items, it will be necessary to prepare a separate field book for each item labeled CHANNEL or DRAINAGE as outlined in this chapter. If there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

Channel Excavation may be listed three different ways in the contract plans:

1. If listed on the Summary of Earthwork sheets or on the Profile sheets, as illustration on page 5-9, the item will be placed in a CHANNEL EXCAVATION book or if there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.
2. If listed by itself on a line in a structure list, the item will be placed in a CHANNEL EXCAVATION book as illustration on page 5-10.
3. If listed on a line in a structure list with other items it will be placed in a book with those items as illustration on page 5-11.

Drainage Excavation may be listed two different ways in the contract plans:

1. If listed by itself on a line in a structure list, then it will go into a DRAINAGE EXCAVATION book as illustration on page 5-10.
2. If listed on a line in a structure list with other items it will be placed in a book with those items as illustration on page 5-11.

Planned quantities may be paid on channel or drainage excavation. If the Contractor or Resident Engineer requests a remeasurement and recalculation in writing, the revised quantities shall be referenced accordingly. The possibility of paying plan quantity does not eliminate taking original cross sections.

If the Contractor requests final measurement and such measurements are made, the survey or CALCULATION sheets must be referenced to the field book(s) and page(s), rolls, CROSS SECTION book(s) and page(s) or other pertinent sources and the field book must be referenced to the CALCULATION sheet (Form No. 040-034) as described and illustrated in Chapter 2 (Setting Up a Contract, Book Format, etc.).

The stationing shown in the field book shall coincide with the SURVEY or CALCULATION sheets for that area.

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Channel or Drainage Excavation, if each item is placed in its own book, then the title will be the same as the item placed in the book or if there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK.

The following is an illustration for an item with a UOM of Cuyd.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, the balance (stations this balance), this section (plan this balance), all column headings, and page total in the bottom left-hand corner of the page. **Each balance will be placed on a separate page. The balances for earthwork items can be found in the contract plans on the Profile sheets and/or the Summary of Earthwork sheets.** Leave at least one blank page in the book between each balance. In some cases of very large balances that may require considerable time to complete, leave additional pages. The final total of a balance should equal the quantity shown in "This Section" for the balance. If it does not equal, then calculations or backup are required. The sum of all balances should equal the total plan quantity for that item. If a large discrepancy exists, an error has been made or an error exists on the plans and must be investigated. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between balances and items for any added or missed items. Calculations must be checked and initialed.**

As construction progresses throughout each balance, it will be the Resident Engineer's or his designated **Inspector's** responsibility at the end of each payment cycle, to estimate, to their best ability, the percent complete of each balance. The **Inspector** shall document the est qty, accum. total, date, initials, the AEB#, and any calculations and remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on planned quantity or if different than plan, calculations or backup are required. If calculations are too extensive to place in the book, then a CALCULATION sheet must be done (See Chapter 2).

Item No: 2030520
 Item: Channel Excavation
 Plan Qty: 3000.00 cuyd

Balance: "PTRR" 33+79 LT
 This Section: 280.00 cuyd

| Est Qty | Accum TOTAL | Date | Insp | AEB# | PMT# |
|---------|-------------|---------|------|------|------|
| 100.80 | 100.80 | 7-31-08 | TC | 1 | |
| 179.20 | 280.00 | 8-14-08 | TC | 1 | |

Page total.

Sig Fig = .01 36

$L \times W \times D = 27 = \text{Cuyd}$

| % Complete / calcs / Remarks |
|------------------------------|
| 36% Complete ✓ |
| 100% Complete ✓ |
| $280.00 - 100.80 = 179.20$ |

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Channel Excavation as illustrated on this page shall be documented in a CHANNEL EXCAVATION book. If using this illustration for Drainage Excavation, then the book would be labeled DRAINAGE EXCAVATION. If there are few entries, the items mentioned in this chapter may be entered in separate sections of one book labeled EARTHWORK. The illustration on this page is used when earthwork items are located on a structure list with a plan quantity for each location.

The following is an illustration for an item with a UOM of Cuyd.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, the AEB number, page total in the bottom left-hand corner of the page, station to station and plan for each location if indicated on a structure list. If an item with a UOM of Cuyd is not on a structure list omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each item. Make sure to leave enough pages between items for any added or missed items. All Calculations must be checked and initialed.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document station to station and AEB# if not already entered, cuyd, date, initials, and any calculations and remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on planned quantity or if different than plan, calculations or backup are required. If calculations are too extensive to place in the book, then a CALCULATION sheet must be done (See Chapter 2).

| Station to Station | Plan | cuyd | Date | Insp | AEB# | Pmr* | Calc/Remarks |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|---------|------|------|------|-----------------------------------------------|
| Item No: 2030520 Item: Channel Excavation Plan Qty: 3000.00 cuyd Sig Fig = .01 18 $L \times W \times D \div 27 = \text{cuyd}$ | | | | | | | |
| "BD" 65+90 To | 100.00 | 106.40 | 8-27-08 | JD | 2 | | $280 \times 6.84 \times 1.5 \div 27 = 106.40$ |
| "BD" 68+70 LT | | | | | | | |
| "BD" 18+96 To | | | | | | | |
| "BD" 27+86 LT | 620.00 | 611.62 | 8-29-08 | JD | 2 | | $829 \times 8.3 \times 2.4 \div 27 = 611.62$ |
| "Lne" 363+20.47 | 122.00 | | | | | | |
| "Lne" 350+19.50 LT | | | | | | | |
| Page total: | | | | | | | |

Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Channel and Drainage Excavation listed on the same line with other items on a structure list shall be documented as illustrated on this page.

The following is an illustration for an item with a UOM of Cuyd.

The **Officperson** shall complete for each page the item number, item description, plan quantity this installation as shown on a structure list, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each item. Make sure to leave enough pages between items for any added or missed items. All Calculations must be checked and initialed.**

Officperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the location, cuyd, date, initials, AEB# and any calculations and remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on planned quantity or if different than plan, calculations or backup are required. If calculations are too extensive to place in the book, then a CALCULATION sheet must be done (See Chapter 2).

| | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------|------|--------------|
| Item No: 2030520 | | Sig fig = .01 | | 22 |
| Item: Channel Excavation | | $L \times W \times D \div 27 = \text{cuyd}$ | | |
| Plan Qty this installation: 45.00 cuyd | | | | |
| Location | Cuyd | Date | Insp | AEB# Pmt# |
| X 300+10 RT | 45.00 | 8-13-08 | TC | 4 |
| | | | | Calc/Remarks |
| | | | | Complete |
| <p>Each book shall be setup according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).</p> | | | | |
| Page total: | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

DOCUMENTATION REQUIREMENT SECTION G CROSS SECTION INFORMATION

Cross sections may be required in some cases due to alignment change, insufficient cross sections taken during the original survey, or for various other reasons. When this is required, the same minimum requirement as set out for location surveys will be followed.

Cross sections shall normally be taken on stations, plus 50's and equations. Additional pluses shall be added as necessary to show such things as drainages, slipouts, dropoffs, etc. Cross sections shall be taken at right angles to the centerline on tangents and on radial lines of curves. If for some reason this is not possible, the reason for deviating, and the angle that it was taken on, shall be entered in the CROSS SECTION Book.

The CROSS SECTION book shall be setup like the CALCULATION book as described in Chapter 2 (Setting up a Contract, Book Format, etc.) and filed in a loose-leaf binder labeled CROSS SECTION book. This book shall be kept in the field office. **The CROSS SECTION sheets shall be attached to a CALCULATION sheet. The top portion of the CALCULATION sheet will be completed and numbered consecutively and referenced to the field book(s) and page(s) and the field book (s) must be referenced to the CALCULATION sheet.**

THE FOLLOWING METHODS ARE BRIEFLY DISCUSSED:

1. The use of level, level rod and cloth tape.
This method is generally best suited to relatively flat terrain where it is possible to cross section the profile of centerline while at the same level setup.
2. The use of a hand level, level rod and cloth tape.
This method should only be used to catch an occasional "plus" rod reading.
3. Use of a transit (total station, etc.), level rod and tape or electronic measuring instrument. This method is only to be employed in mountainous country where it is more expedient to transfer elevations and distances by means of slope measuring, rather than by hand level and tape.

In addition to the CROSS SECTION Book, Computer Aided Design (CAD) software can create calculation sheets or reports that display station-to-station data. This triangulation based software calculates a volumetric difference between an existing surface and excavated or designed surface. These reports accumulate the earthwork by stations and show quantities that are acceptable for payment.

To produce the Accumulated Quantities report as illustrated on page 5-13 and 5-14, the software user will input two sources of data in the computer. Source one is a roadway section encompassing the alignment, profiles, and typical sections that the instrument man will input from the contract plans. Source two is a surface model or DTM, which is collected in the field during an existing or excavated surface cross section.

Using Trimble Geomatics Office software and their "Roadlink" tool, you can display the inputted roadway horizontal alignment, insert an overlay of the collected cross sectioned surface, and then create a report based on the volumetric difference between the roadway design dimensions and the cross sectioned existing surface.

The Supervisor I is the primary source of this report, as they have the training and knowledge base to manipulate the survey equipment and software to create this type of payment document.

The illustration below and on page 5-14 will be attached to a CALCULATION sheet (Form No. 040-034). Be sure to cross reference the CALCULATION sheet to the field book(s) and page(s), rolls, CROSS SECTION book(s) and page(s) and the field book(s), rolls, CROSS SECTION book(s) and page(s) to the CALCULATION sheet.

Volume Report

Project Pahrump Adjusted

Project name Pahrump Adjusted
Road P1-1
Units US survey feet
Date 9/14/2007 12:58 PM

Station: 711+00.000 to: 735+50.000
 Road : P1-1

| Statn US feet | ----- XS area ----- | | ----- Volume ----- | | ----- Accumulated ----- | |
|------------------|---------------------|---------------|--------------------|---------------|-------------------------|---------------|
| | Cut Sq ft | Fill Sq ft | Cut Cu ft | Fill Cu ft | Cut Cu ft | Fill Cu ft |
| 711+50.000 | 0.00 | 24.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| 712+00.000 | 0.00 | 27.40 | 0.00 | 1299.53 | 0.00 | 1299.53 |
| 712+50.000 | 0.00 | 26.65 | 0.00 | 1351.23 | 0.00 | 2650.76 |
| 713+00.000 | 0.00 | 27.41 | 0.00 | 1351.60 | 0.00 | 4002.36 |
| 713+50.000 | 0.00 | 27.24 | 0.00 | 1366.31 | 0.00 | 5368.67 |
| 714+00.000 | 0.00 | 26.56 | 0.00 | 1344.91 | 0.00 | 6713.59 |
| 714+50.000 | 0.00 | 23.66 | 0.00 | 1255.37 | 0.00 | 7968.96 |
| 715+00.000 | 0.00 | 25.66 | 0.00 | 1232.97 | 0.00 | 9201.92 |
| 715+50.000 | 0.00 | 31.53 | 0.00 | 1429.82 | 0.00 | 10631.74 |
| 716+00.000 | 0.00 | 31.88 | 0.00 | 1585.35 | 0.00 | 12217.09 |
| 716+50.000 | 0.00 | 21.77 | 0.00 | 1341.20 | 0.00 | 13558.29 |
| 717+00.000 | 0.00 | 13.48 | 0.00 | 881.04 | 0.00 | 14439.34 |
| 717+33.650 | 0.00 | 8.91 | 0.00 | 376.73 | 0.00 | 14816.07 |
| 717+50.000 | 0.00 | 8.87 | 0.00 | 145.57 | 0.00 | 14961.63 |
| 718+00.000 | 0.00 | 5.23 | 0.00 | 352.84 | 0.00 | 15314.48 |
| 718+50.000 | 0.00 | 1.47 | 0.00 | 167.78 | 0.00 | 15482.26 |
| 719+00.000 | 0.00 | 2.23 | 0.00 | 92.51 | 0.00 | 15574.77 |
| 719+50.000 | 0.00 | 3.23 | 0.00 | 136.28 | 0.00 | 15711.05 |
| 720+00.000 | 0.10 | 1.70 | 2.50 | 123.10 | 2.50 | 15834.16 |
| 720+50.000 | 0.00 | 7.69 | 2.50 | 234.75 | 5.00 | 16068.91 |
| 721+00.000 | 0.00 | 4.70 | 0.00 | 310.05 | 5.00 | 16378.95 |
| 721+50.000 | 0.43 | 0.92 | 10.73 | 140.53 | 15.73 | 16519.48 |
| 722+00.000 | 0.01 | 1.93 | 10.88 | 71.28 | 26.61 | 16590.76 |
| 722+50.000 | 0.19 | 0.99 | 4.79 | 73.04 | 31.39 | 16663.80 |
| 723+00.000 | 0.08 | 1.12 | 6.58 | 52.64 | 37.97 | 16716.44 |
| 723+50.000 | 0.00 | 6.11 | 1.94 | 180.68 | 39.91 | 16897.11 |
| 724+00.000 | 0.00 | 21.63 | 0.00 | 694.37 | 39.91 | 17591.49 |
| 724+50.000 | 0.00 | 14.69 | 0.00 | 908.92 | 39.91 | 18500.40 |
| 725+00.000 | 0.00 | 2.79 | 0.00 | 437.01 | 39.91 | 18937.41 |
| 725+50.000 | 0.00 | 2.76 | 0.00 | 138.75 | 39.91 | 19076.16 |
| 726+00.000 | 0.00 | 1.94 | 0.00 | 117.56 | 39.91 | 19193.73 |
| 726+50.000 | 0.08 | 0.51 | 2.06 | 61.32 | 41.97 | 19255.04 |
| 727+00.000 | 0.62 | 0.21 | 17.54 | 18.06 | 59.52 | 19273.11 |
| 727+50.000 | 0.24 | 0.44 | 21.47 | 16.35 | 80.98 | 19289.45 |
| 728+00.000 | 0.00 | 1.89 | 5.97 | 58.29 | 86.95 | 19347.74 |
| 728+50.000 | 0.27 | 1.21 | 6.84 | 77.34 | 93.79 | 19425.08 |
| 728+81.000 | 1.08 | 0.31 | 20.97 | 23.53 | 114.77 | 19448.61 |
| 729+00.000 | 0.42 | 0.54 | 14.29 | 8.04 | 129.05 | 19456.65 |

| | | | | | | |
|------------|------|-------|--------|--------|---------|----------|
| 729+50.000 | 0.00 | 13.65 | 10.60 | 354.90 | 139.65 | 19811.56 |
| 730+00.000 | 0.00 | 13.27 | 0.00 | 673.92 | 139.65 | 20485.48 |
| 730+50.000 | 2.84 | 0.14 | 71.04 | 335.80 | 210.69 | 20821.28 |
| 731+00.000 | 5.23 | 0.00 | 201.94 | 3.48 | 412.63 | 20824.76 |
| 731+50.000 | 6.77 | 0.00 | 300.21 | 0.00 | 712.84 | 20824.76 |
| 732+00.000 | 6.96 | 0.00 | 343.39 | 0.00 | 1056.23 | 20824.76 |
| 732+50.000 | 7.29 | 0.00 | 356.53 | 0.00 | 1412.76 | 20824.76 |
| 733+00.000 | 4.43 | 0.07 | 293.51 | 1.84 | 1706.27 | 20826.61 |
| 733+50.000 | 3.13 | 0.05 | 189.27 | 3.08 | 1895.54 | 20829.69 |
| 734+00.000 | 0.00 | 2.06 | 78.22 | 52.64 | 1973.76 | 20882.33 |
| 734+50.000 | 0.16 | 2.67 | 3.99 | 117.95 | 1977.75 | 21000.28 |
| 735+00.000 | 0.48 | 2.40 | 16.03 | 126.48 | 1993.78 | 21126.75 |

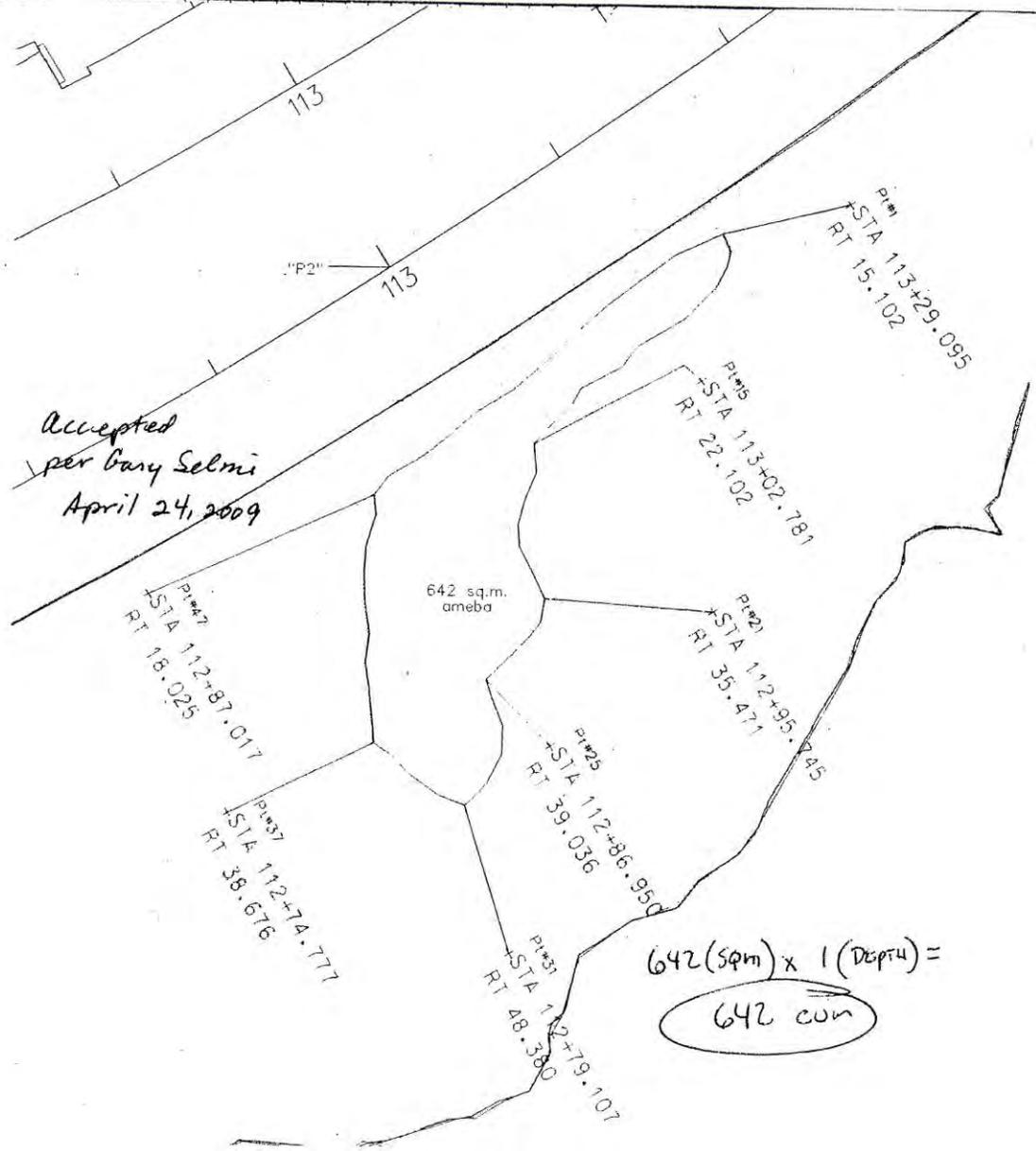
[Back to top](#)

Survey information may be printed out on CALCULATION sheets (Form No. 040-034).
 Make sure to complete the top portion of the sheet.

STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
CALCULATION SHEET

PAGE NO. 10

CONTRACT NO. 3292 CALCS BY SL CHECKED BY (GD) DATE 3-24-09
 DESCRIPTION SELECTED ROCK SLOPE
 LOCATION 'P2' 112+75 TO 'P2' 113+29 RT
 REFERENCE FIELD BOOK NO. EVENT TSACOM I 46002209324 PAGE(S)



STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
CALCULATION SHEET

PAGE NO. 11

CONTRACT NO. 3252 CALCS BY SL CHECKED BY GD DATE 3-24-09
DESCRIPTION SELECTED ROCK SLOPE
LOCATION 'P2' 112+75 TO 'P2' 113+29 RT

REFERENCE FIELD BOOK NO. ISPLBWI 4602009 324 PAGE(S) _____

| Station | Easting | Northing | Delta Easting | Delta Northing | Distance | Angle | Description |
|---------|-------------|------------|---------------|----------------|-----------|--------------|-------------|
| *1 | 4514088.648 | 698912.076 | 1528.630 | AMEBA | PERIMETER | 113+00P2.txt | |
| 2 | 4514086.931 | 698912.820 | 1528.391 | AMEBA | PERIMETER | | |
| 3 | 4514085.442 | 698912.483 | 1527.787 | AMEBA | PERIMETER | | |
| 4 | 4514083.386 | 698911.431 | 1527.597 | AMEBA | PERIMETER | | |
| 5 | 4514081.912 | 698909.642 | 1527.236 | AMEBA | PERIMETER | | |
| 6 | 4514080.236 | 698908.256 | 1527.107 | AMEBA | PERIMETER | | |
| 7 | 4514078.836 | 698905.880 | 1527.260 | AMEBA | PERIMETER | | |
| 8 | 4514077.552 | 698903.732 | 1527.087 | AMEBA | PERIMETER | | |
| 9 | 4514075.540 | 698902.250 | 1527.033 | AMEBA | PERIMETER | | |
| 10 | 4514075.708 | 698899.759 | 1526.751 | AMEBA | PERIMETER | | |
| 11 | 4514074.762 | 698898.670 | 1526.762 | AMEBA | PERIMETER | | |
| 12 | 4514073.398 | 698898.306 | 1526.480 | AMEBA | PERIMETER | | |
| 13 | 4514071.795 | 698897.408 | 1526.284 | AMEBA | PERIMETER | | |
| 14 | 4514069.562 | 698895.154 | 1526.202 | AMEBA | PERIMETER | | |
| *15 | 4514067.922 | 698893.659 | 1526.215 | AMEBA | PERIMETER | | |
| 16 | 4514065.121 | 698893.907 | 1525.515 | AMEBA | PERIMETER | | |
| 17 | 4514062.448 | 698892.742 | 1523.925 | AMEBA | PERIMETER | | |
| 18 | 4514060.045 | 698892.080 | 1523.347 | AMEBA | PERIMETER | | |
| 19 | 4514057.835 | 698892.241 | 1522.451 | AMEBA | PERIMETER | | |
| 20 | 4514055.340 | 698893.574 | 1520.974 | AMEBA | PERIMETER | | |
| *21 | 4514052.757 | 698894.795 | 1519.581 | AMEBA | PERIMETER | | |
| 22 | 4514050.463 | 698894.422 | 1518.824 | AMEBA | PERIMETER | | |
| 23 | 4514048.852 | 698893.163 | 1518.521 | AMEBA | PERIMETER | | |
| 24 | 4514046.740 | 698890.969 | 1518.586 | AMEBA | PERIMETER | | |
| *25 | 4514044.862 | 698888.970 | 1518.010 | AMEBA | PERIMETER | | |
| 26 | 4514042.921 | 698889.621 | 1517.057 | AMEBA | PERIMETER | | |
| 27 | 4514040.412 | 698890.655 | 1515.588 | AMEBA | PERIMETER | | |
| 28 | 4514037.582 | 698890.588 | 1514.911 | AMEBA | PERIMETER | | |
| 29 | 4514034.762 | 698889.109 | 1514.203 | AMEBA | PERIMETER | | |
| 30 | 4514033.591 | 698888.111 | 1513.986 | AMEBA | PERIMETER | | |
| *31 | 4514032.599 | 698886.915 | 1513.843 | AMEBA | PERIMETER | | |
| 32 | 4514033.277 | 698885.521 | 1514.641 | AMEBA | PERIMETER | | |
| 33 | 4514033.553 | 698884.295 | 1515.166 | AMEBA | PERIMETER | | |
| 34 | 4514034.789 | 698882.859 | 1515.878 | AMEBA | PERIMETER | | |
| 35 | 4514035.502 | 698881.524 | 1516.797 | AMEBA | PERIMETER | | |
| 36 | 4514037.281 | 698879.758 | 1517.899 | AMEBA | PERIMETER | | |
| *37 | 4514038.522 | 698877.994 | 1519.043 | AMEBA | PERIMETER | | |
| 38 | 4514039.762 | 698878.427 | 1519.087 | AMEBA | PERIMETER | | |
| 39 | 4514042.193 | 698877.861 | 1520.225 | AMEBA | PERIMETER | | |
| 40 | 4514043.956 | 698877.485 | 1521.369 | AMEBA | PERIMETER | | |
| 41 | 4514046.350 | 698877.100 | 1522.648 | AMEBA | PERIMETER | | |
| 42 | 4514049.100 | 698877.510 | 1523.467 | AMEBA | PERIMETER | | |
| 43 | 4514052.265 | 698877.017 | 1524.855 | AMEBA | PERIMETER | | |
| 44 | 4514055.125 | 698876.956 | 1526.162 | AMEBA | PERIMETER | | |
| 45 | 4514057.614 | 698877.099 | 1527.019 | AMEBA | PERIMETER | | |
| 46 | 4514060.733 | 698878.065 | 1528.011 | AMEBA | PERIMETER | | |
| *47 | 4514062.715 | 698877.892 | 1528.515 | AMEBA | PERIMETER | | |
| 48 | 4514064.585 | 698879.321 | 1528.636 | AMEBA | PERIMETER | | |
| 49 | 4514066.646 | 698882.759 | 1528.433 | AMEBA | PERIMETER | | |
| 50 | 4514068.741 | 698885.372 | 1528.330 | AMEBA | PERIMETER | | |
| 51 | 4514071.085 | 698888.059 | 1528.523 | AMEBA | PERIMETER | | |
| 52 | 4514073.245 | 698891.594 | 1528.430 | AMEBA | PERIMETER | | |
| 53 | 4514076.229 | 698895.137 | 1528.577 | AMEBA | PERIMETER | | |
| 54 | 4514079.085 | 698898.082 | 1528.917 | AMEBA | PERIMETER | | |
| 55 | 4514081.558 | 698900.903 | 1528.688 | AMEBA | PERIMETER | | |
| 56 | 4514084.051 | 698904.116 | 1528.751 | AMEBA | PERIMETER | | |
| 57 | 4514086.513 | 698907.433 | 1528.671 | AMEBA | PERIMETER | | |
| 58 | 4514087.693 | 698909.971 | 1528.428 | AMEBA | PERIMETER | | |
| 59 | 4514088.561 | 698912.040 | 1528.583 | AMEBA | PERIMETER | | |

CHAPTER 6
Landscaping and Irrigation Items

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**DOCUMENTATION REQUIREMENT
SECTION A
LANDSCAPING AND IRRIGATION ITEMS**

Contracts containing landscaping and irrigation items shall be documented in a LANDSCAPING book.

To setup the field books, the information on landscaping and irrigation items shall be found in the contract plans on the Main Structure list, or on a Landscaping Structure list, or on the Estimate of Quantities. An illustration of a Landscaping Structure list is shown on page 6-2 and an illustration of an Estimate of Quantities is shown in Chapter 2 (Setting up a Contract, Book Format, etc.).

A landscaping or irrigation area may be placed in a book by itself or with as many landscaping or irrigation areas as room permits. Each landscaping or irrigation area will have a description page and **each item will be listed on a separate page. Skip at least one line between entries. Make sure to leave enough pages between areas for added or missed items.**

Documentation is different for each unit of measure (UOM). All items shown on a structure list in the plans as incidental to the landscaping or irrigation area shall be documented in this book, except 201 and 202 removal items, as illustrated in Chapter 4 (Removal Items).

Documentation for practically any landscaping and irrigation items can be provided by setting up the item in the same manner as an item with the same UOM. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the illustrations, please call Headquarters Construction for assistance.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

Landscaping or irrigation items **paid by the ton** shall be measured and documented in the same manner as illustrated in Chapter 8 (Roadway Aggregates).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be set up according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
LANDSCAPING AND IRRIGATION ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when only one area is placed in a book. 

| Page | Index Description | Initial key | | |
|-------|---------------------------------------------------------------|-------------|----------------|----------|
| | | Initials | Signature | Title |
| 4 | Landscaping "Lne" 354+10 To "Lne" 362+00 I-15 Northbound (RT) | SB | Sheri Brown | Tech III |
| 6 | Granular Backfill | JD | Jack Dougherty | Tech III |
| 8-10 | Plant (Group A-5) | TC | Terri Carson | Tech I |
| 12 | Site Preparation | MD | Mary Davis | Tech I |
| 16 | Top soil | VT | Van Thomas | Tech II |
| 18 | Fertilizer (Commercial) | SB | Shelli Oanes | Tech II |
| 20-22 | Fertilizer | | | |
| 24-26 | Granite Mulch | | | |
| 30-32 | 1/2-inch Polyethylene Pipe (flexible) | | | |
| 34 | Painting (conc. wall graphics) | | | |
| 75 | Book recap | | | |

Use when multiple areas are placed in a book. 

| Page | Index Description | Initial key | | |
|-------|-----------------------------------------------------------------|-------------|----------------|----------|
| | | Initials | Signature | Title |
| 4-34 | Landscaping - "Lne" 354+10 To "Lne" 362+00 I-15 Northbound (RT) | SB | Sheri Brown | Tech III |
| 38-60 | Landscaping - "BD" 53+43 To "BD" 59+98 LT | JD | Jack Dougherty | Tech III |
| | | TC | Terri Carson | Tech I |
| | | MD | Mary Davis | Tech I |
| | | VT | Van Thomas | Tech II |
| | | SB | Shelli Oanes | Tech II |
| 75 | Book recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
LANDSCAPING AND IRRIGATION ITEMS
(DESCRIPTION PAGE)**

The following is an illustration for the Description Page:

The **Officeperson** shall complete a full description as shown in the plans on the structure list for each landscaping and irrigation area.

This page is required and is used to separate the areas if more than one area is placed in a field book.

DESCRIPTION PAGE

LANDSCAPING "LNe" 354+10
to "LNe" 362+00 I-15 North -
Bound (RT)

4

**DOCUMENTATION REQUIREMENT
SECTION E
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY EACH)**

Landscaping and irrigation items shall be documented in a **LANDSCAPING** book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 6-2 and is combined. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station, qty, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 212 0028 | | | | Sig fig = 1 | | | 8 |
|--------------------------------------|-----|---------|------|-------------|------|----------|---|
| Item: Plant (Group A-5) | | | | | | | |
| Plan Qty This Installation: 148 Each | | | | | | | |
| Station to Station | Qty | Date | Insp | AEB# | Per# | Remarks | |
| *Lne* 354+10 TO *Lne* 359+50 RT | 95 | 8-20-08 | TC | 5 | | Complete | |
| *Lne* 359+50 TO *Lne* 362+00 RT | 53 | 8-25-08 | TC | 5 | | Complete | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY LINEAR FOOT)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station, meas linft, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | meas Linft | Date | Insp | AEB# | Pmt# | Remarks |
|----------------------------------|------------|---------|------|------|------|----------|
| Line 354+10 TO Line 360+10 RT | 1910 | 7-24-08 | JD | 5 | | Complete |
| Line 360+10 to Line 362+00 RT | 801 | 7-25-08 | JD | 5 | | Complete |
| Page total: | | | | | | |

Sig fig = 1 30

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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**DOCUMENTATION REQUIREMENT
SECTION G
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY SQUARE FOOT OR CUBIC FOOT)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Sqft.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, sqft, date, initials, AEB#, calculations and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is Cuft. The column for sqft shall be changed to cuft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqft or Cuft items will be based on field measure and calculations.

| Station to Station | | | | Sqft | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------|------|------|------|------|---------------|
| Item No. 614 0000 | | | | | | | | | |
| Item: Painting (conc. wall graphics) | | | | | | | | | |
| Plan Qty. This Installation: 7815.00 Sqft | | | | | | | | | |
| Signifig = .01 34 | | | | | | | | | |
| LxW = Sqft ← | | | | | | | | | |
| L x W x D = cuft | | | | | | | | | |
| Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the Inspector before assuming the calculations are incorrect. | | | | | | | | | |
| Complete | | | | | | | | | |
| Page total. | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION H
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY SQUARE YARD)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Sqyd.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station, sqyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqyd items shall be based on field measure and calculations.

| Station to Station | Sqyd | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
|-------------------------------------------------------------------------------------|-------|---------|------|------|------|---------------------------------------|
| Item No. 212 1060 Item: Granite Mulch Plan Qty This Installation: 2854.0 sqyd | | | | | | |
| Sig Fig = .1 24 | | | | | | |
| L x W = 9 = Sqyd | | | | | | |
| Lne 354+90 To | 866.7 | 8/29/08 | TC | 5 | | 520 x 15 / 9 = 866.7 ✓ |
| Lne 360+10 RT | | | | | | |
| Lne 360+10 To | 464.4 | 9/1/08 | TC | 5 | | 190 x 22 ^{avg} / 9 = 464.4 ✓ |
| Lne 362+00 RT | | | | | | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION I
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY CUBIC YARD)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station, trk # (truck number), #loads (number of loads), cuyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items delivered by truck not weighed over a scale shall be based on field measure and calculations.

| Item No. 212 1004 Item: Top Soil Plan Qty This Installation: 220.00 cuyd | | | | Sig fig = .01 16 | | | | |
|--------------------------------------------------------------------------------|-------|--------|-------|-----------------------|------|------|------|-----------------------------------|
| Station to Station | Trk # | #Loads | cuyd | Date | Insp | AEB# | Pmt# | Calcs / Remarks |
| "Lne" 354+30 To "Lne" 358+00 RT | 23 | 8 | 72.00 | 8-18-08 | MD | 5 | | Truck # 23 9x4.5x6 / 27 = 9.00 |
| "Lne" 358+10 To "Lne" 359+40 RT | 23 | 5 | 45.00 | 8-18-08 | MD | 5 | | |
| "Lne" 359+45 To "Lne" 361+90 RT | 16 | 9 | 72.00 | 8-20-08 | MD | 5 | | Truck # 16 9x4x6 / 27 = 8.00 |
| Complete | | | | | | | | |
| Page total: | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Cubic yard items delivered by truck not weighed over a scale.

Note: The calculations show the capacity for each truck. Multiply the number of loads by the truck capacity to get cuyds.

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Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station, cuyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on plan quantity or field measure and calculations if different than plan.

| | | | | | | |
|----------------------------------------|--|-------|--------|---------------------------------------------|------|---------------|
| Item No. 207 0504 | | | | Sig fig = .01 | | 6 |
| Item: Granular Backfill | | | | $L \times W \times D \div 27 = \text{cuyd}$ | | |
| Plan Qty This Installation: 18.00 cuyd | | | | | | |
| Station to Station Cuyd Date Insp | | | | AEB# | Pmt# | Calcs/Remarks |
| LNe 354+10 To | | 18.00 | 8/1/08 | JD | 5 | Complete |
| LNe 362+00 RT | | | | | | |
| Page total | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION J
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY ACRE)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Acre.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

Daily, the **Inspector** shall document the station to station, acre, date, initials, AEB#, calculations and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Acre items shall be based on field measure and calculations.

| Station To Station | Acre | Date Insp | AEB# Pmr# | Calcs/Remarks |
|---------------------------------------------------------------------------------------|-------|-----------|-----------|-----------------------------------------------------------|
| Item No: 212 1000 Item: Site Preparation Plan Qty This Installation: 2.500 Acre | | | | Sig Fig = .001 12 LxW = 43560 = Acre Sq Ft PER Acre |
| Lne' 354+10 To Lne' 355+00 RT | .149 | 8-3-08 JD | 5 | 100' X 65' / 43560 = .149 ✓ |
| Lne' 355+20 To Lne' 361+90 RT | 1.838 | 9-7-08 JD | 5 | 670' X 119.5' / 43560 = 1.838 ✓ complete |
| Page total: | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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**DOCUMENTATION REQUIREMENT
SECTION K
LANDSCAPING AND IRRIGATION ITEMS
(WHEN PAID BY GALLON)**

Landscaping and irrigation items shall be documented in a LANDSCAPING book.

The following is an illustration for an item with a UOM of Gallon.

The illustration below is located on a structure list from the contract plans as shown on pages 6-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and a picture has been taken of the label and placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the station to station, #drums (number of drums), gal, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.** Take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **Calculations will consist of counting drums used or measuring the container and calculating the quantity when a full drum is not used, or if measured by another device showing calculations on how the gallons were derived.**

Payment for Gallon items shall be based on field measure and calculations.

| | | | | | | | |
|----------------------------------------|--------|-----|---------|---------------------------------------------------------------------------------------------------------|------|------|----------------------------------|
| Item No: 2121040 | | | | Sig figs = 1 | | 20 | |
| Item: Fertilizer | | | | The picture of the label from the container must be attached to a calc sheet & placed in the calc book. | | | |
| Plan Qty This Installation: 490 gallon | | | | | | | |
| Station to Station | #drums | gal | Date | Insp | AEB# | Pmr# | Calcs / Remarks |
| *Line* 354+110 To | 2 | 110 | 8-25-08 | TC | S | | 2X55=110 ✓ See calc sheet #25 |
| *Line* 355+20 RT | | | | | | | |
| *Line* 355+20 To | 2 | 110 | 8-26-08 | TC | S | | 2X55=110 ✓ See calc sheet #25 |
| *Line* 362+00 RT | | | | | | | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 7
Traffic Signal and Lighting System Items

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**DOCUMENTATION REQUIREMENT
SECTION A
TRAFFIC SIGNAL AND LIGHTING SYSTEM ITEMS**

Contracts containing traffic signal and lighting system items shall be documented in an ELECTRICAL book, identified by intersections or locations.

To setup the field books, the information on traffic signal or lighting system items shall be found in the contract plans on the Main Structure list, or on a Traffic Signal/Lighting System Structure list, or on the Estimate of Quantities. An illustration of a Traffic Signal Structure list is shown on page 7-2 and an illustration of an Estimate of Quantities is shown in Chapter 2 (Setting up a Contract, Book Format, etc.).

A traffic signal or lighting system area may be placed in a book by itself or with as many traffic signal or lighting systems as room permits. Each traffic signal or lighting system area will have a description page and **each item will be listed on a separate page. Skip at least one line between entries. Make sure to leave enough pages between areas for added or missed items.**

Documentation is different for each unit of measure (UOM). All items shown on the structure list of the plans as incidental to the traffic signal or lighting system area shall be documented in this book, except 201 and 202 removal items, as illustrated in Chapter 4 (Removal Items).

Documentation for practically any traffic signal or lighting system items can be provided by setting up the item in the same manner as an item with the same UOM. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the illustrations, please call Headquarters Construction for assistance.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book(s) to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

Traffic signal or lighting system items **paid by the ton** shall be measured and documented in the same manner as illustrated in Chapter 8 (Roadway Aggregates).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be set up according to Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION B
TRAFFIC SIGNAL OR LIGHTING SYSTEM ITEMS
(STRUCTURE LIST)**

Below is an illustration of a Traffic Signal Structure list. The **Officeperson** shall enter in the field book the information shown on the structure list, as illustrated in this chapter.

| FED. RD. REC. NO. 9 | STATE NEVADA | PROJECT NO. STP-01800(018) | COUNTY CLARK | SHEET NO. T-80 | <h1 style="margin: 0;">STRUCTURE LIST</h1> | | STATION TO STATION |
|------------------------|-----------------|-------------------------------|-----------------|-------------------|--------------------------------------------|------------------------------------------|--------------------|
| | | | | | DESCRIPTION | | |
| | | | | | 623 2083 | DIRECTIONAL DRILLING | |
| | | | | | 623 1269 | SINGLE MODE FIBER OPTIC CABLE (72 FIBER) | 200 5587 10841 |
| | | | | | 623 1028 | 3-INCH CONDUIT | 200 5587 10841 |
| | | | | | 623 0300 | STEEL POLE TYPE 1A | 5 2 15 |
| | | | | | 623 0084 | NO. 9 PULL BOX | 5 2 15 |
| | | | | | 623 0080 | NO. 7 PULL BOX | 5 2 15 |
| | | | | | 200 5587 | Total | 10841 10841 |
| | | | | | 200 5590 | Use Total | 10841 10841 |
| | | | | | *SEE ESTIMATE OF QUANTITIES FOR USE TOTAL | | |

**DOCUMENTATION REQUIREMENT
SECTION C
TRAFFIC SIGNAL OR LIGHTING SYSTEM ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when only one area is placed in a book. 

| Index | | Initial Key | | |
|-------|-----------------------------------------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4 | 'BD' 10155.04 To 'BD' 62+69.89 Install Interconnect (Blue Diamond) | SC | Shelli Cones | Tech IV |
| 6-7 | No. 7 Pull Box | TJ | Tom James | Tech III |
| 9 | No. 9 Pull Box | JD | Jack Dougherty | Tech 3 |
| 11 | Steel Pole Type 1A | TC | Teri Carson | Tech 1 |
| 15-25 | 3-inch Conduit | | | |
| 30-40 | Single Mode Fiber optic Cable (72 Fiber) | | | |
| 42-50 | Directional Drilling | | | |
| 75 | Book recap | | | |

Use when multiple areas are placed in a book. 

| Index | | Initial Key | | |
|-------|------------------------------------------------------------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-20 | 'BD' 10155.04 To 'BD' 62+69.89 Install Interconnect (Blue Diamond) | SC | Shelli Cones | Tech IV |
| 25-50 | 'BD' 26+00 Install Traffic Counting Loops w/pull Boxes 85.69' (RT) and 83.44' (LT) | TJ | Tom James | Tech III |
| | | JD | Jack Dougherty | Tech 3 |
| | | TC | Teri Carson | Tech 1 |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
TRAFFIC SIGNAL OR LIGHTING SYSTEM ITEMS
(DESCRIPTION PAGE)**

The following is an illustration for the Description Page:

The **Officeperson** shall complete a full description as shown in the plans on the structure list for each traffic signal or lighting system area.

This page is required and if more than one area is placed in a field book, this page is used to separate the different areas.

DESCRIPTION PAGE

The image shows a page from a field book, divided into two sections. The left section is ruled with horizontal lines and contains handwritten text: "BD" 10+55.04 To "BD" 62+69.89 Interconnect (Blue Diamond) (Refer to sheets T65 thru T68). The right section is a grid with a vertical red line down the center and a horizontal red line near the top. The number "4" is written in the top right corner of the grid.

**DOCUMENTATION REQUIREMENT
SECTION E
TRAFFIC SIGNAL AND LIGHTING SYSTEM ITEMS
(WHEN PAID BY EACH)**

Traffic signal and lighting system items shall be documented in an ELECTRICAL book identified by intersections or locations.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 7-2 and is listed separately. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station, qty, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Station | Qty | Date | Insp | AEB# | Pmt# | Remarks |
|-----------------------------------------------|-----|--------|------|------|------|---------------------------------------------------------------------|
| BD' 17+90 LT (+Q) | 1 | 9/3/08 | TJ | 8 | | 63' LT |
| BD' 21+40 LT (+e) | 1 | 9/3/08 | TJ | 8 | | 63' LT |
| BD' ²⁴⁺⁹⁰ 25+08 LT (+F) | 1 | 9/3/08 | TJ | 8 | | Pull Box was moved 18' EAST. STORM DRAIN IN THE WAY. 81.5' LT |
| Page total: | | | | | | |

Sig Fig = 1 6

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Traffic signal and lighting system items shall be documented in an ELECTRICAL book, identified by intersections or locations.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 7-2 and is paid at 50% for the pole base and the remaining 50% to be paid when the pole is complete. If there are questions on whether an each item may be paid in this manner, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location, qty, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. The location column can list pole number or letter, run numbers, stations, or station to station.

Tip: When paying 50% (.5) make sure to leave enough room for the remaining 50% (.5) to be placed on the next line.

Payment for Each items will be based on field count.

| Item No: 623 0300 | | | | Sig Fig = 1 | | 11 |
|------------------------------------|-----|---------|------|-------------|------|--------------------|
| Item: Steel Pole Type 1A | | | | 50% Base | | |
| Plan Qty This Installation: 5 Each | | | | 50% Pole | | |
| Location | Qty | Date | Insp | AEB# | Pmr# | Remarks |
| Pole A | .5 | 9/11/08 | JD | 8 | | Pole Base Complete |
| Pole B | .5 | 9/11/08 | JD | 8 | | Pole Base Complete |
| | .5 | 9/12/08 | JD | 8 | | Pole Complete |
| Pole C | .5 | 9/15/08 | JD | 8 | | Pole Base complete |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
TRAFFIC SIGNAL AND LIGHTING SYSTEM ITEMS
(WHEN PAID BY LINEAR FOOT)**

Traffic signal and lighting system items shall be documented in an ELECTRICAL book, identified by intersections or locations.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 7-2

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location, meas linft, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. The location column can list pole number or letter, run numbers, stations, or station to station. **If runs are to be combined in one entry, each run must be listed in the location column and run number and quantity must be listed separately in the remarks column. If a run is not complete make sure to leave enough room below the entry to complete the run.**

Payment for Linft items will be based on field measure.

| Location | Meas Linft | Date | Insp | AEB# | Pmt# | Remarks |
|--------------------------------|------------|--------|------|------|------|-----------------------------------------------------------|
| Run 4+5 | 1150 | 9/2/08 | TC | B | | Run# 4=510 Run#5=640 ✓ Complete |
| Run 6 | 520 | 9/5/08 | TC | B | | complete |
| Run 7,8,9,41D | 1520 | 9/5/08 | TC | B | | Run#7=320 Run#8=590 ✓ Run#9=430 Run#10=180 complete |
| Run 11 | 200 | 9/2/08 | TC | B | | Partial |
| Run 11 | 300 | 9/5/08 | TC | B | | complete |
| - BD 12+55 TO - BD 15+00 RT | 245 | 9/6/08 | TC | B | | Complete |
| Page total | | | | | | |

Sig fig: 1 15

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 8
Roadway Aggregate Items

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**DOCUMENTATION REQUIREMENT
SECTION A
ROADWAY AGGREGATES (TON)**

Contracts containing aggregate items paid by the ton as illustrated in this chapter shall be documented in a LOAD book with the title being the same as the material placed in the book.

To setup the load books, the information for the aggregate items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

Chapter 8 (Roadway Aggregates), Chapter 9 (Plantmix Surfacing, Asphalt Cement and Mineral Filler), and Chapter 11 (Concrete Paving, Roadbed Mod, Recycled Bit. Surface, Micro Surfacing and Misc. Surfacing items) are based on items paid by the ton. Separate load books shall be used for all major roadway aggregates such as type 1-2 class A-B aggregate base and shouldering material, plantmix bituminous surface (PBS), open graded and any other item that is delivered to the job with weigh tickets and is paid by the ton. Minor items such as sand blotter, screenings, etc., may be combined and put in one book if room permits, as long as the book is properly indexed and the record of delivery to the jobsite can be readily found. **Make sure to leave enough pages between items for any added or missed items.**

Load books are required on all contracts with tons items. Ditto marks, vertical lines, arrows, etc. are not acceptable.

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

The Contractor shall not haul loads which are in excess of the limits set by the Department on any new or existing bridge, existing bituminous base and surface, cement treated base, or Portland cement paving which is to remain in place for vehicular traffic within the project or between the project and the material deposits or other sources of materials. The Contractor must comply with load limits established by the Department of the project regardless of the source of materials, whether from designated or non-designated deposits or approved commercial sources. Unless otherwise permitted in writing, do not exceed the maximum loads limits set forth in NRS Chapter 484. See 105.13 of the Standard Specifications of Road and Bridge Construction, (Silver book) for limitations. The VEHICLE WEIGHT LIMIT REPORT (Form No. 040-000) will be completed to assure the vehicle weight is within limits and will be completed by the weighmaster.

If there are any questions concerning the VEHICLE WEIGHT LIMIT REPORT (Form No. 040-000), please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION B
ROADWAY AGGREGATES (TON)
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

**TYPE 1
CLASS B
AGG. LOAD
book**

Use when
only one
item is
placed in a
book.

| Page | Index Description | Initial Key | | |
|------|---------------------|-------------|----------------|----------|
| 4-50 | Type 1 Class B Agg. | Initials | Signature | Title |
| | | SB | Sherril Brown | Tech 4 |
| | | JD | Jack Dougherty | Tech III |

**MISC LOAD
book**

Use when
multiple
items are
placed in a
book.

| Page | Index Description | Initial Key | | |
|-------|-------------------|-------------|----------------|----------|
| 4-10 | Sand blotted | Initials | Signature | Title |
| 15-30 | Screening | SB | Sherril Brown | Tech 4 |
| | | JD | Jack Dougherty | Tech III |

**DOCUMENTATION REQUIREMENT
SECTION C
ROADWAY AGGREGATES (TON)
(DAILY RECORD OF SCALE WEIGHTS, aka 40-LOAD SHEET)
(Form No. 040-009)**

The **Weighmaster** shall do the following:

1. Prepare the DAILY RECORD OF SCALE WEIGHTS as illustrated on pages 8-5 and 8-6. Record the sheet number, pit number or commercial source, material type, date, and contract number. This information is required on each sheet. Due to some pits being on private property and having royalties involved, the Deposit No. shall be recorded in the Pit No. space. Make sure to cross off Pit No. and place Deposit No. above.
2. Weigh the material and record the ticket number, truck number, gross, tare, and net weight in pounds or kilograms (circle one), and net weight (circle Tons or Metric Tons). If a single beam scale is used, gross weights and tare weights must be shown on every load. If a scale with a tare bar, or certified load scales on a silo are used, the gross weights do not need to be shown and the tare weights shall be indicated only when the trucks are tared twice each shift. (See subsection 109.01 of the Standard Specifications for Road and Bridge Construction, (Silver book.)
3. Record the time every five loads with AM and PM listed on each time on the DAILY RECORD OF SCALE WEIGHTS.
4. Calculate and record the total of every 10 loads for the Gross, Tare, Net, and Tons on the DAILY RECORD OF SCALE WEIGHTS. Record the accumulative ton total in the remarks column for every 10 loads.
5. Deduct any waste from the total tons delivered and calculate a new total. If there is no waste, place "0 waste" below the total on the DAILY RECORD OF SCALE WEIGHTS. **An explanation for all waste must be noted and circled in red in the load book.**
6. Sign the bottom of the DAILY RECORD OF SCALE WEIGHTS as **Weighmaster**.
7. Turn the DAILY RECORD OF SCALE WEIGHTS into the office daily.

If NDOT is not the Weighmaster, the Contractor must sign the DAILY RECORD OF SCALE WEIGHTS as Weighmaster.

The **Weighmaster** shall prepare a HAUL TICKET (Form No. 040-049) for the truck driver indicating the following information: Date, load no., type of material, truck no., contract no., tons, and initials. If the Contractor generates COMPUTERIZED TICKETS, as illustrated on page 8-9, it shall be given to the truck driver in lieu of the HAUL TICKET.

If there are any questions concerning HAUL TICKET (Form No. 040-049), please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

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There may be some cases where the scales being used on the contract do not have sufficient length to weigh both truck and trailer loads at the same time. When this happens, the weights of the truck and trailer must be entered separately on the DAILY RECORD OF SCALE WEIGHTS. Be sure to use the correct tare weights for the separate truck and trailer.

The **Officeperson** shall check for mathematical correctness, place the AEB number(s) and stationing from the load book on the DAILY RECORD OF SCALE WEIGHTS, making sure all stations are represented and match the load books. Check to make sure all waste has been explained in the load book and the waste quantity deductions are correct and match the waste shown in the load book. **Show the actual moisture done for the day and the optimum moisture for the material and calculate any adjustments needed.** Sign the DAILY RECORD OF SCALE WEIGHTS as Checked by and Checked against book by.

The DAILY RECORD OF SCALE WEIGHTS shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

Note: All stations must have a line designation and left, right, or centerline.

Whenever the moisture content of aggregate base materials exceeds optimum plus one percent, the excess shall be calculated by the **Officeperson** or **Inspector** and deducted from the weight of material delivered for the day. (Refer to subsection 302.04.01 of the Standard Specifications for Road and Bridge Construction (Silver book) for method of deducting excess water.) These calculations shall be based on the moisture test that represents what was weighed. Actual moistures are located on the FIELD MATERIAL SIEVE WORKSHEET (Form No. 040-013) and optimum moistures are located on the COMPACTION REPORT (Form No. 040-004), line #16. **Assure the actual moisture tests were taken after the material was weighed and prior to additional water added in the field. If moisture was not weighed, it should not be deducted and a note should be placed on the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED TICKET relaying this information.** Compaction reports may not be run daily, so use the compaction report that was completed on or before the date being processed. **Moistures apply to both Type A and Type B aggregate. Moisture tests are required per the Standard Specifications for Road and Bridge Construction (302.04.01) (Silver book) and per the Memorandum dated March 24, 2009.**

Calculations for water deductions, if necessary, shall be shown on the scale sheet as illustrated on page 8-5. The following formulas shall be used to arrive at the daily pay total of aggregate base material when a deduction is necessary:

$$\frac{\text{total aggregate}}{1 + (\text{actual moisture \%} \div 100)} = \text{dry agg}$$

$$\text{dry agg} \times [1 + ((\text{optimum \%} + 1\%) \div 100)] = \text{dry agg pay quantity}$$

For instance, the daily total for aggregate is 1000 tons, actual moisture is 10.9% and optimum moisture is 8.5%, the calculated quantity for payment would be:

$$\frac{1000.00}{1.109} = 901.71 \times 1.095 = 987.37 \text{ dry agg pay total}$$

If calculations are needed and there are more than one AEB number evolved, make sure to prorate the new pay total to all the AEB numbers as illustrated on page 8-5.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

DAILY RECORD OF SCALE WEIGHTS with a moisture adjustment.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

Sheet No. 1

DAILY RECORD OF SCALE WEIGHTS

Pit No. _____

Or Commercial Source Granite/Patrick

Material Type Type 1 Class B AGG

Date 9-30-08

Contract No. 3247

| Ticket No. | Truck No. | Gross Weight | Tare Weight | Net Weight | Net Weight | Time | Remarks |
|------------|-----------|--------------|-------------|------------|--------------------|--------|-------------------------|
| Circle | Units | (Lbs) Kg | (Lbs) Kg | (Lbs) Kg | (Tons) Metric Tons | | |
| 234 | 6 | 88180 | 34320 | 53800 | 2690 | 6:20AM | 1ST TARE "A" 1+00LT |
| 235 | 43 | 84188 | 33757 | 50431 | 2522 | 6:25AM | 1ST TARE |
| 236 | 47 | 90121 | 34710 | 55411 | 2771 | 6:30AM | 1ST TARE |
| 237 | 50 | 92370 | 34727 | 57643 | 2882 | 6:35AM | 1ST TARE |
| 238 | 6 | 90900 | 34380 | 56520 | 2826 | 7:00AM | |
| 240 | 43 | 87259 | 33757 | 53502 | 2675 | | "A" 9+75LT |
| 241 | 47 | 89316 | 34710 | 54606 | 2730 | | "X" 10+15LT |
| 242 | 50 | 93755 | 34727 | 59028 | 2951 | | |
| 243 | 6 | 89901 | 34380 | 55521 | 2776 | | |
| 244 | 43 | 88952 | 33757 | 55195 | 2760 | 7:50AM | |
| | | 894942 | 343285 | 551657 | 275.83 | | 275.83 |
| 245 | 47 | 91976 | 34710 | 57266 | 2863 | | |
| 246 | 50 | 92686 | 34727 | 57959 | 2898 | 8:30AM | "X" 20+03LT |
| | | 184662 | 69437 | 115225 | 57.61 | | Tons Deliv = 333.44 |
| | | | | | | | Tons Wasted = 0 |
| | | | | | | | Tons Placed = 333.44 |
| | | | | | | | AEB #1 = 163.66 |
| | | | | | | | AEB #2 = 169.78 |
| | | | | | | | ACT moisture = 9.6% |
| | | | | | | | DPT moisture = 8.5% |
| | | | | | | | 333.44 - 1.096 = 304.23 |
| | | | | | | | 304.23 X 1.095 = 333.13 |
| | | | | | | | 163.66 ÷ 333.13 = .49 |
| | | | | | | | 169.78 ÷ 333.13 = .51 |
| | | | | | | | 333.13 X .49 = 163.23 |
| | | | | | | | 333.13 X .51 = 169.90 |
| | | | | | | | 333.13 |
| | | | | | | | Adj. Pay Totals = |
| | | | | | | | 163.23 AEB #1 |
| | | | | | | | 169.90 AEB #2 |

NOTES: Take tare weights twice each shift, once prior to starting work in the morning and again at some other time during the day. Note times tares were taken. Record time every five loads.

Sam Smith Weighmaster
Steve Ely Resident Engineer

Rocky Rhoads Checked by
Terrie McCafferty Checked Against Book by

NDOT 040-009 (Rev. 12-00)

DISTRIBUTION: ORIGINAL—Retained by State; COPY—To Contractor.

(0)-557

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

DAILY RECORD OF SCALE WEIGHTS without a moisture adjustment.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

Sheet No. 1

DAILY RECORD OF SCALE WEIGHTS

Pit No. _____

Or Commercial Source Granite/Patrick

Material Type Type 1 Class B Agg

Date 9-28-08

Contract No. 3247

| Ticket No. | Truck No. | Gross Weight | | Tare Weight | | Net Weight | | Net Weight | | Time | Remarks |
|------------|-----------|--------------|---|-------------|---|------------|---|------------------|--|--------|----------------------------|
| Circle | Units | Lbs/Kg | | Lbs/Kg | | Lbs/Kg | | Tons/Metric Tons | | | |
| 1521 | 6 | 8818 | 0 | 3438 | 0 | 5380 | 0 | 2690 | | 6:20AM | 1ST TARE "P" 10+00 RT |
| 1522 | 43 | 8418 | 8 | 3375 | 7 | 5043 | 1 | 2522 | | 6:25AM | 1ST TARE |
| 1523 | 57 | 10012 | 1 | 4471 | 0 | 5541 | 1 | 2771 | | 6:30AM | 1st TARE |
| 1524 | 50 | 9237 | 0 | 3472 | 7 | 5764 | 3 | 2832 | | 6:35AM | 1st TARE |
| 1525 | 6 | 9090 | 0 | 3438 | 0 | 5652 | 0 | 2826 | | 6:40AM | "P" 11+80 RT |
| | | 455759 | | 181954 | | 273805 | | 136.91 | | | Tons Deliv = 136.91 |
| | | | | | | | | | | | Waste = 0 |
| | | | | | | | | | | | Tons Placed = 136.91 AFB#1 |
| | | | | | | | | | | | ACT moisture = 4.6% |
| | | | | | | | | | | | opt moisture = 7.5% |
| | | | | | | | | | | | NO ADS. |

NOTES: Take tare weights twice each shift, once prior to starting work in the morning and again at some other time during the day. Note times tares were taken. Record time every five loads.

Stanley Jones Weighmaster
Joe Taylor Resident Engineer

Oliver Joseph Checked by
Mark Travis Checked Against Book by

NDOT 040-009 (Rev. 12-00)

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**DOCUMENTATION REQUIREMENT
SECTION D
WEIGHMASTER'S CHECKLIST**

The scale person shall post a copy of the **Weighmaster's** checklist in each scale shack for easy reference.

1. Inspect scale area for proper drainage of water away from scale installation.
2. See that ramps or approaches to scale are kept smooth to prevent bouncing of vehicles on the platform. Lock scale beams in place when trucks are driving on or off platform.
3. Check to see that the scale has been inspected and sealed by the Bureau of Weights and Measures as required in subsection 109.01 of the Standard Specifications for Road and Bridge Construction (Silver book).
4. Inspect the scale platform often to see that the surface is kept free of mud, gravel, or any other material accumulating on the surface that might affect the weights or become lodged between the platform and frame in such a way that the scale operation is impaired.
5. Before beginning work and occasionally during the day, check to see that the scale balances at zero when empty.
6. Obtain tare weights of all trucks to be used before work commences and again later in the shift. Record the tare weights and the time they are taken on the DAILY RECORD OF SCALE WEIGHTS. Demand that a new tare be taken whenever you suspect the weight has changed due to accumulation of mud or any other condition. The truck driver is to remain in the truck at all times when tares are taken or when loads are being weighed.
7. Make sure to record all necessary information on the DAILY RECORD OF SCALE WEIGHTS. It is the **Weighmaster's responsibility** to record the following information:

| | |
|------------------------|---------------------------------------------------------------|
| Sheet number | Gross weights (when single beam scale is used), lbs/kg |
| Pit number | Tare weights, lbs/kg |
| Material Type | Net weights, lbs/kg |
| Contract number | Net weights, tons |
| Date | Time (every five loads and at tares) |
| Ticket numbers | Subtotals & accum. totals every 10 loads |
| Truck numbers | Weighmaster's signature |

8. Know how to operate the type of scale being used. The gross and tare weights must be shown on every load when a single beam scale is used. Be sure to note at which loads the tare weights were actually taken.

If a double beam scale with a tare bar is used, be sure to enter the correct tare in the scale with each load. No gross weights need be shown and tares shall be shown only when they are taken.

9. Prepare a HAUL TICKET for each load weighed as explained on page 8-3. Give the original of each HAUL TICKET to the truck driver. Carbon copies of HAUL TICKETS are turned into the field office daily to be used for checking if a ticket is lost.
10. Make sure to use separate DAILY RECORD OF SCALE WEIGHTS if more than one type of material is being weighed.

Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION E
ROADWAY AGGREGATES (TON)
(COMPUTERIZED SCALE TICKETS)**

Some Contractors are equipped with automated scales, which produce a COMPUTERIZED ticket with each load as illustrated on page 8-9. On projects where these facilities are available, these tickets may be used in lieu of the DAILY RECORD OF SCALE WEIGHTS to document roadway aggregates. **Each COMPUTERIZED ticket must contain the date, material source, material type, ticket number, truck number, gross, tare and net weights, tons, time and accumulative total.**

Each day, the **Officeperson** shall add all of the tickets to verify the accumulative total and initial. If the total is incorrect the **Officeperson** must investigate. If the error is only a rounding error, the **Officeperson** will line through the printed total and place the new total above and initial. If there are loads missing, then a DAILY RECORD OF SCALE WEIGHTS (Form No. 040-009) must be completed in lieu of the COMPUTERIZED tickets. The **Officeperson** shall place the AEB number(s) and stationing from the load book on the last COMPUTERIZED ticket for the day, making sure all stations are represented and match the load books. **Show the actual moisture done for the day and the optimum moisture for the material and calculate any adjustments needed.** The Resident Engineer must sign, **not initial** the last ticket for the day.

If there is waste for the day it must be deducted from the checked accumulative total and the tons placed, must be initialed after any deductions are shown. If there is zero waste, place 0 waste on the last scale ticket for the day. An explanation for all waste must be noted in the load book.

The last ticket along with the load books, become the source documents and shall be turned in at the completion of the contract.

Special care must be taken to insure that only those loads used on the contract are included in the accumulated total shown on the ticket and accumulative tons are zeroed each day.

The last COMPUTERIZED ticket for the day shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

Load books as illustrated on page 8-11 and spreadsheet as illustrated on page 8-13 are still required when using this method.

Information required on every computerized ticket:

- Date
- Material source
- Material type
- Ticket and truck number
- Gross, tare, net weights, and tons
- Accumulative total tons
- Time

On the last ticket of the day, the following information must be recorded:

- Beginning and ending stations, making sure all stations are represented and match the load book
- Stations shall have a line designation left, right, or center line
- AEB number
- Pit information
- Optimum and actual moistures, making sure to show calculations for any adjustments that are needed (see page 8-4 for calculations)
- Waste, if zero waste, place 0 waste
- Resident Engineers **signature** and checker's initials

| | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|--------------|-----------------|
|  | | SIGN AND RETURN | | | | CONTROL NO. → 531322 | | |
| | | | | TICKET NO. → 21943422 | | | | |
| | | DATE | TIME | HAULER NO. | TRUCK NO. | | | |
| | | 2/9/2008 | 8:01:41 AM | | TR1809 | | | |
| CUSTOMER | PURCHASE ORDER NO. | PRODUCT CODE | SALE TYPE | ZONE | PLANT NO. | PROJECT NO. | LOAD | ACCUM. AMOUNT |
| Joan P.t 627198 | 321500 | 71332 | Picku. | | 219 | 3215 | 36 | 1300.58 /SB |
| CUSTOMER NAME | | | | JOB NAME / DIRECTIONS | | | | Total Delus |
| Contract Sales - SNP | | | | NDOT 3247 SR-160, Blue Diamond and I-15 BD' 10+95 To BD' 62+20 RT opt moisture - 5.2 /SB ACT moisture - 3.7 NO ADJ 1300.58 placed @ waste AEB#2 | | | | |
| RE. <i>Joe Green</i> | | | | | | | | |
| PRODUCT | QUANTITY | UNIT | PRICE | AMOUNT | | MEGA GRAMS | POUNDS | TONS |
| Type 1 B | 34.89 | Ton | | | GROSS | 55.29 | 121900 | 60.95 |
| | | | | | TARE * | 23.64 | 52120 | 26.06 |
| | | | | | NET | 31.65 | 69780 | 34.89 |
| | | | | | TOTAL DUE | | | |
| I / We relieve the seller of any liability for personal injury or property damage when delivery is made beyond the curb line. See reverse side. * Predetermined Tare | | | | | ARRIVE JOB | DEPART JOB | WAITING TIME | WEIGHT MASTER |
| | | | | | | | | <i>Susan Le</i> |

**DOCUMENTATION REQUIREMENT
SECTION F
ROADWAY AGGREGATES (TON)
(LOAD BOOK)**

Separate load books shall be used for all major roadway aggregates such as type 1-2 class A-B aggregate base and shouldering material. Minor items such as sand blotter, screenings, etc., may be combined and put in one book if room permits, as long as the book is properly indexed and the record of delivery to the jobsite can be readily found. An illustration of a page in a load book is on page 8-11.

The **Officeperson** shall complete for each page all headings, Record of Delivery, date, type of material, ticket no., truck no., time, station, tickets taken by, and checked against scale sheet. Alternate load books may be used in order that one book remains in the office for checking and posting while the other is being used in the field. The headings may be handwritten or stamped. A stamp can be ordered through Headquarters Construction.

When the load is delivered to the jobsite, the truck driver will hand the ticket to the **Inspector**. The **Inspector** will record the **date, type of material, ticket no., truck no., time every fifth load, and beginning and ending station for each page** in the load book. Make sure all stations have a line designation left, right, or center line and equations are listed to explain any changes in the line. The **Inspector** shall initial tickets taken by:.

Load books are required on all contracts with ton items. Ditto marks, vertical lines, arrows, etc. are not acceptable.

The **Inspector**, at the end of the shift, will turn the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets and the load book into the field office.

The **Officeperson** shall compare the load book against the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets. If there is a ticket, the load most likely arrived at the jobsite. If there is a ticket that does not show in the load book and should be included for payment, document the ticket in the appropriate load book. Loads appearing on the DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets, that are not to be included for payment, must have a satisfactory explanation. **Stations in the load book and the DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day must match.**

All waste quantities in the load books shall be explained and circled in red. On the last page of the day, in the load books, circle in red the total tons wasted for the day. If there is zero waste, place 0 waste and circle in red. Remember, an explanation for all waste must be noted.

The **Officeperson** shall initial each page at the bottom, "checked against scale sheet" in the load book indicating that it was crosschecked against the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets.

The DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day and the load books together become the source documents and must be turned in at the completion of the job.

Below is an illustration of a page in a TYPE 1 CLASS B AGG. LOAD book.

Make sure the following is recorded on each page:

- A complete date
- Type of Material
- Ticket No. **not** the load No., unless there is no ticket No.
- Truck No.
- Time is every 5th load
- Beginning and ending station per page
- Any equations to explain a change in the line designation
Lt, Rt, or C/L on each station
- All waste is recorded and explained
- All waste, including 0 waste is circled in red
- Tickets taken by must be initialed
- Checked against scale sheet must be initialed

See page 8-10 for instructions on load books.

20

| RECORD OF DELIVERY | | | |
|--------------------|--------------------|---------|--------------|
| DATE: | 9-30-08 | | |
| Type of Material: | Type 1 Class B Agg | | |
| Ticket No. | Truck No. | Time | Station |
| 234 | 6 | 6:20 AM | "A" 1+00 LT |
| 235 | 43 | | |
| 236 | 47 | | |
| 237 | 50 | | |
| 238 | 6 | 7:00 AM | |
| 240 | 43 | | "A" 9+75 LT |
| 241 | 47 | | "X" 10+15 LT |
| 242 | 50 | | |
| 243 | 6 | | |
| 244 | 43 | 7:50 AM | |
| 245 | 47 | | |
| 246 | 50 | 8:30 AM | "X" 20+03 LT |

Tickets taken by: JD

Checked against scale sheet: SB

0 waste

**DOCUMENTATION REQUIREMENT
SECTION G
(ROADWAY AGGREGATES (TON
(OTHER METHODS OF PAYMENT)**

When an NDOT Weighmaster and COMPUTERIZED tickets are not available, a copy of the Contractor's scale sheet should be obtained as source documentation. If the Contractor's scale sheet is not available, the ticket information must be transferred to a DAILY RECORD OF SCALE WEIGHTS, along with all other required information, and signed by the Contractor's Weighmaster.

If weights are not attainable and payment will be based on the plan quantity as shown on the summary sheet in the plans, use the appropriate calculation shown below to obtain the tons for payment.

ENGLISH-CUBIC YARDS

UNIT WEIGHT = POUNDS PER CUBIC FOOT

POUNDS PER CUBIC FOOT X 27 = POUNDS PER CUBIC YARDS

$\frac{\text{LENGTH X WIDTH X DEPTH}}{27} = \text{CUBIC YARDS}$

CUBIC YARDS X POUNDS PER CUBIC YARDS = POUNDS

$\frac{\text{POUNDS}}{2000} = \text{TONS}$

ENGLISH-CUBIC FOOT

UNIT WEIGHT = POUNDS PER CUBIC FOOT

LENGTH X WIDTH X DEPTH = CUBIC FEET

CUBIC FEET X POUNDS PER CUBIC FOOT = POUNDS

$\frac{\text{POUNDS}}{2000} = \text{TONS}$

The **Unit Weight** is taken from the COMPACTION REPORT (Form No. 040-004) line 28 or from the NUCLEAR COMPACTION REPORT FOR SOILS AND AGGREGATES (Form No. 040-007), under the Harvard Miniature Compaction section, Calc. Max. Density pcf. Attach the test report(s) to a CALCULATION sheet (Form No. 040-034). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s) as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The above calculations are only used when weights cannot be obtained for an item paid by the ton.

**DOCUMENTATION REQUIREMENT
SECTION H
ROADWAY AGGREGATES (TON)
(SPREADSHEET)**

All aggregate quantities paid by the ton shall be posted on a **spreadsheet** by the Officesperson as illustrated below. The significant figure is to the hundredth (.01). Each day will be listed separately and a final total is required on every column except the date and payment no. column. The DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets shall be kept in order as listed on the spreadsheet. The spreadsheet and the DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets will be filed in Section 1-Contract Files, Division No.12 as described in Chapter 1 (Organization of Project).

The yellow side of the spreadsheet is for posting the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets. The green side is for posting what has been paid on the turnaround document. If an error is found at a later date on the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets the correction is to be made to the **original entry** on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction will affect the turnaround document then the correction will be made on the next progress payment and will be entered on the green side of the spreadsheet.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 ITEM NO. 302 0500 - TYPE 1 CLASS B AGG. BASE PLAN QUANTITY = 80,000.00 TONS | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|---------------------|---------------------|--------------------|----------------|
| DATE | AEB #1 TOTAL | AEB #2 TOTAL | AEB #9 TOTAL | DAILY TOTAL | ACCUM TOTAL | AEB #1 PAY TOTAL | AEB #2 PAY TOTAL | AEB #9 PAY TOTAL | ACCUM PAY TOTAL | PAYMENT NO. |
| 2/9/2008 | | 1300.58 | | 1300.58 | 1300.58 | | 1300.58 | | 1300.58 | 9 |
| 2/25/2008 | 2864.69 | | | 2864.69 | 4165.27 | | | | | |
| 3/13/2008 | 3884.84 | | | 3884.84 | 8050.11 | | | | | |
| 3/31/2008 | 3630.28 | | | 3630.28 | 11680.39 | | | | | |
| 4/3/2008 | 4659.43 | | | 4659.43 | 16339.82 | | | | | |
| 4/4/2008 | 3856.42 | | | 3856.42 | 20196.24 | 18895.66 | | | 20196.24 | 15 |
| 4/11/2008 | 187.03 | | | 187.03 | 20383.27 | | | | | |
| 4/14/2008 | 7029.76 | | | 7029.76 | 27413.03 | | | | | |
| 4/18/2008 | 3393.47 | | | 3393.47 | 30806.50 | | | | | |
| 4/19/2008 | 5212.29 | | | 5212.29 | 36018.79 | | | | | |
| 4/20/2008 | 4942.41 | | | 4942.41 | 40961.20 | 20764.96 | | | 40961.20 | 16 |
| 5/4/2008 | 1045.13 | | | 1045.13 | 42006.33 | 1045.13 | | | 42006.33 | 17 |
| 5/18/2008 | 2374.10 | | | 2374.10 | 44380.43 | | | | | 18 |
| 5/19/2008 | 4234.18 | | | 4234.18 | 48614.61 | 6608.28 | | | 48614.61 | |
| 5/22/2008 | 4861.10 | | | 4861.10 | 53475.71 | | | | | |
| 5/23/2008 | 4206.46 | | | 4206.46 | 57682.17 | | | | | |
| 5/25/2008 | 2129.27 | | | 2129.27 | 59811.44 | 11196.83 | | | 59811.44 | 19 |
| 6/5/2008 | 645.43 | | | 645.43 | 60456.87 | | | | | |
| 6/6/2008 | 5434.21 | | | 5434.21 | 65891.08 | 6079.64 | | | 65891.08 | 20 |
| 6/30/2008 | | | 6782.00 | 6782.00 | 72673.08 | | | | | |
| 7/12/2008 | | | 5620.00 | 5620.00 | 78293.08 | | | 12402.00 | 78293.08 | 23 |
| 8/16/2008 | | | 5925.00 | 5925.00 | 84218.08 | | | 5925.00 | 84218.08 | 25 |
| 9/28/2008 | 136.91 | | | 136.91 | 84354.99 | | | | | |
| 9/30/2008 | 163.23 | 169.90 | | 333.13 | 84688.12 | 300.14 | 169.90 | | 84688.12 | 28 |
| FINAL TOTALS | 64890.64 | 1470.48 | 18327.00 | 84688.12 | 84688.12 | 64890.64 | 1470.48 | 18327.00 | 84688.12 | |

**DOCUMENTATION REQUIREMENT
SECTION I
ROADWAY AGGREGATES
(WHEN PAID BY CUBIC YARD)
(STRUCTURE LIST)**

Roadway aggregates with a UOM of Cuyd shall be documented in a MISC. book. If only one type of roadway aggregate is being placed in a field book then the title will be the name of that item (example: if Type 1 Class A Aggregate is placed in a field book by itself then the book will be named TYPE 1 CLASS A AGG.).

To setup the field book, the information on roadway aggregate with a UOM of Cuyd shall be found in the contract plans on the Main Structure list or on the Estimate of Quantities. An illustration of a Main Structure list is shown below and an illustration of an Estimate of Quantities is shown in Chapter 2 (Setting up a Contract, Book Format, etc.).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

The book shall be recapped as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

The **Officeperson** shall enter in the field book the information shown on the structure list below and as illustrated on page 8-16.

| | | | | | | | | | | | | | | | FED. RD. DIST. NO. | STATE | PROJECT NO. | COUNTY | SHEET NO. |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------|
| | | | | | | | | | | | | | | | 8 | NEVADA | STP-0162(016) | CLARK | S-01 |
| | | | | | | | | | | | | | | | STRUCTURE LIST | | | | |
| | | | | | | | | | | | | | | | DESCRIPTION | STATION TO STATION | | | |
| | | | | | | | | | | | | | | | NOTE: ALL LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER | | | | |
| | | | | | | | | | | | | | | | 400 | REPAIR CATTLE GUARD, (RT) | "X" 75+90 "X" 97+54 | | |
| | | | | | | | | | | | | | | | 350 | REPAIR CATTLE GUARD, (RT.) | "X" 98+10 "X" 105+10 | | |
| | | | | | | | | | | | | | | | 1288 | CONSTRUCT TYPE 5 CURB & GUTTER WITH 5' SIDEWALK, (LT) (CONSTRUCT TYPE D CURB RAMP 68.51' (LT) "BD" 10+72.74 AND 75.93' (LT) "BD" 22+94.15) | "BD" 10+55.75 "BD" 22+96.11 | | |
| | | | | | | | | | | | | | | | 2079 | CONSTRUCT TYPE 5 CURB & GUTTER WITH 5' SIDEWALK, (RT) (CONSTRUCT TYPE D CURB RAMP 77.55' (RT) "BD" 10+85.27) | "BD" 10+66.99 "BD" 31+05.83 | | |
| | | | | | | | | | | | | | | | 2118 | 92 | 2 | CONSTRUCT MEDIAN ISLAND WITH TYPE D CURB RAMP 26.50' (LT) "BD" 32+71.48 TO 14.50' (RT) "BD" 33+16.49 | "BD" 22+44.36 "BD" 33+41.60 |
| | | | | | | | | | | | | | | | 11.6 | 21 | | CONSTRUCT TYPE 5 CURB & GUTTER WITH 5' SIDEWALK, (RT) (CONSTRUCT TYPE D CURB RAMP 30.00' (RT.) "R3" 0+88.50) | "BD" 37+20.91 "BD" 37+25.91 |
| | | | | | | | | | | | | | | | 14.2 | 26 | | CONSTRUCT TYPE 5 CURB & GUTTER WITH 5' SIDEWALK, (LT.) | "BD" 37+20.91 "BD" 37+29.13 |

ROADWAY AGGREGATES (WHEN PAID BY CUBIC YARD) (BOOK INDEX AND INITIAL KEY)

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

MISC. book

Use when
multiple
items are
placed in
a book.



| Index | | Initial Key | | |
|-----------|-------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-6 | Type 1 Class B Agg | SS | Shelli Jones | Tech IV |
| 8 | V-Type Ditches | | | |
| 10-11 | Seeding (Type A) | JD | Jack Dougherty | Tech III |
| 13-21, 25 | Plant mix Misc. Areas | MD | Mary Davis | Tech I |
| 22-23 | Portable Precast Conc. Barrier Rail | LP | Lynne Phillips | Tech II |
| 25-28 | Elastomeric Conc. (deactivated) | TC | Tenni Carson | Tech I |
| 30-32 | Adjusting Covers (method A) | LS | Lauree Joseph | Tech I |
| 40-45 | Adjusting Covers (method B) | | | |
| 52-60 | Adjusting Covers (method C) | | | |
| 62 | Rubber Additive | | | |
| 64-70 | Class A Conc. Aprons | | | |
| 75 | Book Recap | | | |

Skipping lines on the index allows items to be added. Elastomeric concrete (deactivated) was added by change order.

TYPE 1 CLASS A AGG. LOAD book

Use when
only one
item is
placed in a
book.



| Index | | Initial Key | | |
|-------|---------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-20 | Type 1 Class A Agg. | SB | Shelli Brown | Tech 4 |
| | | JD | Jack Dougherty | Tech III |
| | | SS | Shelli Jones | Tech IV |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 75 | Book Recap | | | |

Roadway aggregates with a UOM of Cuyd shall be documented in a MISC. book. If only one type of roadway aggregate is being placed in a field book then the title will be the name of that item (example: if Type 1 Class A Aggregate is placed in a field book by itself then the book will be named TYPE 1 CLASS A AGG.).

The illustration below is used when roadway aggregate has a UOM of Cuyd.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, significant figure on the top right-hand side of the page, all column headings, AEB number, page total in the bottom left-hand corner of the page, station to station, and plan for each location if indicated on a structure list. If an item with a UOM of Cuyd is not on a structure list omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. Calculations must be checked and initialed.**

Daily, the **Inspector** shall document station to station and AEB# if not already entered, cuyd, date, initials, the calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. If the item is located on a structure list on the same line as other items the plan qty heading will be changed to plan qty this installation.

Payment for Cuyd items shall be based on plan quantity or field measure and calculations if different than plan.

| Item No: 3020592 | | | | Sig Fig = .01 | | 4 |
|--------------------------------|--------|--------|---------|-----------------------|------|--------------------------------|
| Item: Type 1 Class A Aggregate | | | | L X W X D ÷ 27 = Cuyd | | |
| Plan Qty: 2,000.00 cuyd | | | | | | |
| Station To Station | Plan | cuyd | Date | Insp | AEB# | Calc/Remarks |
| 'X' 75+90 To 'X' 97+54 RT | 400.00 | 438.81 | 1-25-08 | JD | 2 | 2164 X 7.3 X .75 / 27 = 438.81 |
| 'X' 98+10 To 'X' 105+10 RT | 350.00 | | | | 2 | |
| Page total: | | | | | | |

CHAPTER 9
Plantmix Surfacing
Asphalt Cement and Mineral Filler

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| SECTION C | |
| Daily Record of Scale Weights (Form No. 040-009) Instructions..... Illustration..... | 9-4 9-5 |
| SECTION D | |
| Computerized Tickets Instructions..... Illustration..... | 9-6 9-7 |
| SECTION E | |
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| SECTION F | |
| Daily Plant Report of Asphalt Mixtures (Form No. 040-011) Instructions..... | 9-11 |
| SECTION G | |
| Plantmix Surfacing Spreadsheet..... | 9-12 |
| SECTION H | |
| Asphalt Cement and Mineral Filler Record of Delivery book Instructions..... Index and Initial key..... Asphalt Cement and Mineral Filler-Record of Delivery..... Asphalt Cement-Plant Record..... | 9-13 9-14 9-15 9-16 |
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CHAPTER 9
Plantmix Surfacing
Asphalt Cement and Mineral Filler

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| Bill of Lading Calculation Sheet | |
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**DOCUMENTATION REQUIREMENT
SECTION A
PLANTMIX SURFACING**

Contracts containing aggregate items paid by the ton as illustrated in this chapter shall be documented in a LOAD book with the title being the same as the material placed in the book.

To setup the load books, the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.), found in the contract plans shall list the paving bid items that will be used on the contract. **Remember if the contract is wet tons there will be no bid item for asphalt cement or mineral filler.**

Load books are required on all contracts. Ditto marks, vertical lines, arrows, etc. are not acceptable.

Alternate load books may be used in order that one book remains in the office for checking and posting while the other is being used in the field. The headings may be handwritten or stamped. A stamp can be ordered through Headquarters Construction.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

A Jobmix Formula is required on every job for both plantmix and open graded. A memo from the lab approving a mix design from another contract will not replace the JMF for your contract.

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be set up according to Chapter 2 (Setting up a Contract, Book Format, etc.). Load books do not have a book recap.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

PLANTMIX SURFACING

Each **Hotplant/Marination Inspector** must complete the following documentation:

1. Hotplant and/or Marination Plant diary
If there are any questions concerning the Daily Diaries, please contact Headquarters Construction Quality Assurance for assistance.
2. DAILY RECORD OF SCALE WEIGHTS (Form No. 040-009) or collect the COMPUTERIZED tickets. Instructions and illustrations are in Chapter 8 (Roadway Aggregates) and pages 9-4 thru 9-7.
3. Plant Inspector's portion of the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011). If there are any questions concerning the Daily Plant Report of Asphalt Mixtures, please contact Headquarters Construction Quality Assurance for assistance.
4. ASPHALT CEMENT book: Record of Delivery, see page 9-15 and for the Plant Record, see page 9-16.
5. MINERAL FILLER book: Record of Delivery-same as Asphalt, see page 9-15.
6. TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016), see page 9-17. If there are any questions concerning the Transmittal for Asphalt Samples, please contact the Materials Division.
7. Bill of Ladings and certifications for asphalt and mineral filler, see pages 9-18 and 9-19.

Each **Street Inspector** must complete the following documentation:

1. DAILY CONSTRUCTION REPORT (Form No. 040-056). If there are any questions concerning the Daily Diaries, please contact Headquarters Construction Quality Assurance for assistance.
2. Load book, DAILY RECORD OF SCALE WEIGHTS (40-load sheet Form No. 040-009) or collect COMPUTERIZED tickets. Instructions and illustrations are in Chapter 8 (Roadway Aggregates) and pages 9-4 thru 9-7.
3. Street Inspector's portion of the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011). If there are any questions concerning the Daily Plant Report of Asphalt Mixtures, please contact Headquarters Construction Quality Assurance for assistance.

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**DOCUMENTATION REQUIREMENT
SECTION B
PLANTMIX SURFACING
(HOTPLANT AND MARINATION INSPECTOR'S DIARY)
(Form No. 040-056A)
(DAILY CONSTRUCTION REPORT)
(Form 040-056)**

There are two versions of the DAILY DIARY REPORT. Hard copies are available in the Stockroom or the Electronic version on Sharepoint. For the electronic version, a copy will be printed and signed by the employee. For both the hard copy and the electronic version, copies will be made and distributed. The distribution for both versions is listed at the bottom of each form.

If a **hotplant or marination** plant supplies material for multiple projects for different Resident Engineers, it is up to the **Hotplant and/or Marination Inspector** to find out the contract numbers and record those numbers at the top of each diary page. The original diary shall be sent to the appropriate department for review and a copy kept with the Inspector's contract. Copies shall be made and sent to the other Resident Engineers for the remainder of the projects. This does not relieve any of the other documentation requirements. Follow the distribution instructions on the bottom of the form.

Construction Inspectors assigned to a particular phase of construction activity are required to prepare a DAILY CONSTRUCTION REPORT. This report shall be completed and submitted to the field office daily and signed by the **Inspector** and reviewed and signed by the **Resident Engineer**. The original shall be submitted to the appropriate department for review. Follow the distribution instructions on the bottom of the form. The **Inspector** shall retain a copy and a copy shall be filed in Section 1-Division No. 15 as described in Chapter 1 (Organization of a Project, etc.).

If there are any questions concerning the DAILY DIARIES (Form No. 040-056A) or the CONSTRUCTION REPORTS (Form No. 040-056), please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION C
PLANTMIX SURFACING
(DAILY RECORD OF SCALE WEIGHTS, aka 40-LOAD SHEET)
(Form No. 040-009)**

The **Weighmaster** shall do the following:

1. Prepare the DAILY RECORD OF SCALE WEIGHTS as illustrated on pages 9-5. Record the sheet number, pit number or commercial source, material type, date, and contract number. This information is required on each sheet. Due to some pits being on private property and having royalties involved, the Deposit No. shall be recorded in the Pit No. space. Make sure to cross off Pit No. and place Deposit No. above.
2. Weigh the material and record the ticket number, truck number, gross, tare and net weight in pounds or kilograms (circle one), and net weight (circle Tons or Metric Tons). If a single beam scale is used, gross weights and tare weights must be shown on every load. If a scale with a tare bar, or certified load cells on a silo are used, no gross weights need be shown and the tare weights shall be indicated only when the trucks are tared twice each shift. (See subsection 109.01 of the Standard Specifications for Road and Bridge Construction, (Silver book.)
3. Record the time every five loads on the DAILY RECORD OF SCALE WEIGHTS.
4. Calculate the total of every 10 loads for the Gross, Tare, Net, and Tons on the DAILY RECORD OF SCALE WEIGHTS. Record the accumulative total in the Remarks column for every 10 loads.
5. Deduct any waste from the total tons delivered and calculate a new total. If there is no waste, place 0 waste below the total on the DAILY RECORD OF SCALE WEIGHTS. **An explanation for all waste must be noted and circled in red in the load book.**
6. Sign the bottom of the DAILY RECORD OF SCALE WEIGHTS as **Weighmaster**.
7. Turn the DAILY RECORD OF SCALE WEIGHTS into the office daily.

If NDOT is not the Weighmaster, the Contractor must sign the DAILY RECORD OF SCALE WEIGHTS as Weighmaster.

There may be some cases where the scales being used on the contract do not have sufficient length to weigh both truck and trailer loads at the same time. When this happens, the weights of the truck and trailer must be entered separately on the DAILY RECORD OF SCALE WEIGHTS. Be sure to use the correct tare weights for the separate truck and trailer.

The DAILY RECORD OF SCALE WEIGHTS shall be filed in Section 1 - Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

The **Officeperson** shall check for mathematical correctness, place the AEB number(s), and stationing from the load book on the DAILY RECORD OF SCALE WEIGHTS, **making sure all stations are represented and match the load books and the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011)**. Check to assure all waste has been explained and circled in red in the load book and the waste quantity deductions are correct and match the waste shown in the load book. Sign the DAILY RECORD OF SCALE WEIGHTS as Checked by and Checked against book by.

Note: All stations must have a line designation and left, right, or center line.

The Weighmaster's Checklist is explained in Chapter 8 (Roadway Aggregates).

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

DAILY RECORD OF SCALE WEIGHTS

Material Type: PBS Type 2C

Sheet No. 1
Pit No. _____
Or Commercial Source: Sloam
Date: 8/17/08
Contract No. 3247

| Ticket No. | Truck No. | Gross Weight | Tare Weight | Net Weight | Net Weight | Time | Remarks |
|------------|-----------|--------------|-------------|------------|--------------------|----------|------------------------|
| Circle | Units | (Lbs) Kg | (Lbs) Kg | (Lbs) Kg | (Tons) Metric Tons | | |
| 5172 | 192353 | 7 8 6 6 0 | 3 4 6 8 0 | 4 3 9 8 0 | 2 1 9 9 | 11:01 AM | 1st TAKE "BD" 17+70 RT |
| 5173 | 192346 | 7 4 6 6 0 | 3 5 3 4 0 | 3 2 1 2 0 | 1 6 0 6 | | 1st TAKE |
| 5174 | 192333 | 7 1 5 0 0 | 3 4 6 8 0 | 3 6 8 2 0 | 1 8 4 1 | | |
| 5175 | 192346 | 7 4 4 8 0 | 3 5 3 4 0 | 3 9 1 4 0 | 1 9 5 7 | | |
| 5176 | 192333 | 7 6 8 8 0 | 3 4 6 8 0 | 4 2 2 0 0 | 2 1 1 0 | | "BD" 15+90 RT |
| 5177 | 192346 | 7 6 3 6 0 | 3 5 4 0 4 | 4 0 9 5 6 | 2 0 4 8 | 12:55 PM | "BD" 10+12 RT |
| 5178 | 192333 | 7 5 8 8 0 | 3 4 6 8 0 | 4 1 2 0 0 | 2 0 6 0 | | |
| 5179 | 192346 | 7 6 0 0 0 | 3 5 3 4 0 | 4 0 6 6 0 | 2 0 3 3 | 1:30 PM | "BD" 8+10 RT |
| | | 59 7220 | 280144 | 317076 | 158.54 | | 158.54 |
| | | | | | | | AEB#1 = 97.13 |
| | | | | | | | AEB#2 = 61.41 |
| | | | | | | | 158.54 |
| | | | | | | | Waste = 0 |
| | | | | | | | 158.54 placed |

NOTES: Take tare weights twice each shift, once prior to starting work in the morning and again at some other time during the day. Note times tares were taken. Record time every five loads.

Sam Elliott Weighmaster
Joe Green Resident Engineer
Shelli Jones Checked by
Demi Brown Checked Against Book by

DDOT 040-011 (REV. 12-00) DISTRIBUTION: ORIGINAL—Retained by State; COPY—To Contractor. (0)-557

**DOCUMENTATION REQUIREMENT
SECTION D
PLANTMIX SURFACING
(COMPUTERIZED SCALE TICKETS)**

Some Contractors are equipped with automated scales, which produce a COMPUTERIZED ticket with each load as illustrated on page 9-7. On projects where these facilities are available, these tickets may be used in lieu of the DAILY RECORD OF SCALE WEIGHTS to document roadway aggregates. **Each COMPUTERIZED ticket must contain the date, material source, material type, ticket number, truck number, gross, tare and net weights, tons, time and accumulative total.**

Each day, the **Officeperson** shall add all of the tickets to verify the accumulative total and initial. If the total is incorrect the **Officeperson** must investigate. If the error is only a rounding error, the **Officeperson** will line through the printed total and place the new total above and initial. If there are loads missing, then a DAILY RECORD OF SCALE WEIGHTS (Form No. 040-009) must be completed in lieu of the COMPUTERIZED tickets. The **Officeperson** shall place the AEB number(s) and stationing from the load book on the last COMPUTERIZED ticket for the day, making sure all stations are represented and match the load books and the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011). The Resident Engineer must sign, **not initial** the last ticket for the day.

If there is waste for the day it must be deducted from the checked accumulative total and the tons placed, after any deductions, must be initialed. If there is zero waste, place "0 waste" on the last scale ticket for the day. An explanation for all waste must be noted in the load book.

The last ticket along with the load books, become the source documents and shall be turned in at the completion of the contract.

Special care must be taken to insure that only those loads used on the contract are included in the accumulated total shown on the ticket and the accumulative tons are zeroed each day.

The last COMPUTERIZED ticket for the day shall be filed in Section 1 - Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

Load books and spreadsheet are still required when using this method.

Information required on every computerized ticket:

- Date
- Material source
- Material type
- Ticket and truck number
- Gross, tare, net weights, and tons
- Accumulative total tons
- Time

On the last ticket of the day, the following information must be record:

- Beginning and ending stations, making sure all stations are represented and match the load book and the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011)
- Stations shall have a line designation left, right, or center line
- AEB number
- Pit information
- Waste, if there is zero waste place 0 waste
- Resident Engineers **signature** and checker's initials

| | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------|---------------|---------------|
|  | | SIGN AND RETURN | | | | CONTROL NO. → 499286 TICKET NO. → 21238018 | | |
| | | Sloan Hot Plant Sloan Pit | | DATE | TIME | HAULER NO. | TRUCK NO. | |
| CUSTOMER | PURCHASE ORDER NO. | PRODUCT CODE | SALE TYPE | ZONE | PLANT NO. | PROJECT NO. | LOAD | ACCUM. AMOUNT |
| 627198 | | 3103 | 78.5 | | 212 | 324700 | 16 | 614.58 |
| CUSTOMER NAME | | | | JOB NAME / DIRECTIONS | | | | |
| Contract Sales - SNP | | | | NDOT 3247 SR-160, Blue Diamond, #I-15 ACCUM. METRIC TONS 557.54 "BD" 46+88 To "BD" 58+60 LT waste = 0 614.58 Placed AEB #2 | | | | |
| RE: Joe Green | | | | | | | | |
| PRODUCT | QUANTITY | UNIT | PRICE | AMOUNT | | MEGA GRAMS | POUNDS | TONS |
| NDOT PG Dense Grade | 39.85 | Ton | | | GROSS | 56.97 | 125600 | 62.80 |
| BF07-77 | | | | | TARE | 20.82* | 45900 | 22.95 |
| | | | | | NET | 36.15 | 79700 | 39.85 |
| | | | | | TOTAL DUE | | | |
| I/We relieve the seller of any liability for personal injury or property damage when delivery is made beyond the curb line. See reverse side. * Predetermined Rate | | | | ARRIVE JOB | DEPART JOB | WAITING TIME | WEIGHT MASTER | |
| | | | | | | | Mike M | |

**DOCUMENTATION REQUIREMENT
SECTION E
PLANTMIX SURFACING
(LOAD BOOK)**

Separate load books shall be used for all major paving items such as plantmix bituminous surface (PBS) and open graded and any other item that is delivered to the job with weigh tickets and is paid by the ton. An illustration of a page in a load book is on page 9-10.

The **Officeperson** shall complete for each page all headings, Record of Delivery, date, type of material, ticket no., truck no., time, station, tickets taken by, and checked against scale sheet. Alternate load books may be used in order that one book remains in the office for checking and posting while the other is being used in the field. The headings may be handwritten or stamped. A stamp can be ordered through Headquarters Construction.

When the load is delivered to the jobsite, the truck driver will hand the ticket to the **Inspector**. The **Inspector** will record the **date, type of material, ticket no., truck no., time every fifth load, and beginning and ending station for each page** in the load book. Make sure all stations have a line designation left, right, or center line and **equations are listed to explain any changes in the line**. The **Inspector** shall initial tickets taken by:

Load books are required on all contracts. Ditto marks, vertical lines, arrows, etc. are not acceptable.

The **Inspector**, at the end of the shift, will turn the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets, the load book, and the **Street Inspector's** portion of the DAILY PLANT REPORT OF ASPHALT MIXTURES into the field office.

The **Officeperson** shall compare the load book against the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets. If there is a ticket, the load most likely arrived at the jobsite. If there is a ticket that does not show in the load book and should be included for payment, document the ticket in the appropriate load book. Loads appearing on the DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets, that are not to be included for payment, must have a satisfactory explanation. **Stations in the load book, the DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket and the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011) for the day must match.**

All waste quantities in load books shall be explained and circled in red. On the last page of the day, in the load book, **circle in red the total tons wasted for the day. If there is zero waste, place 0 waste and circle in red. Remember, an explanation for all waste must be noted.**

The **Officeperson** shall initial each page at the bottom, "checked against scale sheet" in the load book indicating that it was crosschecked against the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets.

The DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day and the load books together become the source documents and must be turned in at the completion of the job.

**DOCUMENTATION REQUIREMENT
SECTION F
PLANTMIX SURFACING
(DAILY PLANT REPORT OF ASPHALT MIXTURES)
(Form No. 040-011)**

The **Hotplant Inspector** must document all information required in the center section of the DAILY PLANT REPORT OF ASPHALT MIXTURES. It is very important that all information is accurate and complete. It is also important that the information recorded on this report is not in conflict with the hotplant diary.

The **Street Inspector** must document all information required on the right-hand side of the DAILY PLANT REPORT OF ASPHALT MIXTURES. It is very important that all information is accurate and complete and the stations and waste correspond to what is shown in the load book for that day. All stations must have a line designation and show left, right, or center line.

The **Tester** must document all information required on the left-hand side of the DAILY PLANT REPORT OF ASPHALT MIXTURES and complete and turn in all test reports that apply to the paving operation **daily**.

The **Officeperson** shall take all three parts, (Tester, Plant Inspector, and Street Inspector,) and cut and tape together and attach all pertinent test reports. Compare the stations on the DAILY PLANT REPORT OF ASPHALT MIXTURES to the load book and place the stations on either the DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day. Compare the plantmix placed and the waste shown on the DAILY PLANT REPORT OF ASPHALT MIXTURES to the total plantmix and waste shown on the DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day. The waste shall also match the load book and the waste in the load book must be circled in red and explained. Check and initial the DAILY PLANT REPORT OF ASPHALT MIXTURES, and all attached test reports, acquire the Resident Engineer's signature and distribute according to the bottom of the DAILY PLANT REPORT OF ASPHALT MIXTURES. A **copy** of the DAILY PLANT REPORT OF ASPHALT MIXTURES and all pertinent test reports shall be filed in Section 2 - Materials and Testing File, Division No. 8 as described in Chapter 1 (Organization of Project).

If there are any questions concerning the DAILY PLANT REPORT OF ASPHALT MIXTURES (Form No. 040-011), please contact Headquarters Construction Quality Assurance for assistance.

If the mix is being used on multiple projects for different Resident Engineers, it is up to the **Hotplant Inspector** to find out the contract numbers and record those numbers at the top of the Plant Inspector portion of the DAILY PLANT REPORT OF ASPHALT MIXTURES. **Copies of the Plant Inspector's portion only shall be made and sent to the other Resident Engineers for the remainder of the projects. Following the instructions in the above paragraph, process the completed packet for the days paving.** This does not relieve any of the other documentation requirements. Follow the distribution instructions on the bottom of the form.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION G
PLANTMIX SURFACING
(PLANTMIX AND OPEN GRADE)
(SPREADSHEET)**

Quantities for wet ton items shall be posted daily on a spreadsheet by the Officeperson as illustrated below. The significant figure is to the hundredth (.01). Each day will be listed separately and a final total is required on every column except the date and payment no. column. **The DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets shall be kept in order as listed on the spreadsheet.** The spreadsheet and the DAILY RECORD OF SCALE WEIGHTS or COMPUTERIZED tickets will be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

The **yellow side** of the spreadsheet is for posting the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets. The **green side** is for posting what has been paid on the turnaround document. If an error is found at a later date on the DAILY RECORD OF SCALE WEIGHTS or the COMPUTERIZED tickets the correction is to be made to the original entry on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction will affect the turnaround document then the correction will be made on the next progress payment and will be entered on the green side of the spreadsheet. The **blue column** is used for calculating to see that there are enough B/Ls to cover what has been delivered. Make sure to use the total tons from the DAILY RECORD OF SCALE WEIGHTS or the last COMPUTERIZED ticket for the day **not** what was placed. **Do not** deduct the waste before calculating. The **orange column** is for listing the mix design used for each day of paving.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 ITEM NO. 402 6002 - PLANTMIX SURFACING (TYPE 2C)(WET) PLAN QUANTITY = 22,000.00 TONS | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|-----------------|---------------------|---------------------|----------------|-----------------------------|----------------------|
| DATE | AEB #2 TOTAL | DAILY TOTAL PLACED | ACCUM. TOTAL | AEB #2 PAY TOTAL | ACCUM. PAY TOTAL | PAYMENT NO. | DAILY TOTAL DELIVERED | MIX DESIGN NO. |
| 06/09/08 | 1,995.34 | 1,995.34 | 1,995.34 | | | | 2,015.50 | BF07-77 |
| 06/10/08 | 1,858.21 | 1,858.21 | 3,853.55 | 3,853.55 | 3,853.55 | 20 | 1,858.21 | BF07-77 |
| 07/06/08 | 2,493.69 | 2,493.69 | 6,347.24 | | | | 2,500.50 | BF07-77 |
| 07/07/08 | 1,670.09 | 1,670.09 | 8,017.33 | | | | 1,685.00 | BF07-77 |
| 07/08/08 | 1,631.64 | 1,631.64 | 9,648.97 | | | | 1,631.64 | BF07-77 |
| 07/13/08 | 1,062.08 | 1,062.08 | 10,711.05 | 6,857.50 | 10,711.05 | 22 | 1,062.08 | BF07-77 |
| 07/22/08 | 2,260.68 | 2,260.68 | 12,971.73 | | | | 2,279.00 | BF07-77 |
| 07/23/08 | 679.86 | 679.86 | 13,651.59 | 2,940.54 | 13,651.59 | 23 | 700.90 | BF07-77 |
| 08/05/08 | 2,541.99 | 2,541.99 | 16,193.58 | | | | 2,541.99 | BF07-77 |
| 08/06/08 | 1,786.64 | 1,786.64 | 17,980.22 | | | | 1,786.64 | BF07-77 |
| 08/07/08 | 2,600.93 | 2,600.93 | 20,581.15 | 6,929.56 | 20,581.15 | 24 | 2,600.93 | BF07-77 |
| 08/09/08 | 1,918.50 | 1,918.50 | 22,499.65 | | | | 1,957.00 | BF07-77 |
| 08/17/08 | 158.54 | 158.54 | 22,658.19 | | | | 160.54 | BF07-77 |
| 08/18/08 | 614.58 | 614.58 | 23,272.77 | 2,691.62 | 23,272.77 | 25 | 620.25 | BF07-77 |
| FINAL TOTAL | 23,272.77 | 23,272.77 | 23,272.77 | 23,272.77 | 23,272.77 | | 23,400.18 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Before job pickup, a copy of the mix design(s) used shall be placed in the file with the spreadsheet and scale tickets.

**DOCUMENTATION REQUIREMENT
SECTION H
PLANTMIX SURFACING
(ASPHALT CEMENT AND MINERAL FILLER)**

Asphalt Cement (AC-20, AC-20P, AC-30, PG76-22, SC-800, etc.) shall be documented in an ASPHALT CEMENT book with a RECORD OF DELIVERY section and PLANT RECORD section for each type of asphalt. **Mineral Filler** shall be documented in a MINERAL FILLER book. If the contract is small and room permits the asphalt cement (Record of Delivery and Plant Record) and the mineral filler (Record of Delivery) shall be placed in one book and titled PAVING B/L book.

If the job is a wet tons job there will be no bid items for asphalt cement or mineral filler. The Bill of Lading (B/Ls) are collected and recorded on the Record of Delivery. Use the calculation sheet on page 9-21 to assure there are enough B/Ls to cover what was delivered and used on the contract. This should be done for every progress payment and at job closeout.

If the marination is being done for more then one contract it is the responsibility of the **Marination Inspector** to collect the B/Ls and certifications and record the contract numbers on the top of the B/L and certification and turn in daily.

The **Officeperson** will make copies of the B/Ls and certifications and send them to the other Resident Engineers for the remainder of the projects. It will be the responsibility of the **Resident Engineer** to assure there are enough B/Ls to cover their contract.

Hint: Each contract will be listing the same B/Ls, communicate with the other Office people and compare what has been used on each contract to assure no B/L is being used more then once.

Requirements for Certification on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or the Contract Special Provisions for that item. For example: mineral filler certification requirements shall be found in section 705.03.03 of the Standard Specifications for Road and Bridge Construction (Silver book), the cert has to conform to ASTM C1097.

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be set up according to Chapter 2 (Setting up a Contract, Book Format, etc.). There will be no book recap page.

**PLANTMIX SURFACING
(ASPHALT CEMENT AND MINERAL FILLER)
(INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Load books do not have a book recap page. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials next to the original initials.

**ASPHALT
CEMENT book**



Use when only
the asphalt
cement and plant
record are
placed in a book.

| Index | | Initial Key | | |
|-------|---------------------------------|-------------|---------------|---------|
| Page | Description | Initials | Signature | Title |
| 4-10 | Record of Delivery - PG 76-22NU | EB | Sherri Brown | Tech II |
| 15-25 | Plant Record - PG 76-22NU | TC | Terrie Carson | Tech I |

**PAVING B/L
book**



Use when
asphalt
cement and
mineral filler
are placed in
the same
book.

| Index | | Initial Key | | |
|-------|-------------------------------------|-------------|---------------|---------|
| Page | Description | Initials | Signature | Title |
| 4-10 | Record of Delivery - PG 76-22NU | EB | Sherri Brown | Tech II |
| 15-25 | Plant Record - PG 76-22NU | TC | Terrie Carson | Tech I |
| 30-50 | Record of Delivery - Mineral Filler | | | |

**PLANTMIX SURFACING
(ASPHALT CEMENT AND MINERAL FILLER)
(RECORD OF DELIVERY)**

The **Officeperson** shall complete the item description, RECORD OF DELIVERY and all column headings.

When a load of asphalt is received at the hotplant, the **Inspector** shall obtain the weigh ticket (bill of lading) indicating the weight of the material and the certification. Record the load no., date delivered, truck and trailer no, bill of lading no. (B/L), tons and accumulative tons delivered, initials, and any remarks. For ease in cross checking, the load number and contract number must be written on the corresponding weigh ticket in the upper right-hand corner. If the B/L for mineral filler does not have a B/L number, the control number shall be recorded in the remarks column and the B/L no. column will be left blank. The company/supplier can be called and they will supply the B/L number and/or the ticket.

The entry in the field book, along with the weigh ticket, which shall be filed in Section 1 - Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project), documents the load and quantity received at the plant.

The **RECORD OF DELIVERY** illustration below shall be used for all types of asphalt and mineral filler.

| Item: PG 76-22 NU | | | | | | Sig Fig = .01 | | | 5 |
|--------------------|---------|--------|--------|--------|-------------|-------------------|------|---------|------------------|
| Record of Delivery | | | | | | | | | |
| Load No. | Date | Trk No | Trl No | B/L No | Tons Delivd | Accum Tons Delivd | Insp | Remarks | |
| 21 | 8-6-08 | 12380 | 212428 | 56007 | 22.55 | 825.55 | TC | | |
| 22 | 8-6-08 | 192520 | 212788 | 56015 | 23.72 | 849.27 | TC | | |
| 23 | 8-7-08 | 12380 | 212489 | 56020 | 22.89 | 872.16 | TC | | |
| 24 | 8-7-08 | 23X0 | 2788 | 56028 | 23.09 | 895.25 | TC | | |
| 25 | 8-7-08 | 192324 | 272783 | 56040 | 24.66 | 919.91 | TC | | |
| 26 | 8-7-08 | 192329 | 212733 | 56045 | 24.44 | 944.35 | TC | | |
| 27 | 8-7-08 | 192329 | 2127 | 56049 | 13.96 | 958.31 | TC | | |
| 28 | 8-9-08 | 192380 | 212788 | 56693 | 23.91 | 982.22 | TC | | |
| 29 | 8-9-08 | 192380 | 212788 | 56694 | 23.74 | 1005.96 | TC | | |
| 30 | 8-9-08 | 192380 | 212788 | 56695 | 23.45 | 1029.41 | TC | | |
| 31 | 8-9-08 | 192380 | 212788 | 56704 | 22.97 | 1052.38 | TC | | |
| 32 | 8-17-08 | 192380 | 212788 | 56708 | 23.04 | 1075.42 | TC | | |
| 33 | 8-18-08 | 192380 | 212788 | 56711 | 23.36 | 1098.78 | TC | | |
| 34 | 8-18-08 | 192380 | 212788 | | 20.85 | 1119.63 | TC | ✓SB | Control # 125731 |

**PLANTMIX SURFACING
(ASPHALT CEMENT)
(PLANT RECORD)**

ASPHALT CEMENT PLANT RECORD (sample record)

Asphalt samples are taken by the Contractor's personnel from the line between the storage tank and the plant bituminous metering device. One sample must be taken for each 25 tons (23 metric tons) of asphalt used or on the last sample of the day any portion thereof. For performance grade (PG) asphalts, refer to subsection 106.04 of the special provisions for sampling frequency. The plant record is also used in calculating liquidated damages on asphalt as explained in Chapter 23 (Preparation of Progress Payments).

The **Inspector** shall document the sample no., date, time, and initials. **The sample number and date must match the field number and date sampled on the TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016).**

The **PLANT RECORD** illustration below shall be used for all types of asphalt.

| Sample no. | Date | Time | Insp |
|------------|---------|---------|------|
| 21 | 7/23/08 | 5:30 AM | TC |
| 22 | 8/5/08 | 5:45 AM | TC |
| 23 | 8/5/08 | 6:00 AM | TC |
| 24 | 8/5/08 | 6:30 AM | TC |
| 25 | 8/5/08 | 6:50 AM | TC |
| 26 | 8/5/08 | 7:15 AM | TC |
| 27 | 8/6/08 | 5:20 AM | TC |
| 28 | 8/6/08 | 5:45 AM | TC |
| 29 | 8/6/08 | 6:15 AM | TC |
| 30 | 8/7/08 | 6:00 AM | TC |
| 31 | 8/7/08 | 6:30 AM | TC |
| 32 | 8/7/08 | 6:50 AM | TC |
| 33 | 8/7/08 | 7:20 AM | TC |
| 34 | 8/7/08 | 7:45 AM | TC |
| 35 | 8/9/08 | 4:00 AM | TC |
| 36 | 8/9/08 | 4:25 AM | TC |
| 37 | 8/9/08 | 5:00 AM | TC |
| 38 | 8/9/08 | 5:30 AM | TC |
| 39 | 8/17/08 | 6:10 AM | TC |
| 40 | 8/18/08 | 6:30 AM | TC |
| 41 | 8/18/08 | 7:00 AM | TC |

Item: PG 76-22NU

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Plant Record

DOCUMENTATION REQUIREMENT
SECTION I
PLANTMIX SURFACING
(TRANSMITTAL FOR ASPHALT SAMPLES)
(Form No.020-016)
(ASPHALT CEMENT AND MINERAL FILLER)
(TRANSMITTAL FOR TEST SAMPLES AND CERTIFICATIONS)
(Form No. 020-018)

The **Inspector** shall complete the TRANSMITTAL FOR ASPHALT SAMPLES, attach the transmittal to the asphalt sample, and turn the sample with the transmittal into the Materials Division. **A copy of the transmittal will be turned into the field office.**

The **Officeperson** shall compare the Field No. and Date Sampled on the TRANSMITTAL FOR ASPHALT SAMPLES to the information on the PLANT RECORD to assure there are no discrepancies. These two items are very important when calculating liquidated damages as described in Chapter 23 (Preparation of Progress Payment).

The TRANSMITTAL FOR TEST SAMPLES AND CERTIFICATIONS shall be completed by the **Officeperson, Tester, or the Inspector**. **The Materials Division requires the bid item number to be listed on the Material description line.** If there is not a bid item, make sure to put a complete description of the material. All information on the transmittal is required for test samples. All stations must have a line designation and show left, right, or center line.

The B/L(s) **only**, for both asphalt cement and mineral filler will be filed in Section 1 - Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project). A copy of the B/L, the certification, and a copy of the TRANSMITTAL FOR TEST SAMPLES AND CERTIFICATIONS shall be filed in Section 2 - Materials and Testing File, Division No. 4 as described in Chapter 1 (Organization of Project).

When there is more than one B/L and certification to be submitted for approval, combine them all on one transmittal.

If there are any questions concerning the TRANSMITTAL FOR ASPHALT SAMPLES (Form No.020-016) and the TRANSMITTAL FOR TEST SAMPLES AND CERTIFICATIONS (Form No. 020-018), please contact the Material Division for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION REQUIREMENT
SECTION J
PLANTMIX SURFACING
(ASPHALT CEMENT AND MINERAL FILLER)
(BILL OF LADING (B/L) AND CERTIFICATIONS)**

The **Inspector** will collect a B/L and certification for each delivery of asphalt cement and/or mineral filler. The **Inspector** shall record the contract number and the corresponding load number from the RECORD OF DELIVERY in the upper right-hand corner on the B/L and the certification and check and initial all weight calculations. The illustration below is a B/L for asphalt and the certification illustration is on page 9-19.

The **Officeperson** shall assure the contract number and load number correspond to the RECORD OF DELIVERY, the weight calculations have been checked and initialed, and there is a certification for each B/L.

BILL OF LADING
56695
#3247
LOAD #39
WVP



**Ergon Asphalt
Products, Inc.**
800-380-5255

CHANDLER, 6940 W. Chandler Blvd. SNOWFLAKE, 400 N. Industrial Way LAS VEGAS, 6400 W. Flamingo

CUSTOMER: Las Vegas Parking CUSTOMER # LVEPBL ERGON # _____
 CUST. JOB REF.: _____ CUSTOMER JOB REF. # 600/8082 DATE / TIME 8/9/08
 DESTINATION: Blue Diamond PO#/PG _____ TRUCK # 19280 TRAILER # 2A288
 STATE JOB # _____ GROSS 80+80 LB

| | | |
|---------------------|---------------------|---------------|
| CARRIER: <u>WVP</u> | | |
| PRODUCT TYPE | PRODUCT DESCRIPTION | TANK # |
| EMULSION | | |
| ASPHALT | <u>P676-227K</u> | <u>Prod 2</u> |
| CUTBACK | | |
| OTHER | | |

| | |
|--------------------------------------------------------------------------------------|-------------------------------|
| TONS <u>23.45⁶⁰</u> | TARE <u>33580 LB</u> |
| GALS <u>6214⁵</u> | NET <u>46900⁶⁰</u> |
| DRIVER <input type="checkbox"/> ON DRIVER <input checked="" type="checkbox"/> OFF | |
| TEMPERATURE _____ | SPECIFIC GRAVITY _____ |

PUBLIC WEIGHMASTER CERTIFICATE OF WEIGHT AND MEASURE
This is to certify that the described merchandise was weighed, counted or measured by public or deputy weighmaster and when properly signed and sealed shall be prima facie evidence of the accuracy of weight shown as prescribed by law.

TERMS NET 30 DAYS, INTEREST MAY BE CHARGED AT THE RATE OF 18% PER YEAR ON THE UNPAID BALANCE

RECEIVED FOR CONSIGNEE [Signature] WEIGHMASTER DEPUTY [Signature]
 12626 ERGON ASPHALT PRODUCTS, INC.

| | |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> CHECK BOX IF APPLICABLE Elevated temperature, liquid, N.O.S., 9, UN3257, III (Asphalt) | <input type="checkbox"/> CHECK BOX IF APPLICABLE Asphalt cut back UN 1999 |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|

COMMENTS/SPECIAL INSTRUCTIONS _____

The following personal protective equipment is required in ERGON ASPHALT PRODUCTS facilities:
 Hard Hat Long Sleeve Shirt Safety Glasses
 Closed Toe Shoes Long Pants
 Specialty Equipment As Required By Plant Manager

X [Signature]
Drivers Signature

WHITE - ACCOUNTING BLUE - ACCOUNTING GREEN - PLANT CANARY - CUSTOMER PINK - DRIVER/CUSTOMER GOLDENROD - CUSTOMER

Requirements for Certification on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item. For example: PG 76-22NV criteria is located in the Contract Special Provisions, in section 703.03.02.

| | | | |
|-----------------------------------------------------------------|----------------------------|---------------------------|--|
| <u>Ergon Asphalt Products, Las Vegas Terminal</u> | | #3247 load #30 | |
| 8400 W. Richmar Ave. Las Vegas Nevada, 89139 702-837-8995 | | | |
| Product 76-22NV | Date Sampled <u>8/8/08</u> | Date Tested <u>8/8/08</u> | |
| Tank # <u>AC-1</u> | Time Sampled <u>5:30a</u> | | |

| Test | Test Method | Criteria | Results |
|-------------------------------------------------------------------------|-------------|-----------|---------|
| Tests on original binder | | | |
| Flash Point, °C | Nev. T716 | 230 Min. | |
| Viscosity @ 135 °C, Pa*s | AASHTO T316 | 3 Max | 2.213 |
| Dynamic Shear, G*/sinδ, Test Temp 76°C @10rad/s, kPa | AASHTO T315 | 1.3 Min. | 1.573 |
| Ductility @ 4 °C, 5cm/min, cm | Nev. T746 | 20 Min. | 28.75 |
| Sieve | Nev. T730 | Pass | pass |
| Polymer Content, % by mass | | 3.0 Min. | pass |
| Tests on Residue from R.T.F.O., Nev. T728 | | | |
| Mass Loss, % | Nev. T728 | 0.50 Max. | |
| Dynamic Shear, G*/sinδ, Test Temp 76°C @10rad/s, kPa | AASHTO T315 | 2.20 Min. | 2.883 |
| Ductility @ 4 °C, 5cm/min, cm | Nev. T746 | 10 Min. | 14.5 |
| Tests on residue from Pressure Aging Vessel, AASHTO R28 @ 110 °C | | | |
| Dynamic Shear, G*/sinδ, Test Temp 31°C @10rad/s, kPa | AASHTO T315 | 5000 Max. | 892.2 |
| Creep Stiffness, S, Test Temp -12°C @ 60 sec, Mpa | AASHTO T313 | 300 Max | 89.4 |
| Creep Stiffness, m-value, Test Temp -12°C @ 60 sec | AASHTO T313 | 0.300 Min | 0.333 |
| Direct Tension, Failure Strain, Test Temp -12°C @1.0 mm/min, % | AASHTO T314 | 1.00 Min. | |

This certifies that this material meets the specification for PG 76-22NV according to section 703 of the State of Nevada Standard Specifications. This certificate has been reviewed by the Quality Control Manager for accuracy.

This material is certified to contain at least the minimum polymer content as set forth by section 703 of the State of Nevada Standard Specifications.

Signature: [Signature] Title: Lab Manager

Date: 8/8/08

Notes: B/L # 56695
Temp. 340f

**DOCUMENTATION REQUIREMENT
SECTION K
PLANTMIX SURFACING
(MINERAL FILLER)
(MARINATION CALCULATIONS)**

The **Officeperson** shall check the jobmix formula to assure the percent of mineral filler is correct. The ratio of the coarse and fine aggregate shall be at a 1% for coarse stockpiles and 2% for the fine stockpiles. Refer to subsection 401.03.08 of the Standard Specifications for Road and Bridge Construction (Silver book) and the Special Provisions to assure the percentages do not differ from the percentages mentioned above for coarse and fine aggregate.

$$\begin{array}{r} \text{coarse stockpile ratio X percentage (1\% 100)} \\ + \text{ fine stockpile ratio X percentage (2\% 100)} \\ \hline = \% \text{ lime (new theoretical)} \end{array}$$

Example: if the bin percentages from the applicable jobmix formula are 49% coarse aggregate and 51% fine aggregate, the new theoretical percentage would be:

$$\begin{array}{r} 49\% \text{ coarse agg X .01} = .49 \\ + 51\% \text{ fine agg X .02} = 1.02 \\ \hline = \% \text{ lime used for payment } 1.51 \end{array}$$

This new theoretical percentage shall be used on the jobmix formula for the marinated mineral filler. **Do not use this new percent to assure there are enough B/Ls to cover what has been used. Use the percent from the mix design, see page 9-21.**

The Jobmix formula is written by the RE and the mix design is supplied by the Materials Division.

**DOCUMENTATION REQUIREMENT
SECTION L
PLANTMIX SURFACING
(ASPHALT CEMENT AND MINERAL FILLER)
(BILL OF LADING CALCULATION SHEET)**

The BILL OF LADING CALCULATION sheet shall be used to assure there are enough B/Ls collected of both asphalt cement and mineral filler to cover what has been delivered to the project. This form will be completed by the **Officeperson** Bi-weekly and when finaling out a contract. The calculation sheet shall be done for both plantmix and open grade. If both plantmix and open grade are using the same type of asphalt cement and mineral filler make sure to add the asphalt cement together and the mineral filler together to assure there are enough B/Ls to cover what has been delivered to the project. The final calculation sheet for plantmix and open grade will be placed in the appropriate file. If there are **not** enough B/Ls to cover what has been delivered, it is the responsibility of the **Resident Engineer** to contact the Contractor to have extra B/Ls submitted. Make sure the B/Ls received are **not** copies of what has already been submitted and the dates on the new B/Ls coincide with the dates of the paving operation. These additional loads will have a contract number and load number placed in the top right-hand corner and will be entered on the Record of Delivery. The asphalt cement and mineral filler percent are taken from the applicable mix design.

Before job pickup, a copy of the mix design(s) used and the final calculation sheet shall be placed in the file with the spreadsheet and scale tickets. The plantmix and open grade files shall be filed in Section 1-Contract Files, Division 12 as described in Chapter 1 (Organization of Project).

| State of Nevada Department of Transportation BILL OF LADING CALCULATION SHEET | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------|-----------|-----------------------------------|-------------|
| CONTRACT NO. | 3247 | DATE | 8/20/2008 | MATERIAL | PBS TYPE 2C |
| MIX DESIGN NO. | BF07-77 | (Please fill in YELLOW boxes) | | | |
| % OIL | 5.10 | % M.F. | 1.50 | = | 1.066 |
| <small>% FROM MIX DESIGN</small> | | <small>COMBINED % FOR CALCULATING ((% OIL + % MF) / 100) + 1 = COMBINED %</small> | | | |
| TOTAL WET TONS DELIVERED: | 23,400.18 | | ← | | |
| TOTAL WET TONS DELIVERED: | 23,400.18 | ÷ | 1.066 | = | 21,951.39 |
| <small>(WET TONS DIVIDED BY COMBINED % = DRY AGG)</small> | | | | | |
| | 21,951.39 | X | 0.051 | = | 1,119.52 |
| <small>DRY AGG</small> | | <small>(% OIL / 100)</small> | | <small>TOTAL ASPHALT TONS</small> | |
| | 23,400.18 | - | 21,951.39 | - | 1,119.52 |
| <small>TOTAL WET TONS DELIVERED</small> | | <small>DRY AGGREGATE</small> | | <small>ASPHALT</small> | |
| | | | | = | 329.27 |
| | | | | <small>MINERAL FILLER</small> | |
| <small>M.F. +/- .01</small> | | | | | |
| TOTAL BILL OF LADINGS (B/L) DELIVERED FOR ASPHALT CEMENT: | | | | 1,119.63 | TONS |
| TOTAL BILL OF LADINGS (B/L) DELIVERED FOR MINERAL FILLER: | | | | 354.16 | TONS |
| IN THE GREEN BOXES ABOVE PLACE THE ACCUM. TOTAL SHOWN ON THE RECORD OF DELIVERY IN THE ASPHALT CEMENT AND MINERAL FILLER BOOKS. COMPARE THESE TOTALS TO THE CALCULATED ASPHALT AND MINERAL FILLER SHOWN ON THIS FORM. | | | | | |
| THIS SHEET IS USED TO ASSURE THAT ENOUGH ASPHALT AND MINERAL FILLER BILL OF LADINGS (B/L) ARE COLLECTED TO COVER WHAT WAS DELIVERED. DO NOT DEDUCT WASTE OR STORAGE. | | | | | |
| CALCULATION BY: | Sherri Brown | | | | |
| CHECKED BY: | Terri Carson | | | | |

THIS FORM IS BASED ON TOTAL DELIVERY. DO NOT DEDUCT WASTE.

Payment should not be made if there is not enough Bill of Ladings (B/L) to cover what has been delivered.

Form is on Sharepoint.

CHAPTER 10
Liquid and Emulsified Asphalt

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Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION A
LIQUID AND EMULSIFIED ASPHALT
(INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

| Index | | Initial key | | |
|-------|---------------------------------------|-------------|----------------|---------|
| Page | Description | Initials | Signature | Title |
| 4-8 | MC-70 Record of Delivery | SS | Shelli Jones | Tech IV |
| 10-16 | MC-70 Record of Application & Payment | VT | Van Thomas | Tech II |
| 20-25 | SS-1h Record of Delivery | MD | Mary Davis | Tech I |
| 30-50 | SS-1h Record of Application & payment | LP | Lynne Phillips | Tech II |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION B
(LIQUID AND EMULSIFIED ASPHALTS)
(EXCEPT DILUTED EMULSIONS)**

Contracts containing liquid and emulsified asphalt items paid by the ton as illustrated in this chapter shall be documented in a LIQUID ASPHALT book.

Liquid asphalts (MC-70, MC-250, etc.) shall be documented in a LIQUID ASPHALT book with a "Record of Delivery" section, as illustrated on page 10-3 and a "Record of Application and Payment" section, as illustrated on page 10-4.

To setup the field books, the information on liquid and emulsified asphalts items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). As many different types of liquid and emulsified asphalts may be documented in a single book, as room permits. **Make sure to leave enough room between the different types of liquid and emulsified asphalt sections for any added or missing areas.**

There are 2 ways to pay for Liquid Asphalt:

1. Paid by the total delivery (B/L)
2. Weighing the trucks over the Contractor's scales (weighbacks)

The gallon meter cannot be used for Liquid Asphalts.

In no case shall the liquid asphalt pay quantity exceed the total certified asphalt delivered less any wasted material and less any material left in storage.

An illustration of a B/L (SS-1h) is shown on page 10-10 and an illustration of a certification is shown on page 10-11. The contract number and load number are required in the upper right-hand corner on the B/L and the certification.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

If room permits, **Sand Blotter** (paid by the ton) may be documented in the LIQUID ASPHALT book. Documentation for sand blotter shall follow the guidelines as illustrated in Chapter 8 (Roadway Aggregates). **Pay will be based on delivery minus waste and/or material left in storage, not based on the application rate.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each Record of Application and Payment page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

RECORD OF DELIVERY

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Delivery, and all column headings.

The **Inspector** shall record the deliveries of liquid asphalt for the contract. Record the load number, date delivered (which may not be the same date the load was applied), truck/trailer number, B/L number, tons and accumulative tons delivered, initials and any remarks that are needed. For ease in cross checking, the contract number and the corresponding load number from the RECORD OF DELIVERY shall be written in the upper right-hand corner on the B/L and the certification. **All weight calculations shall be checked and initialed on the B/L.**

The **Officeperson** shall assure on each B/L there is a contract number and load number that corresponds to the RECORD OF DELIVERY, the weight calculations have been checked and initialed, and there is a certification. **The Officeperson before each progress payment and when finaling out a contract shall check to assure there are enough B/Ls to cover what has been applied.**

| Record of Delivery | | | | | | Sig fig = .01 | | 4 |
|--------------------|---------|---------|---------|---------|-------------|-------------------|------|---------|
| Load No. | Date | TRK No. | TRL No. | B/L No. | tons Delivd | Accum Tons Delivd | Insp | Remarks |
| 1 | 9-28-08 | 182225 | - | 46401 | 3.39 | 3.39 | VT | |

Item No: 406 0500
 Item: MC-70
 Plan Qty: 26000 Tons

RECORD OF APPLICATION AND PAYMENT

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Application & Payment, all column headings, and the page total in the bottom left-hand corner of the page. **A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. Calculations must be checked and initialed.**

Daily, the **Inspector** shall record the date, distributor number, oil temp, tons applied, accumulative tons applied, and AEB#. Record the station to station (roadway stations where the material was applied), width of the roadway covered, square yards (length x width ÷ 9) of roadway covered, application rate, and initials. All stations must have a line designation and show left, right, or center line. If the station to station does not equal the length used to calculate sqyds, then the length must be written above the station to station. Varies will **not** be accepted in the width column, must have a quantity. **The gallon meter cannot be used for liquid asphalt. Skip at least one line between entries** and after the payment entry. The next entry shall be placed on the next line, as illustrated below.

The **Officeperson** shall draw two red lines under the areas to be paid on a progress payment and the **Inspector** shall skip a line after the payment entry and enter the next entry on the next line, as illustrated below.

Payment for Ton items will be based on weights.

| Record of Application & Payment | | | | | | Station to Station | | | width | sqyd | App Rate | Insp |
|----------------------------------------|----------|----------|--------------|--------------------|------|---------------------------|------|--------|-------|------|----------|------|
| Date | Dist No. | Oil Temp | Tons Applied | Accum Tons Applied | AEB# | | | | | | | |
| 9-28-08 | 2025 | 145 | 3.39 | 3.39 | 2 | X" 740+32 TO X" 741+32 LT | 5.0 | 55.56 | | | | |
| | | | | | | X" 741+32 TO X" 745+32 LT | 9.0 | 400.00 | | | | |
| | | | | | | X" 745+32 TO X" 746+32 LT | 5.0 | 55.56 | | | | |
| | | | | | | X" 878+20 TO X" 902+80 LT | 13.0 | 355.33 | | | | |
| | | | | | | X" 902+80 TO X" 910+00 LT | 7.0 | 500.00 | | | | |
| Pmt #28 3.39 AEB#2 | | | | | | | | | | | | |
| The next entry will start on this line | | | | | | | | | | | | |
| Page total: | | | | | | | | | | | | |

Sig fig = .01 10
 1 Ton = 253 gallons @ 600°
 L x W ÷ 9 = sq. yd.
 Appl. Rate = gallons ÷ sq. yd.

Note: If a RECORD OF SCALE WEIGHTS (40-load sheet Form No. 040-009) or a COMPUTERIZED weighback ticket is used to calculate the tons placed for the day, those tons shall match the tons placed in the book.

To calculate tons or application rate, the following formulas apply:

$$\text{tons} = \frac{\text{sqyd} \times \text{application rate}}{\text{gallons/ton (109.01 Standard Specs)}}$$

$$\text{appl. rate} = \frac{\text{tons} \times \text{gallons/ton (109.01 Standard Specs)}}{\text{sqyd}}$$

**DOCUMENTATION REQUIREMENT
SECTION C
LIQUID AND EMULSIFIED ASPHALTS
(EMULSIFIED ASPHALTS, DILUTED)**

Contracts containing liquid and emulsified asphalt items paid by the ton as illustrated in this chapter shall be documented in a LIQUID ASPHALT book.

Diluted emulsified asphalts (CMS-2S, SS-1h, LMCRS-2H, etc.) shall be documented in the LIQUID ASPHALT book with a "Record of Delivery" section, as illustrated on page 10-6 and a "Record of Application and Payment" section, as illustrated on page 10-7.

To setup the field books, the information on liquid and emulsified asphalts items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). As many different types of liquid and emulsified asphalt as room permits may be documented in a single book. **Make sure to leave enough room between the different types of liquid and emulsified asphalt sections for any added or missing areas.**

There are four ways to pay for Emulsified Asphalt (diluted):

1. Total B/L delivered (diluted).
2. Weighing the trucks over the Contractor's scales (weighbacks)
3. Reading the gallon meter, must list beginning meter reading, ending meter reading, gallons used, and the correction factor used (see page 10-8 for chart).
4. Theoretical application rate found in the plans.

When the emulsified asphalt is delivered raw and placed in a tank, the distributor truck shall be tared before the oil and water is added. When the oil is added the truck shall be weighed and then weighed again when the water is added. The ratio of water is at a 60/40 or 50/50 (cold recycle only) ratio. Make sure to check the Specials Provisions for the contract to assure the correct ratio is being used. When the truck is finished spraying for the day, the truck shall be weighed once again to show what was placed for the day. See the illustration on page 10-9.

In no case shall the emulsified asphalt pay quantity exceed the total certified asphalt delivered less any wasted material and less any material left in storage.

An illustration of a B/L is shown on page 10-10 and an illustration of a certification is shown on page 10-11. The contract number and load number is required in the upper right-hand corner on the B/L and the certification.

Any items requiring measurements or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each "Record of Application and Payment" page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

If room permits, Sand Blotter (paid by the ton) may be documented in the LIQUID ASPHALT book. Documentation for Sand Blotter shall follow the guidelines as illustrated in Chapter 8 (Roadway Aggregates). **Pay will be based on delivery minus waste and/or material left in storage, not based on the application rate.**

RECORD OF DELIVERY

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Delivery, and all column headings.

Daily, the **Inspector** shall record the deliveries of emulsified asphalt for the contract. Record the load number, date delivered (which may not be the same date the load was applied), truck/trailer number, B/L number, **RAW** tons delivered and accumulative **RAW** tons delivered, initials and any remarks that are needed. **RAW** (before water is added to dilute the asphalt) tons are recorded to assure enough raw asphalt was delivered to complete the job. For ease in cross checking, the contract number and corresponding load number from the RECORD OF DELIVERY shall be written in the upper right-hand corner on the B/L and the certification. **All weight calculations shall be checked and initialed.** See 10-9 for instructions and an illustration when asphalt is delivered raw and placed in a tank, page 10-10 for instructions and an illustration for a B/L when asphalt is delivered diluted, and page 10-11 for an illustration for a certification.

The **Officeperson** shall assure on each B/L there is a contract number and load number that corresponds to the RECORD OF DELIVERY, the weight calculations have been checked and initialed, and there is a certification. **The Officeperson before each progress payment and when finaling out a contract shall check to assure there are enough B/Ls to cover what has been used.**

Item No. 406 0524
 Item SS-1h (Diluted)
 Plan Qty. 275.00 TONS

Sig fig: .01 20

| Load No. | Date | Trk No. | Trl No. | B/L No. | (RAW) TONS Delivd | Accum (RAW) TONS Delivd | Insp | Remarks |
|----------|----------|---------|---------|---------|-------------------|-------------------------|------|---------|
| 1 | 10-08-08 | 182021 | - | 55933 | 1.27 | 1.27 | LP | |
| 2 | 10-10-08 | 182023 | - | 55942 | 4.20 | 5.47 | LP | |
| 3 | 10-11-08 | 182041 | - | 55944 | 3.39 | 8.86 | LP | |
| 4 | 10-12-08 | 182027 | - | 55946 | 5.00 | 13.86 | LP | |
| 5 | 10-13-08 | 182029 | - | 55949 | 7.29 | 21.15 | LP | |

If SS-1h is delivered diluted to the jobsite and the bill of lading does not show weight of raw asphalt separately from the water added or the state mix percent, the Resident Engineer shall inform the Contractor that it is unacceptable and any application shall be done without payment.

RECORD OF APPLICATION AND PAYMENT

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Application & Payment, all column headings, and the page total in the bottom left-hand corner of the page. **A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. Calculations must be checked and initialed.**

The **Inspector** shall record the date, distributor number, oil temp, tons applied, accumulative tons and AEB#. Record the station to station (roadway stations where the material was applied), width of the roadway covered, square yards (length x width ÷ 9) of roadway covered, application rate, and initials. See below and page 10-5 for the different ways to pay emulsified asphalt. All stations must have a line designation and show left, right, or center line. If the station to station does not equal the length used to calculate sqyds, then the length must be written above the station to station. Varies will **not** be accepted in the width column, must have a quantity. **Skip at least one line between entries** and after the payment entry. The next entry shall be placed on the next line, as illustrated below.

The **Officeperson** shall draw two red lines under the areas to be paid on a progress payment and the **Inspector** shall skip a line after the payment entry and enter the next entry on the next line, as illustrated below.

Payment for Ton items will be based on weights.

| Record of Application & Payment | | | | | |
|---------------------------------|-----------|----------|--------------|---------------------|------|
| Date | Dist. No. | Oil Temp | Tons Applied | Accum. Tons Applied | AEB# |
| 10-08-08 | 1001 | 130° | 1.76 | 1.76 | 1 |
| 10-10-08 | 1001 | 130° | 2.44 | 4.20 | 1 |
| 10-11-08 | 1001 | 130° | 4.15 | 8.35 | 1 |
| 10-12-08 | 1001 | 130° | 3.18 | 11.53 | 1 |
| Pmt #29 = 11.53 AEB#1 | | | | | |
| 10-13-08 | 1001 | 130° | 8.80 | 20.33 | 2 |

| Station to Station | width | sqyd | APP Rate | Insp |
|----------------------------|-------|--------|----------|------|
| L* 5+09 To L* 16+84 LT | 52.7 | 680.3 | .06 | LP |
| L* 19+80 To L* 48+70 LT | 24 | 770.7 | .08 | LP |
| A* 25+60 To A* 63+95 RT | 40.5 | 1725.5 | .06 | LP |
| L* 110+13 To L* 70+44 LT | 24 | 1059.0 | .07 | LP |
| X* 113+10 To X* 1012+00 LT | 17 | 2287.4 | .09 | LP |

Item No: 405 0516
 Item: Emulsified Asphalt, Type 55 1h (Diluted)
 Plan Qty: 275.00 Tons
 Sig Fig = .01 30
 1 Ton = 241 gallons @ 60°
 LXW ÷ 9 = sqyd
 $\frac{\text{gals (Temp corr)}}{\text{gals/Tons}} = \text{Tons}$
 Appl Rate = gallons ÷ sqyd

Station to Station width sqyd APP Rate Insp
 L* 5+09 To L* 16+84 LT 52.7 680.3 .06 LP
 L* 19+80 To L* 48+70 LT 24 770.7 .08 LP
 A* 25+60 To A* 63+95 RT 40.5 1725.5 .06 LP
 L* 110+13 To L* 70+44 LT 24 1059.0 .07 LP
 X* 113+10 To X* 1012+00 LT 17 2287.4 .09 LP

Page total

Note: If a RECORD OF SCALE WEIGHTS (40-Load sheet Form No. 040-009) or a COMPUTERIZED weighback ticket is used to calculate the tons placed for the day, those tons shall match the tons placed in the book.

The tons applied on the "Record of Application and Payment" section shall be the tons of diluted emulsion mixed applied on the roadway.

To calculate tons or application rate, the following formulas apply:

$$\text{tons} = \frac{\text{sqyd} \times \text{application rate}}{\text{gallons/ton (109.01 Standard Specs)}}$$

$$\text{appl rate} = \frac{\text{tons} \times \text{gallons/ton (109.01 Standard Specs)}}{\text{sqyd}}$$

**DOCUMENTATION REQUIREMENT
SECTION D
LIQUID AND EMULSIFIED ASPHALT
(EMULSIFIED ASPHALTS, DILUTED)
(TEMPERATURE CHART)**

This chart is to be used when reading the gallon meter for **emulsified asphalts** (CMS-2S, SS-1h LMCRS-2H, etc).

TABLE C1 TEMPERATURE VOLUME CORRECTIONS FOR EMULSIFIED ASPHALT

LEGEND: t = Observed Temperature in Degrees Celsius (Fahrenheit)
M = Multiplier for Correcting Volumes to the Basis of 15.6°C (60°F)

*Multiplier (M) for °C is a close approximation.

| °C ^t | °F | M* | °C ^t | °F | M* | °C ^t | °F | M* |
|-----------------|----|---------|-----------------|-----|---------|-----------------|-----|---------|
| 10.0 | 50 | 1.00250 | 35.0 | 95 | 0.99125 | 60.0 | 140 | 0.98000 |
| 10.6 | 51 | 1.00225 | 35.6 | 96 | 0.99100 | 60.6 | 141 | 0.97975 |
| 11.1 | 52 | 1.00200 | 36.1 | 97 | 0.99075 | 61.1 | 142 | 0.97950 |
| 11.7 | 53 | 1.00175 | 36.7 | 98 | 0.99050 | 61.7 | 143 | 0.97925 |
| 12.2 | 54 | 1.00150 | 37.2 | 99 | 0.99025 | 62.2 | 144 | 0.97900 |
| 12.8 | 55 | 1.00125 | 37.8 | 100 | 0.99000 | 62.8 | 145 | 0.97875 |
| 13.3 | 56 | 1.00100 | 38.3 | 101 | 0.98975 | 63.3 | 146 | 0.97850 |
| 13.9 | 57 | 1.00075 | 38.9 | 102 | 0.98950 | 63.9 | 147 | 0.97825 |
| 14.4 | 58 | 1.00050 | 39.4 | 103 | 0.98925 | 64.4 | 148 | 0.97800 |
| 15.0 | 59 | 1.00025 | 40.0 | 104 | 0.98900 | 65.0 | 149 | 0.97775 |
| 15.6 | 60 | 1.00000 | 40.6 | 105 | 0.98875 | 65.6 | 150 | 0.97750 |
| 16.1 | 61 | 0.99975 | 41.1 | 106 | 0.98850 | 66.1 | 151 | 0.97725 |
| 16.7 | 62 | 0.99950 | 41.7 | 107 | 0.98825 | 66.7 | 152 | 0.97700 |
| 17.2 | 63 | 0.99925 | 42.2 | 108 | 0.98800 | 67.2 | 153 | 0.97675 |
| 17.8 | 64 | 0.99900 | 42.8 | 109 | 0.98775 | 67.8 | 154 | 0.97650 |
| 18.3 | 65 | 0.99875 | 43.3 | 110 | 0.98750 | 68.3 | 155 | 0.97625 |
| 18.9 | 66 | 0.99850 | 43.9 | 111 | 0.98725 | 68.9 | 156 | 0.97600 |
| 19.4 | 67 | 0.99825 | 44.4 | 112 | 0.98700 | 69.4 | 157 | 0.97575 |
| 20.0 | 68 | 0.99800 | 45.0 | 113 | 0.98675 | 70.0 | 158 | 0.97550 |
| 20.6 | 69 | 0.99775 | 45.6 | 114 | 0.98650 | 70.6 | 159 | 0.97525 |
| 21.1 | 70 | 0.99750 | 46.1 | 115 | 0.98625 | 71.1 | 160 | 0.97500 |
| 21.7 | 71 | 0.99725 | 46.7 | 116 | 0.98600 | 71.7 | 161 | 0.97475 |
| 22.2 | 72 | 0.99700 | 47.2 | 117 | 0.98575 | 72.2 | 162 | 0.97450 |
| 22.8 | 73 | 0.99675 | 47.8 | 118 | 0.98550 | 72.8 | 163 | 0.97425 |
| 23.3 | 74 | 0.99650 | 48.3 | 119 | 0.98525 | 73.3 | 164 | 0.97400 |
| 23.9 | 75 | 0.99625 | 48.9 | 120 | 0.98500 | 73.9 | 165 | 0.97375 |
| 24.4 | 76 | 0.99600 | 49.4 | 121 | 0.98475 | 74.4 | 166 | 0.97350 |
| 25.0 | 77 | 0.99575 | 50.0 | 122 | 0.98450 | 75.0 | 167 | 0.97325 |
| 25.6 | 78 | 0.99550 | 50.6 | 123 | 0.98425 | 75.6 | 168 | 0.97300 |
| 26.1 | 79 | 0.99525 | 51.1 | 124 | 0.98400 | 76.1 | 169 | 0.97275 |
| 26.7 | 80 | 0.99500 | 51.7 | 125 | 0.98375 | 76.7 | 170 | 0.97250 |
| 27.2 | 81 | 0.99475 | 52.2 | 126 | 0.98350 | 77.2 | 171 | 0.97225 |
| 27.8 | 82 | 0.99450 | 52.8 | 127 | 0.98325 | 77.8 | 172 | 0.97200 |
| 28.3 | 83 | 0.99425 | 53.3 | 128 | 0.98300 | 78.3 | 173 | 0.97175 |
| 28.9 | 84 | 0.99400 | 53.9 | 129 | 0.98275 | 78.9 | 174 | 0.97150 |
| 29.4 | 85 | 0.99375 | 54.4 | 130 | 0.98250 | 79.4 | 175 | 0.97125 |
| 30.0 | 86 | 0.99350 | 55.0 | 131 | 0.98225 | 80.0 | 176 | 0.97100 |
| 30.6 | 87 | 0.99325 | 55.6 | 132 | 0.98200 | 80.6 | 177 | 0.97075 |
| 31.1 | 88 | 0.99300 | 56.1 | 133 | 0.98175 | 81.1 | 178 | 0.97050 |
| 31.7 | 89 | 0.99275 | 56.7 | 134 | 0.98150 | 81.7 | 179 | 0.97025 |
| 32.2 | 90 | 0.99250 | 57.2 | 135 | 0.98125 | 82.2 | 180 | 0.97000 |
| 32.8 | 91 | 0.99225 | 57.8 | 136 | 0.98100 | 82.8 | 181 | 0.96975 |
| 33.3 | 92 | 0.99200 | 58.3 | 137 | 0.98075 | 83.3 | 182 | 0.96950 |
| 33.9 | 93 | 0.99175 | 58.9 | 138 | 0.98050 | 83.9 | 183 | 0.96925 |
| 34.4 | 94 | 0.99150 | 59.4 | 139 | 0.98025 | 84.4 | 184 | 0.96900 |
| | | | | | | 85.0 | 185 | 0.96875 |

**DOCUMENTATION REQUIREMENT
SECTION E
LIQUID AND EMULSIFIED ASPHALTS
(EMULSIFIED ASPHALTS, DILUTED)
(WHEN DELIVERED RAW)**

When the emulsified asphalt is delivered raw and placed in a tank the distributor truck shall be tared before the asphalt and water is added. When the asphalt is added, the truck shall be weighed and then weighed again when the water is added. The ratio of water is a 60/40 or 50/50 (cold recycle only) ratio. Make sure to check the Specials Provisions for the contract to assure the correct ratio is being used. When the truck is finished spraying for the day, the truck shall be weighed once again to determine what was placed for the day, as shown below. To assure the diluted mix is not over watered, multiply the raw tons by 1.4 or 2 (cold recycle only), as shown below.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

Sheet No. 1 of 1

DAILY RECORD OF SCALE WEIGHTS

Pit No. _____
Or Commercial Source Hunnewell

Material Type SS-1h (Diluted)

Date 10-13-08

Contract No. 3247

| Ticket No. | Truck No. | Gross Weight | | Tare Weight | | Net Weight | | Time | Remarks |
|------------|-----------|--------------|-------|-------------|--|------------|------|------------------|----------------------------------------------|
| Circle | Units | Lbs/Kg | | Lbs/Kg | | Lbs/Kg | | Tons/Metric Tons | |
| | 2177 | 47320 | 32740 | 14580 | | | 729 | | oil |
| | | 53140 | 47320 | 5820 | | | 291 | | water |
| | | | | | | | 1020 | | mixed |
| | | | | | | | | | 7.29 x 1.4 = 10.21 max |
| | 2177 | 53140 | 35540 | 117600 | | | 880 | | 8.80 Tons Applied |
| | | | | | | | | | X = 1133 + 10 To X = 1012 + 100 Lr A96 #2 |

NOTES: Take tare weights twice each shift, once prior to starting work in the morning and again at some other time during the day. Note times tares were taken. Record time every five loads.

Sam Spade Weighmaster Shelli Jones Checked by
Joe Green Resident Engineer Shelli Jones Checked Against Book by

NDOT 040-009 (Rev. 12-00)

DISTRIBUTION: ORIGINAL—Retained by State; COPY—To Contractor.

(01-557)

**DOCUMENTATION REQUIREMENT
SECTION F
LIQUID AND EMULSIFIED ASPHALT
(EMUSIFIED ASPHALT, DILUTED)
(BILL OF LADING AND CERTIFICATION)**

If loads are delivered diluted, the weights of asphalt and water must be shown separately or 60/40 or 50/50 (cold recycle only) state mix must show on the bill of lading (B/L) to assure that the load was not over diluted. To assure the water ratio is correct, multiply the raw tons by 1.4 or 2 (cold recycle only) to get the max of diluted emulsified asphalt that can be paid. This calculation shall be shown on all B/Ls for emulsified asphalt. **No payment shall be made on excess water.** For ease in cross checking, the contract number and the corresponding load number from the RECORD OF DELIVERY shall be written in the upper right-hand corner on the B/L and the certification. **All weight calculations shall be checked and initialed.** The B/L **only**, shall be filed in Section 1 - Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project). A copy of the B/L, the certification, and the TRANSMITTAL FOR TEST SAMPLES AND CERTIFICATION (Form No. 020-018) shall be filed in Section 2 - Materials and Testing File, Division No. 4 as described in Chapter 1 (Organization of Project).

| Ergon Asphalt Products, Inc. 800-380-5255 | | | BILL OF LADING 55933 CPLT-3247 LOAD No. 1 8405 0516 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------|---------|-------------|----------------|------------------------------|-----------|---------------------|-------------|--|-------------|-----------------|---------|--------|---------|-----------|-------|---------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|--|--------------|--|------|------|--|-----------------|--------------|--|------|-----|--|------------|-----------------|--|---------------------------------------------------------------------------|--|--|-------------|--|------------------|
| <input type="checkbox"/> CHANDLER, 6940 W. Chandler Blvd. <input type="checkbox"/> SNOWFLAKE, 400 N. Industrial Way <input type="checkbox"/> LAS VEGAS, 6400 W. Richmar Ave. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUSTOMER: <u>Las Vegas Paving</u> CUST. JOB REF.: DESTINATION: | | | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>CUSTOMER #</td> <td colspan="2">ERGON #</td> </tr> <tr> <td><u>412 PAU</u></td> <td colspan="2"></td> </tr> <tr> <td>CUSTOMER JOB REF. #</td> <td colspan="2">DATE / TIME</td> </tr> <tr> <td><u>5082</u></td> <td colspan="2"><u>10/08/08</u></td> </tr> <tr> <td>PO#/PG</td> <td>TRUCK #</td> <td>TRAILER #</td> </tr> <tr> <td></td> <td><u>183021</u></td> <td></td> </tr> <tr> <td>STATE JOB #</td> <td colspan="2">GROSS</td> </tr> <tr> <td></td> <td colspan="2"><u>35640</u></td> </tr> <tr> <td>TONS</td> <td>TARE</td> <td></td> </tr> <tr> <td><u>1.76 vtc</u></td> <td><u>32120</u></td> <td></td> </tr> <tr> <td>GALS</td> <td>NET</td> <td></td> </tr> <tr> <td><u>429</u></td> <td><u>3520 vtc</u></td> <td></td> </tr> <tr> <td colspan="2">DRIVER <input type="checkbox"/> ON DRIVER <input type="checkbox"/> OFF</td> <td></td> </tr> <tr> <td colspan="2">TEMPERATURE</td> <td>SPECIFIC GRAVITY</td> </tr> </table> | | CUSTOMER # | ERGON # | | <u>412 PAU</u> | | | CUSTOMER JOB REF. # | DATE / TIME | | <u>5082</u> | <u>10/08/08</u> | | PO#/PG | TRUCK # | TRAILER # | | <u>183021</u> | | STATE JOB # | GROSS | | | <u>35640</u> | | TONS | TARE | | <u>1.76 vtc</u> | <u>32120</u> | | GALS | NET | | <u>429</u> | <u>3520 vtc</u> | | DRIVER <input type="checkbox"/> ON DRIVER <input type="checkbox"/> OFF | | | TEMPERATURE | | SPECIFIC GRAVITY |
| CUSTOMER # | ERGON # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>412 PAU</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUSTOMER JOB REF. # | DATE / TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>5082</u> | <u>10/08/08</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PO#/PG | TRUCK # | TRAILER # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>183021</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATE JOB # | GROSS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>35640</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TONS | TARE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>1.76 vtc</u> | <u>32120</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GALS | NET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>429</u> | <u>3520 vtc</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRIVER <input type="checkbox"/> ON DRIVER <input type="checkbox"/> OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEMPERATURE | | SPECIFIC GRAVITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>CARRIER:</th> <th>PRODUCT TYPE</th> <th>PRODUCT DESCRIPTION</th> <th>TANK #</th> </tr> <tr> <td><u>cust</u></td> <td>EMULSION</td> <td><u>60/40 65/14 state mix</u></td> <td><u>22</u></td> </tr> <tr> <td></td> <td>ASPHALT</td> <td></td> <td></td> </tr> <tr> <td></td> <td>CUTBACK</td> <td></td> <td></td> </tr> <tr> <td></td> <td>OTHER</td> <td></td> <td></td> </tr> </table> | | | CARRIER: | PRODUCT TYPE | PRODUCT DESCRIPTION | TANK # | <u>cust</u> | EMULSION | <u>60/40 65/14 state mix</u> | <u>22</u> | | ASPHALT | | | | CUTBACK | | | | OTHER | | | PUBLIC WEIGHMASTER CERTIFICATE OF WEIGHT AND MEASURE <small>This is to certify that the described merchandise was weighed, counted or measured by public or deputy weighmaster and when properly signed and sealed shall be prima facie evidence of the accuracy of weight shown as prescribed by law.</small> | | | | | | | | | | | | | | | | | | | | | | | |
| CARRIER: | PRODUCT TYPE | PRODUCT DESCRIPTION | TANK # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>cust</u> | EMULSION | <u>60/40 65/14 state mix</u> | <u>22</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ASPHALT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CUTBACK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TERMS NET 30 DAYS, INTEREST MAY BE CHARGED AT THE RATE OF 18% PER YEAR ON THE UNPAID BALANCE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RECEIVED FOR CONSIGNEE: <u>[Signature]</u> | | | WEIGHMASTER DEPUTY: <u>[Signature]</u> <small>ERGON ASPHALT PRODUCTS, INC.</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> CHECK BOX IF APPLICABLE Elevated temperature, liquid, N.O.S., 9, UN3257, III (Asphalt) | | | <input type="checkbox"/> CHECK BOX IF APPLICABLE Asphalt cut back UN 1999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMMENTS/SPECIAL INSTRUCTIONS <u>OIL H2O</u> <u>309 gal 130</u> <u>2535 # 985</u> <u>1.27 Tons 0.49</u> <u>1.15 Met 0.44</u> <u>1.27 x .49 = 1.76 vtc</u> <u>1.27 x .14 = 1.78 max vtc</u> | | | The following personal protective equipment is required in all ERGON ASPHALT PRODUCTS facilities. Hard Hat Long Sleeve Shirt Safety Glasses Closed Toe Shoes Long Pants Specialty Equipment As Required By Plant Manager Drivers Signature: <u>[Signature]</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <small>WHITE - ACCOUNTING BLUE - ACCOUNTING GREEN - PLANT CANARY - CUSTOMER PINK - DRIVER/CUSTOMER GOLDENROD - CUSTOMER</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Requirements for Certification on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item. For example: SS-1h criteria are located in the Contract Special Provisions, in section 703.03.04.



Ergon Asphalt Products, Inc.

Chandler Facility
6940 W. Chandler Blvd.
Chandler, AZ 85226 U.S.A.
1-800-253-5333

Snowflake Facility
400 N. Industrial Way
Snowflake, AZ 85937 U.S.A.
1-800-601-2189

Las Vegas Facility
6400 W. Richmar Ave.
Las Vegas, NV 89139 U.S.A.
1-888-479-8558

CERTIFICATE OF COMPLIANCE

Cont. 3247
load no. 1

DATE 10/08/08
 CUSTOMER NAME Frehner Construction
 PROJECT NAME 3247 Blue Diamond Interchange
 PROJECT NUMBER _____
 BILL OF LADING NUMBER 55933 TRUCK/TRAILER NUMBER 182021
 ASPHALT/EMULSION TYPE SS-1h TANK NUMBER A-2
 CERTIFICATION NUMBER _____

Test on Emulsion:

Viscosity, Saybolt Furol (25° C, sec.) 32
 Residue (% by mass) 62.2
 Storage Stability (24-H, %) .04
 Sieve (%) .001
 Cement Mixing (%) .03
 Particle Charge Negative

Test on Residue:

Penetration (25° C, 100g, 5 sec.) 56
 Solubility (%) 99.98
 Ductility (25° C, 5cm/min, cm) 115
 Type of Test T49 T51 T59

This material complies to all requirements as set forth in Section 703 of the State of Nevada Standard Specifications.

Signature Scott Gronlund Title Shift Supervisor

WHITE - ORIGINAL YELLOW - CUSTOMER COPY PINK - CUSTOMER COPY GOLD - FILE COPY

CHAPTER 11
Concrete Paving, Roadbed Modification, Recycled Bit. Surface, Micro Surfacing and
Misc. Surfacing Items

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Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION A
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when multiple items are placed in a book. →

| Index | | Initial Key 2 | | |
|-------|-------------------------------------------------|---------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-6 | Record of Delivery & Payment Portland Cement | J | Shelli Jones | Tech III |
| 10-25 | PEEP (8-INCHES) | JD | Jack Dougherty | Tech III |
| 30-35 | PEEP curing compound | TJ | Tom Jones | Tech 3 |
| 40-50 | Saw & Seal Trans. weakened Plane Joints | | | |
| 75 | Book Recap | | | |

Use when only one item is placed in a book. →

| Index | | Initial Key 2 | | |
|-------|------------------------------------------------|---------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-20 | Record of Delivery & Payment - Portland Cement | J | Shelli Jones | Tech III |
| | | JD | Jack Dougherty | Tech III |
| | | TJ | Tom Jones | Tech 3 |
| 75 | Book Recap | | | |

DOCUMENTATION REQUIREMENT
SECTION B
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)
(PORTLAND CEMENT)
(Record of Delivery & Payment)

Portland cement shall be documented in a PORTLAND CEMENT book as illustrated on page 11-3 or if room permits shall be placed in the CONC PAVING book. No spreadsheet is required for cement deliveries.

To setup the field books, the information for the portland cement shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

A PORTLAND CEMENT book shall not be setup if there is no bid item for Portland cement.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Note: An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what a Portland cement B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.

**DOCUMENTATION REQUIREMENT
SECTION D
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)
(PCCP CURING COMPOUND)**

PCCP curing compound shall be documented in a CONC PAVING book. An illustration with Gal as the UOM is shown below.

To setup the field books, the information on PCCP items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and make sure a picture of the label has been taken and placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the station to station, #drums (number of drums), gal, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.** Take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **Calculations will consist of counting drums used or measuring the container and calculating the quantity when a full drum is not used, or if measured by another device showing calculations on how the gallons were derived.**

Payment for Gallon items shall be based on field measure and calculations.

| | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|---------|-------------|------|------|-----------------------------------------------------------------------------|
| Item No. 409 0666 | | | | Sig fig = 1 | | 30 | |
| Item: PCCP Curing Compound, wax Base | | | | | | | |
| Plan Qty: 2500 gal. | | | | | | | |
| Location | # Drums | gal | Date | Insp | AEB# | Ent# | Calcs/Remarks |
| BD' 10+00 to BD' 16+45 RT | 3.75 | 206 | 9-11-08 | JD | | | 55 gal Drums measurement was done by stabbing the drums. See Calc sheet #12 |
| When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM. | | | | | | | |
| Page total: | | | | | | | |

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION E
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)
(SAW TRANSVERSE/LONGITUDINAL WEAKENED PLANE JOINTS)
(JOINT SEALER)**

Saw and seal transverse and longitudinal weakened plane joints shall be documented in a SAW/SEAL JOINTS book or if room permits shall be placed in the CONC PAVING book. An illustration with Linft as the UOM is shown below.

To setup the field books, the information on PCCP items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, the headings of Saw and Seal, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, meas length, saw and seal quantities (pay qty), date, initials, AEB#, and joint x joint length = meas linft. The saw and seal of each area will be listed in the book together as shown below. The individual entries for saw and seal for each area may be paid to (.5) but the total of the area (Saw and seal) will be to the whole number (significant figure). **Skip at least one line between entries.**

Note: No percentages other than 50% for sawing and 50% for sealing shall be allowed. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Item No. 409 0560 | | | Sig Fig = 1 | | 40 |
|----------------------------------------------|------------|---------------------------|-------------|------|------------------------------|
| Item: Saw & Seal Trans weakened Plane Joints | | | 50% Saw | | |
| Plan Qty: 284,000 Linft | | | 50% Seal | | |
| Station to Station | meas Linft | Pay qty | Date Insp | AEB# | Joint x Joint length = Linft |
| "BD" 10+00 TO "BD" 25+00 | 1500 | Saw 750 Seal 750 | 9/12/08 | TS 2 | 95 x 15.79 = 1500 |
| "BD" 25+15 TO "BD" 50+00 | 2485 | Saw 1242.5 Seal 1242.5 | 9/13/08 | TS 2 | 127 x 19.57 = 2485 |
| | | Saw | | | |
| | | Seal | | | |
| | | Saw | | | |
| | | Seal | | | |
| | | Saw | | | |
| | | Seal | | | |
| | | Saw | | | |
| | | Seal | | | |
| Page Total: | | | | | |

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Processing for roadbed modification and pulverize existing surface shall be documented in a ROADBED MOD book. An illustration with a UOM of sqyds is shown on page 11-7 and an illustration with a UOM of Mile is shown below.

To setup the field books, the information on roadbed modification and pulverize existing surface items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, meas linft, meas mile, date, initials, AEB#, the calculations from linft to miles ($\text{linft} \div 5280$), and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Payment for Mile will be based on field measure.

| Item No: 3050300 | | | | Sig fig = .001 | | 4 | |
|-----------------------------------|------------|-----------|--------|-------------------------------|------|------|-----------------------------|
| Item: Pulverize Exist Surface | | | | Linft : 5280 = mile | | | |
| Plan Qty: 10.000 mile | | | | <small>linft per mile</small> | | | |
| Station to Station | meas Linft | meas mile | Date | Insp | AEB* | Pmt* | Calcs/Remarks |
| 'Lne' 451+00 To Lne" 495+00 LT | 4400 | .833 | 9-3-08 | MD | 9 | | $4400 \div 5280 = .833$ /SB |
| 'Lne' 495+00 To Lne" 500+00 LT | 500 | .095 | 9-4-08 | MD | 9 | | $500 \div 5280 = .095$ /SB |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION G
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(RECYCLED BITUMINOUS SURFACE ITEMS)**

Recycled bituminous surface shall be documented in a COLD-RECYCLED book. An illustration with a UOM of Sqyd is shown below.

To setup the field books, the information on recycled bituminous surface items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, sqyd, date, initials, the calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Payment for Sqyd items will be based on field measure and calculations.

| | | | | | | |
|----------------------------------------|---------|---------|------|------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Item No: 404 0580 | | | | Sig fig = .1 | | 40 |
| Item: Recycled Bit. Surface (3" depth) | | | | L X W ÷ 9 = Sqyd | | |
| Plan Qty: 237,000.0 Sqyd | | | | | | |
| Station to Station | Sqyd | Date | Insp | AEB# | Pnt# | Calcs / Remarks |
| Lne" 116+30 TO Lne" 156+75 RT | 5539.6 | 9-10-08 | MD | 9 | | 3561.2 X 14 / 9 = 5539.6 ✓ Length does not equal distance between stations Due to an ISLAND @ "Lne" 125+10 TO "Lne" 129+93.80 |
| "Lne" 156+75 TO "Lne" 230+00 RT | 11394.4 | 9-11-08 | MD | 9 | | 7325 X 14 / 9 = 11394.4 ✓ |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

The **Lime** used in the cold-recycle process shall be documented in a LIME book or if room permits shall be placed in the COLD-RECYCLE book. The Record of Delivery & Payment for lime is illustrated on page 11-11. No spreadsheet is required for lime.

To setup the field books, the information for the lime shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). **Pay will be based on delivery minus waste and/or material left in storage, not based on the application rate.** If room permits the Record of Delivery & Payment may be placed in the COLD-RECYCLE book.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Note: An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what a lime B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.

The **Officperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Delivery & Payment, all column headings, and the page total in the bottom left-hand corner of the page. Two red lines shall be drawn under the areas to be paid on a progress payment, as illustrated below. **Before each payment and at the end of the contract, the Officperson will assure there are enough B/L's to cover the tons used. Payment will be based on the tons delivered minus any waste and/or material left in storage.** The entry in the field book along with the weigh ticket documents the load and quantity received. **A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.** The weigh tickets shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

When a load of lime is received, the **Inspector** shall obtain the weigh ticket (bill of lading) indicating the weight of the material and the certification. Record the load no., date delivered, truck and trailer no., B/L no., tons delvd, accum tons delvd, tons wasted, tons left in storage, tons used, accum tons used, initials, and AEB#. For ease in cross checking, the load number and contract number must be written on the corresponding B/L and the certification in the upper right-hand corner. **All weight calculations shall be checked and initialed. For each pay period and when the recycled bituminous surface items are complete the Inspector will record any waste not already recorded and any lime left in storage.** A line shall be skipped after the payment entry and the next entry shall be placed on the next line, as illustrated below.

Payment will be based on the tons delivered minus any waste and/or material left in storage.

Sig Fig = .01 4

Item No 4042053
 Item: Lime (cold recycle)
 Plan Qty 420.00 ton

Record of Delivery & Payment

| Load No | Date | TRK NO | TRL NO | B/L NO | Ton Delvd | Accum Tons Delvd | Tons Wasted | Tons Left in Storage | Tons Used | Accum Tons Used | Imp | AEB# |
|---------|---------|--------|--------|--------|-----------|------------------|-------------|----------------------|-----------|-----------------|-----|------|
| 1 | 9-10-08 | 45 | 492 | 11017 | 25.15 | 25.15 | 2.00 | 0 | 23.15 | 23.15 | TC | 9 |
| 2 | 9-11-08 | 390 | 391 | 11121 | 26.05 | 51.20 | 5.00 | 0 | 21.05 | 44.20 | TC | 9 |
| 3 | 9-14-08 | 65 | 65A | 11128 | 24.15 | 75.35 | 0 | 0 | 24.15 | 68.35 | TC | 9 |
| 4 | 9-15-08 | 1 | 1A | 11129 | 23.25 | 98.60 | 2.00 | 10.00 | 11.25 | 79.60 | TC | 9 |
| Pmt #27 | | | | | | 79.60 | AEB#9 | | ✓ | | | |

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Page total:

The **Emulsified Asphalt** used in the cold-recycle process shall be documented in an ASPHALT CEMENT book or if room permits shall be placed in the COLD-RECYCLE book. The Record of Delivery & Payment for emulsified asphalt is illustrated on page 11-13. No spreadsheet is required for emulsified asphalt.

To setup the field books, the information for the emulsified asphalt shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each Record of Application and Payment page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Note: An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what an emulsified asphalt B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Delivery & Payment, all column headings, and the page total in the bottom left-hand corner of the page. Two red lines shall be drawn under the areas to be paid on a progress payment, as illustrated below. **Before each payment and at the end of the contract, the Officeperson will assure there are enough B/L's to cover the tons used. Payment will be based on the tons delivered minus any waste and/or material left in storage.** The entry in the field book along with the weigh ticket documents the load and quantity received. **A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.** The weigh tickets shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

When a load of emulsified asphalt is received, the **Inspector** shall obtain the weigh ticket (bill of lading) indicating the weight of the material and the certification. Record the load no., date delivered, truck and trailer no., B/L no., **raw** tons delvd, **accum raw** tons delvd, **raw** tons wasted, **raw** tons left in storage, **raw** tons used, **accum raw** tons used, initials, and AEB#. For ease in cross checking, the load number and contract number must be written on the corresponding B/L and the certification in the upper right-hand corner. **All weight calculations shall be checked and initialed. For each pay period and when the recycled bituminous surface items are complete the Inspector will record any tons used for the fog seal and waste not already recorded, and any asphalt left in storage.** A line shall be skipped after the payment entry and the next entry shall be placed on the next line, as illustrated below.

Payment will be based on the tons delivered minus any waste and/or material left in storage.

Item No: 404 0570
 Item: CMS 25 (Raw)
 Plan Qty: 530.00 Ton

Sig Fig: .01 4

| Record of Delivery & Payment | | | | | | Accum Raw Tons Delvd | Raw Tons Wasted | Raw Tons Left in Storage | Raw Tons Used for Seal | Raw Tons Used | Accum Raw Tons Used | Insp | AEB# |
|------------------------------|---------|--------|----------|---------|----------------|----------------------|-----------------|--------------------------|------------------------|---------------|---------------------|------|------|
| Load No | Date | TRK NO | TRL NO | B/L NO. | Raw Tons Delvd | | | | | | | | |
| 1 | 9-10-08 | 83 | 18 | 146740 | 20.08 | 20.08 | | | | 20.08 | 20.08 | TC | 9 |
| 2 | 9-11-08 | 1106 | 3A/1B | 146742 | 38.52 | 58.60 | | 3.24 | 35.28 | 55.36 | TC | 9 | |
| 3 | 9-14-08 | 21 | 200A/14B | 146772 | 37.44 | 96.04 | | 3.13 | 34.31 | 89.67 | TC | 9 | |
| 4 | 9-14-08 | 83 | 17 | 146803 | 38.80 | 134.84 | | | 38.80 | 128.47 | TC | 9 | |
| 5 | 9-15-08 | 600 | 18 | 146821 | 38.25 | 173.09 | 3.00 | | 3.65 | 31.60 | 160.07 | TC | 9 |
| Pmt #27 160.07 AEB#9 | | | | | | | | | | | | | |

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Page total:

The **Diluted Asphalt (Emulsified Asphalt, Diluted 50/50 by mass with water)** used as a fog seal in the cold-recycle process as illustrated on page 11-15 shall be documented in a LIQUID ASPHALT book or if room permits shall be placed in the COLD-RECYCLE book.

To setup the field books, the information for the emulsified asphalt shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The raw emulsified asphalt used in the cold recycle process, as illustrated on page 11-13 and the diluted emulsified asphalt used as a fog seal, as illustrated on page 11-15, are the same emulsified asphalt but will be two different item numbers. The emulsified asphalt used will be delivered **raw** and will be placed on a Record of Delivery & Payment as explained on page 11-12 and 11-13 under **Emulsified Asphalt**. **Raw** tons will be deducted from this Record of Delivery & Payment and diluted and used for the fog seal as illustrated on page 11-15.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

If room permits, **Sand Blotter** (paid by the ton) used in the cold-recycle process shall follow the guidelines as illustrated in Chapter 8 (Roadway Aggregate). **Pay will be based on delivery minus waste and/or material left in storage.** If room permits the record of delivery (load book) may be placed in the COLD-RECYCLE book.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each Record of Application and Payment page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Application & Payment, all column headings, and the page total in the bottom left-hand corner of the page. Two red lines shall be drawn under the areas to be paid on a progress payment, as illustrated below. **Make sure to take the total tons paid each payment cycle and multiply by 50%. Compare this amount to the total tons deducted for the seal coat from the Record of Delivery & Payment for the raw tons (illustrated on page 11-13), to assure the quantities match.** The entry in the field book along with the weigh ticket documents the load and quantity received. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.** The tickets shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

The **Inspector** shall record the date, distributor no., oil temp, tons applied, accum tons applied, and AEB#. Record the station to station (roadway stations where the material was applied), width of the roadway covered, sqyd (length x width ÷ 9) of roadway covered, application rate, and initials. All stations must have a line designation and show left, right, or center line. If the station to station does not equal the length used to calculate sqyds, then the length must be written above the station to station. **Varies will not be accepted in the width column, must have a quantity. Skip at least one line between entries** and after the payment entry. The next entry shall be placed on the next line, as illustrated below.

Payment for Ton items will be based on weights.

| Record of Application & Payment | | | | | | Station to Station | | | | |
|----------------------------------------|----------|-----------|----------------|--------------------|--------------|---------------------------------|-------|----------|----------|-------------|
| Date | Dist No. | Oil Temp. | Tons Applied | Accum Tons Applied | AEB# | Station to Station | Width | Sqyd | App Rate | Insp |
| 9-11-08 | 16-8 | 95° | 6.48 | 6.48 | 9 | LINE 116+30 To LINE 117+62 RT | 16 | 234.67 | | |
| 9-14-08 | 16-8 | 95° | 6.26 | 12.74 | 9 | LINE 122+45 TO 230+00 RT | 16 | 19120.00 | .08 | TC |
| 9-15-08 | 16-8 | 95° | 3.55 | 16.29 | 9 | LINE 230+00 To LINE 335+00 RT | 16 | 18666.67 | .08 | TC |
| 9-15-08 | 16-8 | 95° | 3.75 | 20.04 | 9 | LINE 335+00 To LINE 390+00 RT | 16 | 9777.78 | .09 | TC |
| 9-15-08 | 16-8 | 95° | 3.75 | 20.04 | 9 | LINE 390+00 To LINE 455+00 RT | 16 | 11555.56 | .08 | TC |
| | | | Pmt #22 | 20.04 | AEB#9 | 20.04/2 = 10.02 Raw tons | | | | ✓ SB |
| The next entry will start on this line | | | | | | | | | | |
| Page total: | | | | | | | | | | |

**DOCUMENTATION REQUIREMENT
SECTION H
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,
AND MISC. SURFACING ITEMS
(MISCELLANEOUS SURFACING ITEMS)**

Screenings (paid by the ton) shall be documented in the same manner as described and illustrated in Chapter 8 (Roadway Aggregate). The type and grade of bituminous material used with the screening will be specified in the contract Special Provisions and documentation will depend on the type specified.

Premixed Bituminous Paving (paid by the ton) shall be documented in the same manner as described and illustrated in Chapter 9 (Plantmix Surfacing). The type and grade of bituminous material and aggregate used with the premix will be specified in the contract Special Provisions.

CHAPTER 12
Major Structures and Piling Items

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DOCUMENTATION REQUIREMENT SECTION A MAJOR STRUCTURES & PILING ITEMS (STRUCTURE LIST)

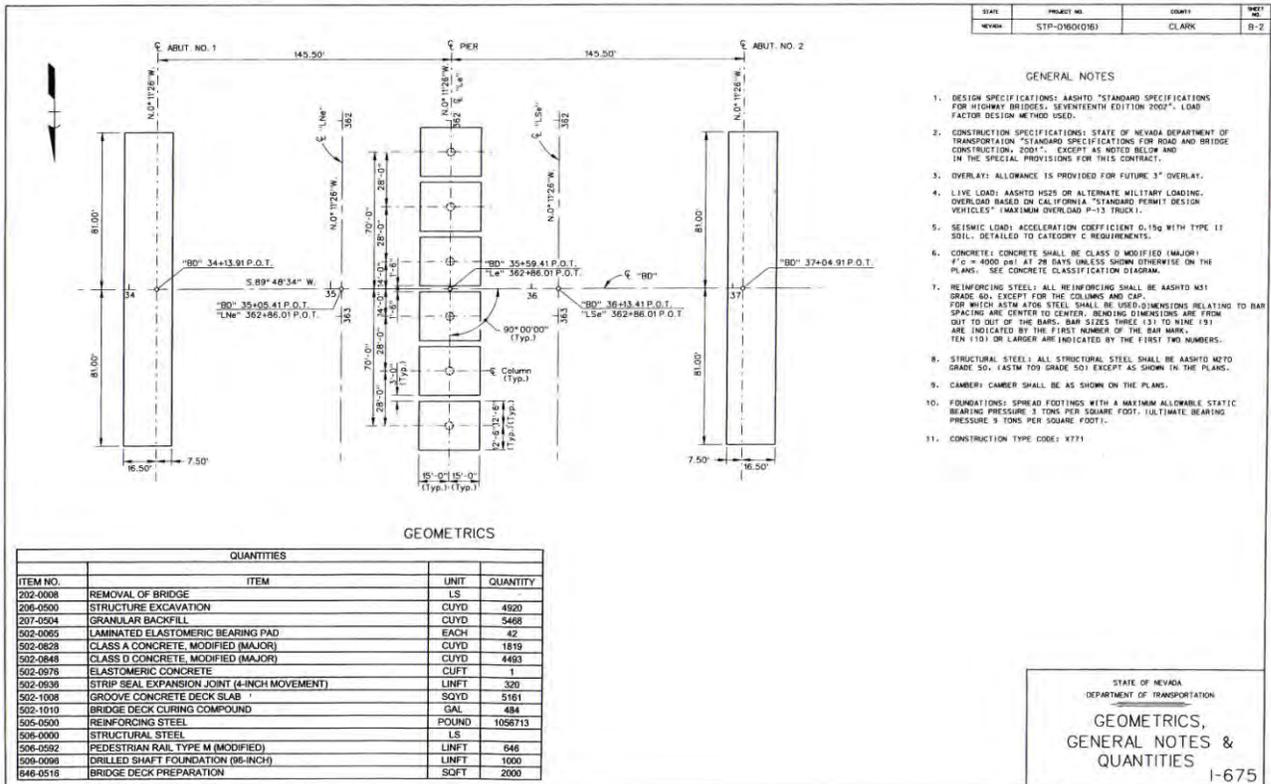
Each major structure shall be documented in a STRUCTURE book. There shall be **one** book for each major structure. The structure number from the contract plans shall also be written on the end of the books. All books shall have two sections - Stakeout Data and Construction Record.

To setup the field books the information on structure items shall be found in the contract plans on the Main Structure list, or on an individual structure's Structure list, or on the Estimate of Quantities. Major structure items should be on a similar structure list as shown below.

Documentation is different for each UOM type. All items shown on the structure list of the plans as incidental to the structure shall be documented in the book, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items).

Documentation for only a few selected items is illustrated in this chapter. Documentation for practically any item can be provided by setting up the books in the same manner according to the UOM. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

Each item listed on the structure list will be placed on a separate page in the field book. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).



**DOCUMENTATION REQUIREMENT
SECTION C
MAJOR STRUCTURES
(STAKEOUT DATA)**

The **Officeperson** will complete the headings on the Stakeout Data page as illustrated below.

Be sure to allow adequate space in the book before setting up the next section (Construction Record). As shown on the structure list in the plans, the full description shall be placed at the top of the Stakeout Data page as illustrated below.

If the structure is to be staked by NDOT, then the Stakeout Data section must contain all the stakeout data for the structure, cross-sections, and all grade elevations pertinent to the structure, etc. Due to the complexity of major structures, **adequate space must be allowed in the books prior to setting up section two (Construction Record).** The person entering the stakeout data must date and initial the page(s) and initial and sign the initial key.

When stakeout information is located elsewhere, the Stakeout Data section must make reference to the page and book number of the stakeout information and the stakeout information must be referenced to the page of the book as illustrated in Chapter 13 (Pipe, RCB, Misc Str. or Retaining, Sound, and MSE Wall).

If the structure is not staked, it must be noted on the Stakeout Data page and initialed as illustrated in Chapter 16 (Guardrail Items).

Per subsection 200.01.01 of the contract documents, if the structure is to be engineered by the Contractor, it must be noted in the Stakeout Data section, as illustrated below. **The Contractor's stakeout information must be given to the Resident Engineer before the final pickup, which will become part of the contract documents forwarded to the Engineering Files.**

DD' 34+13.91 P.O.T. to 'BD' 37+04.91
Construct Structural Steel Interchange
(Str. No. I-675)

Stake out Data

Contractor Engineered

Str. Staked Date Insp

Contractor Engineered may be handwritten or a stamp may be used.

4

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**DOCUMENTATION REQUIREMENT
SECTION D
MAJOR STRUCTURES
(CONSTRUCTION RECORD)**

The Construction Record section shall have a separate page for each bid item listed on the structure list and/or bridge plan sheets relative to that structure. **Make sure to leave enough pages between areas for added or missed items.**

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the Calculation book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Partial payments may be made on a progress payment on structural items as described in subsection 109.06 of the contract documents.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**CONSTRUCTION RECORD
(WHEN PAID BY CUBIC YARD AND CUBIC FOOT)**

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on page 12-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the location, cuyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is Cuft. The cuyd column shall be changed to the heading of cuft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. In no case shall the payment for any area exceed the neat amount without authorized changes and/or final measurement. When paying for concrete, payment shall be paid according to the Bill of Materials. If the quantity is different, then calculations are needed. An illustration of a Bill of Materials is shown on page 12-9. **Make sure to keep like areas together.**

Payment for Cuyd items shall be based on plan quantity or field measure and calculations if different than plan. Payment for Cuft item shall be based on field measure and calculations.

| | | | | | | |
|-------------------------------------|--------|---------|-----------------------|------|------|------------------------------------------|
| Item No. 502 0848 | | | Sig Fig = .01 | | 30 | |
| Item: Class D Concrete, (mod) (maj) | | | L X W X D = 27 = Cuyd | | | |
| Plan Qty: 4493.00 cuyd | | | | | | |
| Location | cuyd | Date | InsP | Att# | Pmt# | Calcs/Remarks |
| Abut #1 | 962.06 | 9-16-08 | JD | 3 | | per bill of materials plan sheet B-44 |
| Abut #2 | 948.04 | 9-16-08 | JD | 3 | | 22 X 17.90 X 65 / 27 = 948.04 |
| Page total: | | | | | | |

Calcs for cuft:
L X W X D = cuft

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**CONSTRUCTION RECORD
(WHEN PAID BY SQUARE YARD AND SQUARE FOOT)**

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Sqyd.

The illustration below is located on a structure list from the contract plans as shown on page 12-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the location, sqyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is Sqft. The sqyd column shall be changed to the heading of sqft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqyd and Sqft items shall be based on field measure and calculations.

| | | | | | | |
|---------------------------------|--------|---------|------|------------------|------|--------------------------|
| Item No: 5021008 | | | | Sig Fig = 1 | | 38 |
| Item: Groove Concrete Deck Slab | | | | L X W ÷ 9 = Sqyd | | |
| Plan Qty: 5161.0 | | Sqyd | | | | |
| Location | sqyd | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
| 'BD' 34+13.91 To | 2491.7 | 9/12/08 | JD | 3 | | 345 X 65 ÷ 9 = 2491.67 ✓ |
| "BD" 37+04.91 LT | | | | | | |
| Page total: | | | | | | |

**Calcs for sqft
L X W = sqft**

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CONSTRUCTION RECORD (WHEN PAID BY GALLON)

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Gallon.

The illustration below is located on a structure list from the contract plans as shown on page 12-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and a picture of the label has been taken and placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the location, #drums (number of drums), gal, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.** Take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **Calculations will consist of counting drums used or measuring the container and calculating the quantity when a full drum is not used, or if measured by another device showing calculations on how the gallons were derived.**

Payment for Gallon items shall be based on field measure and calculations.

| Item No. 502 1010 | | | | Sig figs: 1 | | | 48 |
|-----------------------------------|--------|------|---------|---------------------------------------------------------------------------------------------------------|------|------|-------------------------------------------|
| Item: Bridge Deck Curing Compound | | | | The picture of the label from the container must be attached to a calc sheet & placed in the Calc Book. | | | |
| Plan Qty: 484 gal. | | | | | | | |
| Location | *Drums | gal. | Date | Insp | AEB# | Dmr* | Calcs /Remarks |
| Approach Slab #1 | 2.55 | 140 | 9/25/08 | JD | 3 | | $140 / 55 = 2.55$ ✓ See calc sheet #17 |
| Approach Slab #2 | 2.82 | 155 | 9/27/08 | JD | 3 | | $155 / 55 = 2.82$ ✓ See calc sheet #17 |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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CONSTRUCTION RECORD (WHEN PAID BY POUND)

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Pound.

The illustration below is located on a structure list from the contract plans as shown on page 12-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If the item comes in a container or bag, place a note at the top of the page, as illustrated on page 12-7. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and a picture of a label has been taken and placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the location, lbs, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.** If the item comes in a container or bag, take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **When paying for reinforcing steel, payment shall be paid according to the Bill of Materials.** If quantity is different, then calculations are needed. An illustration of a Bill of Materials is shown on page 12-9. **Make sure to keep like areas together.**

Payment for Pound items shall be based on plan quantity or field measure and calculations if different than plan.

| Item No. 5050500 Item: Reinforcing Steel Plan Qty: 1056773 pound | | | | Sig Fig = 1 51 | |
|------------------------------------------------------------------------|-------|---------|------|---------------------|-----------------------------------------|
| Location | Lbs | Date | Insp | AEB# Print# | Calcs/Remarks |
| Abut #2 | 45957 | 9-22-08 | JD | 3 | 130734 X .35 = 45956.90 35% complete |
| Abut #1 | 65400 | 9/22/08 | JD | 3 | 130800 X .5 = 65400 50% complete |
| Abut #1 | 65400 | 9/25/08 | JD | 3 | 130800 - 65400 = 65400 100% complete |
| Page total: | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
MAJOR STRUCTURES
(PILING DRIVING ITEMS)
(Form No. 040-058)**

The **Inspector** shall prepare the FOUNDATION PILING DRIVING RECORD.

The total number of piles placed is the pay quantity for Driving Piles **paid by each**.

The total length for payment is the pay quantity for Furnish Piles **paid by linft**. The Length for Payment = Cut-off elevation minus (-) tip elevation. Check the Contract Plans for exact cut-off elevations.

The number of splices listed in the two columns on the form is used to list separately the number spliced at the Contractor's expense and the number paid for by NDOT. This item is **paid by each**. An explanation is required if a splice is needed.

The **Inspector** shall document any remarks pertinent to each individual pile in the appropriate section, sign the FOUNDATION PILING DRIVING RECORD and submit to the field office daily. All totals shall be checked for mathematical accuracy and signed by the person who checked the form. The Resident Engineer will review and sign the form.

The original form shall be sent to Headquarters Construction Quality Assurance and a copy shall be filed in Section 2-Material and Testing File, Division No. 9 as described in Chapter 1, (Organization of Project).

If there are any questions concerning the FOUNDATION PILING DRIVING RECORD (Form No. 040-058), please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

Documentation for items listed on the FOUNDATION PILING DRIVING RECORD is illustrated on pages 12-11 and 12-12.

**MAJOR STRUCTURES
(PILING DRIVING ITEMS)
(WHEN PAID BY EACH)**

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location, qty (number placed, as shown on the FOUNDATION PILE DRIVING RECORD, Form No. 040-058), date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. This illustration shall also be used to document number of splices, either State or Contractor, shown on the FOUNDATION PILE DRIVING RECORD.

Payment for Each items will be based on field count.

| Item No 508 0012 Item: Drive Steel Piles Plan Qty: 20 Each | | | | Sig Fig: 1 | | 25 |
|------------------------------------------------------------------|-----|---------|------|------------|---------|----|
| Location | Qty | Date | IRSP | AEB* Pmt# | Remarks | |
| Abut #1 | 1 | 9-10-08 | TS | 6 | Pile #1 | |
| Abut #1 | 1 | 9-10-08 | TS | 6 | Pile #2 | |
| Abut #1 | 1 | 9-11-08 | TS | 6 | Pile #3 | |
| Abut #1 | 1 | 9-15-08 | TS | 6 | Pile #4 | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**MAJOR STRUCTURES
(PILING DRIVING ITEMS)
(WHEN PAID BY LINEAR FOOT)**

Structure items shall be documented in a **STRUCTURE** book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location, meas linft (Length for Payment, as shown on the FOUNDATION PILE DRIVING RECORD, Form No. 040-058), date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Item No: 508 0512 | | | | Sig Fig = 1 | | 28 |
|---------------------------|------------|---------|------|-------------|------|--------------------------------------------------------------------------------------------------------|
| Item: Furnish Steel Piles | | | | | | |
| Plan Qty: 1250 Linft | | | | | | |
| Location | meas Linft | Date | Insp | AEB# | Pmt# | Remarks |
| Abut #1 | 39 | 9-10-08 | TS | 6 | | Pile #1 |
| Abut #1 | 38 | 9-10-08 | TS | 6 | | Pile #2 |
| Abut #1 | 42 | 9-11-08 | TS | 6 | | Pile #3 |
| Abut #1 | 82 | 9-15-08 | TS | 6 | | Pile #4 verified by the geotechnical section to keep driving until min. blows per foot are reached. |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION G
MAJOR STRUCTURES
(DRILLED SHAFT INSPECTION ITEMS)
(Form No. 040-060)**

The **Inspector** shall prepare the DRILLED SHAFT INSPECTION REPORT. The DRILLED SHAFT CONCRETE VOLUMES (back of the form) is required unless the Special Provision for the contract states otherwise.

The **Inspector** shall document any remarks pertinent to each individual pile in the appropriate section, sign the DRILLED SHAFT INSPECTION REPORT and submit to the field office daily. The Resident Engineer will review the form and sign.

The original form shall be sent to Headquarters Construction Quality Assurance and a copy shall be filed in Section 2-Material and Testing File, Division No. 9 as described in Chapter 1 (Organization of Project).

Note: The length for pay in the DESIGN section and the total length paid in the AS-BUILT section shall match, **if they do not, an explanation is required.**

The CONCRETE PLACEMENT LOG AND GRAPH form will replace the back of the DRILLED SHAFT INSPECTION REPORT (Form No. 040-060) and will be completed by the Contractor **if directed to do so in the Special Provision of the contract.**

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

Documentation for the lift item listed on the DRILLED SHAFT INSPECTION REPORT is illustrated on page 12-14.

CHAPTER 13
Pipe, RCB, Misc Structures,
Retaining, Sound, and MSE Walls

| | PAGE |
|----------------------------------------|------|
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**DOCUMENTATION REQUIREMENT
SECTION A
PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(STRUCTURE LIST)**

Pipe, RCBs (drainage), and miscellaneous structures shall be documented in a PIPE, RCB, (DRAINAGE) or MISC STR book. Retaining, sound and MSE walls shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe. Each area placed in a book shall have two sections - Stakeout Data and Construction Record.

To setup the field books the information on the above items shall be found in the contract plans on the Main Structure list, or on an individual structure list, or on the Estimate of Quantities. An illustration of a Drainage Structure List is shown below.

Documentation is different for each UOM type. All items shown on the structure list of the plans as incidental to the structure shall be documented in the book, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items).

Documentation for only a few selected items is illustrated in this chapter. Documentation for practically any item can be provided by setting up the books in the same manner according to the UOM. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

| | | | | | | | | | | | | PERM. NO. | STATE | PROJECT NO. | COUNTY | SHEET NO. | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--------------------------------|--------------------------------------------------------------------------------|---------------|--------|-----------|----|-----|------|----|----|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| | | | | | | | | | | | | 8 | NEVADA | STP-016602181 | CLARK | SD-57 | | | | | | | | |
| | | | | | | | | | | | | STRUCTURE LIST-DRAINAGE | | | | | | | | | | | | |
| | | | | | | | | | | | | DESCRIPTION | STATION TO STATION | | | | | | | | | | | |
| | | | | | | | | | | | | | NOTE: ALL LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER | | | | | | | | | | | |
| | | | | | | | | | | | | | 2.00 | 2.00 | 377 | 1 | 72 | 61 | 1.02 | 6 | 14 | 7 | CONSTRUCT TYPE 3 DI, 59.50' LT, H=3.45' INSTALL 18" X 72.33' RCP W/SAFETY SLOPE END SECTION LT INSTALL CLASS 150 RIPRAP APRON LT CONNECT TO EARTHEN DITCH (SEE SHEET SD-19) | "BD" 19+21.80 |
| | | | | | | | | | | | | | | | 377 | | 30 | 60 | 0.99 | 7 | 11 | | CONSTRUCT TYPE 3 DI, 59.50' LT, H=3.35' INSTALL 18" X 30.00' RCP CONNECT TO STRUCTURE 2.1 (SEE SHEET SD-19) | "BD" 19+54.30 |
| | | | | | | | | | | | | | | | 377 | | 30 | 59 | 0.98 | 7 | 10 | | CONSTRUCT TYPE 3 DI, 59.50' LT, H=3.26' INSTALL 18" X 30.00' RCP CONNECT TO STRUCTURE 2.2 (SEE SHEET SD-19) | "BD" 19+88.37 |
| | | | | | | | | | | | | | | | 367 | | 63 | 178 | 2.28 | 12 | 21 | | CONSTRUCT TYPE 11 DI, 59.50' LT, H=3.26', L=12' INSTALL 18" X 66.03' RCP CONNECT TO STRUCTURE 2.3 (SEE SHEET DS-19) | "BD" 20+58.36 |

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

**DOCUMENTATION REQUIREMENT
SECTION B
PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when multiple areas or structures are placed in a book.



| Index | | Initial Key | | |
|-------|------------------|-------------|---------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-30 | 'BD' 19+21.80 LT | JS | Shelli Jones | Tech III |
| 32-53 | 'BD' 19+54.30 LT | PS | Pat Stewart | Super I |
| 55-73 | 'BD' 19+88.37 LT | TC | Terrri Carson | Tech I |
| 75 | Book Recap | | | |

Use when only one area or structure is placed in a book.



| Index | | Initial Key | | |
|-------|------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-8 | Stakeout Data Sound wall #1 | DS | Donna Johnston | Tech II |
| 10-12 | Structure Excavation | TJ | Tom Jones | Tech IV |
| 14-16 | Granular backfill | SF | Sally Fields | Tech III |
| 18-22 | Class A Concrete (mod) (maj) | | | |
| 24-30 | Reinforcing Steel | | | |
| 32-40 | Sound Barrier wall | | | |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION C
PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(STAKEOUT DATA)**

The **Officeperson** will complete the headings on the Stakeout Data page as illustrated below. On PIPE books only, place Pipe Staked, Stakeout Calcs, Pipe restaked, date and Insp as illustrated below. On all other books place staked or Str. staked, date, and initials as illustrated in Chapter 12 (Major Structures) and Chapter 16 (Guardrail Items).

Be sure to allow adequate space in the book before setting up the next section (Construction Record). As shown in the structure list of the plans, the full description shall be placed at the top of the Stakeout Data page as illustrated below.

If the stakeout is to be performed by NDOT then the Stakeout Data section must contain all the stakeout data, including cross-sections, all grade elevations, cuts and fills, sketches, lengths of pipe or RCB required, etc. The person entering the stakeout data must date and initial the page(s) and initial and sign the initial key.

When stakeout information is located elsewhere, the Stakeout Data section must make reference to the page and book number of the stakeout information and the stakeout information must be referenced to the page of the appropriate book as illustrated below.

If the structure is not staked, it must be noted on the Stakeout Data page and initialed as illustrated in Chapter 16 (Guardrail Items).

Per subsection 200.01.01 of the contract documents, if the structure is to be engineered by the Contractor, it must be noted in the Stakeout Data section, as illustrated in Chapter 12 (Major Structures). **The Contractor's stakeout information must be given to the Resident Engineer before the final pickup, which will become part of the contract documents forwarded to the Engineering Files.**

4

"BD" 19+21.80 Construct Type 3 DI,
59.50' LT, H=3.45'
Install 18" x 7¹⁰/₃₂' RCP w/safety
Slope End Section LT
Install Class 150 Rip Rap Apron LT
Connect To Earthen Ditch
(see Sheet SD-19)

Stakeout Data

See Survey Calc book p.20

| | Date | Insp |
|----------------|---------|------|
| Pipe Staked | 9-1-08 | PS |
| Stakeout Calcs | 9-1-08 | PS |
| Pipe Restaked | 9-15-08 | PS |

Note: Any changes made during installation of the structure such as changed pipe lengths, revised stationing, etc. shall be shown in the structure description by crossing out the old data and writing in the new data.

Contractor Engineered may be handwritten or a stamp may be used.

Additional structure installations resulting from change orders shall be documented exactly as described for planned installations. The change order number must be reference at the top of the page with the description.

**DOCUMENTATION REQUIREMENT
SECTION D
PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)**

The Construction Record section of the PIPE, RCB, (DRAINAGE), MISC STR, and RETAINING, SOUND, OR MSE WALL book shall be used to document the various items of work performed at each structure installation except 201 and 202 removal items, as illustrated in Chapter 4 (Removal Items).

While quantities for structure excavation, granular backfill, concrete, reinforcing steel, and structural steel may be based on planned quantity, all each items must be counted and documented and linear foot items must be measured and documented. If the length of pipe or RCB placed differs three feet (3') or more from plan quantity, all quantities affected by the difference must be recalculated or prorated based on the original quantities, with an explanation and cross-reference to the page where the item was either lengthened or shortened three feet (3') or more. Structure excavation and concrete backfill will not be measured for payment on slotted corrugated metal pipe drains.

See Chapter 25 (Calculations and Reports) for examples of calculations and prorations.

Example of a proration:

Pipe plan = 40 linft

Pipe field measure = 45 linft

Structure Excavation plan = 120 cuyd

$45 \div 40 = 1.125 \times 120 = 135$ cuyd new quantity for structure excavation

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

There has been some question concerning final quantities for RCP when there is "creep" or a gain in length due to the joints for the sections of pipe not fitting together tightly. The final pay quantity for RCP shall be the length of pipe as staked, even though the final length in the field may be slightly more due to "creep".

Note: When RCP is laid between two-drop inlets, the final quantity shall be the length as measured between the DI's. **Care must be taken when documenting RCP to show the length placed that you intend to pay** (i.e. if two DI's 31 feet apart are to be joined by an RCP, it may take only 9 three-foot sections to join them. The documentation in this case should state that 31 feet of RCP was placed). Section lengths should not be mentioned because this introduces a conflict in the documentation.

Note: When installing pipe with metal end sections, care should be taken when measuring for payment of structure excavation and granular backfill. **Do not** include the length of the end section in the measurement. These quantities are included in the price of the end section. (Refer to Standard Plans for Road and Bridge Construction, Silver book.) Structure excavation and granular backfill pay limits stop at the end of the length of pipe, not where the Contractor excavates to install the metal end section.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

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**PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)
(WHEN PAID BY SQUARE YARD AND SQUARE FOOT)**

Pipe, RCBs, (drainage) and miscellaneous structure items shall be documented in a PIPE, RCB, (DRAINAGE), or MISC STR book. Retaining, sound and MSE wall items shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe.

The following is an illustration for an item with a UOM of Sqyd.

The illustration below is located on a structure list from the contract plans as shown on page 13-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the location, sqyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is Sqft. The sqyd column shall be changed to the heading of sqft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Items related to sound and MSE walls (walls, concrete stain, etc.) that have a UOM of Sqyd may be paid to plan. If different than plan, calculations are required.

Payment for Sqyd or Sqft items will be based on field measure and calculations.

Item No: 2030656
Item: Geotextile
Plan Qty this installation: 7.0 sqyd

| Location | Sqyd | Date | Insp |
|------------------|------|--------|------|
| "BD" 19+21.80 LT | 7.0 | 9-5-08 | TC |

Page Total

Sig Fig = .1 8

L X W = 9 = sqyd

AEB# Pmt#

4 7 x 9 = 9 = 7.0
Complete

Calcs for sqft:
L X W = sqft

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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**PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)
(WHEN PAID BY CUBIC YARD AND CUBIC FOOT)**

Pipe, RCBs, (drainage), and miscellaneous structure items shall be documented in a PIPE, RCB, (DRAINAGE), or MISC STR book. Retaining, sound and MSE walls items shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on page 13-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the location, cuyd, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is Cuft. The cuyd column shall be changed to the heading of cuft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. In no case shall the payment for any area exceed the neat amount without authorized changes and/or final measurement. **RipRap items must be field measured and have calculations, CANNOT PAY PLAN.**

Payment for Cuyd items shall be based on plan quantity or field measure and calculations if different than plan. Payment for Cuft item shall be based on field measure and calculations.

| Item No. 2060500 | | | | Sig fig = .01 | | 10 |
|----------------------------------------|-------|--------|------|-----------------------|------|-----------------------------------------------------------------------------------|
| Item: Structural Excavation | | | | L X W X D = 27 = cuyd | | |
| Plan Qty this installation: 14.00 cuyd | | | | Calcs / Remarks | | |
| Location | cuyd | Date | Insp | AEB# | Pmt# | |
| "BD" 19+21.80 LT | 14.00 | 9-8-08 | TC | 4 | | Pay plan |
| "BD" 19+21.80 LT | .78 | 9-9-08 | TC | 4 | | pipe was extended see page 18 (76 ÷ 72) × 14 = 14.78 <i>leg</i> complete |
| Page total: | | | | | | |

Calcs for cuft:

L X W X D = cuft

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)
(WHEN PAID BY POUND)**

Pipe, RCBs, (drainage), and miscellaneous structure items shall be documented in a PIPE, RCB, (DRAINAGE), or MISC STR book. Retaining, sound and MSE walls items shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe.

The following is an illustration for an item with a UOM of Pound.

The illustration below is located on a structure list from the contract plans as shown on page 13-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If the item comes in a container or bag, place a note at the top of the page, as illustrated on the gallon example in Chapter 12 (Major Structures). **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items. All calculations must be checked and initialed and make sure a picture of the label has been taken and placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the location, pound, date, initials, AEB#, calculations, and any remarks that are needed. **Skip at least one line between entries.** If the item comes in a container or bag, take a picture of the label on the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Pound items shall be based on plan quantity or field measure and calculations if different than plan.

| | | | | | | |
|--------------------------------------|-------|--------|------|------------|------|----------------------------------------------------------------|
| Item No: 5050500 | | | | Sig fig: 1 | | 16 |
| Item: Reinforcing Steel | | | | | | |
| Plan Qty this installation: 61 Pound | | | | | | |
| Location | Pound | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
| BD' 19+21.80 LT | 61 | 9-9-08 | TC | H | | The lengthening of the pipe did not affect this item. Complete |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)
(WHEN PAID BY LINEAR FOOT)**

Pipe, RCBs, (drainage), and miscellaneous structure items shall be documented in a PIPE, RCB, (DRAINAGE), or MISC STR book. Retaining, sound and MSE walls items shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 13-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the location, meas linft, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries. See notes on page 13-4.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| | | | | | | |
|---------------------------------------------------|---------------|---------|------|--------------|------|---------------------------------------------------------------------------|
| Item No: 6030520 | | | | Sig Figs = 1 | | 18 |
| Item: 18-inch Reinforced Conc. Pipe, Class III | | | | | | |
| Plan Qty this Installation: 72 Linft | | | | | | |
| Location | meas Linft | Date | Insp | AEB# | Pmt# | Remarks |
| "BD" 19+21.80 LT | 76 | 9-10-08 | TC | 4 | | Pipe extended due to an obstruction found in the field. Complete |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**PIPE, RCB, MISC STRUCTURES,
RETAINING, SOUND, AND MSE WALLS
(CONSTRUCTION RECORD)
(WHEN PAID BY EACH)**

Pipe, RCBs, (drainage), and miscellaneous structure items shall be documented in a PIPE, RCB, (DRAINAGE), or MISC STR book. Retaining, sound and MSE walls items shall be documented in a RETAINING, SOUND, or MSE WALL book similar to pipe.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 13-1.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figures on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the location, qty, date, initials, AEB#, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| | | | | | | |
|--------------------------------------------------|-----|---------|------|-------------|------|----------|
| Item No: 604 2182 | | | | Sig fig = 1 | | 20 |
| Item: 18-inch metal End Section (safety Type) | | | | | | |
| Plan Qty this Installation: 1 Each | | | | | | |
| Location | Qty | Date | Insp | AEB# | Pmt# | Remarks |
| "BD" 19+21.80 LT | 1 | 9-10-08 | TC | 4 | | Complete |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 14
Curb and Gutter and Related Items

| | PAGE |
|----------------------------------------------------|------|
| SECTION A Instructions..... | 14-1 |
| SECTION B Structure List..... | 14-2 |
| SECTION C Index and Initial Key..... | 14-3 |
| SECTION D Cubic Foot and Cubic Yard Item..... | 14-4 |
| SECTION E Linear Foot Item..... | 14-5 |
| SECTION F Square Foot and Square Yard Item..... | 14-6 |

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**DOCUMENTATION REQUIREMENT
SECTION A
CURB AND GUTTER AND RELATED ITEMS**

Curb, curb and gutter, sidewalk, driveways, concrete ramps, valley gutter, etc. shall be documented in a C&G/SIDEWALK, ETC. book.

All stakeout information (profile grades, sketches, cut and fill information, etc.) may be placed in another section of this book.

Documentation for only a few selected items is illustrated in this chapter. Documentation for practically any curb, curb and gutter, sidewalk, driveways, concrete ramps, valley gutter, etc. items can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION D
CURB AND GUTTER AND RELATED ITEMS
(WHEN PAID BY CUBIC FOOT OR CUBIC YARD)**

Curb, curb and gutter, sidewalk, driveways, concrete ramps, valley gutter, etc. items shall be documented in a C&G/SIDEWALK, ETC. book.

The following is an illustration for an item with a UOM of Cuyd.

The illustration below is located on a structure list from the contract plans as shown on page 14-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number and station and plan for each location if indicated on a structure list. If an item with a UOM of Cuyd is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. Calculations must be checked and initialed.**

Daily, the **Inspector** shall document station and AEB# if not already entered, cuyd, date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is in Cuft. The cuyd column shall be changed to the heading of cuft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuyd items shall be based on plan quantity or field measure and calculations if different than plan. Payment for Cuft item shall be based on field measure and calculations.

| Station to Station | Plan | cuyd | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
|---------------------------------------------|------|------|---------|------|------|------|-------------------------------------------------------|
| Item No. 502 0508 | | | | | | | |
| Item Class A Concrete (Island Paving) | | | | | | | |
| Plan Qty: 8.00 cuyd | | | | | | | |
| Sig Fig = .01 4 | | | | | | | |
| $L \times W \times D \div 27 = \text{cuyd}$ | | | | | | | |
| BD' 22+44.36 To | 2.00 | 2.27 | 10-2-08 | LP | 2 | | $49 \times 5 \times .25 \div 27 = 2.27$ ✓ complete |
| BD' 33+41.60 LT | | | | | | | |
| BD' 57+71.99 TO | 3.00 | 3.47 | 10-2-08 | LP | 2 | | $52 \times 6 \times .3 \div 27 = 3.47$ ✓ complete |
| BD' 58+02.05 RT | | | | | | | |
| BD' 59+70.36 TO | 3.00 | 3.00 | 10-3-08 | LP | 2 | | Pay Plan Complete |
| BD' 59+97.49 LT | | | | | | | |
| Page total: | | | | | | | |

Calcs for cuft:
 $L \times W \times D = \text{cuft}$

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION E
CURB AND GUTTER AND RELATED ITEMS
(WHEN PAID BY LINEAR FOOT)**

Curb, curb and gutter, sidewalk, driveways, concrete ramps, valley gutter, etc. items shall be documented in a C&G/SIDEWALK, ETC. book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 14-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number and the station to station and plan for each location if indicated on a structure list. If an item with a UOM of Linft is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | | | | Plan | meas Linft | Date | Insp | AEB* | Pmt* | Remarks |
|-------------------------------------------|--|--|--|------|---------------|---------|------|------|------|----------|
| Item No: 613 0732 | | | | | | | | | | |
| Item: Class A Conc. Curb & Gutter (Types) | | | | | | | | | | |
| Plan Qty: 5485 Linft | | | | | | | | | | |
| BD1 10+55.75 To | | | | 1288 | | | | | | |
| BD 22+96.11 LT | | | | | | | | 2 | | |
| BD1 10+55.75 To BD 19+05 LT | | | | | 881 | 10-2-08 | MD | 2 | | |
| BD 19+05 To BD 21+00 LT | | | | | 177 | 10-2-08 | MD | 2 | | |
| BD 21+00 To BD 22+95 LT | | | | | 195 | 10-2-08 | MD | 2 | | Complete |
| BD1 10+66.99 To | | | | 2079 | 1942 | 10-3-08 | MD | 2 | | Complete |
| BD 31+05.83 RT | | | | | | | | | | |
| BD 22+44.36 To | | | | 2118 | | | | | | |
| BD 33+41.60 LT | | | | | | | | 2 | | |
| BD 22+44.36 To BD 29+05 LT | | | | | 1245 | 10-4-08 | MD | 2 | | |
| BD 29+05 To BD 33+41.60 LT | | | | | 873 | 10-4-08 | MD | 2 | | Complete |
| Page total: | | | | | | | | | | |

Sig Fig = 1 17

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
CURB AND GUTTER AND RELATED ITEMS
(WHEN PAID BY SQUARE FOOT OR SQUARE YARD)**

Curb, curb and gutter, sidewalk, driveways, concrete ramps, valley gutter, etc. items shall be documented in a C&G/SIDEWALK, ETC book.

The following is an illustration for an item with a UOM of Sqyd.

The illustration below is located on a structure list from the contract plans as shown on page 14-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number and the station to station and plan for each location if indicated on a structure list. If an item with a UOM of Sqyd is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. The calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, sqyd, date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: The same format may be used when the UOM is in Sqft. The sqyd column shall be changed to the heading of sqft. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqyd and Sqft items will be based on field measure and calculations.

| Station to Station | Plan | Sqyd | Date | Insp | AEB# | Pmt# | Calcs / Remarks |
|-----------------------------------------------------------------------------------|------|------|---------|------|------|------|-----------------|
| Item No: 613 0864 Item: Class A Conc. Sidewalk (4-INCH) Plan Qty: 26.0 Sqyd | | | | | | | |
| BD' 37+20.91 TO BD' 37+25.91 RT | 11.6 | 11.1 | 10-4-08 | MD | 2 | | 20x5/9=11.1 ✓ |
| BD' 37+20.91 TO BD' 37+29.13 LT | 14.2 | | | | 2 | | |
| Page total: | | | | | | | |

Calcs for sqft:
L X W = sqft

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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CHAPTER 15
Fence Items

| | PAGE |
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| SECTION A Instructions..... | 15-1 |
| SECTION B Structure List..... | 15-2 |
| SECTION C Index and Initial Key..... | 15-3 |
| SECTION D Each Item..... | 15-4 |
| SECTION E Linear Foot Item | |
| Post and wire are paid separately at 50%..... | 15-5 |
| Post and wire are paid separately at 50% with an adjustment for re-measure..... | 15-6 |
| Post and wire are completed in the same day..... | 15-7 |

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**DOCUMENTATION REQUIREMENT
SECTION A
FENCE ITEMS**

All types of fence and gates shall be documented in a FENCE book.

Documentation for only a few selected items is illustrated in this chapter. Documentation for practically any fence item can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

Per subsection 109.06 of the Standard Specifications for Road and Bridge Construction (Silver book), partial payment may be made for fence when the posts are in but the wire has not been stretched. When the posts are complete in place, 50% of the fence quantity shall be allowed. The remaining 50% shall be paid when the fence is complete.

After each section of fence has been completed, the final in-place measurement, date, and initial of the person responsible for the measurements shall be documented.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
FENCE ITEMS
(INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

| Index | | Initial Key | | |
|-------|-----------------------------|-------------|--------------|----------|
| Page | Description | Initials | Signature | Title |
| 4 | 12-FOOT Swing Gate (Double) | TJ | Tom James | Tech III |
| 6-10 | 72-INCH Chain-Link Fence | S | Shelli Jones | Tech II |
| | | VT | Van Thomas | Tech II |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
FENCE ITEMS
(WHEN PAID BY EACH)**

All types of fence and gate items shall be documented in a FENCE book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 15-2 and is listed separately. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number and the station and plan quantity for each if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 616 0916 | | | | Sig fig = 1 | | 4 |
|-----------------------------------|------|-----|------------|-------------|------|--------------------------------------------------------|
| Item: 12-Foot Swing Gate (Double) | | | | | | |
| Plan Qty: 2 Each | | | | | | |
| 3 per C.O.#2 | | | | | | |
| Station | Plan | Qty | Date Insp | AEB# | Pmt# | Remarks |
| "BD" 38+10 RT | 1 | 1 | 9-30-08 VT | 2 | | Complete |
| "BD" 39+90 LT | 1 | | | 2 | | |
| "Lne" 100+00 RT | 1 | 1 | 10-1-08 VT | 9 | | added per C.O.#2 Replaced existing gate Complete |
| Page Total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

All types of fence and gate items shall be documented in a FENCE book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 15-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, the station to station and plan for each section if indicated on a structure list. If an item with a UOM of Linft is not on a structure list, omit the plan column. **Skip at least one line between areas on the same page. A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the stations to station and AEB#, if not already entered, meas linft, pay qty, date, initials, and any remarks that are needed. **Skip at least one line between areas on the same page.**

Note: After each section of fence has been completed, the final in-place measurement, date, and initial of the person responsible for the measurements shall be documented. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | Plan | meas. Linft | pay Qty | Final in-place meas. | Date | Insp | AEB# | PMT | Remarks |
|--------------------------------|------|-------------|---------|----------------------|---------|------|------|-----|---------------------------------|
| Item No: 6160712 | | | | | | | | | |
| Item: 72-inch Chain-Link Fence | | | | | | | | | |
| Plan Qty: 7,900 Linft | | | | | | | | | |
| "BD" 42+50 to | 4000 | 1500 | 750 | | 9-8-08 | VT | 2 | | Posts |
| "BD" 72+50 LT | | 750 | 375 | | 9-10-08 | VT | 2 | | Posts |
| | | 1000 | 500 | | 9-10-08 | VT | 2 | | Wire |
| | | 1200 | 600 | | 9-11-08 | VT | 2 | | Posts |
| | | 550 | 275 | | 9-12-08 | VT | 2 | | Posts |
| | | 1500 | 750 | | 9-15-08 | VT | 2 | | Wire |
| | | 1000 | 500 | | 9-16-08 | VT | 2 | | Wire |
| | | 500 | 250 | | 9-17-08 | VT | 2 | | Wire |
| | | 50 | 50 | | 9-18-08 | VT | 2 | | Re-measure total area. Complete |
| Page total: | | | | 4050 | | | | | |

Sig fig = 1
50% Post
50% Wire

7

This illustration shows post and wire paid separately at 50%. The pay qty is based on the measured linft of fence. After the final measurement, an adjustment was needed after the total area was re-measured.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 16
Guardrail Items

| | PAGE |
|--------------------------------------------------|------|
| SECTION A | |
| Instructions..... | 16-1 |
| SECTION B | |
| Structure List..... | 16-2 |
| SECTION C | |
| Index and Initial Key..... | 16-3 |
| SECTION D | |
| Stakeout Data..... | 16-4 |
| SECTION E | |
| Construction Record-Instructions..... | 16-5 |
| Linear Foot Item | |
| Post and rail paid separately at 50%..... | 16-6 |
| Post and rail are completed in the same day..... | 16-7 |
| Each Item..... | 16-8 |

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**DOCUMENTATION REQUIREMENT
SECTION A
GUARDRAIL ITEMS**

All types of guardrail and related items (terminal ends, connections, etc.) shall be documented in the GUARDRAIL book. Each area placed in a book shall have two sections - Stakeout Data and Construction Record.

Documentation for only a few selected items is illustrated in this chapter. Documentation for practically any guardrail item can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

The Standards Compliance Section shall review the guardrail once it is staked and prior to the Contractor ordering the material and starting the installation. This will allow changes to be made to the guardrail if the plans are incorrect for the actual field conditions. On current and future contracts, please contact Standard Compliance at (775) 888-7598 and schedule a review. See the last paragraph in subsection 618.04.01 of the Standard Specifications for Road and Bridge Construction (Silver book) and the memo dated 5/13/05, Guardrail Reviews.

A GUARDRAIL INVENTORY DATA sheet is required per Construction Division Procedure memo #99-003. At the completion of every contract the Resident Engineer shall contact the Headquarters Safety Division to see if a GUARDRAIL INVENTORY DATA sheet is required. If the data sheet is required it will be completed by the **Resident Engineer** and sent to the Safety Division, with a copy sent to Headquarters Construction. If there are any questions, contact Headquarters Safety Division for assistance.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book(s) to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
GUARDRAIL ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when multiple areas are placed in a book.



| Index | | Initial Key | | |
|-------|-----------------------------------|-------------|---------------------|---------|
| Page | Description | Initials | Signature | Title |
| 4-12 | "BD" 45+29.66 To "BD" 61+79.66 LT | SB | <i>Dheri Brown</i> | Tech II |
| 14-22 | "BD" 70+00 to "BD" 79+50 RT | TC | <i>Terra Carson</i> | Tech I |
| 24-30 | "BD" 80+10 to "BD" 85+25 RT | | | |
| 32-40 | "LW" 205+20 to "LW" 220+30 LT | | | |
| 75 | Book Recap | | | |

Use when only one area is placed in a book.



| Index | | Initial Key | | |
|-------|-----------------------------------|-------------|---------------------|---------|
| Page | Description | Initials | Signature | Title |
| | "BD" 45+29.66 To "BD" 61+79.66 LT | SB | <i>Dheri Brown</i> | Tech II |
| 4 | Stakeout Data | TC | <i>Terra Carson</i> | Tech I |
| 8 | Galvanized Guardrail | | | |
| 12 | Trailing End Anchor | | | |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
GUARDRAIL ITEMS
(STAKEOUT DATA)**

The Stakeout Data page in a GUARDRAIL book serves two purposes; it is used as a stakeout page if needed and to separate the areas if more than one area is placed in a field book.

The **Officeperson** will complete the headings on the Stakeout Data page as illustrated below.

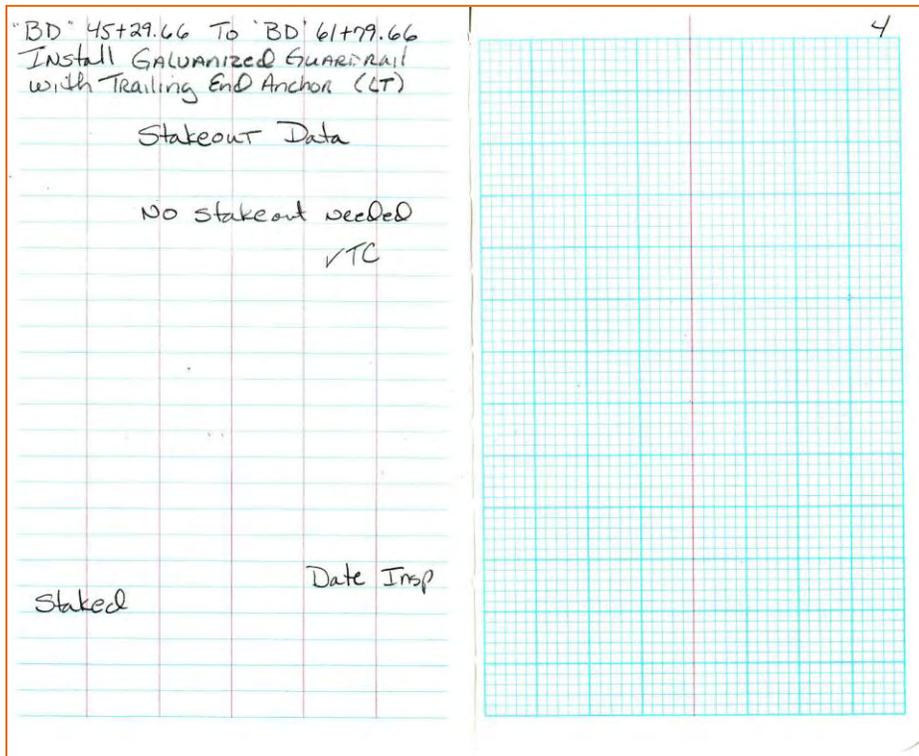
Be sure to allow adequate space in the book before setting up the next section (Construction Record). As shown in the structure list of the plans, the full description shall be placed at the top of the Stakeout Data page as illustrated below.

If the guardrail is to be staked by NDOT then the Stakeout Data section must contain all the stakeout data for the guardrail, cross-sections, and all grade elevations pertinent to the guardrail, etc. Skip at least one page before setting up section two (Construction Record). The person entering the stakeout data must date and initial the page(s) and initial and sign the initial key.

When stakeout information is located elsewhere, the Stakeout Data section must make reference to the page and book number of the stakeout information and the stakeout information must be referenced to the page of the book as illustrated in Chapter 13 (Pipe, RCB, Misc Str. or Retaining, Sound, and MSE Wall).

If the guardrail is not staked, it must be noted on the Stakeout Data page and initialed as illustrated below.

Per subsection 200.01.01 of the contract documents, if the guardrail is to be engineered by the Contractor, it must be noted in the Stakeout Data section, as illustrated in Chapter 12 (Major Structures). **The Contractor's stakeout information must be given to the Resident Engineer before the final pickup, which will become part of the contract documents forwarded to the Engineering Files.**



**DOCUMENTATION REQUIREMENT
SECTION E
GUARDRAIL ITEMS
(CONSTRUCTION RECORD)**

The Construction Record section of the GUARDRAIL books shall be used to document the various items of work performed at each installation except 201 and 202 removal items, as illustrated in Chapter 4 (Removal Items).

The Construction Record section shall **have a separate page for each bid item listed on a structure list per installation. Make sure to leave enough pages between installations for any added or missed items.**

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the Calculation book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book(s) to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Significant figures in the structure list may be used for guardrail documentation during construction of a contract. When recapping the GUARDRAIL book, final totals shall be rounded to match significant figures as shown in Chapter 2 (Setting up a Contract, Book Format, etc.).

Any changes in the guardrail installation shall be noted in the book. Agreed price items created by change orders shall be documented similar to bid items.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**GUARDRAIL ITEMS
(CONSTRUCTION RECORD)
(WHEN PAID BY LINEAR FOOT)**

All types of guardrail and related items (terminal ends, connections, etc.) shall be documented in the **GUARDRAIL** book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 16-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the station to station, meas linft, pay qty, date, initials, AEB# if not already entered, and any remarks that are needed. No payment in excess of plan quantity may be made unless supported by change order or final measurements. **All guardrail must be measured at the time of installation.**

Per subsection 109.06 of the Standard Specifications, partial payment may be made for guardrail when only the posts have been put in. Therefore when the guardrail posts are complete in place, 50% of the guardrail quantity shall be allowed. The remaining 50% shall be paid when the guardrail is complete.

Note: After each section of guardrail has been completed, the final in-place measurement, date, and initials of the person responsible for the measurements shall be documented. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | Meas Linft | Pay Qty | Final in-place meas. | Date | Insp | AEB* | Pmt* | Remarks |
|--------------------|------------|---------|----------------------|---------|------|------|------|----------|
| BD 45+29.66 to | 1050 | 525 | | 10/2/08 | TC | | 2 | Posts |
| BD 61+79.66 LT | | 525 | | 10/3/08 | TC | | 2 | Rail |
| | | | 1050 | 10/6/08 | TC | | 2 | Complete |
| | | | V50 | | | | | |

Item No: 618 0524
Item: Galvanized Guardrail
Plan Qty this Installation: 1050 Linft

Sta. Fr. = 1
50% Posts
50% Rail

8

Page Total:

This illustration shows posts and rail paid separately at 50%. The pay qty is based on the measured linft of guardrail.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

All types of guardrail and related items (terminal ends, connections, etc.) shall be documented in the GUARDRAIL book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 16-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the station to station, meas linft, pay qty, date, initials, and AEB# if not already entered and any remarks that are needed. No payment in excess of plan quantity may be made unless supported by change order or final measurements. **All guardrail must be measured at the time of installation.**

Per subsection 109.06 of the Standard Specifications, partial payment may be made for guardrail when only the posts have been put in. Therefore when the guardrail posts are complete in place, 50% of the guardrail quantity shall be allowed. The remaining 50% shall be paid when the guardrail is complete.

Note: After each section of guardrail has been completed, the final in-place measurement and initials of the person responsible for the measurement shall be documented. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | meas Linft | Pay Qty | Final in-Place meas. | Date | Insp | AEB# | PMT# | Remarks |
|--------------------|------------|---------|----------------------|----------|------|------|------|--------------|
| BD' 45+29.66 to | 200 | 200 | | 10/9/08 | TC | | 2 | Posts + Rail |
| BD' 61+79.66 Lt. | 225 | 225 | | 10/9/08 | TC | | 2 | Posts + Rail |
| | 150 | 150 | | 10/6/08 | TC | | 2 | Posts + Rail |
| | 250 | 250 | | 10/7/08 | TC | | 2 | Posts + Rail |
| | 225 | 225 | | 10/8/08 | TC | | 2 | Posts + Rail |
| | | | 1050 | 10/10/08 | TC | | 2 | Complete |
| | | | ✓SB | | | | | |

Item No. 618 0524
 Item: Galvanized Guardrail
 Plan Qty this installation: 1050 Linft

Sig. fig = 1
 50% Post
 50% Rail

8

Page total:

This illustration shows post and rail completed in the same day. The pay qty will be the length of completed fence. The final in-place meas. will be entered, dated, and initialed.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**GUARDRAIL ITEMS
(CONSTRUCTION RECORD)
(WHEN PAID BY EACH)**

All types of guardrail and related items (terminal ends, connections, etc.) shall be documented in the GUARDRAIL book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on a structure list from the contract plans as shown on page 16-2 and is combined. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity this installation, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.**

Daily, the **Inspector** shall document the station to station, qty, date, initials, AEB#, if not already entered, and any remarks that are needed.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| <p>Item No: 618 0038 Item: Trailing End Anchor Plan Qty this Installation: 2 EACH</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Station to Station</th> <th style="text-align: left;">Qty</th> <th style="text-align: left;">Date</th> <th style="text-align: left;">Insp</th> </tr> </thead> <tbody> <tr> <td>BD 45+29.66 TO BD 61+99.66 LT</td> <td>2</td> <td>10-12-08</td> <td>TC</td> </tr> </tbody> </table> <p>Page total:</p> | Station to Station | Qty | Date | Insp | BD 45+29.66 TO BD 61+99.66 LT | 2 | 10-12-08 | TC | <p style="text-align: right;">Sig fig = 1 12</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">AEB#</th> <th style="text-align: left;">Pmt#</th> <th style="text-align: left;">Remarks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td></td> <td>Complete</td> </tr> </tbody> </table> | AEB# | Pmt# | Remarks | 2 | | Complete |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|------|------|----------------------------------|---|----------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------|---|--|----------|
| Station to Station | Qty | Date | Insp | | | | | | | | | | | | |
| BD 45+29.66 TO BD 61+99.66 LT | 2 | 10-12-08 | TC | | | | | | | | | | | | |
| AEB# | Pmt# | Remarks | | | | | | | | | | | | | |
| 2 | | Complete | | | | | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 17
Guideposts & Object Markers

| | PAGE |
|------------------------------------------------------------|------|
| SECTION A Guideposts & Object Markers-Instructions..... | 17-1 |
| SECTION B Index and Initial Key..... | 17-2 |
| SECTION C Guideposts..... | 17-3 |
| SECTION D Object Markers..... | 17-4 |

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**DOCUMENTATION REQUIREMENT
SECTION A
GUIDEPOSTS & OBJECT MARKERS**

Object markers and guideposts shall be documented in a GUIDEPOST book. Individual stationing for guideposts may be listed, if desired, in a separate section of the book.

To setup the field books, the information for guideposts and object markers shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

Documentation for guideposts and object markers are illustrated in this Chapter. Documentation for practically any guidepost and object marker items can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following illustrations, please call Headquarters Construction for assistance.

A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book(s) to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION B
GUIDEPOSTS & OBJECT MARKERS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when items are placed in a GUIDEPOST book.



| Index Description | | Initial Key | | |
|-------------------|------------------------|-------------|----------------|----------|
| Page | | Initials | Signature | Title |
| 4-5 | Guideposts (flexible) | | | |
| 10-11 | Object Markers, Type 1 | SE | Shelli Jones | Tech II |
| | | JD | Jack Dougherty | Tech III |
| 75 | Book Recap | | | |

Use when items are placed in a MISC book.



| Index Description | | Initial Key | | |
|-------------------|----------------------------------------|-------------|----------------|----------|
| Page | | Initials | Signature | Title |
| 4-5 | Guideposts (Flexible) | | | |
| 10-11 | Object Markers, Type 1 | SE | Shelli Jones | Tech II |
| 13-20 | Planting Misc Areas | JD | Jack Dougherty | Tech III |
| 22-23 | Portable Precast Concrete Barrier Rail | MD | Mary Davis | Tech I |
| 25-28 | Elastomeric Concrete (Decorative) | | | |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION C
GUIDEPOSTS & OBJECT MARKERS
(GUIDEPOSTS)**

Object markers and guidepost items shall be documented in a GUIDEPOST book.

The following is an illustration for an item with a UOM of Each.

The illustration shown below is not located on a structure list and is combined. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station, qty, date, initials, AEB#, if not already entered, and any remarks that are needed. **Skip at least one line between entries.**

Note: When all the guideposts have been installed, a final in-place count, counted by, and date counted is required as shown below. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 619 0044 | | | | | Sig fig = 1 | | 5 |
|-----------------------------|-----|---------|------|------|-----------------------------------------------------------------------|----------|---|
| Item: Guideposts (Flexible) | | | | | | | |
| Plan Qty: 269 Each | | | | | | | |
| Station to Station | Qty | Date | Insp | AEB# | Print# | Remarks. | |
| "Lse" 367+12.00 To | 34 | 9-8-08 | JD | 9 | | | |
| "Lse" 377+82 LT | | | | | | | |
| "Lse" 371+61.64 To | 24 | 9-9-08 | JD | 9 | | | |
| "Lse" 378+01.64 LT | | | | | | | |
| "Lse" 380+10 To | 28 | 9-10-08 | JD | 9 | | | |
| "Lse" 383+20 RT | | | | | | | |
| "BD" 56+25.69 To | 34 | 9-10-08 | JD | 2 | | | |
| "BD" 67+74.69 RT | | | | | | | |
| "BD" 68+90.12 To | 29 | 9-10-08 | JD | 2 | | | |
| "BD" 71+25.10 LT | | | | | | | |
| "BD" 40+10 To | 30 | 9-11-08 | JD | 2 | | | |
| "BD" 45+20 RT | | | | | | | |
| Page total: | | | | | Final In-Place Count = 270 Counted by: JD Date Counted: 9-12-08 | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION D
GUIDEPOSTS & OBJECT MARKERS
(OBJECT MARKERS)**

Object markers and guidepost items shall be documented in a GUIDEPOST book.

The following is an illustration for an item with a UOM of Each.

The illustration shown below is not located on a structure list and **must be listed separately**. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station, qty, date, initials, AEB#, if not already entered, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 619 0077 | | | | Sig Fig = 1 | | | 10 |
|----------------------------------|-----|---------|------|-------------|-------|---------|----|
| Item: Object Markers, Type (MOD) | | | | | | | |
| Plan Qty: 18 Each | | | | | | | |
| Station | Qty | Date | Insp | AEB# | Prnt# | Remarks | |
| "Lne" 302+00 LT | 1 | 9-30-08 | JD | 9 | | | |
| "Lne" 303+20 LT | 1 | 10-1-08 | JD | 9 | | | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 18
Miscellaneous Items

| | PAGE |
|----------------------------------------------------|-------|
| SECTION A Miscellaneous Items-Instructions..... | 18-1 |
| SECTION B Structure List..... | 18-2 |
| SECTION C Index and Initial Key..... | 18-3 |
| SECTION D Each Item-listed separately..... | 18-4 |
| Each Item-combined..... | 18-5 |
| Adjust Valves and Manhole-Information..... | 18-6 |
| Illustration of a Utility agreement..... | 18-7 |
| Each Item-Adjust cover Method A..... | 18-8 |
| Each Item-Adjust cover Method B..... | 18-9 |
| Each Item-Adjust cover Method C-Instructions..... | 18-10 |
| Illustrations..... | 18-11 |
| SECTION E Linear Foot Item..... | 18-12 |
| SECTION F Station Item..... | 18-13 |
| SECTION G Mile Item..... | 18-14 |
| SECTION H Square Foot Item..... | 18-15 |
| SECTION I Square Yard Item..... | 18-16 |
| SECTION J Acre Item..... | 18-17 |
| SECTION K Cubic Foot Item..... | 18-18 |
| SECTION L Cubic Yard Item..... | 18-19 |
| SECTION M Gallon Item..... | 18-20 |
| SECTION N Pound Item..... | 18-21 |

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**DOCUMENTATION REQUIREMENT
SECTION A
MISCELLANEOUS ITEMS**

Miscellaneous items shall be documented in a MISC book. Documentation is different for each unit of measure (UOM) type.

Documentation for only a few selected miscellaneous items is illustrated in this chapter. Documentation for practically any miscellaneous item can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following examples, please call Headquarters Construction for assistance.

When an item has an UOM of Sqyd, there are some cases when the plan quantity can be used for the pay quantity. An example of this would be plantmixing miscellaneous in a "contained" area, such as a gore island. In this case, the area would not be expected to change from the planned dimensions. Using plan quantity will eliminate making the difficult calculations of a very irregular curved area. **This must be stated in the remarks as to why calculations were not done.**

Plantmixing Miscellaneous Paving is only paid once. The payment is made on the dense grade, not open-graded.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
MISCELLANEOUS ITEMS
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

MISC book #1



| Index | | Initial Key | | |
|-----------|-------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-6 | Type I Class B Agg | JS | Shelli Jones | Tech II |
| 8 | V-Type Ditches | JD | Jack Dougherty | Tech III |
| 10-11 | Seeding (Type A) | MD | Mary Davis | Tech I |
| 13-21, 35 | Planting Misc. Areas | LP | Lynne Phillips | Tech II |
| 22-23 | Portable Precast Conc. Barrier Rail | TC | Terrin Carson | Tech I |
| 25-28 | Elastomeric Conc. (deactivated) | LS | LAURIE JOSEPH | Tech I |
| 30-32 | Adjusting Covers (method A) | | | |
| 40-45 | Adjusting Covers (method B) | | | |
| 52-60 | Adjusting Covers (method C) | | | |
| 62 | Rubber Additive | | | |
| 64-70 | Class A Conc. Aprons | | | |
| 75 | Book Recap | | | |

Skipping lines on the index allows items to be added. Elastomeric concrete (deactivated) was added by change order.

MISC book #2



| Index | | Initial Key | | |
|-------|------------------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4 | Perpetuate Survey Monuments | JS | Shelli Jones | Tech II |
| 8-16 | Epoxy Pavement Striping (Golds White) | JD | Jack Dougherty | Tech III |
| 18-30 | NON reflective Pavement Markers | MD | Mary Davis | Tech I |
| 32-40 | Perm. Pavement Marking Film (Type 2) (Various) | LP | Lynne Phillips | Tech II |
| 42-50 | Paint-on-waterproofing | TC | Terrin Carson | Tech I |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
MISCELLANEOUS ITEMS
(WHEN PAID BY EACH)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Each.

The illustration shown below is not located on a structure list and **must be listed separately**. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page. If an item with a UOM of Each is located on a structure list, insert the plan column between station and qty. Make sure to put the AEB number, and station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: Payment for reference monuments may be made after they are placed and the caps have been set. The NDOT Location Crew or the Contractor, who will file the information with the appropriate entity, shall stamp the monument caps. The stamped information is not required in the field book. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No. 621 0006 | | | | Sig fig = 1 | | 4 |
|----------------------------------|-----|----------|------|-------------|------|---------|
| Item: Perpetual Survey Monuments | | | | | | |
| Plan Qty: 8 EACH | | | | | | |
| Station | Qty | Date | Insp | AEB# | Pmt# | Remarks |
| "LNE" 110 +10 LT | 1 | 10-15-08 | LP | 9 | | |
| "LNE" 114 +90 RT | 1 | 10-15-08 | LP | 9 | | |
| "LNE" 118 +10 RT | 1 | 10-15-08 | LP | 9 | | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Each.

The illustration shown below is not located on a structure list and is combined. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page. If an item with a UOM of Each is located on a structure list, insert the plan column between station to station and qty. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. the AEB number and the station to station for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| Item No: 633 0000 | | | | Sig Sig = 1 | | 18 |
|---------------------------------------|-----|---------|------|-------------|-------|------------|
| Item: Non-Reflective Pavement markers | | | | | | |
| Plan Qty: 19033 Each | | | | | | |
| Station to Station | Qty | Date | Insp | AEB# | Plan# | Remarks |
| "Lve" 382+43 To "Lve" 395+02 LT | 78 | 9-23-08 | TC | 9 | | NB Lane #1 |
| "Lve" 395+02 To "Lve" 482+43 LT | 93 | 9-23-08 | TC | 9 | | SB Lane #2 |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Adjust Valves and Manhole Covers

The following steps are to assure the correct number of valves and manholes are being billed to the different entities for payment:

1. The **Resident Engineer** shall review the Agreement(s) with the different entities for the adjusting of valves and manholes for the Contract. If you do not have any Agreement(s), contact Headquarters Construction for assistance.

2. The **Officeperson** shall review the Agreement, contract structure list, and AEB list for the quantity and location for each valve and manhole cover.

3. The Officeperson shall notify the Resident Engineer if a discrepancy is found. The **Resident Engineer** shall notify Right-of-Way and the entity of the discrepancy.

4. If additional valves or manholes are found in the field, the **Resident Engineer** will notify the entity. The entity is **required** to notify the Resident Engineer in writing whether the entity agrees to pay or refuses to pay for the adjustment of the additional valves or manholes. The letter will be attached to a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

5. If the entity refuses to pay for the adjustment, it will be at the discretion of the **Resident Engineer** to assess if the manhole needs to be adjusted. If adjustments are needed, then contact Headquarters Construction for assistance.

6. The **Officeperson** and the **Inspector** will enter the appropriate information as described on pages 18-8 thru 18-11. If the station in the field book does not match the station in the field, the **Inspector** will line through the original station and write the new station above, as illustrated on page 18-9. A reason for the change is **required** in the remarks column, as illustrated on page 18-9. Page 18-7 shows an illustration of an Agreement. If you have any questions concerning manholes or valves, please contact Headquarters Construction.

The Officeperson will make copies of all the pages in the field books that have adjust valves and manhole covers and send to Headquarters Construction as soon as these items are complete. Make sure the copies are dark so they are easy to read. Do not wait until the final job closeout.



STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

MAR 10 2006

KENNY C. GUINN
Governor

February 2, 2006

JEFFREY FONTAINE, P.E., Director

In Reply Refer to:

VERIZON
PATRICIA SOLANO
1520 CHURCH ST
GARDNERVILLE NV 89410

Project SPF-050-1(035)
E.A. 73245
Hwy. Agmt No. B055-06-030

60294

← Page 1

Dear Ms. Solano:

The Nevada Department of Transportation has scheduled Project SPF-050-1(035), E.A. 73245, which calls for construction of US-50 from 0.05 miles east of SR 760, Nevada Beach Road to Douglas County/Carson City line between the limits of Milepost DO 1.97 to 14.58 and US-50 from the Douglas County line to the junction with US-395/SR 529 between the limits of milepost CC 0.00 to 7.63. The work to be performed is a 4 inch Coldmill, 1 inch Type 3 Stress Relief Course, 2 inch Plantmix Bituminous Surface with Open Grade. All work is to be done within the existing right-of-way. This project will require adjustment or relocation of some of the facilities owned or maintained by you.

Enclosed is a set of preliminary roadway design plans for the project. Should you require specific cross-sections for any location, or any other design information, we will furnish them to you upon request and as the information becomes available.

The project certification date is March 19, 2006. It is our desire to have all possible utility adjustments completed at that time.

Please be advised that this project is being funded with State funds only, therefore, any facilities you have in place by virtue of franchise rights are not eligible for reimbursement and must be relocated at your expense. As with other projects, any facilities you have in place under Right-of-Way Occupancy Permits pursuant to N.R.S. 408.210 and 408.423, must be relocated at your expense. Only facilities located under a right compensable under eminent domain are eligible for reimbursement.

Approximately nine (9) manholes have been located, of which, none have a prior right and are there by encroachment. The manholes identified on the enclosed Exhibit "A", will be required to be lowered prior to our contractor commencing construction, and then raised to final grade after construction. If you wish to have these adjustments made by NDOT's contractor during construction, we will include this work in our contract and bill you after the contract has been completed. This bill will be for the actual number of non-compensable manholes to be adjusted at the actual bid cost plus Construction Engineering cost for the project. The estimated bid price is SEVEN HUNDRED FIFTY NO/100 DOLLARS (\$750.00) for each non-compensable manhole adjustment. If this construction must be performed at night the estimated bid price is EIGHT HUNDRED FIFTY AND NO/100 DOLLARS (\$850.00) for each non-compensable manhole adjustment. The number of manholes described above is an approximation only, the actual numbers may increase or decrease, however, you will only be responsible for the non-compensable covers actually adjusted during construction.

DS890 Rev. 11-07

(C) 4667

This is an illustration of an Agreement. Page one shows the approximate number of manholes or valves that are represented in the Agreement. Page three shows the stations, the offset and the entity that is responsible for payment.

(Please check the appropriate box)

Verizon agrees to have the work completed by the State's contractor. Please sign below indicating your approval and authorization, and return this letter to me before January 13, 2006.

Verizon elects to perform the required adjustment with our own forces. Verizon understands that all work must be coordinated with the State's contractor in order to avoid delays on the project. If delays are experienced, due to the relocation of our facility, any damages incurred by the contractor or the state will be our responsibility.

Should you have any questions or require further information, please contact Chelsea Ryan of this office at (775) 888-7395.

Sincerely,

Mary W. Luster,
Supervisory Right-of-Way Agent

MWL/CR/dc

Enclosures

c: Ken Mammen, Project Coordinator

Reid Kaiser, Construction

Martin Fink, Util. Insp. Dist II

Thor Dyson, District Engineer c: Res. Eng. Dist II

APPROVAL AND AUTHORIZATION FOR THE NEVADA DEPARTMENT OF TRANSPORTATION TO PERFORM THE ABOVE-DESCRIBED ADJUSTMENTS AS PROPOSED:

VERIZON

By:
PATRICIA SOLANO Date

REVIEWED AND RECOMMENDED BY:

Heidi A. Mireles, Chief Right-of-Way Agent Date 02/17/06

APPROVED FOR LEGALITY AND FORM:

John F. Val, Deputy Attorney General Date 2/22/06

STATE OF NEVADA, acting by and through its DEPARTMENT OF TRANSPORTATION

Jeffrey Fontaine, Director Date 3/1/06

EXHIBIT A
UTILITY LOCATIONS

Project SPF-050-1(035)
E.A. 73245

| STATION | UTILITY | OFFSET |
|----------------|--------------|--------|
| "Z" 113+40 +/- | TELEPHONE MH | 30' LT |
| "Z" 119+50 +/- | TELEPHONE MH | 30' LT |
| "Z" 123+58 +/- | TELEPHONE MH | 30' LT |
| "Z" 127+72 +/- | TELEPHONE MH | 30' LT |
| "P" 10+15 +/- | TELEPHONE MH | 30' LT |
| "P" 14+52 +/- | TELEPHONE MH | 28' LT |
| "P" 42+80 +/- | TELEPHONE MH | 30' RT |
| "P" 75+32 +/- | TELEPHONE MH | 20' LT |
| "P" 83+95 +/- | TELEPHONE MH | 20' LT |
| | | |
| | | |

↑
Page 3

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Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on the structure list from the contract plans as shown on page 18-2 and **must be listed separately**. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

Method A is used when removal of the existing pavement by cold milling is not required. Once all paving is completed, locate and adjust the cover to the final finished pavement level.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Raised, page total in the bottom left-hand corner of the page, the AEB number and station, type, and owner for each manhole if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station, AEB#, type, and owner, if not already entered, qty, date, initials, and any remarks that are needed. Per Policy and Procedures Directive Construction 03-98 it will be the **responsibility of the Inspector to identify the type and owner of all manhole covers to be adjusted on a given contract**. If the **Officeperson** has already entered the type and owner it will be the **Inspector's** responsibility to confirm the type and owner. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline. **If manholes are found in the field that are not listed on the plans or are added by change order, the type, owner, and a note in the remarks field, are required as illustrated on page 18-9.**

Payment for Each items will be based on field count.

| Item No: 6090112 Item: Adjusting Covers (method A) Plan Qty: 6 EACH | | | | Sig Qty = 1 | | | 30 | |
|---------------------------------------------------------------------------|--------|------|---------|-------------|-------|------|-------|---------|
| Station | Qty | Date | Insp | AEB* | Prop* | Type | owner | Remarks |
| "BD" 56+34.81 10.00' RT | Raised | 1 | 10-2-08 | MD | 2 | | sewer | ccsd |
| "BD" 56+39.10 5.00' RT | Raised | 1 | 10-2-08 | MD | 2 | | sewer | ccsd |
| "BD" 56+62.75 8.00' RT | Raised | | | | 2 | | sewer | ccsd |
| "BD" 56+78.12 25.00' RT | Raised | | | | 5 | | Phone | Sprint |
| "BD" 56+92.90 15.00' RT | Raised | 1 | 10-2-08 | MD | 5 | | Phone | Sprint |
| "BD" 57+17.54 12.00' RT | Raised | | | | 3 | | Gms | SWG |
| Page total: | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

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Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Each.

The illustration below is located on the structure list from the contract plans as shown on page 18-2 and **must be listed separately**. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

Method B is used when removal of the existing pavement by cold milling is required. Before cold milling, lower the cover sufficiently to accommodate the required pavement removal depth. After the new pavement is placed and completed, locate and adjust the cover to the final pavement level.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Lowered, Raised, page total in the bottom left-hand corner of the page, the AEB number and station, type, and owner for each manhole if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station, AEB#, type, and owner, if not already entered, qty, date, initials, and any remarks that are needed. Per Policy and Procedures Directive Construction 03-98 it will be the **responsibility of the Inspector to identify the type and owner of all manhole covers to be adjusted on a given contract**. If the **Officeperson** has already entered the type and owner it will be the **Inspector's** responsibility to confirm the type and owner. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **If manholes are found in the field that are not listed on the plans or are added by change order, the type, owner, and a note in the remarks field, are required as illustrated below.**

Payment for Each items will be based on field count.

| Item No. 6090116 Item: Adjusting Covers (method B) Plan Qty: 5 Each | | | | Sig. Fig = 1 | | 40 | | |
|---------------------------------------------------------------------------|-------------------------|---------------------|------|--------------|------|----------|-------|--------------------------------------------------|
| Station | Qty | Date | Insp | AEB# | Pmt# | Type | Owner | Remarks |
| 'BD' 57+19.00 22.00' LT | Lowered Raised | | | | | | | |
| 'BD' 57+49.00 22.00 LT | Lowered .5 Raised .5 | 10-2-08 10-10-08 | MD | 2 | | Sewer | CCSD | |
| 'BD' 57+71.99 25.00' LT | Lowered .5 Raised | 10-2-08 | MD | 2 | | Sewer | CCSD | |
| 'BD' 58+02.05 15.00' RT | Lowered .5 Raised .5 | 10-2-08 10-10-08 | MD | 2 | | Sewer | CCSD | |
| 'BD' 58+37.93 58+37.43 5' RT | Lowered .5 Raised | 10-2-08 | MD | 2 | | Sewer | CCSD | Man Hole was NOT IN the location listed in plans |
| 'BD' 55+30.15 5.00 LT | Lowered .5 Raised .5 | 10-2-08 10-3-08 | MD | 3 | | Gas Suck | | found in field NOT in Plans See Calc sheet #10 |
| Page Total: | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Miscellaneous items shall be documented in a MISC book.

The illustrations on page 18-11 are for an item with a UOM of Each.

The illustrations on page 18-11 are located on the structure list from the contract plans as shown on page 18-2 and **must be listed separately**. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

Method C is used when the method of adjustment is outside the areas described in Methods A and B, when removal of cold milling and paving is not used. Method C shall be setup as either lowered and raised or just raised depending on what is called for in the field, as illustrated on page 18-11.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Lowered, Raised or Raised, page total in the bottom left-hand corner of the page, the AEB number and station, type, and owner for each manhole if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station, AEB#, type, and owner, if not already entered, qty, date, initials, and any remarks that are needed. Per Policy and Procedures Directive Construction 03-98 it will be the **responsibility of the Inspector to identify the type and owner of all manhole covers to be adjusted on a given contract**. If the **Officeperson** has already entered the type and owner it will be the **Inspector's** responsibility to confirm the type and owner. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **If manholes are found in the field that are not listed on the plans or are added by change order, type, owner, and a note in the remarks field, are required as illustrated on page 18-9.**

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Payment for Each items will be based on field count.

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Item No: 609 0120
 Item: Adjusting Covers (method C)
 Plan Qty: 4 Each

Sig fig = 1 52
 .5 lowered
 .5 raised

| Station | Qty | Date | Insp | Aes# | Pmt# | Type | Owner | Remarks |
|------------------------|-------------------------|--------------------|----------|------|------|------|-------|---------|
| "Pe" 2+75 5.00' RT | Lowered .5 Raised .5 | 10-2-08 10-3-08 | MD MD | | 2 | | Sewer | CCSD |
| "Pe" 4+00 10.00' RT | Lowered Raised | | | | 2 | | Sewer | CCSD |
| "Pe" 4+25 8.00' RT | Lowered .5 Raised .5 | 10-2-08 | MD | | 2 | | Sewer | CCSD |
| "Pe" 5+25 15.00' RT | Lowered .5 Raised .5 | 10-2-08 | MD | | 2 | | Sewer | CCSD |

Page total:

Item No: 609 0120
 Item: Adjusting Covers (method C)
 Plan Qty: 4 EACH

Sig fig = 1 52

| Station | Qty | Date | Insp | Aes# | Pmt# | Type | Owner | Remarks |
|------------------------|----------|---------|------|------|------|------|-------|---------|
| "Pe" 2+75 5.00' RT | Raised 1 | 10-3-08 | MD | | 2 | | Sewer | CCSD |
| "Pe" 4+00 10.00' RT | Raised | | MD | | 2 | | Sewer | CCSD |
| "Pe" 4+25 8.00' RT | Raised 1 | 10-3-08 | | | 2 | | Sewer | CCSD |
| "Pe" 5+25 15.00' RT | Raised 1 | 10-3-08 | | | 2 | | Sewer | CCSD |

Page total:

**DOCUMENTATION REQUIREMENT
SECTION E
MISCELLANEOUS ITEMS
(WHEN PAID BY LINEAR FOOT)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Linft.

The illustration below is located on a structure list from the contract plans as shown on page 18-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and the station to station and plan for each location if indicated on a structure list. If an item with a UOM of Linft is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| Station to Station | Plan | Meas Linft | Date | Insp | AEB* | Pmt* | Remarks |
|-----------------------------------------------------------------------------------------|------|------------|---------|------|------|------|----------|
| Item No. 5020616 Item: Portable Precast Concrete Barrier Rail Plan Qty: 667 Linft | | | | | | | |
| 'BD' 37+55.12 TO 'BD' 38+15.12 LT | 60 | 63 | 9-30-08 | TC | 2 | | Complete |
| 'BD' 37+55.14 TO 'BD' 38+02.14 RT | 47 | 22 | 9-30-08 | TC | 2 | | Complete |
| 'Pe' 0+78 TO 'Pe' 4+10 LT | 362 | | | | 1 | | |
| 'Pe' 0+00 TO 'Pe' 1+98 RT | 198 | | | | 1 | | |
| Page total. | | | | | | | |

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
MISCELLANEOUS ITEMS
(WHEN PAID BY STATION)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Station.

The illustration below is located on a structure list from the contract plans as shown on page 18-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and the station to station and plan for each location if indicated on a structure list. If an item with a UOM of Sta is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, meas sta (linft ÷ 100), date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Station items will be based on field measure.

| Station to Station | Plan | meas Linft | meas Sta | Date | Insp | AEB# | Pmt# | Calcs/Remarks |
|---------------------------------------------------------------------|------|------------|----------|-----------------------------------------------------------------------------------|------|------|------|----------------|
| Item No. 203 0556 Item: V-Type Ditches Plan Qty: 4.00 Station | | | | Sig Fig = .01 8 Linft = 100 = STA <small>Linft ÷ 100 = Station</small> | | | | |
| "B0' 40+93.30 TO | | .24 | 24 | 10-18-08 | JD | 2 | | 24/100 = .24 ✓ |
| "B0' 41+17.30 RT | | | | | | | | |
| "Pe' 12+00 TO "Pe' 14+00 LT 2.00 | | | | | | | | |
| "Pe' 14+50 TO | | | | | | | | |
| "Pe' 15+26 LT | | | | | | | | |
| "Lx' 301+00 TO "Lx' 302+00 1.00 | | | | | | | | |
| RT | | | | | | | | |
| Page total: | | | | | | | | |

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION G
MISCELLANEOUS ITEMS
(WHEN PAID BY MILE)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Mile.

The illustration below is not located on a structure list. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Mile is located on a structure list, insert the plan column between station to station and meas linft. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, meas mile (linft÷5280), date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Mile items will be based on field measure.

| Item No: 632-2026 APO 0001 PER 00 # 10 | | Sig fig = .001 | | 8 | |
|---------------------------------------------|------------|---------------------|---------|----------------|----------------------------|
| Item: Epoxy Pavement Striping (Solid white) | | Linft ÷ 5280 = mile | | | |
| Plan Qty: 8.000 mile | | | | | |
| Station to Station | meas linft | meas mile | Date | Insp AEB# Pmt# | Calc / Remarks |
| Pe 4+36 to Pe 10+86 R | 650 | .123 | 10-2-08 | JD 1 | 650/5280 = .123 <i>JD</i> |
| Pe 7+62 to Pe 22+12 R | 1450 | .275 | 10-3-08 | JD 1 | 1450/5280 = .275 <i>JD</i> |
| Page total: | | | | | |

Officeperson's Hint: The length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the **Inspector** before assuming the calculations are incorrect.

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION H
MISCELLANEOUS ITEMS
(WHEN PAID BY SQUARE FOOT)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Sqft.

The illustration below is not located on a structure list. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Sqft is located on a structure list, insert the plan column between station and sqft. Make sure to put the AEB number, and station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, sqft, date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries. Must calculate or show where the quantity was derived, as illustrated below.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqft items will be based on field measure, Standard Specifications for Road and Bridge Construction (Silver book), or the MUTCD Manual.

| | | | | | | |
|---------------------------------------------------------------------------------------------------------|-------|----------|------|----------------------------------------------------------------------------------------------------------------|-------|--------------|
| Item No: 634 0620 Item: Perm. Pavement Marking Film (Type 2) (Varies) Plan Qty: 5795.00 Sq.ft. | | | | Sig fig = .01 32 L x W = Sq.ft 2007 STANDARD PLANS pg. T-89-90 Turn Arrow = 15.50 only = 21.00 ✓ | | |
| Station | Sqft | Date | Insp | AEB# | Plan# | Calc/Remarks |
| Pe 10+20 RT | 15.50 | 10-20-08 | TC | 1 | | Turn Arrow |
| Pe 11+00 RT | 21.00 | 10-20-08 | TC | 1 | | only |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION J
MISCELLANEOUS ITEMS
(WHEN PAID BY ACRE)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Acre.

The illustration below is not located on a structure list. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Acre is located on a structure list, insert the plan column between station to station and acres. Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas acre (sqft÷43560), date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Acre items will be based on field measure.

| Item No. 211 0524 Item: Seeding (Type A) Plan Qty: 3.000 Acre | | | | Sig. fig. = .001 | | 10 |
|---------------------------------------------------------------------|-------|----------|------|------------------|-------|----------------------------------|
| Station to Station | Acres | Date | Insp | AEB# | Plan# | Calcs/Remarks |
| Pe* 6+00 To Pe* 8+00 LT | .188 | 10-4-08 | JD | 1 | | $200 \times 41 / 43560 = .188$ ✓ |
| Pe* 12+50 To Pe* 13+00 RT | .047 | 10-18-08 | JD | 1 | | $50 \times 41 / 43560 = .047$ ✓ |
| Page Total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION K
MISCELLANEOUS ITEMS
(WHEN PAID BY CUBIC FOOT)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Cuft.

The illustration below is not located on a structure list. The item was added by change order. Make sure the change order number is placed on the top of the page.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Cuft is located on a structure list, insert the plan column between station and cuft. Make sure to put the AEB number, and station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, cuft, date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Cuft items will be based on field measure.

| Item No. APO 0001 per CO. #9 Item: Elastomeric Concrete (Deactivation) Plan Qty: 200.00 cuft | | | | Sig fig = .01 25 | | |
|----------------------------------------------------------------------------------------------------|-------|----------|------|-----------------------|------|--------------------------------|
| Station | cuft | Date | Insp | AEB# | Amr# | Calcs / Remarks |
| "Lwe" 402+70 LT | 15.00 | 10-13-08 | LP | 9 | | 15 X 2 X .5 = 15.00 <i>1/8</i> |
| "Lce" 425+30 LT | 30.00 | 10-13-08 | LP | 9 | | 20 X 3 X .5 = 30.00 <i>1/8</i> |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION M
MISCELLANEOUS ITEMS
(WHEN PAID BY GALLON)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Gallon.

The illustration below is not located on a structure list. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. If an item with a UOM of Gal is located on a structure list, insert the plan column between station to station and #drums (number of drums). Make sure to put the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and a picture of a label has been placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, #drums (number of drums), gal, date, initials, calculations, and any remarks that are needed. **Skip at least one line between entries.** Take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. **Calculations will consist of counting drums used or measuring the container and calculating the quantity when a full drum is not used, or if measured by another device showing calculations on how the gallons were derived.**

Payment for Gallon items shall be based on field measure and calculations.

| Item No. 6470508 | | | | Section 1 | | 42 |
|------------------------------|--------|-----|----------|-----------------------------------------------------------------------------------------------------------|------|------------------------------------------|
| Item: Paint on waterproofing | | | | The picture of the label from the container must be attached to a Calc sheet & placed in the Calc folder. | | |
| Plan Qty: 500 gallons | | | | | | |
| Station to Station | #Drums | gal | Date | Insp | AEB# | Calc/Remarks |
| Lse ¹ 120+16 To | 2 | 110 | 10-02-08 | Tc | 9 | 2x55 = 110 ✓ See Calc Sheet #28 |
| Lse ¹ 139+04 LT | | | | | | |
| Pe ¹ 10+20 To | 2.5 | 138 | 10-5-08 | Tc | 1 | 2.5 x 55 = 137.5 ✓ See Calc Sheet #28 |
| Pe ¹ 12+10 RT | | | | | | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter use an illustration that has the same UOM.

Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION N
MISCELLANEOUS ITEMS
(WHEN PAID BY POUND)**

Miscellaneous items shall be documented in a MISC book.

The following is an illustration for an item with a UOM of Pound.

The illustration below is not located on a structure list. The item shall be found in the contract plans on the Estimate of Quantities.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and the station to station and plan for each location if indicated on a structure list. If an item with a UOM of Pound is not on a structure list, omit the plan column. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed and a picture of a label has been placed on a CALCULATION sheet (Form No. 040-034).**

Daily, the **Inspector** shall document the station and AEB# if not already entered, lbs, date, initials, and any calculations and remarks that are needed. **Skip at least one line between entries.** If the item comes in a container or bag, take a picture of the label from the delivered container, attach to a CALCULATION sheet (Form No. 040-034), and place in the CALCULATION book. This will be the backup to confirm the quantity of the container. Make sure to cross reference the CALCULATION sheet to the field book(s) and page(s) and the field book(s) to the CALCULATION sheet.

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Pound items shall be based on plan quantity or field measure and calculations if different than plan.

| | | | | | | | |
|-------------------------|-----|----------|------|------|-----------------------------------------------------------------------------------------------------------|------------------------|----|
| Item No: 408 0512 | | | | | Sig fig = 1 | | 62 |
| Item: Rubber additive | | | | | the picture of the label from the container must be attached to a Calc Sheet + placed in the calc folder. | | |
| Plan Qty: 25 pound | | | | | | | |
| Station to Station | lbs | Date | Insp | AEB# | Pmt# | Calcs / Remarks | |
| Pe 10+20 To Pe 60+10 LT | 25 | 10-13-08 | JD | 1 | | see calc folder pg. 30 | |
| | | | | | | Complete | |
| Page total: | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

Rev 11/09

CHAPTER 19
Lump Sum Items

| SECTION A | PAGE |
|---------------------------------------------------------------------------|-------------|
| Lump Sum Item-Information..... | 19-1 |
| Illustration of a lump sum sheet paid at 100%..... | 19-2 |
| Illustration of a lump sum for Rent Traffic Control Devices paid at 100%. | 19-3 |
| Illustration of a lump sum for Incidental Construction paid at 100%..... | 19-4 |
| Illustration of a lump sum paid in two payments..... | 19-5 – 19-6 |
| Illustration of a lump sum for a change order paid at 100%..... | 19-7 |

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**DOCUMENTATION REQUIREMENT
SECTION A
LUMP SUM ITEMS**

Lump sum items (excluding Mobilization 628 0004, and including Rent Traffic Control Devices 624 0160 and Incidental Construction 736 0050) shall be documented on a LUMP SUM PAYMENT RECORD (Form No. 040-039) as illustrated on pages 19-2 thru 19-7, completed and signed at the end of each payment cycle by the **Resident Engineer** or **Inspector** who observed the work progress. It is not necessary to send this form to Headquarters Construction with each payment.

To setup the files, the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) will list the Lump Sum items and the TAD (Turnaround Document) shall list the quantities.

In the space provided for Remarks, the **Resident Engineer** or **Inspector** shall state how the estimated percent of work to date was derived.

When payments are made on specialized items such as Traffic Signal System, it may become necessary for the **Resident Engineer** to obtain a cost breakdown from the Contractor showing his cost of labor and materials expended on the contract to date. It will be the responsibility of the **Resident Engineer** to review the cost breakdown for reasonableness. When a cost breakdown is used, it shall be attached to the lump sum form and retained in the field office until time of final pickup of the contract. In the space provided for Remarks on the LUMP SUM PAYMENT RECORD, the **Resident Engineer** shall make reference to the cost breakdown.

For payment of Incidental Construction, the **original** Letter of Authorization must be attached to the **original** LUMP SUM PAYMENT RECORD with all backup and **filed in a folder according to AEB numbers not LOA numbers**. The files for the LOA's will be filed in Section 1-Contract Files, Division No. 8 as described in Chapter 1 (Organization of Project).

The AEB number must be indicated on each sheet. When a lump sum item is complete, the **Officeperson** shall add the "Total Due This Payment" on each sheet to assure the total quantity equals the total "Lump Sum Amount". The **Officeperson** shall assure the LUMP SUM PAYMENT RECORD is complete and has all the required signatures. If more than one LUMP SUM PAYMENT RECORD is completed for a lump sum item, **all** the LUMP SUM PAYMENT RECORDS shall be filed in the folder for that item. The LUMP SUM PAYMENT RECORD shall be filed in Section 1-Contract Files, Division No. 8 as described in Chapter 1 (Organization of Project).

When payment is recorded on a lump sum sheet for Rent Traffic Control Devices, item 624 0160, the IFS system will pay 50% of the first amount paid and prorate the remainder paid throughout the rest of the contract. The Traffic Control Supervisor shall document the traffic control devices and turn in the reports four times daily. See the illustration on page 19-3.

No payment over planned quantity is allowed on lump sum items. If the final quantity for a lump sum item (excluding 736 items) is under planned quantity, a complete explanation as to why the item is not paid to plan is required on the lump sum sheet.

It is important that all records be kept in a neat and legible manner.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
LUMP SUM PAYMENT RECORD

Date..... 9-28-08
Contract No..... 3247

Payment No..... 28
AEB No..... 1

| Item No. | C. O. No. | Description |
|-----------------|-----------|-----------------------|
| <u>201 0032</u> | | <u>Urban Clearing</u> |

Lump Sum Amount: \$ 12,000.00 x 100 %
Estimated Percent of Work Done to Date
 Equals: \$ 12,000.00 Minus: \$ 0.00
Previous Payments
 Equals: \$ 12,000.00
Total Due This Payment

REMARKS:

Complete

Annie Hutchens
Resident Engineer or Inspector
Checked by Deane Van Sogh
Officeperson

**STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
LUMP SUM PAYMENT RECORD**

Date..... 9-19-08
Contract No..... 3300

Payment No..... 2
AEB No..... 1

| Item No. | C. O. No. | Description |
|-----------------|-----------|-------------------------------------|
| <u>624-0160</u> | | <u>Rent Traffic Control Devices</u> |

Lump Sum Amount: \$ 5,000.00 x 100 %
Estimated Percent of Work Done to Date

Equals: \$ 5,000.00 Minus: \$ 0
Previous Payments

Equals: \$ 5,000.00
Total Due This Payment

REMARKS:

Complete

When documenting Rent Traffic Control Devices paid by lump sum, one payment of 100% can be made or several payments can be made over the length of the contract. If one payment of 100% is made, the IFS system will automatically prorate the amount over the length of the contract. If several payments are made during the length of the contract by the Resident Engineer, the IFS system will process 50% of each payment. When the Rent Traffic Control Devices are paid by lump sum the Traffic Control Supervisor shall submit a "Work Zone Traffic Control Checklist" four (4) times daily and must submit the completed forms with 24 hours.

NDOT 040-039
Rev 2-99

Franklin Mint
Resident Engineer or Inspector

Checked by Joe Smith
Officeperson

**STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
LUMP SUM PAYMENT RECORD**

Date.....10-2-08.....

Payment No.....28.....

Contract No.....3047.....

AEB No.....6.....

| Item No. | C. O. No. | Description |
|----------|-----------|-------------------------------|
| Apo 0002 | 15 | Remove Portion of Bridge Deck |

Lump Sum Amount: \$.....129,550.00..... X30.....%

Estimated Percent of Work Done to Date

Equals: \$.....38,865.00..... Minus: \$.....0.00.....

Previous Payments

Equals: \$.....38,865.00.....
Total Due This Payment

REMARKS:

Total Length = 200 Linft
To Date = 60 Linft

Frank Smith

Resident Engineer or Inspector

Checked by *Bob Jones*

Officeperson

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
LUMP SUM PAYMENT RECORD

Date..... 10-10-08

Payment No..... 29

Contract No..... 3247

AEB No..... 6

| Item No. | C. O. No. | Description |
|-----------------|-----------|--------------------------------------|
| <u>APO 0002</u> | <u>15</u> | <u>Remove Portion of Bridge Deck</u> |

Lump Sum Amount: \$ 129,550.00 x 100 %
Estimated Percent of Work Done to Date

Equals: \$ 129,550.00 Minus: \$ 38,865.00
Previous Payments

Equals: \$ 90,685.00
Total Due This Payment

REMARKS:

Complete

Frank Smith
Resident Engineer or Inspector

Checked by Bob Jones
Officeperson

CHAPTER 20
 Uniformed Traffic Control Officer and Flagging Hours
 Rent Equipment, Pilot Car, Survey Crew, Traffic Control Supervisor,
 Office Space and Biologist
 Trainee Hours

| SECTION A | PAGE |
|------------------------------------------------------------------------------------------------------------|---------------|
| Uniformed Traffic Control Officer and Flagging Hours-Instructions..... | 20-1 |
| Flagger sheet-one AEB number..... | 20-2 |
| Flagger sheet-two AEB numbers..... | 20-3 |
| Spreadsheet..... | 20-4 |
| SECTION B | |
| Rent Equipment, Pilot Car, Survey Crew, Traffic Control Supervisor (paid by the Hour)-Instructions..... | 20-5 |
| Rent Equipment sheet-one AEB number..... | 20-6 |
| Rent Equipment sheet-two AEB numbers..... | 20-7 |
| Rent Equipment sheet-Traffic Control Supervisor..... | 20-8 |
| Spreadsheet..... | 20-9 |
| SECTION C | |
| Traffic Control Supervisor and Biologist (paid by the Day)-Instructions... | 20-10 |
| Rent Equipment sheet-Traffic Control Supervisor..... | 20-11 |
| Rent Equipment sheet-Biologist..... | 20-12 |
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| Spreadsheet..... | 20-16 |
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| Trainee Hours-Instructions..... | 20-17 |
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| Apprenticeship Agreement..... | 20-19 – 20-20 |
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**DOCUMENTATION REQUIREMENT
SECTION A
UNIFORMED TRAFFIC CONTROL OFFICER
FLAGGING HOURS**

Flagging and uniformed traffic control officer hours shall be documented on a UNIFORMED TRAFFIC CONTROL OFFICER & DAILY FLAGGING HOURS sheet (Form No. 040-036) completed and signed daily as illustrated on pages 20-2 and 20-3. Every flagger is required to have a flagging card obtained by attending a certified flagging class through the university system.

The UNIFORMED TRAFFIC CONTROL OFFICER & DAILY FLAGGING HOURS sheet shall be prepared and signed by the **Inspector** at the end of each shift and signed by the Contractor. The **Inspector** shall check the appropriate box in the upper left-hand corner, check the expiration date on each flagger's card, enter a complete location (**station or cross streets**), AEB#, hours worked, and **an explanation as to why the flaggers were required**. A separate sheet may be prepared for each AEB or several AEBs may be documented on one sheet, providing the hours in each AEB are identified as illustrated on page 20-3. It shall be turned in to the field office daily and a copy made for the contractor.

The form shall be checked, signed by the **Officeperson** and posted on a spreadsheet as illustrated on page 20-4. Final totals are required on every column except the date and payment no. column. The pay quantity each cycle shall be the accumulation of hours for that two week period.

NHP will be paid by Force Account, as illustrated in Chapter 3 (Force Account Work). When paid as FA, payment will be invoice plus 10%, providing the cost/hour is reasonable. If the cost is not reasonable, contact Headquarters Construction and a change order may be written to change the item and unit.

Contracts not on the interstate will use security or traffic control companies to control traffic. A request to sublet, subcontract, and certified payrolls are required. Uniformed traffic control officers will be paid the same wage as flaggers.

The AEB number shall be indicated on each sheet and the significant figure is to the nearest one-half (0.5) hour.

The UNIFORMED TRAFFIC CONTROL OFFICER & DAILY FLAGGING HOURS sheets shall be filed in Section 1-Contract Files, Division No. 11 as described in Chapter 1 (Organization of Project).

To setup the files the items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

It is important that all records be kept in a neat and legible manner.

Flagger sheets must be originals, copies will not be accepted.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**UNIFORMED TRAFFIC CONTROL OFFICER
FLAGGING HOURS
SPREADSHEET**

All uniformed traffic control officer and flagging hours shall be posted on a **spreadsheet** by the Officeperson as illustrated below. There shall be only one item per spreadsheet. The significant figure is the nearest one-half (0.5) hour. Each day shall be listed separately and a final total is required on every column except the date and payment no. column. The UNIFORMED TRAFFIC CONTROL OFFICER AND FLAGGING HOURS sheets shall be kept in order as listed on the spreadsheet. The spreadsheet and the UNIFORMED TRAFFIC CONTROL OFFICER AND FLAGGING HOURS sheets shall be filed in Section 1-Contract Files, Division No. 11 as described in Chapter 1 (Organization of Project).

The yellow side of the spreadsheet is for posting the UNIFORMED TRAFFIC CONTROL OFFICER AND FLAGGING HOURS sheets. The green side is for posting what has been paid on the Turnaround Document. If an error is found at a later date on the UNIFORMED TRAFFIC CONTROL OFFICER AND FLAGGING HOURS sheets, the correction is to be made to the original entry on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction shall affect the Turnaround Document then the correction will be made on the next progress payment and shall be entered on the green side of the spreadsheet.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 ITEM NO. 624 0004 - FLAGGING PLAN QUANTITY = 2,000.0 HOURS | | | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|---------------------|---------------------|--------------------|----------------|
| DATE | AEB #1 TOTAL | AEB #2 TOTAL | AEB #9 TOTAL | DAILY TOTAL | ACCUM TOTAL | AEB #1 PAY TOTAL | AEB #2 PAY TOTAL | AEB #9 PAY TOTAL | ACCUM PAY TOTAL | PAYMENT NO. |
| 5/8/2009 | 25.0 | | | 25.0 | 25.0 | | | | | |
| 5/9/2009 | | 30.0 | | 30.0 | 55.0 | | | | | |
| 5/10/2009 | | 43.0 | | 43.0 | 98.0 | | | | | |
| 5/11/2009 | | 75.0 | | 75.0 | 173.0 | | | | | |
| 5/12/2009 | | 40.0 | | 40.0 | 213.0 | | | | | |
| 5/15/2009 | | 25.0 | | 25.0 | 238.0 | | | | | |
| 5/16/2009 | | 52.0 | | 52.0 | 290.0 | | | | | |
| 5/17/2009 | | 20.0 | | 20.0 | 310.0 | | | | | |
| 5/18/2009 | | 32.0 | | 32.0 | 342.0 | | | | | |
| 5/19/2009 | | 15.0 | | 15.0 | 357.0 | 25.0 | 332.0 | | 357.0 | 46 |
| 5/22/2009 | 25.0 | | | 25.0 | 382.0 | | | | | |
| 5/23/2009 | 51.0 | | | 51.0 | 433.0 | | | | | |
| 5/24/2009 | 47.0 | | | 47.0 | 480.0 | | | | | |
| 5/25/2009 | | 45.0 | | 45.0 | 525.0 | | | | | |
| 5/30/2009 | | 32.0 | | 32.0 | 557.0 | | | | | |
| 5/31/2009 | | 17.0 | 20.0 | 37.0 | 594.0 | | | | | |
| 6/1/2009 | | 27.0 | 30.0 | 57.0 | 651.0 | | | | | |
| 6/2/2009 | 35.0 | | 19.0 | 54.0 | 705.0 | 158.0 | 121.0 | 69.0 | 705.0 | 47 |
| 6/5/2009 | 25.0 | 30.0 | 25.0 | 80.0 | 785.0 | | | | | |
| 6/7/2009 | | 58.0 | 19.0 | 77.0 | 862.0 | | | | | |
| 6/12/2009 | 20.0 | 55.0 | 10.0 | 85.0 | 947.0 | | | | | |
| 6/15/2009 | | 45.0 | | 45.0 | 992.0 | | | | | |
| 6/17/2009 | | 64.0 | | 64.0 | 1056.0 | | | | | |
| 6/20/2009 | | 67.0 | | 67.0 | 1123.0 | | | | | |
| 7/5/2009 | | 20.0 | | 20.0 | 1143.0 | | | | | |
| 7/10/2009 | 20.0 | 45.0 | 10.0 | 75.0 | 1218.0 | | | | | |
| 7/12/2009 | 25.0 | 30.0 | | 55.0 | 1273.0 | 90.0 | 414.0 | 64.0 | 1273.0 | 49 |
| 7/18/2009 | | 55.0 | 60.0 | 115.0 | 1388.0 | | | | | |
| 7/20/2009 | | 61.0 | | 61.0 | 1449.0 | | | | | |
| 7/25/2009 | | 75.0 | | 75.0 | 1524.0 | | | | | |
| 8/15/2009 | | 80.0 | | 80.0 | 1604.0 | | | | | |
| 8/20/2009 | 15.0 | 60.0 | 20.0 | 95.0 | 1699.0 | | | | | |
| 8/29/2009 | | 75.0 | | 75.0 | 1774.0 | | | | | |
| 9/3/2009 | | 81.0 | | 81.0 | 1855.0 | 15.0 | 487.0 | 80.0 | 1855.0 | 52 |
| 9/5/2009 | | 65.0 | | 65.0 | 1920.0 | | | | | |
| 9/20/2009 | 16.0 | | | 16.0 | 1936.0 | | | | | |
| 9/25/2009 | 19.5 | 20.0 | 25.0 | 64.5 | 2000.5 | | | | | |
| 9/31/2009 | 9.5 | 15.0 | | 24.5 | 2025.0 | 45.0 | 100.0 | 25.0 | 2025.0 | 53 |
| FINAL TOTALS | 333.0 | 1454.0 | 238.0 | 2025.0 | 2025.0 | 333.0 | 1454.0 | 238.0 | 2025.0 | |

**DOCUMENTATION REQUIREMENT
SECTION B
RENT EQUIPMENT, PILOT CAR, SURVEY CREW,
TRAFFIC CONTROL SUPERVISOR
(PAID BY THE HOUR)**

Rent equipment, pilot car, survey crew, and traffic control supervisor shall be documented on the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheet (Form No. 040-037) completed and signed daily as shown on pages 20-6 thru 20-8.

The equipment sheet shall be prepared and signed by the **Inspector** at the end of each shift and signed by the Contractor. **Make sure to circle the appropriate unit of payment – hours / days / month.** It shall be turned in to the field office daily and a copy made for the Contractor. The form shall be checked, signed by the **Officeperson** and posted on a spreadsheet as illustrated on page 20-9. Final totals are required on every column except the date and payment no. column. The pay quantity each cycle shall be the accumulation of hours/days/month for that two week period.

A separate form shall be prepared for each different type of equipment being used (loader, motor grader, dump truck, pilot car, etc.). Only one piece of equipment shall be listed on each line. If more than one piece of the same equipment is utilized the same day, each must be listed separately and the hours for each listed separately as illustrated on pages 20-7.

Rental of equipment is measured by time within one-half (.5) hour of actual working time and necessary traveling time of the equipment within the limits of the contract. If equipment has been ordered on the job on a standby basis by the engineer, half-time rates for the equipment will be paid. Refer to subsection 109.01 of the Standard Specifications for Road and Bridge Construction (Silver book), for further explanations of standby rates.

On any given day, the documented hours for each piece of equipment cannot exceed the number of hours in a day (24 hours).

The AEB number shall be indicated on each sheet and the significant figure is to the nearest one-half (0.5) hour.

The RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets shall be filed in Section 1-Contract Files, Division No. 10 as described in Chapter 1 (Organization of Project).

To setup the files the items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

It is important that all records be kept in a neat and legible manner.

RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets must be originals, copies will not be accepted.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

An illustration listing one AEB number.

DATE 9-20-09

STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
**RENT EQUIPMENT, PILOT CAR, SURVEY CREW,
 TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST**

CONTRACT NUMBER: 3247

| DESCRIPTION | AEB # | <u>HOURS</u> / DAYS / MONTH |
|-------------|-------|-----------------------------|
| Dump Truck | 1 | 8.0 |
| | | |
| | | |
| | | |
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| | | |
| TOTAL: | | 8.0 |

Total checked and posted by Sheri Brown
 Officeperson

Approved:
Rae Gardner
 Contractor's Representative

Approved:
Temi Carson
 State's Representative

**NOTE: USE A SEPARATE SHEET FOR EACH BID ITEM.
 CIRCLE THE APPROPRIATE UNIT (HOURS/ DAYS/ MONTH)**

NDOT 040-037
 Rev 6/09

An illustration for Traffic Control Supervisor by the hour listing one AEB number.

DATE 10-3-09

STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
**RENT EQUIPMENT, PILOT CAR, SURVEY CREW,
 TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST**

CONTRACT NUMBER: 3300

| DESCRIPTION | AEB # | <u>HOURS</u> / DAYS / MONTH |
|----------------------------|-------|-----------------------------|
| Traffic Control Supervisor | 1 | 8.0 |
| | | |
| | | |
| | | |
| | | |
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| | | |
| TOTAL: | | 8.0 |

Total checked and posted by Sally Fields
 Officeperson

Approved: Tom Jones
 Contractor's Representative

Approved: Sam Edwards
 State's Representative

**NOTE: USE A SEPARATE SHEET FOR EACH BID ITEM.
 CIRCLE THE APPROPRIATE UNIT (HOURS/ DAYS/ MONTH)**

NDOT 040-037
 Rev 6/09

**DOCUMENTATION REQUIREMENT
SECTION C
TRAFFIC CONTROL SUPERVISOR AND BIOLOGIST
(PAID BY THE DAY)**

Traffic control supervisor and biologist shall be documented on the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheet (Form No. 040-037).

The equipment sheet shall be prepared and signed by the **Inspector** at the end of a two week pay period and signed by the Contractor as illustrated on pages 20-11 and 20-12. **Make sure to circle the appropriate unit of payment - hours / days / month.** It shall be turned in to the field office by the Friday cut-off day, for the progress payment and a copy made for the Contractor. The form shall be checked, signed by the **Officeperson** and posted on a spreadsheet as illustrated on page 20-13. Final totals are required on every column except the date and payment no. column. The pay quantity each cycle shall be the accumulation of days for that two week period.

When preparing a sheet for traffic control supervisor and biologist (paid by the day), it is acceptable to document up to two weeks (coinciding with each payment cycle) on one sheet as illustrated on pages 20-11 and 20-12. **These are the only items that can be paid in this manner.** When posting on the spreadsheet, in the date column, the beginning and ending dates shall be listed and the total days will be posted under the appropriate AEB# as illustrated on page 20-13.

If the dates the traffic control supervisor or biologist works coincides with the dates of the contract, an explanation is required if a day is not charged.

The AEB number shall be indicated on each sheet and the significant figure is to the whole number (1), unless payment is split between two AEB numbers, then the significant figure is (0.5) on each AEB number to equal a whole number.

The RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets shall be filed in Section 1-Contract Files, Division No. 10 as described in Chapter 1 (Organization of Project).

To setup the files the items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

It is important that all records be kept in a neat and legible manner.

RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets must be originals, copies will not be accepted.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

DATE 9/26/09

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
**RENT EQUIPMENT, PILOT CAR, SURVEY CREW,
TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST**

CONTRACT NUMBER: 3247

| DESCRIPTION | AEB # | HOURS / <u>DAYS</u> / MONTH |
|-----------------------------------|---------------|-----------------------------|
| <i>Traffic Control Supervisor</i> | | |
| <i>9-13-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-14-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-15-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-16-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-17-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-18-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-19-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-20-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-21-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-22-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-23-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-24-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-25-09</i> | <i>2</i> | <i>1.0</i> |
| <i>9-26-09</i> | <i>2</i> | <i>1.0</i> |
| | | |
| | | |
| | TOTAL: | <i>14.0</i> |

Total checked and posted by *Sherie Brown*
Officeperson

Approved: *RB King*
Contractor's Representative

Approved: *Lynne Phillips*
State's Representative

**NOTE: USE A SEPARATE SHEET FOR EACH BID ITEM.
CIRCLE THE APPROPRIATE UNIT (HOURS/ DAYS/ MONTH)**

NDOT 040-037
Rev 6/09

An illustration for Biologist by the day and listing 14 days separately and two AEB numbers.

DATE 8-16-09

STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
**RENT EQUIPMENT, PILOT CAR, SURVEY CREW,
 TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST**

CONTRACT NUMBER: 3247

| DESCRIPTION | AEB # | HOURS <u>(DAYS)</u> / MONTH |
|------------------------------------|---------------|-----------------------------|
| <i>Kimberly Dalton (Biologist)</i> | | |
| | | |
| | <i>2</i> | <i>1.0</i> |
| <i>NWD - Rain</i> | <i>9</i> | <i>0.0</i> |
| | <i>9</i> | <i>1.0</i> |
| | | |
| <i>AEB #2 = 5.0</i> | | |
| <i>AEB #9 = 4.0</i> | | |
| | | |
| | | |
| | | |
| | TOTAL: | <i>9.0</i> |

Total checked and posted by *Sheri Brown*
 Officeperson

Approved: *SB King*
 Contractor's Representative

Approved: *Lynne Phillips*
 State's Representative

**NOTE: USE A SEPARATE SHEET FOR EACH BID ITEM.
 CIRCLE THE APPROPRIATE UNIT (HOURS/ DAYS/ MONTH)**

NDOT 040-037
 Rev 6/09

**TRAFFIC CONTROL SUPERVISOR AND BIOLOGIST
(PAID BY THE DAY)
SPREADSHEET**

Traffic control supervisor and biologist shall be posted on a **spreadsheet** by the Officeperson as illustrated below. There shall be only one item per spreadsheet. Up to fourteen (14) days shall be listed in the date column as illustrated below and a final total is required on every column except the date and payment no. column. The significant figure is to the whole number (1) unless payment is split between two AEB numbers, then the significant figure is (0.5) on each AEB number to equal a whole number. The traffic control supervisor sheets shall be kept in order as listed on the spreadsheet. The spreadsheet and the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets shall be filed in Section 1-Contract Files, Division No. 10 as described in Chapter 1 (Organization of Project).

The yellow side of the spreadsheet is for posting the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets. The green side is for posting what has been paid on the Turnaround Document. If an error is found at a later date on the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets, the correction is to be made to the original entry on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction will affect the Turnaround Document then the correction shall be made on the next progress payment and shall be entered on the green side of the spreadsheet.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 ITEM NO. 624 0016 - TRAFFIC CONTROL SUPERVISOR PLAN QUANTITY = 300 DAYS 320 per c.o. #10 | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|--------------------|----------------|---------------------|---------------------|--------------------|----------------|
| DATE | AEB #2 TOTAL | AEB #9 TOTAL | BI-WEEKLY TOTAL | ACCUM TOTAL | AEB #2 PAY TOTAL | AEB #9 PAY TOTAL | ACCUM PAY TOTAL | PAYMENT NO. |
| 5/10/09-5/23/09 | 14.0 | | 14.0 | 202.0 | 14.0 | | 202.0 | 44 |
| 5/24/09-6/06/09 | | 14.0 | 14.0 | 216.0 | | 14.0 | 216.0 | 45 |
| 6/07/09-6/20/09 | 14.0 | | 14.0 | 230.0 | 14.0 | | 230.0 | 46 |
| 6/21/09-7/04/09 | 14.0 | | 14.0 | 244.0 | 14.0 | | 244.0 | 47 |
| 7/05/09-7/18/09 | 14.0 | | 14.0 | 258.0 | 14.0 | | 258.0 | 48 |
| 7/19/09-8/01/09 | 7.0 | 7.0 | 14.0 | 272.0 | 7.0 | 7.0 | 272.0 | 49 |
| 8/02/09-8/15/09 | 7.0 | 7.0 | 14.0 | 286.0 | 7.0 | 7.0 | 286.0 | 50 |
| 8/16/09-8/29/09 | 7.0 | 7.0 | 14.0 | 300.0 | 7.0 | 7.0 | 300.0 | 51 |
| 8/30/09-9/12/09 | 6.0 | | 6.0 | 306.0 | 6.0 | | 306.0 | 52 |
| 9/13/09-9/26/09 | 14.0 | | 14.0 | 320.0 | 14.0 | | 320.0 | 53 |
| FINAL TOTAL | 229.0 | 91.0 | 320.0 | 320.0 | 229.0 | 91.0 | 320.0 | |

**DOCUMENTATION REQUIREMENT
SECTION D
OFFICE SPACE
(PAID BY THE MONTH)**

Office space shall be documented on the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheet (Form No. 040-037) as illustrated on pages 20-15.

The equipment sheet shall be prepared and signed by the **Inspector or Officeperson** for each month and signed by the Contractor. **Make sure to circle the appropriate unit of payment – hours / days / month.** A copy shall be made for the Contractor. The form shall be checked, signed by the **Officeperson** and posted on a spreadsheet as illustrated on page 20-16. Final totals are required on every column except the date and payment no. column. The pay quantity for **every other** pay cycle shall be the accumulation of days for that month.

When preparing a sheet for office space (paid by the month), it is acceptable to document the month on one sheet as illustrated on page 20-15. When posting on the spreadsheet, in the date column, the beginning and ending dates for the month shall be listed and the month will be posted under the appropriate AEB# as illustrated on page 20-16.

The AEB number shall be indicated on each sheet and the significant figure is to increments of (0.25), (0.5), (0.75), or to the whole number (1).

The RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets shall be filed in Section 1-Contract Files, Division No. 10 as described in Chapter 1 (Organization of Project).

To setup the files the items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

It is important that all records be kept in a neat and legible manner.

RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets must be originals, copies will not be accepted.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**OFFICE SPACE
(PAID BY THE MONTH)
SPREADSHEET**

Office space shall be posted on a **spreadsheet** by the Officeperson as illustrated below. There shall be only one item per spreadsheet. Each month shall be listed separately and a final total is required on every column except the date and payment no. column. The significant figure is to increments (0.25), (0.5), (0.75), or to the whole number (1). The office space sheets shall be kept in order as listed on the spreadsheet. The spreadsheet and the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets shall be filed in Section 1-Contract Files, Division No. 10 as described in Chapter 1 (Organization of Project).

The yellow side of the spreadsheet is for posting the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets. The green side is for posting what has been paid on the Turnaround Document. If an error is found at a later date on the RENT EQUIPMENT, PILOT CAR, SURVEY CREW, TRAFFIC CONTROL SUPERVISOR, OFFICE SPACE AND BIOLOGIST sheets, the correction is to be made to the original entry on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction will affect the Turnaround Document then the correction shall be made on the next progress payment and shall be entered on the green side of the spreadsheet.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 ITEM NO. 624 0151 - OFFICE SPACE PLAN QUANTITY = 12 MONTHS | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------|-----------------|------------------|----------------|---------------------|---------------------|--------------------|----------------|
| DATE | AEB #2 TOTAL | AEB #9 TOTAL | MONTHLY TOTAL | ACCUM TOTAL | AEB #2 PAY TOTAL | AEB #9 PAY TOTAL | ACCUM PAY TOTAL | PAYMENT NO. |
| 10/01/08-10/31/08 | 0.50 | 0.50 | 1.00 | 1.00 | 0.50 | 0.50 | 1.00 | 32 |
| 11/01/08-11/30/08 | 1.00 | | 1.00 | 2.00 | 1.00 | | 2.00 | 34 |
| 12/01/08-12/31/08 | 1.00 | | 1.00 | 3.00 | 1.00 | | 3.00 | 36 |
| 1/01/09-1/31/09 | 1.00 | | 1.00 | 4.00 | 1.00 | | 4.00 | 38 |
| 2/01/09-2/28/09 | 1.00 | | 1.00 | 5.00 | 1.00 | | 5.00 | 40 |
| 3/01/09-3/31/09 | 0.50 | 0.50 | 1.00 | 6.00 | 0.50 | 0.50 | 6.00 | 42 |
| 4/01/09-4/30/09 | 1.00 | | 1.00 | 7.00 | 1.00 | | 7.00 | 44 |
| 5/01/09-5/31/09 | 1.00 | | 1.00 | 8.00 | 1.00 | | 8.00 | 46 |
| 6/01/09-6/30/09 | 1.00 | | 1.00 | 9.00 | 1.00 | | 9.00 | 48 |
| 7/01/09-7/31/09 | 0.50 | 0.50 | 1.00 | 10.00 | 0.50 | 0.50 | 10.00 | 50 |
| 8/01/09-8/31/09 | 1.00 | | 1.00 | 11.00 | 1.00 | | 11.00 | 52 |
| 9/01/09-9/30/09 | 0.50 | 0.50 | 1.00 | 12.00 | 0.50 | 0.50 | 12.00 | 54 |
| | | | | | | | | |
| Final Totals | 10.00 | 2.00 | 12.00 | 12.00 | 10.00 | 2.00 | 12.00 | |
| | | | | | | | | |

**DOCUMENTATION REQUIREMENT
SECTION E
TRAINEE HOURS**

Trainee hours shall be documented on a WEEKLY TRAINEE REPORT (Form No. 040-042) completed and signed weekly as illustrated on page 20-18.

Most of the information entered on the weekly sheet can be derived from the Contractor's certified payrolls, i.e., week ending date, trainee's name, classification, employer, and daily and weekly hours.

The WEEKLY TRAINEE REPORT shall be checked and signed by the **Officeperson** and posted on a spreadsheet as illustrated on page 20-21. The WEEKLY TRAINEE REPORT shall be filed in Section 1-Contract Files, Division No. 9 as described in Chapter 1 (Organization of Project).

An apprenticeship agreement, as shown on pages 20-19 and 20-20, is required for each trainee. On any given trainee report the apprenticeship agreements for employees listed **must be received before payment can be made.**

To setup the files the items shall be found in the contract plans on the Estimate of Quantities, as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). The significant figure is to the nearest one-half (0.5) hour.

The WEEKLY TRAINEE sheets are in Sharepoint and the stockroom. The forms must have original signatures if using the form on Sharepoint or must be originals if using the forms from the stockroom, copies will not be accepted.

Check the Special Provisions for the contract, sub-section 107.01, to see if an electronic certified payroll is being use. If so contact Contract Compliance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

The **Officeperson** shall record the ending date from the Contractor's payroll, the contract number, project number, review the Contractor's certified payrolls and record all trainees listed, with classification and employer, check to assure that each trainee has an apprentice agreement on file, sign and date the form.

| WEEKLY TRAINEE REPORT (FHWA ORDER INTERIM 7-2/2/) | REPORT FOR WEEK ENDING <u>9/18/2009</u> | CONTRACT NC <u>3247</u> PROJECT NO. <u>STP-0160(016)</u> | | | | | | |
|-------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------|-----|-----|-----|-----|-----|---|
| TRAINEE'S NAME, CLASSIFICATION AND EMPLOYER | AGREEMENT ON FILE - YES/ NO | DAILY HOURS OF TRAINING | | | | | | |
| | | S | M | T | W | T | F | S |
| 1 Steven Nagy App. #5 Joe's Lighting Co. | YES | | | | 3.0 | 5.0 | 2.0 | |
| | | WEEKLY TOTAL: 10.0 | | | | | | |
| 2 Jose Flores App #7 Joe's Lighting Co. | YES | | 2.5 | 2.5 | 4.0 | | | |
| | | WEEKLY TOTAL: 9.0 | | | | | | |
| 3 Jill Watt App #7 Joe's Lighting Co. | YES | | 4.0 | 7.0 | 5.0 | 3.0 | 8.0 | |
| | | WEEKLY TOTAL: 27.0 | | | | | | |
| 4 | | | | | | | | |
| | | WEEKLY TOTAL: | | | | | | |
| 5 | | | | | | | | |
| | | WEEKLY TOTAL: | | | | | | |
| 6 | | | | | | | | |
| | | WEEKLY TOTAL: | | | | | | |
| 7 | | | | | | | | |
| | | WEEKLY TOTAL: | | | | | | |
| | | TOTAL WEEKLY HOURS: 46.0 | | | | | | |

Signature of State Representative Cherie Brown Date 9/25/09
NDOT 040-042 (Rev 9-09)

STATE OF NEVADA
NEVADA STATE APPRENTICESHIP COUNCIL
1445 Hot Springs Road, Suite 108
Capitol Complex
Carson City, Nevada 89710

APPRENTICESHIP AGREEMENT

(Please type or print when completing this form)

THIS AGREEMENT, entered into this 8th day of January, 2009, between

AMERICAN LIGHTING ASSOCIATION
Name of Program Sponsor

hereinafter referred to as the PROGRAM SPONSOR and

Jill P. Watt
Name of Apprentice

S.S. No. 555-99-2000, born 08/03/82, hereinafter referred to as APPRENTICE.

VETERAN STATUS:

- Non-Veteran
 Vietnam-Era Veteran
(8/5/64 to 5/7/75)
 Other Veteran

ETHNIC DERIVATION:

- Black (Not Hispanic) Hispanic
 American Indian or Alaskan Native White (Not Hispanic)
 Asian or Pacific Islander Other

CREDIT FOR PREVIOUS EXPERIENCE:

.....Hours
.....Months
.....Years

SEX:

- Male
 Female

WITNESSETH that the PROGRAM SPONSOR and the APPRENTICE desire to enter into an agreement of apprenticeship and, therefore, in consideration of the premises and of the mutual covenants herein contained, do hereby mutually covenant and agree as follows:

That the PROGRAM SPONSOR shall employ and teach the APPRENTICE the trade or craft of Electrical

in conformity with the terms and conditions set forth on the reverse side of this Agreement and made a part hereof;

That the apprenticeship term begins on the 8th day of January, 2009, and terminates upon the completion by the APPRENTICE of 8000 HOURS (years or hours) of employment for said PROGRAM SPONSOR in said trade or craft, as stipulated on the reverse side of this Agreement;

That either party may terminate the Agreement by submitting written notification of termination to the approving agency; but, if such notification is submitted after completion of the probationary period (stipulated on the reverse side hereof), the reasons for termination shall be given. Due notice thereof must be given to the APPRENTICE, as well as an opportunity to be heard and reasonable opportunity for corrective action. The provisions on the reverse side of this form are acknowledged as a binding part of this Agreement by the signators; and

The terms of the Nevada State apprenticeship statutes, regulations and standards are incorporated as a binding part of this Agreement and are acknowledged by the signators; and

That the APPRENTICE shall not be discriminated against with respect to hire, advancement, compensation or other terms, conditions or privileges of employment because of race, color, religion, creed, national origin or ancestry, sex, age, or occupationally irrelevant physical requirements.

IN WITNESS WHEREOF, the parties hereto have set their hands on the dates indicated below:

Jill P. Watt 1/8/09
Apprentice Signature Date

AMERICAN LIGHTING ASSOCIATION
Program Sponsor

Jill P. Watt
Apprentice's Name

By [Signature] 1/8/09
Officer's Signature Date

2001 Dimmer Way
Street Address

JIM LIGHT, SR
Officer's Name

Sparks, NV 89433
City, State, Zip Code

999 RECESSED AVENUE
Street Address

Parent or Guardian if Apprentice is a Minor

RENO, NV 89509
City, State, Zip Code

Registered by the Nevada State Apprenticeship Council on JAN 11 2009

[Signature]
Director of Apprenticeship

(The parties whose signatures appear hereon acknowledge the statements on the reverse side of this form)

TERMS AND CONDITIONS

1. TERM OF APPRENTICESHIP AND PERIOD OF PROBATION:

Two years

2. MAJOR PROCESSES IN WHICH THE APPRENTICE IS TO RECEIVE INSTRUCTION AND EXPERIENCE: *(Under this heading state the different branches of the trade to be taught and the approximate time the APPRENTICE shall work at each branch.)*

a. When the PROGRAM SPONSOR is an association of employers and/or an organization of employees and not an individual employer, the association of employees does not assume the obligations of an employer, but agrees to use their best endeavors to procure employment and training for the APPRENTICE with one or more employers who will accept full responsibility as the employer for all terms and conditions of employment and training set forth in this Apprenticeship Agreement.

3. GRADUATED SCALE OF WAGES TO BE PAID THE APPRENTICE: *(The apprentice rate is by percentage of the journeyman's rate unless otherwise indicated.)*

INTERVAL: 1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th

Period and Rate:

4. NUMBER OF HOURS PER DAY AND TOTAL NUMBER OF HOURS PER WEEK TO BE WORKED BY THE APPRENTICE:

8.00 hours per day
40.00 hours per week

5. NUMBER OF HOURS OF SCHOOL INSTRUCTION PER YEAR TO BE ATTENDED BY APPRENTICE: *(144 hours per year is the minimum requirement.)*

150 hours

6. SPECIAL PROVISIONS: *(Write here any terms and conditions not elsewhere stated in this Agreement.)*

7. All controversies or differences concerning the Apprentice Agreement which cannot be adjusted locally shall be submitted to the State Apprenticeship Council for determination as provided in NRS 610.180.

TRAINEE HOURS (SPREADSHEET)

All trainee hours shall be posted on a **spreadsheet** by the Officeperson as illustrated below. Each date for **week ending** will be listed separately and a final total is required on every column except the date and payment no. column. The significant figure is to the nearest one-half (.5) hour. The TRAINEE HOUR sheets shall be kept in order as listed on the spreadsheet. The spreadsheet and the TRAINEE HOUR sheets shall be filed in Section 1-Contract Files, Division No.9 as described in Chapter 1 (Organization of Project).

The yellow side of the spreadsheet is for posting the TRAINEE HOURS. The green side is for posting what has been paid on the Turnaround Document. If an error is found at a later date on the TRAINEE HOUR sheets, the correction is to be made to the original entry on the yellow side. **Do not make a new entry at the bottom of the spreadsheet on the yellow side.** If the correction will affect the Turnaround Document then the correction shall be made on the next progress payment and shall be entered on the green side of the spreadsheet.

Note: colors are for reference only and are not required on actual spreadsheets.

| CONTRACT NO. 3247 | | | | | |
|-----------------------------------|------------------------|-----------------------|----------------------|---------------------|----------------|
| ITEM NO. 110 0100 - TRAINEE HOURS | | | | | |
| PLAN QUANTITY = 300 HOURS | | | | | |
| DATE | AEB #1 WEEKLY TOTAL | ACCUM WEEKLY TOTAL | AEB #1 PAY TOTALS | ACCUM PAY TOTALS | PAYMENT NO. |
| 8/7/2009 | 27.5 | 27.5 | | | |
| 8/14/2009 | 25.0 | 52.5 | 52.5 | 52.5 | 50 |
| 8/21/2009 | 40.0 | 92.5 | | | |
| 8/28/2009 | 57.0 | 149.5 | 97.0 | 149.5 | 51 |
| 9/4/2009 | 76.0 | 225.5 | | | |
| 9/11/2009 | 57.5 | 283.0 | | | |
| 9/18/2009 | 46.0 | 329.0 | 179.5 | 329.0 | 53 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FINAL TOTAL | 329.0 | 329.0 | 329.0 | 329.0 | |

CHAPTER 21
Mobilization and Rent Construction Items

| | PAGE |
|-------------------------------------------|-------|
| SECTION A | |
| Mobilization Instructions..... | 21-1 |
| SECTION B | |
| Rent Construction Items-Instructions..... | 21-2 |
| SECTION C | |
| Summary of Construction Signs..... | 21-3 |
| Summary of Construction Devices..... | 21-4 |
| SECTION D | |
| Index and Initial Key..... | 21-5 |
| SECTION E | |
| Each item listed separately..... | 21-6 |
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| SECTION G | |
| Rent Construction Signs-Instructions..... | 21-9 |
| Square Foot Item..... | 21-10 |

Rev 11/09

**DOCUMENTATION REQUIREMENT
SECTION A
MOBILIZATION**

The computer calculates the amount paid to the Contractor for mobilization automatically when the bi-weekly progress payment is processed. It is not necessary for field personnel to prepare any forms or documentation for mobilization. The completed progress payment shall be the source documentation for mobilization.

Partial payments shall be made in accordance with subsection 109.06 of the Standard Specifications of Road and Bridge Construction, (Silver book) as follows:

1. When 5% of the original contract amount is earned from other bid items, 50% of the amount bid for mobilization, or 5% of the original contract amount, whichever is less, will be paid.
2. When 10% of the original contract amount is earned from other bid items, 100% of the amount bid for mobilization, or 10% of the original contract amount, whichever is less, will be paid (not to include the 5% paid for mobilization mentioned in #1).
3. Upon completion of all bid item work on the contract, payment of any amount bid for mobilization in excess of 10% of the original contract amount will be paid. Entering a "Final" status on the payment will do this.

Item number 628 0004 is the only applicable item for mobilization that is automatically generated. Agreed price items for mobilization created by change orders shall be documented according to the UOM.

**DOCUMENTATION REQUIREMENT
SECTION B
RENT CONSTRUCTION ITEMS**

Rent construction signs, rent cones, rent drums, rent barricades, rent barricade warning lights, etc. shall be documented in a RENT CONST SIGNS, ETC book. For rent traffic control devices paid by lump sum, refer to Chapter 19 (Lump Sum Items).

To setup the field books the information on rent construction items shall be found in the contract plans on the Main Structure list, or the Summary of Construction Signs, or the Summary of Barricades, or on the Estimate of Quantities. A Summary of Construction Signs is illustrated on page 21-3, an illustration of a Summary of Construction Barricades is on page 21-4, and the Estimate of Quantities is in Chapter 2 (Setting up a Contract, Book Format, etc.).

Recording the installations of the rent items in the RENT CONST SIGNS, ETC book is the only documentation required for these items. The total quantities installed are coded on the progress payment. On the first payment after the rent items are erected, the computer will initialize the 50% payment. The computer will automatically calculate the pro-rated payments on the remaining portion. The Payment Final Balance Report shows the monetary amounts paid on these items. The only information required to accomplish these calculations is the quantity installed each payment cycle.

Documentation for only a few selected rent construction items is illustrated in this chapter. Documentation for practically any rent construction item can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following examples, please call Headquarters Construction for assistance.

A separate page shall be provided for each bid item. Make sure to leave enough pages between installations for any added or missed items.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

See Chapter 19 (Lump Sum Items) when Rent Traffic Control Devices are paid by lump sum.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**DOCUMENTATION REQUIREMENT
SECTION C
RENT CONSTRUCTION ITEMS
(SUMMARY OF CONSTRUCTION SIGNS)**

To setup the field books the information on rent construction items shall be found in the contract plans on the Main Structure list, or on the Summary of Construction Signs, Summary of Barricades, or on the Estimate of Quantities. As many items as room permits may be documented in one book before beginning another. The **Inspector** and the **Officeperson** are responsible to assure the message, sign no., plan, and the sqft installed for rent construction signs match the Summary of Construction Signs sheet in the contract plans. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.** An illustration of a Summary of Construction Signs is shown below and an illustration of a Summary of Construction Barricades is shown on page 21-4.

| SUMMARY OF CONSTRUCTION SIGNS | | | | | | |
|-----------------------------------------------------------------------------------------------------|------------------------------------------|------------|--------------------|-----------|------------|--|
| NOTE: QUANTITIES SHOWN ARE APPROXIMATE AND ARE SUBJECT TO INCREASE OR DECREASE. | | | | | | |
| ADDITIONAL SIGNS, NOT LISTED, MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. | | | | | | |
| * QUANTITIES FOR CONSTRUCTION SIGNS AND TRAFFIC CONTROL DEVICES ARE BASED ON A ONE WORK ZONE SETUP. | | | | | | |
| STP-0160(016) | | | | | | |
| SIGN NO. | MESSAGE | PANEL SIZE | TOTAL SIGNS* | SQFT EACH | SQFT TOTAL | |
| M1-1 | INTERSTATE SHIELD (15) (BLACK ON ORANGE) | 24" X 24" | 23 | 4.0 | 92.0 | |
| M3-1 | NORTH (BLACK ON ORANGE) | 24" X 12" | 11 | 2.0 | 22.0 | |
| M3-3 | SOUTH (BLACK ON ORANGE) | 24" X 12" | 9 | 2.0 | 18.0 | |
| M4_3 | DETOUR (BLACK ON ORANGE) | 30" X 15" | 15 | 3.1 | 47.0 | |
| M6_1 | ARROW (SYM) RIGHT OR LEFT | 21" X 15" | 18 | 2.2 | 39.6 | |
| M6_3 | ARROW (SYM) UP | 21" X 15" | 8 | 2.2 | 17.5 | |
| NBA_1 | BUSINESS ACCESS (RIGHT ARROW) | 42" X 42" | 4 | 12.3 | 49.0 | |
| NBA_2 | BUSINESS ACCESS (LEFT ARROW) | 42" X 42" | 4 | 12.3 | 49.0 | |
| NDP_1 | 30 MINUTE DELAY POSSIBLE | 48" X 36" | 6 | 12.0 | 72.0 | |
| NPS_1 | PREPARE TO STOP | 48" X 48" | 7 | 16.0 | 112.0 | |
| NRC_1 | RAMP CLOSED | 48" X 36" | 6 | 12.0 | 72.0 | |
| NRC_1A | RAMP CLOSED AHEAD | 48" X 48" | 2 | 16.0 | 32.0 | |
| NRE_1 | RAMP EXIT | 42" X 54" | 1 | 16.8 | 16.8 | |
| NTL_1 | LEFT TURN LANE | 30" X 48" | 11 | 10.0 | 110.0 | |
| NTL_2 | RIGHT TURN LANE | 30" X 48" | 1 | 10.0 | 10.0 | |
| NTT_1 | THROUGH TRAFFIC UP ARROW | 54" X 60" | 5 | 22.5 | 112.5 | |
| NWZ_1 | BEGIN WORK ZONE | 48" X 24" | 10 | 8.0 | 80.0 | |
| NWZ_2 | END WORK ZONE | 48" X 24" | 12 | 8.0 | 96.0 | |
| NWZ_3 | DOUBLE PENALTY IN WORK ZONE | 48" X 48" | 10 | 16.0 | 160.0 | |
| R2_1 | SPEED LIMIT 25 | 48" X 60" | 2 | 20.0 | 40.0 | |
| R2_1 | SPEED LIMIT 55 | 48" X 60" | 5 | 20.0 | 100.0 | |
| R2_1 | SPEED LIMIT 65 | 48" X 60" | 4 | 20.0 | 80.0 | |
| R2_5A | REDUCE SPEED AHEAD | 48" X 60" | 4 | 20.0 | 80.0 | |
| R3_1 | NO RIGHT TURN (SYM) | 48" X 48" | 1 | 16.0 | 16.0 | |
| R3_2 | NO LEFT TURN (SYM) | 48" X 48" | 2 | 16.0 | 32.0 | |
| R3_7L | MANDATORY TURN (LEFT) | 30" X 30" | 3 | 6.3 | 18.8 | |
| R3_7R | MANDATORY TURN (RIGHT) | 30" X 30" | 3 | 6.3 | 18.8 | |
| R4_7A | KEEP RIGHT (HORIZONTAL ARROW) | 48" X 60" | 3 | 20.0 | 60.0 | |
| R4_8A | KEEP LEFT (HORIZONTAL ARROW) | 48" X 60" | 2 | 20.0 | 40.0 | |
| R11_2 | ROAD CLOSED | 48" X 30" | 7 | 10.0 | 70.0 | |
| R11_4 | ROAD CLOSED TO THRU TRAFFIC | 60" X 30" | 1 | 12.5 | 12.5 | |
| W1_1L | TURN (LEFT) | 48" X 48" | 1 | 16.0 | 16.0 | |
| W1_1R | TURN (RIGHT) | 48" X 48" | 1 | 16.0 | 16.0 | |
| W1_4BL | TWO LANE REVERSE CURVE (LEFT) | 48" X 48" | 2 | 16.0 | 32.0 | |
| W1_4BR | TWO LANE REVERSE CURVE (RIGHT) | 48" X 48" | 4 | 16.0 | 64.0 | |
| W1_4L | REVERSE CURVE (LEFT) | 48" X 48" | 2 | 16.0 | 32.0 | |
| W1_4R | REVERSE CURVE (RIGHT) | 48" X 48" | 8 | 16.0 | 128.0 | |
| W4_1AR | THRU TRAFFIC MERGE RIGHT | 48" X 48" | 1 | 16.0 | 16.0 | |
| W4_2L | LANE ENDS (LEFT) | 48" X 48" | 6 | 16.0 | 96.0 | |
| W4_2R | LANE ENDS (RIGHT) | 48" X 48" | 2 | 16.0 | 32.0 | |
| W5_3 | TWO WAY (SYM) | 48" X 48" | 1 | 16.0 | 16.0 | |
| W13_1 | ADVISORY SPEED PLATE (15) | 24" X 24" | 2 | 4.0 | 8.0 | |
| W13_1 | ADVISORY SPEED PLATE (35) | 24" X 24" | 5 | 4.0 | 20.0 | |
| W13_1 | ADVISORY SPEED PLATE (45) | 24" X 24" | 11 | 4.0 | 44.0 | |
| W13_1 | ADVISORY SPEED PLATE (55) | 24" X 24" | 5 | 4.0 | 20.0 | |
| W20_1 | ROAD WORK AHEAD | 48" X 48" | 12 | 16.0 | 192.0 | |
| W20_2 | DETOUR AHEAD | 48" X 48" | 2 | 16.0 | 32.0 | |
| W20_4 | ONE LANE ROAD AHEAD | 48" X 48" | 1 | 16.0 | 16.0 | |
| W20_5L | LEFT LANE CLOSED AHEAD | 48" X 48" | 6 | 16.0 | 96.0 | |
| W20_5R | RIGHT LANE CLOSED AHEAD | 48" X 48" | 4 | 16.0 | 64.0 | |
| W20_7A | FLAGGER SYMBOL | 48" X 48" | 7 | 16.0 | 112.0 | |
| W21_5 | SHOULDER WORK | 48" X 48" | 7 | 16.0 | 112.0 | |
| | | | TOTAL SIGNS NEEDED | 291 | | |
| | | | TOTAL SQUARE FEET | | 2942.1 | |
| IM-015-1(126) | | | | | | |
| NWZ_1 | BEGIN WORK ZONE | 48" X 24" | 2 | 8.0 | 16.0 | |
| NWZ_2 | END WORK ZONE | 48" X 24" | 2 | 8.0 | 16.0 | |
| NWZ_3 | DOUBLE PENALTY IN WORK ZONE | 48" X 48" | 2 | 16.0 | 32.0 | |
| R2_1 | SPEED LIMIT 55 | 48" X 60" | 2 | 20.0 | 40.0 | |
| R2_1 | SPEED LIMIT 65 | 48" X 60" | 2 | 20.0 | 40.0 | |
| W4_2L | LANE ENDS (LEFT) | 48" X 48" | 2 | 16.0 | 32.0 | |
| W4_2R | LANE ENDS (RIGHT) | 48" X 48" | 2 | 16.0 | 32.0 | |
| W13_1 | ADVISORY SPEED PLATE (55) | 24" X 24" | 2 | 4.0 | 8.0 | |
| W20_1 | ROAD WORK AHEAD | 48" X 48" | 2 | 16.0 | 32.0 | |
| W20_5L | LEFT LANE CLOSED AHEAD | 48" X 48" | 2 | 16.0 | 32.0 | |
| W20_5R | RIGHT LANE CLOSED AHEAD | 48" X 48" | 2 | 16.0 | 32.0 | |
| W21_5 | SHOULDER WORK | 48" X 48" | 2 | 16.0 | 32.0 | |
| | | | TOTAL SIGNS NEEDED | 24 | | |
| | | | TOTAL SQUARE FEET | | 344.0 | |

RENT CONSTRUCTION ITEMS (SUMMARY OF CONSTRUCTION DEVICES)

SUMMARY OF CONSTRUCTION BARRICADES

NOTE: QUANTITIES SHOWN ARE APPROXIMATE AND ARE SUBJECT TO INCREASE OR DECREASE.

STP-0160(016)

| CONSTRUCTION DEVICES | UNIT | TOTAL |
|--------------------------------------------------|--------|---------|
| ARROW BOARDS (TYPE C) (EACH) | EACH | 2.00 |
| ATTENUATOR 45 MPH | EACH | 2.00 |
| ATTENUATOR 65 MPH | EACH | 1.00 |
| TYPE 3B BARRICADE | EACH | 57.00 |
| TRAFFIC CONES (EACH) | EACH | 393.00 |
| TRAFFIC DRUMS (EACH) | EACH | 202.00 |
| FLAGGER | EACH | 4.00 |
| PORTABLE TRAFFIC SIGNAL | EACH | 1.00 |
| PORTABLE PRECAST CONCRETE BARRIER RAIL | LIN FT | 42.00 |
| TEMPORARY PAINTED STRIPING (BROKEN WHITE) | MILE | 3.33 |
| TEMPORARY PAINTED STRIPING (8-INCH SOLID WHITE) | MILE | 0.37 |
| TEMPORARY PAINTED STRIPING (DOUBLE SOLID YELLOW) | MILE | 2.78 |
| TEMPORARY PAINTED STRIPING (SOLID WHITE) | MILE | 11.87 |
| TEMPORARY PAINTED STRIPING (SOLID YELLOW) | MILE | 5.16 |
| TEMPORARY PAINTED STRIPING (VARIES) | SQFT | 1060.00 |
| TYPE 1 TEMPORARY STRIPING TAPE (SOLID WHITE) | LIN FT | 3210.00 |
| TYPE 1 TEMPORARY STRIPING TAPE (SOLID YELLOW) | LIN FT | 1820.00 |
| TYPE 1 TEMPORARY STRIPING TAPE (PILOT LINES) | LIN FT | 700.00 |

IM-015-1(126)

| CONSTRUCTION DEVICES | UNIT | TOTAL |
|-------------------------------------------|--------|-------|
| ARROW BOARDS (TYPE C) (EACH) | EACH | 1 |
| ATTENUATOR 65 MPH | EACH | 1 |
| TRAFFIC DRUMS (EACH) | EACH | 202 |
| PORTABLE PRECAST CONCRETE BARRIER RAIL | LIN FT | 420 |
| TEMPORARY PAINTED STRIPING (BROKEN WHITE) | MILE | 18.40 |
| TEMPORARY PAINTED STRIPING (SOLID WHITE) | MILE | 10.70 |
| TEMPORARY PAINTED STRIPING (SOLID YELLOW) | MILE | 8.70 |
| TEMPORARY PAINTED STRIPING (DOTTED WHITE) | MILE | 1.20 |

GENERAL NOTES

1. Refer to Nevada Department of Transportation Standard Specifications for Road and Bridge Construction, 2001 Edition, for specifications except as modified by these plans and special provisions.
2. Sign numbers shown on the Summary of Construction Signs are taken from the Manual on Uniform Traffic Control Devices (2003 Edition) and Standard Highway Signs (2002) and Nevada Supplement thereto, (1997 Edition).
3. Traffic control devices, construction signs, and barricades shall conform to the requirements of the M.U.T.C.D. 2003 edition and the Nevada Standard Plans, 2003 Edition.
4. Depth of base and surface is minimum compacted thickness.
5. State will remove and furnish all milepost marker panels.
6. Guide posts and object markers shall be removed by contractor, at no direct payment.
7. The Contractor shall avoid damage to underground utilities. Locations are approximate and the Contractor will field verify and survey the locations. No Direct Payment.
8. Grades and cross slopes of the roadway shall conform to the present travel way.
9. All legally established survey monuments disturbed during construction shall be preserved in accordance with State and local laws and regulations.
10. Mineral filler and asphalt cement quantities shown are for informational purposes only and payment for them is included within the Plantmix Surfacing (Type 2C) (Wet) and Plantmix Open-Graded Surfacing (3/8-inch) (Wet) bid item.
11. For traffic control not shown, refer to Nevada Standards, 2003 Edition and MUTCD (2003) Edition.

| | | | | |
|-------------------|--------|--------------------------------|--------|-----------|
| 9 | NEVADA | STP-0160(016) IM-015-1(126) | CLARK | 3S |
| FED. RD. REG. NO. | STATE | PROJECT NO. | COUNTY | SHEET NO. |

**DOCUMENTATION REQUIREMENT
SECTION D
RENT CONSTRUCTION ITEMS
(INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

| Index | | Initial Key | | |
|-------|------------------------------------------|-------------|-----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4-8 | Rent Traffic cones | Ⓢ | Shelli Jones | Tech II |
| 10-14 | Rent Const. Barricades (Type III B) | SP | Syrene Phillips | Tech II |
| 16-17 | Rent Changeable Message Sign | JD | Jack Dougherty | Tech III |
| 20 | Rent Arrow Board (Type C) | MD | Mary Davis | Tech I |
| 22-24 | Rent Traffic Drums | VT | Van Thomas | Tech II |
| 26 | Rent Temp. Impact Attenuator (45 MPH) | | | |
| 28 | Rent Temp. Impact Attenuator (65 MPH) | | | |
| 30 | Rent Truck-mounted Impact Attenuator | | | |
| 32-50 | Rent Construction Signs | | | |
| 52-60 | Rent Portable Precast Conc. Barrier Rail | | | |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION E
RENT CONSTRUCTION ITEMS
(WHEN PAID BY EACH)**

Rent construction items shall be documented in a RENT CONST SIGNS, ETC book.

The following is an illustration for an item with a UOM of Each.

The illustration on this page shows an Each item that is listed on the Summary of Barricades in the contract plans, as illustrated on page 21-4 and has each item listed separately. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and location and plan if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| | | | | Sig Fig = 1 | | 20 |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|------|-------------|-------|---------|
| Location | Qty | Date | Insp | AEB# | Plan# | Remarks |
| Item No: 625 0060 | | | | | | |
| Item: Rent Arrow Boards (Type C) | | | | | | |
| Plan Qty: 3 EACH | | | | | | |
| Pe 18+00 LT | 1 | 9-31-08 | SP | 2 | | |
| Pe 11+00 RT | 1 | 9-31-08 | SP | 2 | | |
| Lne 220+40 LT | 1 | 10-3-08 | SP | 9 | | |
| <p>When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the same UOM.</p> | | | | | | |
| Page total: | | | | | | |

Rent construction items shall be documented in a RENT CONST SIGNS, ETC book.

The following is an illustration for an item with a UOM of Each.

The illustration on this page shows an Each item that is listed on the Summary of Barricades in the contract plans, as illustrated on page 21-4 and is combined. If there are questions on whether an each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and location and plan if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the location and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| | | | | Sig Fig = 1 | | 22 |
|--------------------------|-----|---------|------|-------------|------|---------|
| Location | Qty | Date | Insp | AEB* | Pmr* | Remarks |
| Item No: 625 0072 | | | | | | |
| Item: Rent Traffic Drums | | | | | | |
| Plan Qty: 202 Each | | | | | | |
| 'X' 0+10 To 'X' 11+00 LT | 50 | 9-10-08 | JD | 2 | | |
| 'X' 13+00 To 17+00 LT | 100 | 9-12-08 | JD | 2 | | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the

**DOCUMENTATION REQUIREMENT
SECTION F
RENT CONSTRUCTION ITEMS
(WHEN PAID BY LINEAR FOOT)**

Rent construction items shall be documented in a RENT CONST SIGNS, ETC book.

The following is an illustration for an item with a UOM of Linft.

The illustration on this page shows a linft item that may be located on the Summary of Construction Barricades in the contract plans, as illustrated on page 21-4.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and station to station and plan for each location if indicated on a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, meas linft, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Linft items will be based on field measure.

| | | | | | | |
|-----------------------------------------------|---------------|---------|------|-------------|------|---------|
| Item No: 6250512 | | | | Sig Fig = 1 | | 52 |
| Item: Rent Post Precast Conc. Barrier Rail | | | | | | |
| Plan Qty: 462 Linft | | | | | | |
| Station to Station | meas Linft | Date | Insp | AEB# | Pmt# | Remarks |
| Lne' 220+10 to Lne' 224+30 LT | 420 | 9-15-08 | MD | 9 | | |
| Page total: | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION G
RENT CONSTRUCTION ITEMS
(WHEN PAID BY SQUARE FOOT)**

Rent construction items shall be documented in a RENT CONST SIGNS, ETC book.

The illustration on page 21-10 is an item with a UOM of Sqft.

Each construction sign shall be on a separate line. Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.

The **Inspector** shall document the following for Rent Construction Signs in the RENT CONST SIGNS, ETC book:

1. Location - stationing where sign is placed. If sign is portable, record the original location the sign was placed. If there are no stations make sure to use cross streets.
2. Message – the wording on the sign. The message must match the Sign No. description and both must match the Summary of Construction Signs sheet. If it does not an explanation is required.
3. Install. No. - each sign erected on the contract is assigned a number. Record the corresponding installation number, contract number, date and initials with a permanent black marking pen on the back of the sign to identify the sign in case it is relocated or if inspectors change during the contract.
4. Sign No. - identification number of the various types of signs as shown in the plans. The message for the Sign No. must match the message written in the field book and both must match the Summary of Construction Signs sheet. If it does not an explanation is required.
5. Plan - plan sqft for each sign taken from the plans. If sqft does not match the Summary of Construction Signs, then calculations or an explanation as to where the quantity was derived is required. If a sign is added the plan quantity will be zero.
6. Sqft. Inst. - square foot of signs erected. Must match plan or an explanation is required. If sqft does not match the Summary of Construction Signs, then calculations or an explanation as to where the quantity was derived is required. The significant figure is to .01.
7. Date Inst. - the date the sign was first erected on the contract.
8. Insp. – **Inspector's** initials.
9. AEB # - AEB number.

The **Inspector** and the **Officeperson** are responsible to assure there is a complete location, the message, sign no., plan, and the sqft installed for rent construction signs match the Summary of Construction Signs sheet in the contract plans or there is a calculation or an explanation as to how the quantity was derived.

Rent construction items shall be documented in a RENT CONST SIGNS, ETC book.

The following is an illustration for an item with a UOM of Sqft.

The illustration on this page shows a sqft item that is located on the Summary of Construction Signs sheet in the contract plans, as illustrated on page 21-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the complete location, message, install number, sign number, plan, sqft installed, date installed, initials, and AEB#. **Skip at least one line between entries.**

Note: Instructions for Rent Const. Signs are on page 21-9. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqft (signs only) shall be based on plan or if different than plan a complete explanation as to how the sqft were derived or calculations are needed.

| Item No: 625 0500 | | Sig fig: .01 | | 32 | | | | | |
|-------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|---------------|--------------|------|------|------|
| Item: Rent Const Signs | | L x W ÷ 144 = sq ft | | | | | | | |
| Plan Qty: 3286.00 Sq ft | | | | | | | | | |
| Location | Message | Instll No. | Sign No | Plan | Sq ft Install | Date Install | Insp | AEB# | Pmt# |
| "X" 20+10 LT | Roadwork Ahead | 1 | 020-1 | 16.00 | 16.00 | 9-15-08 | JD | 2 | |
| "X" 3+05 RT | Speed Limit 65 | 2 | R2-1 | 20.00 | 20.00 | 9-15-08 | JD | 2 | |
| "X" 10+15 RT | Prepare to Stop | 3 | NPS-1 | 16.00 | 16.00 | 9-15-08 | JD | 2 | |
| "BD" 56+20 LT | Pass with Care | 4 | R4-2 | 5.00 | 5.00 | 9-15-08 | JD | 2 | |
| "BD" 57+40 RT | Turn (Left) | 5 | W1-1L | 16.00 | 16.00 | 9-15-08 | JD | 2 | |
| "BD" 58+90 LT | Slow Traffic Keep Right | 6 | Special | 2.00 | 2.00 | 9-15-08 | JD | 2 | |
| Page total | | NOT in Plans see muted book page 2B-3 (2003) sign was add to protect the public field mens. 12" X 24" = 144 = 2.00 sq ft. Sign was add to help slow down TRAFFIC | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the same UOM.

CHAPTER 22
Temporary and Permanent Signs, Permanent Signs Remove, and
Remove and Reset Signs

| | PAGE |
|-------------------------------------------------------------------------------------------------------|------|
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| Temporary and Permanent Signs, Permanent Signs Remove, and Remove and Reset Signs-Information..... | 22-1 |
| SECTION B | |
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Rev 11/09

DOCUMENTATION REQUIREMENT
SECTION A
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS

Permanent and temporary signs, remove permanent signs, and remove and reset signs shall be documented in a SIGN book.

To setup the field books the information on permanent and temporary signs, remove permanent signs, and remove and reset sign items shall be found in the contract plans on the Sign Summary sheet(s), or the Main Structure list, or on the Estimate of Quantities. An illustration of a Sign Summary (Removals) is on page 22-2, an illustration for a Sign Summary (New Locations) is on page 22-3, and the Estimate of Quantities is illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

Documentation for only a few selected permanent and temporary signs, remove permanent signs, and remove and reset signs are illustrated in this chapter. Documentation for practically any sign items can be provided by setting up the books in the same manner according to the UOM, except 201 and 202 removal items, as illustrated in Chapter 4, (Removal Items). Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format must be followed. If there are items that cannot be documented according to the following examples, please call Headquarters Construction for assistance.

A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.

Any items requiring measurements, percentages, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS
(SIGN SUMMARY (NEW LOCATIONS))**

| Bid Item No. | Remarks | Brace Length (ft) | | Length (ft) | | Post | | Mount Height (ft) | Slope | Curb & Gutter | Sign Island | Message | Sign Area (Sq. Ft.) | Panel Size (in. x ft.) | Sign No. | Loc. | Inst. No. | |
|--------------|---------------------------------------------|-------------------|--------|-------------|--------------------|------|--------------------------|-------------------|--------|---------------|-------------|----------------------------------------------------|---------------------|------------------------|----------|------|-------------|-----|
| | | Inner | Outer | No. | Type and Size (in) | | | | | | | | | | | | | |
| 827-0520 | RESET PANEL FROM INST. # 22R | 18'0" | 18'10" | 18'10" | 18'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | FOOD | 204.00 | 204 x 144 | SPCL | RT | LINE 302+50 | 22 |
| 827-0508 | | | 13'2" | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | SPEED LIMIT 65 | 20.00 | 48 x 60 | R2-1 | LT | LINE 317+30 | 23 |
| 827-0508 | | 20'4" | 13'10" | 13'10" | 13'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | RED ROCK CANYON DEATH VALLEY NEXT RIGHT | 119.00 | 204 x 84 | SPCL | RT | LINE 318+50 | 24 |
| 827-0508 | | 20'9" | 13'10" | 13'10" | 13'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | BLUE DIAMOND RD 1/4 AIRPORT (SYM) 1 RUSSELL RD 3/4 | 143.50 | 246 x 84 | SPCL | RT | LINE 326+50 | 25 |
| 827-0508 | | | 13'4" | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | CARDINAL DIRECTION MARKER-SOUTH INTERSTATE SHIELD | 3.13 | 30 x 15 | M3-3 | LT | LINE 327+30 | 26 |
| 827-0508 | | 18'1" | 11'10" | 11'10" | 11'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | L P GAS NEXT RIGHT | 45.00 | 108 x 60 | SPCL | RT | LINE 330+00 | 27 |
| 827-0508 | | 16'9" | 16'10" | 16'10" | 16'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | EXIT 33 | 14.00 | 84 x 24 | E15(2) | RT | LINE 342+50 | 28 |
| 827-0508 | | | 13'2" | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | SR 160 (SHIELD) BLUE DIAMOND PAHRUMP 45 DEG. ARROW | 20.00 | 48 x 60 | W13-2 | RT | LINE 354+05 | 29 |
| 827-0516 | | 12'0" | 12'5" | | | 2 | TIMBER POSTS & SUPPORTS | 7 | 10 : 1 | | | EXIT 33.45 DEG. ARROW | 32.50 | 78 x 60 | E5-1B | RT | LINE 354+15 | 30 |
| 827-0508 | | 13'1" | | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | ADDED LANE RIGHT | 16.00 | 48 x 48 | W4-3R | RT | LINE 358+00 | 31 |
| 827-0508 | | 13'1" | | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | ADDED LANE RIGHT | 16.00 | 48 x 48 | W4-3R | RT | LINE 374+00 | 32 |
| 827-0516 | | 13'7" | 14'0" | | | 2 | TIMBER POSTS & SUPPORTS | 7 | 10 : 1 | | | EXIT 33.45 DEG. ARROW | 32.50 | 78 x 60 | E5-1B | LT | LINE 377+95 | 33 |
| 827-0508 | | 13'2" | | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | EXIT 45 M.P.H. | 20.00 | 48 x 60 | W13-2 | LT | LINE 378+85 | 34 |
| 827-0520 | MOUNT PANELS ON EXISTING SIGN STRUCTURE | | | | | | EXISTING OVER HEAD | | | | | EXIT 33 | 14.00 | 84 x 24 | E15(2) | LT | LINE 383+20 | 35 |
| 827-0520 | INSTALL LUMINAIRE RETRIEVAL SYSTEM | | | | | | EXISTING OVER HEAD | | | | | SR 160 BLUE DIAMOND RD PAHRUMP 45 DEG. ARROW | 220.00 | 288 x 110 | SPCL | RT | LINE 383+20 | 35 |
| 827-0508 | | 19'5" | 16'11" | 17'6" | | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | | EXIT - 45' ARROW ONLY | 28.13 | 135 x 30 | E11-1b | | | |
| 827-0508 | | | 13'4" | | | 1 | 3" RND SINGL POST | 7 | 6 : 1 | | | LAS VEGAS BLVD THE STRIP NEXT 5 EXITS | 93.90 | 132 x 102 | SPCL | RT | LINE 388+10 | 36A |
| 827-0508 | | 18'1" | 14'11" | 15'10" | | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | | CARDINAL DIRECTION MARKER-NORTH INTERSTATE SHIELD | 3.13 | 30 x 15 | M3-1 | RT | LINE 391+95 | 36 |
| 827-0520 | CONSTRUCT SIGN STRUCTURE SEE SHEET # TS-37A | | | | | | EXISTING OVER HEAD | | | | | L P GAS NEXT RIGHT | 45.00 | 108 x 60 | SPCL | LT | LINE 392+00 | 37 |
| 827-0520 | | | | | | | EXISTING OVER HEAD | | | | | EXIT 34 | 14.00 | 84 x 24 | E15(2) | RT | LINE 392+75 | 37A |
| 827-0520 | | | | | | | EXISTING OVER HEAD | | | | | AIR PORT (SYM) IIR-215 COUNTY 215 HENDERSON | 114.58 | 150 x 110 | SPCL | RT | LINE 392+75 | 37A |
| 827-0520 | | | | | | | EXISTING OVER HEAD | | | | | EXIT - DOWN ARROW - ONLY | 31.25 | 150 x 30 | E11-1 | | | |
| 827-0520 | MOUNT PANELS ON EXISTING SIGN STRUCTURE | | | | | | EXISTING OVER HEAD | | | | | EXIT 33 | 14.00 | 84 x 24 | E15(2) | LT | LINE 396+00 | 38 |
| 827-0520 | INSTALL LUMINAIRE RETRIEVAL SYSTEM | | | | | | EXISTING OVER HEAD | | | | | SR 160 BLUE DIAMOND RD PAHRUMP 270 DEG. ARROW | 195.93 | 282 x 100 | SPCL | LT | LINE 396+00 | 38 |
| 827-0508 | | 20'4" | 13'10" | 13'10" | 13'10" | 2 | 3" RND DBL POST BRACED | 7 | 6 : 1 | | Y | EXIT - DOWN ARROW - ONLY | 26.88 | 128 x 30 | E11-1 | | | |
| 827-0508 | | 11'7" | 12'4" | | | 2 | 3" RND DBL POST UNBRACED | 6 | 6 : 1 | | | RED ROCK CANYON DEATH VALLEY NEXT RIGHT | 119.00 | 204 x 84 | SPCL | LT | LINE 397+70 | 38 |
| 827-0508 | | | 11'1" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | 180 DEG. ARROW PAHRUMP LAS VEGAS BLVD 0 DEG. ARROW | 18.75 | 90 x 30 | SPCL | RT | LINE 397+70 | 38 |
| 827-0508 | | | 11'1" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | 180 DEG. ARROW RED ROCK DEATH VALLEY | 16.25 | 78 x 30 | SPCL | RT | LINE 397+70 | 38 |
| 827-0508 | | | 9'6" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | Y | WRONG WAY | 6.00 | 36 x 24 | RS-1A | LT | LINE 137+70 | 41 |
| 827-0508 | | | 9'6" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | WRONG WAY | 6.00 | 36 x 24 | RS-1A | RT | LINE 137+70 | 42 |
| 827-0508 | | | 16'0" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | ONE WAY ENCLOSED IN RIGHT ARROW | 3.00 | 36 x 12 | RS-1R | LT | LINE 161+15 | 43 |
| 827-0508 | | | 16'0" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | Y | ONE WAY ENCLOSED IN LEFT ARROW | 3.00 | 36 x 12 | RS-1L | LT | LINE 161+15 | 43 |
| 827-0508 | | | 16'0" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | DO NOT ENTER | 1.00 | 12 x 12 | RS-1 | | | |
| 827-0508 | | | 16'0" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | Y | ONE WAY ENCLOSED IN RIGHT ARROW | 3.00 | 36 x 12 | RS-1R | RT | LINE 161+15 | 44 |
| 827-0508 | | | 16'0" | | | 1 | 2.5" SQ 12 GA POST | 7 | 6 : 1 | | | ONE WAY ENCLOSED IN LEFT ARROW | 3.00 | 36 x 12 | RS-1L | RT | LINE 161+15 | 44 |

SIGN SUMMARY (NEW LOCATIONS)

**DOCUMENTATION REQUIREMENT
SECTION C
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS
(INDEX AND INITIAL KEY)**

Below is an illustration of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

| Index | | Initial Key | | |
|-------|----------------------------------------------------|-------------|----------------|----------|
| Page | Description | Initials | Signature | Title |
| 4 | Permanent Overhead sign Support Structures, Remove | 8 | Shelli Jones | Tech IV |
| 6-18 | Permanent Signs (6m)(ms) | JD | Jack Dougherty | Tech III |
| 20-26 | Permanent Signs (6m)(TS) | TC | Teri Carson | Tech I |
| 28-38 | Permanent Sign Panels (Overhead) | VT | Van Thomas | Tech II |
| 40-44 | Permanent Sign Panels (Panel only) | | | |
| 46-60 | Permanent Signs, Remove | | | |
| 62-70 | Permanent Signs, Remove & Reset | | | |
| 75 | Book Recap | | | |

**DOCUMENTATION REQUIREMENT
SECTION D
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS
(WHEN PAID BY EACH)**

Permanent and temporary signs, remove permanent signs, and remove and reset signs shall be documented in a SIGN book.

The following is an illustration for an item with a UOM of Each.

The illustration on this page shows an Each item that may be located on the Sign Summary (Removals) sheet(s), or the Main Structure List, or the Estimate of Quantities, and has each item listed separately. If there are questions on whether an Each item can be listed separately or combined, please call Headquarters Construction for assistance.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, page total in the bottom left-hand corner of the page, the AEB number, and location and all the information listed if indicated on a Sign Summary (Removals) sheet(s) or a structure list. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the station and AEB# if not already entered, qty, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Each items will be based on field count.

| | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|------|-------------|------|---------|
| Item No: 627 0012 | | | | Sig fig = 1 | | 4 |
| Item: Perm. Overhead sign Support Structures, Remove | | | | | | |
| Plan Qty: 1 Each | | | | | | |
| Station | Qty | Date | Insp | AEB# | Pmt# | Remarks |
| "Lse" 420+19 RT | 1 | 9-25-08 | JD | 9 | | |
| <p>When making out the field books if a required item of work is not illustrated in this chapter, use an example that has the same UOM.</p> | | | | | | |
| Page total: | | | | | | |

**DOCUMENTATION REQUIREMENT
SECTION E
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS
(WHEN PAID BY SQUARE FOOT)**

Permanent and temporary signs, remove permanent signs, and remove and reset signs shall be documented in a SIGN book.

The following is an illustration for an item with a UOM of Sqft.

The illustration on this page shows a sqft item that is located on the Sign Summary (New Locations) sheet(s) in the contract plans, as illustrated on page 22-3.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. The **Officeperson** shall also complete from the Sign Summary (New Locations) sheet(s) the install no., location/message, panel size, sign no., sqft, and AEB number. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the AEB# if not already entered, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable

Payment for Sqft (signs only) shall be based on plan or if different than plan a complete explanation as to how the sqft were derived or calculations are needed.

| Item No: 6270508 | | | Sign fig = .01 | | | | | 10 | |
|----------------------------|------------------------------------------------------------------------------|----------------|------------------|--------------|---------|------|------|------|---------|
| Item: Perm Signs (6m) (ms) | | | LxW = 144 = Sqft | | | | | | |
| Plan Qty: 2217.00 Sqft | | | Inches | | | | | | |
| Install no. | Location/Message | Panel size | Sign No. | Sqft | Date | Insp | AEB# | Pmt# | Remarks |
| 23 | 'Lse' 317+30 LT Speed Limit 65 | 48x60 | R2-1 | 20.00 | 9-15-08 | VT | | | 9 |
| 24 | 'Lne' 318+50 RT Red Rock Canyon Death Valley next Right | 204x84 | Spcl | 119.00 | 9-15-08 | VT | | | 9 |
| 25 | 'Lnc' 326+50 RT Blue Diamond RD 1/4 Airport (4ym) 1 Russell RD 3/4 | 246x84 | Spcl | 143.50 | | | | | 9 |
| 26 | 'Lse' 327+30 LT Cardinal Direction marker - South InterState Shield | 30x15 36x36 | m3-3 mi-1 | 3.13 9.00 | | | | | 9 9 |
| Page total: | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT
SECTION F
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS,
(WHEN PAID BY SQUARE FOOT)**

Permanent and temporary signs, remove permanent signs, and remove and reset signs shall be documented in a SIGN book.

The following is an illustration for an item with a UOM of Sqft.

The illustration on this page shows a sqft item that is located on the Sign Summary (Removals) sheet(s) in the contract plans, as illustrated on page 22-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. The **Officeperson** shall also complete from the contract plans on the Sign Summary (Removals) sheet(s) the install no., location/message, panel size, sqft, and AEB number. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the AEB# if not already entered, date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqft (signs only) shall be based on plan or if different than plan a complete explanation as to how the sqft were derived or calculations are needed.

| Install No. | Location/Message | Panel Size | Sqft | DATE | Insp | AEB# | Pmt# | Remarks |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------|---------|------|-----------------------|------|----------------------------|
| Item No: 6270532 Item: Permanent Signs, Remove Plan Qty: 3843.00 Sq. Ft. | | | | | | | | |
| Sig Fig = .01 46 | | | | | | | | |
| LxW: 144 = Sq. Ft Inches | | | | | | | | |
| 1R | "X" 308 +60 RT IR 15 (Shield) 90 Deg. Arrow | 24X24 21X15 | 4.00 2.19 | 9-10-08 | VT | 2 | | |
| 2R | "X" 318 +20 LT DASIS Destiny RV Resort 0 Deg. Arrow | 42X24 | 7.00 | 9-10-08 | VT | 2 | | RESET PANEL TO Inst. #8 |
| 3R | "X" 320 +62 CNTR Keep Right. (Sym) | 24X30 | 5.00 | | | 2 | | |
| 4R | "X" 327 +05 RT SR 160 (Shield) 180 Deg. Arrow To IR 15 (Shield) 180 Deg. Arrow | 24X24 21X15 24X12 24X24 15X21 | 4.00 2.19 2.00 4.00 2.19 | | | 2 2 2 2 2 | | |
| Page Total: | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that

**DOCUMENTATION REQUIREMENT
SECTION G
PERMANENT AND TEMPORARY SIGNS, REMOVE PERMANENT SIGNS,
AND REMOVE AND RESET SIGNS,
(WHEN PAID BY SQUARE FOOT)**

Permanent and temporary signs, remove permanent signs, and remove and reset signs shall be documented in a SIGN book.

The following is an illustration for an item with a UOM of Sqft.

The illustration on this page shows a sqft item that might be located on a Sign Summary (Removals) sheet(s) or a structure list in the contract plans. An illustration of a Sign Summary (Removals) sheet is on page 22-2.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, Remove and Reset, and page total in the bottom left-hand corner of the page. The **Officeperson** shall also complete from the Sign Summary (Removals) sheet(s), the install no., location/message, panel size, sqft, and AEB number. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items.**

Daily, the **Inspector** shall document the AEB# if not already entered, pay qty (remove or reset), date, initials, and any remarks that are needed. **Skip at least one line between entries.**

Note: No percentages other than 50% for remove and 50% for reset shall be allowed. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

Payment for Sqft (signs only) shall be based on plan or if different than plan a complete explanation as to how the sqft were derived or calculations are needed.

| Install No. | Location/Message | Panel Size | Sqft | Pay Qty | Date | Temp | AEB# | Prnt# | Remarks |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|------|---------|------|---------|------|-------|---------|
| Item No. 627 0536 Item Perm. Signs Remove & Reset Plan Qty 60.40 sqft Sig fig = .01 62 50% Remove 50% Reset | | | | | | | | | |
| 26R | 'L' 24+90 LT Stop | 36X36 | 9.00 | Remove | 4.50 | 8-20-08 | JD | 1 | |
| | | | | Reset | 4.50 | 8-25-08 | JD | 1 | |
| 31R | 'L' 48+10 LT DO NOT PASS | 24X30 | 5.00 | Remove | 2.50 | 8-20-08 | JD | 1 | |
| | | | | Reset | | | | | |
| 45R | 'D' 179+10 LT Wrong way | 36X24 | 6.00 | Remove | | | | 2 | |
| | | | | Reset | | | | 2 | |
| Page total: | | | | | | | | | |

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

CHAPTER 23
Preparations of Progress Payments

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CHAPTER 23
Preparations of Progress Payments

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**DOCUMENTATION REQUIREMENT
SECTION A
PROGRESS PAYMENTS**

The Contractor will be paid for the work performed on a bi-weekly basis. The cut-off date for determining pay quantities is every other Friday. Contact Headquarters Construction for cut-off dates. Any Contractor may make a written request to have only one monthly payment, if this is more suitable to his accounting system.

When a contract is entered on the progress payment system, a Turnaround Document (TAD) is forwarded to the Resident Engineer with a transmittal indicating the base prices for asphalt, fuel, steel escalation (if applicable), and the incidental construction contract total to be used to figure the percentage for the total contract on the Letter of Authorization (LOA). An illustration of the transmittal is shown below. From that point on, a contract payment (cp or CP) or a no progress payment (ne or NE) must be submitted Bi-weekly until the **FINAL** field payment. The payment number increases only when actual payments are processed.

| | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|------------------------------------|---------------------------------------------------------------|
| NDOT TRANSMITTAL | | | | | | | | |
| | | Date <u>5-4-07</u> | | | | | | |
| TO | FROM | | | | | | | |
| <u>Joe Green</u> | <u>HQ Construction</u> | | | | | | | |
| <u>Resident Engineer</u> | | | | | | | | |
| | | Telephone Ext. <u>888-7227</u> | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>For Your . . . <input type="checkbox"/> Action</td> <td><input type="checkbox"/> Approval</td> <td><input type="checkbox"/> Information</td> </tr> <tr> <td><input type="checkbox"/> Comments</td> <td><input type="checkbox"/> Signature</td> <td><input type="checkbox"/> Review <input type="checkbox"/> File</td> </tr> </table> | | | For Your . . . <input type="checkbox"/> Action | <input type="checkbox"/> Approval | <input type="checkbox"/> Information | <input type="checkbox"/> Comments | <input type="checkbox"/> Signature | <input type="checkbox"/> Review <input type="checkbox"/> File |
| For Your . . . <input type="checkbox"/> Action | <input type="checkbox"/> Approval | <input type="checkbox"/> Information | | | | | | |
| <input type="checkbox"/> Comments | <input type="checkbox"/> Signature | <input type="checkbox"/> Review <input type="checkbox"/> File | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td> <input type="checkbox"/> As We Discussed <input type="checkbox"/> Per Your Request <input type="checkbox"/> Please Return Attached Material <input type="checkbox"/> Please Prepare a Reply to Be Signed by _____ <input type="checkbox"/> Please See Me </td> </tr> </table> | | | <input type="checkbox"/> As We Discussed <input type="checkbox"/> Per Your Request <input type="checkbox"/> Please Return Attached Material <input type="checkbox"/> Please Prepare a Reply to Be Signed by _____ <input type="checkbox"/> Please See Me | | | | | |
| <input type="checkbox"/> As We Discussed <input type="checkbox"/> Per Your Request <input type="checkbox"/> Please Return Attached Material <input type="checkbox"/> Please Prepare a Reply to Be Signed by _____ <input type="checkbox"/> Please See Me | | | | | | | | |
| Remarks or Special Instructions: | | | | | | | | |
| Attached is the first turnaround document for Contract No. <u>3247</u> . Please compare this TAD with your agreement estimate breakout and notify me of any discrepancies. An estimate or NE must be entered each cycle beginning with the cut-off date <u>5-20-07</u> . | | | | | | | | |
| Thank you, <u>Cecilia</u> | | | | | | | | |
| Incidental Construction; \$ <u>150,000.00</u> | | | | | | | | |
| Cp = \$ <u>N/A</u> (Fuel Escalation) | | | | | | | | |
| Bi = \$ <u>421.58</u> (Asphalt Escalation) | | | | | | | | |
| (Steel Escalation) | | | | | | | | |

This must be done on all jobs



Quantities included on the bi-weekly progress payment are obtained from original documentation sources as outlined in this Manual. These quantities are coded on the bi-weekly progress payment (TAD) as described in Section B of this chapter.

The computerized bi-weekly payment processing system works as follows:

After a contract is awarded, Headquarters personnel will create a file for the contract and enter the contract bid items in the computer. As contract change orders are approved, they are also coded and entered into the contract file to update bid items and create agreed price (AP), force account (FA) and prorated (PR) items. At the end of each payment cycle, the change orders for each contract are recapped and a printout of the approved change orders (Report No. CM09) is distributed monthly to the Resident Engineer.

All books and source documents must be turned in to the field office by 8:00 a.m., Monday morning following each Friday cut-off.

The **Officeperson** for each progress payment must do the following:

Review each book for item entries made by the **Inspector**

Review files and spreadsheets for items to be paid

Check accumulative totals and make sure they match what is paid on the TAD

Check initials on the initial key

Check and initial calculations (make sure you understand the calculations and if you don't, ask the **Inspector** to explain)

Check for certifications

Transfer quantities to a worksheet. The worksheet is required and will aid in locating where a payment originated (an illustration of a worksheet is shown on 23-4). The worksheet is on Sharepoint.

For each paid item, the payment number shall be documented in the appropriate column (Pmt#) in the field book. Two red lines shall be drawn across the page and payment number, quantity (being paid this progress payment), and AEB number shall be documented between the lines for items described in Chapter 10 (Liquid and Emulsified Asphalts), Chapter 11 (Concrete Paving, Roadbed Modification, etc.), and any Record of Delivery where payment is based on delivery minus waste and storage. The payment number column (Pmt#) shall be used for all other items, and red lines are not allowed. Spreadsheets are totaled and the payment number documented in the appropriate column.

When all quantities have been extracted, the **Officeperson** shall enter the quantities on the TAD from the items listed on the worksheet. Instructions for entering the quantities on the TAD are given in Section B of this chapter. There is no need for any monetary calculations, since this will be done by the computer.

After the TAD is prepared, the quantities shall be checked by another person for accuracy and to assure that nothing has been omitted. Special care must be taken to assure that the proper codes and item numbers are used for each quantity that changed during the cycle. The bi-weekly progress payment shall then be signed by the preparer, checker, and the Resident Engineer, as illustrated on page 23-8. Someone other than the preparer must do the necessary checking and sign the TAD. **A printed name is not acceptable as a signature.**

The **Officeperson** shall perform the necessary data entry. Refer to the CONTRACT PROGRESS PAYMENT SYSTEM TRAINING MANUAL as illustrated on pages 23-37 thru 23-55. Headquarters Construction will review and approve the edits and implement the payment update process.

The original TAD shall be mailed directly to Headquarters Construction. A copy shall be filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project). A copy shall be given to the Contractor upon request.

Headquarters Construction shall send out copies of the progress payments printed out by the computer (CM02 and CM03). The print outs will show extensions, retention, amount due, working days, percentages of time and work. The illustrations on page 23-5, show the last page of the CM02 and CM03 reports.

Copies of the computed payment (Report No. CM02) are distributed to District, Contractor's main office, Construction, and two copies are sent to the Resident Engineer. One of the two copies sent to the Resident Engineer will go to the on-site Foreman or Project Engineer. One copy of the computed payment by AEB number (Report No. CM03) and one copy of the payment dollar amounts for fuel escalation (Report No. CM01) are also distributed to the Resident Engineer. An illustration of Report No. CM01 is shown on page 23-5. The dollar amounts on the Fuel Escalation Report (CM01) will then be used for the next progress payment.

The progress payments (including retention) are processed through Accounting and on to the State Controller's Office, where the checks are prepared and distributed.

Upon completion of the contract the **FINAL** field payment shall be prepared by the **Officeperson**. The **FINAL** field payment must be designated on the TAD with an "**F**" after the payment number and **Final** status on the CP. The **FINAL** status will key the computer to pay 100% on prorated items and 100% of mobilization. A **FINAL** field payment is required on all contracts. Once the **FINAL** field payment is processed, Headquarters Construction will send out a CM19I to assist the Resident Engineer in verifying quantities and assuring all items have been addressed. The **Officeperson** shall complete the CM19I as explained in Chapter 24 ("Finaling Out" a Contract) and if adjustments are needed, process another **FINAL** field payment, making sure to notify Headquarters Construction. Before entering this payment please be sure all items have been checked for accuracy and all change orders and quantity adjustments are complete.

The CM01 lists the breakout totals that were calculated, by IFS, from the previous progress payment. This information is used for calculating the fuel escalation on the next progress payment.

| REPORT # CM01 | | STATE OF NEVADA | | PAGE |
|--------------------|----------------|------------------------------|--|--------------------|
| RUN TIME: 17:33:12 | | DEPARTMENT OF TRANSPORTATION | | 19 |
| CONTRACT NO: 03247 | | FUEL ESCALATION | | RUN DATE: 08/14/08 |
| | | PAYMENT NUMBER: 024 | | |
| BREAKOUT | BREAKOUT TOTAL | | | |
| 01 | | 0.00 | | |
| 02 | | 154,715.86 | | |
| 03 | | 57,636.07 | | |
| 04 | | 22,055.87 | | |
| 05 | | 433.80 | | |
| 06 | | 1.05 | | |
| 07 | | 69,463.51 | | |
| 08 | | 16,037.80 | | |
| 09 | | 110,084.45 | | |
| 10 | | 93,842.44 | | |
| 11 | | 2.09 | | |
| 12 | | 0.64 | | |
| 14 | | 0.48 | | |
| 17 | | 38,408.00 | | |
| TOTALS | | 562,682.06 | | |

The CM02 lists the total information on each item and does not list AEB quantities separately.

| REPORT # CM02 | | STATE OF NEVADA | | PAGE | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------|------------------|------------------------------------------|---------------------|------------------|------------|----------------------|----------------|--------|-----|
| RUN TIME: 17:33:28 | | DEPARTMENT OF TRANSPORTATION | | 19 | | | | | | | |
| | | CONTRACTOR PAYMENTS FINAL BALANCE REPORT | | RUN DATE: 9/2/2008 | | | | | | | |
| CONTRACT NO: 03247 | | PAYMENT NUMBER 25 | | UPDATED CONTRACT AMOUNT \$ 32,100,596.93 | | | | | | | |
| VENDOR: T80189860 LAS VEGAS PAVING CORP | | 4420 S DECATUR BLVD LAS VEGAS NV 89103 | | | | | | | | | |
| LOCATION: ON SR 160, BLUE DIAMOND RD. FROM L.V. BLVD (SR 604) WINDMILL IN TO VALLEY VIEW BLVD PHASE 1 & ON 1-15 FROM 1 MILE S OF BLUE | | | | | | | | | | | |
| UNIT OF WORK NO | C/O NO | DESCRIPTION | PLANNED QUANTITY | UNIT | QUANTITY THIS CYCLE | QUANTITY TO DATE | UNIT PRICE | TOTAL AMOUNT TO DATE | UPDATED AMOUNT | % COMP | O/U |
| SP00002 | | STRUCTURAL STEEL GRATES | 0.000 | POUND | 12,701.000 | 25,540.000 | 1.50 | 38,310.00 | 0.00 | 0.0 | |
| SP00003 | | DRILLED SHAFT FOUNDATION | 0.000 | LINFT | 84.000 | 0.000 | 70.43 | 0.00 | 0.00 | 0.0 | |
| SP00004 | | PLAIN STRUCTURAL STEEL | 0.000 | LS | | 0.000 | 1.00 | 0.00 | 0.00 | 0.0 | |
| ORIGINAL WORKING DAYS: | | | 300 | TOTAL EARNED TO DATE: | \$ | 19,155,517.36 | | | | | |
| WORKING DAYS ADDED BY CHANGE ORDER: | | | 0 | RETENTION: | \$ | 0.00 | | | | | |
| CONTRACT WORKING DAYS: | | | 300 | LIQUIDATED DAMAGES: | \$ | 16.50 | | | | | |
| WORKING DAYS TO DATE: | | | 180 | TOTAL DUE TO DATE: | \$ | 19,155,500.86 | | | | | |
| PERCENT OF TIME: | | | 60 | PREVIOUS TOTAL PAYMENTS: | \$ | 18,323,581.38 | | | | | |
| PERCENT OF WORK: | | | 60.1 | BALANCE DUE: | \$ | 831,919.48 | | | | | |

The CM03 lists all the AEB information for each item.

| REPORT # CM03 | | STATE OF NEVADA | | PAGE | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------|-------|------------------------------------------|------------------|---------------|---------------------|------------------|------------|----------------------|----------------|--------|---------|
| RUN TIME: 17:33:54 | | DEPARTMENT OF TRANSPORTATION | | 22 | | | | | | | | | |
| | | CONTRACTOR PAYMENTS BY BREAKOUT REPORT | | RUN DATE: 9/2/2008 | | | | | | | | | |
| CONTRACT NO: 03247 | | PAYMENT NUMBER 25 | | UPDATED CONTRACT AMOUNT \$ 32,100,596.93 | | | | | | | | | |
| VENDOR: T80189860 LAS VEGAS PAVING CORP | | 4420 S DECATUR BLVD LAS VEGAS NV 89103 | | | | | | | | | | | |
| LOCATION: ON SR 160, BLUE DIAMOND RD. FROM L.V. BLVD (SR 604) WINDMILL IN TO VALLEY VIEW BLVD PHASE 1 & ON 1-15 FROM 1 MILE S OF BLUE | | | | | | | | | | | | | |
| UNIT OF WORK NO | C/O NO | AEB NO | E / I | DESCRIPTION | PLANNED QUANTITY | UNIT | QUANTITY THIS CYCLE | QUANTITY TO DATE | UNIT PRICE | TOTAL AMOUNT TO DATE | UPDATED AMOUNT | % COMP | GASB-34 |
| AP00001 | 025 | 01 | E | REPAIR IRRIGATION SYSTEM | 17,364.670 | LS | 17,364.670 | 17,364.67 | 1.00 | 17,364.67 | 17,364.67 | 100.0 | BLANK |
| AP00001 | 025 | 02 | E | REPAIR IRRIGATION SYSTEM | 11,264.250 | LS | 11,264.250 | 11,264.25 | 1.00 | 11,264.25 | 11,264.25 | 100.0 | BLANK |
| SP00001 | | ZZ | E | REINFORCING STEEL | 0.000 | POUND | | 0.000 | 0.26 | 0.00 | 0.00 | 0.0 | BLANK |
| ORIGINAL WORKING DAYS: | | | 300 | TOTAL EARNED TO DATE: | \$ | 19,155,517.36 | | | | | | | |
| WORKING DAYS ADDED BY CHANGE ORDER: | | | 0 | RETENTION: | \$ | 0.00 | | | | | | | |
| CONTRACT WORKING DAYS: | | | 300 | LIQUIDATED DAMAGES: | \$ | 16.50 | | | | | | | |
| WORKING DAYS TO DATE: | | | 180 | TOTAL DUE TO DATE: | \$ | 19,155,500.86 | | | | | | | |
| PERCENT OF TIME: | | | 60 | PREVIOUS TOTAL PAYMENTS: | \$ | 18,323,581.38 | | | | | | | |
| PERCENT OF WORK: | | | 60.1 | BALANCE DUE: | \$ | 831,919.48 | | | | | | | |

**DOCUMENTATION REQUIREMENT
SECTION B
CODING BI-WEEKLY PROGRESS PAYMENTS
(TURNAROUND DOCUMENT) (TAD)**

A TAD shall be used by the Resident Engineer or **Officeperson** for entering the quantities to be paid on the progress payment. Be sure to print clearly and dark enough to be legible. The TAD shall not be typewritten. Do not use more than one line for each item. A payment (cp or CP) or a no progress payment (ne or NE) must be submitted from the time the Turnaround Document is received from Headquarters Construction through the time of the final field payment. No progress payment (ne or NE) must be submitted by 4:00 p.m. on the Tuesday following each cut-off date. The progress payment must be submitted by 5:00 p.m. on the Thursday following each cut-off date.

Contract number, description, names and addresses of the Resident Engineer and Contractor, working days and the line for the quantity total, appear on the front sheet of each TAD. The payment number will automatically be generated by the computer after the previous payment has been processed. The Cut-Off Date, Prepared By, Checked By, and Approved Res. Engr. lines must be completed for each payment cycle, as illustrated on page 23-8. The last page of the TAD has blank lines for any new items to be added, as illustrated on page 28-10. If more lines are necessary, use a blank sheet of paper and attach to the TAD.

The progress type, bid item number, description, AEB, plan quantity for each AEB number, unit price, and unit of measure (UOM) for each contract item (excluding mobilization) are entered from the agreement estimate, as illustrated on page 23-9. The payment for mobilization will be automatically calculated by the computer. It is never entered as Item No. 628-0004; therefore, it will not appear on the TAD.

To make payment on bid items or approved change orders, a quantity must be entered in the "This Cycle" column. All quantities will be additions unless the Dec (decrease) column is marked with an X or \surd .

Following is a description of each possible progress type and how it is to be used:

- N Use progress type "**N**" (normal) for:
1. Original bid items
 2. Approved change order items
 3. New change order items based on a **prior approval** (force account, agreed price) **must be on file for payment**
 4. Addition of any item (original bid item, force account, or agreed price) to a breakout where none was originally planned

For all items entered as a "**N**", the computer will calculate the amount due by multiplying the quantity by the unit price. The unit of measure (UOM), unit price and description will automatically be generated by the computer when a Process/Edit is performed. For AP or FA items paid on prior approvals, an item number, change order number (three places, 001), AEB number, description, unit of measure (UOM) and unit price must be entered. For items added to an AEB, an item number and AEB number must be entered.

- P Use progress type "**P**" (prorated) for:
1. All 625 and PR items
- For all items entered as a "**P**", the computer prorates the dollar amount earned each payment. For PR items paid on prior approvals, an item number (PR0 0001), change order number, AEB number, description, unit of measure (UOM) and unit price must be entered.

- E Use progress type “E” (escalation) for:
1. All 736 items
 2. All escalation items added by change order

For all items entered as an “E”, the computer excludes the amount when calculating the fuel escalation (Report No. CM01), as illustrated on page 23-5.

- S Use progress type “S” (stockpile) for:
1. Recording all additions to or deductions from a stockpile as described and illustrated on pages 23-24 thru 23-27.

The first time an item is paid in stockpile, a stockpile number must be created. For each contract, these numbers shall begin with SP0 0001 and continue consecutively for the life of the contract. The first time a number is used, a description, unit of measure (UOM) and unit price must be entered. The unit of measure (UOM), unit price and description for a stockpile deduction will automatically be generated thereafter by the computer when a Process/Edit is performed. Always assign a new stockpile item number for each new stockpile item or if the price of additional material is different from the original price. Once a stockpile is zeroed out and no additional material will be added, that number may never be used again for that contract. AEB# ZZ must be used for all stockpiles. For deductions from a stockpile, enter the item number, the quantity and the Dec (decrease) column is marked with an X or √. A good way to keep track of stockpiles is to have a spreadsheet showing the SP number and the appropriate bid number and quantities paid and deducted. The spreadsheet will help track payments for the bid item, so deductions can be made to the stockpile number. **All SP numbers must have a zero balance at the end of the contract.**

- L Use progress type “L” (liquidated damages) for:
1. All liquidated damages. On pages 23-12 thru 23-22 there are descriptions and illustrations of several different types of Liquidated Damages.

The first time an item is entered, a liquidated damage number must be created. For each contract, these numbers shall begin with LD0 0001 and continue consecutively for the life of the contract. The first time a number is used, a description and an AEB number must be entered. The unit of measure (UOM) is always LS (lump sum) and unit price is always \$1.00. The amount to be withheld shall be entered in the “This Cycle” field with the Dec (decrease) column is marked with an X or √. If all or part of the amount previously withheld for liquidated damages is to be **given back** to the Contractor, a new LD number must be used, but do **not** put an X or √ in the (Dec) column. Damages for asphalt, concrete, traffic control deficiencies, etc. must be applied to the appropriate AEB number. If the liquidated damages are not applicable to a particular AEB number, such as working day damages or time restraints, AEB# ZZ shall be used. The description for days must include the number of days that are being assessed (i.e. Damages for 5 days). Each payment cycle, a new LD number must be used for working day damages, but the same LD number may be used for each different type of asphalt or concrete as long as the unit price is the same. **Damages for days should always be assessed as days are exceeded.** If and when a change order is approved granting additional working days, the damages assessed shall be returned to the Contractor, using a new LD number.

| UNIT OF WORK DESCRIPTION | | UNIT PRICE | | | UNIT OF MEASURE | | | |
|----------------------------------------------|-----------------|------------|-----|-------|------------------|---------------------|---------------------|-----|
| PROG TYPE | UNIT OF WORK NO | C/O NO | AEB | E / I | PLANNED QUANTITY | QUANTITY TO DATE | QUANTITY THIS CYCLE | DEC |
| TRAINING (TRAINEES) | | | | | | | | |
| N | 1100100 | | 01 | E | 300.000 | 0.80 329.000 | | |
| SURVEY CREW | | | | | | | | |
| N | 2000001 | | 02 | E | 40.000 | 175.00 30.000 | 5.000 | |
| | | | 09 | E | 10.000 | 5.000 | | |
| URBAN CLEARING | | | | | | | | |
| N | 2010032 | | 01 | E | 12,000.000 | 1.00 12,000.000 | | |
| REMOVE TREES (6-INCHES TO 12-INCHES) | | | | | | | | |
| N | 2010512 | | 02 | E | 2.000 | 465.00 1.000 | | |
| REMOVAL OF BRIDGE | | | | | | | | |
| N | 2020008 | | 03 | E | 202,892.000 | 1.00 202,892.000 | | |
| REMOVE END SECTION | | | | | | | | |
| N | 2020076 | | 04 | E | 5.000 | 250.00 2.000 | 1.000 | |
| REMOVAL OF SIGNAL SYSTEM | | | | | | | | |
| N | 2020256 | | 08 | E | 12,890.000 | 1.00 7640.000 | | |
| REMOVE AND RESET GUARDRAIL END TREATMENT | | | | | | | | |
| N | 2020417 | | 09 | E | 2.000 | 535.00 0.000 | 1.000 | |
| REMOVE AND RESET CONCRETE BARRIER RAIL | | | | | | | | |
| N | 2021052 | | 09 | E | 3,190.000 | 5.90 2192.000 | 1004.000 | |
| RESET CHAIN-LINK FENCE | | | | | | | | |
| N | 2021056 | | 02 | E | 1,000.000 | 10.00 1000.000 | | |
| REMOVAL OF BITUMINOUS SURFACE (COLD MILLING) | | | | | | | | |
| N | 2021152 | | 02 | E | 10,200.000 | 1.71 0.000 | 10131.000 | |
| | | | 09 | E | 5,800.000 | 0.000 | 5854.300 | |

Change orders are entered into IFS by Headquarters Construction as approved. When an approved change order is received in the field office, the newly approved change order items, even though they do not appear on the TAD, they will be entered with the appropriate progress type, and entered on the blank lines at the end of the TAD, as illustrated on page 23-10. It will appear on the next TAD.

Working days are entered on the front of the TAD. Enter the number of days charged for the cycle in the "This Cycle" (three places, 010). If there are no days being charged, then enter a zero (0). The I (increase) or D (decrease) must be circled. An entry for working days is mandatory for each progress payment. An illustration is shown on page 23-8. If days accrued while no progress payment (ne or NE) were being processed, then add the total days to the next progress payment (cp or CP). Days cannot be charged or returned on a no estimate (ne or NE).

Enter the Quantity Total on the front of the TAD. The quantity total is the mathematical total (increases and decreases) of all quantities entered on the TAD. If the quantity total changes, line through the incorrect total on the TAD and write the correct total above it. The Quantity Total, with the I (increase) or D (decrease) circled, must be completed on each progress payment. An illustration is shown on page 23-8. If a progress payment has only Fuel escalation wait to process until there are more items to pay. The \$ (dollar) amount of a progress payment must be \$0.00 or greater.

There is no documentation required for Item Number 629 0100, Time Related Overhead if applicable to a contract. **Payment for time related overhead shall be the same number as working days charged for each payment cycle.** For example: if 10 days are charged, pay 10 days of overhead. Overhead will not be paid for working days charged when the Contractor is into liquidated damages. If you have any questions, please contact Headquarters Construction.

**DOCUMENTATION REQUIREMENT
SECTION C
LIQUIDATED DAMAGES**

Listed in this section are a few examples of different liquidated damages. If there are any questions concerning the few mentioned in this section or other liquidated damages, please call Headquarters Construction.

Damages for Plantmix Failing Lottman Tests see page 23-13 for an illustration.

1. Using the type of mix and type of asphalt to be assessed damages, find the requirements and rejection limits.
2. Use the Special Provisions for the appropriate contract, section 401.02.02-Composition of Mixtures to acquire the Lottman requirements.

As used in the example below:

65 is the requirement and 50 is the rejection limit for Indirect Tensile Strength (Unconditioned), see the green rectangle below.

70% (min) is the requirement and 55% (min) is the rejection limit for Indirect Tensile Strength, Retained Strength, see the blue rectangle below.

3. To determine if the failure is for Indirect Tensile Strength (Unconditioned) and/or Indirect Tensile Strength, Retained Strength see the Lottman Test Report from the Materials Division.
4. Refer to section 109.02 of the Special Provisions for the appropriate contract for the \$ value per ton per demerits.

Example:

Given: 463.83 tons Type 2 plantmix produced using PG 64 28NV asphalt.
Indirect Tensile Strength (Unconditioned) of sample = 60 psi, taken from the Lottman Test Report as illustrated on page 23-13.
Indirect Tensile Strength, Retained Strength = 60%, taken from the Lottman Test Report as illustrated on page 23-13.

$$\frac{65 \text{ psi} - 60 \text{ psi}}{65 \text{ psi} - 50 \text{ psi}} = \frac{5}{15} = 0.333 \times 21 = 6.9999 = 6 \text{ demerits. (Round down to the nearest whole demerit)}$$

$$6 \times \$0.36 \text{ per ton} \times 463.83 \text{ tons} = \$1,001.87 \text{ liquidated damages}$$

$$\frac{70\% - 60\%}{70\% - 55\%} = \frac{10}{15} = 0.6666 \times 21 = 13.9999 = 13 \text{ demerits. (Round down to the nearest whole demerit)}$$

$$13 \times \$0.36 \text{ per ton} \times 463.83 \text{ tons} = \$2,170.72 \text{ liquidated damages}$$

$$\text{Total liquidated damages} = \$3,172.59$$

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
1263 S. STEWART ST. CARSON CITY, NV 89712
LOTTMAN TEST REPORT
BITUMINOUS LABORATORY

| | |
|---------------------|----------------------|
| LAB NUMBER: | OM09-EXAMPLE |
| CONTRACT NUMBER: | 9999 |
| PROJECT NUMBER(S): | EB-NH-322-1(001) |
| COUNTY(S): | CARSON CITY |
| PRIMARY CONTRACTOR: | GENERAL CONSTRUCTION |
| DATE SAMPLED: | 03/19/09 |
| DATE RECEIVED: | 03/19/09 |
| REPORT DATE: | 03/25/09 |
| SAMPLED BY: | GENTLE BEN |
| CHECKED BY: | BS |
| TYPE MATERIAL: | TYPE 2C PLANTMIX |
| MIX DESIGN NUMBER: | BF09-1 |
| SOURCE OF SAMPLE: | "FV" 43+00 LT |
| TYPE ASPHALT: | PG 64-28NV |
| ASPHALT PRODUCER: | ASPHALT INC. |

JOB DESCRIPTION: NEVADA ROADWAY

| | | |
|---------------------------------|------|-------------|
| ORIGINAL TENSILE STRENGTH, PSI: | 60.0 | 65 PSI MIN |
| % RETAINED STRENGTH: | 60 | 70% MINIMUM |

REMARKS:
THIS SAMPLE FAILS TO MEET PROJECT SPECIFICATIONS FOR ORIGINAL TENSILE STRENGTH AND % PERCENT RETAINED STRENGTH.

- DISTRIBUTION:**
- 1 DISTRICT ENGINEER
 - 1 RESIDENT ENGINEER
 - 1 CONSTRUCTION ENGINEER
 - 1 LAB FILES
 - 1 BITUMINOUS LAB

The numbers in the red boxes are the numbers used in each equation; see the red rectangles shown on page 23-12.

If you have any questions call Headquarters Construction.

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for plantmix failing lottman tests and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Damages on Asphalt:

Asphalt samples represent 25 tons (23 mtons) or any fraction thereof on the last sample of the day. Make sure to check the Special Provisions of the contract to assure the sample frequency has not been changed.

The calculation of liquidated damages for asphalt represented by each sample on any given day is:

$$\frac{\text{total asphalt used}}{\text{total samples taken}} = \text{tonnage represented for each sample}$$

In no case shall any sample represent more than 25 tons (23 mtons). This is done on all samples for the day whether they passed or failed.

The items needed to calculate damages for asphalt are:

1. The REPORT TESTS OF ASPHALTIC CEMENT from the lab shows whether a sample has pass/failed and on failures will have demerits, as illustrated on page 23-16.
2. The Plant Record in the Asphalt Cement book, as illustrated on page 23-17.
3. A copy of the spreadsheet that shows the quantity of mix placed on the day the sample(s) failed. An illustration of the spreadsheet is shown in Chapter 9.
4. A copy of the applicable **mix design** for the percent of asphalt and mineral filler.
5. The dollar amount per ton from Section 402.05.01 of the Special Provisions of the contract.
6. The demerit chart in Section 109.02 of the Standard Specifications for Road and Bridge Construction (Silver Book).
7. Calculation Worksheet, as illustrated on page 23-18.

Complete the Liquidated Damages for Failing Asphalt Cement form, as illustrated on page 23-15.

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for asphalt and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

This report will be produced by the Lab and the information on top of the form comes from the TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016) that was turned in with the asphalt sample. **Assure the information on the TRANSMITTAL FOR ASPHALT SAMPLES is correct.** The red arrows represent the information from the Plant Record and the TRANSMITTAL FOR ASPHALT SAMPLES that will be placed on the LIQUIDATED DAMAGES FOR ASPHALT CEMENT form, as illustrated on page 23-15. This test report shows 10 demerits. According to the demerit chart in Section 109.02 of the Standard Specifications for Road and Bridge Construction (Silver book), demerits specified shall be assessed as Liquidated Damages. The price of the asphalt product will be specified in the Special Provisions for the contract. Material removed will not be paid for and the removal therefore will be at the Contactor's expense.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 EAST WASHINGTON AVENUE, LAS VEGAS, NV 89101

REPORT OF TESTS OF ASPHALTIC CEMENT

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Lab Number..... IVAC-2008-00232</p> <p>Contract Number..... 3247</p> <p>Project Number..... IM-015 (SR 160)</p> <p>County..... CLARK</p> <p>Nevada Specification..... PG 76-22HV</p> <p>Asphalt Producer..... ERGON ASPHALT PRODUCTS</p> <p>Shipping Point..... LAS VEGAS</p> <p>Contractor..... LAS VEGAS PAVING</p> | <p>Field Number..... 35</p> <p>Actual Tonnage..... 25.00</p> <p>Sampled By..... CONTRACTOR</p> <p>Observed By..... T. BAILEY</p> <p>Tested By..... JO, AC, MS</p> <p>Date Sampled..... 08/09/2008</p> <p>Date Received..... 08/09/2008</p> <p>Date Tested..... 08/10/2008</p> <p>Date Reported..... 08/10/2008</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| TESTS PERFORMED | RESULTS | | NEVADA SPECIFICATIONS |
|------------------------------------------------------------------------|-------------------|---------|-----------------------|
| | TEST | RE-TEST | |
| ORIGINAL BINDER | | | |
| Flash Point, °C | | | Minimum 230°C |
| Viscosity, 135°C, Pa·s | 1.60 | | Maximum 3.0 Pa·s |
| Original Dynamic Shear, G°/sin δ, 10 rad/s, kPa | **FAILED** | 1.08 | Minimum 1.30 kPa |
| Original Ductility @ 4°C, 5 cm/min, cm | 27 | | Minimum 20 cm |
| Sieve Test | | | Pass |
| Original Penetration @ 25°C, 100g, 5 sec, dmm | 66 | | N/A |
| ROLLING THIN FILM OVEN RESIDUE | | | |
| Mass Loss, % | 0.248 | | Maximum 0.5 % |
| Residue Dynamic Shear, G°/sin δ, 10 rad/s, kPa, 76°C | 3.07 | | Minimum 2.20 kPa |
| Residue Ductility @ 4°C, 5 cm/min, cm | 13 | | Minimum 10 cm |
| PRESSURE AGING VESSEL RESIDUE | | | |
| PAV Dynamic Shear, G°/sin δ, 10 rad/s, kPa, 31°C | 1378 | | Maximum 5000 kPa |
| Creep Stiffness, 60s, S, MPa, -12°C | 124.0 | | Maximum 300 MPa |
| M-value, -12°C | 0.304 | | Minimum 0.300 |
| Direct Tension, 1.0 mm/min, Failure Strain, % | | | Minimum 1.0 % |
| REMARKS AND RECOMMENDATIONS: MATERIAL HAS FAILED NEVADA SPECIFICATIONS | | | |
| TOTAL 10 DEMERIT(S) | | | |

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>DISTRIBUTION</p> <p>1 District Engineer</p> <p>1 Resident Engineer</p> <p>1 Laboratory</p> <p>1 Asphalt Producer</p> <p>1 Construction</p> | <p>1 Contractor</p> <p>State Purchasing</p> <p>Maintenance Engineer</p> <p>C.C. Facility</p> <p>Bituminous Lab</p> <p>Clark County</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

* Other Project Numbers May Be Applicable

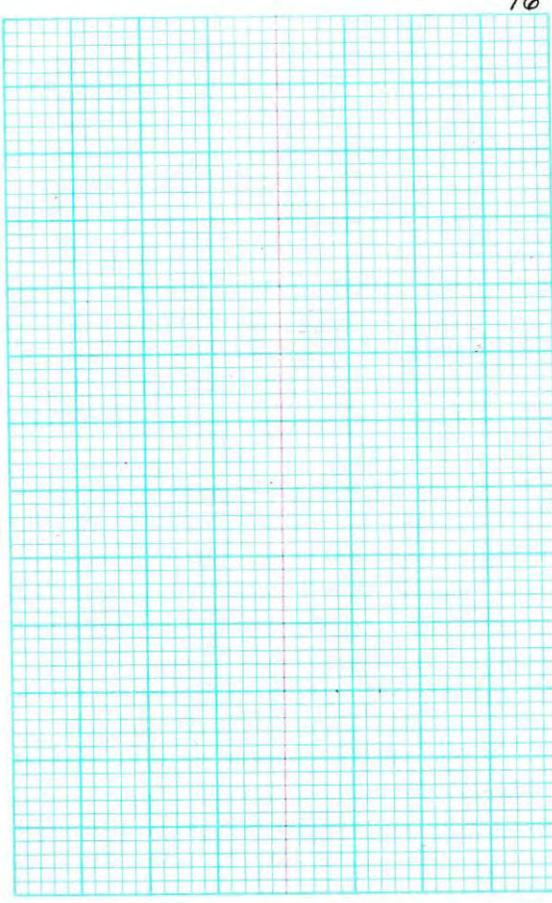
The Plant Record in the Asphalt Cement book shall match the information placed on the TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016). Sample numbers 35 thru 38 shown below on the Plant Record, are used in the example on page 23-18.

Item: PG 76-22NU

16

Plant Record

| Sample No. | Date | Time | Insp |
|------------|---------|---------|------|
| 21 | 7/23/08 | 5:30 AM | TC |
| 22 | 8/5/08 | 5:45 AM | TC |
| 23 | 8/5/08 | 6:00 AM | TC |
| 24 | 8/5/08 | 6:30 AM | TC |
| 25 | 8/5/08 | 6:50 AM | TC |
| 26 | 8/5/08 | 7:15 AM | TC |
| 27 | 8/6/08 | 5:20 AM | TC |
| 28 | 8/6/08 | 5:45 AM | TC |
| 29 | 8/6/08 | 6:15 AM | TC |
| 30 | 8/7/08 | 6:00 AM | TC |
| 31 | 8/7/08 | 6:30 AM | TC |
| 32 | 8/7/08 | 6:50 AM | TC |
| 33 | 8/7/08 | 7:20 AM | TC |
| 34 | 8/7/08 | 7:45 AM | TC |
| 35 | 8/9/08 | 4:00 AM | TC |
| 36 | 8/9/08 | 4:25 AM | TC |
| 37 | 8/9/08 | 5:00 AM | TC |
| 38 | 8/9/08 | 5:30 AM | TC |
| 39 | 8/17/08 | 6:10 AM | TC |
| 40 | 8/18/08 | 6:30 AM | TC |
| 41 | 8/18/08 | 7:00 AM | TC |



This worksheet is to be used **only** when calculating liquidated damages for asphalt. Make sure the asphalt cement for the day (←) and the total tons (←) match. If the total tons do not match the asphalt cement for the day, an adjustment must be made on as many samples as it takes to get the total to equal (○) the total tons.

**LIQUIDATED DAMAGES FOR FAILING ASPHALTS
CALCULATION WORKSHEET**

CONTRACT NO. 3247 DATE USED: 8/9/2008

TYPE OF ASPHALT: PG 76-22NV MIX DESIGN NO: BF 07-77

FROM MIX DESIGN: BITUMEN RATIO = 5.10% MINERAL FILLER = 1.50%

TOTAL WET TONS FOR DAY = 1918.50

DRY TONS FOR DAY = $\frac{1918.50}{1.066} =$ 1799.72

ASPHALT CEMENT FOR DAY = $1799.72 \times 0.051 =$ 91.79 ←

TOTAL NO. OF SAMPLES TAKEN FOR DAY = 4

TONS PER SAMPLE FOR DAY (FOR DEMERITS) = $\frac{91.79}{4} =$ 22.95

| LAB NUMBER | DEMERITS | \$/DEMERIT | X | TONS | = | \$/SAMPLE | PASS/FAIL |
|------------|----------|------------|---|-------|---|------------|-----------|
| 232 | 10 | \$50.00 | X | 22.95 | = | \$1,147.50 | FAIL |
| 233 | 7 | \$30.00 | X | 22.95 | = | \$688.50 | FAIL |
| 234 | 3 | \$20.00 | X | 22.95 | = | \$459.00 | FAIL |
| 235 | 0 | \$0.00 | X | 22.94 | = | \$0.00 | PASS |

TOTAL TONS = $\underline{\hspace{1cm}}$ 91.79 ←

TOTAL DEMERIT \$ FOR DAY = \$2,295.00

Damages for compressive strength:

Follow the instructions in the Standard Specifications for Road and Bridge Construction (Silver book). You will need to do all calculations on an 8 ½" x 11" sheet of paper or a CALCULATION sheet (Form No. 040-034).

Illustrations for the TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS and book page are shown on page 23-20.

The items needed to calculate damages for compressive strength are:

1. The TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS showing the 28 day strength.
2. A calculation sheet with the following items listed:
 - a. date the concrete was placed
 - b. the bid item number and description
 - c. must show book name or number and page number
 - d. total quantity represented and AEB number
 - e. unit bid price
 - f. percent of liquidated damages per unit bid price
 - g. calculations

Example: On 12/13/05 for item no. 502 0828-Class A Concrete (Mod) (Maj), for the bridge deck pour, 5 sets of cylinders were made and one set failed compressive strength. The test report shows after 28 days the strength was 88.8% (89). Shown in Book #21 (H-2731 structure) on page 27, 539.35 cu yds @ \$270/cuyd (bid price) in AEB #3 were placed.

Following the Standard Specifications for Road and Bridge Construction (Silver book):

$95\% - 89\% = 6\% \times 3\% = 18\%$ (percent of liquidated damages per unit bid price)

$\$270.00 \times .18 = \48.60

$\frac{539.35 \text{ cuyd}}{5 \text{ sets}} = 107.87 \text{ cuyd} \times \$48.60/\text{cuyd} = \$5,242.48$ damages to be deducted

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for compressive strength and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Refer Correspondence to: **JAN 11 2006**
 Calls to: (775) 888-7871
 Date Reported: _____

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION
 MATERIALS DIVISION
 123 E. Washington Ave. Las Vegas NV. 89101

Distribution:
 1 District Engr
 1 Resident Engr
 1 Laboratory
 1 Supplier @ 28 Days
 1 Construction
 Bridge

TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS
 Test Method ASTM C39

Contract Number 3238 Resident Engineer Kinzer Contractor Frehner Report Code LV-05-10943 Mix Design Number PA700EAF

County Clark Date Placed 12/13/2005 Date Received 12/16/2005 Time Placed 10:55 AM Sample Location Bridge Deck

Class of Concrete EA-Mod Cement as Batched 525 lbs/cyd 0.0 kg/cum Brand of Air Entraining Agent Used _____
 Project Specified Strength 4500 PSI MPa Fly Ash as Batched 162 lbs/cyd 0.0 kg/cum Brand of Water Reducer Used _____
 Cylinder Number(s) 100 Fine Aggregate as Batched 1177 lbs/cyd 0 kg/cum Brand of Super Plasticizer _____
 Brand of Cement Lehigh Coarse Aggregate as Batched 1841 lbs/cyd 0 kg/cum Amount of Super Plasticizer 0.0 oz/cyd 0.0 L/cu
 Type of Cement V Mixing Water 13.0 gal 0.0 L Other Additive Used _____
 Source of Water Local Slump 4.00 in 0 mm Nev. T438 Break at 2@7 2@10 3@28
 Source of Fine Aggregate Beaver Dam % Air 0.00 Nev. T431 Sampled By C. Calvin
 Source of Coarse Aggregate Littlefield Pit Slump After Addition of Super Plasticizer 0.00 in 0 mm Concrete Supplied By Precision Agg.
 Source of Fly Ash ISG Resource Navajo Unit Weight 0.0 PCF 0 kg/cum Nev. T435

| Laboratory Sample Number | Date of Test | Age (days) | Diameter (in) | Area (sq in) | Total Load (lbs) | lbs/sq in | Avg 28 day lbs/sq in | Diameter (mm) | Area (sq cm) | Total Load (newtons) | MPa | Avg 28 day MPa | Initials |
|--------------------------|--------------|------------|---------------|--------------|------------------|-----------|----------------------|---------------|--------------|----------------------|-------|----------------|----------|
| 05-10943 | 12/20/2005 | 7 | 6.00 | 28.27 | 82315 | 2910 | | 152.4 | 182.42 | 366200 | 20.06 | | ks |
| 05-10944 | 12/20/2005 | 7 | 6.00 | 28.27 | 73665 | 2610 | | 152.4 | 182.42 | 327700 | 18.00 | | ks |
| 05-10945 | 12/23/2005 | 10 | 6.00 | 28.27 | 81510 | 2880 | | 152.4 | 182.42 | 362600 | 19.86 | | ks |
| 05-10946 | 12/23/2005 | 10 | 6.00 | 28.27 | 82250 | 3020 | | 152.4 | 182.42 | 365900 | 20.82 | | ks |
| 05-10947 | 1/10/2006 | 28 | 6.01 | 28.37 | 112435 | 3960 | | 152.7 | 183.02 | 500100 | 27.30 | | cp |
| 05-10948 | 1/10/2006 | 28 | 6.01 | 28.37 | 112910 | 3980 | 4000 | 152.7 | 183.02 | 502200 | 27.44 | 27.58 | cp |
| 05-10949 | 1/10/2006 | 28 | 6.01 | 28.37 | 114835 | 4050 | | 152.7 | 183.02 | 510800 | 27.92 | | cp |



Page 1 of 1

Remarks: The average 28 day strength is 88.8 % of the minimum required strength
 Type of Fracture: Type A (Cone)

R. W. D. [Signature]

NDOT 020-050 Rev 03/01

Item No: 5020828
 Item: Class A Conc. (mod) (max)
 Plan Qty. 4459.00 cuyd

| Location | cuyd | Date Insp | Ag# | Pmi# | Cals/Remarks |
|----------|--------|-----------|-----|-------|-----------------------------------------------|
| Top Slab | 539.35 | 12-08-05 | VT | 03 22 | Top Slab = 1078.70 ✓ per Bill of materials |
| Top Slab | 539.35 | 12-13-05 | VT | 03 22 | Top slab complete |

Seg fig = .01 27'

Page total:



Liquidated damages for pavement thickness of concrete paving:

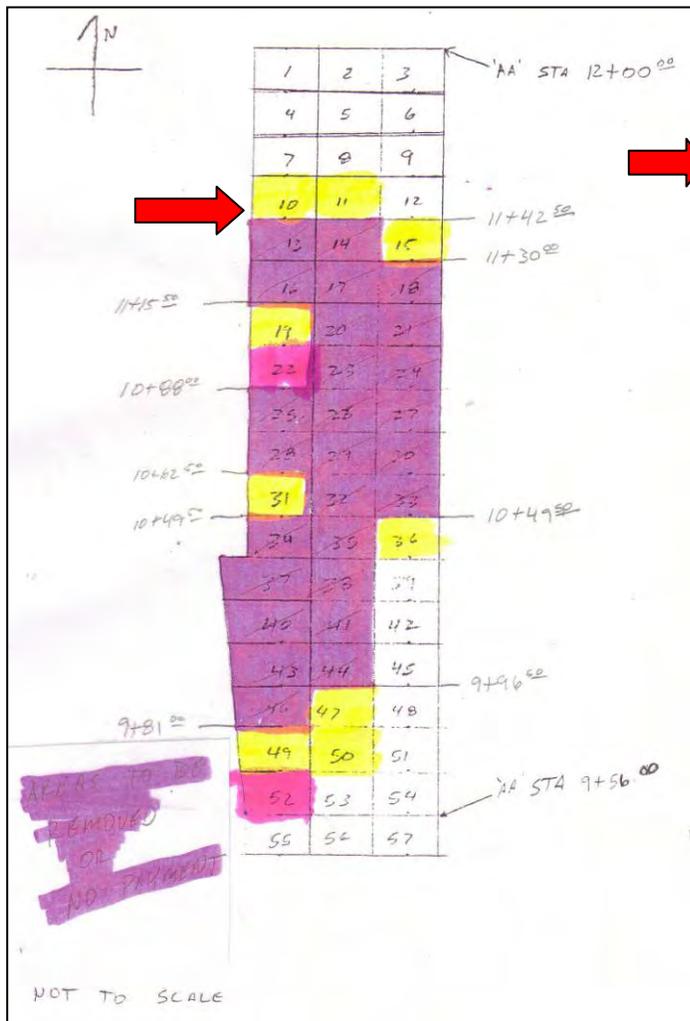
Follow the instructions in the Standard Specifications for Road and Bridge Construction (Silver book). Calculations must be shown on an 8 1/2" x 11" sheet of paper or a CALCULATION sheet (Form No. 040-034). The CALCULATION sheet must show the book number or name and page number of the area that will have damages assessed. Make sure all the Pavement Core Record, Primary and Secondary Pavement Thickness forms and all backup mentioned on this page are filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project). When all calculations have been completed a letter explaining the damages must be sent to the Contractor notifying when the damages will be deducted from progress payment. A copy of the letter will be sent to Headquarters Construction.

The illustrations below only give an example of how to document damages. Panel 10 below is NDOT core no. 49, as illustrated on page 23-22. According to the Pavement Core Record Secondary Pavement Thickness, as illustrated on page 23-22, core #49 has a deficiency of .4 and according to the chart in the Standard Specifications for Road and Bridge Construction (Silver book) damages will be 15% of the contract bid price, which is \$42.00.

$$15\text{ft} \times 13\text{ft} = 195\text{sqft} \div 9 = 21.7\text{sqyd}$$

$$\$42.00 \times .15 = \$6.30$$

$$21.7\text{sqyd} \times \$6.30 = \$136.71 \text{ damages}$$



| Panel No. | Long. Dim | Trans Dim | Total Area | Depth | NDOT Core No. | Remove |
|-----------|--------------|-----------|------------|-------|---------------|--------|
| 1 | Good-No Core | | | | | |
| 2 | Good-No Core | | | | | |
| 3 | Good-No Core | | | | | |
| 4 | Good-No Core | | | | | |
| 5 | Good-No Core | | | | | |
| 6 | Good-No Core | | | | | |
| 7 | Good-No Core | | | | | |
| 8 | Good-No Core | | | | | |
| 9 | Good-No Core | | | | | |
| 10 | 15.00 | 13.00 | 195.00 | 10.60 | 49 | |
| 11 | 15.00 | 12.00 | 180.00 | 10.40 | 46 | |
| 12 | Good-No Core | | | | | |
| 13 | 12.50 | 13.00 | 162.50 | 9.90 | 48 | * |
| 14 | 12.50 | 12.00 | 150.00 | 9.50 | 45 | * |
| 15 | 12.50 | 12.50 | 156.25 | 10.40 | 44 | * |
| 16 | 14.50 | 13.00 | 188.50 | 9.90 | 47 | * |
| 17 | 14.50 | 12.00 | 174.00 | 9.30 | 41 | * |
| 18 | 14.50 | 12.50 | 181.25 | 10.10 | 43 | * |
| 19 | 12.50 | 13.00 | 162.50 | 10.50 | 35 | * |
| 20 | 12.50 | 12.00 | 150.00 | 9.50 | 40 | * |
| 21 | 12.50 | 12.50 | 156.25 | 9.80 | 42 | * |
| 22 | 15.00 | 13.00 | 195.00 | 11.00 | 37 | * |
| 23 | 15.00 | 12.00 | 180.00 | 9.60 | 38 | * |
| 24 | 15.00 | 12.50 | 187.50 | 9.60 | 53 | * |
| 25 | 11.50 | 13.00 | 149.50 | 10.00 | 36 | * |
| 26 | 11.50 | 12.00 | 138.00 | 9.30 | 39 | * |
| 27 | 11.50 | 12.50 | 143.75 | 9.40 | 54 | * |
| 28 | 14.00 | 13.00 | 182.00 | 10.10 | 50 | * |
| 29 | 14.00 | 12.00 | 168.00 | 9.20 | 52 | * |
| 30 | 14.00 | 12.50 | 175.00 | 9.10 | 55 | * |
| 31 | 13.00 | 13.00 | 169.00 | 10.40 | 51 | * |
| 32 | 13.00 | 12.00 | 156.00 | 9.70 | 58 | * |
| 33 | 13.00 | 12.50 | 162.50 | 10.00 | 56 | * |
| 34 | 14.50 | 13.00 | 188.50 | 10.10 | 67 | * |
| 35 | 14.50 | 12.00 | 174.00 | 9.90 | 59 | * |
| 36 | 14.50 | 12.50 | 181.25 | 10.50 | 57 | * |
| 37 | 12.00 | 17.00 | 204.00 | 9.70 | 66 | * |
| 38 | 12.00 | 12.00 | 144.00 | 10.10 | 60 | * |
| 39 | Good-No Core | | | | | |
| 40 | 13.50 | 16.50 | 222.75 | 9.90 | 65 | * |
| 41 | 13.50 | 12.00 | 162.00 | 10.00 | 61 | * |
| 42 | Good-No Core | | | | | |
| 43 | 13.00 | 16.00 | 208.00 | 9.60 | 64 | * |
| 44 | 13.00 | 12.00 | 156.00 | 9.80 | 32 | * |
| 45 | Good-No Core | | | | | |
| 46 | 15.50 | 15.00 | 232.50 | 9.80 | 68 | * |
| 47 | 15.50 | 12.00 | 186.00 | 10.40 | 63 | * |
| 48 | Good-No Core | | | | | |
| 49 | 12.00 | 13.50 | 162.00 | 10.40 | 69 | * |
| 50 | 12.00 | 12.00 | 144.00 | 10.40 | 70 | * |
| 51 | Good-No Core | | | | | |
| 52 | 13.00 | 13.00 | 169.00 | 10.20 | 62 | * |
| 53 | Good-No Core | | | | | |
| 54 | Good-No Core | | | | | |
| 55 | Good-No Core | | | | | |
| 56 | Good-No Core | | | | | |
| 57 | Good-No Core | | | | | |

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 East Washington Avenue, Las Vegas, NV, 89101

REPORT OF PAVEMENT CORE RECORD
PRIMARY PAVEMENT THICKNESS

CONTRACT NO: 3214
CONTRACT LIMITS: "S15" 628+72.12 to "S15A" 770+45.79
DATE OF PLACEMENT: 8/12/2005
LIMITS OF DAYS POUR: "EN" 78+10 to "EN" 84+20, "AA" 9+00 to "AA" 12+00
CORE DATE: 9/12/2005
CORED BY: J. Chomes
SHEET: 1 of 1

| CORE NO. | LOCATION | | | | | PRIMARY PAVEMENT THICKNESS | | | S | PRIMARY PAVEMENT* THICKNESS | | |
|----------|------------|----------|-----------------------|------------------|----|----------------------------|---------------|---------------------|---|-----------------------------|-----------|-----------------|
| | STATION | POS. CL. | POSITION 10ths of ft. | POSITION* METERS | LN | PLANNED INCHES | ACTUAL INCHES | **DIFFERENCE INCHES | | PLANNED MM | ACTUAL MM | **DIFFERENCE MM |
| 6 | "EN" 81+15 | Rt | 27 | | S | 11 | 10.8 | -0.2 | N | | | |
| 32 | "AA" 10+00 | Rt | 79.5 | | S | 11 | 9.8 | -1.2 | Y | | | |
| 31 | "AA" 11+00 | Rt | 91 | | S | 11 | 10.0 | -1 | Y | | | |
| | | | | | | AVERAGE | 10.20 | -0.80 | | AVERAGE | | |

*metric Contract
**for the purpose of determining the average thickness deficiency, an excess thickness of more than 0.2" or 5mm greater than the thickness specified will be considered to be +0.2" or +5mm greater than the specified thickness.
***S=Secondary core required (Y or N)

DISTRIBUTION:
1 District Engineer
1 Resident Engineer (original copy)
1 Construction
1 Lab Services
1 Las Vegas Materials Facility

R. W. D. Achelt

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 EAST WASHINGTON STREET, LAS VEGAS, NV 89101

PAVEMENT CORE RECORD
SECONDARY PAVEMENT THICKNESS

CONTRACT NO: 3214
CONTRACT LIMITS: "S15" 628+72.12 to "S15A" 770+45.79
DATE OF PLACEMENT: 8/12/2005
LIMITS OF DAYS POUR: "AA" 9+00 to "AA" 12+00
CORE DATE: 9/13/2005
CORED BY: J. Chomes
SHEET: 1 of 2

| CORE NO. | LOCATION | | | | | SECONDARY OR ISOLATION PAVEMENT THICKNESS | | | S | SECONDARY OR ISOLATION* PAVEMENT THICKNESS | | |
|----------|------------|----------|-----------------------|------------------|----|-------------------------------------------|---------------|---------------------|---|--------------------------------------------|-----------|-----------------|
| | STATION | POS. CL. | POSITION 10ths of ft. | POSITION* METERS | LN | PLANNED INCHES | ACTUAL INCHES | **DIFFERENCE INCHES | | PLANNED MM | ACTUAL MM | **DIFFERENCE MM |
| 35 | "AA" 11+10 | Rt | 73 | | G | 11 | 10.5 | -0.5 | | | | |
| 36 | "AA" 10+86 | Rt | 72.5 | | G | 11 | 10 | -1 | | | | |
| 37 | "AA" 11+00 | Rt | 62 | | G | 11 | 11 | 0 | | | | |
| 38 | "AA" 11+00 | Rt | 85 | | S | 11 | 9.6 | -1.4 | | | | |
| 39 | "AA" 10+85 | Rt | 84.5 | | S | 11 | 9.3 | -1.7 | | | | |
| 40 | "AA" 11+15 | Rt | 85 | | S | 11 | 9.5 | -1.5 | | | | |
| 41 | "AA" 11+20 | Rt | 81 | | S | 11 | 9.3 | -1.7 | | | | |
| 42 | "AA" 11+12 | Rt | 95 | | S | 11 | 9.8 | -1.2 | | | | |
| 43 | "AA" 11+25 | Rt | 94 | | S | 11 | 10.1 | -0.9 | | | | |
| 44 | "AA" 11+40 | Rt | 94 | | S | 11 | 10.4 | -0.6 | | | | |
| 45 | "AA" 11+40 | Rt | 83 | | S | 11 | 9.5 | -1.5 | | | | |
| 46 | "AA" 11+55 | Rt | 83 | | S | 11 | 10.4 | -0.6 | | | | |
| 47 | "AA" 11+25 | Rt | 69 | | G | 11 | 9.9 | -1.1 | | | | |
| 48 | "AA" 11+40 | Rt | 67 | | G | 11 | 9.9 | -1.1 | | | | |
| 49 | "AA" 11+55 | Rt | 67 | | G | 11 | 10.6 | -0.4 | | | | |
| 50 | "AA" 10+70 | Rt | 71.5 | | G | 11 | 10.1 | -0.9 | | | | |
| 51 | "AA" 10+55 | Rt | 68.5 | | G | 11 | 10.4 | -0.6 | | | | |
| | | | | | | AVERAGE | 10.02 | -0.95 | | AVERAGE | | |

*metric Contract
**for the purpose of determining the average thickness deficiency, an excess thickness of more than 0.2" or 5mm greater than the thickness specified will be considered to be +0.2" or +5mm greater than the specified thickness.

DISTRIBUTION:
1 District Engineer
1 Resident Engineer (original copy)
1 Construction
1 Lab Services
1 Las Vegas Materials Facility

R. W. D. Achelt



**DOCUMENTATION REQUIREMENT
SECTION D
RETENTION**

No retention will be held until 85% of the contract bid price, plus or minus change orders, has been paid. Five (5) percent of said adjusted contract price or fifty thousand (\$50,000.00) dollars, whichever is less, will be retained until the contract is completed and accepted by the Director. The computer will automatically hold retention (all or a portion) at the appropriate time.

If the remaining work is being performed on a satisfactory basis, the Director may reduce the percentage retained for additional payment. The Contractor must make the request for reducing retention in writing. The request must be accompanied by a letter of concurrence from the Contractor's bonding company. The Resident Engineer must concur in writing that the amount to be retained will cover any documentation errors or liquidated damages that may develop. This correspondence (Contractor's request, bonding company concurrence and Resident Engineer's concurrence) shall be routed through the District Office for their written concurrence, and then forwarded to Headquarters Construction for their concurrence and processing (NRS 408.383 REVISED 7-1-81).

Per NDOT policy, retention shall not be reduced to less than \$10,000. If retention held is less than \$10,000, a reduction will not be processed.

**DOCUMENTATION REQUIREMENT
SECTION E
PARTIAL PAYMENTS FOR STOCKPILED MATERIALS**

Partial payments may be made for acceptable materials furnished and stored for use on the contract if such storage is within the vicinity of the jobsite in the State of Nevada and subject to or under the control of NDOT. This is more commonly referred to as payment for "Materials on Hand". See Section 109.06 of the Standard Specifications for Road and Bridge Construction (Silver book) for instructions and see page 23-26 and 23-27 for an illustration of a REQUEST FOR PAYMENT FOR MATERIALS ON HAND (Form No. 040-015) and an invoice.

All payments made for materials furnished shall be based on the Prime Contractor's written request. The Resident Engineer and/or the Materials Division representative shall verify quantity, quality, location, proper storage and acceptability of the material and the information furnished with the Contractor's request.

The Prime Contractor must submit his request for partial payment on a REQUEST FOR PAYMENT FOR MATERIALS ON HAND (Form No. 040-015) in duplicate to the Resident Engineer. The form must be signed by the **Prime Contractor** and notarized.

- a. The duplicate copy and all backup shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).
- b. The original copy and any invoices, prices or calculations, test reports, supporting quantities, and cost of materials stockpiled must **be faxed into Headquarters Construction no later than 5:00 P.M. on Friday the cut-off date with the original(s) mailed to Headquarters Construction.** Any stockpiled quantities submitted for payment without the support data mentioned above shall be removed from the progress payment. Payment may be made for these items when the appropriate documentation has been received by Headquarters Construction.

Partial payments for materials fabricated or manufactured off the jobsite (pipe, rebar, fence, guardrail, etc.) shall be allowed at invoice prices, providing that invoice costs are less than unit bid price for each item. Invoices shall be furnished by the Contractor before payment is allowed. It should be stressed that the maximum payment shall be such that when the estimated placements for other remaining costs of the work are added, the contract price is not exceeded. The purpose of this instruction is to prevent payment of more than the contract price for materials and to leave sufficient funds in the item to complete the work in cases where the bid price does not reflect the true cost of the work.

If the unit price on the invoice exceeds the unit bid price for any item, the Resident Engineer shall determine a percentage of the unit bid price to be paid for the stockpile item.

Subsection 109.06 of the Standard Specifications for Road and Bridge Construction (Silver book) outlines allowable percentages of various aggregate materials and other miscellaneous items for stockpile payment. On some contracts, subsection 109.06 of the Special Provisions establishes the stockpile price per ton for some aggregates.

Partial payments are not allowed for any perishable items unless allowed in the Special Provisions. This is of particular importance on the contracts which include planting or beautification items.

It shall be the responsibility of the Resident Engineer to determine if materials included for payment under materials on hand have been removed or incorporated in the work. Any subsequent addition to the stockpile must be requested by the Contractor as stated previously. Any material brought to the jobsite stockpile must have the necessary REQUEST FOR PAYMENT FOR MATERIALS ON HAND submitted prior to inclusion for payment.

If materials have been requested and have not been brought to the jobsite, a suitable explanation must be made on the REQUEST FOR PAYMENT FOR MATERIALS ON HAND by the Resident Engineer or his/her representative.

No stockpile payment is allowed on bid items in excess of planned quantity, planned quantity plus or minus authorized changes, or planned quantity minus paid to date quantity.

Sales tax and freight charges may be included in the adjusted unit price if it is requested and substantiated by invoice. It is not required to have an approved change order for materials stockpiled off the jobsite as long as the stockpile is in Nevada; however, all other requirements for off-the-job stockpiles remain the same.

Quantities of stockpiled materials on hand shall be included on the progress payment by assigning "SP" numbers and coding them on the progress payment as described in Section B of this chapter.

The stockpiled price for reinforcing steel and all guardrail items (guardrail, end anchors, connections, etc.) cannot be greater than 50% of the bid price for that bid item. Also, stockpile payments for reinforcing steel for drilled shafts should not be greater than 50% of the unit bid price for the drilled shafts. If unusually high or low bid prices for these items are encountered, contact the Headquarters Construction on a case-by-case basis.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
REQUEST FOR PAYMENT FOR MATERIALS ON HAND**

DATE.....11-29-07.....
 TO.....Peter Booth.....
 Resident Engineer
 CONTRACT NO.....3292.....
 FROM.....Fisher Industries.....
 Prime Contractor
 PAYMENT NO.....24.....

In accordance with the provisions of Subsection 109.06 of the Standard Specifications for Road and Bridge Construction, request is made for payment as AMaterials on Hand for the following materials:

| Hid Item No. | SP No. | Quantity | Material Description | Value | Type of Substantiating Evidence of Purchase or Production Cost Attached | Where Stored or Stockpiled |
|--------------|---------|----------|----------------------------|-------------|-------------------------------------------------------------------------|------------------------------------------------------------------|
| 6172260 | Spoo 26 | 1EA | 4.8M Precast Cattle Guard | \$6,400.00 | Invoice | Jobsite |
| 6172272 | Spoo 27 | 1EA | 8.4M Precast Cattle Guard | \$11,200.00 | Invoice | Jobsite |
| 6172301 | Spoo 28 | 1EA | 13.4M Precast Cattle Guard | \$17,600.00 | Invoice | Jobsite <i>(ABOVE RECEIVED BY ALEX COUNWELL NDOT) 12-2-07</i> |

AFFIDAVIT

The materials listed above are separated from other like materials, are physically identified as our property and have been purchased exclusively for use on Contract No...3292... The State may enter upon the premises for the purposes set forth in Subsection 109.06 of the Standard Specifications for Road and Bridge Construction for inspection, checking or auditing, or for any other purpose as you consider necessary. It is expressly understood and agreed that this information and affidavit is furnished to the State for the purpose of obtaining payment for the above materials before they are incorporated into the contract described above, and that the storage thereof at the location shown is subject to and under the control of the State.

Contractor declares under the penalties of perjury that this affidavit (including any accompanying evidence) has been examined by him and to the best of his knowledge and belief is a true and correct affidavit. It is further expressly understood and agreed by the Contractor that in the event he misrepresents to the State the AMaterials on Hand above, Contractor will pay to State all costs and expenses, including reasonable attorney's fees, in any action brought by the State to recover any and all damages sustained by the the State by reason of such misrepresentation.

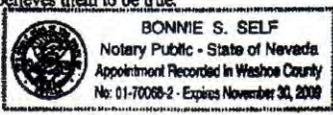
Norman Bradley Fisher Industries
 Name (Signature) Contractor

STATE OF NEVADA
 COUNTY OF WASHOE

ss. Notary will hand write the Contractor's name that is executing the Request for Payment for Materials on Hand document. Typed for example only.

Norman Bradley being duly sworn, deposes and says that he is the person who executed the foregoing instrument; that he has read the same and knows the contents thereof; that the matters stated therein are true to his knowledge, except such matters as are stated to be upon information and belief and as to those matters he believes them to be true.

Subscribed and sworn to before me this
30 day of NOV, 2007



Bonnie S. Self
 Notary

Instructions to Contractors: Submit original and one duplicate to Resident Engineer prior to the end of the payment cycle. Attach evidence of purchase to original.

Instructions to Resident Engineer: Forward original to Headquarters Construction. Retain duplicate in your office as a supporting record for the progress payment.

DOHERTY WELDING, LLC
 PO. BOX 28
 PILOT ROCK OR. 97868

| | |
|---------------------|--------------|
| Phone # | Fax # |
| 541-443-3234 | 541-443-3241 |
| TAX ID # 93-1296723 | |

Invoice

| | |
|-----------|-----------|
| DATE | INVOICE # |
| 5/31/2007 | 4275 |

| |
|------------------------------------------------------------------------------|
| BILL TO |
| Fisher Industries 500 Damonte Ranch Parkway Suite #1056 Reno NV. 89521 |

| | | |
|----------|--------|---------------|
| P.O. NO. | TERMS | PROJECT |
| 191 | Net 30 | Contract 3292 |

| DESCRIPTION | QTY | RATE | AMOUNT |
|-----------------------------|-----|-----------|-------------|
| Precast Cattle Guard 4.8 m | 1 | 6,400.00 | 6,400.00 |
| Precast Cattle Guard 8.4 m | 1 | 11,200.00 | 11,200.00 |
| Precast Cattle Guard 13.4 m | 1 | 17,600.00 | 17,600.00 |
| Total | | | \$35,200.00 |

**DOCUMENTATION REQUIREMENT
SECTION F
ASPHALT ESCALATION**

Below are instructions on how to calculate the Bi information and what each column represents, making sure to check the contract Special Provisions for any modifications:

The Bi is taken from the transmittal received from Headquarters Construction with the first TAD, as illustrated on page 23-1 or by contacting Headquarters Construction. There is no price adjustment if the current price is within 20% of the Bi. Multiply the Bi by .90 and 1.10 to establish the no adjustment range. Multiply the Bi by 75% to establish the Maximum Bi (if applicable). **If the Bp ever exceeds the Maximum Bi, the maximum Bi shall be used as the Bp for that cycle, as illustrated on page 23-29.**

Column (1) cycle cut-off date

- (2) AEB number (each AEB must be listed separately)
- (3) type of asphalt (each type of asphalt must be listed separately)
- (4) oil percentage (from the mix design)
- (5) mineral filler percentage (from the mix design)
- (6) Bp for that cycle (obtained from faxed memo as illustrated on page 23-31 or by calling Headquarters Construction)
- (7) price difference between the Bp (column 6) and [.90 (Bi) or [1.10 (Bi)
- (8) wet tons paid from the progress payment
- (9) divide wet tons (column 8) by $1 + (\% \text{ asphalt} + \% \text{ mineral filler})$
Example: $1 + (.051 + .015) = 1.066$ $3853.55 \div 1.066 = 3614.96$
- (10) multiply dry aggregate (column 9) by the % of asphalt
Example: $5.1 \div 100 = .051$ $3614.96 \times .051 = 184.36$
- (11) N/A, this column is not used because column 10 is already tons
- (12) multiply the tons (column 10) by price difference (column 7)
Example: $114.53 \times 140.68 = 16112$ (rounded to the nearest whole number)
- (14) payment number
- (15) accumulative total

It will be the responsibility of the **Officeperson** to complete the areas highlighted in yellow for each progress payment where plantmix is being paid. A separate spreadsheet is required for each mix design used.

After the asphalt escalation for each type of asphalt in each AEB is calculated, combine the totals for each AEB and enter the quantities on the TAD. If the amount is negative, mark the Dec (decrease) column with an X or \surd .

For asphalt escalation when plantmix is paid by square meter, please contact Headquarters Construction for assistance.

Rev 11/09

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
 1263 S. STEWART ST. CARSON CITY, NV 89712
DENSE GRADE BITUMINOUS MIX DESIGN

| | | | |
|-------------------------------|---------------------------------------------------|-----------------------|----------------|
| LAB NUMBER: | BP05-77 | BITUMEN RATIO: | 5.1 PG 76-22NV |
| CONTRACT NUMBER: | 3247 | | |
| PROJECT NUMBER: | STP-0160(016) & IM-016-1(126) | | |
| COUNTY: | CLARK | | |
| PRIMARY CONTRACTOR: | LAS VEGAS PAVING | | |
| DATE AGG. SAMPLED: | 07/19/05 | | |
| DATE AGG. RECEIVED: | 07/26/05 | | |
| DATE ASPHALT RECEIVED: | 08/09/05 | | |
| REPORT DATE: | 08/19/05 | | |
| SAMPLED BY: | LEA & MACK | | |
| CHECKED BY: | SJH & RP | | |
| TYPE MATERIAL: | TYPE 2C PLANTMIX AGGREGATE | | |
| SOURCE OF SAMPLE(S): | BLUE DIAMOND PIT | | |
| MINERAL FILLER: | 1.5% HYDRATED LIME WET-CURED (MARINATED) 48 HOURS | | |
| TYPE ASPHALT: | PG 76-28NV (CCAC05-1518) | | |
| ASPHALT PRODUCER: | ERGON | | |

Used for Asphalt Escalation, Asphalt Damages, and in calculating to assure there are enough B/Ls to cover what has been used, see red arrow.

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------|
| JOB DESCRIPTION: ON SR 160, BLUE DIAMOND RD, FROM LAS VEGAS BLVD (SR 604)/WINDMILL LN TO VALLEY VIEW BLVD - PHASE 1 AND ON I-15, FROM 1 MILE SOUTH OF THE BLUE DIAMOND INTERCHANGE TO I-215 | | |
| SURFACE AREA m²/kg (ft²/lb): | 6.51 (31.8) | |
| SAND EQUIVALENT: | 31 | |
| CALIF. SPECIFIC GRAVITY: | 2.69 | SPECIFICATIONS: |
| COARSE AGG. BULK SPECIFIC GRAVITY: | 2.66 | 2.85 MAX |
| FINE AGG. BULK SPECIFIC GRAVITY: | 2.50 | 2.85 MAX |
| +4 WATER ABSORPTION: | 0.9 | 4% MAX |
| SS SOUNDNESS COARSE: | 3 | 12% MAX |
| SS SOUNDNESS FINES: | 2 | 15% MAX |
| LIQUID LIMIT (BEFORE MARINATION): | 3/4": INSUFF; 1/2": 23; CRUSHER FINES: 17; CYCLONE SAND: 23 | 35 MAX |
| PLASTICITY INDEX (BEFORE MARINATION): | 3/4": INSUFF; 1/2": 3; CRUSHER FINES: NP; CYCLONE SAND: NP | 10 MAX |
| LA ABRASION: | 18.6 | 37% MAX |
| FRACTURE FACE COUNT: | 100 | 80% MIN |
| VMA (BASED UPON CALIF. SP. GR.): | 16.8 | 12 - 22 |
| ORIGINAL TENSILE STRENGTH (PSI): | 117.8 | 65 PSI MIN |
| % RETAINED STRENGTH: | 93 | 70% MINIMUM |

REMARKS:
 FOR THE MATERIAL REPRESENTED BY THE SUBMITTED SAMPLES WITH THE ATTACHED GRADINGS, LABORATORY TESTS INDICATE A BITUMEN RATIO OF 5.1 PG 76-22NV FOR TYPE 2C PLANTMIX AGGREGATE TREATED WITH 1.5% HYDRATED LIME AND WET CURED (MARINATED) 48 HOURS.

- DISTRIBUTION:**
- 1 DISTRICT ENGINEER
 - 1 RESIDENT ENGINEER
 - 3 CONSTRUCTION ENG.
 - 1 LAB FILES
 - 3 BITUMINOUS LAB
 - 1 ASPHALT LAB
 - 1 DEAN WITZEL
 - 1 LAS VEGAS LAB
 - 1 AGGREGATE LAB

BIN PERCENTAGES:

| | |
|-----|---------------|
| 27% | 3/4" COARSE |
| 22% | 1/2" COARSE |
| 43% | CRUSHER FINES |
| 08% | CYCLONE SAND |

Used for Asphalt Escalation, Asphalt Damages, and in calculating to assure there are enough B/Ls to cover what has been used, see red arrow.

RECOMMENDED BITUMEN RATIO SHALL BE DETERMINED BY THE MATERIALS DIVISION. THE RECOMMENDED BITUMEN RATIO SHALL BE BASED UPON DRY WEIGHT OF AGGREGATE.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
M E M O R A N D U M

DATE: August 13, 2008
TO: ALL RESIDENT ENGINEERS
FROM: Tricia MacDiarmid, Construction
SUBJECT: FUEL & ASPHALT ESCALATION FOR CUT-OFF **8/29/08**

Fuel Escalation (Ap) =**\$ 2.41**

Asphalt Escalation (Bp) =**\$ 61.79**

New Specification
Poten & Partners Asphalt Escalation (Bp) =**\$ 428.51**

Please assure that someone will be in the field office (or leave a phone number that you or your Office Person can be reached at) to answer any bi-weekly payment questions that may require changes to be made to the payment. Please remember that we are processing contracts statewide and may not get to your contract until Friday.

Please fax payment data (stockpile info, mix designs, asphalt esc, change order drafts, LOA's, etc.) directly to our Section's fax (775-888-7231) NO LATER THAN THE CUT-OFF DATE 8/29/08. This office will NOT process if not received by this date.

No cover sheets are necessary.

Thank you.

**DOCUMENTATION REQUIREMENT
SECTION G
FUEL ESCALATION**

To activate fuel escalation on a contract as stated in the Standard Specifications for Road and Bridge Construction (Silver book), subsection 109.05, fuel escalation may be added to a contract if a request by the Contractor is received or if deemed necessary by the Department. Headquarters Construction will E-mail an updated spreadsheet to the Resident Engineer, as illustrated on page 23-33. The spreadsheet will have the contract number with the correct specifications. Always refer to the Special Provision for the contract. It will be the responsibility of the **Officeperson** to complete the areas highlighted in yellow. The rest of the form will fill in and calculate automatically. The spreadsheet shall be calculated for the remainder of the progress payments for the contract. Since fuel escalation is based on money earned last payment period, Payment #1 will never contain fuel escalation.

There is no adjustment if the current price is within 20% (this % is used for this example always check the Special Provision for the contract for the percent (%)). Multiply the Cp by .90 and 1.10 to establish the no adjustment range. Multiply the Cp by 1 + 75% to establish the Maximum Cp. (If the price ever reaches the Maximum Cp, the maximum Cp shall be used for the Ap for that cycle.) Obtain the Ffp (fuel factor percentage) from subsection 109.05 of the Special Provisions.

- Column (1) cycle cut-off date from the last payment
- (2) AEB number (each AEB must be listed separately)
 - (3) Ap for cycle after last payment period (obtained from faxed memo, see illustration on page 23-31 or by calling Headquarters Construction)
 - (4) divide the Ap (column #3) by the Cp
Example: $2.26 \div 1.29 = 1.7519$
 - (5) percent difference between the Ap (column 4) and .90(Cp) or 1.10(Cp)
Example: $1.7519 - 1.10 = 0.6519$
 - (6) dollar amounts for each AEB earned last cycle (taken from fuel escalation Report No. CM01 received with last payment documents as illustrated on page 23-5)
 - (7) multiply the dollar amount earned last cycle (column 6) by the Ffp
Example: $154715.86 \times .023 = 3558.46$
 - (8) multiply the percent difference (column 5) by the Bfc (column 7)
Example: $0.6519 \times 3558.46 = 2320$ (rounded to the nearest whole number)
 - (9) payment number
 - (10) accumulative total

After the fuel escalation in each AEB is calculated, enter the quantities on the TAD. If the amount is negative, mark the (Dec) column with an X or ✓. Do not enter fuel escalation on the TAD if the fuel escalation is not in affect for a particular contract.

HINT: Each time a Report No. CM01 is received for a processed payment; record the information in columns (1), (2), (6) & (9) immediately. When the next Ap (memo from Headquarters Construction) is received, complete column (3). This will reduce the chances of omitting to adjust fuel escalation on the next progress payment.

Do not process a progress payment with only fuel escalation. Wait until there are more items to process.

No. 2 Diesel Fuel Adjustment Calculations

Contract No: 3247 No adjustment if Ap is between .90 (Cp) 1.16 & 1.10(Cp)= 1.42

Cp= 1.29 \$ 2.26 = (Max Ap)

Ffp=% 2.3

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------|-----|------|----------|----------------------|----------------------------------|------------------|----------------------------|-------------|-------------------------------|
| Cut-Off Date | AEB | Ap | (3) / Cp | Increase (4)-1.10 | AEB Balance Due Last Cycle | Bfc (6) x Ffp | Fuel Adj A (5) x (7) | Payment No. | Accum. Payment Total \$ |
| 8/1/2008 | 7 | 2.26 | 1.7519 | 0.6519 | 0.00 | | | 24 | 11021 |
| 8/1/2008 | 8 | 2.26 | 1.7519 | 0.6519 | 153563.51 | 3531.96 | 2302 | 24 | 13323 |
| 8/1/2008 | 9 | 2.26 | 1.7519 | 0.6519 | 670919.87 | 15431.16 | 10060 | 24 | 23383 |
| 8/1/2008 | 10 | 2.26 | 1.7519 | 0.6519 | 164120.99 | 3774.78 | 2461 | 24 | 25844 |
| 8/1/2008 | 11 | 2.26 | 1.7519 | 0.6519 | 22972.61 | 528.37 | 344 | 24 | 26188 |
| 8/1/2008 | 12 | 2.26 | 1.7519 | 0.6519 | 1.96 | 0.05 | | 24 | 26188 |
| 8/1/2008 | 14 | 2.26 | 1.7519 | 0.6519 | 7089.00 | 163.05 | 106 | 24 | 26294 |
| 8/1/2008 | 17 | 2.26 | 1.7519 | 0.6519 | 49770.94 | 1144.73 | 746 | 24 | 27040 |
| 8/14/2008 | 2 | 2.26 | 1.7519 | 0.6519 | 154715.86 | 3558.46 | 2320 | 25 | 29360 |
| 8/14/2008 | 3 | 2.26 | 1.7519 | 0.6519 | 57636.07 | 1325.63 | 864 | 25 | 30224 |
| 8/14/2008 | 4 | 2.26 | 1.7519 | 0.6519 | 22055.87 | 507.29 | 331 | 25 | 30555 |
| 8/14/2008 | 5 | 2.26 | 1.7519 | 0.6519 | 433.80 | 9.98 | 7 | 25 | 30562 |
| 8/14/2008 | 6 | 2.26 | 1.7519 | 0.6519 | 1.05 | 0.02 | | 25 | 30562 |
| 8/14/2008 | 7 | 2.26 | 1.7519 | 0.6519 | 69463.51 | 1597.66 | 1042 | 25 | 31604 |
| 8/14/2008 | 8 | 2.26 | 1.7519 | 0.6519 | 16037.80 | 368.87 | 240 | 25 | 31844 |
| 8/14/2008 | 9 | 2.26 | 1.7519 | 0.6519 | 110084.45 | 2531.94 | 1651 | 25 | 33495 |
| 8/14/2008 | 10 | 2.26 | 1.7519 | 0.6519 | 93842.44 | 2158.38 | 1407 | 25 | 34902 |
| 8/14/2008 | 11 | 2.26 | 1.7519 | 0.6519 | 2.09 | 0.05 | | 25 | 34902 |
| 8/14/2008 | 12 | 2.26 | 1.7519 | 0.6519 | 0.64 | 0.01 | | 25 | 34902 |
| 8/14/2008 | 14 | 2.26 | 1.7519 | 0.6519 | 0.48 | 0.01 | | 25 | 34902 |
| 8/14/2008 | 17 | 2.26 | 1.7519 | 0.6519 | 38408.00 | 863.38 | 576 | 25 | 35478 |

AEB 1 = \$11,021 AEB 2 = \$2,320 AEB 3 = \$864 AEB 4 = \$331 AEB 5 = \$7 AEB 6 = \$0
AEB 7 = \$1,042 AEB 8 = \$2,542 AEB 9 = \$11,711 AEB 10 = \$3,868 AEB 11 = \$344 AEB 12 = \$0
AEB 13 = \$0 AEB 14 = \$106 AEB 15 = \$0 AEB 16 = \$0 AEB 17 = \$1,322

**DOCUMENTATION REQUIREMENT
SECTION I
BI-WEEKLY WORKING DAY REPORT**

Working days shall be reported on the BI-WEEKLY WORKING DAY REPORT (Form No. 040-057), as illustrated on page 23-36. This report shall be completed at the end of each payment cycle, whether a progress payment (cp or CP) or a no progress payment (ne or NE) is submitted.

Record whether the contract is on schedule or not. If the contract is not on schedule, an explanation must be provided in the Remarks. Record the working day number or one of the provided codes in the appropriate box. When an "O" is used for non-working day, an explanation must be provided in the Remarks.

After the Bi-Weekly Working Day report is signed by the Resident Engineer, the **original** is forwarded to Headquarters Construction and copies are distributed according to the bottom of the form.

There may be times when working days are charged during a payment cycle where no progress payment is submitted. The working days charged during this time must be coded on the next progress payment where a payment is made.

Working day reports are required from the Notice to Proceed date through the last working day charged. The last report must be labeled as "**Final**" next to the report number. If the last working day report has been submitted but for some reason days start being charged again, the reports must be continued from the last report submitted. Notify Headquarters Construction of the resumption of working days being charged. **Note: The Report No. and Payment No. do not always coincide with each other.**

Working day reports are not required for contracts with a completion date rather than a set number of working days for completion; however, the first and last working day must be provided upon completion. For contracts with a set number of calendar days for completion, the standard BI-WEEKLY WORKING DAY REPORT shall be used.

At contract completion, if a decision is made not to charge for liquidated damages, a change order is required to increase days, or working day reports must be revised to reflect the changes.

When individual phases are specified in subsection 108.04 of the Special Provisions, separate working day reports are required.

Working day reports are not required for the months of December, January and February if winter suspension is defined in subsection 108.02 of the Special Provisions; however, reports are required for temporary suspensions.

Working day reports shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
BI-WEEKLY WORKING DAY REPORT

REPORT NO 29 ACCOMPANIES PAYMENT NO 25
 CONTRACT NO 3247 PROJECT NO STP-0160(016) & IM-015-1(126)
 CONTRACTOR Las Vegas Paving PERIOD FROM 8/16/2008 TO 8/29/2008
 WORKING DAYS CHARGED THIS PERIOD 9 WORKING DAYS CHARGED TO DATE 179
 ORIGINAL WORKING DAYS 180 + DAYS ADDED BY C.O. 0 = REVISED WORKING DAYS 180

IS PROJECT ON SCHEDULE? YES NO IF "NO" EXPLAIN IN REMARKS

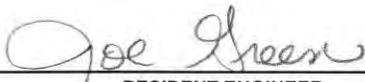
| S | M | T | W | T | F | S | DATE | |
|---|---|---|---|---|---|---|-----------------|----|
| | | | | | | | 08 | 16 |
| | | | | | | | WORKING DAY NO. | |

| 08 | 17 | 08 | 18 | 08 | 19 | 08 | 20 | 08 | 21 | 08 | 22 | 08 | 23 | DATE |
|----|----|-----|----|-----|----|-----|----|-----|----|----|----|----|----|-----------------|
| | | 171 | | 172 | | 173 | | 174 | | O | | | | WORKING DAY NO. |

| 08 | 24 | 08 | 25 | 08 | 26 | 08 | 27 | 08 | 28 | 08 | 29 | DATE | |
|----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----------------|
| | | 175 | | 176 | | 177 | | 178 | | 179 | | | WORKING DAY NO. |

CODES
 H-HOLIDAYS, W-WINTER TIME SUSPENSION (SEE SPECIAL PROVISIONS)
 I-INCLEMENT WEATHER, O-OTHER (EXPLAIN IN REMARKS)

REMARKS: O-Job was shut down due to the President being
in town.


 RESIDENT ENGINEER



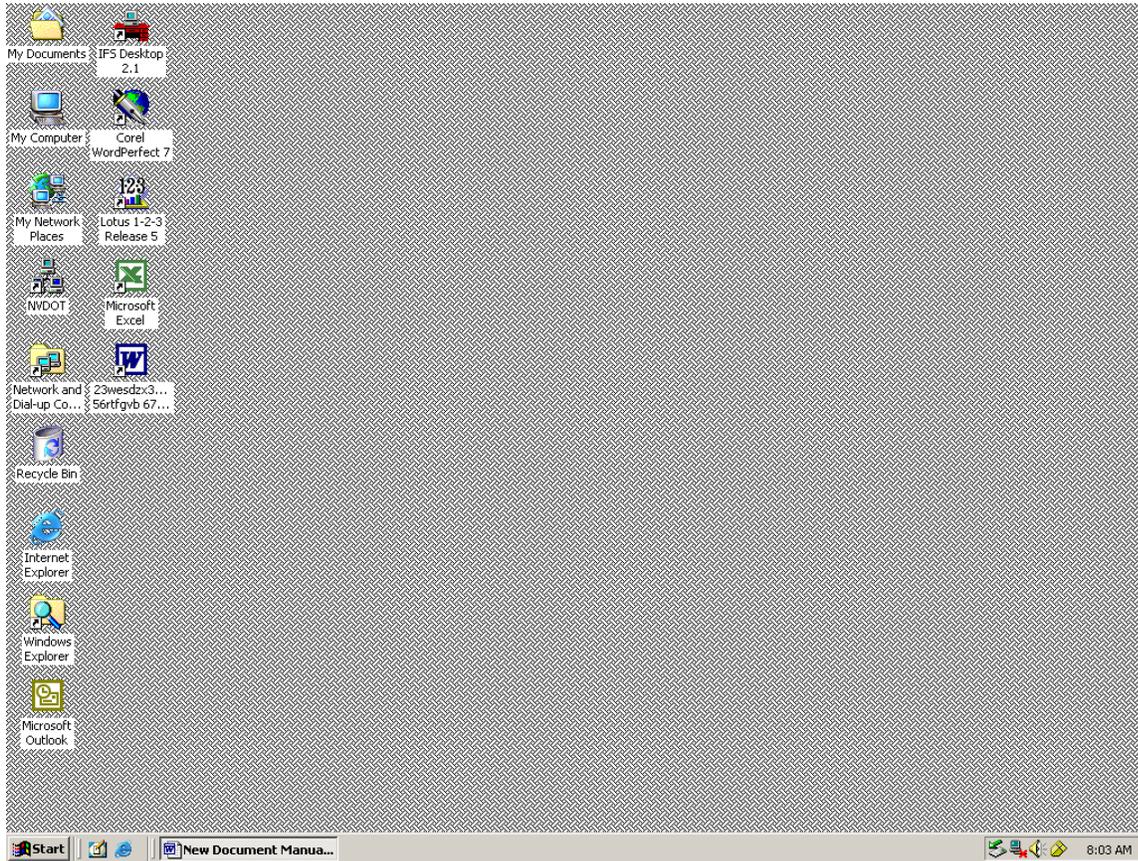
STATE OF NEVADA

DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DIVISION
CONTRACT PROGRESS (CP) PAYMENT
SYSTEM**

Revised 2009

Step 1. Sign onto Advantage-Financial (Desktop)



- a) Double click on the Advantage Financial Icon. (↓)
(IFS Desktop 2.1)

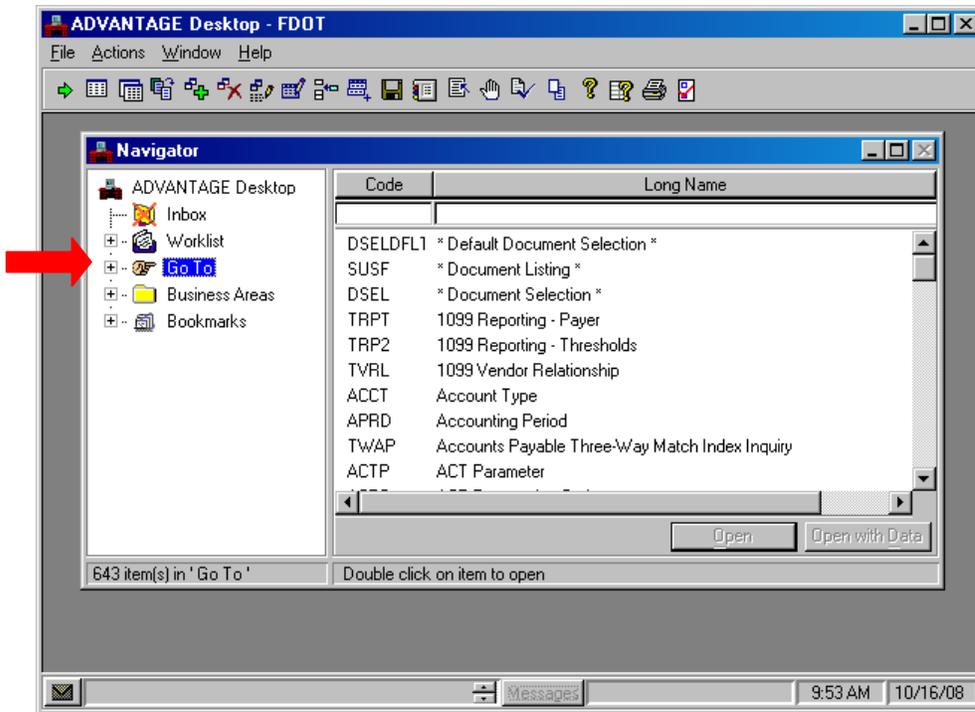
Step 2. Select Application Window:

- a) Application ID-type: fdot (lowercase). Hit the tab key.
- b) Verify Appl ID-type: fdot(lowercase). Hit the enter key or click on OK.

Step 3. ADVANTAGE Front-end Security:

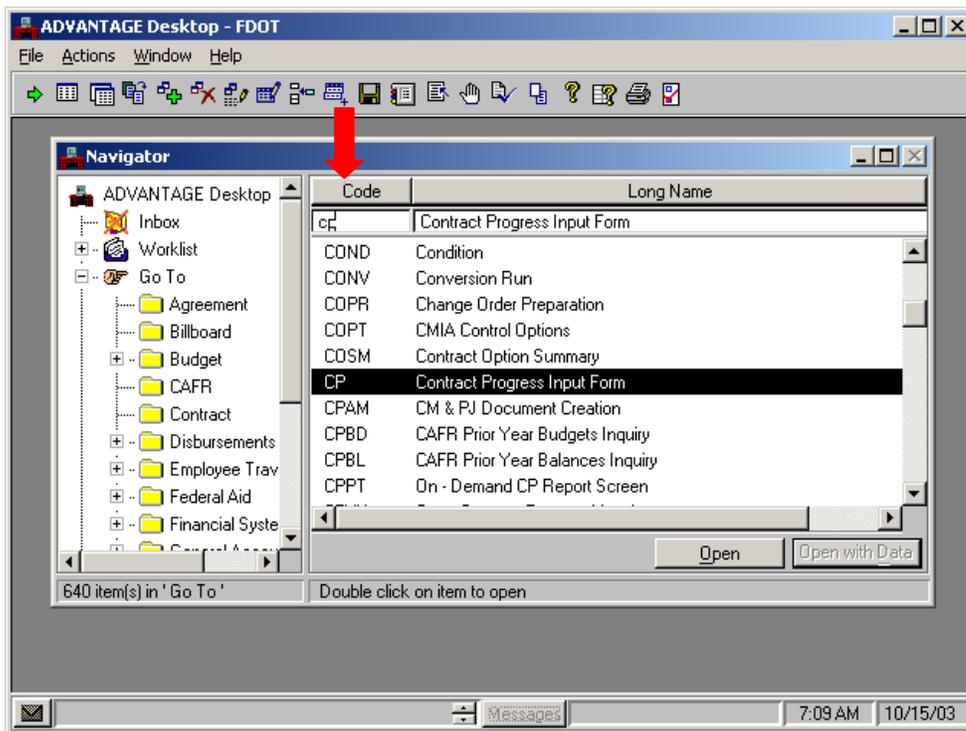
- a) User ID-enter user ID. Hit the tab key or click on the password box.
- b) Password-type in the User ID's password. Hit the enter key or click on OK.
- c) Periodically the system will require a change in the password. When this happens follow the instructions given.

Step 4. ADVANTAGE Desktop-FDOT Navigator:



a) Click on **Go To** (→).

Step 5.



a) Type **cp** in the Code box (↓). Hit enter or double click on the **CP** line that is highlighted then click on Open.

Step 6. Batch/Document Entry Window:

Batch / Document Entry

Document Type: Contract Progress Input Form

View by: Name Code

Batch ID: [] [] Organization: []

Document ID: [] []

Automatic Document Numbering

New Open Scan

This example is for a No Payment (NE). See page 23-44 for a Progress Payment (CP).

- a) Hit the tab key or click on the box after Document ID and type 800. The Cursor will automatically go to the next box.

For a No Progress payment:

- c) Type the Contract Number. *
- d) Hit enter or click on OK.

Batch / Document Entry

Document Type: Contract Progress Input Form

View by: Name Code

Batch ID: [] [] Organization: []

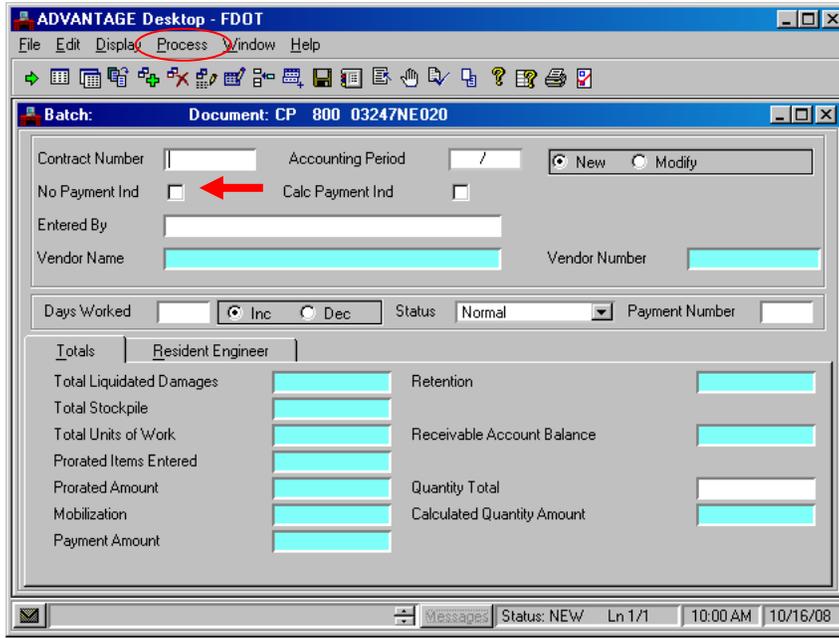
Document ID: 800 03247ne09C

Automatic Document Numbering

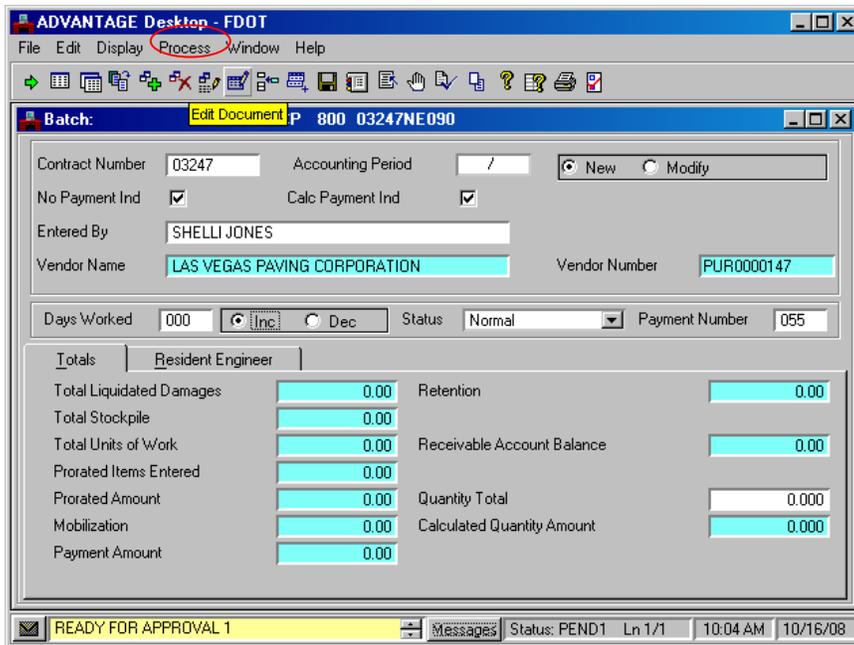
New Open Scan

*The contract number must start with zero followed by ne or NE, then the no progress payment number. The no progress payment number must be three digits, run consecutive with the last no progress payment entered, and tracking will be the responsibility of the Resident Engineer.

Step 7. Batch Totals window:



- Type in the contract number starting with a zero.
- Click on the No Payment Ind box (←). The cursor will automatically go to the Entered By box.
- Type first and last name.
- Click on **Process** (at the top of the screen, ○) then click on **Edit** or hit the **F7** key. The system will automatically enter the Days Worked, Inc, Status, Payment Number and all zeros as illustrated below.

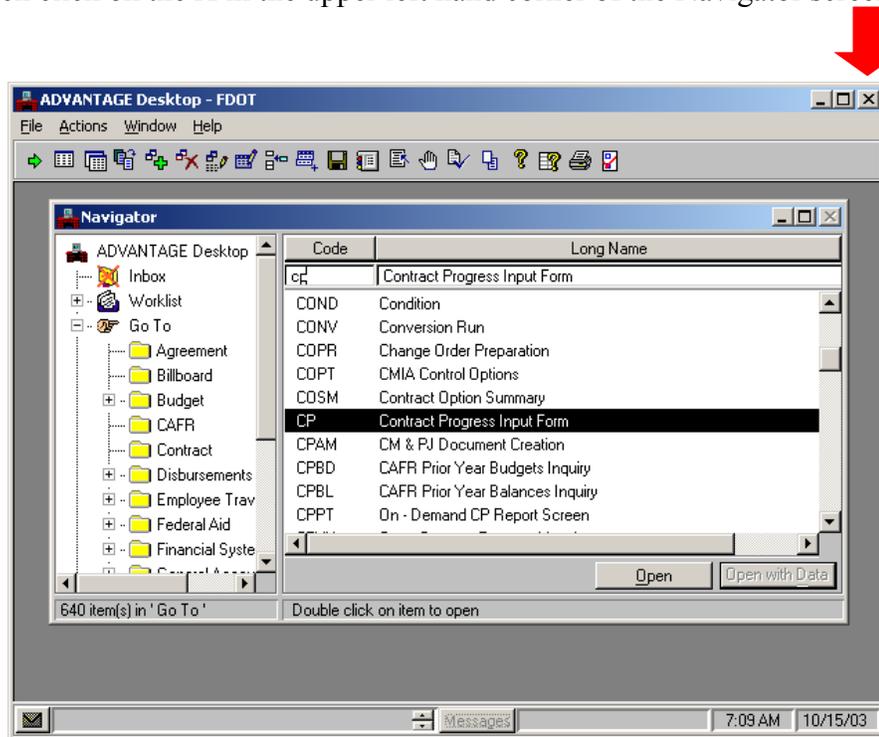


- Check the box (located at the bottom left hand side of the screen →). It should read READY FOR APPROVAL 1. If this is not the message shown in the box refer to Step 10. After all errors have been corrected or if there were no errors then proceed.
- Click on **Process** (at the top of the screen ○) then click on **Hold** or hit **F11**.

Step 8.



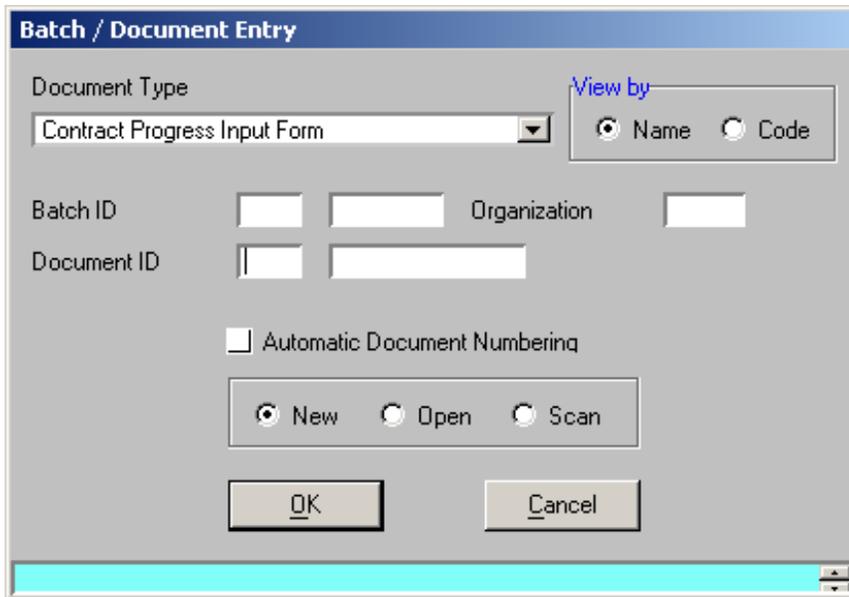
- a) This screen will appear after the document has been held. Click on Yes or hit enter.
- b) This will take you back to the Navigator screen where you can enter another no progress payment, progress payment, or exit the Advantage System.
- c) If entering another no progress payment or a progress payment refer back to Step 5.
- d) When all the no progress payments (ne or NE) and the progress payments (cp or CP) are entered then click on the X in the upper left hand corner of the Navigator screen (↓).



- e) Click on Yes to exit ADVANTGE Desktop.

When entering either a no progress payment (ne or NE) or a progress payment (cp or CP) Steps 1-5 will be completed.

Step 6. Batch/Document Entry Window:

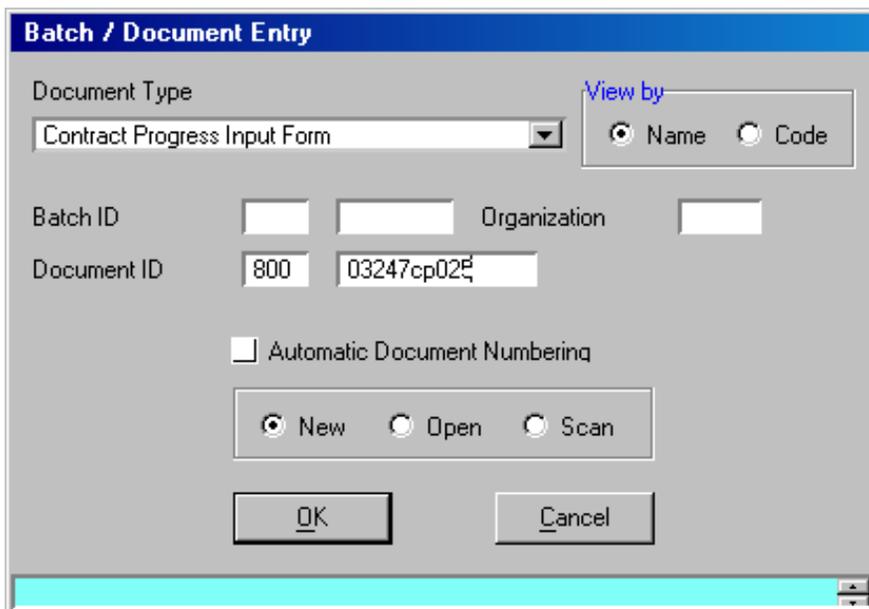


This example is for a Progress Payment (CP). See page 23-41 for a No Payment (NE).

- a) Hit the tab key or click on the box after Document ID and type 800. The Cursor will automatically go to the next box.

For a Progress payment:

- c) Type the Contract Number. *
- e) Hit enter or click on OK.



*The contract number must start with zero followed by cp or CP, then the progress payment number. The progress payment number must be three digits. **When putting in a final progress payment type an F on the end of the progress payment number.** Example: 03247cp035F.

Step 7. Batch Totals window:

All white areas are required except the area for Accounting Period. The Calc Payment Ind will default if the No Payment Ind is not activated.

ADVANTAGE Desktop - FDOT

File Edit Display **Process** Window Help

Batch: Document: CP 800 03247CP055

Contract Number 03247 Accounting Period / New Modify

No Payment Ind Calc Payment Ind

Entered By SHELLI JONES

Vendor Name LAS VEGAS PAVING CORPORATION Vendor Number PUR0000147

Days Worked 009 Inc Dec Status Normal Payment Number 055

| Totals | | Resident Engineer | |
|--------------------------|------|----------------------------|------------|
| Total Liquidated Damages | 0.00 | Retention | 0.00 |
| Total Stockpile | 0.00 | | |
| Total Units of Work | 0.00 | Receivable Account Balance | 0.00 |
| Prorated Items Entered | 0.00 | | |
| Prorated Amount | 0.00 | Quantity Total | 85,400.050 |
| Mobilization | 0.00 | Calculated Quantity Amount | 0.000 |
| Payment Amount | 0.00 | | |

1 of 3: DOCUMENT ERRORS DETECTED Messages Status: REJCT Ln 1/1 10:13 AM 10/16/08

- Type the Contract Number starting with zero. Leave Accounting Period blank.
- Click on the Entered By box and type first and last name.
- Click on the Days Worked box and type in the number of days worked (3 digits). The system will default to Inc. If there is a decrease of days then click on Dec.
- The status box should default to Normal. To change the status, refer to number 9 under instructions for field descriptions on the Batch Totals window.
- The Payment Number box will fill in automatically when a Process Edit () is done.
- Click on the Quantity Total box and type in the total of all the cp line quantities on the turnaround document (TAD).
- Click Resident Engineer tab () for the cp line.

Field descriptions on the Batch Totals window:

1. **Contract Number**-required on both a no progress payment and a progress payment. Type the contract number starting with a zero.
2. **Accounting Period**-leave blank.
3. **New**-will default automatically (indicates a new document).
4. **No Payment Ind**-required if a no progress payment is being entered. Click on the box to activate.
5. **Calc Payment Ind**-default, will automatically activate if the box for the No Payment Ind is not activated.
6. **Entered by**-required on both a no progress payment and a progress payment. The person entering the CP will type his/her first and last name.
7. **Days Worked**-required on a progress payment. Do not enter working days on a no progress payment. The days will have to be held until the next progress payment.
8. **Inc/Dec**-defaults to Increase (Inc). Click on decrease (Dec) if days are being deducted.
9. **Status**-only use Normal and Final. The system will default to **Normal**. When a final payment is being entered click on the arrow to the right of the Status box to bring up the drop down menu. Click on **Final**.
 - Normal**-indicates a normal contractor progress payment based on the contractor's progression on a by-weekly basis.
 - Final**-indicates a final contractor progress payment. Processing a "**Final**" will generate Report CM19I, to assist the Resident Engineer in verifying quantities and assuring all items have been addressed. If discrepancies are found, please notify Headquarters Construction and process another "**Final**". Before entering this payment please be sure that all items have been checked for accuracy and all change orders and quantity adjustments are complete.
10. **Payment Number**-required on a progress payment. The payment number is 3 digits and will fill in when a Process Edit is done. Do not enter a payment number on a no progress payment. Let the system default.
11. **Quantity Total**-required on a progress payment. Enter the total quantity of the CP lines from the turnaround document (TAD). When the quantity total is negative, place a minus sign before the total. When it is positive, do not put a plus sign before the total. The quantity total is taken to the thousandth (.000). The quantity can be a negative number. A negative dollar amount cannot be processed through IFS. The Officeperson will process the negative TAD. Before the IFS system will process the payment, an adjustment of items to be paid will be done by Headquarters Construction to make the dollar amount a positive. The Officeperson will then be notified of any adjustments made.

Step 8. CP line Window ():

Enter Progress Type (). Hit the tab key. Refer to number 1 under instructions for field descriptions on the CP Line window (see page 23-48).

Type the Unit of Work () (item number). Hit the tab key. Refer to number 2 under instructions for field descriptions on the CP Line window (see page 23-48).

Type the change order number if applicable (3 digits) (). Hit the tab key.

Type the Breakout Number (AEB) (2 digits) (). The cursor will automatically go to the Quantity This Cycle box.

Type the quantity this cycle for the CP line ().

*To bring up a blank CP line any of the following can be used:

1. Click on **Edit** (at the top of the CP window) then click on **Insert line after** or hit **Ctrl+f**.
2. Click on **Edit** then click on **Insert line before** or hit **Ctrl+b**.
3. Click on **Edit** then click on **Copy line** or hit **Ctrl+y**.

*When the last CP line has been entered, DO NOT hit any of the edits mentioned above. If an edit is executed after the last CP line has been entered it will show as an error in the messages box. To remove the blank CP line make sure to click in the grey area to assure you are on the correct line you want to remove (). To verify this after clicking in the grey area check the status bar at the bottom of the CP line (), then click on **Edit** (at the top of the CP line window) and click on **Remove line** or hit **Ctrl+r**. A window will appear asking if you want to delete the selected line, click on **Y**es or hit enter.

Field Descriptions for the CP line window:

1. **Progress Type**-required. The unit of work (item number) designates which progress type. To enter, type the first letter of the progress type, hit the tab key or click on the arrow to the right of the Progress Type box ( as illustrated on page 23-49) to display the drop down menu, click on the appropriate progress type.
Normal (N) –the unit of work (item number) should be paid as a normal bid item.
Stockpile (S) –the unit of work (item number) is being paid as a stockpile item.
This is any unit of work (item number) starting with SP and must have zz as the breakout number (AEB). Stockpiles must be decreased to zero by the end of the contract.
Liquidated Damages (L) –the unit of work (item number) is being paid as a liquidated damages item. This is any unit of work (item number) starting with LD. If the damages pertain to days or time the breakout number (AEB) must be zz.
Prorated (P)-50% of the unit of work (item number) amount will be paid this cycle. The remaining 50% will be prorated over the life of the contract based on the amount of the total contract completion. This is any unit of work (item number) starting with 625 or PRO.
Escalation (E) –the unit of work (item number) is for asphalt, fuel, or steel escalation and any unit of work (item number) starting with 736 or any escalation item added by change order.
2. **Unit of Work Number**-required. The unit of work number (item number) corresponds with the progress type. When entering the unit of work (item number) place the cursor in the first space of the Unit of Work box. The box is 10 spaces long and if the cursor is not in the first space it will create a new item and this will generate errors.
3. **Change Order Number**-required if the unit of work (item number) being entered was added by a change order. The unit of work (item number) will start with an AP, FA, or PR.
4. **Breakout Number (AEB)**-required. The breakout number (AEB) is necessary to identify construction type codes and funding sources (2 digits).
5. **Quantity This Cycle**-required. The quantity is entered as a positive number and is carried out to the thousandths. Example: 3204.123 or 1204.000.
6. **Quantity This Cycle Inc/Dec**-defaults to increase (Inc) when the progress type is Normal, Stockpile, Prorated, or Escalation. Defaults to decrease (Dec) when the progress type is Liquidated Damages. Click on the circle before Dec if the quantity this cycle is a negative number other than liquidated damages.
7. **Unit of Measure, Unit Price, and Description**-required. The system will fill in these boxes if the item has already been added through the Contract Master (CM), a change order (CO), or a previous CP document. If entering a new unit of work (item number) not already on the Turnaround document (TAD) the following must be entered:
 - a) Type the unit price to the hundredth (123.00)
 - b) Type the unit of measure making sure that the correct abbreviation is being used. Refer to page 23-55 for a list of abbreviations.
 - c) Type a full description.

Step 9. CP line Window, when all CP lines have been entered:

ADVANTAGE Desktop - FDOT

File Edit Display Process Window Help

Batch: Document: CP 800 03247CP055

Contract Number 03247 Accounting Period / New Modify

No Payment Ind Calc Payment Ind

Entered By SHELLI JONES

Vendor Name LAS VEGAS PAVING CORPORATION Vendor Number PUR0000147

Days Worked 009 Inc Dec Status Normal Payment Number 055

Totals Resident Engineer

Progress Type Normal Unit of Work 2000001 Change Order Number

Breakout Number 02 Planned Quantity Quantity To Date

Quantity This Cycle 5.000 Inc Dec Def Unit of Measure

Unit Price Amount

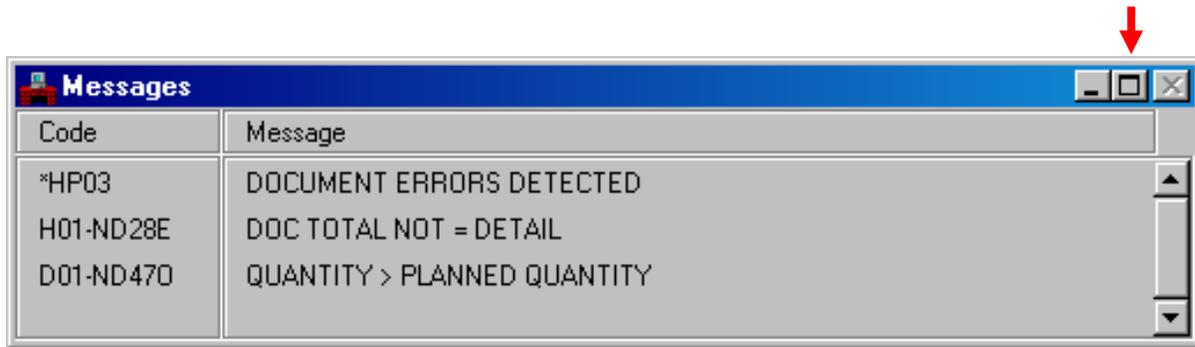
Ref Encumbrance Line

Description

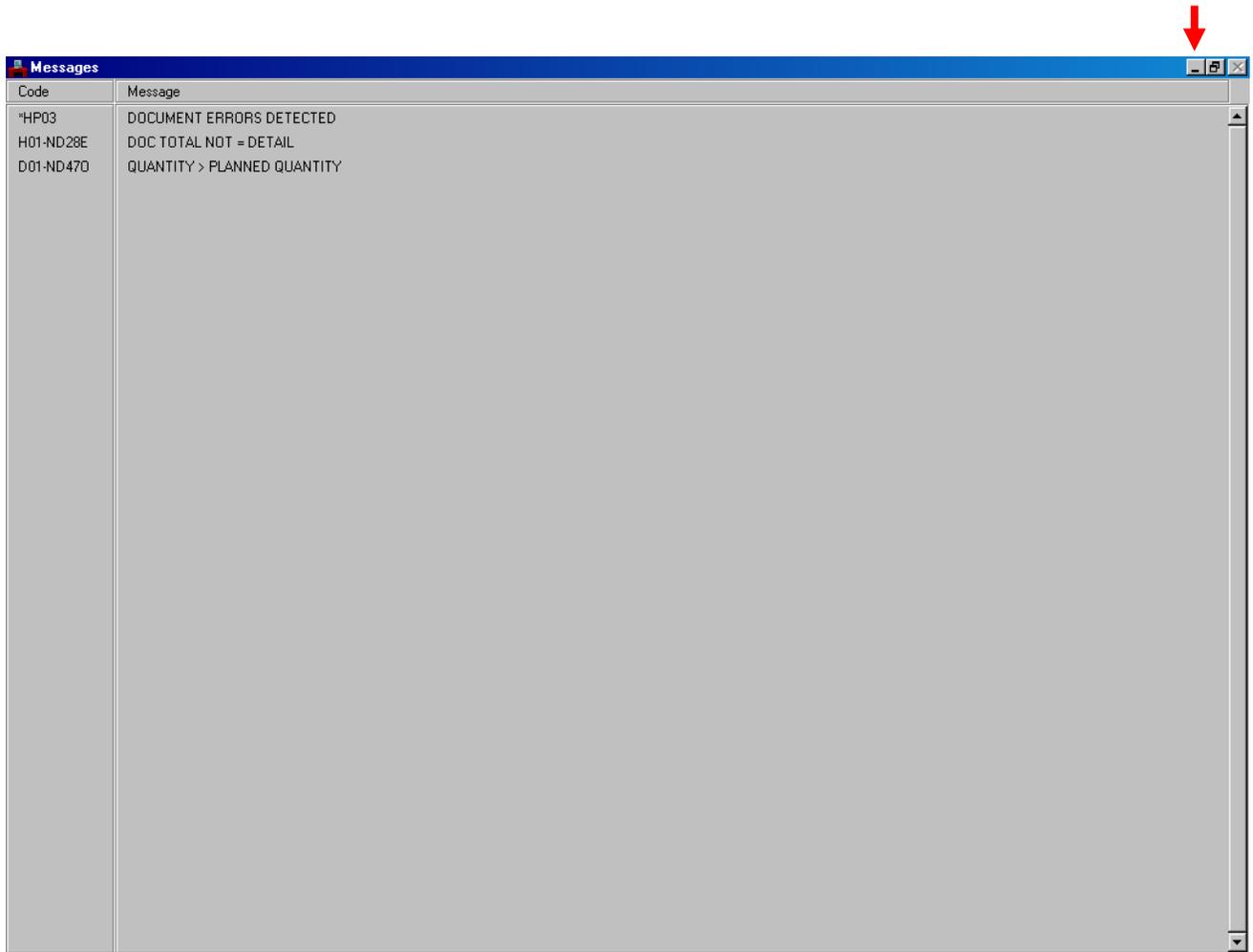
1 of 3: DOCUMENT ERRORS DETECTED Messages Status: REJCT Ln 1/1 10:15 AM 10/16/08

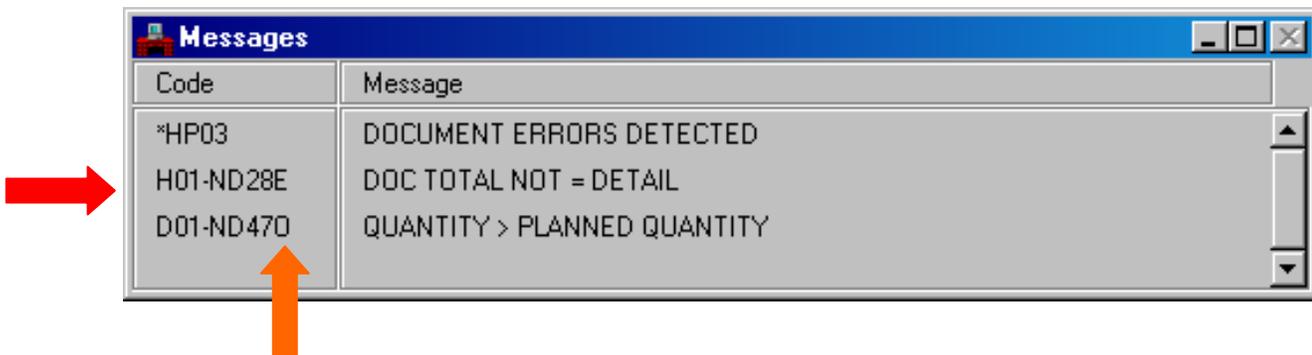
- Click on **Process** (at the top of the CP line window ↓) then click on **Edit** or hit **F7**.
- Check **Messages** box (at the bottom of the CP line window to the left of the Messages bar ↑).
- Click on the **Messages** bar (↑).

Step 10. This box displays messages and errors that need to be addressed. To enlarge the messages window click on this button  (↓).



To reduce the window back click the minus sign to the left of the button  that enlarges the window (↓).

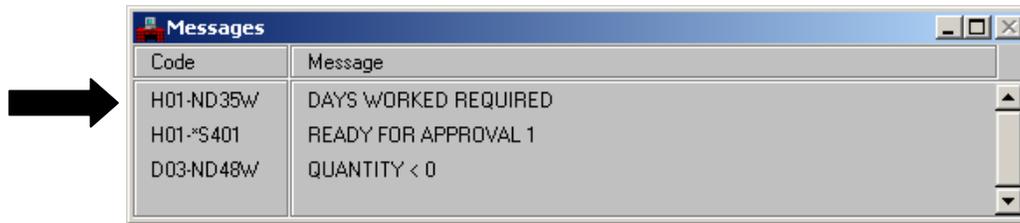




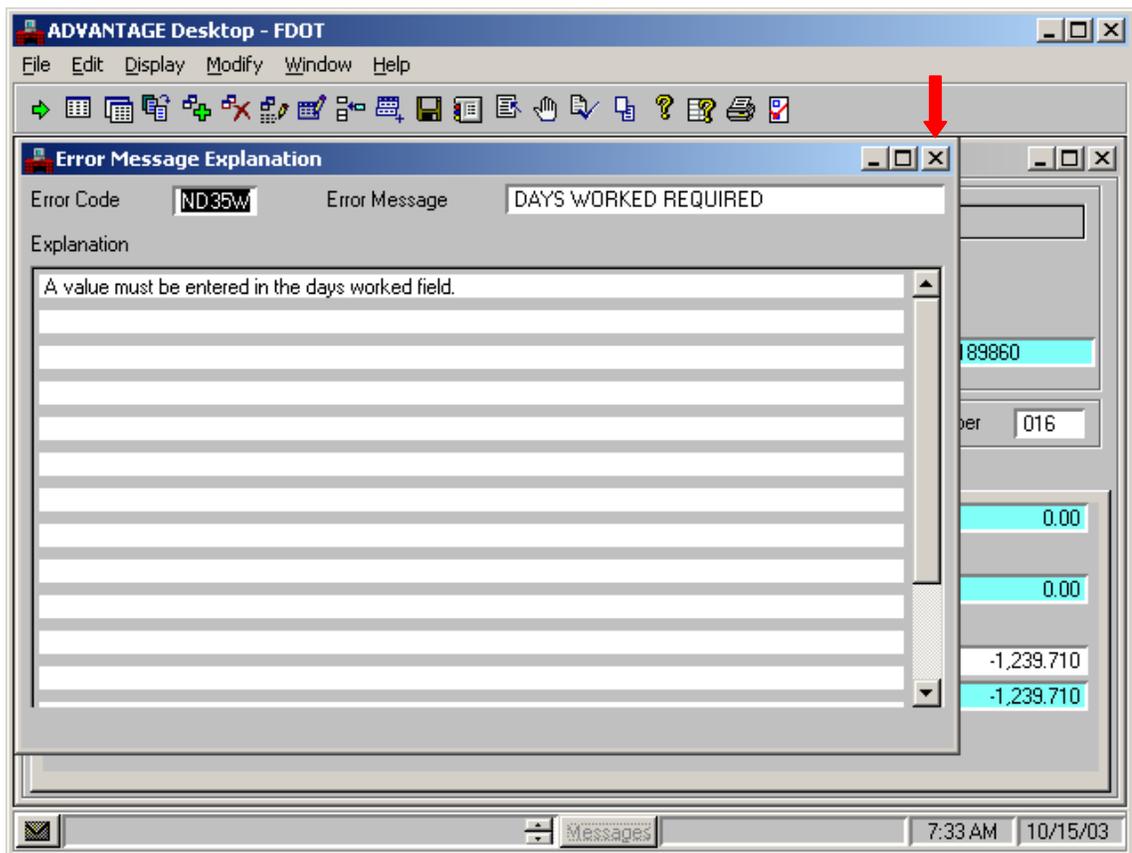
The Code column on the Messages window:

- a) The first letter of the code line will either be a **D** or **H** as illustrated above (→).
 The **D** indicates that the error is on a Detail line, which is located on the CP line window (page 23-49).
 The **H** indicates that the error is on the Header, which is located on the Batch total window (page 23-45).
- b) The number after the **D** or **H** is the CP line number.
 To find the CP line number that is currently being displayed on the CP line window: (refer to Step 9 for the CP line window)
 1. Click in the gray area by the Description line on the CP line window (←) as illustrated on page 23-49.
 2. To the right of the **Messages** bar there is a **Status** box. This box displays the status and the number of the CP line being displayed on the screen (↑) as illustrated on page 23-49.
 3. To scroll between CP lines move the scroll bar located on the right-hand side of the CP line window (←) as illustrated on page 23-49.
 4. To go to a CP line click on **Edit** (at the top of the CP line window ↓) then click on **Go to Line** or hit **Ctrl+t**, as illustrated on page 23-49.
 5. Type in the CP line number that you want to view and click on **Ok** or hit enter.
- c) Line Codes: Are the letters at the end of the line codes, as illustrated above (↑).
E is a hard error and must be fixed before placing the document on hold.
W is a warning and **O** is an override. Both of these codes must be researched to assure there are no mistakes. In the Messages Window, look for a “W” codes for “PROG TYPE” errors. Although it is a warning this messages must be corrected. It is the Resident Engineer’s responsibility to make sure all **W** and **O** errors are acceptable.

To display a message in more detail, double click on the line code in the messages box (→).



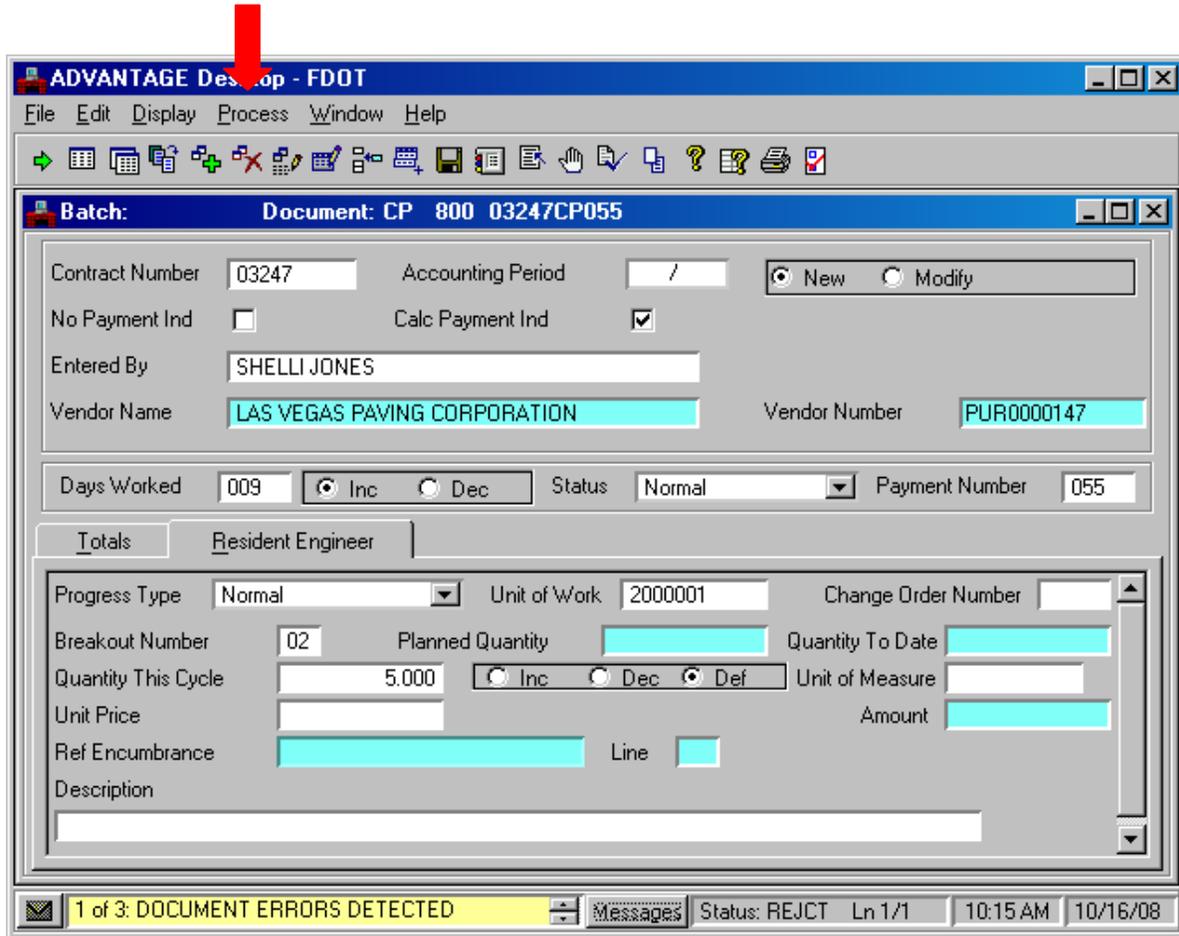
To close the detailed window click on the X on the Error Message Explanation window(↓).



DO NOT PUT A DOCUMENT ON HOLD WITH HARD (E) ERRORS.

You can click on **Process** then click on **Edit** or type **F7** as many times as it takes to correct all **E** errors and review all **W** and **O** errors. When all errors are correct click on **Process** then click on **Edit** or hit **F7** one last time to assure there are no **E** errors and all **W** and **O** errors have been addressed.

Step 11. When errors have been corrected or if there were no errors:

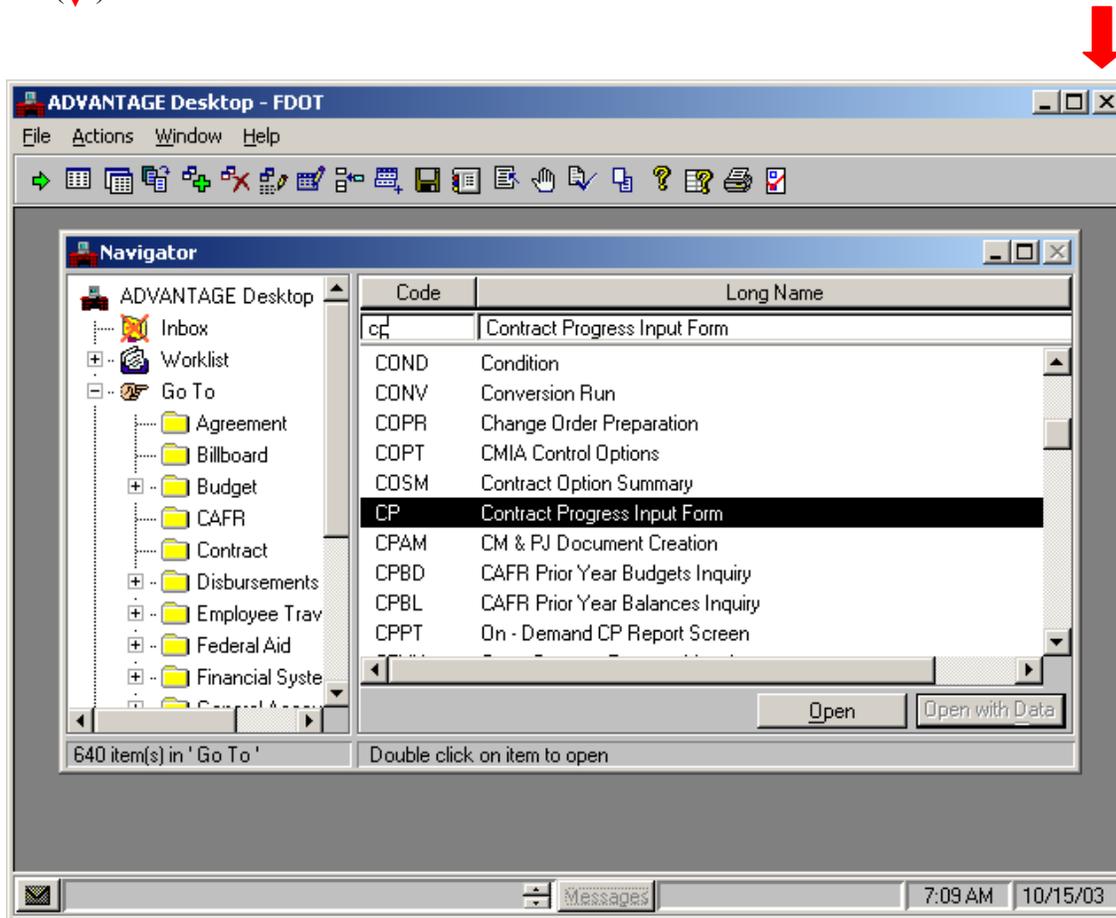


a) Click on **Process** (at the top of the screen ↓) then click on **Hold** or hit **F11**.



b) This screen will appear after the document has been held. Click on Yes or hit enter.

- c) This will take you back to the Navigator screen where you can enter another no progress payment, progress payment, or exit the Advantage System.
- d) If entering another no progress payment or a progress payment refer back to Step 5 under ADVANTAGE Desktop-FDOT Navigator.
- e) When all the no progress payments (ne or NE) and the progress payments (cp or CP) are entered then click on the X in the upper right hand corner of the ADVANTAGE Desktop-FDOT screen (↓).



- f) Click on Yes to exit ADVANTAGE Desktop.

Unit of Measure abbreviations in English and (Metric) to be used on the CP Progress Payment and Turnaround document (TAD):

| | | | |
|----------------|--------------|------------------|------------------|
| GALLON (LITER) | EACH (EACH) | POUND (KILOGRAM) | YDMI (CUMKM) |
| LINFT (LINM) | SQYD (SQM) | LS (LS) | STA (STA) |
| TON (MTON) | SQFT (SQM) | CUYD (CUM) | MILE (KILOMETER) |
| ACRE (HECTARE) | HOURL (HOUR) | DAY (DAY) | MONTH (MONTH) |
| CUFT (CUM) | FA (FA) | | |

Turnaround Document (TAD):

Page 1-Items that need to be completed:

- a) Cut off date.
- b) Prepared by's signature.
- c) Checked by's signature. Checker should not be the same person as prepared by.
- d) Approved (R.E.) signature.
- e) Working Days This Cycle and circle I or D.
- f) Quantity Total and Circle I or D.

The quantity total is the total of the quantity lines on the CP document.

The CP document recognizes both positive and negative quantities.

Quantity this Cycle lines:

- a) Check (✓) Dec column if the quantity this cycle is a negative.
- b) If a new item is added the following are to be written at the end of the turnaround document on the lines provided:
 - Unit of Work Description
 - Progress Type (the progress types are listed on page 1 of the turnaround document (TAD).
 - Change Order number if applicable
 - AEB number
 - Unit Price
 - Unit of Measure
 - Quantity This Cycle
- c) When entering the Quantity This Cycle make sure the correct progress type is being used.

Hot keys:

- a) F7-will process and edit the CP.
- b) F11-will put the CP on hold.
- c) Ctrl r-will remove the CP line that is being displayed.
- d) Ctrl f-will display a blank CP line after the current CP line being displayed.
- e) Ctrl b-will insert a CP line before the current CP line being displayed.
- f) Ctrl y-will copy the CP line that is being displayed. This is handy when entering a unit of work (item number) that has more than one breakout number (AEB).
- g) Ctrl t-will let you go to any CP line that has been entered on the current CP document.

CHAPTER 24
 “Finaling Out” a Contract

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Rev 10/10

**DOCUMENTATION REQUIREMENT
SECTION A
PROGRESS PAYMENTS**

The Contractor will be paid for the work performed on a bi-weekly basis. The cut-off date for determining pay quantities is every other Friday. Contact Headquarters Construction for cut-off dates. Any Contractor may make a written request to have only one monthly payment, if this is more suitable to his accounting system.

When a contract is entered on the progress payment system, a Turnaround Document (TAD) is forwarded to the Resident Engineer with a transmittal indicating the base prices for asphalt, fuel, steel escalation (if applicable), and the incidental construction contract total to be used to figure the percentage for the total contract on the Letter of Authorization (LOA). An illustration of the transmittal is shown below. From that point on, a contract payment (cp or CP) or a no progress payment (ne or NE) must be submitted Bi-weekly until the **FINAL** field payment. The payment number increases only when actual payments are processed.

| NDOT TRANSMITTAL | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------|------------------------------------------------|-------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|
| | | Date <u>5-4-07</u> | | | | | | |
| TO | FROM | | | | | | | |
| <u>Joe Green</u> | <u>HQ Construction</u> | | | | | | | |
| <u>Resident Engineer</u> | | | | | | | | |
| | | <u>Telephone Ext. 888-7227</u> | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">For Your . . . <input type="checkbox"/> Action</td> <td style="padding: 2px;"><input type="checkbox"/> Approval</td> <td style="padding: 2px;"><input type="checkbox"/> Information</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Comments</td> <td style="padding: 2px;"><input type="checkbox"/> Signature</td> <td style="padding: 2px;"><input type="checkbox"/> Review <input type="checkbox"/> File</td> </tr> </table> | | | For Your . . . <input type="checkbox"/> Action | <input type="checkbox"/> Approval | <input type="checkbox"/> Information | <input type="checkbox"/> Comments | <input type="checkbox"/> Signature | <input type="checkbox"/> Review <input type="checkbox"/> File |
| For Your . . . <input type="checkbox"/> Action | <input type="checkbox"/> Approval | <input type="checkbox"/> Information | | | | | | |
| <input type="checkbox"/> Comments | <input type="checkbox"/> Signature | <input type="checkbox"/> Review <input type="checkbox"/> File | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;"><input type="checkbox"/> As We Discussed</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Per Your Request</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Please Return Attached Material</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Please Prepare a Reply to Be Signed by _____</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Please See Me</td> </tr> </table> | | | <input type="checkbox"/> As We Discussed | <input type="checkbox"/> Per Your Request | <input type="checkbox"/> Please Return Attached Material | <input type="checkbox"/> Please Prepare a Reply to Be Signed by _____ | <input type="checkbox"/> Please See Me | |
| <input type="checkbox"/> As We Discussed | | | | | | | | |
| <input type="checkbox"/> Per Your Request | | | | | | | | |
| <input type="checkbox"/> Please Return Attached Material | | | | | | | | |
| <input type="checkbox"/> Please Prepare a Reply to Be Signed by _____ | | | | | | | | |
| <input type="checkbox"/> Please See Me | | | | | | | | |
| Remarks or Special Instructions: | | | | | | | | |
| <p><u>Attached is the first turnaround document for Contract No. 3247. Please compare this TAD with your agreement estimate breakout and notify me of any discrepancies. An estimate or NE must be entered each cycle beginning with the cut-off date 5-20-07.</u></p> | | | | | | | | |
| <p>Thank you, <u>Cecilia</u></p> | | | | | | | | |
| <p>Incidental Construction: \$ <u>150,000.00</u></p> | | | | | | | | |
| <p>Cp = \$ <u>N/A</u> (Fuel Escalation)</p> | | | | | | | | |
| <p>Bi = \$ <u>421.58</u> (Asphalt Escalation)</p> | | | | | | | | |
| <p>(Steel Escalation)</p> | | | | | | | | |

This must be done on all jobs



Quantities included on the bi-weekly progress payment are obtained from original documentation sources as outlined in this Manual. These quantities are coded on the bi-weekly progress payment (TAD) as described in Section B of this chapter.

The computerized bi-weekly payment processing system works as follows:

After a contract is awarded, Headquarters personnel will create a file for the contract and enter the contract bid items in the computer. As contract change orders are approved, they are also coded and entered into the contract file to update bid items and create agreed price (AP), force account (FA) and prorated (PR) items. At the end of each payment cycle, the change orders for each contract are recapped and a printout of the approved change orders (Report No. CM09) is distributed monthly to the Resident Engineer.

All books and source documents must be turned in to the field office by 8:00 a.m., Monday morning following each Friday cut-off.

The **Officeperson** for each progress payment must do the following:

Review each book for item entries made by the **Inspector**

Review files and spreadsheets for items to be paid

Check accumulative totals and make sure they match what is paid on the TAD

Check initials on the initial key

Check and initial calculations (make sure you understand the calculations and if you don't, ask the **Inspector** to explain)

Check for certifications

Transfer quantities to a worksheet. The worksheet is required and will aid in locating where a payment originated (an illustration of a worksheet is shown on 23-4). The worksheet is on Sharepoint.

For each paid item, the payment number shall be documented in the appropriate column (Pmt#) in the field book. Two red lines shall be drawn across the page and payment number, quantity (being paid this progress payment), and AEB number shall be documented between the lines for items described in Chapter 10 (Liquid and Emulsified Asphalts), Chapter 11 (Concrete Paving, Roadbed Modification, etc.), and any Record of Delivery where payment is based on delivery minus waste and storage. The payment number column (Pmt#) shall be used for all other items, and red lines are not allowed. Spreadsheets are totaled and the payment number documented in the appropriate column.

When all quantities have been extracted, the **Officeperson** shall enter the quantities on the TAD from the items listed on the worksheet. Instructions for entering the quantities on the TAD are given in Section B of this chapter. There is no need for any monetary calculations, since this will be done by the computer.

After the TAD is prepared, the quantities shall be checked by another person for accuracy and to assure that nothing has been omitted. Special care must be taken to assure that the proper codes and item numbers are used for each quantity that changed during the cycle. The bi-weekly progress payment shall then be signed by the preparer, checker, and the Resident Engineer, as illustrated on page 23-8. Someone other than the preparer must do the necessary checking and sign the TAD. **A printed name is not acceptable as a signature.**

The **Officeperson** shall perform the necessary data entry. Refer to the CONTRACT PROGRESS PAYMENT SYSTEM TRAINING MANUAL as illustrated on pages 23-37 thru 23-55. Headquarters Construction will review and approve the edits and implement the payment update process.

The original TAD shall be mailed directly to Headquarters Construction. A copy shall be filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project). A copy shall be given to the Contractor upon request.

Headquarters Construction shall send out copies of the progress payments printed out by the computer (CM02 and CM03). The print outs will show extensions, retention, amount due, working days, percentages of time and work. The illustrations on page 23-5, show the last page of the CM02 and CM03 reports.

Copies of the computed payment (Report No. CM02) are distributed to District, Contractor's main office, Construction, and two copies are sent to the Resident Engineer. One of the two copies sent to the Resident Engineer will go to the on-site Foreman or Project Engineer. One copy of the computed payment by AEB number (Report No. CM03) and one copy of the payment dollar amounts for fuel escalation (Report No. CM01) are also distributed to the Resident Engineer. An illustration of Report No. CM01 is shown on page 23-5. The dollar amounts on the Fuel Escalation Report (CM01) will then be used for the next progress payment.

The progress payments (including retention) are processed through Accounting and on to the State Controller's Office, where the checks are prepared and distributed.

Upon completion of the contract the **FINAL** field payment shall be prepared by the **Officeperson**. The **FINAL** field payment must be designated on the TAD with an "**F**" after the payment number and **Final** status on the CP. The **FINAL** status will key the computer to pay 100% on prorated items and 100% of mobilization. A **FINAL** field payment is required on all contracts. Once the **FINAL** field payment is processed, Headquarters Construction will send out a CM19I to assist the Resident Engineer in verifying quantities and assuring all items have been addressed. The **Officeperson** shall complete the CM19I as explained in Chapter 24 ("Finaling Out" a Contract) and if adjustments are needed, process another **FINAL** field payment, making sure to notify Headquarters Construction. Before entering this payment please be sure all items have been checked for accuracy and all change orders and quantity adjustments are complete.

The CM01 lists the breakout totals that were calculated, by IFS, from the previous progress payment. This information is used for calculating the fuel escalation on the next progress payment.

| REPORT # CM01 | | STATE OF NEVADA | | PAGE |
|--------------------|----------------|------------------------------|--|--------------------|
| RUN TIME: 17:33:12 | | DEPARTMENT OF TRANSPORTATION | | 19 |
| CONTRACT NO: 03247 | | FUEL ESCALATION | | RUN DATE: 08/14/08 |
| | | PAYMENT NUMBER: 024 | | |
| BREAKOUT | BREAKOUT TOTAL | | | |
| 01 | | 0.00 | | |
| 02 | | 154,715.86 | | |
| 03 | | 57,636.07 | | |
| 04 | | 22,055.87 | | |
| 05 | | 433.80 | | |
| 06 | | 1.05 | | |
| 07 | | 69,463.51 | | |
| 08 | | 16,037.80 | | |
| 09 | | 110,084.45 | | |
| 10 | | 93,842.44 | | |
| 11 | | 2.09 | | |
| 12 | | 0.64 | | |
| 14 | | 0.48 | | |
| 17 | | 38,408.00 | | |
| TOTALS | | 562,682.06 | | |

The CM02 lists the total information on each item and does not list AEB quantities separately.

| REPORT # CM02 | | STATE OF NEVADA | | PAGE | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------|------------------|------------------------------------------|---------------------|------------------|------------|----------------------|----------------|--------|-----|
| RUN TIME: 17:33:28 | | DEPARTMENT OF TRANSPORTATION | | 19 | | | | | | | |
| | | CONTRACTOR PAYMENTS FINAL BALANCE REPORT | | RUN DATE: 9/2/2008 | | | | | | | |
| CONTRACT NO: 03247 | | STATUS: N | | PAYMENT NUMBER 25 | | | | | | | |
| VENDOR: T80189860 LAS VEGAS PAVING CORP | | 4420 S DECATUR BLVD LAS VEGAS NV 89103 | | UPDATED CONTRACT AMOUNT \$ 32,100,596.93 | | | | | | | |
| LOCATION: ON SR 160, BLUE DIAMOND RD. FROM L.V. BLVD (SR 604) WINDMILL IN TO VALLEY VIEW BLVD PHASE 1 & ON 1-15 FROM 1 MILE S OF BLUE | | | | | | | | | | | |
| UNIT OF WORK NO | C/O NO | DESCRIPTION | PLANNED QUANTITY | UNIT | QUANTITY THIS CYCLE | QUANTITY TO DATE | UNIT PRICE | TOTAL AMOUNT TO DATE | UPDATED AMOUNT | % COMP | O/U |
| SP00002 | | STRUCTURAL STEEL GRATES | 0.000 | POUND | 12,701.000 | 25,540.000 | 1.50 | 38,310.00 | 0.00 | 0.0 | |
| SP00003 | | DRILLED SHAFT FOUNDATION | 0.000 | LINFT | 84.000 | 0.000 | 70.43 | 0.00 | 0.00 | 0.0 | |
| SP00004 | | PLAIN STRUCTURAL STEEL | 0.000 | LS | | 0.000 | 1.00 | 0.00 | 0.00 | 0.0 | |
| ORIGINAL WORKING DAYS: | | | 300 | TOTAL EARNED TO DATE: | \$ | 19,155,517.36 | | | | | |
| WORKING DAYS ADDED BY CHANGE ORDER: | | | 0 | RETENTION: | \$ | 0.00 | | | | | |
| CONTRACT WORKING DAYS: | | | 300 | LIQUIDATED DAMAGES: | \$ | 16.50 | | | | | |
| WORKING DAYS TO DATE: | | | 180 | TOTAL DUE TO DATE: | \$ | 19,155,500.86 | | | | | |
| PERCENT OF TIME: | | | 60 | PREVIOUS TOTAL PAYMENTS: | \$ | 18,323,581.38 | | | | | |
| PERCENT OF WORK: | | | 60.1 | BALANCE DUE: | \$ | 831,919.48 | | | | | |

The CM03 lists all the AEB information for each item.

| REPORT # CM03 | | STATE OF NEVADA | | PAGE | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------|-------|------------------------------------------|------------------|---------------|---------------------|------------------|------------|----------------------|----------------|--------|---------|
| RUN TIME: 17:33:54 | | DEPARTMENT OF TRANSPORTATION | | 22 | | | | | | | | | |
| | | CONTRACTOR PAYMENTS BY BREAKOUT REPORT | | RUN DATE: 9/2/2008 | | | | | | | | | |
| CONTRACT NO: 03247 | | STATUS: N | | PAYMENT NUMBER 25 | | | | | | | | | |
| VENDOR: T80189860 LAS VEGAS PAVING CORP | | 4420 S DECATUR BLVD LAS VEGAS NV 89103 | | UPDATED CONTRACT AMOUNT \$ 32,100,596.93 | | | | | | | | | |
| LOCATION: ON SR 160, BLUE DIAMOND RD. FROM L.V. BLVD (SR 604) WINDMILL IN TO VALLEY VIEW BLVD PHASE 1 & ON 1-15 FROM 1 MILE S OF BLUE | | | | | | | | | | | | | |
| UNIT OF WORK NO | C/O NO | AEB NO | E / I | DESCRIPTION | PLANNED QUANTITY | UNIT | QUANTITY THIS CYCLE | QUANTITY TO DATE | UNIT PRICE | TOTAL AMOUNT TO DATE | UPDATED AMOUNT | % COMP | GASB-34 |
| AP00001 | 025 | 01 | E | REPAIR IRRIGATION SYSTEM | 17,364.670 | LS | 17,364.670 | 17,364.67 | 1.00 | 17,364.67 | 17,364.67 | 100.0 | BLANK |
| AP00001 | 025 | 02 | E | REPAIR IRRIGATION SYSTEM | 11,264.250 | LS | 11,264.250 | 11,264.25 | 1.00 | 11,264.25 | 11,264.25 | 100.0 | BLANK |
| SP00001 | | ZZ | E | REINFORCING STEEL | 0.000 | LS | | 0.000 | 0.26 | 0.00 | 0.00 | 0.0 | BLANK |
| ORIGINAL WORKING DAYS: | | | 300 | TOTAL EARNED TO DATE: | \$ | 19,155,517.36 | | | | | | | |
| WORKING DAYS ADDED BY CHANGE ORDER: | | | 0 | RETENTION: | \$ | 0.00 | | | | | | | |
| CONTRACT WORKING DAYS: | | | 300 | LIQUIDATED DAMAGES: | \$ | 16.50 | | | | | | | |
| WORKING DAYS TO DATE: | | | 180 | TOTAL DUE TO DATE: | \$ | 19,155,500.86 | | | | | | | |
| PERCENT OF TIME: | | | 60 | PREVIOUS TOTAL PAYMENTS: | \$ | 18,323,581.38 | | | | | | | |
| PERCENT OF WORK: | | | 60.1 | BALANCE DUE: | \$ | 831,919.48 | | | | | | | |

**DOCUMENTATION REQUIREMENT
SECTION B
CODING BI-WEEKLY PROGRESS PAYMENTS
(TURNAROUND DOCUMENT) (TAD)**

A TAD shall be used by the Resident Engineer or **Officeperson** for entering the quantities to be paid on the progress payment. Be sure to print clearly and dark enough to be legible. The TAD shall not be typewritten. Do not use more than one line for each item. A payment (cp or CP) or a no progress payment (ne or NE) must be submitted from the time the Turnaround Document is received from Headquarters Construction through the time of the final field payment. No progress payment (ne or NE) must be submitted by 4:00 p.m. on the Tuesday following each cut-off date. The progress payment must be submitted by 5:00 p.m. on the Thursday following each cut-off date.

Contract number, description, names and addresses of the Resident Engineer and Contractor, working days and the line for the quantity total, appear on the front sheet of each TAD. The payment number will automatically be generated by the computer after the previous payment has been processed. The Cut-Off Date, Prepared By, Checked By, and Approved Res. Engr. lines must be completed for each payment cycle, as illustrated on page 23-8. The last page of the TAD has blank lines for any new items to be added, as illustrated on page 28-10. If more lines are necessary, use a blank sheet of paper and attach to the TAD.

The progress type, bid item number, description, AEB, plan quantity for each AEB number, unit price, and unit of measure (UOM) for each contract item (excluding mobilization) are entered from the agreement estimate, as illustrated on page 23-9. The payment for mobilization will be automatically calculated by the computer. It is never entered as Item No. 628-0004; therefore, it will not appear on the TAD.

To make payment on bid items or approved change orders, a quantity must be entered in the "This Cycle" column. All quantities will be additions unless the Dec (decrease) column is marked with an X or \surd .

Following is a description of each possible progress type and how it is to be used:

- N Use progress type "**N**" (normal) for:
1. Original bid items
 2. Approved change order items
 3. New change order items based on a **prior approval** (force account, agreed price) **must be on file for payment**
 4. Addition of any item (original bid item, force account, or agreed price) to a breakout where none was originally planned

For all items entered as a "**N**", the computer will calculate the amount due by multiplying the quantity by the unit price. The unit of measure (UOM), unit price and description will automatically be generated by the computer when a Process/Edit is performed. For AP or FA items paid on prior approvals, an item number, change order number (three places, 001), AEB number, description, unit of measure (UOM) and unit price must be entered. For items added to an AEB, an item number and AEB number must be entered.

- P Use progress type "**P**" (prorated) for:
1. All 625 and PR items
- For all items entered as a "**P**", the computer prorates the dollar amount earned each payment. For PR items paid on prior approvals, an item number (PR0 0001), change order number, AEB number, description, unit of measure (UOM) and unit price must be entered.

- E Use progress type “E” (escalation) for:
1. All 736 items
 2. All escalation items added by change order

For all items entered as an “E”, the computer excludes the amount when calculating the fuel escalation (Report No. CM01), as illustrated on page 23-5.

- S Use progress type “S” (stockpile) for:
1. Recording all additions to or deductions from a stockpile as described and illustrated on pages 23-24 thru 23-27.

The first time an item is paid in stockpile, a stockpile number must be created. For each contract, these numbers shall begin with SP0 0001 and continue consecutively for the life of the contract. The first time a number is used, a description, unit of measure (UOM) and unit price must be entered. The unit of measure (UOM), unit price and description for a stockpile deduction will automatically be generated thereafter by the computer when a Process/Edit is performed. Always assign a new stockpile item number for each new stockpile item or if the price of additional material is different from the original price. Once a stockpile is zeroed out and no additional material will be added, that number may never be used again for that contract. AEB# ZZ must be used for all stockpiles. For deductions from a stockpile, enter the item number, the quantity and the Dec (decrease) column is marked with an X or √. A good way to keep track of stockpiles is to have a spreadsheet showing the SP number and the appropriate bid number and quantities paid and deducted. The spreadsheet will help track payments for the bid item, so deductions can be made to the stockpile number. **All SP numbers must have a zero balance at the end of the contract.**

- L Use progress type “L” (liquidated damages) for:
1. All liquidated damages. On pages 23-12 thru 23-22 there are descriptions and illustrations of several different types of Liquidated Damages.

The first time an item is entered, a liquidated damage number must be created. For each contract, these numbers shall begin with LD0 0001 and continue consecutively for the life of the contract. The first time a number is used, a description and an AEB number must be entered. The unit of measure (UOM) is always LS (lump sum) and unit price is always \$1.00. The amount to be withheld shall be entered in the “This Cycle” field with the Dec (decrease) column is marked with an X or √. If all or part of the amount previously withheld for liquidated damages is to be **given back** to the Contractor, a new LD number must be used, but do **not** put an X or √ in the (Dec) column. Damages for asphalt, concrete, traffic control deficiencies, etc. must be applied to the appropriate AEB number. If the liquidated damages are not applicable to a particular AEB number, such as working day damages or time restraints, AEB# ZZ shall be used. The description for days must include the number of days that are being assessed (i.e. Damages for 5 days). Each payment cycle, a new LD number must be used for working day damages, but the same LD number may be used for each different type of asphalt or concrete as long as the unit price is the same. **Damages for days should always be assessed as days are exceeded.** If and when a change order is approved granting additional working days, the damages assessed shall be returned to the Contractor, using a new LD number.

| UNIT OF WORK DESCRIPTION | | UNIT PRICE | | | UNIT OF MEASURE | | | |
|----------------------------------------------|-----------------|------------|-----|-------|------------------|---------------------|---------------------|-----|
| PROG TYPE | UNIT OF WORK NO | C/O NO | AEB | E / I | PLANNED QUANTITY | QUANTITY TO DATE | QUANTITY THIS CYCLE | DEC |
| TRAINING (TRAINEES) | | | | | | | | |
| N | 1100100 | | 01 | E | 300.000 | 0.80 329.000 | | |
| SURVEY CREW | | | | | | | | |
| N | 2000001 | | 02 | E | 40.000 | 175.00 30.000 | 5.000 | |
| | | | 09 | E | 10.000 | 5.000 | | |
| URBAN CLEARING | | | | | | | | |
| N | 2010032 | | 01 | E | 12,000.000 | 1.00 12,000.000 | | |
| REMOVE TREES (6-INCHES TO 12-INCHES) | | | | | | | | |
| N | 2010512 | | 02 | E | 2.000 | 465.00 1.000 | | |
| REMOVAL OF BRIDGE | | | | | | | | |
| N | 2020008 | | 03 | E | 202,892.000 | 1.00 202,892.000 | | |
| REMOVE END SECTION | | | | | | | | |
| N | 2020076 | | 04 | E | 5.000 | 250.00 2.000 | 1.000 | |
| REMOVAL OF SIGNAL SYSTEM | | | | | | | | |
| N | 2020256 | | 08 | E | 12,890.000 | 1.00 7640.000 | | |
| REMOVE AND RESET GUARDRAIL END TREATMENT | | | | | | | | |
| N | 2020417 | | 09 | E | 2.000 | 535.00 0.000 | 1.000 | |
| REMOVE AND RESET CONCRETE BARRIER RAIL | | | | | | | | |
| N | 2021052 | | 09 | E | 3,190.000 | 5.90 2192.000 | 1004.000 | |
| RESET CHAIN-LINK FENCE | | | | | | | | |
| N | 2021056 | | 02 | E | 1,000.000 | 10.00 1000.000 | | |
| REMOVAL OF BITUMINOUS SURFACE (COLD MILLING) | | | | | | | | |
| N | 2021152 | | 02 | E | 10,200.000 | 1.71 0.000 | 10131.000 | |
| | | | 09 | E | 5,800.000 | 0.000 | 5854.300 | |

Change orders are entered into IFS by Headquarters Construction as approved. When an approved change order is received in the field office, the newly approved change order items, even though they do not appear on the TAD, they will be entered with the appropriate progress type, and entered on the blank lines at the end of the TAD, as illustrated on page 23-10. It will appear on the next TAD.

Working days are entered on the front of the TAD. Enter the number of days charged for the cycle in the "This Cycle" (three places, 010). If there are no days being charged, then enter a zero (0). The I (increase) or D (decrease) must be circled. An entry for working days is mandatory for each progress payment. An illustration is shown on page 23-8. If days accrued while no progress payment (ne or NE) were being processed, then add the total days to the next progress payment (cp or CP). Days cannot be charged or returned on a no estimate (ne or NE).

Enter the Quantity Total on the front of the TAD. The quantity total is the mathematical total (increases and decreases) of all quantities entered on the TAD. If the quantity total changes, line through the incorrect total on the TAD and write the correct total above it. The Quantity Total, with the I (increase) or D (decrease) circled, must be completed on each progress payment. An illustration is shown on page 23-8. If a progress payment has only Fuel escalation wait to process until there are more items to pay. The \$ (dollar) amount of a progress payment must be \$0.00 or greater.

There is no documentation required for Item Number 629 0100, Time Related Overhead if applicable to a contract. **Payment for time related overhead shall be the same number as working days charged for each payment cycle.** For example: if 10 days are charged, pay 10 days of overhead. Overhead will not be paid for working days charged when the Contractor is into liquidated damages. If you have any questions, please contact Headquarters Construction.

**DOCUMENTATION REQUIREMENT
SECTION C
LIQUIDATED DAMAGES**

Listed in this section are a few examples of different liquidated damages. If there are any questions concerning the few mentioned in this section or other liquidated damages, please call Headquarters Construction.

Damages for Plantmix Failing Lottman Tests see page 23-13 for an illustration.

1. Using the type of mix and type of asphalt to be assessed damages, find the requirements and rejection limits.
2. Use the Special Provisions for the appropriate contract, section 401.02.02-Composition of Mixtures to acquire the Lottman requirements.

As used in the example below:

65 is the requirement and 50 is the rejection limit for Indirect Tensile Strength (Unconditioned), see the green rectangle below.

70% (min) is the requirement and 55% (min) is the rejection limit for Indirect Tensile Strength, Retained Strength, see the blue rectangle below.

3. To determine if the failure is for Indirect Tensile Strength (Unconditioned) and/or Indirect Tensile Strength, Retained Strength see the Lottman Test Report from the Materials Division.
4. Refer to section 109.02 of the Special Provisions for the appropriate contract for the \$ value per ton per demerits.

Example:

Given: 463.83 tons Type 2 plantmix produced using PG 64 28NV asphalt.
Indirect Tensile Strength (Unconditioned) of sample = 60 psi, taken from the Lottman Test Report as illustrated on page 23-13.
Indirect Tensile Strength, Retained Strength = 60%, taken from the Lottman Test Report as illustrated on page 23-13.

$$\frac{65 \text{ psi} - 60 \text{ psi}}{65 \text{ psi} - 50 \text{ psi}} = \frac{5}{15} = 0.333 \times 21 = 6.9999 = 6 \text{ demerits. (Round down to the nearest whole demerit)}$$

$$6 \times \$0.36 \text{ per ton} \times 463.83 \text{ tons} = \$1,001.87 \text{ liquidated damages}$$

$$\frac{70\% - 60\%}{70\% - 55\%} = \frac{10}{15} = 0.6666 \times 21 = 13.9999 = 13 \text{ demerits. (Round down to the nearest whole demerit)}$$

$$13 \times \$0.36 \text{ per ton} \times 463.83 \text{ tons} = \$2,170.72 \text{ liquidated damages}$$

$$\text{Total liquidated damages} = \$3,172.59$$

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
1263 S. STEWART ST. CARSON CITY, NV 89712
LOTTMAN TEST REPORT
BITUMINOUS LABORATORY

| | |
|---------------------|----------------------|
| LAB NUMBER: | OM09-EXAMPLE |
| CONTRACT NUMBER: | 9999 |
| PROJECT NUMBER(S): | EB-NH-322-1(001) |
| COUNTY(S): | CARSON CITY |
| PRIMARY CONTRACTOR: | GENERAL CONSTRUCTION |
| DATE SAMPLED: | 03/19/09 |
| DATE RECEIVED: | 03/19/09 |
| REPORT DATE: | 03/25/09 |
| SAMPLED BY: | GENTLE BEN |
| CHECKED BY: | BS |
| TYPE MATERIAL: | TYPE 2C PLANTMIX |
| MIX DESIGN NUMBER: | BF09-1 |
| SOURCE OF SAMPLE: | "FV" 43+00 LT |
| TYPE ASPHALT: | PG 64-28NV |
| ASPHALT PRODUCER: | ASPHALT INC. |

JOB DESCRIPTION: NEVADA ROADWAY

| | | |
|---------------------------------|------|-------------|
| ORIGINAL TENSILE STRENGTH, PSI: | 60.0 | 65 PSI MIN |
| % RETAINED STRENGTH: | 60 | 70% MINIMUM |

REMARKS:
THIS SAMPLE FAILS TO MEET PROJECT SPECIFICATIONS FOR ORIGINAL TENSILE STRENGTH AND % PERCENT RETAINED STRENGTH.

- DISTRIBUTION:**
- 1 DISTRICT ENGINEER
 - 1 RESIDENT ENGINEER
 - 1 CONSTRUCTION ENGINEER
 - 1 LAB FILES
 - 1 BITUMINOUS LAB

The numbers in the red boxes are the numbers used in each equation; see the red rectangles shown on page 23-12.

If you have any questions call Headquarters Construction.

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for plantmix failing lottman tests and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Damages on Asphalt:

Asphalt samples represent 25 tons (23 mtons) or any fraction thereof on the last sample of the day. Make sure to check the Special Provisions of the contract to assure the sample frequency has not been changed.

The calculation of liquidated damages for asphalt represented by each sample on any given day is:

$$\frac{\text{total asphalt used}}{\text{total samples taken}} = \text{tonnage represented for each sample}$$

In no case shall any sample represent more than 25 tons (23 mtons). This is done on all samples for the day whether they passed or failed.

The items needed to calculate damages for asphalt are:

1. The REPORT TESTS OF ASPHALTIC CEMENT from the lab shows whether a sample has pass/failed and on failures will have demerits, as illustrated on page 23-16.
2. The Plant Record in the Asphalt Cement book, as illustrated on page 23-17.
3. A copy of the spreadsheet that shows the quantity of mix placed on the day the sample(s) failed. An illustration of the spreadsheet is shown in Chapter 9.
4. A copy of the applicable **mix design** for the percent of asphalt and mineral filler.
5. The dollar amount per ton from Section 402.05.01 of the Special Provisions of the contract.
6. The demerit chart in Section 109.02 of the Standard Specifications for Road and Bridge Construction (Silver Book).
7. Calculation Worksheet, as illustrated on page 23-18.

Complete the Liquidated Damages for Failing Asphalt Cement form, as illustrated on page 23-15.

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for asphalt and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

This report will be produced by the Lab and the information on top of the form comes from the TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016) that was turned in with the asphalt sample. **Assure the information on the TRANSMITTAL FOR ASPHALT SAMPLES is correct.** The red arrows represent the information from the Plant Record and the TRANSMITTAL FOR ASPHALT SAMPLES that will be placed on the LIQUIDATED DAMAGES FOR ASPHALT CEMENT form, as illustrated on page 23-15. This test report shows 10 demerits. According to the demerit chart in Section 109.02 of the Standard Specifications for Road and Bridge Construction (Silver book), demerits specified shall be assessed as Liquidated Damages. The price of the asphalt product will be specified in the Special Provisions for the contract. Material removed will not be paid for and the removal therefore will be at the Contactor's expense.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 EAST WASHINGTON AVENUE, LAS VEGAS, NV 89101

REPORT OF TESTS OF ASPHALTIC CEMENT

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Lab Number..... IVAC-2008-00232</p> <p>Contract Number..... 3247</p> <p>Project Number..... IM-015 (SR 160)</p> <p>County..... CLARK</p> <p>Nevada Specification..... PG 76-22HV</p> <p>Asphalt Producer..... ERGON ASPHALT PRODUCTS</p> <p>Shipping Point..... LAS VEGAS</p> <p>Contractor..... LAS VEGAS PAVING</p> | <p>Field Number..... 35</p> <p>Actual Tonnage..... 25.00</p> <p>Sampled By..... CONTRACTOR</p> <p>Observed By..... T. BAILEY</p> <p>Tested By..... JO, AC, MS</p> <p>Date Sampled..... 08/09/2008</p> <p>Date Received..... 08/09/2008</p> <p>Date Tested..... 08/10/2008</p> <p>Date Reported..... 08/10/2008</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| TESTS PERFORMED | RESULTS | | NEVADA SPECIFICATIONS |
|------------------------------------------------------------------------|---------------------------|---------|-----------------------|
| | TEST | RE-TEST | |
| ORIGINAL BINDER | | | |
| Flash Point, °C | | | Minimum 230°C |
| Viscosity, 135°C, Pa·s | 1.60 | | Maximum 3.0 Pa·s |
| Original Dynamic Shear, G°/sin δ, 10 rad/s, kPa | **FAILED** 1.08 | 1.07 | Minimum 1.30 kPa |
| Original Ductility @ 4°C, 5 cm/min, cm | 27 | | Minimum 20 cm |
| Sieve Test | | | Pass |
| Original Penetration @ 25°C, 100g, 5 sec, dmm | 66 | | N/A |
| ROLLING THIN FILM OVEN RESIDUE | | | |
| Mass Loss, % | 0.248 | | Maximum 0.5 % |
| Residue Dynamic Shear, G°/sin δ, 10 rad/s, kPa, 76°C | 3.07 | | Minimum 2.20 kPa |
| Residue Ductility @ 4°C, 5 cm/min, cm | 13 | | Minimum 10 cm |
| PRESSURE AGING VESSEL RESIDUE | | | |
| PAV Dynamic Shear, G°/sin δ, 10 rad/s, kPa, 31°C | 1378 | | Maximum 5000 kPa |
| Creep Stiffness, 60s, S, MPa, -12°C | 124.0 | | Maximum 300 MPa |
| M-value, -12°C | 0.304 | | Minimum 0.300 |
| Direct Tension, 1.0 mm/min, Failure Strain, % | | | Minimum 1.0 % |
| REMARKS AND RECOMMENDATIONS: MATERIAL HAS FAILED NEVADA SPECIFICATIONS | | | |
| TOTAL 10 DEMERIT(S) | | | |

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>DISTRIBUTION</p> <p>1 District Engineer</p> <p>1 Resident Engineer</p> <p>1 Laboratory</p> <p>1 Asphalt Producer</p> <p>1 Construction</p> | <p>1 Contractor</p> <p>State Purchasing</p> <p>Maintenance Engineer</p> <p>C.C. Facility</p> <p>Bituminous Lab</p> <p>Clark County</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

[Signature]

* Other Project Numbers May Be Applicable

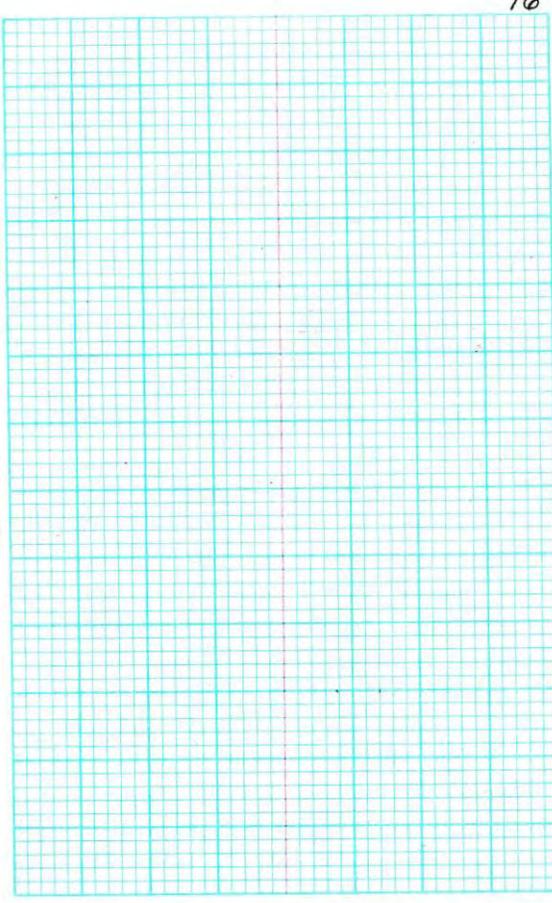
The Plant Record in the Asphalt Cement book shall match the information placed on the TRANSMITTAL FOR ASPHALT SAMPLES (Form No. 020-016). Sample numbers 35 thru 38 shown below on the Plant Record, are used in the example on page 23-18.

Item: PG 76-22NU

16

Plant Record

| Sample No. | Date | Time | Insp |
|------------|---------|---------|------|
| 21 | 7/23/08 | 5:30 AM | TC |
| 22 | 8/5/08 | 5:45 AM | TC |
| 23 | 8/5/08 | 6:00 AM | TC |
| 24 | 8/5/08 | 6:30 AM | TC |
| 25 | 8/5/08 | 6:50 AM | TC |
| 26 | 8/5/08 | 7:15 AM | TC |
| 27 | 8/6/08 | 5:20 AM | TC |
| 28 | 8/6/08 | 5:45 AM | TC |
| 29 | 8/6/08 | 6:15 AM | TC |
| 30 | 8/7/08 | 6:00 AM | TC |
| 31 | 8/7/08 | 6:30 AM | TC |
| 32 | 8/7/08 | 6:50 AM | TC |
| 33 | 8/7/08 | 7:20 AM | TC |
| 34 | 8/7/08 | 7:45 AM | TC |
| 35 | 8/9/08 | 4:00 AM | TC |
| 36 | 8/9/08 | 4:25 AM | TC |
| 37 | 8/9/08 | 5:00 AM | TC |
| 38 | 8/9/08 | 5:30 AM | TC |
| 39 | 8/17/08 | 6:10 AM | TC |
| 40 | 8/18/08 | 6:30 AM | TC |
| 41 | 8/18/08 | 7:00 AM | TC |



This worksheet is to be used **only** when calculating liquidated damages for asphalt. Make sure the asphalt cement for the day (←) and the total tons (←) match. If the total tons do not match the asphalt cement for the day, an adjustment must be made on as many samples as it takes to get the total to equal (○) the total tons.

**LIQUIDATED DAMAGES FOR FAILING ASPHALTS
CALCULATION WORKSHEET**

CONTRACT NO. DATE USED:

TYPE OF ASPHALT: MIX DESIGN NO:

FROM MIX DESIGN: BITUMEN RATIO = MINERAL FILLER =

TOTAL WET TONS FOR DAY =

DRY TONS FOR DAY = $\frac{1918.50}{1.066} =$

ASPHALT CEMENT FOR DAY = 1799.72 X 0.051 = ←

TOTAL NO. OF SAMPLES TAKEN FOR DAY =

TONS PER SAMPLE FOR DAY (FOR DEMERITS) = $\frac{91.79}{4} =$

| LAB NUMBER | DEMERITS | \$/DEMERIT | X | TONS | = | \$/SAMPLE | PASS/FAIL |
|------------|----------|------------|---|--------------------------------------|---|------------|-----------|
| 232 | 10 | \$50.00 | X | 22.95 | = | \$1,147.50 | FAIL |
| 233 | 7 | \$30.00 | X | 22.95 | = | \$688.50 | FAIL |
| 234 | 3 | \$20.00 | X | 22.95 | = | \$459.00 | FAIL |
| 235 | 0 | \$0.00 | X | <input type="text" value="22.94"/> ○ | = | \$0.00 | PASS |

TOTAL TONS = ←

TOTAL DEMERIT \$ FOR DAY =

Damages for compressive strength:

Follow the instructions in the Standard Specifications for Road and Bridge Construction (Silver book). You will need to do all calculations on an 8 ½" x 11" sheet of paper or a CALCULATION sheet (Form No. 040-034).

Illustrations for the TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS and book page are shown on page 23-20.

The items needed to calculate damages for compressive strength are:

1. The TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS showing the 28 day strength.
2. A calculation sheet with the following items listed:
 - a. date the concrete was placed
 - b. the bid item number and description
 - c. must show book name or number and page number
 - d. total quantity represented and AEB number
 - e. unit bid price
 - f. percent of liquidated damages per unit bid price
 - g. calculations

Example: On 12/13/05 for item no. 502 0828-Class A Concrete (Mod) (Maj), for the bridge deck pour, 5 sets of cylinders were made and one set failed compressive strength. The test report shows after 28 days the strength was 88.8% (89). Shown in Book #21 (H-2731 structure) on page 27, 539.35 cu yds @ \$270/cuyd (bid price) in AEB #3 were placed.

Following the Standard Specifications for Road and Bridge Construction (Silver book):

$95\% - 89\% = 6\% \times 3\% = 18\%$ (percent of liquidated damages per unit bid price)

$\$270.00 \times .18 = \48.60

$\frac{539.35 \text{ cuyd}}{5 \text{ sets}} = 107.87 \text{ cuyd} \times \$48.60/\text{cuyd} = \$5,242.48$ damages to be deducted

When all calculations have been completed a letter explaining the damages must be sent to the Contractor, with a copy sent to Headquarters Construction notifying when the damages will be deducted from the progress payment.

Liquidated damages for compressive strength and all backup mentioned on this page shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Refer Correspondence to: **JAN 11 2006**
 Calls to: (775) 888-7871
 Date Reported: _____

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION
 MATERIALS DIVISION
 123 E. Washington Ave. Las Vegas NV. 89101

Distribution:
 1 District Engr
 1 Resident Engr
 1 Laboratory
 1 Supplier @ 28 Days
 1 Construction
 Bridge

TRANSMITTAL FOR CONCRETE SAMPLES AND REPORT OF TESTS OF CONCRETE CYLINDERS
 Test Method ASTM C39

Contract Number 3238 Resident Engineer Kinzer Contractor Frehner Report Code LV-05-10943 Mix Design Number PA700EAF

County Clark Date Placed 12/13/2005 Date Received 12/16/2005 Time Placed 10:55 AM Sample Location Bridge Deck

Class of Concrete EA-Mod Cement as Batched 525 lbs/cyd 0.0 kg/cum Brand of Air Entraining Agent Used _____
 Project Specified Strength 4500 PSI MPa Fly Ash as Batched 162 lbs/cyd 0.0 kg/cum Brand of Water Reducer Used _____
 Cylinder Number(s) 100 Fine Aggregate as Batched 1177 lbs/cyd 0 kg/cum Brand of Super Plasticizer _____
 Brand of Cement Lehigh Coarse Aggregate as Batched 1841 lbs/cyd 0 kg/cum Amount of Super Plasticizer 0.0 oz/cyd 0.0 L/cu
 Type of Cement V Mixing Water 13.0 gal 0.0 L Other Additive Used _____
 Source of Water Local Slump 4.00 in 0 mm Nev. T438 Break at 2@7 2@10 3@28
 Source of Fine Aggregate Beaver Dam % Air 0.00 Nev. T431 Sampled By C. Calvin
 Source of Coarse Aggregate Littlefield Pit Slump After Addition of Super Plasticizer 0.00 in 0 mm Concrete Supplied By Precision Agg.
 Source of Fly Ash ISG Resource Navajo Unit Weight 0.0 PCF 0 kg/cum Nev. T435

| Laboratory Sample Number | Date of Test | Age (days) | Diameter (in) | Area (sq in) | Total Load (lbs) | lbs/sq in | Avg 28 day lbs/sq in | Diameter (mm) | Area (sq cm) | Total Load (newtons) | MPa | Avg 28 day MPa | Initials |
|--------------------------|--------------|------------|---------------|--------------|------------------|-----------|----------------------|---------------|--------------|----------------------|-------|----------------|----------|
| 05-10943 | 12/20/2005 | 7 | 6.00 | 28.27 | 82315 | 2910 | | 152.4 | 182.42 | 366200 | 20.06 | | ks |
| 05-10944 | 12/20/2005 | 7 | 6.00 | 28.27 | 73665 | 2610 | | 152.4 | 182.42 | 327700 | 18.00 | | ks |
| 05-10945 | 12/23/2005 | 10 | 6.00 | 28.27 | 81510 | 2880 | | 152.4 | 182.42 | 362600 | 19.86 | | ks |
| 05-10946 | 12/23/2005 | 10 | 6.00 | 28.27 | 82250 | 3020 | | 152.4 | 182.42 | 365900 | 20.82 | | ks |
| 05-10947 | 1/10/2006 | 28 | 6.01 | 28.37 | 112435 | 3960 | | 152.7 | 183.02 | 500100 | 27.30 | | cp |
| 05-10948 | 1/10/2006 | 28 | 6.01 | 28.37 | 112910 | 3980 | 4000 | 152.7 | 183.02 | 502200 | 27.44 | 27.58 | cp |
| 05-10949 | 1/10/2006 | 28 | 6.01 | 28.37 | 114835 | 4050 | | 152.7 | 183.02 | 510800 | 27.92 | | cp |



Page 1 of 1

Remarks: The average 28 day strength is 88.8 % of the minimum required strength
 Type of Fracture: Type A (Cone)

R. W. D. [Signature]

NDOT 020-050 Rev 03/01

Item No: 5020828
 Item: Class A Conc. (mod) (max)
 Plan Qty. 4459.00 cuyd

| Location | cuyd | Date Insp | Agg# | Pmi# | Cals/Remarks |
|----------|--------|-----------|------|------|-----------------------------------------------|
| Top Slab | 539.35 | 12-08-05 | 03 | 22 | Top Slab = 1078.70 ✓ per Bill of materials |
| Top Slab | 539.35 | 12-13-05 | 03 | 22 | Top slab complete |

Seg fig = .01 27'

Page total:



Liquidated damages for pavement thickness of concrete paving:

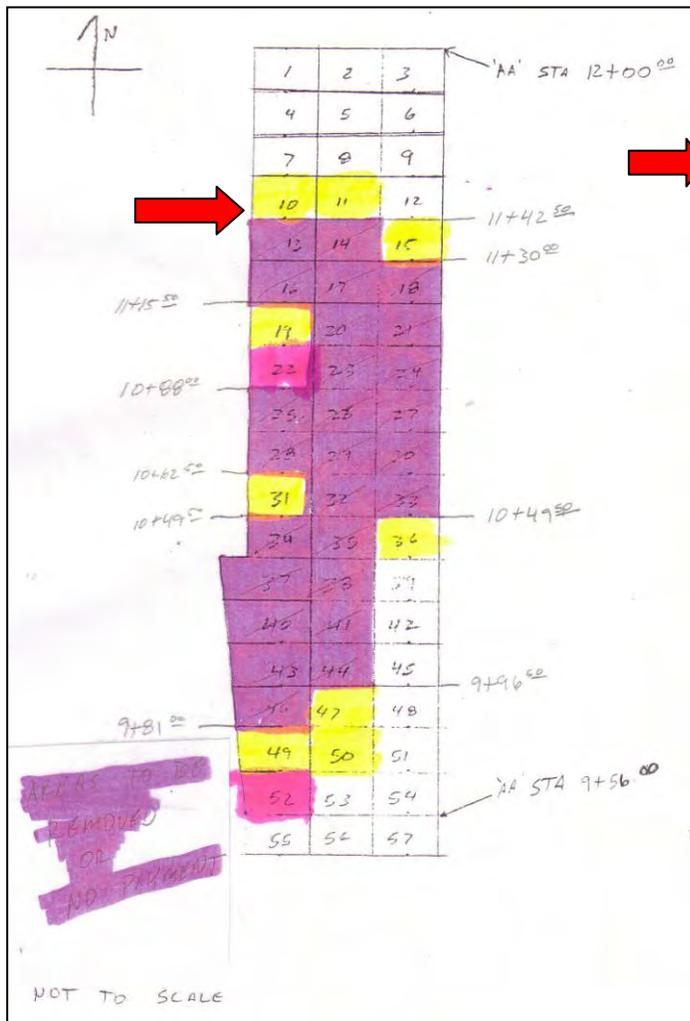
Follow the instructions in the Standard Specifications for Road and Bridge Construction (Silver book). Calculations must be shown on an 8 1/2" x 11" sheet of paper or a CALCULATION sheet (Form No. 040-034). The CALCULATION sheet must show the book number or name and page number of the area that will have damages assessed. Make sure all the Pavement Core Record, Primary and Secondary Pavement Thickness forms and all backup mentioned on this page are filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project). When all calculations have been completed a letter explaining the damages must be sent to the Contractor notifying when the damages will be deducted from progress payment. A copy of the letter will be sent to Headquarters Construction.

The illustrations below only give an example of how to document damages. Panel 10 below is NDOT core no. 49, as illustrated on page 23-22. According to the Pavement Core Record Secondary Pavement Thickness, as illustrated on page 23-22, core #49 has a deficiency of .4 and according to the chart in the Standard Specifications for Road and Bridge Construction (Silver book) damages will be 15% of the contract bid price, which is \$42.00.

$$15\text{ft} \times 13\text{ft} = 195\text{sqft} \div 9 = 21.7\text{sqyd}$$

$$\$42.00 \times .15 = \$6.30$$

$$21.7\text{sqyd} \times \$6.30 = \$136.71 \text{ damages}$$



| Panel No. | Long. Dim | Trans Dim | Total Area | Depth | NDOT Core No. | Remove |
|-----------|--------------|-----------|------------|-------|---------------|--------|
| 1 | Good-No Core | | | | | |
| 2 | Good-No Core | | | | | |
| 3 | Good-No Core | | | | | |
| 4 | Good-No Core | | | | | |
| 5 | Good-No Core | | | | | |
| 6 | Good-No Core | | | | | |
| 7 | Good-No Core | | | | | |
| 8 | Good-No Core | | | | | |
| 9 | Good-No Core | | | | | |
| 10 | 15.00 | 13.00 | 195.00 | 10.60 | 49 | |
| 11 | 15.00 | 12.00 | 180.00 | 10.40 | 46 | |
| 12 | Good-No Core | | | | | |
| 13 | 12.50 | 13.00 | 162.50 | 9.90 | 48 | * |
| 14 | 12.50 | 12.00 | 150.00 | 9.50 | 45 | * |
| 15 | 12.50 | 12.50 | 156.25 | 10.40 | 44 | * |
| 16 | 14.50 | 13.00 | 188.50 | 9.90 | 47 | * |
| 17 | 14.50 | 12.00 | 174.00 | 9.30 | 41 | * |
| 18 | 14.50 | 12.50 | 181.25 | 10.10 | 43 | * |
| 19 | 12.50 | 13.00 | 162.50 | 10.50 | 35 | * |
| 20 | 12.50 | 12.00 | 150.00 | 9.50 | 40 | * |
| 21 | 12.50 | 12.50 | 156.25 | 9.80 | 42 | * |
| 22 | 15.00 | 13.00 | 195.00 | 11.00 | 37 | * |
| 23 | 15.00 | 12.00 | 180.00 | 9.60 | 38 | * |
| 24 | 15.00 | 12.50 | 187.50 | 9.60 | 53 | * |
| 25 | 11.50 | 13.00 | 149.50 | 10.00 | 36 | * |
| 26 | 11.50 | 12.00 | 138.00 | 9.30 | 39 | * |
| 27 | 11.50 | 12.50 | 143.75 | 9.40 | 54 | * |
| 28 | 14.00 | 13.00 | 182.00 | 10.10 | 50 | * |
| 29 | 14.00 | 12.00 | 168.00 | 9.20 | 52 | * |
| 30 | 14.00 | 12.50 | 175.00 | 9.10 | 55 | * |
| 31 | 13.00 | 13.00 | 169.00 | 10.40 | 51 | * |
| 32 | 13.00 | 12.00 | 156.00 | 9.70 | 58 | * |
| 33 | 13.00 | 12.50 | 162.50 | 10.00 | 56 | * |
| 34 | 14.50 | 13.00 | 188.50 | 10.10 | 67 | * |
| 35 | 14.50 | 12.00 | 174.00 | 9.90 | 59 | * |
| 36 | 14.50 | 12.50 | 181.25 | 10.50 | 57 | * |
| 37 | 12.00 | 17.00 | 204.00 | 9.70 | 66 | * |
| 38 | 12.00 | 12.00 | 144.00 | 10.10 | 60 | * |
| 39 | Good-No Core | | | | | |
| 40 | 13.50 | 16.50 | 222.75 | 9.90 | 65 | * |
| 41 | 13.50 | 12.00 | 162.00 | 10.00 | 61 | * |
| 42 | Good-No Core | | | | | |
| 43 | 13.00 | 16.00 | 208.00 | 9.60 | 64 | * |
| 44 | 13.00 | 12.00 | 156.00 | 9.80 | 32 | * |
| 45 | Good-No Core | | | | | |
| 46 | 15.50 | 15.00 | 232.50 | 9.80 | 68 | * |
| 47 | 15.50 | 12.00 | 186.00 | 10.40 | 63 | * |
| 48 | Good-No Core | | | | | |
| 49 | 12.00 | 13.50 | 162.00 | 10.40 | 69 | * |
| 50 | 12.00 | 12.00 | 144.00 | 10.40 | 70 | * |
| 51 | Good-No Core | | | | | |
| 52 | 13.00 | 13.00 | 169.00 | 10.20 | 62 | * |
| 53 | Good-No Core | | | | | |
| 54 | Good-No Core | | | | | |
| 55 | Good-No Core | | | | | |
| 56 | Good-No Core | | | | | |
| 57 | Good-No Core | | | | | |

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 East Washington Avenue, Las Vegas, NV, 89101

REPORT OF PAVEMENT CORE RECORD
PRIMARY PAVEMENT THICKNESS

CONTRACT NO: 3214
CONTRACT LIMITS: "S15" 628+72.12 to "S15A" 770+45.79
DATE OF PLACEMENT: 8/12/2005
LIMITS OF DAYS POUR: "EN" 78+10 to "EN" 84+20, "AA" 9+00 to "AA" 12+00
CORE DATE: 9/12/2005
CORED BY: J. Chomes
SHEET: 1 of 1

| CORE NO. | LOCATION | | | | | PRIMARY PAVEMENT THICKNESS | | | S ** | PRIMARY PAVEMENT* THICKNESS | | |
|----------|------------|----------|-----------------------|------------------|----|----------------------------|---------------|---------------------|---------|-----------------------------|-----------|-----------------|
| | STATION | POS. CL. | POSITION 10ths of ft. | POSITION* METERS | LN | PLANNED INCHES | ACTUAL INCHES | **DIFFERENCE INCHES | | PLANNED MM | ACTUAL MM | **DIFFERENCE MM |
| 6 | "EN" 81+15 | Rt | 27 | | S | 11 | 10.8 | -0.2 | N | | | |
| 32 | "AA" 10+00 | Rt | 79.5 | | S | 11 | 9.8 | -1.2 | Y | | | |
| 31 | "AA" 11+00 | Rt | 91 | | S | 11 | 10.0 | -1 | Y | | | |
| | | | | | | AVERAGE | 10.20 | -0.80 | | AVERAGE | | |

*metric Contract
**for the purpose of determining the average thickness deficiency, an excess thickness of more than 0.2" or 5mm greater than the thickness specified will be considered to be +0.2" or +5mm greater than the specified thickness.
***S=Secondary core required (Y or N)

DISTRIBUTION:
1 District Engineer
1 Resident Engineer (original copy)
1 Construction
1 Lab Services
1 Las Vegas Materials Facility

R. W. D. Achelt

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
123 EAST WASHINGTON STREET, LAS VEGAS, NV 89101

PAVEMENT CORE RECORD
SECONDARY PAVEMENT THICKNESS

CONTRACT NO: 3214
CONTRACT LIMITS: "S15" 628+72.12 to "S15A" 770+45.79
DATE OF PLACEMENT: 8/12/2005
LIMITS OF DAYS POUR: "AA" 9+00 to "AA" 12+00
CORE DATE: 9/13/2005
CORED BY: J. Chomes
SHEET: 1 of 2

| CORE NO. | LOCATION | | | | | SECONDARY OR ISOLATION PAVEMENT THICKNESS | | | S ** | SECONDARY OR ISOLATION* PAVEMENT THICKNESS | | |
|----------|------------|----------|-----------------------|------------------|----|-------------------------------------------|---------------|---------------------|---------|--------------------------------------------|-----------|-----------------|
| | STATION | POS. CL. | POSITION 10ths of ft. | POSITION* METERS | LN | PLANNED INCHES | ACTUAL INCHES | **DIFFERENCE INCHES | | PLANNED MM | ACTUAL MM | **DIFFERENCE MM |
| 35 | "AA" 11+10 | Rt | 73 | | G | 11 | 10.5 | -0.5 | | | | |
| 36 | "AA" 10+86 | Rt | 72.5 | | G | 11 | 10 | -1 | | | | |
| 37 | "AA" 11+00 | Rt | 62 | | G | 11 | 11 | 0 | | | | |
| 38 | "AA" 11+00 | Rt | 85 | | S | 11 | 9.6 | -1.4 | | | | |
| 39 | "AA" 10+85 | Rt | 84.5 | | S | 11 | 9.3 | -1.7 | | | | |
| 40 | "AA" 11+15 | Rt | 85 | | S | 11 | 9.5 | -1.5 | | | | |
| 41 | "AA" 11+20 | Rt | 81 | | S | 11 | 9.3 | -1.7 | | | | |
| 42 | "AA" 11+12 | Rt | 95 | | S | 11 | 9.8 | -1.2 | | | | |
| 43 | "AA" 11+25 | Rt | 94 | | S | 11 | 10.1 | -0.9 | | | | |
| 44 | "AA" 11+40 | Rt | 94 | | S | 11 | 10.4 | -0.6 | | | | |
| 45 | "AA" 11+40 | Rt | 83 | | S | 11 | 9.5 | -1.5 | | | | |
| 46 | "AA" 11+55 | Rt | 83 | | S | 11 | 10.4 | -0.6 | | | | |
| 47 | "AA" 11+25 | Rt | 69 | | G | 11 | 9.9 | -1.1 | | | | |
| 48 | "AA" 11+40 | Rt | 67 | | G | 11 | 9.9 | -1.1 | | | | |
| 49 | "AA" 11+55 | Rt | 67 | | G | 11 | 10.6 | -0.4 | | | | |
| 50 | "AA" 10+70 | Rt | 71.5 | | G | 11 | 10.1 | -0.9 | | | | |
| 51 | "AA" 10+55 | Rt | 68.5 | | G | 11 | 10.4 | -0.6 | | | | |
| | | | | | | AVERAGE | 10.02 | -0.95 | | AVERAGE | | |

*metric Contract
**for the purpose of determining the average thickness deficiency, an excess thickness of more than 0.2" or 5mm greater than the thickness specified will be considered to be +0.2" or +5mm greater than the specified thickness.

DISTRIBUTION:
1 District Engineer
1 Resident Engineer (original copy)
1 Construction
1 Lab Services
1 Las Vegas Materials Facility

R. W. D. Achelt



**DOCUMENTATION REQUIREMENT
SECTION D
RETENTION**

No retention will be held until 85% of the contract bid price, plus or minus change orders, has been paid. Five (5) percent of said adjusted contract price or fifty thousand (\$50,000.00) dollars, whichever is less, will be retained until the contract is completed and accepted by the Director. The computer will automatically hold retention (all or a portion) at the appropriate time.

If the remaining work is being performed on a satisfactory basis, the Director may reduce the percentage retained for additional payment. The Contractor must make the request for reducing retention in writing. The request must be accompanied by a letter of concurrence from the Contractor's bonding company. The Resident Engineer must concur in writing that the amount to be retained will cover any documentation errors or liquidated damages that may develop. This correspondence (Contractor's request, bonding company concurrence and Resident Engineer's concurrence) shall be routed through the District Office for their written concurrence, and then forwarded to Headquarters Construction for their concurrence and processing (NRS 408.383 REVISED 7-1-81).

Per NDOT policy, retention shall not be reduced to less than \$10,000. If retention held is less than \$10,000, a reduction will not be processed.

**DOCUMENTATION REQUIREMENT
SECTION E
PARTIAL PAYMENTS FOR STOCKPILED MATERIALS**

Partial payments may be made for acceptable materials furnished and stored for use on the contract if such storage is within the vicinity of the jobsite in the State of Nevada and subject to or under the control of NDOT. This is more commonly referred to as payment for "Materials on Hand". See Section 109.06 of the Standard Specifications for Road and Bridge Construction (Silver book) for instructions and see page 23-26 and 23-27 for an illustration of a REQUEST FOR PAYMENT FOR MATERIALS ON HAND (Form No. 040-015) and an invoice.

All payments made for materials furnished shall be based on the Prime Contractor's written request. The Resident Engineer and/or the Materials Division representative shall verify quantity, quality, location, proper storage and acceptability of the material and the information furnished with the Contractor's request.

The Prime Contractor must submit his request for partial payment on a REQUEST FOR PAYMENT FOR MATERIALS ON HAND (Form No. 040-015) in duplicate to the Resident Engineer. The form must be signed by the **Prime Contractor** and notarized.

- a. The duplicate copy and all backup shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).
- b. The original copy and any invoices, prices or calculations, test reports, supporting quantities, and cost of materials stockpiled must **be faxed into Headquarters Construction no later than 5:00 P.M. on Friday the cut-off date with the original(s) mailed to Headquarters Construction.** Any stockpiled quantities submitted for payment without the support data mentioned above shall be removed from the progress payment. Payment may be made for these items when the appropriate documentation has been received by Headquarters Construction.

Partial payments for materials fabricated or manufactured off the jobsite (pipe, rebar, fence, guardrail, etc.) shall be allowed at invoice prices, providing that invoice costs are less than unit bid price for each item. Invoices shall be furnished by the Contractor before payment is allowed. It should be stressed that the maximum payment shall be such that when the estimated placements for other remaining costs of the work are added, the contract price is not exceeded. The purpose of this instruction is to prevent payment of more than the contract price for materials and to leave sufficient funds in the item to complete the work in cases where the bid price does not reflect the true cost of the work.

If the unit price on the invoice exceeds the unit bid price for any item, the Resident Engineer shall determine a percentage of the unit bid price to be paid for the stockpile item.

Subsection 109.06 of the Standard Specifications for Road and Bridge Construction (Silver book) outlines allowable percentages of various aggregate materials and other miscellaneous items for stockpile payment. On some contracts, subsection 109.06 of the Special Provisions establishes the stockpile price per ton for some aggregates.

Partial payments are not allowed for any perishable items unless allowed in the Special Provisions. This is of particular importance on the contracts which include planting or beautification items.

It shall be the responsibility of the Resident Engineer to determine if materials included for payment under materials on hand have been removed or incorporated in the work. Any subsequent addition to the stockpile must be requested by the Contractor as stated previously. Any material brought to the jobsite stockpile must have the necessary REQUEST FOR PAYMENT FOR MATERIALS ON HAND submitted prior to inclusion for payment.

If materials have been requested and have not been brought to the jobsite, a suitable explanation must be made on the REQUEST FOR PAYMENT FOR MATERIALS ON HAND by the Resident Engineer or his/her representative.

No stockpile payment is allowed on bid items in excess of planned quantity, planned quantity plus or minus authorized changes, or planned quantity minus paid to date quantity.

Sales tax and freight charges may be included in the adjusted unit price if it is requested and substantiated by invoice. It is not required to have an approved change order for materials stockpiled off the jobsite as long as the stockpile is in Nevada; however, all other requirements for off-the-job stockpiles remain the same.

Quantities of stockpiled materials on hand shall be included on the progress payment by assigning "SP" numbers and coding them on the progress payment as described in Section B of this chapter.

The stockpiled price for reinforcing steel and all guardrail items (guardrail, end anchors, connections, etc.) cannot be greater than 50% of the bid price for that bid item. Also, stockpile payments for reinforcing steel for drilled shafts should not be greater than 50% of the unit bid price for the drilled shafts. If unusually high or low bid prices for these items are encountered, contact the Headquarters Construction on a case-by-case basis.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
REQUEST FOR PAYMENT FOR MATERIALS ON HAND**

DATE.....11-29-07.....

TO.....Peter Booth.....
Resident Engineer

CONTRACT NO.....3292.....

FROM.....Fisher Industries.....
Prime Contractor

PAYMENT NO.....24.....

In accordance with the provisions of Subsection 109.06 of the Standard Specifications for Road and Bridge Construction, request is made for payment as AMaterials on Hand for the following materials:

| Hid Item No. | SP No. | Quantity | Material Description | Value | Type of Substantiating Evidence of Purchase or Production Cost Attached | Where Stored or Stockpiled |
|--------------|---------|----------|----------------------------|-------------|-------------------------------------------------------------------------|-----------------------------------------------------------------|
| 6172260 | Spoo 26 | 1EA | 4.8M Precast Cattle Guard | \$6,400.00 | Invoice | Jobsite |
| 6172272 | Spoo 27 | 1EA | 8.4M Precast Cattle Guard | \$11,200.00 | Invoice | Jobsite |
| 6172301 | Spoo 28 | 1EA | 13.4M Precast Cattle Guard | \$17,600.00 | Invoice | Jobsite <i>(ABOVE RECEIVED BY ALEX COWWELL NDOT) 12-2-07</i> |

AFFIDAVIT

The materials listed above are separated from other like materials, are physically identified as our property and have been purchased exclusively for use on Contract No...3292... The State may enter upon the premises for the purposes set forth in Subsection 109.06 of the Standard Specifications for Road and Bridge Construction for inspection, checking or auditing, or for any other purpose as you consider necessary. It is expressly understood and agreed that this information and affidavit is furnished to the State for the purpose of obtaining payment for the above materials before they are incorporated into the contract described above, and that the storage thereof at the location shown is subject to and under the control of the State.

Contractor declares under the penalties of perjury that this affidavit (including any accompanying evidence) has been examined by him and to the best of his knowledge and belief is a true and correct affidavit. It is further expressly understood and agreed by the Contractor that in the event he misrepresents to the State the AMaterials on Hand above, Contractor will pay to State all costs and expenses, including reasonable attorney's fees, in any action brought by the State to recover any and all damages sustained by the the State by reason of such misrepresentation.

Norman Bradley Fisher Industries
Name (Signature) Contractor

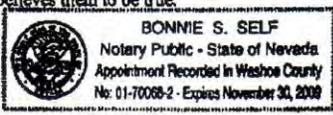
STATE OF NEVADA
COUNTY OF WASHOE

ss. Notary will hand write the Contractor's name that is executing the Request for Payment for Materials on Hand document. Typed for example only.

Norman Bradley

being duly sworn, deposes and says that he is the person who executed the foregoing instrument; that he has read the same and knows the contents thereof; that the matters stated therein are true to his knowledge, except such matters as are stated to be upon information and belief and as to those matters he believes them to be true.

Subscribed and sworn to before me this
30 day of NOV, 2007



Bonnie S. Self
Notary

Instructions to Contractors: Submit original and one duplicate to Resident Engineer prior to the end of the payment cycle. Attach evidence of purchase to original.

Instructions to Resident Engineer: Forward original to Headquarters Construction. Retain duplicate in your office as a supporting record for the progress payment.

DOHERTY WELDING, LLC
 PO. BOX 28
 PILOT ROCK OR. 97868

| | |
|---------------------|--------------|
| Phone # | Fax # |
| 541-443-3234 | 541-443-3241 |
| TAX ID # 93-1296723 | |

Invoice

| | |
|-----------|-----------|
| DATE | INVOICE # |
| 5/31/2007 | 4275 |

| |
|------------------------------------------------------------------------------|
| BILL TO |
| Fisher Industries 500 Damonte Ranch Parkway Suite #1056 Reno NV. 89521 |

| | | |
|----------|--------|---------------|
| P.O. NO. | TERMS | PROJECT |
| 191 | Net 30 | Contract 3292 |

| DESCRIPTION | QTY | RATE | AMOUNT |
|-----------------------------|-----|-----------|-------------|
| Precast Cattle Guard 4.8 m | 1 | 6,400.00 | 6,400.00 |
| Precast Cattle Guard 8.4 m | 1 | 11,200.00 | 11,200.00 |
| Precast Cattle Guard 13.4 m | 1 | 17,600.00 | 17,600.00 |
| Total | | | \$35,200.00 |

**DOCUMENTATION REQUIREMENT
SECTION F
ASPHALT ESCALATION**

Below are instructions on how to calculate the Bi information and what each column represents, making sure to check the contract Special Provisions for any modifications:

The Bi is taken from the transmittal received from Headquarters Construction with the first TAD, as illustrated on page 23-1 or by contacting Headquarters Construction. There is no price adjustment if the current price is within 20% of the Bi. Multiply the Bi by .90 and 1.10 to establish the no adjustment range. Multiply the Bi by 75% to establish the Maximum Bi (if applicable). **If the Bp ever exceeds the Maximum Bi, the maximum Bi shall be used as the Bp for that cycle, as illustrated on page 23-29.**

Column (1) cycle cut-off date

- (2) AEB number (each AEB must be listed separately)
- (3) type of asphalt (each type of asphalt must be listed separately)
- (4) oil percentage (from the mix design)
- (5) mineral filler percentage (from the mix design)
- (6) Bp for that cycle (obtained from faxed memo as illustrated on page 23-31 or by calling Headquarters Construction)
- (7) price difference between the Bp (column 6) and [.90 (Bi) or [1.10 (Bi)
- (8) wet tons paid from the progress payment
- (9) divide wet tons (column 8) by $1 + (\% \text{ asphalt} + \% \text{ mineral filler})$
Example: $1 + (.051 + .015) = 1.066$ $3853.55 \div 1.066 = 3614.96$
- (10) multiply dry aggregate (column 9) by the % of asphalt
Example: $5.1 \div 100 = .051$ $3614.96 \times .051 = 184.36$
- (11) N/A, this column is not used because column 10 is already tons
- (12) multiply the tons (column 10) by price difference (column 7)
Example: $114.53 \times 140.68 = 16112$ (rounded to the nearest whole number)
- (14) payment number
- (15) accumulative total

It will be the responsibility of the **Officeperson** to complete the areas highlighted in yellow for each progress payment where plantmix is being paid. A separate spreadsheet is required for each mix design used.

After the asphalt escalation for each type of asphalt in each AEB is calculated, combine the totals for each AEB and enter the quantities on the TAD. If the amount is negative, mark the Dec (decrease) column with an X or \surd .

For asphalt escalation when plantmix is paid by square meter, please contact Headquarters Construction for assistance.

Rev 11/09

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION
 1263 S. STEWART ST. CARSON CITY, NV 89712
DENSE GRADE BITUMINOUS MIX DESIGN

| | | | |
|-------------------------------|---------------------------------------------------|-----------------------|----------------|
| LAB NUMBER: | BP05-77 | BITUMEN RATIO: | 5.1 PG 76-22NV |
| CONTRACT NUMBER: | 3247 | | |
| PROJECT NUMBER: | STP-0160(016) & IM-016-1(126) | | |
| COUNTY: | CLARK | | |
| PRIMARY CONTRACTOR: | LAS VEGAS PAVING | | |
| DATE AGG. SAMPLED: | 07/19/05 | | |
| DATE AGG. RECEIVED: | 07/26/05 | | |
| DATE ASPHALT RECEIVED: | 08/09/05 | | |
| REPORT DATE: | 08/19/05 | | |
| SAMPLED BY: | LEA & MACK | | |
| CHECKED BY: | SJH & RP | | |
| TYPE MATERIAL: | TYPE 2C PLANTMIX AGGREGATE | | |
| SOURCE OF SAMPLE(S): | BLUE DIAMOND PIT | | |
| MINERAL FILLER: | 1.5% HYDRATED LIME WET-CURED (MARINATED) 48 HOURS | | |
| TYPE ASPHALT: | PG 76-28NV (CCAC05-1518) | | |
| ASPHALT PRODUCER: | ERGON | | |

Used for Asphalt Escalation, Asphalt Damages, and in calculating to assure there are enough B/Ls to cover what has been used, see red arrow.

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------|
| JOB DESCRIPTION: ON SR 160, BLUE DIAMOND RD, FROM LAS VEGAS BLVD (SR 604)/WINDMILL LN TO VALLEY VIEW BLVD - PHASE 1 AND ON I-15, FROM 1 MILE SOUTH OF THE BLUE DIAMOND INTERCHANGE TO I-215 | | |
| SURFACE AREA m²/kg (ft²/lb): | 6.51 (31.8) | |
| SAND EQUIVALENT: | 31 | |
| CALIF. SPECIFIC GRAVITY: | 2.69 | SPECIFICATIONS: |
| COARSE AGG. BULK SPECIFIC GRAVITY: | 2.66 | 2.85 MAX |
| FINE AGG. BULK SPECIFIC GRAVITY: | 2.50 | 2.85 MAX |
| +#4 WATER ABSORPTION: | 0.9 | 4% MAX |
| SS SOUNDNESS COARSE: | 3 | 12% MAX |
| SS SOUNDNESS FINES: | 2 | 15% MAX |
| LIQUID LIMIT (BEFORE MARINATION): | 3/4": INSUFF; 1/2": 23; CRUSHER FINES: 17; CYCLONE SAND: 23 | 35 MAX |
| PLASTICITY INDEX (BEFORE MARINATION): | 3/4": INSUFF; 1/2": 3; CRUSHER FINES: NP; CYCLONE SAND: NP | 10 MAX |
| LA ABRASION: | 18.6 | 37% MAX |
| FRACTURE FACE COUNT: | 100 | 80% MIN |
| VMA (BASED UPON CALIF. SP. GR.): | 16.8 | 12 - 22 |
| ORIGINAL TENSILE STRENGTH (PSI): | 117.8 | 65 PSI MIN |
| % RETAINED STRENGTH: | 93 | 70% MINIMUM |

REMARKS:
 FOR THE MATERIAL REPRESENTED BY THE SUBMITTED SAMPLES WITH THE ATTACHED GRADINGS, LABORATORY TESTS INDICATE A BITUMEN RATIO OF 5.1 PG 76-22NV FOR TYPE 2C PLANTMIX AGGREGATE TREATED WITH 1.5% HYDRATED LIME AND WET CURED (MARINATED) 48 HOURS.

- DISTRIBUTION:**
- 1 DISTRICT ENGINEER
 - 1 RESIDENT ENGINEER
 - 3 CONSTRUCTION ENG.
 - 1 LAB FILES
 - 3 BITUMINOUS LAB
 - 1 ASPHALT LAB
 - 1 DEAN WITZEL
 - 1 LAS VEGAS LAB
 - 1 AGGREGATE LAB

BIN PERCENTAGES:

| | |
|-----|---------------|
| 27% | 3/4" COARSE |
| 22% | 1/2" COARSE |
| 43% | CRUSHER FINES |
| 08% | CYCLONE SAND |

Used for Asphalt Escalation, Asphalt Damages, and in calculating to assure there are enough B/Ls to cover what has been used, see red arrow.

RECOMMENDED BITUMEN RATIO SHALL BE DETERMINED BY THE MATERIALS DIVISION. THE RECOMMENDED BITUMEN RATIO SHALL BE BASED UPON DRY WEIGHT OF AGGREGATE.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
M E M O R A N D U M

DATE: August 13, 2008
TO: ALL RESIDENT ENGINEERS
FROM: Tricia MacDiarmid, Construction
SUBJECT: FUEL & ASPHALT ESCALATION FOR CUT-OFF **8/29/08**

Fuel Escalation (Ap) **=\$ 2.41**

Asphalt Escalation (Bp) **=\$ 61.79**

New Specification
Poten & Partners Asphalt Escalation (Bp) **=\$ 428.51**

Please assure that someone will be in the field office (or leave a phone number that you or your Office Person can be reached at) to answer any bi-weekly payment questions that may require changes to be made to the payment. Please remember that we are processing contracts statewide and may not get to your contract until Friday.

Please fax payment data (stockpile info, mix designs, asphalt esc, change order drafts, LOA's, etc.) directly to our Section's fax (775-888-7231) NO LATER THAN THE CUT-OFF DATE 8/29/08. This office will NOT process if not received by this date.

No cover sheets are necessary.

Thank you.

**DOCUMENTATION REQUIREMENT
SECTION G
FUEL ESCALATION**

To activate fuel escalation on a contract as stated in the Standard Specifications for Road and Bridge Construction (Silver book), subsection 109.05, fuel escalation may be added to a contract if a request by the Contractor is received or if deemed necessary by the Department. Headquarters Construction will E-mail an updated spreadsheet to the Resident Engineer, as illustrated on page 23-33. The spreadsheet will have the contract number with the correct specifications. Always refer to the Special Provision for the contract. It will be the responsibility of the **Officeperson** to complete the areas highlighted in yellow. The rest of the form will fill in and calculate automatically. The spreadsheet shall be calculated for the remainder of the progress payments for the contract. Since fuel escalation is based on money earned last payment period, Payment #1 will never contain fuel escalation.

There is no adjustment if the current price is within 20% (this % is used for this example always check the Special Provision for the contract for the percent (%)). Multiply the Cp by .90 and 1.10 to establish the no adjustment range. Multiply the Cp by 1 + 75% to establish the Maximum Cp. (If the price ever reaches the Maximum Cp, the maximum Cp shall be used for the Ap for that cycle.) Obtain the Ffp (fuel factor percentage) from subsection 109.05 of the Special Provisions.

- Column (1) cycle cut-off date from the last payment
- (2) AEB number (each AEB must be listed separately)
 - (3) Ap for cycle after last payment period (obtained from faxed memo, see illustration on page 23-31 or by calling Headquarters Construction)
 - (4) divide the Ap (column #3) by the Cp
Example: $2.26 \div 1.29 = 1.7519$
 - (5) percent difference between the Ap (column 4) and .90(Cp) or 1.10(Cp)
Example: $1.7519 - 1.10 = 0.6519$
 - (6) dollar amounts for each AEB earned last cycle (taken from fuel escalation Report No. CM01 received with last payment documents as illustrated on page 23-5)
 - (7) multiply the dollar amount earned last cycle (column 6) by the Ffp
Example: $154715.86 \times .023 = 3558.46$
 - (8) multiply the percent difference (column 5) by the Bfc (column 7)
Example: $0.6519 \times 3558.46 = 2320$ (rounded to the nearest whole number)
 - (9) payment number
 - (10) accumulative total

After the fuel escalation in each AEB is calculated, enter the quantities on the TAD. If the amount is negative, mark the (Dec) column with an X or ✓. Do not enter fuel escalation on the TAD if the fuel escalation is not in affect for a particular contract.

HINT: Each time a Report No. CM01 is received for a processed payment; record the information in columns (1), (2), (6) & (9) immediately. When the next Ap (memo from Headquarters Construction) is received, complete column (3). This will reduce the chances of omitting to adjust fuel escalation on the next progress payment.

Do not process a progress payment with only fuel escalation. Wait until there are more items to process.

No. 2 Diesel Fuel Adjustment Calculations

Contract No: 3247 No adjustment if Ap is between .90 (Cp) 1.16 & 1.10(Cp)= 1.42

Cp= 1.29 \$ 2.26 = (Max Ap)

Ffp=% 2.3

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------|-----|------|----------|----------------------|----------------------------------|------------------|----------------------------|-------------|-------------------------------|
| Cut-Off Date | AEB | Ap | (3) / Cp | Increase (4)-1.10 | AEB Balance Due Last Cycle | Bfc (6) x Ffp | Fuel Adj A (5) x (7) | Payment No. | Accum. Payment Total \$ |
| 8/1/2008 | 7 | 2.26 | 1.7519 | 0.6519 | 0.00 | | | 24 | 11021 |
| 8/1/2008 | 8 | 2.26 | 1.7519 | 0.6519 | 153563.51 | 3531.96 | 2302 | 24 | 13323 |
| 8/1/2008 | 9 | 2.26 | 1.7519 | 0.6519 | 670919.87 | 15431.16 | 10060 | 24 | 23383 |
| 8/1/2008 | 10 | 2.26 | 1.7519 | 0.6519 | 164120.99 | 3774.78 | 2461 | 24 | 25844 |
| 8/1/2008 | 11 | 2.26 | 1.7519 | 0.6519 | 22972.61 | 528.37 | 344 | 24 | 26188 |
| 8/1/2008 | 12 | 2.26 | 1.7519 | 0.6519 | 1.96 | 0.05 | | 24 | 26188 |
| 8/1/2008 | 14 | 2.26 | 1.7519 | 0.6519 | 7089.00 | 163.05 | 106 | 24 | 26294 |
| 8/1/2008 | 17 | 2.26 | 1.7519 | 0.6519 | 49770.94 | 1144.73 | 746 | 24 | 27040 |
| 8/14/2008 | 2 | 2.26 | 1.7519 | 0.6519 | 154715.86 | 3558.46 | 2320 | 25 | 29360 |
| 8/14/2008 | 3 | 2.26 | 1.7519 | 0.6519 | 57636.07 | 1325.63 | 864 | 25 | 30224 |
| 8/14/2008 | 4 | 2.26 | 1.7519 | 0.6519 | 22055.87 | 507.29 | 331 | 25 | 30555 |
| 8/14/2008 | 5 | 2.26 | 1.7519 | 0.6519 | 433.80 | 9.98 | 7 | 25 | 30562 |
| 8/14/2008 | 6 | 2.26 | 1.7519 | 0.6519 | 1.05 | 0.02 | | 25 | 30562 |
| 8/14/2008 | 7 | 2.26 | 1.7519 | 0.6519 | 69463.51 | 1597.66 | 1042 | 25 | 31604 |
| 8/14/2008 | 8 | 2.26 | 1.7519 | 0.6519 | 16037.80 | 368.87 | 240 | 25 | 31844 |
| 8/14/2008 | 9 | 2.26 | 1.7519 | 0.6519 | 110084.45 | 2531.94 | 1651 | 25 | 33495 |
| 8/14/2008 | 10 | 2.26 | 1.7519 | 0.6519 | 93842.44 | 2158.38 | 1407 | 25 | 34902 |
| 8/14/2008 | 11 | 2.26 | 1.7519 | 0.6519 | 2.09 | 0.05 | | 25 | 34902 |
| 8/14/2008 | 12 | 2.26 | 1.7519 | 0.6519 | 0.64 | 0.01 | | 25 | 34902 |
| 8/14/2008 | 14 | 2.26 | 1.7519 | 0.6519 | 0.48 | 0.01 | | 25 | 34902 |
| 8/14/2008 | 17 | 2.26 | 1.7519 | 0.6519 | 38408.00 | 863.38 | 576 | 25 | 35478 |

AEB 1 = \$11,021 AEB 2 = \$2,320 AEB 3 = \$864 AEB 4 = \$331 AEB 5 = \$7 AEB 6 = \$0
AEB 7 = \$1,042 AEB 8 = \$2,542 AEB 9 = \$11,711 AEB 10 = \$3,868 AEB 11 = \$344 AEB 12 = \$0
AEB 13 = \$0 AEB 14 = \$106 AEB 15 = \$0 AEB 16 = \$0 AEB 17 = \$1,322

**DOCUMENTATION REQUIREMENT
SECTION I
BI-WEEKLY WORKING DAY REPORT**

Working days shall be reported on the BI-WEEKLY WORKING DAY REPORT (Form No. 040-057), as illustrated on page 23-36. This report shall be completed at the end of each payment cycle, whether a progress payment (cp or CP) or a no progress payment (ne or NE) is submitted.

Record whether the contract is on schedule or not. If the contract is not on schedule, an explanation must be provided in the Remarks. Record the working day number or one of the provided codes in the appropriate box. When an "O" is used for non-working day, an explanation must be provided in the Remarks.

After the Bi-Weekly Working Day report is signed by the Resident Engineer, the **original** is forwarded to Headquarters Construction and copies are distributed according to the bottom of the form.

There may be times when working days are charged during a payment cycle where no progress payment is submitted. The working days charged during this time must be coded on the next progress payment where a payment is made.

Working day reports are required from the Notice to Proceed date through the last working day charged. The last report must be labeled as "**Final**" next to the report number. If the last working day report has been submitted but for some reason days start being charged again, the reports must be continued from the last report submitted. Notify Headquarters Construction of the resumption of working days being charged. **Note: The Report No. and Payment No. do not always coincide with each other.**

Working day reports are not required for contracts with a completion date rather than a set number of working days for completion; however, the first and last working day must be provided upon completion. For contracts with a set number of calendar days for completion, the standard BI-WEEKLY WORKING DAY REPORT shall be used.

At contract completion, if a decision is made not to charge for liquidated damages, a change order is required to increase days, or working day reports must be revised to reflect the changes.

When individual phases are specified in subsection 108.04 of the Special Provisions, separate working day reports are required.

Working day reports are not required for the months of December, January and February if winter suspension is defined in subsection 108.02 of the Special Provisions; however, reports are required for temporary suspensions.

Working day reports shall be filed in a folder and filed in Section 1-Contract Files, Division No. 7 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).



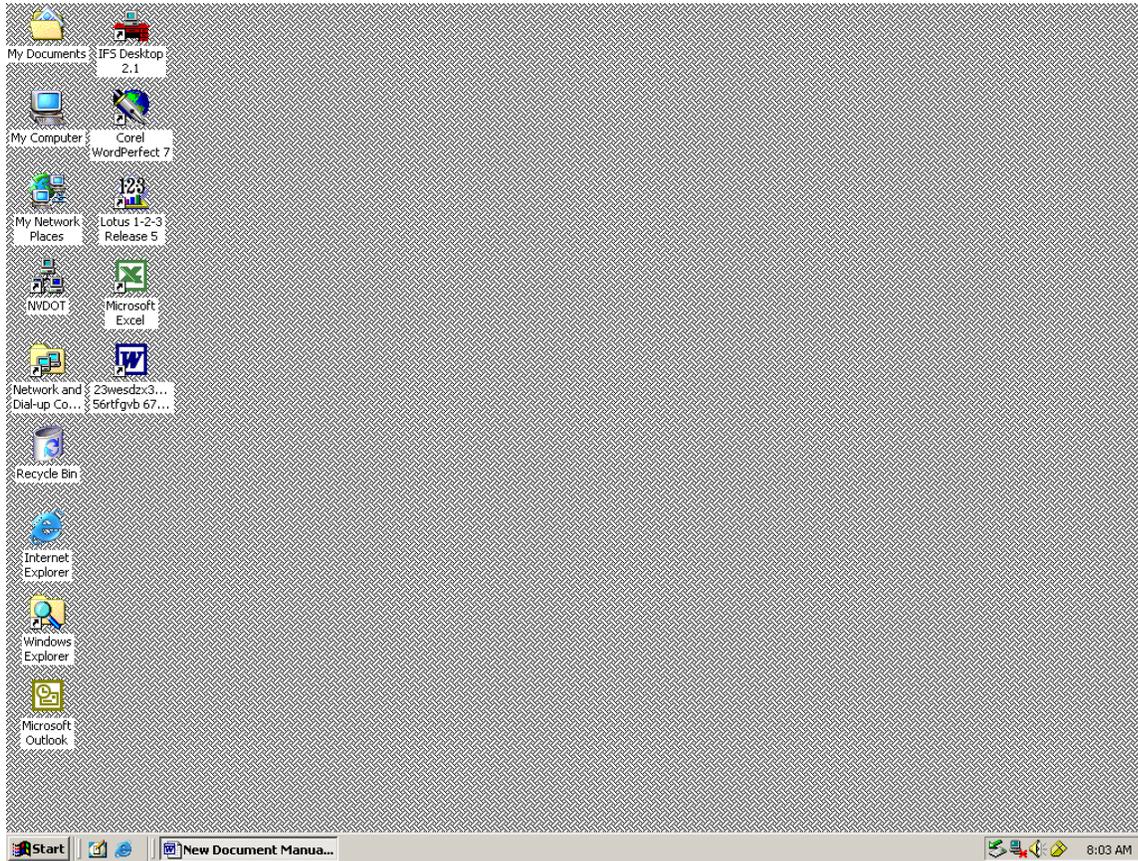
STATE OF NEVADA

DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DIVISION
CONTRACT PROGRESS (CP) PAYMENT
SYSTEM**

Revised 2009

Step 1. Sign onto Advantage-Financial (Desktop)



- a) Double click on the Advantage Financial Icon. (↓)
(IFS Desktop 2.1)

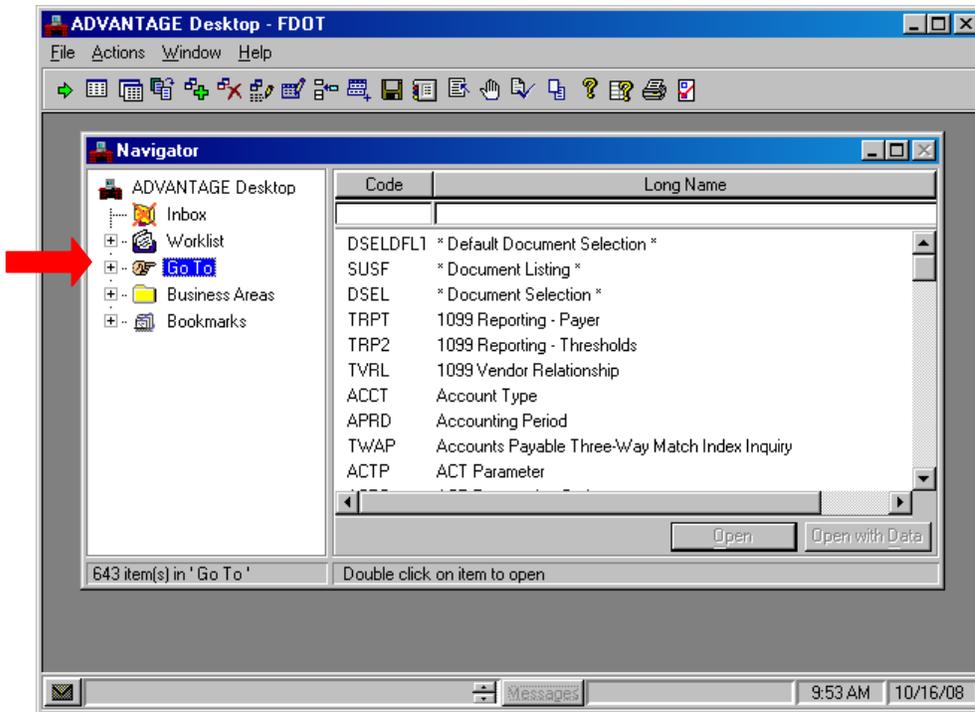
Step 2. Select Application Window:

- a) Application ID-type: fdot (lowercase). Hit the tab key.
- b) Verify Appl ID-type: fdot(lowercase). Hit the enter key or click on OK.

Step 3. ADVANTAGE Front-end Security:

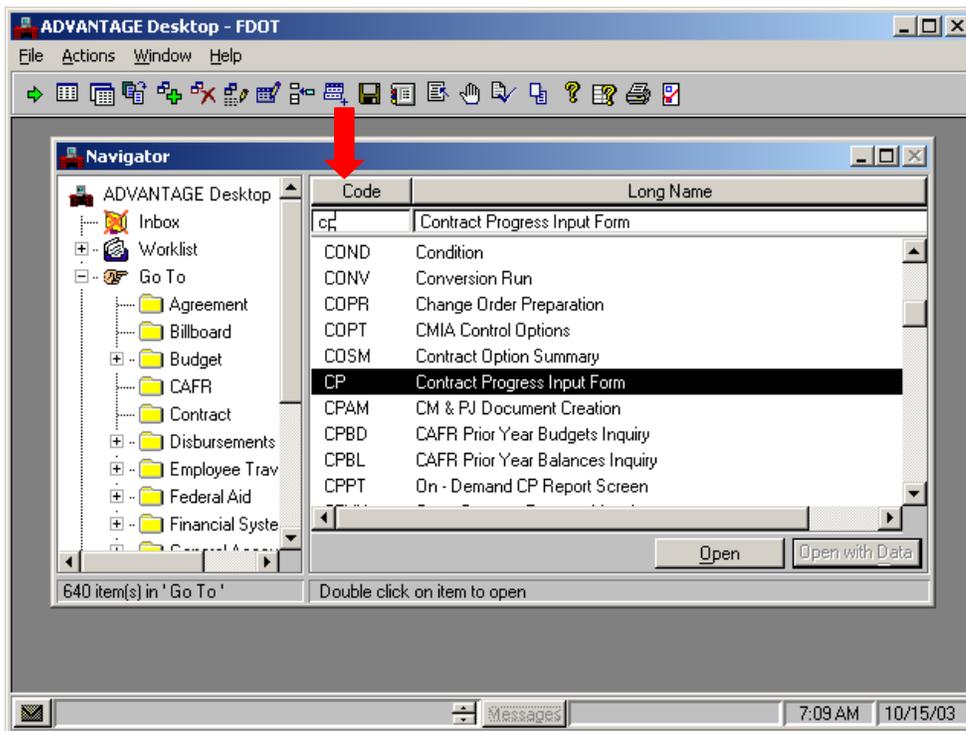
- a) User ID-enter user ID. Hit the tab key or click on the password box.
- b) Password-type in the User ID's password. Hit the enter key or click on OK.
- c) Periodically the system will require a change in the password. When this happens follow the instructions given.

Step 4. ADVANTAGE Desktop-FDOT Navigator:



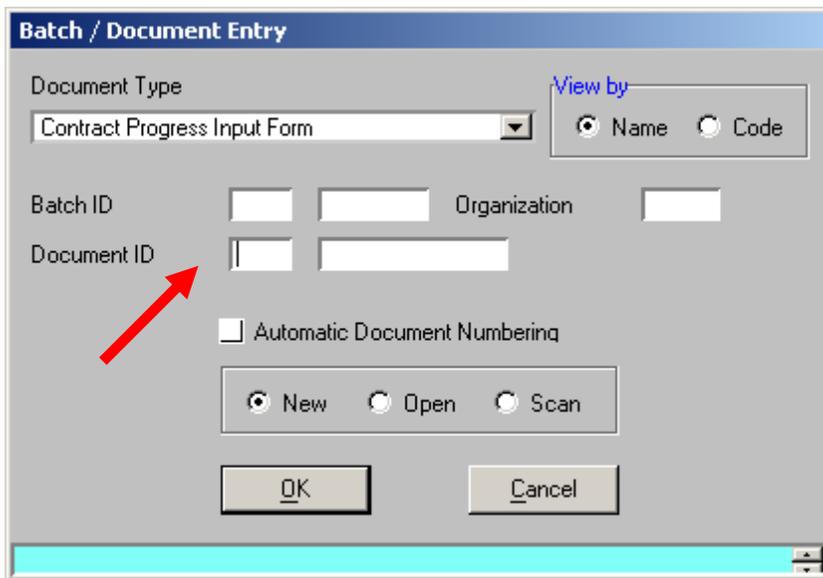
a) Click on **Go To** (→).

Step 5.



a) Type **cp** in the Code box (↓). Hit enter or double click on the **CP** line that is highlighted then click on Open.

Step 6. Batch/Document Entry Window:

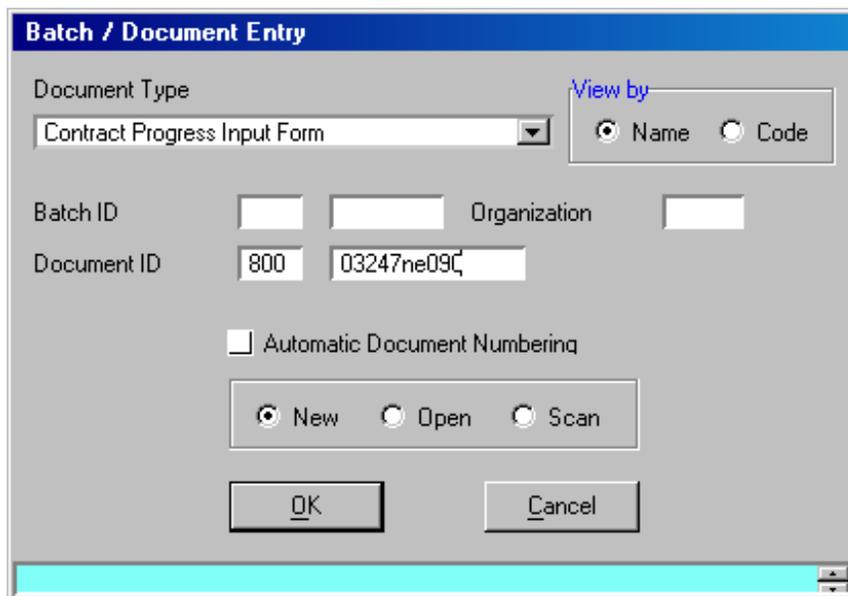


This example is for a No Payment (NE). See page 23-44 for a Progress Payment (CP).

- a) Hit the tab key or click on the box after Document ID and type 800. The Cursor will automatically go to the next box.

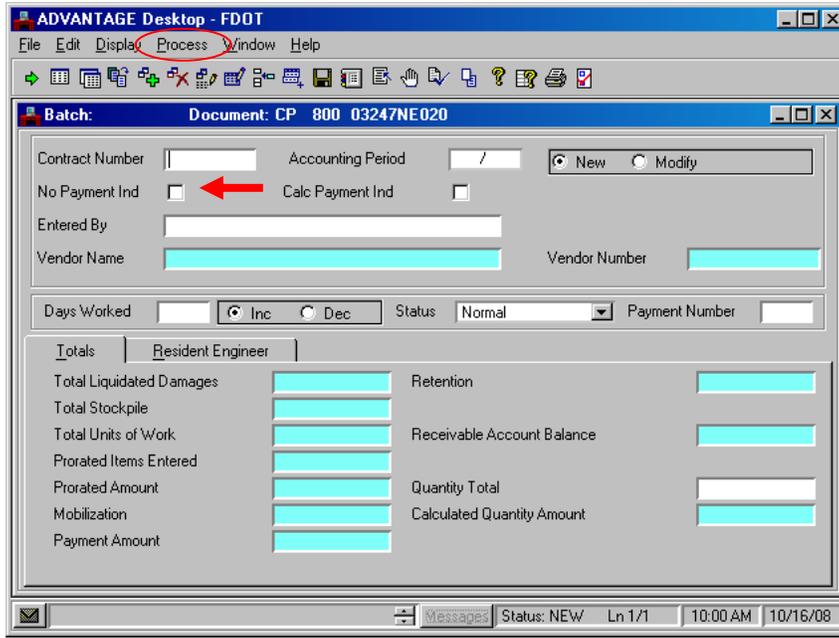
For a No Progress payment:

- c) Type the Contract Number. *
- d) Hit enter or click on OK.

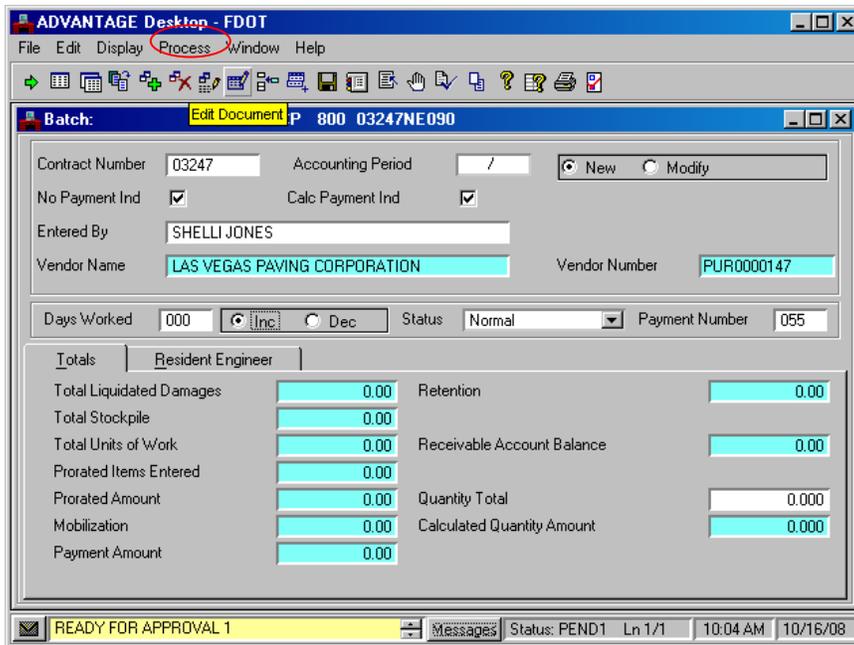


*The contract number must start with zero followed by ne or NE, then the no progress payment number. The no progress payment number must be three digits, run consecutive with the last no progress payment entered, and tracking will be the responsibility of the Resident Engineer.

Step 7. Batch Totals window:



- Type in the contract number starting with a zero.
- Click on the No Payment Ind box (←). The cursor will automatically go to the Entered By box.
- Type first and last name.
- Click on **Process** (at the top of the screen, ○) then click on **Edit** or hit the **F7** key. The system will automatically enter the Days Worked, Inc, Status, Payment Number and all zeros as illustrated below.

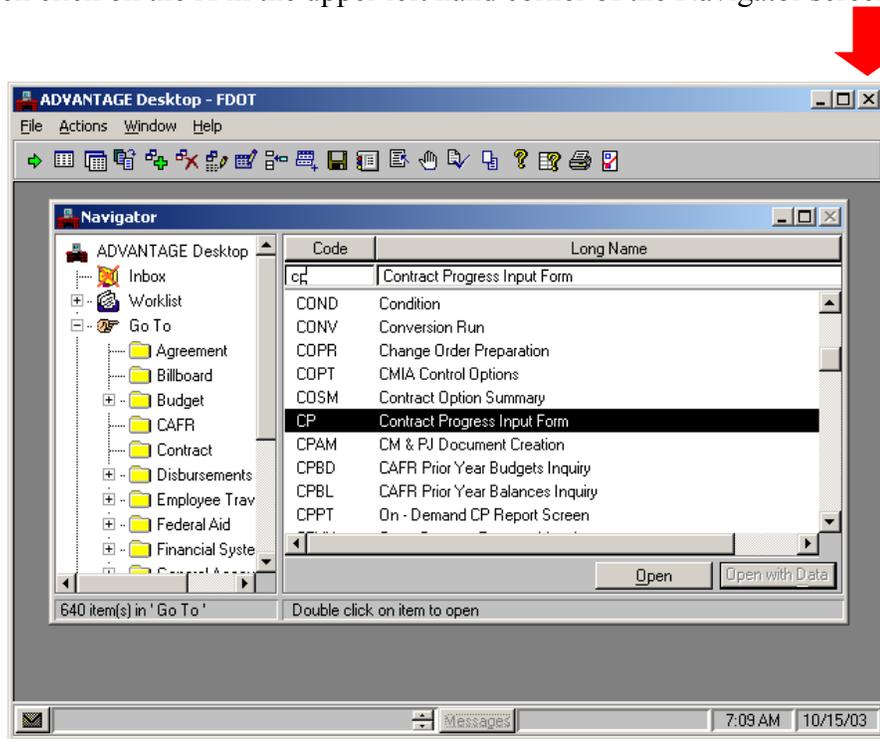


- Check the box (located at the bottom left hand side of the screen →). It should read READY FOR APPROVAL 1. If this is not the message shown in the box refer to Step 10 . After all errors have been corrected or if there were no errors then proceed.
- Click on **Process** (at the top of the screen ○) then click on **Hold** or hit **F11**.

Step 8.



- a) This screen will appear after the document has been held. Click on Yes or hit enter.
- b) This will take you back to the Navigator screen where you can enter another no progress payment, progress payment, or exit the Advantage System.
- c) If entering another no progress payment or a progress payment refer back to Step 5.
- d) When all the no progress payments (ne or NE) and the progress payments (cp or CP) are entered then click on the X in the upper left hand corner of the Navigator screen (↓).



- e) Click on Yes to exit ADVANTGE Desktop.

When entering either a no progress payment (ne or NE) or a progress payment (cp or CP) Steps 1-5 will be completed.

Step 6. Batch/Document Entry Window:

Batch / Document Entry

Document Type: Contract Progress Input Form

View by: Name Code

Batch ID: [] [] Organization: []

Document ID: [] []

Automatic Document Numbering

New Open Scan

This example is for a Progress Payment (CP). See page 23-41 for a No Payment (NE).

- a) Hit the tab key or click on the box after Document ID and type 800. The Cursor will automatically go to the next box.

For a Progress payment:

- c) Type the Contract Number. *
- e) Hit enter or click on OK.

Batch / Document Entry

Document Type: Contract Progress Input Form

View by: Name Code

Batch ID: [] [] Organization: []

Document ID: 800 03247cp02F

Automatic Document Numbering

New Open Scan

*The contract number must start with zero followed by cp or CP, then the progress payment number. The progress payment number must be three digits. **When putting in a final progress payment type an F on the end of the progress payment number.** Example: 03247cp035F.

Step 7. Batch Totals window:

All white areas are required except the area for Accounting Period. The Calc Payment Ind will default if the No Payment Ind is not activated.

ADVANTAGE Desktop - FDOT

File Edit Display **Process** Window Help

Batch: Document: CP 800 03247CP055

Contract Number 03247 Accounting Period / New Modify

No Payment Ind Calc Payment Ind

Entered By SHELLI JONES

Vendor Name LAS VEGAS PAVING CORPORATION Vendor Number PUR0000147

Days Worked 009 Inc Dec Status Normal Payment Number 055

Totals Resident Engineer ←

| | | | |
|--------------------------|------|----------------------------|------------|
| Total Liquidated Damages | 0.00 | Retention | 0.00 |
| Total Stockpile | 0.00 | Receivable Account Balance | 0.00 |
| Total Units of Work | 0.00 | Quantity Total | 85,400.050 |
| Prorated Items Entered | 0.00 | Calculated Quantity Amount | 0.000 |
| Prorated Amount | 0.00 | | |
| Mobilization | 0.00 | | |
| Payment Amount | 0.00 | | |

1 of 3: DOCUMENT ERRORS DETECTED Messages Status: REJCT Ln 1/1 10:13 AM 10/16/08

- Type the Contract Number starting with zero. Leave Accounting Period blank.
- Click on the Entered By box and type first and last name.
- Click on the Days Worked box and type in the number of days worked (3 digits). The system will default to Inc. If there is a decrease of days then click on Dec.
- The status box should default to Normal. To change the status, refer to number 9 under instructions for field descriptions on the Batch Totals window.
- The Payment Number box will fill in automatically when a Process Edit () is done.
- Click on the Quantity Total box and type in the total of all the cp line quantities on the turnaround document (TAD).
- Click Resident Engineer tab () for the cp line.

Field descriptions on the Batch Totals window:

1. **Contract Number**-required on both a no progress payment and a progress payment. Type the contract number starting with a zero.
2. **Accounting Period**-leave blank.
3. **New**-will default automatically (indicates a new document).
4. **No Payment Ind**-required if a no progress payment is being entered. Click on the box to activate.
5. **Calc Payment Ind**-default, will automatically activate if the box for the No Payment Ind is not activated.
6. **Entered by**-required on both a no progress payment and a progress payment. The person entering the CP will type his/her first and last name.
7. **Days Worked**-required on a progress payment. Do not enter working days on a no progress payment. The days will have to be held until the next progress payment.
8. **Inc/Dec**-defaults to Increase (Inc). Click on decrease (Dec) if days are being deducted.
9. **Status**-only use Normal and Final. The system will default to **Normal**. When a final payment is being entered click on the arrow to the right of the Status box to bring up the drop down menu. Click on **Final**.
 - Normal**-indicates a normal contractor progress payment based on the contractor's progression on a by-weekly basis.
 - Final**-indicates a final contractor progress payment. Processing a "**Final**" will generate Report CM19I, to assist the Resident Engineer in verifying quantities and assuring all items have been addressed. If discrepancies are found, please notify Headquarters Construction and process another "**Final**". Before entering this payment please be sure that all items have been checked for accuracy and all change orders and quantity adjustments are complete.
10. **Payment Number**-required on a progress payment. The payment number is 3 digits and will fill in when a Process Edit is done. Do not enter a payment number on a no progress payment. Let the system default.
11. **Quantity Total**-required on a progress payment. Enter the total quantity of the CP lines from the turnaround document (TAD). When the quantity total is negative, place a minus sign before the total. When it is positive, do not put a plus sign before the total. The quantity total is taken to the thousandth (.000). The quantity can be a negative number. A negative dollar amount cannot be processed through IFS. The Officeperson will process the negative TAD. Before the IFS system will process the payment, an adjustment of items to be paid will be done by Headquarters Construction to make the dollar amount a positive. The Officeperson will then be notified of any adjustments made.

Step 8. CP line Window ():

Enter Progress Type (). Hit the tab key. Refer to number 1 under instructions for field descriptions on the CP Line window (see page 23-48).

Type the Unit of Work () (item number). Hit the tab key. Refer to number 2 under instructions for field descriptions on the CP Line window (see page 23-48).

Type the change order number if applicable (3 digits) (). Hit the tab key.

Type the Breakout Number (AEB) (2 digits) (). The cursor will automatically go to the Quantity This Cycle box.

Type the quantity this cycle for the CP line ().

*To bring up a blank CP line any of the following can be used:

1. Click on **Edit** (at the top of the CP window) then click on **Insert line after** or hit **Ctrl+f**.
2. Click on **Edit** then click on **Insert line before** or hit **Ctrl+b**.
3. Click on **Edit** then click on **Copy line** or hit **Ctrl+y**.

*When the last CP line has been entered, DO NOT hit any of the edits mentioned above. If an edit is executed after the last CP line has been entered it will show as an error in the messages box. To remove the blank CP line make sure to click in the grey area to assure you are on the correct line you want to remove (→). To verify this after clicking in the grey area check the status bar at the bottom of the CP line (↑), then click on **Edit** (at the top of the CP line window) and click on **Remove line** or hit **Ctrl+r**. A window will appear asking if you want to delete the selected line, click on **Y**es or hit enter.

Field Descriptions for the CP line window:

1. **Progress Type**-required. The unit of work (item number) designates which progress type. To enter, type the first letter of the progress type, hit the tab key or click on the arrow to the right of the Progress Type box ( as illustrated on page 23-49) to display the drop down menu, click on the appropriate progress type.
Normal (N) –the unit of work (item number) should be paid as a normal bid item.
Stockpile (S) –the unit of work (item number) is being paid as a stockpile item.
This is any unit of work (item number) starting with SP and must have zz as the breakout number (AEB). Stockpiles must be decreased to zero by the end of the contract.
Liquidated Damages (L) –the unit of work (item number) is being paid as a liquidated damages item. This is any unit of work (item number) starting with LD. If the damages pertain to days or time the breakout number (AEB) must be zz.
Prorated (P)-50% of the unit of work (item number) amount will be paid this cycle. The remaining 50% will be prorated over the life of the contract based on the amount of the total contract completion. This is any unit of work (item number) starting with 625 or PRO.
Escalation (E) –the unit of work (item number) is for asphalt, fuel, or steel escalation and any unit of work (item number) starting with 736 or any escalation item added by change order.
2. **Unit of Work Number**-required. The unit of work number (item number) corresponds with the progress type. When entering the unit of work (item number) place the cursor in the first space of the Unit of Work box. The box is 10 spaces long and if the cursor is not in the first space it will create a new item and this will generate errors.
3. **Change Order Number**-required if the unit of work (item number) being entered was added by a change order. The unit of work (item number) will start with an AP, FA, or PR.
4. **Breakout Number (AEB)**-required. The breakout number (AEB) is necessary to identify construction type codes and funding sources (2 digits).
5. **Quantity This Cycle**-required. The quantity is entered as a positive number and is carried out to the thousandths. Example: 3204.123 or 1204.000.
6. **Quantity This Cycle Inc/Dec**-defaults to increase (Inc) when the progress type is Normal, Stockpile, Prorated, or Escalation. Defaults to decrease (Dec) when the progress type is Liquidated Damages. Click on the circle before Dec if the quantity this cycle is a negative number other than liquidated damages.
7. **Unit of Measure, Unit Price, and Description**-required. The system will fill in these boxes if the item has already been added through the Contract Master (CM), a change order (CO), or a previous CP document. If entering a new unit of work (item number) not already on the Turnaround document (TAD) the following must be entered:
 - a) Type the unit price to the hundredth (123.00)
 - b) Type the unit of measure making sure that the correct abbreviation is being used. Refer to page 23-55 for a list of abbreviations.
 - c) Type a full description.

Step 9. CP line Window, when all CP lines have been entered:

ADVANTAGE Desktop - FDOT

File Edit Display Process Window Help

Batch: Document: CP 800 03247CP055

Contract Number 03247 Accounting Period / New Modify

No Payment Ind Calc Payment Ind

Entered By SHELLI JONES

Vendor Name LAS VEGAS PAVING CORPORATION Vendor Number PUR0000147

Days Worked 009 Inc Dec Status Normal Payment Number 055

Totals Resident Engineer

Progress Type Normal Unit of Work 2000001 Change Order Number

Breakout Number 02 Planned Quantity Quantity To Date

Quantity This Cycle 5.000 Inc Dec Def Unit of Measure

Unit Price Amount

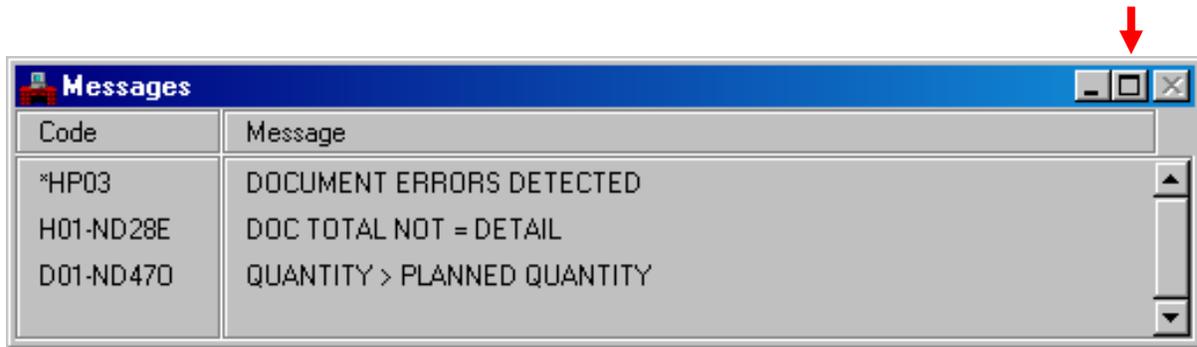
Ref Encumbrance Line

Description

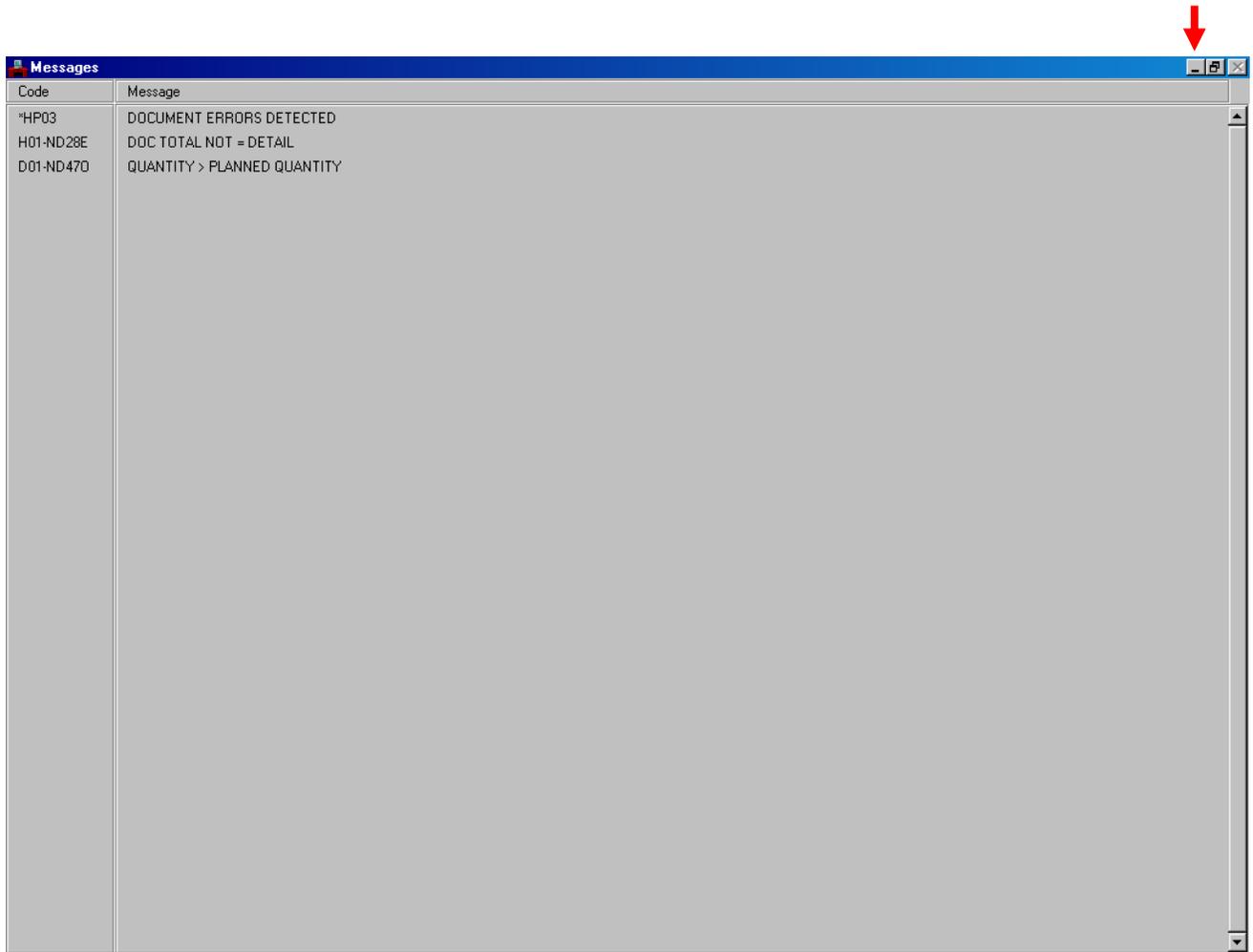
1 of 3: DOCUMENT ERRORS DETECTED Messages Status: REJCT Ln 1/1 10:15 AM 10/16/08

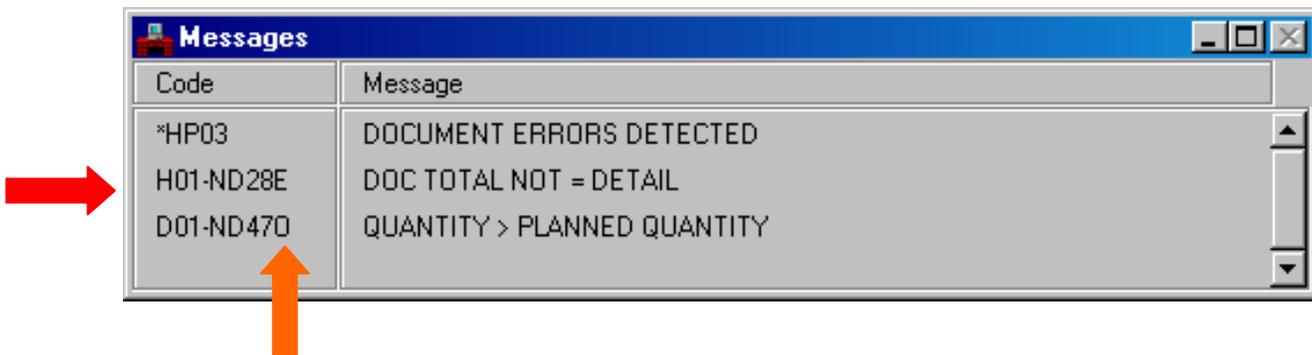
- Click on **Process** (at the top of the CP line window ↓) then click on **Edit** or hit **F7**.
- Check **Messages** box (at the bottom of the CP line window to the left of the Messages bar ↑).
- Click on the **Messages** bar (↑).

Step 10. This box displays messages and errors that need to be addressed. To enlarge the messages window click on this button  (↓).



To reduce the window back click the minus sign to the left of the button  that enlarges the window (↓).





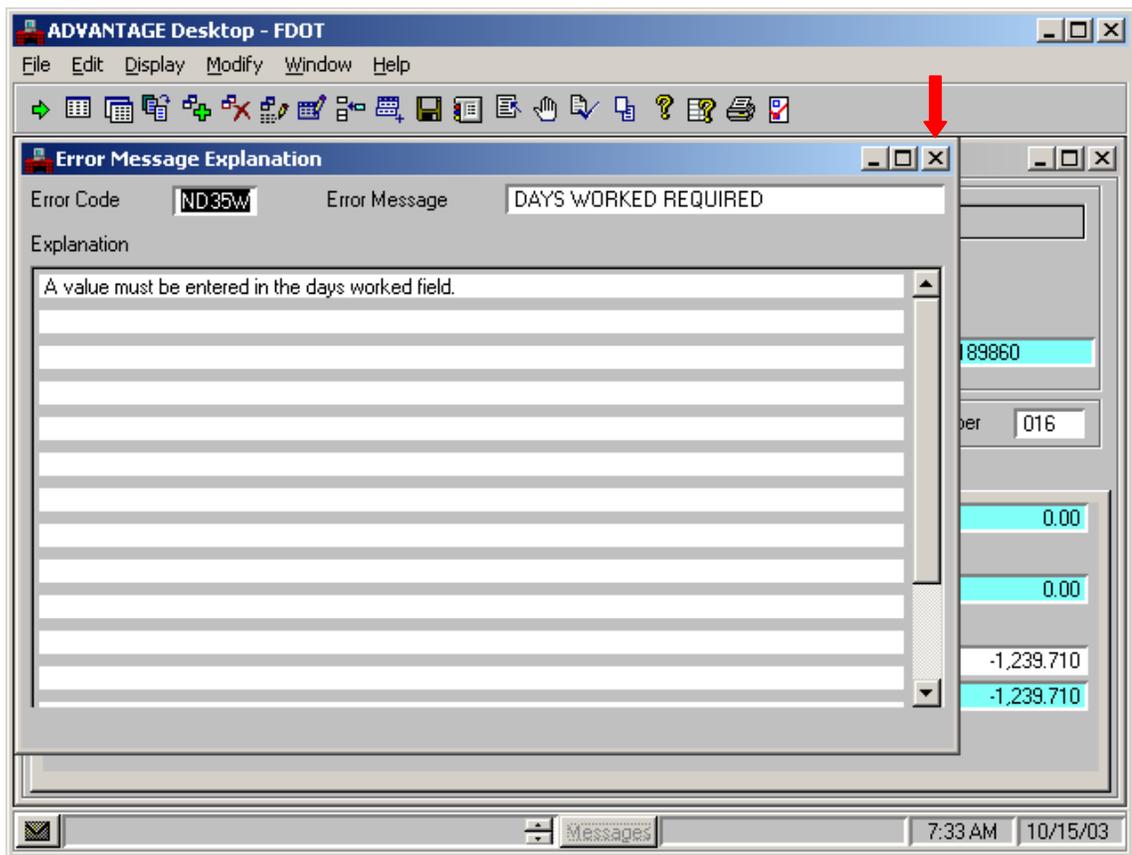
The Code column on the Messages window:

- a) The first letter of the code line will either be a **D** or **H** as illustrated above (→).
 The **D** indicates that the error is on a Detail line, which is located on the CP line window (page 23-49).
 The **H** indicates that the error is on the Header, which is located on the Batch total window (page 23-45).
- b) The number after the **D** or **H** is the CP line number.
 To find the CP line number that is currently being displayed on the CP line window: (refer to Step 9 for the CP line window)
 1. Click in the gray area by the Description line on the CP line window (←) as illustrated on page 23-49.
 2. To the right of the **Messages** bar there is a **Status** box. This box displays the status and the number of the CP line being displayed on the screen (↑) as illustrated on page 23-49.
 3. To scroll between CP lines move the scroll bar located on the right-hand side of the CP line window (←) as illustrated on page 23-49.
 4. To go to a CP line click on **Edit** (at the top of the CP line window ↓) then click on **Go to Line** or hit **Ctrl+t**, as illustrated on page 23-49.
 5. Type in the CP line number that you want to view and click on **Ok** or hit enter.
- c) Line Codes: Are the letters at the end of the line codes, as illustrated above (↑).
E is a hard error and must be fixed before placing the document on hold.
W is a warning and **O** is an override. Both of these codes must be researched to assure there are no mistakes. In the Messages Window, look for a “W” codes for “PROG TYPE” errors. Although it is a warning this messages must be corrected. It is the Resident Engineer’s responsibility to make sure all **W** and **O** errors are acceptable.

To display a message in more detail, double click on the line code in the messages box (→).



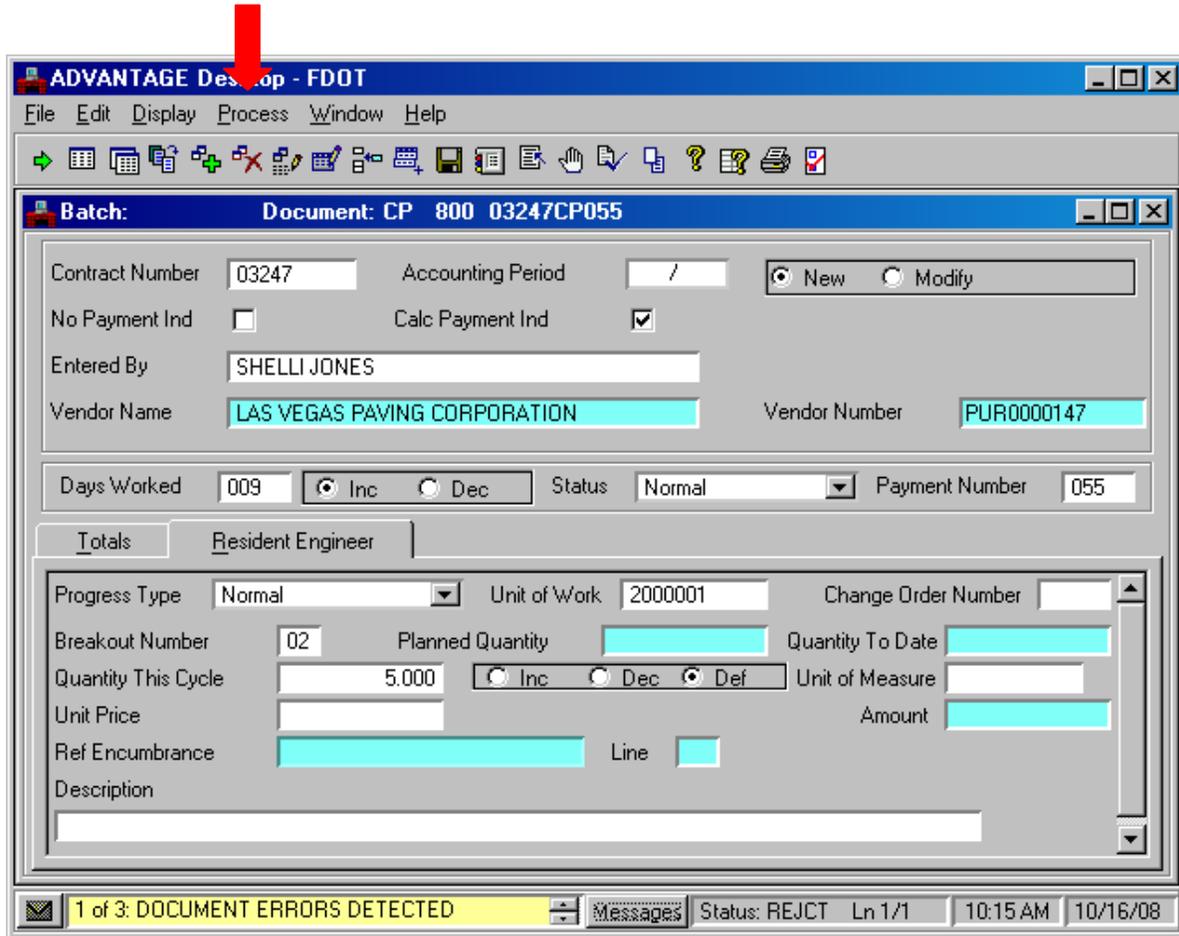
To close the detailed window click on the X on the Error Message Explanation window(↓).



DO NOT PUT A DOCUMENT ON HOLD WITH HARD (E) ERRORS.

You can click on **Process** then click on **Edit** or type **F7** as many times as it takes to correct all **E** errors and review all **W** and **O** errors. When all errors are correct click on **Process** then click on **Edit** or hit **F7** one last time to assure there are no **E** errors and all **W** and **O** errors have been addressed.

Step 11. When errors have been corrected or if there were no errors:

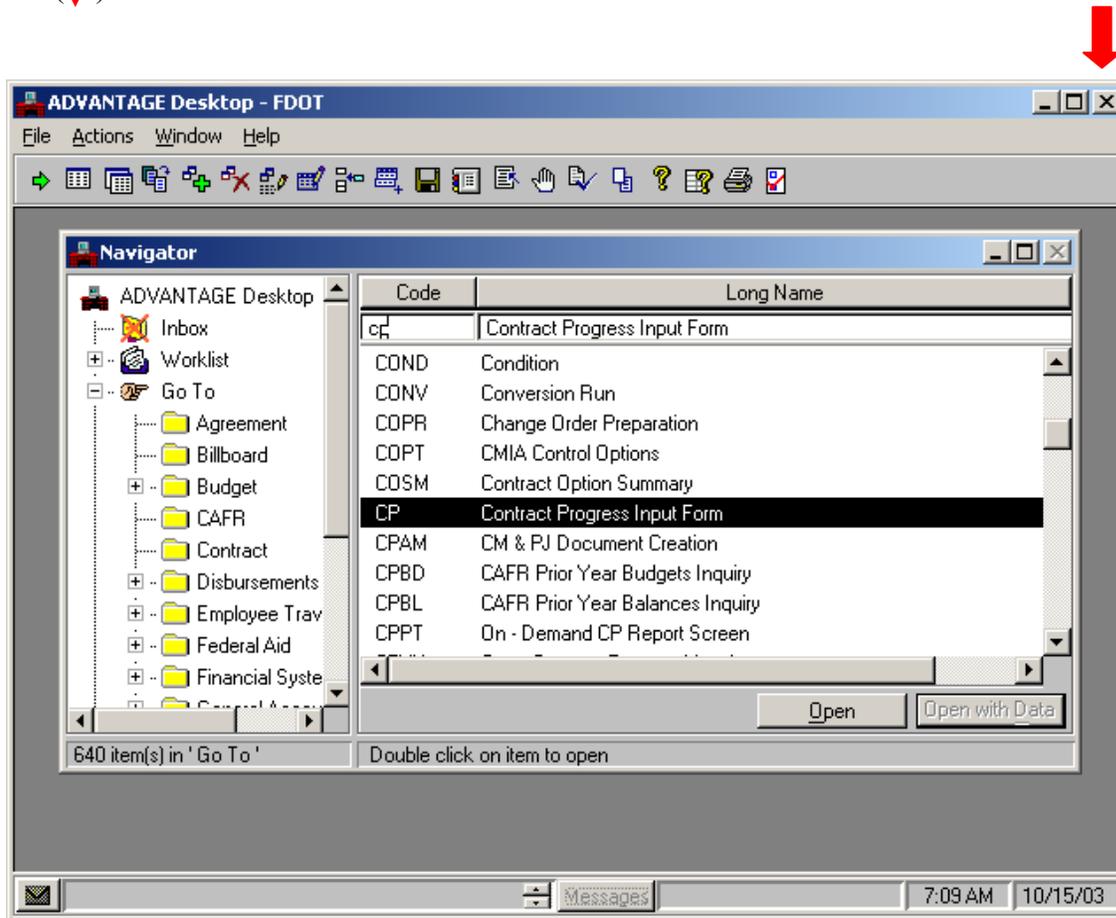


a) Click on **Process** (at the top of the screen ↓) then click on **Hold** or hit **F11**.



b) This screen will appear after the document has been held. Click on Yes or hit enter.

- c) This will take you back to the Navigator screen where you can enter another no progress payment, progress payment, or exit the Advantage System.
- d) If entering another no progress payment or a progress payment refer back to Step 5 under ADVANTAGE Desktop-FDOT Navigator.
- e) When all the no progress payments (ne or NE) and the progress payments (cp or CP) are entered then click on the X in the upper right hand corner of the ADVANTAGE Desktop-FDOT screen (↓).



- f) Click on Yes to exit ADVANTAGE Desktop.

Unit of Measure abbreviations in English and (Metric) to be used on the CP Progress Payment and Turnaround document (TAD):

| | | | |
|----------------|--------------|------------------|------------------|
| GALLON (LITER) | EACH (EACH) | POUND (KILOGRAM) | YDMI (CUMKM) |
| LINFT (LINM) | SQYD (SQM) | LS (LS) | STA (STA) |
| TON (MTON) | SQFT (SQM) | CUYD (CUM) | MILE (KILOMETER) |
| ACRE (HECTARE) | HOURL (HOUR) | DAY (DAY) | MONTH (MONTH) |
| CUFT (CUM) | FA (FA) | | |

Turnaround Document (TAD):

Page 1-Items that need to be completed:

- a) Cut off date.
- b) Prepared by's signature.
- c) Checked by's signature. Checker should not be the same person as prepared by.
- d) Approved (R.E.) signature.
- e) Working Days This Cycle and circle I or D.
- f) Quantity Total and Circle I or D.

The quantity total is the total of the quantity lines on the CP document.

The CP document recognizes both positive and negative quantities.

Quantity this Cycle lines:

- a) Check (✓) Dec column if the quantity this cycle is a negative.
- b) If a new item is added the following are to be written at the end of the turnaround document on the lines provided:
 - Unit of Work Description
 - Progress Type (the progress types are listed on page 1 of the turnaround document (TAD).
 - Change Order number if applicable
 - AEB number
 - Unit Price
 - Unit of Measure
 - Quantity This Cycle
- c) When entering the Quantity This Cycle make sure the correct progress type is being used.

Hot keys:

- a) F7-will process and edit the CP.
- b) F11-will put the CP on hold.
- c) Ctrl r-will remove the CP line that is being displayed.
- d) Ctrl f-will display a blank CP line after the current CP line being displayed.
- e) Ctrl b-will insert a CP line before the current CP line being displayed.
- f) Ctrl y-will copy the CP line that is being displayed. This is handy when entering a unit of work (item number) that has more than one breakout number (AEB).
- g) Ctrl t-will let you go to any CP line that has been entered on the current CP document.

CHAPTER 24
 “Finaling Out” a Contract

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**DOCUMENTATION REQUIREMENT
SECTION A
FIELD BOOK, LOAD BOOK, SURVEY BOOK, AND TESTER'S LOG BOOK
NUMBERING SYSTEM**

All project field books must be labeled and numbered by field personnel as described below and illustrated on page 24-2 before the final pickup by Headquarters Construction.

The contract number, book number and subject shall be printed with black ink on the end of each book as illustrated on page 24-2. Place the book face down in front of you. The end nearest you is in the proper position to place the number and title.

Books shall be numbered consecutively, starting with the first alignment book being number one (1). Next shall be all pay books, followed by load books, cross-section books, slope stake books, and field lab books.

ALIGNMENT
REMOVAL
EARTHWORK
LANDSCAPE AND IRRIGATION
MINERAL FILLER
ASPHALT CEMENT
PORTLAND CEMENT
LIQUID ASPHALT
PCCP
ROADBED MODIFICATION
RECYCLED BIT. SURFACING
MICRO SURFACING
MAJOR STR
PIPE
RCB
MISC STR
RETAINING WALL
SOUND WALL
MSE WALL
MISC
C&G
FENCE
GUARDRAIL
GUIDEPOSTS/OBJECT MARKERS
ELECTRICAL/SIGNAL
RENT CONST SIGNS, ETC
SIGNS (perm & temp)
STRIPING (perm & temp)
LOAD BOOKS (Type I, PBS, Open-Graded, etc)
X-SECTIONS
SLOPE STAKE BOOKS
FIELD LAB BOOKS

If you have already numbered the books as illustrated on page 24-2, and discover at a later date one has been omitted from the numbering sequence, use a letter designation as illustrated on page 24-2. **Page 24-2 is only an illustration of how the bottom of the books should be completed. Use the list above to get the books in the proper order for numbering.** If you have any questions, contact Headquarters Construction for assistance.

- 3247-1- Alignment
- 3247-2- Removal
- 3247-3- Earthwork
- 3247-4- ASPHALT Cement/m.F.
- 3247-5- Liquid Asphalt
- 3247-6 - Struct. I-675 1 of 2
- 3247-6A- Struct. I-675 2 of 2
- 3247-7- Misc 1 of 2

ALL OTHER FIELD
 BOOKS (8-11)
 See page 24-1

- 3247-12- Type I Class B Load BK 1 of 2
- 3247-13- Type I Class B Load BK 2 of 2
- 3247-14- PBS Type 2C Load BK 1 of 2
- 3247-15- PBS Type 2C Load BK 2 of 2
- 3247-16 O.G. Load BK 1 of 2
- 3247-17- O.G Load BK 2 of 2
- 3247-18- Field Lab- Sieves
- 3247-19- Field Lab- compactions

**DOCUMENTATION REQUIREMENT
SECTION B
FINALING OUT A CONTRACT**

Upon completion of the contract, the **FINAL** field payment shall be prepared by the **Officeperson**. Once the **FINAL** field payment is processed, Headquarters Construction will send out a CM19I to assist the Resident Engineer in verifying quantities and assuring all items have been addressed. The **Officeperson** shall complete the CM19I by verifying each item on the report and recording where each item was paid, see the illustration of a CM19I Report on page 24-11. The number on the BK/ENV line is the book number, the number below the line in parentheses is the book total from the recap page, and the number below the book total is the AEB #. All zero balances that are not explained in a field book must have a complete explanation for zero balances on the CM19I. If discrepancies are found, please notify Headquarters Construction and process another **FINAL** payment. **Before entering this payment**, please be sure that all items have been checked for accuracy and all change orders and quantity adjustments are complete.

Each pay book containing bid items must be totaled by page. The quantity totals, by AEB, must be documented in the bottom left-hand corner as illustrated on page 24-4. The page totals (one page per line) are then transferred to the recap (page 75 or as many pages as needed up to page 80) as illustrated on page 24-5. Blank pages are not totaled or recapped; however, all bid item pages with a zero pay quantity must be totaled as zero and be included in the recap. Pages with zero quantities must contain an explanation why this item was not necessary and the explanation must be initialed. Per the Resident Engineer is not an acceptable explanation. The person responsible for transferring and checking the information must initial the recap page 75 or as many pages as needed up to page 80. If the recap is placed on more than one page, make sure all pages are listed on the index page.

Surveying books (i.e. alignment, cross-section, grades), load books, and field lab books are not recapped, but shall be checked for title page, index and initial key as described in Chapter 2 (Setting up a Contract, Book Format, etc.).

When totaling the pages, look for missing or incomplete dates, inspectors' initials, significant figures, specific quantities paid to 100%, final totals, measurements and/or calculations where required and initialed by the checker, etc.

All spreadsheets shall have a final total on all columns except date and payment number.

When the CM19I has been completed and all items have been addressed, the **Resident Engineer** shall submit a Final Job Pickup Memo, as illustrated on page 24-6, to the appropriate Construction personnel in either District One or District Two. **REMEMBER, no job will be scheduled for pickup until all change orders have been processed and paid.** When the memo is received a date will be scheduled to have a completed Check List as illustrated on pages 24-7 thru 24-10, a completed CM19I as illustrated on page 24-11, a completed Inventory of Final Documents form as illustrated on page 24-12, and the items listed on the Inventory of Final Documents form sent to the appropriate Construction personnel in District One or District Two for final pickup. The Inventory of Final Documents form will be reviewed by Construction personnel to assure all items have been received. The Inventory of Final Documents form will be completed signed, and a copy will be sent back to the Resident Engineer for their records. If there are items that need to be addressed after the final pickup is completed, a new Inventory of Final Documents form will be completed and sent to the Resident Engineer along with the items to be corrected. When the Resident Engineer receives the returned items, the Inventory of Final Documents form will be reviewed, signed, and the original Inventory of Final Documents form will be sent back to the Construction personnel performing the pickup. When the items have been addressed a new Inventory of Final Documents form will be completed and sent back to the Construction personnel performing the final pickup. This process will continue until the closeout is complete and all items have been addressed.

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The **Officeperson** shall go through the files for the test reports (Compaction, Sieve Analysis, Plant Reports, etc.) to assure that all the **originals** were processed correctly. There should only be the copies of the test reports in the file. If an original is found make sure the report has been checked, initialed, and signed by the Resident Engineer. Submit the report to the appropriate District Progress Lab for review. The report will be reviewed and if there are any errors or omissions the test report will be returned to the crew for corrections. Upon satisfactory completion, the Progress Lab will then forward the **original** report to Headquarters Quality Assurance Office.

Headquarters Construction will review all field books and original source documentation for the contract including force account sheets. If the force account has federal money, it must be checked by Internal Audit. As soon as the force account is complete send the **original** to Headquarters Construction as stated in Chapter 3, Force Account. Lump sum sheets, trainee sheets, rent equipment sheets, flagging sheets, scale sheets, bill of ladings, rolls and CALCULATION book, Source documentation and all correspondence shall be placed in envelopes by Headquarters Construction and numbered appropriately.

Below is an illustration of a page with an Each item that has quantities in three AEB numbers.

| Item No: 609 0112 | | Item: Adjusting Covers (Method A) | | Plan Qty: 16 EACH | | Sig figs = 1 | | 30 | |
|-------------------------------------|-----------|-----------------------------------|------|-------------------|------|--------------|-------|-------------|--|
| Station | Qty | Date | Insp | AEB# | Pmt# | Type | Owner | Remarks | |
| "BD" 56+34.81 | 10.00' RT | Raised | 1 | 10-2-08 | MD | 2 | 28 | sewer ccsd | |
| "BD" 56+39.10 | 5.00' RT | Raised | 1 | 10-2-08 | MD | 2 | 28 | sewer ccsd | |
| "BD" 56+62.75 | 8.00' RT | Raised | 1 | 10-3-08 | MD | 2 | 28 | sewer ccsd | |
| "BD" 56+78.12 | 25.00' RT | Raised | 1 | 10-3-08 | MD | 5 | 28 | Phone Spurt | |
| "BD" 56+92.90 | 15.00' RT | Raised | 1 | 10-2-08 | MD | 5 | 28 | Phone Spurt | |
| "BD" 57+17.54 | 12.00' RT | Raised | 1 | 10-5-08 | MD | 3 | 28 | Ents Suck | |
| Page Total: AEB#2=3 AEB#3=1 AEB#5=2 | | | | | | | | | |

| Book RECAP | | | | | | 75 | | | | | | | | |
|------------|---------|---------|---------|---------|---------|-------|------|--------|------|--------|------|------|------|------|
| AEB | 2 | 1 | 2 | 9 | 1 | 2 | 9 | 1 | 2 | 3 | 5 | | | |
| PAGE | 3020572 | 2030556 | 2030556 | 2030556 | 2110524 | 402 | 402 | 502 | 502 | 502 | 609 | 609 | 609 | 609 |
| 4 | 800.81 | | | | | 0660 | 0660 | 0616 | 0616 | 0976 | 0112 | 0112 | 0112 | 0112 |
| 5 | 923.02 | | | | | | | | | | | | | |
| 6 | 420.92 | | | | | | | | | | | | | |
| 8 | | .24 | 2.83 | 1.02 | | | | | | | | | | |
| 10 | | | | | 3.210 | | | | | | | | | |
| 13 | | | | | | 72.9 | 77.7 | | | | | | | |
| 14 | | | | | | 95.6 | 40.3 | | | | | | | |
| 15 | | | | | | 250.9 | 95.2 | | | | | | | |
| 16 | | | | | | 260.8 | 56.0 | | | | | | | |
| 17 | | | | | | 302.1 | 80.9 | | | | | | | |
| 18 | | | | | | 290.8 | 75.8 | | | | | | | |
| 19 | | | | | | 194.8 | 65.2 | | | | | | | |
| 20 | | | | | | 79.3 | 45.9 | | | | | | | |
| 21 | | | | | | 60.0 | | | | | | | | |
| 22 | | | | | | | | 560 | 107 | | | | | |
| 25 | | | | | | | | | | 120.93 | | | | |
| 26 | | | | | | | | | | 80.86 | | | | |
| 30 | | | | | | | | | | | 3 | 1 | 2 | |
| Book TOTAL | 2144.75 | .24 | 2.83 | 1.02 | 3.210 | 560 | 107 | 201.79 | 3 | 1 | 2 | | | |

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| Book RECAP | | | | | | C.O.#5 | | | | | | 76 | | |
|------------|---------|---------|---------|---------|---------|--------|------|------|----------|---------|--|----|--|--|
| AEB | 2 | 9 | 2 | 3 | 5 | 2 | 2 | 1 | 2 | 9 | | | | |
| PAGE | 4020660 | 4020660 | 6090116 | 6090116 | 6090116 | AP0 | 609 | 408 | 611 | 611 | | | | |
| 35 | 295.3 | 132.9 | | | | 001 | 0120 | 0512 | 0508 | 0508 | | | | |
| 40 | | | 4 | 1 | 1 | | | | | | | | | |
| 47 | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | |
| 62 | | | | | | | | | | | | | | |
| 64 | | | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | | | |
| 66 | | | | | | | | | | | | | | |
| 67 | | | | | | | | | | | | | | |
| 68 | | | | | | | | | | | | | | |
| 69 | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | |
| Book TOTAL | 1902.5 | 669.9 | 4 | 1 | 1 | 957.9 | 4 | 25 | 15930.35 | 6518.43 | | | | |

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PICKUP MEMO – illustrated below is an example of a pickup memo.

**STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION DIVISION
M E M O R A N D U M**

DATE: February 10, 2010
TO: Jeff Shapiro, Chief Construction Engineer
FROM: Joe Green, Resident Engineer
SUBJECT: REQUEST FOR FINAL PICKUP - CONTRACT NO. 3247

Contract 3247 is ready for the Final Pickup. Attached please find the completed Check List and CM19I. Please schedule a Final Pickup at your earliest convenience. If you have any question regarding this request please contact this office at 702-555-1292.

Thank you for your cooperation in the above matter.

cc: James Dean, District Engineer
File

CHECK LIST FOR THE FINAL PICKUP FOR CONTRACT NO: _____

| FIELD BOOKS | YES | NO | N/A | COMMENTS |
|------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| Title page complete | _____ | _____ | _____ | _____ |
| Index page complete | _____ | _____ | _____ | _____ |
| Initial key complete | _____ | _____ | _____ | _____ |
| Book bottoms are numbered sequentially | _____ | _____ | _____ | _____ |
| Bottom and Title page of a book has 1 of 2 (etc.), (if there is more than one book with the same title) | _____ | _____ | _____ | _____ |
| Book is recapped | _____ | _____ | _____ | _____ |
| Initials of who checked and transferred quantities | _____ | _____ | _____ | _____ |
| Explanation and initials for zero balances | _____ | _____ | _____ | _____ |
| All zero balances are recapped | _____ | _____ | _____ | _____ |
| There are no ditto marks or lines with arrows | _____ | _____ | _____ | _____ |
| Pages are totaled by AEB numbers | _____ | _____ | _____ | _____ |
| Each entry has an AEB number | _____ | _____ | _____ | _____ |
| Each entry has a complete date | _____ | _____ | _____ | _____ |
| Each entry has an Inspector's initials | _____ | _____ | _____ | _____ |
| Calculations are done if required | _____ | _____ | _____ | _____ |
| Calculations are checked and initialed | _____ | _____ | _____ | _____ |
| Each entry is paid to significant figures | _____ | _____ | _____ | _____ |
| Stations show left, right, or centerline | _____ | _____ | _____ | _____ |
| Field Lab books are setup properly | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| SCALE or COMPUTERIZED TICKETS | | | | |
| Moistures are done on base course aggregate | _____ | _____ | _____ | _____ |
| All required info is placed on the tickets | _____ | _____ | _____ | _____ |
| Stations match load book | _____ | _____ | _____ | _____ |
| Stations show left, right, or centerline | _____ | _____ | _____ | _____ |
| Waste or "0" waste is shown | _____ | _____ | _____ | _____ |
| Tickets in order according to the spreadsheet | _____ | _____ | _____ | _____ |
| 40-load sheets must have totals every 10 th load | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| LOAD BOOKS | YES | NO | N/A | COMMENTS |
|------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| Title page complete | _____ | _____ | _____ | _____ |
| Index page complete | _____ | _____ | _____ | _____ |
| Book bottoms are numbered sequentially | _____ | _____ | _____ | _____ |
| Bottom and Title page of a book has 1 of 2 (etc.), (if there is more than one book with the same title) | _____ | _____ | _____ | _____ |
| Beginning and ending stations on each page | _____ | _____ | _____ | _____ |
| If the line changes an equation is required | _____ | _____ | _____ | _____ |
| Time is recorded every fifth load | _____ | _____ | _____ | _____ |
| Inspector and checker's initials on each page | _____ | _____ | _____ | _____ |
| Waste or "0" waste is circled in red | _____ | _____ | _____ | _____ |
| Stations match the stations on the scale tickets | _____ | _____ | _____ | _____ |
| Stations show left, right, or centerline | _____ | _____ | _____ | _____ |
| Ticket numbers are used not load numbers | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| FORMS | YES | NO | N/A | COMMENTS |
|-----------------------------------------------------------------|------------|-----------|------------|-----------------|
| Forms are done in blue or black ink (excluding scale sheets) | _____ | _____ | _____ | _____ |
| Have all the required signatures | _____ | _____ | _____ | _____ |
| Show AEB numbers | _____ | _____ | _____ | _____ |
| Each AEB listed must be totaled separately | _____ | _____ | _____ | _____ |
| Have totals | _____ | _____ | _____ | _____ |
| Have the checker's initials or signature | _____ | _____ | _____ | _____ |
| Only one type of equipment per form | _____ | _____ | _____ | _____ |
| A detailed location for each flagger | _____ | _____ | _____ | _____ |
| A reason for the flaggers | _____ | _____ | _____ | _____ |
| Dates on forms match dates on spreadsheets | _____ | _____ | _____ | _____ |
| All spreadsheets have final totals | _____ | _____ | _____ | _____ |
| Tickets in order according to the spreadsheet | _____ | _____ | _____ | _____ |
| Lump sum sheets equal 100% for each LS item | _____ | _____ | _____ | _____ |
| All B/L's have certs | _____ | _____ | _____ | _____ |
| There are enough B/L's to cover what was use | _____ | _____ | _____ | _____ |
| B/L's are filed in Division 12 of the contract files | _____ | _____ | _____ | _____ |
| Certs are removed from all B/Ls in Division 12 | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| LETTERS OF AUTHORIZATION | YES | NO | N/A | COMMENTS |
|-----------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| The original lump sum sheet and all backup is attached to the original L.O.A. | _____ | _____ | _____ | _____ |
| All copies are removed | _____ | _____ | _____ | _____ |
| L.O.A. must be filed according to AEB numbers | _____ | _____ | _____ | _____ |
| The total dollar amount and percent is correct and the percent is to the correct significant figure | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| FORCE ACCOUNT | YES | NO | N/A | COMMENTS |
|----------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| Must have the following for each Force Account: | | | | |
| Completed F.A. sheet (Form No. 040-008) | _____ | _____ | _____ | _____ |
| Contractor's Equipment listing (Form No. 040-033) | _____ | _____ | _____ | _____ |
| Equipment Recap sheet (Form No. 040-040) or Equipment Watch Recap sheet (Form No. 040-040) | _____ | _____ | _____ | _____ |
| Fringe Benefit Statement | _____ | _____ | _____ | _____ |
| Force Account Recap | _____ | _____ | _____ | _____ |
| All invoices | _____ | _____ | _____ | _____ |
| All originals are sent to Headquarters Construction as soon as completed and a copy is place in Division 6 of the contract files | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| LIQUIDATED DAMAGES | YES | NO | N/A | COMMENTS |
|--------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| Oil Damages must be listed on the appropriate Liquidated Damages Form and failing test reports must be attached to the LD form | _____ | _____ | _____ | _____ |
| All other damages must have some form of backup and be filed in Division 7 of the contract files | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| CALCULATION BOOK | YES | NO | N/A | COMMENTS |
|-------------------------------------------------|------------|-----------|------------|-----------------|
| Title page complete | _____ | _____ | _____ | _____ |
| Index page complete | _____ | _____ | _____ | _____ |
| Initial key complete | _____ | _____ | _____ | _____ |
| Each page is cross-referenced to the field book | _____ | _____ | _____ | _____ |
| The books are cross-referenced to the calc page | _____ | _____ | _____ | _____ |
| Each page has all the required information | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

| MISCELLANEOUS | YES | NO | N/A | COMMENTS |
|------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------|
| All paper clips removed and items stapled | _____ | _____ | _____ | _____ |
| All duplicate correspondence have been removed | _____ | _____ | _____ | _____ |
| All copies of mix designs, JMF, change orders, L.O.A.s, Contract Compliance items, and shop drawings have been removed | _____ | _____ | _____ | _____ |
| Photos/files are copied to a CD | _____ | _____ | _____ | _____ |
| Contractor's Stakeout Data* | _____ | _____ | _____ | _____ |
| Two sets of As-Builts * | _____ | _____ | _____ | _____ |
| Final Payroll Letter * | _____ | _____ | _____ | _____ |
| Confidential Past Performance Ratings * | _____ | _____ | _____ | _____ |
| Acceptance Test Summary Sheet * | _____ | _____ | _____ | _____ |
| Pit Release* | _____ | _____ | _____ | _____ |
| Material Deposit Usage Report * | _____ | _____ | _____ | _____ |
| Guardrail Inventory * | _____ | _____ | _____ | _____ |
| Safety Inspection Checklist (Form No. 040-028)* | _____ | _____ | _____ | _____ |
| Acceptance Testing Frequency Report (Form 040-075)* | _____ | _____ | _____ | _____ |
| Copy of the front cover of the Special Provisions* | _____ | _____ | _____ | _____ |
| Book listing* | _____ | _____ | _____ | _____ |
| Letter of Explanation | _____ | _____ | _____ | _____ |
| District Acceptance | _____ | _____ | _____ | _____ |

*Items that must be submitted prior to the completion of final pickup. **Make sure to copy Headquarters Construction on all items which have the original going to another department.**

All the above items have been checked and verified and documentation is in accordance with the Documentation Manual.

Resident Engineer: _____

Date: _____

CM191 – page 1 is illustrated below. This report will be completed before the final pickup by Headquarters Construction. The Officeperson will show where each item has been paid and place an explanation by all zero balances not addressed in the field books. See instructions on page 24-3.

If there are any questions, please call Headquarters Construction.

CONTRACT NO: 03247

PAGE: 1

| ITEM NO | CO# | UNIT | ITEM DESCRIPTION | ORIGINAL QTY | UPDATED QTY | QTY DIFFERENCE | OVER/UNDER |
|---------|--------------------|------|--------------------------------------|--------------|-------------|----------------|------------|
| 1100100 | | HOUR | TRAINING (TRAINEES) | 2,000 .000 | 2,000.000 | 167.000- | % 8.4- |
| AEB: 01 | 1,833 .000 | | CO | | | | |
| TOTAL | 1,833 .000 | | | | | | |
| BK/ENV: | <i>spreadsheet</i> | | | | | | |
| 2000001 | | HOUR | SURVEY CREW | 115 .000 | 115.000 | 7.000+ | % 6.1+ |
| AEB: 02 | 122 .000 | | CO | | | | |
| TOTAL | 122 .000 | | | | | | |
| BK/ENV: | <i>Spreadsheet</i> | | | | | | |
| 2010512 | | EACH | REMOVE TREES (6-INCHES TO 12-INCHES) | 2 .000 | 2.000 | 0.000 | % 0.0 |
| AEB: 02 | 2 .000 | | CO | | | | |
| TOTAL | 2 .000 | | | | | | |
| BK/ENV: | <i>4</i> | | | | | | |
| 2020008 | | LS | REMOVAL OF BRIDGE | 202,892 .000 | 202,892.000 | 0.000 | % 0.0 |
| AEB: 03 | 202,892 .000 | | CO | | | | |
| TOTAL | 202,892 .000 | | | | | | |
| BK/ENV: | | | | | | | |
| 2020076 | | EACH | REMOVE END SECTION | 5 .000 | 5.000 | 0.000 | % 0.0 |
| AEB: 04 | 5 .000 | | CO | | | | |
| TOTAL | 5 .000 | | | | | | |
| BK/ENV: | | | | | | | |

INVENTORY OF FINAL DOCUMENTS-this form is to be completed and submitted with the listed items to the Construction personnel performing the final closeout. See instructions on page 23-3. This form is located on Sharepoint. **For District One only, the AEB lists and all change orders must also be submitted.**

INVENTORY OF FINAL DOCUMENTS

Contract # _____ Sheet # _____ of _____
 (HQ use only)

Resident Engineer _____ District _____ Crew # _____

The following Contract Divisions are to be sent to Headquarters Construction for final pickup:

Date Rec'd: _____ Date Sent: _____

| <u>Field Sent</u> | <u>HQ Rec'd</u> | <u>Description</u> |
|-------------------|-----------------|--------------------|
| _____ | _____ | CM19I |
| _____ | _____ | Book Listing |
| _____ | _____ | Calc Book |

Field Books (indicate # of books submitted)

Contract Files (# folders)

Division No.

- 2 - All Correspondence
- 3 - Media Records including an index
- 4 - Possible Claim information and correspondence
- 6 - Force Account
- 7 - Liquidated Damages, Asphalt, Fuel & Steel Escalation
- 8 - Lump Sum sheets and original LOA's w/backup
- 9 - Trainee Hours
- 10 - Rent Equipment sheets
- 11 - Flagging sheets
- 12 - Scale sheets, spreadsheets and B/L for all pay items
- 13 - Earthwork calculations
- 18 - Misc. items concerning job closeout

Materials and Testing Files

- 1-12 (If any originals found, submit to HQ)
- 8 - submit copy of mix design(s) to HQ

As-Builts

Sent to HQ

Sent to District Date _____ Name _____

Files/Books Sent

Date _____ Name _____

Files/Books Rec'd

Date _____ Name _____

ITEMS REQUIRED TO FINAL CONTRACT NO. _____ DATE: _____

1. R.E. Request for District Acceptance (Letter) _____
2. Lab Clearance _____
3. Acceptance Test Summary Sheet (ATSS) _____
4. Acceptance Testing Frequency Report (Form 040-075) _____
5. Pit Release _____
 - a. If material is obtained from private property owner, need a letter
6. Contract Compliance Clearance Includes: _____
 - a. All Subcontracts (including service providers) submitted & approved
 - b. All payrolls received and Final Payroll Letter submitted
 - c. Final Wage Certificate (State Contracts)
7. Confidential Past Performance Ratings _____
 - a. Prime & Subs at least 15% or over \$50,000
8. Letter of Explanations _____
 - a. All breakouts included for items that over/under run 10% & \$25,000
 - b. Policy Directive 01-2003
9. As Built Plans _____
 - a. done in BLUE ink
 - b. 2 sets, placed in red pressboard covers (2" maximum thickness)
 - c. 1-District, 1-Carson
 - d. Headquarters will pickup Carson's copy at the time of final pickup
10. Material Deposit Usage Sheet (Form 040-087) _____
 - a. Required for every State Pit
 - b. If commercial, still need to submit, just state commercial in remarks
11. Guardrail Inventory Sheets _____
 - a. Send to Safety Division
 - b. Send copy to Headquarters Construction
 - c. File a copy in contract files
12. Safety Inspection Checklist (Form 040-028) _____
 - a. Send to Headquarters Construction Quality Assurance
 - b. File a copy in contract files
13. Check Chapter 25 to assure all reports have been submitted _____
 - a. follow distribution on the bottom of each form
14. Complete the CM19I _____
 - a. If mistakes are found after completing the CM19I, contact Construction to let them know another final progress payment will be processed
15. Check List & Memo Request for Final Pick-up _____
 - a. Before submitting the check list it is the responsibility of the **Officeperson** to assure that everything on the list is complete.

The instructions on pages 24-14 thru 24-22 are items listed on the check list on page 24-13. These items are required to be completed at the time of job closeout.

2 SETS of AS-BUILT PLANS – one set for Headquarters Construction and one set for District. Any physical changes (pipe, guardrail, fence, electrical items, typical section changes, Estimate of Quantities, Bill of Material, Structure list, etc.), or stationing changes shall be pictorially shown. These As-Built plans shall be ready at the time of pickup. As Built drawings are an official record of the project at the time of construction completion. The original “as-designed” contract drawings and specifications are modified to show all additions, deletions and other changes made during construction. Accurate as-built drawings are very important for project operation and maintenance, and future modifications, particularly for work completed underground. These modifications are also taken into consideration for future project designs. NDOT’s Records Management Division scans each as-built set assigning a corresponding bar code for each section. This assists in proper recording and storage of files. It is very important to submit the as-builts properly to ensure accurate record of the drawings. **As-builts must be submitted at the time of the final job pickup.** The following guidelines for as-built drawings are on Sharepoint.

FORMATING GUIDELINES:

- 1) All changes must be made in **BLUE INK**
- 2) If sheets are omitted, or there’s a break in the numbering sequence, it needs to be noted on the “Index of Sheets”
- 3) If sheets are added, they need to be in numerical order and included on the “Index of Sheets”
- 4) Use red press board folders with the ACCO fasteners supplied with each folder (posts are not allowed)
- 5) Each as-built folder will be less than 2” thick, separate volumes at a section break
- 6) Identify the following information on the front cover of the as-built folder:
 - “As-Built Drawings”
 - Contract #
 - Project#
 - Volume # (Volume 1 of 1, etc)
- 7) If there are additional sheets without a specified sheet number (not a supplemental or revision) insert it and assign a sheet number. Make a note on the preceding page, “See next (#) sheets,” and revise the “Index of Sheets”
- 8) DO NOT INCLUDE sheets that are 8 1/2” x 11”. All changes must be identified on the appropriate plan sheets

MODIFICATION GUIDELINES:

- 1) If there are “NO FIELD CHANGES” to the plans, it needs to be noted on the title sheet
- 2) If changes were made, the working as-builts shall show correct grade, elevations, cross section, or alignment of roadway, earthwork, structures or utilities on the appropriate plan sheet
- 3) Any changes due to CHANGE ORDERS need to be noted on the plan sheets, with change order number referenced (do not provide a copy of the change order in the plans)
- 4) If a Supplemental Notice is included, remove and replace the original sheets with the revised

PIT/PROPERTY OWNER RELEASE - if aggregates or borrow are obtained from a private property owner, the owner must submit a letter stating that they are satisfied with the condition that the property was left in and releases NDOT from any further liability.

The SAFETY INSPECTION CHECKLIST (Form No. 040-028) - can be obtained from the stockroom or on Sharepoint, see Chapter 25 (Calculations and Reports). The SAFETY INSPECTION CHECKLIST must be completed at least once for each project and turned into the NDOT field office to be distributed according to the bottom of the form. On contracts of long duration, the checklist must be submitted during each phase of the construction and at least quarterly.

District Acceptance letter – Must be submitted before the contract can be completely closed out.

ATSS (Form No. 040-076) - An Acceptance Test Summary Sheet is required on every contract, even if there were no failures. It must list all Materials Division failures as well as all field acceptance test failures that were allowed to remain in place. These items will require an explanation as to why they were allowed to remain in place. This includes failures for sieves, compaction, plantmix (stability, air voids, etc.), asphalt, concrete, glass beads, etc., even if there is no means of assessing liquidated damages. Failing compaction material that is retested and passing should not be included. The pad version of the ATSS (**must be typed**) or the disk version (both available from Headquarters Construction) are the only two options allowed. **Hand-written or individualized copies are not acceptable.** Compare ATSS with failures on the Material Division's Acceptance of Contract letter to ensure all items are addressed. The **original** ATSS shall be sent directly to the Materials Division. (Reference Memo dated March 6, 2009- Acceptance Test Summary Sheet).

MATERIAL DEPOSIT USAGE REPORT (Form No. 040-087) – the form shall be completed by the **Resident Engineer** and distributed according to the distribution list at the bottom of the form at the close of each project. The Material Deposit Usage Report will be required for all material sources. If the aggregate on the contract was taken from commercial pits, the Material Deposit Usage Report must still be submitted. The top of the form shall be completed, **Resident Engineer** shall sign, and state in the remarks, all material came from commercial pits. The Materials Division will coordinate a database for material sites in the state; this will include what type of material was produced from the site and also how much of the material site was disturbed. This database will enable the Department to track sites that have a history of problems and sites that have a history of producing quality material. This will assist the Department in the re-sampling and proposing of sites for future projects.

GUARDRAIL INVENTORY DATA SHEET – the Safety Division is doing a statewide guardrail inventory. At the completion of every contract the **Resident Engineer** shall contact the Safety Division to see if a Guardrail Inventory Data Sheet is required. If the data sheet is required it will be completed by the **Resident Engineer** and sent to the Safety Division, with a copy sent to Headquarters Construction.

ACCEPTANCE TESTING FREQUENCY REPORT FORM (Form No. 040-075) - is to ensure that the minimum required sampling and testing is being performed including samples submitted to the Materials Division. The completed form shall be distributed according to the distribution list at the bottom of the form. The form is available on SharePoint under 040 Construction. If you have any questions concerning this form, please contact Headquarters Construction Quality Assurance for assistance.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

FINAL PAYROLL LETTER - a list of final payroll numbers for the Contractor and all Subcontractors, including the last payroll number and week ending date as illustrated below.



JIM GIBBONS, Governor

STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
 1263 South Stewart Street
 Carson City, Nevada 89712
 February 11, 2008

SUSAN MARTINOVICH, P.E., Director

Susan Martinovich, P.E., Director
 Department of Transportation
 1263 South Stewart Street
 Carson City, NV 89712

Contract No. 3267
 RE: FINAL PAYROLL LETTER

Attention: Roc Stacey, Contract Compliance Manager

Dear Sir:

Reference is made to Contract No. 3267, Project No. NH-050-2(007), STP-0502(006), and SPSR-0822(001), on US 50 in Lyon County, from 0.50 miles east of Virginia City Road (SR 341) to Fortune Drive, on US 50 from Fortune Drive to Chaves Road and on SR 822, Dayton Valley Road, from US 50 to 0.15 miles east.

The following are the final payroll numbers and week ending dates for the above mentioned contract:

| <u>Contractor</u> | <u>Payroll No.</u> | <u>Week Ending</u> |
|-------------------------------|--------------------|---------------------|
| Road and Highway Builder, LLC | 79 | 05/12/07 |
| Nevada Barricade & Signs | 55 | 12/02/06 |
| Penhall Company | 03 | 08/25/06 |
| A C Dike | 01 | 10/07/06 |
| Acme Concrete Pumping | 12 | 12/28/06 |
| Artistic Fence Company | 05 | 08/02/06 |
| Hunewill Construction Co | 15 | 03/24/06 |
| Diversified Concrete Cutting | 01 | 09/30/06 |
| Valentine Surfacing Company | 12 | 07/29/06 |
| PAR Electric | 56 | 01/06/07 |
| Eckart Trucking | 17 | 09/02/06 |

Please review and provide an acceptance letter to the R.E. so this contract can be closed out.

Sincerely,

Gary R. Williams, P.E.
 Resident Engineer

pc: Thor Dyson, P.E., District Engineer
 Dave Titzel, P.E., Asst. District Engineer
 Gary Selmi, P.E., Chief Construction Engineer

Rev 10/10

CPPR (Form No. 040-044) - A separate Confidential Past Performance Report is required for the prime Contractor and each major Subcontractor (performing at least 15% or \$50,000 of the original amount of work), as illustrated below and on page 24-18.

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

RESIDENT ENGINEERS' CONFIDENTIAL PAST PERFORMANCE REPORT

CONTRACTORS AND SUBCONTRACTORS

INSTRUCTIONS: Upon completion of a contract this form must be filled out by the Resident Engineer and then forwarded directly to the Construction Office. In the event there is a change of Resident Engineers on a contract, the Resident Engineer leaving the project must fill out this form and submit it as indicated above.

Check One:

PRIME CONTRACTOR SUBCONTRACTOR SPECIALTY CONTRACTOR

Date of report..... Acceptance date.....

Contract No..... Project No.....

Description.....

Contractor.....

Address.....

Amount of work \$..... Type of work.....

Answer all questions 1 through 13 using the following percentages:

| | | | | | |
|-----------|--------|--------------|--------|----------------|---------|
| Poor..... | 0-60% | Average..... | 71-80% | Very good or | |
| Fair..... | 61-70% | Good..... | 81-90% | excellent..... | 91-100% |

GROUP 1—COOPERATION

NOTE: Each question has a maximum value of 100 percent. Group 1 Rating is the average of total values.

To what degree was the contractor cooperative with:

1. The Department?..... %
2. County and municipal officials?..... %
3. Adjacent property owners and considerate of their rights (ingress and egress, noise and dust)?..... %
4. Providing protection for the public?..... %
5. Equal employment opportunity requirement?..... %
6. Safety requirement?..... %
7. Others?..... %
- (a)..... %

GROUP 1 RATING (Maximum 100 percent)..... %

(CONTINUED ON OTHER SIDE)

LAB CLEARANCE - the Material Division's Acceptance of Contract letter (Lab clearance) as illustrated below and on page 24-20 is required on every contract. Near the contract completion, contact the Materials Division to make sure all certifications and samples have been received. If samples were inadvertently omitted, the **Resident Engineer** must write a memo to the Materials Division explaining the circumstances and send a copy to Headquarters Construction. If certifications were not received by the Materials Division, another copy of the certification must be sent. Contact the Materials Division if there are discrepancies. Compare the Material Division's Acceptance of Contract letter with failures on the ATSS to ensure all items are addressed.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

RECEIVED
CONSTRUCTION DIV. 
JUN 20 2007

MEMORANDUM

June 19, 2007

~~_____~~

Attn: Tricia MacDiarmid

From: Anita Bush, Assistant Materials Engineer 

Subject: Acceptance of Contract No. 3265
Project No. SPF-95A-1(020), SPSR-0208(008) & SPSR-0340(002)

All materials, samples and certifications of compliance, which are required by the Materials Division, have been received. The following samples received have failed to meet State of Nevada requirements. The 13 shipment(s) of asphaltic products listed below showing the recommended demerits, are accepted based on the Contract Demerit Schedule.

T-3: 30

Failing Bitumen Samples Required: Min. Stab: T-2: 35 %Voids: 3-6
Number Samples Submitted: T-3: 5 T-2: 19
Number Samples Failed: T-3: 1 T-2: 6

| Type 2 | Source | Stability | %Voids |
|----------|---------------|-----------|--------|
| OMO5-251 | "X" 172+00Rt | 34 | 3.5 |
| OMO5-252 | "X" 151+00Rt | 35 | 1.1 |
| OMO5-253 | "X" 138+00Rt | 0 | 1.8 |
| OMO5-292 | "X" 158+00Lt | 45 | 2.9 |
| OMO5-328 | Not Stated | 16 | 0.4 |
| OMO6-74 | SR340 33+75Lt | 38 | 2.3 |

| Type 3 | Source | Stability | %Voids |
|----------|----------------|-----------|--------|
| OMO06-71 | SR 340 22+00Lt | 35 | 6.1 |

Min. Orig. %Strength

Failing Lottman Samples Required: Indirect Tensile: 65% PSI Retained: 70
Number Samples Submitted: 8
Number Samples Failed: 2

| Type 2 | Source | Min. Orig. | %Retained |
|----------|--------------|------------|-----------|
| OM05-311 | "X" 492+00Rt | 63.7 | 84 |
| OM05-328 | Not Stated | 56.4 | 99 |

Failing Asphalt

Number Samples Submitted: 110

Number Samples Failed: 13

| <u>Type</u> | <u>Test No.</u> | <u>Quantity</u> | <u>Date</u> | <u>Recommended Demerits</u> |
|-------------|-----------------|-----------------|-------------|-----------------------------|
| PG 64-28NV | CCAC-2006-00525 | 15.62 | 6/2/06 | 1 |
| PG 64-28NV | CCAC-2006-00526 | 25. | 6/5/06 | 1 |
| PG 64-28NV | CCAC-2006-00527 | 7.72 | 6/5/06 | 3 |
| PG 64-28NV | CCAC-2006-00529 | 20.62 | 6/6/06 | 3 |
| PG 64-28NV | CCAC-2006-00530 | 25. | 6/7/06 | 3 |
| PG 64-28NV | CCAC-2006-00531 | 13.64 | 6/7/06 | 1 |
| PG 64-28NV | CCAC-2006-00723 | 2.77 | 6/9/06 | 4 |
| PG 64-28NV | CCAC-2006-00724 | 25. | 6/12/06 | 8 |
| PG 64-28NV | CCAC-2006-00725 | 15.14 | 6/12/06 | 9 |
| PG 64-28NV | CCAC-2006-00726 | 11.79 | 6/13/06 | 7 |
| PG 64-28NV | CCAC-2006-00727 | 9.69 | 6/14/06 | 6 |
| PG 64-28NV | CCAC-2006-00728 | 22.56 | 6/15/06 | 11 |
| PG 64-28NV | CCAC-2006-00729 | 25 | 6/16/06 | 9 |

All other materials, tested by the Materials Division, substantially meet plans and specification requirements.

Should you have any questions please feel free to contact me.

SB:WC:KC

cc: Thor Dyson, District II Engineer
Bill Graunke, Resident Engineer

LETTER OF EXPLANATION - required for any original bid item or change order item (all breakouts included) that over/underran 10% and \$25,000 (must exceed both) must be explained. A Letter of Explanation is illustrated below and on page 24-22. (Refer to Policy and Procedure Directive Construction 01-2003).



JIM GIBBONS, Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
Mailing: 1951 Idaho Street, Elko, NV 89801
Office: 899 Humboldt Avenue, Wells, Nevada
Tel. (775) 752-2216 ◊ Fax (775) 752-2242

March 27, 2008

SUSAN MARTINOVICH, P.E., Director

RECEIVED
CONSTRUCTION DIV.
APR - 3 2008 TS

Susan Martinovich, P.E., Director
Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

In Reply Refer to:
Contract No. 3298
Letter of Explanation

Attention: Gary Selmi, Chief Construction Engineer

Dear Sir:

Reference is made to Contract 3298, Project No. IM-080-4(078)279, on I-80 from 0.32 miles west of the West Carlin Interchange to 0.27 miles west of the west portal of the Carlin Tunnels including ramps, in Elko County.

This letter serves to explain five items of work that either under-ran or overran their respective plan quantities on this contract. The following explanations are offered:

- Item No. 402 0660 – Plantmixing Miscellaneous Areas
Change in Quantity: +1,489.00 square yards or +104.9%
Change in Cost: +\$32,758.00

The cause for this overrun was two-fold. First, the quantities shown in the Plans for the areas to be paved under this item did not include the gore areas. The contractor was required to pave in and around existing drop inlets at the gore areas. Although this caused additional miscellaneous paving, the adjustment of these drop inlets were not necessary (as originally planned), thereby saving \$6,600.00 under a separate bid item. Second, the Plans did not show the paved median cross-over detour near the east end of the project. This crossover required overlaying to accommodate the mainline overlay. The transition areas of this crossover at each end required additional miscellaneous paving.

- Item No. 402 0664 – Plantmix Paved Ditches
Change in Quantity: +2,672.60 square yards or +66.8%
Change in Cost: +\$53,452.00

The cause for this overrun was mostly due to the incorrect dimensions shown for the median paved ditches. The Plans indicated the existing ditches were 4 feet wide. The actual paved ditches to be overlaid were 6 feet wide. This difference caused a 50 percent increase in square yardage. The other 16.8 percent overrun can be attributed to the actual length of the ditches to be overlaid exceeded that which was shown in the Plans.

Rev 10/10

- Item No. 402 6004 – Plantmix Surfacing (Type 3) (Wet)
Change in Quantity: -1,761.60 tons or -25.9%
Change in Cost: -\$114,504.00

The cause for this under-run was due to the existing condition of the paved shoulders adjacent to the on and off ramps on this project. The Contract Plans required overlaying all paved shoulders on this project with Type 3 Plantmix to accommodate the Type 2C Plantmix overlay. However, the Type 2C Plantmix overlay occurred only on mainline. The ramps were required to have 1" of the existing surface milled and 1" open-grade plantmix placed. This work did not raise the elevation of the final surface and therefore did not require the overlaying of the existing paved shoulders located adjacent to the ramps. This amounted to a considerable cost savings to the Department.

- Item No. 502 0017 – Concrete Bridge Deck Repair
Change in Quantity: -\$130,032.22 FA or -96.3%
Change in Cost: -\$130,032.22

The reason for this substantial under-run was due to the unknown condition of the underlying bridge decks on this project. This work was set up as force account work since all of the bridge decks had existing bituminous surface on them, and the actual amount of work could not be predetermined. It was anticipated that substantial work might be required to repair the decks once the bituminous surface was removed. However, upon removal and inspection, the existing bridge deck surfaces were very sound and required a minimal amount of repair work before they were overlaid with plantmix.

- Item No. 624 0004 – Flagger
Change in Quantity: +1,010.5 hours or +202.1%
Change in Cost: +\$50,525.00

The reason for this overrun was due to a substantial underestimation of the number of flagger hours required to perform the type of work included under this contract. This contract included 90 working days to complete the work. It could be reasoned that of the 90 working days, it would approximately 50 working days to complete the milling and paving. Another 12 working days were needed to accommodate bridge work. The contract included 500 flagger hours. If the work was to take approximately 62 days to complete, this would allow for only 8 flagger hours per day or one flagger for an 8-hour day.

The contract time was extended to 123 working days. Of the additional 33 days, 10 working days can be attributed to actual work on the roadway. This would revise the total number of working days requiring flaggers from 62 to 72. If an average of two flaggers working 10-hour days were needed to complete the work, it would take approximately 1,440 flagger hours for this contract. Since sometimes, the work required three flaggers, the final total of 1,510.5 hours was reasonable to complete this type of project.

The net change to the Contract Amount as a result of the aforementioned quantity under-runs and overruns is a decrease of \$107,801.22.

Respectfully,


Todd R. Scott
Resident Engineer

cc: Kevin Lee, District Engineer
3298 files: H-LETTER OF EXPLANATION

**DOCUMENTATION REQUIREMENT
SECTION C
INVENTORY FOR FINAL CONTRACT DOCUMENTS**

When the final job pickup is complete all the **original** documents, reports, spreadsheets, field books, and correspondence will be placed in boxes by Headquarters Construction until the Final Report is sent out. From there the original items will be sent to Engineering Files. When the final job pickup is complete the remaining items will be boxed until the Final Report is received. If there are claims the items must be kept until all claims have been resolved.

Prior to the job pickup, the **Officeperson** shall copy the front cover of the Special Provisions for the contract (title sheet) and do a book listing, and roll index as illustrated on pages 24-23 thru 24-25 containing the following information:

TITLE SHEET - contract number, milepost, route section, project number, project description and work description as illustrated on page 24-23.

BOOK LISTING - book number, description or title and remarks as illustrated on page 24-24.

ROLL INDEX – the profilograph roll number, description or title and remarks as illustrated on page 24-25. Only profilograph rolls used for payment purposes should be included in the inventory.

The Headquarters Construction will do the ENVELOPE LISTING after the final job pickup is complete and all the **original** items have been received. An illustration of an envelope listing is shown on page 24-26.

The Title sheet, Book listing, Roll index, and Envelope listings must accompany the records. They become part of the permanent records for the contract, and are used as an index by anyone searching for information for that contract.

If the Resident Engineer feels that he/she may have to refer back to some of the information contained in the records or correspondence, copies should be made and retained.

All **original** (preliminary) books and rolls obtained from Headquarters Construction before the contract began must be returned when they are no longer needed. A copy of the memorandum of transmittal that was sent out with these books must be sent back in with them so they can be checked off upon their return.

NEVADA DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS, PROPOSAL, CONTRACT AND BOND

For Constructing a Portion of the State Highway System

ON SR 160, BLUE DIAMOND ROAD, FROM LAS VEGAS BOULEVARD (SR 604)/WINDMILL LANE TO VALLEY VIEW BOULEVARD - PHASE 1 AND ON I-15, FROM 1 MILE SOUTH OF THE BLUE DIAMOND INTERCHANGE TO I-215

COUNTY OF: CLARK

ROUTE SECTIONS: SR 160 AND 015-1

MILEPOSTS: SR 160 CL-0.00 TO 1.14 AND I-15 CL-32.50 TO 34.66

PROJECT NO.: STP-0160(016) AND IM-015-1(126)

CONTRACT NO.: 3247

Specific description of work covered by this contract

Construct a new eight lane roadway with sidewalks, construct a new structure over I-15 and new interchange ramps, remove existing structure and ramps and construct new auxiliary lanes on I-15.



This form is to be used with, and as a component part of the
Standard Specifications for Road and Bridge Construction,
2001 Edition

Jeffrey Fontaine, P.E.
DIRECTOR
DEPARTMENT OF TRANSPORTATION

Rev 10/10

Contract No. 3247 - Field Book Listing

| <u>Book No.</u> | <u>Description or Title</u> | <u>Remarks</u> |
|-----------------|---------------------------------|----------------|
| 1 | Alignment | |
| 2 | Removal Items | |
| 3 | Earthwork Items | |
| 4 | Asphalt Cement-Mineral Filler | |
| 5 | Liquid Asphalt | |
| 6 | Structure I-675 Book 1 of 2 | |
| 6A | Structure I-675 Book 2 of 2 | |
| 7 | Miscellaneous Book | |
| 8 | C & G Book | |
| 9 | Rent Construction Signs Book | |
| 10 | Perm. Sign Book | |
| 11 | Striping Items | |
| 12 | Type 1 Class B Load Book 1 of 2 | |
| 13 | Type 1 Class B Load Book 2 of 2 | |
| 14 | Type 2 PBS Load Book 1 of 2 | |
| 15 | Type 2 PBS Load Book 2 of 2 | |
| 16 | OG PBS Load Book 1 of 2 | |
| 17 | OG PBS Load Book 2 of 2 | |
| 18 | Field Lab - Sieve Tests | |
| 19 | Field Lab - Compaction Tests | |

Contract No. 3247 - Roll Listing

| <u>Roll No.</u> | <u>Description or Title</u> | <u>Remarks</u> |
|-----------------|-------------------------------|----------------|
| 1 | Borrow Embankment Roll 1 of 1 | |
| 2 | Borrow Embankment Roll 2 of 2 | |

Contract No. 3247 - Envelope Listing

| <u>Env. No.</u> | <u>Description or Title</u> | <u>Remarks</u> |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1 | Lump Sum Sheets L.O.A. Lump Sum Sheets Force Account Liquidated Damages Asphalt Escalation Rent Equipment: Loader Motor Grader Dump Truck | |
| 2 | Flagging Hours Trainee Hours Scale Tickets: Type 1 Class B Aggregate Plantmix Bituminous Surface Type 2 Open-graded | |
| 3 | B/L's: Mineral Filler AC-20P MC-70 SS-1h Photographs | |
| 4 | Correspondence: To/From Headquarters To/From District To/From Contractor | |

**DOCUMENTATION REQUIREMENT
SECTION D
HELPFUL HINTS**

To start the process for the final job pickup:

1. Enter the "FINAL" TAD. This will produce the CM19I Report.
2. Close out the books.
3. Complete all forms and spreadsheets.
4. When everything is balanced, complete the CM19I Report.
5. The Resident Engineer will send the pickup memo to the appropriate Construction personnel to schedule a date to have all the items sent in for final pickup.

Things to do before the items can be sent to the appropriate Construction personnel to start the final job pickup:

1. Complete the Check List, book listing, the bottom of all the field and lab books, and the Inventory of Final Documents.
2. Make sure all duplicates of correspondence and paper clips have been removed from the files. All mix designs, JMF, change orders, L.O.A.s, shop drawings, Request to Sublet, and Subcontract Agreements (Contract Compliance items) are filed in the appropriate Divisions, see Chapter 1 (Organization of Project Documents).
3. All **original** test reports have been sent to Headquarters Construction.
4. Prepare two sets of As Built.
5. Make sure all completed force account(s) have been sent to the appropriate Construction personnel to be checked. If not, collect and check as illustrated in Chapter 3 (Force Account Work).
 - a. The following documents must be included with the force account file:
 - Force Account sheet(s) (Form No. 040-008)
 - Fringe Benefit Statement
 - Force Account Equipment Listing (Form No. 040-033)
 - Equipment Watch Recap sheet (Form No. 040-040)
 - Force Account recap (one for each AEB)
 - Extended Invoices (original or copy) and/or affidavit (original)

Things to send to the appropriate Construction personnel for final job pickup on the scheduled date:

1. All field and lab books
2. All forms and spreadsheets
3. The completed CM19I Report
4. The completed Check List
5. The completed Inventory of Final Documents
6. One set of As Built and take the other set to District
7. The Calculation Folder, make sure it is in a file folder not in a binder.
8. The blank TAD that was produced by the FINAL TAD.
9. The CM02 that was produced by the FINAL TAD.

The following Divisions will be sent to the appropriate Construction personnel for the final job pickup on the scheduled date:

For District One only, the AEB lists and change orders.

Contract Files

Division No. 2-All Correspondence

Division No. 3-Media Records

Division No. 4-Possible Claim information and correspondence

Division No. 6-Force Account

Division No. 7-Liquidated Damages, Asphalt, Fuel, and Steel Escalation, the TAD(s), and the CM02 that was produced from the Final progress payment.

Division No. 8-Lump Sum sheets

Division No. 9-Trainee Hours

Division No. 10-Rent Equipment sheets

Division No. 11 Flagging sheets

Division No. 12-Scale sheets with spreadsheets and B/L for all pay items

Division No. 13-Earthwork calculations

Division No. 18-Misc. items concerning job closeout

Materials and Testing Files

Division No. 1-12-anything that is an **original** document.

Division No. 8-make sure a copy of the mix design(s) are placed in the appropriate file in Division 12 of the Contract Files.

Things to check on force account (FA) for Highway Patrol:

1. The top and bottom portion of the form is complete.
2. The Highway Patrol is providing the officers. The F.A. for this item should only be done on **Interstate projects**.
3. Payment is made on the force account (Form No. 040-008).
4. Payment is at invoice + 10% and the information is placed in the materials section on the force account form (Form No. 040-008).
5. The calculations are correct, the invoice (s) has been checked and initialed, and is attached to the completed force account sheet.
6. Force account recap sheet is complete.
7. File the **original** force account in Division No. 6 of the Contract files.

Things to check in the pay field books:

1. The label on the bottom of the field book is numbered and labeled according to pages 24-1 and 24-2, and is labeled in black permanent ink.
2. Have the pages numbered from 1 to 80.
3. Have a complete Title page according to Chapter 2 (Setting up a Contract, Book Format, etc.).
4. Have a complete Index and Initial key page according to Chapter 2 (Setting up a Contract, etc.).
 - a. The index must show the beginning and ending page for each item and list the book recap page(s) in the appropriate book.
 - b. The initial key must have the initials, signature, and title of everyone who has written in the field book. The initials must match the initials used in the book.

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- c. If the signature is not legible the person must print name below signature.
5. Must have a book recap page in the appropriate book.

Things to check on each page in the pay field books:

1. Page totals are documented in the bottom left-hand corner and page totals are done by AEB numbers.
2. Blank pages do not have a page total.
3. Bid items and AEB numbers with a zero balance must be totaled as zero with an **explanation** why, initialed, and recapped.
4. The significant figures are in the upper right-hand side of the page.
5. There is a complete date and the initials of the Inspector on every entry.
6. There are calculations done when required and the calculations are checked and initialed by the checker.
7. If the calculations have been changed by the checker then they need to be rechecked by the appropriate Construction personnel and initialed.
8. Check each entry for the correct significant figure. (See Chapter 2 Setting up a Contract, Book Format, etc.).
9. Items paid by percentages must have a final payment to equal 100%.
10. Each entry has a complete station. If one is not available, a detailed location is required. All stations must show left, right, or centerline.
11. There are no ditto marks or lines with arrows.

Things to check on the recap page of a pay field book:

1. **Book Recap** will be printed at the top of the page and **transferred and** ✓ **by** will be on the bottom of the page with the initials of who transferred and checked the page totals on each page of the book recap.
2. The AEB and item numbers are across the top of the page and page numbers are down the left-hand side of the page.
3. The book totals will be the total of each column for each item.
4. When a change order is transferred to the book recap page, the change order number must be written above the AEB number.
5. If more than one page is required to total an item, the total for the page may be left blank or a subtotal shall be done on each page and a final book total shall be done on the last page. If doing a subtotal, write subtotal under the page total for that item.
6. Make sure all zero balances are recapped and have a book total of zero.

Things to check in non-pay field books (Asphalt and mineral filler record of delivery, load, Survey, Field Lab books):

1. The label on the bottom of the field book is numbered and labeled according to pages 24-1 and 24-2, and is labeled in black permanent ink.
2. Have the pages numbered from 1 to 80.
3. Have a complete Title page according to Chapter 2 (Setting up a Contract, Book Format, etc.).

4. Have a complete Index and Initial key page according to Chapter 2 (Setting up a Contract, Book Format, etc.).
 - a. The index must show the beginning and ending page for each item.
 - b. The initial key must have the initials, signature, and title of everyone who has written in the field book. The initials must match the initials used in the book.
5. There are no ditto marks or lines with arrows and there is a date for each entry. There is no recap page for these books.

Things to check in load books:

1. At the top of each page there is a complete date and the type of material.
2. There are ticket numbers not load numbers. Load numbers may be used on 40-load sheets if this is all that is listed on the scale tickets.
3. Truck number on each load.
4. Time every 5th load with AM or PM listed with the time.
5. Beginning and ending stations on each page. If there is a change in the "Line Designation" then an equation has to be shown.
6. Tickets taken by: and ✓ against scale sheet: have initials.
7. The stations must match the plant report, last scale ticket for the day and/or the 40-load sheets.
8. All waste must be shown and circled in red even if the waste is zero.
9. All waste must be explained.
10. For all base course aggregate, optimum/actual moistures are shown on the last ticket for the day or on the 40-load sheet.

Things to check on the last scale ticket for the day:

1. Date and Type of material.
2. Pit information.
3. Contract and AEB number.
4. Ticket total must be checked, initialed, and circled.
5. Stations match the load book and the plant report for the appropriate day.
6. All waste must be explained and deducted from the accumulative (ticket) total.
7. If waste is zero then "0 waste" must show on the last ticket.
8. Total placed must be circled.
9. Resident Engineer's signature, not initials.
10. Checker's initials.
11. Optimum/actual Moistures are shown for base course aggregate and calculations are done if required.
12. Calculations are done to keep track of how much oil and mineral filler was used, and the calcs are checked and initialed.

Things to check on a 40-load sheet:

1. The top portion is complete.
2. The unit of measure is circled on all columns.
3. Ticket and truck number are on every load and the AEB number recorded.
4. Gross, Tare, Net, and ton/mton columns are complete.

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5. Beginning and ending stations are listed on each sheet. If there is a change in the "Line Designation" then an equation has to be shown.
6. Trucks are tared at least twice a day.
7. All waste must be shown, even if the waste is zero.
8. All waste must be explained and deducted from the accumulative total.
9. Gross, Tare, Net, and ton/mton are totaled every 10th load.
10. Time every 5th load with AM and PM listed with the time.
11. Station must match the load book and the plant report for appropriate day.
12. If calculations are done to keep track of how much oil and mineral filler was used, the calcs must be checked and initialed.
13. The Weighmaster is the person that was in the scale shack witnessing the weighing of the trucks. If the weights were not witnessed by NDOT, then the Contractor signs as Weighmaster.
14. Required signatures.
15. Optimum/actual Moistures are shown for base course aggregates and calculations are done if required.
16. The **originals** are filed in Division No. 12 of the Contract files.

Things to check in load books with a Record of Delivery:

1. Item No., Item, Plan Qty, and the Sig. Fig are complete.
2. Load numbers coincide with the load numbers on the B/Ls.
3. Complete date.
4. Truck and trailer number.
5. Bill of Lading number or control number. If a control number is used make sure it is noted in the remarks column.
6. Tons delivered matches the B/L. On Emulsified (diluted) make sure the tons delivered are shown as raw tons on the Record of Delivery.
7. Tons are entered with the correct significant figure (.01).
8. The accumulative total is correct.
9. Every load is initialed.

Things to check on the Bill of Ladings:

1. The load number is listed in the right-hand corner and matches the load number in the field book.
2. Contract number is listed in the right-hand corner of the B/L/
3. The weights have been checked and initialed.
4. Tons delivered matches what is entered on the Record of Delivery.
5. If the B/L for Emulsified (diluted) comes to the job diluted, make sure the B/L states either 60/40 mix or it shows water and oil weights separately. It must also show the calculations of raw tons x 1.4 to get the max that can be used.
6. All calculations are checked and initialed.
7. The B/L is filed in Division No. 12 of the Contract files.

Things to Check on the Asphalt Plant Record:

1. Item No., Item, and the Sig. Fig are complete.
2. Sample number is listed and matches the Field No. on the Transmittal for Asphalt Sample (Form No. 020-016).
3. Complete date and matches the Date Sampled on the Transmittal for Asphalt Sample (Form No. 020-016).
4. Time has PM or AM listed with the time.
5. Every load is initialed.

Making sure there is enough B/L to cover what has been used:

1. Obtain the mix design(s) used.
2. Take the percentages on the mix design for the asphalt and mineral filler.
3. Do the calculations to find out how much asphalt and mineral filler was used, as illustrated in Chapter 9 (Plantmix Surfacing). Calculations will be based on the total mix. **Do not** deduct waste.
4. Compare the quantity delivered to the used and see if there is enough to cover. If there are not enough B/Ls collected, the **Resident Engineer** will have to contact the Contractor to see if more B/Ls can be submitted. Make sure the new B/Ls are not duplicates and are in the correct time frame as the paving operation. If **no** more B/Ls can be collected, then contact Headquarters Construction to see what the next step will be.
5. The total delivered on the Liquid and Emulsified asphalt will be compared to the total on the Record of Payment and Application to see if there are enough B/Ls to cover what has been used. If there are not enough B/Ls to cover what was used and if **no** more B/Ls can be collected, then a deduction on the book recap page shall be made and state "there was not enough B/Ls to cover what was used". Make sure to take the total raw tons from the Record of Delivery for Emulsified oil and multiply by 1.4 to get the diluted amount before comparing to the Record of Payment and Application total.

Things to check on the Record of Application and Payment page for liquid and emulsified (diluted) asphalt:

1. Complete date.
2. Distributor number.
3. Oil Temperature.
4. Tons Applied. If the total tons delivered were not used the **Inspector** must show how the tons used were derived.
5. Total delivery (B/L) and weighbacks may be used for both liquid and emulsified (diluted) asphalt
6. The gallon meter shall **only** be used on emulsified (diluted) asphalt.

7. The Theoretical rate may be used for both liquid and emulsified (diluted) asphalt and **should only be used as a last resort**.
 - a. Weighbacks - check weights on the weighback and make sure they are applied to the correct date.
 - b. Theoretical rate - make sure the plan sheet is noted and the rate being used is according to the contract documents.
 - c. When using the total B/L make sure the tons do not exceed the max that can be paid.
 - d. When reading the gallon meter, a temperature correction factor must be used. Check the factor by using the graph in Chapter 10 (Liquid and Emulsified Asphalts).
8. Assure the accumulated tons are correct.
9. Assure the AEB numbers are correct.
10. Location for length. If there are equations and the length cannot be determined by subtracting the stations, write the length above the stations.
11. Width. Varies is not acceptable, must have a quantity.
12. **Inspector's** initials.

Things to check on the Asphalt, Fuel, and Steel escalation:

1. Make sure a spreadsheet is printed out and placed in a file folder.
2. Make sure totals match Final progress payment and Headquarters Construction.
3. The spreadsheets are filed in Division No. 7 of the Contract files.

Things to check in the CALCULATION book:

1. Title page, index, and initial key. The CALCULATION book will be setup just like the field books. As illustrated in Chapter 2 (Setting up a Contract, Book format, etc.).
2. All calculations are checked and initialed.
3. The CALCULATION sheet is initialed by the **Inspector**.
4. The CALCULATION sheet is cross-referenced to the field book and the field book to the CALCULATION sheet.
5. On the CALCULATION sheet, Reference Field Book or Book No. and page must be completed.

Things to check on the forms for Uniformed Traffic Control Officer and Flagging Hours (Form No. 040-036):

1. Date at top of form reflects the date the work was performed.
2. The top portion of the form is complete.
3. The flagger or officer's name is complete.
4. Flaggers checked for flagger's card.
5. Form has a complete location, either station to station or cross streets and each station shows left, right, or centerline.
6. The AEB number and total hours worked for each name is listed.
7. If more than one AEB is listed on the form there will be a total for each shown on the form.
8. Reason for flagging.

9. The form has all required signatures.
10. Significant figure is to 0.5
11. **Original** sheets are filed in Division No. 11 of the Contract files with an updated spreadsheet.

Things to check on the forms for Rent Equipment, Pilot Car, Survey Crew and Traffic Control Supervisor, Office Space, and Biologist (Form No. 040-037):

1. Date at the top of form reflects the date the work was performed.
2. Top portion of the form is complete.
3. The description of the equipment is listed. Remember, only one type of equipment per form.
4. The AEB number and total hours are recorded.
5. If more than one AEB is listed on the form there will be a total for each AEB number shown on the form.
6. The form has all the required signatures.
7. Form shall be printed out of Sharepoint or get pads from the stockroom.
8. The total hours for one piece of equipment is not paid over 24 hours for one day.
9. Traffic Control Supervisor/Biologist are the only items that can list up to 14 days on one form. The date on the top of the form should be the date the form was filled out. Make sure dates are consecutive and an there is an explanation for any days not charged.
10. Significant figure is to 0.5.
11. Monthly items the significant figure is 0.25, 0.5, 0.75, or 1.
12. **Original** sheets are filed in Division No. 10 of the Contract files with an updated spreadsheet.

Things to check on the form for Weekly Trainee Hours (Form No. 040-042):

1. The Report For Week Ending date matches the payroll used to gather the information.
2. The contract and project number has been recorded.
3. The name of the trainee, employer, classification, and hours have been completed.
4. The calculations for the weekly hours are correct.
5. The form has been signed and dated.
6. The totals are posted on a spreadsheet.
7. Significant figure is to 0.5.
8. The **original** forms are filed in Division No. 9 of the Contract files with an updated spreadsheet.
9. There is an apprentice agreement on all trainees listed on the Weekly Trainee Hours form.
10. **Check the Special Provisions for the contract, sub-section 107.01, to see if an electronic version is being used for certified payrolls. If so, contact Contract Compliance for assistance.**

Things to check on the spreadsheets:

1. The spreadsheet is according to the spreadsheet illustrated in the chapter the item applies to.
2. The dates match the sheets.
3. The quantity matches the sheets.
4. The AEB numbers match the sheets.
5. All columns have final totals except the date and payment column.
6. All the sheets in the file are in the same order as listed on the spreadsheet.
7. Spreadsheets are filed in the appropriate file with the sheets it represents.

Things to check on Lump Sum Payment Records:

1. The top portion of the form is complete.
2. Payment information is complete. If there is more than one sheet per Bid Item add each "Total this Payment" to assure that 100% of plan quantity is paid. All lump sum sheets that make up the total must be placed in the file for that item.
3. The sheet has all the required signatures.
4. The **original** sheet(s) is filed in Division No. 8 of the Contract files.

Things to check on L.O.A. Lump Sum sheets:

1. The **original** L.O.A. is attached to the **original** lump sum sheet.
2. The percentages at the bottom of the L.O.A. are correct.
3. The lump sum quantity matches the L.O.A. amount.
4. All L.O.A.'s are filed according to AEB not according to L.O.A. numbers.
5. Are filed in Division No. 8 of the Contract files.
6. All copies are removed.
7. All backup is attached to the **original** L.O.A. and lump sum sheet.

Things to check on damages for time:

1. Make sure there is a copy of the letter to the Contractor filed in Division No. 7 of the Contract files.
2. Check the Contract Special Provisions to assure the correct damages are being used.

Things to check on damages for asphalt:

1. You will need the Record of Delivery, the Plant Record, the scale tickets, the Liquidated Damage form, and the failing test reports from the Lab.
2. Compare the failing test report to the plant record to match the field sample number and the date the sample was taken.
3. Make sure the Lab Test #, Date Sampled, Sample #, and Demerits compare to the Liquidated Damage spreadsheet. Print form from Sharepoint.

4. Compare the demerits on the Liquidated Damage spreadsheet to the demerits shown in the Silver Book to assure the deduction per ton on the spreadsheet is correct.
5. Calculate how much asphalt was used on the days that had failing asphalt. The percent of asphalt is based off the mix design.
6. If there was more than one sample taken for a particular day, take the asphalt used and divide by the number of samples taken to get the tonnage each sample represents, whether the sample failed or passed. This will be the quantity that should be used on the Liquidated Damage spreadsheet under Tons.
7. Make sure the Liquidated Damages spreadsheet is complete and the calculations are correct.
8. File the Liquidated Damages spreadsheet with all the backup test reports from the lab in Division No. 7 of the Contract files.

Things to check on damages for Liquid and Emulsified Asphalt:

1. You will need the Liquidated Asphalt book, the failing test reports from the Lab, and the Liquidated Damage spreadsheet.
2. Compare the Lab Test #, Date Sampled, Refinery #, Truck #, Trailer #, and demerits to the Liquidated Damage spreadsheet.
3. Compare the demerits on the Liquidated Damage spreadsheet to the demerits shown the Silver Book to assure the deduction per ton on the Liquidated Damage spreadsheet is correct.
4. To check the tons damaged based on what was used of the load. Remember emulsified asphalt is based on diluted tons.
5. Make sure the Liquidated Damages spreadsheet is complete and the calculations are correct.
6. File the Liquidated Damages spreadsheet with all the backup test reports from the lab in Division No. 7 of the Contract files.

Make sure to check the calculations on all other damages.

Areas of concern:

1. Removal items must be calculated.
2. Linear foot items must be measured.
3. On liquid asphalt if the tons used do not match the B/L then calculations must be completed to show how the tons were derived.
4. There must be enough B/L's to cover what was used.
5. Calculations must be checked and initialed.
6. Lump sum items must be paid to 100% of plan quantity.
7. Calculations must be done if quantity is different than plan.
8. Rent equipment items must have a complete location on each entry.
9. Force account must be given to the Headquarters Construction as soon as the force account is completed.
10. All forms must have all the required signatures.

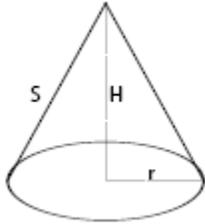
CHAPTER 25
Calculations and Reports

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**DOCUMENTATION MANUAL
SECTION A
VOLUME CALCULATIONS
(WHEN MEASUREMENTS ARE IN ENGLISH)**

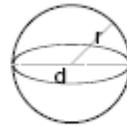
The following illustrations are to assist in keeping calculations simple. This page shows different equations for calculating volume when the UOM is in English. If there are any questions please call Headquarters Construction.



Volume of a Cone

$$\text{CUFT} = 1/3 \pi r^2 H$$

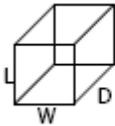
$$\text{CUYD} = [1/3 \pi r^2 H] / 27$$



Volume of a Sphere

$$\text{CUFT} = 4/3 \times \pi r^3$$

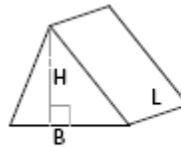
$$\text{CUYD} = (4/3 \times \pi r^3) / 27$$



Volume of a Cube

$$\text{CUFT} = L \times W \times D$$

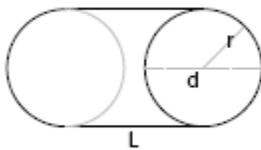
$$\text{CUYD} = (L \times W \times D) / 27$$



Volume of a Triangle

$$\text{CUFT} = 1/2 (B \times H \times L)$$

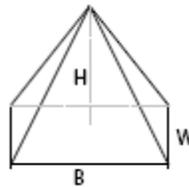
$$\text{CUYD} = [1/2(B \times H \times L)] / 27$$



Volume of a Cylinder / Pipe

$$\text{CUFT} = \pi r^2 \times L$$

$$\text{CUYD} = (\pi r^2 \times L) / 27$$



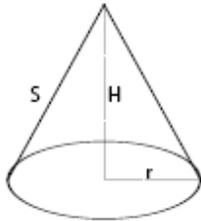
Volume of a Pyramid

$$\text{CUFT} = 1/3 (B \times W \times H)$$

$$\text{CUYD} = [1/3 (B \times W \times H)] / 27$$

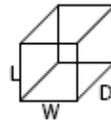
VOLUME CALCULATIONS (WHEN MEASUREMENTS ARE IN METRIC)

The following illustrations are to assist in keeping calculations simple. This page shows different equations for calculating volume when the UOM is in Metric. If there are any questions please call Headquarters Construction.



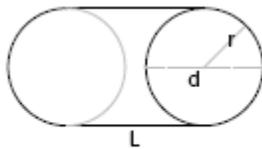
Volume of a Cone

$$\text{CUM} = 1/3 \pi r^2 H$$



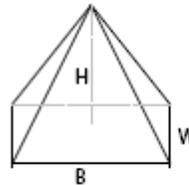
Volume of a Cube

$$\text{CUM} = L \times W \times D$$



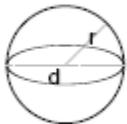
Volume of a Cylinder / Pipe

$$\text{CUM} = \pi r^2 \times L$$



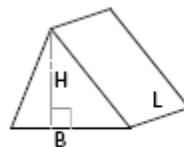
Volume of a Pyramid

$$\text{CUM} = 1/3 (B \times W \times H)$$



Volume of a Sphere

$$\text{CUM} = 4/3 \times \pi r^3$$

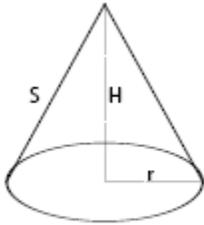


Volume of a Triangle

$$\text{CUM} = 1/2 (B \times H \times L)$$

DOCUMENTATION MANUAL
SECTION B
AREA CALCULATIONS
(WHEN MEASUREMENTS ARE IN ENGLISH)

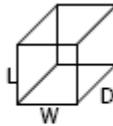
The following illustrations are to assist in keeping calculations simple. This page shows different equations for calculating area when the UOM is in English. If there are any questions please call Headquarters Construction.



Area of a Cone

Surface Area (SQFT)=
 $(\pi r S) + (\pi r^2)$

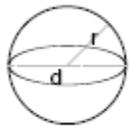
Surface Area (SQYD)=
 $[(\pi r S) + (\pi r^2)] / 9$



Area of a Cube

Surface Area SQFT =
 $(L \times W \times 2) + (L \times D \times 4)$

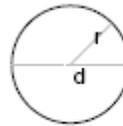
Surface Area SQYD =
 $[(L \times W \times 2) + (L \times D \times 4)] / 9$



Area of a Sphere

Surface Area (SQFT) = $4 \pi r^2$

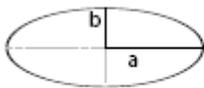
Surface Area (SQYD) = $(4 \pi r^2) / 9$



Area of a Circle

SQFT = πr^2

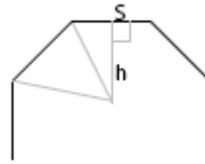
SQYD = $\pi r^2 / 9$



Area of an Ellipse

SQFT = $\pi a b$

SQYD = $(\pi a b) / 9$

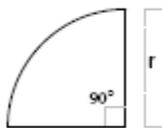


Area of a Polygons

SQFT = $1/2 (N h S)$

SQYD = $[1/2 (N h S)] / 9$

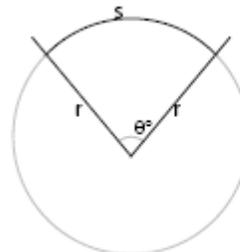
N = number of sides



Area of a Quadrant

SQFT = $\frac{\pi r^2}{4}$

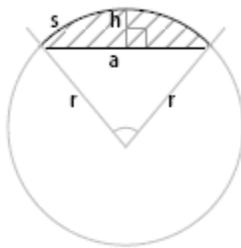
SQYD = $[\frac{\pi r^2}{4}] / 9$



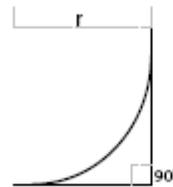
Sector of a Circle

SQFT = $1/2 (\frac{\theta \pi}{180}) r^2$

SQYD = $[1/2 (\frac{\theta \pi}{180}) r^2] / 9$



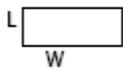
Segment of a Circle
 SQFT = $1/2 [s r - a (r - h)]$
 SQYD = $1/2 [s r - a (r - h)] / 9$



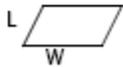
Area of a Spandrel
 SQFT = $0.2146 r^2$
 SQYD = $(0.2146 r^2) / 9$



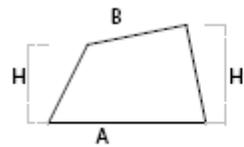
Area of a Square,
 Rectangle and
 Parallelogram



SQFT = $L \times W$



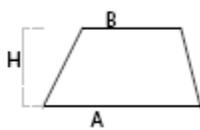
SQYD = $L \times W / 9$



Area of a Trapezium

SQFT = $\frac{(H + H1) \times (A + B)}{2}$

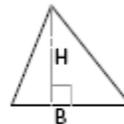
SQYD = $\frac{[(H + H1) \times (A + B)]}{2} / 9$



Area of a Trapezoid

SQFT = $1/2 H \times (A + B)$

SQYD = $[1/2 H \times (A + B)] / 9$



Area of a Triangle

SQFT = $1/2 (B \times H)$

SQYD = $[1/2 (B \times H)] / 9$

Proration: Example: Pipe plan = 40 linft

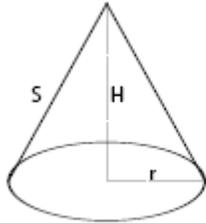
Pipe field measure = 45 linft

Structure Excavation plan = 120 cuyd

$45 \div 40 = 1.125 \times 120 = 135$ cuyd new quantity for structure excavation

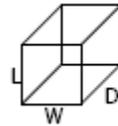
AREA CALCULATIONS (WHEN MEASUREMENTS ARE IN METRIC)

The following illustrations are to assist in keeping calculations simple. This page shows different equations for calculating area when the UOM is in Metric. If there are any questions please call Headquarters Construction.



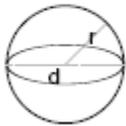
Area of a Cone

Surface Area (SQM) = $(\Pi r S) + (\Pi r^2)$



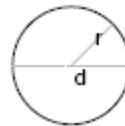
Area of a Cube

Surface Area SQM = $(L \times W \times 2) + (L \times D \times 4)$



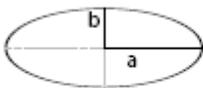
Area of a Sphere

Surface Area (SQM) = $4 \Pi r^2$



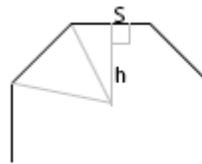
Area of a Circle

SQM = Πr^2



Area of an Ellipse

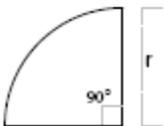
SQM = $\Pi a b$



Area of a Polygons

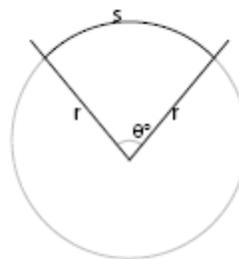
SQM = $1/2 (N h S)$

N = number of sides



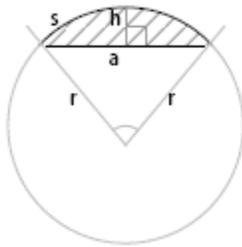
Area of a Quadrant

SQM = $\frac{\Pi r^2}{4}$



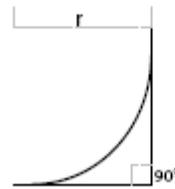
Sector of a Circle

SQM = $1/2 \left(\frac{\theta \Pi}{180} \right) r^2$



Segment of a Circle

$$SQM = 1/2 [s r - a (r - h)]$$

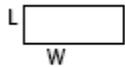


Area of a Spandrel

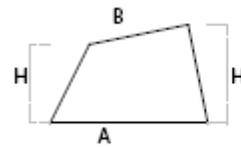
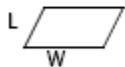
$$SQM = 0.2146 r^2$$



Area of a Square,
Rectangle and
Parallelogram

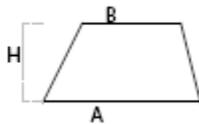


$$SQM = L \times W$$



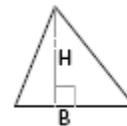
Area of a Trapezium

$$SQM = \frac{(H + H_1)}{2} \times \frac{(A + B)}{2}$$



Area of a Trapezoid

$$SQM = 1/2 H \times (A + B)$$



Area of a Triangle

$$SQM = 1/2 (B \times H)$$

**DOCUMENTATION MANUAL
SECTION C
WEEKLY NDOT CONSTRUCTION SITE DISCHARGE INSPECTION CHECKLIST**

Environmental requirements regarding storm water discharge from construction sites/projects have been changing recently. To address these changes, NDOT has developed Storm Water Quality Manuals (Construction Site “Best Management Practices” (BMP’s) Manual Planning and Design Guide). A Field Manual has also been developed for quick inspection reference. NDOT Environmental or NDOT Constructability will be handling the training and distribution of this manual.

The WEEKLY NDOT CONSTRUCTION SITE DISCHARGE INSPECTION CHECKLIST (Form No. 040-054) is to be completed on a weekly basis and turned into the field office to be distributed according to the bottom of the form. The Storm Water Permits are not required on all NDOT projects. Therefore, Projects that are identified as “No Impact” in Subsection 637.01.01 General, of the Special Provisions, will **NOT** require form 040-054 to be completed or distributed. This form shall be completed from the Notice to Proceed date through the final working day, including any job suspensions. The WEEKLY NDOT CONSTRUCTION SITE DISCHARGE INSPECTION CHECKLIST (Form No. 040-054) is available in the Stockroom.

The files for the WEEKLY NDOT CONSTRUCTION SITE DISCHARGE INSPECTION CHECKLIST shall be filed in Section 1-Contract Files, Division No. 19 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION MANUAL
SECTION D
WORK ZONE TRAFFIC CONTROL CHECKLIST**

The Contractor's traffic control supervisor must complete a WORK ZONE TRAFFIC CONTROL CHECKLIST.

The traffic control supervisor shall make a record of each traffic control inspection using the WORK ZONE TRAFFIC CONTROL CHECKLIST (Form No. 040-056B). Each review shall include traffic control activities, the time the traffic control supervisor reviewed the traffic control, any actions taken, and any other pertinent information.

The traffic control supervisor shall be capable of being on-site within 45 minutes of notification. The traffic control supervisor shall make at least four (4) inspections of all traffic control devices each day as follows:

Before beginning work

At mid-shift

Half an hour after the end of the shift

A minimum of once during the period of non-working hours. The time between inspections shall not exceed 12 hours.

The WORK ZONE TRAFFIC CONTROL CHECKLIST (Form No. 040-056B) shall be submitted within twenty-four (24) hours to the NDOT field office and distributed according to the bottom of the form. The WORK ZONE TRAFFIC CONTROL CHECKLIST (Form No. 040-056B) can be obtained from the stockroom.

If the traffic control devices are paid as a lump sum item, make sure a current WORK ZONE TRAFFIC CONTROL CHECKLIST is on file before payment is made.

The files for the WORK ZONE TRAFFIC CONTROL CHECKLIST shall be filed in Section 1-Contract Files, Division No. 15 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION MANUAL
SECTION E
SAFETY INSPECTION CHECKLIST-CONTRACTOR OPERATIONS**

The SAFETY INSPECTION CHECKLIST has been developed to aid in monitoring safety conditions on the project. The SAFETY INSPECTION CHECKLIST (Form No. 040-028) can be obtained from the stockroom.

This SAFETY INSPECTION CHECKLIST must be completed at least once for each project and turned into the NDOT field office to be distributed according to the bottom of the form. On contracts of long duration, the checklist must be submitted during each phase of the construction and at least quarterly.

The files for the SAFETY INSPECTION CHECKLIST-CONTRACTOR OPERATIONS shall be filed in Section 1-Contract Files, Division No. 19 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

**DOCUMENTATION MANUAL
SECTION F
DAILY BIOLOGICAL FIELD REPORT**

The Department of Fish and Wildlife submits a Biological Opinion at the start of a contract to NDOT Environmental Services.

NDOT Environmental Services presents this opinion to the Contractor at the Pre-construction meeting.

During the course of the contract as outlined in the Biological Opinion, the Biologist shall submit daily a DAILY BIOLOGICAL FIELD REPORT to the NDOT field office and distributed according to the bottom of the form.

The original DAILY BIOLOGICAL FIELD REPORT shall be submitted to NDOT Environmental Services within twenty four (24) hours. The report shall be sent via E-mail, fax, or mail. Any questions call NDOT's Senior Biologist.

The DAILY BIOLOGICAL FIELD REPORT (Form No. 040-088) can be obtained from the stockroom.

The files for the **DAILY BIOLOGICAL FIELD REPORT** shall be filed in Section 1-Contract Files, Division No. 15 as described in Chapter 1 (Organization of Project).

Forms change periodically, please assure that you are using the most current form available, see Chapter 26 (Distribution of Documents).

Rev 11/09

**DOCUMENTATION REQUIREMENT
DISTRIBUTION OF DOCUMENTS**

1 = Resident Engineer, 2 = District, 3 = Construction, 4 = Materials, 5 = Contractor

O = Originals, X = Copies

| FORM NO | REV DATE | DESCRIPTION | 1 | 2 | 3 | 4 | 5 |
|----------|----------|---------------------------------------------------------------------------|---|---|---|---|---|
| 020-016 | 02-10 | Transmittal for Asphalt Samples (Stockroom) | X | | | O | |
| 020-017 | 03-08 | Transmittal for Concrete Samples & Certifications (Stockroom) | X | | | O | |
| 020-018 | 07-12 | Transmittal for Test Samples (Stockroom) | X | | | O | |
| 040-000 | 09-08 | Vehicle Weight Limit (Sharepoint Only) | O | | X | | |
| 040-001 | 01-01 | Contract Change Order (Sharepoint Only) | X | X | O | | X |
| 040-001A | 01-01 | Contract Change Order (Non-Signatory) (Sharepoint Only) | X | X | O | | X |
| 040-001B | 10-12 | Change Order Cost Estimate (Sharepoint Only) | X | X | O | | X |
| 040-002 | 05-12 | Prior Approval (Hdqtrs) (Sharepoint Only) | X | X | O | | |
| 040-003 | 03-09 | Nuclear Gauge/Sand Cone Check Test (Harvard) (Sharepoint Only) | X | X | O | | X |
| 040-003 | 07-14 | Nuclear Gauge/Sand Cone Check Test (Proctor) (Sharepoint Only) | X | X | O | | X |
| 040-004 | 11-08 | Compaction Report (Sharepoint Only) | X | X | O | | X |
| 040-006 | 11-07 | Field Sand Equivalent Worksheet (Sharepoint Only) | X | X | O | | X |
| 040-007 | 03-09 | Nuclear Compaction Report for Soils and Aggs. (Harvard) (Sharepoint Only) | X | X | O | | X |
| 040-007 | 07-14 | Nuclear Compaction Report for Soils and Aggs. (Proctor) (Sharepoint Only) | X | X | O | | X |
| 040-008 | 10-01 | Force Account Sheet (Sharepoint Only) | O | | | | X |
| 040-009 | 12-00 | Daily Record of Scale Weights (Sharepoint Only) | O | | | | X |
| 040-010 | 02-09 | Daily Report of Tests Made in Field (Sharepoint Only) | X | X | O | | X |
| 040-011 | 10-12 | Daily Plant Report for Asphalt Mixtures (Sharepoint Only) | X | X | O | | X |
| 040-012 | 03-06 | Contractor Traffic Log (Sharepoint Only) | O | | | | X |
| 040-013 | 11-10 | Field Material Sieve Sheet (Sharepoint Only) | X | X | O | | X |
| 040-014 | 06-05 | Field LL/PI Worksheet (Sharepoint Only) | X | X | O | | X |
| 040-015 | 08-02 | Request for Payment for Materials on Hand (Sharepoint Only) | X | | O | | |
| 040-016 | 11-10 | Report of Tests of PCCP (Sharepoint Only) | X | X | O | X | X |
| 040-017 | 05-05 | Nuclear Thin Layer Compaction Report (Sharepoint Only) | X | X | O | | X |
| 040-017A | 11-08 | Nuclear Thin lift Correction Factor Worksheet (Sharepoint Only) | X | X | O | | X |
| 040-017B | 09-13 | Bulk Gravity and Density of Compacted PBS (Sharepoint Only) | X | X | O | | X |
| 040-018 | 08-06 | Compaction Report for PBS Drilled Core Data (Sharepoint Only) | X | X | O | | X |
| 040-019 | 06-05 | Dowel Bar Placement Worksheet (Sharepoint Only) | X | X | O | X | X |
| 040-020 | 11-12 | Inventory of Testing Equipment (Sharepoint Only) | X | X | O | | |

**DOCUMENTATION REQUIREMENT
DISTRIBUTION OF DOCUMENTS**

1 = Resident Engineer, 2 = District, 3 = Construction, 4 = Materials, 5 = Contractor

O = Originals, X = Copies

| FORM NO | REV DATE | DESCRIPTION | 1 | 2 | 3 | 4 | 5 |
|----------|----------|-----------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 040-021 | 01-05 | Striping Paint Thickness Report (Sharepoint Only) | X | X | O | | X |
| 040-023A | 11-08 | Absorption and Specific Gravity for Fine Aggs. (Sharepoint Only) | X | X | O | | X |
| 040-023B | 02-09 | Absorption and Specific Gravity for Coarse Aggs. (Sharepoint Only) | X | X | O | | X |
| 040-024 | 04-05 | Concrete Evaporation Rate and Cure Monitoring (Sharepoint Only) | X | X | O | | X |
| 040-025 | 07-04 | Transit Mix Concrete Delivery (Stockroom) | O | | X | | X |
| 040-026 | 01-14 | Nuclear Gauge / Sand Cone Correlation (Harvard) (Sharepoint Only) | X | X | O | | X |
| 040-026 | 07-14 | Nuclear Gauge / Sand Cone Correlation (Proctor) (Sharepoint Only) | X | X | O | | X |
| 040-027 | 06-05 | Rock Compaction Inspection Report (Sharepoint Only) | X | X | O | | X |
| 040-028 | 04-06 | Safety Inspection Checklist (Sharepoint Only) | X | X | O | | X |
| 040-030 | 08-10 | Theoretical Maximum Specific Gravity of Bituminous Paving Mixtures (Field Method) (Sharepoint Only) | X | X | O | | X |
| 040-031 | 05-15 | Nuc Gauge Transfer and Packing Form (Sharepoint Only) | X | | O | | |
| 040-032 | 07-07 | Emulsion Viscosity Worksheet (chip seal & cold-recycle) (Sharepoint Only) | X | X | O | | X |
| 040-033 | 10-05 | Contractor's Force Account Equipment List (Sharepoint Only) | O | | | | |
| 040-034 | 01-98 | Calculation Sheet (Sharepoint Only) | O | | | | |
| 040-035 | 10-09 | Report of Field Tests of Coarse and Fine Aggregate for Concrete (Sharepoint Only) | X | X | O | | X |
| 040-036 | 03-98 | Unif Traffic Control Officer & Flagging Hours (Sharepoint Only) | O | | | | X |
| 040-037 | 06-09 | Rent Equipment, Pilot Car, Survey Crew & Traffic Control Supervisor (Sharepoint Only) | O | | | | X |
| 040-038 | 2-15 | Hotplant Calibration Sheet (Sharepoint Only) | X | X | O | | X |
| 040-039 | 02-99 | Lump Sum Payment Record (Sharepoint Only) | O | | | | |
| 040-040 | 06-09 | Equipment Recap Sheet (Sharepoint Only) | O | | | | |
| 040-041 | 03-05 | Retroreflectivity Measurements (Sharepoint Only) | X | X | O | | X |
| 040-042 | 09-09 | Weekly Trainee Report (Sharepoint Only) | O | | X | | |
| 040-044 | 08-12 | Resident Engineer Conf. Performance Report (Sharepoint Only) | X | | O | | |
| 040-045 | 09-02 | Daily Hotplant Worksheet (Sharepoint Only) | X | | O | | |
| 040-046 | 11-05 | Monthly Summary of Plant Establishment (Sharepoint Only) | X | X | O | | X |
| 040-047 | 07-07 | Pavement Marking Film Adhesion Test (Sharepoint Only) | X | X | O | | X |

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| 040-048 | 12-05 | Nuc Gauge Worksheet for Control Strip Density (Sharepoint Only) | X | X | O | | X |
| 040-049 | 09-96 | Haul Ticket (Stockroom) | O | | | | |
| 040-050 | 11-10 | Fld. Material Sieve/Bit. Ratio/Ignition Method (Sharepoint Only) | X | X | O | | X |
| 040-051 | 01-97 | Field Report for CTB Strength Tests (Sharepoint Only) | X | X | O | | X |
| 040-052 | 03-97 | Daily Report for CTB Mixture (Sharepoint Only) | X | X | O | | X |
| 040-053 | 08-10 | Report of Calibration Factor (Including Weekly Checks) Using the Ignition Furnace Method (Sharepoint Only) | X | X | O | | X |
| 040-053A | 03-12 | Report of Calibration Factor with RAP (Including Weekly Checks) Using the Ignition Furnace Method (Sharepoint Only) | X | X | O | | X |
| 040-054 | 06-15 | Site Discharge Insp. Checklist (Sharepoint Only) | O | X | | | X |
| 040-056 | 03-07 | Daily Construction Report (Sharepoint Only) | X | | O | | |
| 040-056A | 08-07 | Daily Diary Report (Sharepoint Only) | X | X | O | | |
| 040-056A | 07-10 | Daily Diary Report (Electronic) (Sharepoint Only) | X | X | O | | |
| 040-056B | 05-15 | Workzone Traffic Control Checklist (Sharepoint Only) | X | | O | | X |
| 040-057 | 08-02 | Bi-Weekly Working Day Report (Sharepoint Only) | X | X | O | | X |
| 040-058 | 01-06 | Foundation Piling Driving Record (Sharepoint Only) | X | X | O | X | X |
| 040-059 | 05-98 | Continuous Pile Driving Record (Metric) (Sharepoint Only) | X | X | O | X | X |
| 040-059A | 08-12 | Continuous Pile Driving Record (English) (Sharepoint Only) | X | X | O | X | X |
| 040-060 | 05-01 | Drilled Shaft Inspection Report (Sharepoint Only) | X | X | O | X | X |
| 040-063 | 09-01 | Pull-Off Test for Polymer Concrete (Sharepoint Only) | X | X | O | X | X |
| 040-064 | 09-03 | Pavement Core Record (Sharepoint Only) | X | X | O | | X |
| 040-067 | 05-09 | Water Volume Calculations for Sand Cone and Meas. Vessel (Hat) (Sharepoint Only) | X | X | O | | X |
| 040-068 | 03-09 | Sand Density Calculation (Sharepoint Only) | X | X | O | | X |
| 040-069 | 02-13 | Moisture-Density Determination, Compaction Report (Sharepoint Only) | X | X | O | | X |
| 040-073 | 06-08 | Report of Profilograph Test (Sharepoint Only) | X | X | O | | X |
| 040-076 | 03-09 | Acceptance Test Summary Sheet (Hdqtrs) | X | X | O | X | |

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| | | INDEPENDENT ASSURANCE FORMS | | | | | |
| 040-005 | 11-12 | Audit Report Form for Compaction Curve (Sharepoint Only) | X | X | O | | X |
| 040-022 | 11-12 | Field Lab Inspection Report (Sharepoint Only) | X | X | O | | X |
| 040-055 | 11-12 | Field Lab Safety Equipment Inspection (Sharepoint only) | X | X | O | | X |
| 040-070 | 11-12 | Audit Report Form for Concrete Aggregates (Sharepoint Only) | X | X | O | | X |
| 040-071 | 11-12 | Auditor's Report of Concrete Tests (Sharepoint Only) | X | X | O | | X |
| 040-072 | 11-12 | Report Form for Two Way Audits (Sharepoint Only) | X | X | O | | X |
| 040-079 | 11-12 | Visual Audit Report Form (Sharepoint Only) | X | X | O | | X |
| 040-085 | 08-03 | Field Lab Inspection (Sharepoint Only) | X | | O | | |
| 040-086 | 08-03 | Nuclear Personnel Inspection (Sharepoint Only) | X | | O | | |
| 040-089 | 11-12 | Nuclear Gauge Visual Inspection (Sharepoint Only) | X | X | O | | X |
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