



Illinois Department of Transportation

Division of Highways / Bureau of Construction
2300 South Dirksen Parkway, Springfield, Illinois 62764

Subject: CONSTRUCTION MEMORANDUM 08-09
Force Account Billing
Article 109.04

Effective: January 1, 2008

Expires: Indefinite

Paying for extra work on a Force Account Basis is an accepted and common practice through out the highway construction industry. The purpose of this memorandum is to provide direction to Department personnel for reviewing contractor force account billings.

This memorandum also serves to implement Equipment Watch's Rental Rate Blue Book (Blue Book) as the source of equipment rates for force account billing. The Department's Schedule of Average Annual Equipment Ownership Expense will no longer be used for this purpose.

Included in this memorandum are:

Guidelines for Force Account Billings

Attachment 1 - Rates for Items not Available from the Blue Book

Attachment 2 – [BC 635](#), Example Extra Work Daily Reports

Attachment 3 - Sample Force Account Billing

Attachment 4 - [BC 2370](#), Equipment Expense Rate Data

Particular attention should be paid to the following:

1. Each day that force account work is being performed Form [BC 635](#), Extra Work Daily Report, must be completed. All manpower, equipment and material used in the force account work shall be agreed to by both the Contractor and the Engineer and entered on this form at the end of each day. The Contractor must then prepare the force account bill from the daily reports. Only the manpower, equipment and material shown on the daily reports shall be included on the force account bill.
2. The verification of labor cost and the affidavit as to materials taken from stock.
3. Payroll additives are to be restricted to actual costs.

- a) Workmen's compensations insurance is chargeable for all hours worked on a straight time basis. Overtime premiums (1 ½ x, 2 x, 3 x, etc.) are not eligible.
 - b) Truck drivers' total salaries shall be excluded from computation of public liability and property damage insurance as these insurance costs are covered by equipment ownership expense.
 - c) Federal Unemployment Insurance is contributed by the employer on the first \$7,000 paid to each worker in a calendar year. Year to date employee earnings are to be reported in the force account bill. The Federal rate is 6.2%. However, employers who have made all required payments to their state system in a full and timely manner receive a 5.4% "credit", making the effective Federal rate 0.8%.
 - d) State Unemployment Compensation is contributed by the employer on the first \$11,500 paid to each worker in a calendar year. Year to date employee earnings are to be reported in the force account bill. These percentages are subject to change by legislative action. Employers who begin operations in Illinois will receive a "starter's rate" based on their industry in either their first two or three calendar years. Thereafter, they receive an experience rate which reflects their experience with the payment of benefit claims. This experience rate varies and changes annually. More information can be obtained from the Illinois Department of Employment Security. However, employers whose computed rate is 5.5% or higher and total quarterly wages are less than \$50,000 pays contributions at a rate of 5.4%. These percentages are subject to change by legislative action.
 - e) Federal Social Security Tax is contributed at the rate of 6.2% plus 1.45% for Medicare, a total of 7.65%, on the first \$97,500 paid to an individual as wages in calendar 2007. After the first \$97,500 in wages, the rate for Medicare continues at 1.45%.
4. The following policies shall be used in determining rates:
- a) Equipment owned by Contractor.
 - i) Equipment on jobsite

The time paid for shall be the period that the equipment is in operation on the force account work, and in addition shall include traveling time to the locations of the force account work when the equipment is moved under its own power. In rare instances, such as the transportation of a crane having a long boom, it may be necessary for the machine to be in operation while being transported to the location of the force account work, in which case the time paid for shall include the time operated during transportation. Loading and transportation costs will be allowed when equipment is moved through means rather than its own power, but payment time for equipment so moved shall be restricted to actual operating time on the work, except as noted in the preceding sentence.

ii) Equipment not on jobsite

Same as (a) except that minimum total operating time paid for on the work shall be not less than four hours.

The hourly rates for Contractor owned equipment will be determined from the applicable volume of the Equipment Watch Rental Rate Blue Book (Blue Book). The Blue Book is available to all Department personnel at Inside IDOT, <http://insideidot/default.aspx>. Click on Applications

- 1) The Blue Book will be used in the following manner:
 - (i) The hourly rate will be determined by using the FHWA Hourly Rate. The monthly, weekly, daily or hourly rates will not be used.
 - (ii) The current revisions will be used in establishing rates. The current revision applicable to specific Force Account work is as of the first day of work performed on that Force Account work and that rate applies throughout the period the Force Account work is being performed.
 - (iii) The Regional adjustment for Illinois will be made. Model year adjustment will also be made. No user defined adjustments will be made.
 - (iv) The estimated operating costs per hour are included in the FHWA Hourly Rate and will be used for each hour that the equipment is in operation on the Force Account work. Such costs do not apply to idle time regardless of the cause of the idleness.
 - (v) The rates established above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance and all incidentals. No additional compensation will be allowed for normal operating expenses. The rates do not include labor.
 - (vi) The Contractor shall submit Form [BC 2370](#) Equipment Expense Rate Data Sheet to the Engineer with sufficient information for each piece of equipment and its attachments to enable the Engineer to verify the rental rate. As an option, the contractor may submit a copy of the printable report from the Blue Book. All equipment shall, in the opinion of the Engineer, be in good operating condition. Equipment used by the Contractor shall be specifically described and be of suitable size and suitable capacity required for the work to be performed.
 - (vii) Standby time for equipment beyond the end of the shift when the delay occurred will not be paid for, except where the

equipment has been held on the Project site on a standby basis at the request of the Engineer. Such payment will be made based upon:

0.5 X (FHWA Hourly adjusted for Model Year and Region - Estimated Operating Costs)

- 2) Rates for equipment not listed but available upon request from Blue Book:

The contractor shall submit a fully completed [BC 2370](#), Equipment Expense Rate Data sheet. This information can be forwarded to Equipment Watch for a rate determination.

- 3) Individual pieces of equipment not listed in Attachment 1 of this memorandum and having a replacement value of \$1,000 or less shall be considered to be tools or small equipment and no payment will be made for their use on the work. Compensation will be allowed for actual cost of consumables (oxygen, acetylene, propane, etc.) used by small tools.

b) Equipment rented by the Contractor.

- i) Whenever it is necessary for the Contractor to rent equipment elsewhere, he shall be paid the rental and transportation cost of such equipment to which 5% shall be added. **THE RENTAL RATES MAY NOT EXCEED THOSE ALLOWABLE FOR EQUIPMENT OWNED BY THE CONTRACTOR UNLESS FIRST APPROVED IN WRITING BY THE ENGINEER BEFORE THE WORK IS STARTED. IN NO CASE SHALL THE RENTAL RATES EXCEED THOSE OF ESTABLISHED DISTRIBUTORS OR EQUIPMENT RENTAL AGENCIES.**
- ii) When the contractor rents equipment from a related party and that equipment was used in the determination of the contractor's prequalification ratings, the contractor shall be paid per a) above regardless of the rental agreement between the contractor and the related party.

5. Preparation of force account bills.

All force account bills should show an accurate description of equipment used on force account work by year manufactured, type, size and horsepower and/or capacity.

Any changes or correction of ownership expenses rates on a force account bill must be made on each revised bill to indicate that the Contractor has approved the revised amount before the bill will be approved for payment.

Contractors are eligible for an additive to a bill prepared by a subcontractor. See Art. 109.04(b)(7).

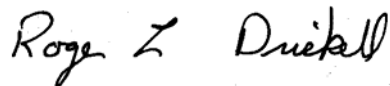
6. Response Contractors Indemnification Fund.

Pay item XXX15000 should be used when the force account or a portion thereof, involves issues related to a remedial or response action, or to the identification, handling, storage, treatment or disposal of a pollutant, or other items subject to payment into the Response Contractors Indemnification Fund (RCIF).

7. Where work extends over more than one week or payroll period, one bill should be submitted whenever possible, listing all labor together and all equipment together.

It will be proper to pay a foreman's salary based on the individual's actual wage and allow actual cost or company average for company contribution to life insurance, health insurance, or pension funds. We will also pay documented travel expense if it applies. Bonuses or profit sharing arrangements will not be allowed. Under some limited circumstances, the contractors' superintendent may act as a foreman. In those situations it may be appropriate to pay for those costs as normally would be done for a foreman.

Some flaggers may be shown simply under the laborer wage rate. Others may have a special wage rate for laborers when acting as flaggers. It is also possible for flagger's wage rates to be under traffic control workers rather than laborers. For force account bills the designation flaggers should be used if they are paid a different wage rate than laborers.



Roger L. Driskell, P. E.
Engineer of Construction

ATTACHMENT 1

ITEMS NOT AVAILABLE FROM BLUE BOOK

ARROW BOARD

For vehicle mounting, rate for vehicle not included

HOURLY EXPENSE RATE = *Flat rate for all models*

\$ 2.45 for all models for a maximum of 176 hours per month

STANDBY HOURLY RATE = Hourly Expense Rate x 0.897 x 0.50

ATTENUATOR

Crash, for truck mounting, rate for truck not included, one-piece aluminum, one-piece fiberglass

HOURLY EXPENSE RATE = *Flat rate for all types*

\$ 3.40 for all models for a maximum of 176 hours per month

STANDBY HOURLY RATE = Hourly Expense Rate x 0.942 x 0.50

Crash, for truck mounting, rate for truck not included, two-piece aluminum

HOURLY EXPENSE RATE = *Flat rate for all types*

\$ 4.50 for all models for a maximum of 176 hours per month

STANDBY HOURLY RATE = Hourly Expense Rate x 0.942 x 0.50

Impact, sand module, temporary

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 5.55 for all models for a maximum of 180 days

BARRICADE

Type I or Type II

DAILY EXPENSE RATE = *Flat rate for all models*

\$ 1.00 for each type I or type II barricade for a maximum of 180 days

Type III

DAILY EXPENSE RATE = *Flat rate for all models*

\$ 2.35 for each type III barricade for a maximum of 180 days

BARRIER WALL

Concrete, temporary; 3.05 m (10 ft) section

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 0.25 for each section for a maximum of 180 days

Lifting Clamp

REIMBURSEMENT RATE = *Flat rate for all types*

\$ 0.25 for each section placed and removed

DELINEATOR

Barrel

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 1.25 for each delineator barrel for a maximum of 180 days

Cone

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 0.50 for each cone for a maximum of 180 days

LITE

Flasher

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 0.20 for each flasher for a maximum of 180 days

Hi-intensity, sign mounted

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 1.70 for each sign mounted hi-intensity lite for a maximum of 180 days

Steady Burn

DAILY EXPENSE RATE = *Flat rate for all types*

\$ 0.30 for each steady burn for a maximum of 180 days

SIGN

Construction Work Zone

DAILY EXPENSE RATE = *Flat rate for all types*

\$2.00 for each hi-intensity sign for a maximum of 180 days

TRENCH BOX

Steel or aluminum, single or double wall; all lengths and depths; including braces

NOTE: Area equals depth times length

HOURLY EXPENSE RATE = $\$0.043 \text{ times the box's area in square feet plus } \3.05
for a maximum of 176 hours per month

STANDBY HOURLY RATE = Hourly Expense Rate x 0.900 x 0.50

ATTACHMENT 2



**Illinois Department
of Transportation**

Extra Work Daily Report

County
Section
Route
District

Contractor Smith Construction Co.

Contract No.

Report No. 1 Date mm/dd/yyyy

Job No.

Authorization No. _____

Project No.

Description and Location of Work: Additional Pipe & Collars at Station 00+30

EXAMPLE

LABOR

Name, Worker Classification	Total Hours Worked (Straight-Time) (Overtime)
Matt Reilly, Foreman	6
Tim Seitz, Laborer	6
Bernie Henderson, Laborer	6
Earl Roth, Laborer	6
John Graham, Laborer	6
Sarah Reid, Teamster	6
Jeanmarie Smith, Operator	6

EQUIPMENT USED

MATERIAL USED

EQUIPMENT USED		MATERIAL USED	
Description: List Manufacturer, Model, Year Built, Capacity	Number of Hours	Description	Quantity
2006 Caterpillar 814 F Wheel Dozer (240HP)	6		
2006 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2 ton	6	24 in RCP	64 ft
2004 On-Hwy Rear Dump Trk 4x4 Diesel 30,000lb/GVW	6		

REMARKS: _____

APPROVED: R.L. Smith
Contractor's Representative

APPROVED: Stephanie Jones
State's Representative

Original: Contractor
cc: District File



Extra Work Daily Report

County

Section

Route

District

Contractor Smith Construction Co.

Contract No.

Report No. 2 Date mm/dd/yyyy

Job No.

Authorization No. _____

Project No.

EXAMPLE

Description and Location of Work: Additional Pipe & Collars at Station 00+30

LABOR

Name, Worker Classification	Total Hours Worked (Straight-Time) (Overtime)
Matt Reilly, Foreman	8
Tim Seitz, Laborer	8
Bernie Henderson, Laborer	8
Earl Roth, Laborer	8
John Graham, Laborer	8
Sarah Reid, Teamster	8
Jeanmarie Smith, Operator	8

EQUIPMENT USED

MATERIAL USED

EQUIPMENT USED		MATERIAL USED	
Description: List Manufacturer, Model, Year Built, Capacity	Number of Hours	Description	Quantity
2006 Caterpillar 814 F Wheel Dozer (240HP)	6		
2006 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2 ton	6	Trench Backfill	48.6 tons
2004 On-Hwy Rear Dump Tr 4x4 Diesel 30,000lb/GVW	6		

REMARKS: _____

APPROVED: *R.L. Smith*
Contractor's Representative

APPROVED: *Stephanie Jones*
State's Representative

Original: Contractor
cc: District File



Illinois Department of Transportation

Extra Work Daily Report

County

Section

Route

District

Contractor Smith Construction Co.

Contract No.

Report No. 3 Date mm/dd/yyyy

Job No.

Authorization No. _____

Project No.

EXAMPLE

Description and Location of Work: Additional Pipe & Collars at Station 00+30

LABOR

Name, Worker Classification	Total Hours Worked (Straight-Time) (Overtime)
Matt Reilly, Foreman	8 Straight, 2 OT
Tim Seitz, Laborer	8 Straight, 2 OT
Bernie Henderson, Laborer	8 Straight, 2 OT
Earl Roth, Laborer	8 Straight, 2 OT
John Graham, Laborer	8 Straight, 2 OT
Sarah Reid, Teamster	8 Straight, 2 OT
Jeanmarie Smith, Operator	8 Straight, 2 OT

EQUIPMENT USED

MATERIAL USED

EQUIPMENT USED		MATERIAL USED	
Description: List Manufacturer, Model, Year Built, Capacity	Number of Hours	Description	Quantity
2006 Caterpillar 814 F Wheel Dozer (240HP)	8	Portland Cement	6 sacks
2006 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2 ton	10	Aggregate	1.5 tons
2004 On-Hwy Rear Dump Trk 4x4 Diesel 30,000lb/GVW	8	Form Lumber, 1in x 6in x 14ft	24pcs

REMARKS: _____

APPROVED: R.L. Smith
Contractor's Representative

APPROVED: Stephanie Jones
State's Representative

Original: Contractor
cc: District File

ATTACHMENT 3

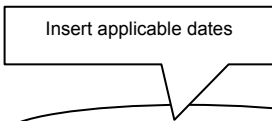
This sample bill does not establish any policy relative to the amount to be allowed for any particular item of materials or equipment or as representing actual rates for insurance. Its sole purpose is to standardize the form of force account bills.

SAMPLE OF A FORCE ACCOUNT BILL (USING 2007 BLUEBOOK RATES) SHOWING FORM TO BE FOLLOWED

CONTRACTOR'S LETTERHEAD

Route _____ Section _____ County _____ Auth. No. _____

Force account bill for Additional Pipe & Collars Contract No. _____



	June 2007			Total Hours		Rate	Insurance Amount	Payroll Amount	Earnings to Date	Payroll Amount Eligible for Unemployment Tax	
	4	5	6	S.T.	O.T.					F.U.T.	S.U.T.
Matt Reilly, Foreman	6	8	10	22	2	15.60	\$374.40	\$390.00	\$35,000.00	\$0.00	\$0.00
Tim Seitz, Laborer	6	8	10	22	2	12.50	300.00	312.50	8,000.00	0.00	312.50
Bernie Henderson, Laborer	6	8	10	22	2	12.50	300.00	312.50	6,000.00	312.50	312.50
Earl Roth, Laborer	6	8	10	22	2	12.50	300.00	312.50	7,100.00	212.50	312.50
John Graham, Laborer	6	8	10	22	2	12.50	300.00	312.50	9,100.00	0.00	312.50
Sarah Reid, Truck Driver	6	8	8	22		14.50	319.00	319.00	27,000.00	0.00	0.00
Jeanmarie Smith, Operator	6	8	8	22		17.60	<u>387.20</u>	<u>387.20</u>	40,000.00	<u>0.00</u>	<u>0.00</u>
Subtotals, Labor							\$2,280.60	\$2,346.20		\$525.00	\$1,250.00
*Laborer Pension & Welfare Funds – 96 hours @ .32								30.72			
*Operating Engineer Pension & Welfare – 22 hours @ .55								<u>12.10</u>			
Subtotals, Labor								\$2,389.02			
Plus 35% of \$2,389.02								836.16			
Subtotals, Labor								\$3,225.18			
Plus: Workmen's Compensation Ins. 3.48% of \$2,280.60							79.36				
Public Liability and Property Damage Ins., excluding payroll of Truck Drivers 2.0% of \$1,961.60							39.23				
**Federal Unemployment Tax 0.8% of \$525.00							4.20				
***State Unemployment Tax 6.8% of \$1,250.00							85.00				
Federal Social Security Tax 7.65% of \$2,346.20							<u>179.48</u>				
Total Payroll Additives							387.27				
Plus 10% of \$387.27							38.73				
								<u>426.00</u>			
Total Labor								\$3,651.18			

*These are not suggested rates, as these rates vary widely between Union Locals. This is intended as an example only.

**Do not include costs for employees which have reached the \$7,000 ceiling on Federal Unemployment Tax (F.U.T.)

***Do not include costs for employees which have reached the \$11,500 ceiling for State Unemployment Tax (S.U.T.)

I hereby certify that the above statement is a copy of that portion of the payroll which applies to the above stated work and that the rates shown for taxes and insurance are actual costs.

(Signed) _____ (Contractor)

<u>Equipment Expense</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>Total Hrs</u>	<u>Rate</u>	<u>Amount</u>
2006 Caterpillar 814F Wheel Dozer, (240 HP)	6	8	8	22	\$100.50	\$2,211.00
2006 Chevy Light Duty Pickup Truck, 4X4 Crew Cab (1/2 ton)	6	8	10	24	\$11.86	\$284.64
2004 On-Hwy Rear Dump Truck, 4X4, Diesel, (30,000 lb GVW)	6	8	8	22	\$35.22	<u>\$774.84</u>
Total equipment expense						\$3,270.48

Material Used

24 in. R.C.P., 64 ft. @ \$4.30 per ft.(receipted invoice attached)	\$275.20
(Trench backfill, 48.6 tons @ \$0.85 per ton) (taken from stock)	41.31
Portland cement, 6 sacks @ \$1.60 (taken from stock)	9.60
(Aggregate, 1.5 tons @ \$1.40 per ton) (taken from stock)	2.10
(Form lumber, 24 pieces, 1x6, 14 feet long @ \$1.232 per piece) (receipted invoice attached)	29.57
Less salvage value of form lumber, 50%	<u>(14.79)</u>
Subtotal material	342.99
Plus 15% on \$342.99	<u>51.45</u>
Total material	\$394.44

AFFIDAVIT

This is to certify that the material entered on this force account bill which was taken from stock is shown at our cost.

Smith Construction Co.
(Company)

By _____

R. L. Smith

Total Labor	\$3,651.18
Total Equipment Expense	3,270.48
Total Materials	<u>394.44</u>
Total	\$7,316.10
Bond 0.75%	54.87
Plus 10% of Bond	5.49
Total Bill	\$7,376.46

Resident

ATTACHMENT 4



Equipment Expense Rate Data

To Be Filled Out by the Requesting Agency or Contractor:

Contract Number: _____

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone Number: _____

Description of Equipment

Type: _____

Make: _____ Model: _____

Year Manufactured: _____ Fuel Type: _____ Horsepower: _____

Size and/or Capacity: _____

Remarks: _____

Cost of Equipment (For Equipment Not Listed in Blue Book)

Purchase Price: _____ Year Purchased: _____

Estimated or Actual Annual Repair Cost: _____

Estimated or Actual Annual Usage of Equipment in Hours per Year: _____

Additional Comments: _____

(Upon completion, please submit to the appropriate District Office)

ATTACHMENT 5**Blue Book Supplemental Information**

After discussions with the staff at Equipment Watch, the following guidelines have been prepared to provide additional assistance with using the Blue Book for force account billings:

If a particular equipment category, make, and model number is known, rather than using all of the information to drill down through the categories, simply type in the model number in the search feature and click on search. The categories assigned by Blue Book are sometimes difficult to determine.

Contractors are to be paid the FHWA Hourly Rate. When the rate is not given, it can be calculated as follows:

The FHWA Hourly Rate = [(monthly rate/176) x (model year adj.) x (Illinois adj.)] + EOC

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

Authorized idle (standby) time payment will be made at the following hourly rate:

0.5 x (FHWA hourly rate - EOC).

Equipment Watch updates the Rental Rate Blue Book twice per year, once in January, and once in July. Only half of the Book is updated each period, so in effect, a particular equipment rate stays valid for one year. All forms of the Rental Rate Blue Book (print, CD and on-line) are updated simultaneously, so the rates are consistent regardless of format. Also, most, if not all reports list the revision date for each rate (1st Half 2007, 2nd Half 2007, etc.), so it can be traced back to the proper time period for auditing purposes should it become an issue.

The Blue Book is a guide and if there are any units which a contractor feels is not represented in the guide, Equipment Watch will determine a custom rate based on the contractor completing a survey. When using a custom rate, check to ensure the "Illinois" and "Model Year" adjustments have been properly applied.

The "Model Year" adjustment is not available for pieces of equipment that are more than 20 years old. There are contractors that have older pieces of equipment. Most state DOT's accept the rate adjusted to the earliest published year (currently 1987), and IDOT has decided to accept this methodology as well. There are many ways to justify this treatment. Equipment Watch feels that large capital investments for major rebuilds must be made, in order to extend the economic life of these older pieces of equipment; additionally the operating cost may be higher. Thus you get a smaller ownership cost and a larger operating cost. Both of these factors tend to extend the validity of the published Blue Book rate.

For older pieces of equipment, greater than 20 years, that have a discontinued model number, most states use rates for the closest model (horsepower, capacity, etc.) published. IDOT has decided to adopt this practice. If a close match cannot be located, Equipment Watch can be contacted for a custom rate.

For new models of existing equipment (i.e. 2008 light-duty trucks) that won't be incorporated into the Blue Book until the July 1, 2008 update, other states accept the closest model year published, in this case the 2007 models. IDOT has accepted this practice. Equipment Watch feels that they are conservative on their rates, and in the case of a truck, contractors will find that the acquisition cost of their trucks regardless of the GVW, is usually covered by the closest published model.

Until more Material Transfer Devices (MTD's) are incorporated into the Blue Book, custom rates will need to be requested. A few MTDs are located under the category "Asphalt pickup machines". Equipment Watch will be including more makes and models into future updates of the Blue Book.

The main purpose of the Buckets section is to allow for attachments. The best example is a hydraulic breaker for an excavator. The rate for the unit is determined by subtracting the rate for the standard bucket (or closest listed) from that of the Excavator (which includes the bucket) and adding in the rate for the appropriate hammer.

Most states avoid allowing rate changes for daily or hourly bucket changes, because it is not only an administrative nightmare but it brings the whole standby rate question to bear. The duty of the buckets (general purpose, heavy duty or severe duty) is a reflection of manufacturer nomenclature and not discrete wall thickness ranges. Model year of a bucket may be impossible to determine. Therefore, when determining a rate for equipment with bucket attachments, use the rate given for the manufacturer's standard size bucket and the same model as the equipment.

Construction Memorandum 07-09 - Section 4a) 1) covers rates obtained from the Blue Book; 4a) 2) covers equipment rates not listed in the Blue Book but available upon request from Equipment Watch and; 4a) 3) covers equipment not available in the Blue Book nor upon request from Equipment Watch, but is listed in Attachment 1 of the memorandum. This is primarily Traffic Control items.

Changeable Message Signs - Although the rates for Changeable Message Signs are now being provided by Blue Book, the maximum number of hours per month remains 176. This is consistent with our previous policy when the Schedule of Average Annual Equipment Ownership Expense guide was used for equipment rates.

Due to the variability in equipment rates provided by Equipment Watch for the same piece of equipment based solely on differing annual usage hours per year provided by the contractor, when requesting a "custom" rate from Equipment Watch for a piece of equipment not available in the Rental Rate Blue Book, request "standard annual usage hours". Widely variable annual usage hours provided by the contractor greater than 2080 hours or less than 176 hours tend to create anomalies with Blue Book methodology and can significantly impact a given equipment rate. Standard annual usage hours are typically 800 to 1500 hours per year depending on the type of equipment in question. If Equipment Watch catches reported annual usage hours on a custom rate request that are out of the range of normal equipment use, they may question the requesting party.

Pile leads are listed under Pile Drivers, and one needs to "build" the required length of the lead based on dimensions and section type (top, mid, swivel, etc.) to get to the required length for either the fixed or swinging type leads. The fixed leads are listed in increments from 10 to 40ft.; the swinging leads are listed in increments of 5 to 40ft.

Because of the many variations on the cabs, conventional, crew, extended, extra-cab, etc., and the different doors, half doors, full rear seats, fold down rear seats, when Equipment Watch does their averaging, they include as "crew cab" any of the crew/extended cab/rear seating options. In other words, if it's larger than a "conventional cab" then it would be included in the "crew cab" averages.

Equipment Watch publishes rates for some equipment in the Shop Tools, Miscellaneous, and Air tools sections that are based on list prices less than \$1000. We are continuing the policy of not giving equipment rates for small tools with a replacement value of under \$1000. Therefore no payment will be made for their use on the work.

Some listings in the Blue Book give different rates for ROPS and EROPS versions of the equipment. ROPS/ OROPS- "Roll Over Protective System", "Rollover Protective Structures" or "Open Roll Over Protective System" are different than EROPS- "**Enclosed** Roll Over Protective Structure". ROPS is a cab or frame that provides a safe environment for the tractor operator in the event of a rollover. The ROPS frame must pass a series of static and dynamic crush tests. These tests examine the ability of the ROPS to withstand various loads to see if the protective zone around the operator station remains intact in an overturn. A homemade bar attached to the tractor axle, or simple sun shades, cannot protect the operator if the tractor overturns. The ROPS must meet standards, such as those set forth by the American Society of Agricultural Engineers, which certify they provide adequate protection in a tractor upset. If the ROPS is certified, there will be a certification label on the unit.