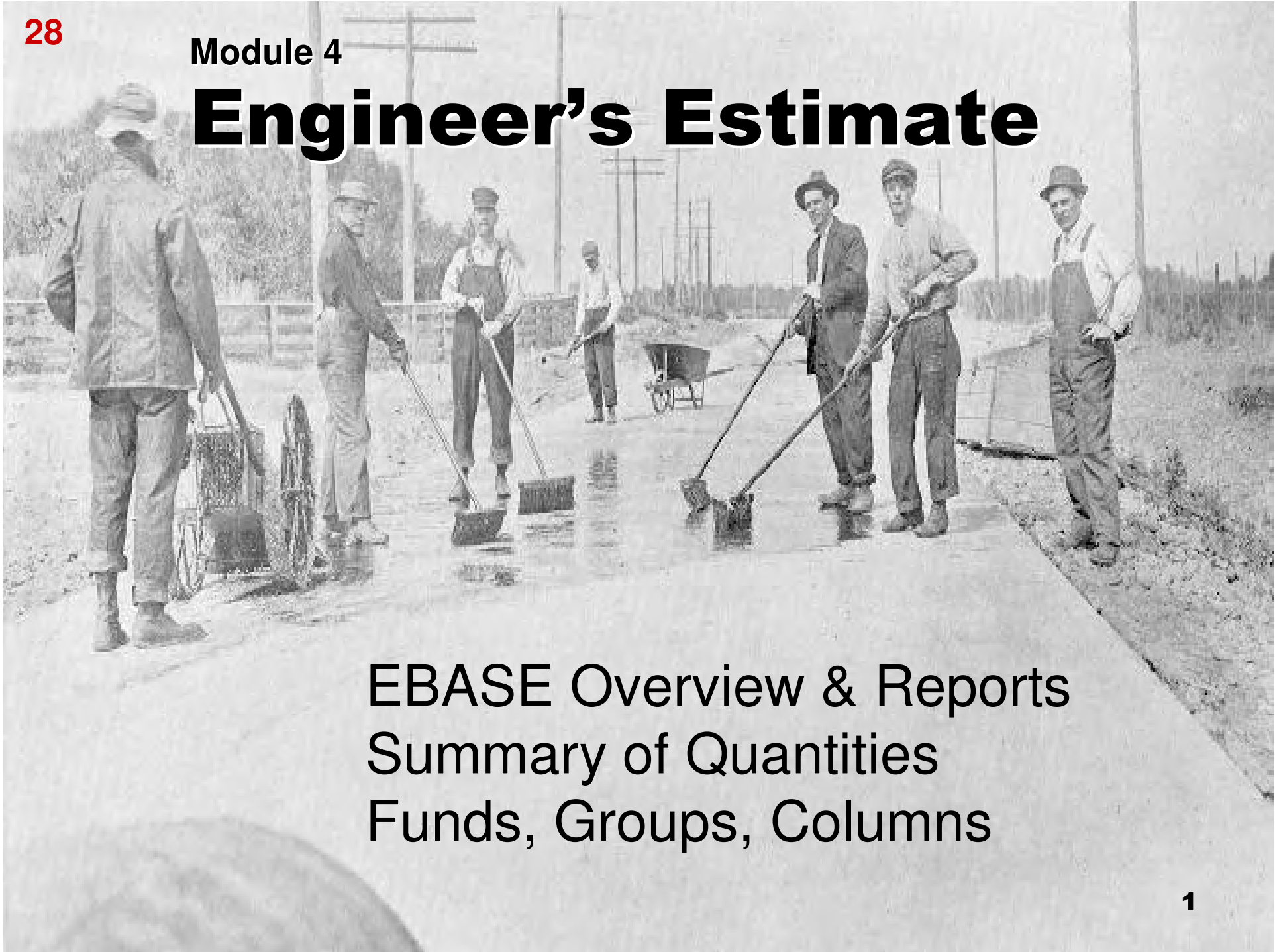


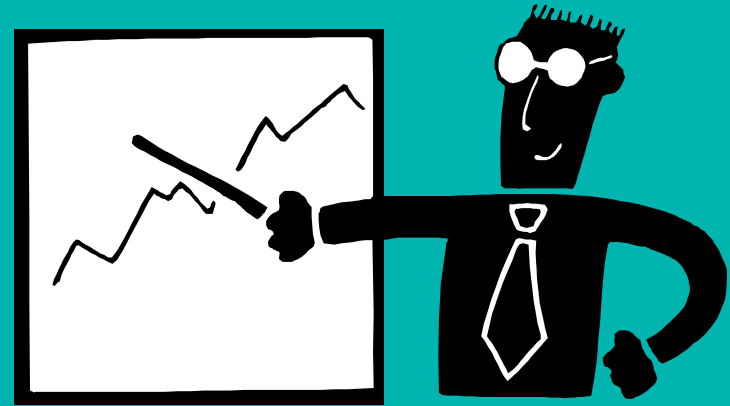
# Engineer's Estimate



EBASE Overview & Reports  
Summary of Quantities  
Funds, Groups, Columns

# Not a hands-on EBASE class!

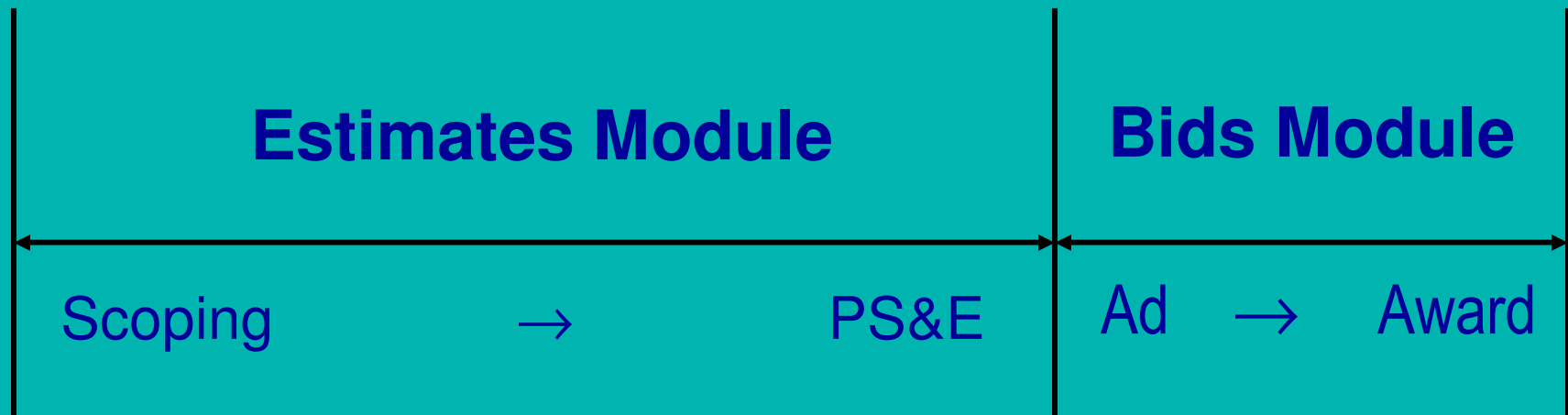
- **Strategies and data needed** for successful estimate preparation



- For **hands-on EBASE training** contact:
  - Region Plans or Plan Review Office
  - HQ Plans Office

# What is EBASE ?

Estimates and Bid Analysis System



# EBASE Reports

✓ **Proposal** (to Contract Provisions)

✓ **Preliminary Estimate** (to Program Mgmt)

- Summary Report
- Fund Report
- By Group Report
- By Item Report
- Work Classification Report

**CONFIDENTIAL**  
Until  
bid opening

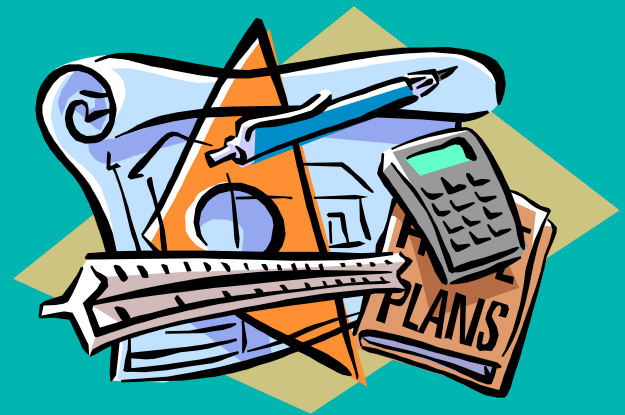
✓ **Summary of Quantities** (to Contract Plans)

# Destroy Sensitive Material Not Required for Your Records



# **EBASE Reports**

How the  
Engineer's Estimate  
is Used



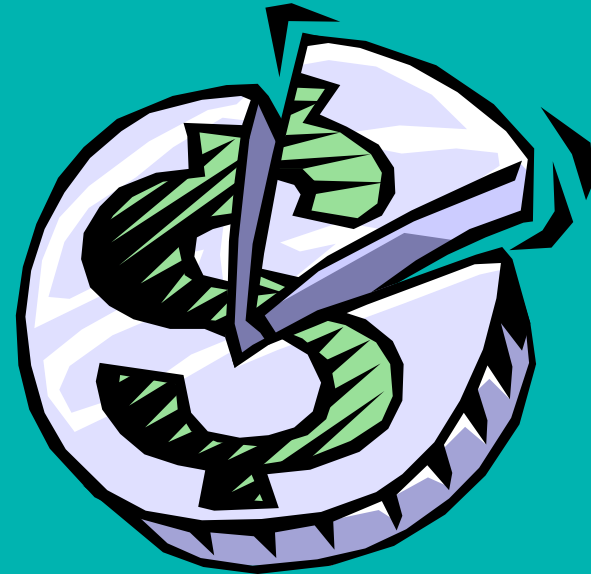
# Engineer's Estimate

- Internal and external planholders use the **Summary of Quantities** to grasp the nature and magnitude of the work



# Engineer's Estimate

- Program Managers use **Preliminary Estimates** to monitor and balance the overall WSDOT Program





# Engineer's Estimate

- Contract Ad & Award uses **Work Classification Reports** to determine which contractors are eligible to bid on specific contracts



# Engineer's Estimate

- Accounting uses the **Preliminary Estimates** to set up construction phase Work Orders (aka Contract #s)



# Engineer's Estimate

- Pre-qualified Contractors submit their bids on the **Proposal Form**



# Engineer's Estimate

- Contract Ad & Award identifies the low bid by comparing bids received on the **Proposal Forms** against the **Preliminary Estimate**



# Engineer's Estimate

- Project Offices compare bids in the Bid Check Report against the **By Item Report** to justify award or rejection of bids over 10% or \$50K



# Summary of Quantities

**PPM 460.04**  
Plan Example 4-7

# Plans

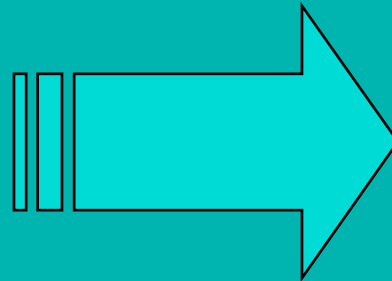
**Profiles**

**Q-Tabs**

**Structure  
Notes**

**Misc  
Qtys**

# Where Contract Bid Items Come From



Non-tabulated Qtys  
Tables in Plans  
Lump Sum Items  
Estimated Items  
Calculated Items

# EBASE

**Summary  
of Qtys**

**+**

**Proposal**







SUMMARY OF QUANTITIES

Item No.	Description	Quantity	Unit	Rate	Amount	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	PREPARATION																			
	GRAVING																			
	SURFACING																			
	LIQUID ASPHALT																			
	ASPHALT CONCRETE PAVEMENT																			
	EROSION CONTROL AND PLANTING																			

**Bid items** shall be listed in the same order as they appear in the **Standard Item Table**

**Non-standard items** (not in the **Standard Item Table**) shall be intermixed (according to type of work) with the bid items that are listed in the Table



32

FUNDS

Project (WIN)



PIN

Program

Funding Part.

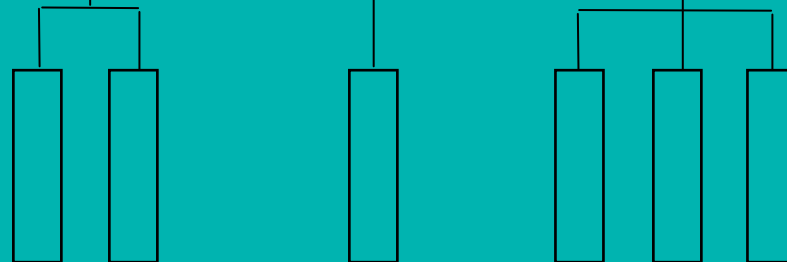
Control Section

3<sup>rd</sup> Party Damage

GROUPS



Work Locations



COLUMNNS

Bid Items

Non-Bid Items

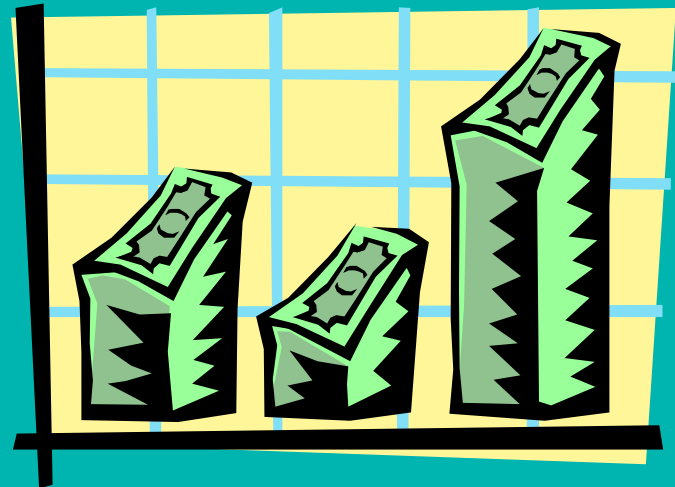
ITEMS

# Fund Sources

Many **sources** of construction funds:

- **Private\*** (developers, utilities, etc.)
- **Local\*** (cities and counties)
- **Federal** (tax dollars)
- **State** (tax dollars)

\*Requires participation agreement

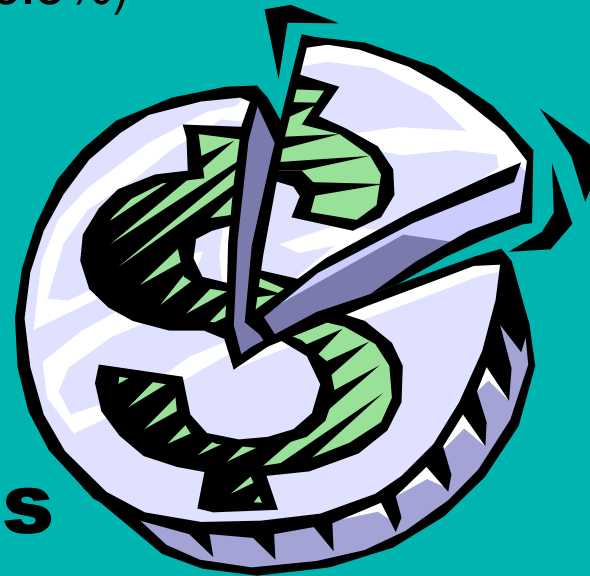


# Funding Participation

**Participation** may be:

- **Percentage** (eg. 90.66%, 86.5%)
- **Maximum dollar amount** expressed as 100% expenditure (eg. 100% of \$4.2 M)

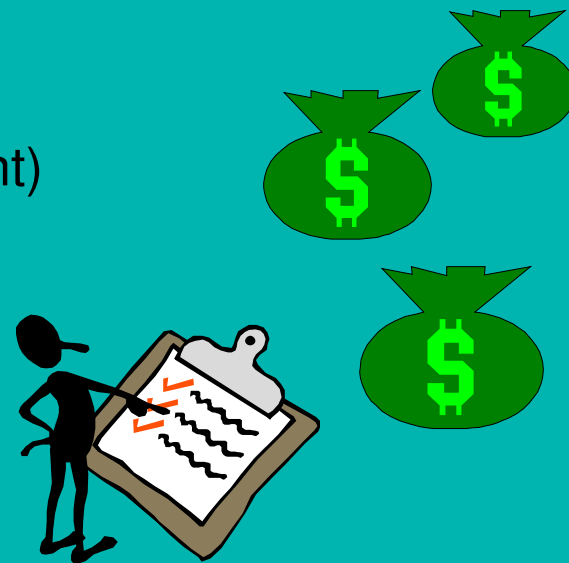
**4 types of participants**



# How multi-participant funds are disbursed

Sequence fund expenditure in this **order**:

1. **Private \$\$** - spend first  
(often a maximum amount)
2. **Local \$\$** - spend next  
(sometimes a maximum amount)
3. **Federal \$\$** - next  
(generally a percentage)
4. **State \$\$** - last  
(always 100%)



# How multi-participant funds are disbursed

**Example:** Project includes federal interstate maintenance funds, state funds, \$4.2 M developer mitigation, and City participation of \$1 M.

Set Fund up in this spending order:

1. **Developer @ \$4.2 M maximum**
2. **City @ \$1.0 M maximum**
3. **Federal IM @ 90.66%**
4. **State @ 100% (of remainder)**





Project (WIN)

FUNDS



PIN

Program

Funding Part.

Control Section

3rd Party Damage



**GROUPS**

GROUP 1	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
STA 351+27 TO STA 367+87	STA 392+09 TO STA 463+48	STA 507+60 TO STA 526+36	PSE SNO CO	ALDER- WOOD WATER SNO CO	VERIZON EVERETT	THIRD PARTY DAMAGE

Non-Bid Items

ITEMS

PPM 460.04

# **Group Rules**

A **Group** is required for each:

1. **Program Item Number (PIN)**
2. **Program-Subprogram**  
(P1, P2, I1, I2, etc.)
3. **Fund-Source-Participation Rate Change**
4. **6-digit Control Section**
5. **Third Party Damage (1 per contract)**

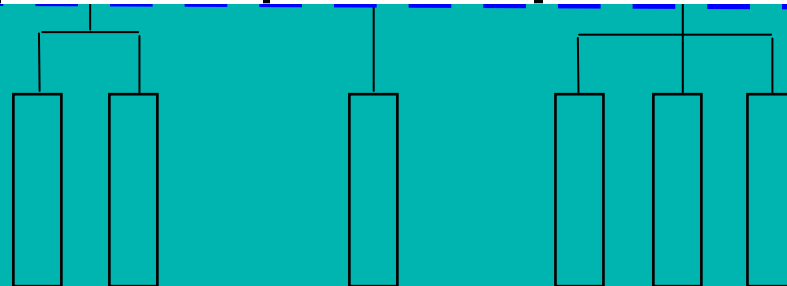
Project (WIN)



FUNDS

GROUP 1	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
STA 351+27 TO STA 367+87	STA 392+09 TO STA 463+48	STA 507+60 TO STA 526+36	PSE SNO CO	ALDER- WOOD WATER SNO CO	VERIZON EVERETT	THIRD PARTY DAMAGE
SECTION 1	SECTION 2	SECTION 3				

Work Locations



**COLUMNS**

Bid Items

Non-Bid Items

ITEMS

PPM 460.04

# Column Rules

- Must have a **minimum of 1 column** per group (usu. Roadway work)
- Every column shall be **assigned to a group**

GROUP 1	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
STA 351+27 TO STA 367+87 SECTION 1	STA 392+09 TO STA 463+48 SECTION 2	STA 507+60 TO STA 526+36 SECTION 3	PSE SNO CO	ALDER- WOOD WATER SNO CO	VERIZON EVERETT	THIRD PARTY DAMAGE
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7

PPM 460.04

# Column Rules

A Column is required for each:

- ✓ **Bridge<sup>+</sup>**
- ✓ **Wall<sup>+</sup>**
- ✓ **State furnished Pit**

<sup>+</sup>Unless tabulated separately in the Plans

# SUMMARY OF QUANTITIES

ITEM	ITEM	GROUP 1	GROUP 1	GROUP 1	GROUP 1	GROUP 1	GROUP 1	GROUP 1
		SR77 49+00.00 TO 70+85.00	DB6 LINE 9+00.00 TO 29+85.00	MC-N LINE 10+00.00 TO 17+18.64	MC-S LINE 10+00.00 TO 13+59.85	W-NS LINE 10+00.00 TO 17+74.53	NS-W LINE 9+00.00 TO 18+19.15	BRIDGE NO. 77/11
	PREPARATION							
	MOBILIZATION	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.
	CLEARING AND GRUBBING	0.90	4.20	1.00	0.40	1.20	1.00	
	REMOVING DRAINAGE STRUCTURE	1.00	5.00					
	REMOVING ASPHALT CONC. PAVEMENT	5,679.00	3,057.00	5,219.00	2,238.00	221.00		
	REMOVING GUARDRAIL			580.00			170.00	
	REMOVING GUARDRAIL ANCHOR			2.00			1.00	
	REMOVING MISCELLANEOUS TRAFFIC ITEM	L.S.	L.S.	L.S.	L.S.			
	REMOVING WIRE FENCE		150.00			200.00		

Bid Items

Non-Bid Items

**ITEMS**

# Bid vs. Non-Bid Items

<b>Bid Item</b>	Work performed by <b>Contractor</b>
<b>Non-Bid Item</b> or <b>Below the Line</b> <b>Item</b>	Material or work charged to the contract . . .but. . . <u><i>not</i></u> furnished or performed by Contractor