Project Cost Estimating System

SUMMARY PAGE

DISTRICT	Bristol, Salem & Staunton
PROJECT NUMBER	I-81 Study (4lnBrSepTrk)
PPMS NUMBER	n/a
AD DATE	2005
PROJECT MANAGER / DESIGNER	Chris Collins/VHB
Data Source for Construction Estimate:	CES
Data Source for Right-of-Way Estimate:	CES
Data Source for Utilities Estimate:	CES
DATE	*11/17/2005*

THE FOLLOWING DATA WILL BE PROVIDED UPON COMPLETION OF THE REMAINDER OF THE WORKBOOK, WHICH IS ACCESSED BY SELECTING THE **CONST**, **RW**, & **UTIL** TABS BELOW

CONSTRUCTION ESTIMATE	*$1,226,000*
PRELIMINARY ENGINEERING ESTIMATE	*$93,000*
RIGHT-OF-WAY & UTILITIES ESTIMATE	*$0*
TOTAL PROJECT ESTIMATE	*$1,319,000*

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Revised 12/08/03 RDW

Estimate Class: PFI

Version 2.0

Project Cost Estimating System
CONSTRUCTION / BRIDGE / PE

Project / PPMS #				
Interstate Project ?	YES			
Route Number	81		Interstate Highway	
Geometric Standard	Interstate	*	Principal Arterial - Freeway	
Ad Date	2005		Design Year =	2027
Design Year ADT	30,000	*	Project Terrain	Rolling
Box Must Be Empty			Approx. DHV =	4,500
Enter Design Speed (MPH) (Enter 60 or 70)	70	*	Minimum Design Speed =	70 MPH
Box Must Be Empty				
Box Must Be Empty				
Project Length (mi.)	0.00	*	*Number of Additional Lanes:*	*Length of Add'l. Lanes (mi.):*
Total Length -Adding or Building Two Lanes (mi.)	0.00	*	*None*	*0.00*
Total Length - Adding or Building Four Lanes (mi.)	0.00	*	*None*	
Total Length - Building Ramps and Loops (mi.)	0.00	*	*None*	
Box Must Be Empty				
Box Must Be Empty			Normal Lane Width (ft.)	12
Box Must Be Empty			Total Alignment Miles Computed (Required for LD-430 Scoping Report)	0.00
Box Must Be Empty				
Box Must Be Empty				
Box Must Be Empty				
Number of Right Turn Lanes - Left PLUS Right Side	0	*		
Box Must Be Empty				
Number of New Traffic Signals Required	0	*		
Number of Traffic Signals Requiring Adjustment	0	*	Base Estimate	$0
Cost of Large Drainage Structures ($)	$0	*	*Constr. Engr.*	$0
In-Plan Utility Costs	$0		Const. Est. (Today)	$0
Adjustment for Unusual Construction Costs ($)	$0	*		
Examples - Add $'s for: Bicycle Facilities, Landscaping, Retaining Walls, Lighting, Wetlands Mitigation Sites, etc.			Construction Estimate in Mid- 2005	$0

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Additional (or Unusual) P. E. Costs ($)	$0	**Preliminary Engineering Cost**	$0
Select % of PE to be performed by Consultants	0%		

Note: Do Not Include Bridge P. E. Costs Here

Roadway P. E. $ / Roadway Const. $ = 0.0%

BRIDGE TOTALS

BRIDGE COUNT: 1

Bridge Estimate (Today)	$1,155,595
Total Bridge Estimate in Mid- 2005	$1,226,000
Total Bridge P. E. Costs	$93,000

CONSTRUCTION & PE TOTALS

Total Construction Estimate (Roadway plus Bridge)	$1,226,000
Total Preliminary Engineering Estimate (Roadway plus Bridge)	$93,000

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BRIDGE CONSTRUCTION AND PRELIMINARY ENGINEERING COSTS

		BRIDGE CONSTRUCTION	BRIDGE P. E.
Proposed BRIDGE # 1 Length (ft.)	100		% by Consultants:
Width (ft.)	90	$931,095	100%
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)	M		
		Constr. Engr. Br. # 1	P.E.Bridge # 1
Removal of Existing Structure # 1:		$158,000	$93,000
Length of Existing Structure (ft.)	100	17.0%	Misc. Cost Bridge # 1
Width of Existing Structure (ft.)	50	$66,500	
Proposed BRIDGE # 2 Length (ft.)			% by Consultants:
Width (ft.)		$0	100%
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 2	P.E.Bridge # 2
Removal of Existing Structure # 2:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 2
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 3 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 3	P.E.Bridge # 3
Removal of Existing Structure # 3:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 3
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 4 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 4	P.E.Bridge # 4
Removal of Existing Structure # 4:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 4
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 5 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 5	P.E.Bridge # 5
Removal of Existing Structure # 5:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 5
Width of Existing Structure (ft.)		$0	

BRIDGE CONSTRUCTION AND PE COSTS (continued)

		BRIDGE CONSTRUCTION	BRIDGE P. E.
Proposed BRIDGE # 6 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 6	P.E.Bridge # 6
Removal of Existing Structure # 6:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 6
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 7 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 7	P.E.Bridge # 7
Removal of Existing Structure # 7:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 7
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 8 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 8	P.E.Bridge # 8
Removal of Existing Structure # 8:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 8
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 9 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 9	P.E.Bridge # 9
Removal of Existing Structure # 9:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 9
Width of Existing Structure (ft.)		$0	

NOTE: Structure Complexity is based upon Height, Difficulty of Construction, and other Factors

NOTE: Projected Estimate Requires Route Number, Ad Date (Year), and other applicable data to be Entered / Selected previously on This Worksheet

Bridge Estimate (Today)	$1,155,595
Total Bridge Estimate in Mid- 2005	$1,226,000
Total Bridge P. E. Costs	$93,000

Project Cost Estimating System
RIGHT-OF-WAY ESTIMATE

Project & PPMS Numbers :

VDOT Construction District :

Select Project Area Real Estate Costs : Average

Define Project Land Use Characteristics :

Agricultural :	50%
Residential :	40%
Industrial :	0%
Commercial :	10%
	100%

Instructions: Please fill-in all applicable White Boxes or make a choice from the Drop-down Lists

Enter the Approximate Number of Parcels on the Project : <<

Select *Computed* or User Defined Costs : ***Computed Costs***

1. LAND VALUE

Prop. Right-of-Way

Total Right-of-Way Project Length (ML + Connections)	5,280	ft	*Computed RW Cost per sq ft =*	***$0.57*** <
Average width of Existing RW	160	ft	Enter Right-of-Way Estimator's Right-of-Way Cost per sq ft :	
Average width of Proposed RW	160	ft		
Total area of all additional Prop. Right-of-Way	0	sf	0 sq ft = 0.000 Ac.	
Approx. % of Prop. CL within	0	ft	of Exist. CL	100%
Approx. % of Prop. CL between	0	ft	& 160 ft of Exist. CL	0%
Approx. % of Prop. CL greater than	160	ft	from Exist. CL	0%

Temp. Ease.

Average Width of parallel Temporary Easements Left		ft	*Comp. Temp. Ease. Cost / sq ft =*	***$0.14*** <
Total Length of parallel Temporary Easements Left		ft	Enter Right-of-Way Estimator's Temp. Ease. Cost per sq ft :	
Average Width of parallel Temporary Easements Right		ft		
Total Length of parallel Temporary Easements Right		ft	0 sq ft = 0.000 Ac.	

Perm. Util. Ease.

This Box Must Be Empty >		sf	*Comp. Utility Ease. Cost / sq ft =*	***$0.00*** <
This Box Must Be Empty >			RW Est's. Utility Ease. Cost per sq ft :	**$0.22**
OR			0 sq ft = 0.000 Ac.	
Total Number of Replacement Easements Required	0	ea	*Comp. Perm. Ease. Cost / sq ft =*	***$0.46*** <
			RW Est's. Perm. Ease. Cost per sq ft :	
Total area of All Permanent Easements		sf	0 sq ft = 0.000 Ac.	

COST OF LAND (Item # 1) ***$0*** ***(Computed Costs)***

2. BUILDING VALUE

Based upon comparison to similar, occupied **Residential Dwellings in the Project Area**, enter the Number of:

		Computed:
A. Low Cost Residential Dwellings :		*$0*
B. Moderately Low Cost Dwellings :		*$0*
C. Average Cost Residential Dwellings :		*$0*
D. Moderately High Cost Dwellings :		*$0*
E. High Cost Residential Dwellings :		*$0*
Computed Total Residential Dwelling Costs :		***$0*** <
Estimator's Total Residential Dwelling Costs :		

Enter the total estimated cost of ALL **COMMERCIAL & INDUSTRIAL BUILDINGS** to be taken:

Note: No Computed Costs Available. Use User Defined Costs Below:

Estimator's Total Commercial / Industrial Buildings Costs : <<

3. OTHER IMPROVEMENTS

Enter the estimated cost of ALL **OTHER IMPROVEMENTS** on the Project:

Computed Total Other Improvements Costs :	***$0*** <
Estimator's Total Other Improvements Costs :	

4. DAMAGES

Anticipated % of Parcels Affected by Damages to Remainder :	0%
Anticipated Relative Cost Impact of Damages to Remainder :	**Moderate**
Approximate Number of Parcels Affected :	0
Computed Cost of Damages to Remainder :	***$0*** <
Estimator's Total Cost of Damages to Remainder :	

TOTAL ACQUISITIONS (Items # 1 - 4) ***$0*** ***(Computed Costs)***

5. ADMINISTRATIVE SETTLEMENTS

Anticipated % of Parcels Affected by Administrative Settlements :	0%	
Anticipated Relative Cost Impact of Administrative Settlements :		
Approximate Number of Parcels Affected :	0	
Computed Cost of Administrative Settlements :	*$0*	<
Estimator's Total Cost of Administrative Settlements :		

6. CONDEMNATION INCREASES

Anticipated % of Parcels Affected by Condemnation Increases :	0%	
Anticipated Relative Cost Impact of Condemnation Increases :		
Approximate Number of Parcels Affected :	0	
Computed Cost of Condemnation Increases :	*$0*	<
Estimator's Total Cost of Condemnation Increases :		

7. ADMINISTRATIVE COSTS & INCIDENTAL EXPENSES

Anticipated Relative Cost Impact of Admin. Costs & Incidental Expenses :		
Computed Administrative Costs & Incidental Expenses :	*$0*	<
Estimator's Total Administrative Costs & Incidental Expenses :		

8. DEMOLITION CONTRACTS

Anticipated Relative Cost Impact of Demolition Contracts :		
Computed Costs of Demolition Contracts :	*$0*	<
Estimator's Total Cost of Demolition Contracts :		

9. HAZARDOUS MATERIALS REMOVAL

Anticipated Number of Demolished Buildings Requiring Asbestos Removal :		
Anticipated Relative Cost of Asbestos Removal from Demolished Buildings :		
Anticipated Number of Other Hazardous Materials Removal Sites :		
Anticipated Relative Cost Impact of Other Hazardous Materials Removal :		
Computed Cost of Hazardous Materials Removal :	*$0*	<
Estimator's Total Costs of Hazardous Materials Removal :		

10. PROPERTY MANAGEMENT

Anticipated Relative Cost Impact of Property Management :		
Computed Costs of Property Management :	*$0*	<
Estimator's Total Cost of Property Management :		

TOTAL OTHER ITEMS (Items # 5 - 10) $0 (Computed Costs)

11. RELOCATION ASSISTANCE

Residential Relocation Costs:

Anticipated Relative Cost Impact of Residential Relocation Expenses :		
Computed Residential Relocation Costs :	*$0*	<
Estimator's Total Residential Relocation Costs :		

Commercial Relocation Costs:

Note: No Computed Costs Available. Use User Defined Costs Below:

Estimator's Total Comm/Indust Relocation Costs :	$0	<<

Total Displacements:		Farms:	
Families:		Non-Profit:	
Businesses:		Personal Property Only:	

TOTAL RELOCATION ASSISTANCE (Item # 11) $0 (Computed Costs)

12. YEAR OF RIGHT-OF-WAY AUTHORIZATION		2015	
SUB-TOTAL RIGHT-OF-WAY COSTS	*(Computed Costs)*	*$0*	*Totals*
UTILITY COSTS TO RIGHT-OF-WAY PROJECT *		*$0*	*Include*
TOTAL RIGHT-OF-WAY COSTS		*$0*	*Inflation*

*** Utility Data display requires completion of Utilities Estimate Worksheet (tab below)**

COMMENTS:

RW-238 Data :	Right-of-Way Estimate Date :	**07/28/04**
	Based on Approved / Unapproved Plans ? :	**Unapproved Plans**
	Participating Cost / Non-Participating Cost ? :	
	Today's Date :	**11/16/05**

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Project Cost Estimating System
UTILITIES ESTIMATE

A. ELECTRICAL

Transmission

	Computed or User	RW or Const	Type of Pole	No Entry Required	Number of Poles	Rural or Urban	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
A	Computed	RW					100%	$0	$0	$0
B	Computed	RW					100%	$0	$0	$0
C	Computed	RW					100%	$0	$0	$0
D	Computed	RW					100%	$0	$0	$0
								$0	$0	$0

Distribution - Aerial

	Computed or User	RW or Const	Type of Pole	No Entry Required	Number of Poles	Rural or Urban	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
E	Computed	RW					100%	$0	$0	$0
F	Computed	RW	Three Phase		0	Rural	50%	$0	$0	$0
G	Computed	RW					100%	$0	$0	$0
H	Computed	RW	Three Phase		0	Urban	100%	$0	$0	$0
I	Computed	RW					100%	$0	$0	$0
J	Computed	RW					100%	$0	$0	$0
								$0	$0	$0

Distribution - Underground - by Linear Foot

	Computed or User	RW or Const	Type of Service	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
K	Computed	RW				100%	$0	$0	$0
L	Computed	RW	Three Phase		0	50%	$0	$0	$0
M	Computed	RW				100%	$0	$0	$0
N	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Distribution - Underground - by Pole Equivalent

	Computed or User	RW or Const	Equivalent Type of Pole	No Entry Required	Equiv. # of Poles	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
O	Computed	RW				100%	$0	$0	$0
P	Computed	RW				100%	$0	$0	$0
Q	Computed	RW				100%	$0	$0	$0
R	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Distribution - Conduit for Underground Electrical

	Computed or User	RW or Const	Type of Service	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
S	Computed	RW				0%	$0	$0	$0
T	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Distribution - Underground - Manholes

	Computed or User	RW or Const	Size / Price Range of Manhole	No Entry Required	Number of MH's	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
U	Computed	RW				100%	$0	$0	$0
V	Computed	RW				100%	$0	$0	$0
W	Computed	RW				100%	$0	$0	$0
X	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Misc. Electrical Costs

Y Misc. Electrical Costs Charged to RW Project:

Z Misc. Electrical Costs Charged to Const. Project:

TOTAL ELECTRICAL	Total to RW Proj	Total to Const Proj
$0	$0	$0

B. TELEPHONE

Aerial - Copper Wire

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Number of Poles	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
A	Computed	RW				100%	$0	$0	$0
B	Computed	RW	400		0	50%	$0	$0	$0
C	Computed	RW				100%	$0	$0	$0
D	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Aerial - Fiber Optic

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Number of Poles	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
E	Computed	RW				100%	$0	$0	$0
F	Computed	RW				100%	$0	$0	$0
G	Computed	RW				100%	$0	$0	$0
H	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Underground - Copper Wire

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
I	Computed	RW				100%	$0	$0	$0
J	Computed	RW				100%	$0	$0	$0
K	Computed	RW				100%	$0	$0	$0
L	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Underground - Fiber Optic

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
M	Computed	RW				100%	$0	$0	$0
N	Computed	RW				100%	$0	$0	$0
O	Computed	RW				100%	$0	$0	$0
P	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Underground - Copper Wire - In Conduit

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
Q	Computed	RW				100%	$0	$0	$0
R	Computed	RW				100%	$0	$0	$0
S	Computed	RW				100%	$0	$0	$0
T	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Underground - Fiber Optic - In Conduit

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
U	Computed	RW				100%	$0	$0	$0
V	Computed	RW				100%	$0	$0	$0
W	Computed	RW				100%	$0	$0	$0
X	Computed	RW				100%	$0	$0	$0
							$0	$0	$0

Manholes for UG Telephone Service

	Computed or User	RW or Const	Item	No Entry Required	Quantity	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
Y	Computed	RW	Telephone Manhole			100%	$0	$0	$0
Z	Computed	RW	Telephone Manhole			100%	$0	$0	$0

Misc. Telephone Costs

AA Misc. Telephone Costs Charged to RW Project:

BB Misc. Telephone Costs Charged to Const. Project:

TOTAL TELEPHONE	Total to RW Proj	Total to Const Proj
$0	$0	$0