BRIDGE CONSTRUCTION AND PRELIMINARY ENGINEERING COSTS

		BRIDGE CONSTRUCTION	BRIDGE P. E.
Proposed BRIDGE # 1 Length (ft.)			% by Consultants:
Width (ft.)		$0	
Complexity / Type of New Bridge (C, M, S, WEB, or SRO)			
		Constr. Engr. Br. # 1	P.E.Bridge # 1
Removal of Existing Structure # 1:		$0	$0
Length of Existing Structure (ft.)		0.0%	Misc. Cost Bridge # 1
Width of Existing Structure (ft.)		$0	
Proposed BRIDGE # 2 Length (ft.)			% by Consultants:
Width (ft.)		$0	
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)	$0
Total Bridge Estimate in Mid- 2005	$0
Total Bridge P. E. Costs	$0

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	300	ft			
Total area of all additional Prop. Right-of-Way		sf	739,200 sq ft = 16.970 Ac.		
Approx. % of Prop. CL within	70	ft	of Exist. CL	100%	
Approx. % of Prop. CL between	70	ft	& 230 ft of Exist. CL	0%	
Approx. % of Prop. CL greater than	230	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.		

Util. Ease.

This Box Must Be Empty >	132,000	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	
			132,000 sq ft = 3.030 Ac.		

Perm.

This Box Must Be Empty >	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	132,000	sf	132,000 sq ft = 3.030 Ac.		

COST OF LAND (Item # 1) $510,900 (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 :	8	$900,000
D. Moderately High Cost Dwellings :		$0
E. High Cost Residential Dwellings :		$0
Computed Total Residential Dwelling Costs :		*$900,000* <
Estimator's Total Residential Dwelling Costs :		**$900,000**

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 :	*$96,100*	<
Estimator's Total Other Improvements Costs :	**$94,300**	

4. DAMAGES

Anticipated % of Parcels Affected by Damages to Remainder :	50%	
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 :	**$58,500**	

TOTAL ACQUISITIONS (Items # 1 - 4) $1,507,000 (Computed Costs)

5. ADMINISTRATIVE SETTLEMENTS

Anticipated % of Parcels Affected by Administrative Settlements :	100%	
Anticipated Relative Cost Impact of Administrative Settlements :	Moderate	
Approximate Number of Parcels Affected :	0	
Computed Cost of Administrative Settlements :	*$0*	<
Estimator's Total Cost of Administrative Settlements :	**$251,850**	

6. CONDEMNATION INCREASES

Anticipated % of Parcels Affected by Condemnation Increases :	30%	
Anticipated Relative Cost Impact of Condemnation Increases :	Moderate	
Approximate Number of Parcels Affected :	0	
Computed Cost of Condemnation Increases :	*$0*	<
Estimator's Total Cost of Condemnation Increases :	**$141,750**	

7. ADMINISTRATIVE COSTS & INCIDENTAL EXPENSES

Anticipated Relative Cost Impact of Admin. Costs & Incidental Expenses :	Moderate	
Computed Administrative Costs & Incidental Expenses :	*$0*	<
Estimator's Total Administrative Costs & Incidental Expenses :	**$43,125**	

8. DEMOLITION CONTRACTS

Anticipated Relative Cost Impact of Demolition Contracts :	Moderate	
Computed Costs of Demolition Contracts :	*$45,000*	<
Estimator's Total Cost of Demolition Contracts :	**$45,000**	

9. HAZARDOUS MATERIALS REMOVAL

Anticipated Number of Demolished Buildings Requiring Asbestos Removal :	2	
Anticipated Relative Cost of Asbestos Removal from Demolished Buildings :	Moderate	
Anticipated Number of Other Hazardous Materials Removal Sites :	0	
Anticipated Relative Cost Impact of Other Hazardous Materials Removal :		
Computed Cost of Hazardous Materials Removal :	*$15,800*	<
Estimator's Total Costs of Hazardous Materials Removal :	**$15,800**	

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) $60,800 (Computed Costs)

11. RELOCATION ASSISTANCE

Residential Relocation Costs:

Anticipated Relative Cost Impact of Residential Relocation Expenses :	Moderate	
Computed Residential Relocation Costs :	*$223,000*	<
Estimator's Total Residential Relocation Costs :	**$223,000**	

Commercial Relocation Costs:

Note: No Computed Costs Available. Use User Defined Costs Below:		
Estimator's Total Comm/Indust Relocation Costs :	**$0**	<<

Total Displacements:	8	Farms:	3
Families:	5	Non-Profit:	
Businesses:		Personal Property Only:	

TOTAL RELOCATION ASSISTANCE (Item # 11) $223,000 (Computed Costs)

12. YEAR OF RIGHT-OF-WAY AUTHORIZATION		2015	
SUB-TOTAL RIGHT-OF-WAY COSTS	*(Computed Costs)*	*$2,553,300*	*Totals*
UTILITY COSTS TO RIGHT-OF-WAY PROJECT *		*$166,800*	*Include*
TOTAL RIGHT-OF-WAY COSTS		*$2,720,100*	*Inflation*

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

COMMENTS:

RW-238 Data :

Right-of-Way Estimate Date :	05/26/05
Based on Approved / Unapproved Plans ? :	Unapproved Plans
Participating Cost / Non-Participating Cost ? :	
Today's Date :	11/17/05

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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		6	Rural	50%	$48,000	$24,000	$0
G	Computed	RW					100%	$0	$0	$0
H	Computed	RW	Three Phase			Urban	100%	$0	$0	$0
I	Computed	RW					100%	$0	$0	$0
J	Computed	RW					100%	$0	$0	$0
								$48,000	$24,000	$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		800	50%	$136,000	$68,000	$0
M	Computed	RW				100%	$0	$0	$0
N	Computed	RW				100%	$0	$0	$0
							$136,000	$68,000	$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:	$5,000
Z	Misc. Electrical Costs Charged to Const. Project:	$5,000

TOTAL ELECTRICAL	Total to RW Proj	Total to Const Proj
$194,000	$97,000	$5,000

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		4	50%	$14,800	$7,400	$0
C	Computed	RW				100%	$0	$0	$0
D	Computed	RW				100%	$0	$0	$0
							$14,800	$7,400	$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
$14,800	$7,400	$0

C. CATV

Aerial CATV

	Computed or User	RW or Const	Type of Service	No Entry Required	Number of Pole Att'mnts	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
A	Computed	RW				100%	$0	$0	$0
B	Computed	RW	1.00 Coax		6	100%	$4,200	$4,200	$0
C	Computed	RW				100%	$0	$0	$0
D	Computed	RW				100%	$0	$0	$0
							$4,200	$4,200	$0

Underground CATV

	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
E	Computed	RW				100%	$0	$0	$0
F	Computed	RW	1.00 Coax		500	100%	$8,000	$8,000	$0
G	Computed	RW				100%	$0	$0	$0
H	Computed	RW				100%	$0	$0	$0
							$8,000	$8,000	$0

Power Units

	Computed or User	RW or Const	Item	No Entry Required	Quantity	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
I	Computed	RW	CATV Power Supply			100%	$0	$0	$0
J	Computed	RW	CATV Power Supply			100%	$0	$0	$0

Misc. CATV Costs

Misc. CATV Costs Charged to RW Project:

Misc. CATV Costs Charged to Const. Project:

TOTAL CATV	Total to RW Proj	Total to Const Proj
$12,200	$12,200	$0

D. WATER

Water Line

	Computed or User	RW or Const	Diameter of Water Pipe (in)	Loaded $ per foot	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
A	User	RW				50%	$0	$0	$0
B	Computed	Const	8		500	50%	$62,500	$0	$31,250
C	Computed	Const				100%	$0	$0	$0
D	Computed	Const				100%	$0	$0	$0
							$62,500	$0	$31,250

Misc. Water Costs

E Misc. Water Costs Charged to Const. Project:

F Misc. Water Costs Charged to RW Project:

TOTAL WATER	Total to RW Proj	Total to Const Proj
$62,500	$0	$31,250

E. SANITARY SEWER

Sewer Line

	Computed or User	RW or Const	Diameter of Sewer Pipe (in)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	$ to RW Project	$ to Const Project
A	Computed	Const				100%	$0	$0	$0
B	Computed	Const				100%	$0	$0	$0
C	Computed	Const				100%	$0	$0	$0
D	Computed	Const				100%	$0	$0	$0
							$0	$0	$0

Misc. Sewer Costs

E Misc. Sewer Costs Charged to Const. Project:

F Misc. Sewer Costs Charged to RW Project:

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

F. NATURAL GAS / PROPANE

Distribution

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	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

Transmission

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	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

Misc. Natural Gas / Propane Costs

I	Misc. Gas / Pro Costs Charged to RW Project:	
J	Misc. Gas / Pro Costs Charged to Const. Project:	

TOTAL GAS / PROPANE	Total to RW Proj	Total to Const Proj
$0	$0	$0

G. PETROLEUM

Transmission

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	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

Misc. Petroleum Costs

E	Misc. Petroleum Costs Charged to RW Project:	
F	Misc. Petroleum Costs Charged to Const. Project:	

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

H. CELLULAR

Cellular Telephone Costs

A	Total Cellular Costs Charged to RW Project:	
B	Total Cellular Costs Charged to Const. Project:	

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

I. ADDITIONAL COSTS

Additional Utility Costs to Right-of-Way Project : $0

Comments:

Additional Utility Costs to Construction Project : $0

Comments:

Additional Utility Costs to Utility Owners/Others : $0

Comments:

TOTAL UTILITY COST - RIGHT-OF-WAY PROJECT	*$117,000*
TOTAL UTILITY COST - CONSTRUCTION PROJECT	*$36,000*
TOTAL UTILITY COST - UTILITY OWNER / OTHERS	*$130,650*
GRAND TOTAL UTILITY COSTS	***$283,650***

Project Cost Estimating System
COMMENTS

	General / Miscellaneous Comments from CONST, RW, & UTILITY Worksheets:	Team Member and Section:	Date Entered:
1	Spreadsheet used for I-81 NEPA Document per lane mile	VHB/Gannet Fleming	08/02/04
2	Lane and R/W reductions to agree with PPTA.	Gannett Fleming	01/04/05
3	Ad date changed to 2005	Gannett Fleming	05/26/05
4			
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