



PROJECT: FMP Project No. 1: Ballard Bridge Replacement



DESIGN ASSUMPTIONS:

Bridge will include $4 \times 11'$ vehicle lanes and $2 \times 10'$ pedestrian/bike lanes

ESTIMATED TOTAL PROJECT COST:

\$714,597,000.00

Full set excluding
"acknowledge" projects
and Adian projects
(47,57,61)



Top-Down Cost Estimating Tool

Tab B. Cost Estimate Summary

Pro	ect	Number	
, , ,	CCC	NUITIDEI	

Date 5/2/2017

Milestone

10%

NA

Project Name

FMP Project No. 1: Ballard Bridge

Perteet Inc.

Prepared by

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate Estimated Acquisition Cost

\$ 270	,280	,10

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate	
2017	-	
2018	3.0%	
2019	5.6%	
2019	5.6%	

Build-Up RatesConstruction Contingency Engineer's Est. Allowance Design Contingency

Acquisition	Contingency	

29% 19%

E = C + D

20%

40%

30%

30%

Construction Soft Cost Ratio Design Soft Cost Ratio

D

C = A + B

BUILD-UP SUMMARY

	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)				200	
Engineer's Estimate (EE)	270,280,100				
EE Allowance (40%)	108,112,040				
Estimated Contractor Cost (ECC)	378,392,140	75,678,428	454,070,568	25,269,346	479,339,914
Construction Admin. (Soft Cost)					
29% of \$378.4M ECC	109,733,721	21,946,744	131,680,465	7,328,110	139,008,575
Design (Soft Cost)					
19% of \$378.4M ECC	71,894,507	21,568,352	93,462,859	2,785,150	96,248,009
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 560,020,367	################	\$ 679,213,891	\$ 35,382,606	\$ 714,596,498

В

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

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BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



DLANNING I	EVCI ODIN	ONDECDET	VIDALALIE	NO CONTINCENCY

Project Description	5DOT Freight Master Plan Implementation	Chent SDOT
_ Corridor Section	15th Ave W. Emerson State NW 50th St	Date 4/20/2017
Locat on	Septile	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW
	EMP Draget Vo. 1. Bolland Br. den Denland	

				Calculated By/Entered By KCM Checked By VWW		
		FMP Project No. 1 Bollard Bri	dge Rep'acement	Chec*ed By V	WW	
		ITEM	UNIT	ESTIMATED UNIT COST	QTY	COST
1		CONSTRUCTION				
10	11	PREPARATION/GRADING/DRA:NAGE PREPARATION				
		CLEAR & GRUB DEMO	ACRE	\$10,000	1000	50
		REMOVING EXISTING PAVEMENT	5Y	5'5	1	50
		REMOVAL STRUCTURES & OBSTRUCTIONS	L.5	50		50
	12	FARTHWORK				
		ROADWAYEXCAVATION INCL HAUL STRUCTURE EXICL HAUL	CY	S40 S25	5 1	50 50
		BORROWINGL HAUL	TON	515		.50
		EMBANKMENT COMPACTION	CY	52		50
	1.5	STORMWATER MITIGATION				
		DETENTION AND TREATMENT	SF	55		50
	14	STORM SEWER				
		CATCH BASIN TYPE I	EA	\$1,500	-	SO
		CATCH BASIN TYPE 2 PLAIN CONC. STORM SEWER PIPE 12 IN DIAM.	EA	\$3 000		CZ
		PLAIN CONC. STORM SEWER PIPE 18 IN DIAM. PLAIN CONC. STORM SEWER PIPE 18 IN DIAM.	LF.	535 580		SO 50
		STRUCTURE EXCAVATION CL B	CY	\$20	Salva A	so
2		STRUCTURE				
		CONCRETE BRIDGES	5F	5500	295.700	5147 850 000
		CONCRETE BRIDGES WIDENING	SF	S200	- 1 1 1 1 1 1	50
		PEDESTR'AN BRIDGES \$TEEL BR'DGES	SF SF	\$250		SO
		BRIDGE ASUTMENT RETROFIT	5F	5°00 5°50	A VICTOR	C2 C2
		RETAINING WALLS (Cost in Place)	SF	\$55		50
		RETAINING WAILS (Sall No. I with Cost in Place Facing)	SF	\$150	400	SO.
		BRIDGE REMOVAL NOISE WALLS	SF	575 \$25	257,000	518 900 000 S0
3		SURFACING				
		PORTLAND CEMENT CONCRETE	SF	5/50	1 27-	50
		HOTMIX ASPHALT CRUSHED SURFACING	TON	5160 540	A SECTION AND ADDRESS OF THE PARTY OF THE PA	50 50
			10.4	340		3.0
4		ROADSIDE DEVENORMENT FENCING	LF	50		50
		SEEDING MULCHING & FERT LIZING	ACRE	\$1,200		so
		WETLAND MITIGATION	1.5	50	1	50
		TEMPORARY WATER POLLUTION & EROS ON CONTROL. (5%) LANDSCAPING	1.5	\$10,005,000 \$0		500 005 000 S0
5		TRAFFIC				
*		GUARD RAIL	(5)	SIB		SO
		CONCRETE BARRIER	LF .	550		CZ
		SIGNAL SYSTEMS ILLUM-NATION	1.5	50 50		50
		SIGNING	15	50	- 1	50 50
		CURBS	LF	525	100	SO
		PERPENDICULAR CURB RAMP S:DEWALKS	EA 5Y	55 000 545	Ser Division	02
		TRAFFIC CONTROL (10%)	1.5	\$15,575,100	1	\$0 \$15 67 5.100
51		OTHER ITEMS				
570		SURVEYING (5%)	1.5	\$10,005,100	7	\$10,005,100
		SPECIAL ITEMS UTILITY RELOCATIONS	E5T	50		50
			E5T	50		so
5		MISCELLANEOUS (10%)	"ES	\$20.543.500	10	\$20.345 500
7		CONSTRUCTION SUBTOTAL (ITEMS THRU 6)				5223 778 800
8		MOBILIZATION (10%)	1000			
		10% OF ITEM 7	EST	\$22,577,900	1	S22 377 900
9		SUBTOTAL (ITEMS 7 & 8)				\$245 156 700
10.		SÁLES TAX 9.8% OF ITEM9	EST	524 23 400	Ŷ.	524 123 400
n		AGREEMENTS (Utilines WSP etc.)		4.77 (88)		W4 1 16 W 1910
		PHONE MEDICAL	EST	\$0	1	50

The above apmon of cost is a planning level estimate only it is based on best available information and scape at the time not on the results of a detailed engineering study and is simpled as a budgeting guide only. Perfect incides not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project 3: SODO Rail Corridor Grade Separation



DESIGN ASSUMPTIONS:

Bridge will be similar to Lander St overpass

ESTIMATED TOTAL PROJECT COST:

\$273,230,000.00



FMP Project 3: SODO Rail Corridor Grade Project Name

Project Number

NA

Prepared by

Perteet Inc.

Date

5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 103,342,955

Α

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoin

Year	Rate	
2017	-	
2018	3.0%	
2019	5.6%	
2019	5.6%	

Build-Up Rates
Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

40% 30% 30%

20%

Construction Soft Cost Ratio Design Soft Cost Ratio

D

C = A + B

29% 19%

E = C + D

BUILD-UP SUMMARY

	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	103,342,955				
EE Allowance (40%)	41,337,182				
Estimated Contractor Cost (ECC)	144,680,136	28,936,027	173,616,164	9,661,861	183,278,025
Construction Admin. (Soft Cost)					
29% of \$144.7M ECC	41,957,240	8,391,448	50,348,687	2,801,940	53,150,627
Design (Soft Cost)					
19% of \$144.7M ECC	27,489,226	8,246,768	35,735,994	1,064,916	36,800,910
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 214,126,602	\$ 45,574,243	\$ 259,700,845	\$ 13,528,717	\$ 273,229,562

В

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

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BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



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PLANNING!	EVEL	ODINION	OFCOST	VEALUALIZ	NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Chem SDOT	
Corndar Section	1st Ave S over Argo Yard	Date 4/20/2017	
Location	5000	Date of Cast Index 2017	
		Calculated By/Entered By KCM	
		Checked By VWW	

					СМ	
		FMP Project 3 SODO Ra I Corru	dar Grade Senaration	Checked By V	ww	
		Tight Hojec 3 3050 Karesin	001 01000 0000	ESTIMATED UNIT		
		1TEM	UNIT	COST	QTY	COST
		CONSTRUCTION				
1		PREPARATION/GRADING/DRAINAGE				
	1.1	PREPARATION		_		
		CLEAR & GRUB DEMO	ACRE	5'0 000		50
		REMOVING EXISTING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS	5Y LS	\$15		SO SO
		nemo tre a mo e renea la dea mo e noto	110			40
	1.2	EARTHWORK				
		ROADWAY EXCAVATION INCL. HAUL STRUCTURE EX. CL. A INCL. HAUL	CY	S40 525		SO SO
		BORROWINGL HAUL	TON	\$15		SO:
		EMBANKMENT COMPACTION	CY	52		SO
	1.5	STORMWATER MITIGATION				
	1,5	DETENTION AND TREATMENT	SF	\$5		SO.
				(2)		
	1.4	STORM SEWER	300			
		CATCH BASIN TYPE III CATCH BASIN TYPE 2	EA EA	SI 500 S3 000	A VANCE OF	50 S0
		PLAIN CONC STORM SEWER PIPE 12 IN DIAM	LF.	\$35	794.19	SO
		PLAIN CONC STORM SEWER PIPE 18 IN DIAM	1F	580	2000	50
		STRUCTURE EXCAVATION CL B	CY	520		CS
2		STRUCTURE				
		LANDER SCALAR	LS	5103 342 954 50	χ.	\$103.5#2.955
		CONCRETE BRIDGES	SF	S500		CZ
		CONCRETE BRIDGES WIDENING	SF	\$200		50
		PEDESTR'AN BRIDGES	SF	\$250	120 20	C2
		STEEL BRIDGES BRIDGE ABUTMENT RETROFIT	SF SF	5 00 5150	3 1 1 2	CS CS
		RETAINING WALLS (Cost in Place)	SF.	\$65		SO
		RETAINING WALLS (So No I with Cast in Place Facing)	SF	S150		CZ
		BR DGE REMOVA	5F	S75	The same	50
		NOISEWALLS	5F	S25		50
5		SURFACING				
		PORTLAND CEMENT CONCRETE	SF	SI50		50
		HOT MIX ASPHALT	TON	5'80		Sb
		CRUSHED SURF ACIN G	TON	\$40		SO
4		ROADSIDE DEVELOPMENT		_		
		FENCING	LF	SO	Division 1	SO
		SEEDING MULCHING & FERTILIZING	ACRE E5	S1,200		50
		WETLAND MITIGATION TEMPORARY WATER POLLUTION & EROSION CONTROL. (5%)	LS	55,200,600	9	55 200,500
		LANDSCAPING	LS	SQ	1	SO
125						
5		TRAFFIC GUARD RAIL	LF	518	4	CS
		CONCRETE BARRIER	LF	550		SO
		\$:GNAL SYSTEMS	LS	50	- 1	50
		ILLUMINATION	LS	50	1	50
		SIGNING CURBS	LS LF	50 525		SO 50
		PERPENDICULAR CURB RAMP	EA:	55 000	10 000	SO
		SIDEWALKS	5Y	\$45		SO
		TRAFFIC CONTROL (10%)	L5	\$10,354,300	1	\$10,354,300
51		OTHER ITEMS				
3.1		SURVEYING (2%)	1.5	55 200 500	- 9	55 200 500
		SPECIAL ITEMS	EST	50	1	50
		UTILITY RELOCATIONS	EST	50	1	SO
6		MISCELLANEOUS (10%)	LS	\$12 507 900	,	\$12 507 900
1.00		MIGGERNALOGG (10M)	LJ	3.2 30. 300		3/2 30/ 300
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				\$138,686,355
		MOBILIZATION (10%)				
5		10% OF ITEM 7	EST	\$13 858 700	9	\$13 858 700
9		SUBTOTAL (ITEMS 7 & 8)				\$152 555 055
10		SALES TAX				
100		9 8% OFITEM 9	EST	5 4 950 400	1	5'4 950 400
		7675 - 249694				
11		AGREEMENTS (Unities WSP erc.)	EST	50	7	CZ
			231	(4)		
12		SUBTOTAL ((TEMS 9 THRU II)				\$157 505 455

The abave opinitinal cost is a planning level est mate only. It is based on best available information and scope at the time indicate for the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect incides not guarantee or warrant the accuracy of this planning level est mate.





PROJECT: FMP Project 4: 4th Ave S Viaduct Replacement



DESIGN ASSUMPTIONS:

Bridge will include $4\times11'$ vehicle lanes and $1\times8'$ sidewalk Unit price will be similar to unit price of Lander St Overpass

ESTIMATED TOTAL PROJECT COST:

\$487,996,000.00



Project Name FMP Project 4: 4th Ave S Viaduct Project Number NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone 10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 184,573,255

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

C = A + B

Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

20%	
40%	
30%	
30%	
	40% 30%

Construction Soft Cost Ratio
Design Soft Cost Ratio

D

29%	
19%	

E = C + D

BUILD-UP SUMMARY

	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	184,573,255				
EE Allowance (40%)	73,829,302				
Estimated Contractor Cost (ECC)	258,402,556	51,680,511	310,083,068	17,256,340	327,339,408
Construction Admin. (Soft Cost)					
29% of \$258.4M ECC	74,936,741	14,987,348	89,924,090	5,004,339	94,928,428
Design (Soft Cost)					
19% of \$258.4M ECC	49,096,486	14,728,946	63,825,431	1,901,969	65,727,400
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 382.435.783	Ś 81.396.805	\$ 463.832.589	\$ 24.162.648	\$ 487.995.236

В

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

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BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



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DI ASSISICI EN	EL OBNION OF O	OCT CHIMALANDY	NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Clear SDOT
Corridor Section	4th Ave S. over Argo Yard	Date 4/20/2017
Location	SODO	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW
	EMB Donorth A. S. M. J. C. M. J. D. C. C.	

				Calculated By/Entered By K		
		FMP Project 4 - 4th Ave S V or	1 7 (Checked By VWW		
		LWC LLDiet + will NAC 3 A OI	auct Reptacement			
		7774		ESTIMATED UNIT	0714	(1000)
		ITEM	UNIT	COST	QTY	COST
BIGGS CO.		CONSTRUCTION				
1		PREPARATION/GRADING/DRAINAGE				
1.5	1772					
	1.1	PREPARATION		510 000		
		CLEAR & GRUB DEMO	ACRE			\$0
		REMOVING EXISTING PAVEMENT	SY	\$15		50
		REMOVAL STRUCTURES & OBSTRUCTIONS	1.5	50		50
	1.2	EARTHWORK				
		ROADWAYEXCAVATION INCL, HALIL	CY	540		50
		STRUCTURE EX. CL. AINCL HAUL	CY	\$25		50
		BORROWINGL HAUL	TON	S15	100	50
		EMBANKMENT COMPACTION	CY	\$2	-	50
	5	STORMWATER MITIGATION				
		DETENTION AND TREATMENT	57	55	-	50
	1.4	STORM SEWER				
		CATCH BASIN TYPE	EA	\$1 500	To the same	50
		CATCH BASIN TYPE 2	EA	\$3,000		50
		PLAIN CONC. STORM SEWER PIPE IZ IN: DIAM	1,5	535	Y TE	50
		PLAIN CONC. STORM SEWER PIPE 18 IN DIAM	LF	580	-	SO
		STRUCTURE EXCAVATION CL B	CY	520	THE REAL PROPERTY.	50
2		STRUCTURE				
		LANDER SCALAR	LS	\$103.542.954.50	19	5103 342 955
		CONCRETE BRIDGES	S	\$500	11 11 41 1	SO
		CONCRETE BRIDGES WIDENING	S	\$200		SO
		PEDESTR'AN BR'DGES	SF	\$250	27 112 22 2	SO
		STEEL BRIDGES	SF	5100		SO
		BRIDGE ABUTMENT RETROFIT	SF	\$150		50
		RETAINING WALLS (Cost in Place)	SF	S55		SO
		RETAINING WALLS (Soll No.1 with Cost in Place Facing)	5F	\$150		50
		BRIDGE REMOVAL	SF.	575	40.400	510 530 000
		NOISE WALLS	SF	525	B.H.GHA	SO 550 000
		MODE MARTE	31	525		50
3		SURFACING				
a .			5F	\$150		r en
		PORTLAND CEMENT CONCRETE HOT M.X ASPHALT	TON	\$180	ALC: UNKNOWN	\$0
						50
		CRUSHED SURFACING	TON	540		50
4		(Variation of the Control of the Con				
36		ROADSIDE DEVELOPMENT		122		511
		FENCING	LF	50	S E THE	SU
		SEEDING MULCHING & FERTILIZING	ACRE	51200		SO
		WETLAND MITIGATION	LS	SO		SD
		TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%)	LS	\$5,832,400		\$5 832 400
		LANDSCAPING	L5	50	31	50
34						
5		TRAFFIC		and the second		
		GUÂRD RA'L	LF	5'8	A STATE OF THE PARTY OF THE PAR	50
		CONCRETE BARRIER	LF	550	41-	SO
		S:GNAL SYSTEMS	LS	50	2.	50
		ILEUM.NATION	LS	50		50
		SIGNING	LS	\$0		SO
		CURBS	LF.	\$25		SO
		PERPENDICULAR CURB RAMP	EA	53 000	ESTER	50
		SIDEWALKS	5Y	545		SO
		TRAFFIC CONTROL (10%)	LS	59.387,500	1.	\$11,387,500
51		OTHER!TEMS				
		SURVEYING (2%)	t.S	55 832 400	1	55 832,400
		SPECIAL ITEMS	- EST	50	ii.	CZ
		UTILITY RELOCATIONS	£57	50	1	CZ
5		MISCELLANEOUS (10%)	1.5	\$13.892.500	(1)	513 892 600
7		CONSTRUCTION SUBTOTAL (ITEMS I THRU 5)				5 52 817 655
a		MOBILIZATION (10%)				
		IO% OF ITEM 7	E5T	\$15 281 800	0.0	\$15 281 800
			300	0.0.20.000		
9		SUBTOTAL (ITEMS 7 & 8)				5168 099 455
		JOBI OTAL (ITEMS FALO)				3130 033 433
10		SALESTAX				
296		9 8% OF ITEM 9	EST	\$16 473 800	1	5 5 473 800
		2 DW OLLIEWS	£3;	313 473 000		312 473 690
Ti		ACDECMENTS (I) . I W(CD)				
.11.		AGREEMENTS (Unit es WSP etc.)	100	50	1	elit
			EST	30)		SO
13		CURTOTAL ATTRACT TURNING				5184 573 255
12		SUBTOTAL (ITEMS 9 THRU II)				3164,573,255

The above ap man of cost is a planning level estimate only it is based on best available information and scape at the time indicate the results of a detailed engineering study and is supplied as a budgeting guide only. Perceting does not guarantee or warront the accuracy of this planning level estimate.





PROJECT: FMP Project 5: 1st Ave S Viaduct Replacement



DESIGN ASSUMPTIONS:

Bridge will include $4 \times 12'$ vehicle lanes and $2 \times 6'$ sidewalks Anticipated horizon year 2035

ESTIMATED TOTAL PROJECT COST:

\$568,262,000.00



FMP Project 5: 1st Ave S Viaduct Project Number Project Name

Prepared by Perteet Inc. 5/2/2017 Date

> 10% Milestone

NA

20% 40% 30% 30%

E = C + D

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost**

\$ 214,932,222

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate	Build-Up Rates
2017	-	Construction Contingency
2018	3.0%	Engineer's Est. Allowance
2019	5.6%	Design Contingency
2019	5.6%	Acquisition Contingency

C = A + B

	120
Construction Soft Cost Ratio	29%
Design Soft Cost Ratio	19%

D

BUILD-UP SUMMARY

	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	214,932,222				
EE Allowance (40%)	85,972,889				
Estimated Contractor Cost (ECC)	300,905,111	60,181,022	361,086,133	20,094,697	381,180,829
Construction Admin. (Soft Cost)					
29% of \$300.9M ECC	87,262,482	17,452,496	104,714,979	5,827,462	110,542,441
Design (Soft Cost)					
19% of \$300.9M ECC	57,171,971	17,151,591	74,323,562	2,214,808	76,538,370
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 445,339,564	\$ 94,785,110	\$ 540,124,674	\$ 28,136,967	\$ 568,261,640

В

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Co-by Avenue Suite 900 Eve et VKA 98201 | P 425 252 7

PLANNING LEVEL OPINION OF COST SUMMARY IN OCONTINGENCY					
5007 Freight Master Plan Implementation	Client SDOT				
1st Ave Slover Argo Yard	Date 4/20/2017				
5000	Date of Cost Index 2017				
	Calculated By/Entered By KCM				
	Checked By VWW				
	SDOT Freight Makret Panima'ementation. Ist Ave Slaver Argo Yard				

				Checked By VWW				
	FMP Project 5 Ist Ave 5 V aduct Replacement							
		ITEM	UNIT	ESTIMATED UNIT COST	QTY	COST		
		44.177.147.0.1						
300		CONSTRUCTION PREPARATION/GRADING/DRAINAGE						
	1.1.	PREPARATION						
		CLEAR & GRUB DEMO	ACRE	\$10,000	1000	50		
		REMOVING EXISTING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS	SY L5	S15		50 50		
		REMOVAL STRUCTURES & OBSTRUCTIONS	1,3	.#5	100	30		
	1.2	EARTHWORK						
		ROADWAYEXCAVATION INCL. HAUL	CY	540	100	50		
		STRUCTURE EXICLIAINCL HAUL BORROWINGL HAUL	CY	525 515	11/11/11	50 S0		
		EMBANKVENT COMPACTION	CY	52	200	50		
	1.3	STORMWATER MITIGATION DETENTION AND TREATMENT	5F	55		50		
		DETERMINATE MEXIMENT	5,545	4.4.		400		
	1.4	STORM SEWER						
		CATCH BASIN TYPE 1	EA	S1 500 S3 000		S0 S0		
		CATCH BAS'N TYPE 2 PLAIN CONC STORM SEWER PIPE 12 IN DIAM	EA LF	\$35		50		
		PLAIN CONC STORM SEWER PIPE 18 IN DIAM	LF	580		50		
		STRUCTURE EXCAVATION CL B	CY	520		SO		
2		STRUCTURE						
36.1		LANDER SCALAR	LS	518 553,021 90	1	5 8 553 022		
		CONCRETE BRIDGES	SF	\$500		so		
		CONCRETE BRIDGES WIDENING	\$F	5200	31.75	50		
		PEDESTR'AN BR'DGES STEEL BRIDGES	5F	\$250 \$100		50 50		
		BRIDGE ABUTMENT RETROFIT	SF	\$150	13	CZ		
		RETAINING WALLS (Cost in Place)	SF	555		50		
		RETAINING WALLS (Soil No.1 with Cost in Place Facing) BRIDGE REMOVAL	SF SF	S150 S75	785.000	SO 000 950 000		
		NOISE WALLS	SF	525	103.544	50		
5		SURFACING PORTLAND CEMENT CONCRETE	55	\$'50	0 = 000	\$0		
		HOT MIX ASPHALT	ION	\$180	357	\$3		
		CRUSHED SURFACING	TON	540		50		
4		ROADSIDE DEVELOPMENT FENCING	LF	50		50		
		SEEDING MULCHING & FERTIL ZING	ACRE	51200		50		
		WETLAND MITIGATION	L5	50	10	CS		
		TEMPORARY WATER POLLUTION & EROS:ON CONTROL (5%) LANDSCAPING	ŁS LS	\$7 955,200 \$0	1	57 956 200 50		
		CARDOCACAG	C3	20		50		
5		TRAFFIC						
		GUARD RAIL	LF LF	518 550		CZ		
		CONCRETE BARRIER SIGNAL SYSTEMS	LS	50	1	C2 02		
		ILLUMINATION	L5	50	1	SO		
		SIGNING	LS	50	1	SO		
		CURBS PERPENDICULAR CURB RAMP	LF EA	525 S3 000	11121	50 S0		
		SIDEWALKS	5Y	545	-1,51	50		
		TRAFFIC CONTROL (10%)	LS	575,250,400	1	513 250 400		
6.1		OTHERITEMS						
D.I.		OTHER ITEMS SURVEYING (2%)	LS	57,955,200	19	57,955,200		
		SPECIAL ITEMS	EST	SO	1	SO		
		UTILITY RELOCATIONS	EST	50		CS		
5		MISCELLANEOUS (10%)	LS	515 177 500	11	\$15 177 500		
						-11		
7		CONSTRUCTION SUBTOTAL (ITEMS LTHRU 5)				5 77 953 422		
8		MOBILIZATION (10%)	200	XVWVatives ru		70-1		
		10% OF ITEM 7	EST	\$17.795.400		5 7 795 400		
9		SUBTOTAL (ITEMS 7 & 8)				5 95 748 822		
10		SALES TAX 9 8% OF ITEM 9	EST	\$19 183 400	1	\$19 183 400		
		2 0 W O C 11 F W 2	Ear	212 (2) 400	17.	312 101 400		
(3)		AGREEMENTS (Utilities WSP etc.)	_					
			EST	50	1	SO		
12		SUBTOTAL (ITEMS 9 THRU II)				5214,932,222		

The above apmion of casts a planning level est mate any. It is based on best available information and scape at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect loc does not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project 6: BINMIC Truck Route Improvements



DESIGN ASSUMPTIONS:

Data collection will be performed by a consultant.

Study will include draft and final reports with recommendations for project prioritization.

Estimated cost does not require SDOT top-down estimating tool

ESTIMATED TOTAL PROJECT COST:

\$200,000.00



2707 Colby Avenue Sure 900 Everett WA 98201 | P425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Moster Plan Implementation	Client SDOT
Corridor Section	Interbay, W Dravus St to Fremont Ave N	Date 4/6/2017
Location	Seattle	Date of Cost Index 2015
	_	Calculated By/Entered By: KCM
	_	Checked By: VWW

EMP Project	6	BINMIC	Truck	Route	Improvements

		ESTIMATED UNIT				
		ITEM	UNIT	COST	QTY	COST
I.	Data Gathering					
	BINMIC Study		LS	\$200,000.00	1	\$200,000

The above opinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet Inc. does not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 10: Dynamic Message Signs Along 15th Ave NW Corridor



DESIGN ASSUMPTIONS:

Assumed 4 signs required
Unit cost includes pole, sign, foundation, cabinets, wiring, installation, and hardware

ESTIMATED TOTAL PROJECT COST:

\$2,636,000.00



FMP Project No. 10: Dynamic Message 5	Project Number	NA
---------------------------------------	----------------	----

Prepared by Perteet Inc. Date 5/2/2017

> 10% Milestone

BUILD-UP ASSUMPTIONS

Project Name

Baseline

Engineer's Estimate \$ 996,944 **Estimated Acquisition Cost**

Escalation Schedule Year Rate **Build-Up Rates**

250010110110110110	1001		Dana Op nates	
Current	2017	-	Construction Contingency	20%
Design Midpoint	2018	3.0%	Engineer's Est. Allowance	40%
Acquisition Midpoint	2019	5.6%	Design Contingency	30%
Construction Midpoint	2019	5.6%	Acquisition Contingency	30%

Construction Soft Cost Ratio 29% Design Soft Cost Ratio 19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	996,944				
EE Allowance (40%)	398,778				
Estimated Contractor Cost (ECC)	1,395,722	279,144	1,674,866	93,207	1,768,073
Construction Admin. (Soft Cost)					
29% of \$1.4M ECC	404,759	80,952	485,711	27,030	512,741
Design (Soft Cost)					
19% of \$1.4M ECC	265,187	79,556	344,743	10,273	355,016
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 2,065,668	\$ 439,652	\$ 2,505,320	\$ 130,511	\$ 2,635,831

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Cellsy Avenue Sate 900 Everen WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY - NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Clent SDOT
Corridor Section	15th Ave NW from Sh p Canal to Helman Rd	Date 4/20/2017
Location	Ballard	Date of Cost Index 2017
		Colculated By/Entered By KCM
		Checked By VWW

				Checked By	VWW	
		Ma Project No. 10. Dynamic Message S	gns Along 15th Ave NW (
		ITEM	UNIT	ESTIMATED UNIT COST	QTY	COST
		ITS	O/4 T	C031	QIT	203,
		CCTVCAMERA	EA	512 000		50
		CONDUIT (4IN PVC) INCLITENCHING AND RESTORATION	LF	\$80		SO
		DETECTOR LOOP 5 FT DIA	EA	\$500		50
		JUNCTION BOX VARIABLE MESSAGE S.GN	EA EA	\$200 151 200	4	\$5 \$544 800
		SIGNAL TIMING STUDY	LS	5500.000		\$0
		TOTA_				\$544 800
10.00		CONSTRUCTION				
		PREPARATION/GRADING/DRA NAGE				
	11	PREPARATION				
		CLEAR & GRUB DEMO	ACRE	\$5.000		50
		REMOVING EXISTING PAVEMENT	SY	SIO		50
		removal structures & obstructions	LS	\$0		CZ
	12	EARTHWORK				
		ROADWAY EXCAVATIONINGL HAUL	CY	\$20		50
		STRUCTUREEX CL AINCL HAUL BORROWINGL HAUL	CY TON	525 S16		C2 O2
		EMBANKMENT COMPACTION	CY	52		50
	1.5	5TORMWATER MITIGATION	5F	55		10
		DETENTION AND TREATMENT	31	22		50
	14	STORM SEWER				
		CATCH BASIN TYPE I	ΕA	\$1,000		\$0
		CATCH BAS'N TYPE 2	EA	S2,200		62
		PLANCONG STORM SEWER PIPE 12 IN DIAM PLANCONG STORM SEWER PIPE 18 IN DIAM	LF LF	\$35 \$45		\$0 \$0
		STRUCTURE EXCAVATION CL B	CY	S15		50
2		STRUCTURE CONCRETE BRIDGES	5F	\$150	1111111	SO
		CONCRETE BRIDGES W DENNG	SF	5200		50
		PEDESTR'AN BR'DGES	SF	\$250		SO
		STEEL BRIDGES	SE	S100		SO
		BRIDGE ABUTMENT RETROFIT	SF	S'50		CS
		RETAINING WALLS (Cast in Place) RETAINING WALLS (Soll Noil with Cast in Place Focing)	SF Sf	5-55 \$150		50 50
		BRIDGE REMOVAL	SF	520		cz
		NOISE WALLS	S	\$25		SO
3		SURFACING				
		PORTLAND CEMENT CONCRETE	5°	SIO	4000	SO
		HOT MIX ASPHALT	TON	550		50
		CRUSHED SURFACING	TON	525		50
4		ROADSIDE DEVELOPMENT				
		FENCING	LF	5'5		50
		SEEDING MULCHING & FERTILIZING	ACRE	51200		50
		WETLAND MITIGATION TEMPORARY WATER POLLUTION & EROSION CONTROL (5%)	L5 LS	50 518 588	1	C2 888 882
		LANDSCAPING	LS	50 50	1	50
5		TRAFFIC		214		60
		GUARD RA'L CONCRETE BARR ER	LF LF	\$'8 \$50		SO 50
		S.GNAL SYSTEMS	ŁS	50	1	SO
		ILLUMINATION	LS	50	1	50
		SIGNING	LS	50		SO SO
		CURBS SIDEWALKS	LF 5Y	\$15 525		50 50
		TRAFFIC CONTROL (10%)	LS	554,480	1	\$64,480
51		OTHER ITEMS	(5)	512 896		512 895
		SURVEYING (2%) SPECIAL ITEMS	E57	\$0	4	50
		UTILITY RELOCATIONS	EST	50	i i	SO
9		Andrew Andrew of Control	12	554 480	-	564 480
6		MISCELLANEOUS (10%)	15	354.480	1	554 480
.7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				S825 344
B		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	582 500	3	582 500
9		SUBTOTAL (ITEMS 7 & 8)				5907 544
10		SALES TAX	1 Telephor	585 000	TIP.	7.00.000 Territorio
		9.8% OF ITEM 9	E5T	589 000	· ·	\$89,000

AGREEMENTS (Unities W5P etc.)





PROJECT: FMP Project No. 11: Operational Improvements at NW 45th St



DESIGN ASSUMPTIONS:

Reconstruction of 46th already underway by Trevor Partap \$50k is SDOT's total commitment This amount funds operational improvements necessitated by the NW 46th St alterations

ESTIMATED TOTAL PROJECT COST:

\$50,000.00



2707 Colby Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	Southpark between 5th Ave S, Holden St, Kenyon St, and 8th Ave S	Date 4/6/2017
Location	Seattle	Date of Cost Index 2015
		Calculated By/Entered By KCM
		Checked By VWW
	FMP Project No. 11. Operational Impr	rovements at NW 45th St

			ESTIMATED UNIT			
		ITEM	UNIT	COST	QTY	COST
1.	Traffic Operations					
	Operational Improvements		LS	\$50,000 00	1	\$50,000

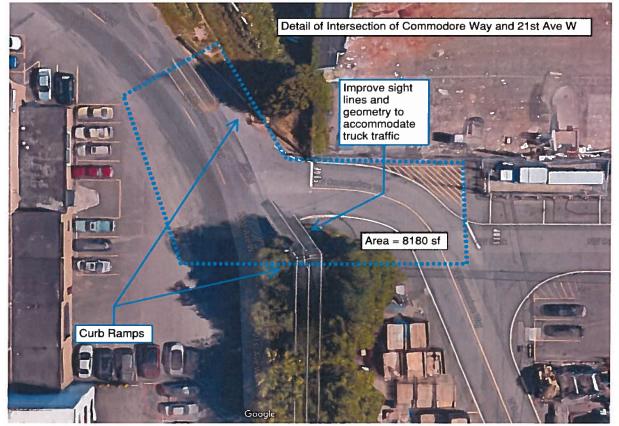
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PROJECT: FMP Project No. 12: 21st Ave W Corridor Improvements





DESIGN ASSUMPTIONS

New storm system will be installed

Intersection will be realigned

Roadway cross section will consist of 12' asphalt shoulder, 30' asphalt roadway, 6' sidewalk

Illumination will be installed

ESTIMATED TOTAL PROJECT COST:

\$16,830,000.00



Project Number

Project Name

FMP Project No. 12: 21st Ave W Corridor

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 6,365,340

Year

2017

2018 2019

2019

Rate

3.0%

5.6%

5.6%

Escalation	Schedule
------------	----------

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Bui	ſd-L	JD I	Rates

and op nates
Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

20%	
40%	
30%	
30%	

Construction Soft Cost Ratio Design Soft Cost Ratio

29% 19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	6,365,340				
EE Allowance (40%)	2,546,136				
Estimated Contractor Cost (ECC)	8,911,476	1,782,295	10,693,771	595,116	11,288,887
Construction Admin. (Soft Cost)					
29% of \$8.9M ECC	2,584,328	516,866	3,101,194	172,584	3,273,777
Design (Soft Cost)					
19% of \$8.9M ECC	1,693,180	507,954	2,201,135	65,593	2,266,727
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 13,188,984	\$ 2,807,115	\$ 15,996,099	\$ 833,292	\$ 16,829,392

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



1/01Ce by Annue Sum 900 Everen WA 98201 P 425 252 7700

	PLANNING LEVEL OPINION OF COS	IT SUMMARY IND CONTINGENCY
Project Description	SDOT Freight Master Plan Implementation	Clent SDOT
Corridor Section	21st Ave Wifrom Commodore Way and Emerson PI	Date 4/25/2017
Locat on	Segrile	Date of Cost Index 2017
		Calculated By/Entered By ⊀CM

2020				Calculated By/Entered By	СМ	
		F100 11301 4			/ww	-1-1
		FMP Project No. 12. 21st Ave W	Corridor Improvemen	ESTIMATED UNIT		
		ITEM	UNI		QTY	COST
11		CONSTRUCTION				
10	11	PREPARATION/GRADING/DRA:NAGE PREPARATION				
		CLEAR & GRUB DEMO	ACR	510 000	0.2	\$2 000
		REMOVING EXISTING PAVEMENT	5Y	\$15	H	50
		REMOVAL STRUCTURES & OBSTRUCTIONS	1.5	50,000	1	\$10,000
	12	EARTHWORK ROADWAYEXCAVATION INCL HAUL	CY	540	53.500	52 532 000
		STRUCTURE EX CL AINCL HAUL	CY	\$25	33,500	SO
		BORROWINCL HAUL	TON		- 31391	50
		EMBANKMENT COMPACTION	CY	52		SD
	2.60%	STORMWATER MITIGATION				
	1.5	DETENTION AND TREATMENT	57	56	and the same of th	50
		DETERMINENT THE THE THE THE THE THE THE THE THE TH	- 1	77.5		
	1.4	STORM SEWER				
		CATCH BASIN TYPE I	EA	\$1.500	12	\$18 000
		CATCH BASIN TYPE 2	EA	\$3 000	3	SS 000
		PLAIN CONCISTORM SEWER PIPE 12 IN DIAM PLAIN CONCISTORM SEWER PIPE 18 IN DIAM	LF.	535 S80	1,590	S0 \$127,200
		STRUCTURE EXCAVATION CL B	CY	520	1,300	525 000
						
2		STRUCTURE		_		
		CONCRETE BRIDGES	SF	\$150	1000	50
		CONCRETE BRIDGES WIDENING PEDESTRIAN BRIDGES	SF SF	5200 5250	W 15.03	\$0 \$0
		STEEL BRIDGES	SF	5:00		50
		BRIDGE ABUTMENT RETROFIT	5F	\$150		50
		RETAINING WA'LS (Cost in Place)	SF	\$65		SO
		RETAIN NG WALLS (Soil No I with Cast in Place Facing)	SF	5'50	THE PERSON	50
		BRIDGEREMOVAL	SF	520	THE REAL PROPERTY.	\$0
		NO SE WALLS	SF	525		50
3		SURFACING				
		ROADWAY CEMICONC HES (24 HR) 12 N	5Y	\$(50)	200	CS
		HOT M X ASPHA_T	7CN		4,500	5828 000
		CRUSHED SURFACING	TON	540	5,700	5 28 000
4		ROADSIDE DEVELOPMENT				
		FENCING	LF	50	(8, 11)	SO
		SEEDING MULCHING & FERTILIZING	ACR		0.2	5240
		WETLAND MITIGATION	LS	SO		50
		TEMPORARY WATER POLLUTION & EROSION CONTROL (5%) LANDSCAPING	LS LS	\$233,500 \$7,500	1	\$233,500 \$7,500
		EV-602CV-190	1.3	37 3474	20	3, 200
5		TRAFFIC				
		GUARDRAIL	LF	518		50
		CONCRETE BARRIER	LF	550	-	50
		S'GNAL SYSTEMS ILLUMINATION	LS ES	\$0 \$105,000		50 5109 000
		S:GN'NG	L5	55,000		\$5,000
		CURBS	LF	\$25	1,500	537 500
		PERPENDICULAR CURB RAMP	EA	53,000	2	\$5 000
		SIDEWALKS	SY	S#5	1,000	\$45,000
		TRAFFIC CONTROL (10%)	LS	5389 (00)		\$389 100
51		OTHER ITEMS				
		SURVEYING (2%)	1.5	577 900	10	577 900
		SPEC/ALITEMS	657	50	15	SO
		UTILITY RELOCATIONS	857	5200,000	Di.	5200 000
-5		MISCELLANEOUS (10%)	LS	\$479.100	100	\$479 100
190		Wildelia Cool (ON)		341,2100		8.73.100
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				\$5 270 040
ä		MOBILIZATION (IO%)	EST	5527 (00	1	5527 100
		IO% OF ITEM 7	53	22277100	1.5	3227 100
. 9		SUBTOTA (ITEMS 7 & 8)				\$5 797 140
10		SALES TAX		4555.75	723	
		9 8% OF ITEM 9	EST	\$558 200	3	5558 200
310		AGREEMENTS (Utilities WSP etc.)				
			EST	50	1	50
12		SUBTOTAL (ITEMS 9 THRU II)				\$6,355,340

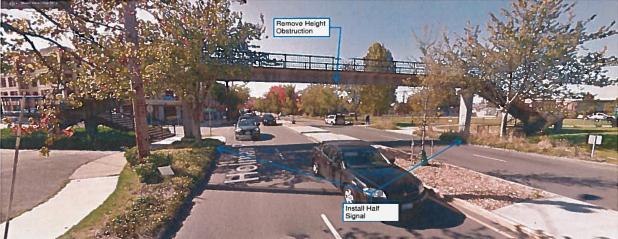
The above ap man of costs a planning level estimate only. It is based on best available information and scape at the time not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect Incides not guarantee ar warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 15: Holman Rd NW/13th Ave W Height Restriction Removal





DESIGN ASSUMPTIONS:

Demolition, restoration, and signal installation will be provided by others. Total SDOT Freight contribution is limited to \$250,000.

ESTIMATED TOTAL PROJECT COST:

\$250,000.00



2707 Colby Avenue, Suite 900 Everetr WA 98201 | P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	Ballard, Holman Rd NW and 12 Ave W	Date: 4/6/2017
Location	Seattle	Date of Cost Index 2015
		Calculated By/Entered By KCM
		Checked By VWW

FMP Project No. 15: Holman Rd NW/13th Ave W Height Restriction Removal

		ŧ	ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST
1.	CONSTRUCTION				
	SDOT FREIGHT CONTRIBUTION	EST	\$250,000.00	1	\$250,000

The above opinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet Inc. does not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 18: Montlake Blvd Height Restriction Rebuild



DESIGN ASSUMPTIONS:

Bridge dimensions are 200' x 18'
New bridge will have the same dimensions

ESTIMATED TOTAL PROJECT COST:

\$5,015,000.00



Top-Down Cost Estimating Tool

Tab B. Cost Estimate Summary

Project Name

FMP Project No. 18: Montlake Blvd Height

Project Number NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate
Estimated Acquisition Cost

\$ 1,896,800

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

•
Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

20%	
40%	
30%	
30%	

Construction Soft Cost	Ratio
Design Soft Cost Ratio	

29%	
19%	

BUILD-UP SUMMARY

Engineer's Estimate (EE)
EE Allowance (40%)
Estimated Contractor Cost (ECC)

Construction Admin. (Soft Cost)

29% of \$2.7M ECC

Design (Soft Cost)

19% of \$2.7M ECC

Acquisition Cost

Estimated Acquisition Cost

Estimated Total Project Cost

E = C + D	D	C = A + B	В	Α
TOTAL	Midpoint Escalation	Current-Year Cost	Contingency	Base Estimate
				1,896,800
				758,720
3,363,962	177,338	3,186,624	531,104	2,655,520
975,549	51,428	924,121	154,020	770,101
3.0,0.13	32,123	22 1,122	15 1,020	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
675,459	19,546	655,913	151,365	504,549
0	0	0	0	0
\$ 5,014,970	\$ 248,312	\$ 4,766,658	\$ 836,489	\$ 3,930,170

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



27II7 Cally Avenue Sure 900; Eve-ett WA 98201 | # 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY IND CONTINGENCY					
Project Description	SDOT Freight Master Plan Imp'ementarion	Clent SDDT			
Corridor Section	3870 Montake Bivd	Date 4/20/2017			
Location	University District	Date of Cost Index 2017			
		Ca'culated By/Entered By KCM			
		Checkeri By VWW			

TWO PROJECTION 10 Mannine Brief Pregion Restrict of Control TOTAL COST	12	CONSTRUCTION PREPARATION/GRAD.NG/DRANAGE PREPARATION/GRAD.NG/DRANAGE PREPARATION CLEAR & GRUB DEMO REMOVALS ASTRO PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATION INCL. HAUL STRUCTUREE X. CL. A. NCL. HAUL BORROWINCL. HAUL EMBANGMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS IN TYPE I CATCH BAS IN TYPE	ACRE SY LS CY TON CY SF EA LF LF CY SF SF SF SF	\$10 000 \$15 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50	QTY	C2 C2 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3
CONTRUCTION PRIPARATION COST	15	CONSTRUCTION PREPARATION/GRAD.NG/DRANAGE PREPARATION/GRAD.NG/DRANAGE PREPARATION CLEAR & GRUB DEMO REMOVALS ASTRO PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATION INCL. HAUL STRUCTUREE X. CL. A. NCL. HAUL BORROWINCL. HAUL EMBANGMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS IN TYPE I CATCH BAS IN TYPE	ACRE SY LS CY TON CY SF EA LF LF CY SF SF SF SF	\$10 000 \$15 \$2 \$40 \$25 \$15 \$2 \$5 \$1500 \$3 000 \$355 \$80 \$20 \$255 \$300 \$255 \$300 \$255 \$300 \$355 \$300 \$355		\$00 0000 \$000 \$0000 \$00000 \$0000000000
TEM	15	CONSTRUCTION PREPARATION/GRADING/DRAINAGE PREPARATION CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK RODWING EXISTING PAVEMENT REMOVAL STRUCTURES & CLAINCL HAUL STRUCTUREEX CLAINCL HAUL BORROWINGL HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BASN TYPE I STRUCTURE EXCAVATION CLB STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL	ACRE SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF	\$10 000 \$15 \$2 \$40 \$25 \$15 \$2 \$5 \$1500 \$3 000 \$355 \$80 \$20 \$255 \$300 \$255 \$300 \$255 \$300 \$355 \$300 \$355		\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
CONSTRUCTION REPARATION/GRADING/PATAMAE IN PREPARATION/GRADING/PATAMAE REPARATION/GRADING/PATAMAE REPARATION/G	15	CONSTRUCTION PREPARATION/GRADING/DRAINAGE PREPARATION CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK RODWING EXISTING PAVEMENT REMOVAL STRUCTURES & CLAINCL HAUL STRUCTUREEX CLAINCL HAUL BORROWINGL HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BASN TYPE I STRUCTURE EXCAVATION CLB STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL	ACRE SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF	\$10,000 \$15 \$21 \$40 \$25 \$15 \$22 \$15 \$22 \$15 \$22 \$15 \$22 \$25 \$15 \$22 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$2		\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
PREPARATION CHANNED 11 PREPARATION ACRE \$0.000 3.5 12 CHAN COUNTY STOCKNOWNST S S 1.5 13 S S 1.5 5.5 14 S S S S S S S S S	15	PREPARATION/GRADING/DRAINAGE PREPARATION CLEAR & GRUB DEMO REMOVAGE & STING PAVEMENT REMOVAGE & STING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATION INCL. HAUL STRUCTURE EX. CL. A.N.CL. HAUL BORROWINGL. HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE 1 CATCH BAS N TYPE 2 PLAIN CONC. STORM SEWER PIPE IS IN DIAM PLAIN CONC. STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION CL. B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABJUTMENT RETROFIT RETAINING WALLS (COB IN Place) RETAINING WALLS (COB IN Place) RETAINING WALLS (SOB IN PLACE)	SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF SF	\$15 \$20 \$40 \$25 \$15 \$15 \$2 \$1500 \$35000 \$35 \$80 \$20 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	4,900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
PRIEMATION(PADANDICADANDICE)	15	PREPARATION/GRADING/DRAINAGE PREPARATION CLEAR & GRUB DEMO REMOVAGE & STING PAVEMENT REMOVAGE & STING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATION INCL. HAUL STRUCTURE EX. CL. A.N.CL. HAUL BORROWINGL. HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE 1 CATCH BAS N TYPE 2 PLAIN CONC. STORM SEWER PIPE IS IN DIAM PLAIN CONC. STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION CL. B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABJUTMENT RETROFIT RETAINING WALLS (COB IN Place) RETAINING WALLS (COB IN Place) RETAINING WALLS (SOB IN PLACE)	SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF SF	\$15 \$20 \$40 \$25 \$15 \$15 \$2 \$1500 \$35000 \$35 \$80 \$20 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	4.900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
PRIPAMATION ACRE \$10,000 30 30 30 30 30 30 30	15	PREPARATION CLEAR & GRUB DEMO REMOVING EX STING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAYEXCAVATION INCL. HAUL STRUCTURE EX CL. A NCL. HAUL BORROW INCL. HAUL EMBANGMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE I	SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF SF	\$15 \$20 \$40 \$25 \$15 \$15 \$2 \$1500 \$35000 \$35 \$3000 \$35 \$20 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	4.000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
### REMONALS STANCHARD NOT. ### REMONALS STANCHARD SOSTRUCTIONS 15	13	REMOVING EXISTING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATIONINCL HAUL BORROWINGL HAUL BORROWINGL HAUL EMBANKENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS NIYPE I STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BR	SY LS CY CY TON CY SF EA LF LF CY SF SF SF SF SF SF	\$15 \$20 \$40 \$25 \$15 \$15 \$2 \$1500 \$35000 \$35 \$3000 \$35 \$20 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	4,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
REMONATSTRUCTURES COSTRUCTORS 15 55 15 15 15 15 15 1	13	REMOVAL STRUCTURES & OBSTRUCTIONS EARTHWORK ROADWAY EXCAVATION INCL. HAUL STRUCTURE EX. CL. A. INCL. HAUL BORROWINCL. HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS IN TYPE I CATCH BAS IN TYPE I CATCH BAS IN TYPE I CATCH BAS INTO EXEMP PIPE IZ IN DIAM PLAN CONC. STORM SEWER PIPE IZ IN DIAM STRUCTURE EXCAVATION CL. B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL B	CY CY TON CY SF EA LF LF CY SF SF SF SF SF	\$50 \$40 \$25 \$15 \$2 \$6 \$1500 \$3500 \$35 \$80 \$20 \$25 \$20 \$25 \$20 \$25 \$20 \$25 \$20 \$25 \$20 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	4.900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
17	13	EARTHWORK ROADWAYEXCAVATION INCL, HAUL STRUCTUREEX CL A INCL. HAUL BORROW INCL. HAUL EMBANCMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE I CATCH BAS N TYPE I CATCH BAS N TYPE Z PLAN CONC. STORM SEWER PIPE IZ IN DIAM PLAN CONC. STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION CL. B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETA'NNO WALLS (COM IN Place) RETA'NNO WALLS (COM IN Place) RETA'NNO WALLS (COM IN Place) BRIDGE REMOVAL	CY CY TON CY SF EA LF LF CY SF SF SF SF SF	\$40 \$25 \$15 \$2 \$5 \$1500 \$5,000 \$5,55 \$60 \$20 \$25 \$20 \$25 \$20 \$25 \$300	4.900	00 000 0000 00000 00000000000000000000
ROADWAYSCANTONINCE, MALL \$TRUCTURE KE, A AND, LIAUL \$TRUCTURE KE, AND, LIAUL \$TRUCTURE KE, A AND, LIAUL \$TRUCT	13	ROADWAY EXCAVATION INCL. HAUL STRUCTUREEX CIL AINCL. HAUL BORROW INCL. HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS NITYPE I PLAN CONC. STORM SEWER PIPE I IN DIAM STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES	CY TON CY SF EA EA LF LF CY SF SF SF SF SF SF	\$25 \$15 \$2 \$1500 \$3 000 \$355 \$80 \$20 \$25 \$25 \$20 \$300 \$300 \$300 \$300 \$300 \$300 \$300	4,900	50 50 50 50 50 50 50 50 50 50 50 50
ROADWAYSCANTONINCE, MALL \$TRUCTURE KE, A AND, LIAUL \$TRUCTURE KE, AND, LIAUL \$TRUCTURE KE, A AND, LIAUL \$TRUCT	1.5	ROADWAY EXCAVATION INCL. HAUL STRUCTUREEX CIL AINCL. HAUL BORROW INCL. HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS NITYPE I PLAN CONC. STORM SEWER PIPE I IN DIAM STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES	CY TON CY SF EA EA LF LF CY SF SF SF SF SF SF	\$25 \$15 \$2 \$1500 \$3 000 \$355 \$80 \$20 \$25 \$25 \$20 \$300 \$300 \$300 \$300 \$300 \$300 \$300	4,900	50 50 50 50 50 50 50 50 50 50 50 50
STRUCTURE COMMATION COMMATION SEPTION	14	STRUCTURE EX CL. A INCL HAUL BORROWINCL HAUL EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE I CATCH BAS N TYPE I CATCH BAS N TYPE I PLAN CONC. STORM SEWER PIPE I2 IN DIAM PLAN CONC. STORM SEWER PIPE I8 IN DIAM STRUCTURE EXCAVATION CL. B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES REDGE ABUTMENT RETROFIT RETANNOWALLS (Cost in Place RETAN	CY TON CY SF EA EA LF LF CY SF SF SF SF SF SF	\$25 \$15 \$2 \$1500 \$3 000 \$355 \$80 \$20 \$25 \$25 \$20 \$300 \$300 \$300 \$300 \$300 \$300 \$300	4,900	50 50 50 50 50 50 50 50 50 50 50 50 50 5
BORDOW ACL HALL EMPANCHIN COWACTION C	14	BORROW INCL. HAULE EMBANKMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS NITYPE I CATCH BAS NITYPE I CATCH BAS NITYPE I PLAN CONC. STORM SEWER PIPE IZ IN DIAM PLAN CONC. STORM SEWER PIPE IZ IN DIAM STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETAINNG WALLS (Cost in Place) RETAINNG WALLS (Cost in Place) RETAINNG WALLS (Sost in Place) BRIDGE REMOVAL	TON CY SF EA EA LF LF CY SF SF SF SF SF	\$15 \$2 \$56 \$1500 \$3,000 \$35,580 \$20 \$25 \$20 \$25 \$20 \$300 \$300 \$300 \$300 \$300 \$300 \$300	4,900	00 50 50 50 50 50 50 50 50 50
EMANGMENT COMPACTION		EMBANCMENT COMPACTION STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS NITYPE I CATCH BAS NITYPE I CATCH BAS NITYPE Z PLAN CONC STORM SEWER PIPE IZ IN DIAM PLAN CONC STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION OLD STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETAINNO WALLS (COST IN Place) RETAINNO WALLS (SA IN AI with COST IN Place Focing) BRIDGE REMOVAL	CY SF EA LF LF CY SF SF SF SF SF	52 56 \$1500 53 000 535 580 \$20 \$255 \$200 \$255 \$200 \$250 \$350	4.900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
13 STORMWATER MITIGATION DETERTION OF TRANSMITT 57 56 1 30	14	STORMWATER MITIGATION DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE I CATCH BAS N TYPE I PLAN CONC. STORM SEWER PIPE IZ IN DIAM PLAN CONC. STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETANNOWALLS (Cost in Place RETANNOW	SF EA EA LF CY SF SF SF SF SF SF	\$1500 \$3,000 \$355 \$80 \$20 \$225 \$200 \$750 \$500	4,900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
DETINIDA AD TREATMENT 14 STORM SIMMER CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! RANCOCK STORM SIMMER BY DAM BY AN ONE STORM SIMMER BY DAM BY STRUCTURE CONCRETE BRODGS CONCRETE BRODGS CONCRETE BRODGS CONCRETE BRODGS STELL BRODGS BY STORM SIMMER BRODGS BRODGY BETANNOWALS (Sow Parc) BRODGS BRODGY NOSE WALLS SUMMER SIMMER COMP POSE Focies) BRODGS BRODGY NOSE WALLS SUMMER SIMMER S		DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE 1 CATCH BAS N TYPE 2 PLAN CONC STORM SEWER PIPE I2 IN DIAM PLAN CONC STORM SEWER PIPE I8 IN DIAM STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUT MENT RETROFIT RETANNOWALLS (Cost in Place RETANNOWALLS (Cost in Place BRIDGE REMOVAL	EA EA LF CY SF SF SF SF SF SF	\$1500 55000 535 580 520 525 5200 5250 500	4,900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
DETINIDA AD TREATMENT 14 STORM SIMMER CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! CATCHBAS NITRE! RANCOCK STORM SIMMER BY DAM BY AN ONE STORM SIMMER BY DAM BY STRUCTURE CONCRETE BRODGS CONCRETE BRODGS CONCRETE BRODGS CONCRETE BRODGS STELL BRODGS BY STORM SIMMER BRODGS BRODGY BETANNOWALS (Sow Parc) BRODGS BRODGY NOSE WALLS SUMMER SIMMER COMP POSE Focies) BRODGS BRODGY NOSE WALLS SUMMER SIMMER S		DETENTION AND TREATMENT STORM SEWER CATCH BAS N TYPE 1 CATCH BAS N TYPE 2 PLAN CONC STORM SEWER PIPE I2 IN DIAM PLAN CONC STORM SEWER PIPE I8 IN DIAM STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUT MENT RETROFIT RETANNOWALLS (Cost in Place RETANNOWALLS (Cost in Place BRIDGE REMOVAL	EA EA LF CY SF SF SF SF SF SF	\$1500 55000 535 580 520 525 5200 5250 500	4,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
STORM SEWER		STORM SEWER CATCH BAS N TYPE I CATCH BAS N TYPE I CATCH BAS N TYPE I PLAN CONC STORM SEWER PIPE IZ IN DIAM PLAN CONC STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETANNOWALLS (Cost in Place RETANNOWALLS (Cost in Place RETANNOWALLS (Cost in Place RETANNOWALLS (Sost in Place RETANNOWALLS (Cost in Pl	EA EA LF CY SF SF SF SF SF SF	\$1500 55000 535 580 520 525 5200 5250 500	4.900	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
CACH-BASN TYPE? CACH-BASN TYPE? PAR COCK STORM STURPER DAM PAR COCK STORM STURPER BY DAM PAR COCK STORM STORM STORM STORM STURPER BY DAM PAR COCK STORM STOR	14	CATCH BAS N TYPE I CATCH BAS N TYPE I CATCH BAS N TYPE 2 PLAN CONC STORM SEWER PIPE IZ IN DIAM PLAN CONC STORM SEWER PIPE IZ IN DIAM STRUCTURE EXCAVATION CL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES STELL BRIDGES BRIDGE ABUTMENT RETROFIT RETANNOWALLS (Cost in Place RETANNOWALLS (Cost in Place PIECE Facing) BRIDGE REMOVAL	EA LF CY SF SF SF SF SF	\$3 000 \$35 \$85 \$20 \$25 \$200 \$250 \$100	4.000	C2 C2 C2 C2 C00 C00 C2
CACH BAN TYPE 2 P.A.N.COK. STOMS SEMBRIPE IZ N. DAM P.A.N.COK. ST		CATCH BASN TYPE 2 PLAN CONC STORM SEWER PIPE IZ IN DIAM PLAN CONC STORM SEWER PIPE IB IN DIAM STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES BRIDGE ABUTIMENT RETROFIT RETAINNOWALLS (Cost in Place RETAINNOWALLS (Cost in Place Place Facing) BRIDGE REMOVAL	EA LF CY SF SF SF SF SF	\$3 000 \$35 \$85 \$20 \$25 \$200 \$250 \$100	4,900	C2 C2 C2 C2 C00 C00 C2
PAN COCK STOMS SWIMERPER IN DAM PAN COCK STOMS SWIMERPER IN DAM STRUCTURE CONCRETE BROCES STRUCTURE CONCRETE BROCES CONCRETE BROCES CONCRETE BROCES CONCRETE BROCES CONCRETE BROCES STRUCTURE CONCRETE BROCES CONCRETE BROCES STRUCTURE STRUCTUR		PLAN CONC. STORM SEWER PIPE IZ IN. DIAM PLAN CONC. STORM SEWER PIPE IB IN. DIAM STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES WIDENING PEDESTRAN BRIDGES STEEL BRIDGES BRIDGE ABUTMENT RETROFIT RETAINING WALLS (Cost in Place) RETAINING WALLS (Cost in Place) BRIDGE REMOVAL	LF LF CY SF SF SF SF SF	\$35 \$80 \$20 \$225 \$200 \$250 \$100	4.900	C2 C2 C3 C00 C2 C2
### PAN COCK STOM SISMIPPS IB N DIAM \$ STRUCTURE COCKNETE BROCES SP 500		PLAN CONC STORM SEWER PIPE IB IN DIAM STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES CONCRETE BRIDGES STELL BRIDGES BRIDGES BRIDGE ABUTMENT RETROFIT RETAINNG WALLS (Cast in Place RETAINNG WALLS (Sol Nat with Cast in Place Facing) BRIDGE REMOVAL	LF CY SF SF SF SF SF SF	\$25 \$20 \$25 \$200 \$250 \$00	4.000	50 50 000 50 50
STRUCTURE EXCAVATION CL. B		STRUCTURE EXCAVATION OL B STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES WIDENING PEDESTRAN BRIDGES STELL BRIDGES BRIDGE ABUTIMENT RETROFIT RETAINING WALLS (Cost in Place) RETAINING WALLS (Sost in Place) BRIDGE REMOVAL	CY	\$225 \$220 \$250 \$250 \$100	4.000	C2 000 0002 C2 02
STRUCTURE CONCRETE BROGES CONCRETE BROGES CONCRETE BROGES CONCRETE BROGES FF 5700 S000 000 S000 000 PROESTRAN BROGES SF 5700 S000 000 S000 000 BROCE ABUTMENT RETROPIT FF 500 FE IRAN STALLS (Com a PROCE) RE IRAN STALLS (Com a PROCE) SF 5750 SF 5750 SF 5750 ST 5750		STRUCTURE CONCRETE BRIDGES CONCRETE BRIDGES WIDENING PEDESTRAN BRIDGES STEEL BRIDGES BRIDGE ABUTMENT RETROFIT RETAINING WALLS (Cost in Place) BRIDGE REMOVAL	SF SF SF SF SF	\$225 \$200 \$250 \$ 00	4.000	\$500 000 \$0 \$0
CONCRETE PROCES CONCRETE PROCES CONCRETE PROCES CONCRETE PROCES PROTECTION OF MANY CONCRETE PROCES PROCES AND SERVICE CONCRETE PROCESS AND SERVICE CONCRETE		CONCRETE BRIDGES CONCRETE BRIDGES WIDENING PEDESTRAIN BRIDGES STEEL BRIDGES BRIDGE ABUTIMENT RETROFIT RETAINING WALLS (Cost in Place) BRIDGE REMOVAL. BRIDGE REMOVAL.	SF SF SF SF SF	5200 5250 5100	4,000	S0 S0
CONCRETE PROCES CONCRETE PROCES CONCRETE PROCES CONCRETE PROCES PROTECTION OF MANY CONCRETE PROCES PROCES AND SERVICE CONCRETE PROCESS AND SERVICE CONCRETE		CONCRETE BRIDGES CONCRETE BRIDGES WIDENING PEDESTRAIN BRIDGES STEEL BRIDGES BRIDGE ABUTIMENT RETROFIT RETAINING WALLS (Cost in Place) BRIDGE REMOVAL. BRIDGE REMOVAL.	SF SF SF SF SF	5200 5250 5100	4,000	S0 S0
CONCRETERROGIS WICH NG PROSTRIAN BROGIS FIELDROGS STELL BROGIS STELL BROGIS BROGE ABJUTENT RETRIORIT SF S150 SO RETAINNOWALLS (Con in Place Facing) SF S150 SO BROGE ABJUTENT RETRIORIT SF S150 SO BROGE REMOVA. SF S150 SO BROGE REMOVA. SF S150 SO SORTAL CANG PORTLAND CEMENT CONCRETE HOT MA ASPHALT CRUSHID SURFACING TON S40 SEEN ALLOHNOUS FERTILLYING SEEN ALLOHNOUS FERT		CONCRETE BROGES WIDENING PEDESTRAN BROGES STEEL BROGES BROGE ABUTMENT RETROFIT RETAINING WALLS (Cost in Place) RETAINING WALLS (Soll Not with Cost in Place Focing) BRIDGE REMOVAL	SF SF SF SF SF	5200 5250 5100	4.000	S0 S0
PEDESTRANBIDGES		PEDESTRAN BRIDGES STELL BRODGES BRODGE ABUTMENT RETROFIT RETAINING WALLS (Cost in Place) RETAINING WALLS (Sost in Place) BRIDGE REMOVAL	5F SF 5F SF	\$250 \$100		50
STELL BROOKS SP SOO		STEEL BRIDGE BRIDGE AQUITMENT RETROFIT RETAINING WALLS (Cost in Place) RETAINING WALLS (Soil Mail with Cost in Place Focing) BRIDGE REMOVAL	SF SF SF	5 00		
BROOK ABUTNENT RETARDET RETAIN NOW MUS (So I No I with Cost of Posts 55 555 500 RETAIN NOW MUS (So I No I with Cost of Posts 55 555 500 RETAIN NOW MUS (So I No I with Cost of Posts 55 575 575 575 575 575 575 575 577		BRIDGE ABUTMENT RETROFIT RETAINNG WALLS (Cost in Place) RETAINNG WALLS (Sol Mail with Cost in Place Focing) BRIDGE REMOVAL	SF SF			
RETANNOWALIS (Gain Am Potate Page Facing) RETANNOWALIS (Gain Am Win Coast in Place Facing) BROOD REMOVAL NOSE WALLS SF		RETAINING WALLS (Cost in Place) RETAINING WALLS (Soil Not I with Cost in Place Facing) BRIDGE REMOVAL	SF	\$150		
RETANNSWALLS (SIS Not with Cast of Prote Facing) SF SISO S770 000 ROBOGE REMOVAL SF S75 S75 S75 S70 S770 000 NOSE WALLS SF S75 S75 S75 S70 S770 000 NOSE WALLS SF S75 S75 S75 S75 S70 S770 000 ROBOGE REMOVE CONCRETE SF S750 S70		RETA'NING WALLS (Soil Not with Cost in Place Facing) BRIDGE REMOVAL				
BRIOGEREMOVAL SF S75 S,500 S,770 0,000		BRIDGE REMOVAL			NAME OF TAXABLE	
SURFACING PORTLAND CEMENT CONCRETE PRINCIPAL SEEDING MULCHING & FERTILIZING PER STOOD PER SEEDING MULCHING & FERTILIZING PE SEEDING MULCHING MULCHING & FERTILIZING PE SEEDING MULCHING MUL						
SUBFACING					2,900	
PORTLAND CEMENT CONCRETE		MOIDE ANTED	3r	323		30
PORTLAND CEMENT CONCRETE		SURFACING				
HOTMXASPHALT TON SIGO SO CRUSHED SURFACING TON S40 S70 S70			5F	5150		50
ROADSDE DEVELOPMENT FENCING ROADSDE DEVELOPMENT FENCING SEERING MULICHING & FERTILIZING WETLAND MITIGATION TEMPORARY WATER POLILUTION & EROSON CONTROL (5%) LS STOOD TRAFFIC GUARD RALL CONCRETE BARRER LF S50 SGML S50 SGML S50 SGML S570 200 TRAFFIC GUARD RALL CONCRETE BARRER LF S50 SGML S570 300 SGML S570 300 SGNNG LLUM NATION LS S50 SGNNG CURBS FERENDICULAR CURBRAMP EA S50 SOEWALS TRAFFIC CONTROL (10%) COTHER TIEMS SURVEYING (5%) SECOLUTENS SURVEYING (5%) SECOLUTENS SURVEYING (5%) SECOLUTENS SURVEYING (5%) SECOLUTENS MSCELLANEOUS (10%) CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5) SURJEYING (10%) SUBTOTAL (ITEMS 7 & B) SALES TAX S 80 OFTEMS SIRVEYING (10%) SEST S159 500 I S159 500 AGREEMENTS (Unlikes) WSP etc.)					200	
ROADSIDE DEVELOPMENT						
FENCING LF S0 S0 S0 SEEDING MULCHING & FERTILIZING ACRE S1200 S0 S1 S0 WETLAND MITGATION LS S0 L S0 TEMPORARY WATER POLLUTION & EROSON CONTROL (5%) LS S70,200						
SEEDAG MULCHAGE FERTILIZING ACRE S1200 S0 WEILAND MITIGATION 15 S0 1 S0 S0 1 S0 S0 S0		ROADSIDE DEVELOPMENT				
WETLAND MITGRATION TEMPORARY WATER POLILUTION & EROS ON CONTROL (5%) LS \$70 200 LANDSCAPING TRAFFIC GUARD RAL GUARD		FENCING	LF	C2	1000	CZ
TEMPORARY WATER POLLUTION & EROS.ON CONTROL (5%)		SEEDING MULCHING & FERTILIZING	ACRE	SI 200		C2
LS SQ SQ		WETLAND MITIGATION	ŁS	50	1	SO
TRAFFIC GUARDRAL GUARDRAL CONCRETE BARRER LF 550 S0 S0 SGNAL SYSTEMS LLUMNATION LS 50 I 50 SIGNING LS 50 I 50 CURBS LF 525 S0 PERPENDICUL AR CURB RAMP EA 53 000 50 SIDEWAL KS 57 S17,100 I 517100 OTHER ITEMS SURVEYING (5%) SURVEYING (5%) SPECIAL ITEMS SURVEYING (5%) SPECIAL ITEMS MISCELLANEOUS (10%) MISCELLANEOUS (10%) CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) SUBSTOTAL (ITEMS TABLE) SUBSTOTAL (ITEMS I THRU 5) SUBSTOTAL (ITEMS TABLE) SUBSTOTAL (ITEMS TABLE) SALES TAX SUBSTOTAL (ITEMS TABLE)		TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%)	L5	570 200	1	\$70 200
GUARD RAL CONCRETE BARRER SO SIGNAL SYSTEMS LS LS SO LLUMNATION LS SIGNING LS SO CURS PERRENDICULAR CURBRAMP LF SSS SO		LANDSCAPING	LS	50	1	50
GUARD RAL CONCRETE BARRER SO SIGNAL SYSTEMS LS LS SO LLUMNATION LS SIGNING LS SO CURS PERRENDICULAR CURBRAMP LF SSS SO						
CONCRETE BARRER SIGNAL SYSTEMS LS SIGNAL SYSTEMS LS SIGNANG SIGNANG SIGNANG LS SIGNANG S				90.0		
SGRAL SYSTEMS						
LLUMANTION					0	
SIGNING						
CURBS PERPENDICULAR CURB RAMP EA S3 000 S0 S0 WALKS SY 545 S0 TRAFFIC CONTROL (10%) LS SY/100 I SIT/100 OTHER ITEMS SURVEYING (5%) SPECIAL ITEMS SURVEYING (5%) SPECIAL ITEMS SURVEYING (5%) SPECIAL ITEMS SURVEYING (5%) SET S0 I S70 300 I S70 300 SPECIAL ITEMS SURVEYING (5%) SET S0 I S70 300 SPECIAL ITEMS SURVEYING (5%) SET S0 I S70 300 SET S0 I S70 300 SET S0 I S70 400 MOSCILLANEOUS (10%) LS SI42 800 I SI42 800 CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) SI STO 400 MOBILIZATION (10%) IOW OF ITEM? EST S157 100 SUBTOTAL (ITEMS 7 & 8) SI S1727 500 SALES TAX S 8% OF ITEM 9 EST S159 300 I S159 300 AGREEMENTS (Unlikes WSP etc.)					- 1	
PERPENDICULAR CURBRAMP						
SOEWALAS						
TRAFFIC CONTROL (10%) CTHER ITEMS SURVEYING (5%) S						
OTHER ITEMS SURVEYING (5%) SURVEYING (5%) SPECIAL ITEMS SURVEYING (5%) SPECIAL ITEMS SUBJECT (50 1 50 1 50 1 50 1 50 1 50 1 50 1 50					1	
SURVEYING (5%) SPECIAL ITEMS SPECIAL ITEMS SUBTOTAL (10%) M.SCELLANEOUS (10%) CONSTRUCTION SUBTOTAL (1TEMS 1 THRU 5) MOBILIZATION (10%) 10% OF ITEM7 SUBTOTAL (1TEMS 7 & 8) SILES TAX Substitute (1 Milling WSP etc.)			65	EMPARTS.		3,100
SPECIAL ITEMS		GTHER ITEMS				
SPECIAL ITEMS			1.5	570 300	1	570 300
### ST					1	50
CONSTRUCTION SUBTOTAL (ITEMS THRU 5) MOBILIZATION (10%) 10% OF ITEM 7 SUBTOTAL (ITEMS R.B.) SALES TAX 9 8% OF ITEM 9 EST S169 300 AGREEMENTS (Uniting WSP etc.)		UTILITY RELOCATIONS	EST	50	1	50
CONSTRUCTION SUBTOTAL (ITEMS THRU 5) MOBILIZATION (10%) 10% OF ITEM 7 SUBTOTAL (ITEMS R.B.) SALES TAX 9 8% OF ITEM 9 EST S169 300 AGREEMENTS (Uniting WSP etc.)		M.SCELLANEOUS (10%)	1.5	5142 800	1	5142 800
MOBILIZATION (10%) 10% OF ITEM7 EST \$157,100 I \$157,100 \$UBTOTAL (ITEM5 7 & B) \$1,727,500 \$ALES TAX 9 8% OF ITEM9 EST \$159,300 I \$159,300 AGREEMENTS (Unitines WSP etc.)			= = = = = = = = = = = = = = = = = = = =			
10% OF ITEM 7						3 3/0 =00
SALES TAX 9.8% OF ITEM9 EST 5169.500 I \$169.500 AGREEMENTS (Unities WSP etc.)			EST	\$157,100	i.	\$157 100
SALES TAX 9.8% OF ITEM9 EST 5169.500 I \$169.500 AGREEMENTS (Unities WSP etc.)		SUBTOTAL (ITEMS 7 & 8)				5 727 500
9 8% OFFITEM9 EST 5169 300 I 5169 300 (AGREEMENTS (Utilities WSP etc.)						
			EST	5159 300	I	\$ 59 300
C2 1 723		AGREEMENTS (Unitres WSP etc.)				
			EST		1	50

The abave ap non of cast is a pronoung level estimate only it is based 9th best available information and scape at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect Incides not guarantee or warrant the accuracy of this pronoung level estimate.





PROJECT: FMP Project No. 19: Ballard Bridge Access and Seismic Improvements



DESIGN ASSUMPTIONS:

Bridge will be widened 6' on each side to create 10' sidewalks Seismic retrofit will be comparable to Phase 2, completed in 2014

ESTIMATED TOTAL PROJECT COST:

\$191,989,000.00



FMP Project No. 19: Ballard Bridge Access Project Name

Project Number

NA

Prepared by

Perteet Inc.

Date

5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 72,615,300

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

20%	
40%	
30%	
30%	

Construction Soft Cost Ratio
Design Soft Cost Ratio

	29%
	19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	72,615,300				
EE Allowance (40%)	29,046,120				
Estimated Contractor Cost (ECC)	101,661,420	20,332,284	121,993,704	6,789,035	128,782,739
Construction Admin. (Soft Cost)					
29% of \$101.7M ECC	29,481,812	5,896,362	35,378,174	1,968,820	37,346,994
Design (Soft Cost)					
19% of \$101.7M ECC	19,315,670	5,794,701	25,110,371	748,278	25,858,648
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 150,458,902	\$ 32,023,347	\$ 182,482,249	\$ 9,506,133	\$ 191,988,382

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Callay Avenue Suite 900 Everett, WA 98201 P 425 252 7700

DI ANNING LE	WELL CORNECT	NOTCOSTS	U VIDANAMI I	NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	Ballard Bridge	Date 4/20/2017
Location	Searrie	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW

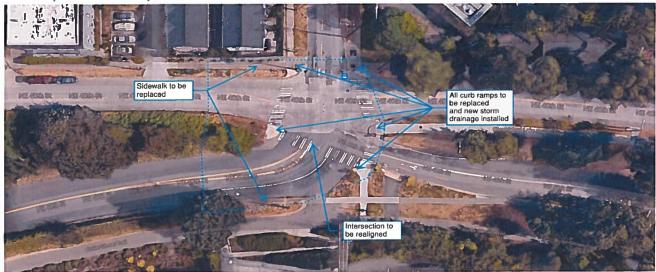
			Checked By VWW		
	FMP Project No. 19. Ballard Bridge Acce. ITEM	ss and Seismic Improvi	ESTIMATED UNIT COST	QTY	COST
	CONSTRUCTION				
1	PREPARATION/GRADING/DRA NAGE				
11	PREPARATION		1.1210000		
	CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT	ACRE 5Y	SID 000		50 50
	REMOVAL STRUCTURES & OBSTRUCTIONS	L5	50	1	50
			C. A.		
12	EARTHWORK ROADWAYEXCAVATIONING HAUL	CY	S45	-	50
	STRUCTUREEX CL AINCL HAU	CY	525		50
	BORROWINGL HAUL	TON	\$15.1	100	\$3
	EMBANKMENT COMPACTION	CY	52		50
1.5	STORMWATER MITIGATION				
	DETENTION AND TREATMENT	SF	S6	100	SO
	STORM SERVER				
1.4	STORM SEWER CATCH BAS'N TYPE I	EA	\$1 500		\$0
	CATCH BASIN TYPE 2	EΛ	53 000	NE CO	50
	PLAIN CONC STORM SEWER PIPE 12 IN DIAM	1.F	\$35		50
	PLAIN CONC STORM SEWER PIPE 18 IN DIAM STRUCTURE EXCAVATION CL. B	LF CY	580 520	5120005	50 50
	STRUCTURE EXCHANGED		320		-
2	STRUCTURE		1		
	CONCRETE BRIDGES CONCRETE BRIDGES WIDENING	SF:	5500 \$500	55.500	50 \$27,750,000
	PEDESTRIAN BRIDGES	SF	5250	22,349	50
	STEEL BRIDGES	SF	5100	SANSA .	C2
	BRIDGE ABUTMENT RETROFIT	SF	5150		50
	RETAINING WALLS (Cost in Place) RETAINING WALLS (Soll No.) with Cost in Place Facing)	SF SF	S55 \$150		S0 S0
	BR-DGE REMOVAL	SF	575		CZ
	NOISE WALLS	SF	\$25	2.1	50
	SEISMIC RETROFIT	LS	SI7 050 000 II	111	S17 050 000
3	SURFACING		111 12		
	PORTLAND CEMENT CONCRETE	S	\$150		50
	HOT M.X ASPHA, T CRUSHED SURFACING	TON	5180 540		50 50
			0		7.50
A.	ACADS DE DEVELOPMENT	20			
	FENCING SEEDING, MULCHING & FERTILIZING	LF: ACRE	S0 S1 200		S0 50
	WETLAND MITIGATION	LS	SO	1	50
	TEMPORARY WATER POLLUTION & EROS ON CONTROL. (5%)	LS	52 588 000	1	52,588 000
	LANDSCARING	LS	_S0_		50
5	TRAFFIC				
	GUARD RA'L	LF	\$18		SO
	CONCRETE BARRIER SIGNAL SYSTEMS	LF £5	\$50 \$5		C2 C2
	ILLUMINATION	LS	\$0	- 9	SO
	SIGNING	LS	50	1	\$0
	CURBS PERPENDICULAR CURB RAMP	LF EA	525 S3 000	THE REAL PROPERTY.	C2 C2
	SIDEWALKS	SY	545		50
	TRAFFIC CONTROL (10%)	LS	\$4,480,100	- 1	54 480 00
5 1	OTHER ITEMS				
2.1	SURVEYING (5%)	L5	52.5AB100	73	52 588,00
	SPEC'ALITEMS	EST	SO	- 3	SO
	UTILITY RELOCATIONS	EST	50	1	50
6	MISCELLANEOUS (10%)	L5	\$5 465 700	0.7	S5 455 700
7	CONSTRUCTION SUBTOTAL (FEMS 1 THRU 6)				\$50 121 900
ô	MOBILIZATION (10%)				
	10% OF ITEM7	EST	55 012 200	1	55 012,200
9	SUBTOTAL (ITEMS 7 & 8)				\$55 134 100
10	SALES TAX 9.8% OF ITEM9	EST	56 481 200	1	55 48 200
31	AGREEMENTS (Unitres WSP etc.)	FE *	7.0		***
		EST	50	,	50
12	SUBTOTAL (ITEMS 9 THRU II)				572,6 5,300

The above ap non of cast is a planning level estimate only. It is based on best avoilable information and scape at the time not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Pencet Incides not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 20: 7th Ave NE/NE 40th St Intersection Improvements



DESIGN ASSUMPTIONS:

New storm system will be installed Intersection will be realigned Intersection will become signalized

ESTIMATED TOTAL PROJECT COST:

\$3,671,000.00



roject Name	FMP Project No. 20: 7th Ave NE/NE 40t	ŧ

Project Number

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 1,388,340

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate		
2017	-		
2018	3.0%		
2019	5.6%		
2019	5.6%		

Build-Up Rates

•
Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

20%	
40%	
30%	
30%	

Construction Soft Cost I	Ratio
Design Soft Cost Ratio	

29%
19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,388,340				
EE Allowance (40%)	555,336				
Estimated Contractor Cost (ECC)	1,943,676	388,735	2,332,411	129,800	2,462,212
Construction Admin. (Soft Cost)					
29% of \$1.9M ECC	563,666	112,733	676,399	37,642	714,041
Design (Soft Cost)					
19% of \$1.9M ECC	369,298	110,790	480,088	14,306	494,394
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 2,876,640	\$ 612,258	\$ 3,488,898	\$ 181,749	\$ 3,670,647

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Cally Acting Suite 900 Future WA 98201 P425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY - NO CONTINGENCY					
Project Description	SDOT Freight Master Plan Implementation		Cler	n Spot	
Corridor Section	University District, NE 40th St or 7th Ave NE		Dat	e 4/5/2017	
Location	Seattle	Date of Cost Index 2017			
		C	a culated By/Entered B	y KCM	
			Checked B	y VWW	
FMP Project No. 20. 7th Ave NE/NE 40th 51 Intersection Improvements					
			ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST

		ITEM	UNIT	EST MATED UNIT	QTY	COST
		CONSTRUCTION				
I.		PREPARATION/GRADING/DRAINAGE				
	17	PREPARATION				
		CLEAR & GRUE DÉMO	ACRE	\$10,000	0.2	\$2 000
		REMOVING EXISTING PAVEMENT: REMOVAL STRUCTURES & OBSTRUCTIONS	SY LS	\$15 SI0,000	1	SIO 000
	12	EARTHWORK	C14	540	200	621 000
		ROADWAY EXCAVATION INCLI HAUL STRUCTURE EXICLI AINCLI HAUL	CY CY	\$25	800	\$32 000 S0
		BORROWINGL HAUL	TON	516	- A-	50
		EMBANKMENT COMPACTION	CY	52		50
	13	STORMWATER MITIGATION				
		DETENTION AND TREATMENT	5F	55		50
	14	STORM SEWER				
	1 44	CATCH BAS IN TYPE	EA	SI 500 F	9	S13 500
		CATCH BASIN TYPE 2	EA	53 000	3	515 000
		PLAIN CONCISTORM SEWER PIPE 12 IN D'AM	LF	555		50
		PLAIN CONCISTORM SEWER PIPE 18 IN IDIAM STRUCTURE EXCAVATION CLIB	LF CY	\$80 \$20	270 300	\$21 500 55 000
					288.0	
2		STRUCTURE	45	4150		
		CONCRETE BRIDGES CONCRETE BRIDGES WIDENING	SF SF	5150 5200		50 50
		PEDESTR AN BRIDGES	SF	\$250	7000	50
		STEEL BRIDGES	SF	\$100	11/4	CS
		BRIDGE ABUTMENT RETROFIT	SF	\$150		50
		RETAINING WALLS (Cast in Place) RETAINING WALLS (Soil No I with Cast in Place Facing)	SF SF	\$55 \$150		50 50
		BRIDGE REMOVAL	SF	\$20	2000	50
		NOISE WALLS	SF	S25		50
5		SURFACING				
		ROADWAY CEMICONC, HES (24 HR), 12 IN	SY	S150	1,500	\$195,000
		HOT MIX ASPHALT	TON	5180	300	\$54 000
		CRUSHED SURFACING	TON	540	300	512 000
£		ROADS'DE DEVELOPMENT	26			
		FERDING AND COUNCE FERTING NO	LE ACDE	5 200	6.4	\$0
		SEEDING MULCHING & FERTILIZING WETLAND MITIGATION	ACRE L5	50	0.2	5240 S0
		TEMPORARY WATER POLLUTION & EROSION CONTROL (5%)	LS	541,600	1	\$41,500
		LANDSCAPING	LS	\$7,500	3	57 500
5		TRAFFIC				
		GUARD RAIL	LF	518		50
		CONCRETE BARRIER	LF	\$50	100	50
		5:GNAL SYSTEM5 ILLUMINATION	L5 L5	5250,000 \$17,000		5250 000 517 000
		SIGNING	L5	\$5,000		\$5,000
		CURBS	LF	525	500	5/2 500
		PERPENDICULAR CURBIRANP S'DEWALKS	EA. SY	53 000 545	200	\$30 000 \$9 000
		TRAFFIC CONTROL (10%)	LS E	\$59,500	2900	\$55 300
51		OTHER ITEMS SURVEYING (2%)	L5	541 500	19	541 500
		SPECIAL ITEMS	EST	50	- 4	50
		UTILITY RELOCATIONS	EST	\$200,000	3	\$200.000
5		MISCELLANEOUS (10%)	LS	5104 500	9	\$104 500
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				\$ 149 340
õ		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	SH5 000	1	5/15 000
5		SUBTOTAL (ITEMS 7 & 8)				51,254,340
10		SALES TAX 9 8% OF ITEM9	EST	\$174 AAA	1	C124 000
		3 De OFFIEMS	531	\$124,000	1.	5124 000
11		AGREEMENTS (Ut tes WSP etc)	557	70	1	
			EST	.50	1.	SŌ
2		SUBTOTAL (TEMS 9 THRU II)				\$1,388,340

The above op non of cast is a planning level est mare only. It is based on best available information and scope at the time not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect find does not guarantee or waitant the accuracy of this planning level est mare





PROJECT: FMP Project No. 21: Integrated Corridor Management on N 85th St



DESIGN ASSUMPTIONS:

Assumed 4 signs required
Unit cost includes pole, sign, foundation, cabinets, wiring, installation, and hardware

ESTIMATED TOTAL PROJECT COST:

\$2,636,000.00



Project Name

FMP Project No. 21: Integrated Corridor

Project Number

NA

Prepared by

Perteet Inc.

Date

5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 996,944

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

	20%	
Г	40%	
	30%	
	30%	

Constru	uctio	n So	ft (Cost	Ratio
Design	Soft	Cost	Ra	atio	

29%	
19%	

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	996,944				
EE Allowance (40%)	398,778				
Estimated Contractor Cost (ECC)	1,395,722	279,144	1,674,866	93,207	1,768,073
Construction Admin. (Soft Cost)					
29% of \$1.4M ECC	404,759	80,952	485,711	27,030	512,741
Design (Soft Cost)					
19% of \$1.4M ECC	265,187	79,556	344,743	10,273	355,016
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	. 0	0
Estimated Total Project Cost	\$ 2,065,668	\$ 439,652	\$ 2,505,320	\$ 130,511	\$ 2,635,831

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Cally Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY - NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Clent SDOT
CorndorSection	N 85th St. Aurora Ave to 1.5	Date 4//9/2017
Location	Segnie	Date of Cast Index 2015
		Calculated By/Entered By KCM
		Control of the contro

		EMPR. N. 21 I	1	Checked By '	vww	
		FMP Project No. 21. Integrated Corridor N ITEM	onagement on N	ESTIMATED UNIT	QTY	COST
		ITS -				
		CCTV CAMERA	EA	512 000		SO
		CONDUIT (4IN PVC) INCLITENCHING AND RESTORATION	LF	580		50
		DETECTOR LOOP 5 FT D'A	EA	5500	- 072	50
		JUNCTION BOX	EA	\$200	17.	CZ
		VARIABLE MESSAGE SIGN	EA	161,200	4	5544 800
		SIGNAL TIMING STUDY TOTAL	L5	5500 000		50 5544 800
78		CONSTRUCTION				
1)		PREPARATION/GRADING/DRA:NAGE				
	3.14	PREPARATION				50
		CLEAR & GRUB DEMO	ACRI	S5 000 S10		50
		REMOVING EX-STING PAVEMENT REMOVAL STRUCTURES & OBSTRUCTIONS	5Y LS	50	1	50
	12	EARTHWOR ≺				
	- 5	ROADWAY EXCAVATION INCL. HAUL	CY	520	-	50
		STRUCTURE EXICLIAINCL HAUL	CY	525		CZ
		BORROWINGL HAUL	TON	\$15		50
		EMBANKMENT COMPACTION	CY	52	-	CZ
	13	STORMWAFER MITIGATION	SF	\$5		50
		DETENTION AND TREATMENT	21	33		30
	1.4	STORM SEWER	EA	\$1,000		50
		CATCH BAS N TYPE I	EA EA	52 200		50
		CATCH BASIN TYPE 2	LF	\$35		\$0
		PLAIN CONC. STORM SEWER PIPE 12 IN: DIAM PLAIN CONC. STORM SEWER PIPE 18 IN: DIAM	LF	545		50
		STRUCTURE EXCAVATION CL B	CY	\$15		50
2		STRUCTURE				
•		CONCRETE BRIDGES	SF	S150		C2
		CONCRETE BRIDGES WIDENING	SF	\$200		50
		PEDESTRIAN BRIDGES	5F	\$250		50
		STEEL BRIDGES	SE	5100		50
		BRIDGE ABUTMENT RETROFF	5	\$150		50
		RETAINING WALLS (Cast in Place)	SI	555		50
		RETAINING WALLS (Soll No.1 with Cast in Place Facing)	5F	\$150	1000	50
		BRIDGEREMOVAL NOISE WALLS	SF SF	520 525		S0 S0
3		SURFACING PORTLAND CEMENT CONCRETE	SF	SIG		50
		HOT MIX ASPHALT	TON	13.70		CZ
		CRUSHED SURFACING	TON			50
4		ROADSIDE DEVELOPMENT				
		FENCING	LF	\$15		50
		SEEDING MULCHING & FERTILIZING	ACR			50
		WETLAND MITIGATION	LS	50 S38 688		C2 868 882
		TEMPORARY WATER POLLUTION & EROSION CONTROL (5%) LANDSCAPING	LS LS	50	į.	50
5		TRAFFIC				
		GUARD RAIL	LF	SIB	12	CZ
		CONCRETE BARR ER	LF	550	13	SO
		SIGNALSYSTEMS	L5	02	1,"	SO
		ILLUMINATION	L5	\$0	1	50
		5;GN NG	L5	\$0		SO
		CURBS	LF	515		02
		S'DEWALKS TRAFFIC CONTROL (10%)	SY L5	525 564 480		\$0 554 480
-						
51		OTHER ITEMS	LS	512,895	Y-	\$12,895
		SURVEYING (2%)	EST		1	CZ
		SPECIALITEMS UTILITY RELOCATIONS	EST		ř.	CS
6		MISCELLANEOUS (10%)	LS	554 480	i i	554 480
73		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				5825 344
8		MOBILIZATION (10%)				
1000		10% OF ITEM 7	EST	582 500	1	\$82 500
9		SUBTOTAL (ITEMS 7 & 8)				\$907 944
10		SALESTAX		\$85,000	10	589 000
		9 8% OF ITEM 9	E5T	583.000	1.	389.000

AGREEMENTS (Ut lines WSP etc.)





PROJECT: FMP Project No. 22: ITS Improvements to N 85th St



DESIGN ASSUMPTIONS:

Conduit to be installed for fiberoptic connections to existing and future systems.

Each trench will hold a single line of conduit.

Intersection of Wallingford Ave and 85th St will need 22 detectors on 85th, Wallingford approaches already have loops

 $Complete \ signal \ system \ required \ at \ Walling ford \ and \ 85th \ St$

Junction box required at each leg of each intersection

Additional detector loops installed at 300' intervals for congestion information

ESTIMATED TOTAL PROJECT COST:

\$3,424,000.00



Project Number

Project Name

FMP Project No. 22: ITS Improvements 1

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 1,294,744

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

•	
Construction Contingency	
Engineer's Est. Allowance	
Design Contingency	
Acquisition Contingency	

20%
40%
30%
30%

Construction Soft Cost	Rati
Design Soft Cost Ratio	

29%	
19%	

BUILD-UP SUMMARY

	A	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,294,744				
EE Allowance (40%)	517,898				
Estimated Contractor Cost (ECC)	1,812,642	362,528	2,175,170	121,050	2,296,220
Construction Admin. (Soft Cost)					
29% of \$1.8M ECC	525,666	105,133	630,799	35,104	665,904
Design (Soft Cost)					
19% of \$1.8M ECC	344,402	103,321	447,722	13,342	461,064
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 2,682,710	\$ 570,982	\$ 3,253,692	\$ 169,496	\$ 3,423,188

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2727 Calby Arenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL	OPINION OF COST 5	UMMARY - NO	CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	N 85th St from Aurora Ave to 5	Date 4/19/2017
Location	Seattle Seattle	Date of Cost Index 2015
		Calculated By/Entered By KCM
		Checked By VWW
	FMP Project No. 22 ITS Improvements to N	85th St

				Calculated By/Entered By K		
		FMP Project No. 22 ITS Improvi	ements to N 85th St	Checked By V	44.44	
				ESTIMATED UNIT		
		M3TI	UNIT	COST	QTY	COST
-0-		ITS	The state of the s	412.000		
		CCTV CAMERA CONDUIT (4 N PVC) INCLITENCHING AND RESTORATION	EA LF	000,515 C68	4.500	53 5368.000
		DETECTOR LOOP 5 FT DIA	EA	\$500	88	\$52,800
		JUNCTION BOX	EA	5200	25	55 000
		VAR ABLE MESSAGE SIGN	EΑ	151,200		CS
		S.GNAL TIMING STUDY	L.S	5500.000		CZ
		TOTA				\$425,800
4		CONSTRUCTION				
1		PREPARATION/GRADING/DRAINAGE				
	11	PREPARATION				
		CLEAR & GRUB DEMO	ACRE	510,000		SO
		REMOVING EXISTING PAVEMENT	SY	515	+ + +	50
		removal structures & obstructions	1.5	\$10,000		\$0
	12	EARTHWORK				
		ROADWAY EXCAVATION INCL. HAUL	CY	540		50
		STRUCTUREEX CL A INCL HAUL	CY	\$25	100000	50
		BORROW INCL HAUL	TON	516	D-CHI	50
		EMBANKMENT COMPACTION	CY	\$2	71.0	\$3
	1.5	STORMWATER MITIGATION				
		DETENTION AND TREATMENT	S	55	A STORAGE	50
	14	STORM SEWER		20220		
		CATCH BAS'N TYPE 1 CATCH BAS'N TYPE 2	EA EA	SI 500 S3 000		50 50
		PLAN CONC STORM SEWER PIPE 12 IN DIAM	LF.	S35		50
		PLAIN CONC STORM SEWER PIPE I B IN DIAM	LF	\$80		50
		STRUCTURE EXCAVATION CL B	CY	520		50
2		STRUCTURE			7	40
		CONCRETE BRIDGES CONCRETE BRIDGES WIDENING	SF SF	5!50 \$200		SO SO
		PEDESTRIAN BRIDGES	SF	5250		SO
		STEEL BRIDGES	5F	\$100	20 350	SO
		BRIDGE ABUTMENT RETROFIT	SF	5150	0.5	SO
		RETAINING WALLS (Cost in Place)	5F	\$55	AND THE PARTY OF T	50
		RETAINING WALLS (Soil Noil with Cost in Place Facing)	SF	5150	10000	CZ
		BRIDGE REMOVAL NOISE WALL5	SF S	\$20 \$25		\$0 \$0
		VOUSE MASES	3	323		30
3		SURFACING				
		ROADWAY CEMICONC, HES (24 HR) 2 IN	SY	\$150	73	\$0
		HOT MIX ASPHALT	TON	5180		50
		CRUSHED SURFACING	TON	540	100	50
4		ROADSIDE DEVELOPMENT				
		FENCING	LF	50	-	50
		SEEDING MULCHING & FERTILIZING	ACRE	51 200		SD
		WETLAND MITIGATION	1.5	50	1	\$0
		TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%)	1.5	\$49,548	37	549 548
		LANDSCARING	LS	57500		50
5		TRAFFIC				
		GUARD RA'L	ŁF	S18		50
		CONCRETE BARRIER	LF	\$50		SO
		S/GNAL SYSTEMS	1.5	5400 000		5400 000
		ILLUM NATION SIGNING	LS	525 000 55 000		CS CS
		CURBS	Ł5 LF	525		50
		SIDEWALKS	5Y	\$45	TO THE	50
		TRAFFIC CONTROL (10%)	LS	582 580	1	582 580
51		OTHERITEMS		elecie	ï	\$ 5 515
		SURVEYING (2%) SPECIALITEMS	£57	\$15.515 \$0	- 1	50
		UTILITY RELOCATIONS	657	SO	4	SO
			100			
5		MISCELLANEOUS (10%)	1.5	597500	1	\$97 500
3		CO. 270. 47.0. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.				51 071 544
7		CONSTRUCTION SUBTOTAL (ITEMS) THRU 5)				21 071 988
В		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	\$107,200	i i	5107,200
9		SUBTOTAL (ITEMS 7 & 8)				\$1 175 144
10		SALES TAX				
37		9 8% OF ITEM 9	EST	5115 500	47	\$115.500
11		AGREEMENTS (Unknes WSP etc.)				





PROJECT: FMP Project No. 23: Dynamic Message Signs on 25th Ave NE



DESIGN ASSUMPTIONS:

Assumed 6 signs required
Unit cost includes pole, sign, foundation, cabinets, wiring, installation, and hardware

ESTIMATED TOTAL PROJECT COST:

\$3,954,000.00



Project Name	FMP Project No. 23: Dynamic Message \$	Project Number	NA
Prepared by	Perteet Inc.	Date	5/2/2017
		Milestone	10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost**

\$ 1,495,416

Escalation Schedule	Year	Rate
Current	2017	-
Design Midpoint	2018	3.0%
Acquisition Midpoint	2019	5.6%

Construction Midpoint 2019 5.6% **Build-Up Rates** Construction Contingency 20% 40% Engineer's Est. Allowance **Design Contingency** 30% **Acquisition Contingency** 30%

Construction Soft Cost Ratio Design Soft Cost Ratio

29% 19%

BUILD-UP SUMMARY

r e	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
	Littlate		COST	Escalation	
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,495,416				
EE Allowance (40%)	598,166				
Estimated Contractor Cost (ECC)	2,093,582	418,716	2,512,299	139,811	2,652,110
Construction Admin. (Soft Cost)					
29% of \$2.1M ECC	607,139	121,428	728,567	40,545	769,112
Design (Soft Cost)					
19% of \$2.1M ECC	397,781	119,334	517,115	15,410	532,525
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 3,098,502	\$ 659,478	\$ 3,757,980	\$ 195,766	\$ 3,953,747

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



707 Calby Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY INDICONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	25th Ave NE, Ship Canal to NE 75th St	Date 4/19/2017
Location	Seattle	Date of Cost index 2015
		Calculated By/Entered By KCM
		Checked By VWW
	FMP Project No. 23. Dynamic Messagi	: Signs on 25th Ave NE

		51400	72.0	75 N. A N.E.	Checked By	/////	
		EMP Pro, e	cci No. 23. Dynamic Message Signs on	UNIT	ESTIMATED UNIT	QTY	COSŤ
1.0		ITS					
		ECTVCAMERA		EA	512 000	TO A COLOR OF	SD
		CONDUIT (4)N PVC) INCL TRENCHING AND RESTORA	TION	LF	580	6.00	SD
		DETECTOR LOOP 5 FT D:A		EA	5500	100-30	SO
		UNCTION BOX		EA.	5200		\$0
		VAR'ABLE MESSAGE SIGN		EA	161,200	5	5957 200
		S'GNAL TIMING STUDY TOTAL		LS	\$500,000		SD S957 200
1		CONSTRUCTION					
10		PREPARATION/GRADING/DRAINAGE					
	.11	PREPARATION CLEAR & GRUB DEMO		ACRE	\$5,000	17/10	\$3
		REMOVING EXISTING PAVEMENT		SY	SIO		SO
		REMOVAL STRUCTURES & OBSTRUCTIONS		LS	50	11	50
	12	EARTHWORK					
		ROADWAY EXCAVATION INCL. HAUL		CY	520	100	50
		STRUCTUREEX CL AINCL HAUL		CY	525		SO
		BORROWING HAUL		TON	516		50
		EMBANKWENT COMPACTION		CY	52	-	SO
	1.5	STORMWATER MITIGATION DETENTION AND TREATMENT		5F	\$5		Sa
	14	STORM SEWER					
		CATCH BASIN TYPE I		EA	51,000	140	50
		CATCH BASIN TYPE 2		EA	52,200	A	\$0
		PLAIN CONCISTORM SEWER PIPE 12 IN IDIAM		LF	S35		CZ
		PLAIN CONC. STORM SEWER PIPE 18 IN DIAM		LF	545		SO
		STRUCTURE EXCAVATION CL B		CY	SIS	10 100	SO
2		STRUCTURE					
		CONCRETE BRIDGES		SF	5150		50
		CONCRETE BRIDGES WIDENING		SF	\$200		50
		PEDESTRIAN BRIDGES		SF SE	5250 SIO0		S0 S0
	1	STEEL BRIDGES BRIDGE ABUTMENT RETROFIT		SF	\$150	16	50
		RETAINING WALLS (Cost in Place)		S	\$65	dom:	50
		RETAINING WALLS (Spill Not with Cost in Place Facin	30)	SF	\$150		50
		BR OGE REMOVA	-37	SF	520	1	\$0
		NOISE WALLS		SF	525		50
3		SURFACING					
		PORTLAND CEMENT CONCRETE		5=	510	A CONTRACTOR OF THE PARTY OF TH	50
		HOTM X ASPHALT		TON	\$50	100	50
		CRUSHED SURFACING		TON	525		50
4		ROADSIDE DEVELOPMENT			F-1		
		FENCING		LF	\$15		50
		SEEDING MULCHING & FERTILIZING		ACRE	51200		50
		WETLAND MITIGATION	Y	LS	50	1	50
		TEMPORARY WATER POLLUTION & EROSION CO LANDSCAPING	N ROL (5%)	ŁS ŁS	\$58,032 \$9	1	S58 032 S0
5		TRAFFIC					
		GUARD RAIL		LF	5-8		S0 S0
		CONCRETE BARR ER		LF	S50 S0		50
		SIGNAL SYSTEMS		LS LS	50		50
		ILLUMINATION SIGNING		15	50	17	50
		CURBS		LF	\$15		SO
		SIDEWALKS		5Y -	525	200	50
		TRAFFIC CONTROL (10%)		15	\$95,720	I.	596,720
51		OTHER ITEMS					
21		SURVEYING (2%)		1.5	5/5 544	1	\$19,344
		SPECIAL ITEMS		657	\$0	10	SO
		UTILITY RELOCATIONS		€87	50	1	CZ
.5		MISCELLANEOUS (10%)		1.5	\$95,720	1	595 720
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)					S1 238 015
ō		MOBILIZATION (10%)					
0.776		10% OF ITEM 7		EST	\$125,500	1	5'25 900
5		SUBTOTAL (ITEMS 7 & 8)					\$1.551.516
10		SALES TAX				p	2122 200
		§ 8% OF ITEM 9		E57	\$153,500	10	\$135,500
41		AGREEMENTS (Unities WSP, erc.)					





PROJECT: FMP Project No. 24: ITS Improvements on Aurora Ave N



DESIGN ASSUMPTIONS:

The work is a signal operation study in the northbount direction during AM peak.

VISSIM modeling will be required.

A draft and final report will be needed.

Assumed SDOT top-down estimate tool not needed

ESTIMATED TOTAL PROJECT COST:

\$250,000.00



\$250,000

2707 Co'by Avenue Sure 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	NB Aurora Ave N, Winona Ave N to N 145th St	Date 4/6/2017
Location	Seattle	Date of Cast Index 2017
		Calculated By/Entered By KCM
		Checked By: VWW

	FMP Project No. 24 113 Ir	nprovements on Aurora Ave N			
			ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST
t.	STUDIES				
	OPERATIONAL IMPROVEMENTS TO SIGNAL TIMING	LS	\$250,000	1	\$250,000

STUDIES TOTAL





PROJECT: FMP Project No. 25: W Galer St Interchange Ramp



DESIGN ASSUMPTIONS:

Bridge will be similar to Lander St overpass Existing bridge will be removed

ESTIMATED TOTAL PROJECT COST:

\$151,278,000.00



Project Name

FMP Project No. 25: W Galer St

Project Number NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate Estimated Acquisition Cost \$ 57,217,435

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate	Build-Up Rates
2017	-	Construction Contingency
2018	3.0%	Engineer's Est. Allowance
2019	5.6%	Design Contingency
2019	5.6%	Acquisition Contingency

Construction Soft Cost Ratio	
Design Soft Cost Ratio	

29% 19%

20%

40% 30% 30%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
1	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	57,217,435				
EE Allowance (40%)	22,886,974				
Estimated Contractor Cost (ECC)	80,104,409	16,020,882	96,125,290	5,349,440	101,474,730
Construction Admin. (Soft Cost)					
29% of \$80.1M ECC	23,230,278	4,646,056	27,876,334	1,551,338	29,427,672
Design (Soft Cost)					
19% of \$80.1M ECC	15,219,838	4,565,951	19,785,789	589,607	20,375,396
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 118,554,525	\$ 25,232,889	\$ 143,787,413	\$ 7,490,385	\$ 151,277,798

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Cp/bs Arenue Sure 900 Everen WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY - NO CONTINGENCY

Pre ect Description	SDOT Freight Master Plan Implementation	Clem SDOT
Cerr dor Section	Goler Stover BNSF tracks	Date 4/20/2017
Locat on	merboy	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW

	EMED. AND 25 W.C. L. S.		Checked By VWW			
	FMP Project No. 25 W Galer Sch ITEM	nterchange Ramp	ESTIMATED UNIT	QTY	COST	
	CONSTRUCTION					
	PREPARATION/GRADING/DRAINAGE					
1.5	PREPARATION CLEAR & GRUB DEMO	ACRE	\$10,000		50	
	REMOVING EXISTING PAVEMENT	5Y	SIS		SO	
	removal structures & obstructions	1.5	.50	-0.	50	
12	EARTHWOR<					
	ROADWAY EXCAVATION INCL. HAUL	CY	540	All Sales	50	
	STRUCTURE EX CL AINCL HAUL BORROWINGL HAUL	TON	\$25 \$15		\$0 50	
	EMBANKMENT COMPACTION	CY	52	O DOME	\$3	
1.3	STORMWATER MITIGATION					
	DEFENTION AND TREATMENT	57	55		50	
14	STORM SEWER					
1 -	CATCH BASIN TYPE	EA	\$1500		50	
	CATCH BASIN TYPE 2	EA	\$3,000	- C	50	
	PLAIN CONC STORM SEWER PIPE 12 IN DIAM	l.F	S35 S80	1 112	50 50	
	PLAIN CONCISTORM SEWER PIPE 18 IN IDIAM STRUCTURE EXCAVATION CL. B	CY	\$20		50	
2	STRUCTURE LANDER 5CALAR	LS	530 620,134 70	- 1	\$50 520 155	
	CONCRETE BR-DGES	SF	\$150		50	
	CONCRETE BR-DGES WIDENING	SF	5200	100	SO.	
	PEDESTR'AN BRIDGES STEEL BRIDGES	SF SF	5250 5100		50 50	
	BRIDGE ABUTMENT RETROFIT	SF	\$150		50	
	RETAINING WALLS (Cost in Place)	SF	\$65	10.00	CZ	
	RETAINING WALLS (Soil No I with Cost in Place Facing)	SF SF	5150 \$75	52.400	50 54,580 000	
	BRIDGE REMOVAL NOISE WALLS	SF	525	32.400	\$0.000	
3	SURFACING					
	PORTLAND CEMENT CONCRETE	SF	S150	3	50	
	HOTM:X ASPHA_T	TON	5180	- 4	50	
	CRUSHED SURFACING	TON	540	9, 1	50	
£	HOADSIDE DEVELOPMENT					
	FENCING SEEDING, MULCHING & FERTILIZING	LF ACRE	50 51200		S0 S0	
	WETLAND MITIGATION	LS	50	1	so	
	TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%)	i.S	52.16.100	35	52,118 100	
	LANDSCAPNG	LS	50		SO.	
5	TRAFFIC				40	
	GUARD RA'L CONCRETE BARR'ER	LF LF	518 550		S0 S0	
	S/GNALSYSTEMS	LS	50	1	50	
	ILLUMINATION	LS	50	3	50	
	S GNING CURBS	LS LF	S25		SO SO	
	PERPENDICULAR CURB RAMP	EA	\$3,000	12.34	SO	
	5 DEWALKS	SY	545		50	
	TRAFFIC CONTROL (10%)	LS	53.530.100		\$3 530 100	
5 !	OTHER ITEMS				991	
	SURVEYING (2%)	LS EST	52 118 100 S0		52 118,100 50	
	SPECIALITEMS UTILITYRELOCATIONS	EST	50	- 1	50	
6	M-SCELLANEOUS (10%)	ŁS	54 505 700	1	\$4,305700	
7	CONSTRUCTION SUBTOTAL (ITEMS LTHRU 5)				\$47.373.135	
	MODULATION (IDM)					
B	MOBILIZATION (10%) i0% OF ITEM 7	EST	54 737 400	9	54 757.400	
5	SUBTOTAL (ITEMS 7 & 8)				552 110 555	
10	SALESTAX					
	9 8% OFITEM 9	EST	\$5 105 900	01	55 10 5 900	
11	AGREEMENTS (Unities WSP etc)	EST	50	1	SO	
		E31	50			
12	SUBTOTAL (ITEMS 9 THRU II)				\$57,217,435	

The above op non of cost is a planning level estimate only. It is based on best available information and scope at the time not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perfect find does not guarantee on warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 27: Denny Way ITS



DESIGN ASSUMPTIONS:

Conduit to be installed for fiberoptic connections to existing and future systems.

One camera installed per intersection on Denny Way

9 loop detectors per signalized intersection on main line, 2 loop detectors per lane on cross streets

Four Type 2 junction boxes per signalized intersection

Each trench will hold a single line of conduit.

Signal timing cost will be similar to Aurora Ave N (\$250,000 per direction)

Assumed four DMS signs required

ESTIMATED TOTAL PROJECT COST:

\$10,621,000.00



Top-Down Cost Estimating Tool

Project Number

Tab B. Cost Estimate Summary

Project Name	Pro	ject	Na	me
--------------	-----	------	----	----

FMP Project No. 27: Denny Way ITS

NA

Prepared by

Perteet inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate
Estimated Acquisition Cost

\$ 4,016,880

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2010	5 60/

Build-Up Rates

Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

20% 40% 30% 30%

Construction Soft Cost Ratio Design Soft Cost Ratio 29% 19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	4,016,880				
EE Allowance (40%)	1,606,752				
Estimated Contractor Cost (ECC)	5,623,632	1,124,726	6,748,358	375,551	7,123,909
Construction Admin. (Soft Cost)					
29% of \$5.6M ECC	1,630,853	326,171	1,957,024	108,910	2,065,934
Design (Soft Cost)					
19% of \$5.6M ECC	1,068,490	320,547	1,389,037	41,393	1,430,430
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 8,322,975	\$ 1,771,444	\$ 10,094,419	\$ 525,853	\$ 10,620,273

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707Colley Archive Suite 900 Exercit WA 98201 P 425 252 7700

Project Description SDOT Freight Master Planting ementation			ARY NO CONTINGENCY Client SOOT			
Carridar Se		Denny Way from Western Ave to 1.5			1/19/2017	
Location		Seattle		Date of Cost Index 2 Calculated By/Entered By		
				Checked By \		
		FMP Project No. 27. Der	ink Makir 2	ESTIMATED UNIT		
		ITEM	UNIT	COST	QTY	COST
		ITS CCTV CAMERA	EA	5/2,000	15	\$180 000
		CONDUIT (4IN PVC) INCL TRENCHING AND RESTORATION	LF	580	5,200	51 215 001
		DETECTOR LOOP, 5 FT DIA	EA	5500	375	5225,501 512,001
		JUNCTION BOX VAR, ABLE MESSAGE SIGN	EA EA	5200 ISO 600	50	S542.401
		S:GNAL TIMING STUDY	LS	\$500,000	E.	5500.00
		TOTAL				\$2 775 000
10.		CONSTRUCTION				
1	311	PREPARATION/GRADING/DRAINAGE PREPARATION				
	1.0	CLEAR & GRUB DEMO	ACRE	55 000	10000	S
		REMOVING EXISTING PAVEMENT	SY	510		5
		removal structures & obstructions	1.5	50	18	50
	12	EARTHWORK		_		
		ROADWAY EXCAVATION INCL. HALM	CY	520	100	50 50
		STRUCTUREEX CL AINCL HAUL BORROWINGL HAUL	TON	S25 S15		50
		EMBANKMENT COMPACTION	CY	52	3	S
	13	STORMWATER MITIGATION				
	13	DETENTION AND TREATMENT	SF.	\$6		SC
	w.	43.00.00				
	14	STORM SEWER CATCH BASIN TYPE I	EA	51000	110000	\$0
		CATCH BASIN TYPE 2	EA	52 200	1111	55
		PLAIN CONC. STORM SEWER PIPE 12 IN DIAM	1F	\$35	1 1 2 1	50
		PLAIN CONCISTORM SEWER PIPE 18 IN IDIAM STRUCTURE EXCAVATION CLIB	LF. CY	\$45 \$!5		50
2		STRUCTURE CONCRETE BRIDGES	5F	5150		SC
		CONCRETE BRIDGES WIDENING	SF	5200	The same of	S
		PEDESTR'AN BRIDGES	SF	\$250	1 3 1	S
		STEEL BRIDGES BRIDGE ABUTMENT RETROFIT	SF SF	\$100 \$150	1115.115	50
		RETAINING WALLS (Cost in Place)	5E	565	100	S
		RETAINING WALLS (Soil Na lewith Cast in Place Focing)	SF	\$150	The section is	S
		BRIDGE REMOVAL NOISE WALLS	SF SF	S20 S25		S0 50
		MOISE WALLS	⊃r	323		30
3		SURFACING	100	510		
		PORTLAND CEMENT CONCRETE HOT M-X ASPHALT	SF FON	S10 S50		50 50
		CRUSHED SURFACING	FON	525		SO
4		ROADS:DE DEVELOPMENT				
270		FENCING	LF	515		sc
		SEEDING MULICHING & FERTILIZING	ACRE	\$1200		SC
		WETLAND MITIGATION TEMPORARY WATER POLLUTION & EROSION CONTROL. (5%)	LS LS	50 5166,560	- 4	\$156 550
		LANDSCAPING	LS	50	- 1	50
5		TRAFFIC				
(2)		GUARD RA'L	LF	516	THE RESERVE	50
		CONCRETE BARRIER	LF	550	3.4	SC
		5.GNAL SYSTEMS REHUMINATION	LS LS	50	1	SC SC
		5/GN NG	L5	50	1	SC
		CURBS	LF	515	MILITAGE	SC
		SIDEWALKS TRAFFIC CONTROL (10%)	5Y L5	\$25 \$277,500	1	5277,600
				3411,1000		
51		OTHER ITEMS	LS	\$55,520	1	\$55.520
		SURVEYING (2%) SPECIALITEMS	£57	355,520 SO		50
		UTILITY RELOCATIONS	EST	50		so
6		MISCELLANEOUS (10%)	1.5	\$50,000	1	\$50,000
7		CONSTRUCTION SUBTOTAL (ITEMS I THRU 5)				\$3 325 580
						33 323 500
8		MOBILIZATION (10%) 10% OF ITEM7	EST	5332 500	3)	\$332 500
9		SUBTOTAL (ITEMS 7 & B)				\$3 558 280
10		SALES TAX				
		58% OF ITEM S	657	\$558 500	4	\$358 500

AGREEMENTS (Unitres WSP etc.)





PROJECT: FMP Project No. 28: Elliot Ave W Truck Lane



DESIGN ASSUMPTIONS:

Lane extends from Broad St to SR99
Lane will need to be repaved.
A new sign will be required at each intersection.
No storm drainage will be altered

ESTIMATED TOTAL PROJECT COST:

\$4,475,000.00



Project Number

Project Name

FMP Project No. 28: Elliot Ave W Truck I

NA

Prepared by

Perteet Inc.

5/2/2017 Date

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 1,692,500

2019

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%

5.6%

Build-Up Rates

and op man	1111
Construction Contingency	
Engineer's Est. Allowance	
Design Contingency	
Acquisition Contingency	

Construction Soft Cost Ratio
Design Soft Cost Ratio

29%	
19%	

30%

20% 40% 30%

BUILD-UP SUMMARY

The second secon	A	В	C = A + B	D	E = C + D
	Base	Contingency	Current-Year	Midpoint	TOTAL
9	Estimate		Cost	Escalation	
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,692,500				
EE Allowance (40%)	677,000				
Estimated Contractor Cost (ECC)	2,369,500	473,900	2,843,400	158,237	3,001,637
Construction Admin. (Soft Cost)					
29% of \$2.4M ECC	687,155	137,431	824,586	45,889	870,475
Design (Soft Cost)					
19% of \$2.4M ECC	450,205	135,062	585,267	17,441	602,707
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 3,506,860	\$ 746,393	\$ 4,253,253	\$ 221,567	\$ 4,474,819

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Carlos August Suite 900 Europe WA 98201 P 425 252 7700

OPINION OF COST SHMMARY	

Project Description	SDOT Freight Master Plan	Client SDOT	
Corridor Section	Elliot Ave, Broad 51 to SR99	Date 3-Apr	
Location	Seart e	Date of Cost Index 2015	
		Calculated By/Entered By KCM	

				Checked By VWW			
		FMP Project No. 28 Ellion Au	e W Truck Lane	ESTIMATED UNIT			
		ITEM	UNIT	COST	QTY	COST	
		RIGHT OF WAY RIGHT OF WAY (urban deve aped)	SE	545		50	
		RIGHT OF WAY (urban undeveloped)	SF	\$20		SO	
		RELOCATIONS BUSINESSES	EA	5300 000	1000	50	
		RELOCATIONS RESIDENCES	EA	5250 000		50	
		CONDEMNATION PROCEDURE	EA	5100 000	11 Class 33 1	50	
		ADM.NSTRATION (TITLES APPRAISALS ETC.) RIGHT OF WAY TOTAL	EA	525 000	0- 0- 10	SO .	
		CONSTRUCTION					
10		PREPARATION/GRADING/DRA:NAGE					
	11	PREPARATION	Times (SIO 000 F		50	
		CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT	ACRE 5Y	S+0 000 S15	3.100	S3 545 500	
		REMOVAL STRUCTURES & OBSTRUCTIONS	1.5	Si0.000	1	\$10,000	
	12	EARTHWORK			1000		
		ROADWAY EXCAVATION INCL. HAUL	CY	\$40	800	\$52,000	
		STRUCTURE EX CL AINCL HAUL	CY	S25 S15		S0 S0	
		BORROWINCL HAUL EMBANKMENT COMPACTION	TON	52		50	
	13	STORMWATER MITIGATION					
		DETENTION AND TREATMENT	SF	55		50	
	14	STORM SEWER					
		CATCH BASIN TYPE I	EA	\$1 500	- 110-2	CZ	
		CATCH BASIN TYPE 2	EA	53.000	2 10 10	C2 C2	
		PLAIN CONG STORM SEWER PIPE 12 IN DIAM PLAIN CONG STORM SEWER PIPE 18 IN DIAM	LF LF	S35 580		50	
		STRUCTURE EXCAVATION OL B	CY	\$20		SO	
2		STRUCTURE					
		CONCRETE BRIDGES	SF	\$150		CZ	
		CONCRETE BRIDGES WIDENING	SF	5200	- 0/2	C2 C2	
		PEDESTR'AN BR'OGES STEEL BR'OGES	SF SF	\$250 \$100		CS	
		BRIDGE ASUTMENT RETROFFT	SF	\$150		CZ	
		RETAINING WALLS (Cost in Place)	SF	565		SO	
		RETAINING WALLS (Soil No.1 with Cost in Place Facing)	5#	S150	12.0	50	
17.		BR:DGE REMOVAL NOISE WALLS	SF SF	\$20 \$25	messie.	50 50	
.5		SURFACING					
		ROADWAY CEMICONC HES (24 HR) 12 IN	SY	\$150	5,400	5510 000	
		HOT MIX ASPHALT	TON	5180	900	\$152,000	
		CRUSHED SURFACING	TON	540	800	\$32,000	
4		ROADS DE DEVELOPMENT	LF	50		50	
		fencing Seeding muliching & fertilizing	ACRE	5/200		50	
		WETLAND MITIGATION	LS	90	T	50	
		TEMPORARY WATER POLLUTION & EROS:ON CONTROL (5%)	LS	552 100	7	\$52,100	
		LANDSCAPING	L5	50	1	50	
5		TRAFFIC	LF	ein		so	
		GUARD RAIL CONCRETE BARRIER	LF	S18 550	Marine Land	SO	
		SIGNAL SYSTEMS	LS	50		SO	
		ILLUMINATION	L5	50		SO	
		PERMANENT STRIPING	LF	5	7.000	57 000	
		SIGNING	LS	53,000		\$3 000	
		CURBS	LF ev	S25 S45	2.500	555 000 S0	
		SIDEWALKS TRAFFIC STUDY	SY LS	5250,000		5250,000	
		TRAFFIC CONTROL (10%)	LS	\$85,500	.0	\$85,800	
5 1		OTHERITEMS					
		SURVEYING (2%)	15	S17, 4 00		517 400	
		SPECIALITEMS	EST EST	50 50	1	S0 S0	
		UTILITY RELOCATIONS					
6		MISCELLANEOUS (10%)	1.5	\$127.400	1	\$127 400	
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				\$1,401,200	
В		MOBILIZATION (10%) 10% OF ITEM 7	EST	5'40'200	181	\$140,200	
9		SUBTOTAL (ITEMS 7 & 8)				51541400	
075							
10		SALESTAX					





PROJECT: FMP Project No. 29: I-5 Connector ITS



DESIGN ASSUMPTIONS:

Conduit to be installed for fiberoptic connections to existing and future systems.

One camera installed per freeway access point per 300' of roadway.

Each trench will hold a single line of conduit.

ESTIMATED TOTAL PROJECT COST:

\$4,614,000.00



Project Number

Project Name

FMP Project No. 29: I-5 Connector ITS

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 1,744,900

Escal	latio	n	Sch	hai	m	ما
ENLA	171111		SLI	œu	ш	

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

ulid-op kates	
Construction Contingency	
Engineer's Est. Allowance	
Design Contingency	
Acquisition Contingency	

Construction Soft Cost Ratio	
Design Soft Cost Ratio	

29%	
19%	

20% 40% 30% 30%

BUILD-UP SUMMARY

19	Α	В	C = A + B	D	E = C + D
ř.	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,744,900				
EE Allowance (40%)	697,960				
Estimated Contractor Cost (ECC)	2,442,860	488,572	2,931,432	163,136	3,094,568
Construction Admin. (Soft Cost)					
29% of \$2.4M ECC	708,429	141,686	850,115	47,310	897,425
Design (Soft Cost)					
19% of \$2.4M ECC	464,143	139,243	603,386	17,981	621,367
Acquisition Cost			,		
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 3,615,433	\$ 769,501	\$ 4,384,934	\$ 228,426	\$ 4,613,360

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



cr pt on	SDOT Freight Master Plan Implementation	Clent SDOT
ction	F5 from Dearborn St to Mercer St	Date 4/5/2017
	S	D1C1-1 7015

19	
7	
TY COST	COST
32	5384 0
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S!	\$1,444.50
31	5144 50
5	51 589 10
	\$155.80
	ı





PROJECT: FMP Project No. 30: ITS Updates on Boren Ave



DESIGN ASSUMPTIONS:

One camera installed every other intersection

2 loop detectors per left turn lane, 18 for through lanes per intersection

A timing study will be required to calibrate signals, assumed \$250,000 per direction

ESTIMATED TOTAL PROJECT COST:

\$2,970,000.00



roject Name	FMP Project No. 30: ITS Updates on Bor	Project Number	

5/2/2017 Prepared by Perteet Inc. Date

> Milestone 10%

NA

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate \$ 1,122,980 **Estimated Acquisition Cost**

Escalation Schedule Build-Up Rates Year Rate

Current	2017	-	Construction Contingency	20%
Design Midpoint	2018	3.0%	Engineer's Est. Allowance	40%
Acquisition Midpoint	2019	5.6%	Design Contingency	30%
Construction Midpoint	2019	5.6%	Acquisition Contingency	30%

Construction Soft Cost Ratio 29% Design Soft Cost Ratio 19%

BUILD-UP SUMMARY

	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	1,122,980				
EE Allowance (40%)	449,192				
Estimated Contractor Cost (ECC)	1,572,172	314,434	1,886,606	104,991	1,991,597
Construction Admin. (Soft Cost)					
29% of \$1.6M ECC	455,930	91,186	547,116	30,447	577,563
Design (Soft Cost)					
19% of \$1.6M ECC	298,713	89,614	388,326	11,572	399,898
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 2,326,815	\$ 495,234	\$ 2,822,049	\$ 147,010	\$ 2,969,059

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707Calby Avenue Suite 900 Exercit WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUM	MARY - NO CONTINGENCY
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Project Description	SDOT Freight Master Plan Implementation	Cient SDOT
Corridor Section	Boren Ave from Jackson St to Howe St	Date 4/19/2017
Location	Seatt'e	Date of Cost Index 2015
		Calculated By/Entered By KCM
		Checked By VWW

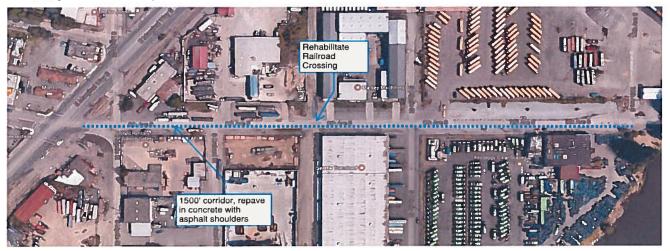
		Co	Sculated By/Entered By KI	ÇМ	
			Checked By V	ww	
	FMP Project No. 30 ITS Updo	ites on Boren Ave			
			ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST
The same of the same of	ITS.				455.000
	CCTV CAMERA	EA	\$12,000	(8)	595 000
	CONDUIT (4:N PVC) INCLITENCHING AND RESTORATION	LF	082	100	50
	DETECTOR LOOP, SET DIA JUNCTION BOX	EA EA	5500 5200	300	000 CBI2 C2
	VARIABLE MESSAGE SIGN	EA E	The second secon		50
		LS	150,500 \$500,000	10	5500 000
	S GNAL TIM NG STUDY TOTAL	1.3	3500,000		\$775 000
	TOTAL				3775 000
	CONSTRUCTION				
1	PREPARATION/GRADING/DRAINAGE				
11	PREPARATION				
	CLEAR & GRUB DEMO	ACRE	\$5,000		50
	REMOVING EXISTING PAVEMENT	5V	S10		50
	REMOVAL STRUCTURES & OBSTRUCTIONS	15	50	1-	50
1 2	EARTHWORK				
	ROADWAY EXCAVATION INCL. HAUL	CY	520	10000	CZ
	STRUCTURE EXICLIAINCLIHAUL	CY	525		C2
	BORROWINGL HAUL	TON	515	12	50
	EMBANKMENT COMPACTION	CY	52		SO
1.3	STORMWATER MITIGATION		200		
	DETENTION AND TREATMENT	51	55	7 4	50
14	STORM SEWER				
	CATCH BASIN TYPE I	EA	51 000		50
	CATCH BASIN TYPE 2	ΕA	52,200		50
	PLAIN CONCISTORM SEWER PIPE 12 IN ID/AM	LF.	535		50
	PLANICONG STORM SEWER PIPE 18 IN IDIAM	LF	545		50
	STRUCTURE EXCAVATION CL. B	CY	515	•	50
2	STRUCTURE		1		
	CONCRETE BRIDGES	SF	5150		CS
	CONCRETE BRIDGES WIDENING	SF	S200	11 11 11 11	50
	PEDESTRIAN BRIDGES	SF	5250		02
	STEEL BRIDGES	SE	5100		50
	BRIDGE ABUTMENT RETROFIT	5F	5150	12.19	50
	RETAINING WALLS (Cost in Place)	5.	\$55		SO
	RETAINING WALLS (Soil Noil with Cast in Place Facing)	5F	S150		50
	BRIDGE REMOVAL	SF	\$20	11 00 11	CZ
	NOISE WALLS	5	525		50
3	SURFACING		and the same		
	PORTLAND CEMENT CONCRETE	SF	510		50
	HOT MIX ASPHALT	TON	550		50
	CRUSHED SURFACING	TON	525	T 17	50
4	ROADSIDE DEVELOPMENT	LF	1920		*D
	FENCING		5.5	THE STATE OF	50
	SEEDING MULCHING & FERTILIZING	ACRE	5/ 200		\$0
	WETLAND MITIGATION	LS	SO	- 1	\$0
	TEMPORARY WATER POLLUTION & EROS.ON CONTROL (5%)	LS	545.550	1/4	545 550
	LANDSCAPING	LS	50	111	50
-	20 ACC/C				
5	TRAFFIC GUARD RAIL	15	5'8	1000	50
	CONCRETE BARRIER	LF.	\$50		50
	SIGNAL SYSTEMS	1.5	50		SO
	ILLUMINATION	LS	50		SO
	5/GN/NG	15	\$0		SO
	CURBS	(F	SIS		SO
	SIDEWALKS	SY	\$25		SO
	TRAFFIC CONTROL (10%)	15	\$77,500	1	577 600
	THATTE CONTROL TOWN	1997	#55A000F		317 300
51	OTHERITEMS				
5	SURVEYING (2%)	1.5	\$15 520	- 1	515 520
	SPECIALITEMS	EST	50	66	50
	UTILITY RELOCATIONS	E57	50	3	50
	O TELL TREE GRAPESTO				20
		1.5	\$14,000	0	\$14,000
5	MISCELLANEOUS (ID%)				5.7,000
5	MISCELLANEOUS (10%)	***			
5		***			\$929 6A0
	MISCELLANEOUS (10%) CONSTRUCTION SUBTOTAL (ITEMS THRU 5)	***			\$929 580
7	CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)				\$929 580
	CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) MOBILIZATION (10%)		\$95 000	1	
7	CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)	EST	\$95,000	1	\$929 580 \$93 000
7 B	CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) MOBILIZATION (10%) 10% OF ITEM 7		\$95 000	1	\$93,000
7	CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) MOBILIZATION (10%)		\$95,000	1	
7 B	CONSTRUCTION SUBTOTAL (ITEMS I THRU 5) MOBILIZATION (10%) 10% OF ITEM 7		\$95,000	1	\$93,000
7 B	CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5) MOBILIZATION (10%) 10% OF ITEM 7 SUBTOTAL (ITEMS 7 & 8)		\$95,000 \$100,500	,	\$93,000

AGREEMENTS (Unit es WSP etc.)





PROJECT: FMP Project No. 32: 8th Ave S/E Marginal Way/S Myrtle St Improvements



DESIGN ASSUMPTIONS:

Lane extends from E Marginal Way to 10th Ave S Assumed 2 x 12' concrete lanes and 2 x 10' asphalt shoulders New storm drainage system will be installed

ESTIMATED TOTAL PROJECT COST:

\$6,757,000.00



Project Number

Pro	ect l	N	а	m	е
			_		_

FMP Project No. 32: 8th Ave S/E Margin

NA

Prepared by

Perteet inc.

5/2/2017 Date

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 2,555,400

2019

2019

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%

5.6%

5.6%

Build-Up Rates

Construction Contin	gency
Engineer's Est. Allow	ance
Design Contingency	
Acquisition Continge	ncy

20%	
40%	
30%	
30%	

Construction Soft Cost	Ratio
Design Soft Cost Ratio	93

29%
19%

BUILD-UP SUMMARY

	ΑΑ	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	2,555,400				
EE Allowance (40%)	1,022,160				
Estimated Contractor Cost (ECC)	3,577,560	715,512	4,293,072	238,912	4,531,984
Construction Admin. (Soft Cost)					
29% of \$3.6M ECC	1,037,492	207,498	1,244,991	69,285	1,314,275
Design (Soft Cost)					
19% of \$3.6M ECC	679,736	203,921	883,657	26,333	909,990
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 5,294,789	\$ 1,126,931	\$ 6,421,720	\$ 334,530	\$ 6,756,250

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



OF Colles August Soute 900 Faculty WA 98201 P 425 257 7700

PLANNING LEVEL OPINION OF COST SUMMARY - NO CONTINGENCY

Project Description	SDOT Freight Master Plan	Glent SDOT
Corridor Section	8th Ave Sfrom E Marginal Way to 10th Ave S	Date 20 Apr
Location	5000	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW

				Checked By VWW	
		FMP Project No. 32 Bth Ave S/E Marginal			
		TOM		STIMATED UNIT	COST
		RIGHT OF WAY	UNIT	COST QTY	COS
		R.GHT OF WAY (urban deve oped)	SF	545	50
		RIGHT OF WAY (urban undevelaged)	SF	520	50
		RELOCATIONS BUS NESSES	EA	5300 000	50
		RELOCATIONS RESIDENCES	EA	5250 000	50
		CONDEMNATION PROCEDURE	EA	SID0,000	- 50
		ADMINISTRATION (TITLES APPRAISALS ETC.)	EA	525 000	50
		RIGHT OF WAY TOTA:			50
100		CONSTRUCTION			
1.	100	PREPARATION/GRADING/DRAINAGE			
	1.1	PREPARATION CLEAR & GRUB DEMO	ACRE	510,000	SO
		REMOVING EXISTING PAVEMENT	SY	\$15	50
		REMOVAL STRUCTURES & OBSTRUCTIONS	1.5	510.000	1 510 000
	12	EARTHWORK		and the second	COLUMN TO THE PARTY OF THE PART
		ROADWAY EXCAVATION INCL. HAUL	C,Y		5108 000
		STRUCTURE EXICLIAINCL HAUL	CY	525	50
		BORROWINCL HAUL	TON	515	SO SO
		EMBANKMENT COMPACTION	CY	\$2	35
	13	STORMWATER MITIGATION			
	13	DETENTION AND TREATMENT	S#	\$5	50
	14	STORMSEWER			
		CATCH BAS'N TYPE 1	EA	S i 500	\$13,500
		CATCH BASIN TYPE 2	ΞA	53.000	\$9 000
		PLANICONG STORM SEWER PIPE 12 IN DIAM	LF.	535	50
		PLANICONC STORM SEWER PIPE 18 IN DIAM	LF.		S132,000
		STRUCTURE EXCAVATION CL B	CY	520	\$25 000
2		STRUCTURE			
4		CONCRETE BRIDGES	51	S150	50
		CONCRETE BRIDGES WIDENING	5*	5200	so
		PEDESTR'AN BRIDGES	5F	5250	50
		STEEL BRIDGES	SF.	5100	SO.
		BRIDGE ABUTMENT RETROFIT	57	5150	50
		RETAINING WALLS (Cost in Place)	SF	555	SO SO
		RETAINING WALLS (Soil No Liwith Cost in Place Facing)	SF	5'50	SO
		BRIDGE REMOVAL	SF	520	so so
		NO:SE WALLS	Sr.	S25	SD
1		SURFACING			
2		ROADWAY CEMICONG HES (24 HR) 12 IN	5Y	\$150 34	\$510,000
		HOT MIX ASPHALT	TON		5105 000
		CRUSHED SURFACING	TON		575 000
4		ROADSIDE DEVELOPMENT		0.00	
		FENCING	LF.	50	50
		SEEDING MULCHING & FERTILIZING	ACRE	\$1200 \$0	SO SO
		WETLAND MITIGATION	LS LS	572,400	\$0 \$72,400
		TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%)	LS	\$7,500	S7 500
		LANDSCAPING	-	37,000	3. 300
5		TRAFFIC			
		GUARD RA'L	£F	518	CS SO
		CONCRETE BARRIER	LF.	\$50	CS SO
		S GNAL SYSTEMS	L5	50	CS SO
		LLUMINATION	L5	SO	C2
		PERMANENT STRIPING	LF		100 S5 000
		SGNNG	L5:	\$5,000	53 000
		CURBS	LF	525	SO 50
		SIDEWALKS	SY LS	\$45 \$500,000	\$500,000
		REFURBISH RAILROAD CROSSING TRAFFIC CONTROL (10%)	LS	5120,700	5120 700
		THE THE COUNTY COM	-	1000000	
51		OTHERITEMS			
		SURVEYING (2%)	LS	\$24,200	524 200
		SPECIALITEMS	ES7	50	SO SO
		UTILITY RELOCATIONS	EST	50	50
14.7			7.6	5192 400	SI92 400
5		MISCELLANEOUS (10%)	1.5	2.9% +20	3132 ~00
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 5)			52 115 700
12.		The state of the s			
В		MOBIZATION (0%)			
		10% OF ITEM 7	EST	\$211,500	S211,500
		172792-778 W			
9		SUBTOTAL (ITEMS 7 & 8)			52 327 300
10		SALESTAX			
350		1000 (100) (1000 (1000 (1000 (1000 (1000 (100) (1000 (1000 (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (100) (1000 (100) (1000 (100) (100) (1000 (100) (100) (1000 (100) (100) (100) (1000 (100) (100) (1000 (100) (





PROJECT: FMP Project No. 35: Duwamish Local Freight Access Improvements Study



DESIGN ASSUMPTIONS:

Data collection will be performed by a consultant.

Study will include draft and final reports with recommendations for project prioritization.

Estimated cost does not require SDOT top-down estimating tool

Assumed \$100,000 per year for 5 years

ESTIMATED TOTAL PROJECT COST:

\$500,000.00



2707 Colby Avenue, Suite 900, Everett, WA, 98201 | P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description:	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	Southpark between 5th Ave S. Holden St, Kenyon St, and 8th Ave S	Date: 4/6/2017
Location	Seattle	Date of Cost Index 2015
		Calculated By/Entered By KCM
		Checked By VWW

FMP Project No 35 Duwamish Local Freight Access Improvements Study

			ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST
12	Data Gathering				
	Freight Access Improvement Study	LS	\$500,000,00	1	\$500,000

The above opinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet Inc. does not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 36: S Spokane St Freight-Only Lanes Pilot



DESIGN ASSUMPTIONS:

Lane extends from 6th Ave to E Marginal Way.

Lane will need to be repaved.

A new sign will be required at each intersection.

No storm drainage will be altered

ESTIMATED TOTAL PROJECT COST:

\$5,849,000.00



Top-Down Cost Estimating Tool

Project Number

Tab B. Cost Estimate Summary

Project Name

FMP Project No. 36: S Spokane St Freigh

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate
Estimated Acquisition Cost

\$ 2,212,000

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

Construction Soft Cost	Ratio
Design Soft Cost Ratio	

29%	
19%	

20%

40%

30%

30%

BUILD-UP SUMMARY

The second secon	Α	В	C = A + B	D	E = C + D
100 M	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	2,212,000				
EE Allowance (40%)	884,800				
Estimated Contractor Cost (ECC)	3,096,800	619,360	3,716,160	206,807	3,922,967
			•		
Construction Admin. (Soft Cost)					
29% of \$3.1M ECC	898,072	179,614	1,077,686	59,974	1,137,660
Design (Soft Cost)					
19% of \$3.1M ECC	588,392	176,518	764,910	22,794	787,704
Acquisition Cost					
Estimated Acquisition Cost	0	. 0	0	0	0
Estimated Total Project Cost	\$ 4,583,264	\$ 975,492	\$ 5,558,756	\$ 289,575	\$ 5,848,331

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2707 Cally Avenue Sinte 900 Evereth WA 98201 | P 425 252 7700

PLANNING LEVEL OP:	NION OF COST SUMMARY	NO CONTINGENCY
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Project Description	SDOT Freight Master Plan	 Client SDOT	
Corridor Section	Ist Ave to 5th Ave	Date 3-Apr	
Location	SODO	 Date of Cost Index 2015	
		Calculated By/Entered By KCM	

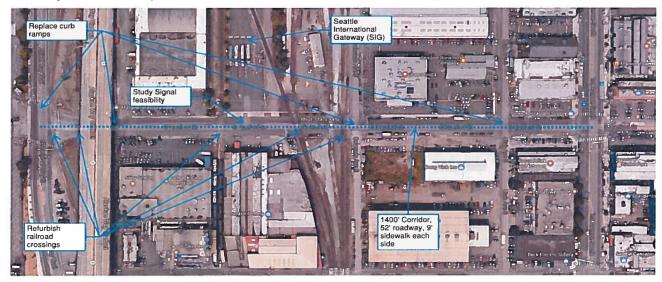
				Calculated By/Entered By		
		EA40 D N. ZC C C C. C.	ba O-ful -saa Bia		ww	
		FMP Project No. 35. S. Spokane St. Fr	e-gnr Only Lanes r.lo	ESTIMATED UNIT		
		ITEM	UNIT	COST	QTY	COST
- 1		RIGHT OF WAY		THE RESERVE OF THE PARTY OF THE		
		RIGHT OF WAY (urban develaped)	SF SF	S45 S20		50 50
		RIGHT OF WAY (urban undeveloped) RELOCATIONS BUSINESSES	EA.	5300 000		50
		RELOCATIONS RESIDENCES	EA	5250 000		50
		CONDEMNATION PROCEDURE	EA	5'00,000		50
		ADMINISTRATION (TITLES APPRAISALS ETC.)	€A	525 000		50
		RIGHT OF WAY TOTAL				50
10		CONSTRUCTION				
1.		PREPARATION/GRADING/DRA:NAGE				
	1.1	PREPARATION		_		
		CLEAR & GRUB DEMO	ACRE	\$10,000	100000	50
		REMOVING EXISTING PAVEMENT	SY	\$15		50
		removal structures & obstructions	LS	sl0 000		510.000
	1.2	EARTHWORK .				
		ROADWAY EXCAVATION INCL. HAUL	CY	540	3,200	\$128 000
		STRUCTURE EX CL AINCL HAUL	CY	\$25	4/4/2	50 50
		BORROW:NGL HAUL EMBANKMENT COMPACTION	TON	\$16 \$2		SO
			-			
	1.5	STORMWATER MITIGATION		0.5		160
		DETENTION AND TREATMENT	SF	S5		50
	1.4	STORM SEWER				
		CATCH BASIN TYPE!	EA	51500	and the latest	SO.
		CATCH BASIN TYPE 2	EA	\$3 000	100	50
		PLAIN CONC. STORM SEWER PIPE 12 IN DIAM. PLAIN CONC. STORM SEWER PIPE 18 IN DIAM.	LF LF	\$35 \$80		SO 50
		STRUCTURE EXCAVATION CL B	CY	\$20		50
		Sind one energy low et a		-		
2		STRUCTURE		sisa		SO
		CONCRETE BRIDGES	SF SF	5150 5200	1000	50
		CONCRETE BRIDGES WIDENING PEDESTRIAN BRIDGES	SF	5250	State of the last	SO
200		STEEL BRIDGES	SF	5100	ALC: U	50
		BRIDGE ABUTMENT RETROFIT	SF	S150		SO
		RETAINING WALLS (Cost in Plote)	5#	\$55		SO
		RETAINING WAULS (Soll Nail with Cast in Place Facing)	SF	\$150		CZ
		BRIDGE REMOVA	SF SF	520 525		50 50
		Total Tribal				
5		SURFACING		5150	5.500	5840 000
		ROADWAY CEMICONC, IHES (24 HR), 12 IN HOT MIX ASPHALIT	TON	5:80	1,400	5252.000
		CRUSHED SURFACING	TON	540	200	\$8,000
4		ROADSIDE DEVELOPMENT	LF	so	Alternative Name	50
		FENCING SEEDING MULCHING & FERTILIZING	ACRE	\$1,200	200	SO
		WETLAND MITIGATION	LS	NA	1	50
		TEMPORARY WATER POLLUTION & EROS:ON CONTROL (5%)	LS	\$81,900	1	\$81,900
		LANDSCAPING	LS	57,500	10	57,500
5		TRAFFIC				
- 3		GUARD RAIL	LF	5/8		50
		CONCRETE BARRIER	LF	550		SO
		SIGNAL SYSTEMS	L\$	50	10	50
		ILLUM.NATION PERMANENT STRIPING	LS LF	S0 S1	12 000	\$0 512,000
		SIGNING	LS	\$2,000	2000	\$2,000
		CURBS	LF	525	4,200	5105,000
		SIDEWALKS	SY	545		CR
		TRAFFIC CONTROL (10%)	L5	\$135,500	10	5136 500
51		OTHERITEMS				
		SURVEYING (2%)	1.5	58 900	17	581 900
		SPECIAL ITEMS	EST	SO	1	50
		UTILITY RELOCATIONS	EST	S2	1	50
6		MISCELLANEOUS (10%)	LS	\$155,500	1	5166 500
7		CONSTRUCTION SUBTOTAL (ITEMS I THRU 5)				\$1,831 300
6		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	\$183,200	10	\$183,200
9		SUBTOTAL (ITEMS 7 & 8)				52 014 500

IO SALES TAX





PROJECT: FMP Project No. 43: S Hanford St Reconstruction and Traffic Study



DESIGN ASSUMPTIONS:

Roadway will be repaved
Study to determine signal and railroad adjustments will be performed by consultant
Storm drainage will be replaced

ESTIMATED TOTAL PROJECT COST:

\$19,603,000.00



Top-Down Cost Estimating Tool

Project Number

Tab B. Cost Estimate Summary

Project Name

FMP Project No. 43: S Hanford St

NA

Prepared by

Perteet Inc.

Date

5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$7,414,300

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates
Construction Contingency
Engineer's Est. Allowance

40% e Design Contingency 30% Acquisition Contingency 30%

D

Construction Soft Cost Ratio
Design Soft Cost Ratio

C = A + B

29% 19%

E = C + D

20%

BUILD-UP SUMMARY

1	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	7,414,300				
EE Allowance (40%)	2,965,720				
Estimated Contractor Cost (ECC)	10,380,020	2,076,004	12,456,024	693,186	13,149,210
Construction Admin. (Soft Cost)					
29% of \$10.4M ECC	3,010,206	602,041	3,612,247	201,024	3,813,271
Design (Soft Cost)					
19% of \$10.4M ECC	1,972,204	591,661	2,563,865	76,402	2,640,267
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	. 0	0
Estimated Total Project Cost	\$ 15,362,430	\$ 3,269,706	\$ 18,632,136	\$ 970,613	\$ 19,602,748

В

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2107 Calby Arenuc, Suite 900 Erecen WA 98201 P 425 252 7700

DI ANININ CUE	MEL ORBHONIOS	COST CLIMANATIV	NO CONTINCENCY

Project Description	SDOT Freight Master Plan Imp'ementation	Clent SDOT
Corridor Section	Hanfard St from East Marginal Way to 1st Ave S	Date 4/20/2017
Location	50D0	Date # Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW

				Co colored By/Entered By KO	ww	
		FMP Project No. 43. 5 Honford 5t Recor	struction and Traffic S		WW	
		(TEM	UNIT	ESTIMATED UNIT	OTY	COS7
			0.4-1	0031	411	
		CONSTRUCTION PREPARATION CONTRACT				
Li	1.)	PREPARATION/GRADING/DRAINAGE PREPARATION				
		CLEAR & GRUB DEMO	ACRE	S10 000	1 7 1 1	
		REMOVING EXISTING PAVEMENT	SY	\$15		
		REMOVAL STRUCTURES & OBSTRUCTIONS	LS	\$0		
	1.2	EARTHWORK .				
		ROADWAYEXCAVATIONINGL HAUL	CY	540	5,100	5204
		STRUCTURE EXICL HAUL BORROWINGL HAUL	CY TON	\$25 516		
		EMBANKMENT COMPACTION	CY	52	100	
	176.78	CTORNULATED MEGATION				
	13	STORMWATER MITIGATION DETENTION AND TREATMENT	SF	54	17 100	
				277.4		
	1.2	STORMSEWER	25	1000	-	
		INLET CATCH BASIN	EA EA	S1500 S5 000	AZ	553 533
		PLAIN CONC STORM SEWER PIPE 12 IN IDIAM	SLE	535	12.00	223
		PLAIN CONC. STORM SEWER PIPE 18 IN DIAM	LF	CB2	1,540	\$125
		STRUCTURE EXCAVATION CL B	CY	S20	1,500	526
		STRUCTURE				
		CONCRETE BRIDGES	SF	\$150		
		CONCRETE BRIDGES WIDENING	SF	5200	.=	
		PEDESTRIAN BRIDGES	SF	\$250	1000	
		STEEL BRIDGES BRIDGE ABUTMENT RETROFIT	SF SF	S100 S150		
		RETAINING WALLS (Cost in Place)	SF	\$55		
		RETAINING WALLS (Soil Nail with Cast in Place Facing)	SF	5150	11/2/201	
		BRIDGE REMOVAL	SF	S20	(E)	
		NOISE WALLS	SF	525		
		SURFACING				
		ROADWAY CEM CONC. HES (24 HR) 12 IN	SY	\$150	8,900	S1 335
		HOT M.X ASPHALT	TON	5180	2,200	5396
		CRUSHED SURFACING	TON	540	2,100	584
		ROADSIDE DEVELOPMENT				
		FENCING	LF	SO	10.0	
		SEEDING MULCHING & FERTILIZING WETLAND MITIGATION	ACRI LS	S1 200		
		TEMPORARY WATER POLLUTION & EROS: ON CONTROL (5%)	LS	5271 00	- 1	527
		LANDSCAPING	L5	50	1	
		TRAFFIC				
		GUARD RAIL	i,F	518	A 1877	
		CONCRETE BARRIER	LF	S50	186	
		SIGNAL SYSTEMS	4,5	50		
		ILLUMINATION SIGNING	4.5 4.5	50	- 1	
		CURBS	LF	525	3100	577
		PERPENDICULAR CURB RAMP	EA	53 000	12	536
		SIDEWALKS	SY	545	3 100	\$139
		REFURBISH RALIROAD CROSSING	LS	52,000,000	No. of the last	52 000
		S:G TRAFFIC SIGNAL STUDY TRAFFIC CONTROL (10%)	LS LS	5250.000 \$451,500	3	5250 \$451
				3,51000		
		OTHERITEMS				
		SURVEYING (2%)	LS	590,400	7	590
		SPEC'ALITEMS UTILITY RELOCATIONS	EST EST	S0 S0		
		MISCELLANEOUS (70%)	LS	\$558 100	9.5	\$558
		CONSTRUCTION SUBTOTAL (ITEMS I THRU 5)				\$5 58
		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	\$913,900	63	5613
		SUBTOTAL (ITEMS 7 & 8)				\$6,752
		SALES TAX				
		9 8% OFITEM 9	EST	5551,800	9	S551
		AGREEMENTS (Units es WSP etc.)	0.0	\$0		

The above apmon of cast is a planning level estimate only it is based on best available information and scape at the time not on the results of a detailed engineering study and is supplied as a budgeting guide only. Pertect find does not guarantee or warrant the accuracy of this planning level estimate.





PROJECT: FMP Project No. 45: West Marginal Way SW/ Chelan St SW Intersection Improvement





DESIGN ASSUMPTIONS:

Signal timing is well understood, no study required Number of poles and signal heads will not change BNSF railroad signs will be preserved Signal control cabinet will be replaced Project does not involve hardscape improvements Pedestrian signals to be replaced

ESTIMATED TOTAL PROJECT COST:

\$1,364,000.00



Project Number

Project Name

FMP Project No. 45: West Marginal

NA

Prepared by

Perteet Inc.

5/2/2017 Date

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 515,800

2019 2019

Esca	lation	Schedule	
_			

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate	Build-Up Rates
2017	-	Construction (
2018	3.0%	Engineer's Est

Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

30%
30%

20%

Construction Soft Cost Ratio Design Soft Cost Ratio

29%	
19%	

BUILD-UP SUMMARY

P.	Α	В	C = A + B	D	E = C + D
	Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
Contractor Cost (Hard Cost)					
Engineer's Estimate (EE)	515,800				
EE Allowance (40%)	206,320				
Estimated Contractor Cost (ECC)	722,120	144,424	866,544	48,224	914,768
Construction Admin. (Soft Cost)					
29% of \$.7M ECC	209,415	41,883	251,298	13,985	265,283
Design (Soft Cost)					
19% of \$.7M ECC	137,203	41,161	178,364	5,315	183,679
Acquisition Cost					
Estimated Acquisition Cost	0	0	0	0	0
Estimated Total Project Cost	\$ 1,068,738	\$ 227,468	\$ 1,296,205	\$ 67,524	\$ 1,363,729

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS



2701 Cally Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY I NO CONTINGENCY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	West Marginai Way at Chellan St	Date 4/20/2017
Location	West Seattle	Date of Cost Index 2017
		Calculated By/Entered By KCM
	÷ 1	Charled By VAVAV

	1TEM	UNIT	ESTIMATED UNIT	QTY	COST
					000
	CONSTRUCTION				
11:	PREPARATION/GRADING/DRA NAGE PREPARATION				
	CLEAR & GRUB DEMO	ACRE	\$10,000		50
	REMOVING EXISTING PAVEMENT	SY	S15	14-11	SC
	REMOVAL STRUCTURES & OBSTRUCTIONS	11.5	SC	F	\$0
12	EARTHWORK				
	ROADWAYEXCAVATION INCL. HAUL	CY	540 525	The second	\$0 50
	STRUCTUREEX CLIAINCL HAUL BORROWINCL HAUL	CY	S15	11111	50
	EMBANAMENT COMPACTION	CY	52		50
13	STORMWATER MITIGATION				
	DETENTION AND TREATMENT	SF	\$5		50
14	STORM SEWER				
	CATCH BAS'N TYPE I	EA	51.500		50
	CATCH BASIN TYPE 2	EA	53 000		\$0 \$0
	PLAIN CONC STORM SEWER PIPE 12 IN DIAM PLAIN CONC STORM SEWER PIPE 18 IN DIAM	LF LF	\$55 \$80		50
	STRUCTURE EXCAVATION CL B	CY	\$20		50
2	STRUCTURE				
6.00	CONCRETE BRIDGES	SF	\$150	100	SO
	CONCRETE BRIDGES WIDENING	SF	\$200		50
	PEDESTR'AN BRIDGES	SF	5250		50
	STEEL BRIDGES	SF	5100	100	50
	BRIDGE ABUTMENT RETROFIT	SF	\$150		50
	RETAINING WALLS (Cost in Place) RETAINING WALLS (Soil No Fwith Cost in Place Facing)	SF SF	S55 S150		SO 50
	BRIDGE REMOVAL	SF	520	1000	50
	NOISE WALLS	SF	525		SO
5	SURFACING		4 man 2 m		
	PORTLAND CEMENT CONCRETE	5F	5'50		\$0
	HOT MIX ASPHALT CRUSHED SURFACING	TON	5'80 540	4	50 50
4	ROADS DE DEVELOPMENT				
•	FENCING	LE	So	A	50
	SEEDING MULCHING & FERTILIZING	ACRE	51 200		SO
	WETLAND MITIGATION	LS	50	1	SO
	TEMPORARY WATER POLLUTION & EROS ON CONTROL (5%) LANDSCAPING	LS LS	.\$19,100° .\$0°	l I	S(9100 S0
57	TRAFFIC				
2.1	GUARD RAIL	LF	\$18		SO
	CONCRETE BARRIER	LF	S50		50
	SIGNALSYSTEMS	LS	55/5,000	1	5513 000
	IELUMINATION	L5	50	1	C2
	5:GN/NG	LS	\$5,000	1	55 0 0 0
	CURBS PERPENDICULAR CURB RAMP	LF EA	\$25 \$3.000	A 100 CO.	SO SO
	SIDEWALKS	SY	\$45		50
	TRAFFIC CONTROL (10%)	LS	531,900	1	\$3 500
6	OTHERITEMS				
	SURVEYING (2%)	Ł5	\$19,100	1	519,100
	SPECIAL ITEMS UTILITY RELOCATIONS	EST EST	50 30	1	\$0 50
6	MISCELLANEOUS (10%)	L5	538 900	1	538 900
7	CONSTRUCTION SUBTOTAL (ITEMS LTHRU 6)				5427 000
5.	MOBILIZATION (10%) 10% OF ITEM 7	EST	\$42,700	1	\$42,700
	SUBTOTAL (ITEMS 7 & 8)				\$459 700
0	SALES TAX				
	9 8% OF ITEM 9	EST	\$45 (00	- 1	545 100
it	AGREEMENTS (Unities WSP etc.)	EST	(\$0)	11	50
2	SUBTOTAL (ITEMS 9 THRU II)				5515 800

The phase op non of cost is a planning level est mate only. It is based an best available information and scape at the time not on the results of a detailed engineeing study, and is supplied as a budgeting guide only. Petteet Incides not guarantee or warrant the accuracy of this planning level estimate.





SDOT Freight Master Plan Implementation Plan (2018-2023)

PROJECT: FMP Project No. 49: S Bailey St Channelization and Operation Improvements Study



DESIGN ASSUMPTIONS:

Data collection will be performed by a consultant.

Study will include draft and final reports with recommendations for project prioritization.

Estimated cost does not require SDOT top-down estimating tool

ESTIMATED TOTAL PROJECT COST:

\$1,000,000.00



2707 Colby Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Master Plan Implementation	Client 5DOT		
Corridor Section	S Bailey St from Michigan St to Carleton Ave S	Date 4/6/2017		
Location	Seattle	Date of Cost Index 2017		
		Calculated By/Entered By KCM		
		Charled By VAVAV		

FMP Project No. 49. 5 Bailey St Channelization and Operation Improvements Study

		£	ESTIMATED UNIT		
	ITEM	UNIT	COST	QTY	COST
1,:	Data Gathering				
	Freight Access Improvement Study	LS	\$1,000,000.00	1	\$1,000,000

The above apinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet inc. does not guarantee or warrant the accuracy of this planning level estimate.





SDOT Freight Master Plan Implementation Plan (2018-2023)

PROJECT: FMP Project No. 55:West Seattle Bridge Access to Terminal 5 and 18



DESIGN ASSUMPTIONS:

Quantities estimated using the WSDOT Planning Level Cost Estimating Manual (2012)

ESTIMATED TOTAL PROJECT COST:

\$324,671,000.00



Top-Down Cost Estimating ToolTab B. Cost Estimate Summary

FMP Project No. 55:West Seattle Bridge Project Name

Project Number

NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 122,799,200

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoint

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Bulla-Op Kates
Construction Contingency
Engineer's Est. Allowance
Design Contingency
Acquisition Contingency

30%	10
 29%	
19%	

20% 40% 30%

Construction Soft Cost Ratio Design Soft Cost Ratio

BUILD-UP SUMMARY

Contractor Cost (Hard Cost) Engineer's Estimate (EE) EE Allowance (40%) Estimated Contractor Cost (ECC)
Construction Admin. (Soft Cost) 29% of \$171.9M ECC
Design (Soft Cost) 19% of \$171.9M ECC
Acquisition Cost Estimated Acquisition Cost
Estimated Total Project Cost

Α	В	C = A + B	D	E = C + D
Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
122,799,200				
49,119,680 171,918,880	34,383,776	206,302,656	11,480,887	217,783,543
49,856,475	9,971,295	59,827,770	3,329,457	63,157,228
32,664,587	9,799,376	42,463,963	1,265,407	43,729,370
0	0	0	0	0
\$ 254,439,942	\$ 54,154,447	\$ 308,594,390	\$ 16,075,752	\$ 324,670,141

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS

The design and construction soft costs used in this estimate are based on the historical averages of the following filter



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DI ANNING LEVEL ODNION OF COST STRANARY INDUSTRIAL NICENSE	

Project Description	SDOT Freight Master Plan Imalementation	Chent SDOT
Corndor Section	West Searc'e Bridge over the Duwamish	Date 4/20/2017
Location	ODC2	Date of Cost Index 2017
		Calculated By/Entered By KCM
		Checked By VWW

				Checked By	VWV	
		FMP Project N= 55 West Seatille Bridge	Access to Terminal 5	ESTIMATED UNIT		
		ITEM	UNIT	COST	QTY	COST
39.30		RIGHT OF WAY				
		RIGHT OF WAY (urban developed)	SF	\$45	50,000	\$2 250 000
		RIGHT OF WAY (urbon undeveloped)	5F	\$20	0	\$0
		RELOCATIONS BUSINESSES	EA	5300 000	7	\$2 100 000
		RELOCATIONS RESIDENCES	EA	S250 000	0	02
		CONDEMNATION PROCEDURE	EA	\$100,000	0	SO
		ADMINISTRATION (TITLES, APPRAISALS, ETC.) RIGHT OF WAY TOTAL	EA	525 000	0	S4 350,000 00
		RIGHT OF WAY TOTAL				34.350.000.00
1.0		CONSTRUCTION				
1		PREPARATION/GRADING/DRAINAGE				
	1311	PREPARATION	AURE	510 000		53
		CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT	SY.	515		50
		REMOVAL STRUCTURES & OBSTRUCTIONS	LS	\$0	-	50
		ACTION SALES CONTRACTOR CONTRACTO	1100	320		
	12	EARTHWORK				
		ROADWAY EXCAVATION INCL. HAUL	CY	540	26.900	51,075,000
		STRUCTURE EX. CL. A INCL. HAUL	CY	525		CS
		BORROW INCL. HAUL	TON	516	561,400	\$5,782,400
		EMBANKMENT COMPACTION	CY	55	The state of	50
	13	STORMWATER MITIGATION				
		DETENTION AND TREATMENT	SF	56		50
	1.4	STORM SEWER	190	51 500		100
		CATCHBAS'N TYPE!	FA	\$1,500 \$3,000		50
		CATCH BASIN TYPE 2 PLAIN COND STORM SEWER PIPE 12 IN DIAM	ĒA LF	S35		\$0 \$0
		PLAIN CONCISTORAL SEWER PIPE IB IN DIAM	i.F	\$80	100	50
		STRUCTURE EXCAVATION CL B	CY	520		50
		200 (200)				
2		STRUCTURE				
		LANDERSCALAR	LS	50 00	7701677523	\$0
		CONCRETE BROGES	SF SF	S500 S200	125 400	\$62,700 000 \$0
		CONCRETE BRIDGES WIDENING PEDESTRIAN BRIDGES	SF SF	S250	HUMATON IS	SO SO
		STEEL BR DGES	SF.	5100		\$0
		BR'DGE ABUTMENT RETROFIT	SF	\$150		So
		RETAINING WALLS (Cost in Place)	SF	565	27 1000	\$1,794,000
		RETAINING WALLS (Soil Nall with Cost in Place Foung)	SF	5!50	-7.4	SO
		BRIDGE REMOVAL	SF	S75		02
		NO/SE WALLS	SF	525		CZ
5		SURFACING				
2		PORTLAND CEMENT CONCRETE	57	\$'50	20.71	50
		HOT M X ASPHALT	TON	5180		50
		CRUSHED SURFACING	TCN	540		50
0.00						
4		ROADS DE DEVELOPMENTII FENCING	1.F	50		Sö
		SEEDING MULCHING & FERTILIZING	ACRE	\$ 200		So
		WETLAND MITIGATION	1,5	SO	1	50
		TEMPORARY WATER POLLUTION & EROS ON CONTROL (16%)	1.5	\$4.384.700	1.0	\$4 384 700
		LANDSCAPING	1.5	30	- 31	Sa
5		TRAFFIC				
		GLARD RAIL	LF	5'8	12 12 1	50
		CONCRETE BARRIER	LF	550		50
		S/GNAL SYSTEMS	LS	SO	1	50
		ILLUMINATION	L5	SO	1	\$0
		5/GN/NG	L5	\$1,725,000	1	51,725 000
		CUR95	LF	\$25	1.55	50
		PERPENDICULAR CURB RAMP SIDEWALKS	EA 5Y	\$5,000 \$45		50 50
		TRAFFIC CONTROL (10%)	LS	\$7,507,800	-	57 507 800
51		OTHER ITEMS				
		SURVEYING (6%)	L5.	54,584,700		\$4.584,700
		SPECIAL FTEMS UTILITY RELOCATIONS	£51 £51	50 50		SO SO
		DITENT RELOCATIONS	1.91	250		30
.6		MISCELLANEOUS (10%)	1.5	58 915 500	1	\$8 915 500
7		CONSTRUCTION SUBTOTAL (ITEMS) THRU 61				\$98.070.100
9		MOBUZATION (10%)				
		10% OFITEM 7	EST	59 807100	71	59 807 100
9		SUBTOTAL (ITEMS 7 & B)				SIO7 B77 200
io		SALESTAX				
746		9.8% OF ITEM 9	EST	510 572 000	8	510 572 000
		CASE - ALL CASE A	ibel.	A. T. T. B. T. T. T.		eponent of the
70		AGREEMENTS (Utilities WSP etc.)	11			
			EST	\$0	- 11	50
12		SUBTOTAL (ITEMS 9 THRU III)				\$122,799,200
14		and a security of the ord				2164,733,600

The phone epitation of cost as a planning feed estimate only, this based on best area fab's information and scope at the time, not on the results of a detailed engineering study, and a supplied as a budgeting guide only. Partiest his discs not guarantite or warrant the accuracy of this planning feet estimate.





SDOT Freight Master Plan Implementation Plan (2018-2023)

PROJECT: FMP Project No. 56: SR99 Access to Terminal 5 and 18



DESIGN ASSUMPTIONS:

Quantities estimated using the WSDOT Planning Level Cost Estimating Manual (2012)

ESTIMATED TOTAL PROJECT COST:

\$435,926,000.00



Top-Down Cost Estimating ToolTab B. Cost Estimate Summary

Project Name

FMP Project No. 56: SR99 Access to

Project Number NA

Prepared by

Perteet Inc.

Date 5/2/2017

Milestone

10%

BUILD-UP ASSUMPTIONS

Baseline

Engineer's Estimate **Estimated Acquisition Cost** \$ 164,879,100

Escalation Schedule

Current
Design Midpoint
Acquisition Midpoint
Construction Midpoin

Year	Rate
2017	-
2018	3.0%
2019	5.6%
2019	5.6%

Build-Up Rates

•	
Construction Contingend	ЗУ
Engineer's Est. Allowance	9
Design Contingency	
Acquisition Contingency	

20%	
40%	
30%	
30%	
	40% 30%

Construction Soft Cost Ratio
Design Soft Cost Ratio

29%	
19%	

BUILD-UP SUMMARY

Contractor	Cost	(Hard	Cost)

Engineer's Estimate (EE) EE Allowance (40%) Estimated Contractor Cost (ECC)

Construction Admin. (Soft Cost)

29% of \$230.8M ECC

Design (Soft Cost)

19% of \$230.8M ECC

Acquisition Cost

Estimated Acquisition Cost

Estimated Total Project Cost

Α	В	C = A + B	D	E = C + D
Base Estimate	Contingency	Current-Year Cost	Midpoint Escalation	TOTAL
164,879,100 65,951,640				
230,830,740	46,166,148	276,996,888	15,415,071	292,411,959
66,940,915	13,388,183	80,329,098	4,470,371	84,799,468
43,857,841	13,157,352	57,015,193	1,699,027	58,714,219
0	0	0	0	0
\$ 341,629,495	\$ 72,711,683	\$ 414,341,178	\$ 21,584,468	\$ 435,925,647

Build-Up Notes

- 1. The Engineer's Estimate Allowance, Design Contingency, and Acquisition Contingency are determined by the selected level of
- 2. Escalation rates are based on IHS Global Insight indices.

Version 21 - Aug 2014

BASIS OF ESTIMATE NOTES AND CLARIFICATIONS

The design and construction soft costs used in this estimate are based on the historical averages of the following filter



Project Description		SOOT Freight Master Plan Implementation			SDOT	
Corridor Section		5799 over the Dawarn sh			4/20/2017	
Location		0002		Date of Cost Index Calculated By/Entered By		
				Checked By		
		FMP Project No. 56 SR99 Acress	to Terminal 5 and 18	ESTIMATED UNIT		
		TEM	UNT	COST	QTY	COST
		RIGHT OF WAY RIGHT OF WAY (urban developed)	SF	545	890,000	\$40 050 000
		RIGHT OF WAY (urban undevemped)	ŠF	520	0	\$60.000.000
		RELOCATIONS BUSINESSES	EA	\$500,000	1	5500 000
		RELOCATIONS RESIDENCES	EA	\$250 000	0	SC
		CONDEMNATION PROCEDURE	EA	\$100,000	0	50
		ADMINISTRATION (TITLES APPRAISA SIETE) RIGHT OF WAY TOTAL	EA	\$25 000	. 2	\$40.350.000.00
Eli .		CONSTRUCTION				
1		PREPARATION/GRADING/DRA NAGE				
	1.1	PREPARATION	9302	40.000		
		CLEAR & GRUB DEMO REMOVING EXISTING PAVEMENT	ACRE SY	510 000 515		50
		REMOVAL STRUCTURES & OBSTRUCTIONS	15	30		50
	12	EARTHWORK .				
		ROADWAY EXCAVATION INCL. HAUL	CY	SAO		SI 132,000
		STRUCTURE EXICL AINCL HAVE	CY	\$25		SO
		BORROWINGL HAUL EMBANKMENT COMPACTION	TON	S:6 S2	##D 400	\$6 086 400 \$0
			4.	32		30
	1.5	STORMWATER MITIGATION DETENTION AND TREATMENT	55	\$6		\$4
		DETERTIGRAND TREATMENT	- 30	40		
	21.90	STORM SEWER	-	S: 500		***
		CATCH BASIN TYPE I CATCH BASIN TYPE 2	EA EA	53 000		S0
		PLAIN CONCISTORM SEWER PIPE IZ IN IDIAM	LF	585		50
		PLAIN CONC. STORM SEWER PIPE IB IN ID-AM	1.5	580		50
		STRUCTURE EXCAVATION CL B	CY	520		50
2		STRUCTURE				
		LANDER SCALAR	LS	\$0.00	152,000	50 565 000 000
		CONCRETE BRIDGES CONCRETE BRIDGES WIDENING	5F SF	\$500 \$200	152,000	S65 000 000 S0
		PEDESTR'AN BRIDGES	5F	S250		50
		STEELBROGES	SF	\$100		50
		BRID GE ABUTMENT RETROFIT	SF	\$150	1000	50
		RETAINING WALLS (Cost in Place)	SF	\$65 \$150	29,000	\$ 885 000
		RETAINING WALLS (Soil No.1 with Cost in Place Foung) BRIDGE REMOVAL	SF SF	S150 S75		\$0 \$0
		NOISE WALLS	SF	\$25		SO
3		SURFACING				
		PORTLAND CEMENT CONCRETE	5F	5150		50
		HOT M.X.ASPHA_T	TON	CBIZ		50
		CRUSHED SURFACING	TON	\$40		50
4		ROADSIDE DEVELORMENT	759	122		100
		FENCING	ACRE	\$0 \$1200		\$0 \$0
		SEEDING MULCHING & FERTILIZING WETLAND MITIGATION	1.5	\$0		50
		TEMPORARY WATER POLLUTION & ERDS ON CONTROL (6%)	15	\$4,609,800	100	\$4,509,600
		LANDSCARING	1.5	30) J	50
5		TRAFFIC				
		GUARD RAIL	LF	\$18		02
		CONCRETE BARRIER SIGNAL SYSTEM5	LF L5	550		02
		BLUMNATION	LS	-50	1	50
		SIGN:NG	LS	\$1,725,000	1	51 725 000
		CURBS	Lf	\$25		50
		PERPENDICULAR CURB RAMP	EA	55 000 545	GLA SHALL	cz
		SIDEWALKS TRAFFIC CONTROL 110%	5Y	57,681,500		\$0 \$7,682,900
51		OTHER (TEMS SURVEYING (6%)	15	\$4,509,800		\$4 609 800
		SPECIALITEMS	EST	50	19	so
		UTILITY RELOCATIONS	EST	\$0.		SO
6		MISCELLANEOUS (10%)	LS	\$9.575 100		\$9 373 100
1		CONSTRUCTION SUBTOTAL (ITEMS THRUE)				5103 104 000
						2.03.04.000
8		MOBILIZATION (10%) 10% OF ITEM 7	EST	\$10.50.400	19	510,310,400

9		SUBTOTAL RITEMS 7 & B				\$15 414 400
10		SALES TAX 9.8% OF ITEM 9	EST	SIF/14 700	9	\$1,914.750
			531	31.114 739	(2	31,114 7,117
11		AGREEMENTS (Utilities WSP etc.)	EST E	50	1	50
12		SUBTOTAL (ITEMS 9 THRU II)				\$154,879,100

PLANNING LEVEL OPINION OF COST SUMMARY INDICONTINGENCY

The above op mon of cost is a prioring first estimate only. It is based on best ovarable information and scope at the time notion the results of a detailed engineering study, and is supplied as a budgeting guide only Partest his does not guarantee or warrant the accuracy of this planning level estimate.





SDOT Freight Master Plan Implementation Plan (2018-2023)

PROJECT: FMP Project No. 66: S Industrial Way Reconstruction and Operational Improvement Study



DESIGN ASSUMPTIONS:

Data collection will be performed by a consultant.

Study will include draft and final reports with recommendations for project prioritization.

Estimated cost does not require SDOT top-down estimating tool

ESTIMATED TOTAL PROJECT COST:

\$300,000.00



07 Colby Avenue Suite 900 Everett WA 98201 P 425 252 7700

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description	SDOT Freight Master Plan Implementation	Client SDOT
Corridor Section	Industrial Way from Airport Way to 4th Ave S	Date: 4/18/2017
Location	Seattle	Date of Cost Index 2017
		Calculated By/Entered By. KCM
		Chacked By MANN

FMP Project No. 66: 5 Industrial Way Reconstruction and Operational Improvement Study

]				
				ESTIMATED UNIT		
		ITEM	UNIT	COST	QTY	COST
L	Data Gathering					
	Railroad Crossing Study		LS	\$100,000.00	1	\$100,000
	6th Ave 5 Crossing Study		LS	\$200,000.00	1	\$200,000
	STUDY TOTAL					\$300,000

The above opinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet Inc. does not guarantee or warrant the accuracy of this planning level estimate.

Benface Manha						Enthrate Range	Range
repect remper	Project Name	Subtotal	Bld Item Total	ROW	Total	Lower bound (-20%)	Upper bound (+20%)
7(E)	15th Ave W Spot Improvements at W Emerson St	5000					
			a) a) a) a		8 8,000.00	\$ 6,000.00	10,000
7(D)	15th Ave W Spot Improvements at W Dravus St and W Emerson St	\$ 100.000.00	\$ 130,000.00		- \$ 130,000.00	\$ 104,000.00	\$ 156,000
8	15th Ave NW / NW Market St Intersection Improvement	\$ 145,000.00 \$	231,000,00	•	- \$ 231,000,00	184 000 00	278,000
13	NW Market St / Leary Way NW / N 36th St Improvements	85.000.00			8 88 000 00	\$2,000,000	000'017
4	Mobility Improvements along NWV Market St between 8th Ave NWV and Stone Way N	\$ 65,000.00			8 66.000.00	\$2,000,00	28,000
16	Intersection improvements at 4th Ave N, Westlake Ave N, Doxter Ave N, and Nickerson St	\$ 3,072.000.00 \$	\$ 4,821,000.00 \$	\$ 2,204,000.00 \$	7,0	\$ 5.820.000.00	8 430 000
17	Intersection Improvements at 6th Ave NE and NE 40th St	\$ 1,472,000.00 \$	2,310,000.00				\$ 2772,000
37	S Holgary St Rail Crossing Improvements (S Holgate SI from Occidental Ave S to 4th Ave S)	\$ 2,317,000.00 \$			1		8 4 385 000
48	Alroort Way S / S Edmunds St Intersocition Improvement	\$ 733,000.00 \$	1,150.000.00		1,150,000.00		1.380,000
25	16th Ave S and East Marghal Way S Intersection Improvements	\$ 313,000.00	\$ 490,000.00 \$	\$ 13,000.00 \$	ļ	\$ 382,000,00	\$ 580,000
25	S Messarchuserts St Rebuild (access road - Colorado Ave S to 1st Ave S)	\$ 1,891,000.00 \$	\$ 2,968,000.00	-	1	\$ 2.374,000.00	3 3.562 000
23	Diagonal Aye S / S Oregon St / Denver Ave S Reconstruction (East Marginal Way (SR 99) to Union Pacific Argo Yard)	\$ 4,073,000.00 \$	8 6,383,000,00	\$ 100,000.00 \$			
25	S Holden St Reconstruction	\$ 2,839,000.00 \$	4,458,000.00	•	4,456,000.00		
99	6th Ave S Reconstruction	\$ 2,912,000.00 \$	4,570,000,00	•	- \$ 4.570.000.00		5 464 000
63	SW Kirklat Way Reconstruction	\$ 731,000.00		100	1		

Project Name 15th Ave W Spot Improvements at W Emerson St

Description

The W Emerson St ramp over 15th Ave W serves trucks going to and from W Nickerson St. This component includes moving the centerline on the ramp to provide a greater turning radius for trucks and making adjustments to the stop bars channelization at the intersection on the west side of the ramp.

Scope Assumptions 1-Assume this is done by City crews 2-Assume 1 day of work

Item	Un <u>lt</u>	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT MARKING	LF	\$1.00	390.00	\$390.00	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	418.13	\$2,496.78	
		Subtotal		\$2,886.78	
CONSTRUCTION SURVEYING	%	1/2 day 2 man crew		\$1,000.00	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	े %	1 day, \$2000/day		\$2,000.00	
		Subtotal		\$5,886.78	
0% DESIGN ALLOWANCE	%			\$1,766.03	
		Bid Item Total		\$8,000.00	

Project Name
15th Ave W Spot Improvements at W Dravus St and W Emerson St

Description W Dravus St is used by trucks of all sizes, including overlegal vehicles unable to pass underneath the bridge on 15th Ave W. Northbound trucks have particular difficulty turning left onto W Dravus St from the off-ramp. This component of the project includes upgrading signal timing and hardware at the ramp terminals to ensure vehicle queues on the bridge clear to allow trucks adequate space to turn at the intersection. This project can be bundled with Ballard Bridge Access improvements

Scope Assumptions 1-Assume 2 new signal cabinets

(tem	Unit	Unit Cost	Quantity	Cost	Notes
OWNER FURNISHED TRAFFIC CONTROL CABINET	EA	\$50,000.00	2.00	\$100,000.00	34. _a
		Subtotal		\$100,000.00	
30% DESIGN ALLOWANCE	%			\$30,000.00	
		Bid Item Total		\$130,000.00	

Project Name
15th Ave NW / NW Market St Intersection Improvement

Description
Improve southeast corner curb radius, which would impact existing signal equipment,

- Scope Assumptions

 1. Remove and relocate the signal cabinet.

 2. Remove and relocate the curb, sidewalk, and ramps.

 3. Trenching for conduit and hand hole relocations.

 4. Assume 1 new CB

 5. Assume minor roadway pavement removal

ltem	Unit	Unit Cost	Quantity	Cost	Notes
CLEARING & GRUBBING	SF	\$1.00	200.00	\$200.00	
REMOVE PAVEMENT	SY	\$27,50	10.00	\$275.00	
REMOVE FOUNDATION, STREET LIGHT POLE	EA	\$1,119.00	1.00	\$1,119.00	
REMOVE CEM CONC SIDEWALK	SY	\$11.00	363,19	\$3,995.09	
REMOVE POLE, STREET LIGHT	EΑ	\$742.00	2.00	\$1,484.00	
REMOVE POST, TRAFFIC SIGN	EΑ	\$336.00	1.00	\$336.00	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	103.89	\$12,570.69	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	1.00	\$22,889.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	20.00	\$1,180.00	
BEDDING, CL B, 8 IN PIPE	LF :	\$11.00	20.00	\$220.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	1.00	\$1,237.00	
CURB, CEM CONC	LF	\$24.00	150.68	\$3,616.32	
CURB RAMP, NON-STANDARD	SY	\$390.00	8.00	\$3,120.00	
SIDEWALK, CEM CONC	SY	\$68.00	259.30	\$17,113.80	39
DETECTABLE WARNING PLATE	SF	\$60.00	2.00	\$120.00	11/20
POST, TRAFFIC SIGN	EA	\$247.00	1.00	\$247.00	
PAVEMENT MARKING, PAINT, 4 IN STRIPE	LF	\$3.00	100.00	\$300.00	
OWNER FURNISHED TRAFFIC CONTROL CABINET	EA	\$50,000.00	1.00	\$50,000.00	
SIGNAL WIRING, LOCATION	LS	\$5,000.00	1.00	\$5,000.00	Ti.
PEDESTRIAN PUSH-BUTTON POST	EA	\$919.00	1.00	\$919.00	
MAST ARM, 31 FT TO 40 FT	EA	\$2,622.00	1.00	\$2,622.00	- 1
FOUNDATION, TRAFFIC SIGNAL CONTROL. CAB. TYPE III	EA	\$6,943.00	1.00	\$6,943.00	
FOUNDATION, STREET LIGHT POLE	EA	\$1,715.00	2.00	\$3,430.00	
FOUNDATION, PEDESTRIAN PUSH BUTTON POST	EA	\$711.00	1.00	\$711.00	
FOUNDATION, POLE, MAST ARM 31 FT TO 40 FT	EA	\$4,596.00	1.00	\$4,596.00	
CONDUIT, PVC, 2 IN	LF	\$13.21	50.00	\$660.50	
TRENCHING, CONDUIT	LF	\$14.00	50.00	\$700.00	
HANDHOLE, TYPE 2	EA	\$700.00	2.00	\$1,400.00	
		Subtotal		\$147,004.40	
CONSTRUCTION SURVEYING	%	.75 percent		\$1,102.53	
MOBILIZATION	- %	10 percent		\$14,700.44	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$11,760.35	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$2,940.09	
		Subtotal		\$177,507.81	
30% DESIGN ALLOWANCE	%			\$53,252.34	
		Bid Item Total		\$231,000.00	

Project Name NW Market St / Leary Way NW / N 36th St Improvements

Description
Reconstruct and make operational/TTS improvements to Leary Way NW comidor to facilitate freight movement. This project would coordinate specific truck operational improvements with the BINMIC Truck Route Improvements. This is effectively acknowledgement of a need for larger conidor study as well as identifying possible improvements needed to support BINMIC during/after trail improvements. No specifics are noted as far as I remember.

- Scope Assumptions

 1. Work is a 4 mile long corridor study by a consultant.

 2. Assume data collection is required.

 3. Assume a VISSIM model for existing and future conditions

 4. Draft and final report

ltem	Unit	Unit Cost	Quantity	Cost	Notes
CORRIDOR STUDY				\$65,000.00	

Project Name Mobility improvements along NW Market St between 8th Ave NW and Stone Way N

Description
Restrict left turns at non-critical intersections to improve east/ west mobility for freight. Need to assume a particular number of locations may have medians added, signage, and raised curbs to prevent left turns. May want to identify specific intersections where this may occur.

- Scope Assumptions

 1. Work is a corridor study by a consultant to determine where left turns should be restricted.

 2. Assume some VISSIM modeling required.

 3. Draft and final report

Item	Unit	Unit Cost	Quantity	Cost	Notes
CORRIDOR STUDY				\$65,000.00	

Project Name Intersection Improvements at 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St

Description

Evaluate the intersection of 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St to improve freight mobility. Add one lane on Dexter Ave (NB), Add one lane on Nickerson St. (WB), Add blike lane on Nickerson St. (WB), Add blike lane on 4th Ave N (North of Intersection before the Fremon Bridge) (NB), ROW Aquisition

- Scope Assumptions
 1. Assume full pavement removal and replacement.
 2. Assume storm system upgrades required.
 3. Assume allowance for new signage and signal
 4. Assume 8 new light poles are installed.
 5. Assume wall height is 10-feet average

Item	Unit	Unit Cost	Quantity	Cost	Notes
RETAINING WALL	SF	\$75.00	1620	\$121,500.00	
CLEARING & GRUBBING	SF	\$1.00	1176	\$1,175.78	
REMOVE PAVEMENT	SY	\$27.50	12575	\$345,825.15	Total Existing Pavement
REMOVE CEM CONC SIDEWALK	SY	\$11.00	1158	\$12,738.38	
REMOVE FOUNDATION, STREET LIGHT POLE	EA	\$1,119.00	3	\$3,357.00	
REMOVE PAVEMENT MARKING	LF	\$1.00	3369	\$3,389 20	
REMOVE LUMINAIRE AND BRACKET ARM	EA	\$190.00	5	\$950.00	
REMOVE POLE, STREET LIGHT	EA	\$742.00	5	\$3,710.00	
REMOVE POST, TRAFFIC SIGN	EA	\$336.00	2	\$872.00	
REMOVE SIGN, TRAFFIC	EA	\$262.00	2	\$524.00	
BUILDING DEMOLITION	SQF	\$2.50	5370	\$13,425.90	
COMMON EXCAVATION	CY	\$50.47	100	\$5,047.00	
SAFETY SYSTEMS IN TRENCH EXCAVATION, MIN. BID =\$0.80 per SF	SF	\$3.00		\$0.00	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	2175	\$87,008.06	Added New Pavement
ROADWAY CEM CONC, 12 IN	SY	\$121.00		\$142,269.93	Added New Pavement
ROADWAY CEM CONC. 12 IN	SY	\$121.00	12575	\$1,521,630.66	Total Existing Pavement
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	6	\$137,334.00	
MAINTENANCE HOLE, TYPE 204A	EA	\$4,292.00	2	\$8,584.00	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	6	\$137,334.00	
MAINTENANCE HOLE, TYPE 204A	EA	\$4,292.00		\$8,584.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	100	\$5,900.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	100	\$1,100.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237,00	6	\$7,422.00	
LANDSCAPING Allowance	SF	\$50,000.00	1	\$50,000.00	
CURB, CEM CONC	LF	\$24.00	1778	\$42,662.78	
SIDEWALK, CEM CONC	SY	\$66.00	958	\$63,200.51	
CURB RAMP 422A	SY	\$1,575.00	8	\$12,600.00	
DETECTABLE WARNING PLATE	SF	\$60.00	8	\$480.00	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	30	\$3,000.00	
PERMANENT SIGNAGE ALLOWANCE	LS	\$20,000 00	1	\$20,000.00	
PERMANENT STRIPING ALLOWANCE	EA	\$10,000.00	1	\$10,000.00	
LUMINAIRE, LED, 120 W	EA	\$3,770.00	8	\$30,160.00	
NEW SIGNAL ALLOWANCE	EA	\$200,000 00	1	\$200,000.00	
POLE, STEEL LIGHTING 25 to 35 FT	EA	\$3,800.00	8	\$30,400.00	
FOUNDATION, STREET LIGHT POLE	EA	\$1,715.00	8	\$13,720.00	
BRACKET ARM, WFS, 8-FT	EA	\$1,295.00	8	\$10,360.00	
CONDUIT, PVC, 2 IN	LF.	\$13.21	400	\$5,284.00	
TRENCHING. CONDUIT	LF	\$14.00	200	\$2,800.00	
HANDHOLE, TYPE 2	EA	\$700.00	10	\$7,000.00	
HANDHOLE, TIPE 2	-	Subtotal		\$3,071,128.36	
CONSTRUCTION SURVEYING	%	.75 percent		\$23,033.46	
MOBILIZATION	%	10 percent		\$307,112.84	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$245,690.27	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$61,422.57	
GONGTING TO MINTER & ENGOIGH CONTINGE FENT (GEEF)	1/4	Subtotal		\$3,708,387.49	
30% DESIGN ALLOWANCE	1%	Codicial		\$1,112,516.25	
SUM DESIGN ALLOTRANCE	-1/0	Bid Item Total	-	\$4,820,903.74	
DIOUT OF MAY		DIG ILENT TOTAL		\$2,203,500.00	
RIGHT OF WAY	_	Total		\$7,024,403.74	
		i viai		#1,UZ9,9U3.74	

Project Name Intersection Improvements at 6th Ave NE and NE 40th St

Description

Eliminate the height restriction and turning movement conflicts on 6th Ave NE at the Burke-Gilman Trail bridge, Bridge rebuild is a possibility.

Scope Assumptions
1-Raise the Bridge to 16t clearance

ttem	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE BRIDGE	SF	\$50.00	395	\$19,750.00	
BRIDGE RECUNSTRUCTION	SF	\$500.00	395	\$197,500.00	
RETAINING WALL	SF	\$75.00	1852	\$138,912.00	EW (0-16ft) Wall Southside
RETAINING WALL	SF	\$75.00	1827	\$137,022.00	EW (0~16ft) Wall Northside
REMOVE WALL	SF	\$50,00	1142	\$57,092.50	EW (0~10ft) Wall Northside
RETAINING WALL	SF	\$75.00	2501	\$187,584.47	SN 16ft Wall
REMOVE WALL	SF	\$50.00	1563	\$78,160.20	SN 10ft Wall
REMOVE PAVEMENT	SY	\$27,50	1563	\$42,992.43	Roadway Pavement
REMOVE PAVEMENT	SY	\$27.50	742	\$20,407.75	Trail Pavement
REMOVE CEM CONC SIDEWALK	SY	\$11.00	194	\$2,135.61	
REMOVE LUMINAIRE AND BRACKET ARM	EA	\$190.00	1	\$190.00	
REMOVE POLE, STREET LIGHT	EA	\$742.00	1	\$742.00	
REMOVE POST, TRAFFIC SIGN	EA	\$336.00	6	\$2,016.00	
REMOVE SIGN, TRAFFIC	EA	\$262.00	1	\$262.00	
MINERAL AGGREGATE, TYPE 17	TN	\$33.93	1373	\$46,581.99	Trail Grading
MINERAL AGGREGATE. TYPE 2	TN	\$40.00	1373	\$54,915.40	Trail Pavement
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	2892	\$115,688.73	Roadway Pavement
ROADWAY CEM CONC, 12 IN	SY	\$121.00	742	\$89,794.10	Trail Pavement
ROADWAY CEM CONC, 12 IN	ŞY	\$121.00	1563	\$189,166.71	Roadway Pavement
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	2	\$45,778.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	-100	\$5,900.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	100	\$1,100.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	2	\$2,474.00	
CURB, CEM CONC	LF	\$24.00	441	\$10,583.51	
SIDEWALK, CEM CONC	SY	\$66.00	194	\$12,813.65	0.0
SIGN, TRAFFIC	SF	\$427.00	6	\$2,582.00	
SIGN, STREET DESIGNATION	EA	\$619.00	1	\$619.00	
POST, TRAFFIC SIGN	EA	\$247.00	6	\$1,482.00	
POST, STREET NAME	EA	\$197.00	1	\$197.00	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$8.00	240	\$1,442.71	
LUMINAIRE, LED, 120 W	EA	\$3,770.00	1	\$3,770.00	-
FOUNDATION, STREET LIGHT POLE	EA	\$1,715.00	1	\$1,715.00	
		Subtotal		\$1,471,350.77	
CONSTRUCTION SURVEYING	%	.75 percent		\$11,035.13	
MOBILIZATION	%	10 percent		\$147,135.08	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$117,708.06	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$29,427.02	
	12	Subtotal		\$1,776,656.06	
30% DESIGN ALLOWANCE	%			\$532,996.82	
		Bid Item Total		\$2,310,000.00	

Project Name S Holgate St Rail Crossing Improvements (S Holgate St from Occidental Ave S to 4th Ave S)

Description

Amtrak is anticipated to install new quad gates and improve pavement at the railroad crossings, white SDOT will be installing ITS equipment to Inform the public about train crossing delays and provide dynamic signage to Identify alternative routes. This project would rebuild the pavement to Heavy Haul route requirements, improve channelization and signage, add new curb/gutter, and provide sidewalks along the south side outside the immediate crossing areas.

- Scope Assumptions

 1. Remove and replace pavement.

 2. Construct new sidewalk.

 3. Amtrak is anticipated to install new quad gates and improve pavement at the railroad crossings

 4. No Curb replacement between 3rd and 4th only concrete panel replacement

Item	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	5557	\$152,812.52	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	10280	\$411,218.00	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	5557	\$672,397.00	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889 00	6	\$137,334.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	100	\$5,900.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	100	\$1,100.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	8	\$9,896.00	
LANDSCAPING	SF	\$25.00	21340	\$533,500.28	
CURB, CEM CONC	LF	\$24.00	2073	\$49,752.37	
CURB RAMP 422A	SY	\$1,575.00	8	\$12,600.00	
MEDIAN, CEM CONC	SY	\$66.00	915	\$60,380.10	
SIDEWALK, CEM CONC	ŞY	\$66.00	1418	\$93,578.38	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	683	\$68,319.01	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$8.00	2100	\$12,600.00	
POLE, STEEL LIGHTING 25 to 35 FT	EA	\$3,800.00	8	\$30,400.00	
FOUNDATION, STREET LIGHT POLE	EA	\$1,715.00	8	\$13,720.00	
BRACKET ARM, WFS, 8-FT	EA	\$1,295.00	8	\$10,360.00	
PERMANENT SIGNAGE ALLOWANCE	LS	\$20,000.00	1	\$20,000.00	
PERMANENT STRIPING ALLOWANCE	EA	\$10,000.00	1	\$10,000.00	
CONDUIT, PVC, 2 IN	LF	\$13.21	400	\$5,284.00	
TRENCHING, CONDUIT	LF	\$14.00	200	\$2,800.00	
HANDHOLE, TYPE 2	EA	\$700.00	4	\$2,800.00	
		Subtotal		\$2,316,751.66	
CONSTRUCTION SURVEYING	%	.75 percent		\$17,375.64	
MOBILIZATION	%	10 percent	-	\$231,675.17	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$185,340.13	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$46,335.03	
		Subtotal		\$2,797,477.62	
30% DESIGN ALLOWANCE	.%			\$839,243.29	
		Bid Item Total		\$3,637,000.00	- 51

Project Name
Airport Way S / S Edmunds St intersection improvement

Description

Monitor and evaluate for future signal warrants and address geometric issues. SW comer radius needs to be made larger, and ramps would need to be installed at least on SW and NW comers (NW may or may not have ramp installed). Elevation issue with driveway on S Edmunds west of Airport Way S. Yes on curb ramp widening. Signal would need a warrant analysts.

- Scope Assumptions
 1. Assume pavement removed and replaced with 12" Concrete
 2. Assume 2 new storm litter catch basins
 3. Assume new signal is warrented

Item	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	1709.22	\$47,003.63	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	3660.28	\$146,411.19	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	1978.53	\$239,402.08	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	2.00	\$45,778.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	100.00	\$5,900.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	100.00	\$1,100.00	
TEE, PVC, 8 IN	EA	\$113.00		\$0.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	2.00	\$2,474.00	
LANDSCAPING	SF	\$25.00	28.45	\$711.25	
CURB, CEM CONC	LF_	\$24.00	870.80	\$20,899.20	
SIDEWALK, CEM CONC	SY	\$66.00	432.33	\$28,533.80	
CURB RAMP 422A	SY	\$1,575.00	2.00	\$3,150.00	
DETECTABLE WARNING PLATE	SF	\$60.00	20.00	\$1,200.00	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	315.11	\$31,511.36	
SIGNAGE	SF	\$5,000.00	1.00	\$5,000.00	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	559.61	\$3,357.66	
SIGNAL ALLOWANCE	EA	\$150,000.00	1.00	\$150,000.00	
		Subtotal		\$732,432.17	
CONSTRUCTION SURVEYING	%	.75 percent		\$5,493.24	
MOBILIZATION	%	10 percent		\$73,243.22	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$58,594.57	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$14,648.64	
		Subtotal		\$884,411.84	
30% DESIGN ALLOWANCE	_ %			\$265,323.55	
		Bid Item Total		\$1,150,000.00	

Project Name 16th Ave S and East Marginal Way S Intersection Improvements

Description Improve NB right turn radius

- Scops Assumptions

 1. ROW acquisition is needed.

 2. No lane narrowing on EMW is feasible.

 3. Project will remove pavement, landscaping and build a new right turn with traffic island

 4. Pedestrian signals will be added for N-S movement.

 5. Power pole will need to be relocated.

 6. RR crossing panels will need to be added.

 7. Signal modification will be required for right turn pocket.

 8. Add island for pedestrian refuge.

item	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE CEM CONC SIDEWALK	SY	\$11.00	163	\$1,795.86	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	405	\$16,205.20	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	219	\$26,497.69	
RR PANELS	SF	\$106.00	900	\$95,400.00	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	2	\$45,778.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	50	\$2,950.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	50	\$550.00	
FEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	2	\$2,474.00	
CURB, CEM CONÇ	LF	\$24.00	255	\$6,120.88	
SIDEWALK, CEM CONC	SY	\$66.00	166	\$10,970.64	
SIGNAL ALLOWANCE - MODIFIED	LS	\$100,000.00	1	\$100,000.00	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	544	\$3,266.29	
		Subtotal		\$312,008.57	
CONSTRUCTION SURVEYING .	%	.75 percent		\$2,340.06	
MOBILIZATION	%	10 percent		\$31,200.86	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$24,960.69	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$6,240.17	
N. C.		Subtotal		\$376,750.35	
10% DESIGN ALLOWANCE	%			\$113,025.11	
()		Bid Item Total		\$490,000.00	
RIGHT OF WAY				\$12,254.00	
		Total		\$490,000.00	

Project Name S Massachusetts St Rebuild (access road - Colorado Ave S to 1st Ave S)

Reconstruct S Massachusetts St to improve safety and access to North SIG Yard, while maintaining two-way operations. Seek to provide separated travel lanes for general purpose and truck traffic. Provide improved truck access/operations at the 1st Ave S / S Massachusetts St Intersection.

- Scope Assumptions

 1. Remvove and replace pavement..

 2. Install sidewalks and curb ramps at corners of 1st/Mass.

 3. Regrade the roadway to improve property access at N Sig

 4. New pavement marking.

 5. Remove and replace drainage storm filter catch basins required.

 6. Replace the signal

Item	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	6077.97	\$187,144.18	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	8440.00	\$337,599.84	
MINERAL AGGREGATE, TYPE 17	TN	\$33.93	8439.996	\$286,369.06	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	4562.16	\$552,021.36	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	6.00	\$137,334.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	200.00	\$11,800.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	200.00	\$2,200.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	6.00	\$7,422.00	
LANDSCAPING	SF	\$25.00	3407.51	\$85,187.63	
CURB, CEM CONC	LF	\$24.00	631.18	\$15,148.34	
SIDEWALK, CEM CONC	SY	\$66.00	771.46	\$50,916.37	
CURB RAMP 422A	SY	\$1,575.00	8.00	\$12,600.00	
DETECTABLE WARNING PLATE	SF	\$60.00	80.00	\$4,800.00	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	365.73	\$36,573.06	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	2299.88	\$13,799.28	
LIGHTING ALLOWANCE	EA	\$20,000.00	1.00	\$20,000.00	
SIGNAL ALLOWANCE	EA	\$150,000.00	1.00	\$150,000.00	
		Subtotal		\$1,890,915.12	
CONSTRUCTION SURVEYING	%	.75 percent		\$14,181.86	
MOBILIZATION	%	10 percent		\$189,091.51	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$151,273.21	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$37,818.30	
		Subtotal		\$2,283,280.01	
30% DESIGN ALLOWANCE	- %			\$684,984.00	
	1	Bid Item Total		\$2,968,000.00	

Project Name
Diagonal Ave S / S Oregon St / Denver Ave S Reconstruction (East Marginal Way (SR 99) to Union Pacific Argo Yard)

Description
Rebuild existing truck route facility.

Scope Assumptions
1. Assume sidewalk on one side.
2. Assume new lighting

<u>Item</u>	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	ŞY	\$27.50	16190.32	\$445,233.83	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	24196.67	\$967,866.83	22
ROADWAY CEM CONC, 12 IN	SY	\$121.00	13079.28	\$1,582,593.06	
RR PANELS	SF	\$25.00	18878.00	\$471,950.00	25
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	10.00	\$228,890.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	400.00	\$23,600.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	400.00	\$4,400.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	10.00	\$12,370.00	
CURB, CEM CONC	LF	\$24.00	2789.99	\$66,959.74	
SIDEWALK, CEM CONC	SY	\$66.00	3111.04	\$205,328.86	
CURB RAMP 422A	SY	\$1,575.00	8.00	\$12,600.00	
PERMANENT SIGNAGE ALLOWANCE	LS	\$10,000.00	1.00	\$10,000.00	-
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	1806.83	\$10,841.00	
LIGHTING ALLOWANCE	LS	\$30,000.00	1.00	\$30,000.00	
		Subtotal		\$4,072,633.31	
CONSTRUCTION SURVEYING	%	.75 percent		\$30,544.75	
MOBILIZATION	%	10 percent		\$407,263.33	VI.
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$325,810.66	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$81,452.67	
		Subtotal	96	\$4,917,704.72	
30% DESIGN ALLOWANCE	%			\$1,475,311.42	
2	3	Bid Item Total		\$6,393,000.00	
RIGHT OF WAY				\$100,000.00	
		Total		\$6,493,000.00	

Project Name S Holden St Reconstruction

Description
Reconstruct and make operational/ITS improvements to S Holden St. Limits are SR-99/West Marginal
Way east to approximately 8th Ave S . This coincides with some SPU pump station repair and
replacement. We should coordinate, ITS reader boards at Holden/SRB9 would be of benefit to all
modes - assuming this fits with Adiam's plans.

- Scope Assumptions
 1. No ITS improvements scoped,
 2. Assume repaving with 12' CCP,
 3. Assume new drainage along the comidor

ltem	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	5092.26	\$140,037.15	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	14609.33	\$584,373.33	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	7896.94	\$955,529.36	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	16,00	\$366,224.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	1000.00	\$59,000.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	1000.00	\$11,000.00	
TEE, PVC, 8 IN	EA	\$113.00	16,00	\$1,808.00	
LANDSCAPING	SF	\$25.00	1000.00	\$25,000.00	1.2
CURB, CEM CONC	LF	\$24.00	3730.01	\$89,520.24	
SIDEWALK, CEM CONC	SY	\$66.00	5763.46	\$380,388.16	
CURB RAMP 422A	SY	\$1,575.00	18.00	\$28,350.00	
DETECTABLE WARNING PLATE	SF	\$60.00	180.00	\$10,800.00	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	1264.30	\$126,430.15	
PERMANENT SIGNAGE ALLOWANCE	LS	\$20,000.00	1.00	\$20,000.00	
PERMANENT STRIPING ALLOWANCE	EA	\$10,000.00	1.00	\$10,000.00	
LIGHTING ALLOWANCE	LF	\$30,000.00	1.00	\$30,000.00	
		Subtotal		\$2,838,460.39	
CONSTRUCTION SURVEYING	%	.75 percent		\$21,288.45	
MOBILIZATION	%	10 percent		\$283,846.04	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$227,076.83	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$56,769.21	
		Subtotal	15	\$3,427,440.93	
30% DESIGN ALLOWANCE	%			\$1,028,232.28	
		Bid Item Total		\$4,456,000.00	

Project Name 6th Ave S Reconstruction

Description
Reconstruct and make operational / ITS improvements to 6th Ave S. Panel replacement starting at Industrial and working north to Spokane- NB Airport Way S approach to Industrial Ave S may benefit from an ITS reader showing time to downtown along Airport or along 4th Ave S.

- Scope Assumptions
 1-SDOT will cover the cost estimation for iTS improvements.
 2-Concrete panel replacement on 6th Ave
 3-Pavement marking
 4-Sidewalk
 5-Landscape

item	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	8953.85	\$246,230.96	
REMOVE PAVEMENT MARKING	LF	\$1.00	5009.72	\$5,009.72	
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	16564.63	\$662,585,12	
ROADWAY CEM CONC, 12 IN	SY	\$121.00	8953.85	\$1,083,416.21	
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	16.00	\$366,224,00	
PIPE, CB CONN, PVC, 8 IN	ĻF	\$59.00	1000.00	\$59,000.00	
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	1000.00	\$11,000.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	16.00	\$19,792.00	
LANDSCAPING	SF	\$25.00	1575.72	\$39,393.07	
IRRIGATION SYSTEM, AUTOMATIC	LS			\$0.00	
CURB, CEM CONC	LF	\$24.00	3305.51	\$79,332.26	
CURB AND GUTTER, CEM CONC	LF_	\$43.00		\$0.00	
SIDEWALK, CEM CONC	SY	\$66.00	2946.33	\$194,458.09	
CURB RAMP 422A	SY	\$1,575.00	12.00	\$18,900.00	
DRIVEWAY, CEM CONC, 8 IN	SY	\$100.00	656.67	\$65,666.56	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	5009.72	\$30,058.34	
LIGHTING ALLOWANCE	LF	\$30,000.00	1.00	\$30,000.00	
		Subtotal		\$2,911,066.32	
CONSTRUCTION SURVEYING	%	.75 percent		\$21,833.00	
MOBILIZATION	%	10 percent		\$291,106.63	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$232,885.31	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	%	2 percent		\$58,221.33	
		Subtotal		\$3,515,112.58	
30% DESIGN ALLOWANCE	%			\$1,054,533.77	
		Bid Item Total		\$4,570,000.00	

Project Name SW Klickitat Way Reconstruction

Description
Reconstruct and make operational/ITS improvements to SW Klickitat Way, Klicitat Ave SW from SW Spokane St (signalized intersection) west and north to Klickitat Ave Bridge signal update as needed and roadway/panel replacement. It would also be prudent to update the markings on this roadway in MMA to prolong marking life.

- Scope Assumptions
 1-Concrete panel replacement
 2-Pavement marking for both WN and ES bounds
 3-Omit ES bound paving quantities if not required
 4-Sidewalk already exist
 5-Street Lights exist

ltem	Unit	Unit Cost	Quantity	Cost	Notes
REMOVE PAVEMENT	SY	\$27.50	1284.03	\$35,310.83	WN
REMOVE PAVEMENT	SY	\$27.50	1214.02	\$33,385.55	ES
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	2375.46	\$95,018.22	WN
MINERAL AGGREGATE, TYPE 2	TN	\$40.00	2245.94	\$89,837,48	ES
ROADWAY CEM CONC, 12 IN	SY	\$121.00	1284.03	\$155,367.63	WN
ROADWAY CEM CONC, 12 IN	SY	\$121.00	1214.02	\$146,896.42	ES
CATCH BASIN PERKFILTER - 4-18" CARTRIDGE	EA	\$22,889.00	6.00	\$137,334.00	
PIPE, CB CONN, PVC, 8 IN	LF	\$59.00	100.00	\$5,900.00	(i)
BEDDING, CL B, 8 IN PIPE	LF	\$11.00	100.00	\$1,100.00	
TEE, PVC, 8 IN	EA	\$113.00		\$0.00	
TEE, 8 IN, CUT-IN EXISTING CONC PIPE	EA	\$1,237.00	8.00	\$9,896.00	
PAVEMENT MARKING, PAINT, 8 IN STRIPE	LF	\$6.00	2305.46	\$13,832.78	
FOUNDATION, TRAFFIC SIGNAL CONTROL. CAB. TYPE III	EA	\$6,943.00	1.00	\$6,943.00	- 11
		Subtotal		\$730,821.91	
CONSTRUCTION SURVEYING	%	.75 percent		\$5,481.16	
MOBILIZATION	- %	10 percent		\$73,082.19	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	%	8 percent		\$58,465.75	
CONSTRUCTION STORMWATER & EROSION CONTROL PLAN (CSECP)	% _	2 percent		\$14,616.44	
		Subtotal		\$882,467.45	
30% DESIGN ALLOWANCE	%			\$264,740.24	
99 / DEGIGIT / NEE 97 / N / N		Bid Item Total		\$1,147,000.00	· · · · · · · · · · · · · · · · · · ·