



PREPARING RECAPITULATION (RECAP)



WHY a Recap is needed:

- to show the TOTAL project costs
 - total cost is not just the contractor's bid price
- to show how the varying fund types are being allocated to the project
 - this needs to be shown for construction pay items, agency administration costs, contingency, etc.



WHAT WE'LL COVER:

- 1. DETAILED ESTIMATE RECAP: AUTHORIZE FOR CONSTRUCTION**
- 1. AGREEMENT ESTIMATE RECAP: ADJUSTING COST AFTER CONTRACTOR BID**

COMMON MISTAKES:

- 1. FUNDS NOT BROKEN OUT INTO 94.3% FED & 5.7% LOCAL, FED PARTICIPATION NOT SHOWN CORRECTLY**
- 2. AMOUNTS NOT CALCULATED CORRECTLY FOR BELOW-THE-LINE ITEMS**
- 3. RECAP DOESN'T MATCH TIP - \$ AMOUNTS, LOCATION**

WHAT YOU NEED TO PREPARE THE DETAILED ESTIMATE RECAP:

- ADOT AND FED ID NUMBERS
- FHWA IMPROVEMENT TYPE(S)
- TIP LISTING
- PROJECT LENGTH
- TOTAL PROJECT COSTS
 - Engineer's Estimate
 - Contingency
 - Post Design Services
 - Construction Engineering

PROJECT INFORMATION:

DETAILED ESTIMATE RECAPITULATION							
PROJECT NUMBER	ADOT NUMBER - STARTS WITH "T" ENDS IN "01C"					CREATED:	DATE
FEDERAL AID NUMBER	FEDERAL ID NUMBER - SHOULD MATCH ON ALL PS&E					REVISED:	DATE
LOCATION	MATCH LOCATION IN TIP					ENGINEER:	WHO
DESCRIPTION	FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION	FEDERAL FUNDS	LOCAL FUNDS	LOCAL FUNDS	LENGTH IN MI
				94.30%	5.70%	100.00%	
FHWA IMPROVEMENT TYPES		0	0	0	0	0	XXX
			0	0	0	0	
TRAINEES	42			0	0	0	

EXAMPLE

Agency	RTP ID	MAG ID	County	Miles	Lanes		Status	Program	TIP ID	Federal ID	ADOT ID	Workphase(s)			
					Before	After						Description	Work	Funding Amount(s)	Total
ADOT	----	10296	Maricopa	0.0	0	0									
Location 101 (Agua Fria): I-10 System Interchange Improvements							Planned	FLCP	DOT25-013	101-A(218)T	F0475	Construction for Interchange Improvements	2025	NHPP	\$140,310,857
Fed. Func Principal Arterial - Other Freeway or Expressway							Planned	FLCP	DOT25-034	----	F0475	Right of Way Acquisition for Interchange Improvements	2025	RARF	\$150,794,589
MAG Mode Freeway							Planned	479-FLCP	DOT30-513C	----	----	Construct 91st Ave Connector	2030	Fed-Reg FLCP	\$76,275,249
FPS PM3F - Travel Reliability															
Project Total \$396,306,014															
Est. Completion OCT-DEC 2027															

DETAILED ESTIMATE RECAPITULATION

PROJECT NUMBER	F0475 01C	CREATED:	02/19/25
FEDERAL AID NUMBER	101-A(218)T	REVISED:	
LOCATION	101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS	ENGINEER:	K. HUSTON

DESCRIPTION	FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
4R - Added Capacity	03			0	0	0	2.000
05 4R -Maintenance Resurfacing							
06 4R -Maintenance Resurfacing							

CHECK 94.3% FED AND 5.7% LOCAL AMOUNTS

AMOUNTS IN PROGRAM DO NOT ALWAYS REFLECT THESE NUMBERS - SO YOU HAVE TO CALCULATE THEM

Workphase(s)				
Description	Work	Funding Amount(s)		Total
Construction for Interchange Improvements	2025	NHPP	\$140,310,857	\$291,105,446
		RARF	\$150,794,589	

ONLY Exception to 94.3 & 5.7%:

- NHPP: \$140,310,857 (NHPP: 48%)
- RARF: \$150,794,589 (RARF: 52%)

• On Interstate

TOTAL: \$291,105,446

TOTAL: 100%

TIP SHOWS:

NHPP: \$140,310,857

RARF: \$150,794,589

TOTAL: \$291,105,446

RECAP TOTALS:

NHPP (94.3%): \$140,310,857

RARF (5.7%): \$8,481,144

RARF (100%): \$142,313,445

TOTAL: \$291,105,446

CALCULATE 5.7% AND 100% MATCH:

Fed Funding (94.3%):

\$ 140,310,857

RARF:

\$ 150,794,589

TOTAL:

\$ 291,105,446

5.7% MATCH: \$

8,481,144

100% MATCH: \$

142,313,445

$=(\text{Fed Funding}/94.3\%)-\text{Fed Funding}=5.7\%$

$=\text{Total RARF} - 5.7\% \text{ Match} = 100\%$

DETERMINE BELOW-THE-LINE ITEMS

CONTINGENCY - 5% of construction items

POST DESIGN SERVICES - Based off of Designer's Estimate or 1%
of construction items

CONSTRUCTION ENGINEERING - Estimated cost for administration,
inspections, materials testing, etc.
Ranges from 10-20% of construction
items - Template calcs for 14%.

PUBLIC INVOLVEMENT/COMMUNICATIONS

PAVEMENT SMOOTHNESS INCENTIVES

CALCULATE SUBTOTAL - total estimated cost

USING %S BELOW-THE-LINE

ADD UP BELOW-THE-LINE PERCENTAGES:

SUBTOTAL		
CONSTRUCTION ENGINEERING		14%
POST DESIGN SERVICES		1%
CONSTRUCTION CONTINGENCY		5%

20%

RECAP TOTALS:

NHPP (94.3%): \$140,310,857

RARF (5.7%): \$8,481,144

RARF (100%): \$142,313,445

TOTAL: \$291,105,446

ESTIMATED COST SUBTOTAL = TOTAL ÷ 1.20

$$= \$291,105,446 \div 1.20 = \$242,587,872$$

CALCULATE SUBTOTAL - federal participation

USING %S BELOW-THE-LINE

FEDERAL PARTICIPATION = 94.3% + 5.7% MATCH:

$$\boxed{\$140,310,857} + \boxed{8,481,144} = \mathbf{\$148,792,001}$$

$$\mathbf{SUBTOTAL = \$148,791,001 \div 1.20 = \$123,993,334}$$

RECAP TOTALS:

NHPP (94.3%): \$140,310,857

RARF (5.7%): \$8,481,144

RARF (100%): \$142,313,445

TOTAL: \$291,105,446

COMPLETE RECAP

USING %S BELOW-THE-LINE

ESTIMATED COST SUBTOTAL **\$242,587,872**

FEDERAL PARTICIPATION SUBTOTAL **\$123,993,334**

DESCRIPTION			FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
Reconstruction - Added Capacity			03	242,587,872	123,993,334	116,925,714	7,067,620	118,594,538	2.000
SUBTOTAL				242,587,872	123,993,334	116,925,714	7,067,620	118,594,538	
CONSTRUCTION ENGINEERING		14%	17	33,962,302	17,359,067	16,369,600	989,467	16,603,235	
POST DESIGN SERVICES		1%	17	=ROUND((E14*C17),0)		-1,118,346	-67,599	1,185,945	
CONSTRUCTION CONTINGENCY		5%		12,129,394	6,199,667	5,846,286	353,381	5,929,727	
PROJECT TOTAL:				254,717,266	112,403,821	105,996,803	6,407,018	142,313,445	2.000

CHECK TOTALS

NHPP (94.3%): \$140,310,857

RARF (5.7%): \$8,481,144

RARF (100%): \$142,313,445

TOTAL: \$291,105,446

DESCRIPTION			FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
Reconstruction - Added Capacity			03	242,587,872	123,993,334	116,925,714	7,067,620	118,594,538	2.000
SUBTOTAL				242,587,872	123,993,334	116,925,714	7,067,620	118,594,538	
CONSTRUCTION ENGINEERING		14%	17	33,962,302	17,359,067	16,369,600	989,467	16,603,235	
POST DESIGN SERVICES		1%	17	2,425,879	1,239,934	1,169,258	70,676	1,185,945	
CONSTRUCTION CONTINGENCY		5%		12,129,394	6,199,667	5,846,286	353,381	5,929,727	
PROJECT TOTAL:				291,105,447	148,792,002	140,310,858	8,481,144	142,313,445	2.000

= \$150,794,589

Workphase(s)				
Description	Work	Funding Amount(s)		Total
Construction for Interchange Improvements	2025 NHPP	\$140,310,857		\$291,105,446
	RARF	\$150,794,589		

USING FIXED COSTS & % CONTINGENCY BELOW-THE-LINE

DESCRIPTION	FHWA CODE	ESTIMATED COST
Reconstruction - Added Capacity	03	245,814,710
SUBTOTAL		245,814,710
CONSTRUCTION ENGINEERING	17	30,000,000
POST DESIGN SERVICES		3,000,000
CONSTRUCTION CONTINGENCY		12,290,736
PROJECT TOTAL:		291,105,446

% CONTINGENCY

SUBTRACT FIXED AMOUNT AND DIVIDE REMAINDER BY 1 + %CONTINGENCY:

105,446

300,000 = FIXED BELOW THE LINE

291,105,446 = TOTAL - FIXED BELOW THE LINE

\$245,814,710 = (\$258,105,446 / 1.05) = SUBTOTAL



CALCULATE SUBTOTAL - federal participation

USING FIXED COSTS & % CONTINGENCY BELOW-THE-LINE

FEDERAL PARTICIPATION = \$148,792,001

NEED TO CORRECTLY ALLOC

FEDERAL PARTICIPATION

SUBTOTAL - TOTAL FED

\$148,792,001

\$15,333,825

LOCAL %

\$ 1,533,383

\$ 6,282,133

= \$125,642,660

DESCRIPTION			FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION
Reconstruction - Added Capacity			03	245,814,710	125,642,660
SUBTOTAL				245,814,710	125,642,660
CONSTRUCTION ENGINEERING	FIXED		17	30,000,000	15,333,825
POST DESIGN SERVICES	FIXED		17	3,000,000	1,533,383
CONSTRUCTION CONTINGENCY	5%			12,290,736	6,282,133
PROJECT TOTAL:				291,105,446	148,792,001

CALCULATE SUBTOTAL - local participation

USING FIXED COSTS & % CONTINGENCY BELOW-THE-LINE

DESCRIPTION			FHWA CODE	ESTIMATED COST	FEDERAL PARTICIPATION	LOCAL FUNDS
						100.00%
Reconstruction - Added Capacity			03	245,814,710	125,642,660	120,172,050
SUBTOTAL				245,814,710	125,642,660	120,172,050
CONSTRUCTION ENGINEERING			17	30,000,000	- 15,333,825	= 14,666,175
POST DESIGN SERVICES			17	3,000,000	- 1,533,383	= 1,466,617
CONSTRUCTION CONTINGENCY				12,290,736	- 6,282,133	= 6,008,603
PROJECT TOTAL:				291,105,446	148,792,001	142,313,445

NEED TO OVERWRITE TEMPLATE FORMULAS
THESE WILL NOW BE = “ESTIMATED COST -
FED PARTICIPATION”



NEXT STEPS:

1. GET PROJECT AUTHORIZED
2. ADVERTISE PROJECT
3. OPEN BIDS
4. ANALYZE BIDS AND SELECT LOW BIDDER
5. SEND ADOT “AGREEMENT ESTIMATE RECAP”

AGREEMENT ESTIMATE RECAP

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER						CREATED:		
FEDERAL AID NUMBER						REVISED:		
LOCATION						ENGINEER:		
DESCRIPTION		FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
Reconstruction - Added Capacity	0	03			0	0	0	XXX
TRAINEES		42		0	0	0	0	
SUBTOTAL			0	0	0	0	0	
CONSTRUCTION ENGINEERING	Fixed	17	33,962,302	33,962,302	32,026,451	1,935,851	0	
POST DESIGN SERVICES	Fixed	17	2,425,879	2,425,879	2,287,604	138,275	0	
CONSTRUCTION CONTINGENCY	5%		0	0	0	0	0	
PROJECT TOTAL:			36,388,181	36,388,181	34,314,055	2,074,126	0	XXX
NOTE:								
TOTAL FEDERAL FUNDS (94.3%):	#####							
TOTAL LOCAL FUNDS (5.7%):	\$2,074,125.80							
TOTAL LOCAL FUNDS (100%):	\$0.00							
TOTAL LOCAL FUNDS:	\$2,074,125.80							
TOTAL CONSTRUCTION COST:	#####							
Version: 08/19/2021								

WHAT YOU NEED TO PREPARE THE FORM:

- CONTRACTOR'S BID AMOUNT
- BELOW THE LINE AMOUNTS
 - FIXED OR %

EXAMPLE

Bid is Lower than Estimate: \$230,000,000

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER			F0475 01C				CREATED:		02/19/25	
FEDERAL AID NUMBER			101-A(218)T				REVISED:			
LOCATION			101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS				ENGINEER:		K. HUSTON	
DESCRIPTION			FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS	LOCAL FUNDS	LOCAL FUNDS	LENGTH IN MI	
					94.30%	5.70%	100.00%			
Reconstruction - Added Capacity			03	230,000,000	123,993,334	116,925,714	7,067,620	106,006,666	2.000	
TRAINEES			42		0	0	0	0		
SUBTOTAL				230,000,000	123,993,334	116,925,714	7,067,620	106,006,666		
CONSTRUCTION ENGINEERING			14%	17	32,200,000	17,359,067	16,369,600	989,467	14,840,933	
POST DESIGN SERVICES			1%	17	2,300,000	1,239,933	1,169,257	70,676	1,060,067	
CONSTRUCTION CONTINGENCY			5%		11,500,000	6,199,667	5,846,286	353,381	5,300,333	
PROJECT TOTAL:				276,000,000	148,792,001	140,310,857	8,481,144	127,207,999	2.000	

MAXIMIZE FED PARTICIPATION

DECREASE
100%
LOCAL

EXAMPLE

Bid is Higher than Estimate: \$250,000,000

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER			F0475 01C			CREATED:			02/19/25	
FEDERAL AID NUMBER			101-A(218)T			REVISED:				
LOCATION			101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS			ENGINEER:			K. HUSTON	
DESCRIPTION			FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS	LOCAL FUNDS	LOCAL FUNDS	LENGTH IN MI	
Reconstruction - Added Capacity			03	250,000,000	123,993,334	94.30% 116,925,714	5.70% 7,067,620	100.00% 126,006,666	2.000	
TRAINEES			42		0	0	0	0		
SUBTOTAL				250,000,000	123,993,334	116,925,714	7,067,620	126,006,666		
CONSTRUCTION ENGINEERING			14%	17	35,000,000	17,359,067	16,369,600	989,467	17,640,933	
POST DESIGN SERVICES			1%	17	2,500,000	1,239,933	1,169,257	70,676	1,260,067	
CONSTRUCTION CONTINGENCY			5%		12,500,000	6,199,667	5,846,286	353,381	6,300,333	
PROJECT TOTAL:				300,000,000	148,792,001	140,310,857	8,481,144	151,207,999	2.000	

FED PARTICIPATION STAYS THE
SAME

INCREASE
100%
LOCAL

EXAMPLE

USING FIXED BELOW-THE-LINE

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER	F0475 01C	CREATED:	02/19/25
FEDERAL AID NUMBER	101-A(218)T	REVISED:	
LOCATION	101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS	ENGINEER:	K. HUSTON

DESCRIPTION	FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
Reconstruction - Added Capacity	03	250,000,000	123,993,334	116,925,714	7,067,620	126,006,666	2.000
TRAINEES	42		0	0	0	0	
SUBTOTAL		250,000,000	123,993,334	116,925,714	7,067,620	126,006,666	
CONSTRUCTION ENGINEERING	Fixed 17	33,962,302	17,359,067	16,369,600	989,467	16,603,235	
POST DESIGN SERVICES	Fixed 17	2,425,879	1,239,934	1,169,258	70,676	1,185,945	
CONSTRUCTION CONTINGENCY	5%	12,500,000	6,199,667	5,846,286	353,381	6,300,333	
PROJECT TOTAL:		298,888,181	148,792,002	140,310,858	8,481,144	150,096,179	2.000

NOTE:

No longer matches

Fed participation should be: \$148,792,001

TIPS FOR USING THE TEMPLATE

USE FORMULA “=ROUND((A*B),0)” TO ROUND TO NEAREST WHOLE DOLLAR

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER	F0475 01C						CREATED:	02/19/25
FEDERAL AID NUMBER	101-A(218)T						REVISED:	
LOCATION	101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS						ENGINEER:	K. HUSTON

MIGHT HAVE TO OVERWRITE BELOW THE
LINE FORMULAS

EXCEPT FOR 94.3 & 5.7% COLUMNS

DESCRIPTION	HYDRA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	FEDERAL FUNDS 5.70%	LOCAL FUNDS 100.00%	LENGTH IN MI
Reconstruction - Added Capacity	03	250,000,000	123,993,334	116,925,714	7,067,620	126,006,666	2.000
TRAINEES	42		0	0	0	0	
SUBTOTAL		250,000,000	123,993,334	116,925,714	7,067,620	126,006,666	
CONSTRUCTION ENGINEERING	Fixed 17	33,962,302	17,359,067	16,369,600	989,467	16,603,235	
POST DESIGN SERVICES	Fixed 17	2,425,879	1,239,934	1,169,258	70,676	1,185,945	
CONSTRUCTION CONTINGENCY	5%	12,129,394	6,199,667	5,846,286	353,381	5,929,727	
PROJECT TOTAL:		298,517,573	148,792,002	140,310,658	8,481,144	149,725,573	2.000

ADD COLUMNS FOR MULTIPLE FUNDING
TYPES

EACH FEDERAL FUNDING TYPE WILL
HAVE ITS OWN 94.3 & 5.7% COLUMNS

USE THE SPREADSHEET TO PERFORM OTHER CALCULATIONS OUTSIDE OF THE
TABLE (I.E. CALCULATE 5.7% AND 100% MATCHES OFF OF TIP LISTING)

DO NOT CHANGE THESE CELLS, THEY
CALCULATE FOR 94.3 & 5.7% ALLOCATIONS

CHECK YOUR NUMBERS

AGREEMENT ESTIMATE RECAPITULATION

PROJECT NUMBER			F0475 01C			CREATED:			02/19/25	
FEDERAL AID NUMBER			101-A(218)T			REVISED:				
LOCATION			101(AGUA FRIA) I-10 SYSTEM INTERCHANGE IMPROVEMENTS			ENGINEER:			K. HUSTON	
DESCRIPTION			FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS	LOCAL FUNDS	LOCAL FUNDS	LENGTH IN MI	
						94.30%	5.70%	100.00%		
Reconstruction - Added Capacity			03	250,000,000	123,993,334	116,925,714	+ 7,067,620	+126,006,666	2.000	= 250,000,000
TRAINEES			42		0	0	0	0		
SUBTOTAL				250,000,000	123,993,334	116,925,714	7,067,620	126,006,666		
CONSTRUCTION ENGINEERING			Fixed 17	33,962,302	17,359,067	16,369,600	+ 989,467	+ 16,603,235		= 33,962,302
POST DESIGN SERVICES			Fixed 17	2,425,879	1,239,934	1,169,258	+ 70,676	+ 1,185,945		= 2,425,879
CONSTRUCTION CONTINGENCY			5%	12,129,394	6,199,667	5,846,286	+ 353,381	+ 5,929,727		= 12,129,394
PROJECT TOTAL:				298,517,575	148,792,002	140,310,858	+ 8,481,144	+149,725,573	2.000	= 298,517,575



FOR HELP WITH RECAPS CONTACT:

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