

## ATP - Application Instructions for Detailed Engineer's Estimate and Total Project Cost- Cycle 3

- Applicants are expected to use this template for estimating/documenting the cost of construction items and the overall project costs. (eligible & non-participating)
- The Detailed Engineer's Estimate and Total Project Costs must tie to the information presented in Part 1 - 8 of the ATP Application Form.
- **Do NOT input values in gray cells. These cells are formula-driven and will automatically update.**

### Project (Engineer's) Information

- The Licensed Engineer in 'responsible charge' of the overall ATP application must review all information presented in this Estimate form and ensure the values are consistent with the corresponding plans included in the application. This requirement is considered necessary to ensure the ATP application meets the CTC's PSR-Equivalent requirement - including the use of construction items, quantities and unit prices that meeting industry standards for PSR-Equivalents. The engineer is also expected to review the breakdown of eligible vs. ineligible (non-participating) costs shown in estimate and confirm they are consistent with the ATP Guidelines.

### Engineer's Estimate & Cost Breakdown

**For each construction item in this table, the following items must be filled:**

**Item:** indicate the name of a construction item used in this project.

**Quantity:** indicate the total quantity of each construction item

**Units:** indicate the units of measurement (i.e. Square Feet or SQFT.) Refer to the Unit Cost Guide tab

**Unit Cost:** indicate the unit cost for one quantity.

*Total Item Cost will be automatically calculated once the above information are provided for each line item (row).*

**If more rows are needed to account for more construction items (including Overhead, General, or Landscaping) than the standard form has rows for, applicants can add rows by clicking on the 'Add a line' button on the right side of the form. NOTE: Before clicking the button, first click on the Excel row number above where you want to add the line.**

**General Overhead:**

Costs for these items have been separated out to reduce confusion relating to eligible vs. ineligible costs calculations.

The % of eligible vs. ineligible costs are automatically calculated based on the ratio of these costs for all of the other construction items.

**Landscaping:**

Costs for these items have been separated out to reduce confusion relating to eligible vs. ineligible costs calculations.

The eligibility of landscaping costs is dependent on if it is considered functional or non-functional (Decorative). Functional landscaping is 100% eligible. The eligibility of the non-functional (Decorative) landscaping must be considered as part of the 5% maximum allowable for decorative costs. These decorative costs must include all items necessary to prepare for, install, and maintain the non-functional landscaping; including but not limited to: removal of existing concrete, roadway excavation, imported backfill/top-soil, irrigation, plantings, plant establishment, etc.

**Cost Breakdown** See Caltrans ATP Guidelines, Chapter 22.5 and 22.6 for more details on eligible and ineligible items.

**ATP Eligible Items/costs:** these are expected to represent all construction items that are ATP eligible.

% - Insert the percentage of the total item cost that is directly attributed to "ATP Eligible items".

\$ - This field will automatically calculate once a percentage is entered in the previous question.

**ATP Ineligible (non-participating) Items/costs:** these are expected to represent all construction costs that are not ATP eligible. The % and costs are automatically calculated based on the "%" value the applicant entered for the eligible costs.

**To be constructed by Corps/CCC:** these are expected to include all items & costs that will be constructed by the Corps/CCC.

% - Insert the percentage of the total item cost that is directly attributed to "Corps/CCC to construct".

\$ - This field will automatically calculate once a percentage is entered in the previous question.

**Subtotals and Contingencies:**

**Subtotal of Construction Items:**

This field will automatically calculate the total of all construction items indicated above.

**Construction Item Contingencies:**

Insert percentage of contingencies, which is intended to account for the cost of minor construction items not defined at the time the ATP applications are prepared.

**Total (Construction Items & Contingencies) cost:**

This field will automatically calculate the total from all information indicated above.

**Project Delivery Costs:**

*The eligible vs. ineligible split is automatically calculated for all Project Delivery Costs.*

**Environmental Studies and Permits(PA&ED):**

Total cost of Environmental Studies and Permits phase of the project.

**Plans, Specifications and Estimates (PS&E):**

Total cost of Plans, Specifications and Estimates phase of the project.

**Total PE:**

This total is automatically calculated. Total of (PA&ED) + (PS&E) **Note: Per the Caltrans Local Assistance Procedures Manual, the total cost for PE should not exceed 25%. All costs over the 25% must be shown in the application as non-participating.**

**Right of Way Engineering**

Total cost of Right of Way Engineering, including obtaining the RW Certification.

**Acquisitions and Utilities:**

Total cost of Acquisitions and Utilities.

**Total RW:**

This total is automatically calculated. Total of (RW Eng.) + (Acq.&Utilities)

**Construction Engineering (CE):**

Total cost of Construction Engineering. **Note: Per the Caltrans Local Assistance Procedures Manual, the total cost for CE should not exceed 15%. All costs over the 25% must be shown in the application as non-participating.**

**Total Project Delivery:**

This total is automatically calculated. Total of (CE) + (Con. Item. & Contig.)

**Total Construction Costs:**

*The eligible vs. ineligible split is automatically calculated for these Costs.*

- This is automatically calculated from all information entered above. This value is to be used in filling out the application form.

**Total Project Cost Estimate:**

*The eligible vs. ineligible split is automatically calculated for the Total Project Costs.*

- This is automatically calculated from all information entered above.
- This value must represent the total estimated cost of the entire ATP project.
- The application must account for the ineligible (non-participating) costs being funded with local funds. Because this local funding is considered non-participating, it cannot be considered leveraging or matching funding.

**Documentation of Ineligible (Non-Participating) Costs:**

**The following are examples of how Engineer's can present their logic and calculations for splitting the projects costs between eligible and ineligible (non-participating) costs.**

**Example #1 - Pavement Rehabilitation:** The roadway paving and base repair needed for the roadway is within the limits of the new bike lanes and motorized lanes. The area within the physical limits of the new bike lanes is estimated to be 3x300=900' and the area outside these limits is estimated to be 10x300=3,000'. The ATP eligible reimbursement for all costs related to the Pavement Rehabilitation is calculated to be 900/(900+3000) = 23%. This split was used for Asphalt Concrete, Aggregate Base, and Excavation.

**Example #2 - New roadway lighting:** Of the newly lighted roadway width, the motorized lanes and parking lanes account for 40' and the bike lanes and sidewalks account for 26'. The ATP eligible reimbursement for all costs related to these streetlights is calculated to be 26/(26+40) = 39%. This split was used for light poles, conduit, trenching, and new service.

**Example #3 - Decorative Items:** 5% of the eligible construction item cost is \$46,500 (per the calculation box just below the "Subtotal of Construction Items:"). The project includes decorative pavers (Item 10) which are estimated to cost \$30,000 and are shown to be 100% ATP eligible. The project includes decorative landscaping costs of \$70,000 - made up of \$10,000 plantings, \$20,000 irrigation, \$10,000 topsoil, and \$30,000 for the necessary AC removal and roadway excavation. For ease, the \$10,000 in plantings is shown as 100% eligible; the \$10,000 topsoil and \$30,000 for the necessary AC removal & roadway excavation are shown as 100% ineligible (non-participating); and the ATP eligible portion of the irrigation costs is calculated to be 46,500-(\$30,000+\$10,000) = 6,500 => 6,500/20,000 = 62.5%.

Click here to fill out the  
Engineers Estimate Form

# Detailed Engineer's Estimate and Total Project Costs- Cycle 3

**Important: Read the Instructions in the first sheet (tab) before entering data. Do not enter data in shaded fields (with formulas).**

## Project Information:

Agency: City of Pittsburgh	Date: 6/7/2016
Project Description: Railroad Avenue Multiuse Trail	
Project Location: Railroad Avenue, from Delta DeAnza Trail (near Alvarado Avenue) to State Route 4	
Licensed Engineer in responsible charge of preparing or reviewing this PSR-Equivalent Cost Estimate: Paul Reinders	License #: C47755

## Engineer's Estimate and Cost Breakdown:

Engineer's Estimate (for Construction Items Only)							Cost Breakdown					
							ATP Eligible Costs/Items		ATP Ineligible Costs/Items		Corps/CCC to construct	
Item No.	Item	F, D or M	Quantity	Units	Unit Cost	Total Item Cost	%	\$	%	\$	%	\$
<b>General Overhead-Related Construction Items</b>												
1	Mobilization		1	LS	\$50,000.00	\$50,000	100%	\$50,000				
2	Traffic Control		1	LS	\$10,000.00	\$10,000	100%	\$10,000				
3	Stormwater Protection Plan		1	LS	\$5,000.00	\$5,000	100%	\$5,000				
4	Clearing and Grubbing		1	LS	\$10,000.00	\$10,000	100%	\$10,000			100%	\$10,000
5												
<b>General Construction Items (non-decorative only)</b>												
6	Remove Concrete Curb and Sidewalk		1	LS	\$6,500.00	\$6,500	100%	\$6,500				
7	Grading		1	LS	\$10,000.00	\$10,000	100%	\$10,000				
8	Asphalt Concrete Pavement (dwy)		210	SF	\$110.00	\$23,100	100%	\$23,100				
9	Concrete Curb and Gutter		155	LF	\$32.00	\$4,960	100%	\$4,960				
10	10' Concrete Sidewalk		2200	LF	\$200.00	\$440,000	100%	\$440,000				
11	Driveway Xings		4	EA	\$2,500.00	\$10,000	100%	\$10,000				
12	12' Concrete Crosswalk (textured)		4116	SF	\$36.00	\$148,176	100%	\$148,176				
13	8' Precast Soundwall		950	LF	\$80.00	\$76,000	100%	\$76,000				
14	Concrete Curb Ramp		4	EA	\$2,000.00	\$8,000	100%	\$8,000				
15	Benches/Hardscape		1	LS	\$10,000.00	\$10,000	100%	\$10,000				
16	Bus Shelter		1	LS	\$6,000.00	\$6,000	100%	\$6,000				
17	Pedestrian Lighting		100	EA	\$2,000.00	\$200,000	100%	\$200,000				
18	Wayfinding Signage		4	EA	\$500.00	\$2,000	100%	\$2,000				
19	Service Information/Identity Signage		2	EA	\$1,000.00	\$2,000	100%	\$2,000				
<b>Decorative &amp; Landscaping-related Items</b> (Label items as "F" for Functional, "D" for Decorative, or "M" for a mix of Decorative and Functional)												
20	Trees	M	1	EA	\$1,000.00	\$1,000	100%	\$1,000			80%	\$800
21	Shrubs/groundcover	M	40000	SQFT	\$0.50	\$20,000	100%	\$20,000			80%	\$16,000
22	Irrigation / Water Connection	M	1	LS	\$6,000.00	\$6,000	100%	\$6,000			80%	\$4,800
23												
24												
25												
26												
<b>Subtotal of Construction Items:</b>						<b>\$1,048,736</b>		<b>\$1,048,736</b>				<b>\$31,600</b>
\$52,437 <= 5% of eligible CON costs (max. decorative, if applicable)												
<b>Construction Item Contingencies (% of Construction Items):</b>					<b>25.00%</b>	<b>\$262,184</b>		<b>\$262,184</b>				
<b>Total (Construction Items &amp; Contingencies) cost:</b>						<b>\$1,310,920</b>		<b>\$1,310,920</b>				

## Project Delivery Costs:

Type of Project Cost	Cost \$	ATP Eligible Costs	Non-participating Costs	
<b>Preliminary Engineering (PE)</b>				
Environmental Studies and Permits(PA&ED):	\$ 10,000	\$10,000		
Plans, Specifications and Estimates (PS&E):	\$ 265,000	\$265,000		"PE" costs / "CON" costs
<b>Total PE:</b>	<b>\$ 275,000</b>	<b>\$275,000</b>		<b>21%</b> <b>25% Max</b>
<b>Right of Way (RW)</b>				
Right of Way Engineering:	\$ 10,000	\$10,000		
Acquisitions and Utilities:	-			
<b>Total RW:</b>	<b>\$ 10,000</b>	<b>\$10,000</b>		
<b>Construction Engineering (CE)</b>				
Construction Engineering (CE):	\$ 170,000	\$170,000		"CE" costs / "CON" costs
				<b>13%</b> <b>15% Max</b>
<b>Total Project Delivery:</b>	<b>\$455,000</b>	<b>\$455,000</b>		
<b>Total Construction Costs:</b>	<b>\$1,480,920</b>	<b>\$1,480,920</b>		
<b>Total Project Cost:</b>	<b>\$1,765,920</b>	<b>\$1,765,920</b>		

### Documentation of Ineligible (Non-Participating) Costs:

The Engineer's logic and/or calculations for splitting costs between ATP-Eligible and Non-participating costs must be documented in this section of the Estimate form. Separate logic is required for each construction item listed above which is partly ineligible for ATP funding or is required for the construction of an ineligible item/element of the project.

Item Number(s):	Description of Engineer's Logic: (See examples shown in the Instructions)
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# Detailed Engineer's Estimate and Total Project Costs- Cycle 3

**Important: Read the Instructions in the first sheet (tab) before entering data. Do not enter data in shaded fields (with formulas).**

## Project Information:

<b>Agency:</b> City of Pittsburg	<b>Date:</b> 6/7/2016
<b>Project Description:</b> Railroad Avenue Multiuse Trail	
<b>Project Location:</b> Railroad Avenue, from Delta DeAnza Trail (near Alvarado Avenue) to State Route 4	
<b>Licensed Engineer in responsible charge of preparing or reviewing this PSR-Equivalent Cost Estimate:</b> Paul Reinders	<b>License #:</b> C47755

# ATP Construction Item Unit Cost Guide

(For items common to ATP projects)

Index #	Description	Typical Units	Notes
<b>General Overhead and Contingency Related Construction Items</b>			
	Mobilization, RE office, Traffic Control, Water Quality, Clearing and Grubbing, temporary items, etc.	LS	Engineering Estimates at the "PSR-Equivalent" phase may or may not include these items. The extent that these items are included in the estimate should be inversely proportional to the size of the "Construction Contingency" used.
	Mobilization	LS	Dependent on project size & location
	Storm Water Pollution Prevention Plan	LS	\$5,00 to \$10,000
	Erosion Control	LS	1.50%
	Hydroseed	SF	Average \$1
	Fiber Rolls	LF	Average \$5
	Traffic Control	LS	
	Clearing and Grubbing	LS	
<b>Removal, Excavation, and Import Related Construction Items</b>			
	Roadway Excavation	CY	\$12 to \$35
	Embankment / Fill / Import Material	CY	Average \$25
	Remove Fence, Culvert, Inlet, Curb, etc.	Varies	Engineering Estimates at the "PSR-Equivalent" phase may or may not include these items. The extent that these items are included in the estimate should be inversely proportional to the size of the "Construction Contingency" used.
	Remove Concrete (Miscellaneous)	CY	Sidewalk, Pavement & Curb/Gutter Average \$75
	Sawcut existing AC	LF	
	Sawcut and Remove existing AC and AB	SF	
	Remove Existing Pavement	SF	
	Remove Existing Sidewalk	SF	
	Cold Plane AC (2" thickness)	SY	\$1.75 to \$3.50
	Remove Tree	EA	
	Remove Power Pole	EA	
	Utility Relocation	LS	
<b>Roadway Paving Items</b>			
	Roadway Excavation	CY	\$12 to \$38
	Class 2 Aggregate Base	CY	\$30 to \$70
	Hot Mix Asphalt	TON	1 ton covers approx. 12' x 6.5' at 2" final thickness \$40 to \$125
	Place HMA Dike	LF	average \$1.75
	Adjust Frame and Cover to Grade	EA	average \$650
	Slurry Seal		
	AC Dike		
<b>Sidewalks, Concrete, Plazas, etc</b>			
	Concrete curbing	LF	6" x 6" average \$3.50
	Curb & Gutter		
	Concrete Sidewalk	SF	average \$15
	Concrete Driveway		
	Minor Concrete (Textured Paving)	SF	average \$5
	Prepare and Stain concrete	SF	average \$2.75
	Concrete Pavers / Bricks	SF	
	Curb Ramp	EA	\$3000 to \$5,500

# ATP Construction Item Unit Cost Guide

(For items common to ATP projects)

Index #	Description	Typical Units	Notes
	Bollards	EA	\$100 to \$750
<b>Crosswalk and Roadway-Crossing Items</b>			
	Thermoplastic Crosswalk	LF	
	Bulb-outs (No Drainage)	EA	
	Bulb-outs (Include Drainage)	EA	
	Bulb-outs (Surface Mounted)	EA	
<b>Striping and Pavement Marking Items</b>			
	4" Thermoplastic Traffic Stripe	LF	\$0.65 to \$0.75
	6" Thermoplastic Traffic Stripe	LF	average \$1.00
	8" Thermoplastic Traffic Stripe	LF	average \$1.00
	Thermoplastic Pavement Marking/Legend	SF	average \$5.5
<b>Signs, Flashing Beacons, Ped Signals, Signal Upgrades</b>			
	Sign- 1 post	EA	\$250 to \$300
	Sign- 2 post	EA	average \$550
	Radar Speed Feedback Sign	EA	
	Rectangular Rapid Flashing Beacon (Ped Actuated)	EA	average \$5000
<b>Lighting</b>			
	Pedestrian Lights (Poles only)	EA	
	Pedestrian Lights (including: conduit, boxes, etc.)	EA	
	Street Lights (Poles only)	EA	
	Street Lights (including: conduit, boxes, etc.)	EA	
	Conduit and Boxes	LF or LS	Option stand-alone item (can be part of lighting)
<b>Landscaping Items</b>			
	Transplant Tree	EA	No Palm Trees allowed. Average \$400
	Tree Well	EA	average \$600
	Remove Tree	EA	Small trees are accounted for in clearing and grubbing (5" diameter or smaller) \$700 to \$800
	Tree Grate	EA	average \$350
	Fall Tree	EA	average \$1,000
<b>Other Miscellaneous Items</b>			
	Minor Concrete (Minor Structure)	CY	average \$1200
	6' Retaining Wall	CY	6' tall L shape wall 0.60 cy/lf. Average \$800
	4' Retaining Wall	CY	4' tall L shape wall 0.45 cy/lf. Average \$700

# ATP Construction Item Unit Cost Guide

*(For items common to ATP projects)*

Index #	Description	Typical Units	Notes
	Ped/Bike Bridge	EA	
	Roadway Drainage	LS	
	Chain Link Fence		
	Iron / Decorative Fence		