

# DEVELOPING A PROJECT BUDGET AND SCOPE OF WORK

## RESILIENCE DIVISION

PREPARE | RESPOND | RECOVER | MITIGATE



# What is our role?

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The Oklahoma Department of Emergency Management (OEM) prepares for, responds to, recovers from and mitigates against disasters and emergencies.



# What is hazard mitigation?

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- Any sustained action taken to reduce or eliminate the long-term risk to life and property from hazard events.
- Where in the cycle is hazard mitigation?



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**Building Resilient Infrastructure and Communities  
(BRIC) and Flood Mitigation Assistance (FMA)**

**SCOPE OF WORK SCHEDULE**

# Developing a Project Budget and Scope of Work



# Scope of Work

Describes the proposed activity:

- Who
- What
- When
- Where
- Why
- How



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# Cost Estimate/Budget

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- Provides breakdown of cost for mitigation activity
- Documents the estimated costs source such as engineering/construction estimator software
- Costs should be specific and detailed by appropriate unit – hours, dimensions, etc. – no lump sums!

## Cost Breakdown Tips

1. Contractor Costs
2. Management Costs
  1. Project Management
  2. Grant Management
  3. Match funds, source and use
3. Presentation in SF424C Budget Format
4. Budget *Detail* - Contractor's estimate or your calculations justifying costs
5. Budget Narrative – describe how elements of the budget implement the Scope of Work.





## Schedule

- Divides the activity into measurable tasks or milestones
- Includes all itemized tasks
- Provides a realistic schedule for each task
- The schedule cannot exceed allowable period of performance – which is usually 36-48 months
- Should provide adequate detail
- Add Go/No Go BRIC milestones



# Project Subapplication Scope of Work

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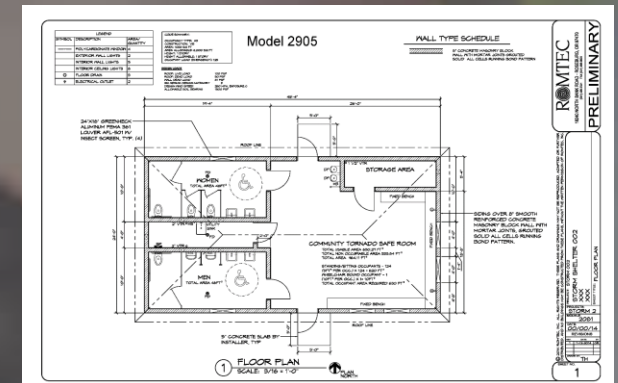
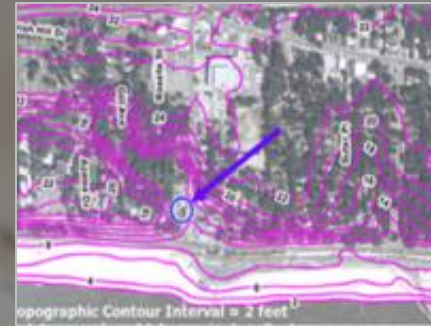
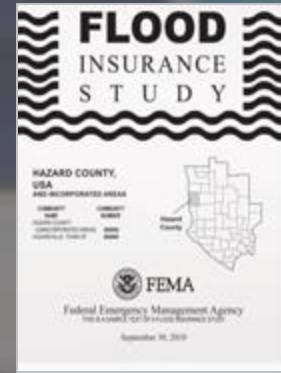
Detailed description of the proposed project:

- What is the proposed project?
- Why is this project needed?
- How or why were alternative solutions not chosen?
- Will the activity solve the problem?
- Who will be affected and benefit by the project?
- Who will perform the work?
- Where is the proposed project located?



# Project Scope of Work: Supporting Documentation

- Topographic and location maps
- Pertinent studies
- Site maps
- Site photos
- Damage history, news articles, video links
- Hazard description
- Code references



# FEMA Website Scope of Work Development Resources

Procedures for developing SOWs by project type:

- Acquisition of Flood-prone properties
- Drainage and stormwater management
- Elevation of flood-prone structures
- Seismic structural and non-structural retrofit
- Wind retrofit



https://www.fema.gov/grants/mitigation

An official website of the United States government [Here's how you know](#)

Español Tiếng Việt 简体中文

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Grants

FEMA Grants

- Hazard Mitigation Assistance Grants**
- FY2022 NOFOs for HMA Grants
- About Hazard Mitigation Assistance
- HMA Grants Resources
- Hazard Mitigation Grant Program (HMGP)
- HMGP Post Fire
- Flood Mitigation Assistance (FMA) Grant
- Building Resilient Infrastructure and Communities (BRIC)
- Pre-Disaster Mitigation (PDM) Grant Program
- Safeguarding Tomorrow RLF Program

Preparedness Grants

Resilience Grants

Emergency Food and Shelter Program

Policy & Guidance

Tools

### Hazard Mitigation Assistance Grants

English Español

FEMA's hazard mitigation assistance provides funding for eligible mitigation measures that reduce disaster losses.

"Hazard mitigation" is any sustainable action that reduces or eliminates long-term risk to people and property from future disasters.

Mitigation planning breaks the cycle of disaster damage, reconstruction and repeated damage. Hazard mitigation includes long-term solutions that reduce the impact of disasters in the future.

On March 15, 2023, FEMA announced the release of its new program guidance, entitled the Hazard Mitigation Assistance Program and Policy Guide (HMA Guide). The HMA Guide will replace the 2015 Hazard Mitigation Assistance Guidance and Addendum.

The HMA Guide provides helpful information for prospective applicants and subapplicants from state, local, tribal and territorial governments seeking to successfully navigate the application and grant processes for FEMA's hazard mitigation grant programs.

[Download the Guide](#)



## Project Schedule Elements

- Subapplication review and award process
- Solicitation of contractor bids
- Design
- Construction
- Stage completion milestones
- Inspections
- Closeout

Projected time must not  
exceed the grant  
performance period

# Schedule Example

ID	Task Name	Start	Finish	Duration	Mar 2012			Apr 2012				May 2012				Jun 2012				Jul 2012				
					3/18	3/23	3/30	4/5	4/13	4/20	4/27	5/4	5/7	5/8	5/25	6/7	6/15	6/20	6/22	7/5	7/8	7/18	7/20	7/25
1	31st Analysis	3/18/2012	4/7/2012	15d	▶																			
2	Site Visit	3/18/2012	3/24/2012	5d	▶																			
3	Prepare Site Analysis Report	3/25/2012	4/7/2012	10d				▶																
4	31st Design	4/8/2012	5/25/2012	43d				▶																
5	Develop Draft Design	4/8/2012	5/5/2012	20d				▶																
6	Approve Draft Design	5/6/2012	5/6/2012	0d								◆												
7	Develop Final Design	5/6/2012	5/25/2012	15d								▶												
8	Approve Final Design	6/6/2012	6/6/2012	0d												◆								
9	Construction	5/25/2012	7/25/2012	35d								▶												
10	Phase 1 Construction	5/25/2012	6/30/2012	30d								▶												
11	Phase 1 Inspection	7/18/2012	7/18/2012	0d												◆								
12	Phase 2 Construction	6/27/2012	7/25/2012	20d												▶								
13	Phase 2 Inspection	7/25/2012	7/25/2012	0d												◆								
14	Final Inspection	7/31/2012	7/31/2012	0d												◆								

Tip: draft schedule by month or quarter rather than actual dates as award schedule cannot be assumed



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# Project Cost/Line-Item Estimate Examples

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- Project Manager
- Contractor
- Engineering and architectural designs
- Construction costs
- Equipment
- Permits and Surveys
- Site preparation and restoration
- Contingency costs must be explained on the FEMA GO application tool
- Management Costs



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# Example: Summary Budget

Table D-1

Exhibit D: Project Cost Estimate Worksheet

Name of Sub-Recipient					Grant Program				
					HMGP-####/HMGP-####				
CFDA #		Federal Identification Number		Budget (CheckOne)		Budget Period		Strategic Funds Management	
		04-600-1386		New <input checked="" type="checkbox"/> Revised <input type="checkbox"/>		From: To:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
FEMA Ob#	Task	Activity/Cost Classification		A. Eligible and Approved Total Cost		B. Local Share*		C. Federal Share**	
	1	Pre-Award		\$ 53,000.00		\$ 13,250.00		\$ 39,750.00	
	2	Pre-Construction		\$ 210,000.00		\$ 52,500.00		\$ 157,500.00	
	3	Construction - General		\$ 2,167,178.00		\$ 541,794.50		\$ 1,625,383.50	
	4	Management Costs		\$ 32,400.00		\$ 8,100.00		\$ 24,300.00	
	5	Post Construction (project closeout)		\$ 7,200.00		\$ 1,800.00		\$ 5,400.00	
	6								
	7								
	8								
	9								
Subtotal				\$2,469,778.00		617,444.50		\$ 1,852,333.5	
Project (Program ) income				\$ -		\$ -		\$ -	
Total				\$2,469,778.00		617,444.5		\$ 1,852,333.5	
* Local Share, per regulation, is at most 25% of total eligible and approved costs ** Federal share, per regulation, is at least 75% of total eligible and approved costs									
Please provide a dollar amount that you anticipate spending in each fiscal year listed below for the federal funds only									
		FY 19	\$ 53,000.00	FY 20	\$ 110,000.00	FY 21	\$ 2,100,000.00	FY22	\$ 330,267.00
For Strategic Funds Management, the Federal Funds obligations will be broken down by tasks and duration of the tasks.									
Mitigation Project Milestone Work Schedule									
Ob#	FEMA Amendment #	Duration (	Federal Share Amount	Date of obligation	Contract end				



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# Detailed Cost Estimate

Note that categories in second column align with summary categories on previous budget.

Next columns include detailed:

- Element Description
- Quantity
- Unit number
- Unit cost
- Total Cost

Table D-2

Exhibit D: Project Cost Estimate Worksheet

Benefit Cost Analysis Project Cost Estimate Template							
Applicant							
Project Title		Beacham and Market Street Culverts Tide Gates					
Preparer		Name: Executive Director of Public Works and Engineering					
Estimating Step	Project Phase	HAZARD:		Flood			
		MITIGATION STRATEGY:		Drainage Improvement			
	Description	Quantity	Unit	Unit Cost	Task Cost		
1	Pre-award	Conceptual Design Report	1	LS	\$ 28,000.00	\$ 28,000	
		HMGP Development (BCA and Application Support)	1	LS	\$ 25,000.00	\$ 25,000	
						\$ -	\$ -
		<b>Pre-Construction Subtotal</b>					<b>\$ 53,000</b>
2	Pre Construction	Preliminary and Final Design- 60% and 100% review (typically 6% of const	1000	HR	\$125.00	\$ 125,000	
		Permitting (see Exhibit E)	600	HR	\$125.00	\$ 75,000	
		Bid Package	64	HR	\$125.00	\$ 8,000	
		Review Bids and Select Contractor	16	HR	\$125.00	\$ 2,000	
		<b>Pre-Construction Subtotal</b>					<b>\$ 210,000</b>
3	Construction-General	<b>Construction -see further breakdown in Conceptual Design Report (CDR)</b>					
		Furnishing equipment for driving piles	1	each	\$ 25,000.00	\$ 25,000	
		Pipe saddle support - 12 3/4" dia. Piles driven and furnished	85	LF	\$ 240.00	\$ 20,400	
		Culvert tide gate foundation - 12 3/4" dia. Piles driven and furnished	85	LF	\$ 1,125.00	\$ 95,625	
		Culvert tide gate foundation - Sheetpile cutoff wall	1050	SF	\$ 36.00	\$ 37,800	
		Culvert tide gate foundation - Dynamic test pile vertical & horizontal	2	each	\$ 5,000.00	\$ 10,000	
		Wingwall foundation - 12 3/4" dia. Piles driven and furnished	2100	LF	\$ 85.00	\$ 178,500	
		Wingwall foundation - sheetpile cutoff wall	1280	SF	\$ 36.00	\$ 46,080	
		Temporary coffer dam - tide gate structure	30	SF	\$ 2,549.00	\$ 76,470	
		Temporary coffer dam - wingwalls	30	SF	\$ 3,398.00	\$ 101,940	
		Earth, muck, rock excavation, dispose soil, add stone - detail in CDR	1	each	\$ 400,000.00	\$ 400,000	
		Tide gate structure - concrete, rebar, misc - detail in CDR Appendix	1	each	\$ 470,000.00	\$ 470,000	
		Contol of water	10	weeks	\$ 5,000.00	\$ 50,000	
		New 10'x10' and 9'x6' culverts installed	60	LF	\$ 1,500.00	\$ 90,000	
		Tide gates - large	2	each	\$ 50,000.00	\$ 100,000	
	Subtotal construction					\$ 1,701,815	
	Conceptual to Final Design Changes (typically 20% of Construction)					\$ 340,363	
	Design services during construction (RI/CA)					\$ 125,000	
	<b>General Construction Subtotal</b>					<b>\$ 2,167,178</b>	
	Administrative Cost	Management and Administration of Grant (30 mo. X 8 hr/ mo)	240	HR	\$ 75.00	\$ 18,000	
Contract Management (25 mo x 4hr/mo)		120	HR	\$ 75.00	\$ 9,000		
Construction Management (6 mo x 12hrs/mo)		72	HR	\$ 75.00	\$ 5,400		
<b>Administrative Cost Subtotal</b>						<b>\$ 32,400</b>	
4	Post Construction	Project Closeout (32 hrs/mo x 3mo)	96	HR	\$ 75.00	\$ 7,200	
6	Contingency			5.00%	\$ 123,489		
					\$ 53,000		
					\$ 210,000		
					\$ 2,167,178		
					\$ 32,400		
					\$ 7,200		
					\$ 123,489		
<b>PROJECT TOTAL</b>						<b>\$ 2,593,267</b>	
Maintenance			Quantity	Hr	Unit Cost		
		Labor (2 employees x 1/2 hr x \$30 x 365 days/yr)	365	Hr	\$ 30.00	\$ 10,950	
		Debris Cleaning, Disposal and Repairs	1	LS	\$ 4,000.00	\$ 4,000	
		<b>Annual Maintenance Total</b>				<b>\$ 14,950</b>	



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# Budget Narrative Example

**City Administrative Expenses** – This cost covers the city’s management cost of the project and grant. The Utilities Director will oversee the project ( $\$35.21/\text{h} \times 71 \text{ hr} = \$2500$ ) and City staff (3 staff  $\times \$22.22/\text{h} \times 30 \text{ hr} = \$2,000$ ) will provide inspection of the construction.

**Engineering Fees** – These fees will cover the cost for the City contracted engineering firm to oversee the design and contract documents for the construction. This also covers the cost for the Engineering firm to bid the project and perform contract and grant administration.

**Equipment Costs** – this cost covers the City’s equipment operating cost including a loader/excavator to assist in the installation of the check valves. ( $\$200/\text{h} \times 25 \text{ hr} = \$5,000$ )

403.3 - Stormwater Management - Flapgates/Floodgates					Federal Share: \$ 62,500.00	
Item Name	Cost Classification	Unit Quantity	Unit of Measure	Unit Cost (\$)	Cost Estimate (\$)	
42" Check Valve Delivered	Construction And Project Improvement	1.00	Each	\$ 20,000.00	\$ 20,000.00	
54" Check Valve Delivered	Construction And Project Improvement	1.00	Each	\$ 35,000.00	\$ 35,000.00	
Install 42" Check Valve	Construction And Project Improvement	1.00	Each	\$ 8,500.00	\$ 8,500.00	
Install 54" Check Valve	Construction And Project Improvement	1.00	Each	\$ 10,000.00	\$ 10,000.00	
City Administrative Expenses	Administrative Expense	1.00	Each	\$ 4,500.00	\$ 4,500.00	
Engineering Fees	Architectural Engineering Basic Fees	1.00	Each	\$ 7,000.00	\$ 7,000.00	
Equipment Costs	Equipment	1.00	Each	\$ 5,000.00	\$ 5,000.00	
Total Cost					\$ 90,000.00	
<b>Total Project Cost Estimate: \$ 90,000.00</b>						

**Equipment Purchase and Installation** – these amounts are averages of 3 quotes from suppliers and installers.



# SF-424 Requirement

- ✓ SF424C required for Construction projects
- ✓ SF424A required for Planning/non-construction projects

Submitted Cost Estimate					--->	SF-424C Construction Programs Cost Estimate	
SF-424C	Item	Count	Unit Cost	Total Cost		Cost Category (p represents pre-award cost)	Total Cost
4	Engineering and Design	1	\$0.00	\$0.00		1 Administrative and legal expenses	\$15,675.00
2	Site / Land Acquisition	1	\$91,000.00	\$91,000.00		2 Land, structures, rights-of-way, appraisals, etc.	\$91,000.00
1-p	Certified Appraisal	1	\$500.00	\$500.00		3 Relocation expenses and payments	\$0.00
2	Home Repairs w/ receipts	1	\$0.00	\$0.00		4 Architectural and engineering fees	\$0.00
1	Attorney Fees (consultant to city)	1	\$1,000.00	\$1,000.00		5 Other architectural and engineering fees	\$0.00
1	Title Insurance	1	\$500.00	\$500.00		6 Project inspection fees	\$400.00
1	Escrow Fees	1	\$750.00	\$750.00		7 Site work	\$3,000.00
1-p	Application Preparation	1	\$0.00	\$0.00		8 Demolition and removal	\$24,650.00
1	Project Management	1	\$12,300.00	\$12,300.00		9 Construction	\$0.00
8	Materials / Supplies	1	\$0.00	\$0.00		10 Equipment	\$0.00
8	Demolition and Disposal	1	\$14,150.00	\$14,150.00		11 Miscellaneous	\$0.00
7	Land Restoration and Stabilization	1	\$3,000.00	\$3,000.00		1-p Administrative and legal expenses	\$700.00
8	Asbestos Inspection	1	\$500.00	\$500.00		2-p Land, structures, rights-of-way, appraisals, etc.	\$0.00
8	Asbestos Abatement	1	\$10,000.00	\$10,000.00		4-p Architectural and engineering fees	\$0.00
1	Advertising Fees (demolition bid)	1	\$125.00	\$125.00		5-p Other architectural and engineering fees	\$0.00
1	Permitting	1	\$1,000.00	\$1,000.00		6-p Project inspection fees	\$0.00
6	Lead Paint Inspection	1	\$400.00	\$400.00		11-p Miscellaneous	\$0.00
11-p	NFIP Credit	1	\$0.00	\$0.00			
1-p	Public Notice	1	\$200.00	\$200.00			
				\$0.00			
				\$0.00			
						<b>Total</b>	<b>\$135,425.00</b>
						The purpose of this spreadsheet is to assist you in converting a project budget to the SF-424 format preferred for submission in a Federal grant	



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# Thank You

Please reach out to your State or FEMA POC if you have any questions



## Contact Info

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