

# Building Complex Proposal Budgets

Proposal Preview and Tips on Direct  
Cost budgeting

We invite you to join polling at  
**menti.com | use code 1116 0075**  
(<https://www.menti.com/alcvfk3dr7g8>)



# Offensive Coordinators



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# University of Maine



- 11,000 Student Enrollment
- 866 Faculty
- Carnegie R1 Top-Tier Research University
- 16:1 Student to Faculty Ratio
- 3.35 Avg. First Year Student GPA
- \$245.7M R&D expenditures in FY22
- 150+ Research Institutes, Centers and Labs
- Maine's leading engineering program
- Engineering excellence since 1865

# Advanced Structures and Composites Center

*We innovate to develop sustainable materials and technologies to solve infrastructure, energy and national security challenges, while empowering economic development and education in Maine.*

## Strategic Goals

1. Educate and train the workforce leaders of the future.
2. Develop sustainable, more durable transportation and housing infrastructure.
3. Serve **national security priorities** by developing **enabling technologies**.
4. Lead in floating offshore wind technology development
5. Lead in **large-scale manufacturing** using advanced additive and hybrid processes.
6. Develop technologies to mitigate effects of sea level rise on coastal communities.
7. Develop breakthrough bio-based material systems and applications from Maine wood residuals

## NATIONAL SECURITY – RENEWABLE ENERGY – CIVIL INFRASTRUCTURE MARINE – AEROSPACE



- Largest University-based research Center in Maine
- Founded through the NSF in 1996
- 2,600+ students funded from 35 majors
- Over 300 Personnel
- 100,000 ft<sup>2</sup> lab
- 10+ spinoff companies
- 1,000 publications
- 130+ patents
- 30,000 Visitors
- 1,600 media stories

# University of Notre Dame



## Irish Facts & Figures

- 13,000 students
- 1,400 faculty
- R-1 Research University
- Association of American Universities member (new in 2023)
- \$216M in research awards in FY23 (+57% since 2017)
- #1 in NEH Fellowships since 1999



# Goals



- 1) Prepare a timeline for a complex budget.
- 1)2) Understand the pitfalls you may encounter along the way.
- 1)3) See a demonstration of complex budgeting techniques.
- 4) help! Review some tools and tricks that may

## WARMUPS

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Notre Dame D-line coach Al Washington (right) watches defensive tackle Rylie Mills go through some warm-up drills last fall. (Jeff Douglas, Inside ND Sports)

# The Opponent: Tight[~~end~~] Turnarounds!!

Your PI notifies you that they plan to respond to a DARPA BAA. There will be 3 subcontractors and the budget total will be \$5 million. The BAA materials include a budget template and a requirement to provide the budget for each project phase, the government fiscal year, and for each project task. The program is a 48-month effort with 3 phases starting October 1:

- Phase 1: 18 month base period
- Phase 2: 18 month option period
- Phase 3: 12 month option period





# Time to Huddle

## • Tackling everything with the Team approach

- Set up a kickoff meeting! Especially with a short timeline (set tasks)
- Need a QB
  - Have any of your institutional or sponsor policies changed since the last time you worked with this PI?
  - Are there new tools and resources your division is expected to use on this proposal?
  - How do you communicate any changes from the past process on a short timeline?
  - Does the PI have prior experience with this sponsor/program?
  - Are there subawards and how do you collect this information quickly?



# Gameplan

• How much time do you have before the internal and external submission deadline?

- Are there multiple PIs? Subcontractors? Industry Partners?
- How does your institution track effort?
- Do you have deliverable-based invoicing but need to hire?
- Does the sponsor require the budget in a specific format?
- What are some of the questions you would ask in this situation?
- What would you do if your PI is not responding?

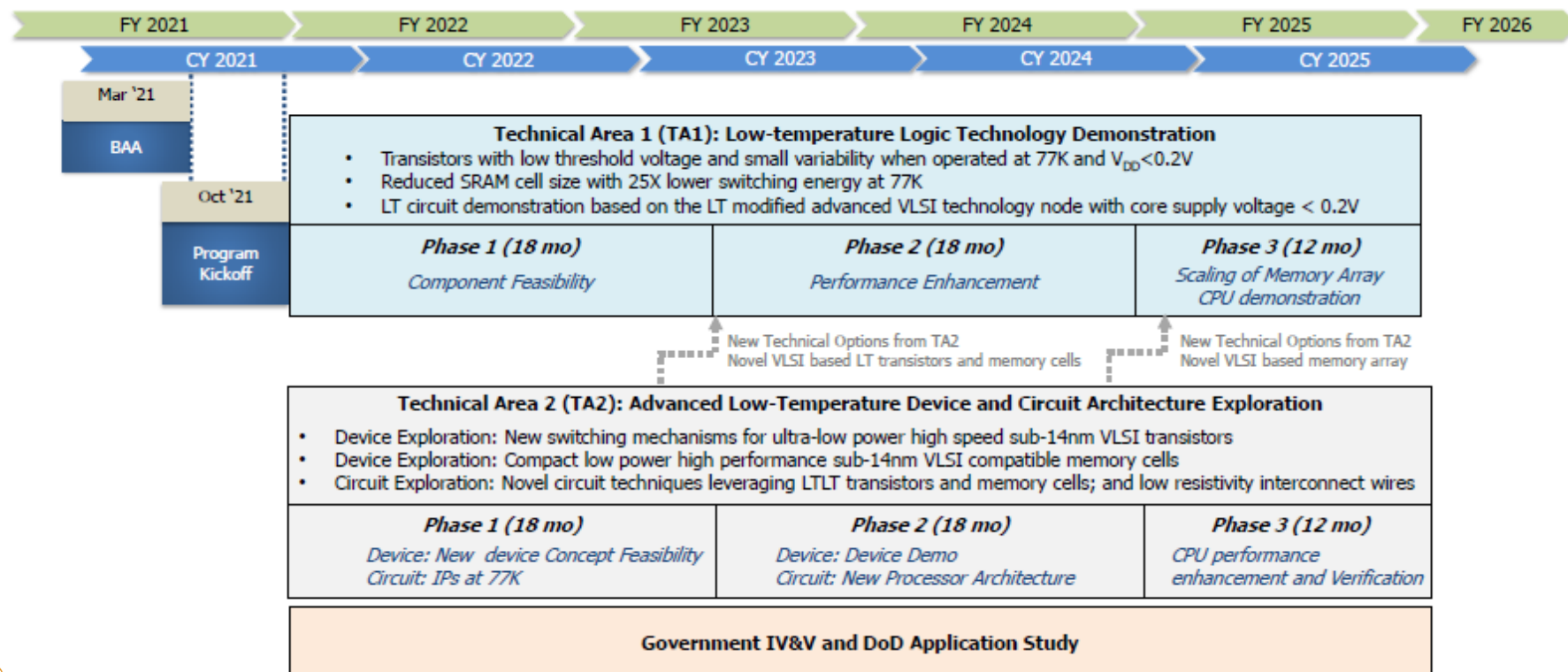


# Kick Off



- Work with the PI to develop the task schedule, project timeline, and budget
- Understand the end game:
  - Award instrument (contract v. grant)
  - Budget documentation
- How does the project budget need to be broken down?

# What's the end goal?





# Moving the Ball



What do you do when your PI hasn't provided budget information and/or isn't responding?

# In-Game Adjustments

<ul style="list-style-type: none"><li>•Electronic Systems</li></ul> <ul style="list-style-type: none"><li>•New Federal Requirements for Compliance</li></ul>	<ul style="list-style-type: none"><li>•Fabricated and other complex capital expenses</li></ul> <ul style="list-style-type: none"><li>•Get your Lab Support and other Teams involved</li></ul>	<ul style="list-style-type: none"><li>•Provisional Service Center rates</li></ul> <ul style="list-style-type: none"><li>•Budgeting estimated rates while service centers are being set up</li></ul>	<ul style="list-style-type: none"><li>•PI level of effort</li></ul> <ul style="list-style-type: none"><li>•What's reasonable for your Scope?</li><li>•Addressing internal and sponsor C&amp;Ps</li></ul>	<ul style="list-style-type: none"><li>•Thinking ahead...</li></ul> <ul style="list-style-type: none"><li>•Declaring Fundamental Research Exclusions</li></ul>
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## DECISION TIME

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# Fundamentals Make a Difference



- Start with the internal budget

- Structure it using the project timeline and consider the sponsor budget requirements to make sure the budget periods align with the project schedule



# Internal Budget Formation

1 9-month, 3 12-month and 1 3-month periods to match sponsor periods and institutional fiscal year

	Sponsor FY22 M1-M9	Sponsor FY23 M10-M21	Sponsor FY24 M22-33	Sponsor FY25 M34-45	Sponsor FY26 M46-48	Total
<b>Salaries and Wages</b>						
Senior Personnel AY/CY Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Senior Personnel Summer Salary	\$ -	\$ 24,443	\$ 25,177	\$ 25,932	\$ 26,710	\$ 102,262
Post Doctoral Associates	\$ 36,190	\$ 51,254	\$ 52,792	\$ 54,376	\$ 10,183	\$ 204,795
Graduate Students	\$ 45,814	\$ 64,885	\$ 66,831	\$ 68,836	\$ 12,891	\$ 259,257
Undergraduate Students	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Fringe Benefits</b>	\$ 12,483	\$ 24,255	\$ 24,983	\$ 25,732	\$ 10,697	\$ 98,150

# Fundamentals Make a Difference

- Add your costs

- Be mindful of the timing of expenses:

- Summer v. academic year timing against the project periods
- Hiring/onboarding new staff, including postdocs, grad students, managing directors
- Equipment or supply purchases
- Travel for project meetings or conferences



# Tackle that Sponsor Budget

- Complete the sponsor spreadsheet and work on the required breakdowns.

- Fill in fiscal year, salary, fringe, and indirect rates
- Complete the detail tabs first, then phase/task tabs followed by milestone/deliverables and monthly breakdown



# Tackle that Sponsor Budget

Sponsor Base Period: 18 months  
 Sponsor Option 1 Period: 18 months  
 Sponsor Option 2 Period: 12 months  
 Total: 48 Month Project Period

		BASE			OPTION 1			OPTION 2		Total	
		10/21-03/23			04/23-09/24			10/24-09/25		(Note 3)	48-Months
Name (Last, First)	Hours	Rate	Cost	Hours	Rate	Cost	Hours	Rate	Cost	Hours	Cost
Joe Montana	139	See Base Tab	\$ 24,443	173	See O-1 tab	\$ 31,661	243	See O-1 tab	\$ 46,159	555	\$ 102,263
To Be Named	2,817	See Base Tab	\$ 74,630	2,860	See O-1 tab	\$ 79,203	1,777	See O-1 tab	\$ 50,965	7,453	\$ 204,798
To Be Named GRA#1	1,354	See Base Tab	\$ 47,248	1,375	See O-1 tab	\$ 50,121	854	See O-1 tab	\$ 32,259	3,583	\$ 129,628
To Be Named GRA#2	1,354	See Base Tab	\$ 47,247	1,375	See O-1 tab	\$ 50,121	854	See O-1 tab	\$ 32,259	3,583	\$ 129,627
	5,664		\$ 193,568	5,783		\$ 211,106	3,728		\$ 161,642	15,175	\$ 566,316



# Tackle that Sponsor Budget

## Phase 1/Base Effort

Cost Proposal - Base Effort	10/21-03/23									
Proposer	University of Notre Dame (Prime)									
Prime Contract	0									
						(Note 2)				
						Proposer FY 1				
Direct Labor (DL)						07/01/21 to 06/30/22				
	<u>Proposer's Labor Category (Note 1)</u>	<u>Name (Last, First)</u>	<u>Hours</u>	<u>Hourly Labor Rate</u>	<u>Direct Labor Cost</u>	<u>Fringe Benefit Rate</u>	<u>Fringe Benefit Cost</u>	<u>Labor Overhead Rate</u>	<u>Labor Overhead Cost</u>	<u>Total \$</u>
	Senior Personnel	Joe Montana	0	\$ 171.14	\$ -	26.90%	\$ -	0.00%	\$ -	\$ -
	Post Doctoral Associate	To Be Named	1,387	\$ 26.10	\$ 36,190.26	23.10%	\$ 8,359.95	0.00%	\$ -	\$ 44,550
	Graduate Student	To Be Named GRA#1	667	\$ 34.36	\$ 22,907.12	9.00%	\$ 2,061.64	0.00%	\$ -	\$ 24,969
	Graduate Student	To Be Named GRA#2	667	\$ 34.36	\$ 22,906.78	9.00%	\$ 2,061.61	0.00%	\$ -	\$ 24,968
	<b>Total Direct Labor Hours/Costs</b>		<b>2,720</b>		<b>\$ 82,004.17</b>					
	Fringe Benefit Cost from Direct Labor Above						\$ 12,483.20			\$ 12,483
	<b>Total Fringe Benefit Costs</b>									<b>\$ 12,483</b>
	Labor Overhead from Direct Labor and FB Above							\$ -		\$ -
	<b>Total Labor Overhead Costs</b>									<b>\$ -</b>
Subcontracts/Interorganizational Transfer	<u>File/Tab Name or Link</u>									
	Subcontract/Interorganizational Name - #01	Sub #1								\$ 68,707
	Subcontract/Interorganizational Name - #02	Sub #2								\$ 120,928
	Subcontract/Interorganizational Name - #03	Sub #3								\$ 191,896
	<b>Total Subcontract Costs</b>									<b>\$ 381,531</b>

# Tackle that Sponsor Budget

## Task 1 Logic - Phase 1/Base Effort

Cost Proposal by Task - Task 1 Logic		10/21 - 09/25								
Proposer	University of Notre Dame (Prime)									
Prime Contract	0									
						(Note 2)				
						Proposer FY 1				
Direct Labor (DL)						07/01/21 to 06/30/22				
	Proposer's Labor Category (Note 1)	Name (Last, First)	Hours	Hourly Labor Rate	Direct Labor Cost	Fringe Benefit Rate	Fringe Benefit Cost	Labor Overhead Rate	Labor Overhead Cost	Total \$
	Senior Personnel	Joe Montana	0	\$ 171.14	\$ -	26.90%	\$ -	0.00%	\$ -	\$ -
	Post Doctoral Associate	To Be Named	693	\$ 26.10	\$ 18,095.13	23.10%	\$ 4,179.98	0.00%	\$ -	\$ 22,275
	Graduate Student	To Be Named GRA#1	333	\$ 34.36	\$ 11,453.56	9.00%	\$ 1,030.82	0.00%	\$ -	\$ 12,484
	Graduate Student	To Be Named GRA#2	333	\$ 34.36	\$ 11,453.39	9.00%	\$ 1,030.81	0.00%	\$ -	\$ 12,484
	Total Direct Labor Hours/Costs		1,360		\$ 41,002.08					
	Fringe Benefit Cost from Direct Labor Above						\$ 6,241.60			\$ 6,242
	Total Fringe Benefit Costs									\$ 6,242
	Labor Overhead from Direct Labor and FB Above								\$ -	\$ -
	Total Labor Overhead Costs									\$ -
Subcontracts/Interorganizational Transfer	File/Tab Name or Link									
	Subcontract/Interorganizational Name - #01	Sub #1								\$ 31,582
	Subcontract/Interorganizational Name - #02	Sub #2								\$ 60,464
	Subcontract/Interorganizational Name - #03	Sub #3								\$ 191,896
	Total Subcontract Costs									\$ 283,942

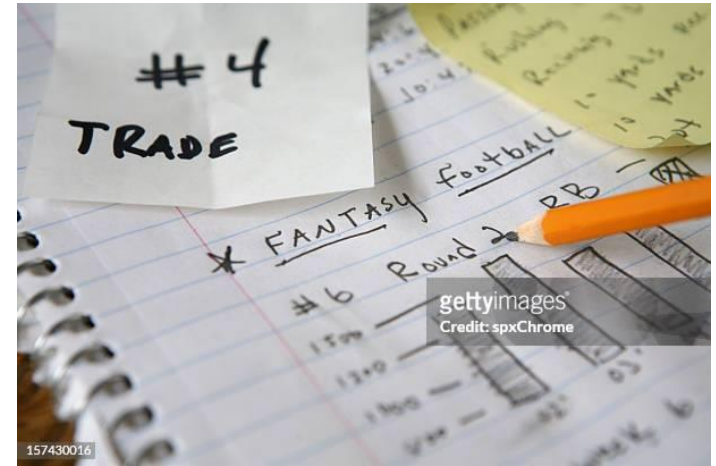
# Draft the Cost Proposal

Use the Sponsor template and/or your institution's standard language

Include screenshots from the budget spreadsheet(s)

Add details as required by the sponsor

Add bookmarks and links to sections in long/complex cost proposals



# Best Offense = Good Defense

JUL-24	AUG-24	SEP-24	OCT-24	NOV-24	DEC-24	JAN-25	FEB-25	MAR-25	APR-25	MAY-25	JUN-25	TOTAL
100%	100%	96%	114%	169%	136%	130%	136%	133%	130%	139%	136%	126%
100%	100%	35%	51%	53%	54%	51%	54%	53%	51%	56%	55%	60%
97%	97%	56%	109%	114%	115%	109%	117%	114%	113%	122%	120%	107%
100%	100%	20%	29%	33%	34%	34%	36%	35%	34%	37%	36%	44%
100%	100%	70%	77%	108%	113%	150%	113%	103%	103%	110%	82%	103%
100%	100%	5%	13%	35%	48%	44%	48%	46%	30%	35%	33%	45%
100%	100%	43%	96%	101%	102%	106%	106%	102%	99%	107%	105%	97%
100%	100%	46%	70%	87%	86%	89%	87%	84%	80%	87%	81%	83%

As much as your organization can, invest in tools to help you be proactive v. reactive...

Do we have the resources to execute this award/grant?

Do we need to hire new people?

How long this award will fund my team?

# Best Offense = Good Defense

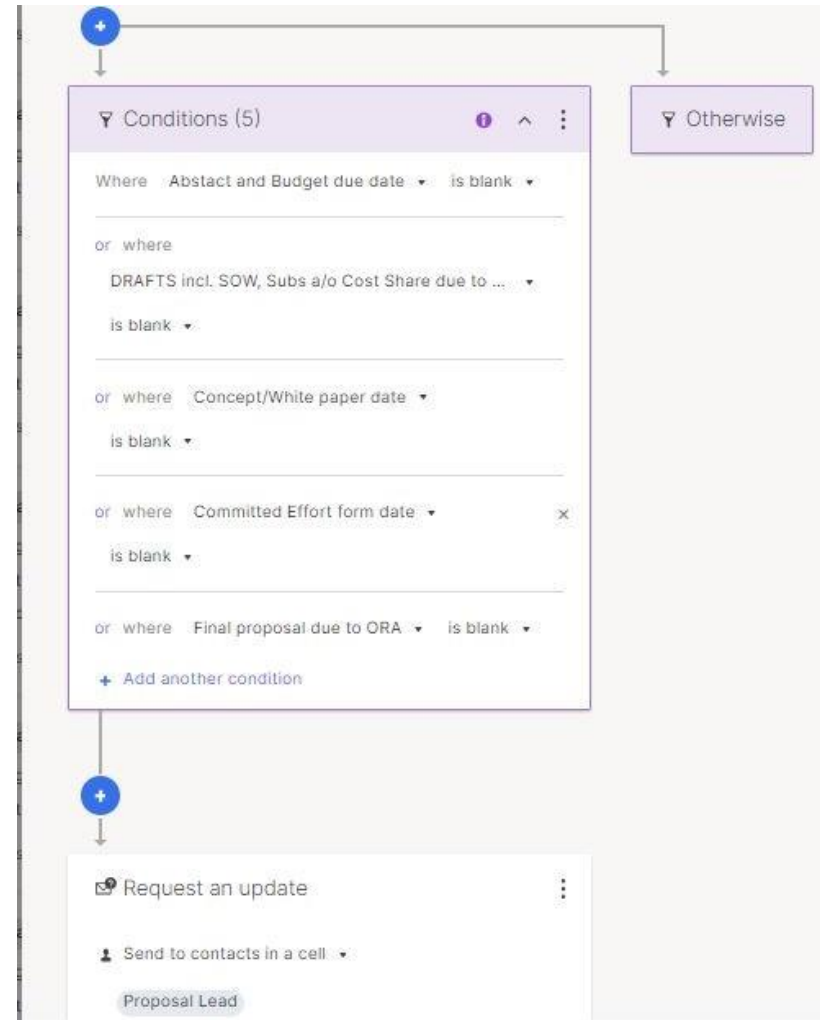
PROJECT	JUL-24	AUG-24	SEP-24	OCT-24	NOV-24	DEC-24	JAN-25	FEB-25	MAR-25	APR-25	MAY-25	JUN-25	TOTAL
S_F_ERDC_ARP ASCC_2511_ARP4	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25		2.75
S_F_ERDC_ARP ASCC_2628_ARP5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	3.00
S_F_NATICK ASCC_2561_OPT3	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	2.40
S_F_NATICK ASCC_2864_BASE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	8.40
S_F_NATICK ASCC_XXXX_OPT_I				0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.25
<b>Totals for Materials MPC:</b>	<b>1.40</b>	<b>1.40</b>	<b>1.40</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.40</b>	<b>18.80</b>

PROJECT	JUL-24	AUG-24	SEP-24	OCT-24	NOV-24	DEC-24	JAN-25	FEB-25	MAR-25	APR-25	MAY-25	JUN-25	TOTAL
S_F_GVSC GVSC_ARMY_EPCVS_2590	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.10	0.11	0.45
S_F_ORNL ASCC_2609_ORNL_PHASE3_YEAR2&3	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.20
S_UMAINE ASCC_1885_ICR_OPERATION_FY25	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.80
Totals for Materials MPC:	0.27	0.28	0.28	0.27	0.28	0.27	0.27	0.28	0.27	0.27	0.35	0.36	3.45



# Extra Point

Smartsheets, Excel,  
Google Trackers,  
and Automated  
Notifications!!



# Extra Point

Quick Update: Green Engineering and Materials (GEM) Factory of the Future - NIST FY23



Tara McCarthy via Smartsheet <user@smartsheetgov.com>  
To: Tara McCarthy








[If there are problems with how this message is displayed, click here to view it in a web browser.](#)

Smartsheets, Excel,  
Google Trackers,  
and Automated  
Notifications!!

Project end date	07/31/26
Proposal Lead	Vu Phan
Project Manager	
Finance Manager	Tara McCarthy
Abstract and Budget due date	04/03/23
DRAFTS incl. SOW, Subs a/o Cost Share due to ORA	04/10/23
Committed Effort form date	04/17/23
Committed Effort form status	Not completed
PARS information and routing	4/13/2023
Letter of Commitment Status	
Final proposal due to ORA	05/15/23
Final proposal status	Not completed

# Extra Point, Cont'd

Document storage  
and consistent  
version control  
practices

Documents > General > 02_Project Management > <b>01_Proposal</b>		
	Name ▾	Modified ▾
	00_Archive	October 2, 2023
	01_Planning	October 2, 2023
	02_Request Documents	October 2, 2023
	03_Negotiating	October 2, 2023
	04_Final Documents	October 2, 2023
	05_References	October 2, 2023

# Watch Your Blind Side



Beware of additional requirements

- DARPA's cost proposal checklist
- Reqs & Certs

Subawards, Contracts, and  
Cost Share, oh my!

Pre-Award audits, requests for  
information, revised budgets

# Key Takeaways

Master the Fundamentals

Keep Moving the Ball

Expand Your Playbook





FINAL SCORE

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