



Reducing Meeting Costs in Eastern Federal Lands Highway Division's Project Delivery Process

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ABSTRACT

Inefficiencies in the handling of meetings result in large amounts of time and money wasted every year. This project aimed at identifying strategies to improve the handling of meetings in Eastern Federal Lands Highway Division's (EFLHD) Project Delivery Process and reduce costs by \$20,000 annually through their implementation. To accomplish this, a literature review and a survey of EFLHD's functional and project managers were conducted. Making 50-minute meetings a standard, removing non-essential personnel from meetings, and recommendations applicable to specific meetings are strategies identified for improving the handling of meetings in EFLHD. Cost savings of \$264,000 annually were projected through the implementation of these strategies.

INTRODUCTION

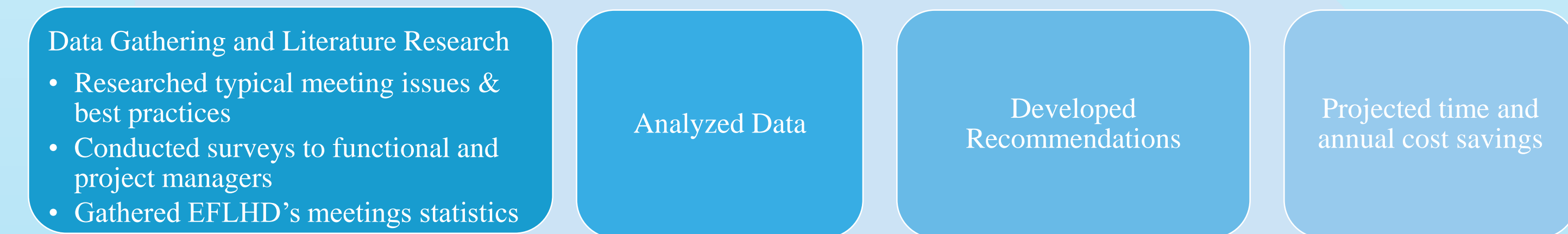
Eastern Federal Lands Highway Division (EFLHD) of the Federal Highway Administration delivers highway and bridge construction projects for partnering Federal and State government agencies. It does this by following the Project Delivery Process (PDP). The PDP requires multiple meetings to be held throughout the life of each project. Data shows that there are between 36 and 56 million meetings each day in the United States and inefficiencies in meetings are estimated to cost \$70 to \$283 billion to the United States economy each year [1]. Improving the management and handling of meetings in the PDP offers the potential to save both time and money.



PROJECT OBJECTIVE

To identify implementable strategies that reduce costs associated with meetings in EFLHD's PDP by \$20,000 annually.

METHODOLOGY



ANALYSIS OF THE CURRENT SITUATION IN EFLHD

To understand EFLHD's current situation, it was necessary to investigate how meetings were being conducted and what were the major issues occurring in them. Below is a summary of the findings.

Typical Project Meetings in the Project Delivery Process

Pre-Scoping	• The Pre-Scoping meeting is the first standard meeting held for a project. The project manager provides a general description of the project and a decision is made on which disciplines need to attend the scoping.
Scoping	• The Scoping meeting is a data gathering meeting with the partner agency at the project site. This meeting is divided into two main components: general project discussion and site visit.
Kickoff	• The Kickoff meeting involves a discussion of the project considering the information gathered through the Scoping. The functional disciplines provide the necessary activities and resources to complete the project, which are used to develop the project schedule and budget.
Specific Issues	• Project Specific Issue Meetings are held to discuss and resolve issues in the project. They are typically scheduled for 30 minutes to an hour. The number of these meetings varies depending on the complexity of the project.
CR	• Comment Resolution meetings (CR) held to discuss the comments provided for the 30% and 95% design distributions.
PIH	• The Plan-in-Hand (PIH) meeting is typically held at 70% and in it, team members meet with the partner agency to discuss the design at the project site.
Pre-Bid	• The Pre-Bid meeting is held with potential bidders to give a brief description of the project and answer their questions at the project site. This meeting is only held for complex projects.
PAM	• Project Advancement Meetings (PAM) are held every 4 weeks to discuss major issues on select projects with upper management.

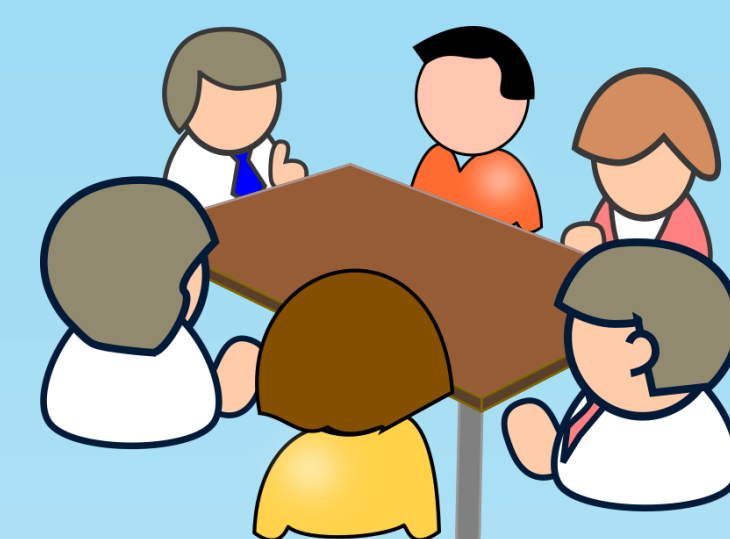
Typical Meetings: Yearly Quantity (Qty), Typical Duration, and Attendance

Meeting	Qty	Duration (hours)	Attendees**		
			GS-12	GS-13	GS-14
Pre-scoping	44	1	3.5	10.5	0.5
Scoping	44	24*	4	2	0
Kickoff	48	1.5	4	10.5	0.5
30% CR	32	1.5	4	4.55	0
PIH	34	24*	3	2	0
95% CR	45	3	4	5	0
Pre-Bid	4	24*	0	3	0
PAM	13	3.5	2	24	7

Notes:

*Duration includes travel time

** Attendees shown in terms of General Schedule (GS) grade level. Decimals are used to account for partial attendance rates



Summary of Survey Responses

This subsection provides a summary of responses received from the survey that were relevant for the development of the recommendations presented in this project.

Survey Section	Highlights
Questions about Meetings in General	<ul style="list-style-type: none"> 61% of the respondents did not think that the process itself had too many meetings, but instead associated the abundance of meetings with how many projects each person was handling. 36% indicated that there were unnecessary meetings in the process. One meeting highlighted as unnecessary was the Pre-Scoping. Others indicated that it was not necessary for their team to attend some of the meetings 74% agreed that other means of communication would be better suited to address items in some of the meetings.
Project Advancement Meetings	<ul style="list-style-type: none"> 63% of the respondents thought that it provides value by increasing accountability. 71% thought it was effective in solving project issues. 62% thought it could be shortened.
Comment Resolution Meetings	<ul style="list-style-type: none"> 82% of the respondents thought these meetings could be shorter with better preparation by the host. 82% of the respondents disagreed with the practice of discussing all the comments received in the meeting. Respondents recommended only focusing on the comments provided by the partner and on internal comments that may impact the PS&E greatly. 64% of the respondents indicated that they thought they shouldn't have to attend this meeting if there were no substantive comments for their discipline.
Plan-in-Hand Meetings	<ul style="list-style-type: none"> 55% thought the Highway Design and Bridge Design departments could manage this meeting by themselves and they could collect information for other teams. 45% of the respondents indicated that the project manager was not essential to the meeting.
Disruptive Behaviors in Meetings	<p>The survey provided a list of disruptive behaviors and asked the respondents to indicate which were common in EFLHD's meetings.</p> <ul style="list-style-type: none"> At least half of the respondents believed it was common for people to do their own thing during meetings (75%), come unprepared (71%), and arrive late (67%). 50% indicated that inviting too many people to meetings was common. 33% of the respondents indicated that meetings were ending late, that it was common that the wrong people were invited to meetings, and that people were leaving before meetings ended.
Essential Personnel in Meetings	A critical part of the survey was asking the respondents if their discipline was essential to the success of the different types of project-specific meetings. The findings from this section of the survey were used to develop the recommendation to remove non-essential personnel from meetings.



Foothills Parkway Bridge 2 - Project EFLHD completed for the National Park Service
Image retrieved from reference [2]

RECOMMENDATIONS AND PROJECTIONS

This section provides the recommendations developed through this project and the projected savings associated with their implementation. It also explains the assumptions made for the projections and the procedure that was followed.

Assumptions

- Burdened hourly rates based on the General Schedule (GS) level of the attendees were used for the computations.

- The number of meetings and attendees used for the computations were as shown in the "Typical Meetings: Yearly Quantity (Qty), Typical Duration, and Attendance" subsection.

Computations

Equation (1) was used to estimate the annual savings related to the recommended improvements. It is a variation of the methodology used in reference [1] to calculate the cost of inefficiencies in meetings. It totals the average hourly rate per the grade level of the employees (AHR) by the number of employees with that grade attending the meeting (NEA) and then, multiplies the result by the estimated time saved per meeting (ETS) in hours, and the number of meetings per year (NMY).

$$PAS = [\sum(AHR * NEA)] * ETS * NMY \quad (1)$$

Recommendations and Cost Savings Projections

Recommendation	Savings (\$)
Make 50-minute meetings a standard	\$38,000/year
Several issues identified in the survey were people arriving late to meetings, meetings ending late, and people leaving meetings before they ended. Shortening meetings lasting 1 hour or more by 10 minutes would likely help reduce these behaviors by allowing time for transitions between meetings [3]. Meetings would begin at the top of the hour and end 10 minutes before the start of the following meeting in that room.	
Remove non-essential personnel from meetings	
This recommendation focuses on reducing the number of people attending meetings for which they do not provide value added. The following are changes that would have the most impact:	
<ul style="list-style-type: none"> Only invite Programs to Pre-Scoping and Kickoff meetings. Invite them to Comment Resolution meetings only if there are issues related to funding. 	\$3,600/year
<ul style="list-style-type: none"> Do not require Construction to attend Pre-Scoping and Kickoff meetings, except if their input is essential. The information in these meetings could be provided to construction via email, since they are always required to attend the Scoping meeting and their project resources could be provided outside of the kickoff meeting. 	\$7,600/year
<ul style="list-style-type: none"> Do not have the Project Manager attend the site visit of the Plan-in-Hand Meeting, unless the Highway Design Manager or Bridge Team Leader cannot attend, or in complex projects. 	\$15,700/year
Meeting Specific Recommendations	
Project Advancement Meetings	
<ul style="list-style-type: none"> Run the meeting by Program instead of by fiscal year. This would allow those who work in a specific program to leave after their program is discussed. Start the meetings with programs that have the least number of projects. 	\$8,600/year
<ul style="list-style-type: none"> Afterwards, dismiss Acquisitions staff after the projects with an advertised timeframe of within 1 year are discussed. 	\$6,000/year
Pre-Scoping Meetings	
<ul style="list-style-type: none"> Hold this meeting at the discretion of the Project Manager depending on the complexity of the project and stormwater management needs. Allow them to decide who needs to attend the Scoping meeting instead. When the meeting is not necessary, the project manager would inform the functional managers of the available project information through email. 	\$45,000/year
Scoping Meetings	
<ul style="list-style-type: none"> Ensure functional managers complete the draft scoping report before the meetings and highlight the information that needs to be discussed with the partner. This would save time in the office portion of the meeting that could then be used in the site visit portion. 	\$0/year
<ul style="list-style-type: none"> Encourage teams to gather information for other teams as appropriate. 	\$43,000/year
Kickoff Meetings	
<ul style="list-style-type: none"> Ensure attendees have read the scoping report before the meeting by requiring functional managers to confirm that they do not have any comments several days prior to the meeting. This would reduce the time the project manager spends summarizing the project in the meeting. 	\$8,500/year
<ul style="list-style-type: none"> Remove the resourcing portion of the meeting or make it optional. Instead provide managers a table with a master list of their activities that includes a checkmark for the activities that they need for the project, a space for the necessary resources and corresponding resource hours, and the working days necessary to complete the work. Make it a requirement that the completed form is submitted at the conclusion of the project discussion. 	\$22,500/year
<ul style="list-style-type: none"> Preload the resource hours by activities for the teams whose resource hours do not change regardless of the project (for example, for Programs and Acquisitions staff). 	\$7,000/year
Comment Resolution Meetings	
<ul style="list-style-type: none"> Work through all comments internally before the meeting and provide responses to all disciplines before the meeting. During the meeting, only discuss partner provided comments, Construction Branch comments, and those comments that require team discussion or which resolution would create major changes to the PS&E. 	\$55,400/year

CONCLUSION

After evaluating meetings in the Project Delivery Process, multiple recommendations were proposed that if implemented could result in \$264,000 in annual savings to the process. Therefore, the project's objective was met. However, the study is limited in the sense that it doesn't consider possible impacts of issues that could result from improper use of the recommendations. In addition, many assumptions were made to complete the projections. For more accurate estimates, precise data of employee salaries and attendance rates should be used. It is recommended that factors other than costs be considered before the implementation of the recommendations.



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