

## Project Vision

### GOALS

Create a case study by exploring a suitable and feasible alternative to the current conduit system that allows for creativity and flexibility in design that improves the original design's cost, scheduling, and social impacts

### OBJECTIVES

- Reduce construction time to be less than the original 4-year construction duration to limit disruptions to the local community.
- Reduce costs to be less than the original 4.5-million-dollar cost of the current conduit system.

## Original Project Problem

- Long Pedestrian Detours.
- Duration of the project.
- Lack of Updates.
- Worker Safety Concerns.
- Unorganized Utility Occupancy.

## Project Approach

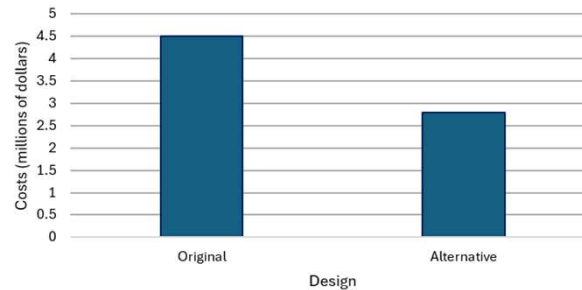
- Survey Project Stakeholders.
- Explore Construction Methods & Design Requirements.
- Draft Alternative Design.
- Determine Economics of Alternative Design.
- Develop Construction Schedule.
- Conclude Major Findings Between Both Designs.

## Survey Data

	Agree	Natural	Disagree
The project was relevant to your job, business, or day to day life	16%	30%	54%
Duration of the project was acceptable	18%	11%	70%
There were regular updates on construction progress	20%	6%	74%
You prefer townhall meetings to get updates on the project's progress	72%	11%	17%
You prefer the entire street closed for a shorter duration	65%	-	35%

## Cost Results

Costs: Original vs Alternative Design



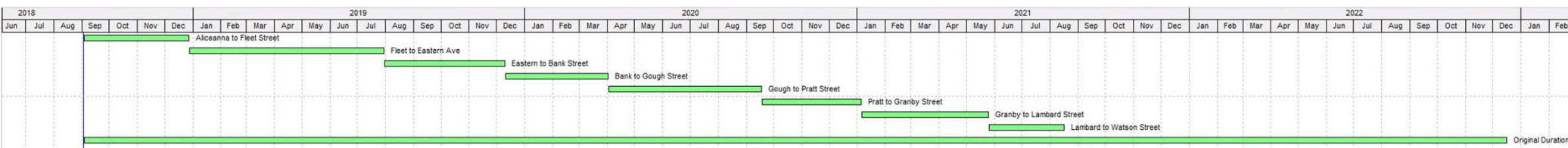
## Major Findings

The alternative design adds value by:

- Reducing Construction Costs by 38%.
- Reducing Construction Time by 30%
- Increasing Worker Safety.
- Decreasing Inconveniences to Stakeholders.
- Extending The System Lifespan.

The research highlights the value of constructing new conduit systems instead of rehabbing existing ones around Baltimore City

## Alternative vs Original Project Schedule



## Alternative Conduit Design

