



CIP 2022 Update – Cost Model

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Presentation Purpose & Goals

2022 CIP Cost Model Update:

- Model Summary
- Process Overview
- Market Review
- CIP Impacts

 Collect **Questions**, **Comments**, **Feedback** 

Cost Model Summary

What is the Cost Model?

- Essentially the cost model is our construction estimate template for major projects.
- Provides construction cost estimates per program area:
 - Largest Drivers (75%) are (1) Building \$/SF and (2) Site \$/Acre
 - Other Areas Include:
 - Design Fees
 - Demolition
 - Soft Cost (surveying, geotechnical services, material testing, etc.)
 - FF&E, Custodial, Child Nutrition,
 - Technology, Books, Media Center
 - Operation & Program Equipment

• Note: See attached supplemental file – *2021 Target Cost Model Estimating Guide* for Cost Model details.

Cost Model Update Process

- **Cost Model** - Evaluate cost accuracy, program changes, market conditions/trends, economic & industry forecast.
- Key Activity Areas:
 - Evaluate Guidelines & Program Space Standards changes for cost impacts
 - 2021 Budget vs. Bid & Estimate Summary (i.e., actual construction cost)
 - Annual Inflation/Escalation Rates
 - Schedule / Risk Analysis
 - Adjustments For Unique Factors (e.g., COVID-19 Impacts, etc.)
 - Local Market Conditions
 - Commodity & Economic Indicators

Program Standards, LEGs and Guidelines Cost Impact

- The Program Standards, LEGs, and the Design Guidelines have had numerous changes in in the past few years, which led to cost impacts in multiple areas of the cost model
- For 2022 - There are no recommended material changes to these CIP documents
- **No Changes = No Cost Impacts**

UNPRECEDENTED Market Volatility & Escalation

Key Commodity Price Increases:

- Asphalt – 25%
- Steel – 50% - 200%
- Metal Doors and Frames – 40%
- Metal Studs – 100% - 200%
- Copper Wire – 100% -200%
- Drywall – 20% - 40%
- Lumber – 40% - 200%

Other Impacts:

- Material Shortages
- Lead Time Increases and Uncertainty

UNPRECEDENTED Market Volatility & Escalation

WHY? - Demand for inputs and final goods has come racing back faster than supply

- 2020 Rapid Shutdown / Manufacturing Activity Decrease
- 2021 Rapid Economic Recovery / Increase in Construction Activity
- Global Supply Chain Issues
- Scarcity of Goods
- Labor Shortages (truck drivers, etc.)
- Shipping Bottlenecks
- Port Operating Capacity

Budget vs. Bid & Estimate Summary

CIP Impact

2021 Bids:

- Fuller ES (*January 2021*) - Bid = \$3M Under Budget
- Apex Friendship ES / E-41 (*February 2021*) – Bid = \$1.6M Under Budget
- Woods Creek Rd. ES / E-51 (*July 2021*) – Bid = \$7.7M Over Budget (16%)

Current Project Estimates: (Projects in Design Phase & Bidding in next 12 months)

- Fuquay Varina MS (Bidding April 2022) - 100% CD Estimate = \$10.1M (15%) Over/Market Volatility
- Hilltop Needmore Rd. ES (Bidding Oct. 2022) – DD Estimate = \$5.3M (13%) Over/Market Volatility
- Rex Road ES (Bidding Dec. 2022) – SD Estimate = \$8.4M (21%) Over/Market Volatility
- Baucom ES (Bidding Jan. 2023) – SD Estimate = \$9.4M (22%) Over/Market Volatility

Inflation (Escalation) Adjustment Comparison

	2022	2023	2024	2025	2026	2027	2028	2029
<u>BUILDING</u>								
Current	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Revised	22.5%	4.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Delta	19.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<u>SITE</u>								
Current	7.0%	7.0%	7.0%	7.0%	5.0%	5.0%	5.0%	5.0%
Revised	15.0%	11.0%	7.0%	7.0%	5.0%	5.0%	5.0%	5.0%
Delta	8.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<u>FF&E</u>								
Current	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Revised	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Delta	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

2022 Cost Model Update

CIP Impact

	2021 Cost Model		2022 Cost Model			2021	2022
School Type = Elementary	2021 Estimated Cost	2022 Estimated Cost	2022 Program Additions	2021 Adjusted Cost	2022 Estimated Cost	Delta	Delta
Building	\$212 / SF	\$219 / SF (3.5% Escalation)	No Change	\$248 / SF	\$260 / SF (22.5% Escalation)	\$32 / SF (15% Increase)	\$41 / SF (19% Increase)
Site	\$499,258 / Acre	\$534,206 / Acre (7.0% Escalation)	No Change	\$566,133 / Acre	\$574,147 / Acre (15.0% Escalation)	\$67K / Acre (13% Increase)	\$40K / Acre (8% Increase)

Note: Only elementary school data shown above for simplification purposes; MS and HS projects will have similar \$/SF and \$/Acre impacts w/ some economy of scale cost reductions due to size.

2022 Cost Model Update

CIP Impact

FY22 & FY23:

- County issuance of Limited Obligation Bonds in 2021 – Funding is locked in - any increase to project budgets will need to come from existing funding and/or planned appropriations.
- Six (6) major projects with funding planned through FY23
 - NEW - Hilltop Needmore Rd. ES, Fuquay Varina MS, Rex Rd. ES, Felton Grove HS
 - RENOVATION – Baucom ES, Swift Creek ES
- Potential Cost Exposure (risk) – Estimate Range = \$60M - \$85M
- **Identified Funding to Cover Risk = \$86M**
 - \$5M – CIP 2013 Project Savings
 - \$13.4M – Program Contingency (FY23 & FY23)
 - \$14.5M – Project Contingency (outside of GMP for the 6 projects)
 - \$53.1M – Other Project Savings (projects that have already bid and/or are complete)

2022 Cost Model Update

CIP Impact

FY24 – FY29: (six years)

- Increases to project budgets will be requested with additional funding via the CIP Update.
- Based on the escalation rate changes, increases are as follows:
 - **Total = \$188M (approximately \$31M/yr.)**
 - Includes 10 new projects & 4 renovations
 - Average increase per project:
 - ES - \$8M-10M
 - MS - \$15M-\$19M
 - HS - \$26M

Wrap Up

Next Steps:

- Updated Cost Model applied to project budgets
- CIP Executive Summary will be updated based on new budgets and any other changes from CIP Committee
- Core Team with County will review and provide feedback (debt model, etc.)
- CIP Executive Summary will be brought back to Facility Committee in March for review and feedback

QUESTIONS

COMMENTS

FEEDBACK