Item: #B

## PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS WORKSHOP SUMMARY

**Meeting Date:** 

May 21, 2024

**Department:** 

**Facilities Development & Operations** 

#### I. EXECUTIVE BRIEF

Title: Overview of County Construction Processes

**Summary:** On November 27, 2023, during a workshop meeting of the Board of County Commissioners (Board) and while addressing County staff's presentation regarding the County's 5-year Capital Improvements Plan (CIP) and road infrastructure, the Board directed staff to return at a later time with an overview of the capital improvements project delivery methods being used by the County's five construction departments (i.e., Facilities Development and Operations (FDO), Airports (DOA), Engineering and Public Works (EPW), Environmental Resources Management (ERM), and Water Utilities (WUD)) and to provide recommendations as to alternative delivery methods that could be considered to accelerate and/or attain more efficient project delivery. This workshop item seeks to fulfill Board direction. (FDO Admin) Countywide (MWJ)

Background & Policy Issues: The County's five construction departments will provide an overview of the capital project delivery methods currently being used and potential alternative delivery methods for consideration.

Attachments:	Max. Comments of the Comments	
Designation of the second seco		
Recommended By:	Department Director	1/26/24 Date
Approved By:	County Administrator	5/6/24 Date

#### II. FISCAL IMPACT ANALYSIS

£3.	Plac Tem 200 mail	oi Fiscal .	Impact:			
Fis	cal Years	2024	2025	2026	2027	2028
Op Ext Pro (Co	pital Expenditures erating Costs ternal Revenues ogram Income ounty) Kind Match (County					
NE	T FISCAL IMPACT					_N/A_
PO	DDITIONAL FTE SITIONS Imulative)	_N/A_	N/A	_N/A_	N/A_	_N/A_
Is t	tem Included in Current his item using Federal F his item using State Fund	ands?		Yes Yes Yes _	No No No	<u> </u>
Bud	iget Account No: F	und	Dept.	U	nit	Object
В.	Recommended Sour	ces of Fun	ds/Summary	of Fiscal I	impact:	
Chis	item carries no fiscal in Departmental Fiscal	Review: _				
			EW COMM			
<b>A.</b>	OFMB Fiscal and/or	4/30/200	Con	TUNA	opment and	All.
В.	Legal Sufficiency: Assistant County Atto	5/1/	<u>/</u> 24	,		
C.	Other Department F	, , , , , , , , , , , , , , , , , , ,	Dep	artment Dir	rector EPW	10M
ر	Definition Department Director	<i>D:///</i> ERM	- Dep	artment Dir	rector WUD	

This summary is not to be used as a basis for payment.

## Overview of County Construction Processes

PBC CONSTRUCTION DEPARTMENTS

(FACILITIES DEVELOPMENT & OPERATIONS, WATER UTILITIES, ENGINEERING AND PUBLIC WORKS, ENVIRONMENTAL RESOURCES MANAGEMENT, AIRPORTS)

BCC WORKSHOP MEETING

MAY 21, 2024

## Background

- ▶ During its November 2023 Workshop meeting, while addressing Staff's presentation regarding the County's 5-year Capital Improvements Plan (CIP) and road infrastructure, the Board of County Commissioners (Board) directed Staff to:
  - Return at a later time with an overview of the project delivery methods currently being used by the County's five construction departments, and
  - Provide recommendations as to alternative delivery methods that could be considered to accelerate and/or attain more efficient project delivery.
- ▶ This Workshop item seeks to fulfill Board direction.

#### The Five Construction Departments

- Facilities Development and Operations (FDO)
  - ▶ Director: Isamí Ayala-Collazo, PE, Esq., DPA
  - Construction Unit: Capital Improvements Division
    - ▶ Division Director: Fernando DelDago, AIA, LEED AP BD+C
    - ▶ Assistant Division Director: David Hawke, RA, AIA, NCARB, LEED-FA
    - ▶ Personnel Complement
      - ▶ In-House Project Managers: 6
      - ▶ Outsourced Project Managers: 4 (Jacobs, Aecom)
      - ▶ In-House Facilities Systems Project Managers: 13
      - ▶ In-House Contract Manager: 1
      - ▶ In-House Administrative Staff: 7
    - ▶ Open Projects (as of 4/04/24): 609

#### ► Airports (DOA)

- ▶ Director: Laura Beebe, Esq.
- ► Construction Unit Planning, Development & Community Affairs
  - ▶ Division Director: Cynthia M Portnoy, PE
  - ▶ Director of Planning: Michael Giambrone
  - ▶ Personnel Complement
    - ▶ In-House Project Managers: 1
    - ▶ Outsourced Project Managers: 2 (HDR, AECOM)
    - ▶ In-House Project Engineers: 1; Construction Coordinators: 2
    - ▶ In-House Administrative Staff: 2
  - ▶ Open Projects (April 2024): 84 open projects (24 of these are planning projects)

- Engineering and Public Works (EPW)
  - ▶ Director/County Engineer: David L. Ricks, PE
  - ► Construction Units
    - ▶ Construction Coordination Division: Albert Hoffman, Director
      - ▶ Personnel Complement: 15 In-house Construction Managers
      - ▶ Open Projects (as of 5/01/24): 30
    - ▶ Road & Bridge Division: Adam Faustini, Director
      - ▶ Personnel Complement: 7 In-house Construction Managers
      - ▶ Open Projects (as of 05/01/2024): 30

- ► Engineering and Public Works (EPW) (cont.)
  - ▶ Director: David L. Ricks, PE
  - ► Construction Units
    - ▶ Roadway Production: Morton Rose, PE, Director
      - ▶ Personnel Complement: 30
      - ▶ Open Projects (as of 5/01/24): 49
    - ▶ Traffic: Motasem Al-Turk, PE, Director
      - ▶ Personnel Complement: 7
      - ▶ Open Projects (as of 5/01/24): 65

- Environmental Resources Management (ERM)
  - ▶ Director: Deborah Drum
  - Divisions involved in Construction: Environmental Enhancement & Restoration, Natural Resources Stewardship, and Business Operations & Community Outreach
    - ▶ Division Directors: Matt Mitchell, Brenda Hovde, Laura Thompson
    - ▶ Personnel Complement
      - ▶ Project Managers (currently engaged): 8
      - ▶ Professional Engineers: 3
      - ► Contract Manager: 1
      - ▶ Administrative Staff: 5
    - ▶ Active Projects (as of 4/22/24): 9

#### ► Water Utilities (WUD)

- ▶ Director: Ali Bayat, PE, PMP
- ► Construction Unit: Engineering Division
  - ▶ Division Director: Jane House, PE, LEED AP
  - ▶ Personnel Complement
    - ▶ In-House Project Managers: 10
    - Outsourced Project Managers: 2 (Stantec)
    - ▶ In-House Contract Management Specialist: 1
    - ▶ In-House Administrative Staff: 5
  - ▶ Open Projects (as of 4/26/24): 154

## Statutory/Procedural Requirements

- Applicable to all five construction departments (<u>list not comprehensive</u>)
  - ▶ Florida Statutes 255.103 (Construction management)
  - ▶ Florida Statutes 255.20 (Local bids and contracts for public construction works)
  - ▶ Florida Statutes 255.05 (Bond of contractor constructing public buildings)
  - ▶ Florida Statutes 255.051 (Public bids)
  - ▶ Florida Statutes 255.0517 (Owner-controlled insurance programs for public construction projects)
  - ► Florida Statutes 255.0518 (Public bids)
  - ▶ Florida Statutes 255.052 (Substitution of securities for amount retained on public contracts)
  - ▶ Florida Statutes 255.0525 (Advertising for competitive bids or proposals)

- Applicable to all five construction departments (list not comprehensive)
  - ▶ Florida Statutes 255.065 (Public-private partnerships)
  - Florida Statutes 218.70-218.79 (Local Government Prompt Payment Act) Florida Prompt Payment Act)
  - ▶ Florida Statutes 255.0991 (Contracts for construction services; prohibited local government preferences)
  - ► Florida Statutes 255.0992 (Public works projects; prohibited governmental actions)
  - ▶ Florida Statutes 255.101 (Contracts for public construction works; utilization of minority business enterprises)
  - ▶ Florida Statutes 287.055 (Consultants' Competitive Negotiations Act)
  - ▶ Florida Statutes 286.011 286.0114 (Sunshine Law)

- Applicable to all five construction departments (<u>list not comprehensive</u>)
  - ▶ Florida Statutes 255.078 (Public construction retainage)
  - Palm Beach County Code, Chapter 2, Article III, Sections 2-51 through 2-58 (Purchasing Code)
  - ▶ Palm Beach County Code, Chapter 2, Article VIII, Sections 2-351 through 2-357 (Lobbyist Registration Ordinance)
  - ▶ Palm Beach County Code, Chapter 2, Article III, Sections 2-80.20 through 2-80.40 (EBO Ordinance)
  - ▶ Palm Beach County Code, Chapter 2, Article III, Sections 2-80.41 through 2-80.48 (Local Preference)
  - ▶ Palm Beach County Code, Chapter 2, Article IX, Sections 2-371 through 2-390 (Criminal History Records Check)

- Applicable to all five construction departments (<u>list not comprehensive</u>)
  - ▶ PPM # CW-O-018 (Contract Administration Procedures)
  - ▶ PPM CW-O-042 (Procedure Regarding Front-End Loading and Unbalanced Bids for Construction Contracts)
  - ▶ PPM # CW-O-043 (EBO Program)
  - ▶ PPM # CW-O-048 (CCNA Selection)
  - ▶ PPM # CW-O-091 (Contract Negotiations and The Sunshine Law)
  - ▶ PPM # CW-F-050 (Change Order and Consultant Services Authorization Authority for Construction, Engineering and Architectural Contracts)
  - ▶ PPM # CW-F-056 (Acceptance of Performance and Payment Bonds)

- Applicable to all five construction departments (<u>list not comprehensive</u>)
  - PPM # CW-L-050 (Procurement of Construction Services involving Federal Funds)
  - ▶ PPM # CW-O-092 (Selection of CMR Firms or Program Management Firms)
  - ▶ PPM # CW-F-049 (Contract Development and Contract Responsibility)

- Applicable to Facilities Development and Operations (list not comprehensive)
  - ► Function of the funding source and the department FDO is supporting in any given project
- Applicable to Airports (list not comprehensive)
  - Federal Aviation Administration (FAA) Grant Assurances, requiring compliance with numerous federal regulations, including 49 CFR Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs
  - ▶ Florida Department of Transportation (FDOT) Grant Assurances

- Applicable to ERM (<u>list not comprehensive</u>)
  - ▶ Florida Department of Environmental Protection (FDEP) grant requirements
  - ▶ Florida Fish & Wildlife Conservation Commission (FWC) grant requirements
  - ▶ Florida Emergency Management Agency (FEMA) grant requirements
- ▶ Regulatory/Permitting: Each jurisdiction has its own Land Development Regulations governing design limitations and prerequisites to Building Permit issuance, as do other regulatory Agencies Having Jurisdiction (AHJs)

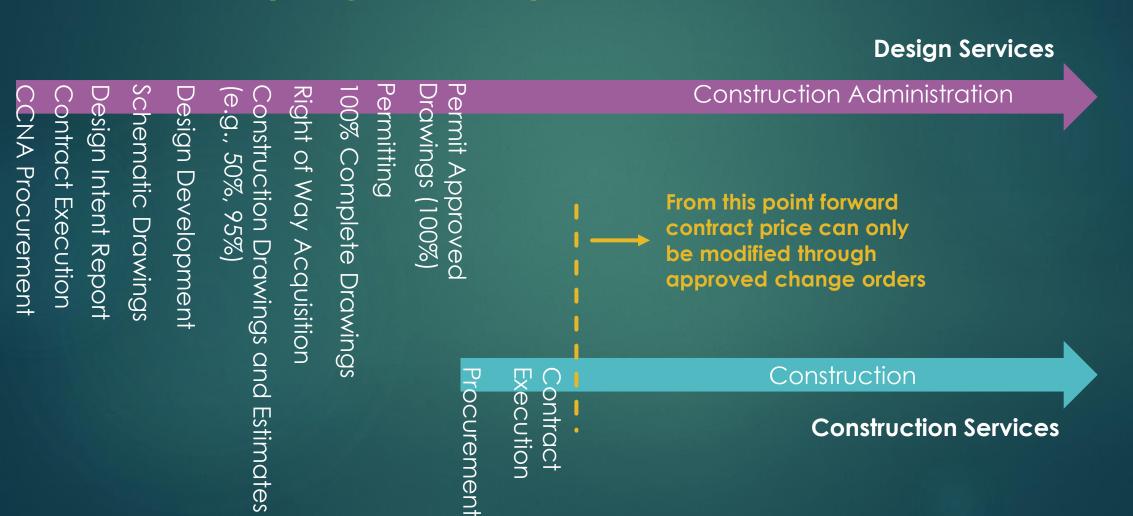
## **Existing Project Delivery Methods**

Delivery Method	FDO	DOA	EPW	ERM	WUD
Hard Bid (Design-Bid-Build)	Χ	Χ	X	X	X
Construction Manager at Risk (CMR)	Χ	Χ			
Design/Build					X
Per Unit Cost Contracts		X	X	Χ	X
Annual Trade Contracts (pre- qualifications contracts)	Χ				

# Project Completion

### Existing Project Delivery Methods (cont.)

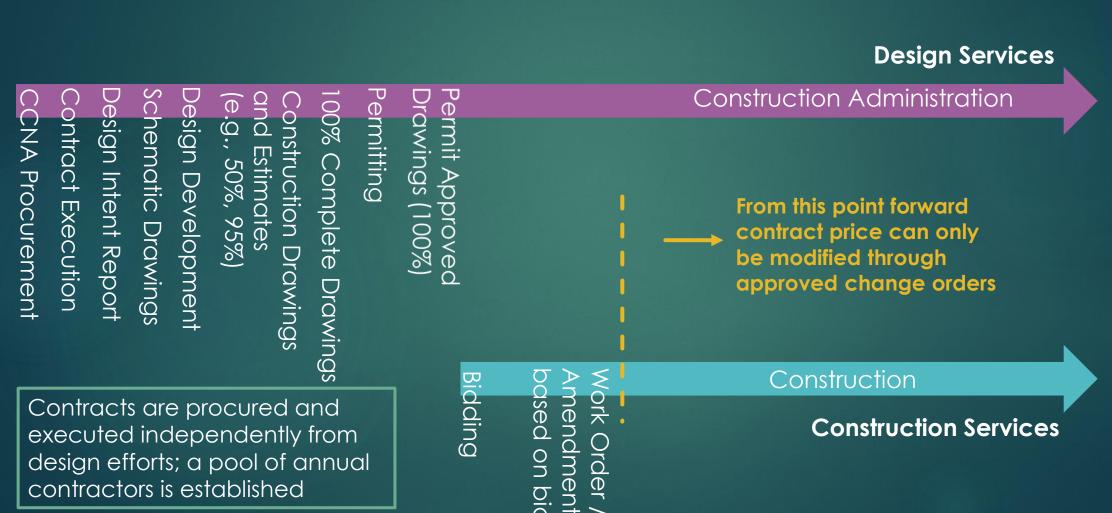
► Hard Bid (Design-Bid-Build)



# Project Completion

#### Existing Project Delivery Methods (cont.)

► Annual Trade Contracts



- ► Hard Bid (Design-Bid-Build) and Annual Trade Contracts
  - ▶ What are the contractually allowable reasons for an increase (i.e., change order) to the contract price?
    - ➤ Owner-initiated additions
    - Permitting agency requirements
    - ▶ Differing site conditions
    - ► Errors and Omissions in the construction drawings (but the contractor still carries responsibility of review at time of bidding)

- ► Hard Bid (Design-Bid-Build) and Annual Trade Contracts
  - ▶ What are the contractually allowable reasons for an increase (i.e., time extension) to the contract time?
    - ➤ Owner-initiated additions
    - ➤ Owner-ordered stop of work
    - ► Force Majeure
    - ▶ Weather-related delays above the contract established thresholds
    - ▶ Manufacturer and chain supply delays outside the contractor's control
    - ▶ Note: unallowable delays result in liquidated damages

- ► Hard Bid (Design-Bid-Build) and Annual Trade Contracts Examples
  - **▶** FDO
    - ▶ Ocean Inlet Park Marina Replacement
    - ► Chiller Replacement Hagen Branch Library
    - ▶ Duncan Padgett Septic Tank System Replacement
    - ▶ Vista Center Breezeway Structural repairs
  - **▶** DOA
    - ▶ Terminal Flooring at Palm Beach International (PBI)
    - ▶ Airfield Lighting Control System at PBI
    - ▶ Public Address Replacement at PBI

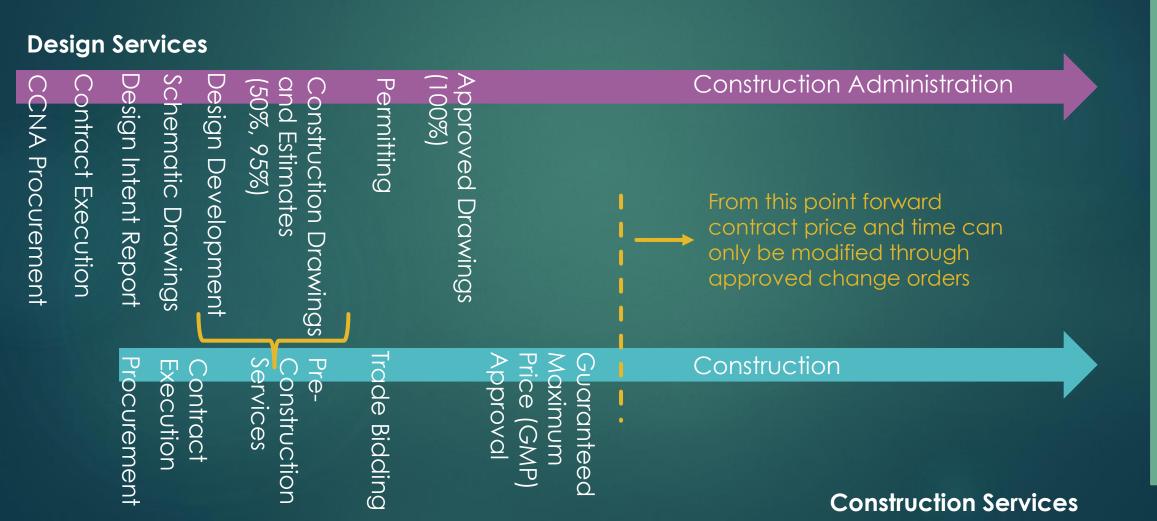
- ► Hard Bid (Design-Bid-Build) and Annual Trade Contracts Examples
  - **▶ EPW** 
    - ► Haverhill Rd., from N. of Caribbean Blvd. to Beeline Hwy (Project length 1.6 miles, widen from 2 lanes to 5 lanes)
    - ▶ Camino Real, from Military Trail to SW 7th Ave., Milling, Resurfacing and providing safety improvements to the corridor
    - ▶ Prairie Rd., over the LWDD L-8 canal, Bridge Replacement project

#### **▶ ERM**

- ▶ Royal Palm Beach Pines Public Use Facilities Restoration
- ► Sawfish Island Restoration
- ► Casing Under A1A at Ocean Inlet Park

- ► Hard Bid (Design-Bid-Build) and Annual Trade Contracts Examples
  - **▶ WUD** 
    - ► Western Region Wastewater Treatment Facility Electrical & Wet Weather Improvements
    - NW Belle Glade Water Main Improvements, Zone 3
    - ▶ Lucerne Lakes Valve Replacement

Construction Manager at Risk (CMR)



#### Construction Manager at Risk (CMR)

- ▶ What are the contractually allowable reasons for an increase (i.e., change order) to the contract price?
  - Owner-initiated additions
  - Permitting agency requirements
  - Errors and Omissions in the construction drawings (but the CMR still carries responsibility of review during pre-construction services)
  - ▶ Differing site conditions
- ► What's allowable as a contingency fund use (i.e., no increase to the GMP)? (up to CMR contingency amount)
  - ▶ Unforeseen field conditions; Scope gap; Subcontractor buyout reconciliation; Subcontractor default

#### Construction Manager at Risk (CMR)

- What are the contractually allowable reasons for an increase (i.e., time extension) to the contract time?
  - ➤ Owner-initiated additions
  - ➤ Owner-ordered stop of work
  - ► Force Majeure
  - ▶ Weather-related delays above the contract established thresholds
  - ▶ Manufacturer and chain supply delays outside the contractor's control
  - ▶ Note: unallowable delays result in liquidated damages

- ► Construction Manager at Risk (CMR) Examples
  - **▶** FDO
    - ▶ Palm Tran South
    - ▶ Supervisor of Elections New Production Facility
    - ▶ PBSO HQs Renewal/Replacement
    - ▶ 2300 Vista Center Expansion
  - **▶** DOA
    - ► Concourse B Expansion at PBI
    - ▶ Switchgear Replacement at PBI
    - ▶ Aircraft Rescue and Fire Fighting building (ARFF) at PBI
    - ▶ Campus Wide Terminal Improvements at PBI

Design-Build

**Design Services & Construction** 

Construction Administration Construction Criteria Package Procurement lopment Designer and contractor as one entity work together from the beginning From this point forward contract price and time can only be modified through approved change orders

#### ▶ Design-Build

- ▶ What are the contractually allowable reasons for an increase (i.e., change order) to the contract price?
  - ➤ Owner-initiated additions
  - ▶ Permitting or outside agency requirements
  - ► Minor Errors and Omissions in the construction drawings (but the Design-Build Entity still carries responsibility of review during design)
  - ▶ Differing site conditions

#### Design-Build

- ▶ What are the contractually allowable reasons for an increase (i.e., time extension) to the contract time?
  - ➤ Owner-initiated additions
  - ➤ Owner-ordered stop of work
  - ► Force Majeure
  - ▶ Weather-related delays above the contract established thresholds
  - ▶ Manufacturer and supply chain delays outside the contractor's control
  - ▶ Note: unallowable delays result in liquidated damages

► Progressive Design-Build

**Design Services & Construction** 

Construction Administration esign Development ontract Execution Construction Procurement Criteria Package 0 Designer and contractor as one entity work together from the beginning From this point forward GMP price and time can only be modified through approved change orders

#### ► Progressive Design-Build

- ► What's allowable as a contingency fund use (i.e., no increase to the GMP)?
- ▶ Up to DB contingency amount (not available to the Owner)
  - Overtime or acceleration ordered by the owner
  - ► Escalation of materials
  - ▶ Errors and omissions
  - ► Subcontractor defaults
  - ▶ Trade buy-out differentials
  - ▶ Permitting or outside agency requirements
  - ▶ Differing site conditions
  - ▶ Any other risks identified and responsible by DB

#### ► Progressive Design-Build

- ► What's allowable as a contingency fund use (i.e., no increase to the GMP)?
  - ▶ Up to Owner contingency amount (not available to DB)
  - ➤ Owner-initiated additions
  - ▶ Reasonable scope gaps as adjudicated reasonable by the owner
- ▶ What are the contractually allowable reasons for an increase (i.e., change order) to the GMP price?
  - ▶ Owner-initiated additions after the owner contingency fund is exhausted

#### ► Progressive Design-Build

- ▶ What are the contractually allowable reasons for an increase (i.e., time extension) to the contract time?
  - ➤ Owner-initiated additions
  - ➤ Owner-ordered stop of work
  - ► Force Majeure
  - ▶ Weather-related delays above the contract established thresholds
  - ▶ Manufacturer and supply chain delays outside the contractor's control
  - ▶ Note: unallowable delays result in liquidated damages

- Design-Build Examples
  - **▶ WUD** 
    - ▶ Optimization & Improvement Design-Build Services Contract
- Progressive Design-Build Examples
  - **▶ WUD** 
    - ▶ Green Cay Phase 2 Progressive Design-Build Contract
    - ► Western Region Wastewater Treatment Facility Operations Building Progressive Design-Build

▶ Per Unit Cost Contracts

Permitting

## Design Services

CNA Procurement

Construction Drawings and Estimates (50%, 95%)
Design Development Schematic Drawings
Design Intent Report
Contract Execution

In lieu of A/E services, In house staff can define scope of work

Per unit cost contract is procured independent from design efforts

From this point forward contract price and time can only be modified through

approved change orders

Construction Administration

Construction

**Construction Services** 

#### ▶ Per Unit Cost Contracts

- ▶ What are the contractually allowable reasons for an increase (i.e., change order) to the contract price?
  - ➤ Owner-initiated additions
  - Permitting agency requirements
  - ▶ Unforeseen conditions
  - ► Errors and Omissions in the construction drawings (but the contractor still carries responsibility of review at time of bidding)

#### ▶ Per Unit Cost Contracts

- ▶ What are the contractually allowable reasons for an increase (i.e., time extension) to the contract time?
  - ➤ Owner-initiated additions
  - ➤ Owner-ordered stop of work
  - ► Force Majeure
  - ▶ Weather-related delays above the contract established thresholds
  - ▶ Manufacturer and chain supply delays outside the contractor's control
  - ▶ Note: unallowable delays result in liquidated damages

- Per Unit Cost Contracts Examples (cont.)
  - ► **EPW** (Resurfacing Sample Projects)
    - ▶ Jog Road from Linton to Lake Ida (12.6 lane miles)
    - ▶ 10th Ave. N from Pinehurst to Haverhill (10.2 lane miles)
    - ▶ Palmetto Park Road from Glades to I-95 (43 Iane miles)

### **▶ ERM**

- ▶ Dune & Beach Restoration
- ▶ Inshore Annual Construction

- ▶ Per Unit Cost Contracts Examples
  - **▶ WUD** 
    - ▶ Pipeline Continuing Construction Contract
    - ▶ Lift Station Rehabilitation Continuing Construction Contract
  - ▶ DOA (all airfield improvements at all 4 airports)
    - ► Central Airfield Improvements at Palm Beach International (PBI)
    - ▶ Taxiway R Rehabilitation at PBI
    - West Apron Expansion at Palm Beach County Park Airport (LNA)
    - ▶ Fuel Farm Replacement at Glades Airport (PHK)

# Project Delivery Methods No Longer Used by County Departments

### ► FDO

- ▶ Job Order Contracting no longer used due to the amount of staff time required to administer
- ► Time & Materials no longer used due to the amount of staff time required to administer
- ► Energy Savings Contracts (ESCOs) pilot implemented, initiative not further pursued in light of the County's ability to pay for its projects

## Alternative Project Delivery Methods

## ▶ Total Project Management

Owner retains a project manager firm to procure and manage on its behalf design and construction services for the project

### Construction Management Multi Prime

Owner acts as general contractor and establishes contracts with the design team and the major subcontractors for the project

## Integrated Project Delivery

Owner selects all team members prior to design commencement and contractually intertwines them to equally share risk

## About Construction-Related Contracts

- ▶ Per Florida Statutes, design and construction manager at risk contracts exist in two forms:
  - Continuing for projects under \$4M; and
  - ▶ Project-specific for projects over \$4M
- Per Unit Cost and Annual Trade contracts have capacity not-toexceed amounts established by the Board

Escalation clauses are not the norm in County contracts; currently only EPW and ERM have contract clauses allowing for the same under specific circumstances

## The World of Contract Administration

44

**Progress Reports** & Photos

**Meeting Minutes** 

ules

Pay Apps

Construction **Prawings** & Specifications **Design RFP &** Contract

Sales Tax Recovery

Purchase Orders

**CMR Contract** 

A/E Reports

Permits, Inspections,

**Punch List** 

**Change Orders** 

CCDs, CCPs

Field Bulletins, **RFIs** 

**Submittals & Monthly Reports** 

**AiPP Contract** 

**Design Phase** 

**Construction Phase** 

# Lifecycle of a Capital Project

Project	Policy Direction & Budgeting	Design	Construction
Supervisor of Elections Production Facility	56 months	<b>20 months</b>	<b>24 months</b>
	(September 2015 -	(June 2020 –	(March 2022 –
	May 2020)	February 2022)	March 2024)

# Overview of County Construction Processes

PBC CONSTRUCTION DEPARTMENTS (FACILITIES DEVELOPMENT & OPERATIONS, WATER UTILITIES, ENGINEERING AND PUBLIC WORKS, ENVIRONMENTAL RESOURCES MANAGEMENT, AIRPORTS)

BCC WORKSHOP MEETING

MAY 21, 2024