

# Managing a Billion-Plus Dollar CIP Program

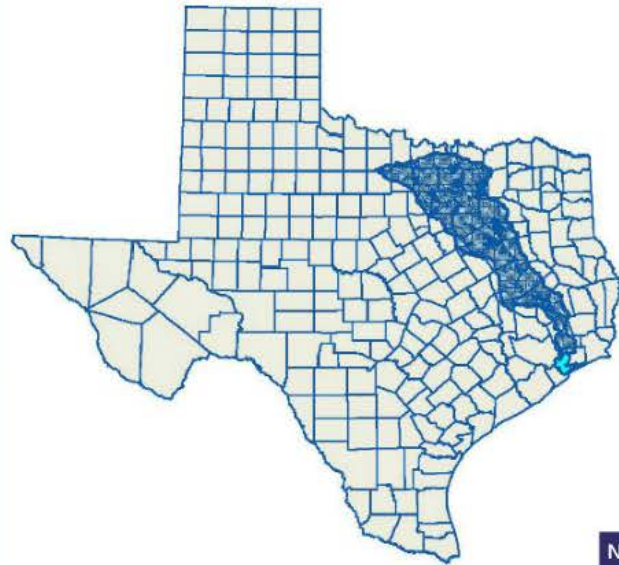
- Introduction to TRA
- Capital program growth and challenges
- Solution to improve project execution
- Project execution maturity
- Advance applications
- Comprehensive CIP management solutions



Trinity River Authority of Texas



# Trinity River Basin



Northern Region Operating Systems



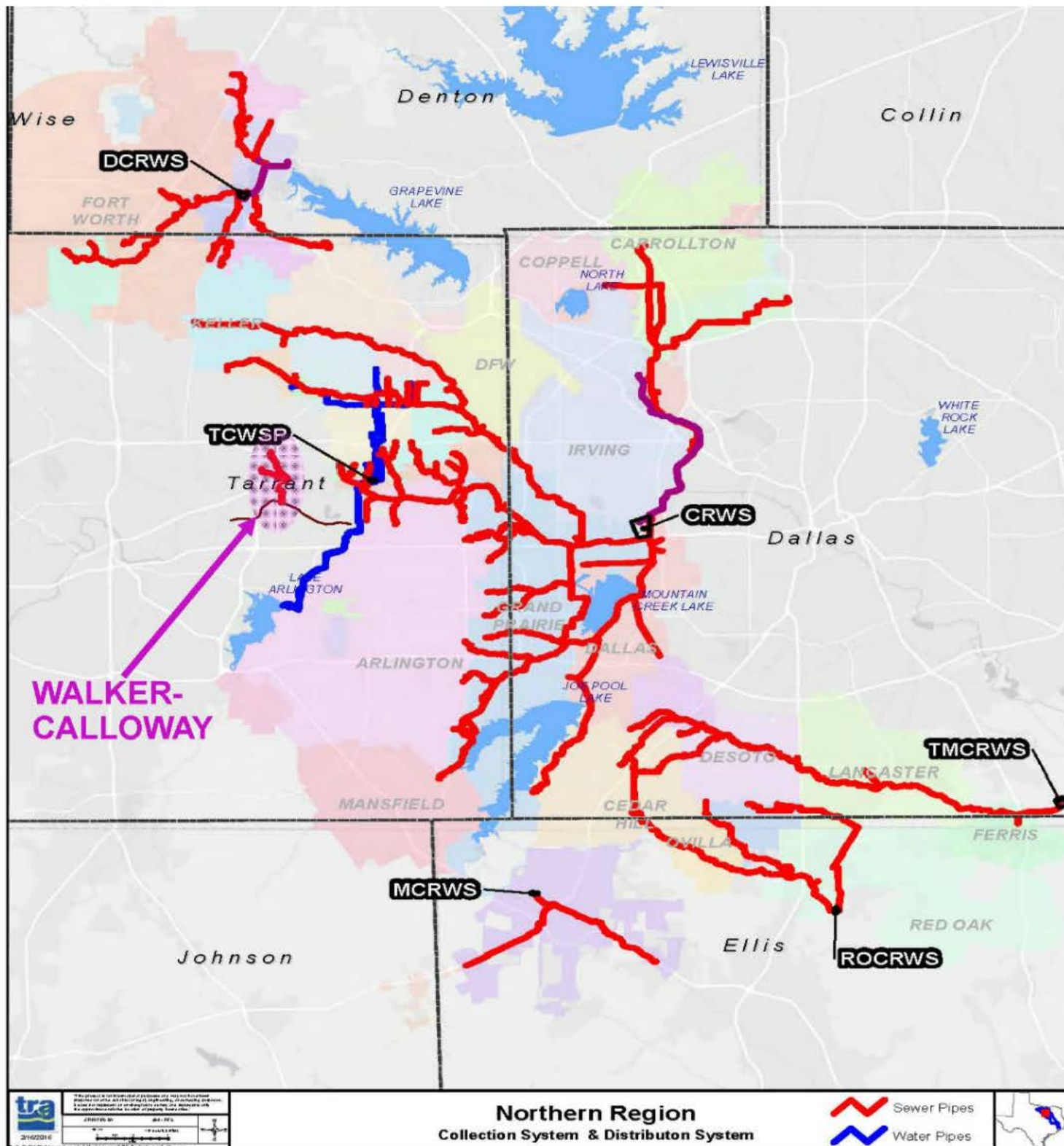
Drainage area



Political Subdivision  
Boundary of TRA

- Only counties that touch the main stem of the river are included in our political jurisdiction.

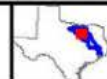




This project is a continuation of previous efforts to improve the sewer and water collection and distribution systems in the Northern Region of Texas. The project is a continuation of previous efforts to improve the sewer and water collection and distribution systems in the Northern Region of Texas.

# Northern Region Collection System & Distribution System

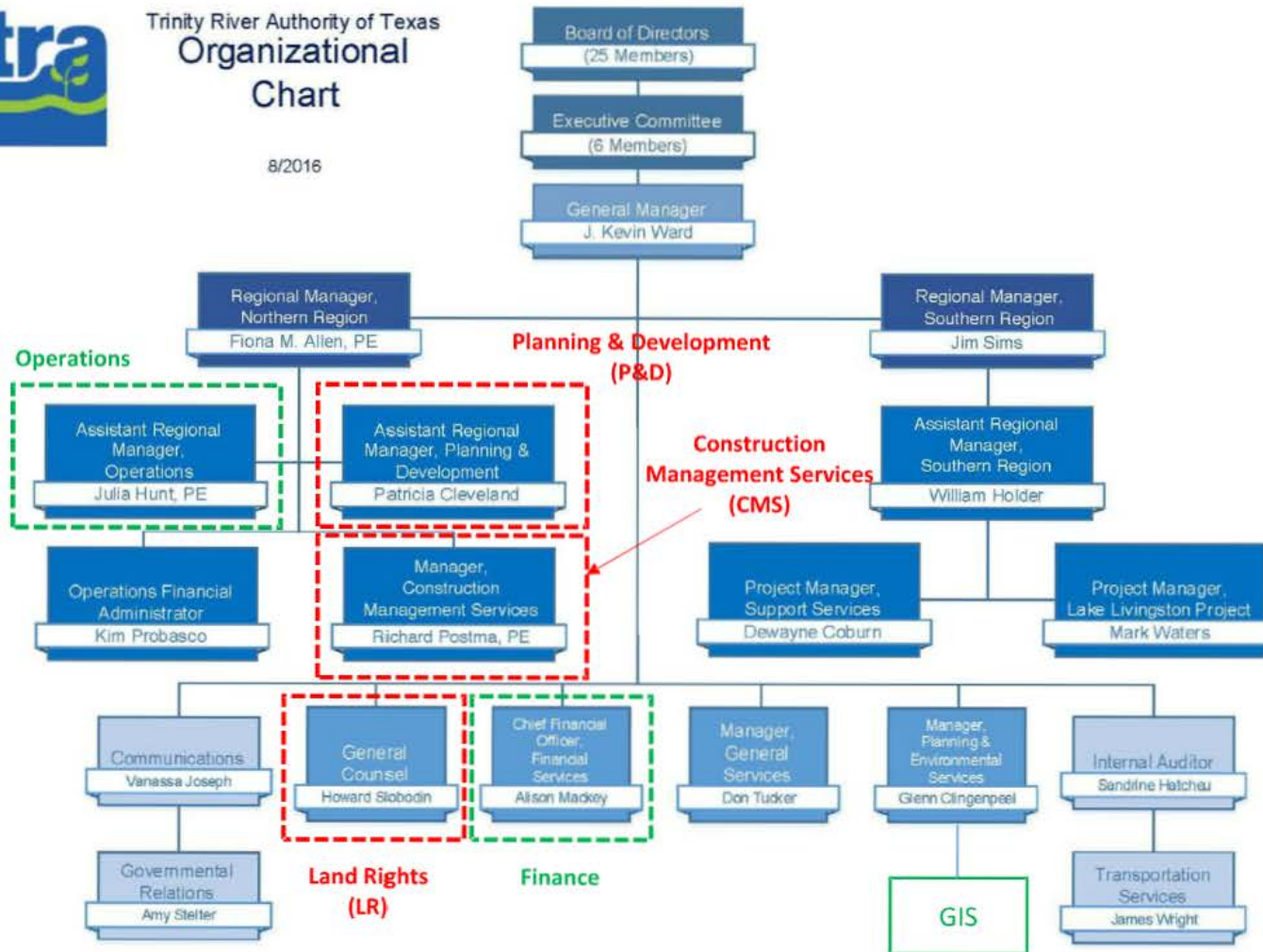
 Sewer Pipes  
 Water Pipes





# Trinity River Authority of Texas Organizational Chart

8/2016



# Northern Region Planning & Development

- Conveyance Pipeline Systems
- Water/Wastewater Treatment Facilities
- Regulatory and Technical Resources
- Engineering Information Management Processes

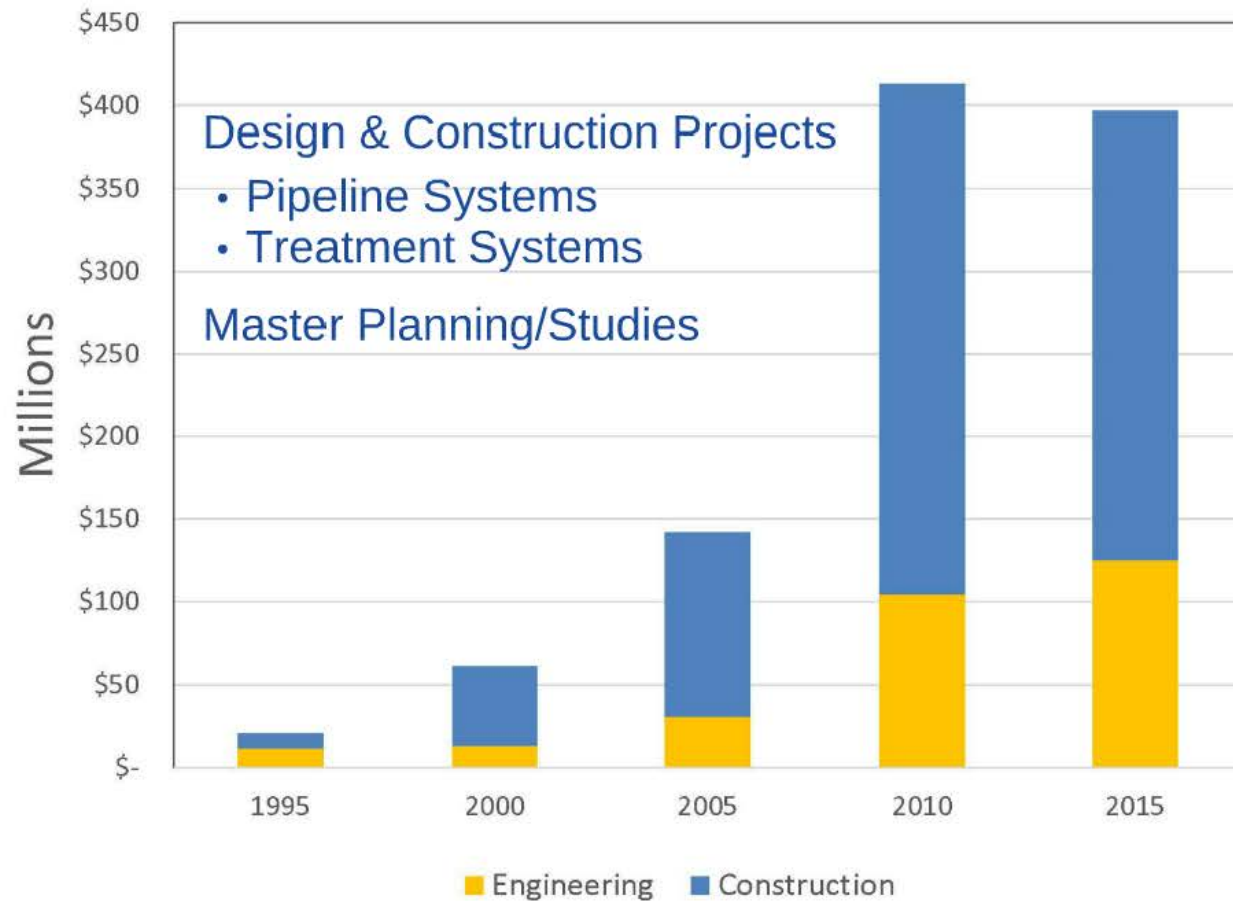


# Northern Region Planning & Development

The PHYSICAL Infrastructure

The LOGICAL Infrastructure

# Northern Region Active Contracts



# Existing Management Tools

- Accounting System
- TRA Playbook
- Status Reports
- Spreadsheets
- Construction Admin. Software
- Capital Program Mgmt. System\*



*\*implemented in 2016*



# 2013-2018 TRA Strategic Plan



[www.trinityra.org](http://www.trinityra.org)

- Engaged Board of Directors
- Customer Service Excellence
- New Business Growth
- Robust Community Partnerships
- Efficient and Effective Operations
- Human Capital Development
- Effective Corporate Communications

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Project: Project Delivery Improvements

Objective 2.4: Accelerate the project planning, development, and construction processes

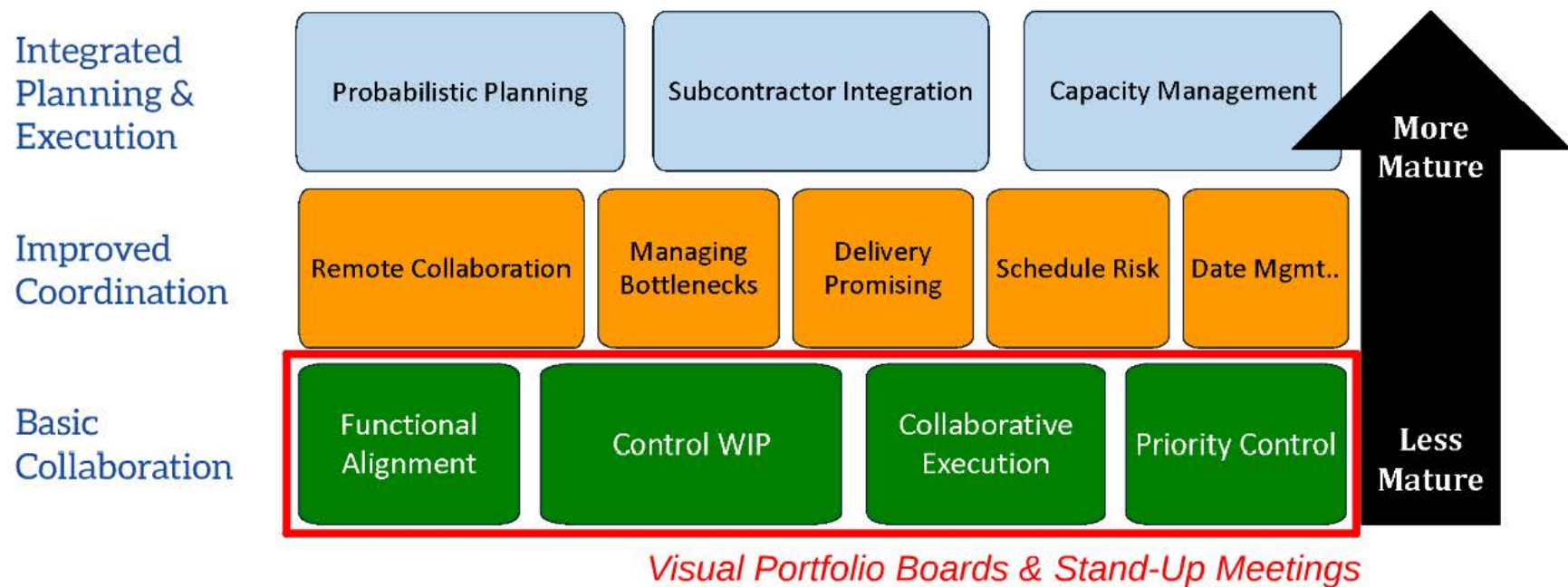
Strategy 2.4.2: Develop and document a standardized set of project planning and management processes and tools to drive accuracy, consistency, and timeliness and provide associated training



# Engage Process Improvement Experts



# Project Execution Maturity Model (PEMM)



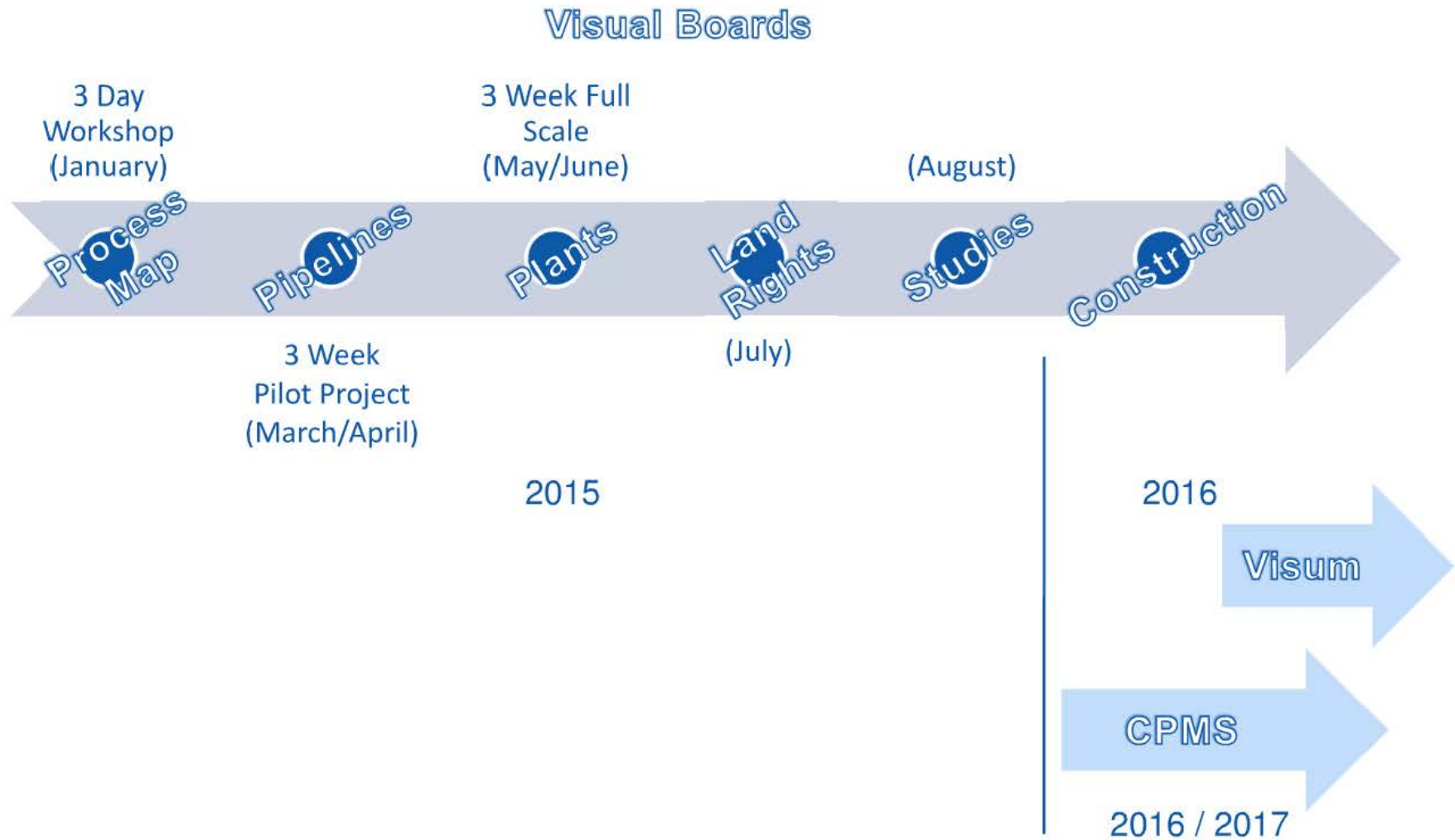
# 3-Day Workshop





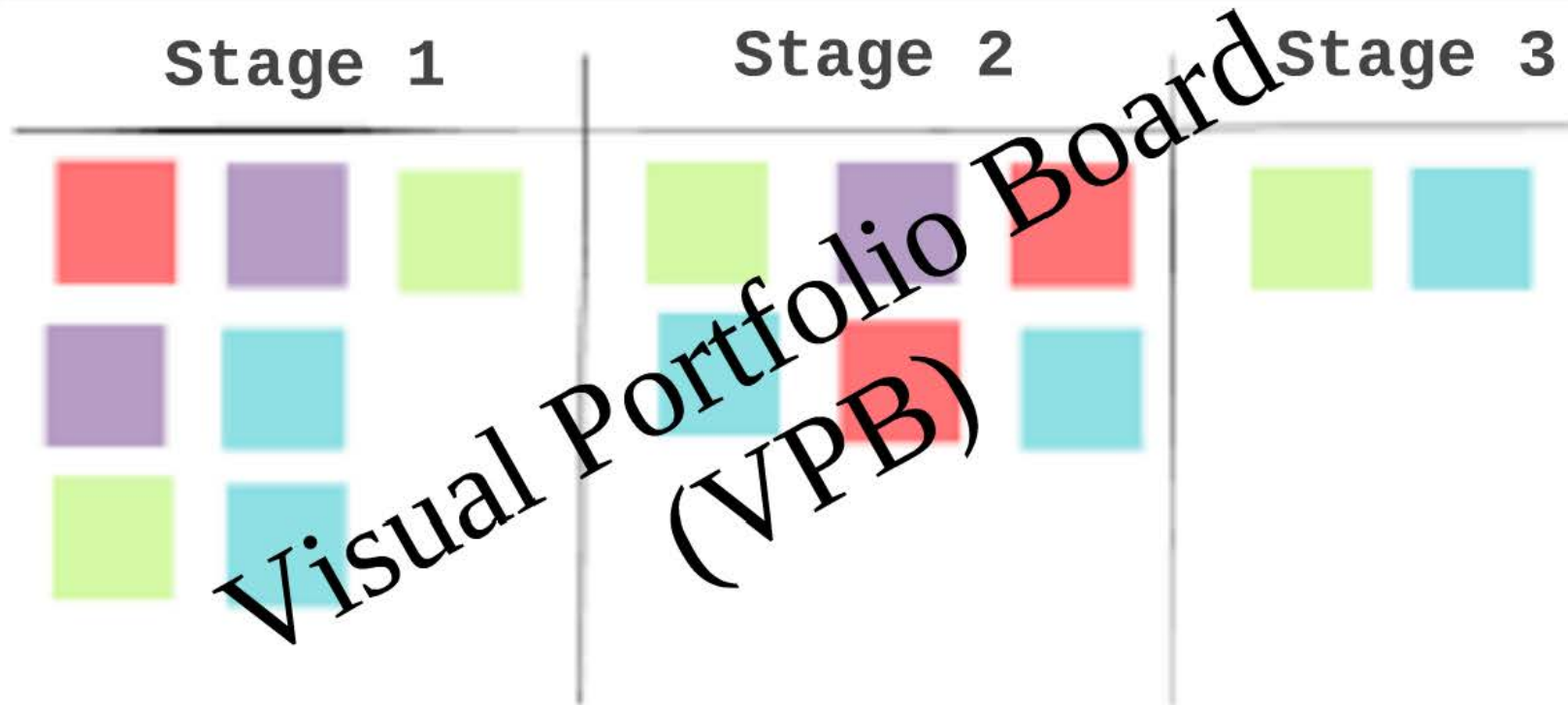
Org	UPSTREAM CIP							FIELD ASSESSMENT							PRELIMINARY DESIGN							FINAL DESIGN									
	Project Approval	Draft Scope	Consultant Selection / RFQ	Contract Award	Draft Report	Final Report	Product (Report / Review)	Draft Scope	Consultant Selection	Contract Award	Collect Data / Land Rights	Develop Alternatives	Draft Report	Final Report	Review	Draft Scope	Consultant Selection	Contract Award	30% Design	60% Design	90% Design	100% Design	Final Plans, Specs	Advertise, Bid	Award						
MANAGING DIRECTOR																															
VP, FINANCE																															
VP, LAND & ENVIRONMENT																															
CONSULTANT																															
ENV																															
IT / GIS																															
REGULATORY																															
LAND RIGHTS & LOCAL																															
PLANNING																															
COMMUNITY ENG																															
COMMUNICATIONS																															
CONTRACTOR																															

# Project Execution Improvement Schedule



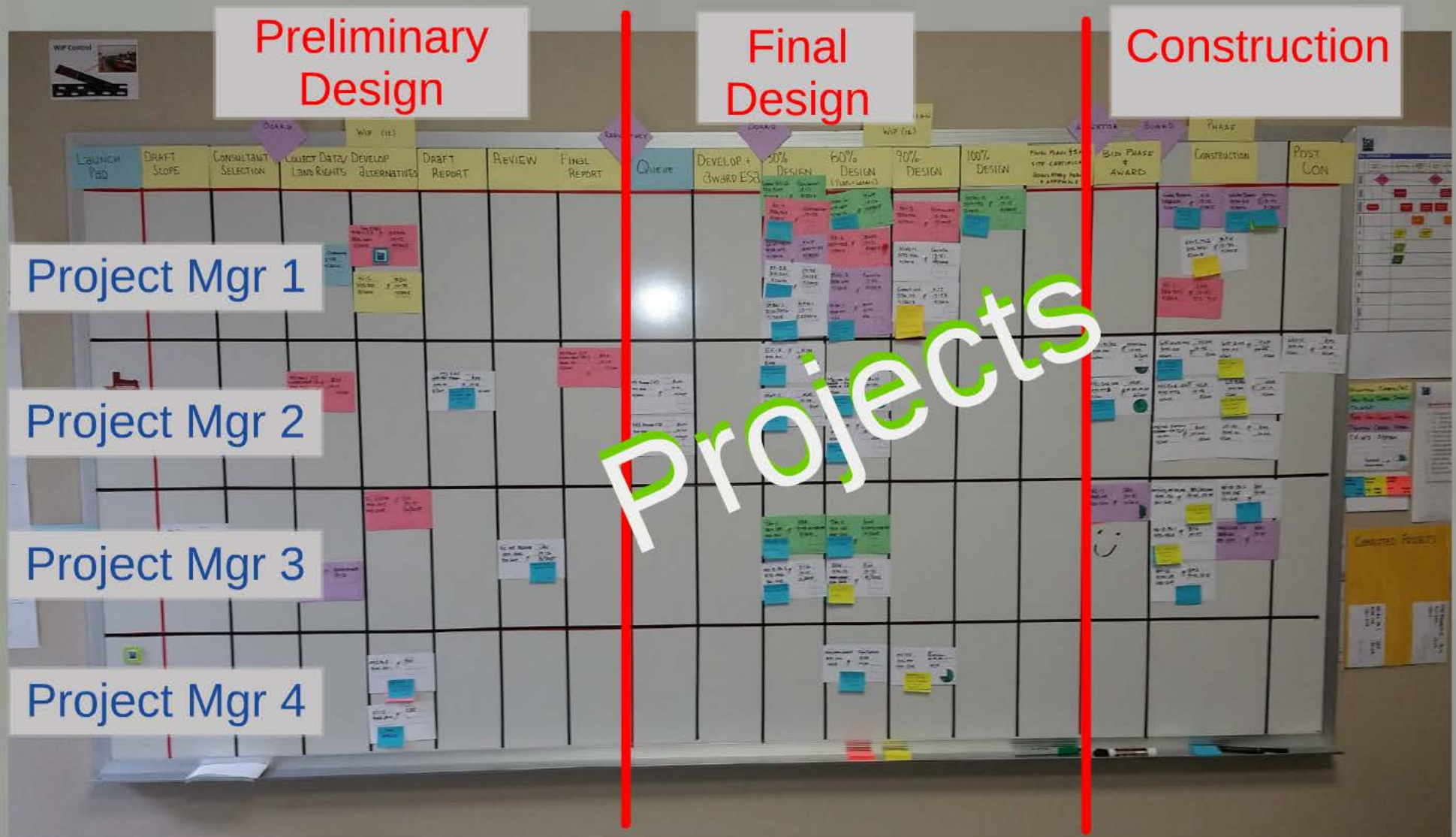
# Visualizing Project Execution

*kanban + theory of constraints*





# TRA Visual Portfolio Board



# Weekly Stand-Up Meetings

- 15 minutes per board
- focus on yellow/red velocity issues
- publicize advances
- reaffirm priorities
- realignments



*velocity threatened*



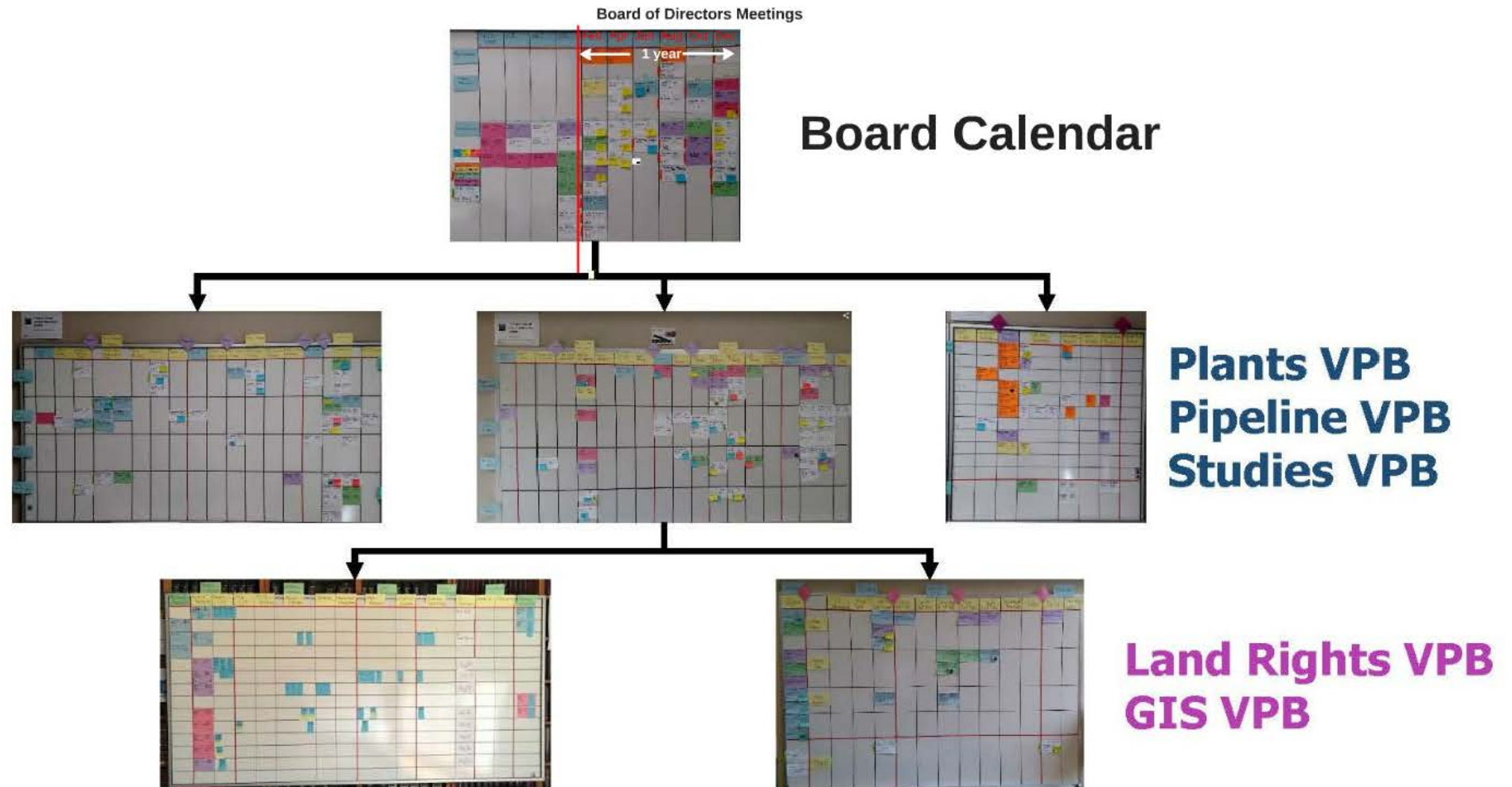
*escalate issue*

**MAKE YOUR MOVES  
ON MONDAY!**





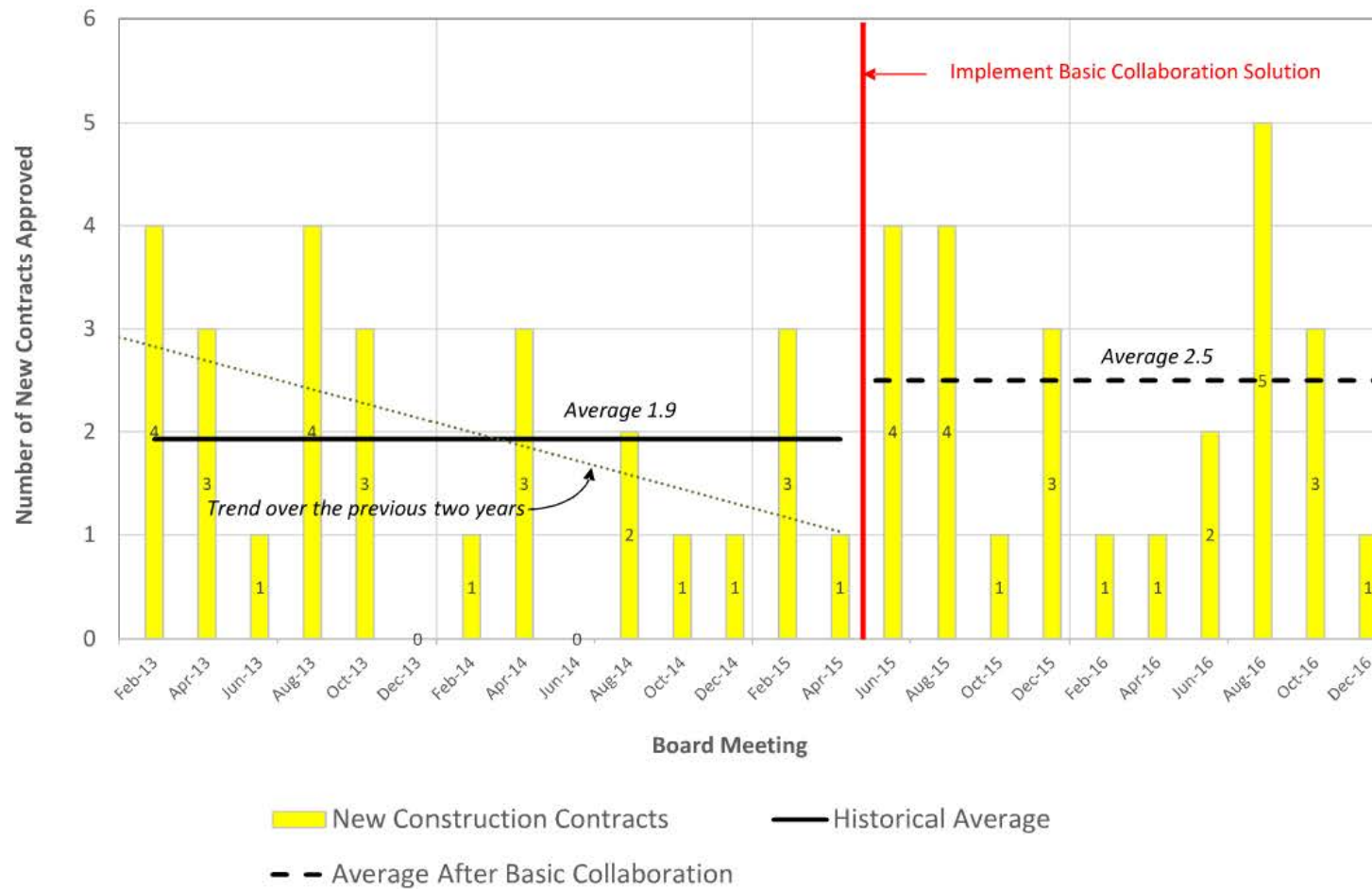
# A Fully Synchronized Capital Project Execution Program





# Visual Board Metrics

Board Approved Construction Contracts



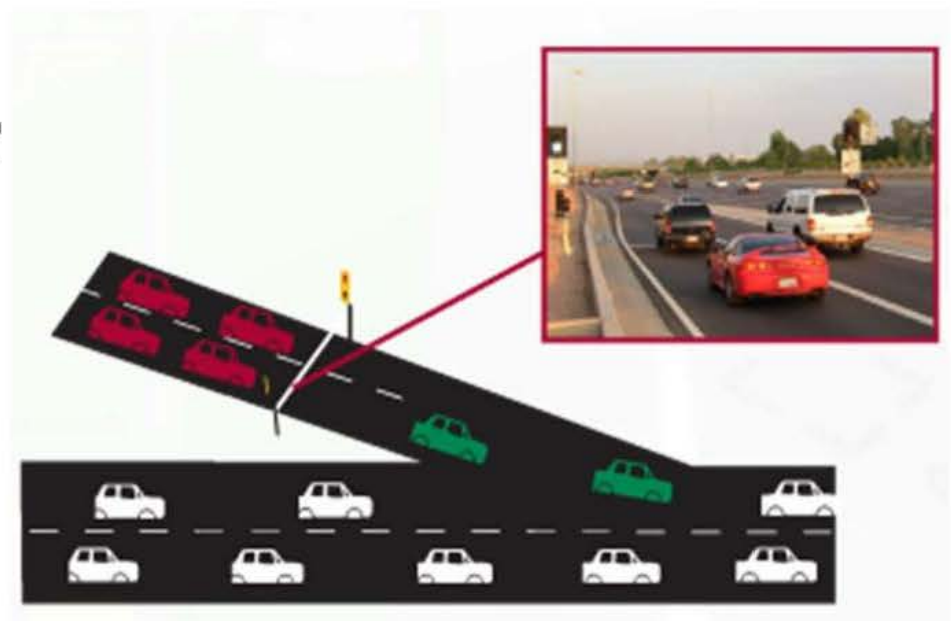
# Monthly Group Leader Calendar Execution Meeting

- Planning & Development
- Land Rights & Legal
- Construction Services
- Operations
- Accounting

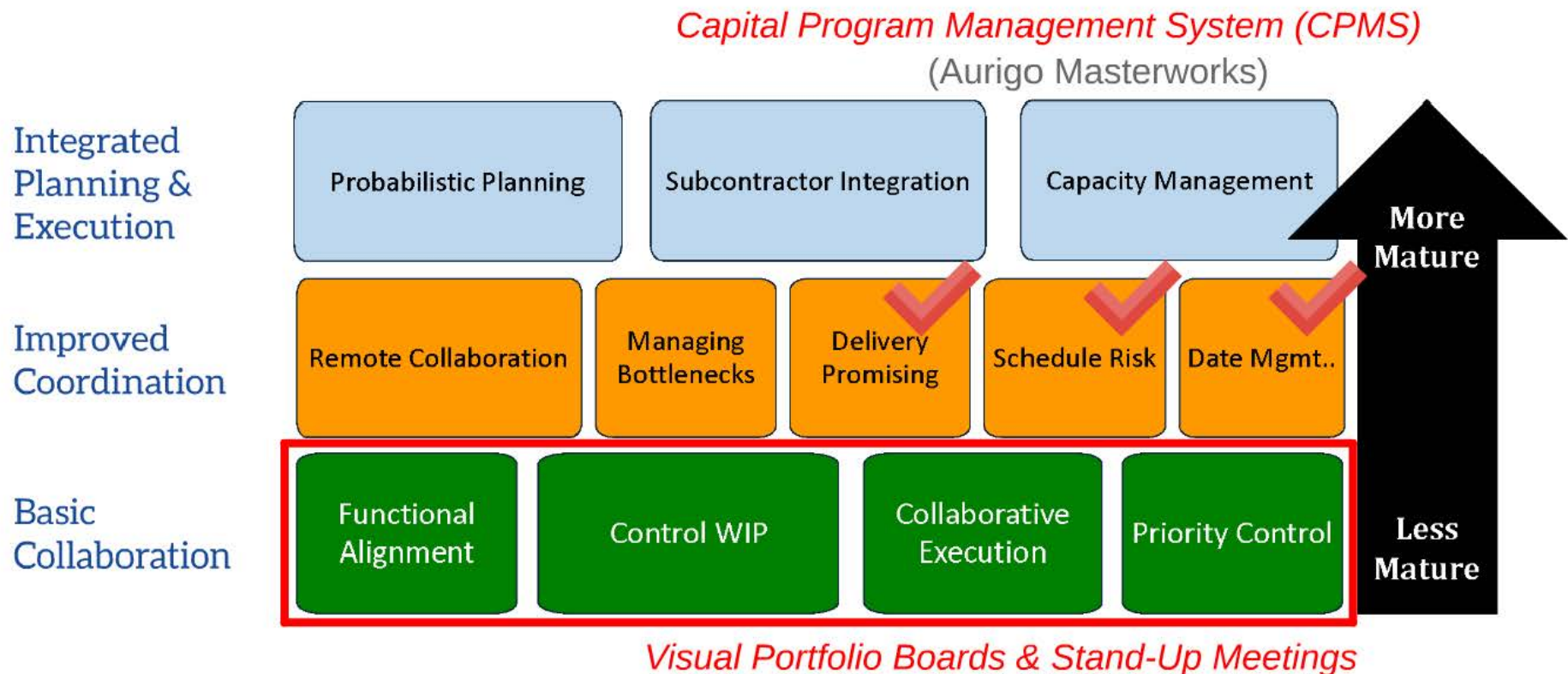
TRA Board Calendar

WIP Control

*Work in Process!!*

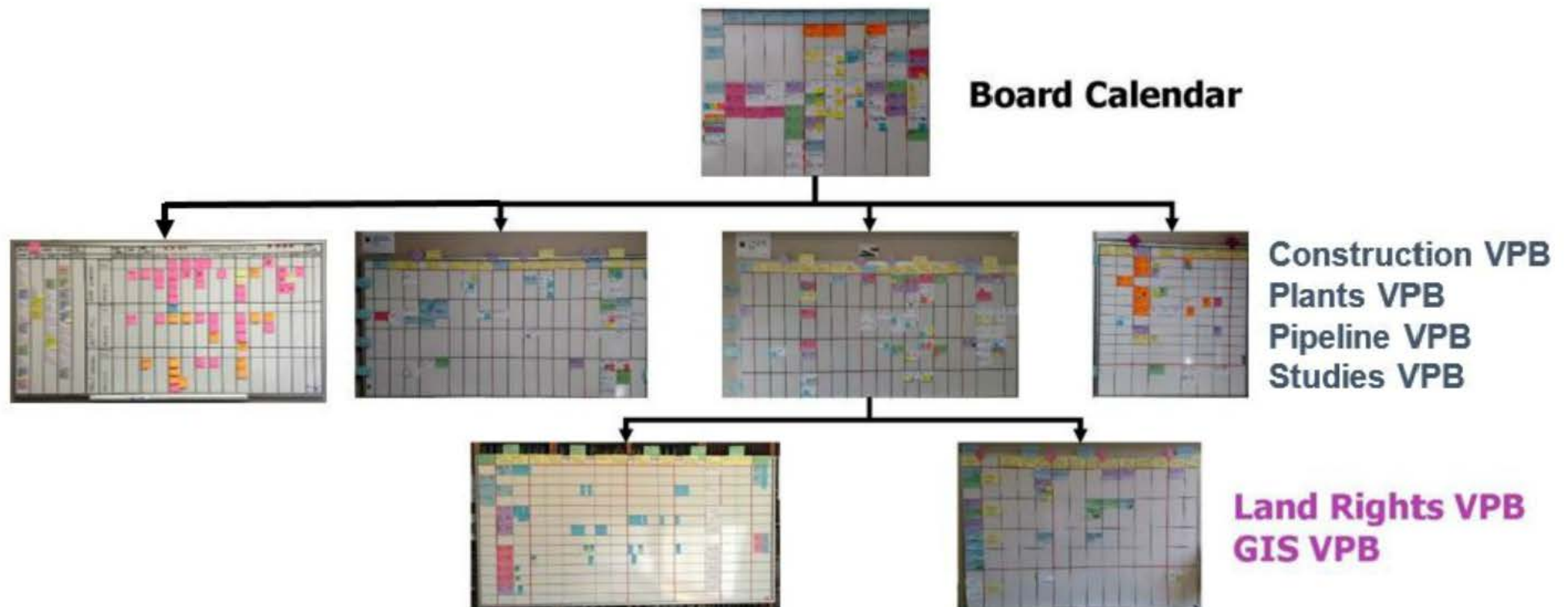


# Project Execution Maturity Model



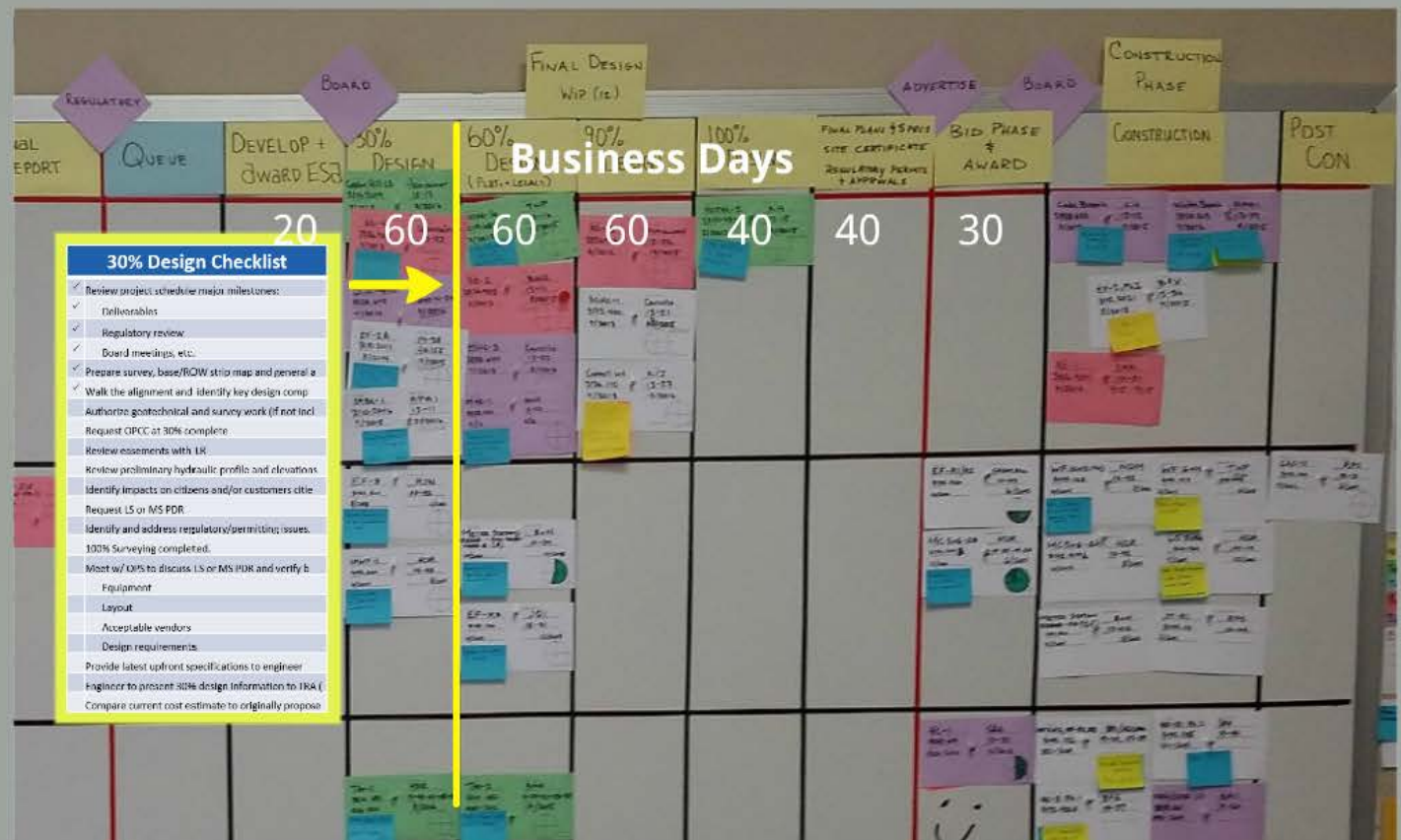


# A Fully Synchronized Capital Project Execution Program



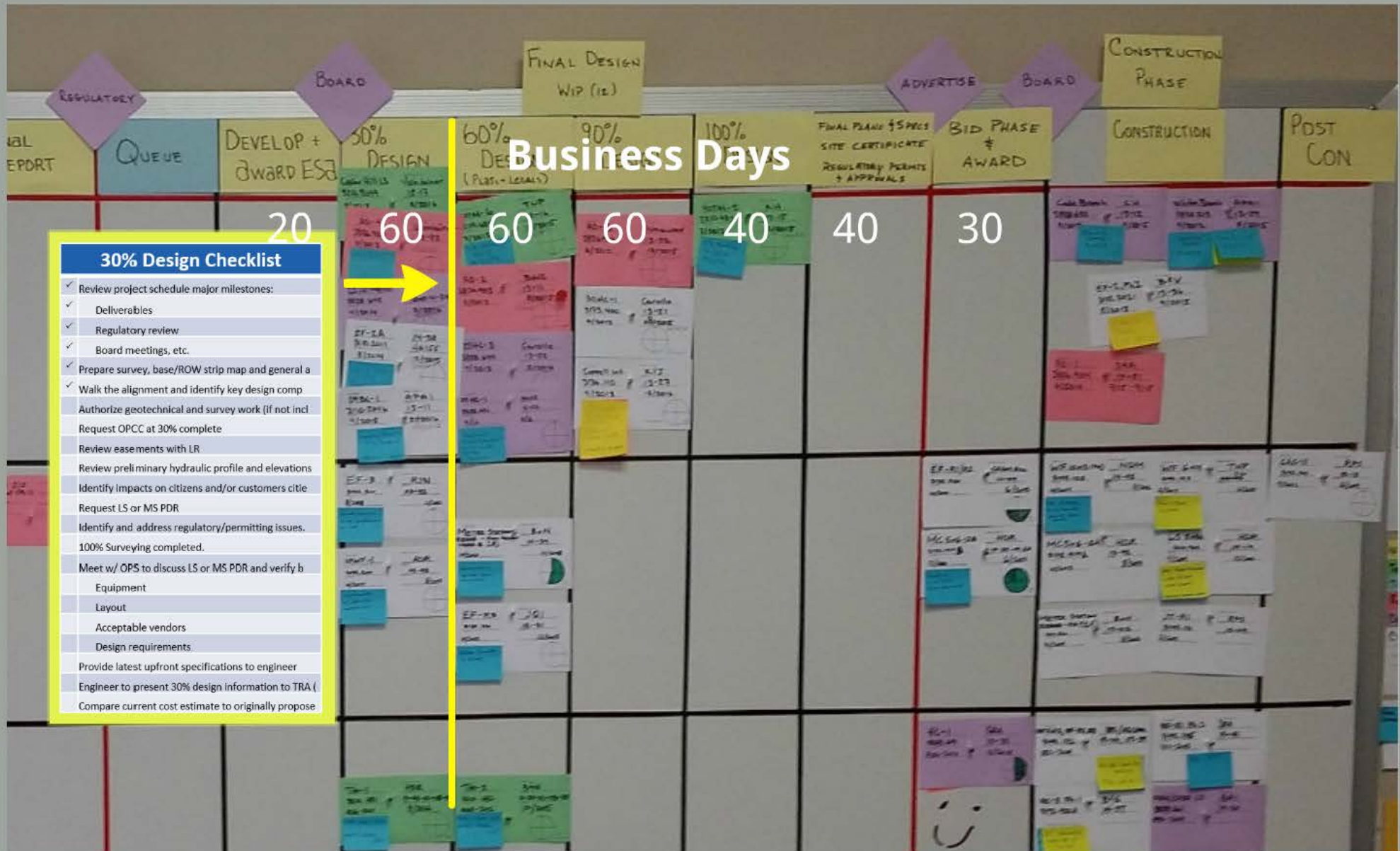


# Project Execution

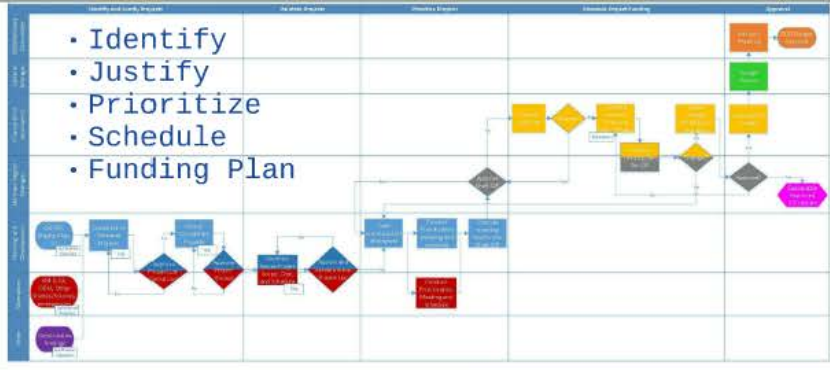




# Project Execution







Capital Planning

CIP Workflow

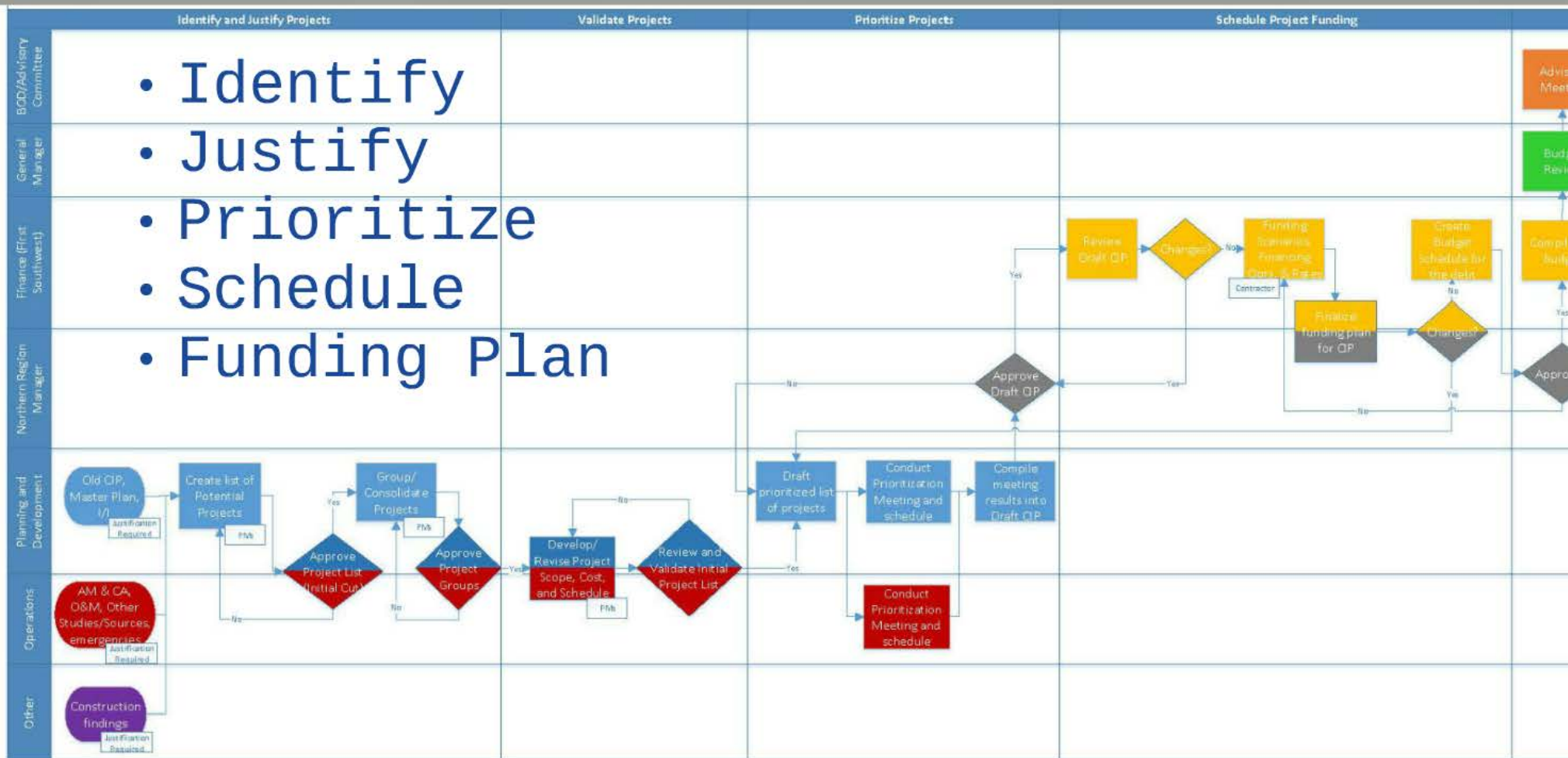
CIPMS



Project Execution



- Identify
- Justify
- Prioritize
- Schedule
- Funding Plan



# Capital Planning

# Capital Program Management System (CPMS - Masterworks)

Planning

Funding

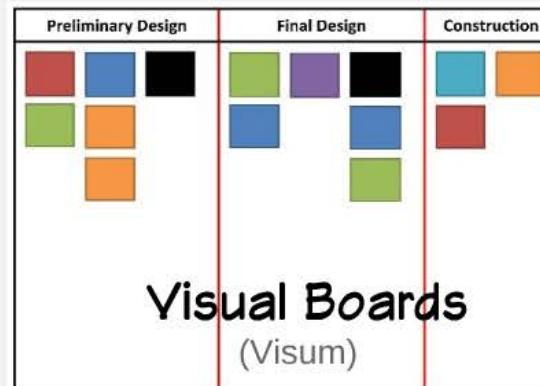
Capital Improvement Plan

- Contract Approval
- Accounting Setup
- Project Schedule
- Task Management
- Contract Invoice Approval
- Project Closeout

Execution  
(engineering)

- CIP Project Inventory
- Project Scoring
- Budget Development
- Funding Scenarios
- Program Schedule

- Document Management
- Reporting
- Dashboards
- Workflows & Alerts
- Issues Log
- Resource Management



Accounting  
System

Construction  
Management  
System

Execution  
(construction)

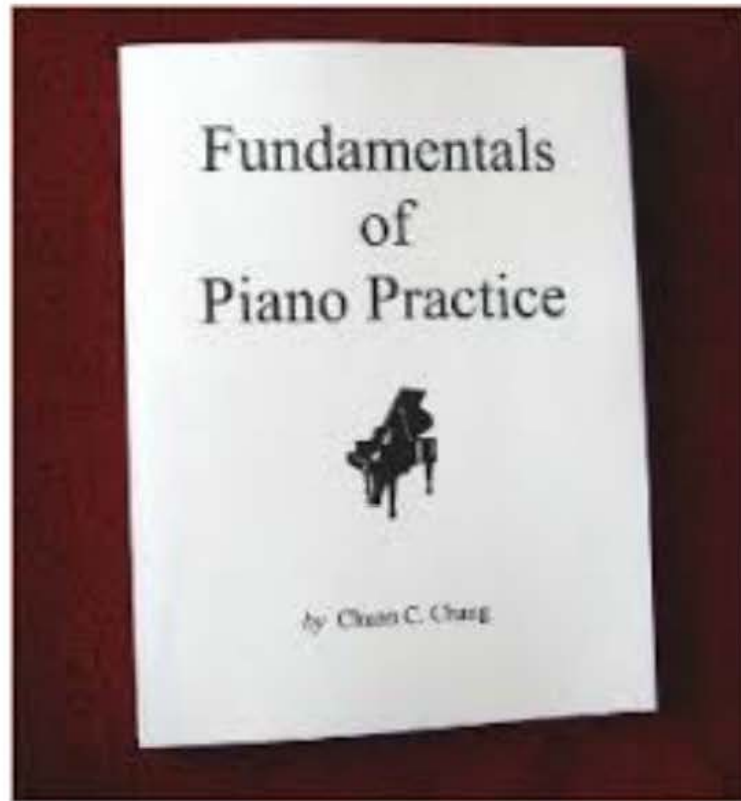
Asset  
Management  
System

Operation



# Practice...

noun

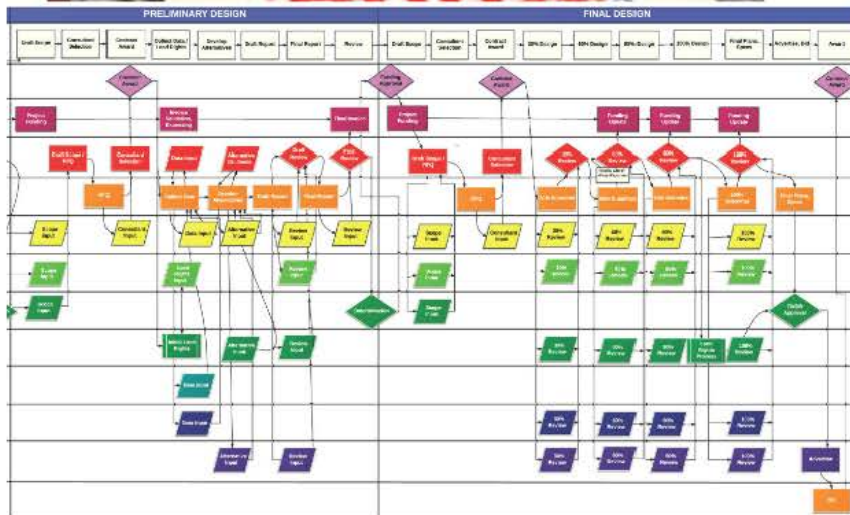


verb



# Practice...

# Information



# Some reasons the visual board works...

- It is well designed (tailored)
- It is simple
- We know where it is (not buried)
- We know how to use it
- We all do use it
- We all use it together (group support)
- We all use it frequently
- We keep it up to date
- We realize an obvious and immediate benefit





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