

## **AAPA CAPITAL PROJECTS SEMINAR, NORFOLK, VIRGINIA**

**PLAN FOR SUCCESS  
RESEARCH TO ASSESS**

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## TO START WITH...

"In preparing for battle I have always found  
that *plans* are useless,  
but *planning* is indispensable."

***Dwight D. Eisenhower***

# PLANNING ELEMENTS

## ➤ **Water**

- Approach Channel
- Anchorage
- Turning Basin
- Harbor Channel
- Berth

## ➤ **Marine Terminal**

- Quay
- Quay Equipment
- Terminal Equipment
- Storage Yard Layout
- Gate
- Rail Working Yard
- Rail Storage Yard
- Civil Infrastructure
- Telecomm Network
- Operating Systems
- Power Systems

## ➤ **Port Area**

- Road Network
- Rail Network
- Access Roads
- Rail Working Yard
- Rail Storage Yard

## ➤ **Hinterland**

- Road Network
- Rail Network
- Highways
- Distribution Centers

# STAKEHOLDERS

## ➤ Sovereign Agencies

- USACE
- USCG
- Federal Aviation / Airport
- Port Authority
- Harbor Agency
- Pilot Service
- Customs & Border Patrol
- Air Quality Regulator
- Water Quality Regulator
- Permitting Authority
- Metro Planning Organization
- Host City Government
- State DOT

## ➤ Private Enterprise

- Vessel Liner
- Tug Operator
- Marine Terminal Operator
- Rail Terminal Operator
- Rail Switching Entity
- Rail Class I Operator
- Warehouse / DC Operator
- Trucking Company
- Chassis Pool Operator
- Support Service Provider
- Utility Company
- Beneficial Cargo Owner

## ➤ People

- Pilots & Tug Crews
- Longshore Labor
- Rail Operating Labor
- Truck Drivers
- Boaters
- Neighbors



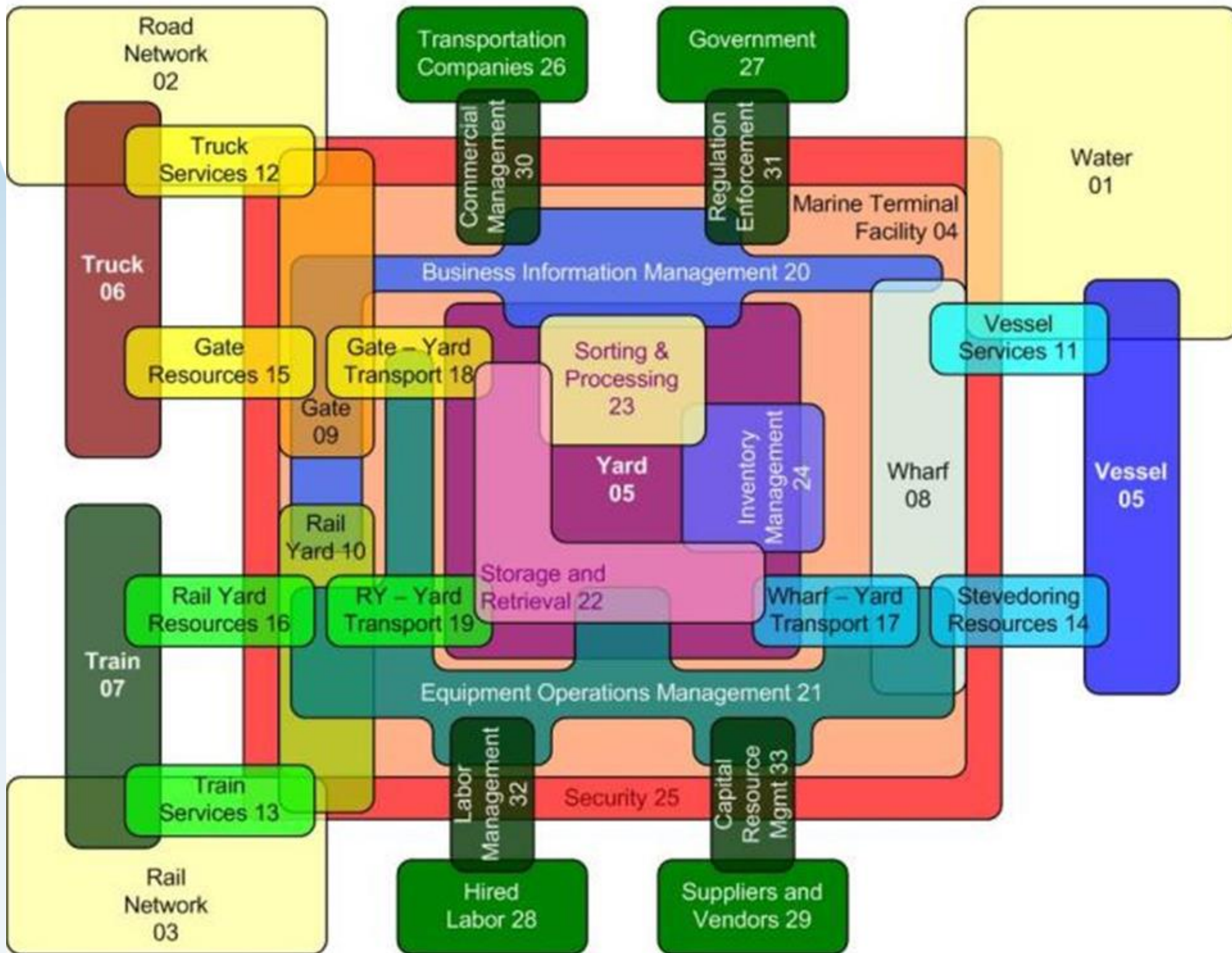
# STAKEHOLDER INFLUENCE / CONCERN

## PLANNING ELEMENTS

## STAKEHOLDERS

		Sovereign Agencies												Private Enterprise												People						Stakeholder Influence = 2		Stakeholder Influence = 1	
		USACE	USCG	Federal Aviation / Airport	Port Authority	Harbor Agency	Pilot Service	Customs & Border Patrol	Air Quality Regulator	Water Quality Regulator	Permitting Authority	Metro Planning Organization	Host City Government	State DOT	Vessel Liner	Tug Operator	Marine Terminal Operator	Rail Terminal Operator	Rail Switching Entity	Rail Class I Operator	Warehouse / DC Operator	Trucking Company	Chassis Pool Operator	Support Service Provider	Utility Company	Beneficial Cargo Owner	Pilots & Tug Crews	Longshore Labor	Rail Operating Labor	Truck Drivers	Boaters				
Water	Approach Channel																															9	5		
	Anchorage																															10	1		
	Turning Basin																															10	6		
	Harbor Channel																															10	5		
	Berth																															10	7		
Marine Terminal	Quay																															7	7		
	Quay Equipment																															6	2		
	Terminal Equipment																															6	5		
	Storage Yard Layout																															6	4		
	Gate																															10	2		
	Rail Working Yard																															7	2		
	Rail Storage Yard																															5	3		
	Civil Infrastructure																															3	5		
	Telecomm Network																															4	12		
	Operating Systems																															6	5		
Power Systems																															5	1			
Port Area	Road Network																															8	8		
	Rail Network																															5	8		
	Access Roads																															9	7		
	Rail Working Yard																															4	4		
	Rail Storage Yard																															4	3		
Hinterland	Road Network																															4	9		
	Rail Network																															4	3		
	Highways																															4	6		
	Distribution Centers																															6	2		
Stakeholder Influence = 2		6	6	1	19	5	6	1	4	6	4	2	4	2	8	6	15	4	6	6	3	10	5	0	4	3	5	5	2	9	1	4			
Stakeholder Influence = 1		1	1	1	6	1	0	6	8	2	16	5	6	2	11	1	1	4	3	2	6	1	2	6	4	6	1	4	5	1	3	6			

# PIECES OF A MARINE TERMINAL



WITH SUCH CLARITY...

What could  
possibly go  
*wrong?*

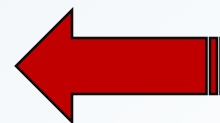
# “I KNOW JUST WHAT TO DO”



➤ If you focus on what seems simple to solve...



➤ ...you'll likely miss something important



# “WE ARE COMMITTED TO THIS SOLUTION”



➤ If you commit to a plan before knowing all the facts...



➤ ...you may not be able to back out.

# “THE COMMUNITY WILL BUY IN”



➤ You may not believe in stakeholders...



➤ ...but they believe in YOU!

# “THAT’S NOT MY TURF”



➤ **Just because they don't work for you...**

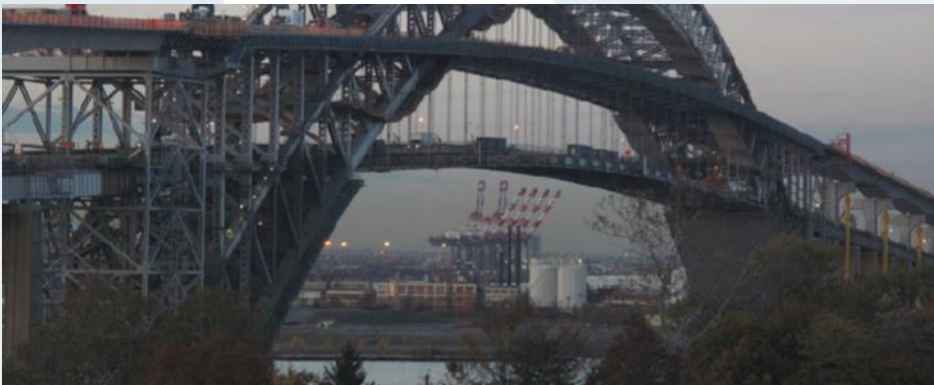
➤ **...doesn't mean you are not responsible for them.**



# “THEY’LL NEVER GET *THAT* BIG”



➤ “Prediction is hard...



➤ “...especially about the future” - Berra

YES. AND?

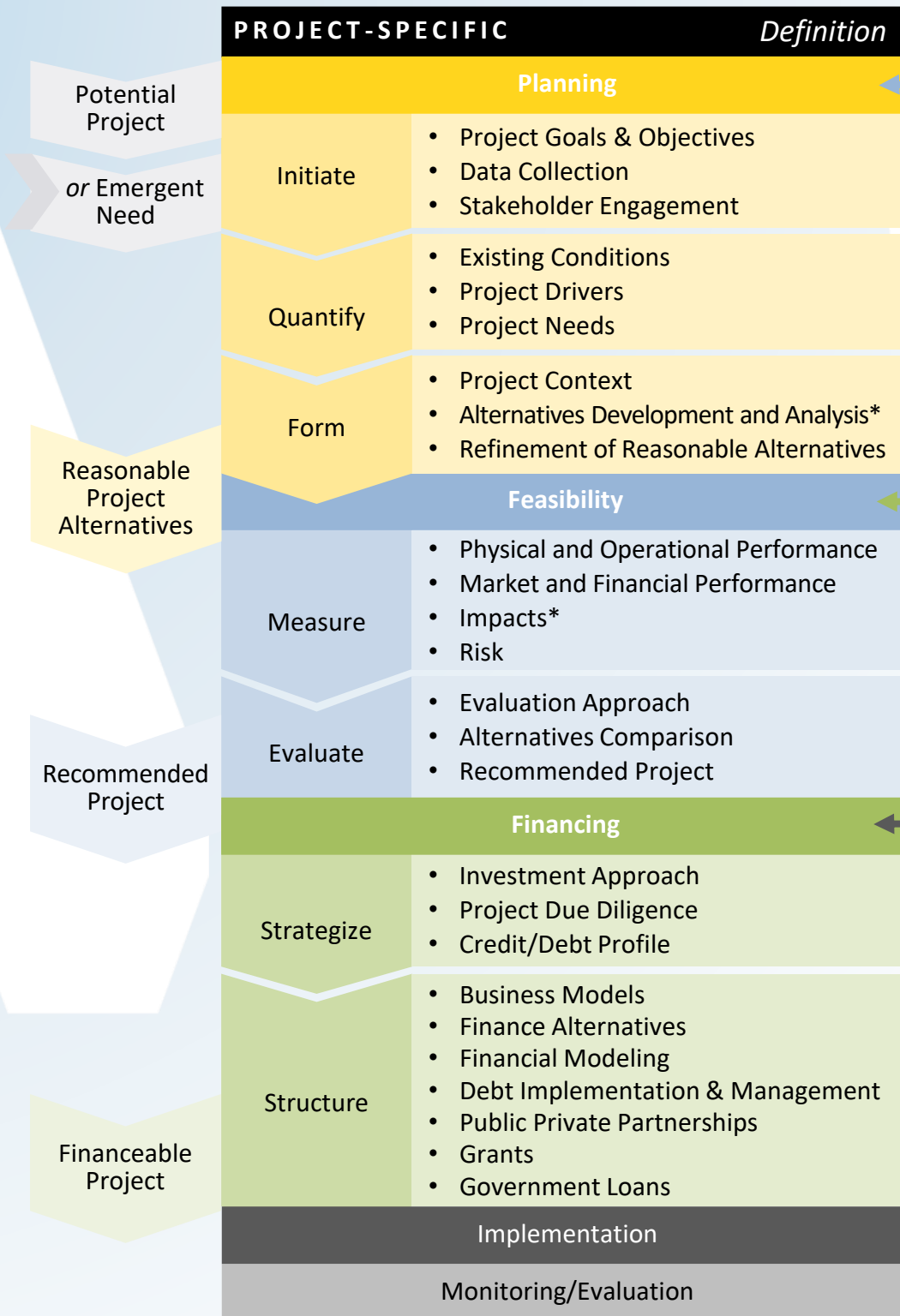
**DON'T  
PANIC**



wsp

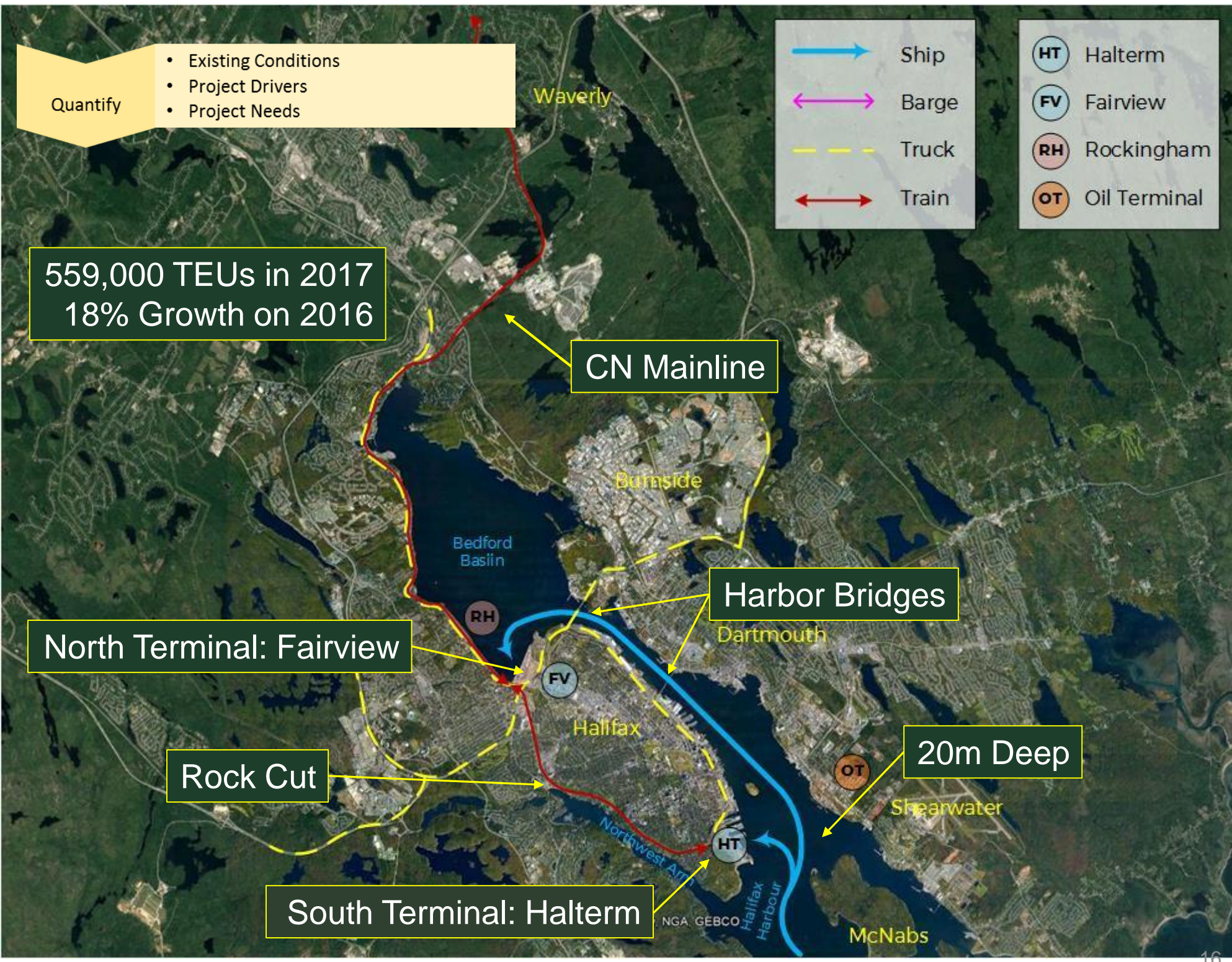
## Port Planning and Investment Toolkit Focus

Project Plan/Plan of Finance



## A MODEST EXAMPLE...







# HALIFAX TOOK THE TIME TO GET IT RIGHT

- **“Leave no stone unturned”**
- **“Assume everything is feasible”**
- **“Bring no preconceptions”**
- **“Draw no conclusions”**
- **Ships, barges, trucks, trains, roads, bridges, rail lines, rail yards, cruise, dry bulk, cranes, air spaces, tunnels, trenches, parks, city traffic, intersections, oil docks, tank farms, navigation, pilotage, tugs, fueling, dray market, dray costs, capital cost, cash flow, resiliency, sustainability, private properties, social license to operate**
- **A balanced, feasible solution is now in hand**

## REMEMBER:

“They will forget if it is *late*,  
They will forget if it *cost* too much,  
They will **never** forget if it *does not* **work**.”

**Guy Buzzoni**  
**Global Container Terminals**

# INITIATE

## Initiate

- Project Goals & Objectives
- Data Collection
- Stakeholder Engagement

- Bayonne Bridge raised to clear 14,000 TEU container ships into Newark Bay
- Opens the whole East Coast to these ships
- Halifax is Canada's Atlantic Gateway
- MacKay and MacDonald Bridges cannot be raised
- Fairview is inaccessible to 10,000+ TEU ships
- Only one Ultra Class ship at a time, at Halterm
- Without a second Ultra Class berth south of the bridges, Halifax port volume will stagnate, then decline, raising costs for importer and exporters
- A new Ultra Class berth south of the Bridges is needed

# STAKEHOLDER

## Initiate

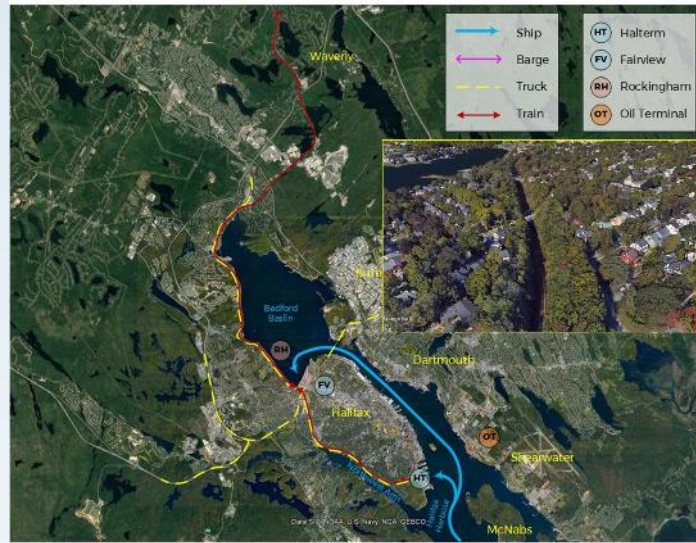
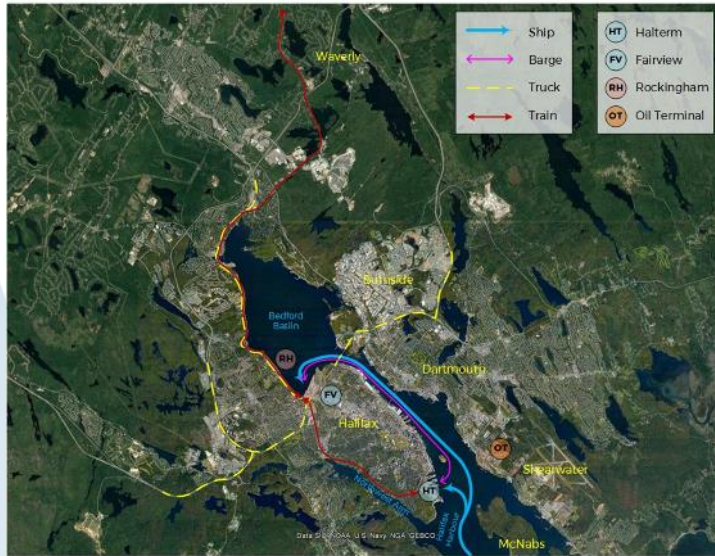
- Project Goals & Objectives
- Data Collection
- Stakeholder Engagement



- Halifax traffic:
  - 50% by regional truck
  - 50% by long-haul rail
- All local container traffic at Halterm, south of the Bridges, moves via downtown streets
- The truck count is not huge, but is very visible
- Shifting local traffic off of Halifax's city streets was a major criterion

# FORM

## BARGE SHUTTLE

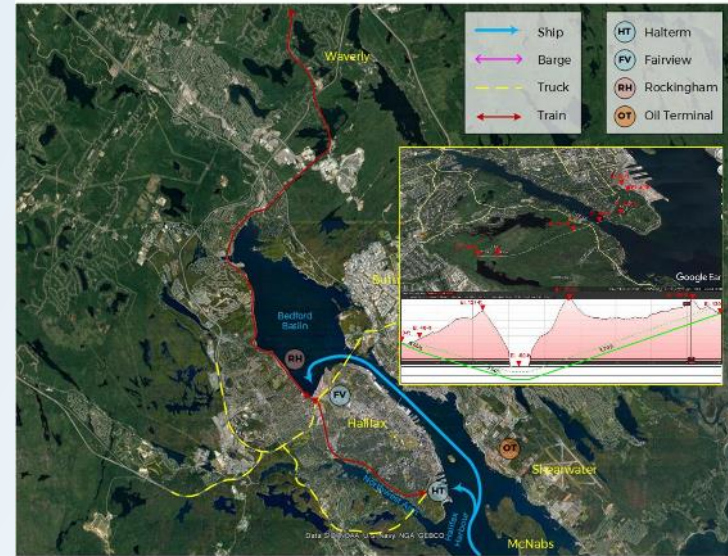


## DUAL MODE ROCK CUT

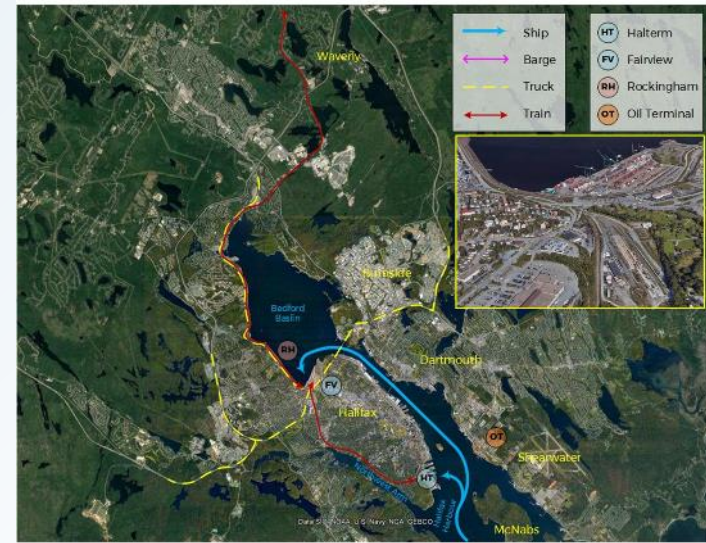
## Form

- Project Context
- Alternatives Development and Analysis\*
- Refinement of Reasonable Alternatives

## TUNNEL



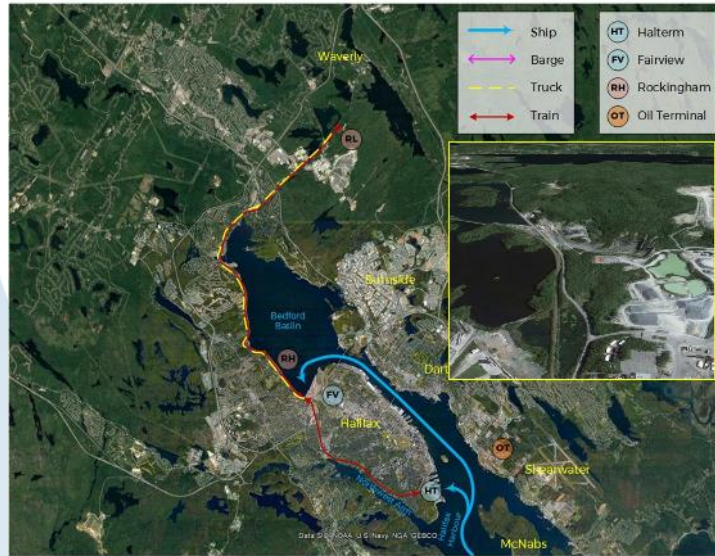
## RAIL SHUTTLE



# FORM

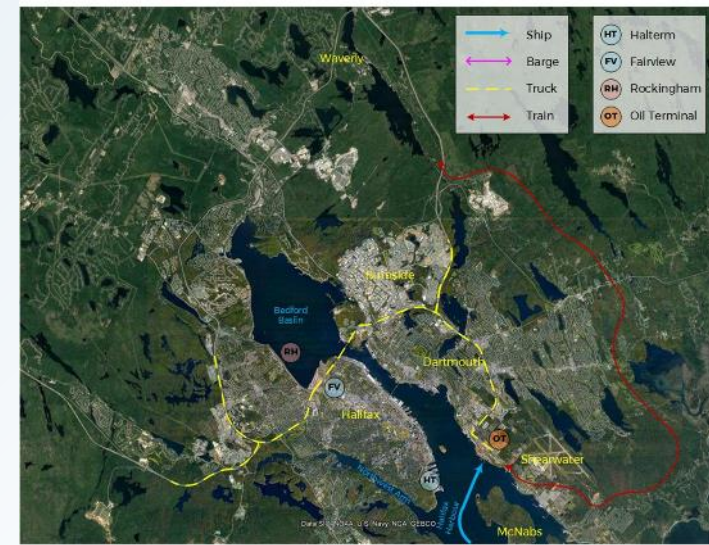
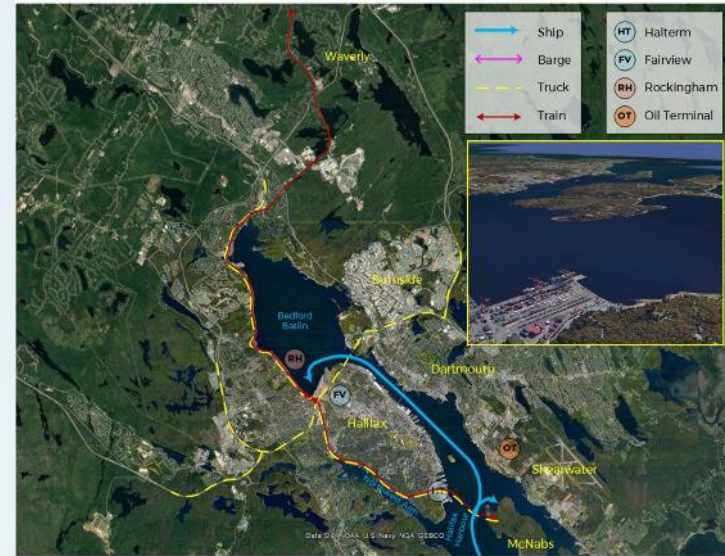
INLAND RAIL HUB

DARTMOUTH / SHORELINE



McNABS ISLAND

DARTMOUTH / INLAND



Form

- Project Context
- Alternatives Development and Analysis\*
- Refinement of Reasonable Alternatives

# FEASIBILITY

Measure

- Physical and Operational Performance
- Market and Financial Performance
- Impacts\*
- Risk

Evaluate

- Evaluation Approach
- Alternatives Comparison
- Recommended Project

## ➤ **Dartmouth + Rail Bypass**

- CAD 1,415 M for 1,250,000 TEUs / year
- *Issues: Lead time, First cost, Oil Terminal*

## ➤ **Halterm East**

- CAD 654 M for 650,000 TEUs / year
- *Issues: High capacity, Complex phasing*

## ➤ **Halterm South**

- CAD 423 M for 650,000 TEUs / year
- *Issues: Point Pleasant Park*

## ➤ **Halterm North**

- CAD 401 M for 650,000 TEUs / year
- *Issues: Simplicity, Cruise & Dry Bulk displacement*

# FINANCE

## NATIONAL TRADE CORRIDORS FUND

updated October 18, 2017

### APPLICANT'S GUIDE

Comprehensive Project Proposal Phase



 Gouvernement  
du Canada

Government  
of Canada

Canada 

Recommended  
Project

#### Financing

##### Strategize

- Investment Approach
- Project Due Diligence
- Credit/Debt Profile

##### Structure

- Business Models
- Finance Alternatives
- Financial Modeling
- Debt Implementation & Management
- Public Private Partnerships
- Grants
- Government Loans

Financeable  
Project

- Conceptual Cost Estimate
- Cash Flow Model
- Investment Model
- Benefit-Cost Analysis
- NTCF Grant Funding