“Public Private Partnerships” 101

Keep Track of the Money ($$)
Know How Your Project Will Be Delivered

Dr. John B. Miller
The Barchan Foundation, Inc.
jbmiller@barchanfoundation.com
jbmiller@pattonboggs.com

Worldwide Trends in the Delivery & Finance of Public Infrastructure

Project Map | Project Chart

Barchan's objectives are to provide a common understanding how public infrastructure projects are being delivered and financed across the world, and to promote "best practices" in transparency, competition, and fairness in procurement.
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Switch between Map View and Chart View.

Recent Projects

	Project Name	Status	Type	Date Entered
	Sector / Description		Delivery Method	

How Are Project Costs Paid?

Direct

Government pays for project with public resources – "directly".

(i) Taxes, user fees, (ii) funds borrowed by government from private capital markets (typically bonds or bond anticipation notes), and (iii) grants of money from other governments, made available through taxes, user fees, funds borrowed.

Indirect

Government attracts the Private Sector to pay with private sector resources – "indirectly". This is typically done by ceding specific control over a public infrastructure asset to create a revenue stream which the private sector uses to return capital invested and earn a profit.

(i) User fees received by the private sector that are "at risk"; (ii) funds borrowed by the private sector from private capital markets (typically bonds or other debt); and (iii) equity invested. Funds are borrowed based on the ability of the project to produce sufficient revenue to: repay borrowed funds (with interest), pay for O&M, and a profit.

There may be a decision more important than “How Financed”!

One that regularly produces a 40% savings in “life cycle costs” of an infrastructure asset.

How Project Elements Are Delivered?

The three (3) key elements of infrastructure projects are delivered "Piecemeal" – separated from each other – "Segmented."

Design

Construction

Operations & Maintenance

Segmented

Financing is typically all from public sources.

The three (3) key elements of infrastructure projects are delivered together – integrated with each other – "Combined."

Design-Build-Operate-Maintain

Combined

Depending on the project, Financing may be from public and/or private sources.

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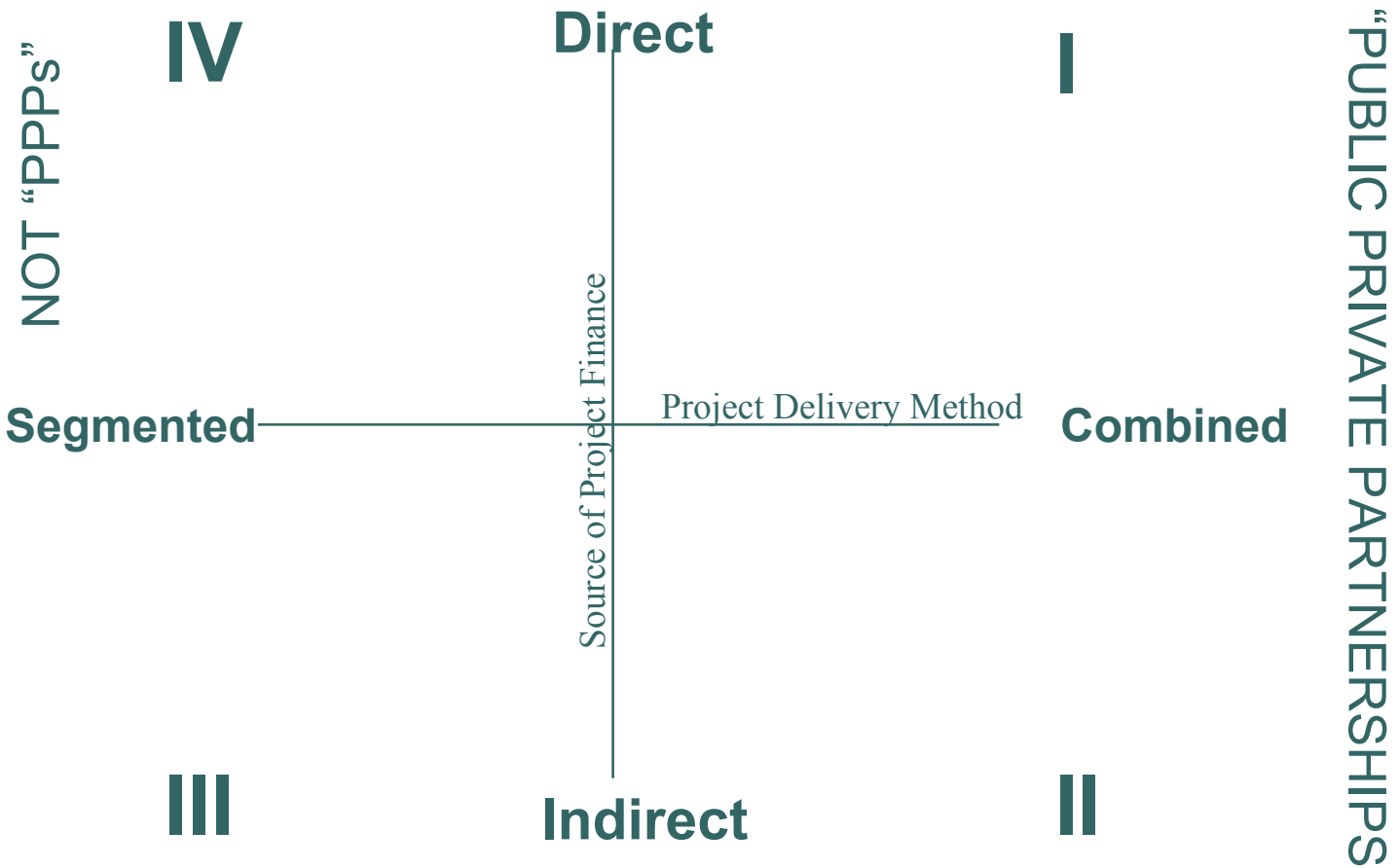
The MIT Framework



From *Principles* Text, Miller 2000, Kluwer.

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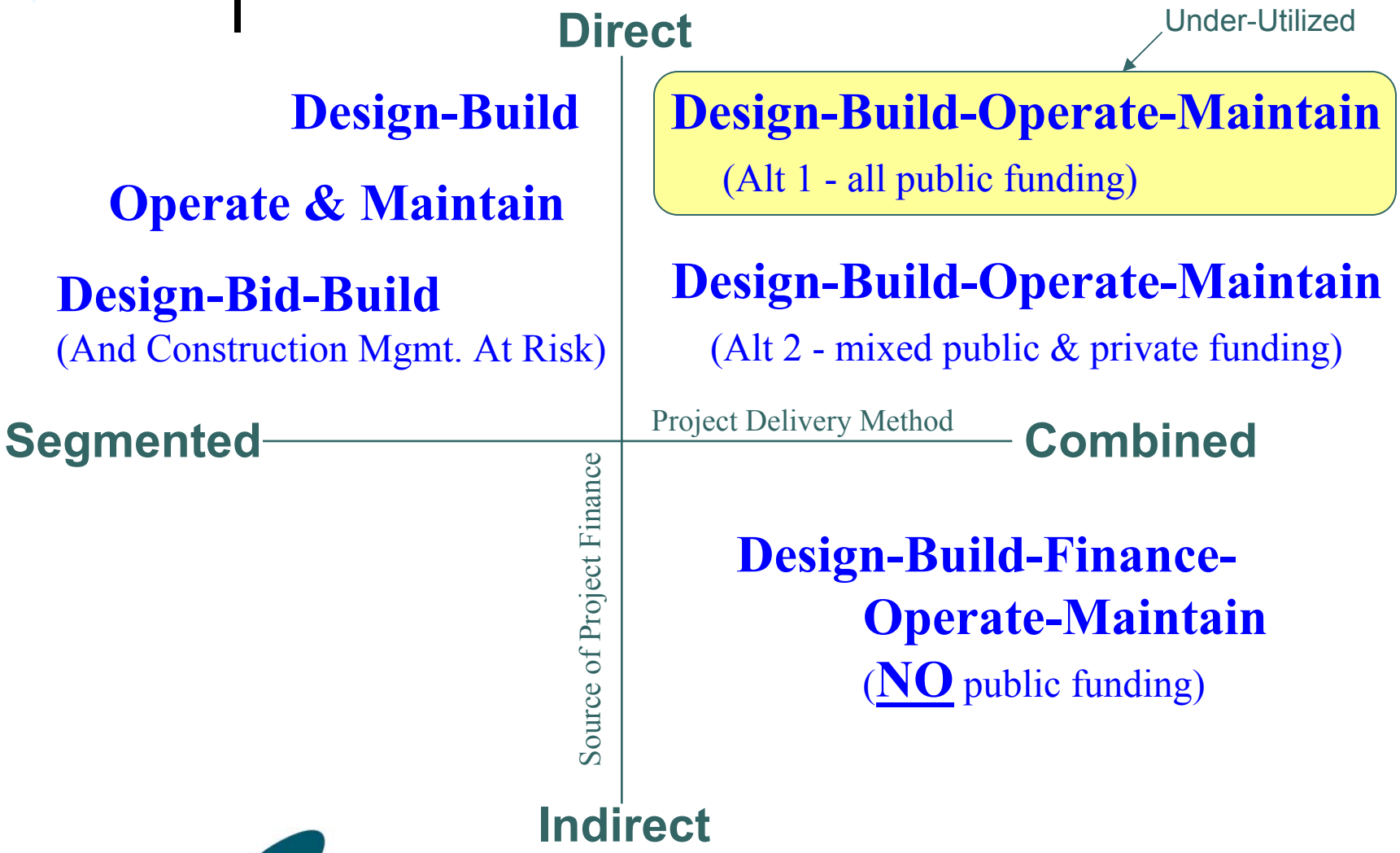
Six Key Delivery Methods



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Added Note by JBM: BEFORE CURRENT ECONOMIC "TURMOIL"

Project Name	Status	Type	Date Entered
Sector / Description		Delivery Method	
Canada Line, Vancouver, BC	Design/Construction	New Facility	16 April 2009

When is “Finance” Public, not Private!

- “Progress Payments” by public entities are public “financing,” not private sector financing.
  - Standard practice in federal, state, and local contracting over at least the last 100 years.
    - Regular cash payments allows contractor to perform without “using” its resources and without “borrowing”.
  - Examples:
    - Route 3 North (Mass) – public (not private) finance
    - Northumberland Bridge – public (not private) finance
    - Canada Line (Vancouver Transit) – public (not private) finance

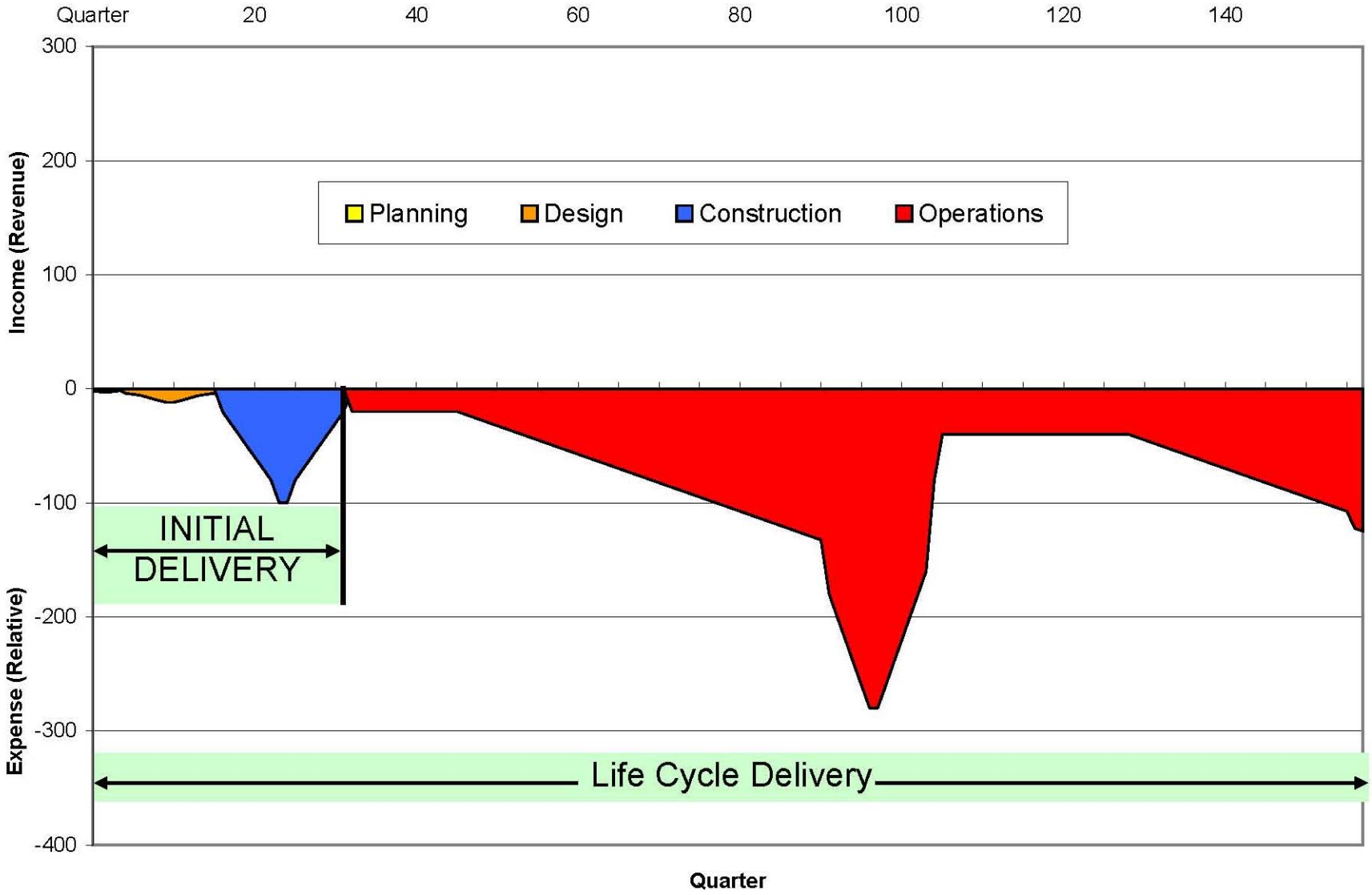
Technical (“Real”) Integration” Produces 40% Typical Savings

- Design with:
  - ease of construction in mind;
  - ease of operations and maintenance in mind;
  - cost of construction in mind;
  - cost of operations and maintenance in mind;
- Construction with:
  - cost of repairs and replacements in mind;
  - cost of operations and maintenance in mind.

WHY? – Initial Delivery v Life Cycle Delivery – $1, $10, $100

- Using the “Traditional” (DBB) Delivery Method
  - For every One $1 spent on Design
  - Ten $10 is spent on Construction, and
  - At Least One Hundred ($100) is spent on O&M, Repairs, and Refurbishment
- Over the typical life cycle of an infrastructure facility.

Life Cycle Expense (Typical)



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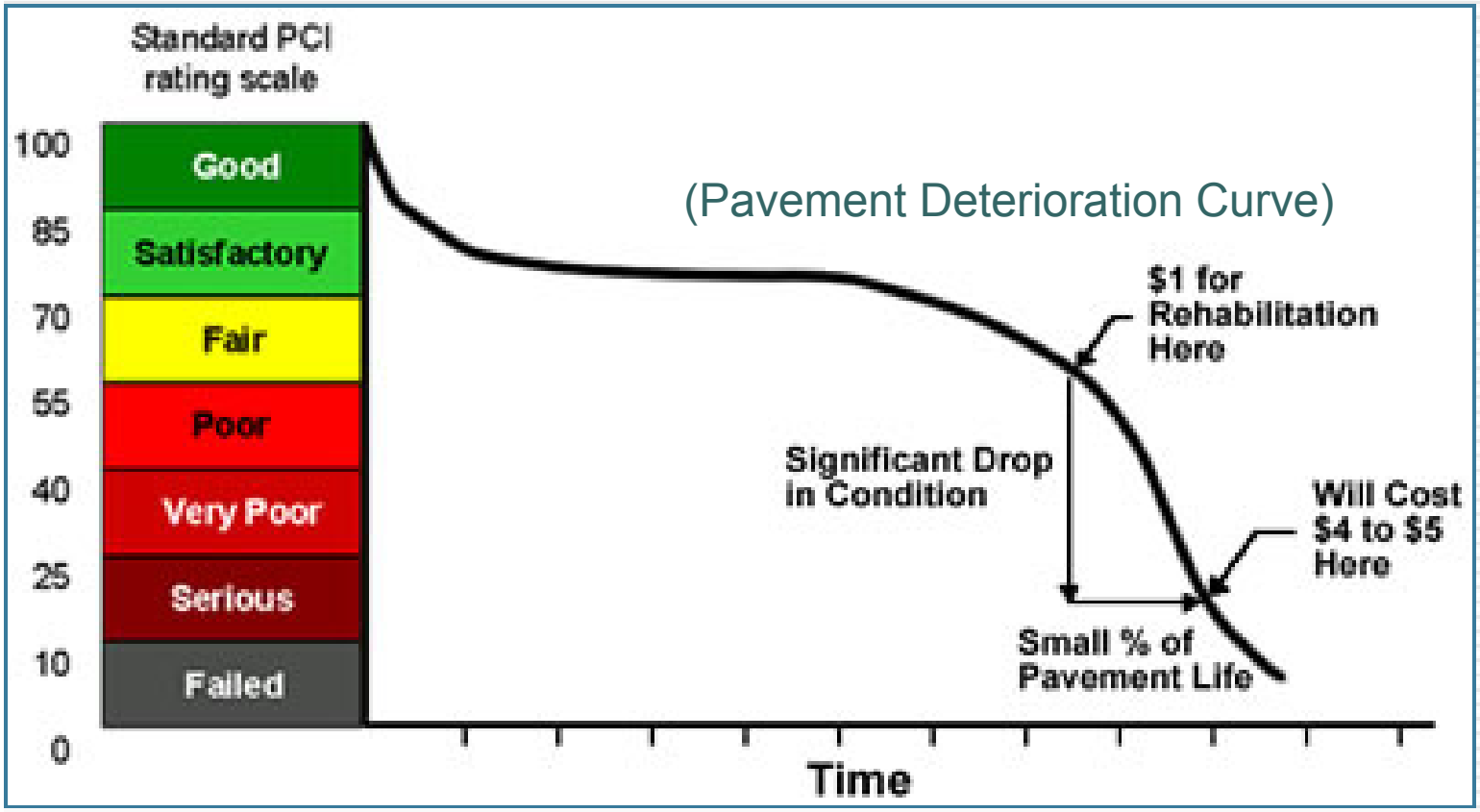
When Design & Construction are not Integrated with O&M

- O&M Becomes A Crushing Burden
  - in Highly Developed Sectors like US Transportation
- Governments Willingly Fund Initial Delivery
  - but do not properly fund long-term O&M
- The World's Best ("Worst") Examples:
  - Deferred Maintenance in Britain and in the US
- **Publicly financed DBOM is under-utilized**:
  - DBOM the advantage of a 40% savings in life cycle costs w/o perceived disadvantages of privately funded PPP's (DBFOM)

Failure to deliver long-life facilities on a “life cycle” basis is very costly.



Source: US Army Corps of Engineers, Micro Paver System.

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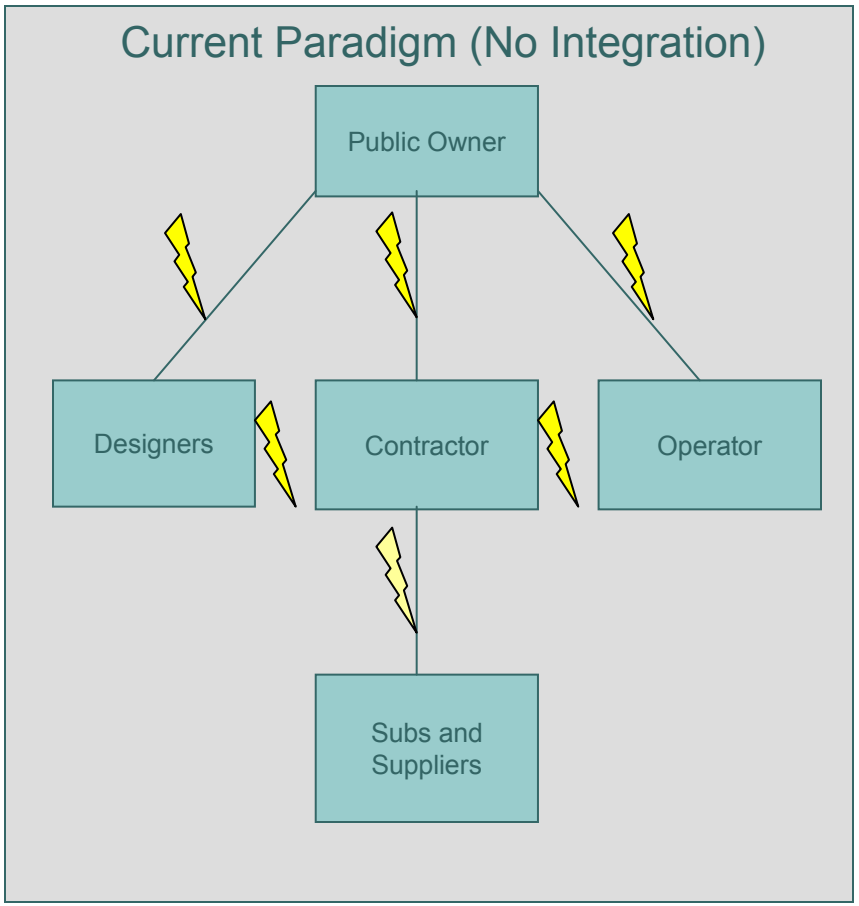
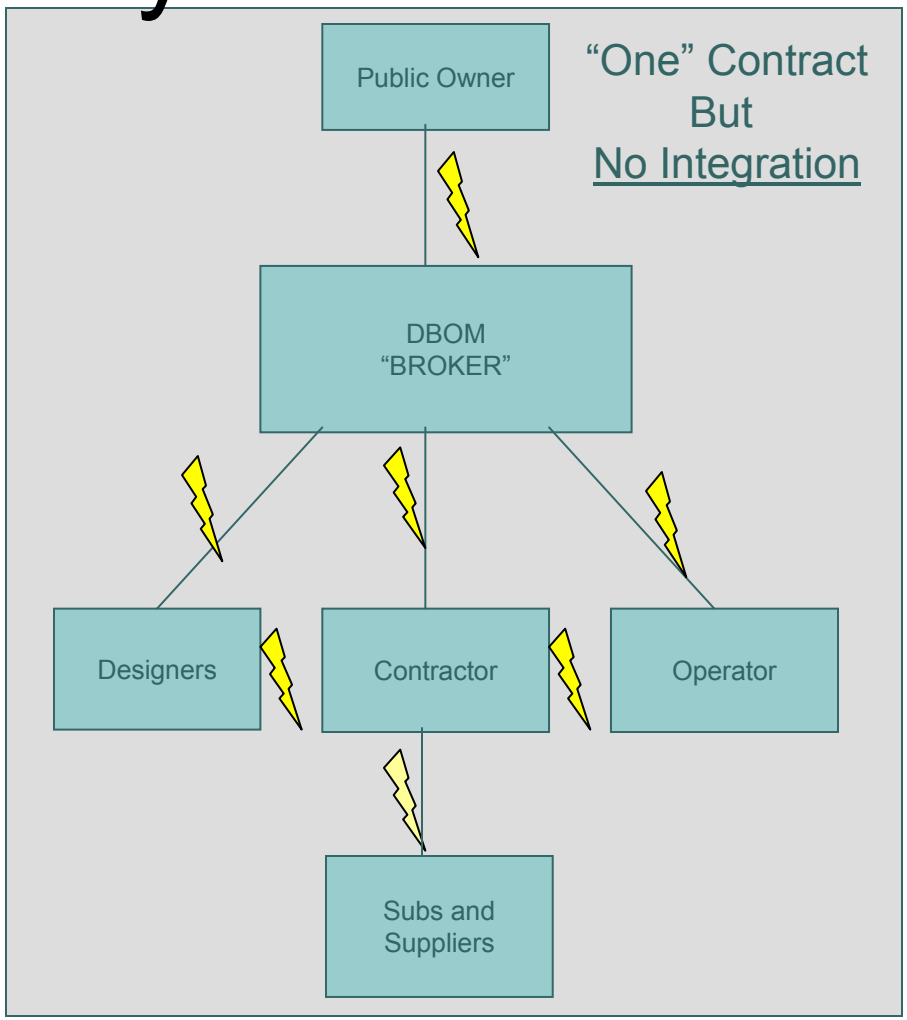
Be Wary of "Poor Ways" to Obtain Life Cycle Services





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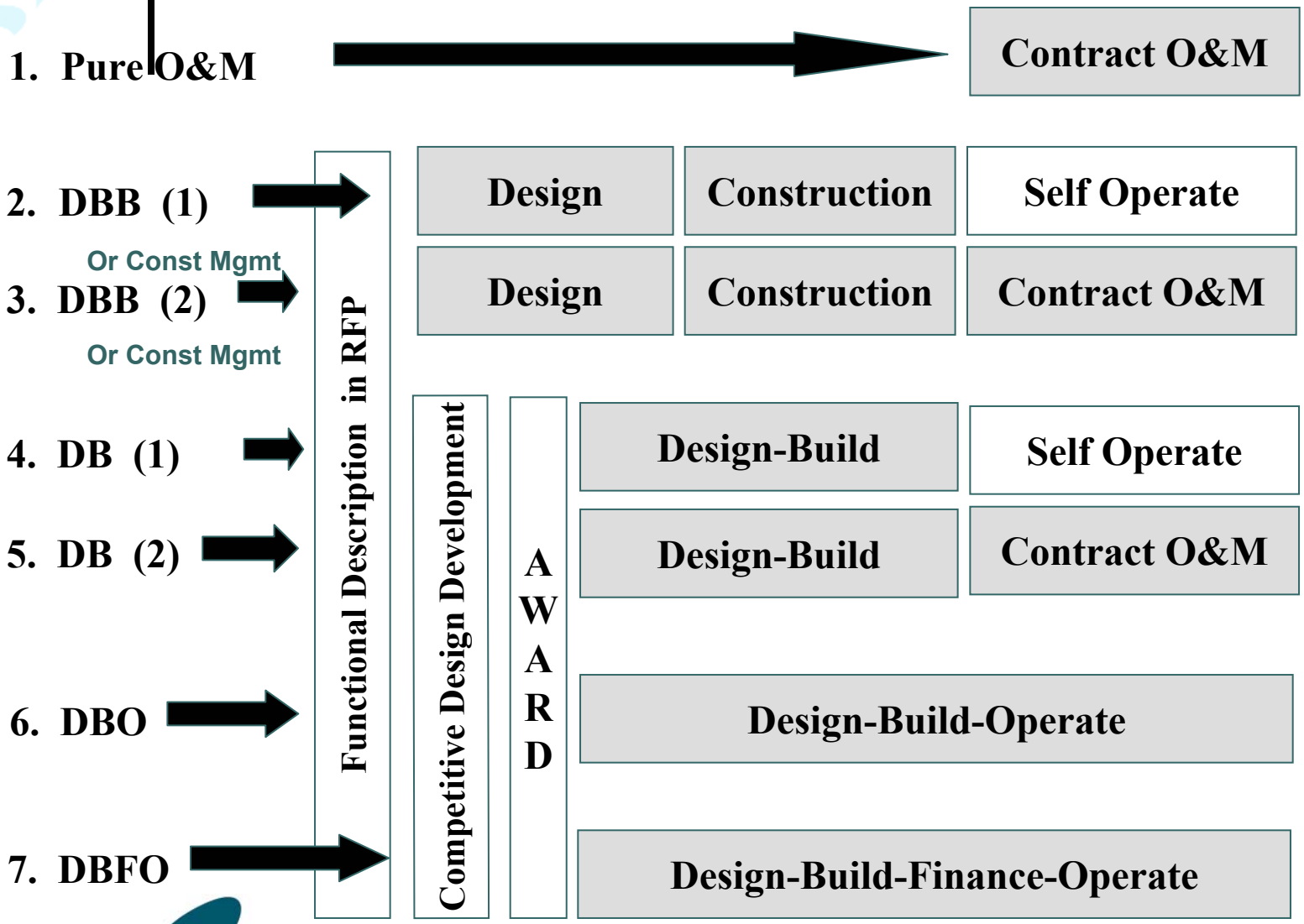
The ABA Models Assure Transparency, Competition, Integration, and Flexibility



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Top “Myths” about PPP’s

- 1. PPP’s are new to the United States.
- 2. PPP road projects are “different”, requiring “different” procurement practices.
- 3. Concession periods longer than 35 years are “typical” across the world.
- 4. Transparent, head-to-head competition is “too hard” to do for certain PPP projects.
- 5. Public and private entities have to spend millions of dollars on “transaction costs” relating to PPP projects.
- 6. Life-Cycle cost savings of 40% can only be achieved with privately funded PPP’s.
- 7. Large “up-front” payments by the private sector to government are not passed to users through tolls/charges.

ABA Model Procurement Code Addresses These Issues

- Resources:
- ABA Model Procurement Code for State and Local Governments (Adopted by the ABA House of Delegates as ABA Policy)
  - 1979 Edition – authorized Design Bid Build, Construction Management
  - 2000 Edition – adds Design Build, DBOM, DBFOM, Pure Operations & Maintenance
- Related ABA Models:
  - ABA 2007 Model Code for Public Infrastructure Procurement (MC PIP) – a condensation of the 2000 MPC for infrastructure.
  - ABA 1980 Model Procurement Ordinance for Local Governments – a condensation of the 1979 MPC for cities and towns
- Barchan Foundation web site – www.barchanfoundation.com
  - Comparing and contrasting infrastructure delivery strategy across the world.

Examples of “Real” Integration

Later if there is time.

Bridges and Crossings

Design Fully Integrated with Construction Techniques as a Requirement of the Competition!

Design For Ease of O&M

Interior Service Corridor Permits Secure, Reliable Access to Mechanical and Electrical Systems

Container Port Expansion

Multiple Separate Concessions, added as volume became sufficient to private fund next concession.

Design Build Operate

Land reclamation by the government in the expectation of continued economic growth in container cargo.

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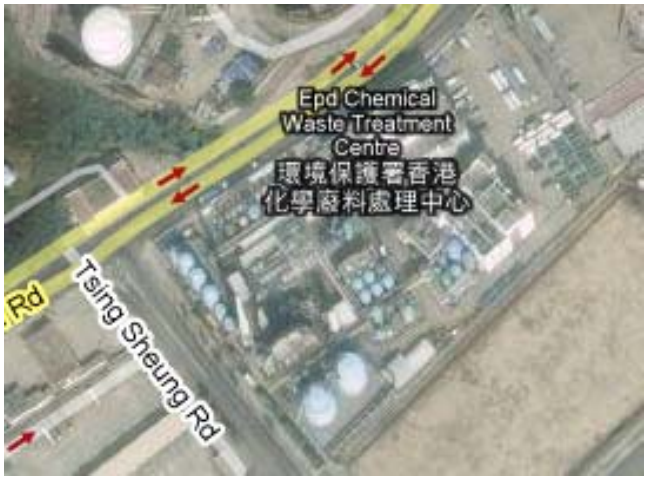
Solid Waste – DBO Concession

Strategic Landfills

Waste Transfer Stations



Chemical Waste Treatment

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Northumberland Bridge
(Design Build Operate Maintain)

Design Integrated with Construction as a Requirement of the Competition!

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