



## TOLLING AND PROJECT DEVELOPMENT

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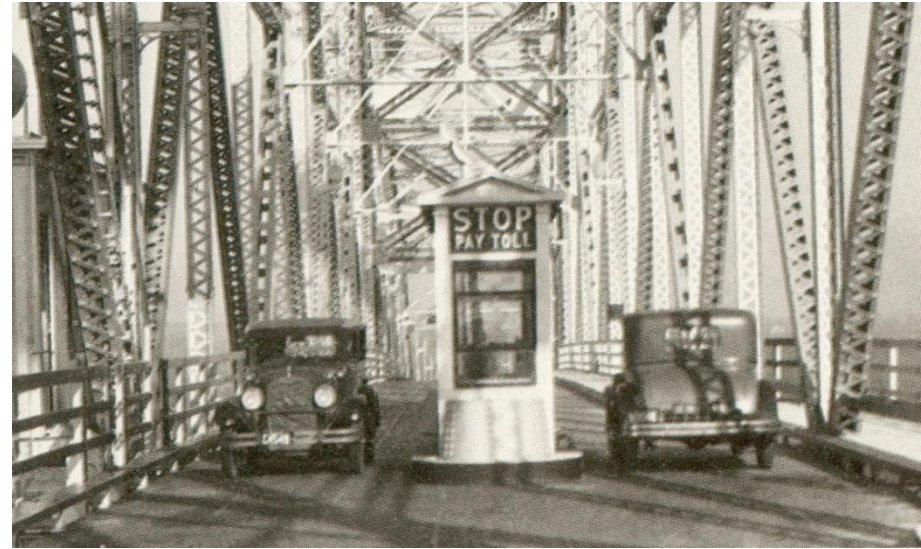


- Tolling Overview and Trends
- Project Development
- Finance and P3
- Case Studies

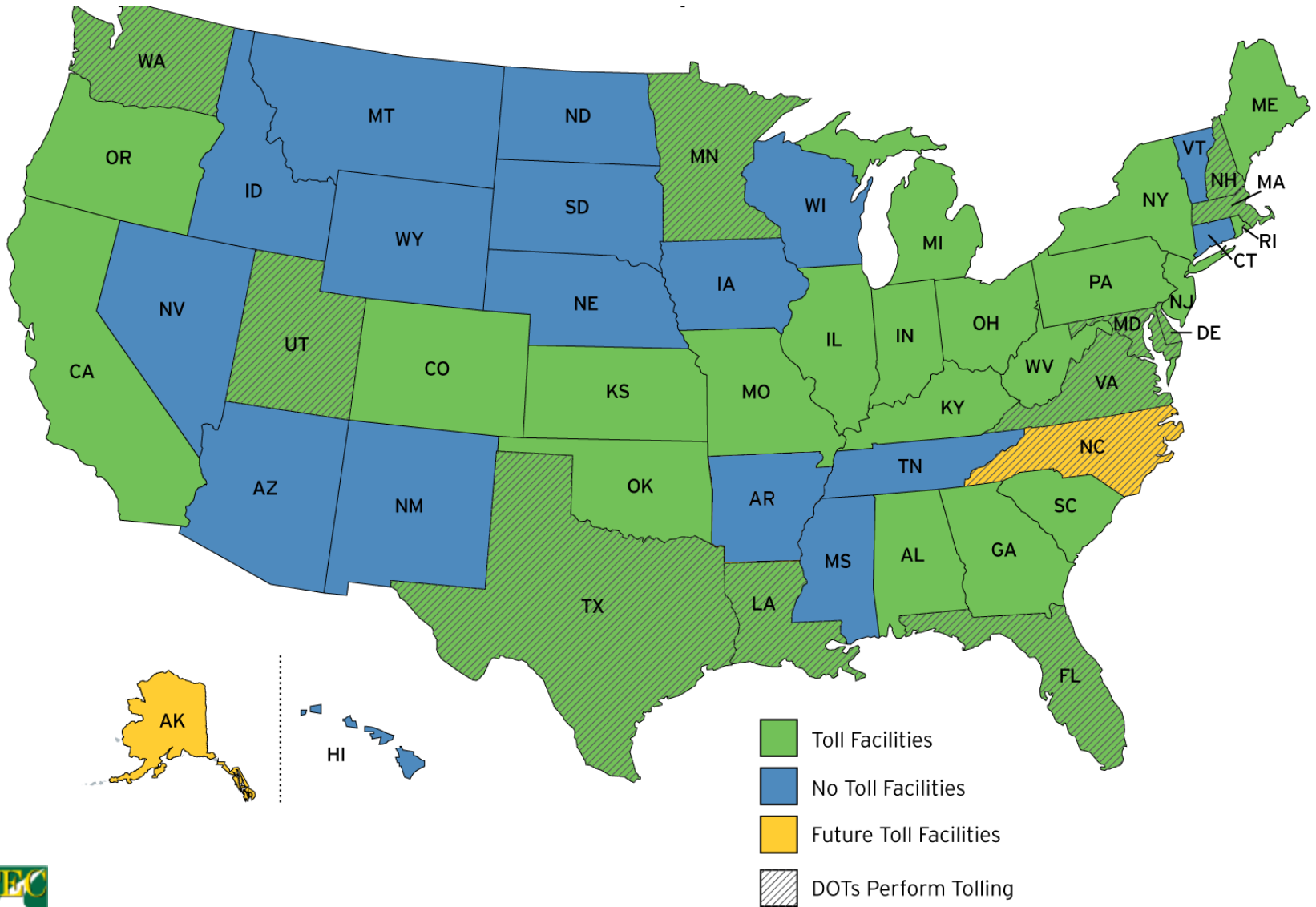


# TOLLING IS AN OLD ART THAT IS REGAINING POPULARITY

- 1920's and 1930's toll bridges were emerging
- 1950's ushered the turnpike era
- Interstate Hwy System and Motor Fuels Tax
- Current Emerging Toll Era



# TOLLING IN THE U.S.



- Motor fuel taxes are declining and aren't sustainable
- Since highway system has matured, the need for repairs has escalated
- “Innovative Financing” may not create new revenue streams. Primary sources are taxes and user fees (Tolls)
- Many states are turning to tolling as an alternative funding source
- Technology advancements have made tolling more user friendly
  - Congestion pricing, HOT Lanes

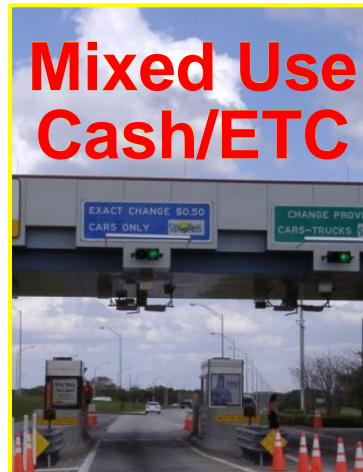
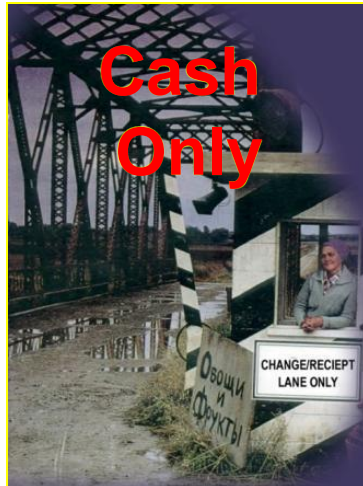


# TOLLING IS GAINING ACCEPTANCE

- New revenue source
- Traffic management tool
  - Managed Lanes
- Technology is Increasing tolling appeal
  - Free-flowing traffic (Open Road Tolling)
  - All Electronic Toll Collection
  - Reduced capital and labor costs
  - Efficiencies in collection



# EVOLUTION OF TOLLING



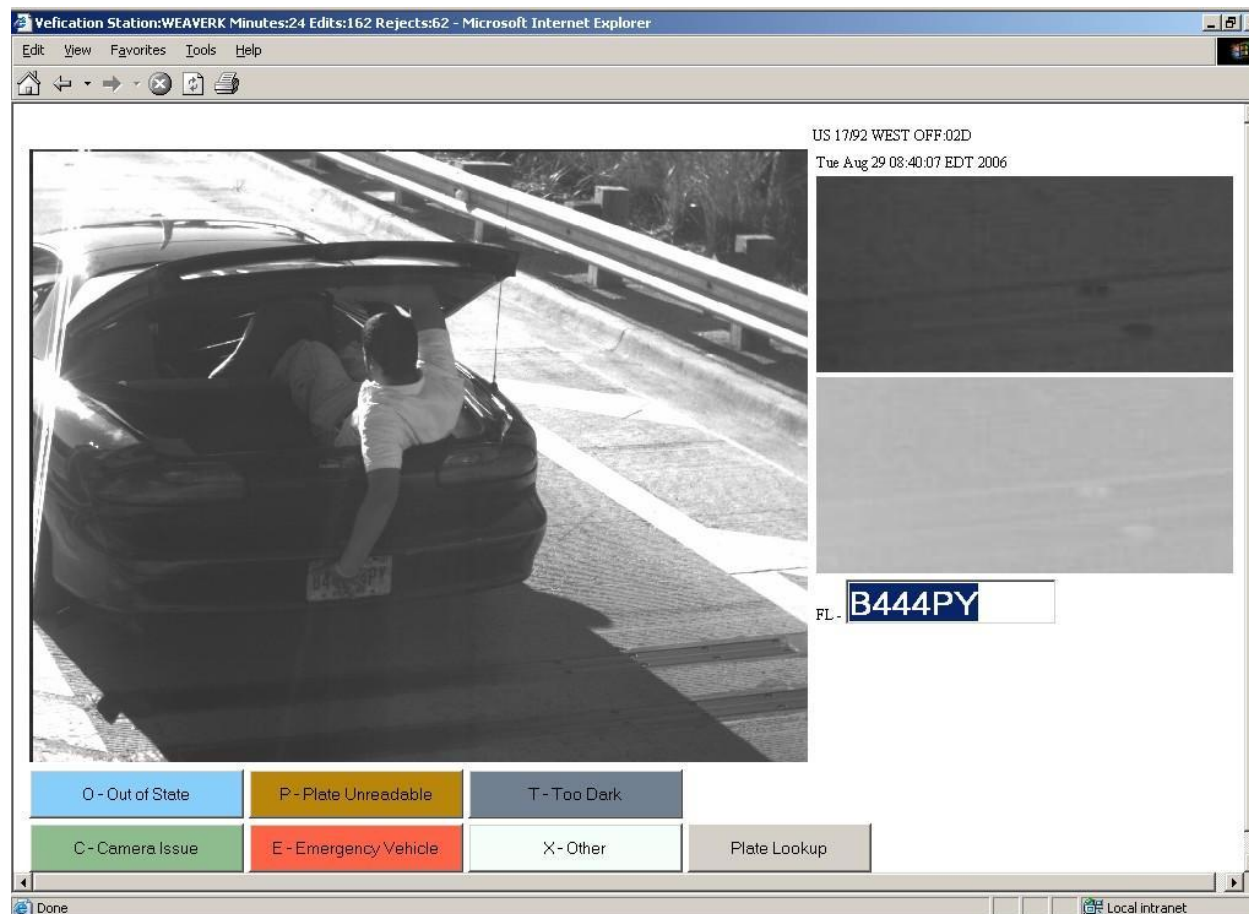
# ALL-ELECTRONIC TOLLING (AET) CHARACTERISTICS

- Reduces congestion at plazas
- Environmentally friendly (reduces emissions)
- Customer convenience
- Net Revenue Neutral/Gains (Positive ROI)
- Reduced Capital Expenditures
- Improved Safety/Reduced Accidents
- Flexible Toll Rate Adjustments
- Improved Public/Political Perception of Agency
- Increased role of enforcement and controlling “leakage”



# AET AND VIDEO BILLING

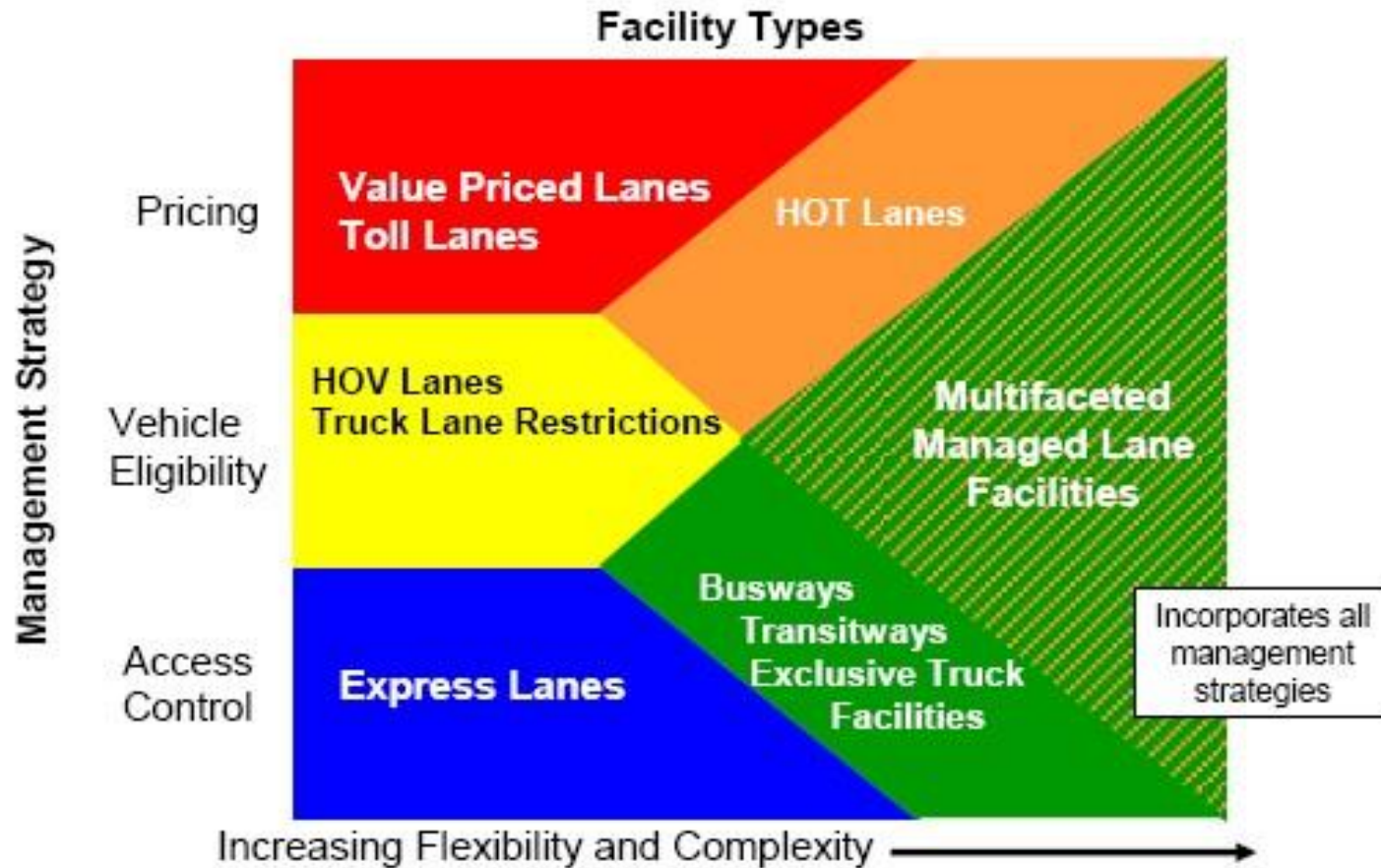
- Transaction costs are significantly reduced with transponders
- Must be able to read license plates with video tolling



- Adds traffic management as a new policy objective
- Increases traffic throughput
- Can alter driver behavior
- Provides transportation Options
- Manages multiple factors
  - Access
  - Pricing (variable)
  - Congestion (guaranteed level of service)
  - Occupancy (vehicle type)
    - High Occupancy Toll Lanes (HOT Lanes)



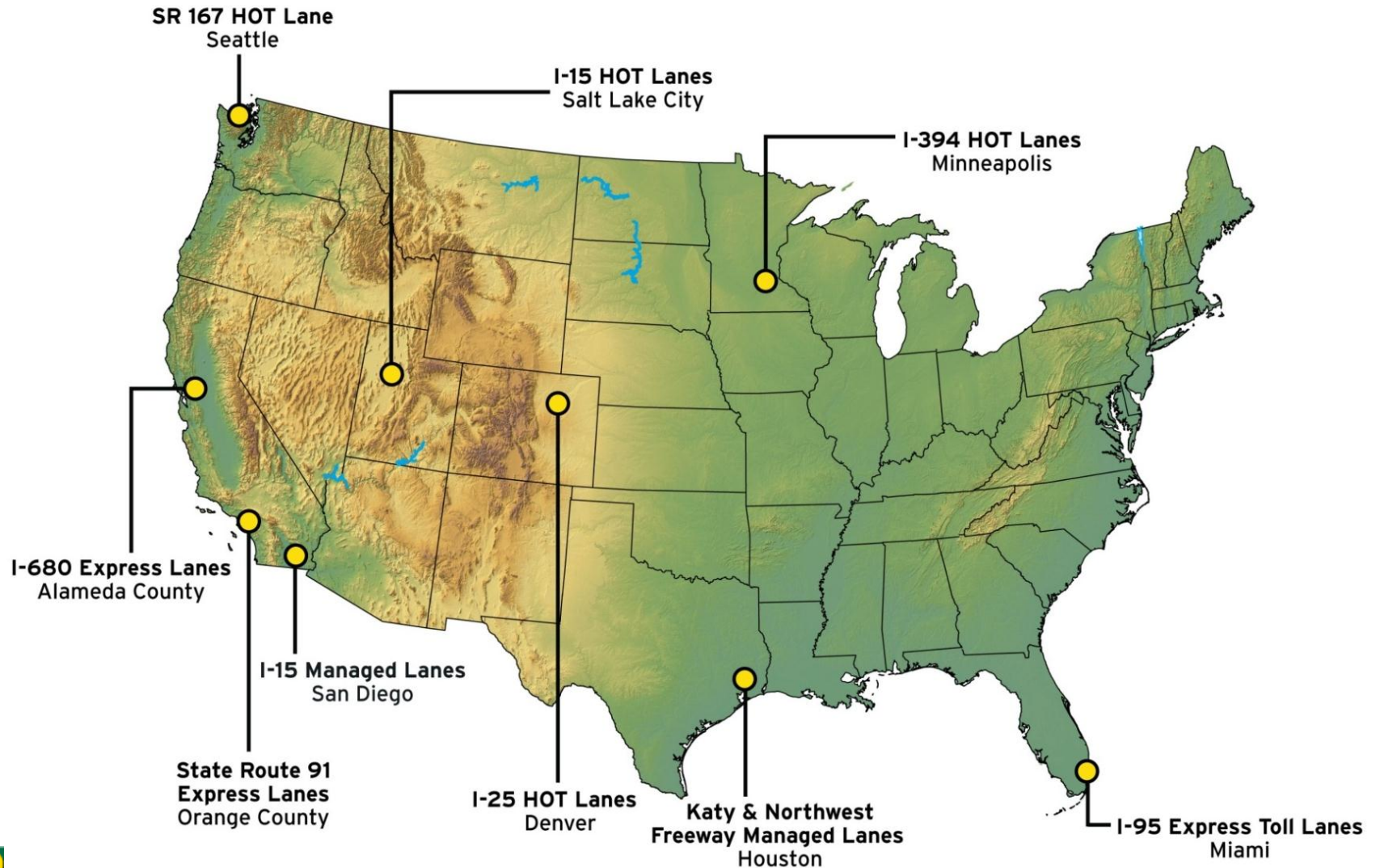
# MANAGED LANES



“A managed lane facility is one that increases freeway efficiency by packaging various operational and design actions. Lane management operations may be adjusted at any time to better match regional goals.”



# U.S. HOT LANES PROJECTS



- Many new capital projects are analyzed as potential toll projects
- Characteristics of a good toll road
  - Transportation Need
  - Congestion
  - High traffic counts
  - Few competing route
  - Time savings
  - Developed corridor
  - High employment and Income
  - Positive demographics
- Preliminary revenue and cost estimates are first steps



# TOLL PROJECT DEVELOPMENT PROCESS

## Initial Project Screening

### High-Level Screening

- Current pipeline projects or entire system
  - Analyze all or selected corridors
  - Incorporate ranking criteria
    - Traffic levels
    - Revenue generating potential
    - Strategic importance



## Preliminary Feasibility

### Sketch Level

- Traffic & Revenue
- Construction
- O&M and Lifecycle
- Financial Model
  - Coverage
  - Interest rates
  - Debt products

Environmental Permitting and Approval

Preliminary Design

## Conceptual Feasibility

Validate / Refine Sketch Assumptions

Project Delivery Decision

## Procurement

Award

RFP

RFQ

Consultant Team

Construction

RFP

RFQ

Financing

Investment Grade T&R

P3

Public



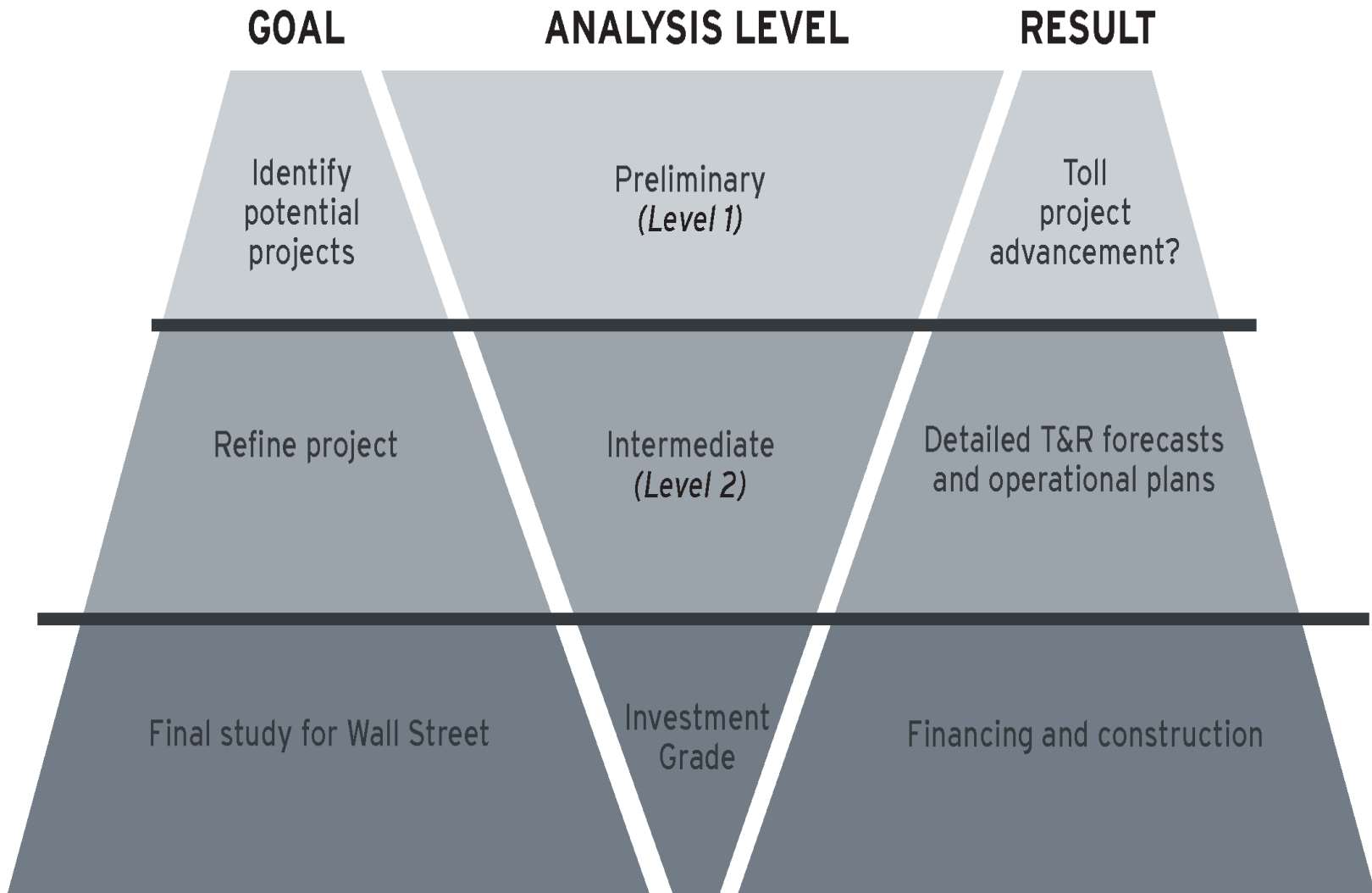
# STEPS TO IMPLEMENTATION



Financial Feasibility % = Net Financing Capacity divided by Capital Costs

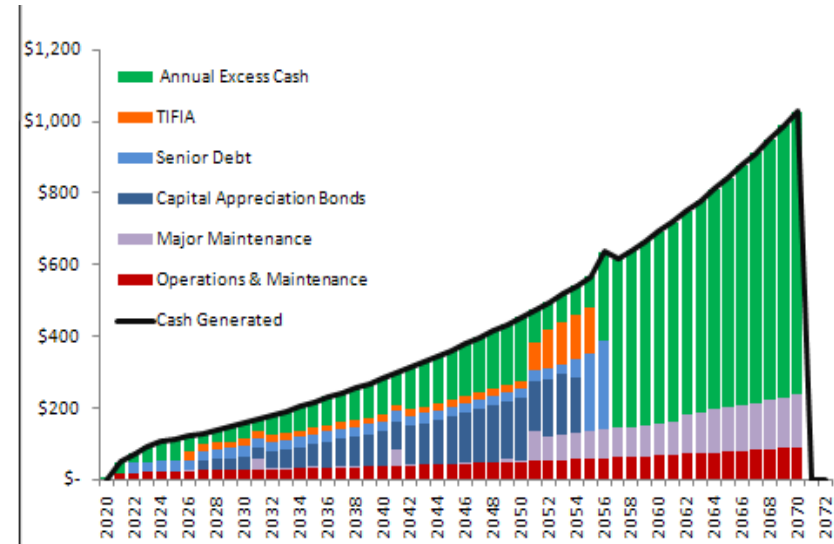


# LEVELS OF A TRAFFIC & REVENUE STUDY



Goal: Maximize the Amount of Debt

- Structure a toll project financing
- Shape debt around project cash flows
- Debt issued as toll revenue bonds
- Utilize multiple debt products
  - Current Interest Bonds (CIBs)
  - Capital Appreciation Bonds (CABs)
  - Federal TIFIA Loan
- Structured with “coverage”
  - Coverage Ratio = Revenue / Debt Service



## 2 MAIN TYPES OF P3 DELIVERY (DBFOM)

### 1. Concession

- Also called a “Revenue”, “Volume” or “Demand” Concession
- Private sector bears “project” revenue risk
  - i.e. traffic risk for tolls

### 2. Availability Payment Transaction

- Revenue repayment is tied to a pledge of public funds (not tolls)
  - i.e. State Transportation Trust Fund
- Project can be tolled, but doesn't have to be



## Most toll projects utilize multiple funding sources:

<p><u>PGBT WE (SH 161)</u> NTTA 1.091 billion (2011)</p>	<ul style="list-style-type: none"> <li>•\$673 m of special project toll bonds</li> <li>•\$418 m of BANs (TIFIA)</li> <li>•TxDOT <u>TELA</u> for debt service and O&amp;M</li> </ul>
<p><u>Triangle Expressway</u> NC Toll Authority \$879 million (2009)</p>	<ul style="list-style-type: none"> <li>•\$655 m of toll bonds and TIFIA</li> <li>•\$352 m of <u>State Appropriation Bonds</u></li> <li>•NCDOT guaranteed O&amp;M costs</li> </ul>
<p><u>Intercounty Connector</u> Maryland (MSHA &amp; MTA) \$2.463 billion (2007 +)</p>	<ul style="list-style-type: none"> <li>•\$750 m of <u>GARVEEs</u></li> <li>•\$716 m in Authority Toll Rev Bonds</li> <li>•\$516 m in TIFIA</li> <li>•\$265 m in state general funds</li> <li>•\$180 m in state TTF &amp; \$19 m in federal</li> </ul>
<p><u>LA-1 Toll Bridge Project</u> LA Transportation Auth \$214 million (2005)</p>	<ul style="list-style-type: none"> <li>•\$164 m of toll bonds and TIFIA</li> <li>•\$50 m of FHWA and Port Fourchon funds</li> <li>•DOTD guaranteed overruns and O&amp;M</li> <li>•LA Dep of Econ Dev <u>replenishes DSRF</u></li> </ul>



- TxDOT's Concessions

- 52 year DBFOM where private sector accepts toll revenue risk
- Both projects are managed lanes projects

N. Tarrant Exprwy Funding Details (\$m)	
Senior Debt (PABs)	400
TIFIA	650
Private Equity	429
Public Contribution	570
Total	2,049

I-635 LBJ Funding Details (\$m)	
Senior Debt (PABs)	615
TIFIA	850
Private Equity	665
Public Contribution	496
Total	2,626

- FDOT's Availability Pmt

- 35-year terms for Port of Miami Tunnel and I-595
- Pledged its Transportation Trust Fund

POMT Funding Details (\$m) *no tolls*	
Senior Debt (Bank Loan)	723
TIFIA	341
Private Equity	80
Total	1,144

I-595 Funding Details (\$m)	
Senior Debt (Bank Loan)	782
TIFIA	603
Private Equity	208
Total	1,593



- Questions?

