



Maine Turnpike Southern Toll Plaza Replacement Study

Public Information Meeting Site Identification & Screening Process

York Middle School

April 3, 2008

6:00pm – Open House

7:30pm – Presentation then

Questions & Answers

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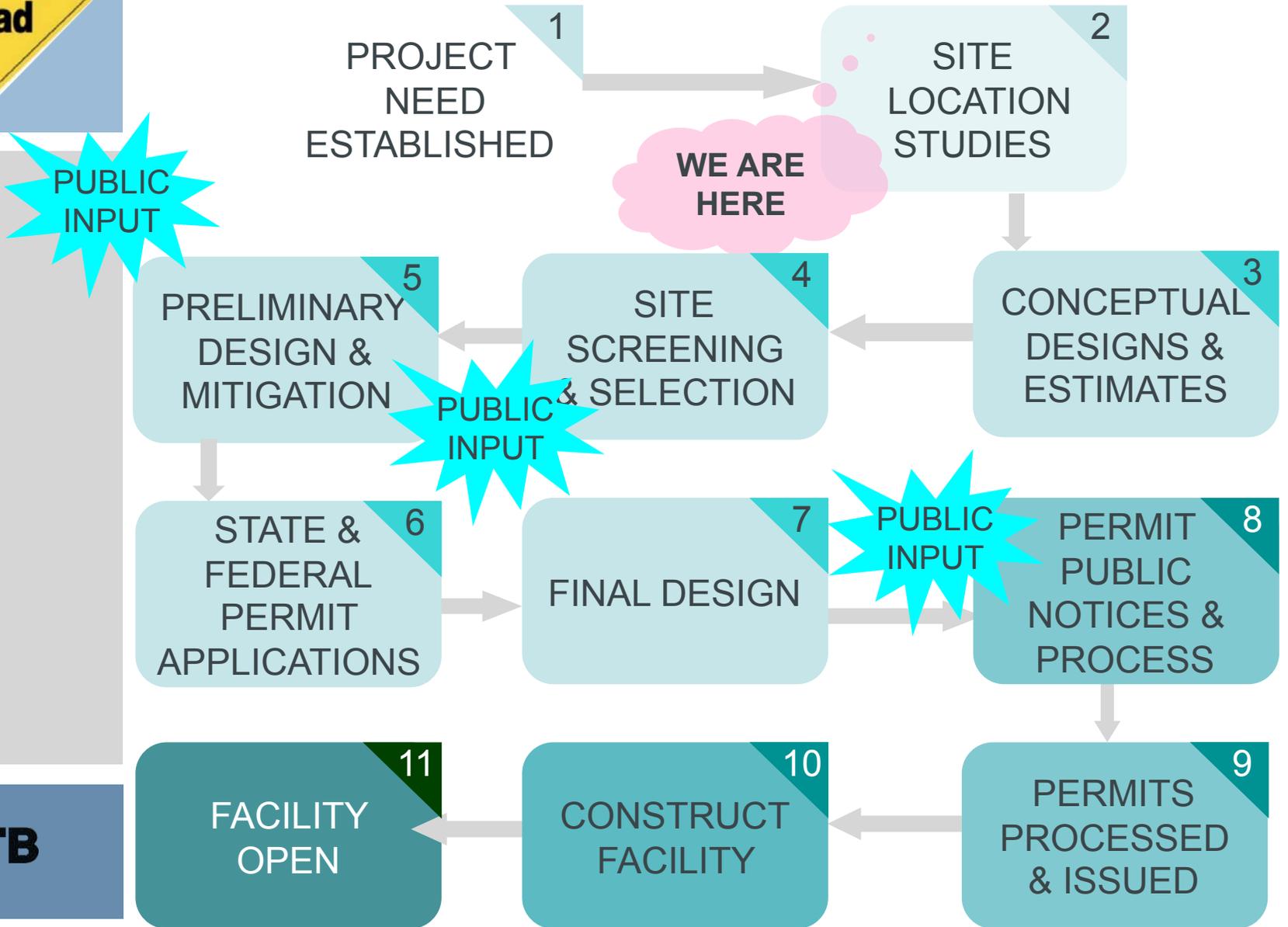
Maine Turnpike Southern Toll Plaza Replacement Study

Agenda

- Welcome, Introductions, and Meeting Goals
- Purpose & Need for New Southern Toll Plaza
- “Highway Speed Tolling”
- Site Identification & Screening Process
- Next Steps
- Questions & Answers
- Closing



Maine Turnpike Southern Toll Plaza Replacement Study





Maine Turnpike Southern Toll Plaza Replacement Study

Overview

“LEDPA”

Least Environmentally Damaging
Practicable Alternative

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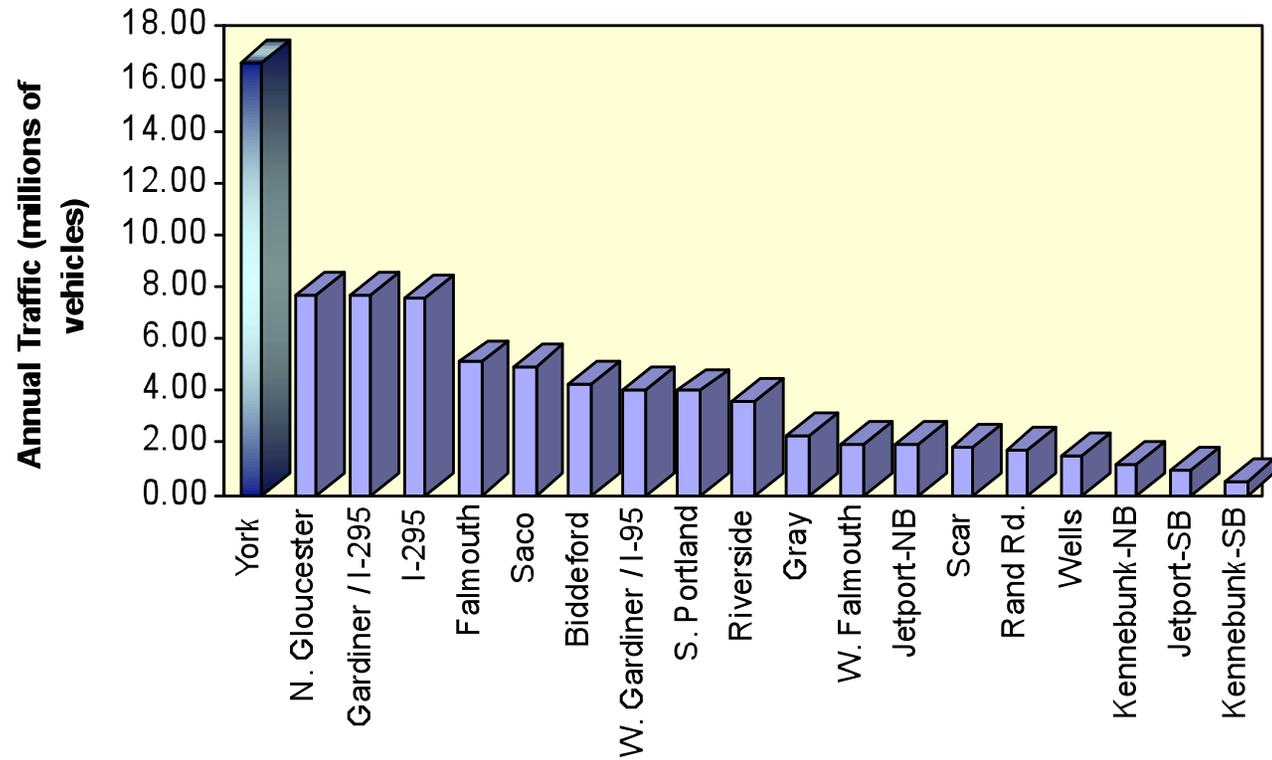


Maine Turnpike Southern Toll Plaza Replacement Study

Overview

Annual Traffic Totals - 2007

Maine Turnpike Toll Plazas





Maine Turnpike Southern Toll Plaza Replacement Study

Overview

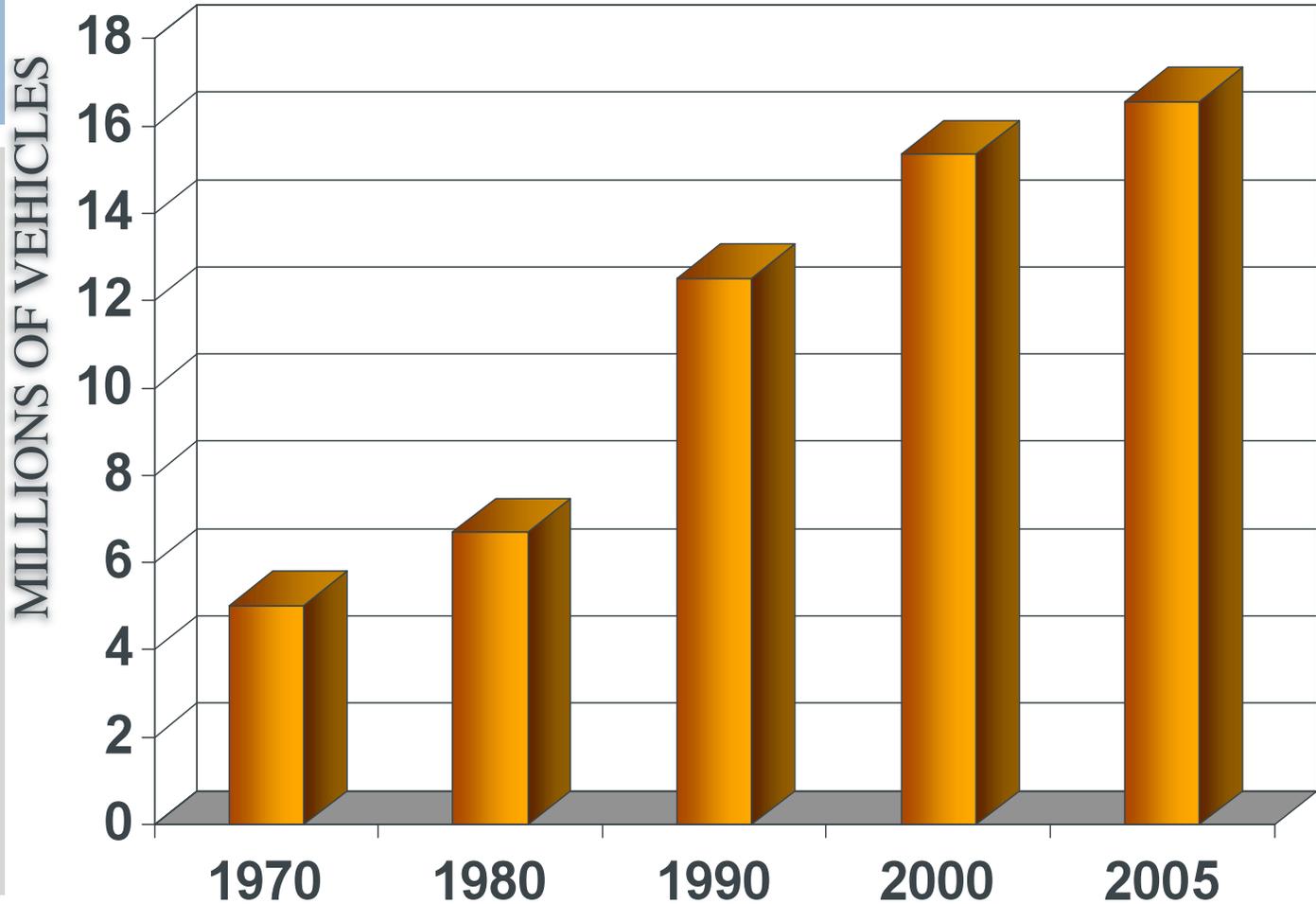
Plaza Lifespan

- York Toll Plaza built in 1969
- Expected lifespan = 25 years
- Current age of plaza = 38 years



Maine Turnpike Southern Toll Plaza Replacement Study

Overview



Total Annual Traffic at York Toll Plaza
(1970 - 2005)





Overview

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Maine Turnpike Southern Toll Plaza Replacement Study

Age + Location + Traffic Growth = Plaza Problems

- Increasingly unsafe for motorists
- Increasingly unsafe for employees
- Increasing congestion/delays
- Unnecessary noise
- Increasing maintenance costs
- Inability to accommodate new traffic flow technology
- Highway Speed Tolling



Study Purpose

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Maine Turnpike Southern Toll Plaza Replacement Study

- Document Conditions of the Existing Toll Plaza
- Establish Need for Repair, Reconstruction or Replacement of the Toll Plaza
- Determine Suitable Location for a New Southern Toll Plaza



Maine Turnpike Southern Toll Plaza Replacement Study

Project Need

Conditions and Deficiencies at York Toll Plaza

- Safety Concerns and Issues
- Booths, Tunnel and Canopy
- Plaza (Area) Design
- Capacity (Traffic Flow and Backups)
- Tolling Technology

Maine Turnpike Southern Toll Plaza Replacement Study



**Project
Need**

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York

- Bumpers settling
- Decreased staff safety

New Gloucester

- Bumpers per design
- Provides proper safety





Maine Turnpike Southern Toll Plaza Replacement Study

York Tunnel

**Project
Need**



- Toll equipment space requirements
- Narrow passage
- Staff safety concerns

- Tunnel leaks
- Electrical equipment corrosion



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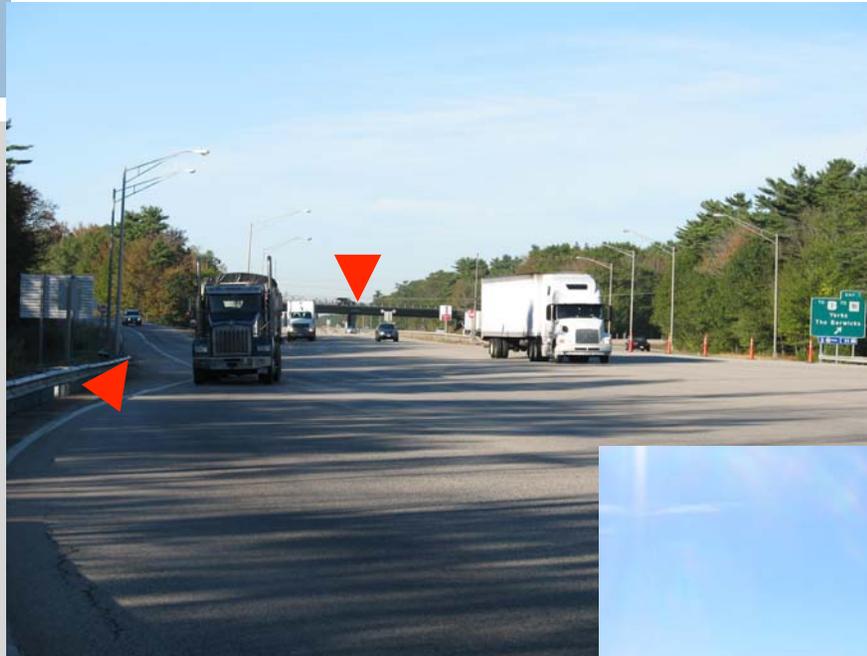


Maine Turnpike Southern Toll Plaza Replacement Study

York

- Ramps and Overpass Within Plaza Limits
- Causes Weaving, Congestion and Poor Decision and Stopping Sight Distances

Project
Need



New Gloucester

No Impediments Within
Plaza Limits



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Maine Turnpike Southern Toll Plaza Replacement Study

York

- Poor Sight Distance on Curve
- Downgrade to Plaza

....Both Lead to Increased Crash Potential



**Project
Need**

New Gloucester

- Good Sight Distance on Tangent
- Upgrade to Plaza





Maine Turnpike Southern Toll Plaza Replacement Study

Study Need

Vehicle Backups Occur When Arriving Traffic Volume Exceeds 90 % Plaza Capacity

- Current design hour traffic volumes exceed 90% of capacity
- Future traffic volumes will exceed 90% of capacity



Study Need

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Maine Turnpike Southern Toll Plaza Replacement Study

Benefits of Highway Speed Tolling

- EZPass Customers pay tolls at 55-65mph – *less congestion – increased capacity – better service*
- Cash customers are physically separated from highway speed customers – *increased safety*
- Addresses Existing and Future Traffic Demand – *increased capacity – customer service - safety*
- 50% of traffic use E-ZPass at York Plaza
- Nearly 80% of York Truck Traffic use E-ZPass
- Reduced Noise Events
 - Engine brakes and heavy acceleration
 - Rumble strips
 - Similar amount of noise as mainline today



Maine Turnpike Southern Toll Plaza Replacement Study

Highway
Speed
Tolling

MTA Decision to Implement Highway Speed Tolling



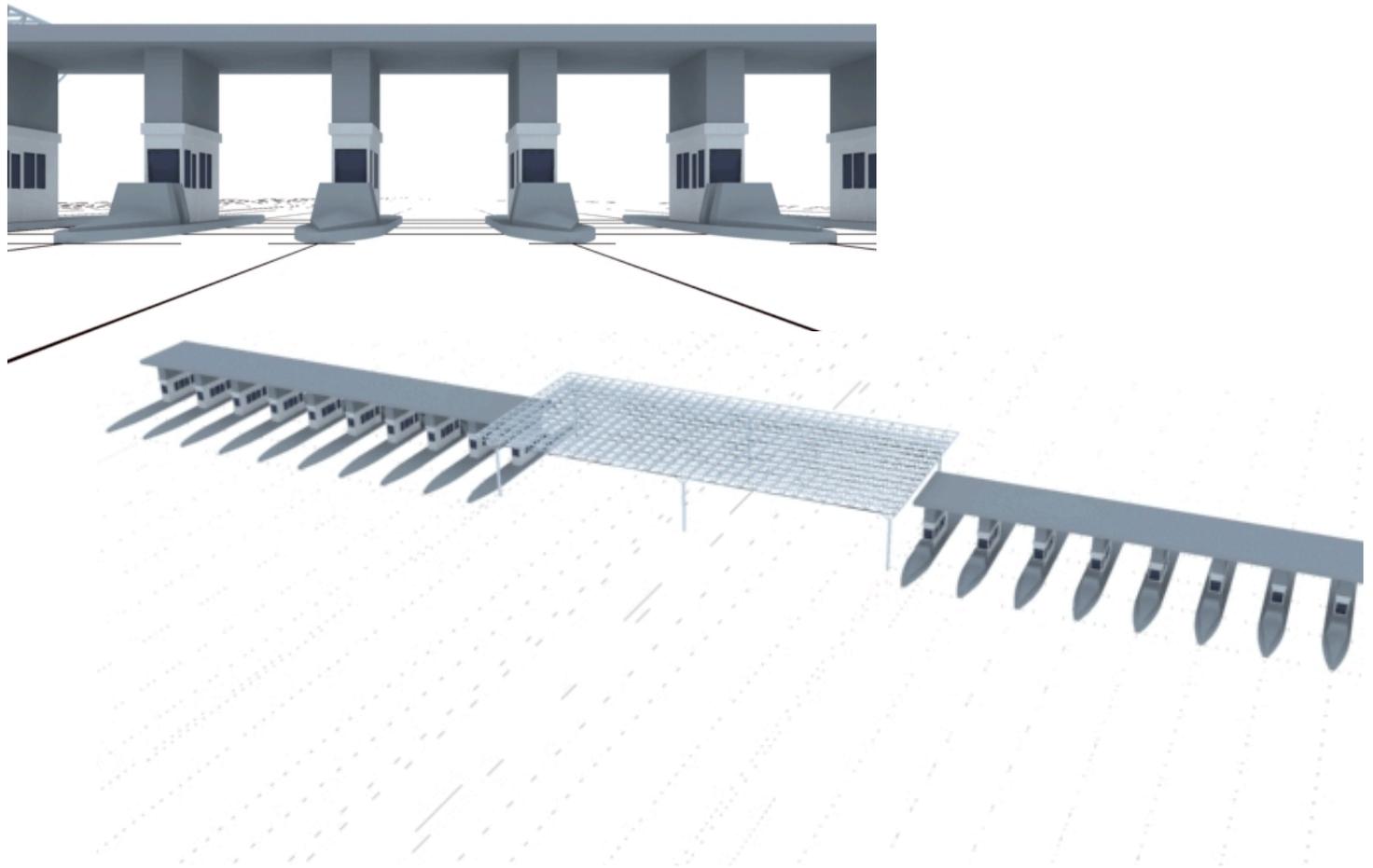
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Maine Turnpike Southern Toll Plaza Replacement Study

Perspectives: Highway Speed Toll Plaza

Highway
Speed
Tolling



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Maine Turnpike Southern Toll Plaza Replacement Study

Simulation: View approaching a Highway Speed Toll Plaza

Highway
Speed
Tolling



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Maine Turnpike Southern Toll Plaza Replacement Study

**Animation: Driving through a Highway Speed Toll
Plaza**

**Highway
Speed
Tolling**

(please visit maineturnpike.com
to view animation)

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Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Alternatives Evaluation Methodology

- Complies with Corps of Engineers Highway Methodology
- Complies with Section 404 of Clean Water Act
- Complies with DEP Natural Resources Protection Act
- Requirements for Natural Resources
 - Avoidance
 - Minimization
 - Compensation



Maine Turnpike Southern Toll Plaza Replacement Study

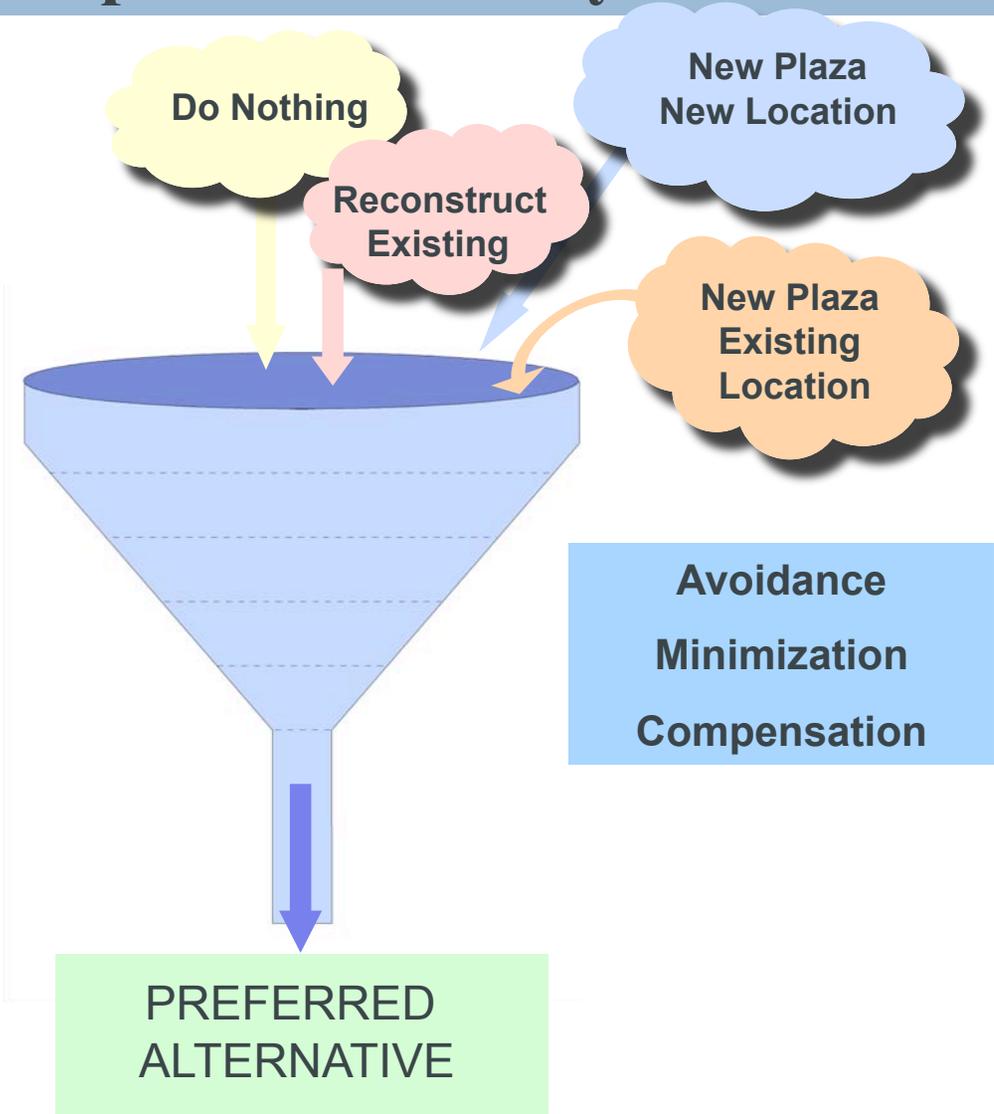
Project Purpose & Need Concurrency

Candidate Site ID and Screening Process

Alternatives (Site Identification & Screening)

Corps' LEDPA

Permitting





Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Site Identification and Screening

- Level One Evaluation (*Completed*)
 - Engineering criteria
 - Physical features
- Level Two Evaluation (*Completed*)
 - Engineering criteria
 - Natural resources
 - Community resources
- Level Three Evaluation
 - Site Comparison



Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Maine Turnpike Authority utilizes nationally recognized engineering guidelines.

– **Maximizes safety for drivers**

- “State of the Practice and Recommendations on Traffic Control Strategies at Toll Plazas” (FHWA, 2006)
- “Geometric Design of Highways and Streets (AASHTO, 2004)
- “Manual on Uniform Traffic Control Devices” - MUTCD (Federal Highway Administration, 2003)
- “Freeway and Interchange Geometric Design Handbook” (Institute of Transportation Engineers, 2005)



Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Level One – Basic Design Criteria

- **Horizontal Tangent:**
 - Straight stretch of approximately 8,000 feet
- **Separation from Interchanges:**
 - Minimum 1 mile between interchange and center of toll plaza.
- **Separation from overhead bridges:**
 - Minimum 2500' between overhead bridges and center of toll plaza.
 - Desirably not within footprint (approx 8000')
- **Crest vertical curve:**
 - Center of straight stretch (toll plaza) at or near the top of a small gradual hill.



Candidate
Site ID
and
Screening
Process

Level 1

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Maine Turnpike Southern Toll Plaza Replacement Study

Study
Corridor





Maine Turnpike Southern Toll Plaza Replacement Study

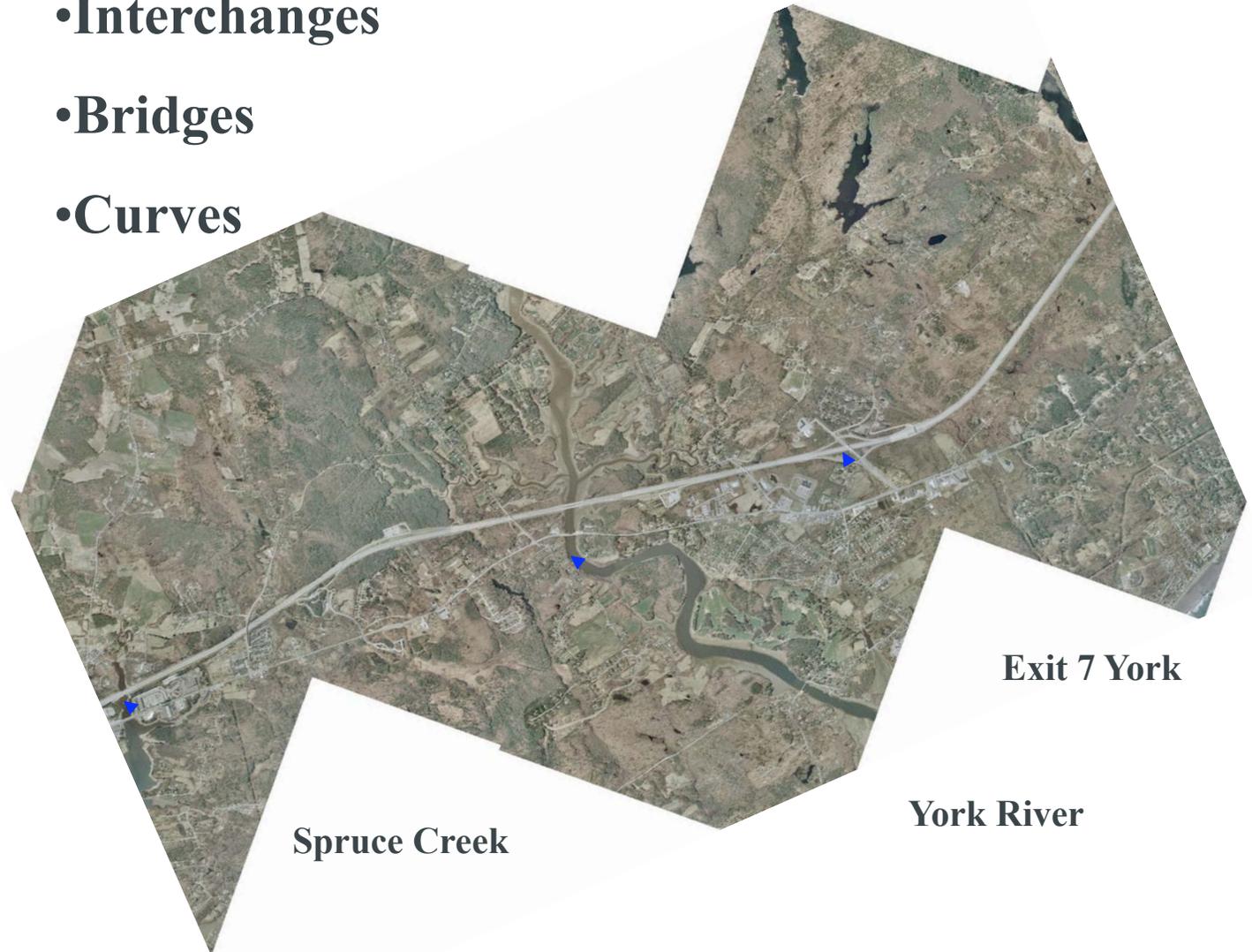
Locate “Out-of-Bound” Areas

- Interchanges
- Bridges
- Curves

Candidate
Site ID
and
Screening
Process

Level 1

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Maine Turnpike Southern Toll Plaza Replacement Study

Locate “Out-of-Bound” Areas

- Interchanges
- Bridges
- Curves

Candidate
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and
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Process

Level 1

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Chases Pond

Ogunquit Road



Mountain Road

Clay Hill Road



Maine Turnpike Southern Toll Plaza Replacement Study

Locate “Out-of-Bound” Areas

- Interchanges
- Bridges
- Curves

Exit 19 Wells



Littlefield Road

Tatnic Road

Captain Thomas Road

Candidate
Site ID
and
Screening
Process

Level 1

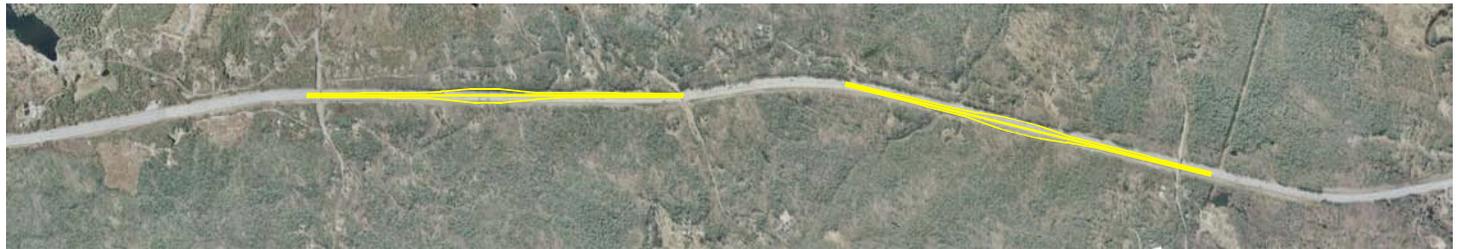
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Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
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Screening
Process

Locate 'straight stretches' for plaza footprint that are not out-of-bounds.



Level 1

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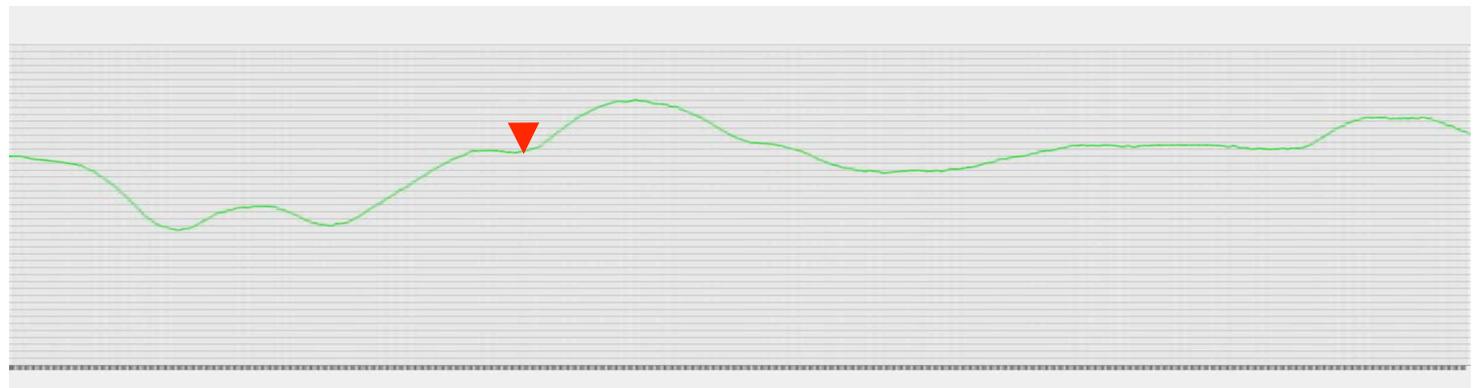


Maine Turnpike Southern Toll Plaza Replacement Study

Check overhead structures (and sight distance).

Check for gradual hill crest at center of plaza.

**Candidate
Site ID
and
Screening
Process**



Level 1

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Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Level One Screening Results

16 Locations Meet the Basic Design Criteria

- South of Chases Pond Road (Exit 7) – 2 locations
- Chases Pond Road to Mountain Road – 7 locations
- Mountain Road to Clay Hill Road – 2 locations
- Clay Hill Road to N. Berwick Road – 1 location
- N. Berwick Road to Capt Thomas Road – 0 locations
- Capt. Thomas Road to Tatnic Road – 0 locations
- Tatnic Road to Littlefield Road – 3 locations
- Littlefield Road to Wells Interchange – 1 location



Candidate
Site ID
and
Screening
Process

Level 1



Maine Turnpike Southern Toll Plaza Replacement Study

Site ID
Process
Yields 16
Candidate
Locations





Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Level Two Screening – Additional Engineering

- Highway grades
- Sight distances
- Typical cross-section

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**Candidate
Site ID
and
Screening
Process**

Level Two Screening - Community Resources

- Homes
- Schools
- Parks
- Municipal facilities
- Planned development

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Maine Turnpike Southern Toll Plaza Replacement Study

**Candidate
Site ID
and
Screening
Process**

Level Two Screening - Environmental Resources

- **Wetlands & wetland soils**
- **Rivers and Streams**
- **Floodplain**
- **Aquifers (Groundwater)**
- **Historic and Archaeological Resources**

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Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Level 2

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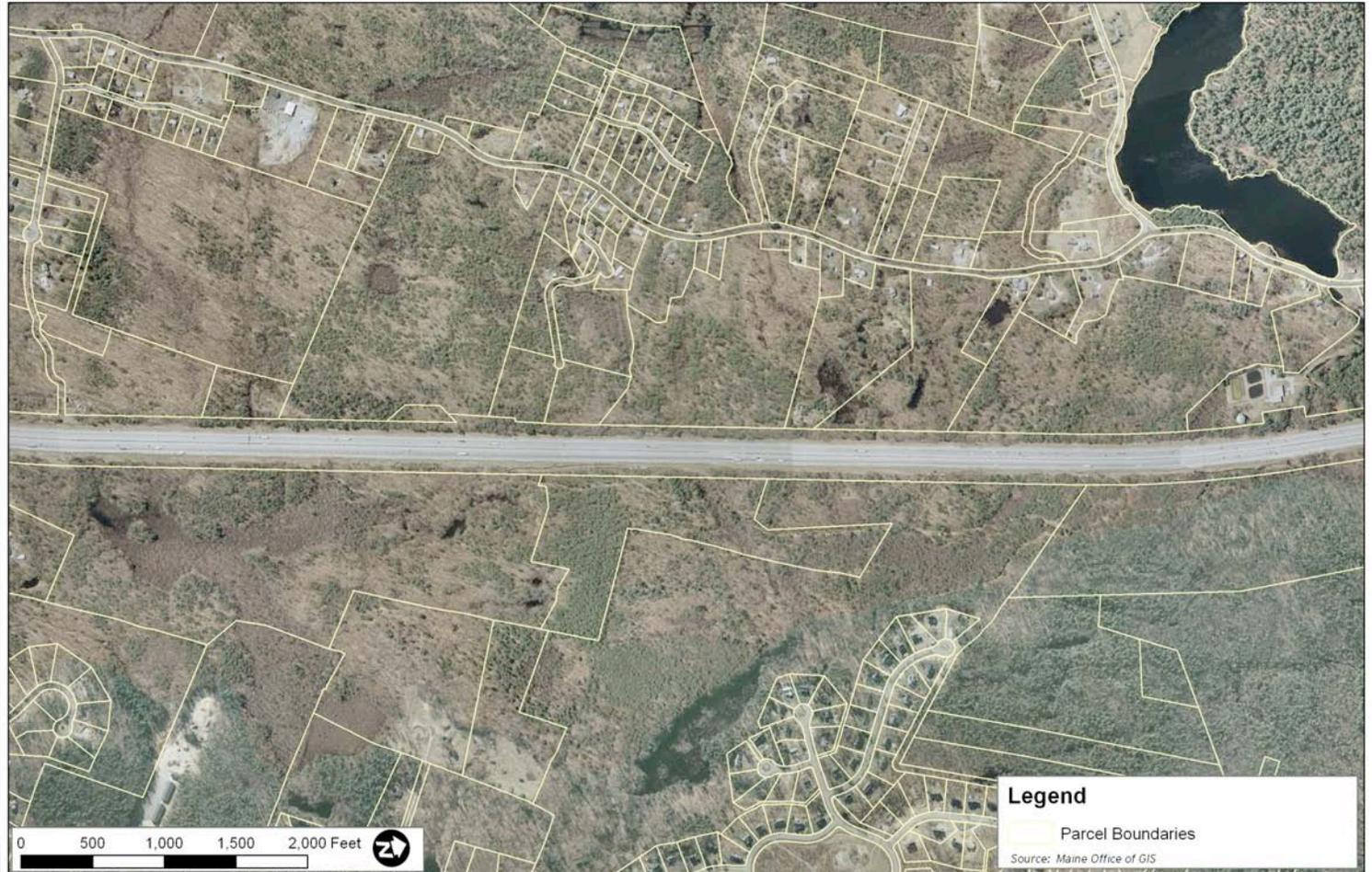




Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Level 2



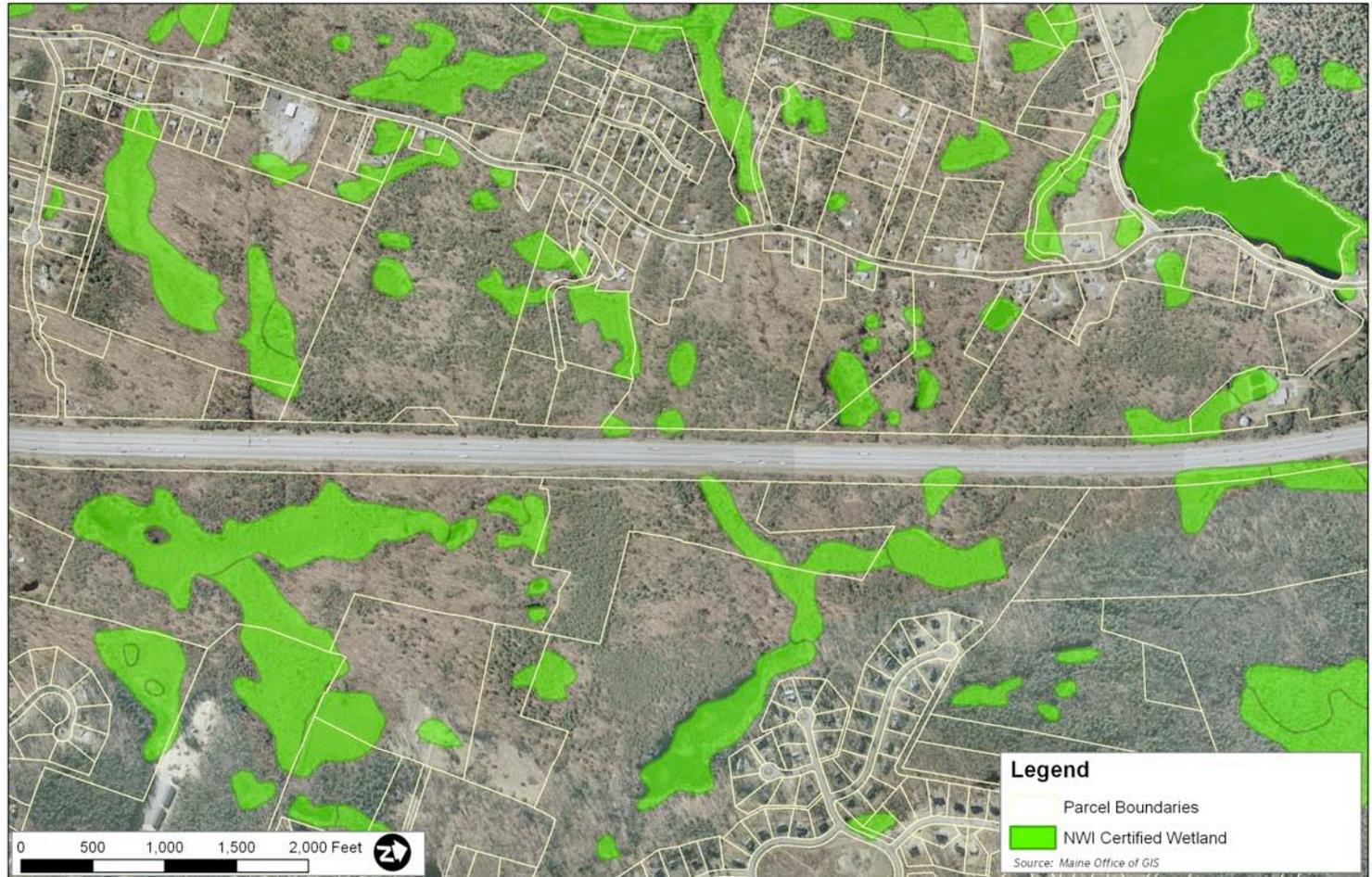
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Candidate
Site ID
and
Screening
Process

Level 2



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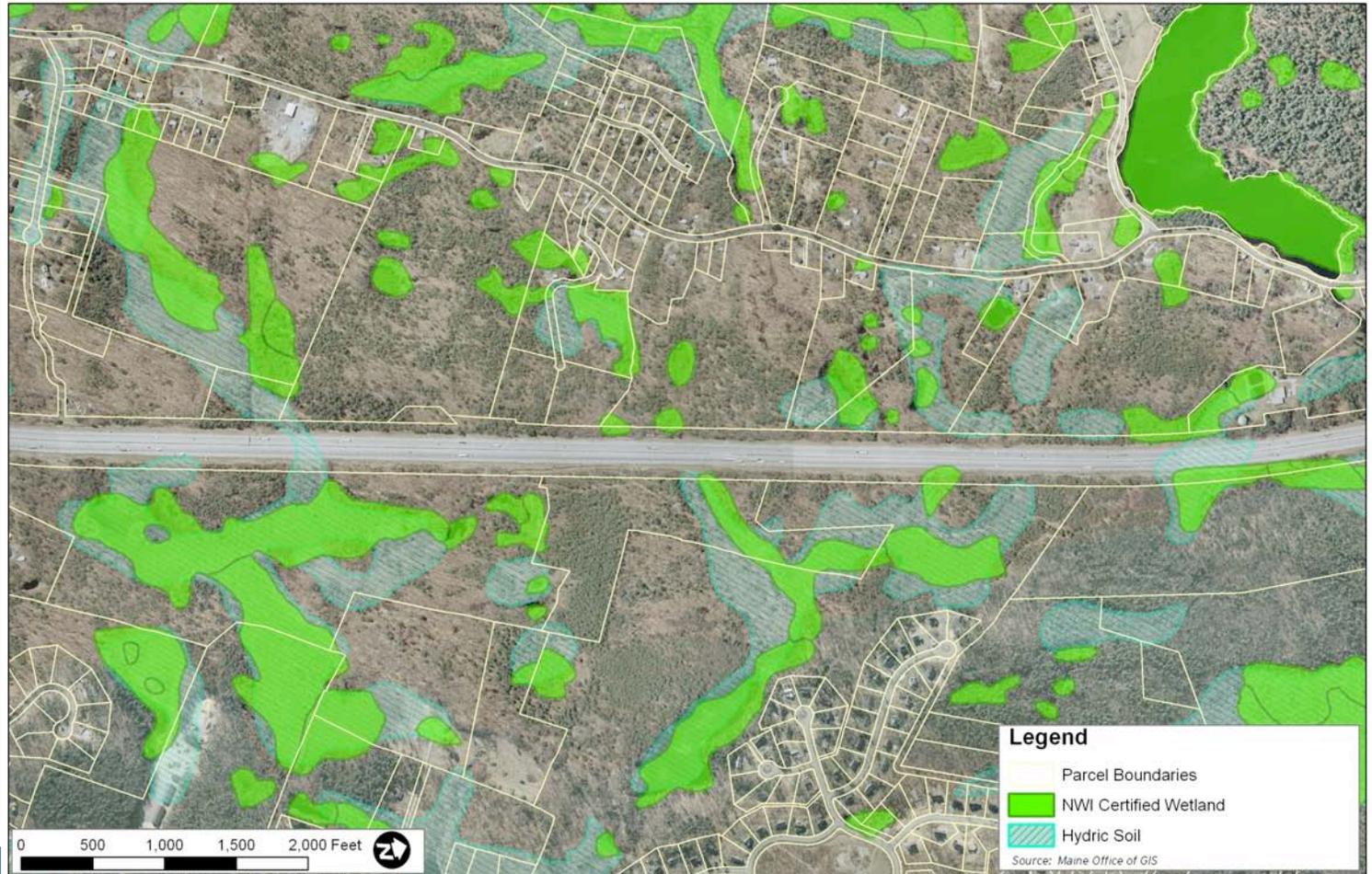


Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Level 2

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Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Level 2

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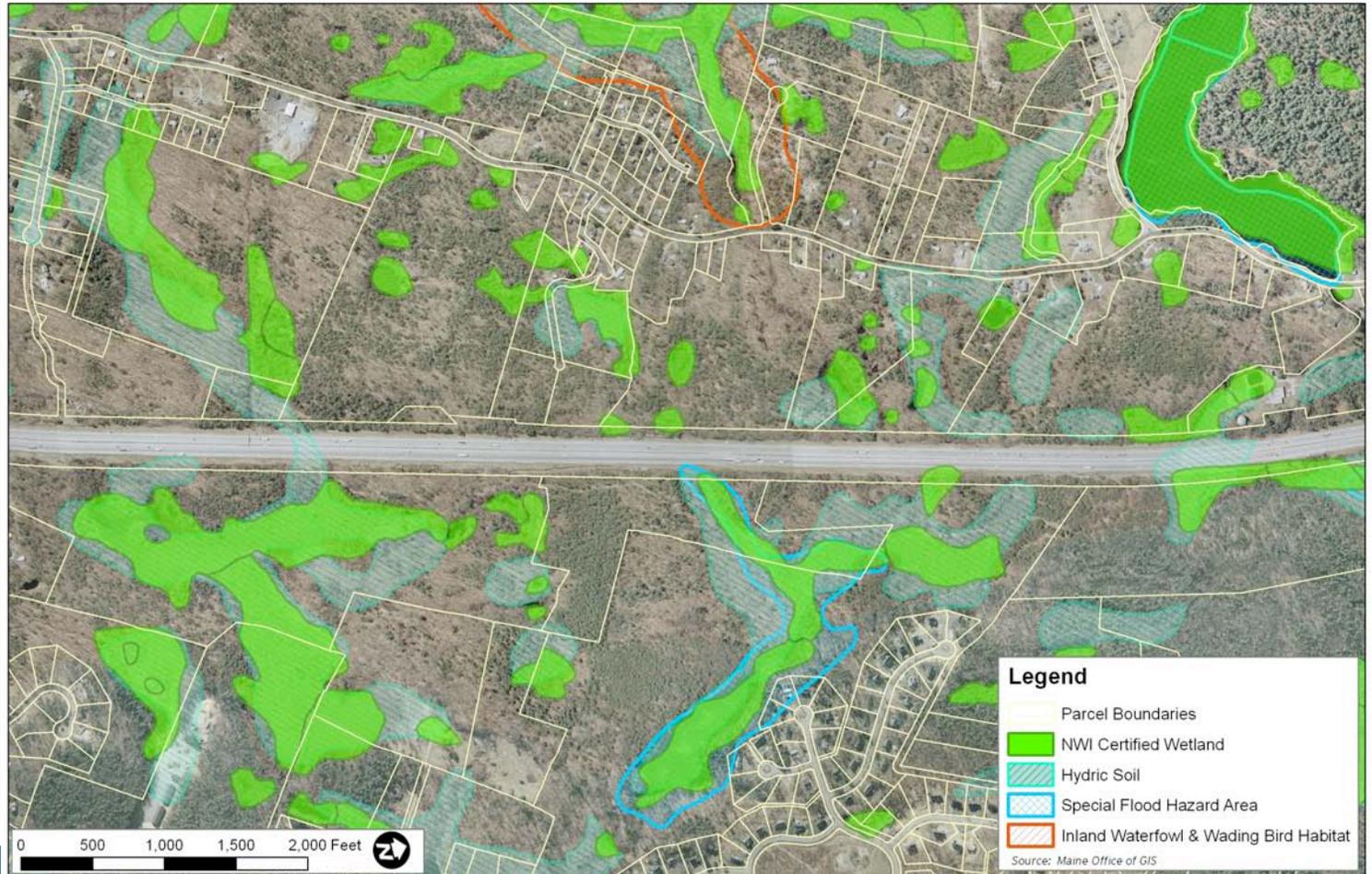


Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Level 2

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Legend

- Parcel Boundaries
- NWI Certified Wetland
- Hydric Soil
- Special Flood Hazard Area
- Inland Waterfowl & Wading Bird Habitat

Source: Maine Office of GIS

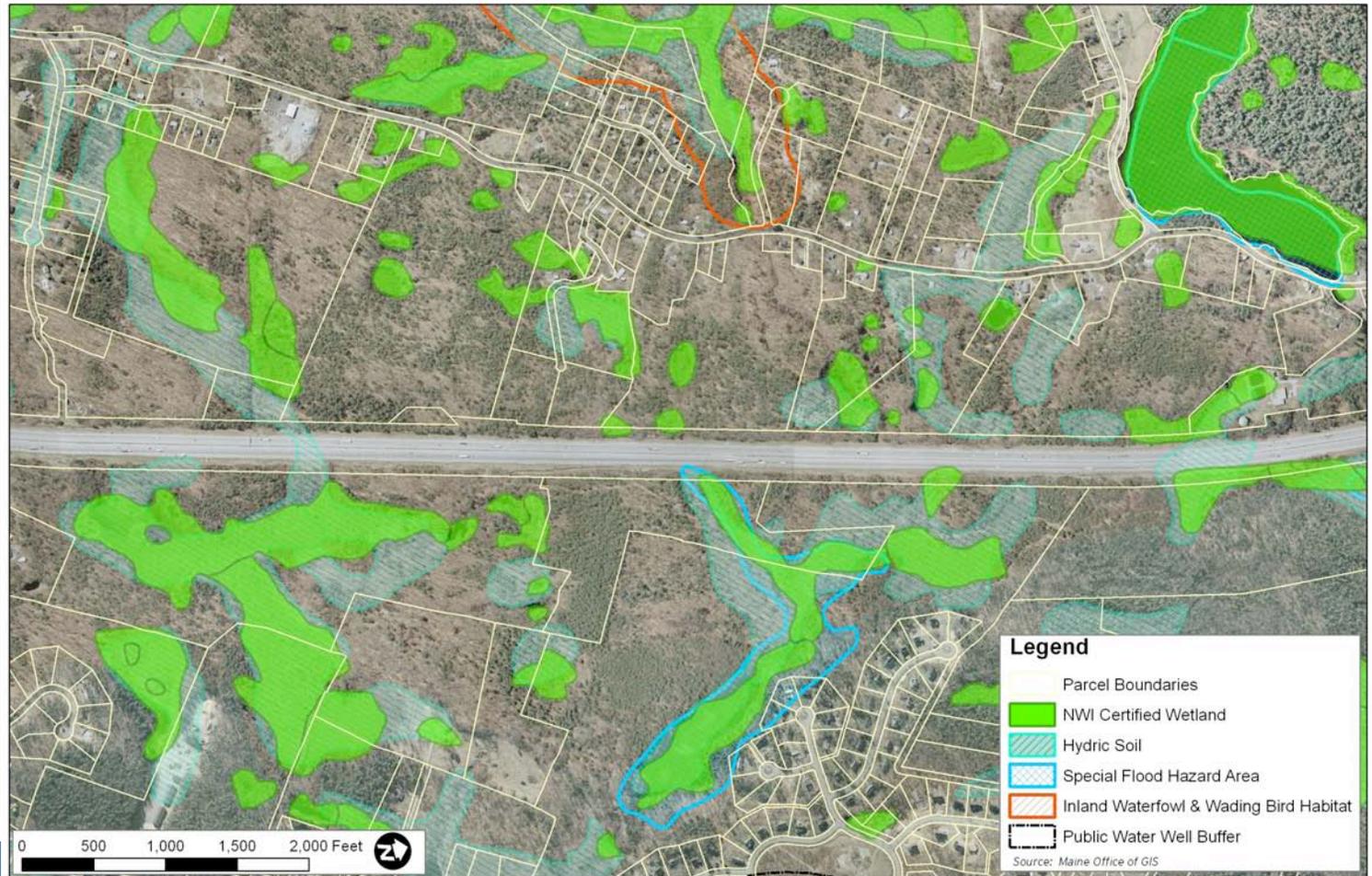


Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Level 2

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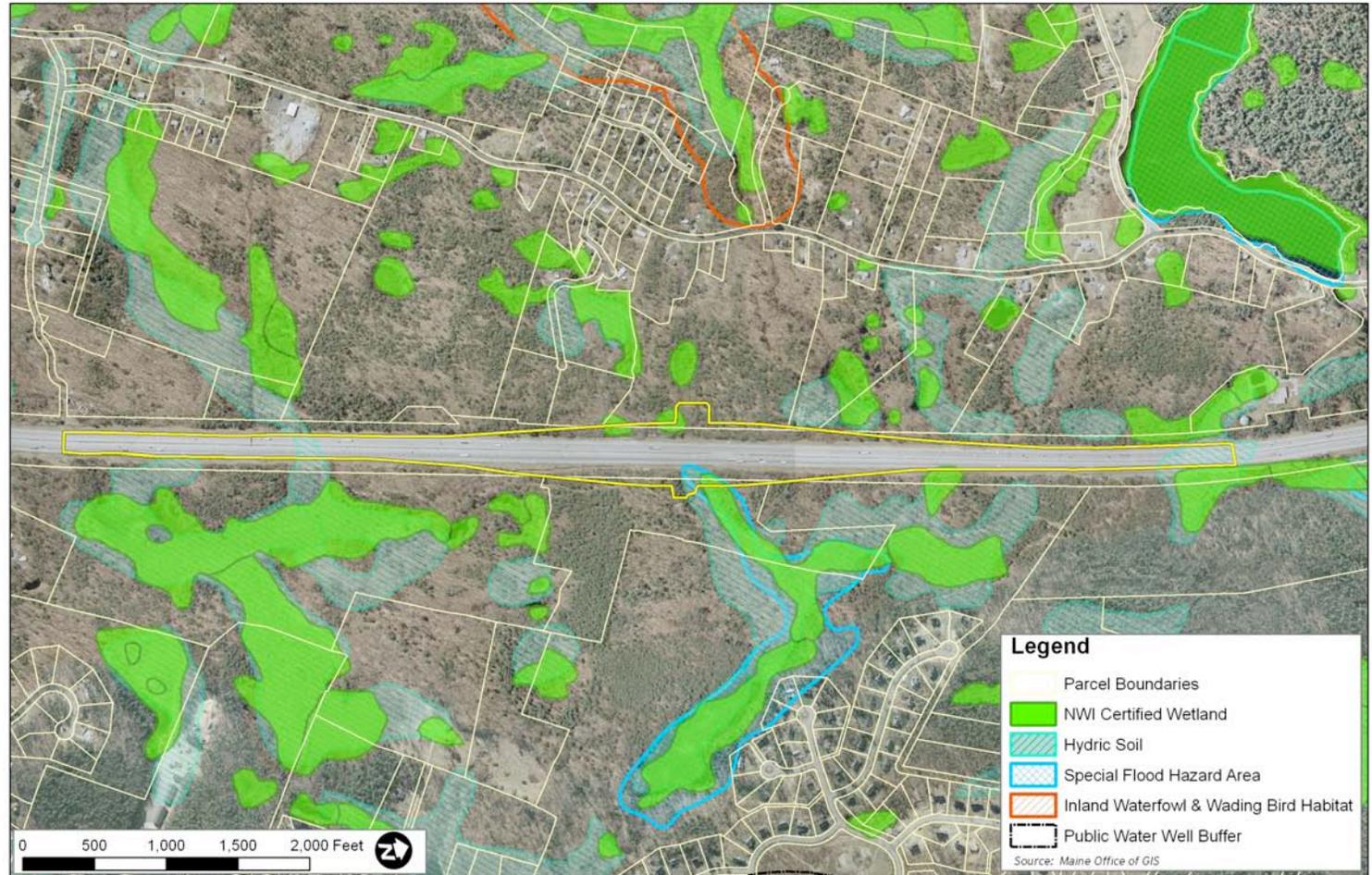


Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Level 2

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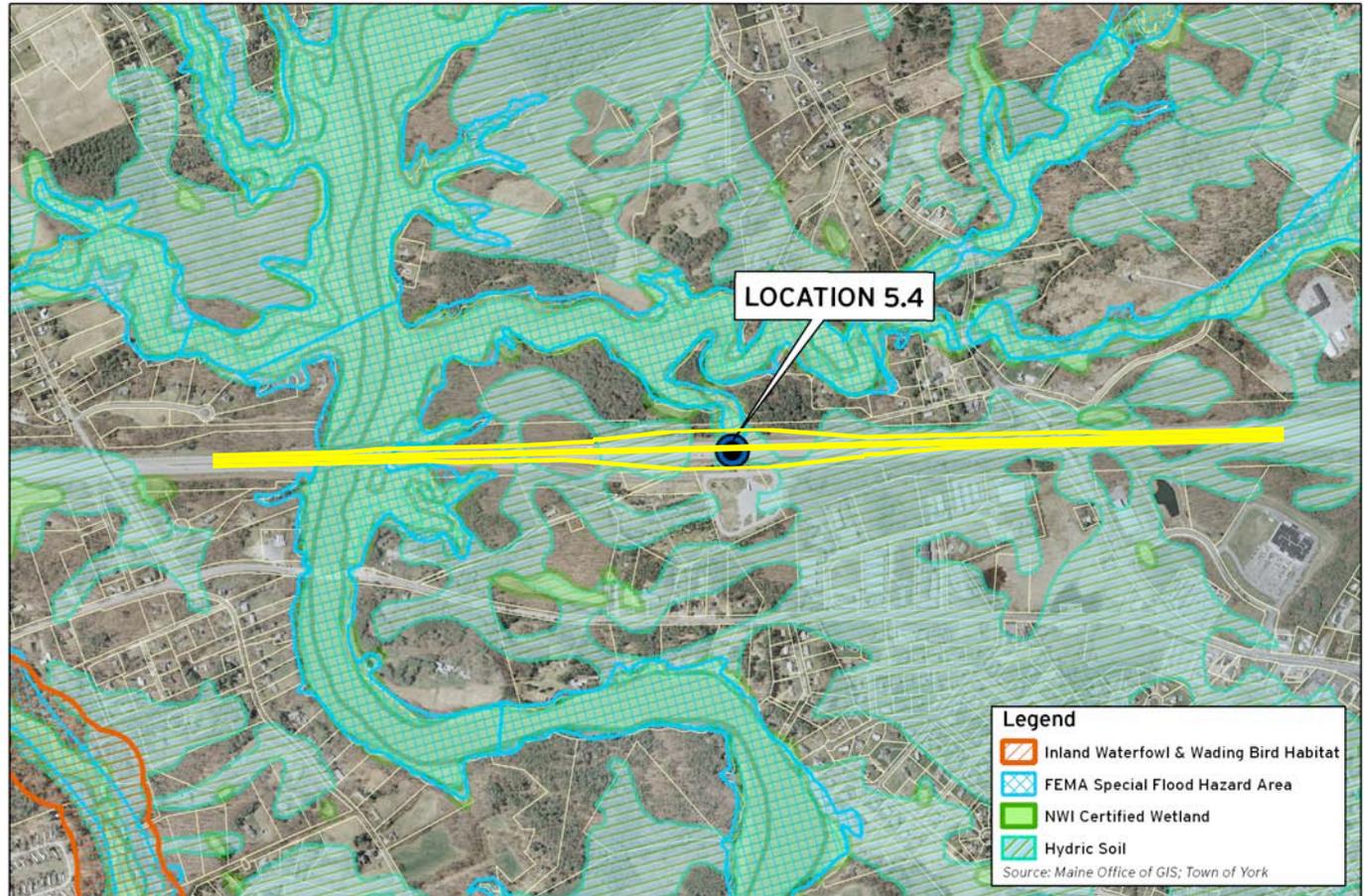




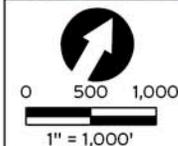
Maine Turnpike Southern Toll Plaza Replacement Study

Example of Location Not Advanced

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Site ID
and
Screening
Process



Level 2



Maine Turnpike Authority
Southern Toll Plaza
Replacement Study
Location 5.4





Candidate Site ID and Screening Process

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Maine Turnpike Southern Toll Plaza Replacement Study

Level Two Screening Results

12 Locations Not Advanced

- South of Chases Pond Road (Exit 7) – 2 locations
- Chases Pond Road to Mountain Road – 5 locations
- Mountain Road to Clay Hill Road – 1 locations
- Clay Hill Road to N. Berwick Road – 0 locations
- N. Berwick Road to Capt Thomas Road – 0 locations
- Capt. Thomas Road to Tatnic Road – 0 locations
- Tatnic Road to Littlefield Road – 3 locations
- Littlefield Road to Wells Interchange – 1 locations



Maine Turnpike Southern Toll Plaza Replacement Study

**Candidate
Site ID
and
Screening
Process**

Level Two Screening Results

Four sites advanced to Site Evaluation & Comparison

- Location 8.7
- Location 9.9
- Location 11.3
- Location 13.2

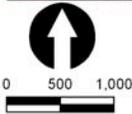
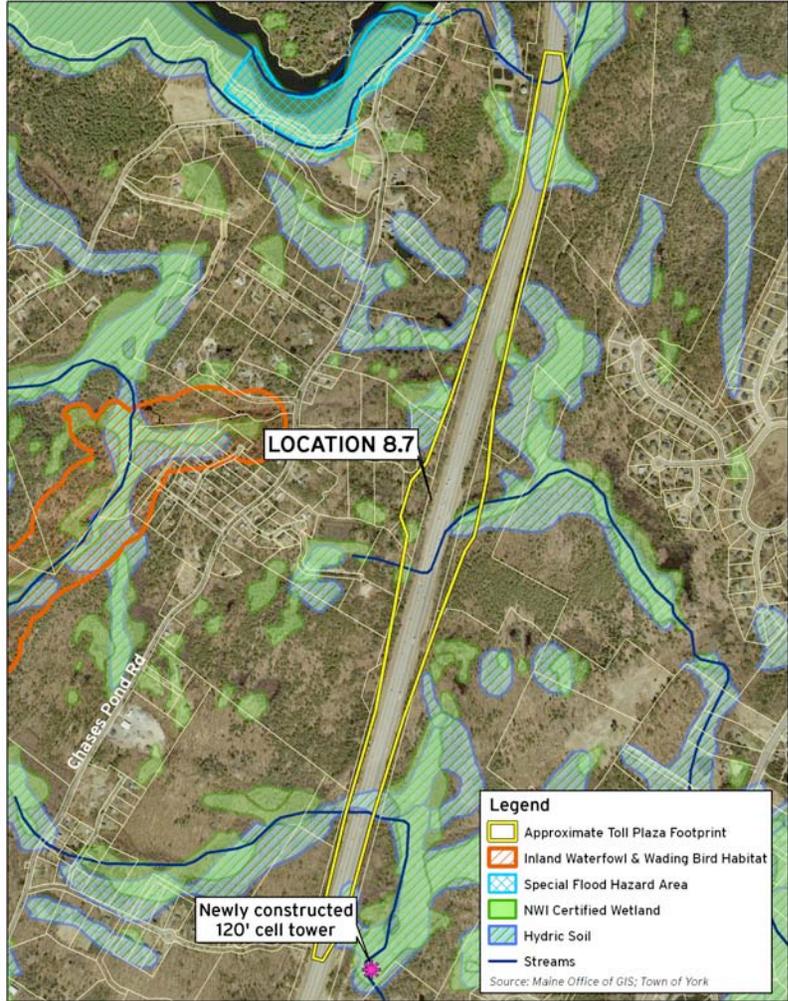
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Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Location 8.7



Maine Turnpike Authority
Southern Toll Plaza Replacement Study
Location 8.7

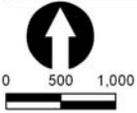
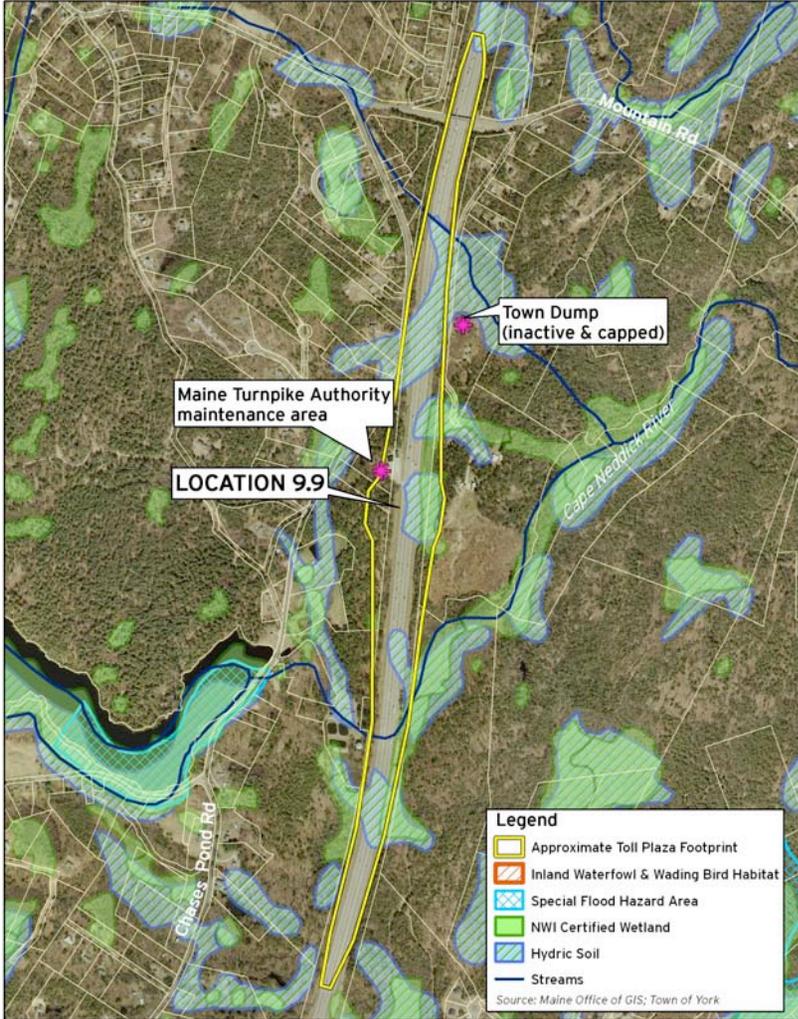




Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Location 9.9



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Southern Toll Plaza Replacement Study
Location 9.9



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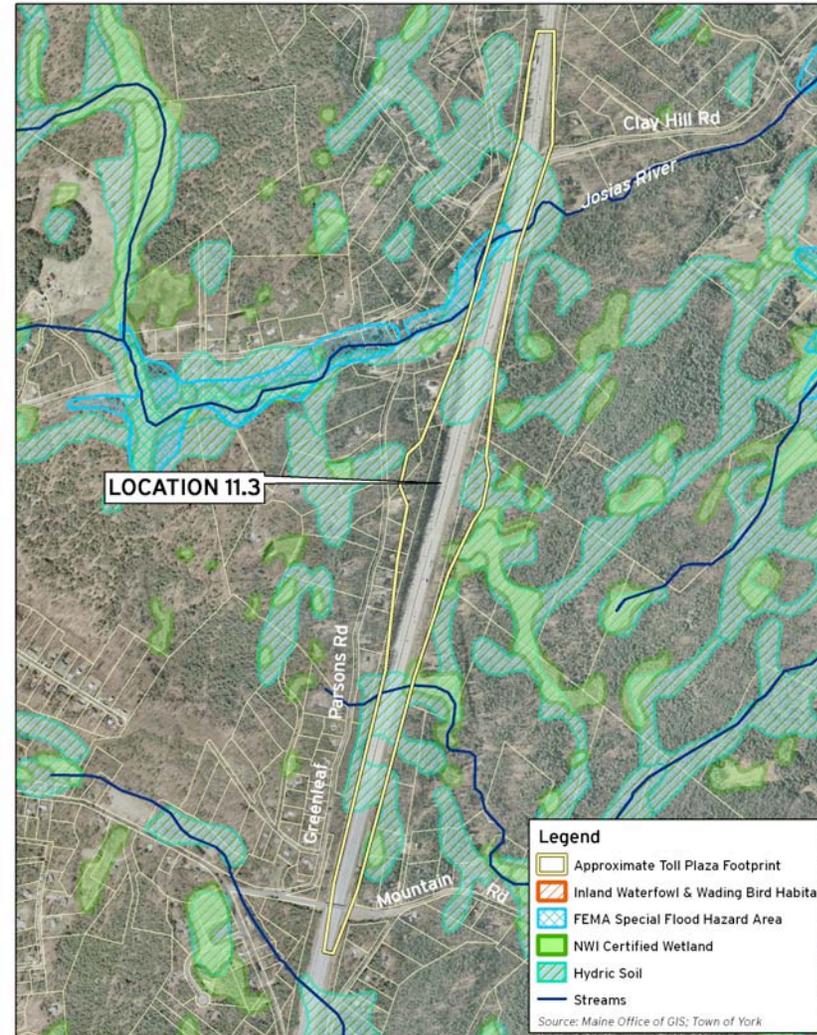




Maine Turnpike Southern Toll Plaza Replacement Study

Candidate
Site ID
and
Screening
Process

Location 11.3



Maine Turnpike Authority
Southern Toll Plaza Replacement Study
Location 11.3

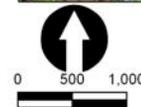
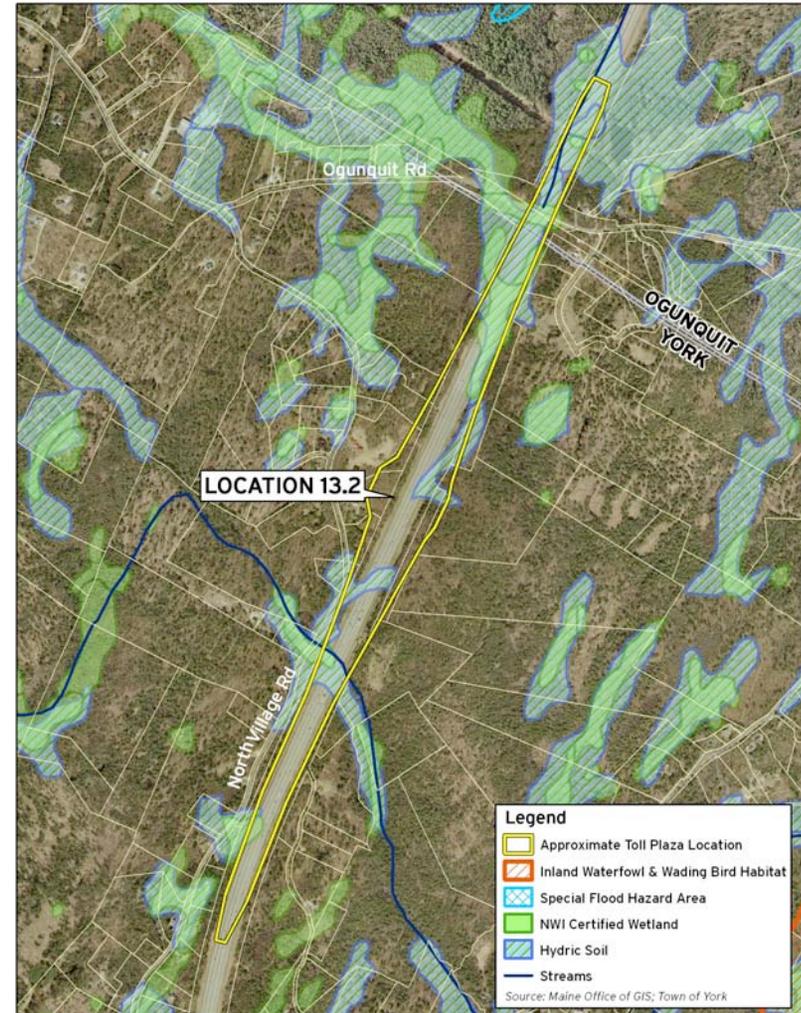




Maine Turnpike Southern Toll Plaza Replacement Study

Location 13.2

Candidate
Site ID
and
Screening
Process



Maine Turnpike Authority
Southern Toll Plaza Replacement Study
Location 13.2



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Maine Turnpike Southern Toll Plaza Replacement Study

**Candidate
Site ID
and
Screening
Process**

Level Three - Site evaluations and comparisons of remaining 4 Alternative sites based on:

- Refined, site-specific concept designs
- Environmental impacts
- Community effects
- Operations and maintenance
- Constructability
- Cost

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Maine Turnpike Southern Toll Plaza Replacement Study

Candidate Site ID and Screening Process

Evaluation Parameter	Location 8.7	Location 9.9	Location 11.3	Location 13.2
Horizontal Alignment	On Straight Section	On Straight Section	On Straight Section	On Straight Section
Vertical Alignment	At Crest of Small Hill	At Crest of Small Hill	At Crest of Small Hill	At Crest of Small Hill
Separation from Interchange (>1 mile)	Yes	Yes	Yes	Yes
Separation from Overhead Structure (>2000 feet)	Yes (9,450 feet to nearest overhead)	Yes (3,600 feet to nearest overhead)	Yes (3,400 feet to nearest overhead)	Yes (2,850 feet to nearest overhead)
Sight Distance	Good, both directions	Good, both directions	Good, both directions	Good, both directions
Mainline Grade Adjustments Required	Major, but advantages accrue in tunnel construction	Moderate	Moderate	Major
Local Road Access	From Chases Pond Rd. +1400 ft	From Chases Pond Rd. +700 ft	From Greenleaf Parsons Rd. +200 ft	From N. Village Rd. +350 ft
Tunnel (in mainline area)	In Fill	In Cut	In Cut	In Cut
Utilities	<ul style="list-style-type: none"> Provide on-site sewer Tap into York Water District main crossing Tpk. Bring in overhead power and telephone lines from local street 	<ul style="list-style-type: none"> Provide on-site sewer Tap into York Water District crossing Tpk. Overhead power and telephone available from former York Maintenance Area 	<ul style="list-style-type: none"> Provide on-site sewer Bring in water line from local street Bring in overhead power and telephone lines from local street 	<ul style="list-style-type: none"> Provide on-site sewer Bring in water line from local street Bring in overhead power and telephone lines from local street
Adjacent Land Use	<p>West Side: Low density residential; closest homes 500 ft. from plaza centerline.</p> <p>East Side: Generally undeveloped; subdivision approximately 1500 ft. northeast of plaza centerline.</p>	<p>West Side: Mixed use - medium density residential, municipal; closest homes 300 ft. from plaza.</p> <p>East Side: Largely undeveloped; former town dump site.</p>	<p>West Side: Medium density residential; closest homes 200 ft. from plaza.</p> <p>East Side: Generally Undeveloped.</p>	<p>West Side: Low density residential; closest homes 200 ft. from plaza centerline.</p> <p>East Side: Undeveloped.</p>
Potential displacements	0-2 homes	2-4 homes	6-8 homes	5-6 homes
Wetland Impact – National Wetland Inventory (acres)	1.5	4	1.2	0.2
Wetland Soils Impact – Natural Resources Conservation Services (acres)	1.5	6.6	6.75	2
Potential Stream Impact	5 stream crossings requiring culvert extensions	4 stream crossings, including Cape Neddick River, requiring culvert	4 stream crossings, including Josiah River, requiring culvert extensions	1 stream crossing, including Clay Hill Brook, requiring culvert extensions
Floodplain Impact – Flood Insurance Rate Maps (acres)	0.9	0	0.06	0.45
Aquifers	No mapped Sand & Gravel Aquifers in vicinity	No mapped Sand & Gravel Aquifers in vicinity	No mapped Sand & Gravel Aquifers in vicinity	No mapped Sand & Gravel Aquifers in vicinity
Historic/Archaeological Sensitivity	No known sites. Historic Architectural Survey and Phase I Archaeological Surveys would be required	No known sites. Historic Architectural Survey and Phase I Archaeological Surveys would be required	No known sites. Historic Architectural Survey and Phase I Archaeological Surveys would be required	No known sites. Historic Architectural Survey and Phase I Archaeological Surveys would be required
Potential Uncontrolled Petroleum/Hazardous Materials	No known sites	Underground Storage Tanks and prior petroleum spill	Underground Storage Tanks and prior petroleum spill	No known sites
Cost, (2007 \$) excluding Right-Of-Way	\$37.4 m	\$38.8 m	\$39.2 m	\$38.1 m





Maine Turnpike Southern Toll Plaza Replacement Study

Right-Of-Way Acquisition Process

Next Steps

- Refine project design – Alternatives to Preferred Alternative
- Determine properties impacted by project footprint
- Avoidance & Minimization of R.O.W & Environmental Impa
- Determine preliminary property ownership
- Refine property impacts for acquisition including: temporary grading/construction, drainage, easement
- Conduct Title Research to affirm ownerships
- Prepare property impact plan (by Maine licensed surveyor)



Maine Turnpike Southern Toll Plaza Replacement Study

Right-Of-Way Acquisition Process

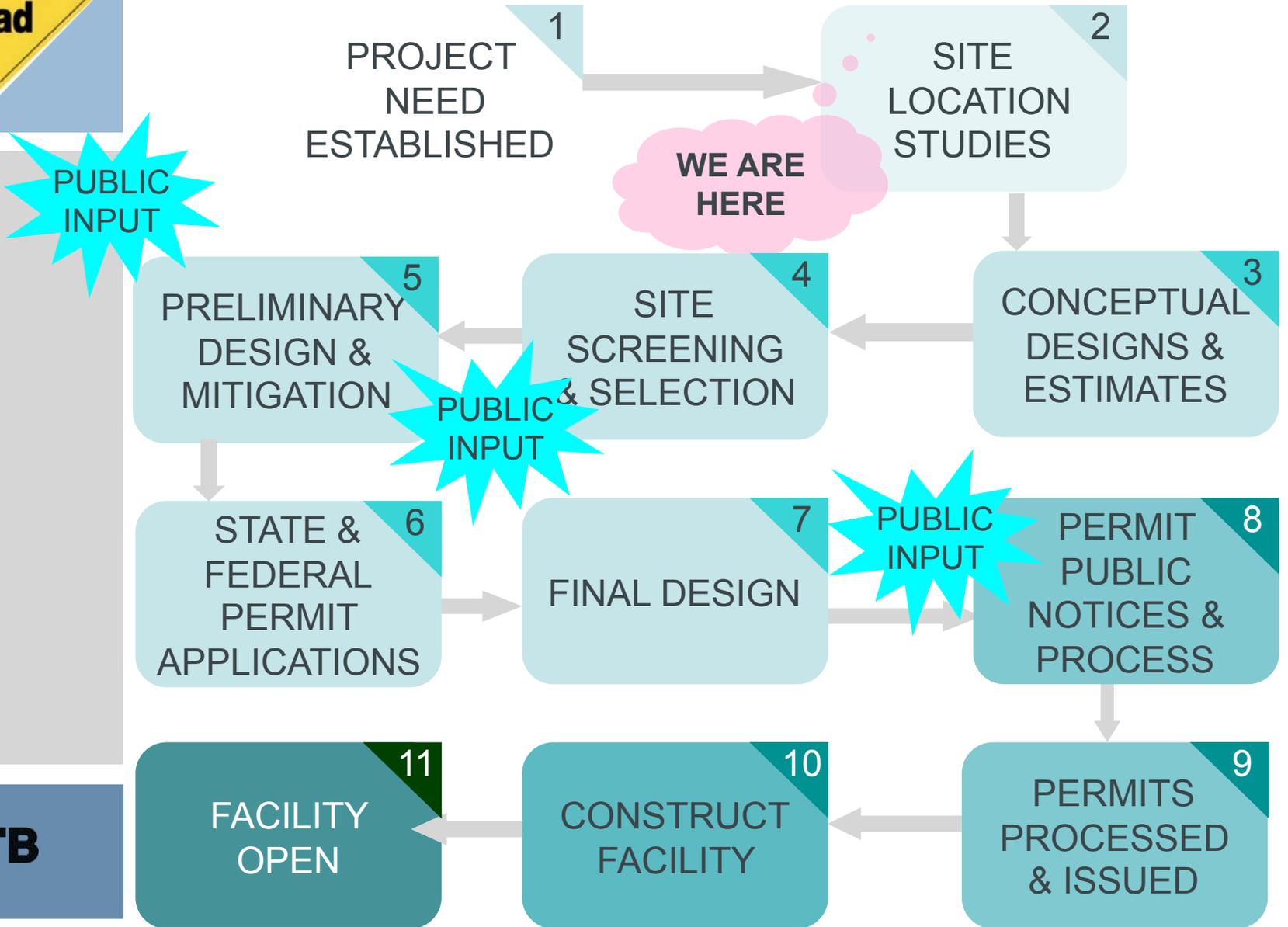
Next Steps

- Meet with property owner to discuss proposed acquisition
- Determine “Fair Market Value” of proposed acquisition (by Maine licensed appraiser)
- Initiate negotiation with property owner (make offer to purchase based on appraisal)
- Settle on purchase price or acquire by eminent domain
 - Appeal process through State Claims Commission
 - Further Appeals through Superior Court
- MTA will provide assistance if relocation is necessary.

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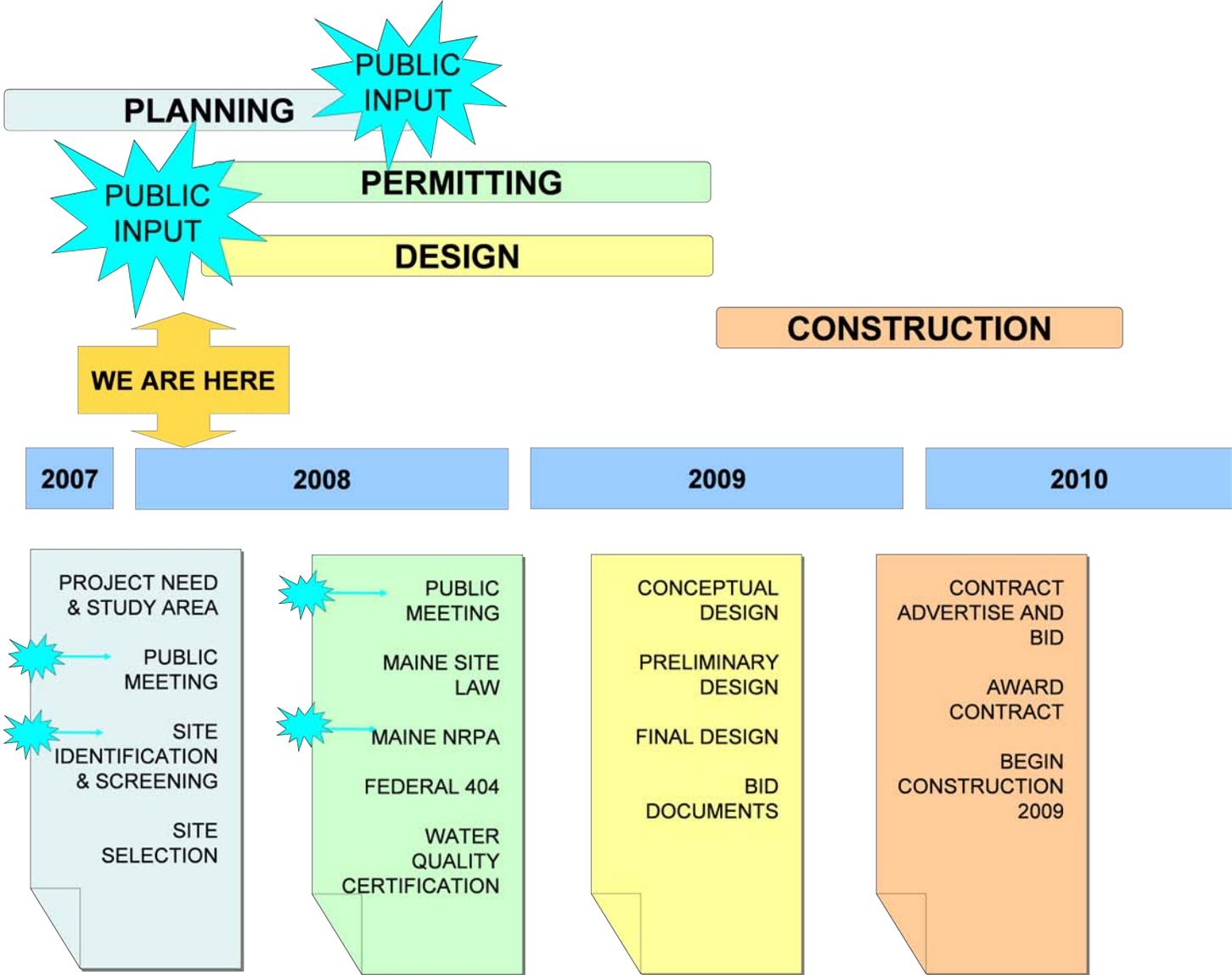
Maine Turnpike Southern Toll Plaza Replacement Study





Maine Turnpike Southern Toll Plaza Replacement Study

Next Steps





Maine Turnpike Southern Toll Plaza Replacement Study

Discussion

Questions & Answers

Thank-You!

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Maine Turnpike Southern Toll Plaza Replacement Study

Closing

Public Information Meeting Site Identification & Screening Process

Thank-You!

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Maine Turnpike Southern Toll Plaza Replacement Study

Written Public Comments Will Be Accepted

Please send your comments to:

Maine Turnpike Authority

430 Riverside Street

Portland, ME 04103

or contact:

Bruce Pelletier at

800-698-7747 ext. 119

bpelletier@maineturnpike.com

**Discussion
& Closing**

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