

I-84 Danbury Project

Project Advisory Committee (PAC) Meeting No. 9

June 22, 2022





Welcome / Providing Feedback

Housekeeping Items

- Meeting is live and recorded
- Meeting presentation is posted to the project website at http://www.i84danbury.com/course_cat/public-advisory-committee/
- Participants can video conference in or call in via phone and follow along to presentation posted on web
- Participants should mute themselves when not speaking
- At select times during meeting, moderator will read questions / comments out loud for speaker to answer or will ask interested participants to unmute and provide comments
- Meeting recording will be posted to project website after meeting



Video on / off

Mic on / off

055cbd0d2

Project

Request control

Video on / off

Mic on / off

Leave

Edit story

Locations of these controls may be different depending on the device and screen you are using

I-84 Danbury Project



08:39

Request control

Turn on participant list

Participants

Invite someone or dial a number

In this meeting (11)

Mute all

- Marcy Miller
- Calabrese, Michael N
Outside your organization
- Doyle, Thomas H
Outside your organization
- Fesenmeyer, Andy A.
Outside your organization
- Gaffey, Timothy J.
Outside your organization
- Jeanine Gouin
Outside your organization
- Kalluri, Sharat K
Organizer
Outside your organization
- McMillan, Mark J.
Outside your organization
- Murphy, Lynn D.
Outside your organization
- Patrick Gallagher
Outside your organization
- Sousa, David
Outside your organization

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K Calabrese, Michael N.

Type here to search

9:08 AM 10/22/2020



07:47

Request control

Turn on chat pane

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Type your question/comment here

Submit here

That's a really great comment!

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.

10/22/2020



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Project

Providing Feedback



10:24

Request control

Other functions

I-84 Danbury Project

storymaps.arcgis.com/stories/c22a1bac516448288922ced055cbd0d2

I-84 Danbury Project

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Patrick Gallagher

Go here to search

9:15 AM 10/22/2020

- Device settings
- Meeting details
- Gallery
- Large gallery (Preview)
- Together mode (Preview)
- Focus
- Full screen
- Call me
- Apply background effects
- Turn on live captions
- Start recording
- Dial pad
- Turn off incoming video

PG TG TD MM LM DS AF JG SK MC

Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K Calabrese, Michael N



I-84 Danbury
Project

Providing Feedback



10:24

Request control

1

Hand icon

Leave

storymaps.arcgis.com/stories/c22a1bac516448288922ced055cbd0d2

I-84 Danbury Project

Edit story

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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PG TG TD MM LM DS AF JG SK MC

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Jeanine Gouin

Kalluri, Sharat K

Calabrese, Michael N

9:15 AM
10/22/2020

Patrick Gallagher

9:15 AM
10/22/2020

Raise your hand



Questions



Presenters



Krishalyn Macrohon
CTDOT
Project Engineer



Rick Black
SLR Consulting
Environmental
Documentation



Andy Fesenmeyer
CTDOT
Project Manager

Moderator



Marcy Miller, AICP (FHI)

Team Members



Nilesh Patel
CTDOT
Principal Engineer



Sharat K. Kalluri
CDM Smith
Project Manager



Kevin J. Burnham
CTDOT
Transportation
Supervising Engineer



Jeanine Armstrong Gouin
SLR Consulting
Environmental Documentation

Agenda

- PAC Update
- Recap of Fatal Flaw Analysis
- Discussion of Concept Screening Criteria
- Examples of Concept Screening Process
- Application of Screening Criteria
- Next Steps
- Discussion / Questions



PAC Update

Since Our Last Meeting

- Article Published in the Tribuna
- Listening Session 1 (June 9)
- Listening Session (June 14)
- Added more concepts to website
- Attended pop-up events in Danbury
- Continue to create social media content



www.i84danbury.com



I-84 Danbury Project



@i84danbury

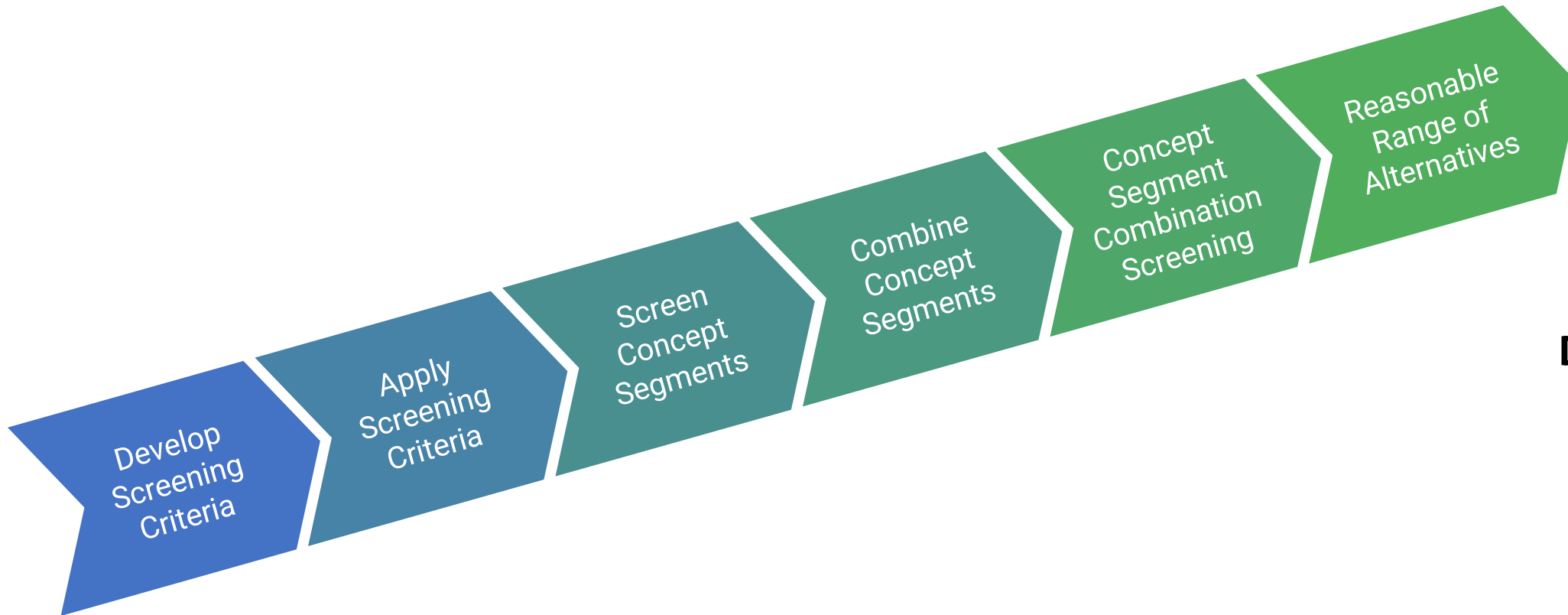


PAC Membership

AAA	Danbury Housing Authority	New York Metropolitan Transportation Council	Western Connecticut Council of Governments (WestCOG)
Boehringer-Ingelheim	Danbury Public Schools	Putnam County, New York	Western Connecticut State University
Cartus	Danbury Museum & Historical Society	Sierra Club	West Side District
City of Danbury: Business Advocacy, Engineering, Health & Human Services, Library, Planning, Public Works, & Traffic	Get Downtown Danbury	Spring Street Neighborhood	Wooster Cemetery
CityCenter Danbury	Greater Danbury Chamber of Commerce	Sterling Woods Association	
<i>Ctrides</i>	Housatonic Area Regional Transit (HART)	Town of Bethel	
CT Weather	Housatonic Railroad	Town of Brookfield	
Connecticut State Police	Juniper Ridge Tax District	Town of New Fairfield	
Danbury Airport	League of Women Voters of Northern Fairfield County	Town of New Milford	
Danbury Commission for Persons with Disabilities	Motor Transport Association of CT (MTAC)	Town of Newtown	
Danbury Hospital		Town of Redding	
		Town of Ridgefield	
		West Terrace Neighborhood	



Concept Screening Process

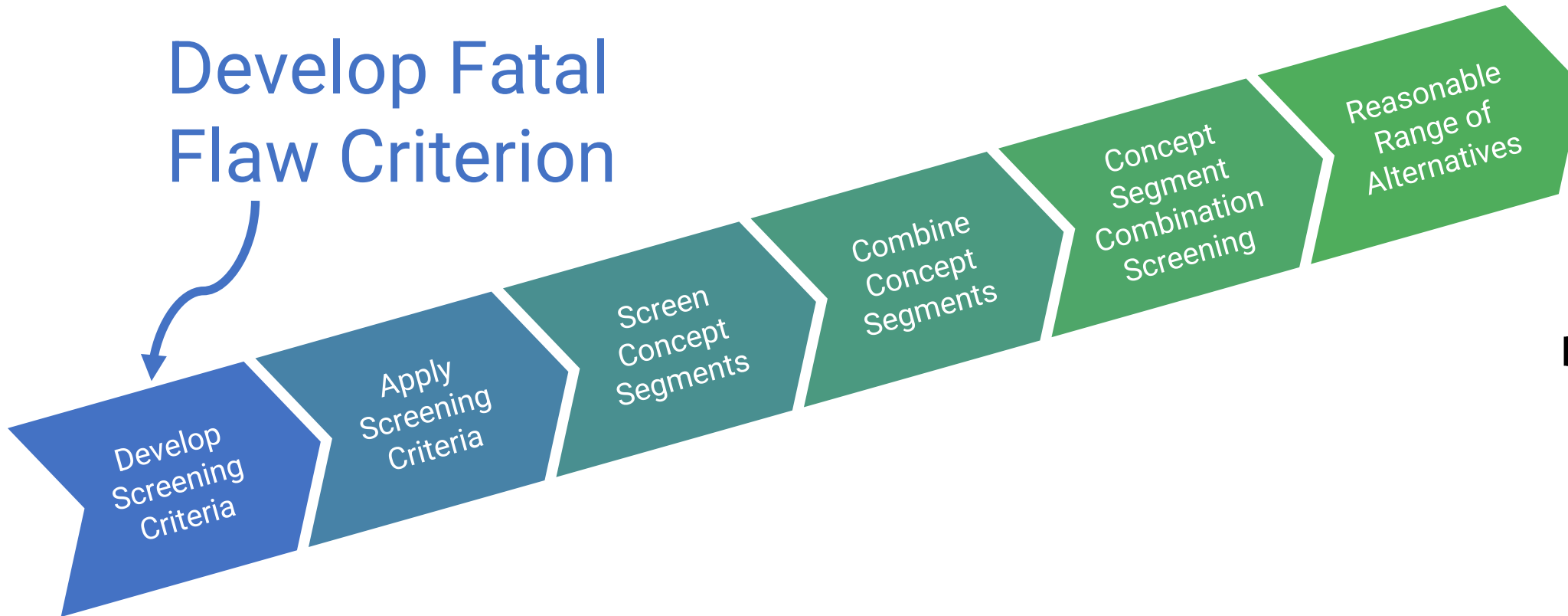


**Initial
Alternatives
for the
Detailed (NEPA)
Analysis**



Concept Screening Process

Develop Fatal
Flaw Criterion



**Initial
Alternatives
for the
Detailed (NEPA)
Analysis**



Fatal Flaw Elements

**Traffic Operations
& Travel Time**
Impacts to Local Traffic



Lacks Potential to
Meet Study Purpose

**Vertical and Horizontal
Geometry**
Constructability & Cost



Numerous
Constructability Issues:
- Technical Feasibility
- Cost Feasibility

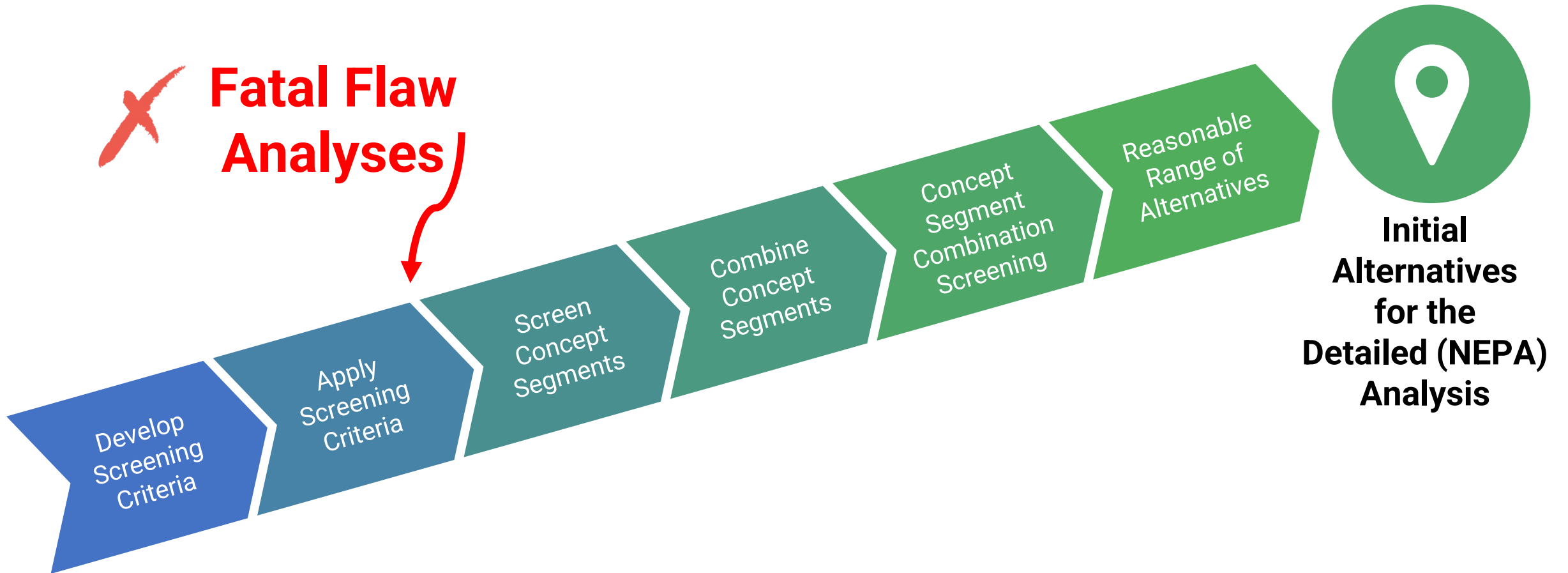
**Land Use and Community
Impacts**
Cultural Resource Impacts
Physical Impacts
**Wetland, Watercourse, and
Floodplain Impacts**
Biological Resource Impacts



Unjustifiable
Environmental Impacts



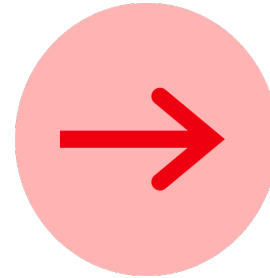
Concept Screening Process





Fatal Flaw Screening Criteria (White Paper Analysis)

- Fatal Flaw (White Paper Analyses)
 - Numerous Constructability Issues
 - Technical feasibility
 - Cost feasibility
 - Schedule impacts
 - Lacks Potential to meet Study Purpose
 - Unjustifiable Environmental Impacts



**Removed
From Further
Analyses**





Example of a Concept that was Dropped after the Fatal Flaw Analysis



I-84 Danbury
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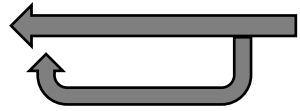
Fatal Flaw Example (C7):



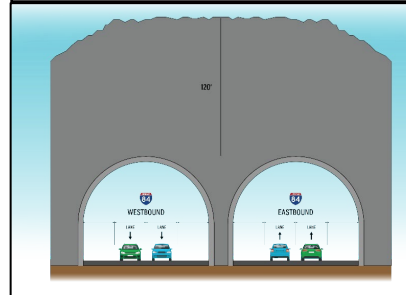
Maintenance of Highway



Redundancy of Highway



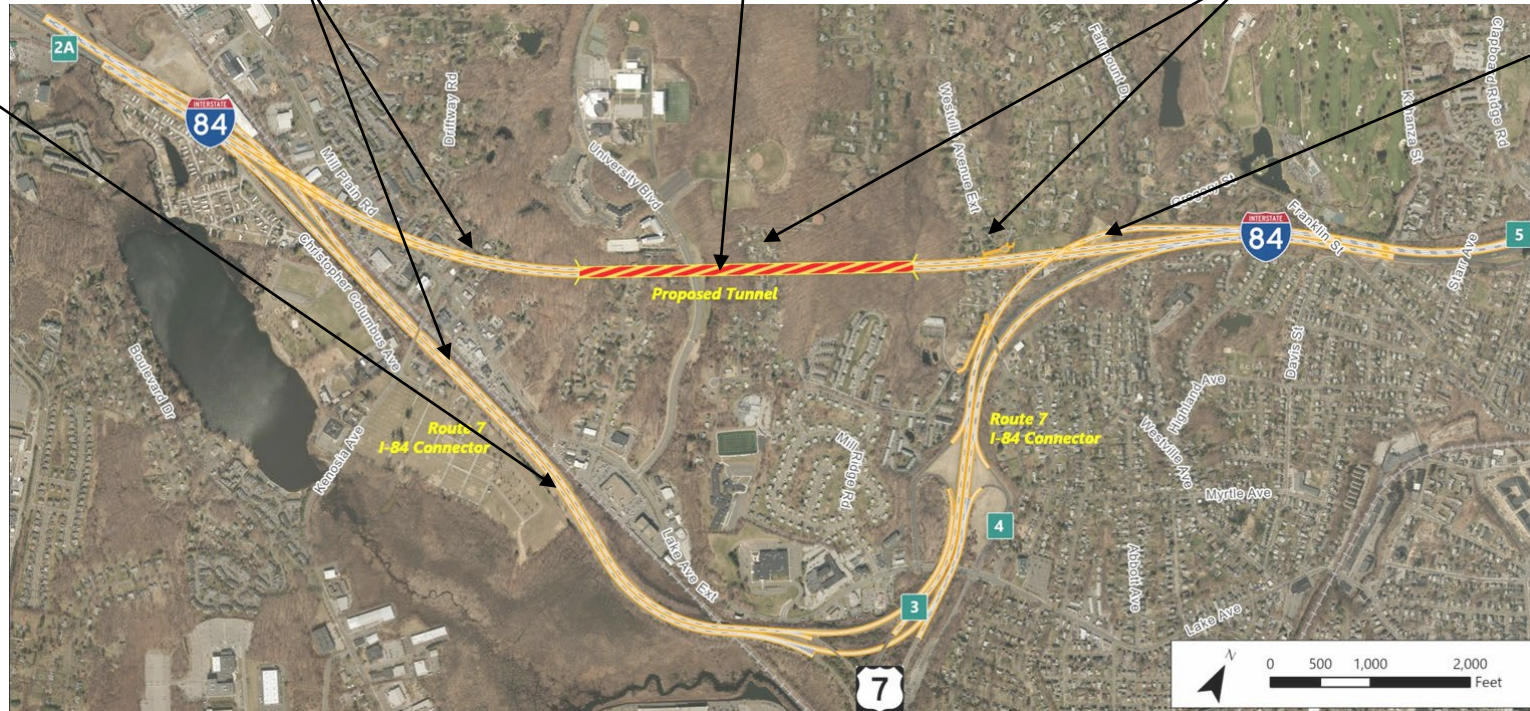
Constructability



Neighborhood Cohesion



Water Treatment Plant





Concept Screening

10,000-foot level



- Congestion and Mobility
- Geometry and Design
- Access
- Schedule and Budget
- Property Impacts
- Sensitive Community Cohesion
- Wetland and Stream Impacts
- Sensitive Species

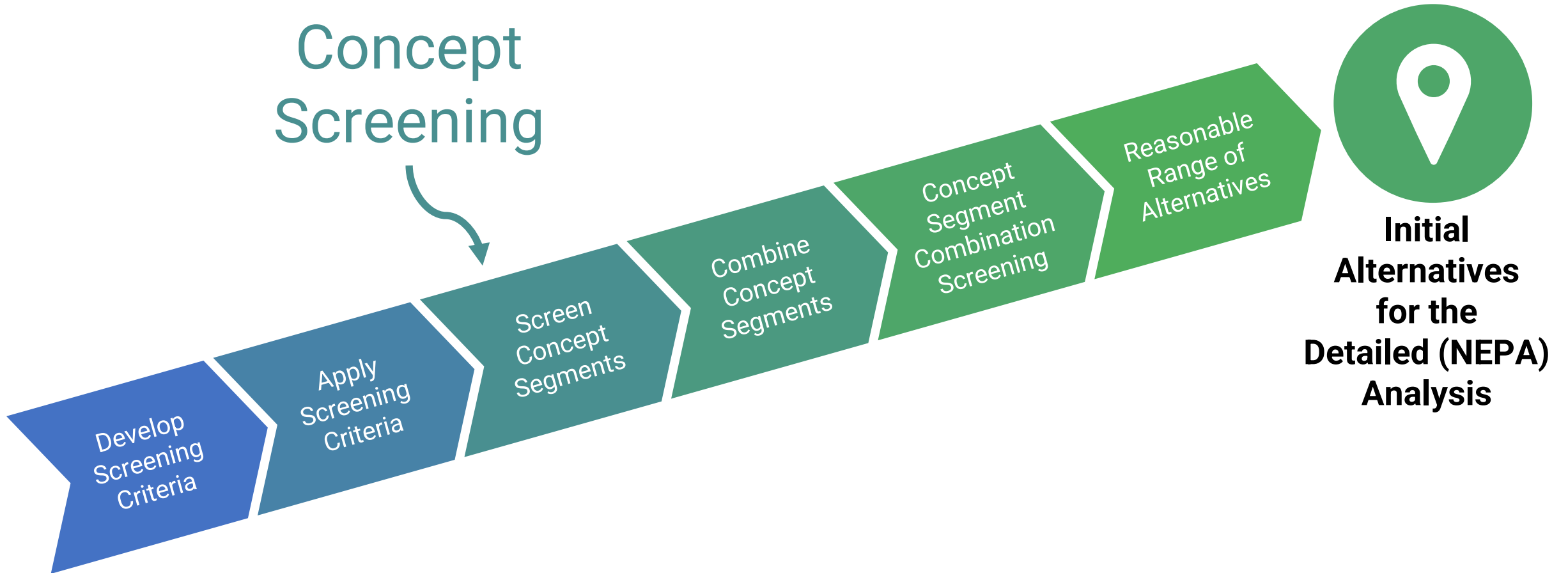


Discussion of Concept Screening Criteria



Concept Screening Process

Concept Screening





Overview



**Engineering
Considerations**



**Environmental
Considerations**



Engineering Considerations

- Key
- Additional



Environmental Considerations

- Built
 - Key
 - Additional
- Natural
 - Key
 - Additional



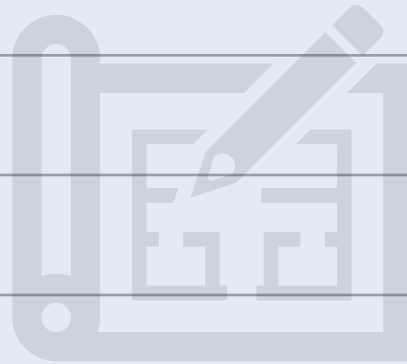
Engineering Considerations

Key Considerations

Congestion and Mobility

Peak hour delay

Lane continuity





Engineering Considerations

Additional Considerations

Access to Danbury Hospital

Access to businesses on North Street

Access to downtown Danbury

Improves local network

Maintains I-84 traffic during construction



Engineering Considerations

Additional Considerations

Geometry

Distance between adjacent ramps in center section (miles)

Meets driver expectation (full highway access)

Removes left-hand ramps

Maintains consistent design speed throughout corridor



Engineering Considerations

Additional Considerations

Schedule and Budget

Construction Complexity and Staging

Construction cost





Engineering Considerations

<i>Key Considerations</i>
<i>Congestion and Mobility</i>
Peak hour delay
Lane continuity
<i>Additional Considerations</i>
Access to Danbury Hospital
Access to businesses on North Street
Access to downtown Danbury
Improves local network
Maintains I-84 traffic during construction
<i>Geometry</i>
Distance between adjacent ramps in center section (miles)
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Removes left-hand ramps
Maintains consistent design speed throughout corridor
<i>Schedule and Budget</i>
Construction Complexity and Staging
Construction cost



Overview



**Engineering
Considerations**



**Environmental
Considerations**



Environmental Considerations

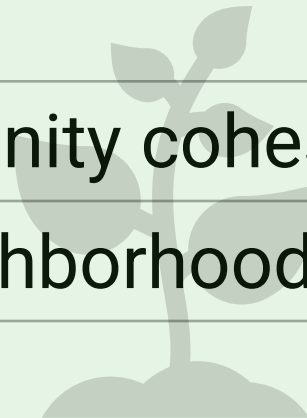
Built Environment

Key Built Considerations

Property impacts

Dead-end streets – community cohesion

Environmental Justice neighborhood impacts





Environmental Considerations

Built Environment

Additional Built Considerations

Community facility impacts

Section 4(f) impacts

Visual/aesthetic impacts

Cemetery property impacts





Environmental Considerations

Built Environment

Additional Built Considerations

Impacts to NGPL

Historic property impacts





Environmental Considerations

Natural Environment

Key Natural Environment Considerations

Wetland impacts

Stream impacts

Impacts to habitat for state-listed plant species

Impacts to northern long-eared bat

Impacts to bog turtle



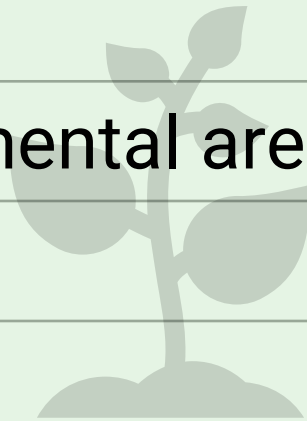
Environmental Considerations

Natural Environment

Additional Natural Environment Considerations

Floodplain impacts

Impacts to critical environmental areas





Environmental Considerations

Built Environment
<i>Key Built Considerations</i>
Property impacts Dead-end streets – community cohesion Environmental Justice neighborhood impacts
<i>Additional Built Considerations</i>
Community facility impacts Section 4(f) impacts Visual/aesthetic impacts Cemetery property impacts Impacts to NGPL Historic property impacts
Natural Environment
<i>Key Natural Environment Considerations</i>
Wetland impacts Stream impacts Impacts to habitat for state-listed plant species Impacts to northern long-eared bat Impacts to bog turtle
<i>Additional Natural Environment Considerations</i>
Floodplain impacts Impacts to critical environmental areas



Overview



**Engineering
Considerations**



**Environmental
Considerations**



Next | Examples of Process





Examples of Applying Rating Criteria

Engineering Considerations	Segment (i.e., Mainline, Center, East, West)				Rating Criteria		
	A	B	C	D			
<i>Key Considerations Congestion and Mobility</i>							
Peak hour AM travel time					decrease	same	increase
OR							
Peak hour AM travel time					> 25 min	10-25 min	< 10min

Conceptual



I-84 Concept Screening Process (Example)

Corridor Segment		Mainline				West			Center					East			
Concept # by Segment		Main 1	Main 2	Main 3	Main 4	West 1	West 2	West 3	Center 1	Center 2	Center 3	Center 4	Center 5	East 1	East 2	East 3	East 4
Screening Category	Fatal Flaw			✗			✗					✗		✗		✗	
	Engineering	↓	↓		↓	↓		↓	↓	↓		↓		↓	↓		↓
	Environmental																





I-84 Concept Screening Process (Example)

Corridor Segment		Mainline				West			Center					East			
Concept # by Segment		Main 1	Main 2	Main 3	Main 4	West 1	West 2	West 3	Center 1	Center 2	Center 3	Center 4	Center 5	East 1	East 2	East 3	East 4
Screening Category	Fatal Flaw																
	Engineering		✗						✗								✗
	Environmental	↓			↓	↓		↓		↓		↓		↓	↓		



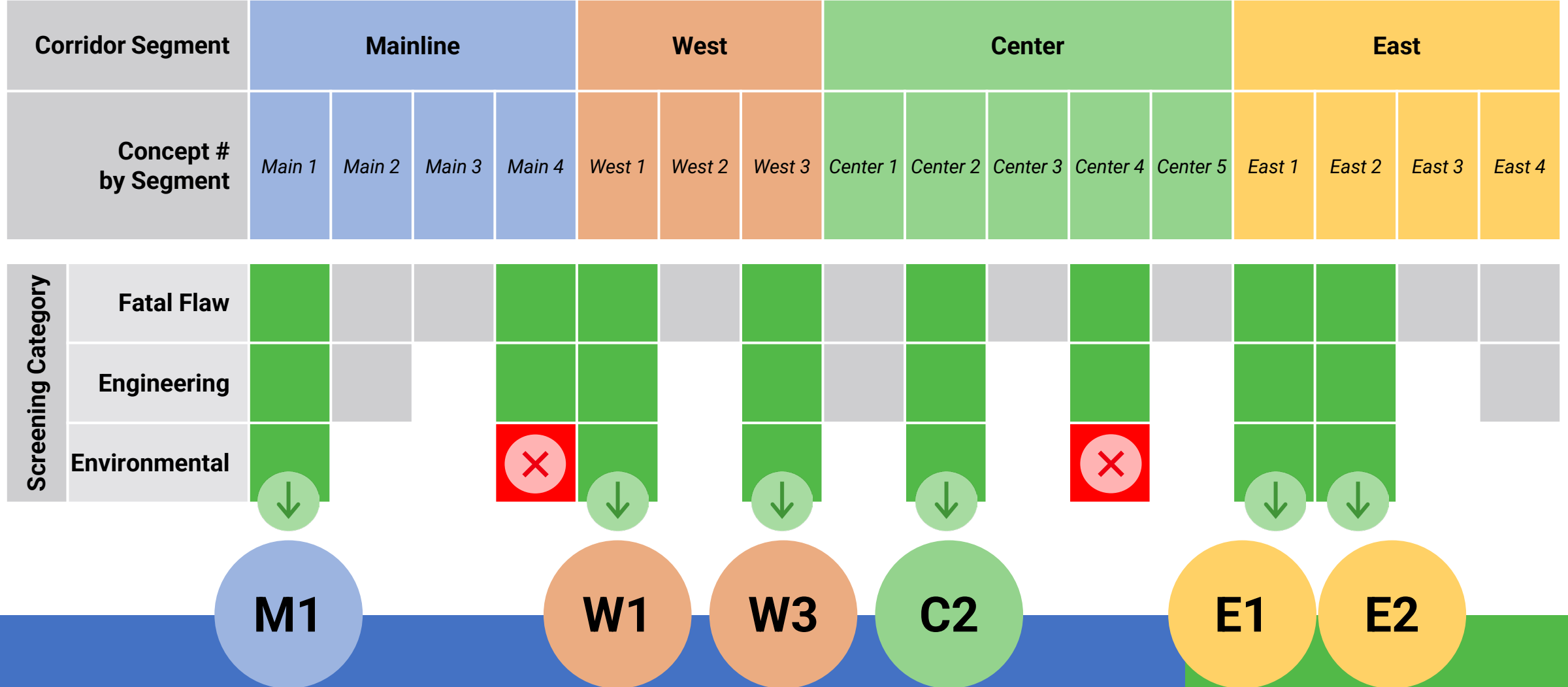
Discussion / Questions



Application of Screening Criteria



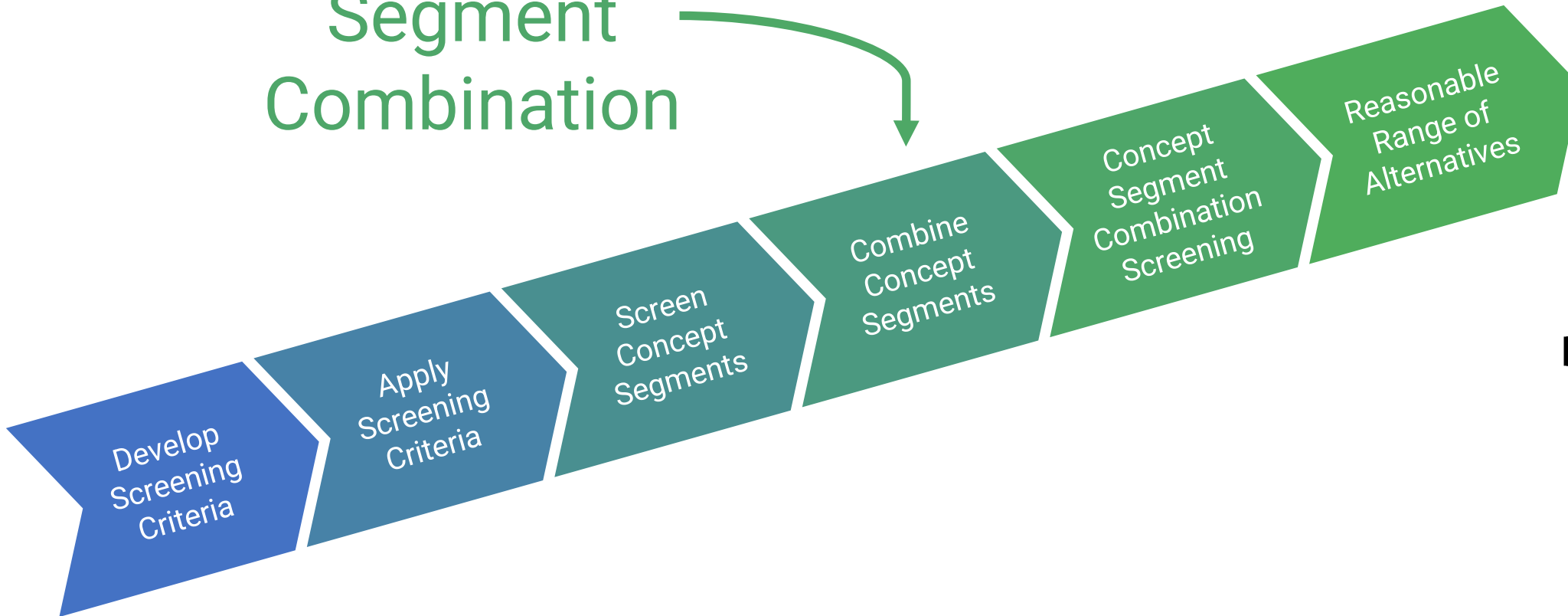
I-84 Concept Screening Process (Example)





Next Steps Concept Screening Process

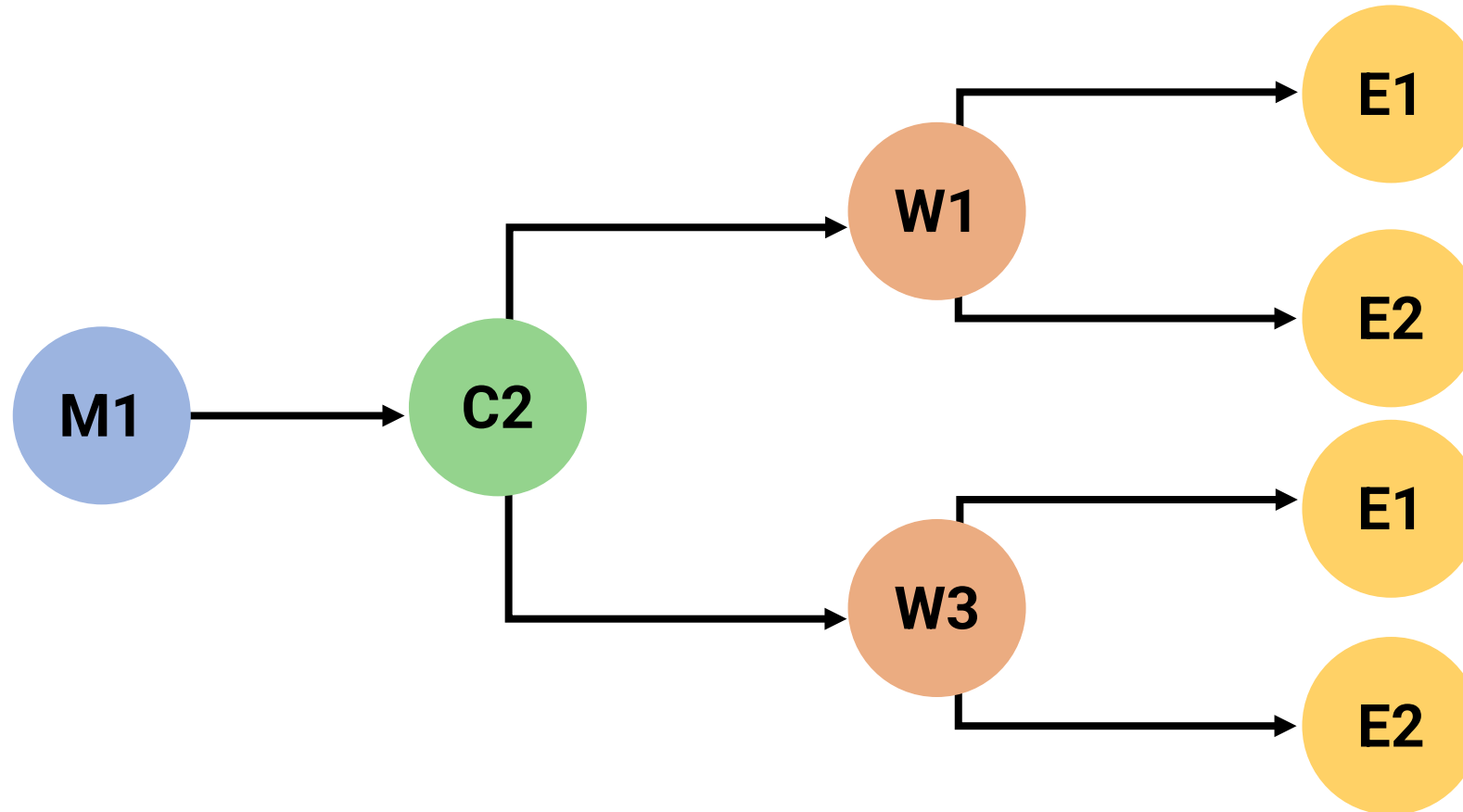
Segment
Combination



**Initial
Alternatives
for the
Detailed (NEPA)
Analysis**



Concept Feasibility in Segment Combinations



4 segment combinations are left to assess and compare against one another:

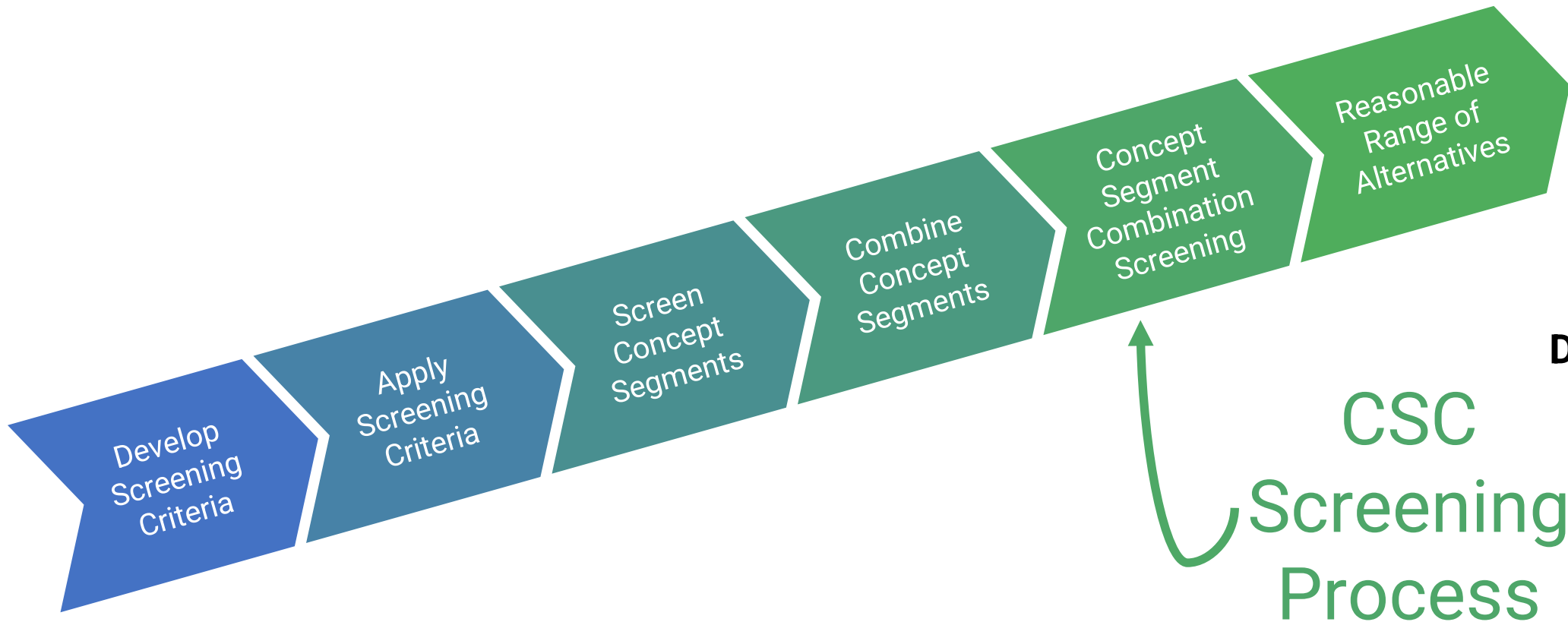
- M1, C2, W1, E1
- M1, C2, W1, E2
- M1, C2, W3, E1
- M1, C2, W3, E2



Concept Screening Process

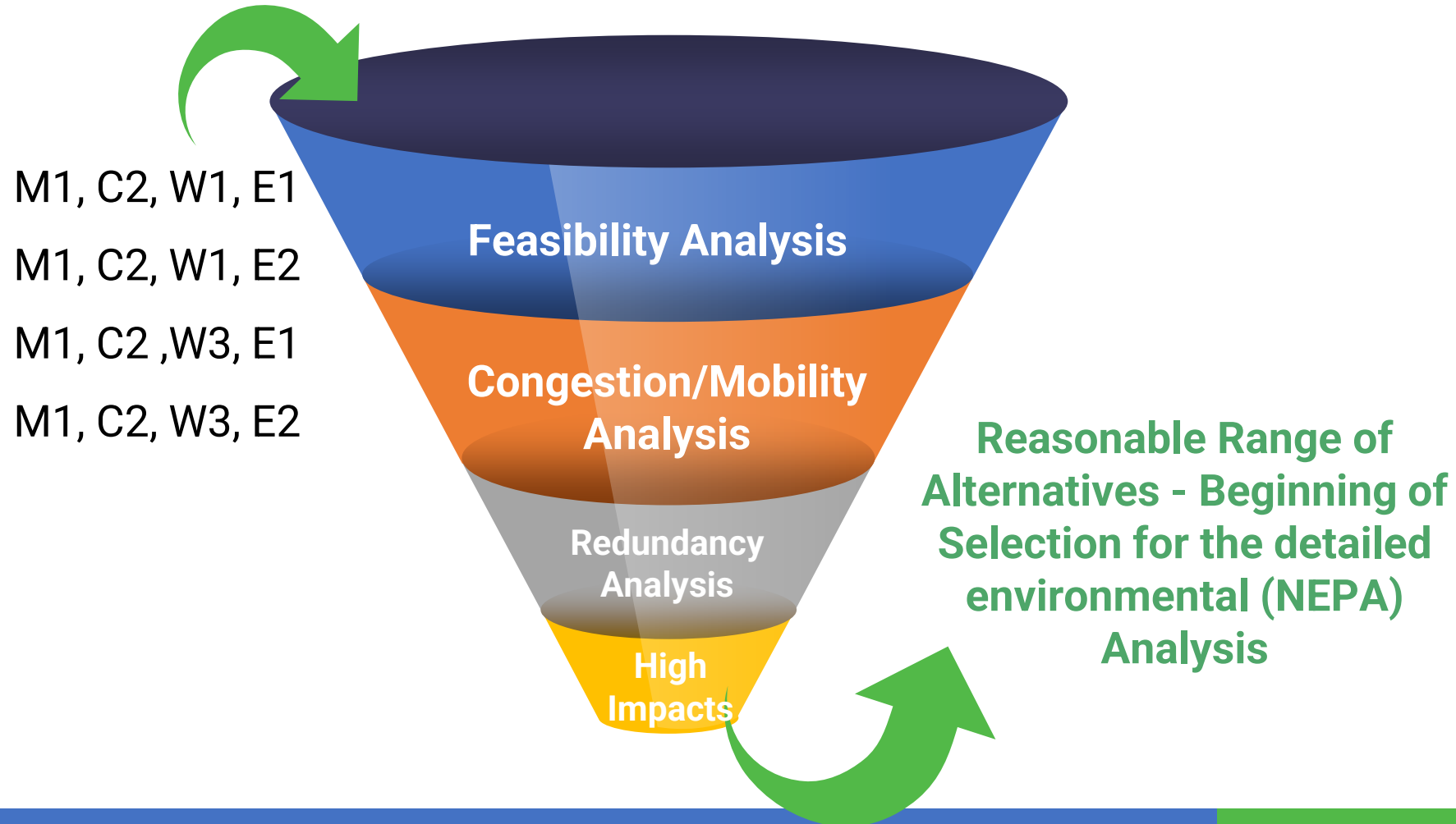


**Initial
Alternatives
for the
Detailed (NEPA)
Analysis**





Screening of Concept Combinations





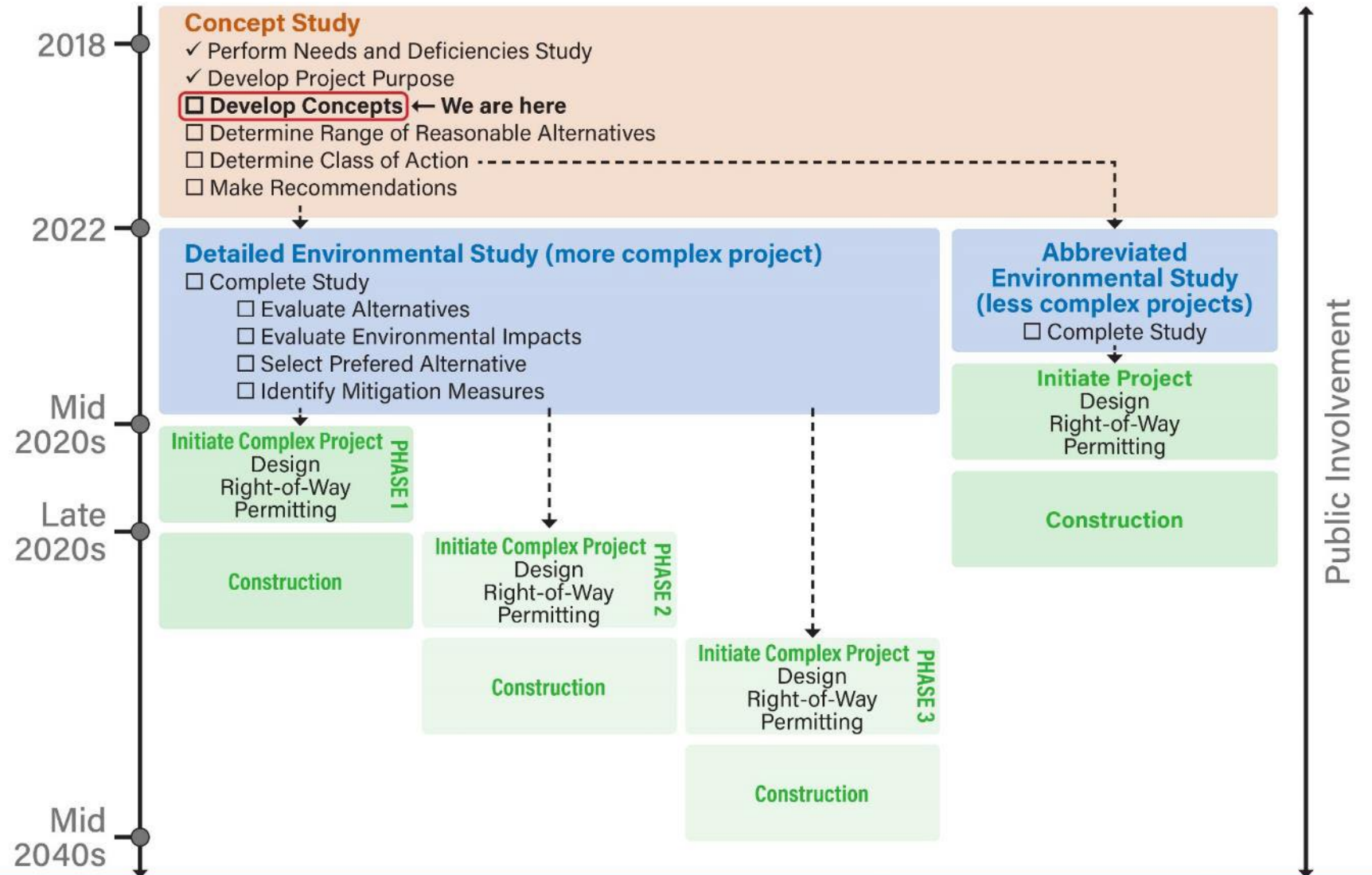
Discussion / Questions



Next Steps



Process and Timeline



Next Steps

- Complete concept development in the next month
- Finalize screening criteria
- Screen concept segments
- Begin combining concepts
- Develop a range of reasonable alternatives to move forward into the environmental study phase
- Next PAC Meeting – Fall 2022
 - Presentation of Concept Screening Results



Discussion / Questions



Project Contacts

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Krishalyn Macrohon, P.E.

Project Engineer, Consultant Design

Krishalyn.Macrohon@ct.gov



Thank you!