



Kentucky Statewide Corridor Plan

Statewide Transportation
Planning Meeting

October 21, 2020

Topics

- Project Overview
- Stakeholder/Public Involvement
- Study Network
- Tier 1 Screening
- Tier 2 Prioritization
- Next Steps

Project Team

- Stakeholder & Planning Partners

- KYTC
- MPOs
- ADDs

- Consulting Team

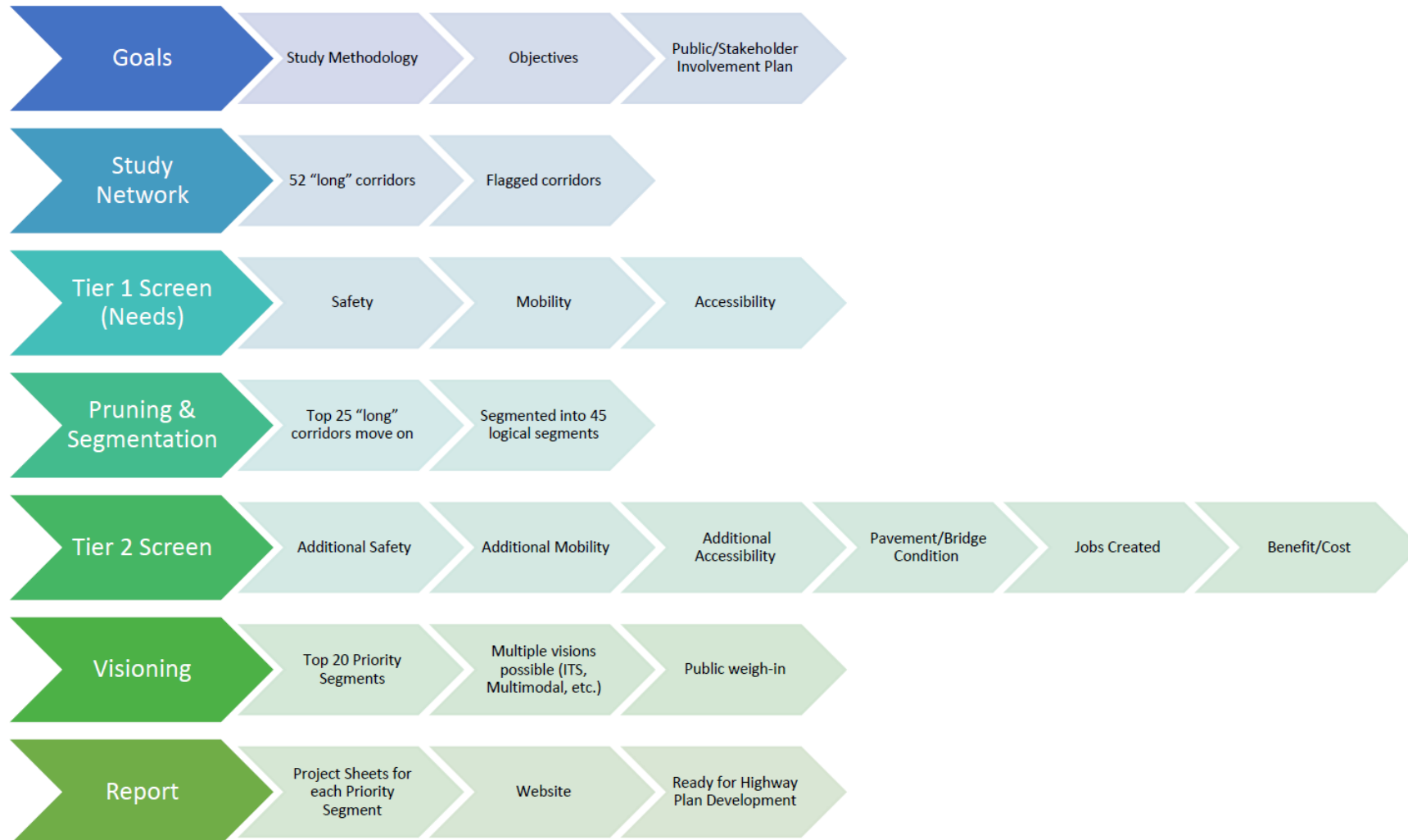
- Corradino (prime consultant)
- WSP
- C2
- Third Rock
- Integrated Engineering
- Corn Island



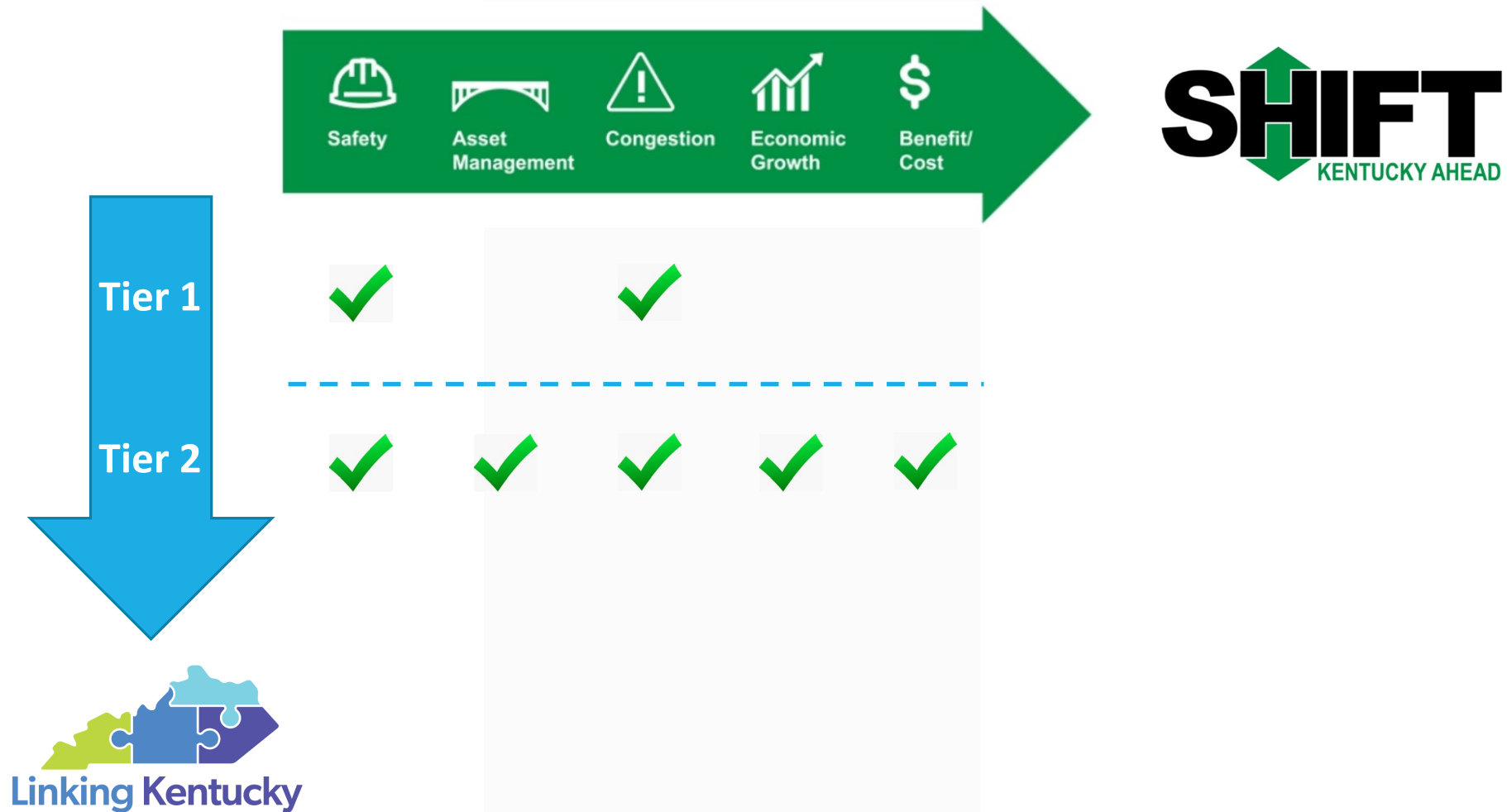
Project Goals

- **Goal #1** – To identify current and future statewide needs regarding corridor performance including mobility, accessibility, and safety;
- **Goal #2** – To prioritize statewide and regional corridors with the greatest potential to improve safety, reduce travel time, improve system reliability, improve system linkage, and promote economic development, while maintaining the current system;
- **Goal #3** – To develop practical visions for the most impactful corridors. These visions will identify intermediate (2030) and long-term (2045) transportation needs, possible improvement types that address the needs, logical construction sections, as appropriate, and improvement strategies for staged implementation (intermediate and long-term) based on expected corridor performance;
- **Goal #4** – To gather and utilize input from key stakeholders, planning partners, and the public;
- **Goal #5** – To present study goals, methods, and findings throughout the planning process in a straightforward manner.

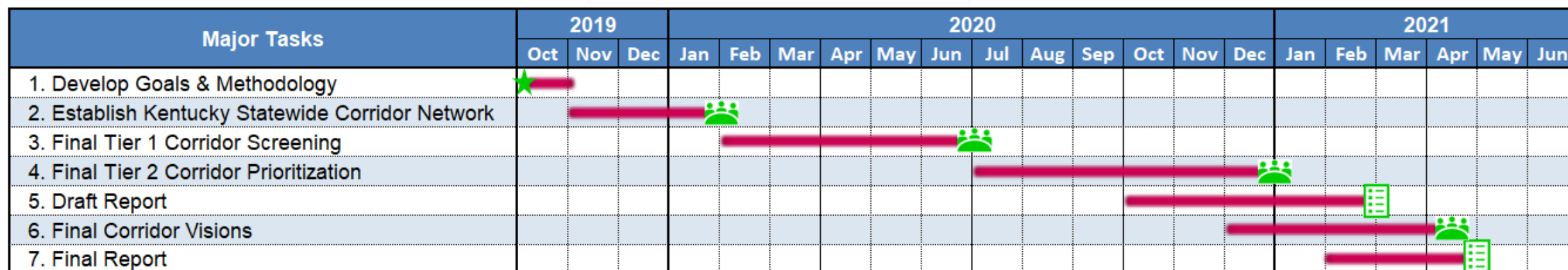
Project Methodology



Consistency with SHIFT



Project Schedule



LEGEND



Project Kick-off



KYTC Review Meeting

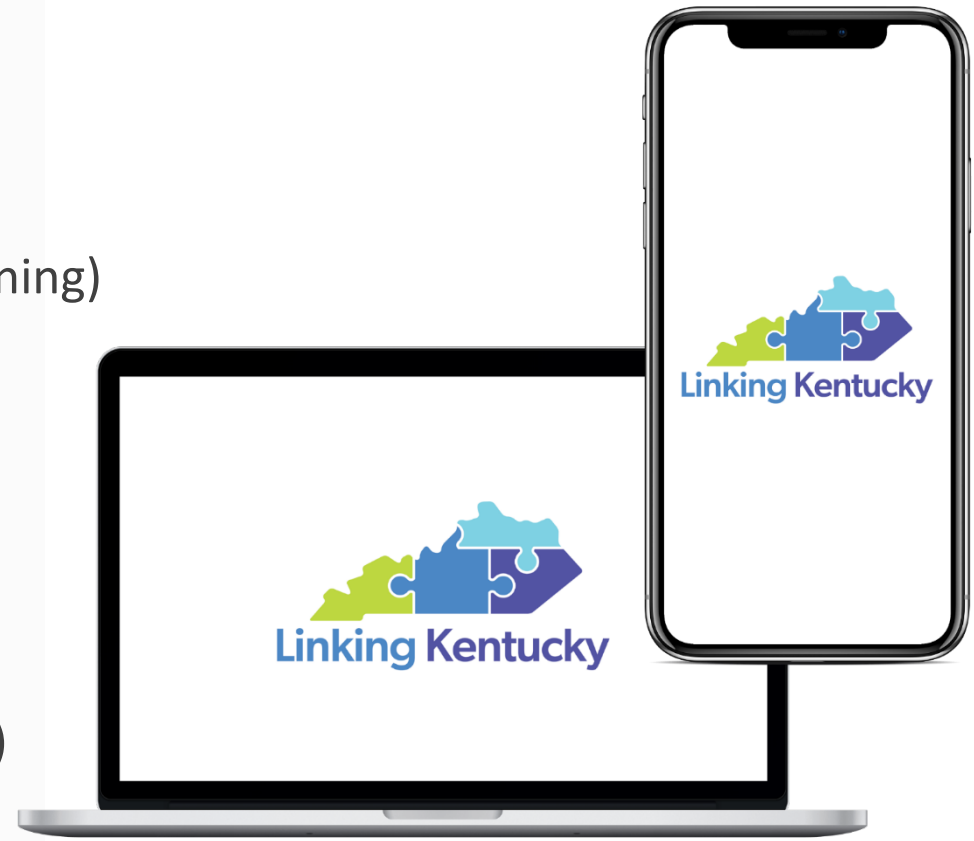


KYTC Submittal

Note: interim tasks and meetings are not shown in the chart.

Stakeholder/Public Involvement

- **Communication Plan** (approved by KYTC)
- **Target Audiences & Engagement**
 - **Project Team** (Study Network, Tier 1, Tier 2, Visioning)
 - **Planning Partners** (Study Network, Tier 1, Tier 2, Visioning)
 - **Key Stakeholders/Grasstops** (Tier 1, Tier 2, Visioning)
 - **Public** (Tier 2, Visioning)
- **Strategies & Tactics**
 - Develop Branding
 - Develop Key Stakeholder/Grasstops Database
 - Develop & Maintain Project Website (ready to publish)
 - Develop Social Media
 - Manage Proactive Media Relations



LinkingKentucky.com

Study Network

■ Statewide Corridor Network (52)

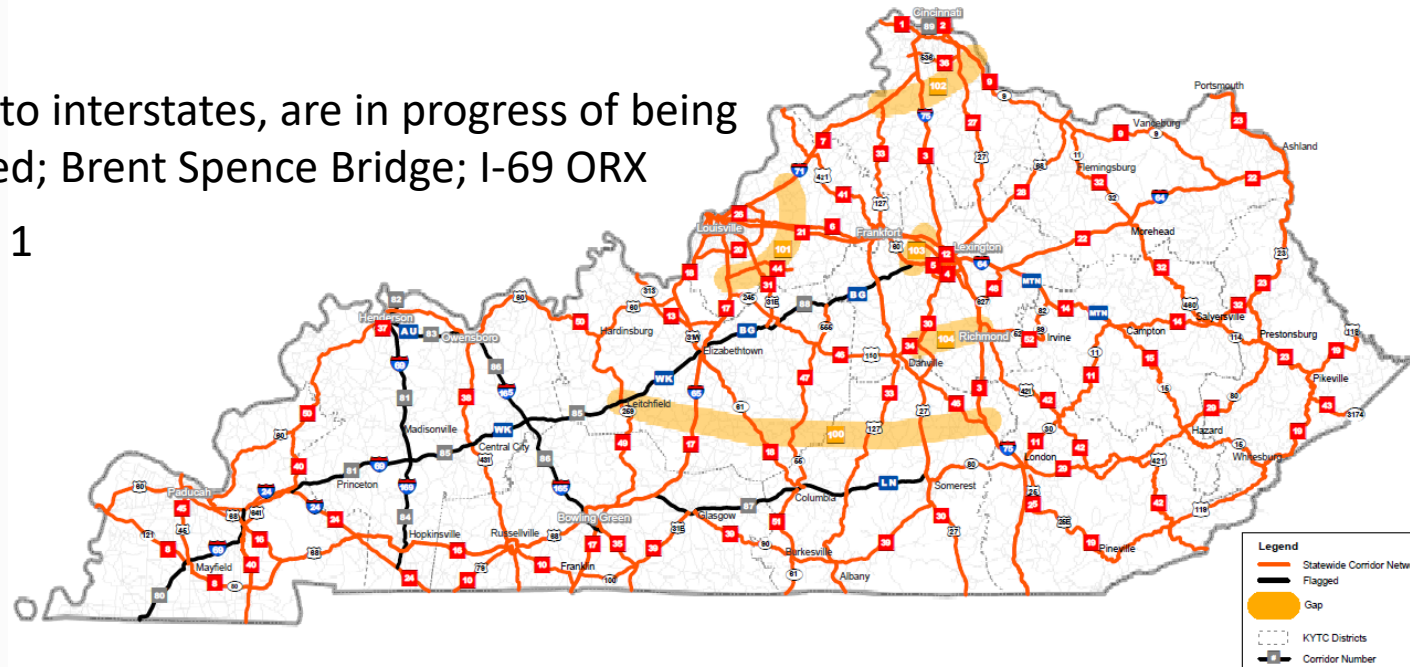
- Determined based on roadway attributes (e.g., NHS, traffic volumes, functional class, etc.) and feedback from Project Team & Planning Partners
- Tier 1 screening; Tier 2 prioritization; Visioning

■ Flagged Corridors (10)

- Parkways that have recently been upgraded to interstates, are in progress of being upgraded or are being studied to be upgraded; Brent Spence Bridge; I-69 ORX
- Acknowledged & summarized as part of Tier 1

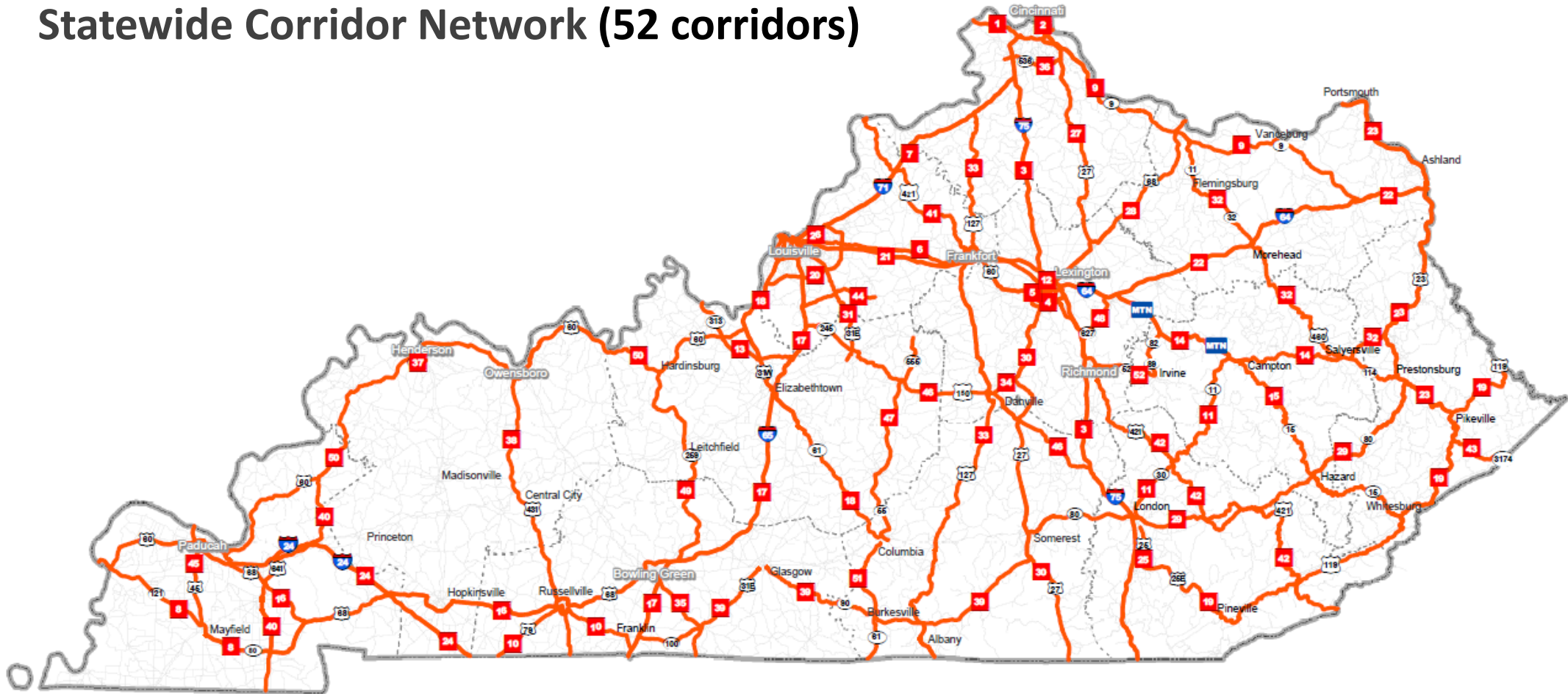
■ Gap Corridors (5)

- Identified based on careful review of comments from Project Team & Planning Partners and statewide/regional importance
- Analyzed separately as part of Tier 1



Tier 1 Screening

Statewide Corridor Network (52 corridors)



Tier 1 Rating System

- **Mobility**
 - Corridor congestion
 - Corridor's direct connection to modal hubs
- **Accessibility** (to special generators)
 - Market served by corridor
 - Corridor utilization
- **Safety** - % corridor VMT with safety issues based on Critical Rate Factor (CRF) and Excess Expected Crashes (EEC)

Scoring Factor Number	Tier 1 Corridor Performance Measures Description	Weighting Factor to Convert to 100-Point Scale	Max. Possible Weighted Score
#1	Mobility Index	6	30
#2	Accessibility Index	6	30
#3	Safety Index	8	40
Total		20	100

Mobility Index					
Existing VHT Delay (Year 2015) - X_1	<u>% of Score</u> 35%	Future VHT Delay (Year 2045) - X_2	<u>% of Score</u> 50%	Direct Connection to Modal Hub - X_3	<u>% of Score</u> 15%

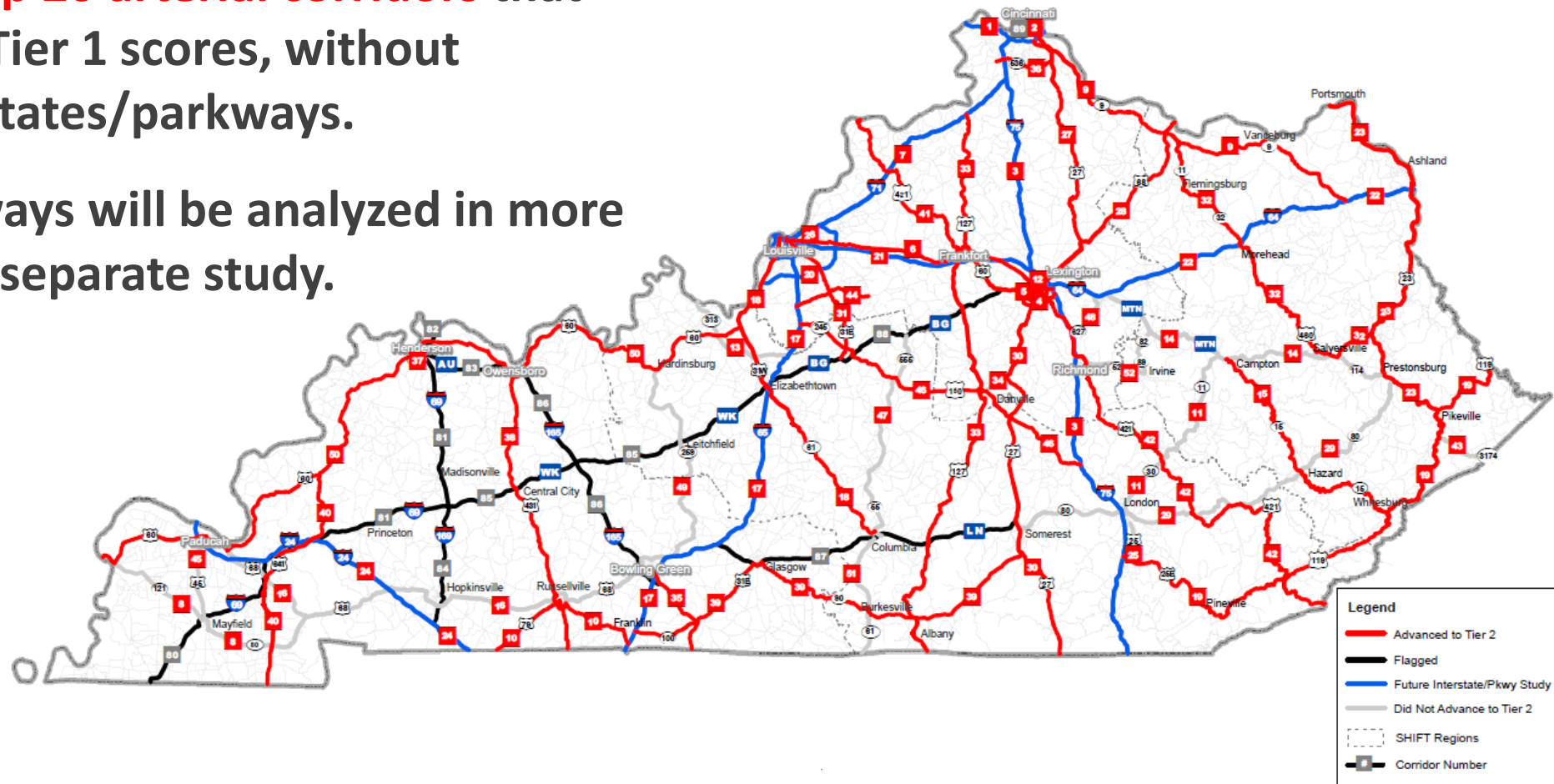
Accessibility Index			
Market Served by Corridor (Year 2015) - X_1	<u>% of Score</u> 35%	Vehicle Time (VHT) Spent on Corridor (Year 2015) - X_2	<u>% of Score</u> 65%

Safety Index			
% Corridor VMT with Safety Issue (CRF > 1) - X_1	<u>% of Score</u> 50%	% Corridor VMT with Safety Issue (EEC > 0) - X_2	<u>% of Score</u> 50%

Weighting factors were derived by an online survey with approximately 1,500 Project Team and key stakeholders.

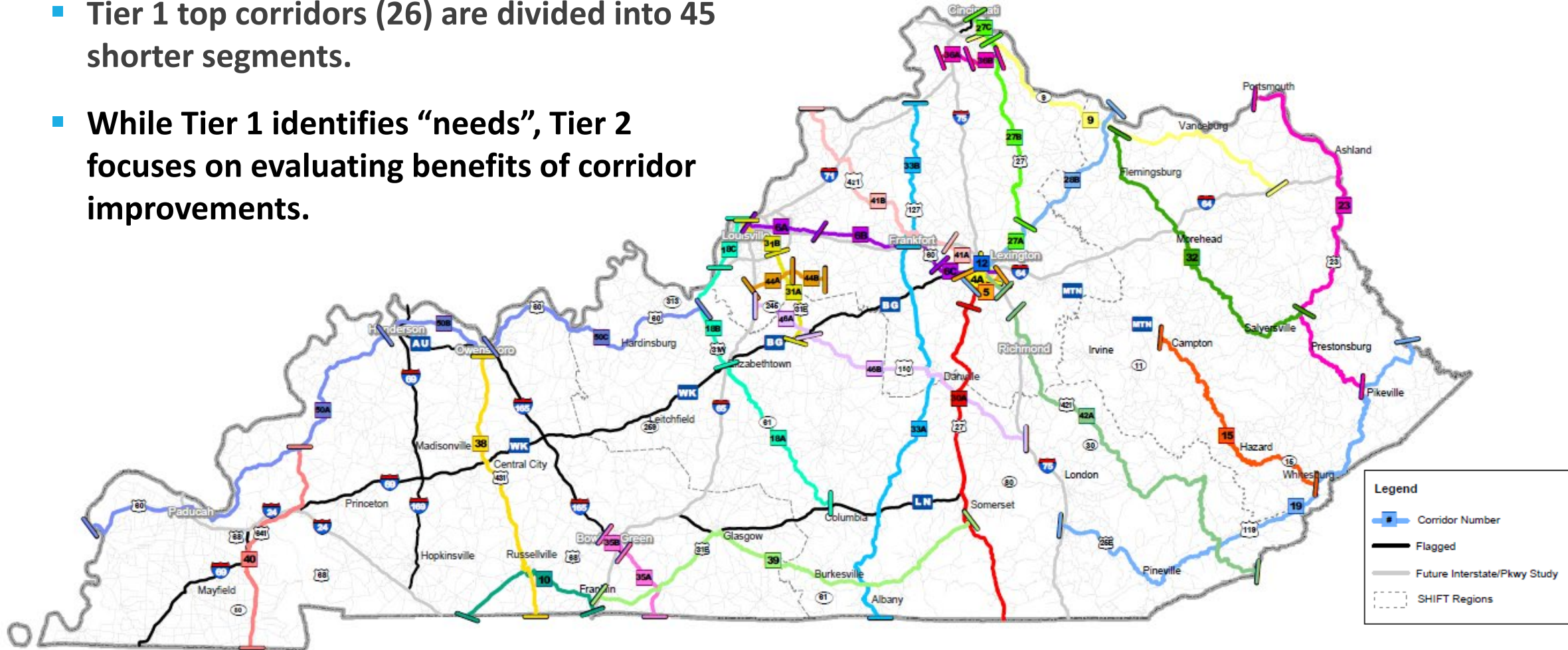
Tier 1 Top Corridors

- KYTC identified **top 26 arterial corridors** that have the highest Tier 1 scores, without considering interstates/parkways.
- Interstates/parkways will be analyzed in more detail in a future, separate study.



Tier 2 Prioritization

- **Tier 1 top corridors (26) are divided into 45 shorter segments.**
- **While Tier 1 identifies “needs”, Tier 2 focuses on evaluating benefits of corridor improvements.**



Tier 2 Rating System

- **Mobility**
 - Corridor & statewide congestion relief by improvements
 - Corridor truck flows
 - % unreliable VMT along corridor
- **Accessibility** (to special generators)
 - Long trips served by corridor
 - Travel time savings by improvements
- **Safety**
 - Fatal & incapacitating injuries per mile
 - % excess crashes along corridor
- **Infrastructure** – pavement & bridge conditions
- **Economic** – new jobs & GSP growth caused by improvements
- **Multi-Infrastructure** – opportunity to promote alternative infrastructure solutions (e.g., transit, bike, ped, ITS, CAV ...)

Weighting factors were derived by an online survey with approximately 1,500 Project Team and key stakeholders.

Scoring Factor Number	Tier 2 Corridor Performance Measures Description	Weighting Factor to Convert to 100-Point Scale	Max. Possible Weighted Score
#1	Mobility Index	4	20
	Reliability Bonus		+5
#2	Accessibility Index	4	20
#3	Safety Index	5	25
#4	Infrastructure Index	4	20
#5	Economic Index	3	15
#6	Multi-Infrastructure Bonus		+5
Total		20	110

Mobility Index					
Corridor Delay Reduction (2045) - X_1	% of Score 40%	Statewide Delay Reduction (2045) - X_2	% of Score 30%	Corridor Truck Volumes (2045) - X_3	% of Score 30%

Accessibility Index			
Long-Distance Trips Served by Corridor (2045) - X_1	% of Score 45%	% Corridor VHT Savings (2045) - X_2	% of Score 55%

Safety Index			
KABCO Severity Factor (KA Crashes per Mile) - X_1	% of Score 50%	% of Excess Crashes - X_2	% of Score 50%

Infrastructure Index			
Pavement Condition - X_1	% of Score 30%	Bridge Condition - X_2	% of Score 70%

Economic Index			
Cumulative # of Job-Years (2030-2045) - X_1	% of Score 55%	% Change of Value Added (2030-2045) - X_2	% of Score 45%

Tier 2 Rating System

■ Other Performance Indicators


- Project Delivery Timeline
- Economic Feasibility (Benefit/Cost ratio)
- Cost (design, ROW, utilities, construction)

Corridor performance indicators will be displayed side-by-side with corridor scores to support the selection of final top 20 corridors towards visioning.

Tier 2 Corridor Scoping

- **Planning-level Assessment of Existing Conditions**
 - Key characteristic & attributes
 - Traffic & safety concerns
 - Bridge & pavement conditions
 - Preliminary Red Flag analysis
 - ROW
- **Practical Improvement Concepts**
- **Cost Estimation**
- **Data Preparation for Corridor Visioning**

Tier 2 Analysis



Work in
Progress



Next Steps

- **Draft Tier 2 Scoring** (by mid-November 2020)
- **Final Tier 2 Scoring & Top 20** (by Dec 2020)
- **Corridor Visioning** (by April 2021)
 - Comprehensive planning elements
 - Current & future conditions
 - Identify needs/issues for each corridor segments
 - Planning-level non-project specific strategies (intermediate 2030, long-term 2045)
 - Stakeholder/public inputs
 - GIS Online Tool
- **Final Report** (by April 2021)

Thank you !

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