



MINUTES

The October meeting of the Transportation Technical Committee was held on Thursday, October 14, 2021 at 1:30 p.m. at the Roanoke Valley-Alleghany Regional Commission, 313 Luck Avenue, SW, Roanoke, VA.

VOTING MEMBERS PRESENT

Maribel Fowler	County of Bedford
Jonathan McCoy	County of Botetourt
Megan Cronise	County of Roanoke
Will Crawford	County of Roanoke
Wayne Leftwich	City of Roanoke
Mark Jamison, <i>Vice Chair</i>	City of Roanoke
Crystal Williams	City of Salem
Charles E. Van Allman	City of Salem
Anita McMillan	Town of Vinton
Cody Sexton	Town of Vinton
Frank Maguire	Roanoke Valley Greenway Commission
Michael Gray	Virginia Dept. of Transportation - Salem District
Daniel Sonenklar (<i>via zoom</i>)	Virginia Dept. of Rail and Public Transportation

VOTING MEMBERS ABSENT

David Givens	County of Botetourt
Dan Brugh	County of Montgomery
Nathan Sanford	Unified Human Serv. Transp. System (RADAR)

NON-VOTING MEMBERS ABSENT

Kevin Jones	Federal Highway Administration
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Others Present: David Jackson, Cambridge Systematics.

RVARC Staff Present: Cristina Finch, Bryan Hill, Rachel Ruhlen, Jeremy Holmes (*via zoom*), Tim Pohland-Thomas (*via zoom*), Andrea Garland and Virginia Mullen.

1. WELCOME, CALL TO ORDER, ROLL CALL

Vice Chair Jamison called the meeting to order at 1:30 p.m. and asked Cristina Finch, Secretary to the TTC, to call the roll. Ms. Finch stated that a quorum was present.

Vice Chair Jamison reported that Mr. Dan Sonenklar, representing the Virginia Department of Rail and Public Transportation, requested to participate remotely in meetings of the Roanoke Valley Transportation Planning Organization (RVTPO) Transportation Technical Committee under the TPO's Policy for Electronic Meeting Participation, allowing for remote participation when a member's primary residence is more than sixty miles away, and a physical quorum is present. Mr. Sonenklar's request was made for the remainder of the fiscal year unless

otherwise noted. No objection was voiced. Vice Chair Jamison approved Mr. Sonenklar' s request via unanimous consent.

Vice Chair Jamison welcomed two new TTC members: Crystal Williams, representing the City of Salem and Jonathan McCoy, representing Botetourt County.

Vice Chair Jamison welcomed the newly hired Director of RIDE Solutions, Commission staff member Andrea Garland.

2. APPROVAL OF CONSENT AGENDA ITEMS

The following consent agenda items were distributed earlier:

- A. October 14, 2021 RVTPO Meeting Agenda
- B. September 9, 2021 TTC Minutes

Anita McMillan proposed a correction to the following sentence under item #6 B Update on FY23 and FY24 Transportation Alternatives Set-Aside Block Grant Program Application:

Staff have received notice that two projects were submitted for RVTPO: Williamson Road Pedestrian Improvement Project, City of Roanoke and Glade Creek Greenway Vinyard West, ~~Town of Vinton~~ Roanoke County.

Motion: by Wayne Leftwich to approve items (A) and (B) under the consent agenda, as amended; seconded by Megan Cronise.

TTC Action: Motion carried unanimously.

3. VICE CHAIR REMARKS

- Vice Chair Jamison reported that staff sent an email to current STBG project sponsors asking for project status updates. Any project sponsor also wishes to request additional funding for currently funded project phases in order to cover cost overruns will need to include that request with their project update, which is due to staff on Friday, November 5, 2021.
- Vice Chair Jamison reminded that TTC member scores on new STBG applications are due on Thursday, November 18, 2021.
- Vice Chair Jamison noted that the form to request that the RVTPO or RVARC submit a SMART SCALE application on behalf of a locality is due by Friday, November 12, 2021. Vice Chair Jamison inquired if staff could look into extending the deadline to consider strategies given the analysis of SMART SCALE Round 4 conducted by staff to which Ms. Finch replied staff would look into the schedule.

4. ACTION NEEDED: NOMINATING COMMITTEE REPORT

At the September 9, 2021 TTC meeting, Chair Tripp appointed a Nominating Committee (Megan Cronise, Roanoke County and Michael Gray, VDOT) tasked with preparing a slate of

nominees for the TTC office of Chair to fulfill the two-year term vacated by Chair Tripp which will end after the conclusion of the July 14, 2022 TTC meeting.

The Nominating Committee recommended that Vice Chair Jamison be elected as the new Transportation Technical Committee (TTC) Chair.

The floor was opened for additional nominations for Chair. None were voiced.

Motion: by Megan Cronise to elect Mark Jamison as Chair of the TTC for a term ending at the conclusion of the July 14, 2022 TTC meeting; seconded by Michael Gray.

TTC Action: Motion carried unanimously.

Chair Jamison informed the TTC members that now there is a vacancy in the Vice Chair position. "According to Section 6 of the TTC Bylaws "A vacancy in the office of Chair or Vice Chair shall be filled for the unexpired term at an election during the next TTC meeting following occurrence of the vacancy, except that no such action shall be taken unless placed on the agenda mailed or electronically communicated to all members". Chair Jamison appointed Megan Cronise and Michael Gray to propose a nominee(s) to fill the remainder of his two-year term as a Vice Chair ending in July, 2022. If any member is interested in serving, they should let the nominating committee know. The election of the new Vice Chair will be held at the next meeting.

5. **CONTINUED DEVELOPMENT OF THE UPDATE TO THE RONOAKE VALLEY TRANSPORTATION PLAN: NEEDS PRIORITIZATION AND DRAFT OBJECTIVES/PERFORMANCE MEASURES**

David Jackson from Cambridge Systematics presented on needs prioritization and draft objectives/performance measures (The PowerPoint presentation is included with the Minutes. Please note- first copy of the presentation is the one that was presented at the meeting and second copy is the one with the corrected weight numbers.) TTC members were asked to discuss the feedback received to date on the Needs Prioritization methodology and discuss how to use the results of Needs Prioritization to start the next steps of Plan development-identification and review of potential solutions.

Discussion ensued. Michael Gray expressed concern about the Environmental Justice (EJ) weighting being 20% and is applied to every need type while in the OIPI VTrans needs prioritization EJ was only considered on two or three types and maxed out at 6.5%. He also noted that safety weighting is high on safety needs but that is ok. Mr. Jackson replied that it would be easy to adjust weightings.

Cody Sexton pointed out that the vehicle safety adds up to 110 (not 100). Mr. Sexton also asked if the weighting reflects values and if so, whose values do they reflect or whose values should they reflect. Mr. Jackson replied that criteria have been developed over time. UDAs are relatively recent, developed by local governments based on where they think or want development to occur. Multimodal centers and districts were developed by localities and adopted by the TPO, and they have tried to incorporate these values into the criteria.

Cody Sexton asked if there is a reliability metric. The answer was no, not explicitly. Information on reliability across the region is mixed- there is a lot of information on highest traveled corridors but not on lower end corridors.

Charles Van Allman asked about value engineering noting that the need could indicate high priority, but value engineering could show it is not feasible. Mr. Jackson answered that needs prioritization is independent of solutions. The GAP team process being developed will derive solutions for needs and may consider value engineering at that point. The first most obvious solution may be the costly.

Michael Gray asked what to do with needs that are not aligned with VTrans needs and there is no overlap but there is a higher priority and what if we do not pay attention to a fundable need because we are focused on an unfundable need. Mr. Jackson replied that VTrans needs are inclusive for the region but constrained to higher traveled corridors. Needs that fall below VTrans threshold means projects fall below SMART SCALE threshold and create an opportunity to look at smaller projects that go through other funding programs. VTrans process is continuous and will evolve over time. Region's needs are deeper, more localized than VTrans needs.

TTC members participated in the survey about draft objectives. There was no overwhelming opposition or disagreement to any one draft objective. There were several that were neutral or had some disagreement. Eighteen objectives across seven goals may be too many. The first draft is more inclusive, some may be cut. TTC will review the summary of their input and make a recommendation at their November meeting. Comments should be addressed to Cristina.

Wayne Leftwich suggested using "eliminate fatalities and reduce injuries" instead of "reduce injuries and fatalities." Mr. McGuire agreed.

6. **OTHER BUSINESS**

No other business was discussed.

7. **COMMENTS BY MEMBERS AND / OR CITIZENS**

Bryan Hill thanked TTC members for responses received regarding the RVARC's new COVID-19 Operations Standards Policy for public meetings.

9. **Adjournment**

The meeting was adjourned at 3:04 p.m.


Cristina D. Finch, AICP, LEED AP, Secretary,
Transportation Technical Committee

Roanoke Valley Transportation Plan Update

Priority Needs – Next Steps

presented to
Transportation Technical Committee

presented by
Cambridge Systematics, Inc.



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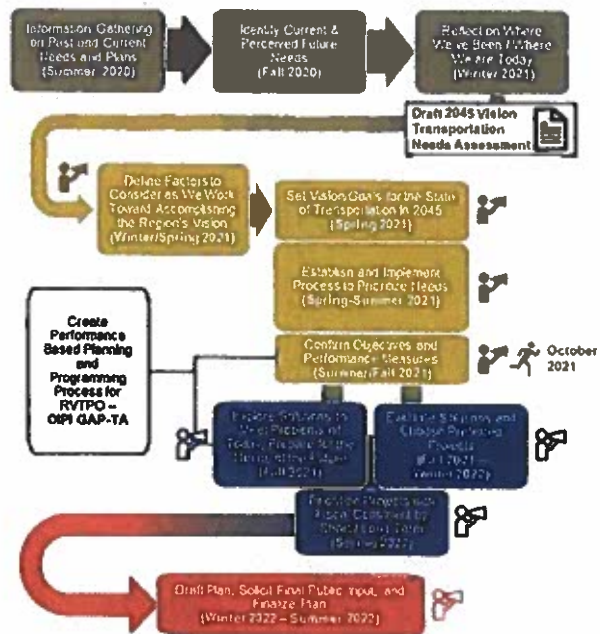


Priority Needs

Purpose – Use readily available data representing Plan goal areas to assess the importance of each need

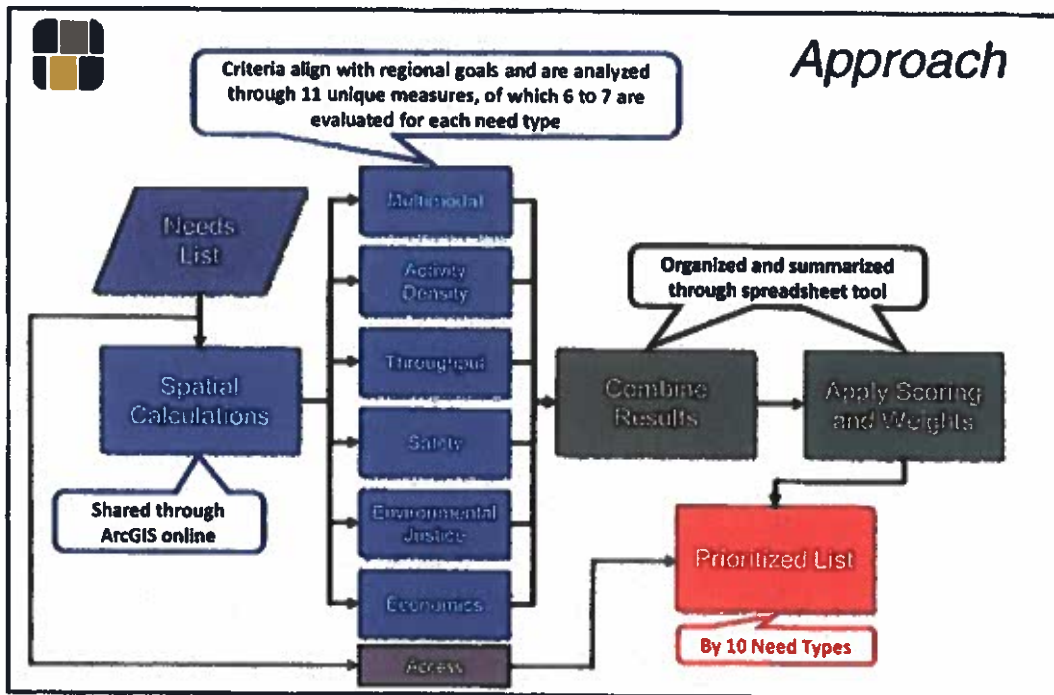
Outcome – Priority list of needs, by need type, that RVTPO and the TTC can review to decide where to focus attention on solutions for possible inclusion in the Roanoke Valley Transportation Plan

This approach is a tool to inform decisions by regional planning partners on the next steps of the planning process, helping ensure that the Plan addresses the region's most critical needs while helping to meet goals



2

1



3

Criteria and Measures
Quantitative Process

Theme	Description
Data and Plan Focused	
Multimodal	Overlap with designated multimodal centers and/or districts
Activity Density	Overlap with current (2019) and future (2045) combined population and employment density within the need area by Traffic Analysis Zone (TAZ)
Throughput	Overlap with the change in need area vehicle miles traveled (2019 to 2045) and overlap with Identified priority corridors from Congestion Management Process
Safety	Overlap with potential for safety improvement (PSI) locations identified in Roanoke Valley Regional Transportation Safety Study and priority non-motorized safety needs from the VDOT pedestrian safety action plan (PSAP)
Environmental Justice	Overlap with regional equity emphasis areas as identified by VTrans
Economics	Overlap with future development priority location as identified through the recent Transportation and Economic Development study and/or with designated Urban Development Areas (or growth areas)

4



Access Needs Qualitative Criteria

Mode	What is here?	How many people are affected, what is the severity of lack of access, or environmental justice?
All modes	Government services	<ul style="list-style-type: none"> Severity – many government services are essential and available in only one place (i.e. a courthouse), lack of access is high severity
All modes	Essential services	<ul style="list-style-type: none"> Severity – necessary but may be available in multiple locations (i.e. a grocery store or health clinic), lack of access is moderate severity
All modes	Retail, services	<ul style="list-style-type: none"> Severity – may not be necessary and may be available in multiple locations, lack of access is low severity <ul style="list-style-type: none"> Number of people Environmental Justice (low wage jobs)
Transit	Bus service	<ul style="list-style-type: none"> Severity – No existing bus service is high severity, existing bus service without sidewalks is moderate severity, existing bus service without other amenities is low severity
Motor vehicle	Average Annual Daily Traffic	<ul style="list-style-type: none"> Number of people

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Weighting

Criteria & Measures	Multimodal		Activity Density		Throughput		Safety		Environmental Justice	Economics	
	Centers	District	2019	2024	Points Corridor	VMT Change	Transit Needs (PS)	PSAP	Equity Emphasis Areas	Development Priority Locations	Urban Development Areas
Vehicle Safety			5	5		20	50		20	5	5
Pedestrian Safety	5	5		10				50	20	5	5
Bicycle Safety	5	5		10				50	20	5	5
Transit Safety	5	5		10				50	20	5	5
Congestion			15	15		15			25	15	15
System Management			12.5	12.5	12.5	12.5			25	12.5	12.5
System Management (Transit)	10	10		20		20			20	10	10
Access Criteria	Population Affected				Severity		Environmental Justice				
Transit and Non-Transit	Points Available		5				5			2	

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Summary Results

- Online Map (ArcGIS Online)
- Summary Table (Excel)

The screenshot displays the ArcGIS Online interface. On the left, a data table is visible with columns for 'Sheet Number' and 'Subclassification'. The main map area shows a network of blue lines representing transportation needs. A 'Properties' window is open over the map, showing details for a selected feature.

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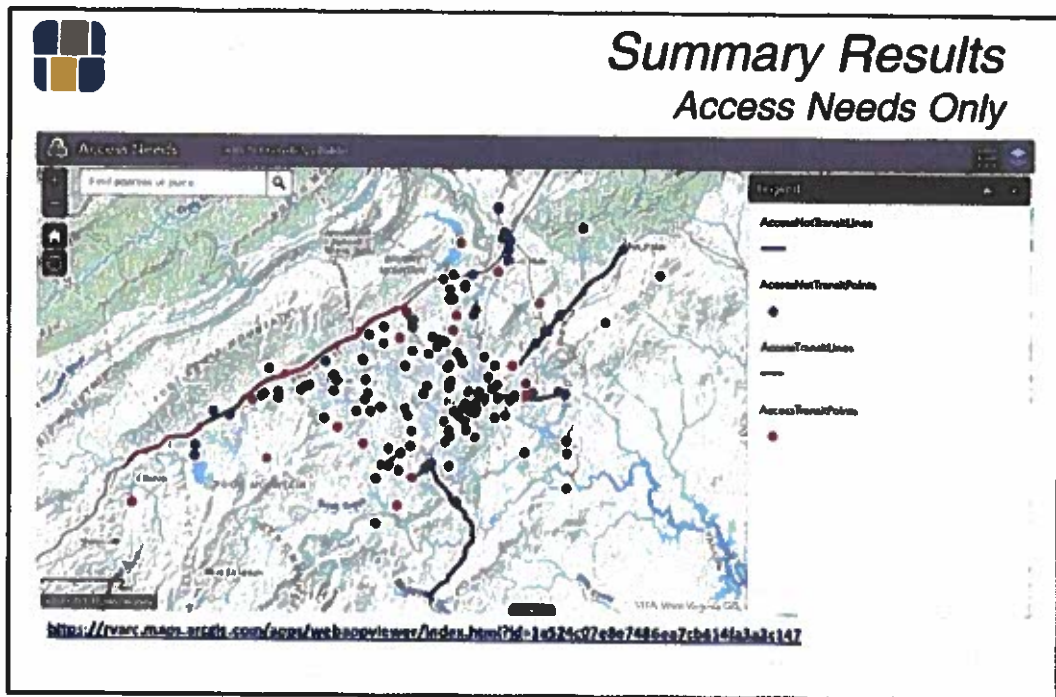
Summary Results

The screenshot shows a map of a transportation network with a legend for 'Automobile Safety Needs'. The legend includes four categories with corresponding color swatches:

- Automobile Safety Score:
 - ≥ 100,000,000 (Dark Blue)
 - ≥ 75,000,000 (Medium Blue)
 - ≥ 50,000,000 (Light Blue)
 - ≥ 25,000,000 (Very Light Blue)

At the bottom of the map, a URL is provided: <https://arcgis.com/apps/maestro/index.html?webmap=c089807444144e0b641308474103b>

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Questions to Consider

As you review the approach and the results, consider the following:

- Are there any criteria and/or measures that we have missed (where data is readily available)?
- Do the measures for each need type and the weights make sense (e.g., do the highest weighted measures best identify the most critical aspects of the need type)?
- For each need type, do the results make sense? Do the needs in the top tier generally align with your perspective/opinion for the region or your jurisdiction?
- Do the results appear unbalanced or biased based on geography, development type, or corridor type?

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Comments

Related to projects...

- "how the prioritization criteria works with current or proposed projects" "It is hard to comment on percentages of certain factors when we don't know how they'll shake out with actual projects."
- "Can an evaluation be provided that looks at the results of the needs prioritization process in relation to projects that the members have sought funding for over the past couple rounds of SMART SCALE and TA?"
- "At a high level, the criteria seem to be appropriate and are generally aligned with the criteria through which Smart Scale applications are scored."

The needs prioritization process does not consider active or programmed projects (e.g., projects in the current SYIP)

Needs are evaluated based on the importance/severity of the need independent of an existing solution

Existing projects will be considered during the review of solutions for priority needs – if a priority need has projects programmed to address, then we retain it as a priority need, but leave the solution as is

Unfunded projects can become solutions to priority needs, assuming that the project scope is the right solution to address the need

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Comments

Related to needs and future project development...

"Since these priority needs will help drive the RVTPO's planning process in the future, I would like to better understand them and how the prioritization process was developed"

"Do these priorities include the state priority needs identified through VTrans? If so, how can a user determine this?"

Priority needs, particularly those not evaluated through recent planning studies or project development activities, could represent the focus of planning efforts, in coordination with VDOT, ValleyMetro, etc...

Potential solutions, including those developed within the Plan Update and those identified for future study will require partnerships

The VTrans mid-term needs and priority needs were developed through a different process and methodology. Overlaps typically occur on major corridors and near activity centers.

This process is establishing a regional project pipeline focused on regional and local needs. Having both a statewide driven process and a regional process enables RVTPO to be more comprehensive in leveraging resources for planning and project development.

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E



Comments

Methodology and weighting...

"I'm not sure how the weighting was determined. Safety and environmental justice seem to be weighted very heavily. How do these compare to the Smart Scale weighting for this area?"

"The results seem to make better sense in some areas than in others. Generally, the geographic spread seems reasonable when I look at the overall list of needs but within specific need types, there seems to be a little less geographic spread. That may be partially reflective of where certain infrastructure exists?"

"Some of the descriptions of needs are too vague to be of much use. For example, all major Vinton corridors in Safety Auto, I-81 from MM 128-136 in Safety Auto, Downtown Salem in Safety Ped, and Downtown Roanoke in Safety Bike."

For SS Round 4: safety is 20 to 30%, EJ is within the accessibility factor, at most 12.5% (but, difference is needs compared to projects)

Once you drop down to individual needs, the geographic spread does reduce based on survey response (which is connected to where infrastructure exists – focus is on existing needs, not future needs)

Right on needs specificity – in these cases, once we proceed into solutions, we will need to more carefully review the need and better define it

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Priority Needs – Recommendation

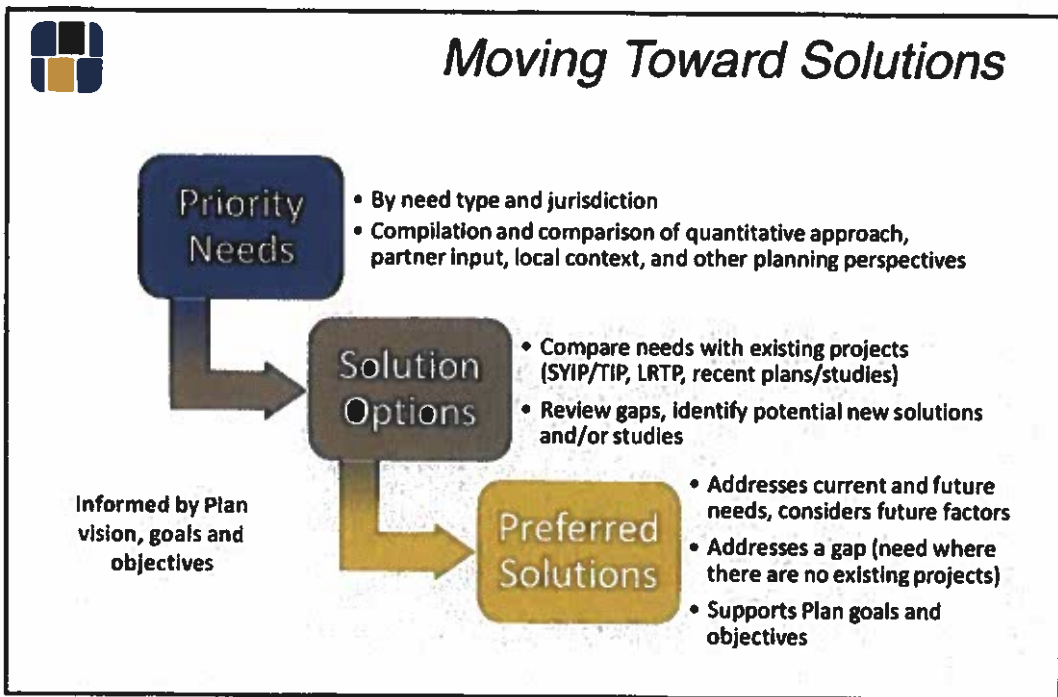
- **TTC confirmation of the purpose for establishing priority needs and acceptance of the priority needs methodology**
 - Recognizes role of priority needs within the Plan development process
 - Accepts the methodology (similar to VTrans approach – adopt the methodology, not the actual results)
 - Acknowledges that the results of the methodology are a planning tool guiding the next step of the planning process (developing solutions)

Prioritizing needs is different than prioritizing projects

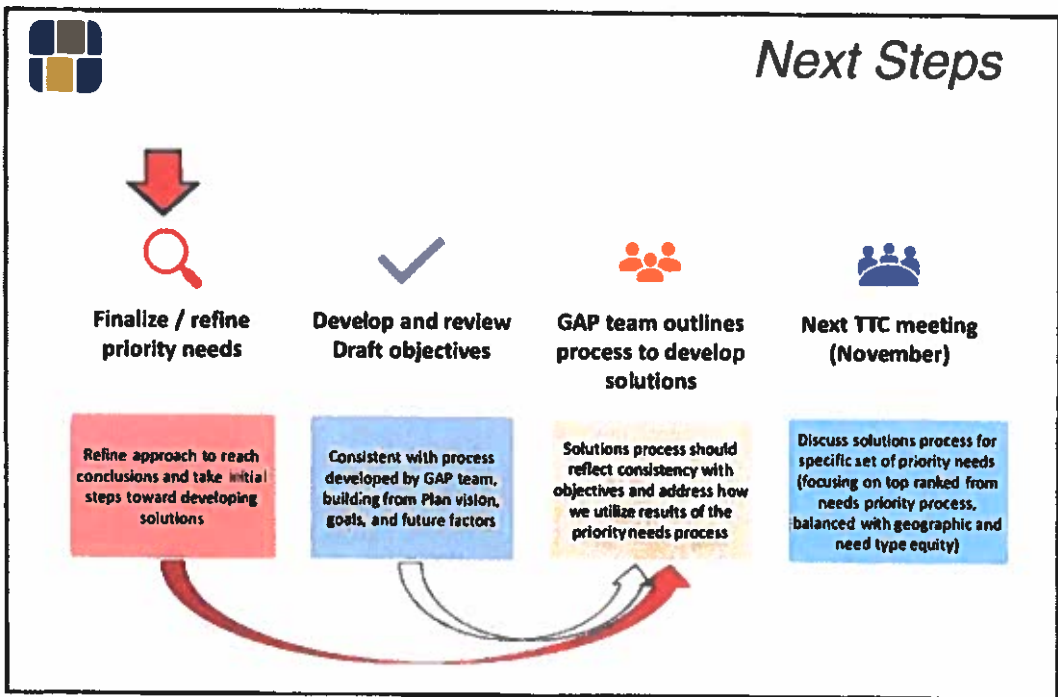
Less important – ranking or score

More important – context, relationships, scope

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Roanoke Valley Transportation Plan Update

Plan Goals, Objectives, and Measures

presented to
Transportation Technical Committee

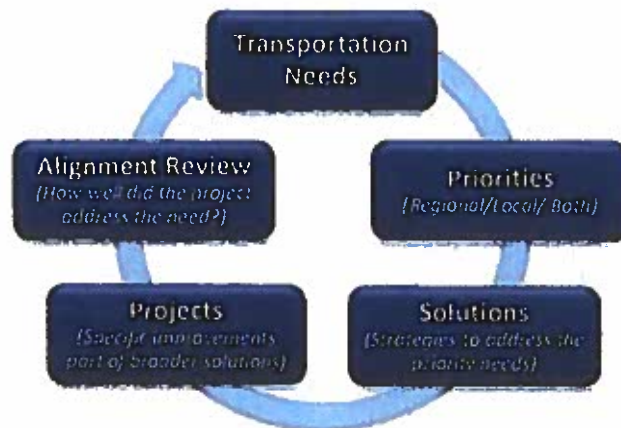
presented by
Cambridge Systematics, Inc.



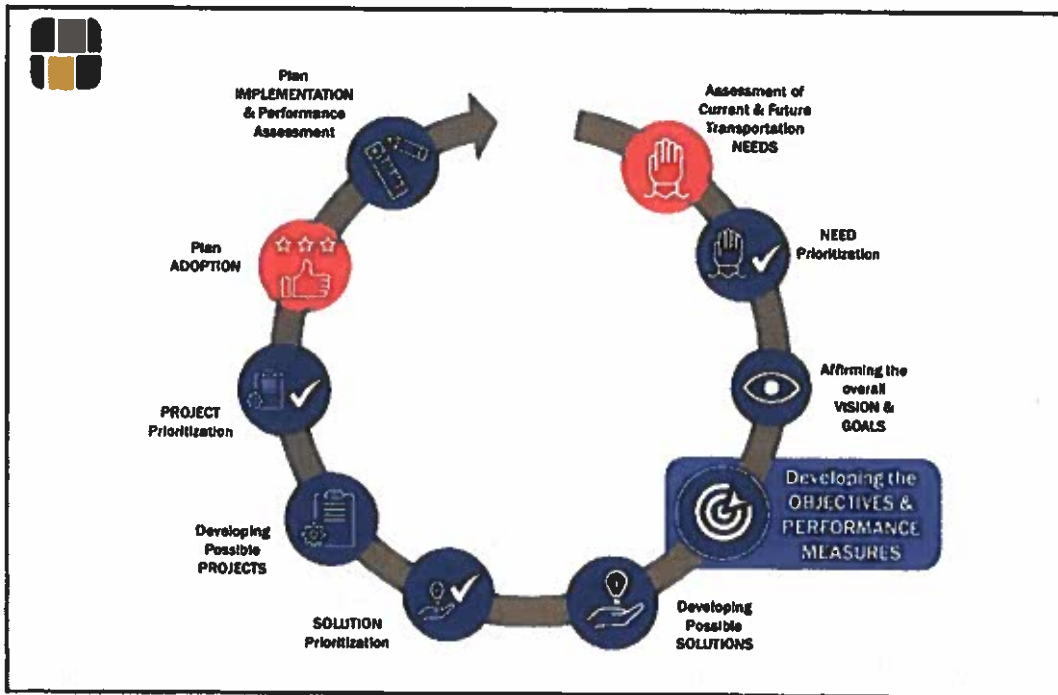
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Plan Process









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Definitions

-  **Vision** describes the desired future state
-  **Goals** describe what guides us toward attaining the vision and our overall desired outcomes
-  **Objectives** describe how we are going to attain the vision, objectives represent our specific desired outcomes
-  **Solutions** offer various ideas of how to address a need and achieve the goals and objectives
-  **Projects/Services** represent the preferred means to address a need and achieve objectives
-  **Measures** quantify objectives, enabling us to assess the degree to which the system is achieving objectives

Note – performance measure are different from prioritization criteria (but they are related)

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Vision

The Roanoke Valley's seamless regional multimodal transportation system is safe, cost-effective, environmentally conscious, well maintained and reliable, accessible for all users, and promotes economic vitality of the community.










Vision describes the desired future state

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Goals

-  **Provide a safe and secure transportation system**
-  **Enable reliable mobility**
-  **Enable convenient and affordable access to destinations**
-  **Foster environmental sustainability**
-  **Maintain and operate an efficient and resilient transportation system**
-  **Support economic vitality**
-  **Promote equitable transportation investments**



Goals describe what guides us toward attaining the vision and our overall desired outcomes

Goals are action oriented

Goals create the platform for objectives

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1:



Objectives Approach

Developing Objectives – FHWA Guidance

- Objectives should **support local goals**, but also be informed by federal and state programs.
- Objectives must be **measurable and flexible** with multiple possible ways to accomplish the objective.
- Objectives should be as **specific** as possible, and if possible, **attainable** within a working timeframe.
- Objectives are accomplished through **strategies/solutions** (general plans of action) and appropriate **projects/services** (how the solution will be executed) for the preferred solution.
- Solutions **should not be** included in the objective as there might be more than one possible solution to address the objective.



- Link priority needs to goals, which helps identify themes within each goal
- Translate themes into candidate objectives
- Compare candidate objectives to priority needs criteria
- Refine objectives through review of Virginia and Federal programs
- Finalize objectives, ensuring they meet the SMART framework

Note – the approach represents a summary of the GAP-TA Process for Developing Objectives and Performance Measures

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Objectives Approach

SMART Framework

Reduce fatalities and injuries on the region's multimodal transportation system

S (Specific)

S Types of crashes, regional focus, multimodal

M (Measurable)

M Annual crash data trends

A (Agreeable)

A Important at all geographic and policy scales



R (Relevant)

R Understood and proven

T (Time-Bound)



T Can be monitored over time

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Objectives

Goal	Objective	Reaction
Safe & secure	Reduce injuries and fatalities on the multimodal transportation system.	👍
	Maintain vehicle travel time reliability on priority corridors.	👍
Reliable mobility	Maintain transit and passenger rail on-time performance (OTP).	👍
	Provide motorized access to inaccessible properties identified for future development.	👎
Convenient and affordable access	Increase the number of destinations accessible by transit.	👍
	Increase transportation system connectivity between inter-regional travel modes.	👍
	Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	👍
Environmental sustainability	Manage growth in total vehicle travel per regional household.	👎
	Manage emissions from on-road transportation.	👎
	Minimize /mitigate new impervious surfaces.	👍
Efficient & resilient	Maintain state and national standards for infrastructure and asset condition.	👍
	Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	👎
Economic vitality	Maintain truck travel time reliability.	👎
	Maintain acceptable levels of congestion during peak travel periods on priority corridors.	👍
	Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects included in this Plan on minority and low-income communities.	👎
Equitable investments	Ensure at least 40% of new non-vehicle-based investments benefit minority and low-income communities.	👍
	Reduce traffic injuries and fatalities in minority and low-income communities.	👍
	Maintain state and national standards for infrastructure condition in minority and low-income communities.	👎

 Majority strongly agree or agree
  Some agreement, some neutral, few disagree

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Objectives

Provide a safe and secure transportation system

Draft Objective for Review	Considerations	Performance Measure Possibilities
Reduce injuries and fatalities on the multimodal transportation system	<ul style="list-style-type: none"> Consistent with FHWA required measures Can break out into fatalities, injuries, motorized/nonmotorized, and transit Data readily available Can segment by community to track safety impacts on specific populations (see Goal 7) Transit safety measures also include security related events (within the National Transit Database - NTD) 	Motorized, non-motorized, and transit safety performance measures and targets are specified through FHWA and FTA rulemakings (these apply at both the Statewide and MPO level).

8 Strongly agree
4 Agree
1 Neutral

General comments:

- Expand focus to note all crashes (do not isolate the objective only to fatalities and injuries)
- Choose stronger word than "reduce"

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Objectives

Enable reliable mobility

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Maintain vehicle travel time reliability on priority corridors.	<ul style="list-style-type: none"> Focus on Congestion Management Process priority corridors. Consistent with FHWA required measures. Can expand to more corridors than National Highway System (based on availability of data) 	Travel time reliability performance measures on the National Highway System (NHS) are specified through FHWA rulemakings. Other performance measures exist beyond FHWA, including those developed by VDOT and OPI for corridor level analysis and statewide planning (VTrans).
b. Maintain transit and passenger rail on-time performance (OTP).	<ul style="list-style-type: none"> Segmented by system – Amtrak, Valley Metro Data availability through Department of Rail and Public Transportation and National Transit Database (often at least 1 year behind) 	Amtrak on-time performance is reported on a monthly basis by DRPT and also is a Federally required measure through FRA. DRPT and FTA also report transit reliability by provider.

a. 5 Strongly agree
3 Agree
4 Neutral
1 Disagree

b. 7 Strongly agree
3 Agree
3 Neutral

General comments:

- Uncertain on "maintain", does this imply that current reliability is acceptable?
- Do we have data enabling us to decide if "maintain" is the right approach, maybe "enhance"?

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Objectives

Enable convenient and affordable access to destinations

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Provide motorized access to inaccessible properties identified for future development.	<ul style="list-style-type: none"> New developments should be accessible by more than one direction to enable multi-directional vehicle connectivity. 	Track number of localities with ordinances or policies that incentivize or require multiple accesses in new developments.
b. Increase the number of destinations accessible by transit.	<ul style="list-style-type: none"> Could include types of destinations Multiple accessibility measures to consider 	Track the number of destinations adjacent to bus stops and hours of day/days of week with transit service.
c. Increase transportation system connectivity between inter-regional travel modes.	<ul style="list-style-type: none"> Connections to Amtrak, Intercity bus terminals, and airport 	Track the number and frequency of regional connections offered.
d. Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	<ul style="list-style-type: none"> Transit, on and off-road bicycle and pedestrian connections within centers and districts 	Focus on measures that assess the system extent of available transit-walk connections, transit-bike connections, walk-bike connections.

a. 4 Strongly agree
2 Agree
1 Neutral
3 Disagree
1 Against

b. 7 Strongly agree
1 Agree
3 Disagree

c. 4 Strongly agree
5 Agree
1 Neutral
1 Against

d. 5 Strongly agree
4 Agree
1 Neutral
1 Disagree

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Objectives

Enable convenient and affordable access to destinations

Draft Objective for Review	Comments
a. Provide motorized access to inaccessible properties identified for future development.	<ul style="list-style-type: none"> Too specific of an objective? Does this encourage more access to facilitate greenfield development? Should we focus more broadly when we discuss access barriers?
b. Increase the number of destinations accessible by transit.	<ul style="list-style-type: none"> Reference access by multimodal options (transit, bike, ped, shared) Increase number of destination implies expanding service area? Are we ready for this commitment? Maybe instead reference level of service, rather than extent?
c. Increase transportation system connectivity between inter-regional travel modes.	<ul style="list-style-type: none"> Simplify the terminology - connectivity and inter-regional is too much jargon.
d. Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	<ul style="list-style-type: none"> Remove reference to "all", as readiness for expanded access in these places is variable.
General - no reference to greenways/regional trail system. What about incorporating access for all users (e.g., ADA, LEP, seniors, etc.)	
a. 4 Strongly agree 2 Agree 1 Neutral 3 Disagree 1 Against	b. 7 Strongly agree 1 Agree 3 Disagree
c. 4 Strongly agree 5 Agree 1 Neutral 1 Against	d. 5 Strongly agree 4 Agree 1 Neutral 1 Disagree

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Objectives

Foster environmental sustainability

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Manage growth in total vehicle travel per regional household.	<ul style="list-style-type: none"> Direct tie to greenhouse gas emissions and overall transportation system sustainability A substantial share of regional VMT is pass-thru (minimal benefit to the region's economy, but does create an environmental impact) 	Measures should balance impact of economic growth with potential for managing or decreasing VMT per person or per household.
b. Manage emissions from on-road transportation.	<ul style="list-style-type: none"> Focuses on vehicle and fuel technology opportunities in the region 	Measures could track investments in zero-emission technologies (buses, county fleets, charging stations)
c. Minimize / mitigate new impervious surfaces.	<ul style="list-style-type: none"> Helps consider environmental risks associated with transportation system expansion, particularly in environmentally sensitive areas. 	Minimize and mitigate new impervious surface area outside of designated growth areas and in floodplains.
a. 3 Strongly agree 1 Agree 3 Neutral 1 Disagree 2 Against	b. 3 Strongly agree 1 Agree 3 Neutral 1 Disagree 2 Against	c. 3 Strongly agree 6 Agree 1 Against

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Foster environmental sustainability

Draft Objective for Review	Comments
a. Manage growth in total vehicle travel per regional household.	<ul style="list-style-type: none"> Note, many of the prior objectives (esp. accessibility related) support this objective. Do we need it? Rethink the wording, maybe: "Implement programs to increase the use of alternate modes and reduce SOVs" As phrased, objective may imply to some that we are able to manage travel demand.
b. Manage emissions from on-road transportation.	<ul style="list-style-type: none"> Isn't our objective to reduce emissions? Note, many of the prior objectives (esp. accessibility related) will support this objective. Uncertainty on the possible strategies the regional can implement to support this objective.
c. Minimize / mitigate new impervious surfaces.	<ul style="list-style-type: none"> Does this also apply to developments in member localities; such as parking lots, buildings, trails, etc? Is this more a project level design consideration? Maybe, "Reduce impervious surfaces in transportation projects where possible."

<p>a. 3 Strongly agree 1 Agree 3 Neutral 1 Disagree 2 Against</p>	<p>b. 3 Strongly agree 1 Agree 3 Neutral 1 Disagree 2 Against</p>	<p>c. 3 Strongly agree 6 Agree 1 Against</p>
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Maintain and operate an efficient and resilient transportation system

Draft Objective for Review	Considerations	Performance Measure Possibilities
Maintain state and national standards for infrastructure and asset condition.	<ul style="list-style-type: none"> Both Federal and State measures, each have unique applicability to the regional planning and performance management process. 	<p>Bridge and pavement condition measures are related (but intentionally focusing on different outcomes) for FHWA and VDOT. RVTPO should incorporate both sets of measures into this process. There are also transit state of good repair measures reported by each provider, with targets for Tier 2 providers (like Valley Metro) established statewide through coordination with DRPT.</p>

<p>4 Strongly agree 3 Agree 3 Neutral</p>	<p>General comments:</p> <ul style="list-style-type: none"> Should the objective be to attain a higher standard than current conditions (or targets)? Need to define infrastructure better – assume this is "transportation infrastructure" Balance between maintaining assets and preserving/protecting the environment
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Objectives

Support economic vitality

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	<ul style="list-style-type: none"> • Could include access to regional economic development sites and VTrans industrial development areas 	Track the number of developments approved adjacent to more than one existing or planned transportation mode.
b. Maintain truck travel time reliability.	<ul style="list-style-type: none"> • Truck travel time reliability measure would help characterize performance of the overall regional freight system 	FHWA tracks truck travel time reliability on Interstates. Data is available on all NHS routes.
c. Maintain acceptable levels of congestion during peak travel periods on priority corridors.	<ul style="list-style-type: none"> • Multiple possible measures to consider 	Performance measures should be consistent with (or build from) measures used within the Congestion Management Process.

a. 4 Strongly agree
3 Agree
2 Neutral
1 Disagree

b. 2 Strongly agree
5 Agree
2 Neutral
1 Disagree

c. 4 Strongly agree
2 Agree
4 Neutral

33



Objectives

Support economic vitality

Draft Objective for Review	Comments
a. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	<ul style="list-style-type: none"> • Consider "promote" instead of "ensure" as more than one mode in these areas is a challenge • Or...add to the end "where economically feasible"
b. Maintain truck travel time reliability.	<ul style="list-style-type: none"> • Maintain? Is truck travel time currently acceptable? "Accommodate truck volumes and minimize conflict with passenger vehicles" or "Enhance truck safety and access". Also consider noting value of freight rail.
c. Maintain acceptable levels of congestion during peak travel periods on priority corridors.	<ul style="list-style-type: none"> • Focus on <u>managing</u> congestion during peak travel periods - "maintain" implies that existing or future levels are acceptable.

a. 4 Strongly agree
3 Agree
2 Neutral
1 Disagree

b. 2 Strongly agree
5 Agree
2 Neutral
1 Disagree

c. 4 Strongly agree
2 Agree
4 Neutral

34



Objectives

Promote equitable transportation investments

Draft Objective for Review	Considerations	Performance Measure Possibilities
Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects on minority and low-income communities.	<ul style="list-style-type: none"> Assume that NEPA process protects communities from disproportionate impacts Consider benefits & burdens for each project Regional specific community definition 	Track project benefits to these communities and identify projects or project types that could create burdens to targeted disadvantaged communities.
Ensure at least 40% of new non-vehicle based investments primarily benefit minority and low-income communities.	<ul style="list-style-type: none"> Consider unique benefits of each project on these communities Justice40 initiative builds on environmental justice outlined in Executive Order 12898 	Track progress toward 40% of non-highway investments providing documented benefits primarily for minority and low-income populations.
Reduce traffic injuries and fatalities in minority and low-income communities.	<ul style="list-style-type: none"> Special attention to provide a safe and secure transportation system in these communities 	Segment safety performance measures, within these communities.
Maintain state and national standards for infrastructure condition in minority and low-income communities	<ul style="list-style-type: none"> Special attention to maintain and operate an efficient and resilient transportation system in these communities 	Segment bridge and pavement performance measures within these communities.

a. 2 Strongly agree 4 Agree 2 Neutral 1 Disagree 1 Against	b. 4 Strongly agree 3 Agree 1 Neutral 1 Against	c. 5 Strongly agree 3 Agree 1 Neutral 1 Against	d. 3 Strongly agree 1 Agree 3 Neutral 2 Disagree 1 Against
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Objectives

Promote equitable transportation investments

Draft Objective for Review	Comments
Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects on minority and low-income communities.	<ul style="list-style-type: none"> Too wordy and difficult to understand, change to: "Consider all impacts of all transportation projects on minority and low-income communities" Perhaps reference how to address historical patterns of inequitable development?
Ensure at least 40% of new non-vehicle based investments primarily benefit minority and low-income communities.	<ul style="list-style-type: none"> A number of comments along these lines...can the TPO impose a goal/restriction on what investments each member locality makes and how would this be measured? Leaves a lot of room for interpretation, misrepresentation -- also the use of a specific value (40%) is inconsistent with other objectives.
Reduce traffic injuries and fatalities in minority and low-income communities.	<ul style="list-style-type: none"> This is already covered in the safety goal -- why do we need to repeat this here? Is their proof that there are disproportionate safety issues in these communities?
Maintain state and national standards for infrastructure condition in minority and low-income communities.	<ul style="list-style-type: none"> Historically there has been underinvestment in these communities -- should we aspire to doing better than maintain? Duplicative of the other goal -- what are we uniquely trying to achieve here?

a. 2 Strongly agree 4 Agree 2 Neutral 1 Disagree 1 Against	b. 4 Strongly agree 3 Agree 1 Neutral 1 Against	c. 5 Strongly agree 3 Agree 1 Neutral 1 Against	d. 3 Strongly agree 1 Agree 3 Neutral 2 Disagree 1 Against
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Objectives – Recommendation

- **TTC review and recommendation**
 - Finalizes objective statements within each goal
 - Acknowledges purpose of objectives within the planning process to inform:
 - Development and review of solutions
 - Criteria for selecting preferred solutions and prioritizing projects
 - Performance measures for the region

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Next Steps



**Finalize / refine
priority needs**

Refine approach to reach conclusions and take initial steps toward developing solutions



**Develop and review
Draft objectives**

Consistent with process developed by GAP team, building from Plan vision, goals, and future factors



**GAP team outlines
process to develop
solutions**

Solutions process should reflect consistency with objectives and address how we utilize results of the priority needs process



**Next TTC meeting
(November)**

Discuss solutions process for specific set of priority needs [focusing on top ranked from needs priority process, balanced with geographic and need type equity]



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Roanoke Valley Transportation Plan Update

Priority Needs – Next Steps

presented to
Transportation Technical Committee

presented by
Cambridge Systematics, Inc.

CAMBRIDGE SYSTEMATICS

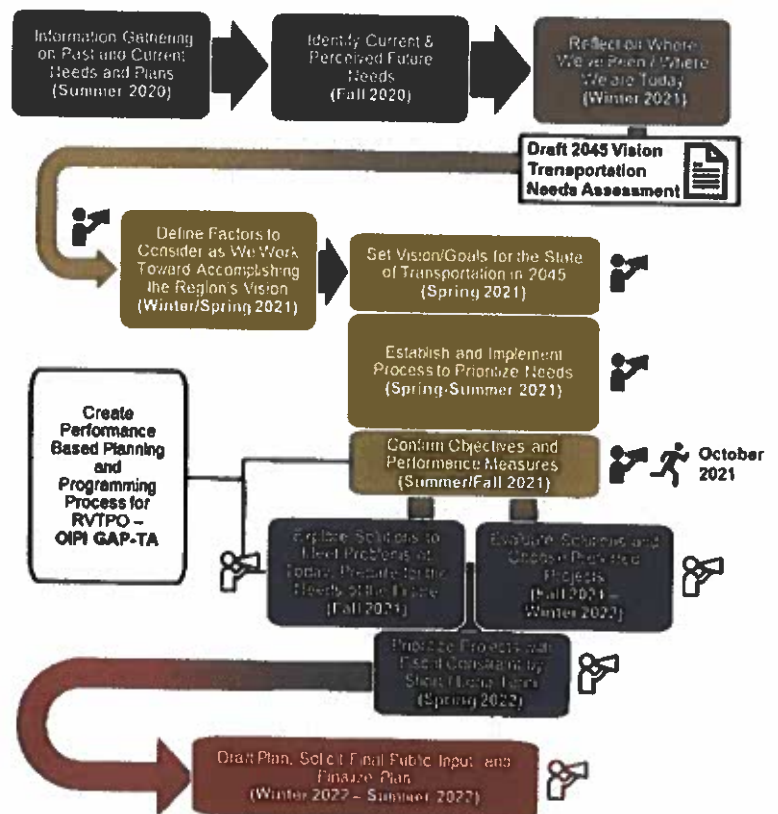


Priority Needs

Purpose – Use readily available data representing Plan goal areas to assess the importance of each need

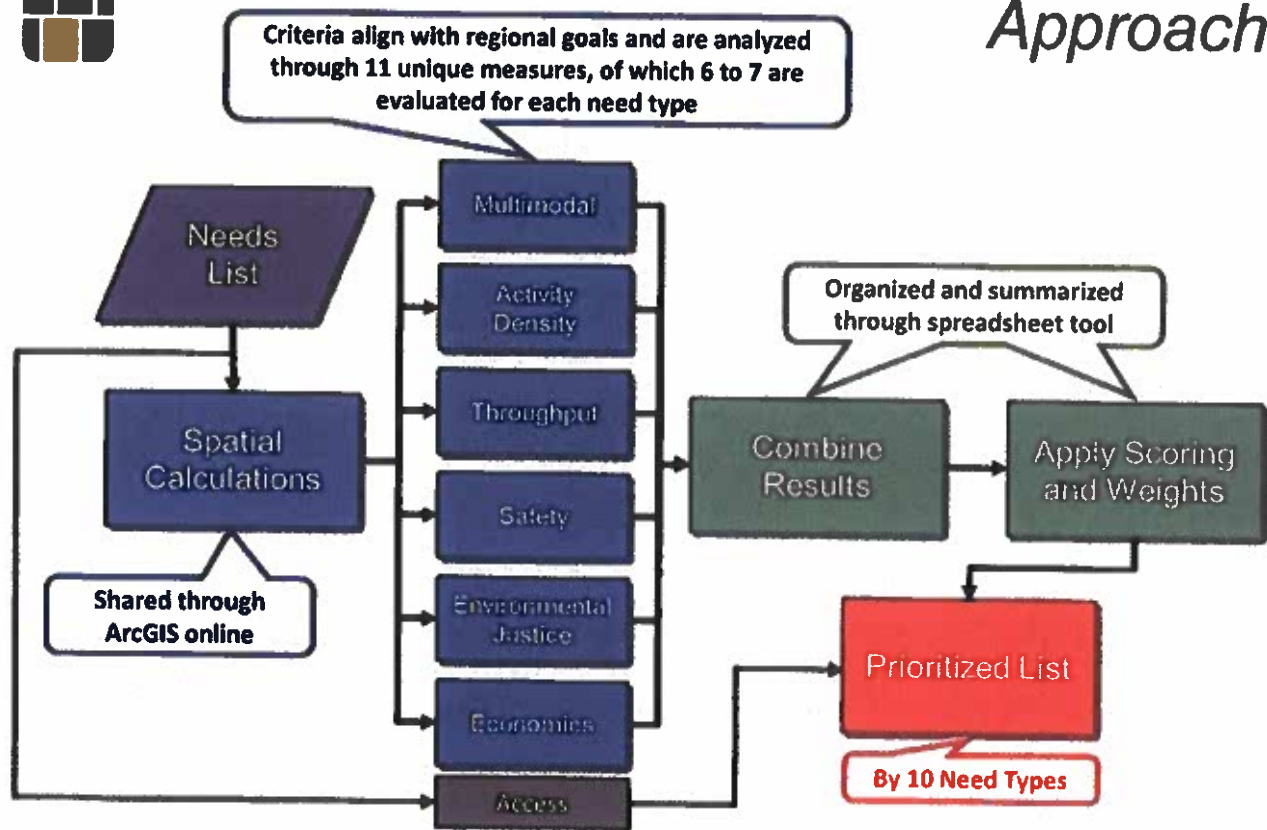
Outcome – Priority list of needs, by need type, that RVTPO and the TTC can review to decide where to focus attention on solutions for possible inclusion in the Roanoke Valley Transportation Plan

This approach is a tool to inform decisions by regional planning partners on the next steps of the planning process, helping ensure that the Plan addresses the region's most critical needs while helping to meet goals





Approach



Criteria and Measures Quantitative Process

Theme	Description
Data and Plan Focused	
Multimodal	Overlap with designated multimodal centers and/or districts
Activity Density	Overlap with current (2019) and future (2045) combined population and employment density within the need area by Traffic Analysis Zone (TAZ)
Throughput	Overlap with the change in need area vehicle miles traveled (2019 to 2045) and overlap with identified priority corridors from Congestion Management Process
Safety	Overlap with potential for safety improvement (PSI) locations identified in Roanoke Valley Regional Transportation Safety Study and priority non-motorized safety needs from the VDOT pedestrian safety action plan (PSAP)
Environmental Justice	Overlap with regional equity emphasis areas as identified by VTrans
Economics	Overlap with future development priority location as identified through the recent Transportation and Economic Development study and/or with designated Urban Development Areas (or growth areas)



Access Needs

Qualitative Criteria

Mode	What is here?	How many people are affected, what is the severity of lack of access, or environmental justice?
All modes	Government services	<ul style="list-style-type: none"> Severity – many government services are essential and available in only one place (i.e. a courthouse), lack of access is high severity
All modes	Essential services	<ul style="list-style-type: none"> Severity – necessary but may be available in multiple locations (i.e. a grocery store or health clinic), lack of access is moderate severity
All modes	Retail, services	<ul style="list-style-type: none"> Severity – may not be necessary and may be available in multiple locations, lack of access is low severity <ul style="list-style-type: none"> Number of people Environmental justice (low wage jobs)
Transit	Bus service	<ul style="list-style-type: none"> Severity – No existing bus service is high severity, existing bus service without sidewalks is moderate severity, existing bus service without other amenities is low severity
Motor vehicle	Average Annual Daily Traffic	<ul style="list-style-type: none"> Number of people



Weighting

Criteria & Measures	Multimodal		Activity Density		Throughput		Safety		Environmental Justice	Economics	
	Centers	District	2019	2045	Priority Corridor	VMT Change	Trans Needs (PSI)	PSAP	Equity Emphasis Areas	Development Priority Locations	Urban Development Areas
Vehicle Safety			5	5		20	50		10	5	5
Pedestrian Safety	5	5		10				50	20	5	5
Bicycle Safety	5	5		10				50	20	5	5
Transit Safety	5	5		10				50	20	5	5
Congestion			15	15		15			25	15	15
System Management			12.5	12.5	12.5	12.5			25	12.5	12.5
System Management (Transit)	10	10		20		20			20	10	10
Access Criteria	Population Affected				Severity			Environmental Justice			
Transit and Non-Transit	12 Points Available		5		5			2			



Summary Results

- Online Map (ArcGIS Online)
- Summary Table (Excel)

ID	Description	Location
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
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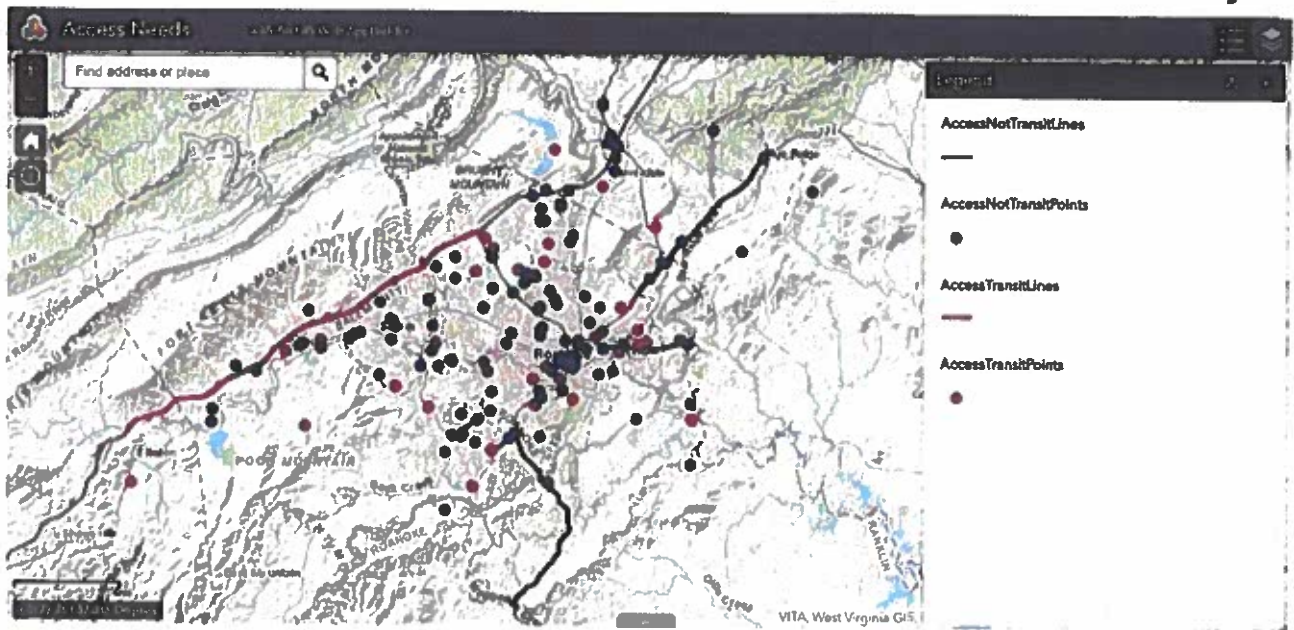


Summary Results

<https://camsys.maps.arcgis.com/apps/mapviewer/index.html?webmap=cd8980f1444144a0ba613fb8f474103b>



Summary Results Access Needs Only



<https://rvarc.maps.arcgis.com/apps/webappviewer/index.html?id=1e524c07e8e7486ea7cb414fa3a3c147>



Questions to Consider

As you review the approach and the results, consider the following:

- Are there any criteria and/or measures that we have missed (where data is readily available)?
- Do the measures for each need type and the weights make sense (e.g., do the highest weighted measures best identify the most critical aspects of the need type)?
- For each need type, do the results make sense? Do the needs in the top tier generally align with your perspective/opinion for the region or your jurisdiction?
- Do the results appear unbalanced or biased based on geography, development type, or corridor type?



Comments

Related to projects...

- “how the prioritization criteria works with current or proposed projects” “It is hard to comment on percentages of certain factors when we don't know how they'll shake out with actual projects.”
- “Can an evaluation be provided that looks at the results of the needs prioritization process in relation to projects that the members have sought funding for over the past couple rounds of SMART SCALE and TA?”
- “At a high level, the criteria seem to be appropriate and are generally aligned with the criteria through which Smart Scale applications are scored.”

The needs prioritization process does not consider active or programmed projects (e.g., projects in the current SYIP)

Needs are evaluated based on the importance/severity of the need independent of an existing solution

Existing projects will be considered during the review of solutions for priority needs – if a priority need has projects programmed to address, then we retain it as a priority need, but leave the solution as is

Unfunded projects can become solutions to priority needs, assuming that the project scope is the right solution to address the need



Comments

Related to needs and future project development...

“Since these priority needs will help drive the RVTPO's planning process in the future, I would like to better understand them and how the prioritization process was developed”

“Do these priorities include the state priority needs identified through VTrans? If so, how can a user determine this?”

Priority needs, particularly those not evaluated through recent planning studies or project development activities, could represent the focus of planning efforts, in coordination with VDOT, ValleyMetro, etc...

Potential solutions, including those developed within the Plan Update and those identified for future study will require partnerships

The VTrans mid-term needs and priority needs were developed through a different process and methodology. Overlaps typically occur on major corridors and near activity centers.

This process is establishing a regional project pipeline focused on regional and local needs. Having both a statewide driven process and a regional process enables RVTPO to be more comprehensive in leveraging resources for planning and project development.



Comments

Methodology and weighting...

"I'm not sure how the weighting was determined. Safety and environmental justice seem to be weighted very heavily. How do these compare to the Smart Scale weighting for this area?"

"The results seem to make better sense in some areas than in others. Generally, the geographic spread seems reasonable when I look at the overall list of needs but within specific need types, there seems to be a little less geographic spread. That may be partially reflective of where certain infrastructure exists?"

"Some of the descriptions of needs are too vague to be of much use. For example, all major Vinton corridors in Safety Auto, I-81 from MM 128-136 in Safety Auto, Downtown Salem in Safety Ped, and Downtown Roanoke in Safety Bike."

For SS Round 4: safety is 20 to 30%, EJ is within the accessibility factor, at most 12.5% (but, difference is needs compared to projects)

Once you drop down to individual needs, the geographic spread does reduce based on survey response (which is connected to where infrastructure exists – focus is on existing needs, not future needs)

Right on needs specificity – in these cases, once we proceed into solutions, we will need to more carefully review the need and better define it



Priority Needs – Recommendation

- **TTC confirmation of the purpose for establishing priority needs and acceptance of the priority needs methodology**
 - **Recognizes role of priority needs within the Plan development process**
 - **Accepts the methodology (similar to VTrans approach – adopt the methodology, not the actual results)**
 - **Acknowledges that the results of the methodology are a planning tool guiding the next step of the planning process (developing solutions)**

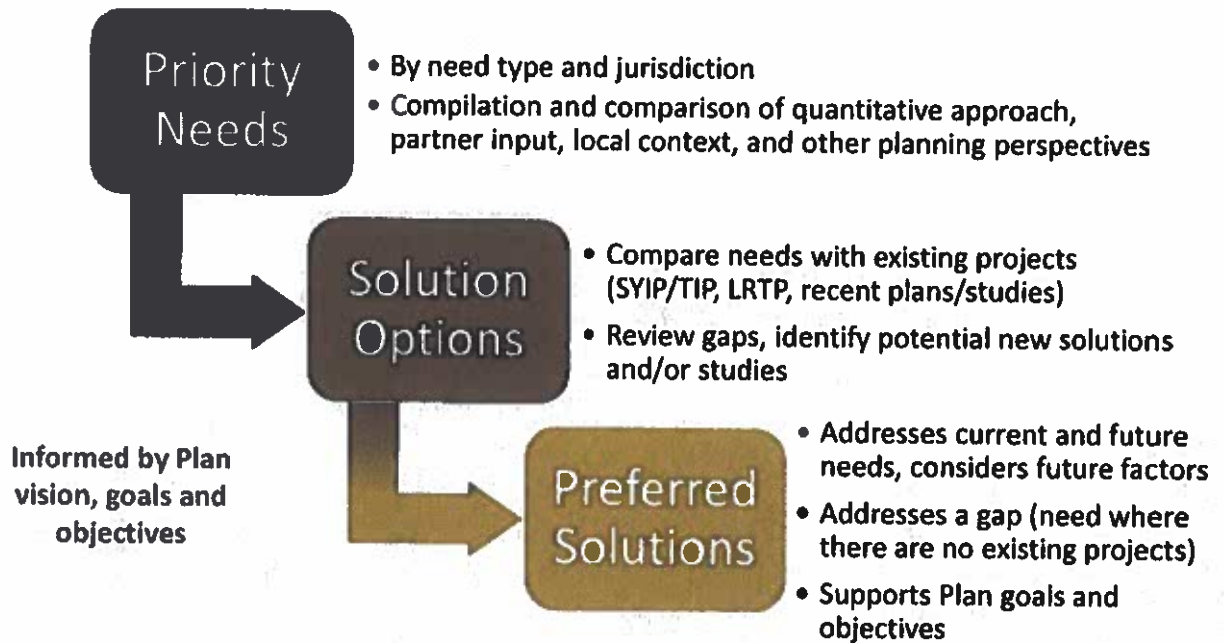
Prioritizing needs is different than prioritizing projects

Less important – ranking or score

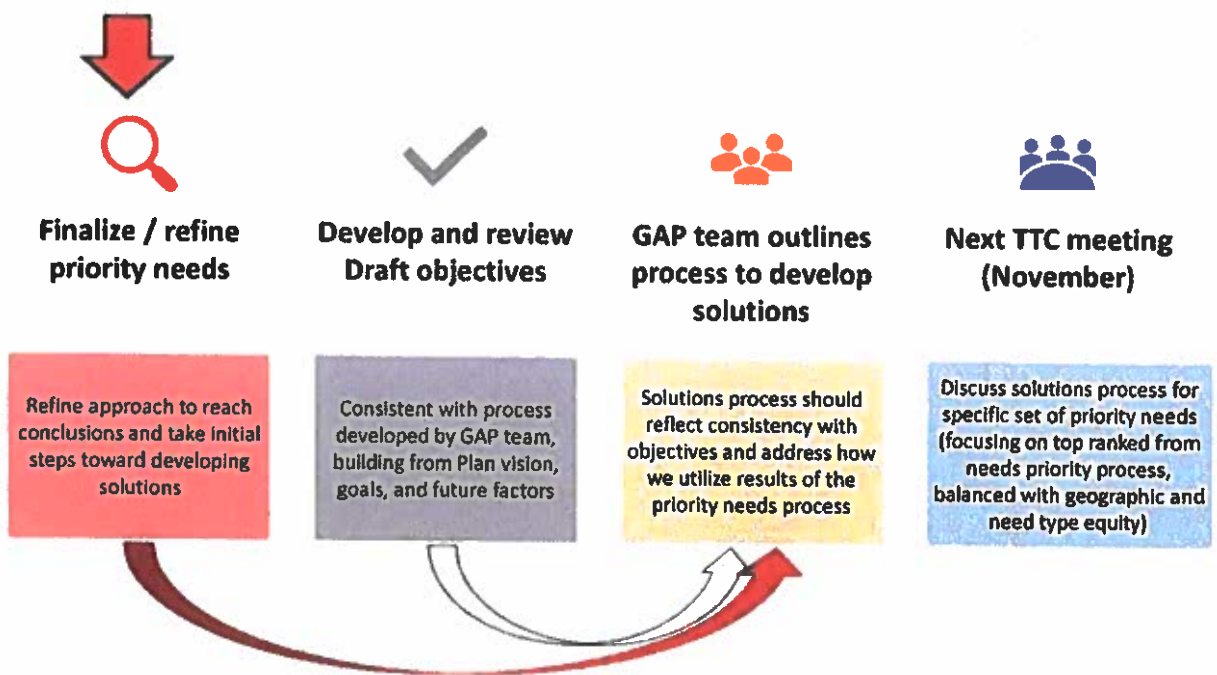
More important – context, relationships, scope



Moving Toward Solutions



Next Steps




Roanoke Valley Transportation Plan Update

Plan Goals, Objectives, and Measures

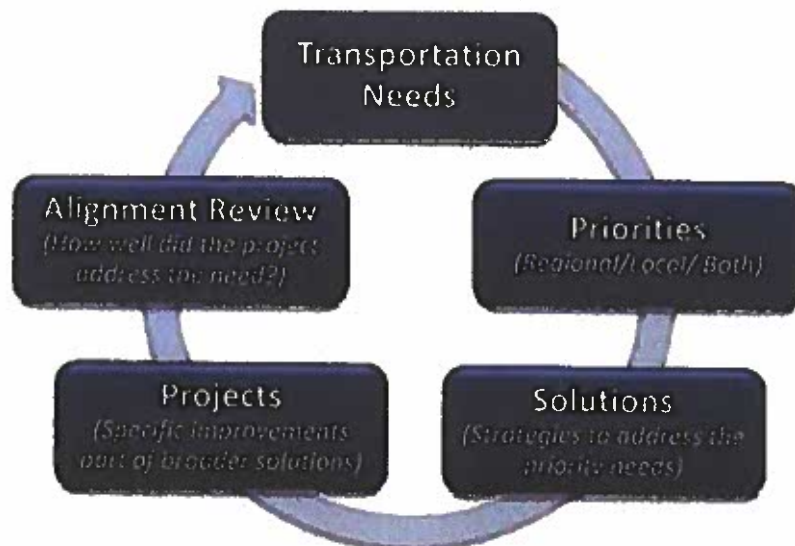
presented to
Transportation Technical Committee

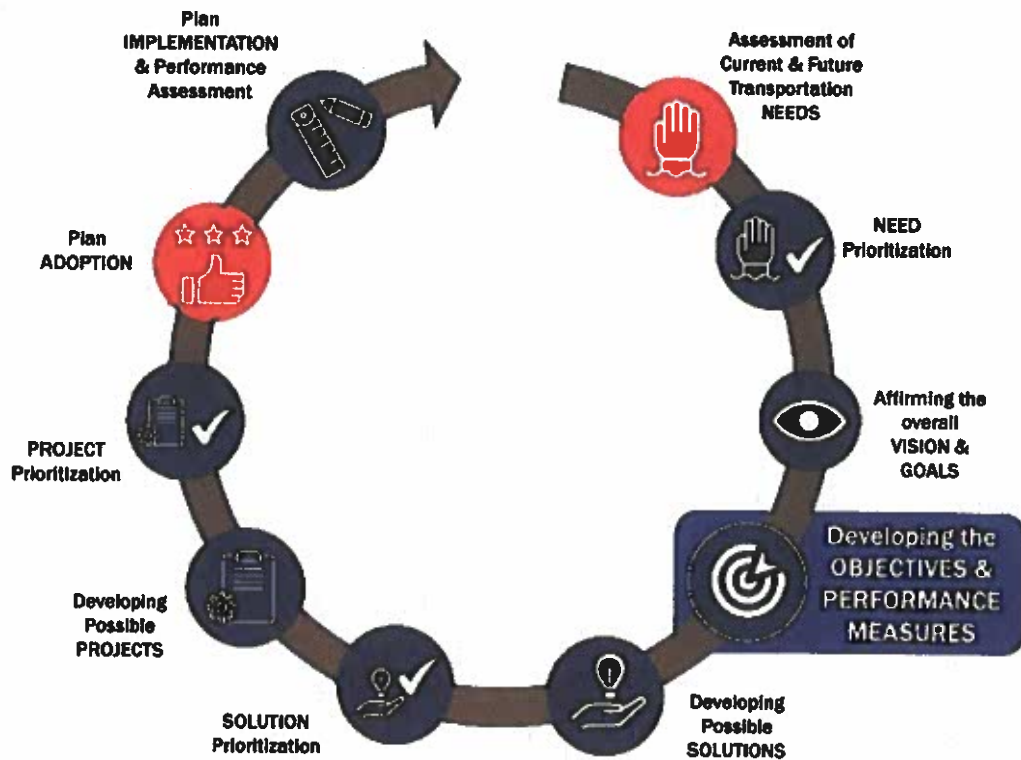
presented by
Cambridge Systematics, Inc.

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Plan Process





Definitions



Vision describes the desired future state



Goals describe what guides us toward attaining the vision and our overall desired outcomes



Objectives describe how we are going to attain the vision, objectives represent our specific desired outcomes



Solutions offer various ideas of how to address a need and achieve the goals and objectives



Projects/Services represent the preferred means to address a need and achieve objectives



Measures quantify objectives, enabling us to assess the degree to which the system is achieving objectives

Note – performance measure are different from prioritization criteria (but they are related)



Vision








The Roanoke Valley's seamless regional multimodal transportation system is safe, cost-effective, environmentally conscious, well maintained and reliable, accessible for all users, and promotes economic vitality of the community.



Vision describes the desired future state



Goals

-  **Provide a safe and secure transportation system**
-  **Enable reliable mobility**
-  **Enable convenient and affordable access to destinations**
-  **Foster environmental sustainability**
-  **Maintain and operate an efficient and resilient transportation system**
-  **Support economic vitality**
-  **Promote equitable transportation investments**



Goals describe what guides us toward attaining the vision and our overall desired outcomes

Goals are action oriented

Goals create the platform for objectives



Objectives Approach

Developing Objectives – FHWA Guidance

- Objectives should **support local goals**, but also be informed by federal and state programs.
- Objectives must be **measurable and flexible** with multiple possible ways to accomplish the objective.
- Objectives should be as **specific** as possible, and if possible, **attainable** within a working timeframe.
- Objectives are accomplished through **strategies/solutions** (general plans of action) and appropriate **projects/services** (how the solution will be executed) for the preferred solution.
- Solutions **should not be** included in the objective as there might be more than one possible solution to address the objective.



Link priority needs to goals, which helps identify themes within each goal

Translate themes into candidate objectives

Compare candidate objectives to priority needs criteria

Refine objectives through review of Virginia and Federal programs

Finalize objectives, ensuring they meet the SMART framework

Note – the approach represents a summary of the GAP-TA Process for Developing Objectives and Performance Measures



Objectives Approach

SMART Framework

Reduce fatalities and injuries on the region's multimodal transportation system

S (Specific)

S Types of crashes, regional focus, multimodal

M (Measurable)

M Annual crash data trends

A (Agreeable)

A Important at all geographic and policy scales

R (Relevant)

R Understood and proven

T (Time-Bound)

T Can be monitored over time



Objectives

Goal	Objective	Reaction
Safe & secure	Reduce injuries and fatalities on the multimodal transportation system.	👍
Reliable mobility	Maintain vehicle travel time reliability on priority corridors.	👍
	Maintain transit and passenger rail on-time performance (OTP).	👍
Convenient and affordable access	Provide motorized access to inaccessible properties identified for future development.	👍
	Increase the number of destinations accessible by transit.	👍
	Increase transportation system connectivity between inter-regional travel modes.	👍
Environmental sustainability	Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	👍
	Manage growth in total vehicle travel per regional household.	👍
	Manage emissions from on-road transportation.	👍
Efficient & resilient	Minimize / mitigate new impervious surfaces.	👍
	Maintain state and national standards for infrastructure and asset condition.	👍
Economic vitality	Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	👍
	Maintain truck travel time reliability.	👍
	Maintain acceptable levels of congestion during peak travel periods on priority corridors.	👍
Equitable investments	Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects included in this Plan on minority and low-income communities.	👍
	Ensure at least 40% of new non-vehicle-based investments benefit minority and low-income communities.	👍
	Reduce traffic injuries and fatalities in minority and low-income communities.	👍
	Maintain state and national standards for infrastructure condition in minority and low-income communities.	👍



Majority strongly agree or agree



Some agreement, some neutral, few disagree



Objectives

Provide a safe and secure transportation system

Draft Objective for Review	Considerations	Performance Measure Possibilities
Reduce injuries and fatalities on the multimodal transportation system.	<ul style="list-style-type: none"> Consistent with FHWA required measures Can break out into fatalities, injuries, motorized/nonmotorized, and transit Data readily available Can segment by community to track safety impacts on specific populations (see Goal 7) Transit safety measures also include security related events (within the National Transit Database - NTD) 	Motorized, non-motorized, and transit safety performance measures and targets are specified through FHWA and FTA rulemakings (these apply at both the Statewide and MPO level).

8 Strongly agree

4 Agree

1 Neutral

General comments:

- Expand focus to note all crashes (do not isolate the objective only to fatalities and injuries)
- Choose stronger word than "reduce"



Objectives

Enable reliable mobility

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Maintain vehicle travel time reliability on priority corridors.	<ul style="list-style-type: none"> Focus on Congestion Management Process priority corridors. Consistent with FHWA required measures. Can expand to more corridors than National Highway System (based on availability of data) 	Travel time reliability performance measures on the National Highway System (NHS) are specified through FHWA rulemakings. Other performance measures exist beyond FHWA, including those developed by VDOT and OIPI for corridor level analysis and statewide planning (VTrans).
b. Maintain transit and passenger rail on-time performance (OTP).	<ul style="list-style-type: none"> Segmented by system – Amtrak, Valley Metro Data availability through Department of Rail and Public Transportation and National Transit Database (often at least 1 year behind) 	Amtrak on-time performance is reported on a monthly basis by DRPT and also is a Federally required measure through FRA. DRPT and FTA also report transit reliability by provider.

- a.** 5 Strongly agree
3 Agree
4 Neutral
1 Disagree
- b.** 7 Strongly agree
3 Agree
3 Neutral

General comments:

- Uncertain on "maintain", does this imply that current reliability is acceptable?
- Do we have data enabling us to decide if "maintain" is the right approach, maybe "enhance"?



Objectives

Enable convenient and affordable access to destinations

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Provide motorized access to inaccessible properties identified for future development.	<ul style="list-style-type: none"> New developments should be accessible by more than one direction to enable multi-directional vehicle connectivity. 	Track number of localities with ordinances or policies that incentivize or require multiple accesses in new developments.
b. Increase the number of destinations accessible by transit.	<ul style="list-style-type: none"> Could include types of destinations Multiple accessibility measures to consider 	Track the number of destinations adjacent to bus stops and hours of day/days of week with transit service.
c. Increase transportation system connectivity between inter-regional travel modes.	<ul style="list-style-type: none"> Connections to Amtrak, intercity bus terminals, and airport 	Track the number and frequency of regional connections offered.
d. Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	<ul style="list-style-type: none"> Transit, on and off-road bicycle and pedestrian connections within centers and districts 	Focus on measures that assess the system extent of available transit-walk connections, transit-bike connections, walk-bike connections.

- a.** 4 Strongly agree
2 Agree
1 Neutral
3 Disagree
1 Against
- b.** 7 Strongly agree
1 Agree
3 Disagree
- c.** 4 Strongly agree
5 Agree
1 Neutral
1 Against
- d.** 5 Strongly agree
4 Agree
1 Neutral
1 Disagree



Objectives

Enable convenient and affordable access to destinations

Draft Objective for Review	Comments
a. Provide motorized access to inaccessible properties identified for future development.	<ul style="list-style-type: none"> • Too specific of an objective? Does this encourage more access to facilitate greenfield development? Should we focus more broadly when we discuss access barriers?
b. Increase the number of destinations accessible by transit.	<ul style="list-style-type: none"> • Reference access by multimodal options (transit, bike, ped, shared) • Increase number of destination implies expanding service area? Are we ready for this commitment? Maybe instead reference level of service, rather than extent?
c. Increase transportation system connectivity between inter-regional travel modes.	<ul style="list-style-type: none"> • Simplify the terminology... connectivity and inter-regional is too much jargon.
d. Increase transit, bicycle and pedestrian connections within all multimodal centers and districts.	<ul style="list-style-type: none"> • Remove reference to "all", as readiness for expanded access in these places is variable. <p>General – no reference to greenways/regional trail system. What about incorporating access for all users (e.g., ADA, LEP, seniors, etc...)</p>

a. 4 Strongly agree
2 Agree
1 Neutral
3 Disagree
1 Against

b. 7 Strongly agree
1 Agree
3 Disagree

c. 4 Strongly agree
5 Agree
1 Neutral
1 Against

d. 5 Strongly agree
4 Agree
1 Neutral
1 Disagree



Objectives

Foster environmental sustainability

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Manage growth in total vehicle travel per regional household.	<ul style="list-style-type: none"> • Direct tie to greenhouse gas emissions and overall transportation system sustainability • A substantial share of regional VMT is pass-thru (minimal benefit to the region's economy, but does create an environmental impact) 	Measures should balance impact of economic growth with potential for managing or decreasing VMT per person or per household.
b. Manage emissions from on-road transportation.	<ul style="list-style-type: none"> • Focuses on vehicle and fuel technology opportunities in the region 	Measures could track investments in zero-emission technologies (buses, county fleets, charging stations).
c. Minimize / mitigate new impervious surfaces.	<ul style="list-style-type: none"> • Helps consider environmental risks associated with transportation system expansion, particularly in environmentally sensitive areas. 	Minimize and mitigate new impervious surface area outside of designated growth areas and in floodplains.

a. 3 Strongly agree
1 Agree
3 Neutral
1 Disagree
2 Against

b. 3 Strongly agree
1 Agree
3 Neutral
1 Disagree
2 Against

c. 3 Strongly agree
6 Agree
1 Against



Objectives

Foster environmental sustainability

Draft Objective for Review	Comments
a. Manage growth in total vehicle travel per regional household.	<ul style="list-style-type: none"> Note, many of the prior objectives (esp. accessibility related) support this objective. Do we need it? Rethink the wording, maybe: "Implement programs to increase the use of alternate modes and reduce SOVs." As phrased, objective may imply to some that we are able to manage travel demand.
b. Manage emissions from on-road transportation.	<ul style="list-style-type: none"> Isn't our objective to reduce emissions? Note, many of the prior objectives (esp. accessibility related) will support this objective. Uncertainty on the possible strategies the regional can implement to support this objective.
c. Minimize / mitigate new impervious surfaces.	<ul style="list-style-type: none"> Does this also apply to developments in member localities; such as parking lots, buildings, trails, etc? Is this more a project level design consideration? Maybe, "Reduce impervious surfaces in transportation projects where possible."

a. 3 Strongly agree
 1 Agree
 3 Neutral
 1 Disagree
 2 Against

b. 3 Strongly agree
 1 Agree
 3 Neutral
 1 Disagree
 2 Against

c. 3 Strongly agree
 6 Agree
 1 Against



Objectives

Maintain and operate an efficient and resilient transportation system

Draft Objective for Review	Considerations	Performance Measure Possibilities
Maintain state and national standards for infrastructure and asset condition.	<ul style="list-style-type: none"> Both Federal and State measures, each have unique applicability to the regional planning and performance management process. 	<p>Bridge and pavement condition measures are related (but intentionally focusing on different outcomes) for FHWA and VDOT. RVTPD should incorporate both sets of measures into this process. There are also transit state of good repair measures reported by each provider, with targets for Tier 2 providers (like Valley Metro) established statewide through coordination with DRPT.</p>

4 Strongly agree
 3 Agree
 3 Neutral

General comments:

- Should the objective be to attain a higher standard than current conditions (or targets)?
- Need to define infrastructure better – assume this is "transportation infrastructure"
- Balance between maintaining assets and preserving/protecting the environment



Objectives

Support economic vitality

Draft Objective for Review	Considerations	Performance Measure Possibilities
a. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	<ul style="list-style-type: none"> • Could include access to regional economic development sites and VTrans industrial development areas 	Track the number of developments approved adjacent to more than one existing or planned transportation mode.
b. Maintain truck travel time reliability.	<ul style="list-style-type: none"> • Truck travel time reliability measure would help characterize performance of the overall regional freight system 	FHWA tracks truck travel time reliability on Interstates. Data is available on all NHS routes.
c. Maintain acceptable levels of congestion during peak travel periods on priority corridors.	<ul style="list-style-type: none"> • Multiple possible measures to consider 	Performance measures should be consistent with (or build from) measures used within the Congestion Management Process.

a. 4 Strongly agree
3 Agree
2 Neutral
1 Disagree

b. 2 Strongly agree
5 Agree
2 Neutral
1 Disagree

c. 4 Strongly agree
2 Agree
4 Neutral



Objectives

Support economic vitality

Draft Objective for Review	Comments
a. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.	<ul style="list-style-type: none"> • Consider "promote" instead of "ensure" as more than one mode in these areas is a challenge • Or...add to the end "where economically feasible"
b. Maintain truck travel time reliability.	<ul style="list-style-type: none"> • Maintain? Is truck travel time currently acceptable? "Accommodate truck volumes and minimize conflict with passenger vehicles" or "Enhance truck safety and access". Also consider noting value of freight rail.
c. Maintain acceptable levels of congestion during peak travel periods on priority corridors.	<ul style="list-style-type: none"> • Focus on <u>managing</u> congestion during peak travel periods – "maintain" implies that existing or future levels are acceptable.

a. 4 Strongly agree
3 Agree
2 Neutral
1 Disagree

b. 2 Strongly agree
5 Agree
2 Neutral
1 Disagree

c. 4 Strongly agree
2 Agree
4 Neutral



Objectives

Promote equitable transportation investments

Draft Objective for Review	Considerations	Performance Measure Possibilities
Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects on minority and low-income communities.	<ul style="list-style-type: none"> Assume that NEPA process protects communities from disproportionate impacts Consider benefits & burdens for each project Regional specific community definition 	Track project benefits to these communities and identify projects or project types that could create burdens to targeted disadvantaged communities.
Ensure at least 40% of new non-vehicle based investments primarily benefit minority and low-income communities.	<ul style="list-style-type: none"> Consider unique benefits of each project on these communities Justice40 initiative builds on environmental justice outlined in Executive Order 12898 	Track progress toward 40% of non-highway investments providing documented benefits primarily for minority and low-income populations.
Reduce traffic injuries and fatalities in minority and low-income communities.	<ul style="list-style-type: none"> Special attention to provide a safe and secure transportation system in these communities 	Segment safety performance measures, within these communities.
Maintain state and national standards for infrastructure condition in minority and low-income communities.	<ul style="list-style-type: none"> Special attention to maintain and operate an efficient and resilient transportation system in in these communities 	Segment bridge and pavement performance measures within these communities.

a. 2 Strongly agree
4 Agree
2 Neutral
1 Disagree
1 Against

b. 4 Strongly agree
3 Agree
1 Neutral
1 Against

c. 5 Strongly agree
3 Agree
1 Neutral
1 Against

d. 3 Strongly agree
1 Agree
3 Neutral
2 Disagree
1 Against



Objectives

Promote equitable transportation investments

Draft Objective for Review	Comments
Promote and ensure benefits and avoid or mitigate disproportionate adverse effects of transportation projects on minority and low-income communities.	<ul style="list-style-type: none"> Too wordy and difficult to understand, change to: "Consider all impacts of all transportation projects on minority and low-income communities" Perhaps reference how to address historical patterns of inequitable development?
Ensure at least 40% of new non-vehicle based investments primarily benefit minority and low-income communities.	<ul style="list-style-type: none"> A number of comments along these lines...can the TPO impose a goal/restriction on what investments each member locality makes and how would this be measured? Leaves a lot of room for interpretation, misrepresentation – also the use of a specific value (40%) is inconsistent with other objectives.
Reduce traffic injuries and fatalities in minority and low-income communities.	<ul style="list-style-type: none"> This is already covered in the safety goal – why do we need to repeat this here? Is their proof that there are disproportionate safety issues in these communities? .
Maintain state and national standards for infrastructure condition in minority and low-income communities.	<ul style="list-style-type: none"> Historically there has been underinvestment in these communities – should we aspire to doing better than maintain? Duplicative of the other goal – what are we uniquely trying to achieve here?

a. 2 Strongly agree
4 Agree
2 Neutral
1 Disagree
1 Against

b. 4 Strongly agree
3 Agree
1 Neutral
1 Against

c. 5 Strongly agree
3 Agree
1 Neutral
1 Against

d. 3 Strongly agree
1 Agree
3 Neutral
2 Disagree
1 Against



Objectives – Recommendation

- **TTC review and recommendation**
 - **Finalizes objective statements within each goal**
 - **Acknowledges purpose of objectives within the planning process to inform:**
 - **Development and review of solutions**
 - **Criteria for selecting preferred solutions and prioritizing projects**
 - **Performance measures for the region**



Next Steps

