

ITEM 8 – Action
December 20, 2017

Long-Range Plan Task Force: Briefing on Recommended Initiatives
for TPB Endorsement

Staff Recommendation: Approve Resolution 8-2018 to endorse five initiatives recommended by the task force.

Issues: None

Background: The Long-Range Plan Task Force last met on December 6 and agreed to recommend five of the ten initiatives that were analyzed. The board will be briefed on the set of five initiatives that the task force is recommending for TPB endorsement. The board will be asked to approve this set of initiatives for future concerted action.

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002

**RESOLUTION ENDORSING INITIATIVES RECOMMENDED
BY THE LONG-RANGE PLAN TASK FORCE**

WHEREAS, the National Capital Regional Transportation Planning Board (TPB), as the metropolitan planning organization (MPO) for the Washington Region, has the responsibility under the provisions of the Fixing America's Surface Transportation (FAST) Act for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process for the Metropolitan Area; and

WHEREAS, the TPB, as part of the regional metropolitan planning process, continues to develop and adopt a fiscally constrained long-range plan (formerly referred to as the "CLRP", now called "Visualize 2045") as mandated by the federal FAST Act as a means of ensuring that federal funding and approval for transportation projects in the region are made available; and

WHEREAS, there is concern that the combination of project inputs to the current CLRP results in unsatisfactory performance compared to current conditions, with peak hour congested lane miles increasing by 65%¹, daily vehicle hours of delay increasing by 74%¹, and reductions in CO2 emissions falling far short of the region's 80% multi-sectoral goal; and

WHEREAS, the TPB understands that one of its primary responsibilities is "to coordinate future plans, provide fair, balanced and comprehensive data and analysis to decision-makers to inform and influence transportation programming decisions so as to advance the regional Transportation Vision and Priority Principals by advancing a more effective set of projects and policy inputs to the region's long-range transportation plans"; and

WHEREAS, the TPB believes the region needs to develop a long-range transportation plan that goes beyond the project inputs reflected in its current CLRP, and that includes a combination of projects, programs, and policies that would better achieve the broad range of transportation goals embedded in TPB and COG's adopted guiding documents; and

WHEREAS, the TPB and staff have been carrying out the charges identified in Resolution R16-2017, As Amended, and Resolution R1-2018, which created the Long-Range Plan Task Force (task force) and charged the task force and staff to complete several tasks by December 31, 2017, which will ultimately inform the future updates to the long-range transportation plan (Visualize 2045); and

¹ Transportation Planning Board, "Performance Analysis of the 2016 CLRP Amendment", November 16, 2016

WHEREAS, in April 2017, the Long-Range Plan Task Force membership was appointed by the TPB officers, comprising a subset of TPB members and representatives of citizen involvement committees, including: the three TPB officers; nine local officials (three each from Maryland, Virginia, and the District of Columbia); one representative of each state-level department of transportation and WMATA; and one member each from the TPB Citizens Advisory Committee and the TPB Access for All Advisory Committee; for a total of 18 task force members; and

WHEREAS, the task force conducted ten meetings beginning on April 10 and completed the following tasks:

- The task force agreed to the transportation goals and developed a set of transportation challenges faced by the region, both of which are based on existing COG and TPB policy documents, that the task force sought to address through its work activities;
- The task force reviewed past scenario analyses, considered lessons learned, and brainstormed and compiled over 80 different projects, programs and policy ideas not currently in the CLRP that have the potential to address the challenges the region faces in achieving its transportation goals;
- From the larger set of ideas, the task force created ten improvement initiatives by combining mutually supportive projects, program and policy ideas; the task force recommended the ten initiatives to the TPB for further analysis to determine if the initiatives would help make significantly better progress towards achieving the transportation goals laid out in TPB and COG's governing documents;
- The TPB approved Resolution R1-2018 on July 19, 2017 accepting for further analysis the ten improvement initiatives recommended by the task force; charged staff with determining if and how any of these ten initiatives could make significantly better progress towards achieving the goals laid out in TPB and COG's regional governing documents; charged the task force with reviewing the analysis and presenting to the TPB later this year a summary of findings; presenting to the TPB a recommended process by which the TPB may later endorse a final selection from among the ten initiatives for inclusion in the aspirational element of the region's long-range transportation plan and/or future concerted TPB action;
- The task force continued to meet to oversee the analysis and agreed to a set of assumptions for each initiative and a common set of performance measures to be used in the sketch-planning analysis;
- The task force agreed to a process by which they would select for the TPB's endorsement a set of initiatives from amongst the ten initiatives analyzed; the process for selecting the initiatives with the most potential for improvements included the consideration of the quantitative assessments of the performance measures, a qualitative assessment of the regional transportation challenges, and other factors not explicitly analyzed;
- The task force presented the results of the analysis to the TPB at the November 15 meeting and subsequently held detailed discussions on the results of the analysis and its implications for its work activities;

- Using the process it had previously developed, the task force identified five of the 10 improvement initiatives analyzed as having risen to the top and having the most potential to address the region's transportation challenges; and

WHEREAS the task force has presented the attached set of five improvement initiatives from the ten that were analyzed as having the most potential to address the region's transportation challenges and help make significantly better progress towards achieving the TPB's transportation goals and recommends the TPB endorse these initiatives;

NOW THEREFORE BE IT RESOLVED THAT THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD:

1. Recognizes that combining projects, programs and policies represents a multi-modal and multi-disciplinary approach to effectively address the congestion and mobility challenges forecast for this region.
2. Endorses the attached list of five initiatives, found to have the most potential to significantly improve the performance of the region's transportation system compared to current plans and programs, for future concerted TPB action, and directs staff to include these initiatives in the aspirational element of the TPB's long-range transportation plan, Visualize 2045.
3. Recognizes that the TPB's endorsement is a milestone first step, and calls on its member jurisdictions and agencies to commit to fully explore the initiatives to identify specific implementation actions that could be taken, individually and collectively, to make them part of TPB's future fiscally constrained long-range plans.

**FIVE IMPROVEMENT INITIATIVES ENDORSED BY THE TPB
FOR FUTURE CONCERTED TPB ACTION**

Optimize Regional Land-Use Balance: This initiative would optimize the balance of jobs and housing region-wide. The idea is to increase jobs and housing around underused rail stations and Activity Centers with high-capacity transit. Plus, it would encourage building additional housing in the region to match employment projections.

Regionwide Bus Rapid Transit (BRT) and Transitways: BRT, transitway, and streetcar routes that are in jurisdictions' plans but not yet in the TPB's long-range plan would be added at various locations throughout the region. This initiative would also improve pedestrian access to transit stations and increase the amount of jobs and housing around the transit stations.

Metrorail Core Capacity Improvements: This initiative includes running eight-car trains exclusively on all Metrorail lines—replacing six-car trains entirely. It would also add a second Rosslyn station, and a new rail line across the Potomac River connecting the District and Virginia through Georgetown to Union Station towards Waterfront. It also would add better bicycle and pedestrian access to rail stations.

Employer-Based Travel Demand Management Policies: New policies would increase teleworking regionwide and increase the number of employees receiving transit and carpool subsidies. This initiative would also increase the price for most of the parking for work-trips in Activity Centers.

Regional Express Travel Network: The region would have an extensive network of express toll lanes on existing highways. These lanes would use dynamic tolls to maintain desired travel speeds and be free to carpoolers and transit vehicles. New express bus service connecting Activity Centers would also travel on the network.



MEMORANDUM

TO: Transportation Planning Board
FROM: Jay Fiset, Chairman, TPB Long-Range Plan Task Force
SUBJECT: Recommended Long-Range Plan Initiatives for TPB Endorsement and Future Action
DATE: December 14, 2017

SUMMARY

This memorandum recommends for TPB endorsement five “initiatives”¹ found by the Long-Range Plan Task Force to have the most potential to improve the performance of the region’s transportation system compared to the TPB’s current Constrained Long-Range Plan (CLRP) and to make more progress toward achieving the goals laid out in TPB and COG governing policy documents. It further recommends that the TPB direct staff to include these initiatives in the aspirational element of the TPB’s Visualize 2045 Long-Range Transportation Plan. The recommended initiatives are:

Optimize Regional Land-Use Balance: This initiative would optimize the balance of jobs and housing region-wide. The idea is to increase jobs and housing around underused rail stations and Activity Centers with high-capacity transit. Plus, it would encourage building additional housing in the region to match employment projections.

Regionwide Bus Rapid Transit (BRT) and Transitways: BRT, transitway, and streetcar routes that are in jurisdictions’ plans but not yet in the TPB’s long-range plan would be added at various locations throughout the region. This initiative would also improve pedestrian access to transit stations and increase the amount of jobs and housing around the transit stations.

Metrorail Core Capacity Improvements: This initiative includes running eight-car trains exclusively on all Metrorail lines—replacing six-car trains entirely. It would also add a second Rosslyn station, and a new rail line across the Potomac River connecting the District and Virginia through Georgetown to Union Station towards Waterfront. It also would add better bicycle and pedestrian access to rail stations.

Employer-Based Travel Demand Management Policies: New policies would increase teleworking regionwide and increase the number of employees receiving transit and carpool subsidies. This initiative would also increase the price for most of the parking for work-trips in Activity Centers.

Regional Express Travel Network: The region would have an extensive network of express toll lanes on existing highways. These lanes would use dynamic tolls to maintain desired travel speeds and be free to carpoolers and transit vehicles. New express bus service connecting Activity Centers would also travel on the network.

¹ Initiatives were defined as mega-projects, mega-programs, or mega-policies of a regional scale that may involve multiple components. Use of the term “initiative” allows the task force to proceed without needing to differentiate between those that are projects, policies, or programs.

BACKGROUND AND PROCESS

The National Capital Transportation Planning Board (TPB) established Phase II of the Long-Range Plan Task Force (task force) in March 2017² and charged the task force and staff with seven tasks that were further clarified in May 2018³.

The primary charge given to the task force and staff was the identification of approximately 6-10 projects, policies, or programs (“initiatives”) for analysis to determine if they could make significantly better progress towards achieving the goals laid out in TPB and COG’s governing documents. The identification of these initiatives was specified to occur by June 2017 and the TPB’s acceptance of them for further analysis was specified to occur by July 2017. Further, the task force and staff were also tasked with the development of a process by which the TPB would later endorse, for future concerted TPB action, a final selection of initiatives with the goal of constructing an aspirational element of the region’s long-range transportation plan for the region and ultimately including components of these initiatives in future updates of the constrained element of the plan.

The other charges given to the task force included requirements that the task force’s work activities: (1) build on the Phase I Report of the Long-Range Plan Task Force and draw directly from existing governing TPB and Metropolitan Washington Council of Governments (COG) policy documents, (2) consider lessons learned from previous scenario exercises conducted by TPB and WMATA, (3) develop measurable goals and performance metrics considering best practices in long range transportation plans, (4) acquire and use any state of the art regional transportation and land-use models necessary to test alternative program, policy, land-use and project combinations, (5) explore possible funding and financing strategies for advancing various initiatives and (6) completing all task force work activities by December 31, 2017.

The task force carried out its work activities in ten meetings between April and December 2017. The task force began its work in early April by reviewing staff presentations on the broad range of goals identified in the TPB’s Vision, TPB’s Regional Transportation Priorities Plan and COG’s Region Forward and the major challenges faced in achieving these goals. The task force continued its work later that month by reviewing the results of past scenario analyses, considered the lessons learned from them, and brainstormed more than 80 individual projects, policies and programs for possible consideration. In May and June, the task force, with assistance from staff and a transportation consultant team led by ICF International, narrowed down, refined and combined the brainstormed list of individual ideas into ten distinct initiatives consisting of mutually supportive combinations of projects, policies and programs.

In July 2017, the TPB accepted the ten initiatives recommended by the task force for further analysis. The accepted ten initiatives are listed and described in Table 1 of the Executive Summary [Attached]. Following that acceptance, the consultant team developed detailed methodological assumptions for each of the ten initiatives and identified best practice modeling and sketch-planning techniques to analyze them. In September, the task force reviewed and agreed on the input

² TPB Resolution TPB R16-2017 March 29, 2017, “Revised Resolution Establishing The Mission And Tasks For Phase II Of The Long Range Plan Task Force”

³ TPB Resolution R16-2017, as Amended May 17, 2017, “Revised Resolution Establishing The Mission And Tasks For Phase II Of The Long Range Plan Task Force”.

assumptions, tools and methods proposed by staff and the consulting team for the analysis of the ten initiatives. Also, in September the task force reviewed and provided feedback on a proposed set of measurable goals and performance metrics to be used to assess the performance of the ten initiatives.

In October 2017, the task force agreed to the performance measures and the qualitative regional transportation challenges to be used to assess the performance of the ten initiatives relative to the combination of project inputs in the TPB's CLRP. Also at its October meeting, the task force agreed to the process by which the task force would select the initiatives to be recommended to the TPB for endorsement for future concerted action. The agreed-to selection process encouraged each task force member to consider the assessment of the qualitative performance measures, the qualitative transportation challenge measures and other factors, such as user and implementation costs, in voting to advance one or more initiatives to the TPB for endorsement. It was further agreed that a straw poll would be taken, followed by a discussion that would consider initiatives that received two-thirds of the votes as having high support, with the ultimate goal of coming to a consensus as to which initiatives to recommend to the TPB.

[The draft results of the technical analysis and qualitative assessment of the ten initiatives](#) identified by the task force were presented to the TPB at its November 15 meeting. The draft report, An Assessment of Regional Initiatives for the National Capital Region, can be found on the Long-Range Plan Task Force's website: www.mwcog.org/lrptf

The summary results of this analysis and assessment are presented in Tables 2 and 3 of the Executive Summary [Attached]. The task force met immediately after the November 15 TPB meeting to further discuss these results and ask clarifying questions to the staff and consultants.

Staff and the consultant team responded in writing to the questions and comments received from the task force members and provided the task force with the consultant Draft Technical Report prior to their December 6 meeting. At the December 6 meeting, the task force members voted for their preferred initiatives and ranked their choices. Five of the ten initiatives received support from two-thirds or more of the task force and it was unanimously agreed that these five initiatives would be recommended for endorsement by TPB at the TPB's December 20 meeting and that TPB direct staff to include these initiatives in the aspirational element of the TPB's Visualize 2045 Long-Range Transportation Plan.

An Executive Summary of the Phase II Technical Report documenting the Long-Range Plan Task Force's work activities and the assessment of the analysis of the ten initiatives analyzed is attached to this memo.

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**REVISED RESOLUTION ESTABLISHING THE MISSION AND TASKS
FOR PHASE II OF THE LONG RANGE PLAN TASK FORCE**

WHEREAS, the National Capital Regional Transportation Planning Board (TPB), as the metropolitan planning organization (MPO) for the Washington Region, has the responsibility under the provisions of the Fixing America's Surface Transportation (FAST) Act for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process for the Metropolitan Area; and

WHEREAS, the TPB, as part of the regional metropolitan planning process, continues to develop and adopt a fiscally Constrained Long Range Plan (CLRP) as mandated by the federal FAST Act as a means of ensuring that federal funding and approval for transportation projects in the region are made available; and

WHEREAS, the unanimously adopted TPB Regional Transportation Priorities Plan (RTPP) focuses on six goals – providing a comprehensive range of transportation options; promoting a strong regional economy including a healthy regional core and dynamic activity centers; ensuring adequate system maintenance, preservation and safety; maximizing operational effectiveness and safety of the transportation system; enhancing environmental quality and protecting natural and cultural resources; and supporting inter-regional and international travel and commerce; and

WHEREAS, the unanimously approved Council of Governments' Region Forward Report reinforces and builds on these RTPP transportation goals; makes compact, walkable, mixed-use, transit-oriented communities the land use priority; and includes other priorities such as a significant decrease in greenhouse gas emissions, minimizing economic disparities, access to affordable housing, and wellness, among others; and

WHEREAS, the Council of Governments' National Capital Region Climate Change Report sets a goal of reducing greenhouse gas emissions 80 percent below 2005 levels by 2050; and

WHEREAS, the Access for All Committee expressed a range of concerns about the current CLRP including, the East-West divide showing the region not only divided by race and income but also by access to jobs, accessibility and safety, and the need for Metro core capacity funding to stabilize and expand services to vulnerable communities, and the need for improved services for people with disabilities and challenges to transit equity; and

WHEREAS, there is great concern that the combination of project inputs to the current CLRP results in unsatisfactory performance compared to current conditions, with peak hour congested lane miles increasing by 65%¹, daily vehicle hours of delay increasing by 74%¹, and reductions in CO2 emissions falling far short of the region's 80% multi-sectoral goal; and

WHEREAS, the Washington Metropolitan Transit Authority (WMATA), projects as much as a \$25 billion capital need for rehabilitation and capacity for the over 40-year-old Metrorail system, and other existing infrastructure needs major rehabilitation or multi-modal expansion including the Memorial Bridge, Long Bridge, and American Legion Bridge; and

WHEREAS, the "All-Build" scenario from the Report on Phase I of the Long-Range Plan Task Force found that even if the region spent an additional \$100 billion on new capital projects through 2040, over and above the \$42 billion currently assumed in the CLRP, the region would still face increased congestion, indicating that it will be impossible to build our way out of congestion with new infrastructure alone; and

WHEREAS, past TPB planning efforts that used the Cooperative Forecast to test alternate land use and policy scenarios, such as the "What Would It Take" and "Aspirations" scenarios, have shown significant benefits from policy and land use changes that promote multimodal travel and reduce VMT; and

WHEREAS, the TPB understands that one of its primary responsibilities is "to coordinate future plans, provide fair, balanced and comprehensive data and analysis to decision makers to inform and influence transportation programming decisions so as to advance the regional Transportation Vision and Priority Principals by advancing a more effective set of projects and policy inputs to the region's long range transportation plans"; and

WHEREAS, the TPB believes the region needs to develop a Long Range Transportation Plan that goes beyond the project inputs reflected in its current CLRP, and includes a combination of programs, projects, and policies that would better achieve the broad range of transportation goals embedded in TPB and COG's adopted guiding documents.

NOW THEREFORE BE IT RESOLVED THAT THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD:

1. Formally convenes the Long Range Plan Task Force (Task Force) led by the officers of the TPB, whose members will be appointed by the Chairman of the TPB and made up of representatives of the TPB member jurisdictions and agencies plus one representative each from the TPB's Citizen's Advisory Committee and Access for All Advisory Committee.
2. Charges the Task Force and staff to build on the December 2016 Phase I Report of the Long-Range Plan Task Force, and draw directly from existing governing TPB and COG

¹ Transportation Planning Board, "Performance Analysis of the 2016 CLRP Amendment", November 16, 2016

policy documents such as the Regional Transportation Priority Plan, Region Forward, and the Climate Change Report.

3. Charges the Task Force and staff to consider lessons learned from the various alternative scenario exercises conducted by TPB and WMATA staff such as “What Would it Take,” “Aspirations,” and “Connect Greater Washington.”
4. Charges the Task Force and staff to develop measurable goals and performance metrics considering the best practices in long range transportation plans - including in the areas of performance measures, project evaluation and selection, and scenario analysis - that have been developed by other MPOs to achieve projects, policies, and programs as described in #6 below.
5. Charges the Task Force and staff with acquiring and utilizing any state of the art and more fully integrated regional land use and transportation model necessary to ensure the ability to test alternative program, policy, land use, and project combinations, including an analysis of prospective changes to land use and traveler behavior because of such alternatives.
6. Charges the Task Force and staff, by June 2017, with identifying for TPB’s acceptance in July 2017 for further analyses approximately 6-10 projects, policies, or programs to determine if they make significantly better progress towards achieving the goals laid out in TPB and COG’s governing documents, and to also develop a process by which the TPB will later endorse a final selection from among these for future concerted TPB action with the goal of constructing a Long Range Transportation Plan and ultimately including them in future CLRP updates.
7. Charges the Task Force and staff to explore possible sources of funding and financing strategies for advancing these regionally significant projects, policies or programs.
8. Charges the Task Force and staff with completing all these tasks by December 31, 2017, to inform the upcoming comprehensive update to the CLRP, as well as future updates.

Approved by the Transportation Planning Board at its regular meeting on May 17, 2017.

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION ACCEPTING LONG-RANGE PLAN TASK FORCE
INITIATIVES FOR FURTHER ANALYSIS**

WHEREAS, the National Capital Regional Transportation Planning Board (TPB), as the metropolitan planning organization (MPO) for the Washington Region, has the responsibility under the provisions of the Fixing America's Surface Transportation (FAST) Act for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process for the Metropolitan Area; and

WHEREAS, the TPB, as part of the regional metropolitan planning process, continues to develop and adopt a fiscally Constrained Long Range Plan (CLRP) as mandated by the federal FAST Act as a means of ensuring that federal funding and approval for transportation projects in the region are made available; and

WHEREAS, the TPB has noted that the combination of project inputs and the planned land use reflected in the current CLRP results in less than satisfactory levels of performance of the region's transportation system compared to current conditions and does not make significant progress towards achieving the goals laid out in TPB and COG's governing documents; and

WHEREAS, the TPB understands that one of its primary responsibilities is "to coordinate future plans, provide fair, balanced and comprehensive data and analysis to decision makers to inform and influence transportation programming decisions so as to advance the regional Transportation Vision and Priority Principals by advancing a more effective set of project and policy inputs to the region's long range transportation plans"; and

WHEREAS, the TPB believes the region needs to develop a Long-Range Transportation Plan that goes beyond the project inputs reflected in its current CLRP, and that includes a combination of programs, projects and policies that would better achieve the broad range of transportation goals embedded in TPB and COG's adopted guiding documents; and

WHEREAS, the TPB adopted R16-2017, As Amended, establishing the Long-Range Plan Task Force with the mission of "identifying for TPB's acceptance in July 2017 for further analyses approximately 6-10 projects, policies or programs to determine if they make significantly better progress towards achieving the goals laid out in TPB and COG's governing documents"; and

WHEREAS, the Long-Range Plan Task Force used existing governing TPB and COG policy documents as guidance, including the goals from the Regional Transportation Priorities Plan,

Region Forward, and the Vision, and the challenges in achieving the goals as identified in the Regional Transportation Priorities Plan; and

WHEREAS, the Long-Range Plan Task Force, over the course of the past three months, had identified over 80 individual project, policy, and program ideas, and undertook a process to narrow that long list down to 10 initiatives that are worthy of further analysis to assess their potential impact on the performance of the region's transportation system, as presented in Table 1 of the attached memo dated July 13, 2017; and

WHEREAS, the 10 initiatives go beyond what is included in the current CLRP such that each initiative is regional in nature and will be assessed to see if they have the potential to make noticeable improvements in some aspects of regional performance toward achieving the goals described in TPB and COG's governing documents, and such that each initiative includes supporting elements that increase the improvement potential of each initiative; and

WHEREAS, the crafting of this combination of initiatives was extremely difficult and reflects the task force's best attempt at thinking regionally and recognizing that the diversity of the region's transportation needs and solutions merits being open to assessing projects, programs and policies which may be appealing to some, but not all member jurisdictions; and

WHEREAS, the acceptance of these 10 initiatives for further analysis by the TPB does not: (1) reflect an endorsement of the initiatives or elements thereof; (2) guarantee that any of the individual initiatives will be endorsed by the TPB in December or added into the Long-Range Transportation Plan; and (3) and cannot require any jurisdiction to alter any existing or future plans for transportation projects, land-use, pricing or travel demand management policies or programs; and

WHEREAS, the acceptance of the 10 initiatives by the TPB will mean that staff will undertake a planning level technical analysis to determine any potential improvement in the performance levels of the region's transportation system; and

WHEREAS, the technical analysis of the 10 initiatives will include potential quantitative and qualitative benefits to the region of the initiatives as well as rough estimates of cost, the results of which will be shared with the task force and TPB later this fall; and

WHEREAS, the results of the analysis will not by themselves become determining factors for any further action the TPB may wish to take, rather, the results will help inform a more detailed discussion by the TPB regarding if any of the initiatives should be considered for further endorsement by the TPB; and

WHEREAS, such a discussion could include other factors such as more detailed definition and analysis of the components of the initiatives, cost-benefit considerations, identification of the funding needed to implement the initiatives, and the viability of taking any action needed to implement policies or programs.

NOW THEREFORE BE IT RESOLVED THAT THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD:

1. Accepts for further analysis the attached list of 10 improvement initiatives from Table 1 of the attached July 13, 2017 memo as recommended by the Long-Range Plan Task Force.
2. Charges staff with analyzing if and how any of these 10 initiatives could make significantly better progress towards achieving the goals laid out in TPB and COG's regional governing documents, using the goals and challenges for guidance.
3. Charges the task force with reviewing the analysis and presenting to the TPB later this year a summary of findings and with presenting to the TPB a recommended process by which the TPB may later endorse a final selection from among the 10 initiatives for inclusion in the aspirational element of the region's Long-Range Transportation Plan and/or future concerted TPB action. The task force may also choose to present the TPB with a recommendation of the final selection.
4. Charges the Task Force and staff to explore possible sources of funding and financing strategies for advancing these regionally significant projects, policies or programs.

Adopted by the Transportation Planning Board at its regular meeting on July 19, 2017

AN ASSESSMENT OF REGIONAL INITIATIVES FOR THE NATIONAL CAPITAL REGION - **DRAFT**

Draft Executive Summary

Technical Report on Phase II of the TPB Long-Range Plan Task Force

December 2017



National Capital Region
Transportation Planning Board

**AN ASSESSMENT OF REGIONAL INITIATIVES FOR THE NATIONAL CAPITAL REGION:
EXECUTIVE SUMMARY FOR TECHNICAL REPORT ON PHASE II OF THE TPB LONG-RANGE PLAN TASK FORCE**

Prepared by the Long-Range Plan Task Force
December 2017

ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 23 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

CREDITS

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This report was prepared by ICF, with support from staff from Sabra Wang & Associates (SWA), Fehr & Peers (F&P), and Shapiro Transportation Consulting (STC), Robert Griffiths, and COG/TPB Staff.

ACCOMMODATIONS POLICY

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El Consejo de Gobiernos del Área Metropolitana de Washington (COG) cumple con el Título VI de la Ley sobre los Derechos Civiles de 1964 y otras leyes y reglamentos en todos sus programas y actividades. Para obtener más información, someter un pleito relacionado al Título VI, u obtener información en otro idioma, visite www.mwcog.org/nondiscrimination o llame al (202) 962-3300.

BACKGROUND

The National Capital Region Transportation Planning Board (TPB) oversees the development of a fiscally constrained Long-Range Transportation Plan (CLRP) for the Washington, D.C. region. The CLRP identifies the regionally-significant capital improvements to the region's highway and transit systems that are funded and will be implemented by area transportation agencies over the next 20 years. The TPB is also responsible for evaluating the plan to ensure its compliance with national air quality standards and to evaluate how well it performs with respect to pre-defined policy goals and objectives.

The most recent evaluations of the CLRP have shown that the region's current highway congestion and transit crowding will continue to intensify into the future. The region will experience a 23% increase in population (1.2 million added people) and a 29% increase in employment (940 thousand added jobs) over the next 25 years. In contrast, the existing CLRP provides only for a 7% increase in roadway capacity for the same period. Consequently, regional roadway congestion, as expressed in vehicle hours of delay (VHD), is forecasted to increase by 74% between 2016 and 2040. There are other predicted measures that suggest progress is being made towards TPB policy goals: the plan provides for a 26% increase in miles of high-capacity transit service, the market share of non-motorized and transit modes is expected to increase, and vehicle-miles traveled per capita is expected to edge downwards. The magnitude and extent of these desired changes, however, will not be enough to offset degrading highway service.

The modest increase in planned highway capacity expansion is due largely to limitations in funding for transportation improvements. The 2016 CLRP assumes that approximately \$250 billion in funding will be available to support the CLRP, but most (83%) of that funding will be dedicated to system maintenance and operating costs, leaving only 17% (\$42 billion) for highway and transit system expansions. The TPB has recognized that this level of capital funding over the planning horizon is insufficient for adequately addressing current and future mobility needs.

The TPB's Vision document outlines a set of policy goals, objectives and strategies aimed to guide the region's transportation system investments and development. Based on these goals, the TPB approved a policy guide known as the Regional Transportation Priorities Plan in January 2014 to identify current priorities and call upon the region to implement common-sense strategies to improve mobility and accessibility in our region. That call for action prompted many board members to begin thinking beyond the financial restrictions of the existing CLRP and to explore new and creative options to effectively improve the performance of our region's future transportation system. Discussions on how to develop a consensus-based approach for developing new strategies led to the formation of a special working group and a three-phase work plan to be implemented over the 2016-2017 period:

- **Phase I: Develop a Baseline Report**
This phase occurred during 2015 and 2016 and focused on an analysis of three future (2040) alternative scenarios:
 - No-Build – Included only those projects that were on the ground in 2015. It included none of the capital improvements in the current CLRP (as of 2015).

- Planned-Build – Included planned projects to be built and implemented between 2015 and 2040 that are included in the current CLRP (as of 2015).
- All-Build – Included all of the unfunded capital improvements (above and beyond what was already included in the CLRP) inventoried by the TPB, in addition to projects included in the Planned-Build Scenario.

The Phase I study was useful for providing a “book-end” analysis of the future system’s performance under varying system improvement assumptions. The study was especially valuable for demonstrating that the attempt to simply “build our way out” of our congestion problem, in the face of prevailing levels of congestion together with the expected growth, will not be viable. The cost of doing so would be too high. The All-Build scenario included about 500 additional highway and transit projects beyond the CLRP at a preliminary estimated cost of \$100B. Additionally, the All-Build analysis showed that future highway congestion would be considerably less than that in the Planned-Build scenario yet still be worse than current conditions. The scenario analysis also underscored the importance of supplementing any proposed system expansions with supporting policies, pricing mechanisms and land development patterns.

- **Phase II: Identify a Set of Unfunded Regional Priority Initiatives**

This phase was undertaken during the 2016-2017 period by a TPB-appointed task force. The task force was charged with building on Phase I work and all previous TPB scenario analysis to identify approximately 6-10 projects, policies, or programs (initiatives) to determine if they make significantly better progress towards achieving the goals laid out in TPB and COG’s governing documents.

- **Phase III: Incorporate Unfunded Regional Priority Initiatives into the Region’s Long-Range Plan and Promote Implementation**

This phase would involve the initiatives from Phase II included as unfunded initiatives in the next quadrennial update of the region’s long-range transportation plan, now known as Visualize 2045. Additionally, the five TPB-endorsed initiatives would be identified as the aspirational element of the region’s long-range transportation plan with the goal of ultimately including these into future updates of the fiscally constrained element of the plan.

The Phase II activities were overseen by the Long-Range Plan Task Force, an 18-member group made up of TPB members plus representative from two other TPB committees. The task force was supported by TPB staff and a consultant team headed by ICF International.

STUDY OBJECTIVE

TPB Resolution R16-2017, adopted March 15, 2017, directed the Long-Range Plan Task Force to identify a limited set (6-10) of projects, policies, or programs that would have the potential to improve the performance of the region's transportation system and to make substantive progress towards achieving the goals laid out in TPB's and the Metropolitan Washington Council of Government's (COG's) governing documents.

The task force's charge was to formulate a set of projects, policies and/or programs that could improve the future performance of the region's transportation system. The task force decided to explore ideas in theory, without regard to immediate implementation hurdles such as funding or public support. This approach provided the task force with an opportunity to think creatively about novel ideas that have potential and could benefit from further analysis. Because of the short timeline of this work effort, initiatives were studied at a broad sketch-planning level of analysis to obtain an "order of magnitude" estimate of the potential difference in performance relative to the CLRP. Additionally, the sketch-planning nature of the analysis meant that the initiatives studied were intended to point to conceptual ideas for the region to explore as opposed to providing analysis on highly detailed projects, policies or programs. The task force would ultimately present the results to the TPB in December 2017, with a recommendation to endorse some of the initiatives for "future concerted action."

STUDY PROCESS

The process for identifying a limited set of transportation solutions involved a series of task force meetings and the use of "sketch-planning" analysis methods available to meet an extremely aggressive project schedule. The task force undertook the following procedural steps:

- 1. Review of Regional Planning Information:** The task force first reviewed planning and policy goals from TPB and COG governing documents which guide long-range planning activities in the region. From those existing goals, the task force agreed upon their own set of goals to guide their activity. The task force was briefed on the latest land-use and transportation forecasts, as well as a summary of the highlights and lessons learned from prior scenario analyses conducted by TPB and other regional bodies.
- 2. Establishment of Regional Challenges and Performance Measures:** The task force reviewed a list of challenges that the region faces in achieving its adopted policy goals, drawn from the Regional Transportation Priorities Plan. The task force adjusted the challenges to fit the purpose of their work, and agreed that the 14 challenges would frame the conversation on proposed projects, programs and policies. The task force also agreed on a set of performance measures (measures of effectiveness or MOEs) that could be used to gauge how well each initiative performed against the regional challenges.
- 3. Development and Consolidation of Transportation Improvements:** The task force dedicated several meetings for discussing and compiling transportation improvement ideas in the form of projects, programs and policies. Through structured facilitation and discussion, over 80

improvement ideas were ultimately narrowed down to ten “initiatives” or synergistic combinations of projects, policies and/or programs targeting a unifying theme and that go above and beyond what is contained in the current 2040 CLRP. The ten initiatives identified for evaluation by the task force fall into three major categories: 1) multimodal, 2) transit-focused and 3) policy focused initiatives. Table 1 provides detailed descriptions of each initiative. The assumptions associated with these ten initiatives are generally aggressive and broad in scope, reflecting the desire to explore concepts that could have a demonstrated regional impact on system performance. The initiatives build upon previously-identified concepts and are not constrained by local plans and projects.

4. **Technical Analysis of the Initiatives:** Sketch-planning techniques were employed by TPB staff and the ICF consultant team. Results were shared with the task force, showing each initiative’s performance on the performance measures at a regional scale compared to the performance of the 2040 CLRP. To determine how well each initiative addressed the list of 14 challenges, each initiative was assessed on a qualitative scale of High, Medium, Low, Neutral or Negative, compared to the 2040 CLRP.
5. **Final Selection of Initiatives to Recommend for TPB Endorsement:** The task force discussed the results of the technical analysis and conducted a voting process to identify which of the ten initiatives would be advanced to the TPB for its endorsement. The five initiatives recommended to the TPB were those securing support from at least two-thirds of the task force members.

UNDERLYING ASSUMPTIONS FOR THE TEN INITIATIVES

While the ten initiatives could provide for substantial improvements to the region’s transportation system, the task force stressed that the success of any or all initiatives would be dependent upon pre-requisite conditions or assumptions. These assumptions include:

- **State of Good Repair.** The initiatives assume that Metrorail, other transit services, and all highway and bridge infrastructure are in a state of good repair. The task force recognized that a state of good repair for transportation infrastructure is critical to the performance of the transportation system and an underlying foundation that must be supported prior to implementing any new infrastructure-based initiatives.
- **Supportive Land-Use Policies.** The initiatives assume that land-use policies will support the significant new infrastructure investments. Specific land-use changes in the region, i.e. changes in where land activity growth will occur beyond the year 2025, were assumed for some alternatives.
- **Improvements in Bicycle and Pedestrian Infrastructure.** Some of the initiatives assume that transit investments will be supported by improvements in bike/walk accessibility to access those transit services.
- **Bold Assumptions to Achieve Regional Improvements on the Challenges.** These initiatives are intended to go above and beyond the CLRP to show whether it is worthwhile for the region to invest in projects, programs, and policies such as those contained in these initiatives. To demonstrate the full potential of each initiative, bold assumptions were used to ensure improvements would be detected at the regional level of analysis.

Table 1: Initiative Components

Multimodal Initiatives	
1. Regional Express Travel Network	<ul style="list-style-type: none"> Express toll lanes network (free to HOV and transit vehicles) with added lanes where feasible on existing limited access highways (including remaining portion of the Capital Beltway, I-270, Dulles Toll Road, U.S. 50); includes expanded American Legion Bridge. New express bus services on network (paid in part through tolls) connecting major Activity Centers.
2. Operational Improvements and Hotspot Relief	<ul style="list-style-type: none"> Application of technology and enhanced system operations strategies, such as ramp metering, active traffic management, and integrated corridor management (including transit signal priority and enhanced multimodal travel information), plus targeted capacity enhancements where feasible to address top regional congestion hotspots and adjoining connections. Improved roadway design (such as treatments of turning movements) and reversible lanes on major roadways, as appropriate (to be identified based on strong directional flows). Expanded regional incident management where appropriate. Technological integration of demand-responsive services for persons with disabilities and others with limited mobility to create efficiencies of scale and improve mobility of traditionally underserved populations.
3. Additional Northern Bridge Crossing/Corridor	<ul style="list-style-type: none"> New northern bridge crossing of Potomac River, as a multimodal corridor between the Intercounty Connector and Northern Virginia. New express bus services connecting existing Activity Centers in this new multimodal corridor.
Transit-Focused Initiatives	
4. Regionwide Bus Rapid Transit and Transitways	<ul style="list-style-type: none"> Bus rapid transit (BRT)/transitway networks in Montgomery County, Prince George’s County, Northern Virginia (TransAction 2040), Washington D.C., and transitway from Branch Ave to Waldorf; specifications according to jurisdiction plans. Additional D.C. streetcar line (north-south) as complement to network. Improved bicycle and pedestrian connections and access improvements to transit stations.
5. Regional Commuter Rail Enhancements	<ul style="list-style-type: none"> VRE System Plan 2040, MARC Growth and Investment Plan (including run-thru and two-way service on selected lines, increased frequency and hours of service).¹ Long Bridge corridor improvements including at least four tracks and bicycle-pedestrian facilities. Improved bicycle and pedestrian connections and access improvements to rail stations.

¹ Both the Virginia Railway Express (VRE) and Maryland Area Regional Commuter Train Service (MARC) have planned system and service improvements that are scheduled to be implemented by the year 2040. More details on these plans and how they overlap with this initiative can be found in Appendix C.

Transit-Focused Initiatives (Continued)	
6. Metrorail Regional Core Capacity Improvements	<ul style="list-style-type: none"> • 100% 8-car trains. • Metrorail station improvements at high-volume stations in system core. • Second Rosslyn station to reduce interlining and increase frequency. • New Metrorail core line to add capacity across Potomac River (new Rosslyn tunnel) between Virginia and D.C. through Georgetown to Union Station toward Waterfront. • Improved bicycle and pedestrian connections and access improvements to rail stations.
7. Transit Rail Extensions	<ul style="list-style-type: none"> • Metrorail extensions to Centreville/Gainesville, Hybla Valley /Potomac Mills. • Can consider an extension(s) in MD, such as to National Harbor or north of Shady Grove (to be defined later). • Purple line extension to Tysons (west) and Eisenhower Avenue (east). • Improved bicycle and pedestrian connections and access improvements to rail stations.
Policy-Focused Initiatives	
8. Optimize Regional Land-Use Balance	<ul style="list-style-type: none"> • Optimize jobs/housing balance regionwide. • Increase jobs and housing around underutilized rail stations and Activity Centers with high-capacity transit. • Build more housing in the region to match employment (about 130,000 more households) and reduce the number of long distance commuters outside of the region.
9. Transit Fare Policy Changes	<ul style="list-style-type: none"> • Reduced price Metrorail fare for off-peak direction during peak period and on underutilized segments. • Free transit for low-income residents.
10. Amplified Employer-based Travel Demand Management	<p>New policies (e.g., employer trip reduction requirements) and programs (e.g., financial incentives) implemented at the local and regional scale to significantly reduce single-occupancy vehicle commute trip making, including:</p> <ul style="list-style-type: none"> • Employer-based parking cash-out • Expanded employer-based transit/vanpool benefits • Expanded telework and flexible schedule adoption • Substantial increase in priced commuter parking in major Activity Centers

STUDY RESULTS

A technical analysis was undertaken for each of the ten initiatives. The analysis was used to arrive at regional measures of effectiveness (MOEs) which compared the regional performance of each initiative to the performance of the 2016 CLRP for the year 2040. The consultant team devised a method by which the quantitative measures could be related to each of the 14 challenges identified by the task force. This method allowed for the creation of a more user-friendly summary of results, shown as Table 2.

Table 2 presents a qualitative assessment summary that shows how each initiative performs relative to the 2040 CLRP with respect to each of the 14 challenges. The table relates initiatives to the challenges in terms of either positively improving the CLRP's performance (High, Medium, Low), having no effect on the CLRP's performance (Neutral) or worsening the CLRP's performance (Negative). For example, at the top left of Table 2, it is indicated that the Express Travel Network initiative will result in a "Medium" (or moderate) improvement in regional roadway congestion, relative to the CLRP's performance. Given the wide range of challenges relating to transportation performance, land development, repair needs, safety and environmental concerns, it is not surprising to note that any single initiative does not respond positively to all challenges. The table does provide the reader with a general sense of how the initiatives respond to the policy concerns of the TPB through a qualitative assessment.

A more detailed quantitative assessment of initiatives, developed from the technical analysis, is shown in Table 3. Table 3 presents the baseline MOEs for the 2040 CLRP and shows the percentage change in each MOE for each initiative relative to the baseline. For example, at the top left of the table, it is indicated that the average Single Occupant Vehicle (SOV) travel time of the Express Travel Network initiative will decrease (or improve) by 2%. The color coding provides a visual aid for more easily interpreting the quantitative results: light green to dark green indicates moderate to substantial improvement while orange indicates degradation in performance, compared to the baseline.

The task force reviewed the technical analysis and discussed the results in detail. Not surprisingly, many task force members requested more detailed information from the analysis team. The analysis team compiled responses to the task force questions and shared them with the members for their consideration in preparing their recommendations. While the team addressed most of the questions asked, the regional focus and technical methods used in the study would not support expeditious answers to some of the important questions pertaining to sub-area analyses.

Table 2: Summary of Performance Across Challenges Relative to 2040 CLRP

	BASE	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	
CHALLENGES	2040 CLRP	Express Travel Network	Operational Improvements & Hotspot Relief	Add'l Northern Bridge	BRT and Transitways	Commuter Rail	Metrorail Core Capacity	Transit Rail Extensions	Optimize Regional Land-Use Balance	Transit Fare Policy Changes	Travel Demand Management	
Road Congestion	↑ BASELINE ↓	Medium	Medium	Low	Low	Low	Medium	Low	High	Low	High	
Transit Crowding		Neutral	Neutral	Neutral	Neutral	Neutral	High	Negative	Negative	Negative	Medium	
Inadequate Bus Service		Medium	Neutral	Neutral	High	Neutral	Neutral	Low	Neutral	Neutral	Neutral	
Access to Bike/Ped		Neutral	Neutral	Neutral	Medium	Low	Medium	Medium	High	Neutral	Neutral	
Development around Metrorail		Neutral	Neutral	Neutral	Medium	Neutral	Low	High	High	Neutral	Neutral	
Housing & Job Location		Neutral	Neutral	Neutral	Medium	Neutral	Neutral	Medium	High	Neutral	Neutral	
Metrorail Repair Needs		Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Negative	Negative	Neutral	Neutral	
Roadway Repair Needs		Negative	Negative	Negative	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	
Incidents and Safety		Low	Low	Low	Low	Low	Low	Low	Medium	Low	High	
Pedestrian & Bicyclist Safety		Neutral	Negative	Neutral	Neutral	Neutral	Low	Low	Low	Low	Neutral	Low
Environmental Quality		Neutral	Low	Negative	Neutral	Neutral	Neutral	Low	Low	Medium	Low	High
Open Space Development		Neutral	Neutral	Negative	Neutral	Neutral	Neutral	Neutral	Neutral	Medium	Neutral	Neutral
Bottlenecks		Medium	Medium	Low	Neutral	Neutral	Neutral	Medium	Neutral	Medium	Low	High
Reliable Access to Intercity Hubs		High	Low	Low	Low	Low	Low	Medium	Medium	Low	Neutral	Low

KEY: High Medium Low Neutral Negative

Source: Analyses performed by COG, ICF, Sabra Wang (SWA), Fehr & Peers (F&P), and Shapiro Transportation Consulting (STC).

Table 3: Summary of Performance Across Quantitative MOEs Relative to 2040 CLRP

QUANTITATIVE MEASURES OF EFFECTIVENESS	BASE	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10
	2040 CLRP	Express Travel Network	Operational Improvements & Hot Spot Relief	Add'l North Bridge	BRT and Transitways	Commuter Rail	Metro rail Core Capacity	Transit Rail Extensions	Regional Land-Use Balance	Transit Fare Policy Changes	Travel Demand Management
Travel Time (SOV)	50.7	-2%	-4%	0%	-1%	-1%	-2%	-1%	-5%	0%	-4%
Travel Time (HOV)	58.9	-5%	-4%	-1%	-1%	-1%	-1%	-1%	-6%	<1%	-6%
Travel Time (Transit)	53.9	-1%	-2%	-	-1%	<1%	-6%	- <1%	-5%	1%	<1%
Daily Vehicle Hours of Delay	1.85 million	-11%	-8%	-3%	-2%	-2%	-9%	-3%	-18%	-2%	-24%
Jobs Accessible by Transit	523,000	2%	2%	-	4%	1%	19%	10%	10%	0%	0%
Jobs Accessible by Auto	876,000	5%	8%	1%	1%	<1%	2%	1%	10%	<1%	10%
Mode Share: SOV	58.1%	<1%	3%	<1%	-1%	-1%	-4%	-1%	-2%	<1%	-8%*
Mode Share: HOV	11.6%	-1%	-7%	0%	-1%	-1%	-5%	-3%	-4%	-2%	24%*
Mode Share: Transit	24.6%	1%	-4%	-	4%	2%	11%	5%	<1%	2%	6%*
Mode Share: Non-Motorized	5.6%	0%	0%	0%	<1%	<1%	<1%	<1%	29%	0%	16%*
Travel on Reliable Modes**	11.5%	42%	-5%	-2%	6%	2%	9%	6%	0%	3%	-3%
VMT daily	141.91 million	<1%	2%	1%	- <1%	- <1%	-1%	-1%	-3%	-1%	-6%
VMT daily per capita	21.17	<1%	2%	1%	- <1%	- <1%	-1%	-1%	-6%	-1%	-6%
Share of Households in Zones with High-Capacity Transit	39.9%	0%	0%	-	25%	<1%	<1%	17%	9%	0%	0%
Share of Jobs in Zones with High-Capacity Transit	57.7%	0%	0%	-	15%	<1%	0%	13%	2%	0%	0%
VOC Emissions	18.9	0%	-3%	1%	-1%	0%	-2%	-1%	-4%	-1%	-8%
NOx Emissions	18.8	0%	0%	1%	0%	0%	-2%	-1%	-4%	-1%	-7%
CO ₂ Emissions	47,082	0%	-1%	1%	-1%	0%	-2%	-1%	-4%	-1%	-7%

* Mode shares reflect trips taken. Due to telework, actual number of transit trips declines; bicycle/pedestrian stays flat; HOV increases slightly.

**Travel on reliable modes reflects the percentage of passenger miles on express lanes, Metrorail, bus rapid transit, commuter rail, walking, and biking; it does not reflect improvements in reliability due to reduced traffic congestion or programs that affect non-recurring delay, such as improved incident management.

Source: Analyses performed by COG, ICF, Sabra Wang (SWA), Fehr & Peers (F&P), and Shapiro Transportation Consulting (STC).

FINDINGS AND OBSERVATIONS

The objective of the Long-Range Plan Task Force and the Phase II analysis was to identify 6-10 projects, programs and/or policies that would improve the performance of the existing CLRP and increase the region's overall mobility and accessibility. The task force approached this objective building off a central theme that was established from the Phase I work: There is no single project, program or policy solution to the transportation challenges faced in our region. Each of the ten initiatives advanced by the task force for technical analysis represented a careful combination of projects, programs or policies that will work most effectively only if implemented together.

The analysis enabled the task force to gauge the strengths and weaknesses of each initiative with respect to challenges. In this regard, the analysis underscored that while some alternatives offer greater opportunities for reducing congestion over others, there are no clear "winners" or "losers" with respect to all challenges identified. The initiatives can be further understood and explored by viewing them in the context of larger societal goals, such as economic prosperity, environmental sustainability, community development, social equity and quality of life.

LONG-RANGE PLAN TASK FORCE RECOMMENDATION TO TPB

On December 6, 2017, the task force agreed to advance five of the ten initiatives to the TPB for its endorsement for future concerted TPB action:

- Initiative 1: Express Travel Network
- Initiative 4: Regionwide Bus Rapid Transit and Transitways
- Initiative 6: Metrorail Regional Core Capacity Improvements
- Initiative 8: Optimize Land-Use Balance
- Initiative 10: Amplified Employer-Based Travel Demand Management

More details about these five initiatives are provided below.

Initiative 1: Express Travel Network

This initiative involves expanding the existing tolled express lane system on the Capital Beltway and I-95 in Virginia to most limited-access highways in the region. The expanded system would also support new express bus service connecting Activity Centers, increasing the region's share of people who use transit. This initiative would reduce average highway times and vehicle hours of delay measurably without a large increase in vehicle miles traveled. The expanded express lane system would provide more reliable travel options to more of the region's residents.

Initiative 4: Regionwide Bus Rapid Transit and Transitways

This initiative represents an expansion of bus rapid transit (BRT) and streetcar systems mainly located in the regional core and inner suburbs, along with bicycle and pedestrian access improvements to these transit stations. This initiative would increase the availability of reliable transit options and promote increased job accessibility via transit. The region's challenge of inadequate bus service is addressed by this initiative, as it would provide increased and more reliable service on many of the region's heavily travelled arterial corridors. The BRT expansion

continues the investments and plans that are already in motion in Montgomery County and Fairfax County. BRT encompasses many of the reliability benefits offered by heavy rail, but without the capital cost requirements of heavy rail.

Initiative 6: Metrorail Regional Core Capacity Improvements

This initiative would ensure 100% 8-car trains, while substantially improving the Metrorail system's infrastructure (expanding high-volume stations, and adding a second Rosslyn station and a new tunnel to increase service frequency). It would substantially reduce vehicle hours of delay and would substantially increase accessibility to jobs via transit given that the improvement serves travel to the job-rich downtown core of the region. The analysis indicated that the share of people regionwide who take transit would be notably increased. This initiative enhances the investment already committed towards one of the nation's premiere heavy rail systems.

Initiative 8: Optimize Land-Use Balance

This initiative explored increasing the overall number of households in our region and reallocating future job and household growth occurring between 2025 and 2040 from areas outside the region's Activity Centers to underutilized Metrorail station areas and Activity Centers served by high-capacity transit. This reallocation of future growth improves the regional jobs-housing balance, reducing imbalanced commuter flows in the region, which underlie many congestion problems during the peak period. The addition of households to our region, in turn, would reduce the level of long-distance in-commuting to the Washington region from outside. This initiative yielded the second largest reduction in vehicle hours of delay while substantially increasing both highway and transit accessibility to jobs, and also provided the largest increase in non-motorized travel.

Initiative 10: Amplified Employer-Based Travel Demand Management

This initiative would encourage region-wide workplace programs and policies to reduce single-occupant vehicle commuting. These programs would include employer-based parking cash-out, expanded transit and carpooling benefits, a large increase in telecommuting, and allowing for increased flexible schedule options. This initiative also increases parking costs in Activity Centers throughout the region for work trips. Because of the reduction in commuter demand due to the increase of telecommuting, this initiative yielded the largest reduction in VMT and in vehicle hours of delay of all the initiatives analyzed. It also produced substantial increases in the number of jobs accessible by auto. The reduction in mobile-source emissions offered by this initiative was also the largest of all the initiatives.