

National Capital Region Transportation Planning Board

#### MEMORANDUM

TO:	TPB Long-Range Plan Task Force
FROM:	Lori Zeller, Transportation Planner
SUBJECT:	Summary of Past Scenario Analyses
DATE:	April 19. 2017

The March 29, 2017 Long-Range Plan Task Force resolution charges the Task Force and TPB staff to consider lessons learned from various alternative scenario exercises that have been conducted by the TPB and member agencies. The attached set of tables summarizes the inputs and outputs from six key scenario analysis studies done by TPB, COG and WMATA. The projects, programs and policies tested in these scenarios represent a wide and varied range of approaches. The results from the scenarios tested demonstrate the potential impact initiatives could have on the regional transportation network, greenhouse gas emissions, land use patterns and other outcomes.

The purpose of a review of these studies is to help shed light on potential impacts that these unfunded projects, programs and policies that have been studied in the past can have on the region. The results from the scenario analyses can provide insight into how projects, programs and policies could address the challenges identified by the task force, and can provide a sense of the scale of impact of these proposals.

Each table includes information about the scenario's land use and transportation inputs, as well as the key outcomes. The studies and their scenarios have slightly different table formats in order to accommodate the unique features of each study.

### SCENARIO STUDIES INCLUDED IN ATTACHED TABLES

- Regional Mobility and Accessibility Study (RMAS), 2006 (TPB)
- CLRP Aspirations Scenario, 2010 (TPB)
- What Would It Take, 2010 (TPB)
- ConnectGreaterWashington, 2015 (WMATA)
- Multi-Sector Working Group, 2016 (COG/TPB)
- Phase I Report for Long-Range Plan Task Force, 2016 (TPB)

### Regional Mobility and Accessibility Study (RMAS), 2006 (TPB)

The RMAS study grew out of TPB members' dissatisfaction with the performance of the 2000 CLRP. This study aimed to identify transportation projects and land use alternatives that would improve mobility and accessibility throughout the region and between activity centers. This study contains five different scenarios, each with different transportation and land use schemes. The scenarios are built off of the COG Cooperative Forecast Round 6.4 and the 2003 CLRP highway and transit networks. The baseline scenario to which all the test scenarios are compared is called "CLRP+" and consists of the 2030 transportation network as laid out in the 2003 CLRP, land use from the COG Round 6.4 Cooperative growth forecasts, plus the removal of the Metrorail core capacity constraint, improved traffic management and operational enhancements, and significantly increased frequency of rail and bus service.

Scenario Name	Land Use Inputs	Transportation Inputs (on top of CLRP+)	Selected Outcomes (Co
More Households	Added 216,000 more households to the region (9% higher than was forecast), distributed in or near activity centers in inner suburban or urban core jurisdictions, and reduced long distance in-commuting from outside the region by an equivalent amount	Added extensive new Metrorail (30 miles) including Metro across the Wilson Bridge, commuter rail (30 miles) including VRE to Haymarket and Spotsylvania, and an extensive expanded system of light rail and BRT transitways (218 miles) region-wide	Under this scenario VMT would congestion would decrease by commuting, more commuters network coverage. Transit use
Households In	Shifted 23% of forecast household growth to regional activity center clusters and concentrated employment areas in inner jurisdictions	Increased connectivity among activity centers in core and inner jurisdictions, including Metrorail expansion (30 miles), light rail (54 miles) and some transitways (Columbia Pike in Arlington, Route 7 in Fairfax County, Route 1 from Pentagon to Lorton)	Moving household growth from centers to inner areas well ser and increases transit trips by peak period congestion would
Jobs Out	Shifted 11% of forecast job growth to concentrated regional activity center clusters in outer jurisdictions	Transit improvements geared towards expansion in outer suburbs, including Metrorail to Centreville, VRE to Haymarket, light rail from Silver Spring to New Carrolton, and transitways on I-270, MD-5 from Branch Ave to Waldorf, and Route 1 from Pentagon City to Dumfries	This scenario would produce a transit trips (the only scenario period congestion would decre
Region Undivided	Shifted 16% of forecast household growth and 15% of forecast job growth from areas outside of regional activity center clusters in the western parts of region to regional activity clusters and employment areas in the eastern parts of region	Transit improvements geared towards eastern side of region, including Metrorail across the Wilson Bridge, 54 miles of light rail in DC, light rail connecting Silver Spring to Branch Ave, and multiple new or expanded transitways on Route 1, MD-193, US-50, MD-5, MD-210 in Maryland and Columbia Pike and Route 1 in Virginia	Transit trips would increase by regionwide. AM peak period co decreases where jobs were m period congestion). VMT would
Transit-Oriented Development	Shifted 35% of forecast household growth and 19% of forecast job growth closer to transit stations within each jurisdiction	Added extensive new Metrorail (30 miles) including Metro across the Wilson Bridge, commuter rail (30 miles) including VRE to Haymarket and Spotsylvania, and an extensive expanded system of light rail and BRT transitways (218 miles) region-wide	Under this scenario VMT decre peak period congestion decre of development around transi network.

#### ompared to CLRP+ baseline projections for 2030)

Id decrease by 1.3% and severe AM peak period y 6.4% due to the reduction in long distance is living closer to their jobs and expanded transit e would increase by 15.9%.

m areas in outer jurisdictions outside of activity erved by transit reduces average commute trip lengths 5.3%. VMT would decrease by 0.9% and severe AM d decrease by 6.9%.

a 0.1% reduction in VMT and a 2.4% reduction of in RMAS which decreased transit). Severe AM peak rease by 1.4%.

y 8.8% and accessibility to transit would increase congestion increases where jobs were moved to, and noved from (overall 2.7% reduction of severe AM peak Id decrease by 0.8%.

reases by 1%, transit trips increase by 7.9%, and AM eases by 4.6%, primarily because of the concentration it stations and an extensively expanded transit

## **CLRP Aspirations Scenario, 2010** (TPB)

The CLRP Aspirations Scenario study is a comprehensive land use and transportation scenario that combines some land use strategies from RMAS scenarios with major transportation improvements that add on to the 2008 CLRP, including an extensive network of variably-priced lanes and BRT. It incorporates work from an earlier effort called <u>Evaluating Alternative Scenarios for a Network of Variably Priced Highway Lanes in the Metropolitan Washington Region</u>. The scenario used a horizon year of 2030 and baseline growth assumptions from the COG Round 7.2 Cooperative Forecasts. The Aspirations Scenario was compared to a "land use sensitivity" scenario, which only included the Aspirations Scenario's land use elements and none of the transportation improvements. Both the full Aspirations Scenario and the land-use sensitivity scenario were compared to a baseline scenario, which consisted of the projects and land use assumptions from the 2008 CLRP.

Two follow-up studies were done after the initial release of the Aspirations Scenario in 2010. In 2011 the <u>Streamlined Variably Priced Lane Network Sensitivity Test</u> was conducted in order to test a more modest transportation network in conjunction with the land use scenario tested in the original Aspirations Scenario. In 2013 a <u>Technical Memorandum</u> updated the Aspirations Scenario by using the 2012 CLRP, Round 8.1 Cooperative Forecast, and a horizon year of 2040, as well as updates to the regional travel demand model.

The concept of "targeted growth area," which is used for the land use component of these scenarios, refers to areas that are mixed-use centers of activity around existing and planned transit, which were targeted with additional growth in order to make the scenario's transportation system more efficient.

Scenario Name	Land Use Inputs	Transportation Inputs	Selected Outcomes
Aspirations Scenario	Additional 3.5% households and 1% jobs added to the region above what was forecast for 2030 by Round 7.2. Within the region, growth is concentrated in "targeted growth areas," which would see a 6% increase in households and a 10% increase in employment above what was projected.	1,650 mile priced-lane network, 500 miles of BRT, 140 miles of circulators, plus additional transitways all supporting targeted growth areas	The intensifying of land use would reduce vehicle hours and average trip length wou would be a 16% increase in trips.
Aspirations Scenario – Land Use Only	Additional 3.5% households and 1% jobs added to the region above what was forecast for 2030 by Round 7.2. Within the region, growth is concentrated in "targeted growth areas," which would see a 6% increase in households and a 10% increase in employment above what was projected.	Held constant to test effect of full Aspirations Scenario (used the transportation network planned in the 2008 CLRP)	Intensifying the density of m 0.5% decrease in VMT and a would be able to live more c hours of delay would increas 16%, and transit trips would
Aspirations Scenario – Streamlined Variably Priced Lanes	Additional 3.5% households and 1% jobs added to the region above what was forecast for 2030 by Round 7.2. Within the region, growth is concentrated in "targeted growth areas," which would see a 6% increase in households and a 10% increase in employment above what was projected.	Used Aspirations Scenario transportation system as the basis, but reduced new lane construction and new interchange construction by approximately 30% in order to reduce the overall cost from the full scenario	Due to the more modest tra compared to the original Asp in VMT (2.2%) and average to compared to the baseline. V and walking trips would incr which are all the same result
Aspirations Scenario – Updated in 2013	Additional 2.6% households and 0.3% jobs added to the region above what was forecast for 2040 by Round 8.1. Within the region, growth is concentrated in "targeted growth areas," which would see a 32% increase in households and a 23% increase in employment above what was projected.	Used the Streamlined scenario transportation system as the basis and incorporated updates to be in line with MAP- 21 requirements, such as removing lanes from the variably price lane network that were not HOV lanes	The outcomes of this scenar projections for 2040. Comp scenario would result in a 0 length, a 27% reduction in v and an 8.1% increase in bik

#### (Compared to 2008 CLRP projections for 2040)

and the extensive express transportation network of delay by 12.5%, but VMT would increase by 2.9% and increase by 1.5% compared to the baseline. There bike and walking trips and a 14% increase in transit

nixed-use areas throughout the region would result in a a 2.5% decrease in trip length, since more people closely to their jobs and other destinations. Vehicle use by 1%, bike and walking trips would increase by d increase by 11%.

Insportation network proposed in this scenario pirations Scenario, there would be a smaller increase trip length (1%) than the full scenario produced, as /ehicle hours of delay would decrease by 11.4%, bike rease by 16%, and transit trips would increase by 14%, lts from testing the full scenario.

ario are compared to a different baseline: 2012 CLRP bared to the baseline of projections for 2040, this 0.1% decrease in VMT, a 0.4% increase in average trip vehicle hours of delay, a 7.2% increase in transit trips, king and walking trips.

# What Would It Take, 2010 (TPB)

This report examines what it would take to meet the aggressive regional climate change mitigation goals set in the 2008 <u>National Capital Regional Climate Change Report</u>. Actions are divided into short-term and long-term, and cumulative carbon dioxide emissions reductions are identified for each. The percentage reduction is relative to the "business as usual" (BAU) scenario in which there would be no major changes to the forecast of travel management programs or vehicle fleet. The baseline uses the modeling output for the 2009 CLRP and 2010-2015 TIP, which contain vehicle fleet forecasts based on 2008 vehicle fleet data and COG Cooperative Forecast Round 7.2 land use data.

Time Horizon	Actions: projects, policies and programs	Cumulative Total CO <sub>2</sub> Emissions Reductions	
Short-Term Regional Actions <sup>1</sup>	<ol> <li>Increase transit use         (i.e. neighborhood circulator buses, real-time bus schedule information, free bus-rail transfers, free off-peak bus service, K St. Transitway)</li> </ol>	-1.95 million tons (-0.30%)	
	<ol> <li>Increase bike/ped use (i.e. construct bike stations at rail stations, implement bike share, improve pedestrian facilities near rail stations)</li> </ol>	-0.12 million tons (0.02%)	
	3. Pricing (i.e. employers compensate employees who do not drive to work with value of free parking given to parking employees, pay-as-you-drive insurance)	-8.99 million tons (-1.45%)	
	4. Improve operation efficiency (i.e. eco-driving incentives and promotion, enforce idling reduction laws, MATOC - regional coordination of incident management)	-11.61 million tons (-1.87%)	
	5. Reducing travel (i.e. expand telecommuting, carpool and vanpool incentive programs, expand and incentivize car-sharing programs, employer TDM)	-1.78 million tons (-0.29%)	
	Short-term regional actions would reduce cumulative emissions by 24.45 million tons, which is equivalent to 3.9% of the desired reduction by 2030. An additional 9.6% reduction in emissions would be require to reach the goal.		
Long-Term Regional Actions <sup>2</sup>	<ol> <li>Increase transit use         (i.e. add parking at targeted Metrorail stations, incremental increase in transit through major Metrorail expansion)</li> </ol>	-0.81 million tons (-0.13%)	
	2. Increase non-motorized mode share (i.e. complete 2030 Bike/Ped Plan by 2020)	-1.85 million tons (-0.30%)	
	<ol> <li>Pricing         <ol> <li>(i.e. implement 2008 TPB Value Pricing Study, including new priced lanes on major freeways, pricing lanes on existing arterials and parkways)</li> </ol> </li> </ol>	-1.48 million tons (-0.24%)	
	4. Reduce travel (i.e. tested the CLRP Aspirations Scenario of concentrating land use around a network of bus rapid transit and priced lanes)	-0.91 million tons (-0.15%)	
	Long-term regional actions would reduce cumulative emissions by 5.04 million tons, which is equivalent to 0.8% of the de An additional 8.7% reduction in emissions would be require to reach the goal.	esired reduction by 2030.	

1 – The short-term actions can be implemented in the short-term and therefore have a bigger cumulative impact between 2010 and 2030.

2 - The long-term actions are only able to be implemented and measured in the long-term. The long-term emissions reductions may seem low, but significantly fewer longer-term strategies were studied than the almost thirty shorter-term strategies. The full reduction potential was only incorporated for one year, which does not adequately convey the long-term benefits.

### ConnectGreaterWashington, 2015<sup>3</sup> (WMATA)

ConnectGreaterWashington was a study completed by WMATA that examined various land use and transportation infrastructure scenarios. For the purposes of this table the baseline is land use in 2040 under COG's Round 8.3 Cooperative Forecast and transportation conditions projected for 2040 under the 2013 CLRP with the transit constraint in place and WMATA's Metro 2025 improvements documented in the 2013 Momentum strategic plan. It is important to note that the model used allowed for unlimited capacity on Metrorail and therefore some outcomes would be unrealistic, i.e., the vast growth projected for transit ridership could not actually occur due to the physical limits of car capacity (even with all 8-car trains) and therefore large reductions in VMT and other similar measures would also not occur.

Scenario <sup>4</sup>	Land Use Inputs	Transportation Inputs	Selected Outcome
Transit Policy Improvements	No changes in land use relative to COG/TPB regionally estimated levels	Lower Metrorail fares by 50% for trips in reverse peak-direction and trips on uncongested peak-direction segments. Increase Park & Ride capacity at stations with high parking demand on underutilized portions of Metrorail (both branches of Red Line, northern branch of Green Line, eastern branch of Orange Line and Blue Line). Expand bicycle access to stations by assuming bicycle infrastructure around stations has improved to attract trips from a 1.5 mile radius (increased from a 1 mile radius).	Under this scenario, VM decrease slightly compa Compared to the baselin transit ridership. Person increase from 1,000 in t
Transit Policy Improvements PLUS Land-Use Shifts Within Jurisdictions Towards Metrorail and Activity Centers	Household and employment growth shifted to station areas and Regional Activity Centers: 35,000 households and 30,000 jobs shifted within jurisdictions in WMATA Compact Area.	Station area walkability levels updated per the increased density from the land use changes specific to this scenario. PLUS all the transportation inputs from the Transit Policy Improvements Scenario.	Under this scenario VMT increase compared the k would increase by 26% of travel on congested vehi 48,000. There would be and jobs near transit.
Transit Policy Improvements PLUS Land-Use Shifts Between Jurisdictions Towards Metrorail and Activity Centers	Household and employment growth shifted to station areas and Regional Activity Centers: 322,200 households and 712,300 jobs shifted across jurisdictions towards those in WMATA Compact Area, and within jurisdictions in WMATA Compact Area.	Station area walkability levels updated per the increased density from the land use changes specific to this scenario. PLUS all the transportation inputs from the Transit Policy Improvements Scenario.	This scenario results in e over the baseline) and o compared to 7% in the b to the drastic land use s vehicles would increase decrease by 12% and pe decrease by 29%. These there would be extreme to other modes. There w households near transit, Compact Area (househol WMATA Compact Area to

The information in this table is drawn from "WMATA ConnectGreaterWashington: CGW Policy Alternatives, Task 8 Final Report," and "WMATA ConnectGreaterWashington: CGW Policy Alternatives, Task 7, Scenario Comparison 3 – Measures Technical Memorandum." The more public-facing document was a brochure entitled ConnectGreaterWashington, which presents a summarized version of what is here.

The scenario names as presented here correspond to Scenarios A prime, A1, and A2, respectively, as found in the Technical Report and Final Report. These scenarios match what is presented in the summary brochure. 4 –

### S (Compared to 2013 CLRP projections for 2040)

and person miles of congested travel in autos would red the baseline (-0.4% and 1%, respectively). ne, this scenario would see an 8% increase in overall hours of Metrorail travel on congested vehicles would he baseline to 42.000.

and person miles of congested travel in autos would baseline (10% and 52%, respectively). Transit ridership compared to the baseline. Person hours of Metrorail icles would increase from 1,000 in the baseline to a 2% increase of WMATA Compact Area households

extremely high transit ridership levels (76% increase verall transit mode share (15% transit mode share baseline), which illustrates the increase in demand due hift. Person hours of Metrorail travel on congested from 1,000 in the baseline to 221,000. VMT would erson miles of congested travel in autos would modeled results would not actually occur because transit crowding, which would cause travelers to switch ould be an increase of 9% of WMATA Compact Area , and an 8% increase of jobs near transit in the WMATA Ids and jobs were moved from jurisdictions outside the jurisdictions within it).

# Multi-Sector Working Group, 2016 (COG/TPB)

The information in this table comes from the Final Technical Report of the MSWG, entitled "Multi-Sector Approach to Reducing Greenhouse Gas Emissions in the Metropolitan Washington Region." The study examined all sectors of the economy to identify local, regional and state actions to significantly reduce greenhouse gas emissions in accordance with COG's voluntarily adopted goals. The report included many strategies related to transportation and land use - a select few are included here. The outcomes for the strategies studied in MSWG are relative to the "2015 Projections from Current Policies" trendline used as a reference point in the MSWG report, which are projections based on current trends shifting as a result of existing fuel economy standards, but does not include more recent regulations such as the Clean Power Plan.

Strategy	Strategy Implementation	(Com
	Alternative growth projections and allocations for 2040 demonstrate how different land use patterns could impact VMT and GHG. 2020 was too soon to implement major land use changes, so the focus was placed on 2040 and 2050.	Even w this str
TLU <sup>5</sup> -2: Sustainable development patterns and urban design, including bicycle/pedestrian enhancements	• 2040 (Moderate/Viable Alternative): Major reallocations of forecast growth to maximize the concentration of new growth in Activity Centers served by premium transit (Metrorail, commuter rail, light rail and BRT), while attempting to keep overall growth within jurisdictions as estimated in Cooperative Forecast. Second priority of growth allocation was given to premium transit station areas not designated as Activity Centers, and third priority was given to remaining Activity Centers. Assumed some significant shifts of forecast growth between different activity centers within each jurisdiction.	•
	• 2050 (Aggressive/Stretch Alternative): Relaxed the constraint on keeping jobs and housing within jurisdictions, and sought to achieve a better regional distribution of jobs and housing by moving around estimated growth. Target ratios of jobs to housing were set according to distance from regional core. Jobs and housing were moved across jurisdictional lines, up and down radial corridors, and across corridors in order to achieve as reasonable a balance as possible. The priority rules for Activity Centers and premium transit from the 2040 strategy were then utilized.	•
TLU-9: Travel Demand Management	Reduce availability of free parking in Activity Centers by imposing parking impact fees and parking caps, price parking, and encourage park-and-ride usage; Incentives to encourage carpooling and ridesharing, non-motorized modes of commuting, and telecommuting; Ordinances that require employers to offer parking cash out and transit benefits	Notabl level of parking
	• 2020: Expand employer-based incentives (subsidies of \$50 per month for 40% of employers); 50% of parking in Activity Centers is priced at an average of \$8 per day for work trips	•
	• 2040: Expand employer-based incentives (subsidies of \$50 per month for 80% of employers); 90% of parking in activity centers is priced at an average of \$8 per day for work trips	•
	<ul> <li>2050 (stretch): Expand employer-based incentives (subsidies of \$80 per month for 100% of employers); 100% of parking in activity centers is priced at an average of \$8 per day for work trips</li> </ul>	•
TLU-10: Transit Enhancements	Strategy is designed to increase share of transit trips through increase or improved services, which could include increased circulator buses, enhance commuter bus services, bus rapid transit, streetcar, light rail, expanded Metrorail, transit access improvements, dedicate transit lanes, plus more	Small t increas
	2020: Reduce transit travel times by 10% and reduce headways (wait time) by 10%	•
	• 2040: Reduce transit travel times by 15% and reduce headways (wait time) by 15%	•
	• 2050 (stretch): Reduce transit travel time by 20% and reduce headways (wait time) by 20%	•

5 – TLU stands for transportation and land use strategy

### Selected Outcomes pared to 2015 Projections from Current Policies)

vith expected improvements in vehicle fuel efficiency, rategy yields significant reductions in VMT and GHG.

2040: Annual VMT reduction of 5.4 billion (-11.6%)

2050: Annual VMT reduction of 6.8 billion (-14.1%)

le reductions in VMT, due in part to the significant f employer subsidies assumed and high level of g pricing assumed in stretch scenario (2050)

2020: Annual VMT reduction of 329 million (-0.9%), transit ridership increase of 2.3%

2040: Annual VMT reduction of 986 million (-2.4%), transit ridership increase of 7%

2050: Annual VMT reduction of 2.17 billion (-5.3%), transit ridership increase of 38.5%

to moderate effects on VMT, although there would be ses in transit use

2020: Annual VMT reduction of 146 million (-0.4%), transit ridership increase of 2.2%

2040: Annual VMT reduction of 235 million (-0.6%), transit ridership increase of 3.4%

2050: Annual VMT reduction of 329 million (-0.8%), transit ridership increase of 4.7%

### Phase I Report for Long-Range Plan Task Force, 2016 (TPB)

This report concluded the Phase 1 efforts of the Long-Range Plan Task Force. It provides a context for future priority setting by examining three scenarios of the region's long-term (2040) transportation system performance. Each of the scenario outcomes refer to comparisons between that scenario's outputs and the transportation system performance in 2015. This study provides an interesting insight into the impact that a project-only approach can have on the transportation system – each of the scenarios assume the same land use for 2040, and each have a different transportation network. By holding land use constant, these scenarios enable comparison of the differences that different levels of transportation investment could bring without other intervening policy or program solutions.

Scenario	Land Use Inputs	Transportation Inputs	Selected Outcome
No-Build	Forecast growth for 2040 households and jobs held constant	No new transportation improvements beyond what was on the ground in 2015. For example, it includes the first phase of the Silver Line to Wiehle Avenue, but does not include the extension to Dulles Airport. The existing transit system for the purposes of this report includes 119 miles of Metrorail, 0 miles of light rail, 5 miles of BRT/street cars, 167 miles of commuter rail, totaling 291 miles of high-capacity transit. The existing highway system for the purposes of this report includes 3,549 miles of freeways/expressways and 13,396 miles of arterial roadways, totaling 16,945 miles (394 of which are tolled).	31% of the population at transit. Single-occupancy increase by 28%, compa congested in AM peak co increase from 2015.
Planned-Build (2015 CLRP)	Forecast growth for 2040 households and jobs held constant	This scenario assumed all unbuilt transportation projects in the 2015 CLRP would be built by 2040. The Planned-Build scenario includes 12 additional miles of Metrorail, 16 additional miles of light rail, 36 additional miles of BRT/street cars, and no additional commuter rail, totaling 64 miles of additional high-capacity transit (on top of 2015). The Planned-Build highway system includes 444 additional miles of freeways/expressways and 686 additional miles of arterial roadways, totaling 1,130 additional miles (194 of which are tolled). Some example projects include the Silver Line extension to Dulles Airport, the Purple Line from Bethesda to New Carrolton, and adding HOT lanes on I-66 inside and outside of the Beltway.	36% of the population at transit. Single-occupancy increase by 34%, compa congested in AM peak co increase from 2015.
All-Build	Forecast growth for 2040 households and jobs held constant	The All-Build project inventory is made up of projects that go beyond what is in the CLRP (Planned- Build) and includes all unfunded projects in the plans of member jurisdictions and agencies, as submitted by those bodies. Some aspects of the inventory include 33 new miles of Metrorail, 66 additional miles of light rail, 259 additional miles of BRT and streetcar, and 1,175 more lane miles (419 of which would be tolled). Some highlighted projects include new capacity on the American Legion Bridge, I-270 and the Beltway between Springfield and the Wilson Bridge, and new tolled or managed lanes on I-295 and I-395 in DC, on the Capital Beltway from Springfield to the Wilson Bridge in Virginia, and on I-270, I-95, and US-50 inside the Beltway in Maryland. The full list of projects for the All-Build scenario can be found at the Phase I Report's website (link can be found by clicking the title of this table).	48% of the population at transit. Single-occupancy increase by 62%, compa congested in AM peak co increase from 2015.

### s (2040 conditions compared to 2015 conditions)

nd 51% of jobs within walking distance of high-capacity by vehicle trips increase by 16% and transit trips ared to 2015 trips. 20% of lane miles would be ompared to 10% in 2015, which corresponds to a 98%

nd 57% of jobs within walking distance of high-capacity by vehicle trips increase by 15% and transit trips ared to 2015 trips. 16% of lane miles would be ompared to 10% in 2015, which corresponds to a 72%

nd 70% of jobs within walking distance of high-capacity by vehicle trips increase by 11% and transit trips ared to 2015 trips. 12% of lane miles would be ompared to 10% in 2015, which corresponds to a 32%