

*Consultation Summary Report:*  
Transit and Road Project  
Prioritization Frameworks

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City of Ottawa Transportation Master Plan Update

# Executive Summary

The Transportation Master Plan (TMP) Capital Infrastructure Plan will identify transit and road projects that are needed to accommodate future travel demand and will prioritize these projects for implementation. This report provides the results of public consultation on the draft Transit and Road Prioritization Frameworks for the Capital Infrastructure Plan.

The consultation was conducted online through the City of Ottawa's "Engage Ottawa" website between June 1 and July 2, 2022. Respondents were asked to review the criteria and weightings within the draft Transit and Road Project Prioritization Frameworks and provide feedback through a survey. The survey asked respondents to rate the importance of each criterion and included an opportunity for open-ended comments; respondents were also asked for their postal codes. There were 193 responses to the transit framework survey, and 938 responses to the roads framework survey. For the roads framework survey, postal codes starting with K2J, representing Barrhaven, accounted for the largest share of responses (78%).

The draft transit project prioritization criteria consist of Ridership Growth; Service Improvement; City Building (with sub-criteria for Equity, Natural Systems, and Major Destinations and Economic Development); and Cost. The draft road project prioritization criteria consist of Mobility Needs (with sub-criteria for Access to Development and Congestion Reduction); City Building (with sub-criteria for Equity, Natural Systems, Potential for Induced Demand and GHG Emissions, Support for Transit, and Support for Place-Making and Healthy Streets); and Cost.

Respondents were generally supportive of the criteria and their respective weightings, with some suggestions to revise the weightings and to consider other criteria. Respondents identified Service Improvement and Congestion Reduction as most important for the transit and road project frameworks, respectively. Respondents also suggested that the weighting of City Building should be increased, and the weighting of Cost should be reduced relative to the draft frameworks.

Respondents also provided comments on the allocation of funding to different project types; although this is not directly related to the project prioritization frameworks, this will be the focus of a future TMP consultation. There was mixed feedback on the need for projects to add road capacity, with requests for road capacity projects generally focused on specific areas with congestion problems such as Greenbank Road. Many respondents expressed the importance of shifting away from automobile dependency and making transit and active transportation more attractive.

After reviewing the suggestions and comments from public engagement, the TMP team has made the following recommended changes to the Transit and Road Project Prioritization Frameworks:

- Information has been added to the updated Transit and Road Project Prioritization Frameworks to clarify the approach for the TMP Part 2 and its alignment with the objective of increasing sustainable transportation mode shares.
- For both frameworks, the Cost criterion has been reduced from 25 points to 20 points.
- For both frameworks, 5 points have been added to the City Building criterion.
- For the roads framework, a new Goods Movement and Economic Development sub-criterion has been added.
- For the roads framework, 2 points have been shifted from the Access to New Development sub-criterion to the Congestion Reduction sub-criterion, and associated scoring rubrics have been revised. As a result, the Congestion Reduction sub-criterion now makes up a larger share of the overall Mobility Score.
- Minor revisions have been made to the scoring rubrics for Access to Development; Support for Transit; Place-Making and Healthy Streets; and Natural Systems, based on resident and stakeholder feedback.

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# 1 Introduction

The TMP Capital Infrastructure Plan will identify transit and road projects that are needed to accommodate future travel demand and will prioritize these projects for implementation. This report provides the results of public engagement on the draft Transit and Road Project Prioritization Frameworks for the Capital Infrastructure Plan.

## 1.1 Prioritization Frameworks Background

Between June 1<sup>st</sup> and July 2<sup>nd</sup>, 2022, the City invited the public to provide feedback on the approach that will be used to score future transit and road projects in Part 2 of the TMP, the Capital Infrastructure Plan. The highest scoring projects will be prioritized for implementation.

The Capital Infrastructure Plan will identify transit and road projects that are needed to accommodate future travel demand and that should be included within the City's ultimate future networks; transit options will be reviewed first, followed by roads. The transit and road projects in the Ultimate Networks will be prioritized for implementation using prioritization frameworks; the draft prioritization frameworks are summarized below. The complete Frameworks for [transit projects](#) and for [road projects](#) that were the focus of consultation are available on Engage Ottawa. The Transit and Road Project Prioritization Frameworks were developed based on Official Plan objectives, proposed TMP policies, and the frameworks from the 2013 TMP.

The transit project prioritization framework includes Ridership Growth, Service Improvement, City Building, and Cost. City Building is further divided into sub-criteria, as shown in Exhibit 1.1.

### Exhibit 1.1: Draft Transit Project Prioritization

Criteria	Sub-Criteria
<b>Ridership Growth</b> (35 points)	<b>Ridership Growth on the Corridor:</b> Number of additional riders who are expected to use the transit corridor in 2046 relative to today.
<b>Service Improvement</b> (25 points)	<b>Service Improvement for Existing Customers:</b> Expected person-hours of travel time savings and reliability improvements.
<b>City Building</b> (15 points)	<p><b>Equity (5 points):</b> Number of riders using the project who live in a TMP equity priority neighbourhood or traffic zone.</p> <p><b>Natural Systems (5 points):</b> Project impact on key natural systems and features.</p> <p><b>Major Destinations and Economic Development (5 points):</b> Number of major destinations within walking distance of the corridor.</p>
<b>Cost</b> (25 points)	<b>Cost:</b> Estimated lifecycle cost including capital, operating and maintenance costs.

The road project prioritization framework includes Mobility Needs, City Building, and Cost. Mobility Needs and City Building are further divided into sub-criteria, as shown in Exhibit 1.2.

### Exhibit 1.2: Draft Road Project Prioritization (New Roads/Road Widenings)

Criteria	Sub-Criteria
<b>Mobility Needs</b> (55 points)	<p><b>Access to Development (35 points):</b> The role of the project in opening lands for development or improving access to new and growing areas.</p> <p><b>Congestion Reduction (20 points):</b> The potential of the project to relieve congestion in areas where there is significant congestion.</p>
<b>City Building</b> (20 points)	<p><b>Potential for Induced Demand and GHG Emissions (4 points):</b> Expected impact with respect to induced demand and GHG emissions.</p> <p><b>Support for Transit (4 points):</b> Project's integration with transit infrastructure or contribution to transit travel time savings.</p> <p><b>Equity (4 points):</b> Positive or negative impacts on TMP equity priority neighbourhoods.</p> <p><b>Natural Systems (4 points):</b> Project impact on key natural systems and features.</p> <p><b>Support for Place-Making and Healthy Streets (4 points):</b> Project's impact on walkability, place-making and healthy streets.</p>
<b>Cost</b> (25 points)	<b>Cost:</b> Estimated lifecycle cost including capital, operating and maintenance costs.

This document summarizes the results, recurring themes, and respondent suggestions from the consultation surveys completed for the Transit and Road Project Prioritization Frameworks. It also describes the proposed changes to the frameworks following City consideration of the consultation results.

## 1.2 Consultation Overview

The consultation was conducted online through the City of Ottawa’s “Engage Ottawa” website between June 1 and July 2, 2022. Respondents were asked to review the Transit and Road Project Prioritization Frameworks and provide feedback for each framework through a survey. The survey asked respondents to provide their postal codes, to rate the importance of each criterion, to indicate if there were any criteria missing, and to provide any additional comments.

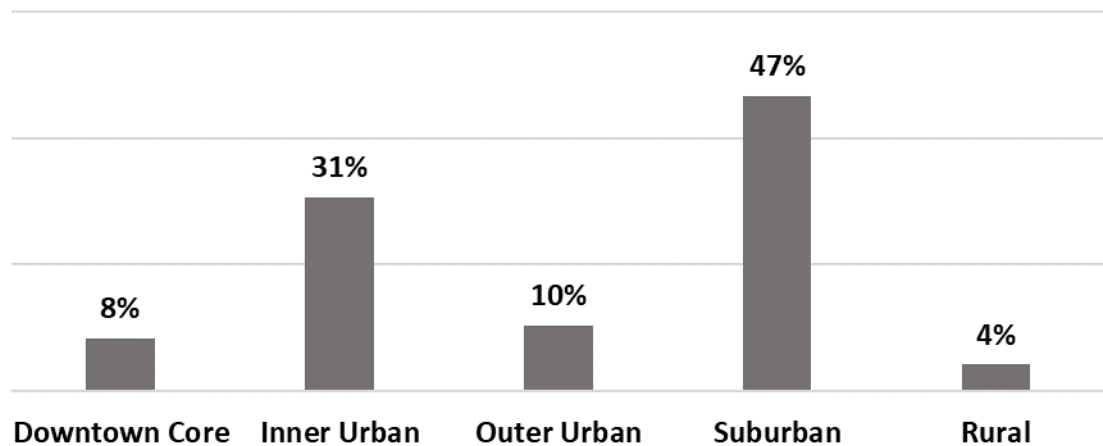
Responses were received from 193 individuals for the transit framework survey; 938 individuals responded to the roads framework survey.

## 2 Transit Project Prioritization

### 2.1 Postal Codes

Most of the 193 transit survey respondents (47%) were from the suburban transect, followed by the inner urban transect (31%). The lowest number of responses was received from the rural transect (4%). Postal codes starting with K2J, representing Barrhaven, had the largest share of total responses (33%).

**Exhibit 2.1: Please Provide Your Postal Code**

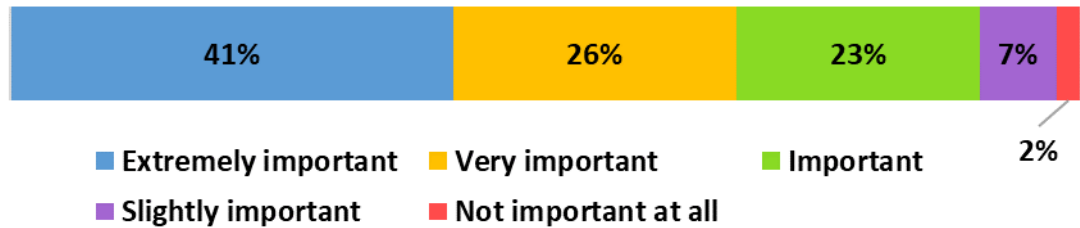


### 2.2 Ridership Growth

Just under half of the 193 respondents considered the Ridership Growth criterion to be extremely important, with around a quarter of the respondents finding it very important, and another quarter finding it important. Some of the open-ended comments suggested that this criterion should have a lower weight relative to service improvements. Respondents noted that ridership growth is a by-product of attracting transit riders through transit service improvements and transit-supportive land-use policies. Respondents also provided the comment that future ridership is difficult to assess and predict, while short-term service improvements are more tangible and have a strong impact on ridership.



**Exhibit 2.2: Ridership Growth: Number of additional riders who are expected use transit in 2046 relative to today**



## 2.3 Service Improvement

Two thirds of the 193 respondents found Service Improvement to be extremely important. An additional fifth of the respondents found this criterion to be very important, and another 11% found it to be important. Some of the open-ended responses indicated that this criterion should be weighted higher and noted that service improvement and transit reliability are necessary to revert declining ridership and to increase transit mode share.

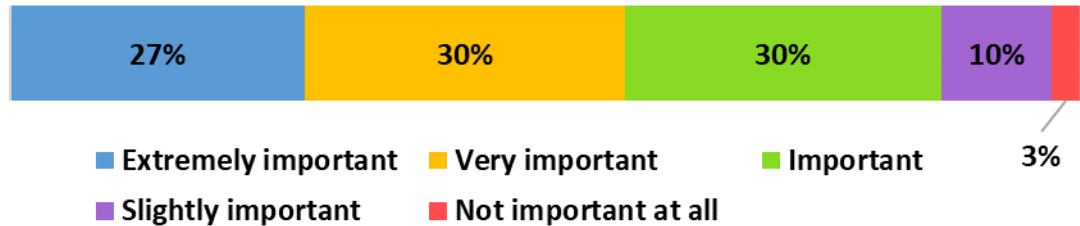
**Exhibit 2.3: Service Improvement: Expected travel time savings and reliability improvements provided by the project**



## 2.4 City Building

Just over a quarter of the 193 respondents felt that City Building were extremely important, with just under a third considering this criterion to be very important and important, respectively.

**Exhibit 2.4: City Building: The contribution of the project to achieving equity, natural systems, and economic development objectives identified in the Official Plan**

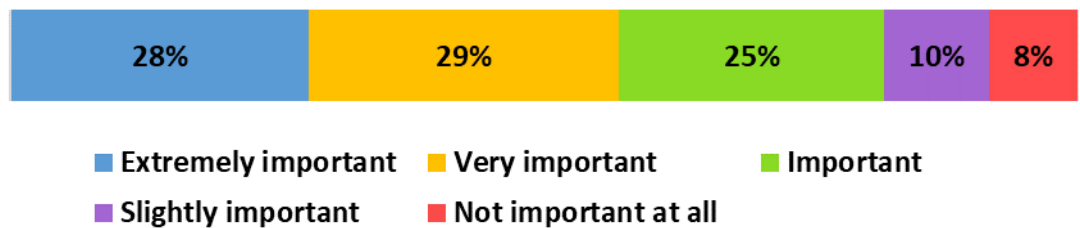


The City Building category is further divided into three sub-criteria: Equity, Natural Systems, and Major Destinations and Economic Development.

**2.4.1 Equity**

Over a quarter of the 193 respondents felt that Equity was extremely important, and very important, respectively, while a quarter felt this criterion was important. Some open-ended comments suggested increasing the weighing for this criterion, while other comments suggested decreasing the weighting. One respondent indicated that equity should be applied as a filter to the allocation of funds, instead of being a criterion for prioritizing projects.

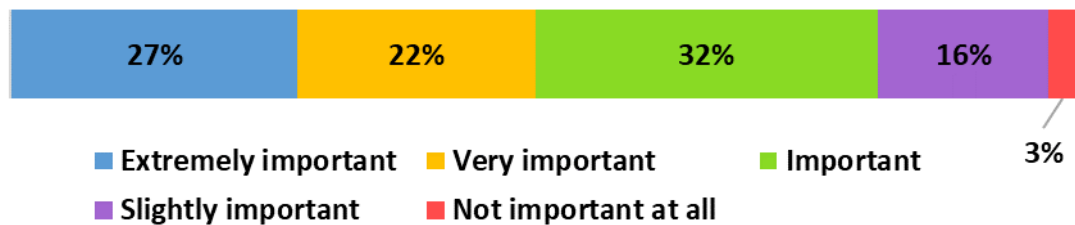
**Exhibit 2.5: Equity: Number of riders benefiting from the transit project who live in a TMP equity priority neighbourhood**



**2.4.2 Natural Systems**

Over a quarter of the 193 respondents felt Natural Systems were extremely important, with an additional 22% finding this criterion to be very important, and just under a third rating it as important. The open-ended comments suggested that more emphasis should be placed on mitigating climate change and greenhouse gas (GHG) emissions.

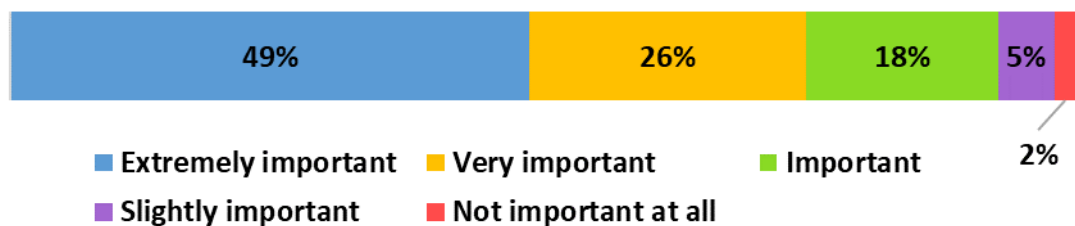
**Exhibit 2.6: Natural Systems: Project’s impact on key natural systems**



### 2.4.3 Major Destinations and Economic Development

Just under a half of the 193 respondents felt that the Major Destinations and Economic Development criterion is extremely important, with another 26% finding this criterion to be very important, and 18% rating it as important. The open-ended comments noted the importance of transit-oriented and transit-supportive development, integration with active transportation, land use density, and access to destinations for those with mobility needs.

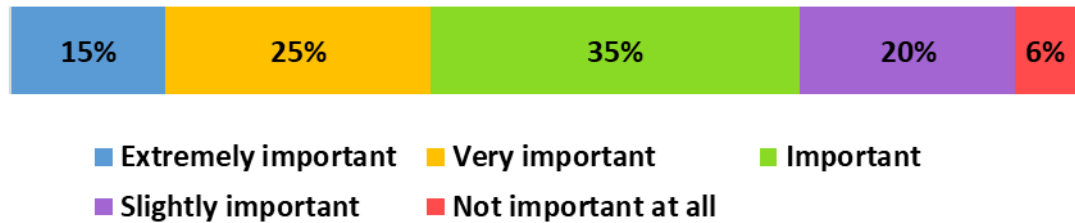
**Exhibit 2.7: Major Destinations and Economic Development: Number of major destinations from the new Official Plan within walking distance of the corridor**



## 2.5 Cost

Only 15% of the 193 respondents felt that Cost was extremely important, with a quarter finding the criterion to be very important, and an additional 35% rating it important. Some of the open-ended comments indicated that Cost was the least important and should be weighted less or not considered at all, while others noted that emphasis should be placed on the value for money, the benefits weighed against the costs, or that multiple less expensive projects can achieve the same benefits as a single larger project.

**Exhibit 2.8: Cost: Total estimated life-cycle cost of the project, including capital, operating and maintenance costs**



## 2.6 Additional Evaluation Criteria

Over a third of the 193 respondents felt that there were evaluation criteria missing.

**Exhibit 2.9: Do you feel there are any evaluation criteria missing?**



Respondents were asked to comment on what criteria were missing, and 67 responses were received. Respondents provided the following specific suggestions for the transit framework:

- Provide a criterion that captures the potential positive and negative impacts on housing density and affordability;
- Provide a criterion that captures the ability of a project to reduce automobile dependency, such as the change in the number of trips made by automobiles;
- Provide a criterion that captures the cost savings achieved through a transit project by reducing the need for other projects;
- Provide a criterion that captures the aesthetics and comfort provided to users;
- Provide a criterion that captures the ease of project implementation;
- Provide a criterion that captures the impact on mitigating or contributing to climate change.
- Prioritize the needs of pedestrians;
- Ensure that “within walking distance” considers people with accessibility needs;
- Equity should be removed as a criterion and applied afterwards by allocating a certain percentage of funding to TMP Equity Priority Neighbourhoods;

- The costs of providing a single large transit project should be evaluated against the cost of providing multiple smaller projects; and
- There should be a heavier emphasis on climate change.

There were other comments about the transportation system that were not directly related to the framework. Many responses related to improving transit use and shifting away from automobile use. Suggested elements to make transit more attractive included improved reliability, frequency, and safety. Some respondents felt that more emphasis should be placed on off-peak, non-commuting and non-downtown trips to make transit more attractive at other times and in places other than downtown. Travel times and transfer times were also noted as concerns.

Climate change and sustainability were also mentioned, with an emphasis on shifting away from automobile usage, reducing greenhouse gas emissions, and electrifying transit fleets. There were multiple responses indicating that the frameworks should consider the ability of a transit project to divert trips made by automobiles and highlighting the need for a mode shift towards sustainable modes. There were responses related to integration with active transportation modes through higher density, transit-oriented development, accessible pedestrian connections, cycling connections, and the implementation of bikeshare programs.

Ease of implementation and time to construction were also noted, including the suggestion to focus on smaller projects that are easier to implement, resulting in benefits in a timely manner. Similarly, there were comments relating to value for money. Equity, fare affordability, and improvements for priority neighbourhoods were noted, as well as a need to ensure that walking distances consider people with mobility needs. There were also comments related to areas underserved by transit and a lack of direct connections between different parts of the city and key destinations.

## 2.7 Additional Comments

Respondents were also offered a chance to provide additional comments, and 54 responses were received. There was significant overlap with responses to the previous question about whether there are any evaluation criteria missing. Respondents provided the following suggestions directly related to the transit framework:

- Reduce the weight of the Cost criterion;
- Increase the weight of the Service Improvement criterion, with an emphasis on reliability;
- Reduce the weight of projected future ridership;
- Include a criterion that evaluates the number of automobile drivers that switch to transit;
- Normalize the cost per unit of time savings or per additional rider

- Indirect financial benefits from City Building should be quantified and weighed against the costs;
- Transit projects should prioritize underserved areas; and
- Projects on major arterial roadways should be prioritized.

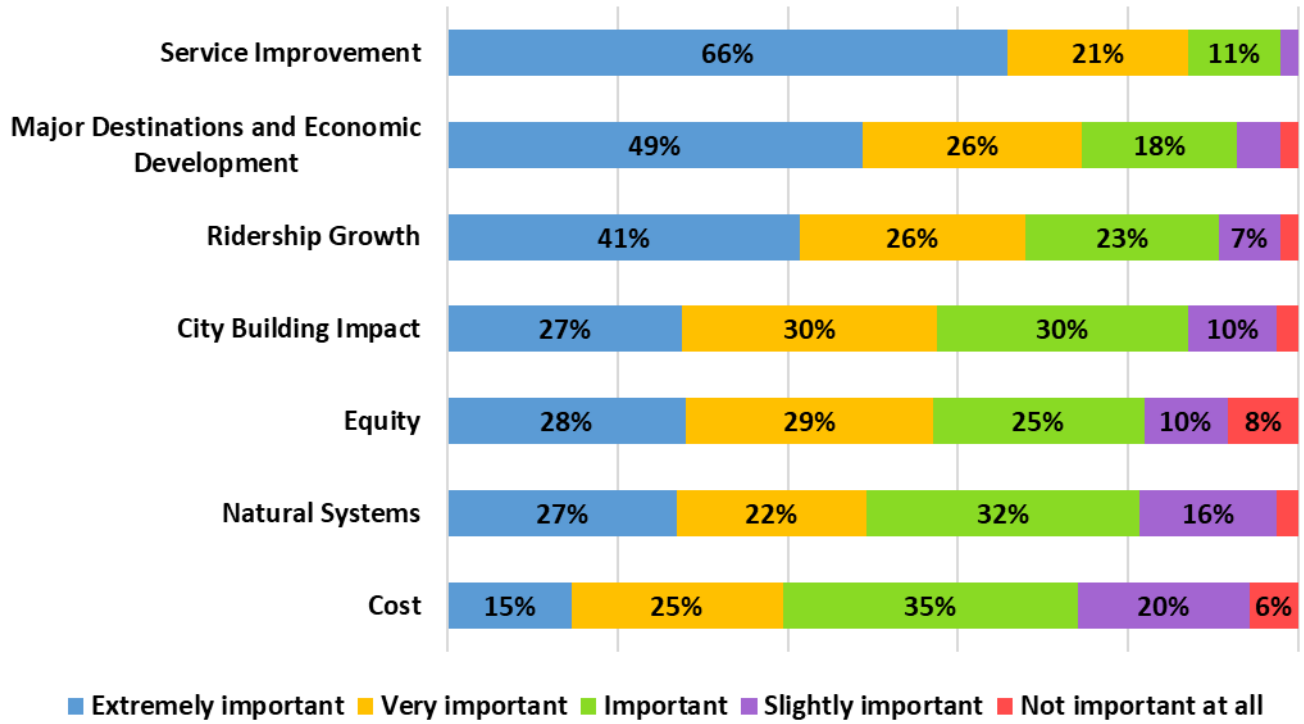
There were other comments relating to the overall transportation system that were not directly related to the framework. The responses were similar to those received for the “missing criteria” question; they emphasized the desire for a mode shift away from cars, and for improvements to transit reliability, frequency, and route coverage. Underserved areas, transfers, off-peak service, and non-downtown routes were highlighted. The impacts of COVID and hybrid work models were also raised in relation to transit ridership.

Safety, comfort, real-time information, integrated active transportation, land-use policy, and 15-minute neighbourhoods were noted as supporting elements of transit. Climate change, accessibility, fare affordability and equity were noted as concerns, while one respondent indicated that higher-income people should be encouraged to use transit. There were various perspectives on financial implications, with some respondents indicating that project cost should be de-prioritized, and another suggesting that the maintenance of expensive and infrastructure-heavy projects will be a drain on resources in the future. There were also suggestions to convert automobile lanes to transit-only lanes and consider implementing shared micro-mobility options.

## 2.8 Overall Results

For each prioritization criterion, at least 74% of respondents felt that the criterion was important, very important, or extremely important. Exhibit 2.10 provides a comparison of the results. In this exhibit, the criteria are listed from top to bottom in order of importance as identified by survey respondents.

**Exhibit 2.10: Transit Criteria and Sub-Criteria Results (Ordered based on Percentage “Extremely Important” or “Very Important”)**



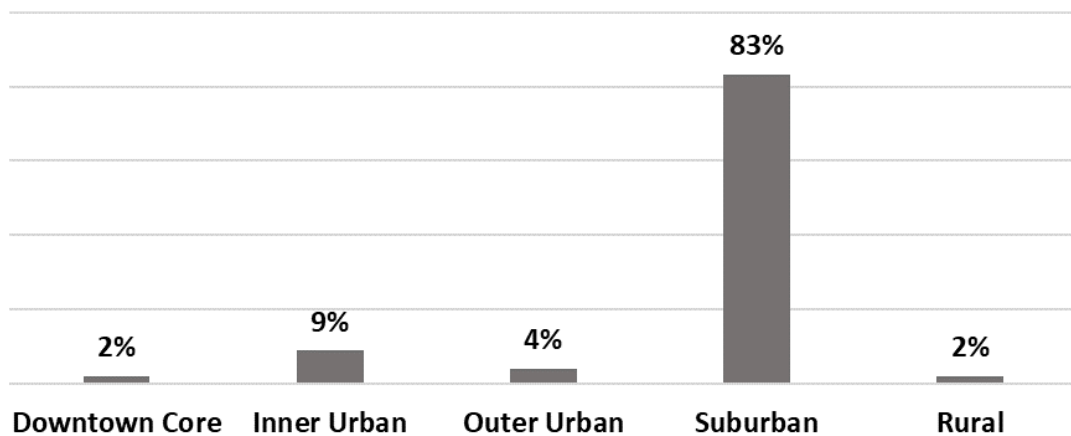
### 3 Road Project Prioritization

Survey respondents were asked to provide their postal codes, to rate the level of importance of the various prioritization criteria, and to provide open-ended comments. 938 individuals provided responses to this survey.

#### 3.1 Postal Codes

Out of 938 responses, a significant majority (83%) were from the suburban transect, followed distantly by the inner urban transect (9%). Postal codes starting with K2J, representing Barrhaven, represented the largest share of responses (78%).

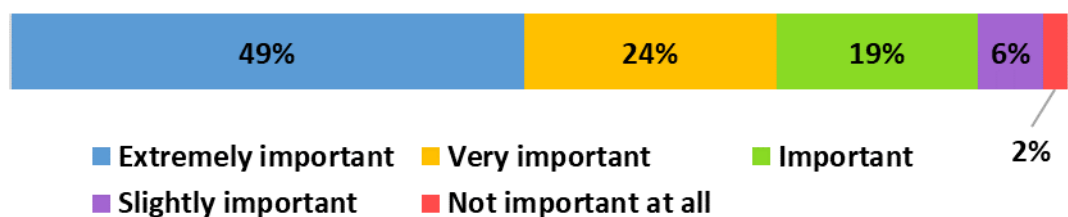
**Exhibit 3.1: Please Provide Your Postal Code**



#### 3.2 Mobility Needs

Just under a half of the 938 respondents felt that Mobility Needs were extremely important, with an additional 24% rating this criterion as very important, and another 19% rating it as important.

**Exhibit 3.2: Mobility Needs: A measure of the project’s potential to meet current and future mobility needs**



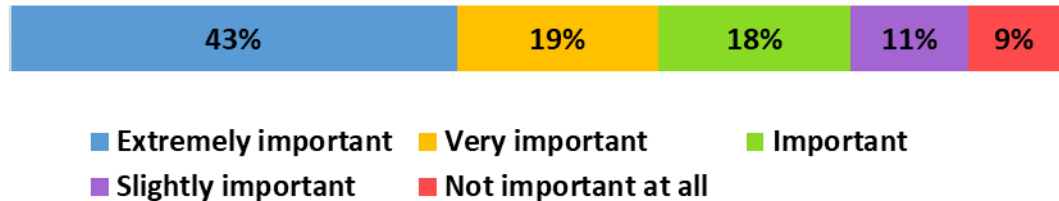


The Mobility Needs criterion is further divided into two sub-criteria: Access to Development and Congestion Reduction.

### 3.2.1 Access to Development

Over two-fifths of the 938 respondents felt that Access to Development was extremely important, with an additional 19% rating this criterion as very important. In the open-ended comments, respondents indicated that some road projects are delayed and should be prioritized to improve access to these growing areas.

**Exhibit 3.3: Access to Development: The role of the project in opening lands for development or improving access to new and growing areas**



### 3.2.2 Congestion Reduction

Just over three quarters of the 938 respondents felt that Congestion Reduction was extremely important, with an additional 9% considering this criterion to be very important, and 5% rating it as important. However, input on this criterion was mixed, with many open-ended comments suggested that the weighting of Congestion Reduction should be reduced as it supports sprawl and automobile dependency.

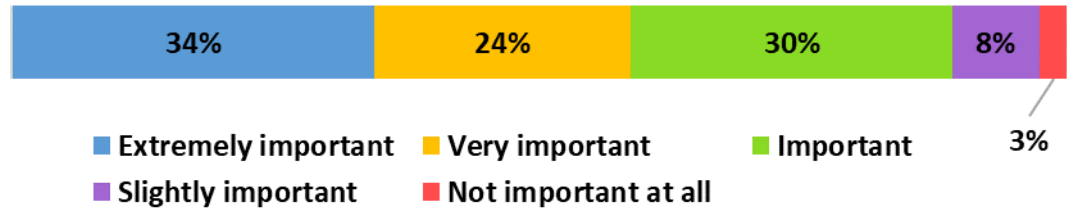
**Exhibit 3.4: Congestion Reduction: The potential of the project to relieve congestion in areas where there is significant congestion**



## 3.3 City Building

Roughly a third of the 938 respondents felt that City Building were extremely important. An additional 24% of respondents rated this criterion as very important, and 30% rated it as important. Respondents who provided open-ended comments indicated support for increasing the weight of this criterion.

**Exhibit 3.5: City Building: The contribution of the project to achieving the City’s objectives identified in the new Official Plan and Transportation Master Plan**

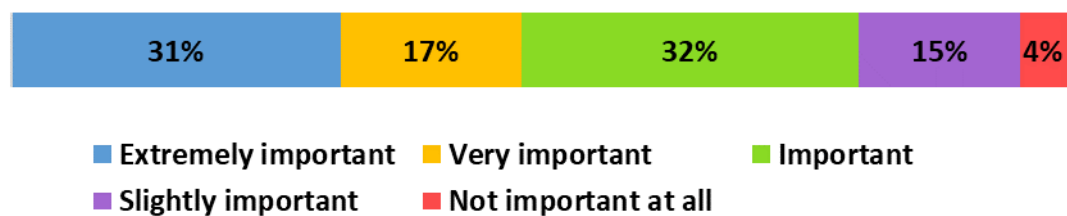


The City Building criterion is further divided into the following sub-criteria: Potential for Induced Demand and GHG Emissions; Equity; Natural Systems; Support for Place-Making and Healthy Streets; and Support for Transit.

**3.3.1 Potential for Induced Demand and GHG Emissions**

Just under a third of the 938 respondents felt that Potential for Induced Demand and Greenhouse Gas (GHG) Emissions was extremely important. An additional 17% of the respondents felt this criterion was very important, and 32% rated it as important. Some open-ended comments noted that the Induced Demand and Congestion Reduction criteria were conflicting, and that Induced Demand should be weighted more heavily. A respondent suggested that GHG emissions should be removed from the framework as electric vehicles and low-emission vehicles become more prevalent.

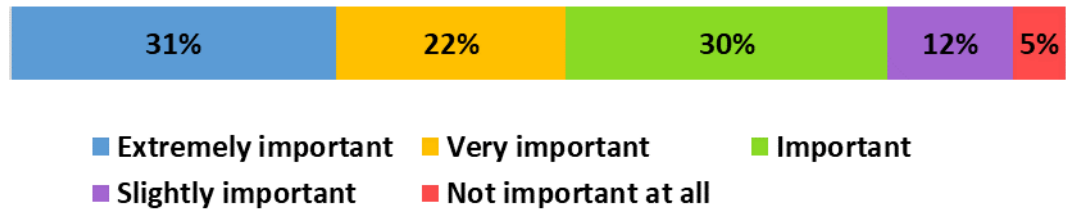
**Exhibit 3.6: Potential for Induced Demand and GHG Emissions: Project’s expected impact with respect to induced demand and GHG emissions**



**3.3.2 Equity**

Just under a third of the 938 respondents felt that Equity was extremely important. An additional 22% of respondents rated this criterion as very important, and 30% rated it as important. Many open-ended comments suggested that the impacts on neighbourhoods in general should be considered. Others noted concern about how the funding and benefits of projects are distributed.

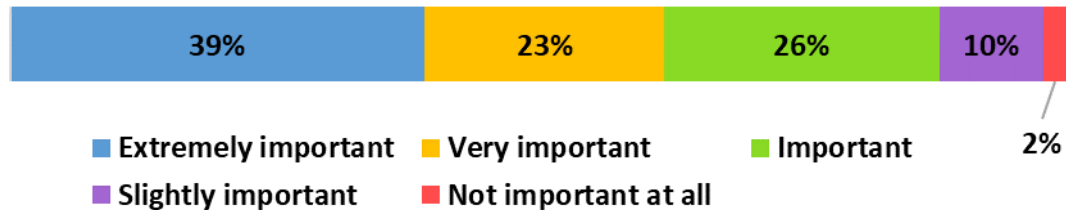
**Exhibit 3.7: Equity: Project’s positive or negative impacts on TMP Priority Neighbourhoods**



**3.3.3 Natural Systems**

Almost 40% of the 938 respondents felt that the Natural Systems criterion is extremely important, with 23% indicating that this criterion is very important, and 26% considering it to be important. There were several open-ended comments about the importance of maintaining natural systems and greenspaces. A separate criterion for the combined effects on the environment and the climate was also suggested.

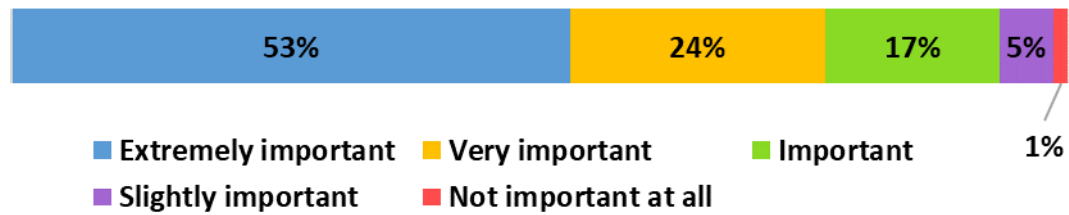
**Exhibit 3.8: Natural Systems: Project’s impact on key natural systems**



**3.3.4 Support for Place-Making and Healthy Streets**

Over half of the 938 respondents felt that Support for Place-Making and Healthy Streets is extremely important, with 24% finding this criterion to be very important, and 17% considering it important. Many respondents in the open-ended comments articulated their support for place-making and healthy streets. There were multiple requests to provide a separate criterion that considers cycling connectivity and active transportation infrastructure in the roads framework. Several respondents also emphasized the importance of 15-minute neighbourhoods and suggested that road projects should advance 15-minute neighbourhoods.

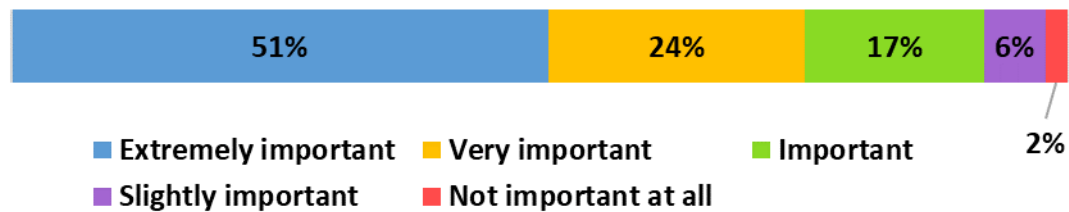
**Exhibit 3.9: Support for place-making and healthy streets: Project’s impact on walkability, place-making and healthy streets**



### 3.3.5 Support for Transit

Just over a half of the 938 respondents felt that Support for Transit was extremely important, with 24% indicating that this criterion is very important, and 17% considering it to be important. Many open-ended comments indicated a need to support transit, with some suggestions to convert proposed or existing vehicle lanes to transit lanes.

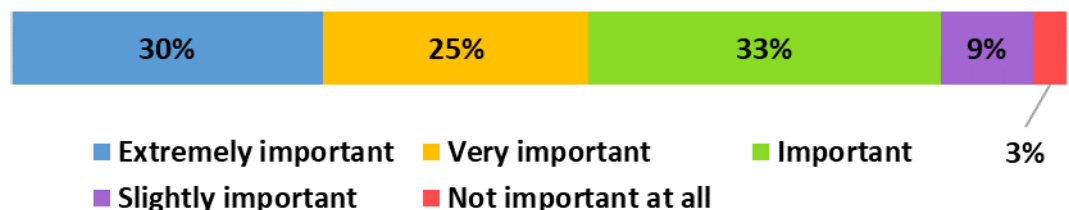
**Exhibit 3.10: Support for transit: Project’s integration with transit infrastructure or contribution to transit travel time savings**



## 3.4 Cost

Thirty percent of the 938 respondents felt that Cost was extremely important, a quarter rated this criterion as very important, and a third rated it as important. Some open-ended comments suggested that costs should be weighed against the project’s benefits, and that there should be greater alignment between “who pays” for road projects and “who benefits”.

**Exhibit 3.11: Cost: Total estimated life-cycle cost of the project, including capital, operating and maintenance costs**



## 3.5 Additional Evaluation Criteria

Approximately one fifth of the 938 respondents felt that there were evaluation criteria missing.

### Exhibit 3.12: Do you feel there are any evaluation criteria missing?



Respondents were asked to comment on what criteria were missing, and 199 responses were received. Respondents provided the following specific suggestions and comments for the road project prioritization framework:

- Provide a criterion that captures the impact on active transportation, not just pedestrian activity;
- Provide a criterion that captures the impact on cycling-specific infrastructure and route connectivity;
- Provide a criterion that captures the ease of implementation and timing of projects to precede development;
- Provide a criterion that captures the impact on existing communities;
- Provide a criterion that captures the impacts on safety, such as a predicted increase or decrease in collision-related injuries and death for all road users;
- Provide a criterion that captures the impacts on perceived safety and comfort for all road users, including infrastructure condition, debris, ponding, separation of modes, and shade;
- Provide a criterion that captures the indirect impacts on health, such as the predicted increase or decrease in physical activity and pollution;
- Provide a criterion that captures the ability to reduce car trips;
- Reduce the weighting of Mobility Needs and Congestion Reduction;
- Increase the weighting of City Building;
- Increase the weighting of the Potential for Induced Demand;
- Provide a separate walkability criterion;
- Weigh benefits against costs;
- Separate positive and negative impacts on TMP Priority Neighbourhoods;
- Prioritize projects that have been delayed, such as the Greenbank Road realignment; and,
- Including congestion as a criterion indicates a bias towards widening roads and building new roads.

There were other comments about the TMP and transportation system that were not directly related to the prioritization framework. Responses were reviewed by transect. Responses from the downtown, inner urban and outer urban transects generally indicated a desire to shift away from automobile use, while responses from the suburban and rural transects were generally focused on relieving congestion in specific areas. Some suburban and rural respondents also indicated a desire for a shift away from automobile use. There was also a mixture of responses in terms of general level of support for new road and road widening projects. Some respondents noted that including road widening projects in the TMP goes against the TMP objectives of shifting away from automobile use and mitigating climate change.

Certain projects were specifically requested to be implemented, such as the Greenbank Road realignment and bridge over the Jock River, while others such as the Alta Vista Transportation Corridor were requested to be cancelled. The impacts of road projects on communities in terms of noise, air pollution, and loss of greenspace were mentioned multiple times. Respondents also noted concerns about development occurring prior to the appropriate transportation infrastructure being in place.

Respondents expressed concerns about the impact of road projects on GHG emissions and climate change. Respondents noted the importance of walkability, accessibility, and 15-minute neighbourhoods. Some respondents indicated that road widenings lead to induced demand and simply shift bottlenecks to other locations. Many respondents also discussed the importance of safety, especially around schools and for vulnerable road users, with a few requesting lower speeds and speed cameras. Support for transit and active transportation were common.

Several comments addressed road widths. Some respondents noted that narrower roads are safer, while others stated that there is a lack of parking in newer developments and that roads should be wider to accommodate residential parking and improved access for emergency vehicles. There were also comments about construction impacts. Finally, respondents discussed value for money, the long-term financial implications of road projects, and equity in terms of the distribution of who benefits from road projects, versus who bears the direct and indirect costs.

### 3.6 Additional Comments

Respondents were also offered a chance to provide additional comments on the road project evaluation framework, and 246 responses were received. The comment section was dominated by residents of Barrhaven who discussed the need to accelerate Barrhaven-specific projects, specifically the Greenbank Road realignment. Respondents provided the following additional suggestions and

comments for the roads framework – noting the significant overlap with responses to the previous question:

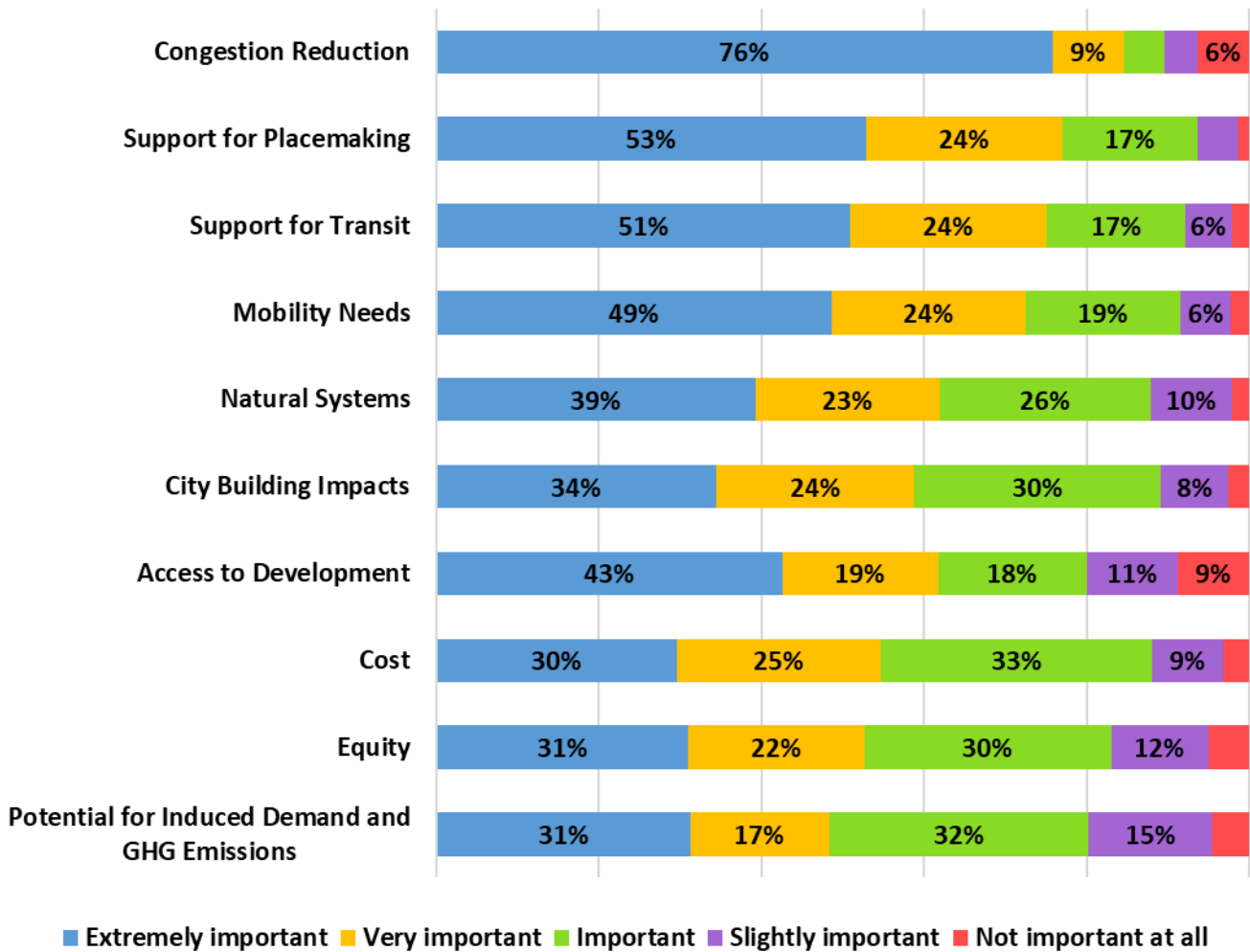
- Reduce the Mobility Needs weighting;
- Reduce the weighting of Congestion Reduction or remove this;
- Increase the weighting of City Building;
- Provide an approach for evaluating other types of road projects, such as intersection modifications;
- Provide a separate criterion on impacts to communities and neighbourhoods;
- Provide a criterion that captures the impacts on safety, such as an increase or decrease in collision-related injuries and death for all road users;
- Provide a criterion that captures the impacts on perceived safety and comfort for all road users, such as infrastructure condition, separation of modes and shade;
- Provide a criterion that captures the indirect impacts on health, such as the predicted increase or decrease in physical activity and pollution;
- Provide a separate criterion for the environment and climate change;
- Remove GHG reductions from the City Building criterion due to a shift to electric and low emission vehicles;
- Provide negative scores for negative impacts;
- Prioritize complete street projects over new roads and road widenings;
- Provide a criterion relating to the impact of winter weather;
- The Congestion Reduction and Potential for Induced Demand sub-criteria appear to be incompatible;
- The framework is biased towards automobile use and sprawl;
- Improving access to developing areas of the city is critical; and,
- Road projects in new developments should be prioritized to ensure that infrastructure is in place prior to development.

There were other comments about the transportation system that were not directly related to the framework. Many respondents recommended reducing road space and not widening roads, while others noted a need to reduce congestion. Many respondents noted that automobile dependence should decrease and other modes such as transit and active transportation should be encouraged, with multiple requests to compare road project investments with transit and active transportation project investments. Specific areas of concern were noted again, including support for accelerating the Greenbank Road realignment, opposition to the Alta Vista Transportation Corridor, and mixed views on the widening of the Airport Parkway. Safety concerns were also noted, including requests for grade separation of railway crossings.

### 3.7 Overall Results

For each prioritization criterion, at least 80% of respondents felt that the criterion was important, very important, or extremely important. Exhibit 3.13 provides a comparison of the results. In this exhibit, the criteria are listed from top to bottom in order of importance, based on the percentage of respondents who rated the criterion as extremely or very important.

**Exhibit 3.13: Roads Criteria and Sub-Criteria Results (Ordered based on Percentage “Extremely Important” or “Very Important”)**





## 4 Recommended Changes to the Frameworks

Survey responses indicated a high level of support for the project prioritization frameworks and the criteria that they include. However, respondents also provided several suggestions for considering new criteria, removing criteria, and adjusting the weights of the criteria in the draft framework documents. The TMP team has conducted a thorough review of the feedback and is recommending several modifications to the draft frameworks. These are summarized in section 4.1 and further discussed in section 4.2. Some suggestions were heard multiple times but did not lead to changes to the frameworks; these are also discussed in section 4.2.

### 4.1 Summary of Recommended Changes

The TMP team has made the following recommended changes to the draft Transit and Road Project Prioritization Frameworks, based on the consultation results:

- Information has been added to the updated Transit and Road Project Prioritization Frameworks document to clarify the approach for TMP Part 2 (development of the Capital Infrastructure Plan) and its alignment with the objective of increasing sustainable transportation mode shares.
- For the transit framework, 5 points have been added to the City Building criterion and 5 points have been removed from the Cost criterion. Additional detail on the changes to the City Building criterion is as follows:
  - 2.5 points have been added to Major Destinations and Economic Development.
  - 2.5 points have been added to Equity.
  - Minor changes to the Natural Systems scoring rubrics were made based on technical stakeholder input.
- For the roads framework, 5 points have been added to the City Building criterion, and 5 points have been removed from the Cost criterion. Additional detail on the changes to the City Building criterion is as follows:
  - A new sub-criterion (4 points) entitled Goods Movement and Economic Development has been added. This is based on resident and stakeholder comments about the importance of maintaining efficient goods movement and the need to provide road access to major destinations.

- One point has been added to Support for Transit. In addition, the framework was revised to clarify that the scoring for this criterion will consider improvements along important current and future transit routes.
- Minor changes to the scoring rubrics for Natural Systems were made based on technical stakeholder input.
- The Support for Place-Making and Healthy Streets rubric was revised to consider potential negative downstream impacts.
- For the roads framework,, the maximum score for Access to New Development was reduced from 35 to 33. Two points were added to the maximum score for Congestion Reduction and points were added to many categories in the scoring rubric. although the maximum score remains the same.
- The roads framework was revised to reiterate that the Capital Infrastructure Plan will establish mechanisms for monitoring and re-prioritizing investments; this will include reviewing the timing of development to respond to newly approved development plans.

## 4.2 Additional Discussion of Recommended Changes

The recommended changes and the rationale for them is described in the sub-sections below.

### 4.2.1 **Ensure that the Project Identification and Prioritization Process Supports the Shift towards Sustainable Modes of Travel**

Many respondents articulated concerns that the prioritization frameworks do not support the *Official Plan* and draft TMP objectives of increasing mode shares for walking, cycling and transit, and reducing automobile dependence.

After reviewing the comments and suggestions, the TMP team has added information to the updated Transit and Road Project Prioritization Frameworks to clarify the approach for the TMP Part 2 and its alignment with the objective of increasing sustainable transportation mode shares. Exhibit 4.1 below (also included in the updated Prioritization Frameworks document) provides an overview of the approach for developing the TMP Capital Infrastructure Plan. The tasks of identifying and screening projects; developing the ultimate networks; prioritizing projects within the ultimate networks; and evaluating investment scenarios will work together to support the City's objective of increasing sustainable travel. The steps are as follows:

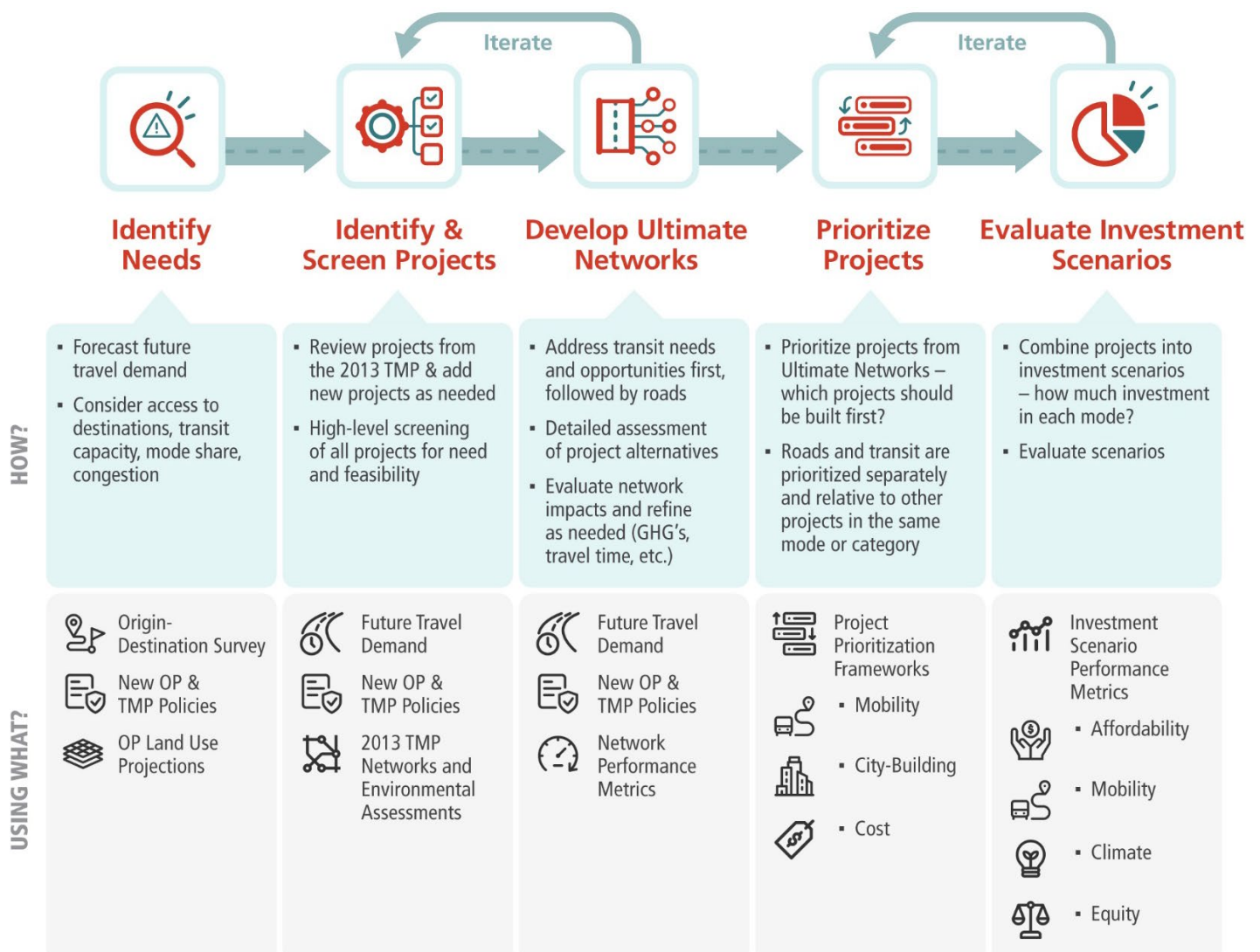
- **Identifying Needs.** The City will use data collected from the fall 2022 Origin-Destination (OD) travel survey to understand how, where, and why

residents are traveling today. Using this data, the City will update its transportation model and will forecast future travel demand to 2046 based on population and employment projections from the Official Plan. Since travel patterns are still changing in response to the pandemic, different scenarios will be examined to account for uncertainty, such as higher versus lower levels of working from home. Future transportation needs will be assessed by comparing future travel demand with existing network capacity, considering objectives such as providing access to destinations and shifting trips to sustainable modes.

- **Identifying and Screening Projects.** The next step will be to identify and screen candidate projects for inclusion in Ottawa's Ultimate Transit and Road Networks. The Ultimate Networks provide a long-term vision for the city's transportation infrastructure and include transit and road projects to meet 2046 travel demand. Projects from the 2013 TMP will be reviewed to confirm their need, and new projects will be identified to accommodate growth. Candidate projects may also include different options for the same corridor. All candidate projects will be subject to a high-level screening for need, feasibility, and policy alignment. Some projects with potentially significant impacts (such as the Alta Vista Transportation Corridor) will be subject to a more detailed analysis of alternatives. Projects to reconfigure existing streets as "complete streets" will also be identified, in support of intensification and modal shift.
- **Developing the Ultimate Networks.** In developing the Ultimate Networks, transit options to accommodate travel demand will be identified first; projects to add road capacity will be included where required to supplement the Ultimate Transit Network and meet residual travel demand that cannot be met by sustainable modes. Road projects will also be required to provide access to new development. The Ultimate Transit and Road Networks will be reviewed and refined based on network performance metrics such as destination accessibility, travel time, and greenhouse gas emissions. Identifying projects and developing the Ultimate Networks will be an iterative process.
- **Prioritizing Projects within the Ultimate Networks.** The transit and road projects in the Ultimate Networks will be prioritized using frameworks that consider Mobility Needs, City-Building, and Cost. The frameworks will be used to compare projects of the same type – i.e. to prioritize new roads and road widening projects relative to one another, and to prioritize transit projects relative to one another. The prioritization process will determine which road projects will be built first, and which transit projects will be built first. The proposed Transit and Road Project Prioritization Frameworks are presented in the next sections of this document.

- Evaluating Investment Scenarios.** Separate from project prioritization, the City will consider how to allocate funding across modes and project types. The TMP Team expects to develop two or three network investment scenarios that feature different levels of funding for different project types, including new roads and road widenings, complete street modifications to existing roads, rapid transit and transit priority projects, and active transportation. The different investment scenarios will be evaluated based on their ability to achieve City objectives, considering performance metrics related to mobility, climate change, equity, and affordability. The investment scenario that is approved by Council will determine the funding envelope for each project type (i.e. the amount of funding allocated to transit, active transportation, etc.). This funding envelope will then be applied to the prioritized list of projects to determine the anticipated timelines for implementation.

Exhibit 4.1: Approach to Developing the TMP Capital Infrastructure Plan



#### **4.2.2 Increase the Weighting of City Building Impacts Relative to Mobility Benefits in Both Frameworks**

Survey respondents assigned a high importance to City Building for prioritizing both transit and road projects.

Based on this feedback, the TMP Team recommends modifying the roads framework by adding 5 points to City Building Impacts and removing 5 points from Cost. Key changes to the City Building sub-criteria are as follows:

- 1 point has been added to Support for Transit
- A new sub-criterion (4 points) entitled Goods Movement and Economic Development has been added. This is based on resident and stakeholder comments about the importance of maintaining efficient goods movement and the need to provide road access to major destinations
- Minor changes to the scoring rubrics for Natural Systems were made based on technical stakeholder input.

The TMP Team also recommends modifying the transit framework by adding 5 points to City Building Impacts and removing 5 points from Cost. Key changes to the City Building sub-criteria are as follows:

- 2.5 points have been added to Major Destinations and Economic Development
- 2.5 points have been added to Equity
- Minor changes to the scoring rubrics for Natural Systems were made based on technical stakeholder input.

With these changes, mobility-related criteria still have a higher weighting than City Building. The core reason to pursue road and transit capital projects is to address Ottawa's mobility needs. With a higher weight on City Building, there is a risk of prioritizing projects that are less urgent in meeting mobility needs.

City building impacts will be critical when comparing network investment scenarios that involve different levels of investment in different project types. For example, increasing investments in transit and active transportation projects relative to investments in road projects (or vice-versa) could yield a significant difference in city-building outcomes. Metrics that relate to city-building outcomes will therefore feature prominently in comparisons of network investment scenarios.

However, when comparing projects of the same type (to determine which ones to construct first), the city building differences between projects are not expected to be as significant. For example, most rapid transit projects will have a similar type of impact on city-building objectives. The most significant differences between rapid transit projects are expected to be in the degree to

which they improve service and attract new riders. Similarly, most road projects are outside of the Greenbelt in suburban or rural transects. They will have similar characteristics in terms of the degree to which they advance transportation equity objectives or place-making objectives. While many respondents placed a high level of importance on city building objectives such as place-making and healthy streets, these objectives are best advanced through increased levels of investment in active transportation projects and complete street modifications to existing roads, rather than prioritizing road and transit projects that may have a positive impact on city building, but which are otherwise not required for many years.

Residents also suggested that the City should conduct sensitivity tests to assess the changes in project prioritization that would result from increasing the weighting of the City Building criterion. The TMP Team agrees that transparency is important and will share the project prioritization results in enough detail so that it is easy to see how the scores were developed. The TMP team does not recommend adjusting the prioritization criteria during the prioritization process. The frameworks reflect the City's policy objectives and the community's values, and it would not be appropriate to assess different versions of the frameworks in order to choose the one with the "best" results.

#### **4.2.3 Reduce the Cost Weighting or Change How Cost is Considered in Both Frameworks**

Based on the survey responses, some residents felt that the weighting of project cost should be reduced relative to the weighting proposed in the draft frameworks. Others suggested that the cost (and benefits) of providing a single large transit project should be evaluated against the cost (and benefits) of providing multiple smaller projects, or that costs should be compared to benefits.

As noted in section 4.2.2, the TMP team recommends reducing the weight of the Cost criterion from 25% to 20% in both the transit and roads frameworks; however, the overall approach for considering cost remains the same. The rationale for this recommendation is as follows:

- It is important to make efficient use of the limited funding available for transportation infrastructure projects. Comparing projects based on their cost recognizes this. The 20% weighting in the revised frameworks seeks to balance residents' interest in building the "best" projects against the City's interest in making efficient use of available resources.
- The prioritization frameworks consider both project cost and project benefits. Project cost is included directly, while benefits are captured by the other criteria. By adding the cost score to the scores for mobility and city building, the total score can be used to compare projects on a cost-benefit basis.

- Since projects are only prioritized against projects of a similar type, the costs are generally of a similar order of magnitude. For example, transit priority projects are only compared against other transit priority projects, and are not prioritized against rapid transit projects, which can be substantially more expensive. The implications of investing in fewer large projects versus many small projects will be explored as part of the network investment scenarios by considering the funding allocated to different project types.

#### **4.2.4 Include GHG and/or Mode Shift Impacts in Both Frameworks**

Several survey respondents suggested that the frameworks should consider the greenhouse gas (GHG) and/or mode shift impacts of each project. GHG and mode shift impacts are already captured through the proposed metrics. The transit project prioritization framework captures ridership growth, and higher ridership growth means higher mode shares and less GHG emissions. In the road projects prioritization frameworks, one of the sub-criteria is the Potential for Induced Demand and GHG Emissions. Additional assessment of mode shift and/or GHG emissions for individual projects is not feasible, since the projects work together as a network to influence travel behaviour. Metrics such as GHG emissions, mode shares, trips by mode, and vehicle kilometres traveled will be assessed in other stages of the Capital Infrastructure Plan, including the development of the Ultimate Networks and assessment of network investment scenarios.

#### **4.2.5 Reduce the Ridership Growth Weighting Relative to Service Improvement in the Transit Framework**

Ridership Growth is weighted more heavily than Service Improvement in the draft transit framework. However, survey respondents rated Service Improvement as more important than Ridership Growth. Nonetheless, the TMP Team recommends maintaining the weighting from the draft framework for the following reasons:

- The core mobility objective of the *Official Plan* and the TMP is to increase the proportion of trips that are made by sustainable modes of travel. To achieve this objective, it will be critical to increase transit ridership among existing residents and to accommodate growth in travel through transit.
- Service improvement is one of the key factors that drives ridership growth; projects that attract new riders to transit will also improve service for existing riders. As a result, there is some double counting of service improvement in the proposed framework since ridership growth due to modal shift is a direct result of improved service. While this double counting is considered to be appropriate in order to distinguish between benefits to existing users and future riders, further weighting of service improvement is not recommended.

- Survey respondents expressed concern about whether ridership growth can be reliably assessed. While recognizing that models cannot predict the future, the City's regional travel demand model is a rigorous tool that considers a wide range of inputs to assess ridership growth; forecasts consider population and employment projections, as well as the new riders that would be attracted by service improvements.

#### **4.2.6 Change How Equity is Considered within the Transit Framework**

The survey responses included the open-ended comment that Equity should be removed as a criterion and applied afterwards by allocating a certain percentage of transit funding to TMP equity priority neighbourhoods. The TMP team considered this suggestion but does not recommend making this change. The draft framework assesses the number of riders using the project who live in a TMP priority neighbourhood. This recognizes that people use transit to travel to a variety of destinations, and many of these destinations are outside the neighbourhood in which they live. A transit capital project will serve people who live in many parts of the city, not just the neighbourhood in which it is located. The framework aims to prioritize transit capital investments that benefit residents of priority neighbourhoods, but this does not necessarily mean that projects must be located in or directly adjacent to TMP priority neighbourhoods.

#### **4.2.7 Reduce the Weighting of the Access to New Development Criterion Relative to Congestion Reduction in the Roads Framework**

Survey respondents rated the Access to New Development sub-criterion as less important than the Congestion Reduction sub-criterion for road projects. However, the draft road project prioritization framework assigns a higher number of points to Access to Development.

The TMP Team recommends modifying the framework by reducing the maximum score for Access to Development from 35 to 33. Points have also been added in the Congestion Reduction sub-criterion for many categories, and the maximum score has been increased to 22 points. For example:

- Severe congestion today, moderate delay reduction OR High congestion today, significant delay reduction: increase from 15 to 18 points
- High congestion today, moderate delay reduction OR Moderate congestion today, significant delay reduction: increase from 10 to 14 points

Despite these changes, the TMP team recommends maintaining a higher maximum score for Access to Development, compared to Congestion Reduction. The Transportation Master Plan is a supporting document of the *Official Plan*; a key function of the Transportation Master Plan is to enable growth and development to occur. Road projects that open new development



lands are critical to supporting the city's growth as per the approved *Official Plan*.

A number of additional comments were received regarding the mobility impacts of road projects and implementation timing. The following points are provided for clarification:

- The scoring for Congestion Reduction prioritizes projects that address existing congestion. Modeling to assess congestion benefits accounts for any additional vehicles (induced demand) that may be attracted to the corridor because of the added capacity.
- The *Official Plan* aims to establish new neighbourhoods as walkable 15-minute neighbourhoods that are well served by transit, and to align the timing of development with the supporting transportation infrastructure. All road projects (including projects that provide access to new development) will be designed with these policies in mind. Roads within the urban and village transects will be built with walking and cycling facilities, following *Official Plan* and TMP policies, and will include transit infrastructure where appropriate.
- The Capital Infrastructure Plan will establish mechanisms for monitoring and re-prioritizing investments; this will include reviewing the timing of development to respond to newly approved development plans, which is a key input to the Access to New Development score. This point has been reiterated in the updated frameworks.

#### **4.2.8 Add a Criterion Related to Active Transportation to the Roads Framework**

There were several requests to provide one or more separate criteria that consider cycling connectivity and/or active transportation infrastructure in the road project prioritization framework. All new roads and road widening projects will be designed to the most recent standards for complete streets, including the provision of dedicated walking and cycling facilities wherever warranted by City policies. All road projects would therefore be expected to receive a top score in a criterion related to the provision of active transportation facilities. While some new road and road widening projects might make more important contributions to the cycling network than others, this is not a key differentiator; critical cycling network gaps are best addressed through targeted cycling improvements, rather than through TMP road projects. The TMP team therefore does not recommend adding a separate criterion related to active transportation.

#### **4.2.9 Increase the Weighting of Support for Transit within the Roads Framework**

Several open-ended comments highlighted the importance of supporting transit, with some suggestions to convert proposed or existing vehicle lanes to transit lanes. Survey respondents also assigned a high weighting to this sub-criterion.

As noted in section 4.2.5, the TMP team recommends increasing the maximum points for this sub-criterion from 4 to 5, in line with public feedback. The TMP team does not recommend any further increases to the weighting for the following reasons:

- Projects to create dedicated transit lanes and/or to implement other transit priority measures will be evaluated under the transit project prioritization framework, rather than the road project framework. Targeted transit projects will be identified where roads are expected to create delays for important transit routes but otherwise do not require additional capacity for general traffic; this is generally a more cost-effective approach than undertaking a road widening project. Transit project identification will consider both current and future transit travel patterns.
- Support for transit will be a key consideration when developing the Ultimate Networks and comparing alternative network investment scenarios. Metrics such as transit ridership and destination accessibility by transit will be used to inform decisions about how to allocate finite resources.

The updated frameworks also clarify that scoring will consider improvements along important current and future transit routes.

#### **4.2.10 Consider Downstream Impacts and/or Impacts to Existing Communities in the Roads Framework**

Several survey respondents expressed concern about the “downstream impacts” of road projects and/or impacts to existing communities that are not TMP equity priority neighbourhoods. The City’s modeling does capture the ability of the existing downstream road network to accommodate additional vehicular traffic. If downstream roads become congested as a result of a road project, the project would be adjusted, extended or removed from the Ultimate Network.

However, downstream traffic can also create negative impacts on Place-Making and Healthy Streets. Accordingly, the framework has been revised so that projects would score 0 on this sub-criterion if the project has indirect negative impacts or “downstream impacts” on areas with medium or high pedestrian activity.