Attachment 5: Descriptions of Improvements

(Project Number 2) GO Barrie Rail Corridor Crossing between Petrolia Road and Flint Road

Description: Extend The Pond Road East over the railway to connect with Supertest Road/Flint Road

Improvement Summary: The rail corridor is a barrier in the area that forces all vehicles, cyclists, and pedestrians, to utilize major arterial roads to traverse between two key industrial areas. The shortlisted improvement can create additional connections for active transportation, transit, light/heavy freight vehicles, and passenger vehicles.

Evaluation Summary: By extending The Pond Road to Flint Road gives freight drivers additional routes to cross the rail corridor, providing an improved travel time. Improvement 60 offers a similar solution and only one of the two would likely be required. The improvement creates an additional east-west connection north of Finch Avenue West and enhances connectivity between industrial areas, which directly supports the future land uses and movement of goods in the area. Given that the existing rail corridor would still be maintained, any improvement will not likely impact the environmental or cultural features of the area. It would also facilitate access for all road users, although focused primarily on serving heavy vehicles. While the proposed improvement may not have a direct impact on walking and cycling activity in the area, the reduction in freight activity at Keele Street/Finch Avenue West may an indirect benefit for vulnerable road users. The improvement would directly enhance the movement of goods for industrial land uses in the area. A key consideration for this improvement is the expensive capital cost due to a required railroad crossing and property acquisition. Technical results from the traffic modelling exercise are outlined below.

(Project Number 3/3a) Proposal to Allow Heavy Vehicles to Access the York University Busway (Hydro Corridor Road)

Description: Permitting truck use on the York University Busway

Improvement Summary: The York University Busway is a 1.8 km road directly north of Finch Avenue West that connects Dufferin Street to Tangiers Road, with access to Alness Street. The busway has seen decreased use with the completion of the Toronto-York Spadina Subway Extension. Currently, the TTC's 939 Bus makes use of this connection. With an already constructed roadway in place, there is potential to utilize this connection to provide an alternative route to/from key industrial areas. The use of the busway would need to be permitted by Hydro One, and a by-law enacted to limit use of the busway to certain freight vehicles only (not passenger vehicles or light trucks), which would also require enforcement. A potential connection between the York University Busway and Flint Road was also identified during consultation.

Evaluation Summary: The proposed improvement would be used exclusively for heavy vehicles, which is expected to provide strong improvement to travel time compared to

Finch Avenue West between Dufferin Street and Keele Street. It also creates an additional east-west connection north of Finch Avenue West and provides a truck/bus only option, removing truck traffic from Finch Avenue West. The improvement would directly benefit industrial land uses north of Finch Avenue West, and to a lesser extent, those south of Finch Avenue West. The proposed improvement would have no impact on natural areas as it uses existing infrastructure. However, it would remain off-limits for non-heavy vehicles. The proposed improvement mostly facilitates access to the industrial lands. It does provide some relief to heavy vehicle activity at Keele Street/Finch Avenue West and may have an indirect benefit to walking and cycling in the area. It would have minimal expenses, most notably an agreement with Hydro One is required to use the roadway. The improvement would directly enhance the movement of goods for industrial land uses in the area. A key considering factor is that this improvement would likely be restricted to heavy vehicles only.

(Project Number 6) Signal Timing Improvements and Intersection Improvements at Alness Street and Steeles Avenue

Description: Signal timing improvements and a second NB right turn lane on Alness Street.

Improvement Summary: This intersection is a key gateway to the DUKE Heights BIA and could support enhanced access to the Steeles Avenue corridor without adding additional traffic through Keele Street. This improvement is expected to improve operations of the intersection under future conditions.

Evaluation Summary: The proposed improvement implements signal timing improvements and creates an additional turn lane which will reduce freight travel time. The improvement will improve the north-east connectivity from Alness Street onto Steeles Avenue West. As an improvement to an existing route, there is minimal benefit to overall route choice. The proposed improvement would support the future of industrial land uses in the area. The improvement has low reasonable expenses for capital costs as it is mainly a signal timing improvement. Some reasonable cost may be associated with intersection improvements. It also provides enhanced access to existing industrial land uses. Improvements to pedestrian and cycling activities may occur during intersection improvements. A key consideration is that this improvement will have some impact on the southeast property at the intersection of Alness Street/Steeles Avenue.

(Project Number 11/12) Extension of Rivalda Road to Deerhide Crescent with associated intersection improvements

Description: Developing a new connection between Rivalda Road and Deerhide Crescent, which would include a grade-separated crossing of the rail corridor.

Improvement Summary: Rivalda Road is currently primarily accessed from either Weston Road, or through Sheppard Avenue (via Weston Road). In support of Project #97, this connection would greatly improve access to the area when considering the Weston Road restrictions. This improvement would not be required if Project #97 did not proceed.

Under a scenario with truck restrictions in place on Weston Road, this improvement would reduce the perceived conflicts between goods movement and sensitive land uses, and would continue to support the safe and efficient movement of goods along Rivalda Road without the perceived/actual impact of heavy vehicles and other road users/land uses on Weston Road.

Evaluation Summary: The proposed improvement creates a new east-west connection south of Finch Avenue West and reduces dependency on both Weston Road and Sheppard Avenue. It will directly benefit the growth of industrial land uses due to enhanced goods movement, as well as residents along Weston Road. While the proposed improvement may not have a direct impact on walking and cycling activity in the area, the reduction in freight activity along Weston Road may provide an indirect benefit for vulnerable road users. The improvement gives freight drivers additional route options, helping to improve reliability and improve travel times as a result. A key consideration for this improvement is the significant cost associated with an at-grade or grade separated crossing.

(Project Number 20a) Arrow Road-Oakdale Road Connection & Partial Interchange with Highway 400 (North legs only)

Description: Overpass of Highway 400 connecting Arrow Road to Oakdale Road, with access to/from Highway 400 North only.

Improvement Summary: When the project team applied a lens of finding/creating options to access the 400-series highways in the study area without relying on Finch Avenue West, an opportunity to provide a new crossing of the highway was considered between Finch Avenue West and Sheppard Avenue, with the potential for access to/from Highway 400.

Through initial consultation with MTO, there are limitations on how this partial interchange may be considered. Sheppard Avenue itself was ruled out as a potential interchange location through previous MTO discussions (not part of this project), and the proximity of this new crossing to Sheppard Avenue meant that only a north-bound on and south-bound off ramp would be feasible at a design stage. However, further investigations about the impact of the new access on possible weaving on the mainline needs to be considered before the improvement could be properly considered.

Evaluation Summary: The proposed improvement would directly enhance the movement of goods for industrial land uses in the area. The improvement connects Arrow Road to Oakdale Road, which provides freight drivers additional route options and helps improve reliability as well as travel times as a result. It would also improve connections to Highway 400 and would reduce dependency on Finch Avenue West. Other alternatives may exist for a partial interchange or a non-interchange connection. In addition, the improvement creates a new east-west connection south of Finch Avenue and reduced reliance on Finch Avenue West to cross the highway. The improvement will reduce the use of turning movements at the intersection of Finch Avenue West and Arrow Road, as well as at Finch Avenue West and Oakdale Road. It would also directly benefit industrial land uses south of Finch Avenue West and east of Highway 400, but may impact non-commercial/industrial land uses between Oakdale

Road and Jane Street. Given the already developed property in the area, the impact to natural and cultural heritage is likely limited. The improvement will likely accommodate active transportation, but might not be a popular route choice if interchange options are included. The improvement would facilitate access for all road uses, although it is focused primarily on serving heavy vehicles. Although the improvement may not have a direct impact on walking and cycling activity, through a reduction in freight activity on Finch Avenue West, the improvement may have an indirect benefit for the area. A key consideration is that the improvement would require a significant capital cost due to a required highway crossing and property acquisition. Cost sharing with MTO may be available.

(Project Number 20b) Arrow Road-Oakdale Road Connection (No access to Highway 400)

Description: Overpass of Highway 400 connecting Arrow Road to Oakdale Road, without access to/from Highway 400.

Improvement Summary: Similarly to Project Number 20a, this improvement focuses on the benefits of an additional east-west crossing of Highway 400, without the need for assessing the impact on the mainline. The new crossing provides an alternative route to both Finch Avenue West and Sheppard Avenue, and when considered with an enhanced “West Service Road” (Project Number 64), the crossing presents an opportunity to reduce reliance on Finch Avenue West, and provide alternative routes for goods movement.

MTO will still need to be consulted further regarding the impact to their infrastructure.

Evaluation Summary: The proposed improvement would directly enhance the movement of goods for industrial land uses in the area. The improvement connects Arrow Road to Oakdale Road, which provides freight drivers additional route options and helps improve reliability as well as travel times as a result. In addition, the improvement creates a new east-west connection south of Finch Avenue and reduced reliance on Finch Avenue West to cross the highway. The improvement will reduce the use of turning movements at the intersection of Finch Avenue and Arrow Road, as well as at Finch Avenue West and Oakdale Road. It would also directly benefit industrial land uses south of Finch Avenue and east of Highway 400, but may impact non-commercial/industrial land uses between Oakdale Road and Jane Street.

Given the already developed property in the area, the impact to natural and cultural heritage is likely limited. The improvement will likely accommodate active transportation. The improvement would facilitate access for all road uses, although it is focused primarily on serving heavy vehicles. Although the improvement may not have a direct impact on walking and cycling activity, through a reduction in freight activity on Finch Avenue West, the improvement may have an indirect benefit for the area. A key consideration is that the improvement would require a significant capital cost due to a required highway crossing and property acquisition. Cost sharing with MTO may be available.

(Project Number 24) Highway 400 & Steeles Avenue Interchange Design

Description: Additional access/egress from Highway 400 at Steeles Avenue

Improvement Summary: When the project team looked at reducing reliance on Finch Avenue West, a clear gap emerged in the overall transportation network, being access to Highway 400 specifically excluding the Finch Avenue West interchange. Given the current design of the Steeles Avenue/ Highway 400 interchange, the project team approach MTO to discuss a potential improvement to the interchange to add a north-bound on ramp, and south-bound off ramp.

City staff should continue to work with MTO to explore this option.

Evaluation Summary: The proposed improvement incorporates a full interchange at Steeles Avenue and Highway 400 significantly improves access to/from north of the Study Area. The improvement expands upon the existing connection at Steeles Avenue and Highway 400 by facilitating a northbound on ramp and southbound off ramp. This directly reduces reliance on the interchange at Finch Avenue West and Highway 400, reduces the use of the off-ramps at Finch Avenue West and consequently, traffic on Finch Avenue West.

Combined with other improvements (Steeles Avenue widening), this may provide an improved connection into the heart of the industrial area west of Highway 400, directly benefitting industrial land uses north of Finch Avenue West. A key consideration is the significant capital cost due to a required redesign, construction and property acquisition, which would be shared with MTO, and potentially the City of Vaughan and/or York Region if available. Another key consideration is that walking and cycling activity, which may improve elsewhere in the Study Area, would need to be managed at this location given the likely increase in overall vehicular traffic.

(Project Number 28) Pavement Marking Improvements

Description: Refreshed pavement markings at Fenmar Drive and Steeles Avenue.

Improvement Summary: A request from the public/industry was for the pavement markings at the southern leg of the Fenmar Drive/Steeles Avenue intersection should be refreshed to ensure it is clearly marked for the available lanes and what movements are permitted.

Evaluation Summary: This minor improvement is recommended to ensure that the intersection functions as best as possible in its current state.

(Project Number 29) Improvements to the Ormont Drive Rail Corridor Underpass

Description: Review of Ormont Drive to improve clearance height.

Improvement Summary: The industry representatives in the Emery Village BIA shared concerns over the perceived/actual lack of clearance of Ormont Drive under the rail tracks. When visited in 2022, the project team did not note any clear/obvious striking of the underpass, but did note a lack of signage indicating the maximum vehicle height.

This recommendation was tested regardless to understand how an increase in heavy vehicle traffic on this road might impact the broader network, even if an actual redesign is not required.

Evaluation Summary: Following a complete inspection of the underpass, if it is clear that the clearance height is insufficient, the proposed improvement would increase the clearance for tall vehicles at the rail underpass on Ormont Drive, providing a significant travel time improvement for vehicles previously unable to use this crossing. It would ultimately improve overall safety and reliability. This improvement provides no benefit to other road users, and does not directly enhance active transportation facilities. This would reduce reliance on Finch Avenue West for a limited number of impacted vehicles. There would be no change to the existing impacts, given the redesign is primarily vertical. The improvement would likely have reasonable costs associated with redesigning a rail corridor underpass, but may be able to be achieved without touching the rail assets themselves.

It is recommended that the City include height signage on both sides of the underpass as an interim solution pending a complete inspection.

(Project Number 31) Intersection improvements at Steeles Avenue and Fenmar Drive

Description: Dedicated left turn lanes at Fenmar Drive and Steeles Avenue are not long enough for trucks

Improvement Summary: This intersection had been flagged by industry representatives/members of the public as not being sufficient to clear multiple vehicles for a left turn, and trucks would have to wait for multiple cycles with insufficient queuing space, thus reducing the overall operations of the intersection. A brief analysis indicated that changes to the left turn storage length could improve queuing and travel time in the area.

Evaluation Summary: Extending the left turn lane is an operational improvement that may not necessarily improve left turn counts, but may unlock improved capacity for through or right turn movements. The proposed improvement would ultimately provide a small benefit to travel times and may make the existing connection more attractive and comfortable. There may also be a benefit to active transportation modes through a more effective intersection design. The proposed improvement would facilitate access for all road users and would enhance the movement of goods for industrial land uses in the area. A key consideration for the proposed improvement is the minor cost associated with restriping the road. Costs may escalate should the design warrant a minor widening.

(Project Number 63) Crossing the GO Barrie Rail Corridor from Chesswood Drive and Connecting to Ceramic Road

Description: New road between Ashwarren Road/Bakersfield Street and Chesswood Drive

Improvement Summary: To minimize the improve connectivity in a core industrial area, the project team explored an additional east-west crossing of the rail corridor between Finch Avenue West and Sheppard Avenue. There are multiple locations where this could occur, and for the purposes of this project, the project team explored an extension of Ashwarren Road to Chesswood Drive.

There are some notable challenges in the design of this improvement, but also some notable benefits. It is expected that the concept of this improvement (being an east-west crossing of the rail corridor) could be explored further through alternative alignments, and redevelopment opportunities in the area.

Evaluation Summary: As there are no east-west crossings over the rail corridor between Finch Avenue West and Sheppard Avenue, the proposed improvement would reduce freight travel times and improve the reliability of moving goods in the area. The improvement will also create a new route that will minimize reliance on Finch Avenue West and Sheppard Avenue. The proposed improvement would facilitate access for all road users and would directly enhance the movement of goods for industrial land uses in the area. The redevelopment of land around the Keele Street/Finch Avenue West intersection would benefit in a reduction of freight vehicles at the intersection. By creating a connection south of Finch Avenue West, the area can be bypassed. Given that the existing rail corridor would still be maintained, any improvement will not likely impact the environmental or cultural features of the area. The proposed improvement may not have a direct impact on walking and cycling activity in the area, but through a reduction in freight activity at Keele Street/Finch Avenue West, the improvement may have an indirect benefit for the area. A key consideration for this improvement is that it would likely have significant costs associated with the structure required to successfully cross the rail corridor. It is expected that only one of improvements 63, 71, or 72 would be required.

(Project Number 64) Improvements to the Road Network Adjacent and Parallel West of Highway 400 (West-Side Service Road)

Description: Improvement to the road network adjacent and parallel west of Highway 400.

Improvement Summary: The road network along the west side of Highway 400 between Steeles Avenue and Wilson Avenue is currently made up of four distinct sections (Signet Drive, Arrow Road, Bartor Road, and Clayson Road). These four sections are connected and do operate as somewhat of a “service road” concept. The project team proposed that the four sections be unified and treated as a core goods movement corridor, whereby the north-south movements along the corridor are prioritized as through movements.

This would require changes to the intersections of Bartor Road and Clayson Road, at Bartor Road and Arrow Road, and Wilson Avenue and Clayson Road, either through realignment, or reconfiguration. The changes could also include improvements to the cross-section that better accommodate freight vehicles and provide fit-for-purpose active transportation facilities to assist employees in getting to their place of work.

The improvements to this corridor would solidify a strong alternate route for goods movement that would then facilitate placing restrictions on Weston Road for heavy vehicles.

Evaluation Summary (North Section – Finch Avenue West to Steeles Avenue): The proposed improvement would greatly enhance the potential for improved freight travel time, particularly in consideration of a potential truck restriction on Weston Road. The proposed improvement would create a reliable connection through the heart of the industrial area. Most of the corridor already exists but would require enhancement to appropriately support the concept of the corridor. Overall, the north-south route provides an enhanced connection that would be preferred over other arterial roads in the area for most heavy vehicles. The significant concentration of industrial land uses in the area makes the improvement more important. Combined with a ban on heavy vehicles on Weston Road, the proposed improvement would be required to ensure the long-term relevance of industrial land uses in the area. Ultimately, the proposed improvement would directly enhance the movement of goods for industrial land uses in the area.

Evaluation Summary (South Section – Finch Avenue West to Wilson Avenue): The proposed improvement would greatly enhance the potential for improved freight travel time, particularly in consideration of a potential truck restriction on Weston Road. The proposed improvement would create a reliable connection through the heart of the industrial area. The majority of the corridor already exists, but would require enhancement to appropriately support the concept of the corridor. Overall, the north-south route provides an enhanced connection that would be preferred over other arterial roads in the area for most heavy vehicles. The significant concentration of industrial land uses in the area makes the improvement more important. Combined with a ban on heavy vehicles on Weston Road, the proposed improvement would be required to ensure the long-term relevance of industrial land uses in the area. Ultimately, the proposed improvement would directly enhance the movement of goods for industrial land uses in the area.

(Project Number 67) Widening of Steeles Avenue West between Fenmar Drive and Jane Street

Description: Widen Steeles Avenue from the existing 4 lanes to 6 lanes between Fenmar Drive and Jane Street

Improvement Summary: Steeles Avenue was routinely seen as a freight corridor by industry representatives, particularly when considering the future LRT facilities on Finch Avenue West. The project team noted that Steeles Avenue tends to bottleneck in this area, and so explored maintaining a consistent cross section from Fenmar Drive to Jane Street.

Given the probable impact of property requirements, the conceptual alignment will require coordination between City of Toronto and York Region/City of Vaughan.

Evaluation Summary: The proposed improvement would facilitate access for all road users. Modelling has shown that this improvement would provide a significant improvement to travel time and reliability. When combined with other improvements, this

could greatly enhance the development of industrial land uses. The widened road would allow for additional transit and active transportation facilities, whilst minimizing impact to natural and cultural features. The design of the improvement could incorporate enhanced cycling facilities to match the expected increase in vehicle traffic and would provide enhanced access to existing industrial land uses, as well as uses south of Steeles Avenue. Two factors to consider is that this improvement would not provide an additional route, but merely an improvement to an existing route. It would also have some reasonable expenses for capital costs but will follow with typical road maintenance costs.

(Project Number 73a/73b) Walsh Avenue/Albion Road and Weston Road Intersection – Further Study Area

Description: Further review of the grade separated intersection at Walsh Avenue/Albion Road to improve heavy vehicle movements from the westbound Walsh Avenue to southbound Weston Road.

Improvement Summary: A request was raised by the public to look at improving the abovementioned movement for larger vehicles, being that the current design is too tight of a turn for effective travel.

As the project team began to review this intersection, it was clear that property impacts would be unavoidable, and at the same time, the project team was reviewing a potential truck restriction north of this intersection on Weston Road. Combined with the proximity of the intersection to the Weston Road/Highway 401 interchange, the project team started to review the intersection in its entirety and engaged with MTO for further discussions.

During these discussions, the scope of the assessment that needed to be completed to appropriately determine an ideal solution to the future of this intersection exceeded the scope of the transportation master plan. As such, it is recommended that the City continue to work with MTO in developing a suite of alternative solutions for the improvement of this intersection, ensuring that the performance of the Weston Road/ Highway 401 interchange is maintained/improved, or that the impacts are acceptable to stakeholders.

There are two movements that were identified as having safety concerns at this location that can be addressed ahead of the full future study:

- The right-turn from westbound Albion Road to the ramp to southbound Weston Road is challenging to navigate for heavy trucks due to the sharp turning radius. Geometric safety improvements should be considered at this location.
- The ramp from Walsh Avenue to Weston Road has poor sightlines near Wallasey Avenue. A traffic control signal or other measures should be considered to improve the safety of merging vehicles, which currently are required to stop and then merge with free-flowing traffic.

(Project Number 74) 407ETR Subsidy – Business Case Study

Description: Some form of subsidized funding for medium/heavy commercial vehicles to use Highway 407 as an alternative to Finch Avenue West.

Improvement Summary: The project team's approach to determining how to support goods movement without relying on Finch Avenue West prompted a deeper look at the role Highway 407 currently plays, or could play, in the future of the study area. The project team considered that the movement of goods to/from the north of the study area, could benefit from either a full interchange at Steeles Avenue, or if Highway 407 ETR fees were reduced/removed, that Highway 407 could be an attractive option to access Highway 400 northbound (or vice versa for coming to the study area).

The project team considered a scenario where if a medium/heavy commercial vehicle entered Highway 407 between Pine Valley Drive and Keele Street and exited to Highway 400 (north or south), that the trip would be subsidized (partially or fully), and vice versa (entered from Highway 400 and left between Pine Valley Drive and Keele Street).

The project team's modelling software was not designed to properly test the economic choices in the trip distribution, but considered that there could be merit to the concept. For the purposes of this project, Highway 407 ETR were contacted for initial feedback on the idea and indicated that a more fulsome business case study would be required before further consideration.

(Project Number 76/76a) Removal of Truck Restriction at Islington Avenue and Millwick Drive

Description: Allow trucks entering Millwick Drive from Islington Avenue

Improvement Summary: The north-west quadrant of the Emery Village BIA suffers from a lack of true access/egress points to Islington Avenue. This connection already exists and meets Islington Avenue at a signalized intersection, which prompted the project team to explore the opportunity to facilitate heavy vehicle movements into/from this intersection.

Public commentary raised during PIC#2 indicated a concern for this improvement, citing poor design and safety concerns. It is recommended that an intersection safety study be completed prior to removal of the truck restriction.

Evaluation Summary: A removal of the ban would improve the variety of route options available to drivers and would reduce the reliance on Finch Avenue West and Steeles Avenue. There is no direct cost in removing the ban itself, and it may provide indirect economic benefits. The removal of the ban also allows for more effective goods movement. The improvement would decrease freight travel time, while the removal of the ban would provide a benefit to development of industrial land uses in the area at the detriment to a small number of residential properties. A removal of the ban would only serve to improve access for heavy vehicles.

There may be an impact on pedestrian and cyclist activity. A few key considerations would be that if this improvement were to be implemented, there would be no change to

the existing network, a removal of the ban may have a small negative impact on the pedestrian and cyclist activity, but otherwise preserves the existing conditions. An additional intersection safety/geometry study should be conducted before further action is taken.

To facilitate removing the truck restriction, a safety review of the intersection at this location would need to be undertaken. The safety review has already been requested by Etobicoke York Community Council (2024.EY10.22) due to heavy trucks damaging surrounding infrastructure at this location.

(Project Number 79) Intersection improvement

Description: Extended green time for left turn from Eastbound Steeles Avenue to Northbound Keele Street

Improvement Summary: This intersection had been flagged by industry representatives/members of the public as not being sufficient to clear multiple vehicles, and trucks would have to wait for multiple cycles. A brief analysis indicated that changes to the signal timing plan could improve queuing and travel time in the area.

Evaluation Summary: As a short-term improvement, this could facilitate improved travel time and route reliability. There would be no discernible impact to the surrounding area given the already disturbed lands. This is an operational improvement only. This is a quick and cheap improvement that requires only typical maintenance as per other intersections. This improvement provides enhanced operations at a key intersection, which allows for efficient movement. The proposed improvement would not provide an additional route, merely an improvement to an existing route. It would also provide a negligible impact for non-auto vehicle road users, but would improve access for auto-vehicle users. Key considerations include that this improvement would provide minimal improvement for City development and while an improvement to the signal timing plan may generate enhancements for cyclists, it is minimal.

(Project Number 83) Intersection improvement

Description: Extended green time for left turn from westbound Tangiers Road to southbound Keele Street.

Improvement Summary: This intersection had been flagged by industry representatives/members of the public as not being sufficient to clear multiple vehicles, and trucks would have to wait for multiple cycles. A brief analysis indicated that changes to the signal timing plan could improve queuing and travel time in the area.

Evaluation Summary: As a short-term improvement, this could facilitate improved travel time and route reliability. This is an operational improvement only. This is a quick and cheap improvement that requires only typical maintenance as per other intersections. This improvement provides enhanced operations at a key intersection, which allows for efficient movement. The proposed improvement would not provide an additional route, merely an improvement to an existing route. It would also provide a negligible impact for non-auto vehicle road users, but would improve access for auto-vehicle users. Key considerations include that this improvement would provide minimal

improvement for City development and while an improvement to the signal timing plan may generate enhancements for cyclists, it is minimal.

City staff are to review this intersection further for impacts to the Keele Street/Finch Avenue West intersection timing.

(Project Number 88) Intersection improvement

Description: Extended green time for left turn from southbound Bakersfield Road to eastbound Sheppard Avenue West.

Improvement Summary: This intersection had been flagged by industry representatives/members of the public as not being sufficient to clear multiple vehicles, and trucks would have to wait for multiple cycles. A brief analysis indicated that changes to the signal timing plan could improve queuing and travel time in the area.

Evaluation Summary: As a short-term improvement, this could facilitate improved travel time and route reliability. This is an operational improvement only. This is a quick and cheap improvement that requires only typical maintenance as per other intersections. This improvement provides enhanced operations at a key intersection, which allows for efficient movement. The proposed improvement would not provide an additional route, merely an improvement to an existing route. It would also provide a negligible impact for non-auto vehicle road users, but would improve access for auto-vehicle users. Key considerations include that this improvement would provide minimal improvement for City development and while an improvement to the signal timing plan may generate enhancements for cyclists, it is minimal.

City staff are to review this intersection further for impacts to the Sheppard Avenue corridor timing.

(Project Number 91) Connection between Tandem Road and Keele Street (City of Vaughan jurisdiction)

Description: Extension of Tandem Road to Keele Street

Improvement Summary: Throughout the study, a common theme was a reliance on Steeles Avenue for east-west movements in the study area. This becomes particularly difficult to manage at the intersections of major north-south arterial roads. Members of the SAG meetings indicated that a continuation of Petrolia Road north of Steeles Avenue that connects to Keele Street could enhance access/egress from the DUKE Heights BIA area. While the City's jurisdiction ends north of Steeles Avenue, the impacts were explored for the City to then decide how to proceed. Given the benefits to the surrounding area, it is recommended that the City approach York Region/City of Vaughan to discuss the potential connection.

Evaluation Summary: The proposed improvement would facilitate access for all road users. By providing a bypass to the Steeles Avenue/Keele Street intersection, travel times and reliability can be improved. This improvement provides a bypass to the Keele Street/Steeles Avenue intersection specifically for the commercial/industrial land uses north of Steeles. Combined with Petrolia Road, this is an attractive connection to and from the Highway 407.

Although outside of the City's boundary, the impact of this improvement on the development of industrial lands in Toronto is beneficial. The improvement will have some reasonable expenses for capital costs but will follow with typical road maintenance costs. The redevelopment of the property parcel offers multiple opportunities for funding. In addition, the improvement provides enhanced access to existing industrial land uses, as well as uses south of Steeles Avenue. Furthermore, the improvement would impact previously undeveloped lands underneath a hydro corridor but would otherwise have minimal impacts on active transportation modes.

A key consideration is that while active transportation users may be accommodated on the new improvement, it is envisaged that it would be primarily heavy vehicles and auto-traffic.

(Project Number 92-95) Downsview Airport Road Realignments and Extensions

Description: Extension of Sheppard Avenue straight through from Keele Street to Dufferin Street, Extension of Bakersfield St to realigned Sheppard Avenue, Extension of Chesswood Dr to realigned Sheppard Avenue, Extension of Grandravine Drive to Rimrock Road.

Improvement Summary: At the beginning of the project, the Downsview Secondary Plan Area study had not commenced, at the project team explored some high level options for future consideration. The described alignments were conceptual and used primarily to understand how vehicle flows might be impacted (positively or negatively) by these new alignments. This recommendation is superseded by work completed in the Downsview Secondary Plan Area study.

Evaluation Summary:

The potential alignments have major benefits in shaping the city criteria as the future redevelopment of the Downsview lands, it is expected that the alignment of roads would follow the typical "city-block" style, creating suitable development parcels on the edge of an existing industrial area for further construction. The proposed improvements would facilitate access for all road users.

Improvements would include normalizing the road alignments between Keele Street and Dufferin Street through the Downsview Area, whereby more route choices become available to freight drivers, helping to improve reliability and a reasonable improvement to travel times as a result.

(Project Number 97) Complete Truck Restriction on Weston Road (between Albion Road/Walsh Ave and Finch Ave W.)

Description: Complete truck restriction on Weston Road between Finch Avenue West and Walsh Avenue/ Albion Road.

Improvement Summary: No physical changes are required along Weston Road, and a reduction in heavy vehicle traffic would improve noise and air quality in the area. Active transportation mode share may increase without heavy vehicles present. A reduction in

heavy vehicle activity on Weston Road will protect sensitive land uses and could incorporate future changes to enhance active transportation facilities in the area. There is no cost associated with this improvement and costs associated with other (related) improvements are considered separately.

The proposed restriction would better align heavy vehicle movements away from conflicting land uses (schools) and reducing this conflict does have a benefit for PSEZs as the long-term relationship with surrounding land uses is improved. The proposed improvement would limit heavy vehicle access but could provide opportunities for other (vulnerable) road users to have improved access along Weston Road.

The restriction would impact travel time for freight drivers, however, would improve safety/comfort for other road users on Weston Road (particularly vulnerable road users). This would reduce the variety of routes available and should not be implemented until other supporting improvements have been implemented. Given the requirements for relying on other routes before the impacts of this route can be felt, the score reflects the eventual/ultimate outcome. This restriction would limit goods movement for a number of drivers, but through alternate routes, the overall efficacy of goods movement in the area should remain fairly consistent with existing conditions.

Evaluation Summary:

The improvement was tested in traffic simulation software through an assessment of the available capacity on the possible alternate routes (west service road – Bartor Road/ Clayson Road/ Arrow Road), which revealed that the number of heavy vehicle trips currently using Weston Road would likely be accommodated on the alternative routes.

This restriction would require the support of other improvements before it could be put in place to ensure that local businesses are not unduly impacted, and at which point, additional traffic data collection should be conducted and a reassessment of the impacts under the restriction should be completed.