

5.0 MITIGATION MEASURES

5.1 TRAFFIC MITIGATION

As detailed in Section 3.7, capacity analyses were completed for 14 intersections to determine the proposed project's potential traffic impacts. In order to mitigate the projected traffic impacts to the signalized intersections identified above under year 2010 Build conditions, the following transportation system improvements would be required:

Woodhaven Boulevard/Metropolitan Avenue intersection

- Re-allocate five seconds of green time from the north-south phase to the east-west phase (three seconds) and the north-south left-turn phase (two seconds) during the weekday AM and PM peak periods.

- Prohibit on-street parking along the east side of Woodhaven Boulevard for a distance of approximately 200 feet south of Metropolitan Avenue during the weekday AM and PM peak periods, and re-stripe the northbound approach to accommodate one exclusive right-turn lane. This change would result in the loss of approximately four (4) existing parking spaces along the east side of Woodhaven Boulevard, south of Metropolitan Avenue, during the weekday AM and PM peak periods.

Prohibit parking along Metropolitan Avenue during weekday PM peak period

- Prohibit on-street parking along both sides of Metropolitan Avenue between the signalized Trotting Course Lane-Alderton Street intersection and the unsignalized 71st Road intersection during the weekday PM peak period in order to provide two continuous travel lanes in the eastbound and westbound directions along this section of Metropolitan Avenue. This change is similar to the existing parking prohibition along Metropolitan Avenue during the weekday AM peak period, and would result in an additional time restriction for approximately 52 existing parking spaces along the north side of Metropolitan Avenue and approximately 45 existing parking spaces along the south side of Metropolitan Avenue during the weekday PM peak period. The resulting eastbound and westbound capacity increases along Metropolitan Avenue would help mitigate projected traffic impacts at the intersections of Trotting Course Lane-Alderton Street/Metropolitan Avenue, Selfridge Street/Metropolitan Avenue, 69th Avenue/Metropolitan Avenue, 69th Road/Metropolitan Avenue, 70th Avenue (north)/Metropolitan Avenue, and 71st Street-Continental Avenue/Metropolitan Avenue.

Trotting Course Lane-Alderton Street/Metropolitan Avenue intersection

- Modify the signal phasing sequence to provide a 14-second leading westbound phase, followed by a 50-second concurrent east-west phase, during the weekday AM and PM peak hours. The existing 41-second northbound phase should remain, as should the three second yellow and two-second all-red clearance intervals.

69th Road/Metropolitan Avenue

- Install signage to prohibit left-turn and through vehicle movements from the stop-controlled northbound and southbound approaches of 69th Road during the weekday AM and PM peak periods.

71st Avenue-Continental Avenue/Metropolitan Avenue

- Re-allocate three seconds of green time from the east-west phase to the north-south phase during the weekday AM and PM peak periods.

Ascan Avenue/Metropolitan Avenue

- Re-allocate two seconds of green time from the east-west phase to the north-south phase during the weekday AM peak period.
- Re-allocate one second of green time from the east-west phase to the north-south phase during the weekday PM peak period.

Union Turnpike/Metropolitan Avenue

- Re-allocate two seconds of green time from the east-west phase to the north-south phase during the weekday AM and PM peak periods.

In addition to the mitigation measures described above, the following improvements are recommended for the signalized Selfridge Street/Metropolitan Avenue intersection to provide for the safe and efficient movement of traffic in conjunction with the proposed geometric modifications to accommodate the school's access driveway as a fifth leg to this intersection.

Selfridge Street/Metropolitan Avenue

- Modify the existing traffic signal hardware at this intersection to accommodate the proposed site-access driveway as a new fifth leg to the intersection. This new south leg should be designed to accommodate one exclusive left-turn egress lane and one shared through/right-turn egress lane in the northbound direction, as well as two southbound ingress lanes.

- Maintain the existing 90-second signal cycle length during the weekday AM and PM peak periods. During the weekday AM peak period, re-allocate green time to provide 49 seconds of green time to east-west movements, 10 seconds of green time to Selfridge Street and the existing driveway, and 16 seconds of green time to the proposed site-access driveway. During the weekday PM peak period, re-allocate green time to provide 43 seconds of green time to east-west movements, 11 seconds of green time to Selfridge Street and the existing driveway, and 21 seconds of green time to the proposed site-access driveway. Three-second yellow and two-second all-red clearance intervals should be maintained during both the weekday AM and PM peak periods.

It should be noted that the projected traffic impact at the signalized Woodhaven Boulevard/Union Turnpike intersection cannot be mitigated by signal timing adjustments and on-street parking prohibitions alone. Motorists on all approaches to this intersection currently experience delays corresponding to LOS “D”, “E”, or “F” during the weekday AM and PM peak hours. Even if the proposed school campus is not constructed, traffic operations at this intersection are projected to continue to worsen over time as a result of continued traffic growth throughout Queens and additional development activities in the area (such as the planned grocery store/retail development on the southwest quadrant of the Trotting Course Lane-Alderton Street/Metropolitan Avenue intersection), as described previously in the discussion of future No-Build conditions.

More substantial improvements, such as the construction of turn lanes, or prohibition of turns at the intersection, would be required in order to address these pre-existing traffic operations and intersection capacity deficiencies at the Woodhaven Boulevard/Union Turnpike intersection. The SCA has and shall continue to coordinate with the New York City Department of Transportation (NYCDOT) to identify potential measures that would ameliorate the impacts of the additional traffic generated at this intersection due to the proposed school campus. It should also be noted that capacity and safety improvements at the Woodhaven Boulevard/Union Turnpike intersection will be investigated as part of NYCDOT’s Congested Corridors project, which will examine operational and safety improvements at a variety of critical transportation corridors in New York City, including along Woodhaven Boulevard from Queens Boulevard to Atlantic Avenue.

Alternative Measures

In order to mitigate the identified traffic impacts, the mitigation measures described above assume the prohibition of on-street parking along both sides of Metropolitan Avenue between Trotting Course Lane-Alderton Street and 71st Road during the weekday PM peak period in order to provide additional roadway capacity in the eastbound and westbound directions. This particular change in the parking regulations would impact a

total of approximately 97 on-street parking spaces along this segment of Metropolitan Avenue. In addition, to mitigate the identified traffic impacts at the Woodhaven Boulevard/Metropolitan Avenue intersection, the prohibition of on-street parking along the east side of Woodhaven Boulevard, for a distance of approximately 200 feet south of Metropolitan Avenue during the weekday AM and PM peak periods would also be required. This particular change would result in the loss of four (4) parking spaces along the east side of Woodhaven Boulevard, south of Metropolitan Avenue, during the weekday AM and PM peak periods.

The SCA acknowledges the local community's concerns regarding the implementation of additional parking restrictions in the area, particularly along Metropolitan Avenue, and as such, has identified an alternative Build scenario whereby the existing parking regulations for all on-street parking spaces are maintained. This alternative package of measures assumes the following improvements are implemented in lieu of the on-street parking restrictions along Metropolitan Avenue and Woodhaven Boulevard described previously:

- Lengthening the existing 90-second signal cycle to 120-seconds at all signalized intersections between the Selfridge Street/Metropolitan Avenue intersection and the 71st Street-Continental Avenue/Metropolitan Avenue intersection—and reallocating the green time at these intersections accordingly—to provide additional east-west capacity along Metropolitan Avenue.
- Re-striping the northbound and southbound approaches to the signalized 71st Street-Continental Avenue/Metropolitan Avenue intersection to accommodate one exclusive left-turn lane and one shared through/right-turn lane on each approach.

With the alternative measures described above, unmitigated traffic impacts are projected to remain at the following intersections:

- Woodhaven Boulevard/Metropolitan Avenue (weekday AM and PM peak hours)
- Trotting Course Lane-Alderton Street/Metropolitan Avenue (weekday PM peak hour)
- Selfridge Street/Metropolitan Avenue (weekday PM peak hour)
- 69th Avenue/Metropolitan Avenue (weekday PM peak hour)
- 70th Avenue (north leg)/Metropolitan Avenue (weekday PM peak hour)
- 71st Street-Continental Avenue/Metropolitan Avenue (weekday PM peak hour)
- Woodhaven Boulevard/Union Turnpike (weekday AM and PM peak hours)