

February 12, 2024

Martha Lima
Early Foundation Academy
181 Princess Avenue
Cranston, Rhode Island 02920

Re: Proposed Pre-School/Day Care Facility Expansion
Early Foundation Academy
Cranston, Rhode Island

Dear Ms. Lima:

Crossman Engineering, at your request has reviewed the proposal for expansion of the *Early Foundation Academy* located at 181 Princess Avenue in the City of Cranston, Rhode Island. The subject property, containing approximately 25,600 square feet of fully developed land, is located along the westerly side of Princess Avenue between Fountain Avenue and Meadow Avenue. There is a single building on the property presently occupied by two uses, the *Early Foundation Academy* and the *St. Vincent DePaul Food Center*, which leases approximately half of the building. The remainder of the lot is predominately a paved parking surface except for a playground area to the rear of the building for the pre-school/day care use, and a lawn area along the Princess Avenue frontage at the main entrance of the building.

We are providing this letter as part of the Zoning Board and Development Plan Review approval process required to permit the expansion of the child care services facility. Briefly describing the project, the *Early Foundation Academy* provides Toddler, Pre-school, and Pre-K services operating Monday through Friday between the hours of 7:30 AM and 5:00 PM. It is closed on weekends. The business had obtained previous zoning approvals to operate at this location, converting the former American Legion Post use of the site, and has been providing these services since 2018 in a portion of the existing building. The remainder of the building is presently occupied by the *St. Vincent DePaul Food Center*. This secondary use of the building will no longer be offered at this location, allowing for expansion of the *Early Foundation Academy*, which would occupy the entire structure. Two small additions and renovations to the existing building will also be completed as part of the current proposal.

The original study to allow the child care use at this site, focused on the operation of the facility in relation to the food pantry and adjacent elementary school to ensure that the operations of these pre-existing uses would be compatible, and no adverse impacts would be realized relating to pedestrian and vehicular access and circulation. The report and subsequent compatible operations of these three adjacent land uses over the last five plus years demonstrates that the child care use is an appropriate and suitable use of this site within the neighborhood.

Specifically reviewing on-site operations as it relates to the current proposal, the expanded use will have no operational conflicts with the *St. Vincent DePaul Food Center* as it will no longer be operating on the site. The off-site impacts were then considered, specifically relating to the *Arlington Elementary School*, as very little traffic is serviced along the neighborhood streets during non-school related hours.

Reviewing the daily school schedule, the start time and end time of the school day was determined to not coincide with the start and end time of the pre-school/day care use of the subject property. The elementary school start time is 9:05 AM and dismissal occurs at 3:20 PM. The busy traffic (vehicular and pedestrian), periods relating to the school occur between 8:30 and 9:00 AM at the start of the school day, and between 3:00 and 3:30 PM at dismissal.

The school, which has an enrollment of approximately 210 students, was found to operate efficiently during the arrival and dismissal periods with no issues relating to vehicle congestion or pedestrian conflicts. There are no directional or parking restrictions on neighborhood streets during these periods as no restrictions are warranted to accommodate the demand. A crossing guard at the crosswalk on the corner of Meadow Avenue safely and efficiently manages student crossing and vehicle traffic along Princess Avenue. During all other periods of the day, little traffic is generated at the school or along the servicing roadways relating to the school. As can be seen, the pre-school/day care operation opens prior to the elementary school and closes after the end of the school day, and therefore it presently has no traffic related impact on the existing elementary school operations and they have been compatible adjacent uses within the neighborhood.

It should be noted that the Arlington Elementary School is planned to be closed in the fall of 2025 as part of the changes being made by the city identified in the school districts 5-year Master Plan to consolidate, upgrade and modernize the learning environment for the children in the city. The current plan is for students to relocate for the 2024-2025 school year to a new school building currently under construction at the Gladstone Elementary School site. There are no plans for reuse of this property, though any repurposing of the site would require consistency with the residential neighborhood setting and scale. The Tot Park playground area adjacent to the school and maintained by the city should remain available for use of neighborhood residents.

The following information is provided to address expansion of the existing use of the property relating to safe and adequate access to the pre-school/day care facility.

Project Approach

The objective of this traffic study is to determine if any traffic operational and/or safety concerns presently exist along the servicing roadways to the property. A review of the existing roadway features was completed to determine if any potential deficiencies presently warrant mitigation. In addition to existing conditions, the analysis also included the assessment of potential impacts resulting from the additional traffic generated by expansion of the existing pre-school/day care facility on Princess Avenue. The study focused on these issues and made recommendations for improvements if determined necessary, based upon the findings of the data collection and analysis phases of the study.

In order to complete our analysis, the following scope of work was completed for the project:

- An inventory of the physical roadway characteristics of Princess Avenue, Fountain Avenue and Meadow Avenue was completed to determine the adequacy of the existing roadways geometric features relating to operations and safety.

- A review of record traffic count data was completed for the servicing roadway including a manual turning movement count (TMC) at the Princess Avenue intersections with Fountain Avenue and Meadow Avenue.
- A review of Accident records previously obtained from the City of Cranston Police Department were analyzed to define potential safety issues in the project area.
- Future traffic volumes for the proposed site use expansion were estimated using data from the "Trip Generation Manual", an informational report published by the Institute of Transportation Engineers (ITE).
- An evaluation of the traffic safety and operational conditions was performed for existing and future build periods.
- Appropriate mitigation to maintain safe and efficient traffic flow in the project area was developed where necessary.

Project Area

As previously noted, the subject parcel is defined by Assessors Plat 8, Lot 1552, which contains approximately 25,600 square feet of land developed with a single building and associated parking lot. The property is situated in a high-density residential neighborhood. Refer to Figure 1 on the following page which depicts the location of the subject property within the community. The site was used for decades as an American Legion Post until the Post became defunct due to lack of membership. Present use of the building includes the existing *Early Foundation Academy* and the *St. Vincent DePaul Food Center* which leases approximately half of the building. Currently much of the site is impervious with the building and associated surface parking lot that accommodated the demands of the commercial use of the property as a Legion Post.

Princess Avenue in combination with Meadow Avenue and Fountain Avenue presently and in the future will serve as the main access/egress routes to the site. A driveway to the main parking area will be off of Fountain Avenue at a reconfigured driveway opening to a parking lot containing fifteen parking spaces. A large portion of the existing paved surface to the west of the building will be removed and replaced with soft surfaces associated with an outdoor playground that will extend to the back property line. A separate parent drop-off/pickup lane is proposed on the southerly side of the building, allowing for direct access to the existing primary building entrance at the front of the building on Princess Avenue. Access to this area will be provided from the existing driveway on Meadow Avenue that will permit one-way circulation along the southerly side of the building to a driveway exit on Princess Avenue.

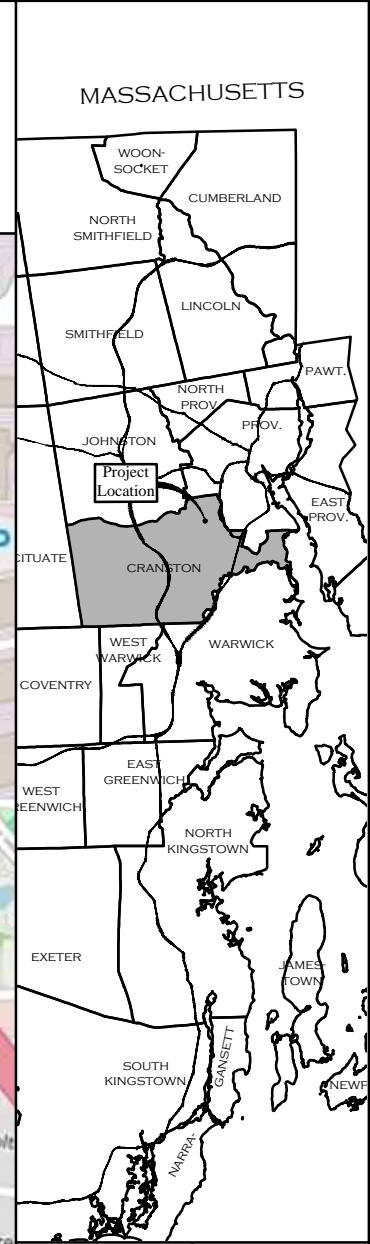
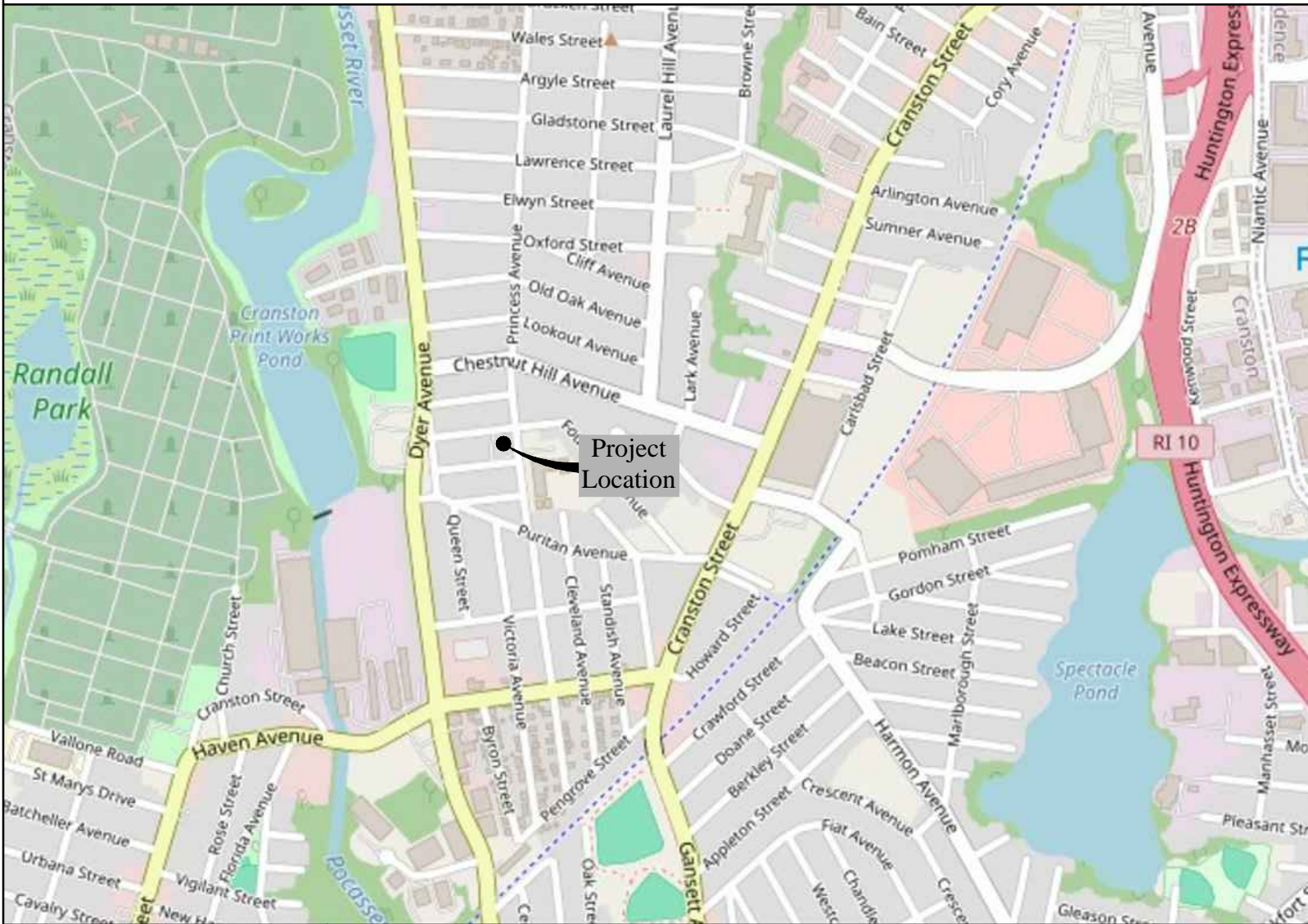
Other properties in the neighborhood bordered by Chestnut Hill Avenue to the north and Puritan Avenue to the south consist primarily of single and multi-family homes on small lots. Immediately across Princes Avenue to the east is the *Arlington Elementary School* and associated playground.

Based upon the good operating characteristics of these local neighborhood streets adjacent to the site, and the minor anticipated traffic volumes to be generated from expansion of the child care use of the building, in combination with a reduction in traffic associated with removal of the food pantry and elementary school, a study impact area was defined for this project. The limits of our study focused on Princess Avenue, Fountain



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■ TOWN / CITY LOCATION
LOCUS MAP
NO SCALE

Avenue and Meadow Avenue in the immediate site vicinity between Chestnut Hill Avenue and Puritan Avenue. Figure 2 on the following page depicts the subject site and the general project area of the study.

Roadways and Intersections

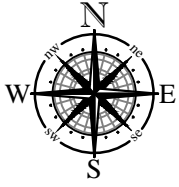
Princess Avenue which will provide primary site access, is classified as a local street extending north/south through the Laurel Hill residential neighborhood. The street, which is posted at 20 mph in the project area, is 24-foot wide with no pavement markings delineating the roadway centerline or shoulder. This is a typical condition along a local residential neighborhood street. In the project area encompassing the school property, concrete curbing and sidewalks along both sides of the roadway are provided. The pavement surface can be defined as being in good condition having been resurfaced in the last few years. The adjacent photograph depicts these typical physical characteristics of Princess Avenue looking north, with the elementary school on the right and subject property on the left past the stop sign.



Based upon our field reviews of the local street system, this section of Princess Avenue was upgraded possibly as part of a “Safe Routes to School” program where sidewalks, including handicap ramps, high visibility crosswalks, and signing were installed within the defined project limits for improved access to the *Arlington Elementary School*. This work was completed over a decade ago along with modification of the drop-off/parking area at the front of the school for improved efficiency and safety. The area in front of the school was transformed into a “lane” where vehicles and buses (4) travel south to north and are allowed to briefly stop to drop-off or pick-up their children. Vehicles are not allowed to be left unattended. Pavement markings in combination with fluorescent traffic cones that are placed along both sides of Princess Avenue during the morning and afternoon periods, delineate the “lane” and also function as a reinforcement of the school zone.

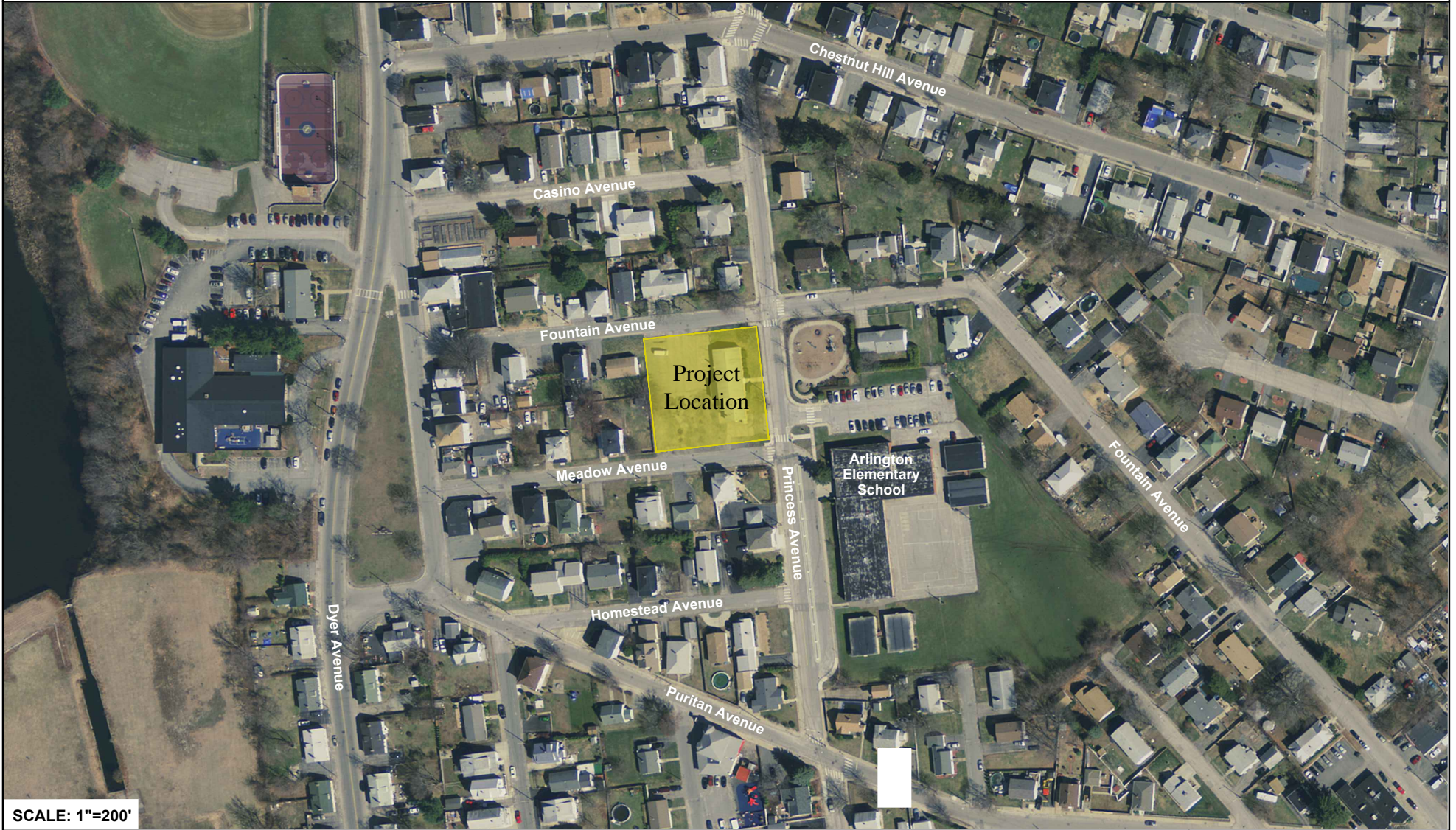


Both Fountain Avenue and Meadow Avenue provide east/west access into the neighborhood from the higher order Dyer Street to the west. They are typically 24-foot wide, residential streets with sporadic curbing and no sidewalks as can be seen in the above photograph looking east along Meadow Avenue with the subject property on the left.



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SCALE: 1"=200'

The pavement surface can be classified as being in good condition as these streets were also recently repaved as part of the neighborhood roadway maintenance program.

Princess Avenue forms a four-way junction with Fountain Avenue at the northwest corner of the subject property. Each approach provides a single, all-purpose lane as can be seen in the adjacent photograph. The intersection is controlled under a four-way stop condition. Pedestrian crosswalks are provided across the easterly and southerly approaches of the intersection.



On the southwesterly side of the property, Meadow Avenue intersects Princess Avenue at a three-way junction with stop control on the minor Meadow Avenue approach. Each approach provides a single, all-purpose lane.

Pedestrian crosswalks are also provided at this intersection across Princess Avenue and Meadow Avenue.

Traffic

In providing the city with an understanding of the volume of traffic serviced along the neighborhood streets during peak traffic conditions associated with the elementary school, Crossman reviewed traffic count data that had been obtained as part of the original site approvals as conditions have not changed within the existing neighborhood, and traffic operations are substantially unchanged. The original study completed a manual turning movement count at the Princess Avenue intersections with Fountain Avenue and Meadow Avenue in December, 2015. The count was limited to the morning peak due to the potential morning overlap of start times during the arrival periods of the pre-school/day care and elementary school. Counts during the afternoon were determined not necessary, due to the extended time between the end of the day for both uses, and where traffic volumes are minimal along the servicing roadways.

Based upon the traffic count data at these intersections, during the peak traffic condition associated with the school arrival period, approximately 85 total vehicles are serviced along the segment of Princess Avenue between Fountain Avenue and Meadow Avenue. The hourly volumes serviced along this section of Princess Avenue become negligible during periods not associated with the school arrival and dismissal periods. Good operations and no delays are experienced at the controlled junctions where only one vehicle is typically queued on the stop-controlled approaches waiting to traverse the intersection.

Safety Analysis

To determine if there are any limiting factors affecting safety relating to the proposed access to the property, the physical characteristics of Princess Avenue, Fountain Avenue and Meadow Avenue in the immediate

vicinity of the project, and specifically at the site access driveway intersections were investigated. These limiting factors would potentially include horizontal or vertical alignment changes or roadside obstructions that limit sight distances for vehicles traveling along the road, or entering the road from a side street or driveway location. In this instance, the sight distance standard is necessary to permit turning vehicles to safely enter and exit the site driveways.

The horizontal and vertical alignment of Fountain Avenue can be described as generally straight and level between Dyer Avenue and Princess Avenue. Fountain Avenue is controlled by a *Stop* sign at both these intersections. The adjacent photograph illustrates the roadway alignment looking east from the site driveway with the subject property on the right side of the road. These physical conditions are mirrored on Princess Avenue and Meadow Avenue on the easterly and southerly sides of the property respectively, where driveways for site circulation as part of the parent drop-off/pickup are provided.



The available sight distances at the site access driveways with these physical roadway features were found to be in excess of 400 feet in each direction. These values are greater than the 155-foot minimum stopping sight distance required according to AASTHO criteria for the speed limit, and the 205 feet for the observed travel speeds between 20 and 30 mph observed along the local roads.

Also, as part of this study, a review of accident reports obtained in the original study was completed. The City of Cranston Police Department provided data for a three-year period in the defined project area. This information was reviewed to determine if any location in the project area experienced a high frequency, pattern, or severity of crashes. A review of the information found that only one crash occurred during the three-year period. The crash occurred at the Chestnut Hill intersection where a driver failed to properly yield at the junction causing an angle crash. Based upon this low incidence of crashes and the physical infrastructure and traffic conditions being unchanged, it was not necessary to obtain new data. The previous study and review of current roadway and operational conditions of the low volume, low speed local streets, determined that roadway or traffic related safety improvements are currently not warranted to improve traffic operations or safety within the project area.

Trip Generation and Operational Analysis

As part of evaluation of the potential traffic impact of the proposed site use expansion, an estimate of anticipated traffic to be generated by the additional use capacity has been provided in this study. The trip information is included for reference in understanding the scale of the project and resultant low volume of the site related traffic that can be expected with the additional classrooms.

The *Early Foundation Academy* facility operates Monday through Friday between the hours of 7:30 AM and 5:00 PM. As previously discussed, the current development proposal includes remodeling the area presently occupied by the food pantry that will be vacating the building, and constructing two small

editions to the rear of the existing building. Presently there are 30 children enrolled at the facility with 12 children in a toddler room and 18 children in a pre-school classroom. The expansion will permit accommodation of 82 additional children in 5 new classrooms including; two toddler rooms, one pre-school classroom and two Pre-K classrooms.

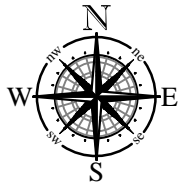
Access to the site will be modified to accommodate the building additions, parking and drop-off/pickup requirements of the expanded use. Figure 3 on the following page depicts the proposed site layout prepared by Ocean State Planners. As can be seen, the driveway on Fountain Avenue that is presently uncontrolled to the rear parking area, will be modified as part of the reconfiguration of the parking lot to permit construction of the building additions, and will contain 15 spaces. The existing parking lot that presently extends between Fountain Avenue and Meadow Avenue will be segmented by expansion of the outside playground area to the westerly property line. The driveway on Meadow Avenue will allow one-way access to a dedicated parent drop-off/pickup area on the southerly side of the building that will exit at the existing driveway on Princess Avenue. The parent drop-off/pickup lane will provide access to the main entry door at the front of the building and will be monitored by staff as necessary during the arrival and departure periods. Stacking for up to 12 vehicles can be provided in this area where it typically takes less than two minutes for parents to drop off or pick up their child. The procedures and timing for the classrooms will be managed to ensure efficient and orderly arrival and dismissal periods at the facility.

For this site, projected traffic volumes for the project were based on use of trip generation factors. These factors are taken from the "Trip Generation Manual", an informational report published by the Institute of Transportation Engineers (ITE), a national professional organization for traffic and transportation engineers. The data provided in the ITE report are based on extensive traffic studies for various types of land uses (residential, commercial, industrial, etc.). This data has been found to be very reliable and provides a sound basis for estimating future trips to new development projects.

For the proposed pre-school/day care expansion project, Land Use Code 565 – Day Care Center was reviewed for applicability in developing an estimate of site related vehicles trips. The table below summarizes the peak hour site trips for the facility that have been estimated utilizing the land use code data available from the ITE manual. These values were found to be consistent with the current traffic demands at the site for the existing 30 students, where an average of only 11 parents per hour enter/exit the site during the morning arrival period representing the peak condition for the pre-school/daycare use.

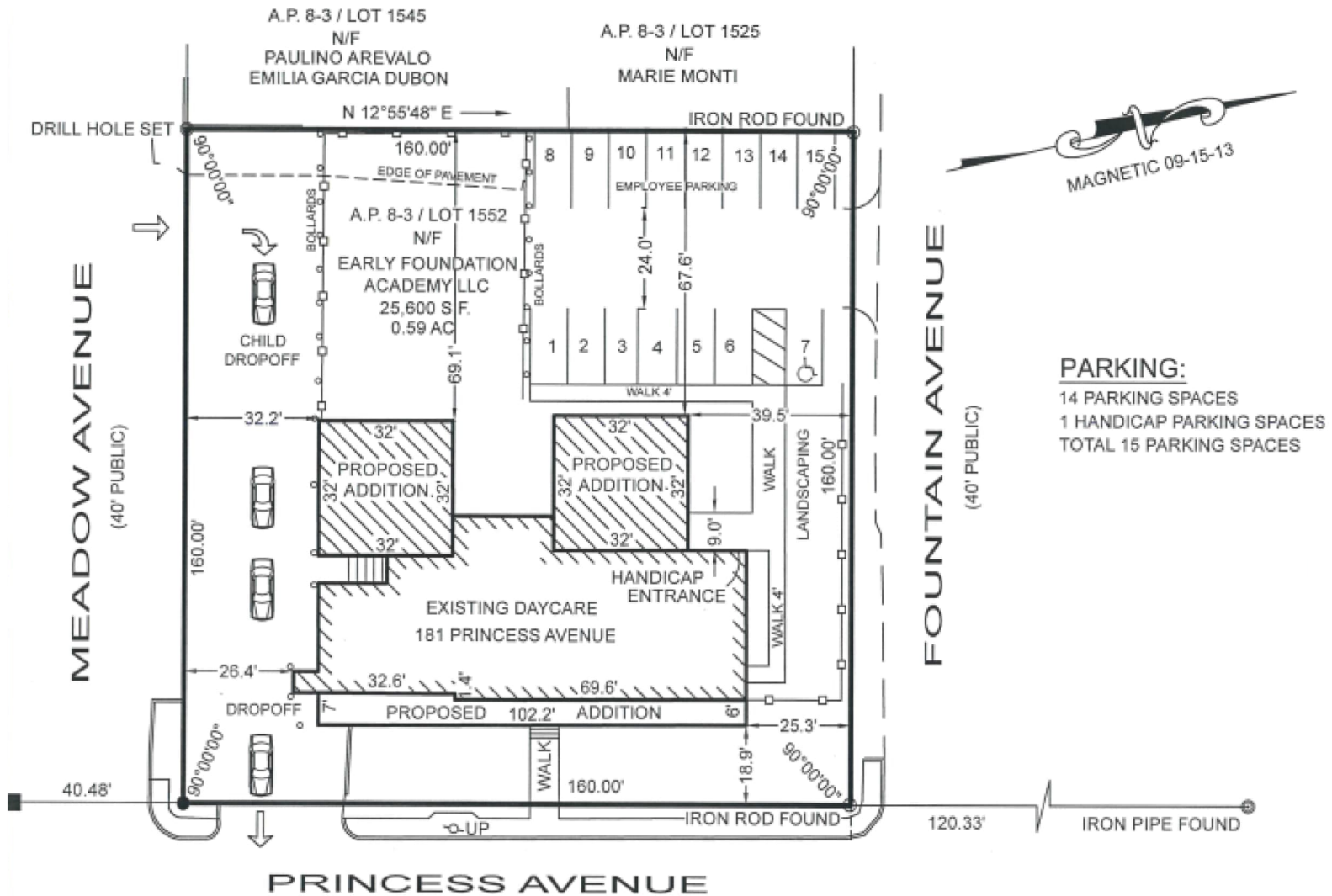
Trip Generation Summary

	<u>AM Peak Hour</u>		<u>PM Peak Hour</u>
<i>Two Way Trip Total:</i>	<i>86</i>	<i>Two Way Trip Total:</i>	<i>87</i>
Entering:	46	Entering:	41
Exiting:	40	Exiting:	46



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It should be noted that a trip is defined, as a one-way vehicle movement, therefore driving to and from the site, for example is equivalent to two trips. As indicated in the table, the volumes result in a minor hourly volume estimate of vehicles entering the site during the morning peak traffic period. The parent drop-off/pick up lane should efficiently accommodate the estimated demand and will be managed by staff as necessary.

Presently, out of convenience, parents typically do not enter the site parking areas to drop off or pick up their child. Similar to the adjacent elementary schools, parents park along Princess Avenue and access the building from the existing sidewalk network. Under future conditions, parents will be managed on-site through the drop-off lane that will be created for efficient operations of the facility. These trips will be easily accommodated along the servicing roadways and intersections as defined as traffic volumes along the servicing roadways will be greatly reduced with the elimination of the Arlington Elementary School related traffic when the school is closed. The driveways will operate in an efficient manner with little to no delay and typically only one vehicle queued on the driveway attempting to access the adjacent roadways.

Conclusions and Recommendations

In summary, based upon the data obtained and presented in this letter, it has been determined that the proposed *Early Foundation Academy* expansion at 181 Princess Avenue with the recommendations to provide a dedicated on-site area to drop-off and pick up children, will not adversely impact the local servicing roadways. The expanded use can be adequately accommodated on the property with the proposed improvements including a separate parking lot for staff/visitors and an area to efficiently service daily arrival/dismissal operations. The proposed use will not have a negative impact on public safety or welfare in the defined study area and adequate and safe access is available to the property.

We trust that this letter sufficiently addresses the requirements of the City of Cranston to obtain your local approvals. If you should have any questions, please do not hesitate to contact our office.

Very truly yours,
Crossman Engineering, Inc.



Paul J. Bannon
Senior Project Director