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Engineering Department

INTERDEPARTMENTAL COMMUNICATION

To: Board of Appeals

Date: January 6, 2012

From: Engineering Department

Subject: Next Generation Children Center - 348-352 Main Street – BOA #12-01 – Conceptual Plan

We have reviewed the above-mentioned conceptual site plan for 348-352 Main St, dated December 2, 2011. Our comments from a memo dated April 22, 2009 for a site plan dated March 15, 2009 generally still apply. We have the following comments:

1. The plans are conceptual in nature. We will require more detailed plans for our review.
2. There are two scales shown on the plan: 1" = 30' and 1" = 40'.
3. Any proposed work within the limit of the State Layout will require a permit from the State.
4. The new access for the daycare is located on the Town-controlled portion of Route 27. Any work such as, but not limited to, the relocated driveway, underground utilities, etc... within the Town-controlled section of Main Street will require the Town's Permit to Construct Within A Public Way.

Traffic / Pedestrian issues

5. We had a comment from our 2009 memo about the project left turns on Main Street entering the site: *The Engineering Department reviewed the traffic study by MDM dated 7/18/08 that was submitted to the Town on 1/15/09. We were concerned with the impact of the predicted 50 to 76 vehicles turning left off of Main Street into the site during the peak PM hour. The recent traffic study for Hayward Road at Main Street determined the number of left turns at the Hayward Road intersection to be in the same ballpark as the proposed Children's Center (96 vs. 76). We know the turning movements at the Hayward Road intersection cause queues to extend beyond the new Public Safety Building. Attached is a memo we sent to the Planning Department that raised these concerns relating to the traffic study. In response to the concerns raised by staff, the applicant proposed some road widening measures to incorporate left turn only lanes for the Children's Center and the Route 2 westbound on-ramps. We had asked VHB to conduct a review of the suggested improvements to ensure consistency with the 2001 Main Street Corridor Study. Attached is*

a copy of the memorandum from VHB dated March 17, 2009 indicating that the left turn lanes are consistent with the 2001 Corridor Study. As part of this project, the applicant will also be relocating the crosswalk from its present location at the end of the Route 2 westbound ramp to the new access driveway at Isaac Davis Way. If this project is approved, we recommend that the Board make it a condition prior to the applicant obtaining a Certificate of Occupancy that the roadway modifications and sidewalk relocation as shown on the plan be completed.

The applicant has removed any proposed roadway modifications and has kept the crosswalk in its existing location. We are still concerned about the amount of cars that will be queuing on Main Street.

6. We had a comment from our 2009 memo about the access to the site from Main Street: *We would defer comment to the Fire Chief to ensure emergency personnel can safely access and maneuver within the site. There had been some discussion about a secondary gated emergency access that would intersect Main Street about opposite the Route 2 westbound ramps. However, the state controls this portion of Main Street and the applicant would need to seek final approval from MassHighway. We sent a conceptual layout to the MHD District 3 Traffic Engineer for their preliminary comments. MHD responded that allowing the emergency gated access opposite the Route 2 ramps would require a break in the existing "no access" area and is probably not-likely to be approved.*

The applicant is proposing a full access entrance opposite of the Route 2 westbound ramps. This would still require approval from the state.

7. We would like the plans to show the old driveway for 348 Main Street along with notes clearly stating that the sidewalk & curbing will be reconstructed to close-off the existing driveway opening.
8. We would like the applicant to label the sight distance for the new driveway location to ensure the visibility is adequate for the actual 85% speed of the traffic on Main Street.
9. There is an existing chain across Isaac Davis Way that prevents traffic through the private way. The applicant has noted on the plan that this gate is to remain.
10. There has been prior discussion about landscaping on the property. I would defer comments to our Tree Warden.

Drainage

11. We have not seen calculations to support the proposed on-site drainage system. As a result, we cannot review the adequacy of their drainage design. It is our assumption that when the applicant submits their wetland application to the Conservation Commission that they will be required to comply with the Massachusetts Stormwater Policy. At which time, the applicant's engineer will have to show how they comply with the State's policy on items such as, controlling the peak rate of runoff, groundwater recharge, water quality, etc...If the engineer is required to submit a copy of their detailed drainage calculations, we can

conduct a more comprehensive review of their drainage design.

12. There is a drain pipe from the existing catch basin on Main Street that heads toward the driveway for house #348. Any construction on this property should be conducted in a manner that does not damage and/or obstruct any existing Town drainage systems.
13. Based on prior plan submittals, we noted that a short section of the new access will drain toward Main Street. We also noted a longer section of Isaac Davis Way also drains towards Main Street at this location. We want to make sure that drainage is designed to prevent as much runoff as possible from discharging onto Main Street. Prior plan submittals had shown the new driveway to be crowned along with a proposed trench drain. We would prefer to see standard catch basins at the gutter line to maximize the inlet capacity at the gutter lines.

Parking

14. We had a comment from our 2009 memo about the maneuvering aisle: *The site plan shows the maneuvering aisle to be less than 24 feet wide. If allowed, we recommend that the applicant consider one-way traffic during the peak pick-up/drop-off times to avoid circulation issues due the maneuvering aisle at this location being only about 18 feet wide.*

The plan has two scales shown: 30 and 40 scale. The maneuvering aisles are not labeled. This comment still applies if the aisle was intended to be less than 24 feet wide.

15. Prior plan submittals had indicated the proposed grading for the site. The site plan submitted for the Board of Appeals did not include this information. The Town had some concerns related to the proposed retaining wall and/or slope between the parking area and Main Street.