

TOWN OF BEDFORD
October 24, 2016
PLANNING BOARD
MINUTES

A meeting of the Bedford Planning Board was held on Monday, October 24, 2016 at the Bedford Meeting Room, 10 Meetinghouse Road, Bedford, NH. Present were: Harold Newberry (Acting Chairman), Chris Bandazian (Town Council), Rick Sawyer (Town Manager), Jim Stanford (Public Works Director), Karen McGinley, Philip Cote, Melissa Stevens (Town Council Alternate), Jim Scanlon (Alternate), Charlie Fairman (Alternate), Rene Pincince (Alternate), Mark Connors (Assistant Planning Director), and Becky Hebert (Planning Director)

I. Call to Order and Roll Call

Acting Chairman Newberry called the meeting to order at 7:00 p.m. and introduced members of the Board. Chairman Levenstein was absent. Mr. Scanlon and Mr. Fairman were appointed voting members. Mr. Connors reviewed the agenda.

II. Old Business:

1. Hampshire Ventures, LLC (Owner) – Request for approval of a lot consolidation and subdivision into nine cluster residential lots and one open space lot, off of Stowell Road, Lots 41-8 & 30-16, Zoned R&A. *(Continued from the August 15, 2016 meeting)*

III. New Business: Application Acceptance and/or Public Hearings on Applications:

2. Robert A. & Roger Rheault (Owners) and International Church of the Foursquare Gospel (Owner) – Request for approval of a lot line adjustment between two properties at 233 South River Road and 12 Station Road and a site plan amendment to construct a new driveway, Lots 23-98-1 & 23-3, Zoned PZ.

Mr. Connors stated all the applications have been reviewed by staff and are complete, the abutters have been notified; it is the opinion of Planning Staff that none of the items are of regional impact, and the agenda is ready for the Board's acceptance.

MOTION by Ms. McGinley to approve the agenda as presented. Mr. Scanlon seconded the motion. Vote taken – all in favor. Motion carried.

1. Hampshire Ventures, LLC (Owner) – Request for approval of a lot consolidation and subdivision into nine cluster residential lots and one open space lot, off of Stowell Road, Lots 41-8 & 30-16, Zoned R&A. *(Continued from the August 15, 2016 meeting)*

A staff report from Becky Hebert, Planning Director, dated October 24, 2016 as follows:

I. Project Statistics:

Owners: Hampshire Ventures, LLC
Proposal: Subdivision approval of a residential cluster subdivision of 9 residential lots and one open space lot
Location: Stowell Road and Route 101, Lot 41-8 & 30-16
Existing Zoning: "R&A"- Residential and Agricultural
Surrounding Uses: Residential, highway (Route 101)

II. Project Background:

On May 9, 2016, the Planning Board reviewed a conceptual plan for the proposed subdivision.

III. Previous Action by the Board:

On August 15, 2016, the Planning Board opened the public hearing and discussed the subdivision. Several abutters voiced concerns about their wells and questioned how the development along with the blasting to build the roads and house lots would impact their water supply. Pursuant to Section 218.1.28 of the Land Development Control Regulations, the Board tabled the application to allow time for the Applicant to hire a hydrogeologist to prepare a Groundwater Impact Assessment and make recommendations with regards to the available water supply for the new lots and whether or not the new wells will negatively impact the neighboring properties.

The Applicant hired StoneHill Environmental, Inc. and a copy of the report is attached. The report analyzed the known geologic information for the site and evaluated the available well data for the surrounding properties. Overall the report did not identify any specific concerns with the addition of nine new residential wells in the neighborhood and stated that it is unlikely that the new houses will significantly impact the availability of groundwater in the neighborhood.

The study includes several recommendations to minimize the impact of the subdivision on the local groundwater resource including the reduction of impervious surfaces; recharge of stormwater runoff onsite; use of best management practices for irrigation systems; and that a well yield test be conducted for the new wells to ensure that the wells with the proposed subdivision will yield sufficient water volume. The consultant will be available to present the findings of the report at the public hearing.

The study also explains that they believe ledge can be removed mechanically and that blasting may not be necessary during construction of the house lots or roadway. The report states that a supply well testing and monitoring plan would be prepared if blasting is needed. Staff is recommending that a supply well testing and monitoring plan be approved by the Planning Board prior to the start of construction if after ledge profiling it is determined that blasting will be needed, or prior to the issuance of a blasting permit (condition #17). Having the Board review the plan will provide the abutters the opportunity to review and comment on the supply well testing and monitoring plan. Alternatively, the Board could table action on the application and recommend that this be provided now.

The Planning Board also held a site walk to view the property and proposed roadway on August 24, 2016.

Aside from the underlined text in italics, the remainder of the report is unchanged from the previous version.

IV. Project Description:

This application is for final subdivision approval of a cluster subdivision with nine new residential lots and one open space lot. The property includes two parcels (Lots 30-16 & 41-8) with a combined area of 21.6 acres and frontage on both Stowell Road and Route 101. The land is forested and slopes uphill from Route 101 and Stowell Road with a high point along the easterly side lot line. There are two wetland areas on the site. A small pocket wetland is centrally located on the property and a larger wetland complex associated with Pulpit Brook runs along the westerly property line. The land is vacant and abuts several homes along Winchester Lane and Stowell Road.

The property is located in the Residential and Agricultural Zone. The proposed lots will be accessed off of a new public road (Huntington Ridge Road) located approximately 260 feet south of the Route 101/Stowell Road intersection. The road is 1200 feet long, with a maximum grade of 9%, and will terminate at a cul-de-sac. There are no lots along the first 600 feet of roadway and the new homes will be centrally located on the property with open space surrounding the development.

The proposed road will be 24 feet wide with sloped granite curbing and a closed drainage system. The Applicant has applied for a waiver to the figure in Appendix A of the Land Development Control regulations to modify the Town's typical roadway cross section for rural roads (waiver #1). Staff does not object to the proposed sloped granite curbing and closed drainage.

The density calculations indicate that up to nine lots would be permitted, which is the number of lots proposed. The lots range in size from 36,296 square feet to 51,337 square feet and all have at least 125 feet of road frontage with the exception of the two lots at the end of the cul-de-sac, which have 25 feet of frontage.

The open space lot will be 10.74 acres which is 49% of the overall tract where a minimum of 25% is required. The open space meets all of the Town's requirements for usable land and the project maintains the required 50-foot perimeter buffer around the property. Additional plantings are proposed to fill in gaps along the perimeter buffer between the proposed roadway and Route 101.

A note has been added to the plan stating that the Applicant will provide up to 10 additional 6-foot tall evergreen trees and up to 30 saplings to improve the buffer between the development and the adjacent property at 11 Stowell Road. The exact location of the plantings will be determined after clearing and rough grading has occurred.

Area of Parcels for Subdivision (Acres)

	<i>Existing</i>	<i>Proposed</i>
<i>Lot 30-16 & 41-8</i>	<i>1.618</i>	--
<i>Lot 41-8-1</i>	--	<i>0.895</i>
<i>Lot 41-8-2</i>	--	<i>0.833</i>
<i>Lot 41-8-3</i>	--	<i>0.900</i>
<i>Lot 41-8-4</i>	--	<i>1.465</i>
<i>Lot 41-8-5</i>	--	<i>1.179</i>
<i>Lot 41-8-6</i>	--	<i>0.979</i>
<i>Lot 41-8-7</i>	--	<i>1.047</i>
<i>Lot 41-8-8</i>	--	<i>0.956</i>
<i>Lot 41-8-9</i>	--	<i>0.987</i>
<i>Lot 41-8</i>	--	<i>10.794 (open space)</i>

Stormwater and Utilities

The stormwater system will need to be designed to meet the NHDES Alteration of Terrain permit requirements. Run-off will be routed into catch basins and discharged into an infiltration basin on the southerly side of the property and to a wet pond on the northerly end near the Stowell Road intersection. The stormwater management report demonstrates that there is no increase in post-development stormwater flows due to the road and house construction.

A homeowners association will be established which will be responsible for the maintenance of the components of the drainage system located outside of the right-of-way and open space (condition #13). Draft documents for the establishment of the homeowners association have been submitted and need to be reviewed and approved by the Town as a condition of approval (condition #12).

VHB has recommended that fencing be provided around the detention pond closest to Stowell Road because it will have standing water in it. This is an outstanding technical comment that needs to be addressed prior to plan signature, Staff is recommending that the fencing be included (condition #16).

The drainage system connects to an existing catch basin in the Route 101 right-of-way. The proposed work in the right-of-way will need NHDOT approval (condition #15).

Some minor revisions are expected to be made to the stormwater report to address technical review comments by the Town Engineer and VHB, however the revisions are not anticipated to change the overall design. The most recent VHB review memo is attached for your review, most of the conditions have been addressed.

All utilities will be placed underground and the individual lots will be served by private onsite septic system and wells.

Traffic

The Applicant has provided a traffic impact statement summarizing the site generated traffic volumes for the nine lot subdivision. The subdivision is a low traffic generator. The highest volumes occur during the Weekday PM Peak Hour, with 5 vph (3 entering and 2 exiting).

VHB concurred with the findings and concluded that the existing roadway system can adequately accommodate the increase in traffic volume.

VHB and the Public Works Director have noted concerns regarding the sight distance at the Huntington Ridge Road/Stowell Road intersection. The new road is only 260 feet from the Route 101/Stowell Road intersection and the required 400 feet of sight distance is not available at the proposed roadway/Stowell Road intersection looking northerly towards Route 101. The sight line extends through the Stowell Road/Route 101 intersection into Joppa Hill Road. Vehicles turning onto Stowell Road from Route 101 and vehicles travelling along Route 101 will block the sight distance. The Applicant has submitted a waiver request to the Bedford Road Construction Standards for All Season Sight Distance (see attached letter from KNA Associates) (waiver #2).

VHB notes in their review memo that the waiver request states that the new road meets the AASHTO requirements for Sight Stopping Distance, but it does not meet the Intersection Sight Distance standards. The comment in the VHB memo states “Based on AASHTO requirements for vehicles turning left from a stop onto a 30 mph road (AASHTO Case B1), 335 ft of intersection sight distance would be required. The project appears to provide approximately 295 ft of intersection sight distance for this case and, therefore, does not meet this requirement.”

VHB and the Public Works Director have suggested that the roadway could shift 30 feet to the south, this would increase the sight distance and improve the safety of the intersection but also decreases the buffer to the adjacent lot.

Blasting and Well Concerns

During the conceptual review of the project, the abutters voiced concerns about the blasting and possible impacts to their wells. The Applicant has provided a response to the blasting and well concerns (see attached). The statement includes a summary of the available well information for the abutting properties. The well yields vary, but the information indicates there is sufficient groundwater in the area. The Applicant also explains that water will be recharged into the aquifer through the septic systems and infiltration basins. The statement was not prepared by a hydrogeologist. If the Board has additional questions or concerns about the potential impacts to nearby wells and the availability of groundwater, Staff would recommend having a professional geologist prepare a groundwater resource impact assessment. To address the concerns regarding blasting and impacts to existing wells, the Applicant is proposing a testing procedure for wells within 200 feet of the construction that would be used to assess the condition of the well. The well would be pumped for a two hour period and then a water sample would be tested. Staff is looking into whether or not the 200 foot testing radius should be expanded. Using this distance, only a few properties would qualify for testing.

It is Staff’s understanding that the proposed well testing would not occur as described above because the Applicant is planning to remove the ledge mechanically. If it is determined that a blasting permit will be needed, Staff is recommending that a supply well testing and monitoring plan be approved by the Planning Board and that the abutters be notified (condition #17).

The Applicant hosted a neighborhood meeting on June 27, 2016 to answer questions and review the project with nearby property owners.

The subdivision plan was reviewed by VHB, the Town's engineering consultant, for compliance with the subdivision regulations and a number of technical comments were provided. Revised plans were recently submitted and are being reviewed by VHB. The most recent VHB memo is attached for your review, most of the outstanding comments have been addressed.

V. Waiver

The Applicant has requested a waiver from the following (please see the attached letters from Keach-Nordstrom Associates):

- 1. Appendix A – Bedford Road Construction Standards, 3.A.1 – Rural Section, to replace the open drainage with sloped granite curbing.*
- 2. Appendix A – Bedford Road Construction Standards, 2.B – All Season Sight Distance, to allow less than the required 400 feet of sight distance at the proposed roadway intersection with Stowell Road, looking in the northerly direction towards Route 101.*

VI. Staff Recommendations:

The Board needs to vote on whether or not to grant the waivers from the Bedford Land Development Control Regulations, for Appendix A – Bedford Road Construction Standards, 3. A. 1. – Rural Section, and Appendix A – Bedford Road Construction Standards, 2.B – All Season Sight Distance as previously described.

The Planning Staff recommends that the Planning Board grant final approval of the Huntington Ridge cluster subdivision at Lots 41-8 & 30-16, to create nine new residential lots and one open space lot, in accordance with the plan prepared by Keach-Nordstrom Associates last revised October 3, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature and the remaining conditions of approval to be fulfilled as noted:

- 1. All recording fees shall be submitted to the Planning Department at the time of recording.*
- 2. Any outstanding engineering review fees shall be paid to the Department of Public Works.*
- 3. In the event that the Planning Board approves the waivers, the plan shall be updated to list all waivers granted as approved.*
- 4. The Applicant shall provide a performance guarantee in an amount and form acceptable to the Director of Public Works, for the completion of all proposed roadway and infrastructure construction in accordance with the provisions of Section 240 of the Land Development Control Regulations. A bond estimate shall be prepared by the Town's engineering consultant and approved by the Director of Public Works, the amount needs to be based on ledge profiling to determine the cost of construction. In addition to all of the public improvements, the guarantee shall include the cost to set all boundary monumentation, including right of way monumentation and individual lot monumentation.*

5. *The Applicant shall file a check for road inspection fees and testing analysis in an amount to be determined by the Director of Public Works.*
6. *Prior to commencement of work, a performance guarantee in an amount approved by the Town for onsite maintenance of erosion and sedimentation controls shall be placed on file.*
7. *The NHDES Alteration of Terrain Permit shall be obtained and the permit number shall be noted on the plan.*
8. *NHDES State Subdivision Approval shall be obtained and the permit number shall be noted on the plan.*
9. *The Planning Director and the Department of Public Works Director shall determine that the applicant has addressed all technical review comments to the Town's satisfaction.*
10. *The 50' non-disturbance buffer shall be marked on the site per Article 275-34 (F)(2)(c).*
11. *Sample deed language shall be submitted for review by the Planning Department to protect the portions of the required 50 foot buffer on Lots 8-1, 8-8, and 8-9.*
12. *A homeowners association shall be formed and final association documents shall be submitted to the Planning Department for review and approval and to be recorded with the plan.*
13. *The homeowners association shall be responsible for the maintenance of open space and the components of the drainage system located outside of the right-of-way. An operations and maintenance plan shall be provided to the town and approved by the Public Works Director.*
14. *All requisite easement documents shall be executed by the Applicant and submitted to the Planning Department to be recorded simultaneously with the plan.*
15. *The NHDOT shall approve the proposed drainage work in the NHDOT Route 101 right-of-way.*
16. *The plans shall be revised to include fencing around the detention pond closest to Stowell Road.*
17. *Prior to the start of construction, if it is determined that blasting will be necessary, or prior to the issuance of a blasting permit, a supply well testing and monitoring plan shall be submitted and reviewed by the Town's consulting engineer and approved by Planning Board.*
18. *Prior to any construction occurring within the public right-of-way, the applicant shall apply for a street opening permit from the Public Works Department.*
19. *Prior to any construction occurring on the site, the applicant shall provide a certificate of insurance in accordance with Section 240.4 of the Land Development Control Regulations.*

20. *Prior to any construction occurring on the site, the applicant shall schedule a pre-construction meeting with the Planning Department and the Department of Public Works.*
21. *Prior to any inspections of dwellings being performed, the road must meet NFPA 241 Section 7.5.5 access roadways. The road shall have an all-weather surface (compacted road subgrade) capable of supporting firefighting apparatus. Prior to issuance of any certificate of occupancy, the entire road must have base coat applied and be approved by the Director of Public Works.*
22. *Prior to a certificate of occupancy being issued for each lot, a letter shall be submitted to the Planning Department by a licensed land surveyor certifying that all boundary monumentation has been set as noted on the plan.*
23. *Prior to release of the performance guarantee for the development, as-built plans stamped by a licensed land surveyor shall be provided in accordance with Section 245 of the Land Development Control Regulations, including the as-built sight distance for the sight line looking northeast on Stowell Road.*
24. *Prior to the acceptance of the street, the applicant shall provide a warranty deed for the road right-of-way in a form acceptable to the Planning Director and Public Works Director.*

Steve Keach and Jason Lopez, Keach-Nordstrom Associates, project engineers, Bob Lamontagne, Hampshire Ventures, LLC member, and Tim Stone, StoneHill Environmental project geologist, were present to address this lot consolidation and subdivision.

Mr. Lopez stated we have been here a few times with regard to this property, which is on the corner of Route 101 and Stowell Road. At the last public hearing on August 15, 2016 we agreed to set up a site walk and also had discussion where we needed to provide a groundwater resource impact assessment. Also, we had discussions on the proposed road access location onto Stowell Road, and then we kind of halted that conversation until we took a look at it on the site walk. On August 24, 2016 we held the site walk and there was a fair attendance. We also invited the Nadeau's from 11 Stowell Road, the neighboring house located right alongside our proposed road. At the site walk we walked the frontage, took a look at where the curb cut location is proposed, we walked the centerline of the road in, answered questions along the way, stopped and looked at the vegetated buffer along 11 Stowell Road, and we also had discussion with the Nadeau's on that. Following the site walk I did communicate with Mr. Nadeau and we developed a note for the plans in terms of landscaping that we are going to propose that has been added to Sheet 10. A quick summary: we are going to put 10, 6-foot high evergreens and 30, 12- to 18-inch high evergreen saplings. After the trees in that area are cleared, the roadway is roughed in, slopes roughed in, we just recently did this on another project, we got ahold of Ms. Hebert and she came out to the site, and the applicant and abutter worked together, and they will do that on this project also by working together on the placement of those trees.

Mr. Lopez continued as for the curb cut location; we have maintained the accesspoint where we have had it since we made the formal application, but, again, just a brief run-through on the history of that. We went forward with what is our yield plan now, that was a conventional subdivision

and that roadway was located in the 50-foot accessway provided by DOT from the backland out to Stowell Road. At a meeting with staff we were encouraged to take a look at the cluster, so we went forward with a cluster development, we did that presentation at the conceptual, the road was a little bit closer to Route 101 and we had the pond on the uphill side between our property and 11 Stowell Road, in the area shown on the posted plan. Comments and concerns at that time were addressing where we were accessing Stowell Road, also the location of the pond and the depth of the pond. We were encouraged to take a look at that again, so we have come to the current design, which places the pond between Route 101 and the proposed road with the access location we have had through this formal application process. This location provides the most natural green space between the proposed road and 11 Stowell Road and it meets the 400-foot sight distance in both directions. We had had discussions at the last hearing and I had another discussion with the Public Works Director, Mr. Stanford, and he is still uncomfortable with the location. The 400 feet towards Route 101 brings us across Route 101 onto Joppa Hill Road, and the concern was that vehicles are entering that 400-foot sight distance. I took a look at stopping sight distance; if a vehicle is traveling along Route 101 and wants to take a right into Stowell Road, what would be needed for that vehicle to react to vehicles pulling out of our proposed road, stopping sight distance. The stopping sight distance of 235 feet has been provided, where 200 feet is required. As we agree to disagree on the interpretation of the 400 feet, we have been requested to ask for a waiver on the 400-foot sight distance and the hope is that showing the stopping sight distance and this was demonstrated when we were on the site walk. We were all crossing the road there and a 2-door coupe vehicle comes around from the Amherst direction, turns onto Stowell Road and we are all still here and alive. That would be one waiver that we have, which is the 400 feet of sight distance. We do have a second waiver and that was to replace open drainage, shown on the standard rural road section, with sloped granite curbing. The final item that we needed to address was dealing with the wells and blasting. We provided a groundwater resource impact assessment that should have been attached to your packets that you received for your review. Given the concerns of the blasting and the wells, we have designed the road and the lots to minimize what would be needed for rock removal, and given the information we have learned from the assessment that was done, it appears that a lot of this material may be cap rock and Mr. Lamontagne has taken the position now to invest the labor into mechanical removal. So he will be parking a hammer out there and trying to get the minimal rock removal done by mechanical means. Condition 17 on the list of conditions of approval notes that we would need to come back to the Board for approval should blasting be required. We are okay with that condition and the hope is now that we would be able to remove all of that rock through mechanical means; blasting would not be required, and hopefully that will address a lot of the concerns that the abutters had on the project with blasting and potential impact to wells.

Mr. Lopez stated we have received staff's recommendations on the conditions of approval; we are okay with all of them, except there is one that we would like to discuss, which would be the fencing around the detention pond near Stowell Road, which is Condition 16. The preference would be to not place fencing around that for aesthetic reasons. The pond will be 3 feet deep, 3:1 side slopes, it is going to be owned and maintained by the association on association property and we are looking at that, that the homeowner's association insurance carrier will dictate whether or not that that needs to be in place, but for aesthetic purposes, we would not like to have that fence in place.

Mr. Stanford stated I would like to talk a little bit about the proposal in front of us. I guess I would draw your attention to VHB's comment memo, where I guess I am more in line with their agreement that the roadway should be moved or could be moved further south. From the standpoint of sight distance, there are probably a couple of things that we should talk about first. You have heard about the 400-foot sight distance, that is all-weather sight distance. That is a Town standard, it mirrors the DOT standard; it has been in place since long before I got here. We also necessitate that you meet AASHTO standards. Mr. Lopez mentioned the 200-foot stopping sight distance; but there is also the AASHTO intersection sight distance and you can't do one without the other. Whenever you are looking at any type of design, you have to meet all of the criteria, and in this instance, I believe if you refer to the VHB memo, I think they have 295 feet of intersection sight distance, where I think 335 feet is required. The intersection sight distance is really for a driver pulling out into an intersection so can that driver see cars coming. The stopping sight distance is more for the driver on the roadway, where can he see somebody pulling out of an intersection. So they go hand-in-hand. They both have different requirements as far as the distance, as noted. The all-season sight distance takes into account snowbanks and that sort of thing, the weather conditions that you would find, and that is going to vary throughout the country. With the AASHTO standards they are the same here as it is in Florida, so that is why states and communities implement their own sight distance requirements and that is the all-season sight distance. As far as how you measure it; I think if you look at AASHTO, they will tell you that it is really the safety of the driver and you take that sight distance along various intervals. You don't just take an endpoint and a beginning point and say we meet at the end and we meet at the beginning, so we have met it. The bottom line is, in order to meet that criteria, you have to treat Route 101 like it is a continuation of Stowell Road. That is how we would interpret it, and that is how we design things in town. Quite frankly I think they can meet it if they move the intersection further down. I am certainly not in favor of waiving sight distance requirements; I don't think I have ever been in favor of that. Just in the course of our road projects, how many intersection sight distance problems we have had to fix over the years. Just recently we had to do Windstone over at the southern portion of Wallace Road. The Town ends up with these problems after they are installed. Again, I go along with what VHB comments were, I think they can move the road, I would like to see it moved all the way down as far as possible, that is where DOT had planned the access to this property, but understand that the buffer, and that certainly isn't preferred from the abutter's standpoint, but when I look at the safety of an intersection, I think we really have to look at the safety first, ahead of abutter impacts. My preference would be that it be moved all the way down. VHB has recommended 30 feet or so. Sight distance aside and the standards aside, if you just look at it from a practical standpoint, the further away from a major intersection you are the better off you are going to be. I'd like to see it moved as far as possible; that is my professional opinion.

Acting Chairman Newberry asked on the plan that you have posted on the screen, can you roughly show where the right edge of that road would be if we were to shift it roughly 30 feet? Mr. Lopez stated the centerline would be about in this location indicated, just under the "R" in Stowell Road. Acting Chairman Newberry asked and that would drive that grading? Mr. Lopez replied that would push that whole slope towards 11 Stowell Road. One thing I would like to clarify is the distances mentioned in the VHB letter are correct for a 30 mph speed limit, but vehicles that are going to be traveling and entering onto Stowell Road are not traveling at a full 30 mph. We provided that stopping sight distance for the full 30 mph, and one thing that we are looking at is you can't ignore

the vehicles coming from Merrimack along Stowell Road heading towards Route 101. We provided 400 feet of sight distance looking in that direction also. Those vehicles are traveling full speed, at 30 mph posted. To ignore what is happening in the other direction would be shortsighted also. There is a balance between providing adequate sight distance in both directions. Mr. Keach stated there is one thing I would add to that, Mr. Chairman. It is my stamp on the plan, and when I look at this or any other geometric design, we try to optimize safety. With that said, there is a relationship between the location of where the intersection is proposed and discussions that we have had with the Nadeau's. Setting that discussion aside for a moment; being somebody who as a motorist uses Stowell Road, because I live just over the town line on the Merrimack side of the bridge in the vicinity of Lake and have traveled that road for a long time, if you look at the rightmost extreme of the drawing that is posted on the screen, the 400-foot mark, which is at the end of the boldest line, is a crest of a hill. I feel that what is prudent here is to maximize sight distance headed in that direction to the full 400 feet, although that is the local standard as Mr. Stanford correctly indicated. The AASHTO standard would have it a little bit less than that at 335 feet. I feel that that is far more important than to have a hypothetical textbook condition of looking through an intersection that only an idiot would come down Joppa Hill Road and not stop at Route 101. I really don't see that happening. I do believe vehicles travel 30 mph, and in excess of 30 mph, over the crest of the hill coming from the covered bridge at the own line towards Route 101 and I believe they do it every day. Looking around the room here and there was a pretty good number of us that were at the site walk back in September when we looked at this area. We have identified the location of where the proposed intersection would be. We can look at things on paper, but you have to go out and look at them on the ground as we have done, as we all did the day of that site walk. I don't think 30 feet one way or the other is a huge difference, however, I feel if I can do 400 feet of all-season sight distance looking to the right as you come out of this intersection looking towards Merrimack, we have done the public a greater service than to be concerned about the oddball vehicle who might come down Joppa Hill Road, pass through that intersection without bothering to stop at a stop sign and cross Route 101. God bless anybody that does that. In terms of balancing things, I think this is a situation where there is an element of practicality that supersedes the theoretical, and on that basis, and at the suggestion of staff, Mr. Lopez has requested a waiver, and that is in essence what I have just said is the basis of that waiver. Acting Chairman Newberry asked did VHB also consider your assessment as you just described? Mr. Keach replied I didn't share that with them because I have stayed out of this because it is more of a practical thing from my perspective. Again, I am the engineer of record here and with all due respect to Bryant and Mr. Stanford, I am the one who has to live with the outcome as the design engineer who stamped the plan. I do not think it is wise judgment to move that 30 feet or 3 feet closer to Merrimack. Because of the way the vehicles operate on that corridor, optimal sight distance looking back towards Merrimack, because even though everything corresponds to the 30 mph design speed and that is all nice, I want that to be greater because vehicles actually will travel faster than that headed towards Route 101 not away from it. Anybody either crossing Route 101 coming from Joppa Hill Road, or having to take a turning movement of right or left from Route 101, is not going to be traveling 30 mph if they are intelligent, by the time they accelerate to go by where this intersection is, that is just not going to happen. You couldn't take either of those turning movements at 30 mph, particularly from Amherst because of the skew of the intersection.

Mr. Scanlon stated I don't think I could have done it anywhere near as well as Mr. Stanford did. Mr. Keach, as always you make a very cogent argument when you advance your case, and we all

know that I don't see, so I went over this a dozen times with my wife before the weekend started and again this afternoon until I was pretty sure I got it down in my head, and of which is that there are two options here. Either the Town grants you the variance, because you argue that the theoretical should be superseded by the practical, which is a position that you state, it may not be the opinion of the group, it certainly is not mine, but I thought there were two outcomes. Either the variance is granted or you make a further accommodation with the abutter to move that road down 30 feet. Under the AASHTO incidents there are two options under which the application might be reviewed and your report suggests option 2, but I couldn't find the rationale for it other than the fact was established very clearly from the time you began your presentation and the suggestion moving 30 feet more was advanced at what was left with you and you have come back saying we still want the variance not 30 feet south. Just to be clear, Mr. Stanford's position is one that I am absolutely and completely in accord with and I completely agree that of the two options the one I would fight would be granting you the variance. Mr. Keach responded I appreciate that, Mr. Scanlon. It is 32 years of experience that I speak to you from on that, and I believe that I am giving you the best outcome. Mr. Scanlon responded I believe you do believe that.

Ms. McGinley stated Mr. Stanford, even given the hill and the traffic that he has described coming from the Merrimack side of the road, you feel as strongly as you stated? Mr. Stanford replied again, I don't favor waiving the sight distance. As far as I'm concerned, it is the developer's responsibility to mitigate that 400 feet in the previous direction, and I believe they can do it. Again, we spend hundreds of thousands of dollars correcting sight distance vertical curves every year. That is the approach we have made every other developer do, so no, I disagree completely that they can't meet the 400 feet going towards Merrimack, and I fully expect that they would have to as well. Ms. McGinley stated so that is the part that I don't think as least for the group here and the audience was described like you just did. Please if you could describe that in a little bit more detail. What would need to be done to the southward side? Mr. Stanford replied I would leave it to the design engineer, but it looks like they have the straight distance at 30 feet, with the vertical curve you would probably have to take that down, which would be an overall improvement, I think, for the area, so I think you would have to lower the curve just a little bit. Ms. McGinley stated so the proposal they have made is saving them money but not creating the safety that you would like to see. Mr. Stanford responded I think that is an accurate statement. Ms. McGinley stated I did do the site walk and I wanted to see what you had for the solution. Mr. Stanford stated I would like to add as well; the AASHTO standard is not just the theoretical and those are minimum criteria. It is not the optimum, it is not the best, it is a minimum standard and I think the Town should hold to the minimum standards. Mr. Keach responded that can easily be done with what AASHTO wants to do moving it closer. It is me who doesn't want to move it closer and it is for no reasons of economics.

Mr. McMahan stated as far as construction goes, is it feasible for you to move the driveway 30 feet? Mr. Keach replied yes. I just don't think it is the wise choice. Mr. McMahan stated I understand that, I just didn't know if there was something that prohibited you from doing that. Mr. Keach responded no, we certainly can.

Acting Chairman Newberry asked if you moved it 30 feet, your distance to Route 101 would still require a variance? Mr. Lopez replied that is correct. Acting Chairman Newberry asked how short would we end up? Mr. Lopez replied we are about 300 feet of the centerline of Route 101, call it

250ish feet to the edge, so we are still going to be 330 feet to the centerline. Again, this is the yield plan posted; when we originally did this project, and this is what I was spelling out here a little while ago on the history; when we first presented this project, we were looking at doing a conventional subdivision and placing that roadway right down that DOT corridor, the 50-foot strip that they provided, and when we met on that, that was not a preferred location for that road access point being too close to that driveway. Again, we moved that down close to Route 101 and now we have split the difference. This layout that we are proposing now is not our first stab at looking at this intersection in placing it. This has been a process of working multiple designs and balancing the buffer, balancing the drainage, balancing the safety and access for the proposed road. I believe I have it placed in a location that will provide the safety and also account for the other items of buffer and drainage. Acting Chairman Newberry asked what does AASHTO say about the distance between an intersection and driveways? Mr. Keach replied it doesn't really; it doesn't speak to that. It is a local policy of 100 feet. That has been around for a very long time. Acting Chairman Newberry asked and what it is there currently? Mr. Lopez replied 132 feet. Ms. McGinley stated as I recall there was discussion with the abutting neighbor about having access to their lot changed to the new road and they were not interested? Mr. Keach replied that is correct.

Acting Chairman Newberry asked can you describe the road grade relative to that lot at 11 Stowell Road? It looks like the road is lower than that. Mr. Keach replied yes, and that is one of the reasons I think it is favored there because, again, it is not only the horizontal separation, it is the vertical separation. If you are familiar with that area, as we should be from the site walk, if you are standing on Stowell Road and you are looking towards Amherst, you are looking at an embankment that obviously will be excavated. The sight of a vehicle parked on the grade of the finished roadway surface, would essentially disappear from view from the Nadeau's home, but sneaking that further towards Merrimack, it rises because the grade of Stowell Road rises. I believe not only the horizontal separation but the vertical separation is one of the key things in here for the Nadeau's expressing a preference to us to do what we have been able to do in terms of both horizontal and vertical separation of those vehicles from the sideline of their home parcel and their dwelling unit. How much is 30 feet going to change? Basically you can think of it as the width of the road plus a little bit. If it has to be moved, well then it has to be moved. We are not going to not subdivide the property because of 30 feet, but I am telling you, it is a mistake. From a safety standpoint it is a mistake to do so, because the vehicles traveling towards Route 101 are going faster at that location than the vehicles traveling from Route 101 in the opposite direction. It is a skew; that is precisely the reason that I have suggested to Mr. Lopez that I did not want to move because I am the one who is ultimately responsible for it.

Ms. McGinley stated I have a question of Mr. Stanford. How do you feel about the impact of a street next to the lot to the south and in proximity to Beech Street? It is pretty close. Mr. Stanford replied I think it still meets the requirements for Beech Street, and I think I heard Mr. Keach or Mr. Lopez state that by moving it the 30 feet, they still meet the requirements of being 100 feet away. Mr. Keach stated from Beech Street that is an appreciable distance.

Ms. McGinley asked can you put the exit from the lot closer to the south and quickly wrap towards the north so that the rest of the road is not abutting the Nadeau's? Could you have a road that when you come into the neighborhood it turns to the north to wrap around, as it is going to have to turn to the north somewhat anyway? Mr. Keach replied we would want to keep that piece of

road on a tangent because you are approaching an intersection and not have a horizontal curve at that location. What you are suggesting is if we move the road towards Merrimack, to have it turn back into the alignment that is shown. Ms. McGinley responded that's right. Mr. Keach replied I don't think either Mr. Stanford or I would be happy with that having a reverse horizontal curve at the approach of an intersection. Mr. Stanford replied I don't think that would be necessary, but I do think by moving it you could because it does look like there is a little bit of a skew on the roadway to Stowell Road. Mr. Keach stated there is. Mr. Stanford stated so by moving it, you are actually going to make that situation better entering onto Stowell Road.

Mr. Scanlon stated Mr. Keach, I'm not sure I fully understood the significance of cars coming from the south heading north to Route 101 going faster. You said those coming south off from Route 101 would be doing it more slowly. But what is the impact of the cars coming from south to north on Stowell Road at a higher rate of speed? Why is that a problem? Mr. Keach asked why is it relevant? Mr. Scanlon replied yes. Mr. Keach stated the faster the operating speed or the design speed, the longer the sight distance measurement. All of the discussions we have had tonight in terms of numbers to the extent that it deals with AASHTO are based on the design speed equaling the posted maximum operating speed of 30 mph. It is my position, from 22 years of living at the other end of Stowell Road driving that road frequently, is that vehicles traveling towards Route 101, once you reach the straightaway portion of Stowell Road after the curvilinear alignment ends about at the location where there are these two long spaghetti-strap driveways that go to the west, it straightens out pretty good and you are at a horizontal tangent for the most part through there. Vehicles speed up because the road surface, the pavement surface, widens from somewhat narrow to wider where the shoulders are on the portion that the DOT rebuilt when they did that, you are out of the woods so to speak mentally from a drivers' perspective, and you have move pavement where people speed up. Whereas people driving in the southerly direction coming off from Route 101, have done one of three things necessarily. They have either taken a right turn coming from Amherst, taken a left turn coming from Bedford, which presumably they would have stopped to clear the opposing lane before taking that turn, or pass through the Route 101 intersection coming from Joppa Hill Road. Two of the three of those would have necessarily decelerated to a stop situation or very close to it before continuing on their journey on Stowell Road. A vehicle coming from Amherst, because of the skewed nature of that intersection, could probably not take that turn going much more than 15 mph or so. As Mr. Lopez has identified, the location of the proposed intersection with Huntington Ridge is approximately 250 – 260 feet from the eastbound lane of Route 101 and you are going up a hill. That is hardly enough distance to accelerate. A typical driver is not going to accelerate to the same rate of speed as the vehicle that is traveling coming from Merrimack towards Route 101. So my point is regardless of what design criteria and what the posted speed limit are, the vehicles are actually traveling faster coming towards Route 101 than they are away from, and this is why from a practicality standpoint I am suggesting, as the design engineer of record, that I can create a safer situation by taking that into account regardless of what the textbooks say. In positioning the intersection at a location where I've got a minimum of 400 feet, if not slightly more, of intersection sight distance looking to and from that intersection. If you are a vehicle coming from Merrimack headed to Route 101, you have 400 feet or more and you can see the vehicle on Huntington Ridge stopped, waiting to take a movement out of that roadway, or if you are that vehicle stopped in that intersection and you turn your head to the right to look towards Merrimack, to make sure that that lane is clear before you take the left-turning movement out of that to go onto Stowell Road towards Route 101, you have

400 feet or more of sight distance. AASHTO would say 325 – 335 feet is enough and it would be, with 30 mph operating speed, but what I am suggesting to you empirically is I believe vehicles frequently travel at greater than a 30 mph operating speed as they make that movement. So I feel that in essence my argument supports the notion that the operating speed, hence design speed, ought to be different one side of the intersection or the other. It is that simple. I think you grasp that quite nicely. Mr. Scanlon responded I think I do.

Mr. McMahan asked could I make a case coming south out of Joppa Hill Road and even stopping at the stop sign with the busy traffic on Route 101, would it not be possible that a situation could occur to be able to get in between traffic that you may have a jackrabbit start and a heavy acceleration crossing Route 101 going south? Mr. Keach replied I suppose. Mr. McMahan asked Mr. Stanford, I am trying to see if there is some way to mitigate it. If we moved it 30 feet, aren't there signs within Bedford, or certainly in other communities, where it says warning merging driveway traffic and if those were put up, would that possibly help mitigate the distances? This is after moving the 30 feet. Mr. Stanford replied I think Highway Safety has gotten away from that and the Town does not do those warning signs of driveways. We would much prefer to meet the sight distance requirements. My professional opinion is that signs are not as effective. We all see so many different signs throughout town, you tend to ignore them. The other thing is I heard a little bit about Joppa Hill Road is a little different because that is under stop control, so I would agree with Mr. Keach. That isn't where the concern is from the sight distance. I disagree that you are going to take that turn onto Stowell Road from Route 101 at 15 mph, either direction, because you also have the other direction as well coming westbound. Then as far as the 400 feet, again, my opinion is that they can meet the 400 feet, quite frankly, in both directions so I don't see where the waiver is really warranted here. I think by moving the 30 feet, they still can achieve the sight distance looking towards Merrimack. The other aspect of it is the design speed, maybe it should be raised, and if you were to raise based on the actual conditions, you would be increasing the sight distance requirements for stopping sight distance as well. Again, I go back to these are minimum standards; I believe the applicant can meet all of the objectives, meeting all of the standards and create a safer intersection.

Mr. Stanford stated once the Town accepts this, it is really the Town's responsibility. Like I said earlier, as we reconstruct roadways and we fix intersection improvements, you can't go back to the original design engineer once it is the Town. We are responsible for it. I've been in Public Works for 25 years and we spend a lot of effort correcting sight distance issues. I would really like to see this go in correctly now. If you look up and down Route 101, this will be the closest Town road parallel to Route 101 in Bedford, and I really do think when DOT set that access to that property, they had the sight distance in mind and they moved it as far away from Route 101 as possible. Ms. McGinley asked so what you are saying is if we deemed it in need of correction, we would be redoing the road the way you are asking it to be done? Mr. Stanford replied later on we may have to improve the sight distance, we don't know what is going to happen with Route 101, and ,again, I would much prefer it go in at this point and meet the sight distance requirements now rather than later. Ms. McGinley stated one thing I would like to add is and only because I am on the Southern NH Planning Commission and there is a rolling 10-year plan. I don't know where this stretch of road is on the 10-year plan, but there are plans to widen Route 101 all the way past Milford and beyond. They are doing Bedford first because it is at the top of the 10-year rolling plan, near Route 114, but Mr. Stanford you may recall that better than I. Are there plans for this

to be widened? Mr. Stanford replied I am not aware of any plans at this point. Mr. Keach stated nor am I. Mr. Lopez stated I might add one point of clarification: Mr. Stanford was mentioning that we can meet the 400 feet, again, roadway position zero, edge of Route 101 being 250 feet, so if we slide that road, it is going to be 280, so that is still a waiver on the 400 feet based on your read of that. Also, DOT used to have control of this right-of-way on Stowell Road when they widened Route 101 and then that reverted to the Town. I was looking at that initially during the design, and if in fact that portion of Stowell Road was still under DOT jurisdiction that would need a driveway permit and their offset of the intersection is 200 feet. Mr. Stanford stated as far as the sight distance goes, I think if you read our regulations, it is to the centerline of the roadway that is the measured distance. So if you take that sight line straight out to Route 101 to the middle of the lane of the eastbound traffic and then turn it like it was on a curved road, if you measure that 400 feet, I think you will meet the sight distance requirements. I do believe that. Mr. Lopez responded that's a 400-foot sight line, straight line. Mr. Keach stated that is a theoretical discussion that has nothing to do with where we are here. The question is does the roadway stay where we have it or do we move it 30 feet towards Merrimack. Those are the two choices here folks. I am telling you why I forbade my project manager from moving it, and it is nobody's choice but mine to keep it where we have kept it at the end of the day. I have to stamp it, I have to live with it, I have to assume the liability of it, and I am saying to you going through the same mental rationalization process that I did when I studied this; it is at the optimal location period. We will move it if you want to but I don't really want to stamp that plan. And doesn't my licensure really mean something here? Doesn't my opinion mean something here?

Acting Chairman Newberry stated it looks to me like moving it to the south 30 feet, what you add minimally to the Route 101 side, you are taking away from the south side. I understand Mr. Stanford's concern; I don't like waivers but I do think the logic of your argument is good, and I have to agree that it deviates further from the standard but applying to this specific situation, I agree with your assessment. Ms. McGinley asked can you point out on this slide the crest of the road to the south. Mr. Keach replied it is right about where Beech Street is, just about on the south edge of pavement on Beech Street. Ms. McGinley asked what is the distance from the crest of the road to the northern boundary of the Nadeau's property? Mr. Lopez replied it is right around where that tree is shown on the posted plan. Mr. Keach stated it is probably about 150 feet, maybe a little more. Ms. McGinley stated so if you are the late-to-work person coming from Merrimack and you crest the road, how far do you have to the Nadeau's driveway? Mr. Keach replied the absolute is as shown. There is another driveway there that opposes Beech Street and from there to the Nadeau's driveway is roughly 200 feet. Actually if you measure a sight distance, it is actually further than that because of the fact that you are looking at a height-of-eye and height-of-object at 3-foot, 6-inches as the profile would show underneath. If we did a driveway profile for those existing drives, those clearly meet the 200 feet required for a driveway, and I'm assuming that's why Paul Belanger issued driveway permits for those many years ago.

Mr. Fairman stated since I live on one of these busy roads parallel to Stowell Road on Liberty Hill Road, I certainly understand your concern that nobody is doing 30 mph going north on that road. It is more likely 45 or 50 mph going north, particularly where they are coming downhill, they seem to come over the hill and just gain speed and nobody even recognizes it. It seems to be that the big issue here is, and Mr. Stanford raises his side of the issue, which is a big one, we haven't talked yet about the fact that if we move that road, we are then really getting into the buffer and the

isolation of the home on the corner, and I think that also needs to be considered by the Board is the safety issue. I would obviously prefer safety over keeping it away from that home, but I do think we need to take into account that abutter to the property. Mr. Keach stated the homeowner is here tonight. Ms. McGinley asked and the homeowner will have a driveway right next to a road. Mr. Keach responded that's why when I started I said what I said is that we set those issues aside because the disagreement apparently that Mr. Stanford and I have has got nothing to do with aesthetic and it has nothing to do with a homeowner preference. I would expect him as the Public Works Director to really focus much on those issues but we did because we found the Nadeau's to be incredibly good neighbors and we are trying to be good neighbors to them. Acting Chairman Newberry asked what is 30 feet? Is that 1.5 car lengths? Mr. Keach replied yes. Mr. Scanlon asked should you have gone 30 feet further south, what then would be the distance from the Nadeau property to Huntington Ridge Road? Mr. Keach replied separation horizontally between their driveways would be just a shade over 100 feet, so it would comply. I think that is where the 30 foot distance came from that Mr. Stanford referenced to. Mr. Stanford responded probably. Mr. Keach stated I think that was the yardstick where the recommendation to move it 30 feet closer to Merrimack came from.

Councilor Bandazian stated I will share an observation with you. While we were out there on the site walk, there was a west traveling vehicle on Route 101 that clearly was trying to beat eastbound traffic on Route 101, they found an opening, and seemed to make the curve at about highway speed. In order to achieve that they crossed into the northbound two lanes to make that corner, but did make that corner and probably traveled 100 feet counting blessings and then turned their attention to a group of people that they didn't expect to find there and managed to slow to a reasonable speed. So it can be done but it really does stretch the limit to put it there. I don't have a good appreciation of travel downhill. I have been on the road many times but certainly not traveling and commuting to work. To me it is a very, very close call.

Mr. McMahan stated I think DPW and VHB have served us well in the past. I would hate to see the Town have to pay for redoing this if something occurs down the road and we have to correct the sight distance. I understand what you are saying. Mr. Stanford, if this is approved and put in, is now going to be the person of record and be responsible for taking it, as I understand the conversation. Mr. Keach stated it is not his stamp on the plan, Mr. McMahan, it is mine. You've got a real nice record of my objection here but I wouldn't want to have to use it in the court of law. Mr. McMahan responded yes, Sir, I understand. That is my comment.

Acting Chairman Newberry stated we will now deal with other comments or issues with this application.

Mr. Keach stated the only other item that comes to mind is that there are two waivers requested. One is relatively easy. We want to use the modified urban section here where we are going with slope granite curb and enclosed drainage as opposed to gravel shoulders and ditch line. It is an enhancement for the subdivision and we talked about it last time. I didn't think there was any particular concern about it, and I believe staff has supported that. Acting Chairman Newberry asked could you outline on the plan where those drains pickup that would basically allow you to not disturb as much. Mr. Keach stated it is also an aesthetic thing. Mr. Lopez stated the whole road will receive sloped granite curb all the way, from the entrance to right around the cul-de-sac.

It is not just a portion, it is the entire roadway. Mr. Keach stated part of the reason for it is because these are cluster lots, they are smaller, and everybody takes ownership mentally of their lawn to the edge of pavement, wants it landscaped accordingly. By going with a sloped granite curb, it affords them to do that given the fact that especially in a cluster environment where the homes are going to be situated generally closer to the edge of the street than they might in a 1.5 acre or 2 acre lot scenario, it creates a nice clean project for the ½- to 2/3-acre lots that we have and allows Mr. Lopez to control the drainage better so we don't have ditch lines flowing in front of people's homes. Mr. McMahan asked isn't it also a more desirable neighborhood for people looking for lawns? Mr. Keach replied it is. It costs a little more but for the scope and scale of the neighborhood that our client has in mind, it fits. Acting Chairman Newberry asked so all of your drainage is picked up in catch basins? Mr. Lopez replied that's correct.

Ms. McGinley stated I lived at the end of a cul-de-sac for 11 years and all the snow for many years was pushed right into what looked like my front yard but really wasn't my front yard because it was the right-of-way, and after some really snowy winters the Town actually had to come and at least help me with the frozen snow next to the mailbox. If you do those curbs, which I think is a nice touch, how do you plan for the snow to be plowed, and Mr. Stanford, do you see any issues from the Town's point of view? Mr. Stanford replied from the Town's perspective any cul-de-sac is problematic as far as pushing the snow, whether there is curb there or not. Ms. McGinley asked this is a normal sized cul-de-sac? Mr. Lopez replied yes. Ms. McGinley stated what was done in the last two or three years that I lived in this house was the snow was put in the middle and basically there was a circle. Mr. Stanford responded it is not our preference to do that because then you have to travel against traffic in order to do that. Ms. McGinley stated it was better than having it piled up in our yard. Mr. Keach stated much like the Town's typical urban or modified urban section, beyond the curb there is a platform that will be turf and that is there for the storage of snow. That is what it is designed for, that's why it is part of the Town's standards and that will be provided together with the curb. It doesn't go to the edge of curb and then abruptly slope upward or downward. Ms. McGinley asked you plant landscaping right at the curb? Mr. Keach replied mostly turf and from beyond the curb it is 13 more feet of right-of-way. Somewhere in the plan set there is a typical cross section and then individual sections that depict that. It is basically following the Town's modified urban section that you would expect to see. That has only been used a couple of times ever. Mr. Lopez stated posted on the screen you can see there is a 5-foot platform behind the curb for snow storage and then sticking to the standard slope requirements after that that the Town requires on all roads. Ms. McGinley stated it would be helpful if perhaps any covenants that go onto the property were listed in the covenants. We don't have to make this a requirement of approval but it at least gives the homeowner notice that the snow removal will be what looks like their yard because not everyone knows that. Mr. Keach stated it is in the right-of-way. Ms. McGinley responded I know that.

Mr. Keach stated regardless of the outcome of this discussion on the location of the roadway, with recommended conditions of approval of staff, there is only one of them, as Mr. Lopez said, that our client takes issue with and I'd like to go back to that area, which is the detention basin. For aesthetic purposes and the landscaping we are doing in there, you see the silt fence goes around it, the comment contemplates putting some sort of a permanent fence with a locking gate on it. I can't think of any better way to destroy the aesthetic of what we are trying to create there than having that there. I really can't. Ms. McGinley asked is there anything you can do to protect the

detention basin? Mr. Keach replied between the edge of the right-of-way we could do a split rail or something that is aesthetic, but to circumnavigate that with some sort of an industrial looking fence with a locking gate, it is going to look like a pigpen. I just don't want to do that and our client doesn't want to do that. Mr. Stanford asked how deep is that? Mr. Keach replied 3 feet at its deepest location. It would be a wet pond and under normal circumstances a 3-foot wet pool at the lowest elevation at the bottom of a 3:1 slope. Mr. Stanford asked how deep is it to the top of the slope? Mr. Keach replied it varies. Those are 2-foot contours on the plan so it is 8 feet. You have 3:1 for 5 vertical feet, or 15 horizontal feet, until you hit a permanent pool of water of 3 feet in depth. Acting Chairman Newberry asked what drives the depth of the standing water? Mr. Keach replied it is compliance with AoT requirements. Ms. Hebert stated the staff recommendation came out of the VHB review memo and there were some liability concerns when it was discussed with Mr. Stanford and DPW. Mr. Keach stated apart from that, we are good with the conditions of approval as outlined by the staff. Ms. Hebert did a nice job pulling this together, and I think she has given you a good staff report and something you can work with.

Ms. McGinley asked you couldn't find a nice fence to put around that pond? Mr. Keach replied like I said, along the edge of the road where it looks like it belongs, to put some sort of architectural fence or split rail or something that looks like it belongs there, it could be an enhancement, but sure, we could do that, but to wrap the whole thing with a locking gate, which is what was recommended in the consultant's report. Here we have gone to the trouble of doing the granite curb and to do some additional landscaping out there, you can see the planting plan in that area that's in the triangle between Route 101 and Stowell Road. Acting Chairman Newberry stated the condition reads that the plan shall be revised to include fencing around the detention pond closest to Stowell Road. It doesn't say that it needs to be a chain link fence. Mr. Keach responded I think if you look at the consultant's report it goes on talking about a locking gate. Ms. McGinley stated but it doesn't say that in our condition. Mr. Keach stated we would like to do something a little more organic there, if anything. Acting Chairman Newberry asked Ms. Hebert, is there a condition in here about meeting technical comments and requirements? Ms. Hebert replied there is a condition about meeting technical comments. Acting Chairman Newberry asked and is that where a fence is specified? Ms. Hebert replied it is. It is specified in the VHB review memo and the response from Mr. Keach's office was that they would like to discuss the fencing with the Planning Board, so I carried it as a special condition just to bring a little attention to it. The VHB review comment states that they recommend a safety fence with lockable gates be installed around it. Mr. Keach stated when he says the closest the Stowell Road, I think he meant the detention pond closer to Stowell Road because there is another detention basin beyond the cul-de-sac down in the open space. I think those words mean he was speaking to this basin and not the other basin. Ms. Hebert responded yes. Mr. Keach stated again, where that is setting on that promontory it would look awful. If we wanted to have some sort of fencing along and parallel to the road, we could do an architectural board or a split rail or something that looks appropriate to the entrance of a residential neighborhood. I don't know how much safety it would provide, but it would at least create a barricade from where people are more apt to be. Just to put some sort of fence with a locking gate on that thing, it is not good. Ms. Hebert stated staff would be okay with a more decorative fence. Ms. McGinley asked Ms. Hebert, would you suggest the easterly and southerly sides because those are the most accessible from roads? Ms. Hebert replied yes. Mr. Keach stated basically along and parallel to Huntington Ridge. Ms. McGinley added and parallel to Stowell Road. Mr. Lopez stated just as a reminder, this does sit in the open space, the open space is owned by the homeowner's

association and the homeowner's association has taken responsibility for maintenance of this. That is something to work out, talking with Mr. Stanford through the process, this structure is within the right-of-way, the pipes and the basins, those will be maintained by DPW but the ponds and so forth, anything outside of the right-of-way is under ownership and maintenance of the association. Mr. Keach stated if we could get away from having to do something with a locking gate, I could picture a 4-foot high chain link fence, was what somebody was thinking when I read that. Ms. McGinley asked Ms. Hebert, could you give a description of what you would be comfortable with? Ms. Hebert replied yes; I think that we could work with Mr. Keach to come up with something a little bit more decorative, maybe a split rail fence or a rustic guardrail or something that wouldn't be so stark. Mr. Keach stated like a wooden split rail going along and parallel and maybe with a return headed back towards Route 101 as Acting Chairman Newberry suggested or something like that. That would actually mask that side of the pond. That is what we are talking about. Mr. Scanlon asked Ms. Hebert, you are saying that you would be amenable to that? Ms. Hebert replied yes, I would.

Acting Chairman Newberry asked for comments or questions from the audience.

Phil Bruno, 18 Beech Street, stated I just wanted to make a comment on the practical versus the theoretical issues with the distance of the street going into the subdivision from Route 101. I understand Mr. Keach's comment about it; I live on Beech Street, which is right there. I walk it every morning and people do come north on Stowell Road pretty quickly. However, there is a stop sign down there and people know it. When they come over the crest, pretty much they are starting to slow down. I know during the site walk someone was coming west on Route 101 and came around the curve at probably 40 or 45 mph because I see it all the time. People come west and either they are trying to beat the cars coming east or there are no cars coming east and there is no need to stop and they whip around there and come through both lanes sometimes. From my estimation it would be very dangerous to have the road too close to Route 101, more dangerous than it would be to have it closer to the Merrimack side.

Mark Nadeau, 11 Stowell Road, stated I wanted to mention that I would give some value to what Mr. Keach is saying about the reality out there. There certainly is more concern as I leave my driveway every day and if I turn left going toward Route 101, watching for cars coming to the right or from the south end of Stowell Road, they are already at full speed. I always have much more concern and closer calls with cars coming from that direction as opposed to cars coming off from Route 101. Granted there are some that if they get in that turning lane and there is no traffic coming from the Amherst direction, they will just come right up fairly quick. But in general the majority of the time after living there 30 years, I can tell you that when we exit our driveway, the concern is the cars coming from the south from Merrimack. The top of that knoll is right at Beech Street and my driveway is just starting to slope down. When these cars are at full speed, moving that road closer to me, as I'm sure you know I am opposed to that, but it certainly creates a more dangerous situation in my view and I have lived it. I also want to thank some of the members that are trying to represent some of the homeowners because obviously moving that road closer to my property is going to devalue my property. As I said at an earlier meeting, you have nine homes going in there, big dollar homes, there is going to be at least two or three cars per household, a minimum of 36 cars going in and out of there every day. As Mr. Keach and Mr. Lopez indicated that extra 30 feet where the land slopes down away toward Route 101, you get the vertical distance

and also the horizontal space. For my property it almost gets buried a little bit. To eliminate the noise, that helps quite a bit. As far as a comment about that is the closest road parallel to Route 101, I don't know if you meant the entrance, but if you go about 500 feet in on this new proposed road, that is actually where it is really close to Route 101 not right at the entrance where it is going to intersect Stowell Road. The other thing I wanted to mention is that we didn't talk about any water studies. I would be interested in hearing about some of that also.

Robin Davis, 3 Twin Brook, stated I think the Town has a dilemma. I can understand the Nadeau's position, but I think Mr. Stanford is correct. I think that as time goes on when you look at Route 101, it is going to have to be widened. If it is widened, be it 10 – 20 years from now, that road will just be closer to Route 101. I think from a standpoint of safety if that can be moved, I know that that is not the best for the Nadeau's, and I think maybe there is something that the developer could do further for them, but the Town would not have to pick up that dilemma later on. I think the Town has picked up a lot of dilemmas at this point. When you go down Route 101 and you look at the development that has occurred since we have been here for 15 years, you can't even get from where we are on Twin Brook to Route 114 in less than 20 minutes at this point. What is that going to be like in 10 years? I agree with Mr. Stanford that this is going to be on the Town despite the fact that Mr. Keach will sign on off on it from an engineering standpoint. I think that the Town will own some responsibility later on.

Ms. Davis stated my second point as far as putting a fence around this detention pond. We are on Twin Brook and we have two fire ponds, and we don't have anything around those and the homeowner's association owns the responsibility for insurance on those, as well as the homeowner who owns that particular property, which happens to be me. We have had our share at this point of people conducting parties, bringing boxes in, throwing things into the pond, taking things out of the pond, we don't know, but we don't have any requirement for a fence around fire ponds. For a fence, especially a lockable fence to be on a 3-foot detention pond, when we have I don't know how many feet for a fire pond, it doesn't seem reasonable. It seems like we should be able to make that concession and let's see what we can do to preserve the safety of people from Bedford, Merrimack, whoever is on Route 101.

Tim Stone, StoneHill Environmental, LLC, stated I am a licensed hydrogeologist in New Hampshire with over 35 years of experience doing this type of work, hydrogeology, groundwater studies and such. I will give you a quick overview of what we do when we perform these studies. I will refer to the information in your packets. We initially look at the setting of the property with respect to drainages and how groundwater is flowing and how surface water is flowing. As we can see on this site, we are on the north side of Baboosic Brook and on the east side of a wetland and Pulpit Brook, which flows to the south across Route 101. We will look at the typical bedrock conditions; we have nice material with granite intrusives on the property, and then we walked the properties and see if the bedrock that is mapped looks like, what we actually see on the property, with a glacial till layer above it. With this till we know what the engineers have done can vary from where we see bedrock at the surface with zero till down to several feet, maybe a dozen feet of till or more in some locations that may not even have test pits, but generally less than 15 feet likely in this neighborhood. From that point we try to get a handle on what is happening with respect to regional groundwater flow. The figure shown is a simplified surficial geology map of the area and basically saying where we are we don't have any aquifer material on the site when

you get down into the wetland area to the west that is mapped as an aquifer with some increased permeability down along Pulpit Brook, but we are up on a hillside where it is mapped as glacial till and that is consistent with what we saw in the field. The next figure shows where we map out drainage divides in the vicinity of the site where we have surface water drainage as well as likely groundwater drainage flowing, so just to the west of Stowell Road in the backyards of the neighbors is really a drainage divide where we have drainage to the east, to the left of that dash line, and drainage down to the west. Our shallow groundwater and shallow bedrock flow is probably very similar to where we see the arrows shown on this map and it gives a sense of where some of the surficial groundwater coming from. Then we see Pulpit Brook flowing to the south towards Baboosic Brook. That kind of gives us the setting that we are dealing with here.

Mr. Stone continued we also take a look at what well records are available for the area and it is interesting. There are quite a few records that are available in Bedford; the drillers have done a nice job filing the well records as compared to Amherst, so we get a sense of what's going on with wells in the area. The average well depth is 544 feet, a little deeper than what we see typically in New Hampshire, which is down and around the 400-foot range. Depth to groundwater is pretty typical ranging from a few feet below ground surface to 50 feet, but typically less than 50 feet, and this is all based on the well records we reviewed. The average gallon per minute for wells in the vicinity is 8.9 gallons per minute, and that compares well to the New Hampshire average of 8 gallons per minute for wells. Then we drill down a little deeper and look at wells that are yielding 19 gallons per minute or less, and that average is 4.6 gallons per minute and then we look at wells that are greater than 20 gallons per minute, which there aren't that many that do that and we don't like to put that in the average when we look at the more normal yielding wells for homes because it kinds of skews the number high, but that is 26.7 gallons per minute. In general the data would seem to indicate that we don't have a significant problem with low yielding wells in the area, at least from the well records that are on file with the State of New Hampshire. That doesn't mean that some homeowners, particularly during a drought period like this, aren't having problems. We know the drillers are very busy deepening wells and things like that when we are under a severe drought. The next step is we take a look at what the average recharge is for groundwater, so we are trying to figure out will the addition of these nine residential wells put a significant stress on the aquifer based upon the land area that is associated with the development and the location within the drainage that we looked at earlier. And when we do this, we look at recharge, rainfall recharge to groundwater. We get 44 inches of rain over the course of a year typically; we know it is less this year, we use a very conservative estimate of either 5 percent of 10 percent of that recharge actually making it to the bedrock. So we are saying of that 44 inches, only 2.2 inches or 4.5 inches are actually making it into the bedrock recharging groundwater, again, trying to use very conservative numbers. It may be much more than that and we will talk a little bit about what might enhance that. So we come up with how many gallons per day or gallons per year presumably will recharge to the bedrock in this development. Some of the things that will enhance that are design features like these wet ponds or retention ponds where now you are taking additional surface water that might normally just run off into a drainage and end up in Pulpit Brook, but you are actually ponding it in an area of the site which will likely also increase recharge so the number might actually indeed be higher than that 10 percent number that we have used for our calculations. Then we compare the typical domestic use for in-home use with a little bit of gardening and things like that. We come up with a number of gallons per day that the development would typically use, and in this case that number was 2,700 gallons per day. There is one thing that is important to recognize

is that all of these homes are on septic systems and this is where you look that actually discharging to the septic system also recharging to the bedrock and you anticipate that about minimum 75 percent of the domestic water use is going back to the septic system and we come back and that recharges to the bedrock. This is much different than if you were watering your lawn or something like that, where you are losing a lot of that groundwater to evaporation and transpiration in plants and things like that. This is going straight back to your septic system. So we come up with a net water consumption, and in this case we have 675 gallons per day of net water consumption for the neighborhood, again, assuming 75 percent of the water is going back into the septic system. We compare that to the recharge values and as long as you are within a nice margin of safety, recharge versus water use, you feel pretty comfortable that you are not going to be mining a lot of water and you are going to see water tables dropping precipitously in the area. In this case at the 5 percent recharge rate for rainwater, that is about 19 percent of the 675 gallons per day is about 19 percent of the 5 percent in the 3,500 gallon range. If we use the 10 percent, which I think is more likely where we would be or even higher, you are talking about maybe 9 percent net water use, meaning this is water that is being used that isn't going back into the aquifer. So it is saying, at least based upon these numbers, that we are not going to see a significant stress in the aquifer there. One thing to also think about with this property is we are down low in the drainage. We have Pulpit Brook and the wetlands adjacent, we have Baboosic Brook to the south, and when you are dealing with sites that are down in these low areas, there is a lot of water that is available to you for recharge. If you were up in higher areas of drainage, up on the side of a mountain where you didn't have these low level streams and wetlands and things like that, you might not see numbers that are quite as optimistic as this. Basically, that is what we go through in this study and the numbers work out fairly well here, and we wouldn't expect with nine homes that you would see any significant impact with the water usage.

Mr. Stone stated there was discussion previously about blasting, and that appears to not be a big issue here at this stage of the game because of the mechanical rock work that is going to be done out there. For the most part what might have been proposed here if it was limited blasting, we don't see significant impacts typically to adjacent wells. Because of some slight vibration there might be some silt that someone would see in their well temporarily, meaning maybe a few days until everything settles down, but typically for this level of activity you wouldn't see really significant impacts from blasting efforts out there. Acting Chairman Newberry asked if they succeed in using mechanical, you don't see that that should have any impact? Mr. Stone replied it really shouldn't have any impact using a ram hoe and ripping rock and things like that. One of the advantages of that is first off you are not introducing any potential contaminants to the aquifer so from a water quality standpoint you don't have that issue whatsoever. From a vibration standpoint, there is just not enough vibration going on to really cause any issues with a supply well that might be 100 feet away.

Ms. McGinley asked when did you do your field work for this project? Mr. Stone replied about a month ago. Ms. McGinley stated so it was after we were in a drought situation. Mr. Stone responded that's right.

Mr. Fairman stated questing for the developer; StoneHill is recommending that you minimize the impervious surface. Is there any possibility of driveways and walkways at least be impervious surfaces? I would like to see the roadway but Mr. Stanford will argue with me on that. Mr. Lopez

replied given the type of development it is, houses are going to be close to the road, shorter driveways, we haven't introduced anything individually on the lots, pervious pavement, rain gardens or anything like that. We have directed a fair amount of the runoff into the closed drainage system and then we bring it to the wet pond out front and the infiltration pond out back and that is how we have dealt with it, getting into a lot of those different bmp's that AoT would require. We have kept it simple with a wet pond in the front, an infiltration pond in the back and we meet the groundwater recharge volumes AoT requires. Mr. Stone stated the one thing I would add too is by virtue of having some of these recharge facilities that does improve the situation because anything that is on the driveways or that makes it into the roads will end up in these facilities. It is not just running off in a culvert to the nearest surface water body, where indeed you are just losing that. Mr. Fairman stated I think we need to do everything we can to keep as much water as we can, and that is the reason I keep bringing this up because it is a very critical item that we are not paying attention to in our developments. There are good pervious surfaces, pavement and others, that are used around the country, and in the northeast we should be using it, all of our roads should be using a pervious pavement at this point, but it is not going to happen, and I know that and it is unfortunate. Mr. Lopez stated just so you know, Lot 1 on the left the high point in the road is right about at the driveway for Lot 1, so all of those lots flow back towards the infiltration basin for the most part. It is just the roadway going to the front that is going to the wet pond. Most of the lots are directed to that infiltration basin.

Town Manager Sawyer asked Mr. Lopez, can you just repeat what you have said about how much infiltration that basin is truly doing? What year storm is it implicating or how much water? Mr. Lopez replied it is a calculation based on the types of soils out there. We have a lot of, I believe it was B soils, and you calculate how much of that soil we are going to cover with impervious surface, and based on a formula that AoT has put together, we have a certain volume of water that we are required to infiltrate back into the ground and that is based on how much impervious. So we set the lowest outlet a little high and it captures the volume of water, I can't recall, something like 3,000 cubic feet, in that order, would go in, be held, and would be forced for infiltration. Larger storm events, two years and up, there would be a fair amount of infiltration there too but it would also start spilling out the outlet control structure and controlling that peak to meet your predevelopment. A lot of your small rain storms, 1 inch or less, a lot of that volume will be caught and infiltrated. Town Manager Sawyer stated to me we are meeting that infiltration requirement. Bedford doesn't have a requirement for infiltration like Mr. Fairman is suggesting, so the older subdivisions didn't infiltrate, but I think this project and all of our recent site plan developments we have infiltration under parking lots and they have done a great job capturing the water and keeping it onsite to the State standard that has been set. We could always set a higher standard here in Bedford but to me this is what is being done around the state everywhere.

Town Manager Sawyer stated again, on the fence; anybody who has reviewed it, Mr. Stanford or Ms. Hebert or Mr. Lopez, VHB isn't quoting any kind of regulation when it is citing the recommendation for a fence around that pond. It is different than the sight distance where they are citing AASHTO or whatever, they are just putting it out there as their recommendation based on reviewing plans. To me we have Pulpit Brook that is literally deeper than 3 feet 100 yards away, and if someone is truly worried about water, there is all kinds of water around this project, and I don't think this project warrants having a fence of any type around it.

Acting Chairman Newberry stated any comments or questions from the audience based on the water assessment.

Phil Bruno, 18 Beech Street, stated it didn't sound as though any consideration was being given for sprinkler systems. I'm assuming the homes in there are going to be fairly substantial in price, and I'm assuming at least half of the homes would have sprinkler systems, if not all of them. If there has been no consideration for sprinkler systems, what is the typical consideration given to sprinkler systems or how could we estimate how much water would be lost in sprinklers? Mr. Stone replied one of the recommendations that we make in the report is that if irrigations systems are installed, the smart systems that are tied to weather forecasting, tied to soil conditions, soil moisture, things like that, so that if irrigation is included, they don't just click on automatically no matter what is happening. We see sprinklers running in a rainstorm all the time. Indeed, irrigation, particularly if you take a period like right now where it is dry and people may want to irrigate even more, that can have a significant impact on the groundwater withdrawals. It is something that needs to be managed, whether or not it is going to be mandatory or voluntary water restrictions by the Town. I'm sure the Town is facing this right now and trying to decide how to deal with it, and indeed, there could be periods of time where you would want to put some restrictions on irrigation. Indeed, irrigation can have a significant impact on the groundwater withdrawals but it is hard to quantify what that would be. Acting Chairman Newberry stated I think currently that would be well outside the purview of the Planning Board, whether somebody irrigates or not. Mr. Bruno stated I understand that would be out of the purview of the Planning Board but who's purview would it be under and how could we gage what the impact would be if there are sprinkler systems in at least half of the homes if not all? I don't think it is something we can just brush away and say we don't know and then when the impact is there and it affects my water, at that point I am sorry, it is not enough. Ms. McGinley stated since I was at the Town Council meeting where this was discussed and a very extensive presentation done by New Hampshire DES to the Town Council, I think what I take from that is that if it is a private, do you have the ability to tell people on their private property whether they can sprinkle or not. Councilor Bandazian replied we do but it can't be a particular street, it would be townwide and residential only right now under the statute. Town Manager Sawyer stated and it has to be during declared drought periods. Ms. McGinley stated I think you have made a request currently. Councilor Bandazian replied we made a voluntary request of residents and businesses, but right now under the statute, the Town can't regulate business irrigation. Ms. McGinley stated the other thing is that the Planning Board is looking at relaxing installation of new landscaping in projects because they require sprinkling and they would die and have to be replaced anyway, and that would be a use of water that is against the recommendation of the Town Council. The Town Council is aware of this.

Mr. Fairman asked couldn't we redo this chart that we are seeing here now with an assumption that half of the homes would have sprinkler systems and the knowledge of basically how much acreage you would have under sprinkler systems? Couldn't you redo this chart? Mr. Stone replied you can really do just about anything. Mr. Fairman asked but would it make sense to redo that chart? I think he is right. Half of these homes will ultimately have sprinkler systems, if not all of them, maybe they are planning to put them in all of them, but why not make that assumption that increase the residential water use considerably. Clearly you know how much that is, so why wouldn't it make sense to have that chart include that rather than ignore it? Mr. Stone replied again, one of the issues is not knowing how many homes are going to have sprinkler systems in

them; we could assume 50 percent of the homes. Mr. Fairman interjected you don't know how many homes are going to five bathrooms, so you make assumptions on those things, so why can't you make assumptions on sprinkler systems and come up with a better number. This number doesn't mean anything. Mr. Stone replied this is what your typical domestic use would be in the home. Mr. Fairman stated typical in this neighborhood in homes in Bedford have sprinkler systems, Sir, we are not talking about Grafton or other towns where maybe they don't have as many sprinkler systems, but this town has a lot of sprinkler systems. So why shouldn't this chart reflect reality instead of some numbers that don't compute? Mr. Stone replied I think this actually reflects the reality for typical use. Mr. Fairman interjected no it doesn't. You don't put sprinkler systems in here, Sir. Sprinkler systems are a reality. Mr. Stone responded I am not arguing with you on this, what I am saying is if it is the Board's pleasure for it to be recalculated with some estimates on sprinkler systems, it can be done. Mr. Fairman stated I don't think your numbers mean anything because you haven't included it. Mr. Stone stated we can come up with something. Mr. Fairman stated I can't believe any of your numbers. Mr. Scanlon stated Mr. Fairman, can we follow your thinking to a larger conclusion. There are nine homes here and let's say that 2/3 of them, six homes, put the sprinkler systems in and the chart is redone to recognize that change, even after the change, there is no consequence as a result of new information other than to say I guess we really can't even approve the project. I suppose that is one outcome. Mr. Fairman stated there is a lot of margin in the numbers here. Sprinkler systems use a tremendous amount of water, more water than the normal home uses. I don't really know this, but my expectation is that the gallons per day in consumption would nearly double. But we don't know those numbers until somebody with expertise tells us what they are and that is my argument that we don't have it. Mr. McMahan stated there is another beauty of assumptions and that is that the homeowner's association of these nine homes if water starts to be critical, they would self-regulate because it is in their own interest. I think that is happening in Bedford right now; it certainly is in my neighborhood. Why would anybody do something that would create problems for their own wells?

Tonya Burke, 27 Twin Brook Lane, stated my concern is that, like Ms. McGinley mentioned, this was done after the summertime drought when these numbers were pulled, and I know at least for us in our association we had problems with our fire ponds being super low. We are off Pulpit Brook and problems where irrigation systems that were tied to the brook had to get pulled out in the summer because the water level had dropped so low. Also, has the Board taken into consideration the winery and what they are planning on doing knowing that that may be pulling also from this Pulpit Brook area if they get permission to do the distillery and hotel, which apparently most of that has been approved at this point? How much water is that going to be sucking from the same area where you are looking at also pulling from? Ms. McGinley stated I know in a prior project, Mr. Stone, you were able to educate us a bit about different aquifers and I believe you have done some of the water analysis for the Amherst project, the location relative to the location of this development or for her neighborhood. Mr. Stone responded I am involved in the LaBelle Winery project down the road, and I'm saying it is remote hydrogeologically speaking to this site. It is across the Pulpit Brook drainage and further down Route 101 along Baboosic Brook. It is far enough away and actually there has been a lot of misinformation about the water use that is going to go on over at LaBelle, and the water use is nowhere as high as has been speculated by some folks. It is going to be about the equivalent of probably a half dozen homes or something like that for the overall water use. LaBelle is in different drainages; we are not going to see any impact from LaBelle over here. Ms. McGinley asked it is not the same aquifers? Mr.

Stone replied most of the bedrock here is all the same rock we are dealing with but it is beyond a different drainage divide, and the water that is feeding the area of the LaBelle Winery and that whole neighborhood up there is different than where the water is originating for this neighborhood. Again, when you have these low areas from the Pulpit Brook wetland and Baboosic Brook, these are all recharge features that are recharging the bedrock and they really act in many respects as dividing lines between different drainages and groundwater movement in the bedrock. So LaBelle wouldn't have any impact on anything going on over here. Indeed, we are in a drought period right now and everyone is having issues. There is no question that when we have low rainfall that water levels are lower and it is something we just need to deal with.

Ms. Davis stated Mr. Stone, I understand what you are saying about Pulpit Brook and Baboosic Brook being so low and there is rechargeable water there, but you are dealing with this development that is way above that. How is that recharged? Why are you saying that just because we are low spot, and we are at Twin Brook, that is not where this Huntington Ridge is at all? That is quite a bit different. Why is it that you are saying that it is rechargeable and nine houses would not have an impact? Mr. Stone responded one of the things we need to recognize is that, it gets a little bit complicated to visualize because you are trying to do this in three dimensions, but as I was saying, for instance, the average bedrock well in this area was 544 feet, so if you take the way your well is installed, the driller is going to go down to bedrock, he might go 10, 20, 30 feet into rock, so let's say in this case the average well might have 50 feet of casing at this site and then they are going to drill another 500 feet. The difference in elevation between where some of your grade levels are, where these wells will be drawing water, the wells will actually be drawing water from at and well below the elevation of where Pulpit Brook or Baboosic Brook is. Mr. Lopez stated we are at elevation 310 feet, and the elevation is around 230 or so. Ms. Davis stated let me just interrupt for a minute; I am at the very low point, and when the well was drilled, it was not deep enough at 250 feet, we had to go back in and make it 400+ and I'm at the very low end. If you are talking 310 feet and then another 250 feet, I'm sorry, that really doesn't get you down to where I am and I had to be in order to supply water for one house. Mr. Stone responded again, there is another dynamic with bedrock wells too, and we have discussed this before. We are dealing with fracture flow in the rock and a lot of it depends upon really the luck of the draw more than anything else. When you drill a well, whether you encounter a water bearing fracture at 100 feet or at 200 feet, you have heard these stories before where someone installs a well and they are getting 50 gallons per minute. We see it in the records in this vicinity of Stowell Road. There is a well out there that gets 50 gallons a minute and then someone drills in the neighboring property and they are struggling with 2.5 gallons a minute. A lot of it depends what fractures you intersect and how many fractures you intersect when you are drilling that well. But overall many of the fractures are all interconnected to each other and they are interconnected to the sand and gravel overburden, the glacial till and the water is recharging into these fractures and percolating down into the bedrock. The low lying areas along Pulpit Brook and Baboosic Brook, again, there is always water in that area and that water is consistently recharging that bedrock and recharging the lower elevations within that bedrock. I know it is kind of hard to conceptualize. Ms. Davis responded I understand that wells are very individual, you can have a good well on one lot and not so good on the other. Isn't the State requirement only 2 gallons per minute that you have to meet it in order to pass State requirements? I can tell you full well after having a house that only yielded 2.5 gallons per minute that you cannot have an irrigation system with that. That might be one of the cases here. If you can only yield 2 gallons a minute or you are going to be suffering hydrofracking in order to get

more gallons per minute, I think that what you are saying, I understand, but I just think that that is optimistic to think that you are only going to 500+ feet when we had to go more than 400 at the low spot. Mr. Stone responded and I won't argue with you on that one. Bedrock well situations can be challenging and in many of these developments and new homes going in, just as the homes that have gone in, some people have high yield wells and some people have low yield wells. It is challenging when you are dealing with bedrock well scenarios and you don't have these great sand and gravel aquifers where you drill 100 feet and you are making 100 gallons a minute, and indeed with this development, as each well goes in, it will be kind of the luck of the draw for each lot, will they get sufficient water and that is one of the things we included in our report was a well yield standard that requires that when the well is finished, as a guideline that people really have adequate well yield or well storage, whether or not there it is storage in the well or yield with the well or storage you have to put in the home to have adequate water. It can be very challenging and in this parallel of New Hampshire it can be even more challenging. Bedford doesn't seem to have too much of a problem with it, but it is a lot worse down in Windham and in other towns because of the nature of the bedrock.

Acting Chairman Newberry stated so in summary, based on your study, you don't see any reason for serious concern of an additional nine wells. Mr. Stone responded we are doing a water balance. Again, we are looking at what is typical use and what is typical recharge under this scenario trying to use conservative numbers as best we can. The challenge was raised by Mr. Fairman about the issue of irrigation. Irrigation has a significant impact on things, and I'm not denying that that is the case. How that is regulated is the difficulty right now and as you kind of heard from other members of the Board in this scenario. As a hydrogeologist I would like to think that folks would do things like drought resistant grasses and things like that and do away with irrigation. I have never had irrigation in my entire life on any property I ever owned and never expect to, but it definitely is a challenge out there when irrigation is thrown into the picture. It is just one of those things obviously that I think it is an education process for people. I think one of the best things we can do is using smart systems or if a homeowner's association or a developer wants to try to restrict the use of irrigation or minimize it, that hopefully if people are thinking more about water conservation and conservation issues, that that becomes kind of part of the normal operating procedure moving forward because of droughts we are seeing like right now.

Ms. Hebert stated I have a question about the irrigation systems. There are going to be nine new homes, and this may be for the owner/developer, what types of irrigation systems are typically installed in new homes. I would think just to conserve your well water and all the utilities and costs that go with running and operating your well, that most people would opt for the smart system or that most irrigation contractors would be selling the smart system or the drip systems as opposed to the older, outdated systems that seem to run regardless of the time day or the weather outside. Is there still a lot of variety in terms of irrigation installers and contractors or do you find that systems are becoming as a standard smarter in the industry? Mr. Lamontagne replied it runs the gamut of everything, and a lot of times people buy the cheapest system they can buy. That is not an easy question to answer. It depends on the development. Some we do. A lot of times if you have a sprinkler system will use less water than people just running hoses wildly. That has always been the sales pitch of sprinklers that they use less water if they are set up right.

Mr. Keach stated Mr. Stone's presentation gave me the opportunity to take a look at the topic that we talked the most about tonight and that is the location of the intersection. Looking at Sheet 8 and in the spirit of cooperation I can move centerline/centerline of the intersection on Stowell Road 15 to 20 feet closer to Merrimack and still maintain the measure of sight distance looking towards Merrimack that I want. I guess I am suggesting here that I can as a minimum split the baby on the 30 feet and still preserve what I consider to be important in maintaining a full 400 feet of intersection sight distance looking to and from Stowell Road towards Merrimack. Right now we are running a tangent section from about the right-of-way out towards Stowell Road that comes on the heels of a long radius horizontal curve. If I carry that horizontal curve back out so it hits Stowell Road at a normal angle, as opposed to a slight skew, I can move that point intersection/intersection 15 to 20 feet. Looking at an 11-inch X 17-inch copy of the plan I can't estimate it closer than that, but I know I can get it at least that far. I may not get the 30 feet that Mr. Stanford is suggesting but I can come very close. I will do that if that is the pleasure of the Board; because I can read the Board and about half of you were going each way. Mr. McMahan asked Mr. Stanford, 2/3 of a loaf? Mr. Stanford responded I think when we get out there I will get 3/3 of a loaf. Mr. Keach responded he is probably right. We will do what we can. Ms. McGinley asked can you add more vegetation planted next to the neighbor? Mr. Keach replied let me just say this about that; one of the things that I did before I threw this in front of you, in addition to Mr. Lopez, I took my client and Mr. Nadeau out into the hall, and while I gave neither of them a full and complete presentation that would be expected of me tomorrow should this come to pass, I am quite confident that the area, if you look at where Huntington Ridge Road penetrates the right-of-way line of Stowell Road, all of the change that I am talking about doing is actually from that point towards Stowell Road. About the width of that prompter back towards Amherst the 400-radius curve ends at that point. If I continue that same geometry without moving it onto the Amherst side but carry that 400-foot radius curve right towards Stowell Road to a point where I hit intersection of centerline/centerline at a normal angle. It will probably be on a curve or a curve truncating at a point close to the edge of pavement. I can move that point of centerline/centerline 15 to 20 feet closer to Merrimack and not screw up anything that is important to Mr. Nadeau. Stowell Road is on about a 10 percent grade at that point, climbing as you go towards Merrimack, we have that crest that is just beyond Beech Street, I will come up higher there than I will going down on the other side. So the line of sight that you see on another drawing will still go over the pavement in all-season sight distance, which I agree with Mr. Stanford is the important criteria regardless of where you are measuring it. We agree on that. I took a second look at it; I know I can't do 30 feet because he has tried. 15 to 20 feet we can do without a problem. I guess on that basis we would modify our waiver request accordingly. I will give you as much as I can without compromising the 400 feet, which is a requirement of the Town, looking towards Merrimack. I can come very close to increasing to the 30 feet that is staff's recommendation, but I know I can't get the full 30 feet. Acting Chairman Newberry asked that won't push your cut lines back very much either? Mr. Keach replied no, because of the fact that we are chasing grade X2 in the area of Stowell Road because we have the embankment. Basically you are only changing the grades and is going to be in the Stowell Road right-of-way. I can change the vertical alignment of the road to get back to grade by the time I am on property because we have close to 100 feet there to play with. I think I am going to be starting at centerline/centerline about 9 inches higher, or a little over a foot higher, than it is presently, and I can certainly make that up on the other side and still have height-of-eye, height-of-object that Mr. Stanford and I agree is the correct criteria. I know I can't do 30; but, again, we are in that vacuum between what I feel is important and what Mr. Stanford feels is

important, how close can be get, and I am telling you I can get easily half, probably 2/3 of that distance. We are talking a fraction of a length of a car at that point. Mr. Scanlon asked at the accommodation meeting you had tonight with Mr. Lamontagne? Mr. Keach replied I just went out in the hall when you were listening to Mr. Stone's presentation. I also ran it by Mr. Nadeau because he is very important to us.

Acting Chairman Newberry stated I have a question for staff; any motion to grant the waiver should include that the final location of the intersection of Stowell Road and the proposed road be worked out with Public Works. Ms. Hebert stated yes, worked out with Public Works, and I think you should say is moved 15 to 20 feet. Mr. Keach stated I don't have a problem with that because that was my number. Ms. Hebert added if that is something that Mr. Stanford is agreeable to. Mr. Stanford stated the only thing is when you look at the sight line on the vertical curve, VHB mentioned to me that he was concerned that the actual sight line nicks the pavement and Mr. Keach is looking at this at a very small scale. Mr. Keach responded I think it actually helps a little bit because my height-of-eye at the intersection is rising faster than the pavement is dropping off on the other side. Mr. Stanford responded I see what you are saying there; it really depends on what that survey is, if those are actual points. Mr. Keach responded they are. Mr. Lopez stated survey is centerline on both sides to edge of pavement. Mr. Stanford stated you have to provide a certified sight distance profile certified. Mr. Keach responded I don't have a problem with that. Mr. Stanford stated again, my objective was to get that further away from Route 101, so any movement in that I think is positive from the Town's perspective.

Mr. McMahan stated Mr. Keach, regardless of the outcome of the vote, I can only speak for myself, but I would like to think the Board has no doubt about your expertise or your professionalism. Mr. Keach replied I appreciate that.

Tim Fountain, 17 Winchester Lane, stated I want to go back to the wells. During the last meeting Mr. Lopez made some comments indicating that the developer will work with abutters. Given the study that has been done and the time that has passed, I would ask for a specific definition of what works with abutters is and is that direct abutters or abutters within a certain geographic distance? Mr. Lopez responded working with the abutters is what we were planning on for the blasting and doing some testing and monitoring of abutters' wells because of that blasting. But Mr. Lamontagne has decided to park equipment up there to mechanically remove the rock, so without the blasting we would not need to be doing the monitoring that would have been required to do with blasting. Should blasting be required, should they come across something that the hammer is not going to get out of there, then we need to come back to the Board and discuss and develop that plan that we were talking about earlier to address that blasting concern. Mr. Keach added I guess part of that comes from Mr. Lamontagne, and me directly, in that seemed if the concern of the neighborhood and the abutters was the concept of blasting. If we can find a way to do the same job without blasting, haven't we addressed the abutters' concerns? Acting Chairman Newberry stated that is one of the conditions of approval. Ms. Hebert stated and returning to the Board would involve notifying the immediate abutters. Mr. Fountain asked so am I correct to assume that response is in the event you are successful mechanically removing the rock and there is negative impact to the abutters' wells that the developer will not work with abutters? Is that correct? Mr. Keach replied I don't see how it is possible if we are working mechanically on the surface of the earth and not doing any high frequency blasting that could impact wells; I think it alleviates the

potential for impacts that are often associated with blasting altogether. So there is not much of a discussion because the risk that could possibly have been imparted on neighboring wells by virtue doing blasting has been thrown aside. Mr. Fountain asked is that a no? Mr. Keach replied yes. Mr. Fountain stated thank you. Mr. Keach stated but to the extent of working with abutters before I just presented the thing I did on sight distance, I just had a conversation with Mr. Nadeau and how much more can we work. Mr. Fountain asked that is a no? Mr. Keach replied yes, it is a no. Mr. Fountain stated thank you.

Ms. Davis stated I am not convinced that Mr. Stanford thinks that this shouldn't be 30 feet. You are the Planning Board, you are elected by us, and you are required by the Town to represent the best possible solution for the Town, not the developer. If there is a safety issue that Mr. Stanford says is a safety issue, it doesn't seem to me that that should be something that should be compromised for the benefit of the Town, not the builder, not the Nadeau's, that is a separate issue between the builder and the Nadeau's, but we're talking safety here, we're talking Route 101, we're talking 10 – 20 years in the future. The Town will be back to redo that intersection if we don't do something now.

Ms. Hebert stated I would like to note that the second waiver should also reference the waiver to the AASHTO standards for sight distance.

MOTION by Mr. Cote that the Planning Board grant the waiver from the Bedford Land Development Control Regulations for Appendix A – Bedford Road Construction Standards, 3.A.1. – Rural Section, to replace the open drainage with sloped granite curbing. Ms. McGinley duly seconded the motion. Vote taken - all in favor. Motion carried.

MOTION by Mr. Cote that the Planning Board grant the waiver from the Bedford Land Development Control Regulations for Appendix A – Bedford Road Construction Standards, 2.B – All Season Sight Distance, and the AASHTO standard to allow less than the required 400 feet of sight distance at the proposed roadway intersection with Stowell Road looking in the northerly direction towards Route 101, provided that the location is moved approximately 15 to 20 feet to the south, with final review and approval of the revisions by the Bedford Department of Public Works. Mr. Scanlon duly seconded the motion.

Mr. Stanford stated I would like to include the review engineer in the final review and approval. Again, my preference would be that we get a greater sight distance and not allow the minimum.

Mr. Cote and Mr. Scanlon approved the amendment to the motion as follows: “with final review and approval of the revisions by the Bedford Department of Public Works and VHB, the Town’s consulting engineer.” Vote taken; motion as amended carried, with Mr. Stanford and Town Manager Sawyer voting in opposition.

MOTION by Mr. Cote that the Planning Board grant final approval of the Huntington Ridge cluster subdivision at Lots 41-8 and 30-16, to create nine new residential lots and one open space lot, in accordance with the plan prepared by

Keach-Nordstrom Associates, last revised October 3, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature and the remaining conditions of approval to be fulfilled as noted:

- 1. All recording fees shall be submitted to the Planning Department at the time of recording.**
- 2. Any outstanding engineering review fees shall be paid to the Department of Public Works.**
- 3. In the event that the Planning Board approves the waivers, the plan shall be updated to list all waivers granted as approved.**
- 4. The Applicant shall provide a performance guarantee in an amount and form acceptable to the Director of Public Works, for the completion of all proposed roadway and infrastructure construction in accordance with the provisions of Section 240 of the Land Development Control Regulations. A bond estimate shall be prepared by the Town's engineering consultant and approved by the Director of Public Works, the amount needs to be based on ledge profiling to determine the cost of construction. In addition to all of the public improvements, the guarantee shall include the cost to set all boundary monumentation, including right of way monumentation and individual lot monumentation.**
- 5. The Applicant shall file a check for road inspection fees and testing analysis in an amount to be determined by the Director of Public Works.**
- 6. Prior to commencement of work, a performance guarantee in an amount approved by the Town for onsite maintenance of erosion and sedimentation controls shall be placed on file.**
- 7. The NHDES Alteration of Terrain Permit shall be obtained and the permit number shall be noted on the plan.**
- 8. NHDES State Subdivision Approval shall be obtained and the permit number shall be noted on the plan.**
- 9. The Planning Director and the Department of Public Works Director shall determine that the applicant has addressed all technical review comments to the Town's satisfaction.**
- 10. The 50' non-disturbance buffer shall be marked on the site per Article 275-34 (F)(2)(c).**
- 11. Sample deed language shall be submitted for review by the Planning Department to protect the portions of the required 50 foot buffer on Lots 8-1, 8-8, and 8-9.**
- 12. A homeowners association shall be formed and final association documents shall be submitted to the Planning Department for review and approval and to be recorded with the plan.**
- 13. The homeowners association shall be responsible for the maintenance of open space and the components of the drainage system located outside of the right-of-way. An operations and maintenance plan shall be provided to the town and approved by the Public Works Director.**
- 14. All requisite easement documents shall be executed by the Applicant and submitted to the Planning Department to be recorded simultaneously with the plan.**

15. **The NHDOT shall approve the proposed drainage work in the NHDOT Route 101 right-of-way.**
 16. **Prior to the start of construction, if it is determined that blasting will be necessary, or prior to the issuance of a blasting permit, a supply well testing and monitoring plan shall be submitted and reviewed by the Town's consulting engineer and approved by Planning Board.**
 17. **Prior to any construction occurring within the public right-of-way, the applicant shall apply for a street opening permit from the Public Works Department.**
 18. **Prior to any construction occurring on the site, the applicant shall provide a certificate of insurance in accordance with Section 240.4 of the Land Development Control Regulations.**
 19. **Prior to any construction occurring on the site, the applicant shall schedule a pre-construction meeting with the Planning Department and the Department of Public Works.**
 20. **Prior to any inspections of dwellings being performed, the road must meet NFPA 241 Section 7.5.5 access roadways. The road shall have an all-weather surface (compacted road subgrade) capable of supporting firefighting apparatus. Prior to issuance of any certificate of occupancy, the entire road must have base coat applied and be approved by the Director of Public Works.**
 21. **Prior to a certificate of occupancy being issued for each lot, a letter shall be submitted to the Planning Department by a licensed land surveyor certifying that all boundary monumentation has been set as noted on the plan.**
 22. **Prior to release of the performance guarantee for the development, as-built plans stamped by a licensed land surveyor shall be provided in accordance with Section 245 of the Land Development Control Regulations, including the as-built sight distance for the sight line looking northeast on Stowell Road.**
 23. **Prior to the acceptance of the street, the applicant shall provide a warranty deed for the road right-of-way in a form acceptable to the Planning Director and Public Works Director.**
- Town Manager Sawyer duly seconded the motion. Vote taken - all in favor. Motion carried.**

Mr. Keach stated we will work with Ms. Hebert on some intermediate plan on that. Town Manager Sawyer stated just eliminating the requirement for fencing but the applicant can always work with staff to add fencing if they want to. Acting Chairman Newberry stated the way it stands now is that Condition 16 "The plans shall be revised to include fencing around the detention pond closest to Stowell Road." in the staff report dated October 24, 2016 is excluded from the final approval, bringing the number of conditions of approval down to 23, as noted in the motion. Mr. Keach stated you have my commitment that I will work with Ms. Hebert.

2. **Robert A. & Roger Rheault (Owners) and International Church of the Foursquare Gospel (Owner) – Request for approval of a lot line adjustment between two properties at 233 South River Road and 12 Station Road and a site plan amendment to construct a new driveway, Lots 23-98-1 & 23-3, Zoned PZ.**

A staff report from Mark Connors, Assistant Planning Director, dated October 24, 2016 as follows:

I. Project Statistics:

Owners: Robert and Roger Rheault and the International Church of the Foursquare Gospel
Proposal: Lot line adjustment and site plan amendment to relocate a commercial driveway
Location: 233 South River Road and Station Road (adjacent to Hawthorne Drive), Lots 23-98-1 & 23-3
Existing Zoning: "PZ"- Performance Zone
Surrounding Uses: Hotel, highway (F.E. Everett Turnpike and Interstate 293), utilities (Eversource and Town of Bedford Pump Station)

II. Project Background:

Robert and Roger Rheault operate a construction/excavation business at 233 South River Road, Lot 23-98-1 (the parcel also includes a single-family home). The current driveway for the Rheault property off of US Route 3/South River Road is the former Station Road. The Bedford Town Council voted to discontinue the public road in 2014 in response to a petition request submitted by the Rheaults. In their petition, the Rheaults noted that the road no longer served any landlocked parcels. Eleven years earlier, in 2003, the Town Council voted to relinquish part of Station Road (including the entire section through Lot 23-3) as part of a land swap agreement with Faith Christian Church (currently the International Church of the Foursquare Gospel).

A new Station Road was constructed as a private road off of Hawthorne Drive to serve the church, approved by the Planning Board in 2005. Conditions of the Town Council's 2014 discontinuance of the former Station Road included an emergency access easement through the Rheault property and a requirement that the applicants secure a waiver from the Planning Board for reduced frontage along South River Road (approved by the Board in 2014).

In 2012, the NH Department of Transportation replaced the US Route 3/South River Road bridge over the F.E. Everett Turnpike. The new bridge was designed to accommodate for the planned widening of the turnpike to six lanes and involved the realignment of, and grading changes to, part of US Route 3. This construction work resulted in an increased grade of the driveway at 233 South River Road (located immediately southeast of the new bridge) where the Rheaults have long operated a construction/excavation business. The applicants note that the new grade of the driveway is too steep to adequately accommodate commercial trucks entering and exiting the property, necessitating the current applications before the Planning Board to accommodate for a relocated commercial driveway.

III. Project Description:

This application is for a lot line adjustment between Lot 23-98-1 and Lot 23-3 along South River Road and Station Road and a site plan amendment to relocate a commercial driveway.

Lot Line Adjustment

The proposed lot line adjustment would relocate the lot line between Lot 23-98-1 and 23-3 to transfer “Parcel A” (75,750 square feet/ 1.74 acres) from Lot 23-3 (the International Church of the Foursquare Gospel to Lot 23-98-1 (owned by the Rheaults). The increased size of Lot 23-98-1 would provide the parcel approximately 200 feet of frontage along Station Road (a private road) in order to relocate the driveway access for Rheault Construction from its current access point at South River Road.

Both lots will continue to meet minimum lot size requirements, which in the Performance Zone are based both on access to local roads and shared drives and on water and sewer access. The minimum lot size for the Rheault property is 3 acres (as it is located on US Route 3 with no water and sewer access) and the minimum lot size for the International Church of the Foursquare Gospel is one acre. The proposed changes in the size of the two lots are noted below:

<i>Lot</i>	<i>Existing</i>	<i>Proposed</i>	<i>Change</i>
<i>Lot 23-98-1</i>	<i>9.74 acres</i>	<i>+1.74 acres</i>	<i>11.48 acres</i>
<i>Lot 23-3</i>	<i>31.57 acres</i>	<i>-1.74 acres</i>	<i>29.83 acres</i>

A condition of the Town of Bedford’s discontinuance of the former Station Road in 2014 provided the Town easement rights to utilize the former road for emergency access. Those rights shall not be impacted by approval of this application (Condition #4). A sign for the International Church of the Foursquare Gospel on Station Road will encroach on to Lot 23-98-1 should the lot line merger be approved. The applicants should address issues of liability and care and maintenance of the sign through an easement (Condition #5).

Site Plan Amendment

Robert and Roger Rheault (owners of Lot 23-98-1) are also seeking Planning Board approval for a site plan amendment to relocate a commercial driveway to terminate at Station Road (a private road) instead of South River Road. The proposed driveway would follow the general path of an Eversource Power Line Easement. The applicant has coordinated with Eversource regarding placement, access, and construction standards of the driveway. The applicant has provided the Planning Department with a joint use agreement permitting construction of the driveway within the Eversource easement area as well as an easement from the church granting the Rheaults permission to utilize Station Road as a driveway access point.

The proposed bituminous asphalt driveway is 24 feet in width with three foot shoulders capable of accommodating fire ladder trucks and Eversource maintenance vehicles. Increased stormwater generated from the driveway would be mitigated through the placement of a swale and a detention basin. A culvert under the driveway would connect the detention basin on the south side of the driveway with wetlands to the north (on Lot 23-3). A rip rap apron at the outlet of the culvert will provide erosion control.

Since the Rheault Construction operation itself will not be expanded as part of the application before the Board, no additional traffic impacts are forecast. Staff believes that traffic safety

relating to accessibility to and from the Rheault site would be improved should the site plan amendment be approved as traffic would be redirected to access South River Road/US Route 3 via Hawthorne Drive at a signalized intersection in contrast to the non-signalized access the site currently utilizes. Additional potential safety issues relating to the grade of the driveway and site distance would also be addressed.

IV. Waiver Requests

The Applicants have requested waivers (see attached letter from CLD Engineering) from the following requirements of the Town of Bedford Land Development Control Regulations:

Subdivision Regulations

- Section 218.1.5: Boundary Survey of portions of Lot 23-3 not impacted by the lot line adjustment*
- Section 218.1.11: Topographic Survey*
- Section 218.1.12: High Intensity Soil Mapping*

Site Plan Regulations

- Section 317.1.4: Dimensions shown to the hundredth of a foot, bearings to the nearest one second, error of closure not to exceed 1 in 10,000*
- Section 316.1.10: Topographic Survey*
- Section 317.1.11: High Intensity Soil Mapping*

Since the application is limited to a relatively small area of Lot 23-3, and because no additional buildable lots will be created as a result of the lot line adjustment, Staff does not object to any of the waivers requested under the Subdivision Regulations. The area impacted by the lot line adjustment and driveway have been surveyed. Boundary information for Lot 23-3 has been provided from referenced plans. Similarly, since the commercial operation itself will not be expanded as part of the application, and since the commercial driveway relocation is a relatively minor alteration of the site, Staff does not object to any of the waivers requested under the Site Plan Regulations.

V. Staff Recommendations:

The Planning Board needs to vote on whether or not to grant the waivers from the Town of Bedford Land Development Control Regulations for Sections 218.1.5, 218.1.11, and 218.1.12 of the Subdivision Regulations and Sections 317.1.4, 316.1.10, and 317.1.11 of the Site Plan Regulations.

Planning staff does not object to any of the above waiver requests.

The Planning Staff recommends that the Planning Board grant final approval of the lot line adjustment between Robert and Roger Rheault, 233 South River Road (Lot 23-98-1) and the International Church of the Foursquare Gospel, 12 Station Road (Lot 23-3) as shown on plans

by CLD Consulting Engineers, Inc., last revised September 26, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature:

- 1. The Planning Director and Public Works Director shall determine that the Applicant has addressed all technical review comments to the Town's satisfaction.*
- 2. All recording fees shall be submitted to the Planning Department at the time of recording.*
- 3. A letter shall be submitted to the Planning Department by a Licensed Land Surveyor certifying that all boundary monumentation has been set as noted on the approved plan, or the boundary monumentation may be set and shown on the plan.*
- 4. The Town of Bedford's easement rights to utilize the former Station Road for emergency access shall not be altered or encumbered by approval of the lot line adjustment or site plan amendment.*
- 5. The Applicants will provide the Planning Director with an easement to address issues of liability and maintenance due to the encroachment of the International Church of the Foursquare Gospel sign on to Lot 23-98-1.*

The Planning Staff recommends that the Planning Board grant final approval of the site plan amendment for Robert and Roger Rheault, 233 South River Road (Lot 23-98-1), as shown on plans by CLD Consulting Engineers, Inc., last revised September 26, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature:

- 1. The Planning Director and Public Works Director shall determine that the Applicant has addressed all technical review comments to the Town's satisfaction.*
- 2. Prior to the issuance of a certificate of occupancy or use of the site, all site improvements depicted on the plan shall be completed.*
- 3. The lot line adjustment plan between Lots 23-98-1 and 23-3 shall be recorded at the Registry of Deeds.*

Acting Chairman Newberry stated we received documentation from Ms. Hebert stating that these are really two separate actions. Ms. Hebert stated there is an updated staff recommendation to clearly break out that you actually have two actions and two public hearings. One is for a lot line adjustment, which is a subdivision, moving the lot between the two properties, and the second recommendation for a site plan amendment for the construction of a new driveway with separate waivers. The first waiver is relating to the subdivision regulations and the second waiver is relating to the site plan regulations.

Brian Pratt, CLD Consulting Engineers, Robert and Roger Rheault, landowners, pastor for the International Church of the Foursquare Gospel, and Attorney Rod Stark were in attendance.

Mr. Pratt stated what we are here to present to you today is two applications but they basically go together. Roger and Robert Rheault own the property at 233 South River Road, which is right next to the FE Everett turnpike, on the opposite side of the highway from the Target/Lowe's and the Mini Cooper; the property is shown on the posted plan. A few years ago the State, when they built the new bridge on South River Road over the FE Everett turnpike, widened and relocated

South River Road, which made their driveway, which is shown on the plan, much too steep. They have an excavation business and a residence and the driveway is really steep for the big trucks to navigate. The purpose of this application is to do a lot line adjustment with the International Church of the Foursquare Gospel and construct a new driveway.

Mr. Pratt stated shown on the plan is Hawthorne Drive and Station Road, which is the private drive that goes down to the church. We approached the church to purchase this land, which is also the same land that the EverSource easement runs through, this rectangular area, and bring a new driveway in off from Station Road. The lot line adjustment is where the purple line is shown but a little bit further to the north, and the area ends up being 1.74 acres. Shown on the next plan is the new lot line, where right now the church owns this entire area, so it will transfer the 1.74 acres over to the Rheault's property. The new driveway that we are proposing has a maximum slope of 5.5 percent; it is 24 feet wide for their excavation vehicles, fire trucks, tractor trailers, whatever trucks need to use that. They have a purchase and sales agreement that has been signed, which transfers the land, and gives them easement rights to use Station Road as well. There is a sign that is partially in the area that is being transferred so we will provide an easement for the church to continue to maintain their sign within this area. We checked sight distance and the area works with 200 feet both ways. With regard to stormwater; right now it is just a mowed area because it is under the EverSource easement. Adding some pavement obviously would have increased the stormwater so we are providing a swale on the side that will collect the runoff from half of the road, there is a small detention pond indicated on the plan, it outlets under, and then it outlets to the wetlands. We don't have any disturbance to wetlands, and because of the detention pond, it is a slight decrease in the stormwater flowing off from the site. We do have some guardrail because there is a bit of a steep slope and we have some guardrail around the utility poles. We got a joint use agreement with EverSource approved. They did relocate one wire, which was a data wire, not a power wire, just to maintain all of the minimum clearances between the maximum vehicle height and the wires.

Mr. Pratt continued we do have a few waivers. Posted is the lot adjustment plan; the Rheault's property is about 10 acres and the church is about 40 acres, so all of the waivers are associated with only doing the majority of the survey in the area of that 1.74 acre transfer. The waiver requests are to avoid doing the boundary of the entire 40-acre parcel, which would be a significant effort. Basically, what we are doing is showing the boundaries based on the reference plans, and since we are not doing any work in that area, my surveyor is comfortable stamping it and not going through that significant effort. Associated with that is a waiver to not do the topography in that area. Again, it is nowhere near the work area; it doesn't affect anything that we're doing, and to save the applicant money to not have to do that. And then we are requesting to not do high intensity soil mapping because it is such a minor project; we are just doing a driveway.

Town Manager Sawyer asked Sheet B-1 that is posted on the screen, is that the only one that is being recorded? Mr. Pratt replied yes, I believe it is. Town Manager Sawyer stated I don't know if you caught it yet or not but I don't see any Planning Board signature block or owner signature blocks on that sheet. I am not sure that you can fit them but maybe with a different scale location or something. Ms. McGinley stated they are on the cover sheet. Town Manager Sawyer responded my concern is that I don't think that is a recordable sheet. Mr. Pratt replied we can add that.

Town Manager Sawyer asked who owns Station Road? Mr. Pratt replied according to the plan it is a non-exclusive 50-foot right-of-way to the Town of Bedford but it is private.

Mr. Cote stated in the staff report it refers to it as the relocation of a commercial driveway. Are you actually relocating a driveway or are you just adding a new driveway? Mr. Pratt replied we are adding an additional driveway. The original driveway is going to stay as is. Smaller vehicles can use it; it is just the excavation trucks that have a tough time with a 14 percent slope. Acting Chairman Newberry asked those vehicles will only be using that access when they are not on a job? Are they in and out of there multiple times a day? Robert Rhealt replied right now if I have to move a heavy machine and hire a lowbed, the church has been good enough to let us pass through their property because there is no way that we can go out that driveway. The vehicles get hung up there. We go around and come in on Station Road by the church on church property and wind up at my garage. Acting Chairman Newberry stated I was looking for a sense of how often the big vehicles are in and out of your property. Robert Rheault replied I haven't moved a big machine in well over a year. Acting Chairman Newberry asked so it is infrequent? Robert Rheault replied yes. Acting Chairman Newberry stated that is what I was trying to get a sense of

Acting Chairman Newberry asked for comments or questions from the audience. There were none.

MOTION by Mr. Cote that the Planning Board grant the waivers from the Town of Bedford Land Development Control Regulations Subdivision Regulations for Section 218.1.5 – Boundary Survey of portions of Lot 23-3 not impacted by the lot line adjustment, Section 218.1.11 – Topographic Survey, and Section 218.1.12 – High Intensity Soil Mapping. Councilor Bandazian duly seconded the motion. Vote taken - all in favor. Motion carried.

MOTION by Mr. Cote that the Planning Board grant final approval of the lot line adjustment between Robert and Roger Rheault, 233 South River Road (Lot 23-98-1) and the International Church of the Foursquare Gospel, 12 Station Road (Lot 23-3) as shown on plans by CLD Consulting Engineers, Inc., last revised September 26, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature:

- 1. The Planning Director and Public Works Director shall determine that the Applicant has addressed all technical review comments to the Town's satisfaction.**
- 2. All recording fees shall be submitted to the Planning Department at the time of recording.**
- 3. A letter shall be submitted to the Planning Department by a Licensed Land Surveyor certifying that all boundary monumentation has been set as noted on the approved plan, or the boundary monumentation may be set and shown on the plan.**
- 4. The Town of Bedford's easement rights to utilize the former Station Road for emergency access shall not be altered or encumbered by approval of the lot line adjustment or site plan amendment.**

5. **The Applicants will provide the Planning Director with an easement to address issues of liability and maintenance due to the encroachment of the International Church of the Foursquare Gospel sign on to Lot 23-98-1.**

Mr. Fairman duly seconded the motion. Vote taken - all in favor. Motion carried.

MOTION by Mr. Cote that the Planning Board grant the waivers from the Town of Bedford Land Development Control Regulations Site Plan Regulations for Section 317.1.4 – Dimensions shown to the hundredth of a foot, bearings to the nearest one second, error of closure not to exceed 1 in 10,000, Section 316.1.10 – Topographic Survey, and Section 317.1.11 – High Intensity Soil Mapping. Councilor Bandazian duly seconded the motion. Vote taken - all in favor. Motion carried.

MOTION by Mr. Cote that the Planning Board The Planning Staff recommends that the Planning Board grant final approval of the site plan amendment for Robert and Roger Rheault, 233 South River Road (Lot 23-98-1), as shown on plans by CLD Consulting Engineers, Inc., last revised September 26, 2016, with the following precedent conditions to be fulfilled within one year and prior to plan signature:

1. **The Planning Director and Public Works Director shall determine that the Applicant has addressed all technical review comments to the Town's satisfaction.**
2. **Prior to the issuance of a certificate of occupancy or use of the site, all site improvements depicted on the plan shall be completed.**
3. **The lot line adjustment plan between Lots 23-98-1 and 23-3 shall be recorded at the Registry of Deeds.**

Town Manager Sawyer duly seconded the motion. Vote taken - all in favor. Motion carried.

IV. Concept Proposals and Other Business: None

V. Approval of Minutes of Previous Meetings:

MOTION by Councilor Bandazian to approve the minutes of the October 10, 2016 Planning Board meeting as written. Town Manager Sawyer duly seconded the motion. Vote taken; motion carried, with Mr. Stanford abstaining.

VI. Communications to the Board: None

Ms. Hebert stated you have a copy of an email from an abutter to the Murphy's Taproom project listing some concerns that we heard at the meeting last month. If you have any questions about that communication, feel free to contact me. Mr. Murphy has been in contact with the abutter since the email was sent to me and has been addressing their concerns.

Mr. Fairman stated there are three things I get out of these. One is the accountability issue, and I wonder who in the Town has the responsibility of enforcing the various rules that we make on this Planning Board. For instance, construction work beginning early. Is that a Police issue? Who enforces those rules? The second is there is an implication here, at least, that we don't get all of the emails that come in from these people. Emails should be considered just like a letter, and if they come in about a concern from an abutter, we should all get copies of them. I don't know if that is true or not but that is certainly suggested in one of the letters. Ms. Hebert stated I would like to clarify that because I think it is actually suggested in one of those letters that the Board doesn't read the communication that is shared by staff. I share all communication that comes through my office with the Board. You get all the emails just like you are getting a copy of this email tonight, which was written to me but it was asked at the end of the email that I share it with the Board. Acting Chairman Newberry stated I think sometimes it may be a question of timing also. There may be things like this email that are not part of a packet. Mr. Fairman stated that is fine, but I just wanted to clarify in my mind that if it was appropriate, there might be emails from an abutter that is not appropriate. If they are showing a concern about a development, then it should be considered like a letter and we get should them. Ms. Hebert responded absolutely. To address your first concern regarding the noise complaints: the Town does not have a noise ordinance on the books, so it is kind of a hybrid issue. The first recourse is to call the Police to have an officer come out and deal with a disruption to the normal peace and quiet of a neighborhood, but we do also follow-up on the construction end, and we asked that the owner and the site contractor be mindful of their construction start time and that they not start before 7:00 AM.

Mr. Fairman stated my final comment is why is the Town Manager required to recuse himself, and that has come two or three times. I thought perhaps it should have been addressed with them at some point. Town Manager Sawyer responded it was addressed after the last meeting. The last time I recused myself before this meeting I made the statement that I was recusing because it was an application of my direct supervisor, and I wanted to avoid the perception that I was playing favoritism in any direction and it was best to step away from the project. Mr. Fairman asked so he should have known that and it has been addressed. Thank you.

VII. Reports of Committees:

Ms. Hebert stated the Performance Zone Subcommittee did meet and they are scheduled to meet again on November 15, 2016. They are discussing potential zoning amendments to be presented to the Board. Acting Chairman Newberry asked at some point they will have a presentation? Ms. Hebert replied yes.

VIII. Adjournment:

MOTION by Ms. McGinley to adjourn at 10:30 PM. Mr. Scanlon duly seconded the motion. Vote taken – all in favor. Motion carried.