BOARD OF SELECTMEN
MEETING MINUTES

February 13, 2006

PRESENT:
Mark Kaplan, Chair, Board of Selectmen
Douglas W. Lyon, Selectman
Ruth I. Clough, Selectman
Jessie Levine, Town Administrator

OTHERS PRESENT:
Bob and DJ Lavoie, New London residents
Don McGuinness, New London resident
Carol Fraley, Finance Officer
Donald F. Bent, Ph.D., Health Officer
Richard Lee, Road Agent
David Seastrand, Chief of Police
Peter Stanley, Fire Chief
Jay Lyon, Fire Captain
Robert Faulkner, PE, Clough, Harbour & Associates
Howard McCulloch, NE Roundabouts
Carolyn Dube, Argus Champion

Chair Kaplan called the meeting to order at 8:00 AM and welcomed Don McGuinness to the meeting. Mr. McGuinness said he had two issues to talk to the Selectmen about. The first is the recent discussion in the Selectmen's minutes about the Transfer Station. He strongly dislikes the idea of asking residents to pay for trash bags. If there are more homes and the amount of garbage goes up, so be it. It is a fact of life that we will have to pay for trash and he would vehemently oppose a pay-as-you-throw program, which would be like a heavy police state. He acknowledged that he does not know the statistics regarding "freeloaders" or people who are using the Transfer Station without permits, but he is not aware of gangs of people who are using the Transfer Station illegally.

Richard Lee said that the average family disposes of 2-3 bags of trash per week. Mr. McGuinness said he and his wife dispose of ten bags per week, after recycling.

Mr. Lyon assured Mr. McGuinness that the Selectmen would gather information, hold public hearings, and get lots of input before proposing a pay-as-you-throw program. If everyone in town feels like Mr. McGuinness, then most likely it wouldn't happen. Ms. Clough said she likes that program because otherwise the costs are being paid by people who put less into the Transfer Station, which isn't fair. Pay-as-you-throw is the fairest thing she can think of, and it causes people who recycle more and be more cautious of what they do. Mr. McGuinness replied that the idea was "preposterous" and he does not buy it at all.

Chair Kaplan asked Richard Lee to provide statistics about use of the Transfer Station. Richard Lee said that 1½ - 2 years ago, the Town monitored use of the Transfer Station after people complained about cars without permits. They found about 50 cars from out-of-town within the first couple of weeks. Recently, the Transfer Station supervisor was given a form to record vehicles that did not have permits, and there

were 20 forms filled out in the first day. Some people do live in town and lost their sticker or chose not to use it. Out of that stack, probably 5-8 cars are from out-of-town. Richard Lee said that we are caught in the middle and are confronted from both sides. The complaints from people who see cars without stickers outweigh people who say we should let it go. If one family uses the Transfer Station without a permit, then that is 1 ton of trash per year.

Mr. McGuinness suggested putting up a bigger sign alerting people to the rules and penalties. Richard Lee said there is a sign that says "permit required," which should be an indicator of what is required. Chair Kaplan said the permits are free and are not difficult to obtain from the Town Clerk's office. If people choose to not display the permits on their cars, then they are causing this problem because they are taking the time of employees at the Transfer Station and causing other residents to complain about their use of the Transfer Station. He said that we are winding up with more than a minimal amount of cars, based on the forms submitted by Richard Lee. Mr. McGuinness said the debate may come down to illegal use of the Transfer Station; he thinks it is minimal, the Selectmen do not. Chair Kaplan said the issue leads to confrontation and confrontation leads to hard feelings, and if stickers wee on the cars this would all go away.

Mr. McGuinness said the same thing happens at Elkins Beach. He sees cars from other towns "but so what, we're not Nazi Germany." Chair Kaplan said that other residents have different concerns and they pay taxes too. Mr. McGuinness said that looking at the amount of tonnage hauled to the incinerator from 1994 to 2004 does not show a big increase overall. Richard Lee agreed but suggested that the recent spike is the result of more homes being occupied by permanent residents.

Mr. McGuinness said he hears more complaints about the Transfer Station being closed on Fridays and Mondays. Richard Lee said the Transfer Station is open to commercial haulers only on Fridays because of the amount of cardboard dumped in the yard that would make regular traffic difficult and dangerous. Friday has been the designated commercial day since the Transfer Station opened in that location. Mr. McGuinness suggested opening on Monday then. Richard Lee said that a few years ago the Selectmen approved the change to close on Sunday and Monday to allow those employees two days off in a row and one of them being a weekend day to allow them time with family. This has reduced turnover of Transfer Station staff. Mr. McGuinness said Friday to Monday is a long span and he thinks the Transfer Station should be open more. The Selectmen reminded him that it is open on Saturdays, and to open more would require overtime or an additional employee, since the Transfer Station employees work full-time as it is.

Mr. McGuinness then turned to his second issue, the condition of Old Main Street. He said the road is deplorable, despite the fact that the Highway Department is always there and working on it. Two days after it is grated, it is full of potholes again. Richard Lee said that this winter has been particularly hard on the roads and the amount of traffic on Main Street adds to the problems. Mr. McGuinness suggested putting up a speed limit sign and enforcing the speed limit. He said we have been talking about the condition of Old Main Street for years. Richard Lee said the last time the residents on the road were polled, they did not want Old Main Street paved. Mr. Lyon said that when residents on Stoney Brook Road wanted the road paved, they came together in agreement, and that hasn't happened on Old Main Street. Mr. McGuinness said Old Main Street is different because of its curves; people are using it all of the time and it does not work.

Richard Lee said he would try to use different material and see if it holds better, but with the freezing and thawing that has occurred this winter, all of the Town's roads are in rough shape. In the summer, Old Main Street washboards because of the speed and traffic. Mr. McGuinness said in the long run, it will be cheaper to pave. Richard Lee said it would be complicated to pave Old Main Street because we would have to negotiate with property owners to take land to wide the road at the curve. Jessie Levine asked if the rock would have to be blasted and Richard Lee said blasting would be required. Mr. Lyon said if the

majority of residents don't want the road paved, then the Town wouldn't pave it. Mr. McGuinness questioned if that would be for the public good.

Chair Kaplan said that the road has suffered because of the increased traffic using it as a short cut. If the Town were to pave the road, there would be twice as much traffic because it would be a faster shortcut, and police would be busier and busier on the road. Bob Lavoie said it is very dangerous to go the speed limit on the curves because of the washboard. Ms. Levine said one might have to slow down to negotiate the road, which is better for the road and for drivers. Richard Lee said he would be willing to put the car counter on the road to see how much traffic uses the road, but repeated that paving would require taking property because the road is not wide enough in all spots to accommodate shoulders and ditches.

Mr. McGuinness said that he does not think the majority wants the road paved, and Mr. Lyon suggested that he find out from his neighbors. Richard Lee said he could draft a letter to property owners inquiring as to their position. Mr. McGuinness said he does not care whether or not it gets paved; he just wants it improved. Richard Lee said he would try more and different material on the top, but the biggest factor is the speed and amount of traffic. He said that except for the dead ends, every gravel road is being used more and more.

Chair Kaplan thanked Mr. McGuinness for meeting with the Selectmen this morning and for serving as a representative to the NH/VT Solid Waste District. Mr. McGuinness said the meetings are getting easier and he looks forward to the end of the contract in 16 months.

Landfill Repair: Ms. Levine asked Richard Lee to explain the three landfill repair options proposed by Nobis Engineering. Richard Lee said the first option, which costs $100,000, would focus on only the 10,000 SF that failed. It assumes that the smooth liner would stay in place and the remainder replaced in kind. Option two, which would cost $180,000, would replace-in-kind the entire ½-acre portion that had not been touched after the previous slips. This would leave the smooth liner in place and repair the perimeter drain.

Richard Lee said both options run the risk of damaging the smooth liner, which would be expensive to replace. Bob Lavoie said that it seems like leaving the smooth liner in place, as in options 1 and 2, could run the risk of failing again. Richard Lee said he would have to agree with that, and option 1 does not include the repair of the toe drains. Bob Lavoie said it is his understanding that the landfill failed because of a combination of lack of drain and the smooth liner.

Chair Kaplan asked why we are using the smooth liner if that is the problem. Richard Lee said that was specified in the original design and turned out to be wrong. He said this is the last piece of the landfill with the smooth liner, and it is the part that failed.

Richard Lee then described the third option, which is recommended by Nobis and will cost $250,000. This would remove the smooth liner, replace it with a textured liner, and then place geocomposite material and sand and loam, as well as repair the perimeter drain. Ms. Levine asked if that option mimicked the earlier repairs, and Richard Lee said that it did.

Ms. Clough asked what geocomposite material was, and Richard Lee explained that it is the same material that was used in Stoney Brook Road. It drains water into the anchor trench and away from the landfill. Ms. Clough asked where the drains outlet currently, and Richard Lee drew a diagram showing the landfill drainage.

Richard Lee said he had proposed putting the geocomposite on top of the smooth liner, but Nobis fears that there will not be enough weight at the top of the landfill to hold the geocomposite in place. FEMA thinks that it would be sufficient to fill the crack created by the recent failure, and increased their estimate of the repairs from $7,800 to $11,000, of which they would reimburse 75%. FEMA says that it cannot

find the law that requires an engineered design of the repair, but the Department of Environmental Services said that it would not accept a design without a stamp by a professional engineer. Richard Lee said FEMA thinks its obligation is to replace what's there, even though they paid for the bulk of the previous storm-related repairs. He will continue to appeal their decision.

Mr. Lyon said if the design was faulty and the engineer contributed to the repairs last time, why are they not still responsible? He wondered whether the Town signed off on further repairs at the time and asked Ms. Levine to talk to town counsel about it.

Chair Kaplan said regardless of how we fix it, he thinks we should avoid the smooth liner. Richard Lee said that would leave option 3, for $250,000. Mr. Lyon said we have been messing around with this for years, and the landfill has been fine where the textured liner has been installed and it would be intelligent to do that in the remaining area and get it done right. Richard Lee said the smooth liner slipped after the first year of closure and then slipped two more times; he said that the smooth liner is not allowed in designs in NH anymore.

Carolyn Dube asked why only ¾ of the landfill was fixed last time, and Richard Lee said that given the slope and height difference in that part of the landfill, the engineers did not think that it would slip. The grade is not as steep at this end of the landfill as in other areas. Mr. Lyon said he expects that FEMA would only pay to replace what had failed so funds were probably limited at that time.

Chair Kaplan said he thinks that if we spend $100,000 or $180,000, we could be back here again in a few years. Richard Lee said FEMA would unlikely pay for 75% of $250,000; they would only pay 75% of that portion that they think is reimbursable. Even if they approved the $100,000 figure, they would not pay 75% of the cost. All agreed that we should try to recover as much as possible from FEMA, regardless of the option chosen.

Mr. Lyon said it sounds like the Selectmen want to fix it right even for the higher cost. Chair Kaplan and Ms. Clough agreed.

<u>Public Hearing on the $250,000 bond for landfill repair</u>: The Selectmen were joined by Carol Fraley, Finance Officer. Chair Kaplan opened the hearing on the proposed $250,000 bond for landfill repair and read aloud the notice of public hearing. Ms. Levine referred to warrant article #4 on the draft warrant:

> To see if the Town will vote to raise and appropriate a sum not to exceed $250,000 (two hundred fifty thousand dollars) for the purpose of engineering and constructing the repair of the Mountain Road landfill, which was damaged in the October 2005 rains, and to authorize the issuance of not more than $250,000 (two hundred fifty thousand dollars) of bonds or notes in accordance with the provisions of RSA 33 and to negotiate such bonds or notes and to determine the rate of interest thereon, and to further authorize the Board of Selectmen to apply for, accept and expend any federal, state or other available funds towards the project, according to the terms under which they are received and to borrow in anticipation of receipt of such aid. *The Board of Selectmen and Budget Committee recommend this article.* (2/3 ballot vote required.)

Chair Kaplan opened the hearing for comments. DJ Lavoie said the last discussion referred to legal issues and FEMA reimbursement, and she asked how those funds would affect the amount of the bond. Ms. Levine said this warrant article asks for permission to spend the entire $250,000 cost of the repair, and borrow the amount needed to cover the costs after other funds have been received. She said that FEMA will unlikely reimburse immediately but the repairs will need to be done, so this allows us to spend in anticipation of receiving funds from elsewhere. Once we are reimbursed, we can use those funds to pay off the principal of the loan.

Chair Kaplan explained that with the last project, the Town went to the local banks rather than the NH Municipal Bond Bank to bid on loans to the town. In addition to the lower rates offered by the local banks, the line of credit allows the Town to draw down funds as needed rather than taking out the entire bond. This costs less for the Town in the long run and allows the Town to repay the loan early if offsetting funds become available. Ms. Fraley said borrowing from banks also reduces the legal fees, as bond counsel has to get involved when borrowing from the bond bank.

Bob Lavoie asked if the FEMA contribution would go towards surplus, and Chair Kaplan clarified that it would be used to repay the bond.

Ms. Levine said the Selectmen have not discussed the length of the note, and said the Sewer Commission had opted for a 10-year note for its $275,000 bond. The Selectmen were unanimous in choosing a ten-year bond. Bob Lavoie asked if the Town went for the competitive price, and Ms. Levine said yes, the Town will go out for bid with the area banks. Mr. Lavoie asked if the construction costs were fixed, and Ms. Levine said it could vary based on the engineer's cost or construction bids, but the Town will not be able to spend more than $250,000 if that figure were approved by Town Meeting.

Chair Kaplan said that a loan of $250,000 for 10 years would cost the Town about $25,000 per year, plus interest. Ms. Fraley said the costs would not show up until 2007. Mr. Lyon said a $250,000 loan for ten years at 4.5% would cost $31,091.52 per year, including about $6,000 in interest. Interest over ten years will add $60,000 to the cost of the bond.

Mr. Lyon moved to put the $250,000 bond on the warrant and ask the voters to approve it at Town Meeting. Chair Kaplan amended the motion to include the ten-year note and the motion was approved 3-0.

Mosquito Control: Chair Kaplan thanked Donald Bent for his patience and indulgence this morning. Dr. Bent said that he had asked to come back to the Selectmen because on Friday he received the permit application from the Town of New London to the NH Division of Pesticide Control (DPC). He said the DPC is the strictest of all state agencies, and the permit takes 120 days from application to approval because it has to be reviewed by the Department of Environmental Services, the Department of Resources and Economic Development, Fish & Game, Agriculture, the Department of health and Human Services, and finally back to DPC. The permit has been filled out by Municipal Pest Management Services on behalf of New London. The permit can only be filled out by the licensed applicator.

Dr. Bent asked the Selectmen who should sign the application on behalf of the Town, and the Selectmen authorized him to sign it. Ms. Levine asked for a copy of the signed permit. Dr. Bent said this is not a contractual obligation, but the permit goes with the applicator. Therefore, if the Town decides to change vendors it would have to reapply for the permit. Ms. Clough asked if the cost of the permit application was incorporated into the cost of the project. Ms. Levine said that is her understanding. Dr. Bent said the owner of MPMS would be here on February 27 at 9:00 AM and suggested raising the question with him.

Ms. Levine suggested that Dr. Bent talk to the Conservation Commission about the application. She also suggested talking to Peter Stanley and Colby-Sawyer's Community and Environmental Services, who had a good knowledge of the Town's wetlands.

Bob Lavoie asked if the project would go forward if Town Meeting voted against it, and Ms. Levine said it would not. Bob Lavoie asked if there would be an advantage to approaching other towns and doing the work together, and Ms. Levine said that had there been time, it would have been a good idea. Since all towns have closed their budgets now, it is too late. DJ Lavoie asked Dr. Bent if he would present information at Town Meeting, and he said it would have it available if asked.

Dr. Bent departed at 9:30 AM.

Meeting Minutes: Mr. Lyon moved to approve the minutes of February 6, 2006. Second Ms. Clough and approved 3-0.

Budget Committee Recap: Mr. Lyon pointed out that all of the Selectmen were present at the Budget Committee hearing on February 8, so Ms. Levine summarized the meeting for Ms. Dube. She said that the Budget Committee had approved the addition of $33,200 to the budget for mosquito control, which will be a separate warrant article at Town Meeting. Ms. Lavoie said at the public hearing, Mr. Lyon had said the Board of Selectmen had voted not to recommend the petitioned warrant article to increase the Veteran's Credit, and asked when that vote had taken place. Ms. Levine said she thought it was at one of the Selectmen's meetings following receipt of the petitioned warrant article. Mr. Lyon said he recalls the discussion favoring staying at the $200 that the Selectmen recommended in 2005, but he does not recall if a formal vote had taken place. Ms. Lavoie said she does not recall the discussion, and asked why the Selectmen object to an increase. Mr. Lyon said that the increased credit adds a significant amount to the tax rate for a program that does not have majority support, as indicated by the vote at the last Town Meeting. Bob Lavoie asked if Mr. Lyon had asked the 370 or so vets who applied for the credit what their opinion is, and Mr. Lyon said he has spoken to veterans and non-veterans who support and oppose the credit.

Chair Kaplan said that his opinion is based on the history of what happened last year and nothing has happened since to change his mind. The voters had the opportunity to increase the credit to $500 and did not. He said he would assume that those receiving the credit are in favor of it but the majority at Town Meeting did not want it and voted against it. Ms. Clough said there was a consensus based on the last vote and [the Lavoies'] constituency wants to bring it back before the voters, which is fine.

Bob Lavoie asked what number was used in calculating the impact on the tax rate, and Ms. Levine said she used the number that had subscribed to the program as of the fall billing. Bob Lavoie asked if there had been a change after the increase to $200 and Ms. Levine said that there had been an increase of eight or so.

Ms. Levine asked the Selectmen if they wanted to take a formal vote now, and Mr. Lyon moved to recommend staying with the $200 credit. Ms. Clough seconded and approved 3-0.

Bob Lavoie asked the Selectmen if they planned to speak against the petitioned article. Ms. Levine suggested informing voters about the tax impact of increasing to $500. Mr. Lyon said because this is an emotional issue for some folks, he did not want it to be seen as a veterans vs. non-veterans issue. DJ Lavoie suggested that the Selectmen present their objection, which is the cost, and not use statements about veterans or non-veterans. Ms. Levine said that sounds fair as long as that is what is presented in support of the petition as well. Ms. Lavoie said it should stay on a level playing field so as not to become emotional between the presenter of the petition and the Board of Selectmen. Ms. Clough said that she does not think it is an emotional issue; the Selectmen know where she is coming from and she knows where the Selectmen are coming up.

Bob Lavoie asked if the mosquito funds had been added to the budget, and Ms. Levine said that it had. Mr. Lyon said it is not clear that there was overwhelming support to put the funds in the budget but the state is recommending the action this time and it is difficult to know how much money to spend to offset the risk associated with doing nothing. Chair Kaplan said there is a meeting here on February 27 to ask questions of the vendor, at which time we can ask if we will spend the whole $33,200 or some reduced amount. Bob Lavoie suggested that the handout for Town Meeting show increments that could be spent so that it's not presented as all or nothing. He said $33,000 might be over the top but maybe there is a cheaper way to monitor the risk. The Selectmen agreed.

Newport/County Road Intersection: At 10:00 AM, the Selectmen were joined by Rob Faulkner of Clough, Harbour Associates, Howard McCulloch of NE Roundabouts, and department heads Richard Lee, David Seastrand, Peter Stanley (at 10:30 AM) and Jay Lyon. Also present were Bob and Rita Cricenti.

Mr. Faulkner and Mr. McCulloch gave a PowerPoint presentation (slides available on-line at www.nl-nh.com). Mr. Faulkner gave a brief overview of the history of this intersection and the schedule of the current project, and said the engineers' goal is to build consensus towards a final design for this intersection.

He then explained the terms used for this project: level of service (LOS); design year; design vehicle, etc. He explained that his firm conducted a traffic count on December 21 and counted 1200 cars during the peak hour of 3:00-4:00 PM. Using information from the state Department of Transportation, this figure was increased to 1300 per peak hour for summer traffic. Now, the intersection has a level of service F from County Road onto Newport Road, which is a failing grade. He listed other concerns about the intersection raised by department heads and/or abutters to the intersection.

He said there are short-term solutions that could be addressed, such as changing the speed limit on Newport Road heading west, which he understands is underway; using a portable radar trailer, which he has also seen being used; adding a speed limit sign heading north on County Road towards Route 114; creating better signage for the Hospital; and adding a no parking zone on County Road behind Colonial Pharmacy.

Long-term, Mr. Faulkner said solutions should focus on improving the capacity and level of service of the intersection; making the intersection safer for pedestrians and vehicles; and creating a downtown village theme. He reviewed the four alternatives that have been discussed: a four-way stop sign; a two-way stop with pedestrian actuated signals; a traditional traffic signal; and a modern roundabout. He said the first two options failed on level-of-service so were not analyzed further. He then showed the design criteria used for the project: 30-35 MPH traffic speed; 11' minimum travel lane plus 5' shoulder/bike lane and 5' sidewalk.

Mr. Faulkner showed two concept plans, starting with the traffic light design that also showed medians on Newport Road to break up and delineate the turning lanes into the Shopping Center and Post Office. Bob Lavoie asked how the medians would affect traffic turning into Jake's Market and the Sugar River Savings Bank, and Mr. Faulkner said that should be investigated during final design but he would hope the opportunity could be used to create a single accept point between those properties. He explained that with this design the intersection would remain as-is but a signal would be installed. He said the level-of-service of the intersection would be as follows:

	Year 2007	Year 2027
Traffic count during peak hour	1300	1585
LOS: exclusive pedestrian signal	C	C
LOS: non-exclusive pedestrian signal	B	B

Mr. Faulkner explained that the exclusive pedestrian signal means that traffic would stop in all four directions when a pedestrian presses the walk button. The non-exclusive signal means that pedestrians would cross with traffic. Chief Seastrand suggested that the lane barrier be moved towards Jake's and Sugar River, and Mr. Faulkner said that is possible although it would prevent a left turn into and out of Jake's onto Newport Road, and the barrier would have to end to allow a left turn into Sugar River. Ms. Clough asked how people would exit Jake's if that turn were removed, and Mr. Faulkner showed that they would exit onto County Road. Chair Kaplan asked how they would get into Jake's, and Mr. Faulkner showed how traffic would enter from County Road. Chair Kaplan asked what would happen if a driver

forgot and continued on Newport road, and Mr. Faulkner said they would have to turnaround and come back, which they would have to do now.

DJ Lavoie asked if the traffic signal option would allow for changing the timing of the light depending on circumstances. Mr. Faulkner said that it would, but for this intersection Newport Road would be the preferred green until traffic on County Road triggered the signal based on wires in the pavement. Chair Kaplan asked if the light could be turned off to blink yellow at night, and Mr. Faulkner said that typically it would remain green and red to send a consistent signal to drivers.

Mr. Lyon said the LOS figures indicate that the intersection does not degrade over 20 years. Mr. Faulkner said that it does degrade but stays within the range for that level of service (the range for LOS C is a wait between 20 and 35 seconds). Mr. Faulkner said that when the light was considered in the mid 1990s it would have been the first signal in New London and there was a concern over the detraction from the rural character. He showed the architectural choices for traffic signals that include fluted lights. The control cabinet can also be treated. Ms. Levine asked where the control cabinet would be located and Mr. Faulkner said it would be in one of the four quadrants within view of the intersection so the light could be seen from the cabinet.

Mr. Faulkner then showed the intersection design with the roundabout. It would be a single lane roundabout with a center island and raised truck apron. He showed that the crosswalks have splitter island, which allow pedestrians to cross one lane in the gaps in traffic and have a safe refuge before crossing the next lane. He showed how the roundabout allowed drivers to reverse directions and make legal U-turns. The roundabout would require some right-of-way acquisition behind the pharmacy and in front of Jake's, which are slightly outside the Town right-of-way. Otherwise all that would be needed would be slope easements. The residents of Hilltop Place indicated their willingness to let the Town use property for the sidewalk in order to save the large maple tree along the side of the road.

He showed that the roundabout would have a LOS of B now and in the design year:

	Year 2007	Year 2027
Traffic count during peak hour	1300	1585
LOS: Roundabout	B	B

Mr. Faulkner then turned the presentation over to Howard McCulloch to give statistical information and case studies on roundabouts. Mr. McCulloch said he is the roundabout design specialist for New York State Department of Transportation and they allowed him to form his own company, NE Roundabouts, to do side consulting on roundabout design. He sits on national panels that consider lane markings for roundabouts and accommodations for the visually impaired. He said for one-lane roundabouts there is no question that it is the safest for pedestrians. For two lane roundabouts experts now recommend a pedestrian signal.

He said that when a roundabout was being constructed in Vail, Colorado, skeptics said that it worked in Europe but would not work with American drivers. The city built it anyway, and it has been voted the best public works project for five years straight. He said that during the process of introducing the roundabout, the city needed data and turned to the Insurance Institute for Highway Safety (IIHS), which had investigated 33 roundabouts in eight states. The IIHS study showed that in these intersections that changed from some other design to a roundabout, motor vehicle crashes were reduced by 39%, and crashes that resulted in injury went down 75% (this in large part is due to the elimination of broadsiding at 40 MPH). The roundabouts also reduced accidents resulting in fatalities and incapacitating injuries by 89%. He said there have been no fatalities at roundabouts in the United States. Even in France, which has a total of 30,000 roundabouts and adds about 1000 roundabouts per year, there have been two fatalities a year. It is by far the safest at-grade intersection possible.

His second slide showed why roundabouts are safer. In a signalized intersection, there are 24 possible conflict points between vehicles and pedestrians, and 32 vehicle-vehicle conflict points. An exclusive pedestrian phase is safer for pedestrians but degrades the service of the intersection. A lot of people think the are safe if they are crossing in a crosswalk, but 5000 pedestrians are hit every year and over 1000 pedestrians are killed annually while legally crossing in a crosswalk. That is three times per day.

He showed the roundabout design, which has eight pedestrian-vehicle and eight vehicle-vehicle conflict points. There is much lower time of exposure for pedestrians and vehicles are travelling at a much lower speed. He showed the roundabout constructed in Montpelier in 1995, which is 300' from a public school that has very little public transit. He intersection handles 800 pedestrians per day, 600 of which are kids. It also handles 13,000 vehicles per day, about the count of the Newport-County Road intersection. There have been four crashes in ten years, one of which was with a police vehicle. Before the roundabout, there were five crashes per year in that intersection. Of the four crashes, only one resulted in injuries. There are now more than 45 roundabouts near schools across the United States. Usually roundabouts are prevented due to right-of-way problems, and we do not have that obstacle here.

Mr. McCulloch recommended a 12-minute video filmed by the Wisconsin Department of Transportation on using a roundabout, which includes interviews with police and fire. His next slide showed roundabout safety data from the State of Maryland, which he said "loves roundabouts." The first roundabout was installed in Lisbon, Maryland, 13 ears ago. A temporary roundabout was installed and then made permanent after public opinion support it (he would not recommend a temporary roundabout being used anywhere). He said that comparing pre-roundabout to post-roundabout intersections in Maryland showed the following statistics: 68% reduction in crashes; 41% reduction in property damage by crashes; 86% reduction in crashes resulting in injuries; 100% reduction in fatalities. He added that Maryland also did a cost-benefit analysis, and found that there was a $15 return for every $1 spent in roundabout projects, and he has yet to see a signalized intersection do better than that.

His next slide, from the Lineville Road Roundabout Study in Brown County, Wisconsin, explained why roundabouts are safer for pedestrians: there are fewer conflict points, as previous mentioned; vehicles are forced to move slowly to negotiate the roundabout (if they are even driving 25 MPH they would hit the center island or the outside of the roundabout); drivers have to pay attention when approaching a roundabout, which eliminates non-attentive driver problems; and pedestrian exposure to traffic is lower because pedestrians are in the crosswalk for four seconds at a time as opposed to 10 seconds with a signalized intersection.

He noted that there are skeptics to the success of the roundabout, and said that IIHS studied public acceptance and found that before the installation of roundabouts, 41% of those polled were opposed to the roundabout and 31% were in favor. After installation, 63% favored the intersection and 15% opposed it. Nine out of ten projects have successful installation of roundabouts; the only failures are attributed to right-of-way difficulties. He said that many people oppose roundabouts without knowing what they are. For example, the Cape Cod circle is often brought up as an example of a bad roundabout, and he said that design is far from a roundabout. Massachusetts has many rotaries, and the only thing they have in common with roundabouts is that they are round.

He said other roundabouts that have failed include: Clearwater, Florida, where the roundabout did not address the town's parking shortage (there were 4,000 parking spaces for 50,000 cars, so cars would wait in the roundabout for parking spaces); Claremont, California, where two lanes were needed but only a one-lane roundabout was constructed; and Las Vegas, where three-lane roundabouts were constructed, which allow higher speeds (Nevada DOT is now building only two-lane roundabouts). Of the approximately 1000 roundabouts in the United States, only three or four have not been successful.

Bob Lavoie asked if the IIHS study focused on one-lane or two-lane roundabouts, and Mr. McCulloch replied that the studies included both. The one-lane roundabout is the safest at-grade intersection, and a three-lane roundabout has the same accident rate as a signalized intersection.

Mr. Lyon said he had found a website called Alaska Roundabouts that is very informative. Mr. McCulloch agreed, although he added that Alaska had not striped its two-lane roundabouts. He said the Brattleboro roundabout also did not have striped lanes, which makes it much harder to negotiate and people use it as a one-lane roundabout, causing problems. Mr. McCulloch said the Newport/County Road intersection only needed a one-lane roundabout, and he equated it to the ease of taking a right-turn out of your driveway, which people do every day.

Ms. Clough asked how roundabouts handle bicycle traffic, and Mr. McCulloch said that the best method is for the rider to "claim the lane," but that riders could also dismount and walk across the crosswalk. Mr. McCulloch presented testimonials from Vail and from Montpelier, and concluded his presentation.

Mr. Faulkner said he had asked Mr. McCulloch to come today because people are unfamiliar with roundabouts. He said he has been accused of being bias in his presentation but there is simply more discussion related to the roundabout option. He presented a matrix that summarized the comparison between the two options:

	Traffic Signal		Roundabout	
Level of Service (LOS) PM Peak	2007	2027	2007	2027
Exclusive Phase	C	C	B	B
Non-Exclusive Phase	B	B		
Pedestrian Accommodations				
Exclusive Phase	Protected		Unprotected	
Non-Exclusive Phase	Semi Protected			
Emergency Preemption	Provided		Not Provided but accommodated	
Construction Duration / Traffic Disruption	1 season / minimal		1 season / significant	
Aesthetic Impacts / Considerations	Can be somewhat mitigated		Positive	
Capacity Flexibility	Some – with timings		None	
Construction Costs	$510,000		$625,000	
Environmental Considerations	minimal		Improved Air Quality	
Right of Way Impacts	Easements		Some Acquisition	
Safety				
Speed / Traffic Control	Controlled by signage / signal / enforcement		Controlled by signage / geometry	
Accidents / Severity	Reduced Improves pedestrian access		Statistically better than traffic signal	
ADA Regulations	Can be fully accommodated		Issues with visually impaired	
Intangibles	User Familiarity		Unfamiliar / can be initially intimidating	

Mr. Lyon asked Mr. McCulloch if the statistics reflected comparisons between uncontrolled intersections and roundabouts or controlled intersections and roundabouts. Mr. McCulloch said that the statistics included both, and broken down there were five intersections with signals that changed to roundabouts, and those resulted in 30% reduction in accidents and 60% reduction in injuries.

Mr. Lyon said his second question related to Mr. McCulloch's experience with plowing roundabouts. Mr. McCulloch said roundabouts are all over Europe and out west. Roundabouts can be plowed like a cul de sac, pushing snow to the outside and making more than one pass. He said the New York State DOT website has a video on plowing roundabouts. He said that in New York they are now banking the truck apron in so that drainage flows into an interior joint and is piped out of the intersection. Therefore the only snow melt is from the roadway itself, and this also helps trucks turn because they tip inward instead of outward. He said the splitter islands often make snow removal difficult.

Ms. Levine said that at a meeting last week, the question had been raised about the effect of a roundabout on people exiting nearby businesses. She assumes a traffic light would stop traffic, giving people a chance to exit the shopping center or the Gallery, whereas a roundabout would slow traffic. Mr. McCulloch said the traffic speed is reduced, but it still creates bunches and gaps that would allow people to exit nearby driveways. He said as long as the exits are within the area affected by the roundabout speed, it would have a positive effect. That area is 5-800 feet away from the roundabout. Bob Cricenti asked if the roundabout would have signage, and Mr. McCulloch said that there is standard signage recommended by the Manual on Uniform Traffic Control Devices (MUTCD). These are black and yellow signs starting about 300' from the roundabout.

Mr. Faulkner said that with either option, the sidewalk will be constructed on Newport Road, which will cut down on the vast expanse of pavement (he said one could almost squeeze in five lanes of traffic there). With the sidewalk and the median strips, this should create visual friction, which would have a traffic calming effect.

Ms. Clough asked the department heads for their feedback, having seen the presentations and having met with the engineers. Chief Seastrand said he has not been a big fan of the roundabout primarily because he is unfamiliar with it. He had concerns but it is hard to argue with the numbers. He questions how an obstruction in the middle of the road can create pluses, but it is hard to argue with the statistics but the issues are the ones he was concerned with: unfamiliarity, pedestrians, and bicycles. He thinks a traffic signal would help with gapping at the shopping center and this end of town, and his concerns will be there until it opens. He added that we need to do something at that intersection, because it is not working with its current design.

Chair Kaplan asked Chief Seastrand what the accident statistics were at that intersection. Chief Seastrand said there are about six serious accidents there every year and another 25 or so that are minor or cause minor property damage.

Richard Lee said that there will be a maintenance issue either way; they would have to go through the signal and then turn around at Hayward's or somewhere else. He likes the fact that with a roundabout they can loop around and go back in the other direction. He agreed that the roundabouts could be plowed to the outside but said that with the angle of the plow that would clear only 5' per pass. The Highway Department clears cul de sacs in both directions, plowing 2/3 one way and 1/3 the other way. He had been concerned about the older folks but during the meeting at Hilltop only one person didn't understand the traffic pattern. He said he is "kind of country," and he doesn't like signals but thinks we have to do something. He added that in the middle of the night they would just plow in the opposite direction to clear the roundabout quickly.

Peter Stanley said the Fire Department wanted to make sure it could negotiate the proposed radius so they set up a mock roundabout using the design criteria and were able to go around multiple times, doing 360 degrees without trouble. He said motor vehicle accidents are the fastest growing categories requiring police and fire responses, and anything that could reduce that number would be a cost savings to the town. He said he would love to see one at Crockett's Corner. He said the Fire Department cannot do a 180-degree turn anywhere in town now, so they would love to have that ability.

Ms. Clough asked about the roundabout on Lyme Road in Hanover, and Peter Stanley said that one is very small. Bob Cricenti said the proposed diameter of 110' seems huge, and Howard McCulloch said in New York State they will not install a roundabout in less than 105' because the WB 67 (53' tractor-trailer) cannot get through.

Ms. Clough asked at what point a two-lane roundabout is recommended. Howard McCulloch said for a four-leg intersection, we would need 2500 vehicles per hour before a two-lane roundabout was warranted, which would almost double the current hourly traffic. He said if this roundabout needed more capacity, the next step would be a signal on the main line to allow cars to enter from the side street. However, he would never expect the volume at this intersection to reach that. He said a roundabout was installed in Greenwich, New York, to handle traffic at the fairgrounds. Before the intersection, police had to staff the roundabout and there were backups for one mile. Now, it takes 28 seconds to get through the intersection and on the worst days there is a ten-car queue.

Chief Seastrand asked if there would have to be signage to prevent wide loads from attempting to use the intersection. Mr. McCulloch said wide loads are usually only allowed on state permitted routes and there are very few sites where he would suggest using that as a design vehicle. This design could accommodate the 53' tractor-trailer.

Mr. Lyon asked if there are other websites that are recommended, and Mr. McCulloch recommended www.highwaysafety.org, alaskaroundabouts.com, Kansas State University, and RoundaboutsUSA.com.

Mr. Faulkner noted that the preliminary cost for the roundabout does not include utility relocations (water or sewer, if necessary) or engineering costs.

Ms. Levine said that the public hearing will be on February 27 at 7:00 PM at Tracy Library.

Building Permits:

- NONE

Sign Permit Applications:

- NONE

Other Items for Signature:

- Disbursement and Payroll Voucher for the week of February 13, 2006 – Approved

There being no further business, the Board of Selectmen adjourned the meeting at 12:00 NOON.

Respectfully submitted,

Jessie W. Levine
Town Administrator