These minutes were approved at the October 29, 2008 meeting.

DURHAM PLANNING BOARD
MONDAY SEPTEMBER 24, 2008
DURHAM TOWN HALL - COUNCIL CHAMBERS
MINUTES
7:00P.M.

REGULAR MEMBERS PRESENT:	Chair Bill McGowan; Vice Chair Lorne Parnell; Secretary Susan Fuller; Steve Roberts; Richard Kelley; Councilor Julian Smith
ALTERNATES PRESENT:	Wayne Lewis: Kevin Gardner; Councilor Gerald Needell
MEMBERS ABSENT:	Richard Ozenich

I. Approval of the Agenda

Chair McGowan noted that this would be a quarterly planning meeting of the Planning Board. He appointed Mr. Lewis as a voting member in place of Mr. Kelley.

Susan Fuller MOVED to approve the Agenda. Steve Roberts SECONDED the motion, and it PASSED unanimously 7-0.

II. Transportation Model

Chair McGowan said the meeting would be devoted to the Durham/UNH transportation model that had been developed.

Mr. Campbell provided some background on the development of the model. He said the Town and the University had started talking about this collaborative effort in March of 2007. He said a working group was created, which included himself, Mr. Kelley, UNH planner Doug Bencks and a Steve Pesci, a UNH special projects director. He said the goal of the group was to develop a transportation/land use model that would allow an objective analysis of the impacts of land use changes and development scenarios on the Town's traffic patterns, road networks, etc.

He said the model would be useful for the Town and the University to have when looking at developing new roads, changes to traffic patterns, etc. He said the model would be developed and maintained by the Resources Systems Group (RSG), which had over two decades of traffic modeling experience. He noted that they had done work for Burlington, VT, Dartmouth, Meredith, NH and New Paltz, NY. He also said they had done regional traffic models for Strafford and Rockingham Counties, and said this work would tie in well with Durham's micro-simulation model.

Mr. Campbell said many people had helped gather the information for the model, including the Strafford Regional Planning Commission, University students, staff from the University, and two Planning Board members. He said that overall, there had been 80 different counts, and said the Town and the University had split the cost for this. He said updates would need to be done every five years, and also said that any time the model was run, it would be paid for by the entity that requested it.

Mr. Campbell said that if the Town wanted to look at something like the Northern Connector, it would be the entity to request this. He also said the traffic model could be run for large scale development proposals, and would therefore be an effective tool for the Town and the Planning Board. He said once the final model was accepted by the Town and UNH, the model could be run for Mill Plaza and other areas.

Bob Chamberlin of RSG next went through a slide presentation, first presenting background information on his company and its work, and noting that they had a wide range of clients. He explained that the model showed how traffic was generated, and how vehicles traveled through a roadway/intersection network.

He said it could answer a range of questions, including how a proposed development would affect traffic in local areas; and how traffic would respond if a new road was built, a new traffic signal was installed, a new roundabout was constructed, the traffic pattern changed from two way to one way, etc.

He described a recent project concerning NH Route 3 in Meredith that evaluated the corridor, and looked at various roadway geometries that were possible to manage congestion. He said this ultimately had lead to alternative intersection designs, and these were used to inform the overall corridor transportation improvement plan.

Mr. Chamberlin also described the company's development of a land use/transportation model for a partnership of the University of Vermont in Burlington and Fletcher Allen Health Care. In addition, he described the company's work with a partnership between the town of Hanover, NH and Dartmouth College to develop a land use/transportation model.

He said this model was used extensively to evaluate the College's development plans, including new dorms, athletic facilities, dining halls, park and ride lots, etc. He said the model was also used to evaluate town facility location decisions, and was also used on an ongoing basis to evaluate private development proposals.

Mr. Chamberlin demonstrated an aerial view of the micro-simulation model, as well as a streetscape view for the town of New Paltz, NY. He said the model was developed to look at land use/transportation over a long time period, and was integral to the long term Master Plan being worked on by the Town.

He then discussed the modeling that was developed for Durham. He said it was calibrated to represented the 2008 peak am hour, from 7:15-8:15, which had been determined to be the time of greatest congestion. He said 80 separate counts were done at this hour.

He explained that although the counts in the peak am and peak pm hours were similar, the am counts were thought to be more significant because they included general commuter traffic, UNH commuter traffic, and also school generated traffic. He noted that now that there was a base model, using the peak am data, it would require considerably less effort to work with the peak pm data as well.

Mr. Chamberlin spoke in greater detail about the model. He said that with the model, the Planning Board could plug in the number of units proposed for a particular development, and then see the amount of traffic that this would generate, as well as how this would play out in the Town's road/street network.

He explained that the model was calibrated to 400 traffic counts that had been done recently, and said this calibration would therefore reasonably reflect actual conditions.

Mr. Chamberlin also spoke about the regional traffic model that had been developed, and said his company had maintained it for several years. He said it was meant to answer big picture infrastructure questions, whereas the micro-simulation model for Durham contained much more detail and resolution. He also said the data from the regional model informed the micro model.

He next spoke about the Town's Traffic Analysis Zones (TAZ's). He said there were 13 UNH zones; 31 Durham zones; 11 shared/joint zones; 13 external zones; and also 23 reserve zones that could be added for analyzing specific issues/projects. He said there was a variety of data for each of the zones, including land uses, parking, employment, etc..

Using Mill Plaza as an example of a TAZ, he showed how this information was portrayed in a spreadsheet. He said that when a model run was done, the land uses proposed would be plugged into a spreadsheet like this, and would indicate the traffic that this particular land use would generate.

Mr. Chamberlin said that while there was important planning work that involved all of the different modes of transportation, the traffic model developed for Durham was vehicle based, and said pedestrian activity was not modeled. He explained that when people said they were concerned about traffic, this usually had to do with autos.

He noted that buses were shown in the model, but there was no indication of the number of people taking a particular bus. He explained that providing this information would involve another level of effort, stating that the model currently was not set up to deal with buses pulling over, although in reality they did pull over to drop off and pick up passengers.

He next spoke in detail about the calibration that had been done for the model in order to ensure its accuracy. He said the traffic counts taken from the continuous traffic counter on Route 4 showed variation across the year, but were relatively even. He said the counts were adjusted to reflect June, the month when there was the highest amount of traffic.

He spoke about the statistical measures of fit for the model, and said that Durham's model was the best calibrated model his firm had ever produced, so he had great confidence in it, and thought it would be a good tool for the Town. He noted that this kind of calibration was not often achieved.

Mr. Kelley and Mr. Gardner arrived at some point during the presentation.

Mr. Chamberlin explained that various intersections in Town were tested to see how the model worked, and said this information was then compared to traffic counts that had actually been done for these intersections. He said the matches were quite good, also noting that some variation from day to day would be expected. He said the model was run five times, and the results were then averaged.

He summarized that with the traffic model, the Planning Board got a "what if" planning tool, and also got a visual simulation in 2D of traffic flow. He explained that over the course of the last 25 years, these tools had clearly gotten more sophisticated, and also said that as they had become more realistic, people had demanded more from them. But he said a model needed to have a solid foundation and be able to provide accurate answers to questions, and not just look good.

Ms. Fuller asked for more detail on the issue of short, medium and long term parking in the Mill Plaza TAZ. She noted that Mr. Chamberlin had said this was medium term traffic, but said she thought it was more like short term parking.

There was discussion on this. Mr. Pesci said he would research for Ms. Fuller the dividing line between short and medium term parking.

Mr. Kelley asked if pedestrian movements would be able to be modeled in the future, and there was discussion about this with Mr. Chamberlin. Mr. Kelley also asked how the transit part of the model worked, and Mr. Chamberlin noted again that the bus routes and bus stops were modeled, but the number of people on the buses was not. Mr. Kelley said perhaps Mr. Bencks or Mr. Pesci would have information on this.

Mr. Pesci said the University didn't track this information on point to point boarding of buses, because they were a free service. He said if this information was desired, getting it would require a higher level of data collection on the transit system.

Mr. Bencks said this traffic model was probably too coarse to do planning on transit, but he said they could use real time data in ways that worked well for them.

Mr. Pesci noted that the transit routes themselves had to be in the model because the buses did slow traffic down and generally impact traffic flow.

Councilor Needell asked how hard it was to make changes to the model, and Mr. Chamberlin said this was simple to do and could be done quickly. He said it was the reporting that took more time, and said this would depend on what people wanted to see in terms of results.

Mr. Parnell said in comparing the actual results with the model, he'd like to know what was done when it turned out that the model wasn't as accurate as would be desired.
Mr. Chamberlin said the model was adjusted, and said that was what the process of calibration was all about. He said a lot of effort had been made over the past few months to get the model to fit actual conditions on the ground, and he provided details on this. He spoke in some detail about a tool that was used as part of this process, called "Estimator", which used a 70 x 70 zone to zone matrix.

Mr. Roberts said he respected the data that had been gathered. He also spoke about the fact that while traffic studies conducted by developers generally reflected the actual traffic conditions, the concern was that this process did not lead to optimizing the overall traffic situation in Durham. He said guidance was needed on this, for example, concerning whether the Town should be demanding that the University house more students on campus; or if the Town should be demanding that the State relate Durham's traffic to regional traffic impacts. He said Durham was at the receiving end of regional traffic that had nothing to do with Durham residents or UNH.

Mr. Chamberlin said he would like to see the model used to look at those kinds of questions. He said the model would helpful in evaluating whether a traffic study provided by a developer for a proposed project made sense.

Mr. Roberts said accurate traffic studies had in fact been provided to the Planning Board for particular projects. But he said the Town needed help in creating a new venue for looking at traffic issues. He said they needed something that would help them figure out what changes could be made, to give the Town some relief from an unsatisfactory situation. He noted that this was something he had asked the Town Council for help with in the past.

Mr. Chamberlin said what Mr. Roberts was talking about was comprehensive land use/ transportation planning, and he said the model could be used as part of this process to help visualize land use changes and associated transportation changes. But he said those changes had to come out of a broader study.

After further discussion, Mr. Kelley said what Mr. Roberts was asking for was well beyond the scope of what RSG was hired to do. But he said at least some of what he was looking for could be provided.

Mr. Roberts said the Planning Board had asked for at least a ball park measure of what he was now asking for. There was further discussion on this with Mr. Kelley.

Mr. Kelley asked what would be involved in doing a model run for a different time period, and Mr. Chamberlin, who had previously spoken about this, provided further details.

Councilor Needell asked if there was any value in creating a model for the peak pm hour without the traffic count data, by simply extrapolating the peak am hour data. He gave as a possible example putting 800 additional cars into the model, which reflected a UNH hockey game.

Mr. Chamberlin said there was some value in doing this, and said this kind of information would be useful in terms of special event traffic management.

Mr. Gardner asked for further details on how the land use information in the model generated the traffic information, and there was discussion with Mr. Chamberlin on this.

Mr. Pesci said UNH's perspective was that this model brought them a quantum leap closer to what Mr. Roberts had asked for. He said there were concepts and ideas from the Town and University Master Plans, some of them recently developed and some of them older, and now there was a shared, objective tool to test them out.

He said he therefore felt they were all taking a big step forward in having this model, to look at both smaller and larger infrastructure changes. He said while this was not currently something that RSG was working on, they could all keep going with this approach.

Mr. Roberts agreed, and said the objective was to get some outside perspective on Durham's traffic situation.

Councilor Needell asked whether there was enough traffic in Durham to drive the model and have confidence in the statistics, especially given the way traffic fanned out in Town.

Mr. Chamberlin said the model was a legitimate tool for Durham, and he spoke in some detail on this.

Bill Hall explained that the morning traffic count reflected traffic stacking that resulted from cars that were external to the Town. But he said in the afternoon, the traffic stacking was caused by internal traffic. He said this afternoon traffic at 4:30-5:00 downtown was a specific traffic problem that wasn't seen in the morning.

Mr. Hall said the model had been corrected for traffic on Route 4 in June, when the University wasn't in session. He said this traffic had nothing to do with the traffic in Town at that time, and said the traffic counts should therefore be taken in September, not in August or June.

Mr. Chamberlin said that was a good point. He then noted that said the bulk of the counts had been taken from February through April. He also said that traffic on Route 4 in June was probably reflective of traffic over the course of the year.

Mr. Hall said in Durham, traffic was down in June, although it certainly was up on Route 4.

There was discussion on this, with Mr. Pesci stating that they were cognizant of the various traffic variables and anomalies.

Mr. Gardner received clarification that a report would be the next step, and that RSG would also use the model to develop one scenario. He said this could perhaps be for Mill Plaza, or could be some other area of Town.

III. Request for Extension of Conditional Approval of Rollins Subdivision (Map 20, Lot 12-5), 313 Durham Point Road

Mr. Campbell explained that a condition of approval of the Subdivision application was that there be the subdivision plans would be finalized. He said the Rollins' would be before the Board for a boundary line adjustment at the October 14th meeting, so it made sense to get that done first before submitting the final plan.

Chair McGowan appointed Mr. Lewis as a voting member in place of Mr. Ozenich.

Susan Fuller MOVED to grant the extension, for 60 days. Richard Kelley SECONDED the motion, and it PASSED unanimously 7-0.

IV. Adjournment

Susan Fuller MOVED to adjourn the meeting. Steve Roberts SECONDED the motion, and it PASSED unanimously 7-0.

Adjournment at 8:30 pm

Victoria Parmele, Minutes taker

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Susan Fuller, Secretary