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Darcy Binns
President, Forest Home Improvement Association
320 Forest Home Drive
Ithaca, NY 14850

Subject: Forest Home Traffic Calming Plan

Dear Darcy:

We are happy to have the opportunity to provide feedback on the Forest Home Traffic Calming Plan. As part of the t-GEIS process we have had the occasion to review many of the plans within the Ithaca community and hope that these comments are useful to you. We realize that the plan is still a draft at this stage and recognize that there is still some uncertainty within the community as to how to proceed with this draft plan.

We have reviewed the draft plan and what follows is our professional opinion regarding the merits and potential challenges of the plan in its current form. We feel it important to note that while we have the entirety of the report, we do not have a copy of the appendices, upon which the plan relies heavily to support many of its recommendations. Without this data, it is difficult to ascertain the need for and potential success of many of the elements in the plan. Nor is this a detailed review of the plan; rather we have attempted to focus on the primary issues within the context of Forest Home as best we understand them.

Side Paths

One of the most positive elements of the plan is the recommendation for extension of the side path system throughout the community. As the plan acknowledges, there are many in the community who walk or run for recreation or to travel to Cornell or areas beyond. The nature of the community is such that many of the roads are narrow and lack shoulders and vegetation and plantings often reach to the road's edge. Currently, in areas without such a path it can be quite dangerous for pedestrians as there is no place to seek refuge when a vehicle approaches. A commitment to snow removal on the paths in the winter is particularly important as wintertime is when it is most dangerous to try to share the road with a vehicle. It is not clear, though, that these paths may be effectively cleared by regular street plows and instead they may require hand shoveling or sufficient clearance for motorized sidewalk plows.

Plantings

We also agree with the general recommendation to support plantings close to the roadway. Not only does this enhance the aesthetic quality of the streetscape, the vertical element and tree

canopy provide a sense of enclosure which can help to slow drivers. It is important, though, to balance safety with the level of planting. Around intersections, it is particularly important to provide adequate sight distance. Trees and bushes should be far enough back from the intersection that you can clearly see any approaching traffic. As an intersection becomes tighter, this is particularly important as long pickup trucks, delivery vans and buses may find they need to encroach into an opposing lane to make a turn (at Judd Falls and Forest Home Dr, for example). Similarly, if the vegetation is dense around driveways, drivers will likely not see pedestrians on any side paths which are located behind the plantings nor will the pedestrians be able to see any turning vehicles. There is, of course, a practical problem with smaller plantings, such as shrubs and bushes, in that maintenance becomes difficult and often dangerous if they are immediately adjacent to a road. They can quickly become overgrown and become dangerous, particularly on very narrow roadways.

Speed Limits

While we do not have the appendix including the referenced speed data, our experience driving in Forest Home would generally support a lowering of speed limits to 25mph. There are few locations where one can reasonably drive much faster and given the nature of the hamlet such a speed limit would generally seem appropriate. It is important to remember, though, that lowering the speed limit typically has little effect on drivers' speeds. A typical "rule-of-thumb" is that the speed limit should be about the 85th percentile of drivers' speeds; that is about 15 percent of people will typically speed along the roadway. This rule would most likely apply to the settled portion of Forest Home Dr east of Caldwell where the road is relatively straight and flat. A speed limit 30 or 35 mph in this area seems more reasonable. East of the more densely settled portion, the current limit of 45 mph, or perhaps 40 mph, seems appropriate.

Speed Tables

As mentioned above, it is our experience that most of the roads within Forest Home are actually rather effectively traffic-calmed today. Again, this is based on our personal experience as we do not have the referenced speed data. While speed tables can be quite effective at reducing vehicle speeds they often do not fully achieve the original intention. Often motorists will slow for the speed table and then once across accelerate rapidly back to their original speed. Given the relative expense, particularly to construct them out of concrete as suggested in the plan, it may be preferable to delay implementation of this aspect of the plan until other elements are in place and vehicle speeds are reevaluated. As a practical matter, it is generally not recommended to install such devices immediately adjacent to an intersection as drivers will tend to focus on the device and not pay sufficient attention to the intersection. Regarding the table design, we feel that it is important that a standard design be utilized as these have been extensively researched and are the most effective at slowing traffic. The plan suggests a non-standard design for the speed tables in certain locations which we feel may be problematic and not successfully slow speeds. In order to avoid the installation of catch basins, the typical solution is to install a speed table with a trapezoidal cross-section (curb-to-curb) such that the majority of the table is level while only the edge tapers off. Such a design would pair well with the proposed shoulder band as likely only the area of the table within the shoulder band would be tapered while the entirety of the travel lane could remain level.

Roadway Treatments

Perhaps our strongest cautionary note would be in regard to the proposed roadway treatments. While the aim is well-intentioned, it may be that the end result is impracticable. As a rule, 9' lanes are sub-standard: standard lane width is 11' or 12' on an arterial. That said, it is not uncommon to find 10' or even occasionally 9' lanes on multi-lane roads where the outermost lanes are at least 12' wide. The primary concern is for delivery vehicles, buses and the occasional truck; bikes, in particular, are affected by narrow lanes (see below). Buses, in general, require an 11' lane to provide adequate clearance for the mirrors. While the proposed design would provide up to a 10.5' wide lane in summer, it is unclear that this full width could be maintained in winter. In order to be plowable, cobbles must be installed on a concrete base and with exacting care to ensure they are very level lest they be caught by the plow. In areas with side paths there would be no location for snow storage so it is likely the 18" shoulder band would become the de facto storage location.

It would seem, though, that small changes in design could accommodate this proposal to narrow lane widths in certain areas. By making the border out of stamped concrete – an alternate material suggested by the plan – it would be more easily plowed. Additionally, if the lanes are too narrow, regular vehicles, in addition to wider vehicles, may feel obliged to utilize the shoulder band, resulting in excessive noise in the neighborhood. By slightly widening the travel lane to 9.5' or even 10' drivers would still feel "crowded" but more likely to avoid the shoulder band. Such an increase would also allow buses to pass safely without concern for their mirrors colliding with oncoming traffic or pedestrians on the side paths, and would provide a greater cushion in the winter when the shoulder band may not be fully plowed. Depending upon the texture of the stamp used, it would also be possible to construct the shoulder band slightly depressed (¼" - ½") relative to the roadway surface to further discourage use of the shoulder band by any but wide vehicles.

Intersection Treatments

As with the narrowing of the roadway, narrowing the intersections can cause great difficulty for long-axled vehicles such as delivery vans, buses and some long pickup trucks. Tight intersections will often force these vehicles to cross into the oncoming lane to complete a turn. Unless stop-bars are moved far back from the intersection it can be quite dangerous for vehicles to make these turns. At Judd Falls and Forest Home Drive, for example, it is not uncommon for the front bumpers of right-turning buses to hang over the side path on the far side of the road as they complete the right hand turn. This can be dangerous both in that it is simply difficult for the two vehicles to pass, but also as it can cause frustration on the part of other motorists at the intersection as they wait for the two vehicles to pass and may result in rash decisions. We would recommend the feasibility and success of any such redesign is strongly incumbent upon the actual detailed design and careful consultation with local agencies including the Town and TCAT.

Additionally, while the reconfiguration of many of the intersections in the hamlet to a 'Y' is well-intentioned, it is not clear that it will actually succeed in slowing traffic and may, ultimately, promote through traffic that the neighborhood wants instead to diminish. Particularly at the intersection of Judd Falls Rd and Forest Home Dr, and to a lesser extent at the intersection of Warren Rd and Pleasant Grove Rd with Forest Home Dr, the creation of a 'Y' will actually result in an easier turn for those traveling north-south through the hamlet. Moreover, the 'T' is as

compact an intersection as possible so that the conversion to a 'Y' will require the taking of land in order to shift what currently is the through movement, something that otherwise seems to go against the plan's principles of impacting property owners' lands as little as possible. Lastly, with regard to intersections, the Cornell Comprehensive Master Plan (CMP) was tasked with examining circulation patterns throughout the university and immediately adjacent areas, so we would encourage you to contact them at the completion of the plan to see what, if any, recommendations were developed.

Bicycles

Regarding bicycles, we applaud the plan's efforts to incorporate bicyclists. In general, we would agree with the statement that speeds within the hamlet should be low enough that bicyclists can safely mix with traffic. Additionally, as the plan recognizes, there is little room to accommodate bicyclists with on-street facilities in most areas of the hamlet. It is always important to recognize, though, that not all cyclists feel comfortable traveling with traffic, especially for those just learning to ride. For those who feel comfortable mixing with traffic, the general rule for bicyclists is to ride as far to the right as possible, as few cyclists feel comfortable taking over the entire lane. We are concerned that by providing a narrow travel lane, bicyclists will feel forced to the shoulder band whenever a vehicles tries to overtake them. Unfortunately, any sort of textured pavement or lip is not safe for cyclists. One option would be to abandon the textured shoulder band in favor of smooth, perhaps colored, pavement. The only other recommended solution would be post signs within the hamlet clearly instructing bicycles to use the entire lane, thus notifying cars and bikes of the non-standard expectations.

In general, bicyclists should not be encouraged to share facilities with pedestrians unless the facility is sufficiently wide to accommodate both so that one can pass the other (the minimum standard for a low-volume path is 8'). As the proposed side paths would be substantially narrower than this, there is cause for concern regarding the assumption that bicyclists will be able to use the side paths when climbing hills. Moreover, the grades on these hills are such that many bicyclists, especially during winter, will not be able to gain sufficient traction on the stone dust paths. While full bicycle climbing lanes may not be feasible, it may be preferable to avoid the shoulder band treatment in these locations in favor of a wider travel lane to allow vehicles some room to maneuver around climbing bicyclists. In this case a full 12' lane would be preferable and if a 14' width could be achieved, it would be possible (although non-standard) to stripe a 5' climbing lane adjacent to a 9' travel lane, thus achieving the narrowed travel lane while providing the bicycle facility.

Gateways

The plan relies heavily upon the gateway features. As discussed above, speed tables do not always function as intended. While they can aid in reinforcing the threshold nature of the entrance feature, they can also simply become an annoyance to drivers who try to reach a higher top speed than prior to its installation to "make up lost time". Many SUV's and large trucks can, if the driver so desires, cross speed tables at relatively high speeds and do not slow down at all. That said, it is also possible to install speed tables so that they can be comfortably crossed at the speed limit (but no faster) in which case drivers tend to be more observant and respectful of the traffic calming devices as they view them as enforcers of the speed limit rather than annoying impediments. While the gateway features (the lamp post and stone base) will certainly help to delineate the Forest Home community, it is not clear that they will provide a noticeable benefit

in reduction of speed. Rather, it is the design of the roadway itself that will help to calm traffic. Given that these elements will undoubtedly be expensive, the Association may wish to prioritize other elements of the plan which have a greater affect on the roadway design and the experience of the driver throughout Forest Home.

Lastly, we would suggest that while Forest Home is certainly distinct from Cornell, the two actually have many shared interests and that a gateway element that is too harsh a delineation between the two may be in neither's interest. Just as Forest Home is seeking to calm traffic and maintain low vehicular speeds, so too is the university, where pedestrian volumes are even higher. Rather than change driver behavior at the threshold, the elements should reinforce the same behavior on both sides. There is little doubt today when you cross between the two so it seems that the real challenge to both parties is to create features that encourage good behavior in both neighborhoods.

We hope the above is helpful to you and the community as you work to refine the plan. Please don't hesitate to contact us if you have further questions.

Sincerely,

Nathaniel Grier, PE