TOWN OF WELLESLEY



MASSACHUSETTS

ZONING BOARD OF APPEALS TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

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February 15, 2018

Juliani Meeting Room Town Hall

Zoning Board of Appeals Members Present:

Richard L. Seegel, Chairman J. Randolph Becker Walter B. Adams

Present on behalf of the Town of Wellesley: Thomas Harrington, Esq. Judi Barrett Meghan Jop Kien Ho, BETA

Present on behalf of Delanson Realty Partners, LLC: Bob Engler Victor Sheen Robert Nagi, VHB Jeffrey Dirk, Vanasse & Associates, Inc. Dartagnon Brown, Architect

Mr. Dirk said that the traffic study was prepared in accordance with MassDOT's and the Town of Wellesley's standards for a Project of Significant Impact. He said that the study is a detailed assessment of traffic volumes, pedestrian and bicycle accommodations in addition to safety on the roadways and public transportation services, given the commuter rail station across the street. He said that they looked at each of those modes of transportation and reported existing conditions as well as how the project might affect those conditions in the future.

Mr. Dirk said that, in general, they found that the project would not have a significant impact on operating conditions at the intersections that they studied with respect to motorist delays and increased queuing at intersections.

Mr. Dirk said that they identified that there are certain movements at some of the intersections that are operating at or over their design capacity. He said that the Linden Street approach at Weston Road is one of the intersections that they looked at where they noted extended vehicle queuing, particularly with left turn movements. He said that they looked at access points to the property. He said that Hollis Street is a low volume road. He said that safety is one of the most important things that they look at in the study. He said that they looked at all of the intersections and crash patterns in the area. He said that the Weston

Road/Linden Street intersection has a higher than average crash rate that is just slightly above the crash rate for this area of the Commonwealth. He said that the crash rate is below the State average. He said that the lines of sight at the driveway exceed the minimum to function in a safe manner. He said that the peer reviewer has confirmed all of the general findings. He said that they have been asked to go out and test the assumptions of the study.

Mr. Dirk displayed an aerial photograph of the study area. He said that the study area involved the Linden Street corridor from Weston Road to the Everett Street intersection, and the primary intersections that go along that roadway. He said that they looked at all intersections affected by the project where there will be an increase of 5 percent or more or where the project is expected to add 100 or more new vehicle trips during the peak hours of the day. He said that outside of the study area, the number of vehicle trips is less than 10 per hour during any peak hour of the day. He said that it is within the standards that are set by the Department of Transportation and the Traffic Engineering profession. He said that the Town's Consultant has looked at the study area and deemed it appropriate.

Mr. Dirk said that they look at existing conditions for pedestrians, bikes and motor vehicles as well as travel speeds. He said that the measurements were done in June of 2017 while school was in session. He said that they looked at traffic in the Linden Street are over a 24 hour basis. He said that Linden Street accommodates 12,100 vehicles per day, with two-way traffic. He said that peak hour volumes are generally 10 percent of that number, so what they measured were slightly less than 1,000 during peak hours. He said that the predominant traffic flows in the morning flow is eastbound and is westbound in the evening. He said that over a continuous two day period the prevailing travel speed was 26 to 27 mph, which is 85 percent for 24,000 vehicles. He said that there is no posted speed limit in this area, so the speed limit is set based on M.G.L. Section 17 that sets it at 30 mph for a thickly settled area.

Mr. Dirk displayed a summary of where all of the sidewalks are located in the vicinity of the site. He said that generally there are sidewalks along both sides of Linden Street. He said that there are crosswalks at major intersections. He said that it is a very walkable area. He said that, in terms of the project, they want to be able to reduce automobile trips and make sure that the residents have the opportunity to get over to the train station to reduce parking demands and traffic entering and exiting the project site. HE said that when they do the traffic counts, they include pedestrians and bicycles on the road as well. He said that the predominant crossings happen in the vicinity of the commuter station along the south side of Linden Street. He said that there is no marked crosswalk across the MBTA driveway. He said that the numbers are a little higher near the Hollis Street crossing. He said that peak hour pedestrian crossings are somewhere between 20 to 28 pedestrians per hour. He said that there was not a lot of bicycle traffic measured. He said that the counts were done in June on a sunny day. He said that the majority of the bicycle activity was along Weston Road. He said that the peak for bicycles traveling on the roads was around 10 per hour. He said that bicycle traffic on Linden Street tended to be about half of what it is on Weston Road.

Mr. Dirk said that they looked at the motor vehicle crash history over a five year time period at each of the intersections that they studied. He said that if they find that the crash rate exceeds the average for the district or the State, they look at the causes in more detail. He said that if there is a deficiency, they need to fix it before adding traffic from the project. He said that the only intersection that exceeded the crash rate was the Weston Road/Linden Street intersection. He said that the State average was 0.58 crashes per million vehicles going through the intersection. He said that the crash rate for the Weston Road/Linden Street intersection. He said that the crash rate for the Weston Road/Linden Street intersection was 0.57, which is just below the State average. He said that the district average 0.53, so it is above that average. He said that it exceeds just one of the averages is what matters in terms of Vanasse needing to look at it. He said that they researched a fatality that happened at that intersection. He said that they have provided some recommendations about what might be able to be done there.

Mr. Dirk said that Wellesley peer consultant pointed out that the traffic counts were done on a Wednesday. He said that Vanasse overlooked the fact that Wednesdays are half days for Wellesley Elementary Schools. He said that they have been asked to go back out to do a traffic count at the Hollis Street intersection on a Thursday so that they can compare the weekday evening hour peak counts that were done on a Wednesday in June to counts that were done on a Thursday and see if there is any difference in the volumes that would require them to go back out to reassess operating conditions at the intersection.

Mr. Dirk said that, for a residential project they typically look at weekday conditions. He said that they are usually concerned with the morning peak hour when people are going to work between 7 and 9 am and the evening peak hours between 4 and 6 pm to see what the traffic patterns are. He said that those are the time period when roadway traffic will be at its highest level and when traffic from the project will peak as well. He said that adding those two together gives the worst case condition, which is what they analyze in the traffic study. He said that they do know that there is a significant amount of retail and commercial space just to the east of the site, so there is also a Saturday peak that will happen. He said that Wellesley's Consultant asked Vanasse to perform a Saturday traffic count on Linden Street to compare with the weekday traffic volumes. He said that they will report at a subsequent hearing the result of the comparisons. He said that they will record traffic volumes over three days, for 72 hours worth of data from a Thursday, a Friday, and a Saturday.

Mr. Dirk said that they are required to assess a future planning horizon. He said the State requires a seven year projection. He said that existing conditions are the year, 2017, ending in 2024. He said that the rationale behind the seven year project is that it allows time for projects two years to go through permitting, approval and construction processes and then collect data points after completion of the project over a five year period. He said that they will look at conditions with and without the project. He said that they work with the Planning Department to come up with the no-build estimates for increased traffic in the area. He said that they look at historic traffic growth and trends that are published by the Department of Transportation. He said that they also look at projects in the area that might cause an excess in the growth rate. He said that the Town identified two project for Vanasse to include in its study, the sports complex on Route 9 and the Senior Center. He said that they were also asked to include the other residential development at 148 Weston Road, which is a 55 unit apartment development. He said that it was not included in this study because it has not happened yet. He said that they are the traffic engineers for that project and will include the numbers in their subsequent update.

Mr. Dirk said that they use standard trip generation statistics that are published by the Institution of Traffic Engineers to estimate the volume of traffic generated by the project. He said that because of the commuter rail station across the street, they expect that a portion of the project's trips will be reduced because people will leave their cars parked at 8 Delanson Circle and walk to the commuter station. He said that they looked at the American Community Survey that was performed and that indicates that generally about 40 percent of the residents use an alternative mode of transportation to single occupancy vehicles. He said that about 10 percent of those trips are made by some form of public transportation. He said that about 14 percent are made by bicycling or walking. He said that, because of the proximity of the commuter rail, they used a 25 percent auto trips for single occupancy vehicles, 25 percent as an alternative mode, assuming that 15 percent will use public transportation, and 10 percent will be pedestrian and bicycling.

Mr. Dirk said discussed net increase in automobile trips. He said that they expect to add 368 vehicles to 12,000 vehicles over a 24 hour basis. He said that during the peak morning hours, they expect to add about 24 trips. He said that they expect to add 30 vehicle trips during the evening peak hours. He said that they did not estimate the volume based on the number of 90 units because not everyone leaves at the same time.

Mr. Dirk said that once they determine the volume, they assign it out to the intersections that are involved. He said that they use census data to see what mode of transportation people are using and where they are going. He said that they then look at the quickest travel routes. He said that the majority of the traffic is to the east of the site. He said that 10 percent of the traffic heads north on Hollis Street and filters through the neighborhood. He said that 15 percent of the traffic heads south on Crest Road, 5 percent heading north on Weston Road and 10 percent heading south on Weston Road.

Mr. Dirk discussed the level of service at the intersections in the study area. He said that the level of service is assigned a letter grade from A to F, with F being considered to be an intersection that is failing because it is operating above its design capacity. He said that it is generally delays in excess of a minute that results in backups and vehicle queuing. He said that intersections designated at Level E are operating at design capacity. He said that the limit of acceptable operations is at Level D, with delays from 30 to 40 seconds. He said that it is expected that the project will only add a few vehicles to the existing traffic queues. He discussed the level of service at the intersections in the study area. He said that they will measure the queuing the happens at the Crest Road/Linden Street intersection. He said that they have been asked to look at whether the queue backs up on Linden Street so that it affects Hollis Street. He said that the commuter rail creates surges of traffic when the trains come in, which affects how the intersections operate. He said that they were asked to look at what could be done to make the traffic flow better when the surges occur. He said that delays are minimal due to traffic entering the MBTA commuter lot in the morning. He said that the surges of traffic occur in the evening. He said that the situation will get better with the project because Delanson Circle will go away. He said that one of the legs of the intersection will be removed so that it will become a three-way intersection and there will be less conflicting traffic from the commuter rail lot. He said that the level of service at Hollis Street is good. He said that the increased delay on Hollis Street with the project added will be about 3.3 seconds. He said that there was no change in the queuing.

Mr. Dirk said that they will develop a series of recommendations that will deal with access into the property, any deficiencies that they found as part of their assessment, and any locations where the project has an impact. He said that access to the site issues have to do with the width of the driveway and maintenance of sight lines. He said that there will be a series of recommendations related to signs. He said that they will complete a Road Safety Audit to identify safety at the Weston Road/Linden Street intersection. He said that they will focus on the low cost, short term improvements that can be made. He said that the Applicant agreed to facilitate completion of that study. He said that they will retain an independent traffic consultant to do that study. He discussed recommendations for the Linden Street/Hollis Street intersection. He said that they want to make sure that it is walkable, not only for the residents of the project, but for residents who live in the area. He discussed recommendations for the Linden Street/MBTA Parking Lot Driveway intersection. He said that all of the crossings in the area are ADA compliant, with the exception of the MBTA driveway.

Mr. Dirk said that the last set of recommendations concern Transportation Demand Management. He said that they want to provide incentives and opportunities for the public to use alternative modes of transportation. He said that it is a series of things that the Applicant will do as part of the project to encourage residents and make them aware of the modes of transportation that are available. He said that they will consult with Mass Rides. He said that new tenants will be provided a welcome packet that will contain information such as the commuter rail schedule, locations of bicycle facilities nearby, and the location of the multi-use trail that is nearby. He said that secure bicycle parking will be provided within the project. He said that they will consult with the Metrowest Regional Transit Authority about establishing a bus stop at the project.

Mr. Dirk said that they will be providing additional information to substantiate what has been presented in the Traffic Study.

Mr. Seegel said that the Board has retained VHB as its traffic consultant. Robert Nagi, Traffic Engineer, VHB, said that they reviewed the site plans and the traffic study that was presented by Mr. Dirk. He said that the Traffic Study was well done. He said that the information that was contained in it was done in a way that is consistent with typical traffic study standards. He said that they are comfortable that the information, for the most part, is presented in an accurate way. He said that they went through the study point by point and tried to find any areas of inconsistencies and other issues that they thought would be important to the community. He said that they generated a letter with about 25 comments on the study and the site plans.

Mr. Nagi said that probably the most significant issue that they identified is the parking. He said that it was stated in the Traffic Study that the parking meets the Zoning requirements. He said that VHB disagrees with that because apartment uses are not allowed in this zone. He said that this is not an Industrial Zone where one space per unit is allowed. He said that the Limited Apartment District, which is specifically set up for apartment uses, allows 1.5 spaces per unit. He said that in the Linden Street Corridor Overlay District, which is close to this location, allows 2.5 spaces per unit. He said that a 90 unit development with 100 spaces is well below those last two numbers. He said that it has been their experience in working with developers that anything less than 1.5 spaces per unit raises a yellow flag and anything less than 1.4 spaces raises a red flag. He said that you have to accommodate both the residents of the facility, which would be 90 vehicles for 90 units. He said that the excess spaces will be needed to accommodate visitors. He questioned how residents owning two vehicles will be accommodated. He said that there is no other place to park should there not be a space in the garage. He said that Linden Street is a no parking area and is signed that way. He said that Hollis Street is narrow. He said that people will likely park down the street in the businesses or across the street in the MBTA lot. He said that VHB asked the Applicant for a lot more detail about how they could get to a 1.1 ratio, which would make VHB much more comfortable. He said that he is not comfortable with that ratio and thinks that the number should come up to a minimum of 1.4 spaces, with 1.5 spaces being his preference.

Mr. Nagi said that another issue that they were concerned with was the operation of the stacker units. He said that 46 spaces are proposed to be stacked. He said that stackers are not commonly found in suburban areas. He said that they are more likely to be found in an urban setting. He said that they may be the way of the future but VHB wanted to get a little more information on that. He said that the Town's Parking Consultant, Walker, may provide some information on that.

Mr. Nagi said that they looked at the traffic volumes. He said that VHB did ask Vanasse to go back out to get traffic counts on a typical weekday when traffic might be a little heavier during the 4 to 6 pm period. He asked them to also gather information about students walking to and from the school that is nearby. He said that the Wednesday half-days would not capture those students. He said that they will get a better understanding by looking at the traffic counts on a Thursday. He said that it is his understanding that Wellesley does not bus within a couple of miles of a school.

Mr. Nagi said that Vanasse has agree to include the project on Weston Road in its traffic study.

Mr. Nagi said that Vanasse identified levels of service in their Traffic Analysis and VHB is comfortable with that. He said that when VHB went out to watch traffic on Linden Street, Crest Road and other local roads, they identified the queuing issue as something of significance. He said that the models are based on theoretical numbers that are produced assuming certain aspects of roadway widths, green times that are allocated on traffic signals and how driver behavior would be at a particular stop sign. He said that it can be different from what actually happens in real life. He said that when they went out they saw traffic backing up at certain approaches that was greater than what they saw in the model results. He said that they asked Vanasse to come back with more details on those observations. He said that if the critical piece is that traffic is backing up from the Crest Road/Linden Street intersection, and it is backing up past

the project site, and blocking access to and from Hollis Street, that can create operational problems that have ripple effects up and down the corridor. He said that a car waiting to turn left into Hollis Street, which is where the primary garage and access is located, can create a ripple effect blocking cars traveling down Linden Street if the turn to Hollis Street is blocked. He said that they asked the Applicant to go back and look at it and give VHB some indications as to how that will work and, more importantly, how they can address that. He said that they would like to know if there are any recommendations that fall out of that.

Mr. Nagi said that the Applicant conducted a Sight Distance Evaluation to ensure that the driveway will be operating in a safe manner. He said that Hollis Street is a narrow roadway but it does not have a lot of volume of traffic. He said that VHB recommended that the final plans that come before the Board reflect that the sight lines entering and exiting the property are clear of any obstructions. He said that there should be assurance that the sidewalk is included in snow removal on Hollis Street.

Mr. Nagi said that the next big issue the VHB had with the project is its operations. He questioned where, as an apartment complex, do students get picked up and dropped off if they take a bus to school, or if the ride picks up a resident to bring them to a specific place. He said that you cannot stop on Linden Street to wait for someone to come outside. He said that there is no shoulder out there, so it could be stopping traffic. He said that Hollis Street is a limited width roadway. He said that VHB does not have a clear understanding of how someone visiting the site, dropping off or picking up, will operate. He said that they asked the Applicant to provide more details on that.

Mr. Nagi said that VHB recommended an Electric Vehicle Charging Station. He said that is something that people will see more of as projects advance. He said that they would like to see what the number of stations will and where they will be located.

Mr. Nagi said that VHB agrees with Vanasse's recommended upgrades for pedestrian crossings. He said that they were identified in the Traffic Study as being independent of the project. He said that VHB recommended it become part of the project, not independent of it. He said that Hollis Street is a private way, so the Town may not be able to put a pedestrian crosswalk across it.

Mr. Nagi said that encouraging people to walk to the MBTA Station is a great idea but VHB wants to make sure that a safe way to get to the station is considered. He said that the existing five residences on Delanson Circle do not generate a lot of pedestrian traffic but 90 units of residential could.

Mr. Nagi said that the Applicant made transportation demand recommendations that VHB believes should be included as part of the Board's approval. He said that there is an area in the garage that is designated for secure bicycle storage. He said that it is unclear how a visitor would park their bike in the garage. He asked if there is an opportunity to put a bike rack on the outside for visitor use.

Mr. Nagi said that the bigger issues include how the parking ratio will work. He said that 1.1 space is light and the impacts on the surrounding neighborhood are something that needs to be strongly considered by this Board. He said that there needs to be more clarity on how the stacked spaces will work. He said that there are a couple of spaces within the garage with access issues. He said that they asked the Applicant to provide more clarity on how a car would pull into without having to make two, three or five turning movements to get into the space. He said that they asked for more clarity about the slope of the ramp leading to and from the garage. He questioned how tenant movement will take place, with moving trucks coming to the facility and where loading will take place. He asked if it is planned to have moving trucks park on Hollis Street. He said that it cannot happen on Linden Street.

Mr. Nagi said that VHB asked the Fire Chief to weigh in on the Fire Department's comfort level. He said that they typically asked for turning simulations for fire trucks to make sure that they have clear access to at least three sides of the building.

Mr. Nagi said that almost every square foot of the site is being developed. He said that VHB had questions about the garage access underneath and how the site will be managed from a construction perspective. He said that there is a significant slope associated with it and a lot of dirt will be moved off of the site. He asked how that will be staged, how will the earth be removed, and where the soil will be moved to. He asked about any bridge restrictions around the site. He said that this is located in a residential neighborhood. He asked if there is ledge underneath the site and, if so, will there be any blasting. He asked how that rubble will be accommodated and hauled off of the site. He said that with most of the site being used for the building footprint, how will staging for construction be handled. He said that there is limited storage offsite for construction vehicles. He asked where construction workers will park and how will they access the site. He said that VHB wants to make sure that anything going onto the site is safe. He said that it was not clear to them if there will be garage door feeding into the garage. He said that there are other residents across Hollis Street and the operation of a garage door going up and down needs to be considered. He said that they asked the Applicant to provide additional details. He said that it would be helpful to have a better understanding of the operations of the site with respect to parking, loading and unloading and fire access.

Kien Ho said that BETA has been the Traffic Consultant for the Board of Selectmen for over 20 years. He said that, rather than repeat the concerns expressed by VHB, he would discuss additional comments about the Traffic Analysis. He discussed the intersection of Linden Street and Weston Road. He said that the Queue Analysis results indicated that queuing on Weston Road, regardless of whether it is in the morning or evening peak hour, is between zero and one car queue. He said that does not represent the operational conditions out there. He said that any given weekday that you drive by that intersection, the Weston Road queue backs up easily to Curve Street, which is approximately 1,200 feet, and at times, even beyond that. He said that as a result of the backup, people take Curve Street to cut through the neighborhood. He said that the Analysis did not include the intersection of Central Street and Weston Road. He said that BETA's recommendation is that the Analysis include both intersections because they are so closely integrated. He said that BETA also had concerns about the intersection of Linden Street and Crest Road. He said that Traffic Engineers look at the levels of service at intersections. He said that there are software limitations. He said that you cannot just look at the level of service. He said that they need to look at three components in the analysis of an intersection. He said that they need to look at the level of service, the delays, and the queue. He said that just reporting the level of service can be deceiving. He said that with respect to the Linden Street and Crest Road intersection, the driveway to the MBTA Station is approximately 220 feet away. He said that the Analysis revealed that the queuing is over 400 feet, which is beyond the project site drive. He said that with the queues that long, there was no mitigation provided for the intersection. He said that BETA recommends that the Applicant explore ways to program the traffic signal to at least improve the operation. He said that there are ways that you can look at the phasing of the signal. He said that they recommended Dynamic Max in their review. He said that tells the traffic signal controller that if cars are waiting at the intersection for more than one cycle, that they have to use a different green time plan.

Mr. Ho said that the Analysis indicated that site related traffic will use Crest Road and Hollis Street. He said that if this project does move forward, BETA is recommending that at a minimum post traffic monitoring should be established. He said that they did that for the Sprague School Project because there was a lot of concern that people would use the Oak Street neighborhood as a cut through instead of Route 9. He said that there is potential for impacts after this project has been completed. He said that data should be collected to establish a baseline for before and after the project and impacts to the neighborhood. He said that an escrow account needs to be established in the event that the post traffic

monitoring indicates that there are impacts to the neighborhood and who is responsible to take care of the impacts and how will they be paid for.

Mr. Ho said that BETA recommended clarification from the Applicant about counts. He said that the report indicates that the counts were done between 2 and 6 pm. He said that they did not see the counts for the 2 to 4 pm timeframe. He said that it should be clarified in the report when the counts were collected.

Mr. Ho said that construction traffic needs to be addressed. He said that any neighborhood roads should not be impacted by construction traffic.

Andrew Ginsburg, President, CityLift Parking, said that he manages the company's eastern division in Boston. He said that this is new technology to a lot of people. He said that it has been in place for 30 to 40 years in Europe and Asia. He said that it is relatively new to the U.S. He said that CityLift was born out of one of the larger development companies in the Bay Area of California. He said that they started acquiring assets, both empty lots and defunct buildings of significant historical character. He said that parking garages are generally inefficient, relatively ugly and expensive. He said that there is a lot of space used to store cars. He said that they looked for ways to make parking more efficient. He said that as Uber and the sharing economy changes the way we live, there is a question of how much parking demand there is going to be over time. He said that the demand may be substantially less. He said that they did not want to build parking garages that they could not repurpose. He said that they did not want to be stuck with spaces that will not be functional in 20 years. He said that the company studied how these issues have been handled in Europe and Asia. He said that there are a number of systems that have been very effective, from semi-to fully automated systems, which is what is being proposed here, to fully automated systems that are like vending machines for cars.

Mr. Ginsburg said that this will be a semi-automated system. He said that stacker systems have been in use in New York and Boston. He said that they are not automated. He said that it is efficient to double up parking counts but not efficient for users because you have to move the bottom car out before retrieving the car on the top.

Mr. Ginsburg said that their company primarily builds multi-family residential buildings and mixed use. He said that they were concerned about their end user experience. He said that they did not think it was tenable to use a stacker. He said that they found that there are several million semi-automated spaces throughout the world of the nature of what is being proposed for this project. He said that the majority of the systems are in Japan and Korea where there are density issues. He said that they are becoming more prolific in the U.S. now. He said that CityLift was created by Signature Development to service its own needs. He said that they have several hundreds worth of spaces for projects in the greater Boston area. He said that the systems are considered to be elevators by the Commonwealth of Massachusetts and are regulated by the State Board of Elevator Safety Regulations. He said that they cannot put a system in that has not been regulated for safety.

Mr. Ginsburg said that it will be a pallet based system with a security gate constructed of galvanized steel. He said that there are sensors throughout the system where, if the safety gate goes up, the system automatically stops. He said that if you break the light beams, the system will stop. He said that generally this is an open space. He said that there is a control box. He said that residents will have a dedicated space with a key fob and remote control. He said that it is a two piece unit. He said that as you are driving up to the unit you can hit the button. He said that as long as the unit is not being used by somebody else, it will bring your spot down to you and raise the gate as you are pulling into the garage, which reduces wait time. He said that if someone is queuing in front of you, you will have to wait. He said that you can retrieve your car with the remote control but you cannot close the system with it, which is one of the safety features. He said that you have to touch your fob to the control unit to shut the

system. He said that the average run time for these systems is 30 to 45 seconds. He said that they are modular units.

Mr. Ginsburg said that the three car width design fits in well with garage columns. He said that you have to be able to move a lot of cars during peak hours. He said that the system is designed so that you can add modules as you need them. He said that if parking demands drop in the future, you can disassemble the system and reclaim the space for other purposes.

Mr. Ginsburg said that the most efficient system is the three levels with a pit. He said that they use electric motors, not hydraulic which are noisy, slow, maintenance intensive and use oil. He said that they use an electric motor that is quiet and fast. He said that another advantage in the Boston area is that the systems do not slow down in the cold weather as they would with a hydraulic system.

Mr. Ginsburg said that there are hooks that shut into the pallets when they are up to keep them from falling.

Mr. Ginsburg said that there are three different sizes of platforms. He said that the large pallets are suitable for large SUVs up to Ford Explorers. He said that you cannot get a Suburban or a long pickup truck in the units.

Mr. Ginsburg said that the plan is to have the systems in tandem along the back wall. He said that the systems run efficiently in tandem. He said that you never have to manually move a vehicle because the system will do that for you.

Mr. Adams asked about the height for a double stack of the pit based system. He asked about the height for the median size pallets from floor to ceiling. Mr. Ginsburg said that will vary due to what you are trying to achieve and how much space you have. He said that they recommend nothing lower than 6' 3" on the ground floor level, with 6'5" to 6'6" preferred. He said that the height is measured to the underside of the pallet above it. He said that above that can be 5'1" and will accommodate 98 percent of all sedans on the market. He said that the tallest SUV is 6'1". He said that a height of 12.5 feet would be optimal. Mr. Adams confirmed that you can get two stacks of vehicles within that height.

Mr. Ginsburg displayed a video of the CityLift System in real time. He said that one of the consultants talked about EV charging. He said that they can pre-wire the pallets for charging for connection now or in the future.

Mr. Seegel asked if there will be six parking spaces in the unit. Mr. Ginsburg said that there will always be one empty space to allow for transverse movement to get the cars from above. Mr. Becker asked if the number of cars parking on the plan is accurate. Mr. Ginsburg said that the count is accurate and the empty space was taken into account.

Mr. Adams asked if each unit has to be individually reviewed by the Elevator Board. Mr. Ginsburg said that every project requires an elevator permit. He said that the Board would look at the system and the technology that is proposed. He said that these systems have already been reviewed by the Board and have been approved.

Mr. Becker said that the latest plan that the Board has shows four ADA parking spaces, 52 surface spaces and 52 puzzle space. He asked how that number was derived.

Arthur Stadig, Walker Consultants, said that they are a national company with a local office in Boston. He said that he is a registered professional engineer who specializes in parking consulting. He said that he has been doing that for 33 years. He said that Walker was asked to review the design. He said that

agrees with some of Mr. Nagi's comments. He said that Walker submitted a report. He said that the amount of parking is probably one of the biggest concerns. He said that this type of development is not currently allowed in this district. He said that if you apply the standards for parking demands in other areas that do allow multi-family residences, the requirements for parking would be a lot greater. He said that currently they are providing a ratio of approximately 1.18 spaces per unit. He said that the Zoning regulations would require 140 spaces, or approximately 1.56 spaces per unit. He said that census data correlates with the Zoning requirements and indicates a 1.62 ratio for 146 spaces. He said that you need something in that magnitude in order to properly service this development.

Mr. Stadig said that the design calls for an entry/exit off of Hollis Street. He said that it is not clear at this time what type of access control there will be for residents and employees. He said that the plans currently show a single overhead door. He said that as vehicles pull in they would be queued on the sidewalk while waiting for the door to go up. He suggested that the door be moved back in to allow for queuing inside building.

Mr. Stadig said that visitor parking is typically at a ratio of 0.15 spaces per unit. He said that peak time for visitor parking is typically evening or weekends. He said that they might expect 14 vehicles during that time. He said that currently there is no place for visitors to park. He said that if the ratios were closer 1.5 spaces per unit and if there was a way to share parking, via allowing visitors access to parking in the building by designing an access control system to allow visitors to come in, the visitors could be accommodated at peak times. He said that with the lower ratios that are currently shown, the visitors would have to be accommodated elsewhere. He said that, as currently designed, there is a deficit of 35 to 40 spaces.

Mr. Stadig said that the traffic volumes typically seen here should be accommodated if the entry is properly designed. He said that the design currently shows a slope going into the parking facility. He said that they do not have enough detail about the slope. He said that it will affect access and entry control design.

Mr. Stadig said that the turning movements in and out of the garage appear to be adequate. He said that the size of the vehicle shown in the turning movement would not be accommodated in the semi-automatic system.

Mr. Stadig said that they agree that EV charging should be available. He said that they should start out by providing a minimum of five percent of the total number of spaces with EV charging capability with the ability to expand to ten percent in the future. He said that the number of electric vehicles will increase rapidly over the next decade. He said that at least one of the spaces should be ADA accessible.

Mr. Stadig said that Walker generally does not take exception to semi-automated parking systems for residential developments. He said that it is one way of densifying parking where the residents can park themselves without an attendant or a valet. He said that how it operates and how it accommodates the user is fine. He said that there not be any problems with residents using the system because it is something that they will do over and over again versus a visitor who is not familiar with the system. He said that this system does not give as much comfort as an unencumbered space that would meet Zoning dimensions. He said that typically Zoning would indicate that the module from bumper to bumper would be 60 feet. He said that the nature of this type of parking underneath a building requires short span construction with columns between parking spaces. He said that they believe that the 8'6'' dimension can be accommodated, that dimension goes right up to the edge of the column. He said that without the columns, there is typically a little neighboring space to pull in and out.

Mr. Stadig said that there are different pallet sizes. He said that the pallets indicated here are the medium size pallets. He said that the larger pallets can accommodate a larger vehicle that is slightly less than the

encumbered space. He said that a bigger system with 22 cars is not as convenient as the smaller pods. He said that if people come at the same time, they may have to wait a bit to retrieve their vehicle.

Mr. Stadig said that the number one recommendation is that more spaces should be provided in the facility. He said that they do not have enough information to indicate what the headroom is but it has to be in the range for clear for 11 to 13 feet, the higher the better. He said that care should be taken in the design that this is an enclosed garage that will required sprinklers and ventilation. He said that the sprinklering system needs to accommodate that the vehicles will be in a stacked position, so the heads have to come in from the side. He said that will require that the system be moved out from the wall. He said that currently the drive lane narrows down to 22.5 feet and slightly less in some locations to accommodate the length of the automated system. He said that the Zoning requirement is 24 feet. He said that the more narrow the drive lane, the more things slow down, particularly turning into a system that has a pallet that requires more precision to get into the middle. He said that you would need a little more drive lane width to accommodate that and it needs to be taken into account.

Mr. Stadig said that the number of ADA spaces but they need a van space as well. He said EV charging should be available.

Mr. Stadig said that ventilation will be required. He said that this is located close to neighborhoods. He said that the system will require air intake and exhaust. He said that the issues of where you are pushing the air to and fan noise need to be looked at.

Mr. Adams said that the floor to ceiling requirement for stacked parking is such that the requirement be that the building be sunk more into the ground or raised up five to eight feet. He said that the elevations do not seem to indicate that the 13 to 14 feet that they might need has been provided.

Mr. Seegel asked where some who is using the stacked parking can unload their groceries. He said that they have to be able to stop somewhere. He asked about possible congestion issues. Mr. Stadig said that if the vehicle is a single non-tandem condition, you could pull the vehicle head in and be able to open up your trunk. He said that the system will wait until you are done. He said that if someone is waiting, that could be an issue. He said that with the tandem system, the vehicles in the back position might have more of a challenge. Mr. Seegel said that if the groceries are on the back seat, you will have to walk on a rail. Mr. Stadig said that people who use this system will understand it. He said that there is the possibility to pull up near the elevator to unload your parcels.

Mr. Ginsburg said that the system will not shut you out. He said that you will have plenty of time. he said that gate will not shut until you shut it. He said that some developments that he worked on left carts in the lobbies for people to bring their packages up. He said that is an operational issue and people will figure it out. He said that the current design has five modules between the columns and is highly functional. He said that you may have to wait 30 to 40 seconds if someone is unloading their vehicle.

Mr. Seegel asked about demographics of the residents. He asked how many elderly people will live in the building. He said that they would have a hard time walking on the rail. Mr. Ginsburg said that one of the components in designing the system is user experience. He said that in certain circumstances, the systems are not appropriate. He said that the is opportunity for other types of parking in the building. He said that it will not all be semi-automatic. He said that you have the ability to assign parking spaces. -

Mr. Becker said that there are two issues, one is parking and the other is the operation of the building. He said that the Board has not really seen anything that tells it how all of this is supposed to work. He said that people are going to come and go and visitors will come and go. He said that there has to be a way to accommodate that because it is normal everyday living. He said that there will be moving trucks coming

in and out and Amazon and Fedex delivering packages. He said that there needs to be a for trucks to get in and for people to receive their packages. He said that issues that will have to be addressed eventually include maintenance of the HVAC and elevator systems. He asked what will happen in an emergency when an ambulance arrives with a fire truck and a police car. He said that the Board has not seen how all of that will work. He said that the Board does need to see that.

Mr. Adams said that part of the issues of operations, visitor parking, and drop off are due to the design of the building being spread out to the outside boundaries. He said that there is no space for on-site drop off areas or parking areas. He said that there is a nice captive area in the middle. He said that if the building was centered into the middle of the property or to one side, there would be more flexibility in terms of operation.

Mr. Harrington said that Police Chief Pilecki submitted a letter expressing concerns about emergency calls with a fire, ambulance and police car responding. He said that they will need to know how to handle that.

Mr. Harrington said that, with respect to the Traffic Study, the next two Saturdays are school vacation and probably not the best to choose. He said that discussion about civil and stormwater is scheduled for next month. He said that the Town was expecting the report to be submitted by this meeting. He said that is his understanding that the Applicant's engineer is talking with the Town's engineer. He said that the Town needs to receive something in final so that interested parties can review it. Mr. Sheen said that their civil engineer has been in discussion with the Town. He said that he would give the Town an update tomorrow with respect to the precise submitted date.

Mr. Harrington said that there have been a lot of comments on operational issues and inadequacy of parking spaces. He asked when the concerns raised tonight will be addressed. Mr. Sheen said that they heard loud and clear that the parking ratio is a concern. He said that the team will look at it to figure it out. He said that the benefit of the modular nature of the stacker system is that they are able to provide additional modular systems to accommodate more cars to get closer to the 1.4 ratio. He said that they will take a closer look at that and comment on it.

Mr. Engler said that there are a lot of moving parts. He said that the architectural peer review will be coming up and there will be issues with the design that will flow into the parking ratio. He said that it is their burden to have it all come together. He said that they have to take everything into consideration. He said that until they get the peer review done by Davis Square, who will have series comments about the design, they will take everything into consideration. He said that by April or May they need to come back with a design that works on all levels. Mr. Becker said that the Board understands that but it also wants to make sure that all of the issues are covered.

Mr. Seegel said that he wanted to emphasize that the access for emergency vehicles is not satisfactory and totally unacceptable. He said that the 12 foot wide lane at the back of the building is not going to help. He said that by law, the Town sends an ambulance, a police car and a fire truck. He said that the Applicant will need to find a way to have access through the front of the building. He said that in the redesign, that should be taken into consideration. He said that they should take into consideration parking spaces along the side of building for visitor parking.

Mr. Harrington said that the time will run out on this quickly. He said that there is a 45 day extension and that is helpful. He said that it may be useful to coordinate the rest of the reviews that the Applicant needs to put the whole package together so that the Town is not looking at the final package with 30 days left but with a full 60 or 90 days to work things through. He said that it would be useful to identify the dates when the Applicant expects to present materials. Mr. Seegel said that the Board will be reviewing stormwater and drainage on March 15, 2018. Mr. Engler said that architecture will be reviewed after that.

He said then they will see what they need to talk about. Mr. Seegel asked if the Applicant could be ready with architecture on March 29th. Mr. Brown said that they can submit architectural plans by March 1st. Mr. Seegel said that the process needs to be moving along.

Margaret Lyne, 89 Crest Road, representing the College Heights Association, said that a lot of the neighbors have reviewed the documents. She said that the neighbors feel like the neighborhood is a bit under siege with all of the people who are cutting through their neighborhood. She said that they thought that it would be helpful to show the most frequency traveled cut throughs, not just between 4 and 6 pm but also between 2:30 and 3:30. She said that she is always stuck at Hollis Street to make her Crest Road turn. She said that she understands about the train surge but that is not what she is talking about. She said that people leave on Everett Street to cut through to Pleasant Street to go around. She said that Hollis is the next favorite to take a left onto to zip through. She said that the one that is the hardest to avoid when you live on Crest Road happens in the morning on Weston Road. The neighbors cannot get out of their driveways. She said that the queue is often all the way back to the beginning of Avon Road. She said that cars travel on Avon to Curve to Crest to get to Linden Street. She said that queuing on Crest Road goes all the way up to Summit Road. She said that people are driving too fast through the neighborhood. She said that they are clutching their phones to figure out where the next turn is. She said that they do not have sidewalks. She said that the sidewalks end at Crest Road. She said that was the only part of Crest Road that was shown in the traffic study and that is the only part of Crest Road where there is a sidewalk. She said that everyone from Crest Road to Howe Street has to walk in the street. She said that includes students and train commuters. She said that this fall there was a group of concerned citizens in the neighborhood who completed an informal traffic study. She said that they counted cars and used a radar gun to measure speed. She said that Curve Street has 29 houses. She said that they experienced an average vehicle rate of 192 cars per hour on the days that they counted during high traffic periods. She said that they counted 270 in one hour. She said that the traffic study counted 86 cars coming down Crest Road during a peak morning hour. She said that she would like to know where the other cars are coming through the neighborhood. She asked that when the traffic is revisited, the side streets need to be looked at because they are getting bombarded.

Ms. Lyne said that they heard about the drop off and delivery issues and the noise associated with the garage. She said that there is an overnight parking ordinance in Wellesley. She asked where people will park when they come to spend the night. She said that counts were done for people who take the train but they do not seem to take into account that people get in their car to drive their child to daycare and then drive back before getting on the train. She said that it another piece that needs to be looked at. She asked again that the counts be taken for 2:30 to 3:30, not just 4 to 6 pm. She asked that people try to understand what it is like to live in their neighborhood and the beauty of being able to walk to everything. She said that they do not have a lot of sidewalks. She said that the recommendations that were offered up do not appear to be infrastructure but more to have people take advantage of existing programs. She requested that if there are changes, it is figured out who will pay for it. Mr. Seegel said that Ms. Lyne's comments are well taken and should be addressed. He said that he is particularly concerned about the small side streets with no sidewalks. He said that it is a nightmare at rush hours.

<u>Jane Andrews- 21 Westerly Street</u>, said that Westerly is located at the top of Hollis Street. She said that she really knows what Hollis Street is like. She said that it is a narrow private way where it is difficult for cars to pass. She said that kind of difficulty has been minimized regarding access, turning, and big trucks on Hollis Street. She said those issues have really not been paid attention to. She said that she could not imagine what the queuing on Hollis Street will be like.

<u>Richard Juliani</u> said that he works on Hollis Street and has property at 11 and 9 Hollis Street. He said that what they are proposing is going up 900 percent just with the units on Hollis Street. He said that right now there are 10 units and the plan is to put in 90 units. He said that it is a private way. He said that there are lawyers already in the works for illegally overburdening the private way. He said that right now

they have an entrance onto a private way that they may never get. He said that he and the other abutters will fight this tooth and nail. He said that they are wasting time and money for Town consultants to go over plans that are submitted. He said that nobody has addressed the fact that Hollis Street is a private way. He said that it is 16 feet wide where the entrance will be. He said that a concern is whether people will have to dig out to their front walls, trees and walkways to make a 30 foot road. Mr. Seegel said that they will not have to do that.

Mr. Juliani said that he was on the fire department for 10 years in Wellesley. He said that there is a fire load in the basement. He said that there has to be some sort of regulation for services when you 15 gallons of gas in a car with another car on top of it with 15 gallons of gas. He said that it will all be jammed into a confined space. He said that should be a concern. He said that he did not think that normal sprinkler systems will not handle that.

<u>Minyue Zhai, 3 Granite Street</u>, said that she was concerned about the school district. She said that she spoke with the school principal and was told that every time a family moves out of the College Heights neighborhood, there is a new family with two children that moves in. She said that out of the seven elementary schools in Wellesley, Sprague is the largest elementary school. She said that the student to teacher ratio is significantly higher than the Town average, which is 11.5 compared to Sprague which is almost 16. She said that school performance and MCAS has significantly declined due to the student. /teacher ratio.

<u>May Xu, 21 Westerly Street</u>, said that she is located behind the site. She said that Hollis Street is their outlet. She said that she could not imagine cars waiting on Hollis Street to get into the garage. She said that two cars can barely fit going in opposite directions. She said that it will block their access. She said that Westerly Street is a sharp turn and is impossible during snow days. She said that plowing is an issue. She said that the proposed development will have a large percentage of senior residents. She said that a concern is emergency access. She said that it is dangerous.

Mr. Seegel said that the hearing will be continue to March 15th. He suggested that the Applicant look at Hollis Street and the amount of traffic that they choose to put on it.

As there was no further business to come before the Board, the hearing was adjourned at 10:05 pm.

Respectfully submitted

Lenore R. Mahoney Executive Secretary