WEST WINDSOR TOWNSHIP PLANNING BOARD
REGULAR MEETING
June 19, 2019

The regular meeting of the Planning Board was called to order at 7:06 pm on Wednesday, June 19, 2019 by Chair O'Brien in Meeting Room A of the Municipal Building.

STATEMENT OF ADEQUATE NOTICE

Pursuant to the Sunshine Law, a notice of this meeting's date, time, location and agenda was mailed to the news media, posted on the township bulletin board and filed with the municipal clerk on June 13, 2019.

ROLL CALL AND DECLARATION OF QUORUM

Linda Geevers
Michael Huey
Andrea Mandel
Hemant Marathe
Gene O'Brien
Allen Schectel- Alt I

Chair O'Brien announced that Martina Baillie is filling in for Counsel Muller while he is on vacation.

West Windsor resident, Miguel Vilaro, was sworn in. He had a comment about the last application, where there was a condition to put shrubs in to cover up the switchgear on the wall. He has experience with this equipment and said it is common practice to keep a six-foot or more clearing. Since this is an agenda item, Mr. Vilaro was asked to hold his comments until later in the meeting.

Liaison Reports:

Environmental Commission

Ms. Mandel reported that the committee finally put in the Sustainable Jersey Certification application. They need 350 points for silver; 465 were submitted for review. If some items are not accepted, they will go back and work on the submission. Ms. Mandel wanted to thank the Committee and the liaison, Mr. Dobromilsky, for their tremendous effort.

There were three presentations at the May meeting: one by a high school student, who will be redoing the website; another on the Watershed Institute about the NJ State Rainwater Bill; and the third by the Clean Water Action Group, promoting bans on plastic grocery bags.

On June 24, 2019, Mercer County will hold a presentation on the Master Plan Bicycle Element. Ms. Mandel suggested some attendance by board members at the presentation. She thought this could be helpful to them when working on the Master Plan Circulation Element. The presentation will take place at the Princeton Country Club from 5-7 pm.

Affordable Housing Committee

Mr. Schectel reported that the commission was unequivocally opposed to the use variance for 420 affordable housing units on McGetrick Lane. They felt that the proposed development was contrary to the Master Plan, and to good planning in general. A report will be issued to the Zoning Board.

A proposed housing and hotel development on Meadow Road was reviewed. This will be part of the Planning Board's documents once the application is deemed complete.

Mr. Surtees said that there was a meeting with the applicant, Princeton Executive Park. They went over the Roseland Development and the Affordable Housing memo. They will submit revised plans and will provide a point-by-point response to the questions.

Application PB19-10

This application concerns solar canopies at Building 510 in Carnegie Center.

Mr. Kevin Moore, from Sills, Cummis and Gross, represents Ameresco, Inc. The building is located at 510 Carnegie Center; Block 9, Lot 89 on the tax map. It is located in the ROM-1 Research Office Manufacturing District.

Michael Thomas, P.E., T&M Associates, was sworn in as the first witness. He presented several exhibits.

Exhibit A1: "Carnegie Center Master Plan", undated.

Exhibit A2: "Colorized Rendering of the Landscaping Plan". This was submitted to the board in the package.

Exhibit A3: "Site Plans".

Exhibit A4: "Power Production Numbers for the Building 510 Project".

Exhibit A5: "Colorized Isometric and Aerial Views of the Building 510 Project".

Exhibit A6: "Drainage and Typical Canopy Column Detail". This is a generic exhibit that applies to the next three applications.

Exhibit A7: "Foundation Construction Detail". This was provided on the Site Plan.

Sheet 3 and **Sheet 5** of the Site Plan shows the existing conditions and the demolition plan.

Two variances are needed. One is for impervious coverage. The planner will identify the other variance in his testimony.

Building 510 is located on the southwestern end of Carnegie Center East. There are currently five buildings in the 500 series. The property is 12.93 acres. Building 510 is 216,000 square feet gross floor area. There are 646 parking spaces on the site that will remain as is. A driveway accesses and bisects the parking in the front of the building. The proposed canopies will be located over the parking aisles to the right and left of the driveway. This is a permitted accessory use within the zone. The project will meet the setback requirements of the zone.

The 500 series buildings have bike sharing and parking available. There are bike lanes on Carnegie Center Drive and other areas on the east side. A Road Diet application was submitted a little over a year ago.

Route One is to the north of the property. Access is provided to the site directly from Carnegie Center Drive, which is north of the site.

T&M worked with the professionals to address landscaping. Eighty-three trees are being removed because of shading on arrays. The intent is to provide a sufficient number of plantings to replace the trees.

Twelve full canopies are proposed with one array located to the north and one to the southwest of the site. The arrays range in size from 99.44 feet by 40.45 feet to 46.94 feet by 238.66 feet. They are 20 feet, 6 inches in height with a clearance of 13 feet, 6 inches.

The columns will be put in locations between parking spaces where feasible. Where it is not, because of structural requirements or nearby utilities, they will be offset in other suitable locations.

There is minimal increase in impervious coverage, from 50.49% to 50.51%. The canopy columns over the landscape areas are impervious, causing the increase. As a result, there is minimal increase in storm water management and storm water runoff on the site. Everything will be draining to the same locations as it does now.

The canopies are structurally designed to withstand a snow load of 30 pounds/square foot.

There are recessed lights underneath the canopies that are pointed downward. There was a comment in Mr. Guzik's report having to do with some of the existing light pole locations on the site. The photo metrics are not shown correctly on the plan sets and will be updated to meet the ordinance requirements. There will be two waivers requested that are associated with that. The site has been designed to minimize light trespass as much as possible. The light stanchions are adequately sized. Lights will be on from dusk to dawn.

Trees will be removed at the main entrance drive coming into the site because of shading impact. Lower lying plants, no more than 15 to 20 feet tall, will be planted in place of these trees. The number of trees on the end caps of the islands will be increased to at least three trees, where possible. Ornamental grasses, shrubbery and plantings will be planted in the landscape areas underneath the arrays. As recommended by Mr. Dobromilsky, trees will be extended toward Carnegie Center Drive at the front entrance coming into the site. In the end, there will be more than the 94 trees; and the volume of vegetation will be replaced in the parking lot.

The columns, the arrays, and the drainage system pretty much match in color. The color of the inverters cannot be changed because it would void the warranty.

Mr. Schectel asked about the color of the conduits. Chair O'Brien asked if they come in colors. Ms. Geevers asked if they can be covered. Ms. Mandel suggested the silver-gray galvanized pipe would not be intrusive

Mr. Luis Alegria, Engineer with Ameresco Inc., was sworn in. He said the conduits are galvanized and cannot be painted. The colored conduits are more expensive. Covering is not an option because they have a fan and need to stay cool.

Mr. Ricciardi was sworn. He added that a small portion of the conduits come down into the inverter, so they are not very visible.

Mr. Huey asked if the solar panels can be shut down if a fire occurs. It was explained that there is an emergency shut off that will shut down the entire system.

It was indicated that Mr. Yates was concerned about ladder access inside the aisles because the canopies span a portion of the drive aisles. To resolve his concerns over the ability to fight a fire, the applicant agreed to run a dry standpipe down the aisle. Mr. Yates gave the option of putting this underground or above. The applicant will put it underground within the actual landscape aisles. It will look better aesthetically and also will not involve any additional redesign of the canopies. There will be one connection on the southern array and another on the northern array.

The Township's witnesses were sworn.

Mr. Kochenour was concerned about some of the turning radii around the site. T&M will tweak these areas to conform.

The applicant is asking for a waiver to eliminate the sub-surface drainage system that was originally proposed. The runoff will be at grade to allow it to drain to inlets and catch basins. The piping will be PVC and the color will match the columns. Two options were presented to break up the concentrated flow. First is a concrete splash block that would be built into the pavement. It would allow water to run off from the arrays, and spread. Second is a stone or porous system with voids that would act like a bubbler. Storm water would drain into a porous vault with stone around it. This would allow the storm water to fill up and drain in all directions.

There will be one drainage pipe, located on the high-grade side, for each column. The discharge pipe will be perpendicular to the parking space and not drain directly into the spaces.

In response to concerns raised regarding the wind force and vehicle impact that the columns can withstand, Mr. Thomas said that the code requires for the ability of the columns to withstand a barrier load of 6,000 pounds without collapsing. Different types of wheel stops will be reviewed with the professional staff.

Mr. Ricciardi added that the columns will withstand the storm conditions for this region. Mr. Guzik said that they are meeting the state building code requirements.

Kate Watson Wagle, Director of Distributive Scale Solar Product Development, with Ameresco, Inc. was sworn. She reported that the project will provide 47% of the total energy that Building 510 requires. The percentage differs among the sites because it depends upon the number of panels that can fit in the parking lot. This percentage is lower than Building 101, because this is a five-story building compared to a three-story building.

Ameresco will maintain the system, respond to emergency issues, and make repairs when safe to do so, over the life of the twenty-year contract. There are two, five-year extensions of the contract available. Once the project is complete, there will be an office in New Jersey. Ameresco will also train Boston Property personnel and local responders.

Mr. Alegria said that there is one shut off switch for the entire solar array. Every inverter has a switch so you can turn off a section. The system can also be monitored remotely.

Mr. Ricciardi said that one inverter box will be against the wall and one will be at the end aisle of the parking lot. Both will be screened.

Mr. Martin Truscott, PP, was sworn and went over the two variances:

1. The separation between solar panels is nine to fourteen feet apart, whereas, 35 feet is required. Mr. Novak agreed that the ordinance was set up to address building separation and solar panels were not considered in the ordinance. He said that Mr. Truscott addressed the negative-criteria.
2. Maximum impervious coverage; 50 % is permitted; currently it is 50.49 %; applicant is asking for 50.51%. Mr. Dobromilsky said this is a small increase and he is fine with this.

Mr. Truscott went over three waivers:

1. Eliminate the sub-surface drainage system and install down spouts.
2. Lighting, specifically the foot-candle in the parking lot is five times the strength of the standard of 0.5. This was granted in application PB19-09.
3. Shade trees per space and preservation of existing shade trees. Landscaping alternatives were provided. Mr. Dobromilsky agreed that the overall intent will be achieved and they will have a standard to document and set in record.

Mr. Novak had no additional comments.

Mr. Moore advised Mr. Guzik that the sections of his May 29, 2019 report that were not addressed will be handled in the same manner as in the application for 101 Carnegie Center.

Checklist Item 3D, Mr. Moore said the applicant will provide a title search.

No further comments from Mr. Kochenour.

Mr. Dobromilsky said most items in his report were addressed. There was concern with regard to vehicles hitting the posts, which hold up the solar panels.

Mr. Vilaro, resident of West Windsor, spoke again about the issue of screening the switches. He said he worked on various solar arrays over the years and never found screening. He recommends not screening the switches for safety reasons. He also has worked with galvanized pipe and within one or two years, colors fade. He does not recommend colors.

Mr. Alegria said the code requirement depends on voltage. This system is a 480-volt system. A 3½-foot clearance distance for screening between the shrubs and the equipment is acceptable.

Mr. Ricciardi said that Boston Properties will meet the codes. Fire officials and emergency personnel will know where the switch is located.

Chair O'Brien advised that as a condition, the applicant will work with Mr. Yates to observe the appropriate guidelines for covering the switch gear.

Ms. Geevers made a motion to close the public hearing; seconded by Mr. Huey. Motion approved by voice vote.

Chair O'Brien said that the color of the conduits seem to be one point of controversy. The majority of the board members were fine with the conduits not being colored. Mr. Schectel would like this to be explored more.

Martina Baillie reviewed the following conditions:

1. Adding ornamental grasses that grow up to three feet. There will be ongoing discussion with Mr. Dobromilsky about trees added at the ends of the islands to the extent possible and the entrance to the site.
2. Two standpipes will be installed underground at two locations.
3. T&M will tweak radii for fire trucks to turn.
4. Splash block or block with stones around it will be considered to address the concentration of water.
5. There will be wheel stops at the column locations and signage.
6. Combiner box will be screened per NEC code and subject to follow up meeting with Mr. Yates to ensure it meets code.

Ten submission waivers are the same as in application PB19-09.

Mr. Huey made a motion to approve application PB19-10 with two variances, five waivers and subject to several conditions; seconded by Ms. Mandel. Motion approved, 6-0, by roll call vote.

Application PB19-12

This application concerns solar canopies at Building 701 in Carnegie Center.

Mr. Kevin Moore, from Sills, Cummis and Gross, represents Ameresco, Inc. The building is located at 701 Carnegie Center; Block 7.13, Lots 12.03 and 12.06 on the tax map. It is located in the ROM-1 Research Office Manufacturing District.

Michael Thomas, P.E., T&M Associates, was sworn in as the first witness. He presented several exhibits.

Exhibit A1, "Carnegie Center Master Plan", undated.

Exhibit A2, "Colorized Rendering Aerial of the Site".

Exhibit A3, Plan set that was previously submitted to the board.

Exhibit A5, "Isometric and Aerial Views of 701 Site".

Exhibit A6, "Column Details".

Building 710 is located on the west side of Carnegie Center. It is the building that is most northerly on the west side. The actual solar project is being done on Lot 12.03, but landscaping improvements are being done on both Lots 12.03 and 12.06.

Building 701 is a three-story building that is 112,000 square feet. The lot itself is 6.85 acres, not including the retention basin. There are 374 parking spaces and no modifications to these spaces are being proposed.

A variance is being requested for one array that protrudes into the rear set back line. This array is closest to the retention basin and adjacent to Canal Pointe Boulevard.

There are two additional variances requested, one for impervious coverage and another for separation of the canopy structure.

This is a permitted accessory use.

There is access to the site from two locations, one in the rear off Canal Pointe Boulevard and the other in the front off Route One, known as Carnegie Center Drive.

A ground radar survey will be used when positioning the canopies to avoid conflict with utilities.

There will be 101 trees removed because of shading impact throughout the day. Specific trees in the northwest corner of the property are being removed, because there are different times of day when shading is an issue and other times when it is not. The worse case scenario has to be considered.

A total of five arrays are proposed on the site with varying dimensions. One array in the rear is perpendicular to the other four arrays. The four parallel arrays are 46.9 feet by 338.07 feet. There are concrete columns below grade and steel columns extend all the way down.

Spacing between the arrays is 17 to 18 feet. These arrays are tightly packed and span the aisles by a few feet. A dry standpipe system on array C4 will be installed to address Mr. Yates' concerns over access for fire apparatus. The columns will be located to avoid this drainage pipe, which will likely be located to the south of the existing underwater pipe. There will be fire department connections on both sides.

In regard to the variance to increase impervious coverage to 76.54 percent, only the columns over the existing landscape areas are impervious. This results in a very small amount of runoff of storm water. A waiver is being requested to eliminate the sub-surface drainage system and allow drainage downspouts that run along the columns to discharge on to the ground surface. Two options were presented to break up the concentrated flow. One is a concrete splash block that would be built into the pavement. It would allow water to run off from the arrays, and spread. The other is a stone or porous system with voids that would act like a bubbler. Storm water would drain into a porous vault with stone around it. This would allow the storm water to fill up and drain in all directions. The discharge points are on the grass islands and will have a stone-like hard lining that meets New Jersey Storm Water Control Standards.

The arrays are designed to withstand a snow load of up to 30 pounds per square foot.

The lighting is recessed under the canopy. While some of the light poles will be removed, the existing poles meet the height requirements and light intensity. The maximum clearance height for the canopies themselves is 20 feet, 6 inches and the minimum is 14 feet, $3\frac{7}{8}$ inches.

These structures are smaller than 25 feet. To achieve the same light intensity underneath the canopies and drive aisles, intensity of these lights needs to be a little higher than what is typical for light stanchions. Therefore, a waiver is requested for the intensity of the light under the canopy. The lights will be on dusk to dawn. The distance from the solar array to Canal Pointe is about 350 feet and the light will be diffused before it reaches Canal Pointe Boulevard.

The applicant, along with Mr. Dobromilsky and Mr. Guzik, came up with a solution to enhance landscaping and drainage. One issue involves array C1, which is perpendicular and located closest to the basin. Instead of a single row of trees, there will be a double or triple row of staggered trees and evergreens to enhance the buffer. The residences directly in front of the site do not front face the site. The homeowner's association was noticed and they were to have communicated to the homeowners about the opportunity for public comments before the board.

Approximately half of array C1 is located in the grass area so lighting can be eliminated on this side of the canopy and still meet ordinance requirements in the parking lot.

Mr. Dobromilsky suggested providing more robust landscaping in the rear to supplement the existing buffer and lessen light impact. However, the trees cannot be more than 15-20 feet high because of shading.

Mayor Marathe asked if trees can be put on the other side of the retention basin. Mr. Moore explained that the site drains from east to west toward the canal. There is a ten-foot elevation change from the building to Canal Pointe Boulevard, so it would be more impactful to put buffering on the western side of the C1 array rather than closer to Canal Pointe Boulevard.

All lights with the exception of the understory lights are designed to point downward.

Mr. Dobromilsky advised Mr. Schectel that he will look at placement of evergreens along Canal Pointe Boulevard, as well as closer to the solar panels. Most likely it will be more effective on the east side of the basin.

Mr. Moore said that in response to Mr. Guzik's comment, plans will be updated to show the elimination of lights and the photo metrics under the existing light pole locations will be updated.

Mr. Guzik explained that the canopy lights have a wall mount light installed onto each side of the array. The light shines on the rows of parking stalls. For the C1 array, there is only one row of stalls; so the entire backside of the solar array will not have a row of light. Along the entrance driveway are two new pole lights. Mr. Guzik wants it put on the record that the applicant agrees to put shields on any wall mounted or pole lights that shine toward the residences. The distance between the canopies and the closest residence is approximately 300 feet.

Mr. Dobromilsky suggested that two to three rows of staggered trees be added to the existing trees along the entrance drive. He also asked that the plants for the existing swale be modified to use ornamental

grasses with a mix of shrubbery and other plantings that are satisfactory for swale conditions. Finally, additional plantings will be added to the front entrance green area located immediately west of the building.

Mr. Dobromilsky said that in the end, the number of trees will be greater than a one-to-one ratio.

This is a more recent site. No changes are needed in the ADA parking, since it was in compliance in 2008/2009.

As for car circulation, some arrays overhang into the aisles a little bit, but cars will be able to get through the site.

The truck turning exhibit shows that a fire truck was unable to completely circumnavigate the entire lot. These concerns will be addressed by installing a standpipe underground along the swale area at the C4 array. Other vehicles, including fire trucks, will be able to drive in the aisles.

The drainage pipe will match the column in color. Pipes will be located on the high-grade side of the columns. The discharge points will be perpendicular to the parking spaces. The discharge solutions will be either splash block or a bubbler type system.

As in the other two applications, wheel stops will be installed at the column locations. The arrays are designed to handle a 6,000 pound impact.

Three trees will be planted, where possible, on the perpendicular landscape islands underneath the arrays.

Kate Watson Wagle, Director of Distributive Scale Solar Product Development, with Ameresco, Inc., was sworn and reported that the project will provide 93% of the total energy that Building 701 requires.

Martin Truscott, PP, was sworn and went over the three variances:

1. The separation between solar panels is 17 to 18 feet apart; 35 feet is required. Mr. Novak agreed that the ordinance pertained to buildings and solar panels were not considered in the ordinance.
2. Impervious coverage; 50% is permitted; currently it is 76.42 %, proposing 76.54 %. This comes to a less than one percent change.
3. Rear setback is 8.07 feet; minimum required is 40 feet.

Mr. Truscott went over the four waivers:

1. Number of shade trees (two per ten parking spaces) and preservation of shade trees.
2. Preservation of existing trees.
3. Foot-candle under the canopies.
4. Sub-surface drainage.

Ms. Mandel asked about a comment on page 4, last paragraph of Mr. Guzik's report, concerning the slope of the pipes. Mr. Guzik said that the comment is no longer applicable because the applicant is no longer planning on making a connection or disturbing the existing piping.

In response to Mr. Guzik's comment on Exhibit A6 that shows the switchgear/combiner in one section of the parking lot, Mr. Thomas said that for this site, there is only a building connection.

Mr. Kochenour requested an updated turning template. The applicant testified that they will provide this.

Mr. Dobromilsky advised that the applicant will work with staff on design of the canopies and landscaping.

Chair O'Brien commented on Exhibit A5, Sheet 5. The picture shows there is sufficient space for screening the switchgear.

Chair O'Brien advised that Mr. Yates June 11, 2019 memo recommends approval.

There were no public comments. Ms. Geevers made a motion to close the public hearing; seconded by Mr. Schectel. Motion approved by voice vote.

Counsel Baillie reviewed the conditions:

1. Storm water waiver; splash block or stone;
2. Lighting specific to landscaping;
3. Installation of underground standpipe down the aisle;
4. Drainage discharge points on the grass islands;
5. Eliminate row of lights at C1 array on grass;
6. Adjust light so there is no greater impact to residents;
7. Plant two to three rows of staggered trees behind C1 array;
8. Shield pole lights along the entrance if necessary;
9. Add ornamental grass and shrubs to swale area;
10. Area west of building will be enhanced with greenery;
11. Come up with an agreement on the number of trees, but no less than 134;
12. Drainage pipe color will match columns;
13. Wheel stops and signage at column base.

Ms. Mandel made a motion to approve Application PB19-12 with three variances, five waivers and various conditions noted by Counsel Baillie. Seconded by Mr. Schectel. Motion approved, 6-0, by voice vote.

Mr. Surtees said that the last application is on the agenda for July 10, 2019.

With no other business before the board, Chair O'Brien adjourned the meeting at 10:52 pm.

Respectfully submitted,

Terri Jany
Recording Secretary