



Shukria Wiar – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

August 23, 2016

Subject: 70 Anderson Street Redevelopment
Comment Response Letter

On behalf of Redfern Properties, LLC we are pleased to respond to the civil-related comments provided by multiple reviewers.

To facilitate the review comments are provided below in italics followed by Acorn Engineering, Inc.'s response.

Shukria Wiar – Memorandum to Portland Planning Board 7/18/16

Comment – *VIII. ZONING ANALYSIS: The proposed residential ten unit townhouses are a permitted use in the Residential R-6 which allows multi-family dwellings. Under the R-6 zone all of the dimensional requirements are being met, except for maximum lot coverage. The applicant will need to show documentation that they meet this standard.*

Response – Per City ordinance the maximum lot coverage for the R-6 zone is 60%. As outlined in SK-10 Impervious Surface Exhibit (see submitted) this requirement is being met in addition to the landscape open area.

Comment – *Per the city's land use ordinance, the following materials should be submitted at time of final review:*

- *A subdivision plat meeting all plat requirements as noted in 14-496; and*
- *Final plan submittal requirements as noted in 14-527(f) and (g). The final site plan should include:*
 - o *State plane coordinates to the four property corners to be set;*
 - o *Clarification regarding the location of curbing;*
 - o *Documentation of distance to property line at ground floor and above 35', where a stepback applies per the R-6 zone;*
 - o *The stamp of a professional engineer; and*
 - o *Overhead Easement along Anderson Street.*

Response – The final civil plan set including the Subdivision Plat will adhere to the requirement as set by the City Code of Ordinances, Section 14-527 and 14-496 respectively. The entrances and canopies have been removed along Anderson St., and an overhead easement is no longer required.

Comment – *The proposals include 2 bicycle parking spaces at the rear of the existing building, which meets the ordinance standard of 2 bicycle spaces per 5 vehicle spaces. The bicycle rack should be located on the property and not in the right of way. There is space near the parking area that the rack can be relocated at.*

Response – At the neighborhood meeting attendees requested additional bicycle parking. In response we have now designated ten secure bicycle parking within the fenced in area at the northwest property corner. Given the need to minimize the impervious area and obstructions adjacent to the parking field we are no longer proposing the two bicycle spaces within the right of way nor in the landscaped area between the parking field and right of way.

Comment – *There is a fence at the westerly side of the property and staff recommends a screening at the northerly side as well.*

Response – Per continued conversations and coordination with the abutting land owner at 76 Anderson Street, a fence along the shared northerly property line will not be proposed in accordance with the abutter's wishes. The westerly side will continue to be proposed as fenced.

Comment – *The applicant is proposing a transformer and a solid waste storage at the rear of the property that will be visible from the E. Lancaster Street. According to the cover letter, both the solid waste and transformer will be screened; the plans will need to show this as well.*

Response – The Site Plan has been revised to show and note a proposed four-foot cedar fence to screen the transformer and solid waste storage area while maintaining access. Based upon continued conversations with CMP we are confident that the surface transformer will not be required; the preferred service would be provided from two transformers mounted to a new CMP pole along East Lancaster Street. Please refer to the Utility Plan for additional information.

Comment – *The applicant will need to show how snow removal is being handled on site. If the applicant will be storing snow on site, the plans will need to show the proposed on-site snow storage areas.*

Response – As noted on the Site Plan, there are two onsite snow storage areas surrounding the parking area; all excess snow not able to be contained in these designated areas will be removed and transferred offsite by the snow contractor in accordance with Maine DEP and City of Portland snow removal and dumping regulations.

Comment – *The applicant has not submitted a lighting and photometric plan. As a subdivision, street lighting may be required to provide lighting for the area by the entrance and parking spaces. This will be reviewed when a lighting plan is submitted. All exterior site lighting including lighting of building entrances will be cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties or streets. Illumination levels will be adequate but not excessive for the safety, comfort and convenience of occupants and user of the site and will conform to all applicable standards of Section 12 of the Technical Manual.*

Response – The applicant is proposing to use energy efficient motion activated LED lights on the side of the building to illuminate the parking field and bicycle parking/waste storage

area. The lighting will be cutoff with no light emitted above the horizontal plane. In addition, the six-foot tall fence will further prevent light from spilling over onto adjacent properties. Each individual building entrance will have their own residential wall mounted light. The lights will be energy efficient LED's that are dark sky friendly. Please refer to the Utility Plan for the location of the parking lot lighting and the submitted lighting cut sheets for additional information on the parking lot and residential door lights.

Tom Errico – 7/20/16 Email

Comment – *Given low trip generation estimates for the project, a traffic impact study is not required. The project would not be expected to have a significant impact on traffic mobility and safety.*

Response – Thank you for your review. We are in agreement that the project will not have a significant traffic impact to East Lancaster Street and Anderson Street.

Comment – *The applicant is proposing parking spaces (one space meets City standards) that are slightly narrower than City standards (8.25 feet vs. 9 feet. And Auto-Turn analysis should be provided documenting adequate vehicle circulation.*

Response – Standard parking space and drive aisle width was sacrificed to provide additional landscaping and internal pedestrian circulation. An Auto-Turn analysis has been completed and is attached outlining the maneuverability of vehicles within the site using the proposed parking spaces. As noted at the planning board workshop residents of the townhouses may include families and their associated vehicles. As used on past City of Portland permitted projects our vehicle turning movement simulation uses the Architectural Library, Name - Composite Passenger Vehicle, Type Large Car. The Length is 16.75 ft. with a wheelbase of 9.42 ft. Similarly, a Honda Odyssey Minivan has a length of 16.91 ft. and a wheelbase of 9.83 ft.

Vehicles smaller than a minivan can pull head first into a space, back up and then pull forward out of the parking lot. A minivan can pull head first into space, backup up, pull forward, backup and then pull forward out of the parking lot. A vehicle parking in the end parking space would need to back out of the parking lot, if all the adjacent side parking space are full. We believe the parking lot drive aisle and parking space dimension will allow for adequate vehicle circulation within the urban context.

Comment – *The applicant is proposed a parking aisle width of 20 feet and this does not meet City standards. An Auto-Turn analysis should be provided documenting adequate vehicle circulation.*

Response – Please refer to the response above.

Comment – *The driveway apron along the sidewalk shall have a maximum cross slope of 2%. The plans shall include details specifying this requirement.*

Response – Additional information and detail was added to the Bituminous Driveway Apron Detail on C-40 to further emphasize that the max 2% cross slope along the five-foot-wide sidewalk within the apron.

Comment – *A crosswalk on Anderson Street (to Madison Street) may be a requirement for this project. I am coordinating this item with other City staff and will provide feedback in the future.*

Response – Redfern and Acorn support the installation of a crosswalk at the intersection of Madison and Anderson St. Furthermore, Redfern supports the idea originally presented by Christian Milneil of integrating into one side of the crosswalk vehicle calming and possibly stormwater quality measures. Should the neighborhood and City be in support then Redfern would be willing to provide a contribution for construction cost. We will await further information from Tom Errico and City Staff and request that a mutually beneficial agreement be a potential condition of approval. Acorn has revised the Site Plan to depict one potential crosswalk/traffic calming option.

Comment – *I continue to review and coordinate the design of the proposed sidewalk ramp on the project corner. I am coordinating with other City staff on the ramp design and will provide feedback in the future.*

Response – Thank you for your review and design coordination with the City.

Comment – *The Construction Management Plan should provide details on how the sidewalks along the property will be managed during construction.*

Response – The Construction Management Plan has been updated to reflect locations of sidewalk closures and appropriate signage to designate the closed areas. Pedestrians will be redirected across the street using an existing cross walk within Anderson Street and a proposed temporary crosswalk on East Lancaster Street.

Lauren Swett, P.E. – 7/20/16 Email

Comment – *The Applicant has submitted requests for ability to serve to the City of Portland for sewer and Portland Water District for water. The Applicant should note that they will be required to provide evidence of capacity to serve and approval of the proposed design from the City of Portland and Portland Water District.*

Response – Please refer to the attached capacity to serve letter from the Portland Water District. Acorn has made multiple requests to the City of Portland for the sewer capacity to serve letter.

Comment – *In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:*

- a) **Basic Standard:** *Plans, notes, and details have been provided to address erosion and sediment control requirements and inspection and maintenance requirements, in accordance with the Basic Standard.*
- b) **General Standard:** *The project is required to include stormwater management features for stormwater quality control. The Applicant is proposing to install a rain garden and*

a roof drip edge filter as stormwater management BMPs. It appears that the proposed systems will provide adequate stormwater treatment in accordance with Maine DEP standards. We have the following comments on the stormwater design:

- a. *Additional clarification is needed on the HydroCAD model of the Rain Garden. The modeled storage is unclear. It appears that separate volumes have been calculated for the water quality volume, loam/soil filter layer, and crushed stone layer, but it is not clear if only the void space within the soil materials was included as storage. It also appears, based on elevations, that the calculated volumes for water quality volume and loam/soil filter may overlap. The Maine DEP BMP standard for bioretention cells allows for one third of the soil filter volume to be included as storage volume when designing a system.*
 - b. *The Applicant should clarify the exfiltration invert included in the model for the rain garden. The elevation doesn't match the base elevation of the rain garden.*
 - c. *The Applicant has noted that a vertical orifice/grate has been modeled for both the rain garden and the roof drip edge outlet to provide for 24-hour stormwater detention. This orifice is not identified on the plans.*
- c) *Flooding Standard:* *The project is required to include stormwater management features to control the rate or quantity of stormwater runoff from the site. A comparison of pre-development flows with post-development flows shows that there is no increase in the 10-year and the 25-year storm events, but there is a small increase in the 2-year storm. We are in agreement that the level of increase indicated by the Applicant for this storm event is minor and should not negatively impact the site or City of Portland stormwater system. Please see additional comments under the general standard for questions in regards to the stormwater modeling method utilized for the site and the stormwater BMPs. If any changes are made to the stormwater model, compliance with the flooding standard will be reevaluated as required.*

Response –

- a) Thank you for your review; we are in agreement that the requirements set within the Basic Standard are met.
- b) The project stormwater report and HydroCAD modelling has been revised to include the following edits per your review:
 - a. The HydroCAD analysis now models storage within the layer using the appropriate void ratio for that layer's material makeup. Given the size of the rain garden the soil filter volume is not required to meet the channel protection volume (water quality volume). Refer to the attached revised Stormwater Management Plan for additional information on the proposed changes.
 - b. The values were revised; the exfiltration invert now matches the base of the rain garden.
 - c. From the revised Stormwater Report, "A simulation water quality outlet (vertical orifice) is modeled to mimic the minimum 24-hour release time through the soil filter media. This is completed by adjusting the rainfall amount in HydroCAD until the inflow volume is equal to or greater than the calculated treatment volume. The storm events are modeled as type III, 24-hour storm events in HydroCAD.

A vertical orifice is then modeled in HydroCAD at the outlet structures of each BMP. The simulation orifice diameter is sized to mimic the percolation rate through the soil filter media, a physical orifice is not proposed.” Given the small size of the tributary area we believe a traditional outlet control structure is unnecessary.

- c) Thank you for your review; we are in agreement that the increase in the 2-year storm event is de minimis and will not impact the site or the City of Portland municipal stormwater system. The changes to the HydroCAD calculations discussed above did not increase the 2-year post development flows.

Comment – *All of the bituminous pavement details should be corrected to refer to 12.5mm HMA (not 9.5 mm) for the surface courses of pavement, in accordance with the City of Portland Technical Standards.*

Response – The Local Bituminous Pavement Profile and City of Portland Arterial Bituminous Pavement Profile on C-40 have been revised to reflect 12.5mm HMA as a top surface course per City of Portland technical standard.

Comment – *A call-out note for street trees is included on the Site Plan (sheet C-10), but the trees and planters within the sidewalk are not shown.*

Response – Street trees and tree wells per L-1 Landscape Plan have been added to C-10 Site Plan.

Comment – *The Applicant has noted that there will be an existing sewer lateral abandoned at the site. The Applicant should include a note referencing the City’s technical standards for sewer lateral abandonment. Per Section 2 of the standards, a permit will be required, and the City will need to be notified at the time of demolition so that the Sewer Maintenance Division may assist with the abandonment.*

Response – A callout has been added to C-20 Utility Plan noting that the existing sewer lateral is to be abandoned per City of Portland technical standard. The contractor will be responsible for contacting the City at the time of demolition to ensure compliance of the removal process.

Comment – *Pavement trenching/repair in the roadway should be noted on the plan at the locations of the connections to the storm drain.*

Response – Hatches denoting the approximate and estimated extent of utility trenching within Anderson Street for the proposed stormwater outlet has been added to C-10 Site Plan and C-30 Grading & Drainage Plan.

Comment – *The plans show a foundation drain with connected in-line drains around the southern-most building. The Applicant should clarify where this system will discharge.*

Response – The foundation drain has been revised to show a connection to the rain garden outlet prior to entering the existing municipal stormwater drain within Anderson Street.

Comment -- *The rain garden is shown with numerous sewer and water service crossings. The Applicant should verify that these utility pipes will be adequately deep beneath the rain garden system to provide for adequate frost protection. The landscaping plan identifies serviceberry as the trees planted within the raingarden. The Applicant should verify that these plants will not be in conflict with the utility crossings. The pipe trench detail included in the plans notes that no trees should be planted within five feet of a sewer pipe.*

Response – The proposed sewer services have been revised to run below the internal brick sidewalks on either side of the rain garden instead of running below it; the proposed individual domestic water service will now be routed below each building slab.

Jeff Tarling – 7/21/16 Email

Comment – *Street trees: Extend the street tree planting to include Lancaster Street as well as Anderson Street. After taking a closer look the space is too tight or restrictive to include two trees in the tree planters.*

Response – The street trees are to be revised to reflect one tree per planter and also be proposed along East Lancaster Street. The Final Landscape Plan defines the planter location, size, and species.

Comment -- *Tree planters should not be raised due to on street parking, they should be rectangular in shape 4' x 7' ideal.*

Response – Street trees are revised to be planted in 4'X6' metal tree grates flush with the surrounding sidewalk. The flush grates will be used to maintain a minimum 5' pedestrian accessible route within the sidewalk.

Comment -- *Landscape treatment should be considered for the area near the parking lot.*

Response – Landscaping will be provided in two areas bordering the parking lot along the East Lancaster Street property frontage and along the retaining wall and cedar fence. Please refer to the revised Landscape Plan.

Comment -- *Ornamental grasses proposed for the 5' border is acceptable, applicant may want to consider alternatives, woody plants or herbaceous plant material / perennials that offer flowers / texture and year-round interest.*

Response – Please refer to the revised Landscape Plan.

Caitlyn Cameron – 7/20/16 Review

Comment -- *G-5 Patios and Plazas: More info needed: Internal patio space design not clear – what are material choices?*

Response – The Site Plan (C-10) has been revised to clarify the internal sidewalk material and is further detailed in C-40, Concrete Brick Paver Profile. The landscape architect has proposed the use of the Genest Katahdin series for its natural stone look and antiqued edge.

Please let me know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.