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Date: September 16, 2011
To: Plan Commission Members
From: Gregory T. Fries, Principal Engineer I
Subject: University Crossing Memo from SHNA

Dear Commission Members,
Engineering has received a copy of a memo from the Spring Harbor Neighborhood Association (SHNA) dated September 16, 2011(attached) regarding the University Crossing development. As may be aware, City Engineering has actively been working with the Developer and their engineer on the storm water and erosion control requirements. Below are City Engineering's responses to the items in the September 16th memo.

SHNA - Comment

Stormwater and Runoff

The University Crossing site is located on a relatively steep slope directly over the Spring Harbor drainage culvert. Lake Mendota, Spring Harbor and Spring Harbor Beach are only a few hundred yards downstream. It is critical that innovative stormwater management techniques be used to limit runoff at its source, maximize infiltration of clean runoff, and filter and slow runoff from pavements with vehicular traffic. Rooftop runoff should be collected for reuse and infiltration. SHNA requests that green spaces be designed with maximum use of vegetative landscape swales to minimize runoff and infiltrate a large percentage of natural precipitation while permitting normal machine mowing and maintenance. Drainage from streets, parking structures, and service areas should be directed into lined biofiltration basins to protect city well #14, a well-head protected zone, and to reduce water quality risks from polluted runoff entering Spring Harbor.

Engineering Response:

This development is part of the watershed that drains to Spring Harbor. This watershed is approximately 3.3 square miles in size and extends to and beyond West Towne Mall to include Sam's club and Wal-Mart on Watts Road. The Engineering Division enforces storm water regulations uniformly and consistently throughout this watershed.

From the perspective of the impact on the water quality (defined by total suspended solids) of a receiving water body, redevelopment of this parcel or the redevelopment of a parcel on Mineral Point Road are the same. From the perspective of storm water detention, a strong argument could be made that the water from a site at the downstream end of watershed (such as this) should not be detained so that its peak is not artificially delayed to coincide with the peak discharge from upstream lands. In this case detention is not required or requested.

Infiltration is requested based on the downstream springs that exist, and one presumes increasing or preserving those springs. However superseding regulations take precedence. No

infiltration is allowed per WDNR rule within 400 feet of a public well, and no storm water management practices are allowed within a Zone A well head protection area without water utility approval.

The comment makes reference to green spaces with normal mowing and maintenance. A standard roadside ditch would be approximately 3' below the adjacent centerline - at a mowable slope 3:1 and a 3' bottom this would result in a ditch 21' wide from top to top. This is a significant dedication of land for limited improvement in water quality. Additionally, City Engineering would be reluctant to be responsible for these high maintenance systems.

SHNA - Comment

1. To protect Spring Harbor and Lake Mendota we ask that the Plan Commission require 80% filtration of runoff through such methods as:
 - a. the expansion of the currently planned filtration basin
 - b. the addition of linear filtration strips along the site perimeter and interior
 - c. the addition of filtration strips between rows in the double row parking lots
 - d. other methods determined by the developer to meet the objectives.

Engineering Response:

It is staff's assumption that "80% filtration" is intended to mean 80% reduction in TSS off of new parking areas. If that is correct, all parties should be aware that the requirement by ordinance is a 40% reduction. The proposed doubling of the required reduction will result in an exponential growth in the land required to meet this standard. Is it the recommendation of the SHNA that this level of reduction should be mandated on all redevelopments within the watershed?

SHNA - Comment

2. Add roofs to all parking structures to avoid mixing clean precipitation with runoff from vehicle parking and increase the proportion of 'clean' water on the site.

Engineering Response:

While this is a novel and interesting strategy to reduce the amount of "dirty water" we anticipated that the cost will be excessive – again no ordinance requires this level of avoidance.

SHNA - Comment

3. Discharge 'clean' roof water onto terraced and vegetated landscapes outside of the first 400 ft of wellhead protected area (barring objection by DNR).

Engineering Response:

As long as "designed infiltration practices" are not installed this would not be, in staff opinion, inconsistent with the well head protection plan, however since it would not infiltrate all the runoff from the clean areas - the water that is left will mix with the "dirty" water from parking and roads and overwhelm the bio-retention system.

Overall the current design plan to take clean water directly to the storm sewer system and "dirty" water to the bio-retention system is more sustainable and in our opinion a better design.

SHNA - Comment

4. Install grit chambers to receive all street-grate runoff before it is piped into bio-filtration basins.

Engineering Response:

Engineering staff support this idea and have proposed to the developer that for the City to take over responsibility for the maintenance of the bio-retention system that this would likely be required.

SHNA - Comment

5. Meet high standards of soil loss control of 1.0 ton/acre or less during demolition and construction. Permanent landscapes to be terraced and planted with deep-rooted, long-stem, grasses.

Engineering Response:

City Engineering supports serious erosion control efforts and this site will be subject to both City and WDNR permits. As part of the City permits, self inspection with reporting on the web will be required. These inspection and photos may be accessed by anyone with access to the internet. We do not however believe that the requirement to reduce erosion off a construction site can be reduced to the level requested with standard or even advanced erosion control techniques. To reach the level of 1 ton/acre per year requires over 80% TSS reduction for standard Dane County soils. At that level, the size of the particle being settled is too small for standard settling techniques and pressure filter technology must be employed. This requires that the site be graded to drain to a holding area and this water then be pumped to a filter, treated and then discharged. The filters are then backwashed into the sanitary sewer. We are not aware of an instance in Wisconsin where this has been done. Is it the intent of the SHNA to require this of all construction projects in the watershed?



Spring Harbor Neighborhood Association

Established 1979

University Crossing SHNA Position Paper and Request to the Madison Plan Commission SHNA Board of Directors 9-16-11

Spring Harbor Neighborhood Association (SHNA) is pleased to see the former Erdman property being planned for development. SHNA has played an active role in identifying neighborhood and west side interests and concerns and in collaborating with Krupp Construction, city staff, alders, and adjoining neighborhoods to make this a high quality, neighborhood-friendly, development. SHNA has looked to the Spring Harbor Neighborhood Plan (approved by the Common Council) to guide our review of the proposed development and believe our recommendations are consistent with the plan and specific plan design guidelines.

This position paper identifies design and construction considerations expressed by neighborhood residents and business owners during meetings and discussions related to the University Crossing development. Spring Harbor and adjoining neighborhoods are directly affected. These predominantly residential communities are interspersed with historic natural areas, greenways and parks, and bordered by the Lake Mendota shoreline. The area is bisected by University Avenue, a heavily traveled corridor scheduled for upgrade in 2012 with projected long-term traffic growth.

Given the extent of environmental, traffic, and quality-of-living challenges facing this area, SHNA recommends that plans and designs make wider use of best practices (versus simply minimum standards) in specifying development and construction practices. SHNA is fully aware of the financial and market constraints facing new developments, and is committed to making every effort to identify options and practices that add quality and value, increase marketability, and recover costs through greater efficiency.

SHNA is pleased that Krupp Construction has chosen the PUD process. As general development plans are formulated, the neighborhood seeks the assistance of the Plan Commission in incorporating the features and standards outlined below.

SHNA asks the Plan Commission to request the following changes as a condition of approval of the development proposal for University Crossing:

Stormwater and Runoff.

The University Crossing site is located on a relatively steep slope directly over the Spring Harbor drainage culvert. Lake Mendota, Spring Harbor and Spring Harbor Beach are only a few hundred yards downstream. It is critical that innovative stormwater management techniques be used to limit runoff at its source, maximize infiltration of clean runoff, and filter and slow runoff from pavements with vehicular traffic. Rooftop runoff should be collected for reuse and infiltration. SHNA requests that green spaces be designed with maximum use of vegetative landscape swales to minimize runoff and infiltrate a large percentage of natural precipitation while permitting normal machine mowing and maintenance. Drainage from streets, parking structures, and service areas should be directed into lined biofiltration basins to protect city well #14, a well-head protected zone, and to reduce water quality risks from polluted runoff entering Spring Harbor.

1. To protect Spring Harbor and Lake Mendota we ask that the Plan Commission require 80% filtration of runoff through such methods as:
 - a. the expansion of the currently planned filtration basin
 - b. the addition of linear filtration strips along the site perimeter and interior
 - c. the addition of filtration strips between rows in the double row parking lots
 - d. other methods determined by the developer to meet the objectives.
2. Add roofs to all parking structures to avoid mixing clean precipitation with runoff from vehicle parking and increase the proportion of 'clean' water on the site.
3. Discharge 'clean' roof water onto terraced and vegetated landscapes outside of the first 400 ft of wellhead protected area (barring objection by DNR).
4. Install grit chambers to receive all street-grate runoff before it is piped into bio-filtration basins.
5. Meet high standards of soil loss control of 1.0 ton/acre or less during demolition and construction. Permanent landscapes to be terraced and planted with deep-rooted, long-stem, grasses.

Structures and Demolition

6. Building Height. SHNA requests that a maximum height of 4 stories be established for all buildings on this site including the proposed hotel on Whitney Way. Spring Harbor is primarily a residential neighborhood with mixed office, commercial and service uses. Limiting the hotel to 4 stories will alleviate some of the view-shed concerns (views of the capitol building from Old Sauk Rd, and Old Sauk ridge viewed from the east looking west). A 4 story hotel would be comparable in height to similar west-side lodgings.
7. Building Design & Internal Street. SHNA supports the wide green edge along University Ave and the use of a low berm to buffer the first floor of the clinic building. A green edge with drive-up front entrance on the yet to be named internal street will also increase the pedestrian-friendly character of the street corridor.
8. Surface Parking. Krupp Construction indicates that Phase I parking will consist of 250 stalls of surface parking next to Building 1 in the location now shown as parking ramp. Construction of the parking ramp is scheduled to be carried out when Buildings 2 & 3 are completed. However, without a specific requirement that structure parking be built, there is a danger the site could be permanently dominated with cheaper surface parking. SHNA requests that the Plan Commission place time limits for surface parking.
9. Parking Ramp Height and Design. Perspective drawings (such as Building 1, page 13) suggest that some parking structures are taller than adjoining buildings. SHNA requests that in all cases, ramp height not exceed adjoining building height. Further, in keeping with the neighborhood character of this development, all parking structures should be constructed with trim and finishes on all four sides compatible with adjoining building designs.
10. Lighting. Apply dark-sky standards to all outdoor lighting. Screen lighting that faces neighboring residential areas. We ask the Plan Commission to make this a requirement of the development.
11. Buffer Noise and Sound Transmission. The sound of train whistles and traffic noise is intense at this site. Building designs should take noise into account. This is especially relevant for the hospitality house and hotel. Tall, straight, building walls on University Ave will also amplify sound and reflect

it toward Indian Hills. SHNA recommends the use of sound dampening wall designs on the street side of all structures. Rooftop mechanical systems should also be buffered to prevent sound transmission into residential areas.

12. Demolition Controls. Krupp Construction has announced that the entire 14.35 acre site will be cleared and graded in a single contract period following the granting of necessary permits and transfers. Records of paint, plastic and metal fabricating businesses on this site pose the risk of possible chemical contamination of soil. Continuous monitoring for contamination must be provided during demolition and grading. Demolition will generate significant noise, dust, traffic and erosion that will affect surrounding residents and businesses. SHNA requests that drilling and hammering be kept to a minimum and that the site be watered down frequently to prevent dust. The site slopes sharply to the north and drains directly into Spring Harbor. Erosion control measures including contours, detention basins, and drainage swales must be incorporated into the grading plan. An enhanced landscape planting plan should be carried out during the initial phase that includes grass seeding and planting of permanent trees and shrubs in all areas not immediately developed. Existing mature trees along property edges and street-sides should be preserved and protected.

Landscaping, Green Space and Connections

13. Expanded Green Space. Expand the use of tree-lined corridors to define pedestrian pathways and connections. Preserve mature trees wherever possible. Provide an evergreen buffer along the Trillium neighborhood boundary and retain established evergreens at University Ave and Whitney Way. Utilize prairie grasses and native plantings to provide green edges along building fronts utilizing designs similar to Sequoya Library terraces at Tokay and Midvale.
14. Pedestrian/Bicycle Connections. A complete system of pedestrian/bike paths through the new development should be provided and connected to existing paths on the outside. SHNA supports creating a permanent bike/pedestrian access to Craig Ave (Trillium neighborhood) from the University Ave/Whitney Way development. A number of Craig Ave residents support this initiative. Collaboration of property owners, city and developer is required. SHNA requests that a future rail stop be designated during the planning phase with space and access reserved so that future rail development will be possible.
15. SHNA requests that mature trees and shrubs be maintained at the corner of University Ave and Whitney Way until the parcel is developed, and that trees and shrubs be maintained on the periphery to the greatest extent possible. We ask the Plan Commission to add this requirement to any approval of the development.