

MEMORANDUM

TO: Mayor, Council and Staff

FROM: Josiah Bilskemper, P.E. (Shive-Hattery, Inc.)

DATE: May 7, 2015
May 12, 2015 (Updated with Iowa City Utility Comments)

RE: One University Place PUD Submission (April 7, 2015)
City Engineer Staff Report #1

This memo provides a review of the One University Place PUD submittal in accordance with Section 13 (Multiple-Family Commercial PUD) of University Heights Ordinance #79. Following discussion of these items, there is a section of general plan review comments.

Ordinance 79 – Section 13 (Multiple-Family Commercial PUD)

13.B.1. *No more than two (2) buildings may be constructed with combined footprints of no more than forty-five thousand (45,000) square feet.*

Refer to MPOJC staff report.

13.B.2. *No more than one hundred four (104) dwelling units may be constructed.*

Refer to MPOJC staff report.

13.B.3. *No more than twenty thousand (20,000) square feet of commercial space may be constructed.*

Refer to MPOJC staff report.

13.B.4. *No more than one person not a member of the family as defined in Section 3 of this Ordinance may occupy each dwelling unit as part of the individual housekeeping unit.*

Refer to MPOJC staff report.

13.B.5. *The front building of the development (closest to Melrose Avenue) shall not exceed thirty-eight (38) feet in height, and the rear building shall not exceed seventy-six (76) feet in height. "Height" is defined in Section 7 of this Ordinance.*

The grading plan submitted (C-105/106) indicates ground floor elevation of the front building is 784.10, and ground floor elevation of the rear building is 782.20.

The recent revisions (Ordinance #187) to the city zoning ordinance include a new definition for determining building height. The grading plans indicate the base elevation within 5-feet of the front building is 784.00, and for the rear building, approximately 782.00 along the south edge of the building that faces Melrose.

The maximum structure height is 822.00 (front building) and 858.00 (rear building).
PUD plan should confirm what base elevation the relative building heights shown on the elevation renderings are based on.



- 13.B.6. *A minimum of one hundred eighty-five (185) off-street parking spaces, of which no more than one hundred eight (108) may be above ground, shall be provided for commercial and residential uses. "Parking space" is defined in Section 10 of this Ordinance.*

There are 75 above ground parking spaces shown on the layout plan, which includes four ADA parking stalls. The front building has one level of underground parking with 45 spaces (includes one ADA stall). The rear building has two levels of underground parking. The lower level has 59 spaces (includes one ADA stall) and the upper level has 61 spaces (includes one ADA stall).

There are a total of 240 parking spaces shown. Underground parking accounts for 165 of these spaces.

- 13.B.7. *The eaves or building projections, including screened porches or walls, of the front building shall not be less than thirty-three (33) feet from the lot line along Melrose Avenue; the eaves or building projections, including screened porches or walls, of any other building or portion thereof shall not be less than twenty (20) feet from any lot line.*

The Layout Plan (Sheet C-101) shows the proposed buildings placed inside all of the required setbacks.

- 13.B.8. *The University Heights City Council may impose additional reasonable conditions as it deems necessary to ensure that the development is compatible with adjacent land uses, will not overburden public services and facilities, and will not be detrimental to public health, safety, and welfare.*

Refer to MPOJC staff report.

- 13.D.1 *Location, size, and legal description of the site.*

Included on Sheet C-101.

- 13.D.2 *Location and area of land uses.*

Included on Sheet C-101.

- 13.D.3. *Detailed site plan showing all existing or proposed easements.*

The site easement layout is shown on Sheet C-102.

The submittal shows utility work, construction staging, removals, grading, and presumably tree clearing occurring on the University property to the north. **Include permanent easements for the utility work and temporary construction easements for the remaining items on the easement layout drawing for project work occurring beyond the property line.**

The plans propose a sanitary force main running along the north side of Melrose Avenue and connecting to an existing Iowa City sanitary sewer manhole in the parking lot of the University Club. An additional easement is required on the University Club property to route the force main into the parking lot. Depending on the alignment and depth of the force main within the Melrose right-of-way, a maintenance easement may need to be obtained along the south edge of the Birkdale Court properties to allow

access for future maintenance or repairs. **This need for an additional easement(s) should be acknowledged on Sheet C-102 with approximate locations shown.**

The City of Iowa City has responded that the water main and sanitary sewer within the site will be private utilities (Iowa City will not take over responsibility for these lines). **Therefore, dedicated easements for water main, sanitary sewer, and sanitary force main are not required within the property lines.**

The City of University Heights will require stormwater management easements for each BMP installed on the site for the purpose of inspection and repair. **This should be acknowledged on Sheet C-102 with approximate locations shown.**

Mid-American requires easements for the transformers, high-voltage electric conduits, and gas main that would extend into the site. They have also requested a joint gas and electric easement adjacent to and running along the full length of the west property line. These locations can be finalized along with the construction drawings when locations for these components are designed.

13.D.4. *Front, side, and rear yard setbacks.*

Included on Sheet C-101.

13.D.5. *Existing topography at two-foot intervals.*

Included on Sheet C-104.

13.D.6. *Grading plan at one-foot contours.*

Included on Sheet C-104.

13.D.7. *Location and description of major site features, including tree masses, drainage ways, wetlands and soils.*

Refer to Sheet C-103 and C-104. These sheets are to show sensitive slope areas, and where the proposed construction is located relative to these areas. **The delineation of steep and critical slope areas is missing from each sheet, and will need to be resubmitted.**

There is a table on Sheet C-104 showing the percentage of each type of slope area that is being impacted by construction.

Based on the proposed site plan elements, anticipate that all of the slope areas on the west side of the site will be disturbed, and a portion of the slope areas at the head (south end) of the east ravine will be disturbed by construction.

The plan identifies the location of three soil borings, and notes the slope in that area was previously altered by human activity. I recall these soil borings were completed in 2011 and were accompanied by a Terracon geotechnical report submitted to the council at that time. **This report should be resubmitted to the current council.**

Refer to general plan comments for Sheet C-104 at the end of this report for discussion of the city's Sensitive Areas Ordinance (#128).

13.D.8. *Erosion control plan.*

Sheet C-104 is labeled as the erosion control plan. It indicates silt fence being installed along the perimeter of the site and along the top of the east ravine. **Additional erosion control measures to encompass all utility and other project work occurring beyond the property line should be shown on this sheet.**

Erosion control plans will also be submitted for review as part of the construction drawing process. Refer to general plan comments for Sheet C-104 at the end of this report for discussion of the city's Sensitive Areas Ordinance (#128).

13.D.9. *Proposed type or types of development, e.g., commercial, multiple-family dwelling, etc.*

Refer to MPOJC staff report.

13.D.10. *Location and size of buildings or building footprints.*

Building locations and footprints shown on the Layout Plan (C-101), the Dimension Plans (C-108, C-109) and on the individual floor plans (A-Sheets).

13.D.11. *Design elevations showing all sides of every building, roofline, and perimeter fences.*

Building heights are called out on the Elevation drawings. The only perimeter "fence" shown is near the SE corner of the front building, visible in the street level rendering.

13.D.12. *Description of materials for all exterior building surfaces and perimeter fences.*

There are a few material descriptions included in the color elevation sections. There is a trellis system shown on the top of the rear building, along with a patio space and screen wall. Balcony materials may also be of interest to the council as they are prominently visible on the south side of the rear building toward Melrose Avenue.

Based on the height of the retaining walls shown on the Plans, there will be a need for railing and/or barrier rail at the top of these walls. The type and material of retaining walls, railings and/or barrier rail along these walls is not currently shown, and may be of interest to council.

The MPOJC staff report recommends the City Council obtain more specific information and examples of building materials before finalizing and approving the PUD.

13.D.13. *Vertical and horizontal dimensions of the exterior of all buildings and perimeter fences.*

Parapet height and elevator roof height shown on the elevation views and horizontal dimensions identified on the floor plans. **Need to confirm what base elevation the building heights are measured from (refer to 13.B.5 comments), and should identify height of the proposed fencing being shown at the SE corner of the site near the Melrose and Sunset intersection.**

13.D.14. *Maximum height of proposed structures and perimeter fences.*

Refer to 13.D.13 comments.

13.D.15. *Floor plans showing square footage of each commercial and each dwelling unit.*

Refer to the floor plan drawings for dimensions.

13.D.16. *Location of existing and proposed utilities, sanitary sewers, storm water facilities, and water, gas, and electrical distribution systems.*

Existing utilities are shown on Sheet C-103, and the proposed facilities are shown on Sheet C-107.

Water Main:

The City of Iowa City water department has indicated they are able to serve the proposed development. All water main within the site will be private (Iowa City will not take over responsibility for these lines), therefore no water main easements are needed within the property.

Iowa City has provided comments on the details of the hydrant types, service connection lines, and piping materials. These comments are being provided to the developer and would need to be incorporated into construction drawings.

Iowa City requests that a new 8-inch water main be extended north from the Melrose and Sunset intersection as part of the Sunset Street realignment on the north side. If this new main could be stubbed out to a point north of the intersection work, the City of Iowa City would then be able to undertake a future project to extend this line and connect to an existing dead-end water main at Grand Avenue, creating another loop to improve the system.

The City of Iowa City would be able to reimburse the City of University Heights for construction costs of the water main extension if included in the intersection realignment work. The exact routing of this new water main through the intersection would still need to be determined. This concept to route a new water main north to help eliminate the dead-end main on Grand Avenue was included in the previous PUD discussions in 2011 and 2014.

Sanitary Sewer:

The City of Iowa City wastewater department has indicated they are able to serve the proposed development. All sanitary sewer within the site, and the force main extending along Melrose Avenue will be private (Iowa City will not take over responsibility for these lines), therefore no sanitary sewer easements are needed within the property.

There is an 8-inch sanitary line shown to be stubbed out to the north. **Iowa City recommends it be removed unless there is a compelling reason it needs to be there.**

The PUD drawings show the development requires a sanitary pump station in the northwest corner of the site. Sewer services from each building flow by gravity to the pump station, which will pump wastewater through a force main pipe along the west edge of the site, then west along the north side of Melrose Avenue, and connect to an existing Iowa City sewer manhole in the University

Club parking lot (the sanitary force main from the Birkdale Court properties connects to this same manhole).

The proposed sanitary force main is shown very close to the Birkdale Court property line along Melrose, such that repair work on the buried line might require digging onto adjacent property. **The construction drawings will need to show the alignment and depth of this line at a sufficient distance from the property line. If this can't be accomplished, another option is for the developer to secure a maintenance easement from the Birkdale properties.**

Gas and Electric:

There is no proposed gas or electric facilities shown within the site plan at this time. As noted previously in the item about easements, these will need to be provided for Mid-American within the site.

Per discussion with Mid-American gas department, they are able to serve the residential and commercial buildings with gas service. A new gas main will need to be extended into the site, with one service line extending from this main to each building. The new main will connect to the existing gas main along the south side of Melrose or the east side of Sunset Street.

A meeting was held with Mid-American electric department and the developers electrical engineer designers. At the conclusion of the meeting, **Mid-American electric indicates they have the capacity to serve the site, and it would be possible to maintain electric service to the church building at the same time the front building is under construction.** If needed due to the construction of the front building, or due to the reconstruction of the north leg of Sunset Street, a temporary pole could be set to maintain electric service to the church during this time. **Depending on transformer locations at the site, an additional utility pole may need to be set on the south side of Melrose.**

At this point, the physical size of the two transformers, the specific location of where these transformers will be located around the buildings, and where the metering units will be placed are still to be determined. There is also potential photo-voltaic arrays being considered for the roof of each building (refer to "roof plan" drawings). The electrical engineers are currently working through the design, and will provide additional information to Mid-American to confirm the details of the design.

Other potential impacts to overhead utility poles along Melrose are likely. The widening of Melrose west of the site to develop a left-turn lane may require the anchor wires stabilizing existing poles on the south side be modified, or poles may need to be relocated. These impacts can be evaluated when construction drawings are submitted for review.

As the construction drawings are prepared, the layout and design of the gas and electric services by the developer's engineers will need to be coordinated with Mid-American.

In order to rebuild the north leg of Sunset Street at the intersection, the existing utility pole on that side of the street will need to be relocated somewhere on the

north side of the intersection. The existing traffic signal cabinet will also need to be relocated on this side of the street.

Stormwater Management:

Water runoff from the site is collected in piping or sheds naturally over the ground to the north, south, east and west. Water collected into piping is outlet at two locations: the east ravine and the University property to the north. There is a double row bio-retention cell concept (Sheet C-104) shown to collect water from the parking lot area between the buildings, and the remaining paved entrance and exit drives collect water with intakes and pipe this water to the east and north ravines.

Stormwater management on the site will need to meet compliance requirements of the city's "Post-Construction Stormwater Runoff Control" Ordinance (#169). This ordinance requires that a stormwater management plan be submitted and approved along with construction drawings prior to issuance of a construction permit. This plan will provide the details, calculations and other documents to show the runoff is being controlled to meet the ordinance requirements.

General Plan Review Comments

Sheet C-101

1. Notes indicate street improvements along Melrose Avenue for a left-turn lane at the main entrance are "possible improvements" to be completed by others. The MPOJC traffic report indicates the dedicated left-turn lane for eastbound traffic at the main entrance is required, which means the Melrose Avenue widening is required. **The council should have a clear understanding of exactly what improvements in the right-of-way are to be constructed as part of the developer's project, and have this reflected on the PUD drawings.**
2. The bus pull-off and bus shelter are not shown on the current plans. **Similar to the note above, if this is to be included in the overall project, it should be noted somewhere on the plan, or perhaps lightly dashed in on the drawing showing general location.**
3. **Recommend the Melrose widening west of the main entrance be accomplished on the south side of the road.** The PUD concept widens both sides of the street, but limited space on the north side due to the existing wide sidewalk and retaining wall conflict with pushing the street and storm sewer intake up into the edge of the walk. The PUD plans also show installing an unspecified vehicular guard rail directly on the edge of the north curb that is not desirable.
4. As part of the construction plan process, overall geometry of the Melrose and Sunset roadway changes still need to be designed and evaluated. This includes components such as lane configurations, traffic signal modifications and/or replacements, future accommodations for on-street bike facilities, relocation of existing overhead utility poles, etc. **Everyone should be aware that evaluation of these various items during detailed design may require adjustments to the intersection and lane widening concepts shown on the PUD plans.** As noted in the MPOJC staff report, the addition of a dedicated left-turn lane at the Melrose and Sunset intersection is not necessary from an intersection level-of-service perspective, but may be necessary for proper alignment of lanes and intersection geometry.

5. The proposed retaining wall on the east side of the site would extend into public right-of-way. **Recommend the city require the development be responsible for maintenance, repair, replacement, etc. of the wall even though it is within the street right-of-way.**
6. The construction drawings will need to include design of appropriate barriers along the top of the retaining walls where required due to wall heights (refer also to 13.D.12 comments).
7. The number of underground parking stalls listed in the plan notes for the rear building is less than the number shown on the parking level floor plans.
8. The MPOJC staff report recommends the City consider placing a sidewalk along the west side of Sunset Street to the north. There is an existing sidewalk that ends at Grand Avenue on this side of the street. Finding a suitable location for this sidewalk between the street and the ravine while avoiding existing mature trees would be a design challenge, and sidewalk would need to be extended across the front of 1504 Grand Avenue to complete the connection to the Grand Avenue sidewalk.
9. The MPOJC staff report recommends constructing a sidewalk adjacent to, and along the length of, the main access drive on the west side of the site to provide a pedestrian path to the rear building, and future pedestrian access to the University owned parcel north of the property.
10. There are 65 tree symbols shown around the site on this sheet. The "Architectural Site Plan" shows these same trees (and perhaps a few more) and shows coloring/shading where landscape plantings are proposed to be located throughout the site. These tree and planting locations appear to match what is seen in the site renderings. The MPOJC staff report comments on streetscape recommends that specific information on street furniture and a detailed landscaping plan be requested. **If council expects to see the same type, quantity and locations of trees and landscaping as shown in the PUD plans and renderings, this should be confirmed by both parties to provide a basis for evaluating the landscaping plans included with the construction drawings.**
11. Will the sidewalk and patio paving shown around the front building be colored concrete or different materials to create the colored pavement pattern shown on the architectural site plan and depicted in the street view renderings of the site?
12. The dumpster enclosure located by the corner of the front building will be visible from Melrose Avenue. **Recommend this be a brick enclosure or some other combination of materials similar to the building (i.e. not a wood slat enclosure).** Council could request specific allowable materials with the PUD plan or indicate to the developer what types of materials they would consider for approval during the review of construction drawings. The MPOJC staff report suggests that additional vegetative or hard screening may be desired to limit visibility of the loading dock located next to the dumpster enclosure.

Sheet C-102

1. The sidewalk, fencing, and curb ramp layout at the SW corner of the Melrose and Sunset intersection was rebuilt in 2013. The city also acquired additional right-of-way at this corner.
2. Based on the location of existing right-of-way lines shown at the SE corner of the Melrose and Sunset intersection, anticipate that property and/or easement acquisition would be required to place and install new traffic signal.

3. The City of Iowa City has indicated that no water main or sanitary sewer easements are required within the site, these utilities will be private.

Sheet C-103

1. This drawing shows the “Sensitive Areas Development Plan”, and is the first component of complying with the Sensitive Areas Ordinance (#128). **The delineation of steep and critical slope areas is missing from the drawing, and will need to be resubmitted.**

Sheet C-104

1. This shows the “Grading Plan” and the “Sensitive Areas Site Plan,” which are the other two components of the Sensitive Areas Ordinance. There is a table indicating the percentage disturbed, but the current drawing doesn’t show where on the site these disturbed areas are located. **This drawing needs to be revised to depict visually which portions of the slope areas are being disturbed.**
2. There is new storm sewer pipe located into the east ravine. **This drawing needs to provide detail about how this pipe is proposed to be constructed into the bottom of the ravine.**
3. As noted previously in this report, it looks like much of the slope on the west side of the site would be disturbed by construction, and an area at the head of the east ravine. More detailed versions of these sheets will be included in the construction drawings showing construction entrances, job trailer locations, intake protection, etc.
4. In accordance with the city’s Sensitive Areas Ordinance, for construction that disturbs protected slopes as proposed at this site, the following four conditions need to be met:
 - a. The protected slopes have been “previously altered by human activity...”
 - i. As noted above, soil borings and geotechnical report were provided to council in 2011. **Recommend this report be provided to the current council.**
 - b. “...a geologist or professional engineer can demonstrate to the University Heights City Council’s satisfaction that development activity will not undermine the stability of the slope...”
 - i. The plan shows retaining walls on either side of the site adjacent to slopes. **Recommend that during the construction drawing review process, the city require a letter from the geotechnical engineer and the retaining wall structural engineer certifying the design will maintain the slope stability.**
 - c. “...the City further determines the development activities are consistent with the intent of the Sensitive Areas Ordinance.”
 - i. The purpose of the ordinance, as noted in Section 1 of Ordinance #128 “is to protect sensitive areas within the City of University Heights by regulating the development of such sensitive areas.” Based on Sheet C-104, it looks like “protection” of existing slope areas is based on (1) leaving some portions of the slopes in the east ravine untouched, and (2) constructing retaining walls along the east and west access drives to reduce the number of trees impacted, and reducing the amount of fill material that would otherwise have to be graded out down the slopes on each side of the site,

- d. The University Heights City Council approves a submitted Development Plan, Grading Plan, and Sensitive Areas Site Plan.
 - i. **The Development Plan (C-103) needs to be revised and resubmitted to show the missing steep and critical slope areas. The Grading and Sensitive Areas Site Plan (C-104) should be revised and resubmitted to include the missing steep and critical slope areas, visually delineate the disturbed areas and provide detail about the new storm sewer pipe being built into the east ravine.**
 - ii. The council needs to determine if they are in agreement with the concepts shown for new grading around the site, as well as the proposed building, paving, and utility work that will take place across portions of the existing steep, critical and protected slope areas as shown on Sheet C-104.
 - iii. If council wishes to approve these drawings related to the Sensitive Areas Ordinance (pending resubmittal and approval of Sheets C-103 and C-104 as noted above), recommend they do so contingent upon receipt of the certification letter from the geotechnical and structural engineer noted above, and confirmation that construction drawings reflect the same disturbance limits as shown in the PUD.

C-107

1. When construction drawings are developed, recommend the following items be considered when designing the proposed bio-retention cells along the north edge of the parking:
 - a. Can these cells be located far enough beyond the pavement so they will still be in the correct location if additional parking stalls and sidewalk are added on the north edge of the paving? It looks like an additional bay of parking on the north edge would cover the cells and extend through the first row of trees.
 - b. There will be a stormwater easement around these cells, and the easement would need to be redefined in the future if the cells have to be rebuilt further north to accommodate additional parking.
 - c. Stormwater calculations for the north cells should account for future impervious paved area of additional parking stalls.
 - d. In the interest of keeping excavation for future water main repairs outside the bio-retention cell soil profile, recommend cells and parallel water main be separated so that the edge of the cell is at least 8-feet from the water main.
2. The Post-Construction Stormwater Runoff Control Ordinance (#169) requires a number of submittals from the developer during the review of the construction drawings and prior to issuance of construction permit. The required submittals and stormwater design criteria are found in Section 169.10 thru 169.12. These requirements are currently acknowledged in Section 2 of the developer's agreement. A Construction Site Runoff (CSR) permit will also need to be obtained from the City prior to construction (Ordinance #155).

Please let me know if you have any questions, comments, or need any further information.
JDB