Hawks Design

Landscape Architecture – Site Planning

December 20, 2017

University Lake Partners II, LLC
Attn: Jim Glasgow & Greg Stiltner
340 Herky Street
North Liberty, Iowa 52317

RE: Protective measures for existing trees not located within the woodland. Methods to minimize impact of construction traffic and work within "woodland buffer" zones.

Dear Jim and Greg,

Per your request, I've researched and developed a list of tree protective measures for: trees not located within a "woodland" and for working within "woodland buffer" areas. They are as follows:

1. Protection of woodland buffer zones:

Much of the 30-foot-wide "woodland buffer zone" along the existing woodland area on the adjacent railroad right-of-way will be utilized as parking and walkway areas. **Therefore, ULP II will apply for an exemption from the City Engineer to work and build within this woodland buffer zone.** Additionally, they will apply the following protective measures during construction:

- Utilize gap-graded soil as fill material, where fill is required. Soils with high sand content will not be used. This to prevent soil compaction.
- Do not trench, store supplies, fill, or excavation materials within the buffer zone. Do not create gravel piles within zone.
- Maintain a minimum of construction traffic within zone.
- Install sturdy construction fencing as approved by the City Engineer to be constructed at the edge of the buffer zone where no site improvements are scheduled and along the drip-lines of existing trees where site improvements are scheduled.
- Apply mulch such as woodchips to be placed over the soil surface at a minimum of 6" depth to partially protect the soil from compaction by traffic.
- Employ of a certified arborist during and after construction to monitor the trees, and to possibly treat trees with Cambistat, a plant growth regulator, until the tree adjusts to its new environment.

2. Protection of trees not located within woodlands:
Trees not located within woodlands to be protected include four street trees along Melrose (3 Oaks and 1 Sweet Gum), one silver maple north of the hotel, lindens and walnuts on the east side of the drive, and Norway spruce along the west property line. The street trees, Norway spruce and lindens and walnuts will have minimal grading disturbances. These trees are classified as having "Intermediate" tolerance to soil compaction as listed by an ISU Extension Publication. The 36" Silver Maple, to be protected north of the hotel is also listed as a tree as having an "intermediate" tolerance to soil compaction and being "somewhat tolerant" of surrounding construction activity. The following measures are to be applied at these trees:

- Utilize gap-graded soil as fill material, where fill is required. Soils with high sand content will not be used.
- Do not cut or strip surface soils, lower grades, trench, park or operate any machinery within protected areas around trees to be preserved. Do not store supplies, fill, excavation materials. Do not build sidewalks and streets over tree root protected areas. Do not create sand or gravel piles over the roots. Do not remove ground cover at base of tree.
- Reduce sidewalk in width from 8' wide to 7' wide or realign the sidewalk near the 36" Silver Maple. Sidewalk construction should include minimizing any grade changes and excavation. Additionally, install root barriers along tree-edge of sidewalk and build walk on beds of coarse gravel. According to an ISU Extension Publication, tree roots avoid not growing through the porous gravel, and instead will grow deeper.
- Provide a minimum of 3 to 4 feet between the tree and the sidewalk.
- Maintain minimal construction traffic near drip lines of trees.
- Install sturdy construction fencing as approved by the City Engineer at the drip-lines of existing trees.
- Apply a mulch such as woodchips to be placed over the soil surface at a minimum of 6" depth to partially protect the soil from compaction by traffic.
- Employ of a certified arborist during and after construction to monitor the trees and to treat trees with Cambistat, to provide growth control until the tree adjusts to the new environment.

Should you have any questions, please don't hesitate to contact me at 319/530-3867.

Sincerely,

Laura A. Hawks

Laura A. Hawks, ASLA
Hawks Design, LLC