



One University Place Construction Update 2  
11/12/15

One University Place construction continues on the front building. Concrete footings and basement walls are being poured. City building inspector Terry Goerdts has inspected and signed off on every required inspection.

The schedule is to have the front building enclosed in late January depending on the weather. This building is expected to be completed in late summer, 2016.

Attached to this report are the portions of the November [City Engineer's report](#) to City Council that relate to the OUP project. City Council in their October meeting asked City Engineer, Josiah Bilskemper, to develop guidelines for events that would trigger council review of plan changes. [Those guidelines can be found here](#). Minor plan changes can be approved by the City Engineer without council approval.

Utilities work (storm sewer and sanitary sewer) is continuing on the west side. An updated landscape plan for this area the east ravine area is being developed. This plan will incorporate recommendations from the [analysis done by EVE](#). The council has agreed on the slope of the ravine and the remaining trees to be removed. The updated plan will clearly indicate the new trees and vegetation to be planted by the developer.

## MEMORANDUM

TO: University Heights, Mayor, Council, and Staff  
FROM: Josiah Bilskemper, P.E.  
DATE: November 6, 2015  
RE: City Engineer's Report

**(7) One University Place - Clarification**

- a. Silvia requested clarification to a portion of the October City Engineer report, wanting to know what date trees in the east ravine that were outside the construction limits had been cleared. As indicated in Item 7.c (i) of the October City Engineer report, we were notified Friday, September 25<sup>th</sup> about the issue, and that no additional work would occur until we could meet on site the following Monday morning. Vegetation was observed to have been cleared on the Monday morning site visit, so this additional clearing would have had to occur on or before September 25<sup>th</sup>.

**(8) One University Place – Construction Changes**

- a. At the October meeting, there was discussion about what types of construction changes would require city council approval before occurring. Attached is a memo we prepared suggesting the types of construction changes that would require council involvement.

**(9) One University Place – East Ravine**

- a. At the October meeting, during Jeff Maxwell's discussion with the city council, it was agreed that an outside environmental consultant (Judy Joyce with EarthView Environmental) would visit the site and provide recommendations for the work that would need to be prepared for this portion of the ravine.
- b. I am attaching the report Judy provided to the council on October 28<sup>th</sup>. The report addresses three main concerns: Light Pollution and Screening, Erosion/Slope Grading, and Vegetation Restoration. Each section provides detail of the tradeoffs associated with choosing various options. There is an effective summary at the end of the report.

- c. Although not addressed in Judy's report, I did follow up with her about the possibility of using retaining walls at one or more locations along the slope as a method to obtain gentler slopes while limiting any further impact down into the ravine. I also asked whether this approach (using retaining walls) would still allow the type of vegetation plan she recommended to be implemented. This was Judy's response:
- i. "Structural walls could be added. Any work done in the drip lines of trees can and most likely will cause damage, so with walls there may still be tree removal. When I met with the group (October 20<sup>th</sup> on-site meeting), they mentioned having that area have a "natural" look, so I didn't address terracing. Structures will give it a different look and create a different space."
  - ii. If walls were used, could the vegetation plan still be implemented? "Yes, there are many options. It all depends on what the expectations are and what the desired look and future use of that area might be."

#### **(10)One University Place – Public Improvements Project**

- a. There are several poor condition street panels on Melrose Avenue that are adjacent to (but not included within) the paving work that will be required for the street widening and the intersection realignment work. We marked out these panels in September before the site construction got underway to identify a baseline of existing conditions.
- b. Attached is a sketch of the additional panel locations and an estimate prepared by MMS of the replacement cost associated with these additional panels. The actual costs would be determined by the bidding results of the project.
- c. Our recommendation is to include these additional panel replacements in the Public Improvements construction drawings being prepared by MMS Consultants. This project will already have a concrete contractor on-site doing this type of work, and would limit traffic disruption to one construction project.
- d. MMS can include these additional panel replacements in the construction drawings, but the developer would like to get confirmation from the city council that costs for removing these additional street panels will be paid by the City.
- e. MMS provided the following schedule for developing the Public Improvements Project:
  - November 6<sup>th</sup> – Submit Preliminary Plans for City Review
  - December 30<sup>th</sup> – Submit Final Plans and Right-of-Way Acquisition Plat to City
  - January 14<sup>th</sup> – Send Plans out to Bidders

MEMORANDUM

TO: Jim Lane, University Heights City Councilor  
Steve Ballard, City Attorney  
Terry Goerd, City Inspector

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

DATE: November 6, 2015

RE: One University Place – Construction Changes

Based on discussion at the October city council meeting, subsequent review of the PUD Development Agreement, and Section 13 (Multiple-Family Commercial PUD) of Ordinance 79, below is a list of recommended items that would trigger some type of city review, first with city staff and the designated council contact, and then follow-up with the city council if warranted.

1. Changes to the project boundaries:
  - a. Work that would go beyond the approved construction limits (within the site).
  - b. Work that would impact additional sensitive slopes beyond the approved limits.
  - c. Work that would impact adjacent properties.
  - d. Work that would increase tree removals beyond what is shown on the approved plan.
2. Changes to the project occurring within city right-of-way:
  - a. Changes that would impact vehicular or pedestrian traffic, regardless of duration.
  - b. Changes that would impact any public utilities.
  - c. Changes to the design of facilities within the right-of-way.
3. Changes to the project that implicate development regulations or zoning ordinance restrictions:
  - a. Building square footage, commercial square footage, or number of dwelling units.
  - b. Building height and building setbacks.
  - c. Parking (above ground or below ground).
4. Changes to the project storm water design:
  - a. Changes that would alter flow direction or quantity of storm water.
  - b. Changes that would impact the bio-retention cells in any way.
5. Changes to the project that implicate any of the conditions in the PUD Development Agreement. Some examples include:
  - a. Changes to dumpster locations.
  - b. Changes to the landscaping plan.
  - c. Changes to exterior building materials or colors, exterior signing, or exterior lighting.
  - d. Changes to the timing of construction.

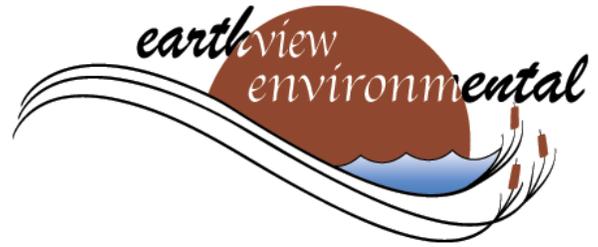
Please let me know if you have any questions, thanks.

JDB



October 26, 2015

Mayor and City Council City  
of University Heights City  
Hall 1004 Melrose Ave  
Iowa City, Iowa 52246



RE: OUP East Ravine Restoration

To The Mayor and City Council of University Heights:

At the request of the City of University Heights and Jeff Maxwell, Developer, I have completed a review of the proposed ravine restoration plan for the OUP East Ravine. On the morning of 10/20/2015, Mr. Maxwell and myself met onsite along with Josiah Bilskemper, City Engineer, Mayor Louise From, and Council Member Silvia Quezada. Also attending were residents David Shriver, Larry Wilson, Pat Yeggy and Ken Yeggy. After some discussion, we concluded that there were three issues the group wanted me to address in my review. Those concerns include:

- Light Pollution and Screening
- Erosion/slope grade
- Vegetation Restoration Plan

### Concern 1: Light Pollution and Screening

Based on discussions, the developer will have his landscape architect (Confluence) design a planting plan which addresses light pollution. Our field discussion led to a consensus that evergreens, such as arborvitae, would be placed along the north side of the development exit drive to sunset to screen vehicle lights. The evergreen screen would also serve to separate the urban landscape of the development from the native plantings in the ravine.

Currently there is a grouping of three (3) trees on the southeast corner of the ravine which provide some additional screening. On the current plan provided by MMS Consultants, the design shows them protected with a retaining wall. It is worth noting:

- 1) Tree species include 2 hackberry and 1 black walnut (See Photos 1-3)
  - a) One of the hackberries has had one of its branches recently removed. Both hackberries are 10-12 inches in diameter. This species is one of our most common trees and is a moderately fast growing tree.
  - b) The largest tree is a walnut with a diameter of approximately 24". It has had several large branches removed and one large branch is split, possibly due to wind.
- 2) These trees were impacted during construction. In addition to some recent branch removal, there is a good chance that the roots of those trees were impacted by construction activities such as the installation of the storm sewer and compaction within the dripline/root zone. Soil compaction is the single largest killer of urban trees.
- 3) The proposed retaining wall is needed in order to keep fill away from the trees and to keep the three trees standing. However, it is possible and likely that those trees are stressed and may die in the near future.

My background and experience is not in structural engineering, therefore my review does not address the viability or constructability of the retaining wall. I understand the desire for the city, the developer and the neighbors to preserve as many trees as possible. However, I would urge the group to reconsider installing a retaining wall to protect trees that do not have a good chance for long term survival. Another option is to allow those trees to be removed and modify the slope to a more stable, manageable grade. Additional evergreen trees could be planted along Sunset Street to provide screening until newly planted native trees are established in the ravine.



Photo: 3



Photo: 1



Photo: 2



Photo 4:

## Concern 2: Erosion/slope grade

Preserving trees while controlling erosion and achieving a manageable slope were two of the goals expressed by the city engineer, the council representatives, the neighbors and the developer. Initially, I was provided with a proposed plan showing a 2.5:1 slope. I also reviewed two other grading plan options with slopes at a 4:1 and 3:1.

### Proposed 2.5:1 Slope:

The proposed plan shows a 2.5:1 slope with a retaining wall protecting three (3) trees in the southeast corner and no additional trees to be removed. It is worth noting that there will be some tree removal along the west slope following the remove of "junk" along the bank.

2:5:1 slopes can be difficult to stabilize, but can be done with fabric to control erosion. Establishing vegetation, especially native vegetation, can be difficult because a 2:5:1 slope is NOT considered a "mowable" slope. To establish native plants with seeding, the area needs to be mowed in order to control weeds. If the area cannot be mowed, controlling weeds will need to be done by hand. To establish a native planting from seed takes a minimum of 3 years. Long term maintenance to control weeds is needed.

In summary, this plan meets the goal of keeping trees, but the proposed slope is steep. I recommend this option ONLY if the desire to keep the trees outweighs the desire of easier short and long term management of the site.

### Option 1: 4:1 Slope:

This would be the most stable of the three options. The slope could be mowed to control weeds to help with the establishment of new trees and shrubs. However, as you can see in Figure 2, a 4:1 slope will require at least six (6) medium to large trees to be removed including a large Catalpa tree with a significant canopy (Photo 4). The roots of other trees may be impacted if grading occurs within the drip line of the trees. This meets the goal of having a stable slope but does not meet the second goal of protecting trees because it removes a large tree with a large canopy.

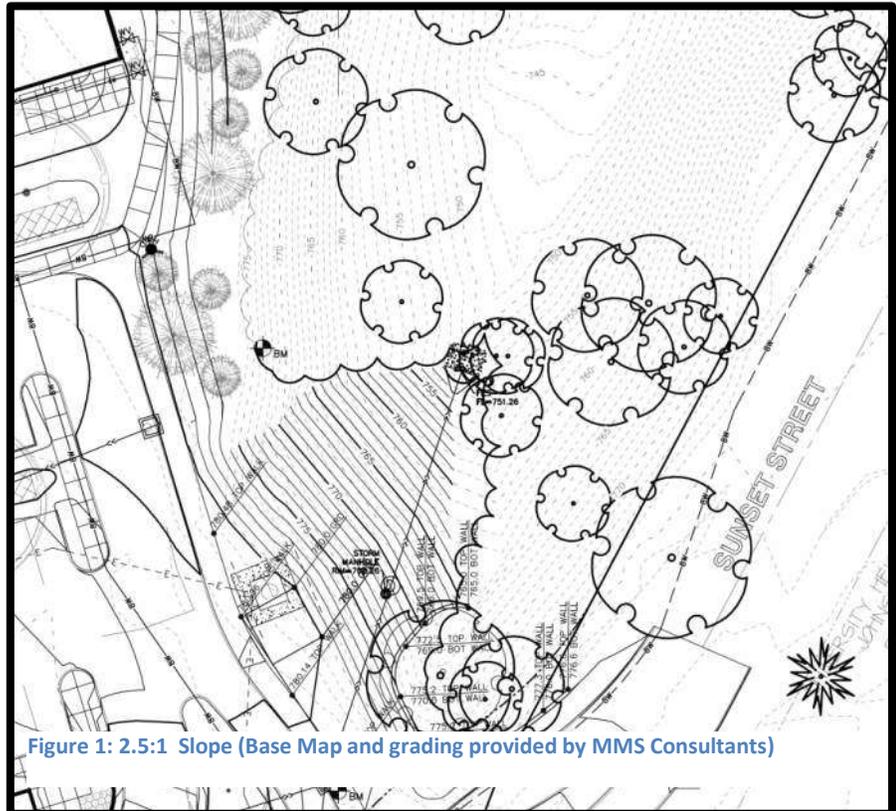


Figure 1: 2.5:1 Slope (Base Map and grading provided by MMS Consultants)

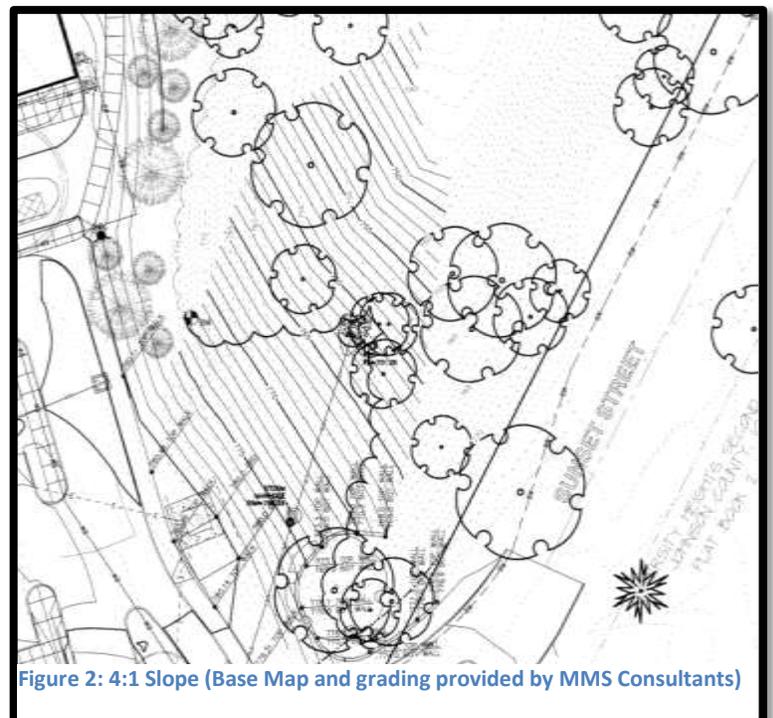


Figure 2: 4:1 Slope (Base Map and grading provided by MMS Consultants)

### Option 2: 3:1 Slope:

For this option, the slope would not be “mow a but would be more stable than the 2.5:1. Four Tr would need to be removed. Those trees incl ashes and smaller walnuts. The Ash trees will n likely be impacted by the Emerald Ash borer in near future and walnuts are fairly quick growing there are many other walnuts in the area. They also small enough and at a low elevation, with m other surrounding trees, so removing them w not significantly alter the canopy, as visible from road. In summary this would remove some trees, would provide a more stable slope then proposed. If this level of tree removal is acceptab recommend the site graded at a 3:1 slope. recommended at least 4” of topsoil be placed al the slope. Following seed bed preparations, this slope should be seeded with a temporary seed mix of

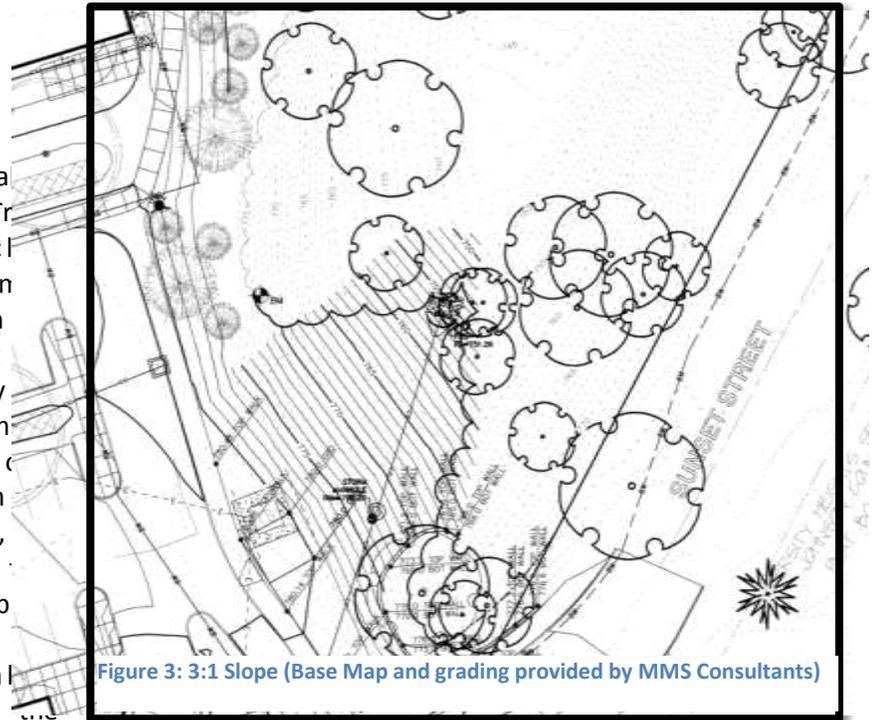


Figure 3: 3:1 Slope (Base Map and grading provided by MMS Consultants)

Winter Wheat (*Triticum aestivum*) at a rate of 10lbs per acre along with the recommended permanent seed mix (see below). Caution: No other erosion stabilization mix other than the winter wheat should be used as it will hinder the establishment of native vegetation. We recommend the use of erosion control matting following the temporary seed and permanent seed mix.

### Concern 3: Vegetation Restoration Plan

For the re-vegetation of the ravine, I recommend the following native trees and shrubs from the list below. The developer’s landscape architect can work with the list to develop a planting plan OR they can contract the services to us at EVE. We recommend planting 80% trees and 20% shrubs. For spacing, I recommended planting 3 shrubs grouping with each shrub spaced 3 feet apart and each grouping spaced 25 feet apart. For the tree spacing, I recommend 1 tree every 25 feet. Standard best management practices should be used for planting, including the installation of fabric and mulch.

Note, EVE has experienced better long-term success with planting smaller tree sizes (<1” diameter) especially with natives, such as hickories, which have a large tap root. It takes longer for larger transplanted trees to become established due to the longer time required to reestablish a root. We have had the most success with trees less-than 1 inch in diameter and less-than 4 feet in height. Therefore, a smaller size is preferred over larger ball and burlap trees. Cages and/or tubes should be added to protect from deer and small rodents. Maintenance of cages/tubes is required. Exact locations should be flagged in the field by the designer. If vegetation is present, the flagged areas may be sprayed by hand with herbicide 7-10 days prior to planting. Caution, many times nursery provides non-native substitutions or varieties (nativars). Planting materials should come from a native nursery source and species should be verified on-site to insure that natives specified are planted.

#### **Trees - Total 80%**

- 20% White Oak (*Quercus alba*)
- 20% Bur Oak (*Quercus macrocarpa*)
- 20% Hackberry (*Celtis occidentalis*)
- 20% Shagbark Hickory (*Carya ovata*)

#### **Shrubs – Total 20%**

- 4% Highbush Cranberry (*Viburnum trilobum*)
- 4% Witch-hazel (*Hamamelis virginiana*)
- 4% American Hazelnut (*Corylus americana*)
- 4% Spicebush (*Lindera benzoin*): **low elevations in wet soils**
- 4% Indigo Bush (*Amorpha fruticosa*): **low elevations in wet soils**



been any winter damage due to harsh conditions, deer, other animals or other. Replace damaged/dead shrubs as needed.

- 4) Once per month during the growing season of the first two years.
  - a) Make adjustments and/or repairs to tree/shrub cages/tubes and manipulate branches so they don't grow improperly through spaces in the cages/tubes. Remove vegetation around bases.
  - b) Monitor mulch depth and condition. Note any areas of erosion.
  - c) Weeds and invasive species shall be sprayed or mechanically removed.
  - d) Remove Trash.
  - e) Repair damage/erosional issues as needed.
  - f) Add additional mulch as needed to control weeds and retain moisture.
  - g) Areas disturbed should be reseeded with the specified seed mix.
  - h) Other required maintenance as needed.
- 5) To ensure establishment and long term management of the area, we recommended that at the end of the two years of monitoring/management, an adaptive management plan be submitted to the City identifying updates to the monitoring and maintenance plan.

## Summary

In summary, I was asked to address 3 main concerns. The following is a quick summary of those concerns and my comments/recommendations:

Concerns	Comments/Recommendations
Light Pollution and Screening	<p>The developer's Landscape Architect (Confluence) can come up with a planting plan which addresses light pollution.</p> <p>A 7' retaining wall is proposed to protect one large walnut and two hackberries. They have been impacted by wind/storm events and construction activities so their long term viability is uncertain. Unless the desire to keep those trees is very strong, I recommend the trees be removed and that the slope be modified to a more stable, manageable grade. Additional evergreen trees could be planted along Sunset Street to provide screening until newly planted native trees are established in the ravine.</p>
Erosion/slope grade	<p>The proposed 2.5:1 slope does not require removal of any additional trees, however that is a steep slope and more difficult to maintain long term. A 4:1 slope would be preferred, but would remove a large tree with a large leaf canopy. A 3:1 slope would only remove a few trees low in the landscape and would provide a more stable, manageable slope. Anything steeper than a 4:1 would need to be mowed with a hand held brush cutter.</p>
Vegetation Restoration Plan	<p>Native trees and shrubs are recommended with a native seed mix. Recommending a minimum of 2-years of maintenance with an adaptive management plan provided to the city by the end of the second growing season (year two).</p>

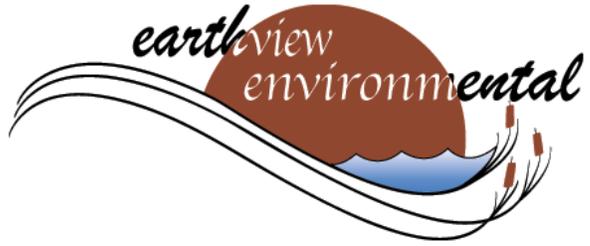
The overall goal is to restore the ravine to a stable and natural condition while addressing light pollution. I have provided my comments and recommendations with some options. The options address additional removal of trees in exchange for gentler, more manageable slopes which would make establishment of native plants and long term management of the area easier and more cost effective.

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

Sincerely,

  
Judith E. Joyce, PWS & Geologist  
EarthView Environmental, Inc.

*Attachment: EVE - Native Seeding Establishment BMP*



# EarthView Environmental Inc. (EVE) Native Seeding Establishment Best Management Practices

## General Practices

- Site monitoring by EVE should be conducted at regular & frequent intervals during the first 1-2 growing seasons.
- ALWAYS sweep off ALL equipment before entering a native establishment area.
  - Pickup trucks, tractors, mowers, sprayers, booms, ATVs, etc.

## Communications

- Ground condition can change very rapidly, necessitating rapid mobilization.
- Clear, concise, & timely communication needed between:
  - Monitors, Inspectors, Contractors, & Operators.
  - We are all responsible to keep communication lines open and active.

## Seeding

- The PREPARED seed bed must be inspected by EVE not more than 1 week before seeding is conducted.
- Use fresh (less than 2 years old) seed from reputable & widely-recognized sources.
- Drill Seeding
  - Use a recognized NATIVE seed drill with an agitator in the hopper.
    - Examples: Truax Native Grass Drill, John Deere Rangeland Drill.
  - Never drill seed deeper than 1/8" depth.
  - For small to medium size plantings, filler is needed (moist sawdust) in the hopper.
  - Not for use when seeding less than 1 acre of contiguous area.
- Broadcast Seeding (with hopper or by hand)
  - Mix seed thoroughly using ten parts moist sand to one part seed to aid in distribution.
  - Use crisscross pattern wherever possible.
  - Compact surface after seeding wherever possible using a roller or cultipacker.
- Seed with a nurse crop (one only), type-dependent on season:

	<b>Spring Plantings</b> April - May	<b>Summer Plantings</b> June - August	<b>Dormant</b> (Nurse crop optional) October - March
Oats ( <i>Avena sativa</i> )	20lbs/acre	20lbs/acre	Not used.
Winter Wheat ( <i>Triticum aestivum</i> )	Not used	Not used	10 lbs./acre

## Mowing

Timing frequency and height of mowing in early years of prairie establishment is CRITICAL, but is also highly variable depending on many factors, such as: predominance of weedy species and which species, predominance of native species and which species, recent rainfall or drought conditions, seasonal timing and level of establishment. It is up to the site inspector/monitor to determine when mowing is needed, and at what height. Basic guidelines are:

- Timing is critical to hinder weedy seed production.
  - Frequency may vary from every 2 weeks to 2 months dependent on conditions.
- Sweep BEFORE entering a native planting, sweep off mower deck and tractor.
- Sweep AFTER mowing a patch of weeds in a native planting, move the equipment to a safe road, field or ditch and sweep it before returning to any native planted areas.
- When mowing adjacent weedy or non-native areas, the following are critical to reducing spread of weed seed:
  - FINISH one area BEFORE moving into the other.
  - Do not mow in and out of the native planting.
  - Clean the mower deck before entering the native planting.
  - Be aware of the wind and where it is blowing weed seed, just like herbicide drift.
- Mower deck height should be based on current field conditions, optimizing damage to weedy species while minimizing damage to natives. GENERALLY:
  - Never below 8". Raise higher if ground is uneven to avoid scalping.
  - First Year Plantings - 10-12"
  - Second Year Plantings - 14-20"
  - Third Year - only individual weed patches or dormant season mowing should be needed.
- Trimmers, Brush Cutters, or Hand Mowers may be required in some instances for finer levels of control.

## Herbicide Application

- Sweep all tractors and booms before entering a Native Planting.
- Avoid drift & be aware of surrounding assets:
  - Some plantings have trees planted IN and AROUND them. Be aware that you may be liable for replacement of trees if your chemical drifts onto or otherwise affects them.
- Chemical persistence.
  - Do not use herbicides or additives that may hinder future plantings; coordinate with EVE.
- Aquatic Safe
  - Many of our plantings are IN or AROUND wetland areas. The applicator is responsible for knowing if the chemical is being used appropriately and in conformance with the label.
- No Substitutions & Adjuvants
  - NO SUBSTITUTIONS or additions (dyes, surfactants, etc.) without prior approval from EVE.

PRELIMINARY COST ESTIMATE

PREPARED FOR: Jeff Maxwell	BY: RLA	DATE: 10/26/15	
PROJECT NAME: Replace Bad Panels on Melrose		PROJ NO: 5136-012	

..... SITE IMPROVEMENTS COSTS \*\*\*\*\*

Item Description	Unit	Unit Price	Estimated Quantity	Extended Amount
Remove Existing Pavement	SY	\$20.00	296	\$5,920
Paving, 10 inch PCC with CD Baskets	SY	\$90.00	296	\$26,640
				\$32,560
		EXTENDED AMOUNT		

710  
 Jlf  
 JO7  
 PfZ.  
 17' f  
 11' f  
 7' /rf  
 2,6(i'1 ff 2. ... 296 5Y

