

MEMORANDUM

TO: University Heights, Mayor, Council, and Staff
FROM: Josiah Bilskemper, P.E.
DATE: August 10, 2015
RE: City Engineer's Report

(1) One University Place – Sensitive Areas Development Plan, Site Plan and Grading Plan

- a. The council will consider Resolution No. 15-50 to approve the Sensitive Areas Development Plan, Site Plan and Grading Plan. The Sensitive Areas Ordinance (#128) requires these drawings be developed due to the slopes on site, and further requires the city council to approve these plans before commencement of any development. In June of this year, council approved the PUD Plan with several conditions (Resolution 15-30), which included approval of these documents.
 - i. The Sensitive Areas Development Plan (Sheet C-102-SX3) is attached. It shows the existing conditions of the site, and delineates the areas where the steep, critical and protected slopes are located.
 1. The slope areas identified match what was provided in the PUD Plan, which was reviewed some time ago and determined to be an accurate representation of the slopes on the site. This drawing meets the criteria for a development plan as described in Ordinance #128.
 - ii. The Sensitive Areas Site Plan and Grading Plan (Sheet C-103-SX3) is attached. It shows the proposed development of the site, and shows the final grading contours. It identifies visually how the development is located within the slope areas of the site, as well as the limits of grading required for the development.
 1. The construction limits are identified with an exterior fence line, and the drawing notes that all slope areas within that fence line are going to be impacted. The drawing also provides a tabulation showing the area of each type of slope, and the amount of that type of slope that will be impacted by construction. This drawing meets the criteria for a site plan and grading plan as described in Ordinance #128.
 - iii. The drawings show the necessary information and are ready for consideration by council. My observation of the site plan and grading plan, based on the site plan concepts developed to this point (the size and location of the buildings, roadways, parking lots, retaining walls, sidewalks, etc.), is that the construction impact to the east and west slope areas is minimized about as much as possible. The east and west retaining walls are being utilized to limit the disturbance outside the roadways, and the grading around the north half of the site is tying back into the existing ground fairly quickly without creating slopes that are too steep.



(2) One University Place – Request to Develop Protected Slopes

- a. The council will consider Resolution No. 15-51 to approve a request to develop protected slopes. This item also stems from Ordinance #128 and the drawing plans discussed above. Because there are areas on the site classified as “protected slopes” (>40% slope), and the proposed development will impact those slopes (as shown in the site and grading plan), Section 3.C of the ordinance requires four conditions be met:
- b. The protected slopes have been “previously altered by human activity...”
 - i. The developer provided a geotechnical report from Terracon with the final PUD documents to address this (attached). Their stated opinion based on hand auger borings was that these slopes contained materials considered to be areas which have been altered by human activity.
- c. “...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 proposed development utilizes retaining walls along the east and west sides of the site where roadways are closest to the protected slope areas along the top of the ravines. We previously recommended 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 slope stability.
 1. We are now reviewing construction drawings, but there is no current retaining wall design. The project requires that the general contractor hire a structural engineer to complete the wall design (this is not an uncommon method). This would typically occur after general construction has started at the site.
 2. Recommend that this requirement be kept, but moved to one of the conditions necessary for an occupancy permit to be issued.
- d. “...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.”
 - ii. Based on the drawings, protection of existing slope areas is based on:
 1. Leaving portions of the slopes and trees on the east and west slopes untouched;
 2. Constructing retaining walls along the east and west access drives to reduce the number of trees impacted, and reduce the amount of fill material that would otherwise have to be graded out down the slopes on each side of the site; and

3. Using underground pipe boring on the west side (sanitary force main) and east side (storm sewer) to avoid digging through steep slope areas.
 - iii. As noted above in my comments about the sensitive areas site plan, my observation is that the construction impact to the protected slopes at the east ravine is minimized about as much as possible given the site concept that has been developed with the realignment of Sunset Street north of the intersection. The only way to lessen the amount of protected slope area impacted at the head of the east ravine is to eliminate the street realignment.
- e. The University Heights City Council approves a submitted Development Plan, Grading Plan, and Sensitive Areas Site Plan.
 - i. These are the drawings discussed in my first item above related to consideration of Resolution No. 15-50.
- f. The council needs to determine if they are in agreement with the site plan concepts shown (buildings, roads, sidewalks, retaining walls, etc.) and how they impact (or limit impact, depending on how you look at it) the protected slope areas at the head of the east ravine. If council wishes to approve the Sensitive Areas drawings, and the request to develop protected slopes, recommend they still keep the geotechnical/structural engineer certification requirement as a condition of issuing an occupancy permit.

(3) MS4 Permit – CSR Permit Application Fee (Ordinance #155)

- a. When the Iowa DNR required University Heights to become a permitted MS4 community, a number of city ordinances were required to be enacted. This includes Ordinance #155 (adopted February 2007) which requires developments over an acre in size to obtain a Construction Site Runoff (CSR) permit from the City of University Heights prior to a building permit being issued. Developments of this size already are required to obtain a State permit for the work (which is obtained first and submitted to the City as part of the application for a city permit), but this local ordinance means “the City hall have primary responsibility for inspection, monitoring and enforcement procedures to promote applicants’ compliance” with the State permit.
- b. To date, no developments in University Heights have met the size requirement to require obtaining a city CSR permit. The One University Place development is large enough that they will be required to obtain the State permit, and subsequently submit an application to obtain a city CSR permit.
- c. We have drafted an “application” form for obtaining a city permit, which is attached. This form is modeled after similar forms used by Coralville, North Liberty and Iowa City. Ordinance #155 states that an applicant for a city CSR permit “shall submit an application permit fee to the City of University Heights in an amount established by Resolution of the City Council.” The council will consider Resolution No. 15-54 to establish an application permit fee for the CSR permit process.
 - i. Application fees are \$150 flat rate in North Liberty and Iowa City. The fee in Coralville is \$250 plus \$50 for each additional acre. In general, review time and effort is related to size of a development, and setting the fee based on development size reflects this.

- ii. Because of this general correlation between development size and review effort, we recommend implementing a fee structure that matches Coralville's per acre method and amount for consistency. An application fee of \$250 plus \$50 for each additional acre (if the development hits 2 acres, then \$300 fee; if the size hits 3 acres, then \$350 fee, etc.).

(4) One University Place – Stormwater Pollution Prevention Plan and Construction Site Runoff (CSR) Permit

- a. There is an agenda item (Resolution No. 15-52) to approve a Storm Water Pollution Prevention Plan (SWPPP) and issue a Construction Site Runoff (CSR) permit.
- b. Today we provided and received back from the developer the CSR application form and supporting SWPPP materials. The developer hasn't yet received their state permit authorization from the Iowa DNR to begin construction activities. The state permit and DNR authorization will be included in the CSR permit application when it is received. The rest of the supporting SWPPP materials received today are being reviewed against the requirements of Ordinance #155.

(5) One University Place – Stormwater Management Plan

- a. There is an agenda item (Resolution No. 15-55) for granting an exception to the requirements of Ordinance #169 concerning Post-Construction Storm Water Runoff Control and/or approving a Stormwater Management Plan.
- b. We received the Stormwater Management Plan and supporting materials on Friday afternoon, and started today reading through these narratives, calculations, hydrographs, drawings and exhibits. Review of these materials against the requirements of Ordinance #169 will continue through this week, including evaluating the basis of the variance request.

(6) Sidewalk Repair Program

- a. The repair quote from JDM Concrete was accepted by Council at the July meeting, and they will be starting sidewalk repairs later this week.
- b. At the end of July (after the July 20 repair deadline), we inspected the remaining SW quadrant properties that did not sign-up for the city contract, and found 16 properties that have not completed repairs. Of these, 8 were located together at the east end of Highland Drive, and this group of residents has contracted with their own contractor who just hasn't completed the work yet. We are told the work is supposed to be completed in the next week, and we are letting those residents take care of those repairs. The remaining 8 properties are going to be added to the scope of work for the city contractor.
- c. The southwest section of town is scheduled for sidewalk inspection this year. We completed sidewalk inspections of this part of town last week, and are in the process of compiling and preparing the individual property reports. There were about half as many property reports in this section of town compared to last year, but there are quite a few streets in this area without sidewalks. Once property reports have been reviewed and letters are prepared to send out, we'll spray paint the walk panels in the SW section.

- d. *The sidewalk repair work shall commence no later than August 12th and be completed by September 30th. Contractor is required to have all construction equipment and traffic control removed and all sidewalks open to the public on the Friday and Saturday of Iowa home football game weekends. (July Mtg.)*
- e. *Reminder we will be inspecting sidewalks in the SW quadrant of the city this year (south of Melrose; west of Sunset). (July Mtg.)*

(7) Leamer Court Asphalt Repair

- a. The repair quote from Shamrock Construction was accepted by Council at the July meeting. The work has been substantially completed, and a payment application for this work will be considered at the August meeting. We have reviewed the site to verify the work is completed, agree the pay request reflects the status of work completed, and recommend approval. Retainage in the amount of 5% is being withheld pending the completion of some minor sealing work around the new concrete panels.
- b. *Shamrock Construction Company LLC from Coralville, Iowa submitted the lowest quote of \$6,360.00. The asphalt repair work is to be completed by August 18th. (July Mtg.)*

(8) MS4 Permit – Intake Survey

- a. Virginia completed a survey of storm intakes in town, determining which structures had missing or damaged stormwater labels (No Dumping – Drains to River), and found that 53 of 68 structures were labeled. She also then placed new labels on the remaining 15 structures to get back to 100% coverage. This recurring survey and labeling is part of the city's requirements from the Iowa DNR permit for the city's storm sewer system.

(9) Iowa DOT – All Town Sign Replacement Program

- a. I talked with Russ last week and he anticipates getting started on these sign replacements in the next couple weeks.
- b. *Russ Boyer has received the signs and posts from the local DOT garage, and will begin installing the signs over the summer. Ryan Bowers has been working with Russ to provide sign replacement locations and the installation guidance provided by the DOT sign program. (July Mtg.)*

Please feel free to contact me if you have any questions about these or any other items.

JDB

June 13, 2011



Maxwell Development LLC
2937 Sierra Court SW
Iowa City, Iowa 52240-8503

Attn: Mr. Jeff Maxwell
P: 319-358-6392
F: 319-631-1121
E: jmaxwell@maxwellconstructioninc.com

Re: Preliminary Geotechnical Engineering Report
Proposed One University Place Multi-Family Housing & Retail Buildings
1300 Melrose Avenue
City of University Heights, Iowa
Terracon Project No. 06115608.02

Dear Mr. Maxwell:

As requested, three hand auger borings were performed at selected locations along sensitive slope areas classified as "Protected Slope" within the proposed project site. Based on visual examination of the soil samples obtained from these hand auger borings (see attachments), the following observations are made:

- Existing variable fill materials were encountered in the hand auger borings. These fill materials are primarily composed of lean clay with varying amounts of sand, crushed stone pieces, asphalt pieces, cinders, and rubble.
- Hand auger refusal was encountered at depths of about 3 to almost 5 feet below the existing grade where apparent rubble was encountered.

In summary, the areas of the hand auger borings contained random fill materials and these materials are considered to be areas which have been altered by human activity. In addition, it is our opinion that the existing slopes have a relatively low factor of safety against a deep-seated slope failure. Thus, it is our opinion that the proposed development should be designed such that the stability of the slopes are improved.

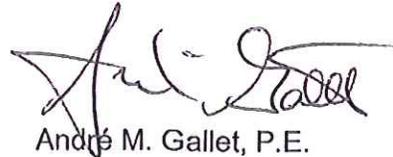


We appreciate the opportunity to be of continued assistance to you on this phase of your project. Should you have any questions regarding this letter, or if we may be of further services to you, please contact us.

Sincerely,
Terracon Consultants, Inc.



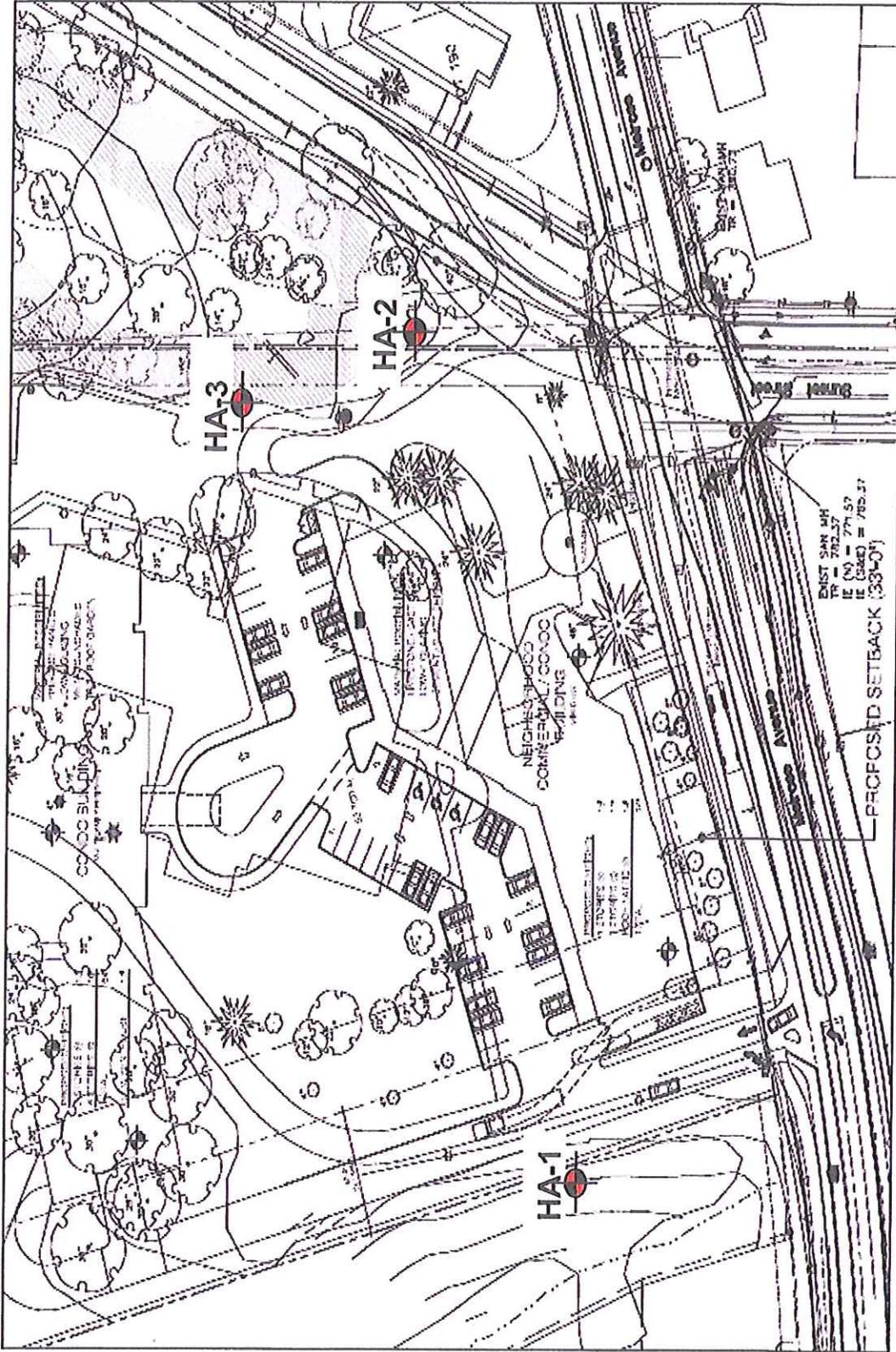
Bachan K. Sinha, M.S., E.I.
Project Engineer/Project Manager



André M. Gallet, P.E.
Iowa No. 13430

BKS/AMG: N:\Projects\2011\06115608\Working Files\DRAFTS (Proposal-Reports-Communications)\06115608.02.docx

Copies: 3 – Client



LEGEND

- Approximate Boring Location

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	TWS
Drawn by:	BKS
Checked by:	AMG
Approved by:	TWS
Project No.:	06115608.02
Scale:	N.T.S.
File Name:	06115608.02.BLP
Date:	106/13/2011

Terracon
 Consulting Engineers & Scientists
 2040 12th Street SW
 Cedar Rapids, Iowa 52604
 PH: (319) 366-8221 FAX: (319) 366-0032

BORING LOCATION PLAN

One University Place Multi-Family Housing & Retail Bldg.
 1300 Melrose Avenue
 Iowa City, Iowa

Exhibit

A-1



City Hall 1004 Melrose Avenue
University Heights, Iowa 52246
(319) 337-6900

CONSTRUCTION SITE RUNOFF – PERMIT APPLICATION

1. Project Name:

2. Site Address:

3. Project Description:

4. IDNR Permit Discharge Authorization Number: _____

5. Disturbed Area (acres): _____

6. Owner/Permittee Information:

Name: _____

Address: _____

Phone and E-Mail: _____

7. General Contractor/Co-Permittee Information:

Name: _____

Address: _____

Phone and E-Mail: _____

8. Designated Person:

Name: _____

Address: _____

Phone and E-Mail: _____

9. I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) provided with this application complies with the Iowa Department of Natural Resources (IDNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 requirements and with all requirements of the City of University Heights Ordinance #155.

Permittee/Co-Permittee Signature: _____ Date: _____

The CSR permit will not be issued until an initial inspection of the site is completed and the required structural controls are installed.



City Hall 1004 Melrose Avenue
University Heights, Iowa 52246
(319) 337-6900

Instructions for Completing a Construction Site Runoff Permit Application

To ensure timely review of this application, please completely fill out the attached application in accordance with these instructions. All required submittals must be presented with this application. Application fee must be paid at the time the Construction Site Runoff Permit is issued.

1. List the project name.
2. List site address. If no address exists, give general location (Section, Township, Range).
3. List the general reason for land disturbing activities.
4. List the Permit Discharge Authorization Number as issued by the IDNR.
5. List the total disturbed area for the site.
6. List the owner of the facility or site.
7. Co-Permittee is the General Contractor who is working on the site.
8. The Designated Person is who the City will contact with questions or concerns regarding permit compliance.
9. PLEASE NOTE: Your signature on the application certifies that the SWPPP is in compliance with all local, state and federal requirements to the best of your knowledge.

Required Submittals with this application:

1. Stormwater Pollution Prevention Plan – Drawings and Specifications
2. Iowa DNR Authorization Letter
3. Signed Notice of Intent (NOI)
4. Proof of Publication
5. Signed Owner's Certification Statement
6. Signed Contractor/Subcontractor Certification Statement
7. Weekly Inspections Report Form



City Hall 1004 Melrose Avenue
University Heights, Iowa 52246
(319) 337-6900

Construction Site Runoff Permit – Review Checklist

(This form to be completed by designated city personnel only)

Project Name: _____

Site Address: _____

Iowa DNR Permit Discharge Authorization Number: _____

Reviewed by: _____

Date: _____

Application Information:

Comments/Notes

_____ Stormwater Pollution Prevention Plan and Specifications	_____
_____ Iowa DNR Authorization Letter	_____
_____ Signed Notice of Intent (NOI)	_____
_____ Proof of Publication	_____
_____ Owner’s Certification Statement	_____
_____ Contractor/Subcontractor’s Certification Statement	_____
_____ Weekly Inspection Report	_____

Stormwater Pollution Prevention Plan and Specifications:

_____ Description of the construction activity	_____
_____ Total site area	_____
_____ Total disturbed area	_____
_____ Runoff Coefficient (pre and post construction)	_____
_____ Drainage patterns (pre and post construction)	_____
_____ Slopes (existing and final grade)	_____



City Hall 1004 Melrose Avenue
University Heights, Iowa 52246
(319) 337-6900

Construction Site Runoff Permit – Review Checklist

(This form to be completed by designated city personnel only)

Stormwater Pollution Prevention Plan and Specifications (Continued):

- _____ Structural controls – location and description for temporary and permanent controls _____
- _____ Stabilization controls – location and description for temporary and permanent controls _____
- _____ Storm sewer and inlets (pre and post construction) _____
- _____ Surface waters _____
- _____ Discharge points _____
- _____ Receiving water(s) _____
- _____ Estimated sequence of construction activity _____
- _____ Estimated sequence of implementation of structural and stabilization controls _____
- _____ Stabilized Entrance/Exit _____
- _____ Soil/Topsoil stockpile location(s) _____
- _____ Concrete/Paint/Grout Washout location (s) _____
- _____ Spill kit location(s) _____
- _____ Field offices and trade trailer location(s) _____
- _____ Contractor staging area location(s) for portable restroom facilities, temporary fuel tanks, waste container and other hazardous chemicals. _____
- _____ Location of Stormwater Pollution Prevention Plan documents _____

2015 LEAMER PAVEMENT REPAIR
 CITY OF UNIVERSITY HEIGHTS
 PROJECT NO. 115102-0 (25)

PAY APPLICATION NUMBER: 1
 FOR WORK THROUGH: 8/7/2014

ITEM #	ITEM NAME	QTY	UNIT	UNIT PRICE	EXTENSION	PREVIOUS QTY	CURRENT QTY	CURRENT AMOUNT	%	JTD QTY	JTD AMOUNT	%
1	HMA OVERLAY, MILL AND REPLACE, 1-INCH	65	SY	\$24.00	\$1,560.00		65	\$1,560.00	100%	65	\$1,560.00	100%
2	HMA OVERLAY, MILL AND REPLACE, 2-INCH	25	SY	\$48.00	\$1,200.00		25	\$1,200.00	100%	25	\$1,200.00	100%
3	PCC PARTIAL LANE WIDTH PATCH	11	SY	\$100.00	\$1,100.00		11.1	\$1,110.00	101%	11.1	\$1,110.00	101%
4	TRAFFIC CONTROL	1	LS	\$1,000.00	\$1,000.00		1	\$1,000.00	100%	1	\$1,000.00	100%
5	MOBILIZATION	1	LS	\$1,500.00	\$1,500.00		1	\$1,500.00	100%	1	\$1,500.00	100%
					TOTAL CONTRACT:							
					VALUE OF COMPLETED WORK:			\$6,370.00	100%		\$6,370.00	100%
					LESS RETAINAGE (5%):			(\$318.50)			(\$318.50)	
					NET AMOUNT DUE:			\$6,051.50			\$6,051.50	
					LESS PREVIOUS PAYMENTS:			\$0.00			\$0.00	
					AMOUNT DUE THIS REQUEST:			\$6,051.50			\$6,051.50	

Note: Shaded lines indicate work for that item is complete

Note: Minor work remains to saw and seal transverse joints

CONTRACTOR: SHAMROCK CONSTRUCTION COMPANY, LLC

 TODD SCOTT, PRESIDENT
 DATE: 8/10/2015

ENGINEER: SHIVE-HATTERY, INC.

 JOSIAH BILSKEMPER, PE
 DATE: 8/7/15

OWNER: CITY OF UNIVERSITY HEIGHTS
 MAYOR
 DATE:

**City of University Heights - Municipal Separate Storm Sewer System (MS4)
National Pollutant Discharge Elimination System (NPDES) Permit**

Iowa NPDES Permit Number: 52-90-0-02
Date of Issue: May 1, 2015

EPA Number: IA0078930
Date of Expiration: April 30, 2020

Survey of Storm Intake Labeling

Survey Date: July 2015

<u>Storm Sewer System</u>	<u>Labeled Intakes</u>	<u>Missing / Damaged Labels</u>	<u>Totals</u>	
North	N1, N10, N11	N3, N7	3 / 5	60.0%
South	S1, S2, S6		3 / 3	100.0%
East	E1, E2, E3, E4, E5, E6, E7 E8, E13, E14, E16A, E16B		12 / 12	100.0%
West	W2, W3a, W3b, W5, W6, W9, W10, W11 W13, W14, W15, W16a, W17, W18, W19 W23, W24, W26, W27, W29, W30, W31	W4, W12, W16B, W21 W25, W28	22 / 28	78.6%
Melrose	M1, M4, M6, M7, M8a, M9a, M10 M11, M12, M17, M18, M19, M20	M2, M3, M5, M13a, M14 M15, M16	13 / 20	65.0%
* TOTALS:			53 / 68	77.9%

*** Note: All "missing / damaged" labels identified above were replaced on July 29, 2015 to achieve 100% coverage.**