Attachment A – Edinburough
Applicant Analysis of Stream Corridor Ordinance Deviation Requirements from Section 18.365.100.B. and 18.365.100.C. of the UDO

December 23, 2009

Ms. Pam Fortun, P.E.
City of Overland Park, Kansas
8500 Santa Fe Drive
Overland Park, KS 66212

Re: Edinburough/Heritage United Methodist Church (129th St & Quivira Rd, NW Corner)
Stream Corridor Deviation Request

Dear Ms. Fortun:

On behalf of Dennis J. Eskie & Associates, Phelps Engineering, Inc. (PEI) is hereby requesting a deviation from the City of Overland Park's Stream Corridor Ordinance (Chapter 18.365) for the preliminary plan titled Edinburough. The Edinburough development is a proposed 26.27-acre multi-family development consisting of two-story apartment complex buildings, two story town homes, and a clubhouse/amenity area. The project is adjacent to the existing Heritage United Methodist Church at the northwest corner of 129th Street and Quivira Road. The Edinburough site is currently undeveloped property and consisted of two farm ponds that have since been removed by the previous property owner.

The Overland Park Uniform Development Ordinance, Chapter 18.365.040 states, "a stream corridor shall be designated along streams with a tributary area of 40 acres or more." The property contained within the Edinburough development consists of multiple stream channels. Indian Creek Tributary F Reach b, enters the site at the southwest corner of the property with a drainage area of approximately 32.42 acres. Beginning with the proposed storm sewer under 129th Street, this stream channel will be piped to the beginning of the 40-acre point in the watershed, which occurs approximately 300 feet of the southwest corner of the site. Tributary F Reach b discharges the site at the northwest corner of the property with a drainage area of approximately 111.91 acres. From the 40-acre point to the site discharge point at the northwest corner, this stream channel will remain a natural channel with an established stream corridor 60 feet wide from the ordinary high water mark to each side of the stream channel.

A second channel, tributary to Reach b enters the site at the midpoint of the east property line with an offsite drainage area of approximately 29.92 acres. This channel flows east to west through the site, confluencing with Reach b near the west edge of the development. The 40-acre point of this stream channel occurs midway through the site where the channel enters the location of a small farm pond that has previously been removed. Under a 2005 rezoning request, this property had previously been granted a deviation request to begin the 60-foot stream corridor at the west end of the location of the farm pond, which occurred approximately 350 feet downstream of the 40 acre point. This new deviation request will

PHELPS ENGINEERING, INC
1270 N. Winchester – Olathe, Kansas 66061 – (913) 393-1155 – Fax (913) 393-1166 – www.phelpsengineering.com

remove the remaining 180-foot of stream corridor on this reach in order to construct an extended wet detention basin stormwater treatment facility to serve the development.

The Stream Corridor Ordinance does outline a number of allowable uses within a stream corridor, as described in Chapter 18.365.080. Included in this list are a number of uses that would likely qualify to fit this deviation request of replacing a stream channel with a stormwater quality treatment facility such as an extended wet detention basin. As defined in Part A, within the "active stream zone," flood control structures, stream restoration projects, bioengineered bank stabilizations, and water quality monitoring are allowed. An allowable use defined in Part B includes low impact enhancements for the purpose of stormwater treatment. Part C defines allowable uses for the impoundment of stormwater for recreational and aesthetic purposes, which allows for the termination of the stream corridor through the pond and dam embankment. As related to these allowable uses, it does appear that the proposed extended wet detention basin does meet the intent of the stream corridor ordinance, which should support acceptance of this deviation request to remove the remaining 180-foot length of stream corridor on this small drainageway through the Edinburough multi-family residential development.

The Edinburough development requests the following deviation from the City of Overland Park Stream Corridor Ordinance: that the requirement for a 60-foot stream corridor on the east-west channel through the Edinburough property be removed so that an extended wet detention basin can be constructed to serve as stormwater treatment for the proposed project. In support of this deviation request, the developer has attempted to adhere to the following conditions, specifically outlined in Chapter 18.365.100(B):

1. **The granting of the deviation will not adversely affect the rights of adjacent landowners.**

Adjacent properties and property owner's rights will not be adversely affected by the requested deviation. The entire remaining stream corridor and requested deviations are located entirely within the Edinburough property and will not affect the property rights of adjoining properties.

2. **The strict application of the provisions of this ordinance would constitute unnecessary hardship upon the landowners represented in the application.**

To achieve a quality residential product that meets both the developers needs and the city's requirements, the requested deviation is the most feasible and the best use of available open space in which to meet the requirements of the Stormwater Treatment Ordinance. To meet the desired density and the ordinance requirements, not accepting this request would constitute a hardship upon the landowners, who are attempting to create an economically feasible project.

3. **The deviation desired will not adversely affect the public health, safety, morals, order, convenience, prosperity, or general welfare.**

The remaining stream corridor and requested deviation is located on private property and will benefit the aesthetics of the proposed residential project. The deviation will not adversely affect the public health, safety, morals, order, convenience, prosperity, or general welfare. The deviation, in fact, should benefit the public health and welfare by

replacing the undesirable stream channel with a stormwater treatment facility that will act to remove stormwater pollutants, benefiting the overall public.

4. **Granting the deviation will comply with the general spirit and intent of this ordinance.**

The requested deviation does comply with the general spirit and intent of the ordinance. The area covered by the deviation will not be developed or piped. The area will instead remain as an open space water feature designed to improve the stormwater treatment of the project. The area will still remain in a stormwater treatment easement and be subject to the stormwater treatment maintenance agreement. A generally undesirable stream channel and stream corridor will be replaced with a wet pond designed as an extended wet detention basin stormwater treatment facility.

5. **Granting a deviation will not result in extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local, federal, or state laws.**

The deviated area will contain a wet pond and reestablishment of enhanced native vegetation in and around the pond extents. All work will comply with City of Overland Park codes, as well as U.S. Army Corps of Engineers stream impact requirements, and all Federal and State Laws. The deviated area is located on private property and no public expense will be required to complete the request. The area will be subject to a Stormwater Treatment Maintenance Agreement and will not result in any extraordinary public expense or create additional nuisances.

Furthermore, a deviation should be approved when the list of factors below are considered, which follow (18.365.100 (C)):

1. **Any increase in danger to life and property due to flooding or erosion damage.**

The extended wet detention basin proposed to replace the undesirable stream channel should not increase any danger to life and property due to flooding or erosion damage. The pond will be soundly engineered to limit the effects of erosion and/or flooding to adjacent buildings or downstream drainage systems.

2. **The susceptibility of the proposed facility to damage from factors such as flooding, stream bank erosion and channel migration and the effect of such damage on the individual owner.**

The proposed pond facility will be properly designed to limit erosion both upstream and downstream of the pond location and will create no additional flooding scenarios. Channel migration will not be an issue since the upstream inflow is entirely piped discharge and downstream pond discharges to a natural stream channel located within a regulated stream corridor. The property owner would be responsible for any such damage, should it occur. All disturbed areas will be re-vegetated with enhanced native vegetation in an effort to limit flooding, erosion, and channel migrations.

3. **The availability of alternative locations for the proposed development.**

While some alternatives are available and were explored, the proposed plan for the development and replacement of the stream corridor provided the best location for a centralized stormwater treatment facility to serve the entire development and provide the most economically feasible alternative for the proposed project. The chosen plan should also require the least long-term maintenance of all the other alternatives explored.

4. The compatibility of the proposed development with the comprehensive plan.

The proposed plan does require a slight change to the comprehensive plan, increasing a low-density residential area to a medium density residential area. The area located in the requested deviation will still remain an open space enhancement subject to a maintenance agreement, and the proposed improvements will fit into the space provided.

5. The deviation is the minimum necessary to afford relief.

The deviation does seem to be the minimum necessary to afford relief while still maintaining the intent of the ordinance. The deviation to remove the stream corridor requirement is only requested on a short 180-foot segment of undesirable stream channel. This length of corridor is the only remaining stream corridor on this tributary reach.

6. Any decrease in the average width of the stream corridor set aside.

The entire width of the requested stream corridor to be removed will be wholly located within the stormwater treatment drainage easement with no decrease in average width. No changes are requested to the stream corridor on the tributary running south to north along the west property line. Additional ground will also be left undeveloped to the west of the remaining stream corridor as additional compensation area.

7. Any increase to bank instability or bank erosion and the resulting effects on other properties.

The entire width of the requested stream corridor to be removed will either be wet pond or re-established native vegetation. Bank slopes within the pond are place at 4:1 and riprap is proposed at both the piped pond inflow and overflow spillway to minimize dam embankment erosion and bank instability downstream of the proposed extended wet detention basin. Therefore, no increase in bank instability or erosion is expected with the requested deviation.

8. The extent to which the proposed development retains the natural terrain within the stream corridor while avoiding such activities such as filling, grading and constructing retaining walls.

Where possible, the natural terrain, especially in remaining stream corridors, will remain undisturbed. However, filling, grading, cutting, and retaining walls will need to occur to construct the extended wet detention basin within the deviation area. While these activities will occur, the proposed pond will be an improvement to the natural channel system and an enhancement to the overall development and to the water quality of the entire watershed.

9. **The extent to which the proposed development provides protection from negative impacts to: water quality, base flow potential through infiltration, runoff velocity, temporary storage area for flood waters and sediment retention capability which is compatible with the intent of this Chapter.**

The wet pond that is proposed to replace the deviated stream corridor is designed not only as an enhancement to the development, but also as a stormwater quality treatment facility. Therefore, no negative impacts to water quality, base flow potential or temporary storage will occur. Energy dissipation and riprap measures will be taken to ensure runoff remains below erosive velocities, and a sediment forebay is proposed as part of the requirements of an extended wet detention basin facility. Therefore, no negative impacts to runoff velocities or sediment retention capabilities will occur.

10. **The extent to which the proposed development provides aesthetic enhancement, preservation of habitat for plants and animals, recreational opportunities, educational value and effective screening from adjoining land uses which are compatible with the intent of this Chapter.**

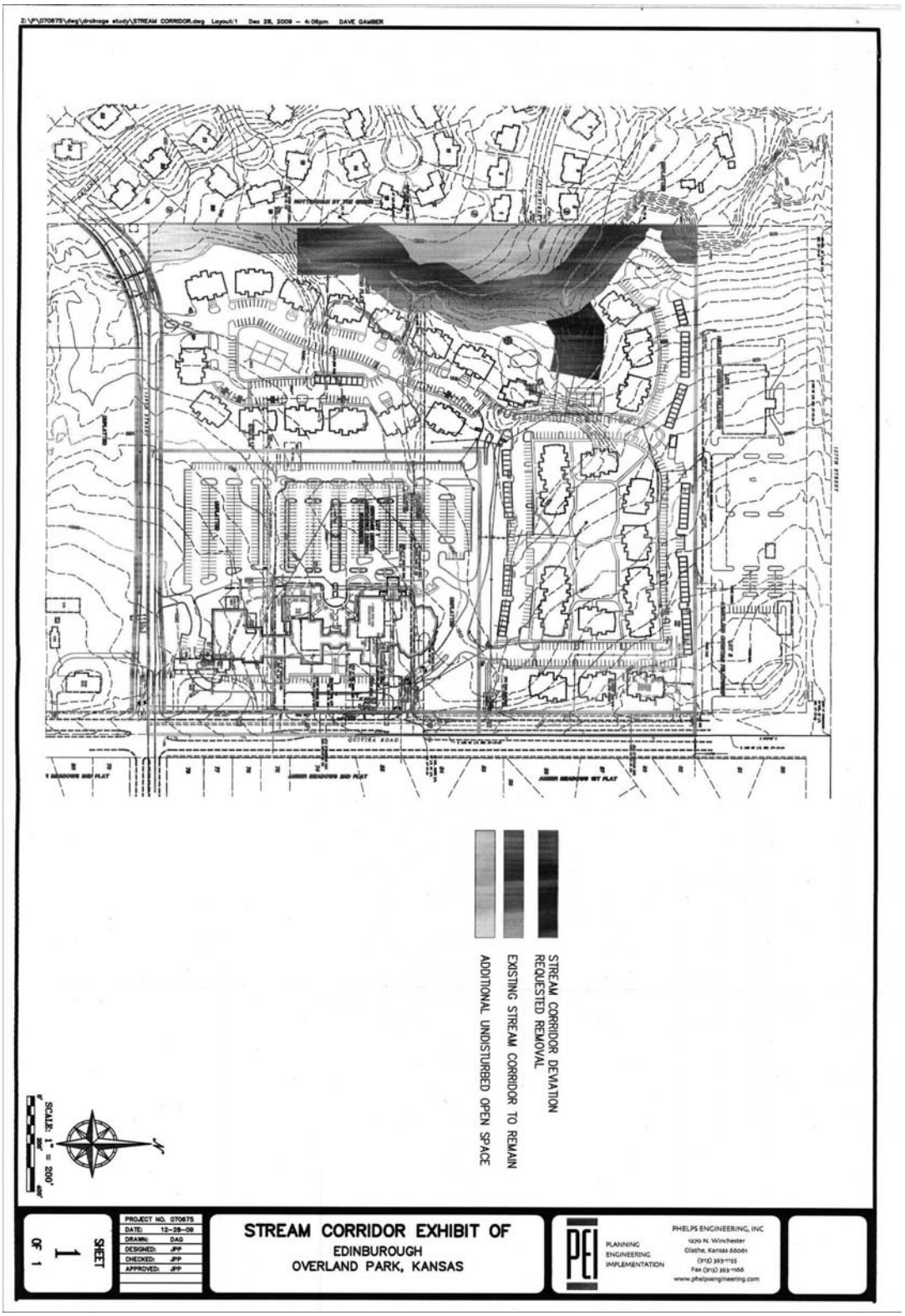
The proposed extended wet detention basin can provide numerous opportunities for recreation and educational value, as it can also be an enhancement to the proposed development as part of an amenity package. Since the existing stream channel is in poor condition with no defined stream channel banks and non-native vegetation through the corridor, the aesthetic improvements and re-establishment or preservation of habitat for plants and animals will most definitely occur. No overall loss of vegetation and native cover is requested with the proposed deviation plan since all areas within the corridor will remain as pond or native plantings.

This deviation meets the intent of the Stream Corridor Ordinance with every effort made to minimized the amount of loss to stream corridor. We request City of Overland Park staff's support on this deviation request for the Edinburough multi-family development to eliminate a 180-foot length of 60' wide stream corridor that will remain open and be replaced with an extended wet detention basin stormwater quality treatment facility and remain in an accepted tract and be subject to a maintenance agreement. A Stream Corridor Exhibit accompanies this request showing the area of requested deviation and the loss of stream corridor that would occur with approval of this request. If you have questions or require additional information, please contact Phelps Engineering, Inc. at (913) 393-1155.

Sincerely,

PHELPS ENGINEERING, INC.

Jon Parker, P.E.


STREAM CORRIDOR DEMATION
REQUESTED REMOVAL
EXISTING STREAM CORRIDOR TO REMAIN
ADDITIONAL UNDISTURBED OPEN SPACE
SCALE: 1" = 200'
PROJECT NO. 070675
DATE: 12-28-09
DRAWN: DAG
DESIGNED: JPP
CHECKED: JPP
APPROVED: JPP
SHEET 1 OF 1
STREAM CORRIDOR EXHIBIT OF
EDINBUROUGH
OVERLAND PARK, KANSAS
PEI
PLANNING
ENGINEERING
IMPLEMENTATION
PHELPS ENGINEERING, INC
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1166
www.phelpsengineering.com