



**LEE'S SUMMIT  
MISSOURI**

**DESIGN & CONSTRUCTION MANUAL  
DESIGN CRITERIA MODIFICATION REQUEST**

PROJECT NAME: Bailey Farms

ADDRESS: SW Corner of SE Bailey Road and SE Ranson Road

PERMIT NUMBER: \_\_\_\_\_

OWNER'S NAME: Clayton Properties Group Inc., Contact: Bradley Kempf, VP of Land and Development

TO: Deputy Director of Public Works / City Engineer

In accordance with the City of Lee's Summit's Design and Construction Manual (DCM), I wish to apply for a modification to one or more provisions of the code as I feel that the spirit and intent of the DCM is observed and the public health, welfare and safety are assured. The following articulates my request for your review and action. (NOTE: Cite specific code sections, justification and all appropriate supporting documents.)

APWA 5600 section 5608.4.C.1 Comprehensive Detention. We are requesting that a waiver be approved based on site limitations and previous conversations with city staff regarding design requirements in the southern portion of the site. Given that we are decreasing the tributary area from 6.42 ac. to 2.38 ac., approximately 60% reduction in area and the site limitations to add an additional detention facility, we are requesting this area be considered a peripheral drainage area.

The project also includes a request for modification of APWA 5605.3 – Stream Preservation and Buffer Zones to allow transition grading and storm sewer installation in the stream setback. The grading will occur in areas that have no trees and are currently being farmed. The area proposed for the modification is currently disturbed by farming, therefore, no natural vegetation should be in the area to preserve. The grading will not affect the natural condition of the stream and will allow sufficient space to allow the existing stream to flow naturally. Any proposed construction activities with this development will not interfere with the natural meandering of this stream. In addition, the proposed constuction will also not cause any channel constrictions within the flow level of the 100-year storm

SUBMITTED BY:

NAME: Schlagel and Associates, Contact: Jim Long, P.E.  
ADDRESS: 14920 W. 107<sup>th</sup> Street  
CITY, STATE, ZIP: Lenexa, KS 66215  
Email: JL@SchlagelAssociates.Com

( ) OWNER (X) OWNER'S AGENT  
PHONE #: 913-492-5158

SIGNATURE: 

KENT MONTER, P.E.

DEVELOPMENT ENGINEERING MANAGER

( ) APPROVAL ( ) DENIAL

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

JEFF THORN, P.E.

WATER UTILITIES ASSISTANT DIRECTOR OF ENGINEERING SERVICES

( ) APPROVED ( ) DENIAL

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

GEORGE M. BINGER III, P.E.

DEPUTY DIRECTOR OF PUBLIC WORKS/CITY ENGINEER

( ) APPROVED ( ) DENIAL

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**A COPY MUST BE ATTACHED TO THE APPROVED PLANS ON THE JOB SITE**



## Waiver Request Report

prepared for

**Bailey Farms  
1300 SE Ranson Road  
Lee's Summit, MO 64081**



prepared by

**SCHLAGEL & ASSOCIATES, P.A.**  
14920 W 107<sup>th</sup> ST  
Lenexa, Kansas  
(913) 492-5158  
Schlagel & Associates Project 21-130

BAILEY FARMS WAIVER REQUEST – EXECUTIVE SUMMARY

**Peripheral Drainage Area Designation Request**

In accordance with the Lee’s Summit Design and Construction Manual (DCM) Section 1002.A, I wish to apply for a modification to APWA 5600 Section 5608.4.C.1a Comprehensive Control requirements. We are requesting that the waiver be approved based on site limitations and previous conversations with City Staff regarding design requirements in the southern portion of the site. Given that we are decreasing the tributary area from 6.28 ac. to 2.38 ac., a greater than 60% reduction, and the site limitations to add an additional detention facility, we are requesting that this southern portion of the development be considered a peripheral drainage area. Also note, that run-off from the streets will be captured in the storm system and routed to the proposed detention basin located in the southwest corner of the site. Only the houses and backyards will drain to the south.

In reference to Table 1.1 – Comprehensive Control for the 2, 10 and 100 year peak discharge rates the 2-yr flow is not met. However, the 10 and 100 year rates are satisfied.

**Table 1.1 – Comprehensive Control**

<b>Comprehensive Control</b>		Peak Discharge Rates, cfs		
	Drainage Area, ac.	2-yr	10-yr	100-yr
Pre-Developed, Comprehensive	6.42	3.21	12.84	19.26
Developed, HydroCAD	2.38	7.15	12.33	19.23
Difference		-3.94	0.51	0.03

Referring to Table 1.2 – Rational Method, shown here just for comparison, is another method of calculating storm water run-off. It can be seen that there is a significant reduction in the peak run-off for the 2, 10 and 100 year storms.

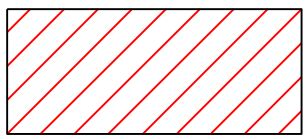
**Table 1.2 – Rational Method**

<b>Rational Method</b>		Peak Discharge Rates, cfs		
	Drainage Area, ac.	2-yr	10-yr	100-yr
Pre-Developed	6.42	8.14	11.39	20.48
Developed	2.38	4.87	6.75	11.96
Difference		3.27	4.65	8.53

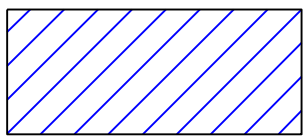
**Transition Grading in Stream Setback**

The project also includes a request for modification to APWA 5605.3 – Stream Preservation and Buffer Zones to allow transition grading in the stream setback. The drainage area to this proposed grading area is close to 40 acres, requiring a 60’ buffer from that point downstream. The proposed grading and storm sewer installation will occur in areas that have no trees and is currently farmed, therefore, it is anticipated, that no natural vegetation will be disturbed. The grading will not affect the natural condition of the stream and will allow sufficient space to allow the existing stream to flow naturally. Any proposed construction activities with this development will not interfere with the natural meandering of this stream. In addition, the proposed constuction will also not cause any channel constrictions within the flow level of the 100-year storm. An exhibit for the area described above is included with this waiver request.

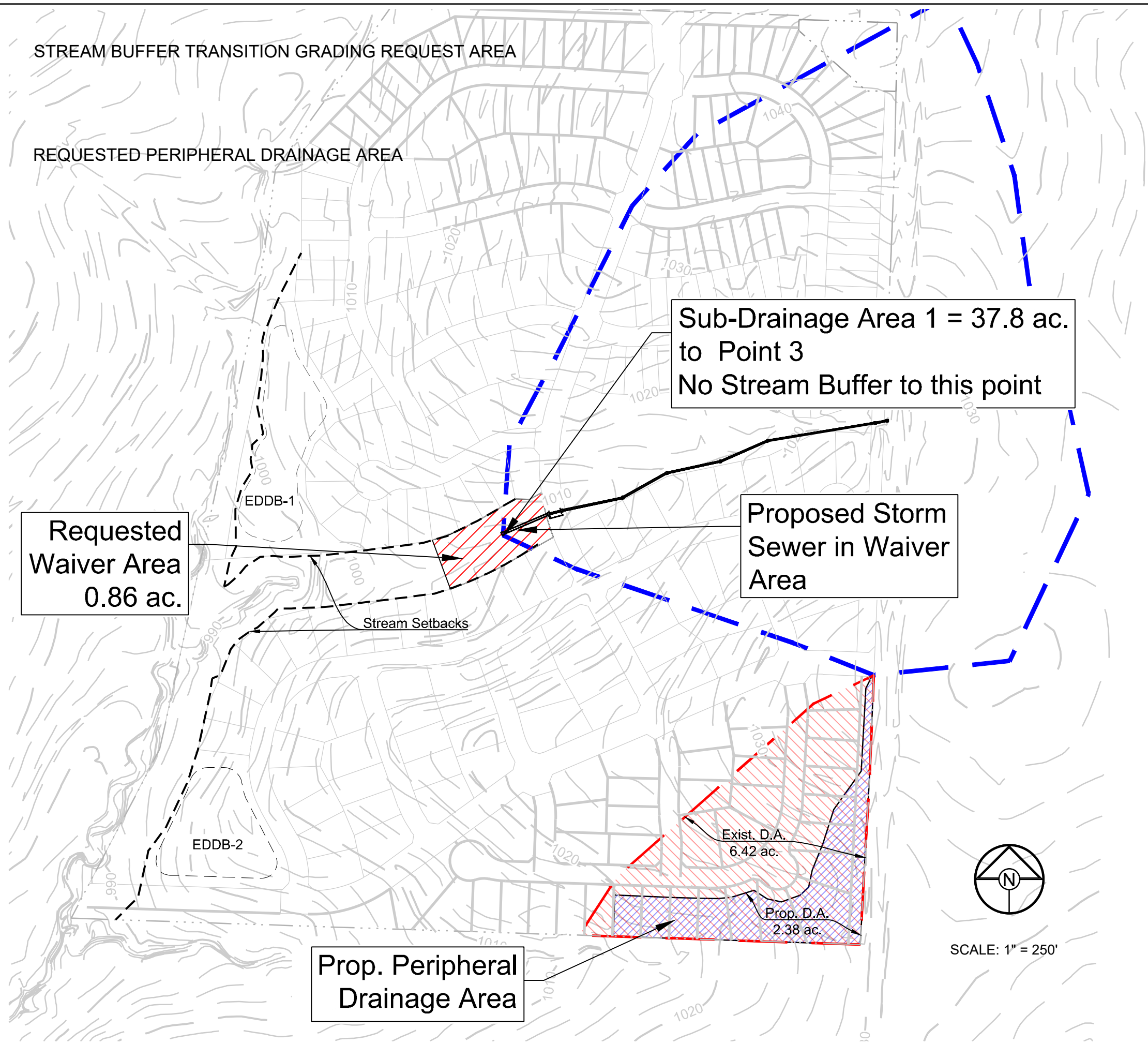
I:\PROJECTS\2021\21-130\3.0 Design\7.0 Waiver\19-227-WAIVER EXHIBIT Stream Setbacks and South Discharge\_recover.dwg, 4/26/2022 10:48:46 AM, 1:1



STREAM BUFFER TRANSITION GRADING REQUEST AREA



REQUESTED PERIPHERAL DRAINAGE AREA



Requested Waiver Area  
0.86 ac.

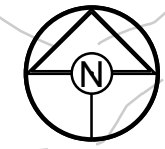
Sub-Drainage Area 1 = 37.8 ac.  
to Point 3  
No Stream Buffer to this point

Proposed Storm Sewer in Waiver Area

Prop. Peripheral Drainage Area

Exist. D.A.  
6.42 ac.

Prop. D.A.  
2.38 ac.



SCALE: 1" = 250'

**SCHLAGEL**  
 ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS  
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 WWW.SCHLAGELASSOCIATES.COM  
 Missouri State Certificates of Authority  
 #E2002003800-F #LAC2001005237 #LS2002008659-F

BAILEY FARMS  
 WAIVER EXHIBIT

1300 SE RANSON ROAD LEE'S SUMMIT, MISSOURI

DRAWN BY:	JLL
DATE PREPARED:	04/26/2022
PROJ. NUMBER:	21-130

WAIVER EXHIBIT

SHEET

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