



**LEE'S SUMMIT  
MISSOURI**

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

PROJECT NAME: East Trails Middle School (LS 7 SD)

ADDRESS: 1001 SE Bailey Road, Lee's Summit, MO

PERMIT NUMBER: PL2020259

OWNER'S NAME: LEE'S SUMMIT SCHOOL DISTRICT R-7

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.)

This waiver request is being requested on behalf of the Lee's Summit School District. The waiver request is in regard to the emergency spillway on the extended dry detention basin (EDD-1) on the East Trails Middle School Campus located at 1001 SE Bailey Road. As shown in the attached exhibit, an as-built survey was completed for the basin in August 2022. The survey showed a slight increase in pond volume. The 100-Year water surface was adjusted for this volume increase. The WSE went from 1010.80 to 1010.65. The survey also showed the crest for the emergency spillway had been constructed at 1011.04 (low point), instead of the design elevation of 1011.30. This results in a freeboard of 0.39'. This is 0.11' short of the freeboard requirement of 0.50' required per Section 5608.4F (KCAPWA). The spillway was constructed wider than the design requirement (32' actual length instead of the 28' design length).

A waiver is being requested because this deficiency will have no impact on the Levels of Service indicated in Section 5601.8 (KCAPWA). There will be no impact to public safety, adjoining properties or downstream conditions. The emergency spillway is only in use if the primary outlet is completely blocked and the basin is full. The emergency spillway also has the capacity to handle the 100-year flow in this event.

The basin is located adjacent to the stream buffer for the unnamed tributary located on the east side of the school property. Should the basin overflow, it will dump directly into the tributary, crossing no other properties. In a sudden release of impounded water, the spillway, as constructed, will control the overflow and protect the basin as defined in 5601.2 (KCAPWA).

SUBMITTED BY:

NAME: Olsson (Terry Parsons, PE)  
ADDRESS: 7301 W. 133rd Street  
CITY, STATE, ZIP: Overland Park, KS 66213  
Email: tparsons@olsson.com

( ) OWNER (X) OWNER'S AGENT  
PHONE #: 913-634-0903  
SIGNATURE: 

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SUE PYLES, P.E.  
DEVELOPMENT ENGINEERING MANAGER ( ) APPROVAL ( ) DENIAL  
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

JEFF THORN, P.E.  
DEPUTY DIRECTOR OF WATER UTILITIES ( ) APPROVED ( ) DENIAL  
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

GEORGE M. BINGER III, P.E.  
DEPUTY DIRECTOR OF PUBLIC WORKS / CITY ENGINEER ( ) APPROVED ( ) DENIAL  
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

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

# DESIGN MODIFICATION REQUEST EXHIBIT 1

BAILEY ROAD

EDGE OF ROAD 1014

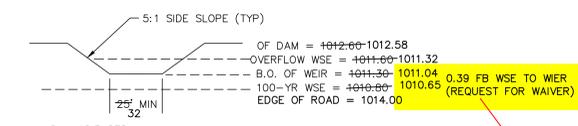
EMERGENCY SPILLWAY

EDD-1

UNNAMED TRIBUTARY

PROPERTY LINE

WAIVER REQUEST



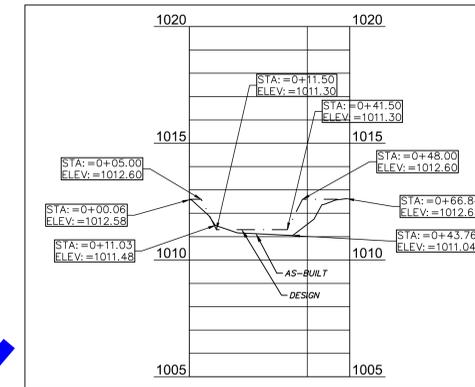
**LEGEND**

- PROPERTY LINE
- - - 995 DESIGN MAJOR CONTOUR
- - - 995 DESIGN MINOR CONTOUR
- - - 998 AS-BUILT MAJOR CONTOUR
- - - 998 AS-BUILT MINOR CONTOUR

CONTRACTOR NOTE:

ALL TEMPORARY SILTATION BASINS, SEDIMENT BASINS AND DETENTION BASINS MUST BE CONSTRUCTED PRIOR TO ANY OTHER IMPROVEMENTS.

EDD-1  
EMERGENCY SPILLWAY DETAIL



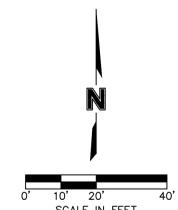
EDD-1  
EMERGENCY SPILLWAY DETAIL  
(DESIGN VS AS-BUILT)

**DESIGN VS AS-BUILT DETENTION AREA & VOLUME**

ELEVATION	DESIGN AREA (ACRES)	DESIGN VOL (CF)	AS-BUILT AREA (ACRES)	AS-BUILT VOL (CF)
1003.97	0.00	0	0.00	0
1005	0.02	359	0.01	314
1006	0.04	1491	0.05	1795
1007	0.14	5238	0.13	5890
1008	0.26	13755	0.27	14776
1009	0.35	26887	0.35	28454
1010	0.38	42612	0.39	44745
1011	0.41	59644	0.42	62561

**HEC-14 RIPRAP APRON SIZING FOR OUTFALL B-1**

	D50 (in)	Q (ft <sup>3</sup> /s)	D (ft)	TW (ft)	TW/D	APRON LENGTH (ft)	APRON DEPTH (ft)	Width at End of Apron (ft)
Required	2.2	9.9	2	0.91	0.455	4	3.3	11.4
Design	6					24	24	12



DWG: F:\2020\0001-0500\0200-0103\40-Design\AutoCAD\Final Plans\Sheets\CONSTRUCTION DOCUMENTS\C\_GRD002\_0200103.dwg  
 DATE: Nov 09, 2023 10:19am XREFS: C:\BASE\_0200103 C:\BASE\_0200103 T\_PBASE\_0200103 T\_PBASE\_0200103  
 USER: tparsons V\_XALT\_00103 C\_PSURF\_asbt basin\_0200103 AS\_BUILT\_Detention Ponds  
 C:\PSURF\_asbt basin\_0200103 V\_XALT\_00103 C\_PSURF\_asbt basin\_0200103 AS\_BUILT\_Detention Ponds

**DLR Group**  
 6020 DLR Group, Inc. - Missouri Corporation  
 Missouri State Certificate of Authority #00989

**Olsson**  
 CIVIL ENGINEERING  
 MISSOURI CERTIFICATE OF AUTHORITY #001562  
 7301 West 133rd Street, Suite 200  
 Overland Park, KS 66213-7750 TEL: 913.381.1170 www.olsson.com

LEE'S SUMMIT MIDDLE SCHOOL #4  
 LEE'S SUMMIT R-7 SCHOOL DISTRICT  
 1001 SE BAILEY ROAD  
 LEE'S SUMMIT, MO 64881

PACKAGE 2-  
 STRUCTURAL & SITE  
 UTILITIES  
 ISSUED FOR PERMIT  
 08/28/20

PR002R 01.14.21

13-20102-00  
 DETENTION BASIN  
 DETAIL

C1059