

## Memorandum

Project #  
180490.001

TO: City of Dublin Development  
CC: Daniel Phillibaum – Case Manager  
FROM: The Kleingers Group – Michael Couvreur, PE (E-70851)  
DATE: December 9, 2022  
RE: 22 – 158WID-DP – ID-3 – Darree Fields Restroom Building & Plaza Design Stormwater Treatment and Control Feasibility Assessment for Redevelopment

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To Whom it May Concern:

The intent of this memo is to supplement the Darree Fields Restroom Building & Plaza Design site improvement plans with a stormwater treatment and control feasibility assessment per Appendix D of the *City of Dublin Stormwater Management Design Manual* (January 2019).

Site improvements for this project include a new restroom building and plaza area with associated utility connections and hardscape. The proposed work will disturb less than one acre and increase the impervious area by less than 2,000 square feet. As such, Table 2-3 of the design manual dictates that stormwater quality and quantity control levels shall be per Appendix D.

In order to treat and control the stormwater for this development, roof drainage and drainage from newly impervious areas will be directed toward the bank of South Fork Indian Run, located just south of the proposed building. The bank of South Fork Indian Run shall be rehabilitated and revegetated with native shrubs and trees per recommendations provided in the *Stream Riparian Corridor Enhancement Pilot Projects*, dated July 25, 2022.

### Attachments

Drainage Area Map

Storm Sewer Calculations



STORM SEWER COMPUTATIONS

12/9/2022

i = City of Dublin Stormwater Management Design Manual (January 2019)

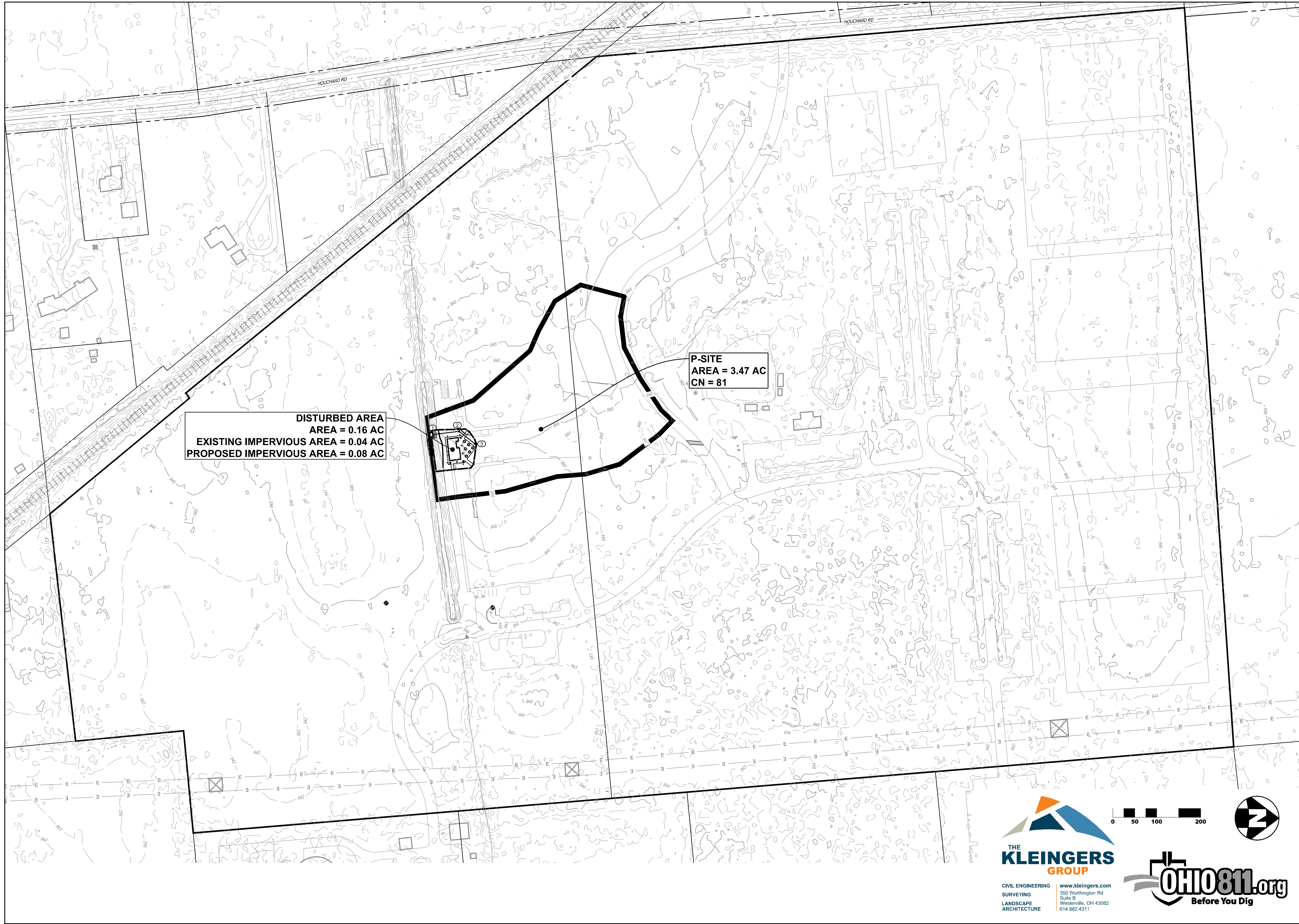
350 Worthington Road, Suite B  
Westerville, OH 43082  
614.882.4311

Project: Darree Fields - Restroom Building & Plaza Design  
Project Number: 180490.001

Design Storm: 5 yr  
Check Storm: 10 yr  
Manning's n: 0.013

LOCATION			BASIN DATA									PIPE DATA						HGL CHECK																	
Inlet	Station	Outlet	ΔA (ac)	ΣA (ac)	ΔT <sub>c</sub> (min)	ΣT <sub>c</sub> (min)	Design i (in/hr)	Coeff. C	ΔCA (ac)	ΣCA (ac)	Design Discharge (cfs)	Pipe Size (in)	Pipe Length (ft)	Pipe Slope (ft/ft)	US Invert (ft)	DS Invert (ft)	Mean Velocity (ft/sec)	Pipe Full Capacity (cfs)	Check i (in/hr)	Check Discharge (cfs)	Mean Velocity (ft/sec)	Friction Slope (ft/ft)	Head Loss (ft)	TW Elevation (ft)	HW Elevation (ft)	Grate Elevation (ft)									
EX CB		3	-	-	-	-	-	-	-	-	-	12	223	0.0030	940.85	940.18	2.49	1.96	-	-	-	0.0030	0.67	940.18	940.85	943.55									
3		2	0.00	0.00	5.00	5.00	4.71	0.00	0.00	0.00	1.96 (#)	15	46	0.0033	940.18	940.03	3.02	3.70	5.28	0.00	3.02	0.0033	0.15	940.03	940.18	945.37									
2		1	0.06	0.06	5.00	5.00	4.71	0.94	0.06	0.06	2.22	15	60	0.0033	940.03	939.83	3.04	3.74	5.28	0.30	3.04	0.0033	0.20	939.83	940.03	945.85									
(#) Design discharge for this pipe run is assumed based on the flow capacity of the existing 12" pipe from the existing catch basin to the outlet in the South Fork Indian Run.																																			





**DISTURBED AREA**  
**AREA = 0.16 AC**  
**EXISTING IMPERVIOUS AREA = 0.04 AC**  
**PROPOSED IMPERVIOUS AREA = 0.08 AC**

**P-SITE**  
**AREA = 3.47 AC**  
**CN = 81**

**DARREE FIELDS - RESTROOM BUILDING & PLAZA DESIGN**  
 CITY OF DUBLIN  
 6259 COSGRAY RD.  
 DUBLIN, OH 43016

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NO.	DATE	ISSUED / REVISION

PROJECT NO. 22309.00  
 DRAWING TITLE:  
 PROPOSED  
 CONDITIONS

**THE KLEINGERS GROUP**  
 CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE  
 www.kleingers.com  
 350 Worthington Rd Suite B Westerville, OH 43082 614.882.4311

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