October 26, 2023

Franklin Conservation Commission
355 E. Central Street
Franklin, MA 02038

Re: Additional Information for ANRAD
124-126 Grove St (DEP #159-1274)
Soils Analysis of Basin 2 and 3

Dear Franklin Conservation Commission,

Goddard Consulting, LLC is pleased to submit this analysis on behalf of the applicant for property addressed as 124-126 Grove St in Franklin, MA. This report supplies the additional information requested by Jonathan Niro, BETA peer review scientist, during the ANRAD process in which the applicant has requested the Commission to determine if the northern and southern basins on site are jurisdictional under the Town of Franklin Wetland Bylaw (see Figure 1 for basin locations).

The Town of Franklin Wetland Bylaw states that any area with wetland soils and wetland vegetation is a jurisdictional wetland area (even if located in an active stormwater basin). At the last site visit on Sept 19, 2023, it was agreed upon by Breeka (Franklin Conservation Agent), Jonathan (peer review scientist from BETA), Scott Goddard and Nicole Hayes of Goddard Consulting that the areas delineated as "bylaw wetland areas" in Basins 2 and 3 as shown in the June 7, 2023, Goddard Consulting Basin Report appear to be correct. However, since the basins were flooded at the time of the Sept 19th site visit and soils were impossible to discern due to flooding; Jonathan requested that soil data transects throughout Basins 2 and 3 within the area Goddard was identifying as upland be further documented. This report provides that soil information. In addition, since the basin's flags and the delineated wetland flags associated with the Sept 19, 2023, report were not visible in the field and not previously surveyed; Goddard Consulting reflagged the basins and wetland areas and gps all the points including the soil transects (see Figures 2 and 3).

Basin 2

Since both basins are dominant in wetland species, soils located within the basins were the determining factor for jurisdiction. Three transects were set up in Basin 2 (See Figure 2 for transect locations). Transect one is located within the middle of the basin and starts with Plot 1 (in the western section of the basin within the flagged wetland area WF1-14) and continues east to end with Plot 7 (see Figure 2). Transect 2 and 3 in Basin 2 are located north and south of Transect 1 and start with Plot 1 in the western section of the basin and continue east to end with Plot 5. All of the upland soils within the plots consist of the same chroma and value (+/- one chroma or value) as shown in the data below. Representative photographs of these soils are enclosed. Since the soils were consistent throughout the area only representative photographs are shown instead of the same photos presented at each plot (see photos on next page).

Representative soil profile photographs of Basin 2

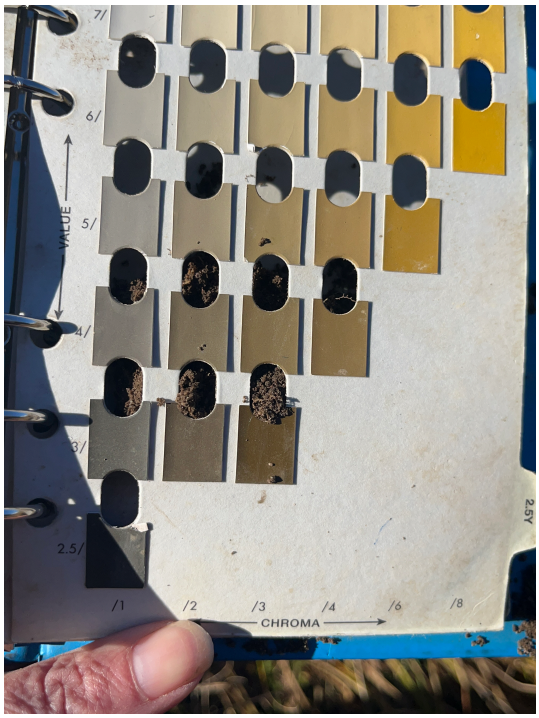


Photo 1. Soil Horizon 1 (Topsoil-A layer)-Showing value and chroma of soils: 2.5YR3/2 (not hydric)

Photo 2. Soil Horizon 2 (Subsoil B-layer)- Showing soils of 2.5YR5/3 (not hydric)

Photo 3. Soil Horizon 1 (Topsoil A layer) 8 inches of 2.5YR3/3 (not hydric)

Photo 4. Soil Horizon A and B 2.5 YR 2/2 over 2.5YR4/4 (not hydric)

Basin 2-Transect 1
Plot 1

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-12"	2.5YR2/2	Sandy loam	Not Hydric
12-20"	2.5YR6/1	Loamy sand	Hydric

Basin 2-Transect 1
Plot 2

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-14"	2.5YR3/3	Sandy loam	Not Hydric
14-20"	2.5YR5/4	Loamy sand	Not Hydric

Basin 2-Transect 1
Plot 3

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-18"	2.5YR3/3	Sandy loam	Not Hydric
18-20"	2.5YR2/2	Loamy sand	Not Hydric

Basin 2-Transect 1
Plot 4

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-10"	2.5YR2/2	Sandy loam	Not Hydric
10-20"	2.5YR3/3	Loamy sand	Not Hydric

Basin 2-Transect 1
Plot 5

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-8"	2.5YR2/2	Sandy loam	Not Hydric
8-20"	2.5YR3/3	Loamy sand	Not Hydric

Basin 2-Transect 1
Plot 6

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-14"	2.5YR2/2	Sandy loam	Not Hydric
14-20"	2.5YR3/3	Loamy sand	Not Hydric

Basin 2-Transect 1
Plot 7

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-14"	2.5YR3/2	Sandy loam	Not Hydric
14-20"	2.5YR5/3	Loamy sand	Not Hydric

In Basin 2, Transect 1 Plots 2-7 consist of upland soils ranging in soil chroma and value of: 2.5YR2/2 or 2.5YR3/3 (brown color) over soils ranging in soil chroma and value of: 2.5YR3/3 or 2.5YR4/3 (light brown to tan color). Plot 1 indicates the presence of hydric gleied soils at 12-inches and therefore is in a wetland. This soil analysis also confirms the wetland delineation area flagged with series W 1-14 since Plot 2 is in upland right before the wetland line and Plot 1 is located within the wetland line.

Basin 2 Transect 2
Plot 1

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-11"	2.5YR2/2	Sandy loam	Not Hydric
11-20"	2.5YR6/1	Loamy sand	Hydric

Basin 2 Transect 2
Plot 2

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-18"	2.5YR3/3	Sandy loam	Not Hydric
18-20"	2.5YR2/2	Loamy sand	Not Hydric

Basin 2 Transect 2
Plot 3

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-18"	2.5YR3/3	Sandy loam	Not Hydric
18-20"	2.5YR2/2	Loamy sand	Not Hydric

Basin 2 Transect 2
Plot 4

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-12"	2.5YR3/2	Sandy loam	Not Hydric
12-20"	2.5YR4/3	Loamy sand	Not Hydric

Basin 2 Transect 2
Plot 5

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-18"	2.5YR3/3	Sandy loam	Not Hydric
18-20"	2.5YR2/2	Loamy sand	Not Hydric

In Basin 2, Transect 2 Plots 2-5 consist of upland soils ranging in soil chroma and value of: 2.5YR3/2 or 2.5YR3/3 (brown color) over soils ranging in soil chroma and value of: 2.5YR2/2 or 2.5YR4/3 (light brown to tan color). Plot 1 indicates the presence of hydric gleied soils at 11-inches and therefore is in a wetland. This soil analysis confirms the wetland delineation area flagged with series W 1-14 since Plot 2 is in upland right before the wetland line and Plot 1 is located within the wetland line.

Basin 2 Transect 3
Plot 1

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-12"	2.5YR2/2	Sandy loam	Not Hydric
12-20"	2.5YR6/1	Loamy sand	Hydric

Basin 2 Transect 3
Plot 2

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-12"	2.5YR3/2	Sandy loam	Not Hydric
12-20"	2.5YR3/3	Loamy sand	Not Hydric

Basin 2 Transect 3
Plot 3

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-16"	2.5YR3/3	Sandy loam	Not Hydric
16-20"	2.5YR6/4	Loamy sand	Not Hydric

Basin 2 Transect 3
Plot 4

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-14"	2.5YR3/3	Sandy loam	Not Hydric
14-20"	2.5YR6/4	Loamy sand	Not Hydric

Basin 2 Transect 3
Plot 5

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-11"	2.5YR2/2	Sandy loam	Not Hydric
11-20"	2.5YR4/3	Loamy sand	Not Hydric

In Basin 2, Transect 3 Plots 2-5 consist of upland soils ranging in soil chroma and value of: 2.5YR2/2 or 2.5YR3/3 (brown color) over soils ranging in soil chroma and value of: 2.5YR3/3 or 2.5YR6/4 (light brown to tan color).

Plot 1 indicates the presence of hydric gleied soils at 12-inches and therefore is in a wetland. This soil analysis confirms the wetland delineation area flagged with series WF 1-14 since Plot 2 is in upland right before the wetland line and Plot 1 is located within the wetland line.

As shown in Figure 2. This detention basin flagged DB1 1-15 is 31,180 sf of which 7,540 sf contains wetland soils and wetland vegetation. This wetland area that has wetland soils and wetland vegetation is flagged with series W1 1-14 and is jurisdictional under the local wetland bylaw.

Basin 3

Since Basin 3 is a narrow one transect was completed down the center of the area starting in the eastern section of the basin with Plot 1 and ending with Plot 5. Representative photographs of these soils are enclosed. Since the soils were consistent throughout the area only representative photographs are shown instead of the same photos presented at each plot (see photos on next page).

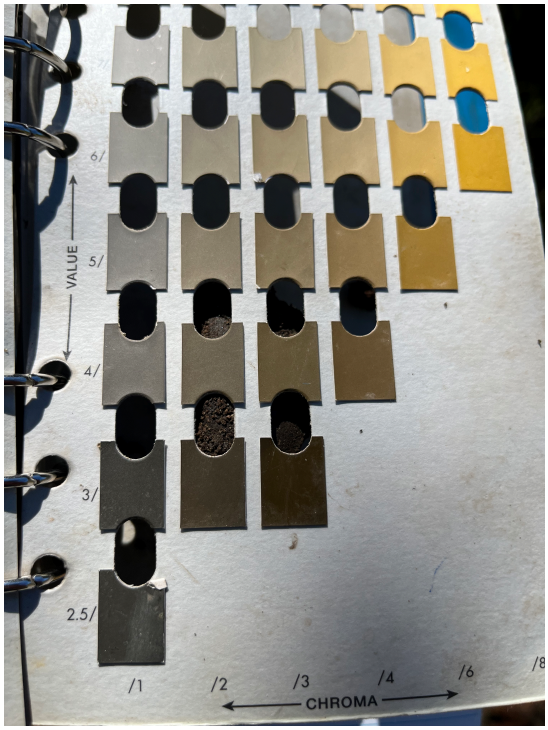


Photo 5. Soil Horizon 1 (Topsoil-A layer)-Showing value and chroma of soils: 2.5YR3/2 (not hydric)

Photo 6. 2.5YR3/2 in soil auger (not hydric)

Photo 7. Gleyed soils (shown on ground) from Plot 5 (hydric)

Basin 3 Transect 4
Plot 1

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-12"	2.5YR3/2	Sandy loam	Not Hydric
12-20"	2.5YR3/4	Loamy sand	Not Hydric

Basin 3 Transect 4
Plot 2

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-16"	2.5YR3/2	Sandy loam	Not Hydric
16-20"	2.5YR6/2	Loamy sand	Not Hydric

Basin 3 Transect 4
Plot 3

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-16"	2.5YR3/2	Sandy loam	Not Hydric
16-20"	2.5YR6/2	Loamy sand	Not Hydric

Basin 3 Transect 4
Plot 4

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-15"	2.5YR3/2	Sandy loam	Not Hydric
15-20"	2.5YR6/2	Loamy sand	Not Hydric

Basin 3 Transect 4
Plot 5

Soil Depth	Munsell Soil Value and Chroma	Soil texture	Hydric or Not Hydric Soil
0-8"	2.5YR3/2	Sandy loam	Not Hydric
8-20"	2.5YR7/1	Loamy sand	Hydric

In Basin 3, Transect 4 Plots 1-4 consist of upland soils consisting of chroma and value of: 2.5YR3/2 (brown color) over soils of a chroma and value of: 2.5YR6/2 (tan color).

Plot 5 indicates the presence of hydric gleied soils at 8-inches and therefore is in a wetland. Several other quick test auger holes were done from Plot 5 to the west up to the adjacent rip rap area. These test holes indicated gleyed soils within 12-inches and therefore is located within a wetland. As a result of wetland soils observed from Plot 5 to the rip rap area this area was flagged as an additional wetland area and was flagged with series WF3 1-6. This 1,660

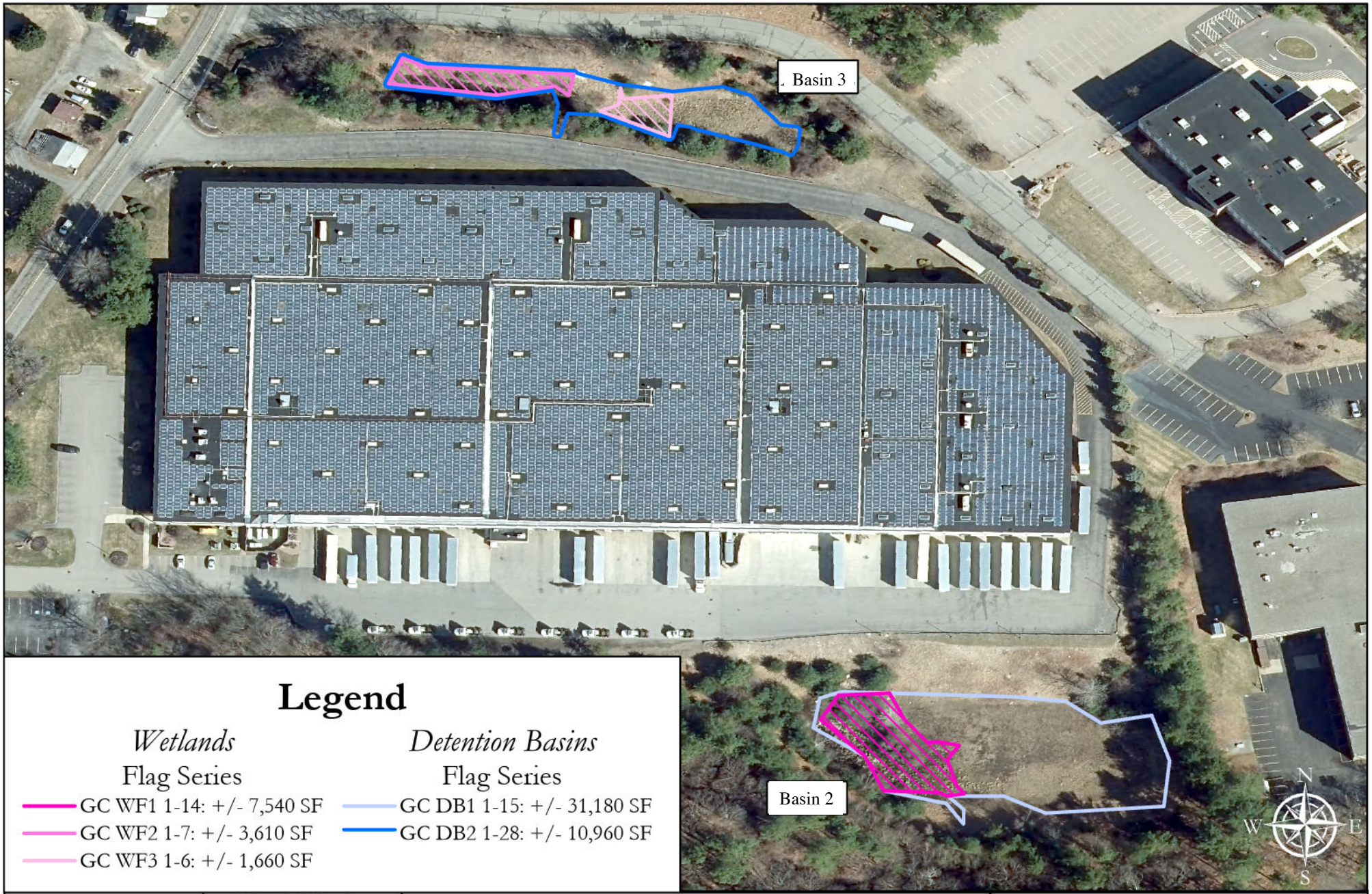
square footage of wetland is considered jurisdictional under the bylaw and will be added to the square footage needed to be replaced if impacted.

Conclusion

This soil analysis proves that wetland flagged with series W1 1-14 within Basin 2 is jurisdictional and consists of 7,540 sf, the wetlands flagged in Basin 3 with series W2 1-7 and W3 1-6 are also jurisdictional and consist of 3,610 sf and 1,660 sf consecutively. In total the amount of jurisdictional wetland in Basin 2 is 7,540 sf and in Basin 3 is 5,270 sf.

Sincerely,
Goddard Consulting, LLC.

Nicole Hayes, PWS
Senior Wetland Scientist



Legend

Wetlands

Flag Series

- GC WF1 1-14: +/- 7,540 SF
- GC WF2 1-7: +/- 3,610 SF
- GC WF3 1-6: +/- 1,660 SF

Detention Basins

Flag Series

- GC DB1 1-15: +/- 31,180 SF
- GC DB2 1-28: +/- 10,960 SF

Date: 10/26/2023	GC Job Number: 101-080	October 13, 2023 Delineation	0 75 150 Feet
GODDARD CONSULTING Strategic Ecological Consulting		124-126 Grove Street Franklin, MA 02038	Figure 1 | 1" = 150'

Legend

Wetlands
Flag Series
GC WF1 1-14: +/- 7,540 SF

Detention Basins
Flag Series
GC DB1 1-15: +/- 31,180 SF

Transects
Flag Series
Transect 1 Plot 1-7
Transect 2 Plot 1-5
Transect 3 Plot 1-5

Date: 10/26/2023	GC Job Number: 101-080	October 13, 2023 Delineation	0 25 50 Feet
GODDARD CONSULTING Strategic Ecological Consulting		124-126 Grove Street Franklin, MA 02038	Figure 2: Area 1 — 1" = 50'

Legend

Wetlands
Flag Series
- GC WF2 1-7: +/- 3,610 SF
- GC WF3 1-6: +/- 1,660 SF

Detention Basins
Flag Series
- GC DB2 1-28: +/- 10,960 SF

Transects
Flag Series
- Transect 4 Plot 1-5

Date: 10/26/2023	GC Job Number: 101-080	October 13, 2023 Delineation	0 25 50 Feet
GODDARD CONSULTING Strategic Ecological Consulting		124-126 Grove Street Franklin, MA 02038	Figure 3: Area 2 — 1" = 50'