

January 2, 2025

Franklin Conservation Commission
355 East Central St
Franklin, MA 02038

Re: Response to MassDEP Comments
444 East Central Street, Franklin MA (DEP File #159-1306)

Dear Franklin Conservation Commission,

Goddard Consulting, LLC, (Goddard) is pleased to submit this response letter, along with site plan exhibit (IVW Exhibit, Allen & Major Associates, 1/2/2025) and HydroCAD Calculations, on behalf of TAG Central LLC (the Applicant), to provide responses to the initial project review comments issued by MassDEP in regard to the Abbreviated Notice of Resource Area Delineation (ANRAD) filed for 444 East Central Street, Franklin MA (DEP File #159-1306).

If you have any questions, please feel free to contact Chris Frattaroli at (617) 620-2740.

Sincerely,
Goddard Consulting, LLC



Chris Frattaroli
Wetland Scientist

CC: MassDEP Central Regional Office - Wetlands Division
TAG Central LLC

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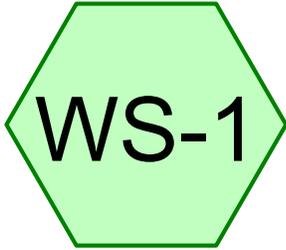
- Attachment A: **MassDEP Comments and Responses**
- Attachment B: **HydroCAD Calculations, Allen & Major Associates**
Signed and stamped by Carlton M. Quinn, PE, 1/2/2025
- Attachment C: **IVW Exhibit, Allen & Major Associates (one sheet)**
Signed and stamped by Carlton M. Quinn, PE, 1/2/2025

1.0 MASSDEP COMMENTS AND RESPONSES

Goddard and the project’s engineer, Allen and Major Associates (A&M), have reviewed MassDEP’s comments on behalf of the Applicant and offer the following responses:

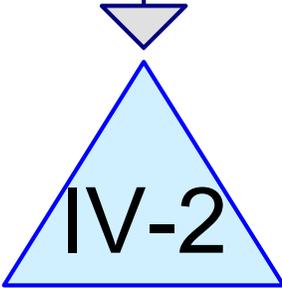
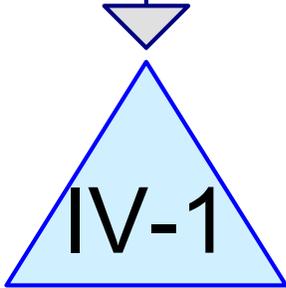
	MassDEP Comment	Goddard Response
#1	<p>MassDEP recommends that the Commission field-verify the accuracy of wetland resource area boundaries delineated in the ANRAD filing, as well as degraded Riverfront Area boundaries depicted on site plans. Per 310 CMR 10.58(5), degraded Riverfront Area are those areas that are absent of topsoil, covered by existing impervious surfaces, junkyards, or abandoned dumping grounds. MassDEP also reminds the Commission of their ability to consider third party review per 310 CMR 10.05(4)(h).</p>	<p>Goddard and the Applicant support the recommendation to field-verify the accuracy of delineated wetland resource areas and degraded Riverfront Area, and the use of a third-party peer reviewer.</p>
#2	<p>The Applicant should provide additional information in accordance with 310 CMR 10.57(2)(b)3. to verify whether the isolated vegetated wetlands meet parameters to be considered isolated land subject to flooding and jurisdictional under the WPA.</p> <p>Additionally, if the Applicant suspects that the isolated wetlands were once stormwater management features, additional information in accordance with 310 CMR 10.02(2)(c) should be provided to MassDEP and the Commission demonstrating when the basin was installed and that the stormwater basin has been maintained as such. The Commission may request that the Applicant submit maintenance logs. MassDEP recommends the Commission should verify that the GCC series does not connect to the wetland system. If a connection does exist, based on the information provided the GCC series may be considered jurisdictional even if it was a stormwater basin previously. Please provide additional information accordingly.</p>	<p>A&M has prepared engineering calculations to confirm that the isolated vegetated wetlands are not capable of containing ¼-acre foot of water and therefore cannot qualify as Isolated Land Subject to Flooding (see attached IVW Exhibit and HydroCAD calculations).</p> <p>It does not appear that either of the on-site IVWs (GCB- or GCD-series) were constructed as stormwater basins.</p> <p>Goddard and A&M do believe that the GCC-series wetland was constructed as a stormwater basin, but it does not appear to have been maintained due to the presence of large woody vegetation. As such, it has been identified as a vegetated wetland to accurately display the 100-foot buffer zone that casts onto the locus site. Goddard and the Applicant are investigating any potential connection and will provide revised plans to the Commission and MassDEP as appropriate.</p>
#3	<p>Zone A 100-year floodplain exists on the lot and the Applicant indicates that the “Extent of BLSF to be determined with topographic survey data.” The</p>	<p>NFIP Profile data is unavailable for this site. To evaluate the extent of the floodplain, A&M performed on-the-ground survey slightly offsite at</p>

<p>boundary of BLSF should be determined using procedures outlined in 310 CMR 10.57(2)(a)3. Where NFIP Profile data is unavailable, such as in the case of Zone A 100-year floodplain, the BLSF boundary shall be the maximum lateral extent of flood water observed or recorded. In the event of a conflict of opinion, the Commission may require engineering calculations be provided following parameters listed in 310 CMR 10.57(2)(a)3.a.-c.</p>	<p>Northern Spy Road. The location at which Uncas Brook flows under Northern Spy Road constitutes the highest elevation of impoundment possible for this broader wetland system. The road crest in this location was surveyed at elevation 271', and as such this elevation was used as the flood elevation.</p>
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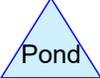
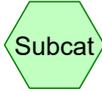
Subcat WS-1

Subcat WS-2



IV-1

IV-2



3317-01 - IVW Calc HydroCAD

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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type III 24-hr		Default	24.00	1	2.75	2

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
29,865	39	>75% Grass cover, Good, HSG A (WS-1, WS-2)
20,348	61	>75% Grass cover, Good, HSG B (WS-1, WS-2)
1,300	80	>75% Grass cover, Good, HSG D (WS-2)
652	96	Gravel surface, HSG A (WS-2)
409	96	Gravel surface, HSG D (WS-2)
6,586	98	Paved parking, HSG A (WS-1, WS-2)
1,843	98	Paved parking, HSG B (WS-2)
4,482	98	Water Surface, HSG A (WS-1, WS-2)
2,602	98	Water Surface, HSG B (WS-1)
62	98	Water Surface, HSG D (WS-2)
104,584	30	Woods, Good, HSG A (WS-1, WS-2)
10,167	55	Woods, Good, HSG B (WS-1, WS-2)
3	77	Woods, Good, HSG D (WS-2)
182,903	43	TOTAL AREA

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
146,169	HSG A	WS-1, WS-2
34,960	HSG B	WS-1, WS-2
0	HSG C	
1,774	HSG D	WS-2
0	Other	
182,903		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
29,865	20,348	0	1,300	0	51,513	>75% Grass cover, Good	
652	0	0	409	0	1,061	Gravel surface	
6,586	1,843	0	0	0	8,429	Paved parking	
4,482	2,602	0	62	0	7,146	Water Surface	
104,584	10,167	0	3	0	114,754	Woods, Good	
146,169	34,960	0	1,774	0	182,903	TOTAL AREA	

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Franklin
Type III 24-hr 1-year Rainfall=2.75"

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Page 6

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment WS-1: Subcat WS-1

Runoff Area=111,271 sf 5.60% Impervious Runoff Depth=0.14"
Flow Length=569' Tc=19.9 min CN=39/98 Runoff=0.26 cfs 1,308 cf

Subcatchment WS-2: Subcat WS-2

Runoff Area=71,632 sf 13.04% Impervious Runoff Depth=0.33"
Flow Length=352' Tc=8.1 min CN=36/98 Runoff=0.53 cfs 1,962 cf

Pond IV-1: IV-1

Peak Elev=271.57' Storage=1,308 cf Inflow=0.26 cfs 1,308 cf
Outflow=0.00 cfs 0 cf

Pond IV-2: IV-2

Peak Elev=271.75' Storage=1,962 cf Inflow=0.53 cfs 1,962 cf
Outflow=0.00 cfs 0 cf

Total Runoff Area = 182,903 sf Runoff Volume = 3,270 cf Average Runoff Depth = 0.21"
91.48% Pervious = 167,328 sf 8.52% Impervious = 15,575 sf

3317-01 - IVW Calc HydroCAD

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Type III 24-hr 1-year Rainfall=2.75"

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Summary for Subcatchment WS-1: Subcat WS-1

Runoff = 0.26 cfs @ 12.26 hrs, Volume= 1,308 cf, Depth= 0.14"
Routed to Pond IV-1 : IV-1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.75"

Area (sf)	CN	Description
19,331	39	>75% Grass cover, Good, HSG A
16,547	61	>75% Grass cover, Good, HSG B
3,414	98	Paved parking, HSG A
215	98	Water Surface, HSG A
2,602	98	Water Surface, HSG B
60,014	30	Woods, Good, HSG A
9,148	55	Woods, Good, HSG B
111,271	42	Weighted Average
105,040	39	94.40% Pervious Area
6,231	98	5.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	38	0.0200	1.15		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.28"
1.1	12	0.0600	0.17		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.28"
18.2	519	0.0090	0.47		Shallow Concentrated Flow, C-D Woodland Kv= 5.0 fps
19.9	569	Total			

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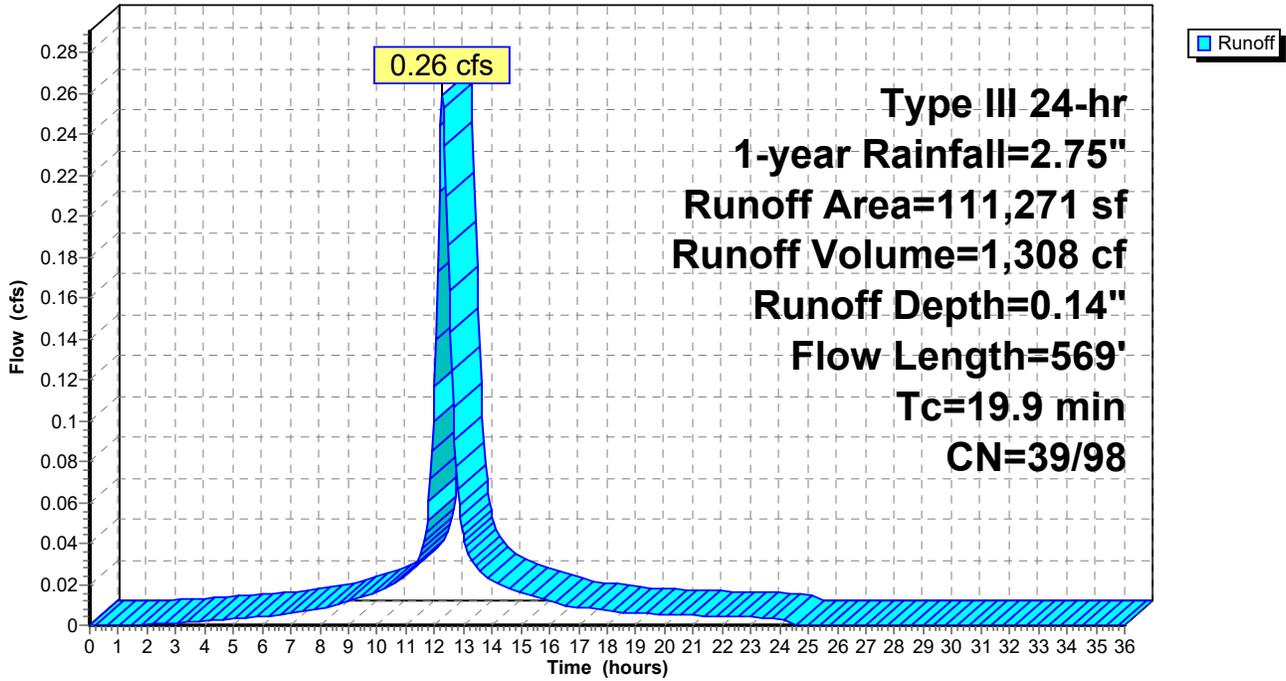
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Type III 24-hr 1-year Rainfall=2.75"

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Subcatchment WS-1: Subcat WS-1

Hydrograph



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Type III 24-hr 1-year Rainfall=2.75"

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Summary for Subcatchment WS-2: Subcat WS-2

Runoff = 0.53 cfs @ 12.11 hrs, Volume= 1,962 cf, Depth= 0.33"
Routed to Pond IV-2 : IV-2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.75"

Area (sf)	CN	Description
10,534	39	>75% Grass cover, Good, HSG A
3,801	61	>75% Grass cover, Good, HSG B
1,300	80	>75% Grass cover, Good, HSG D
652	96	Gravel surface, HSG A
409	96	Gravel surface, HSG D
3,172	98	Paved parking, HSG A
1,843	98	Paved parking, HSG B
4,267	98	Water Surface, HSG A
62	98	Water Surface, HSG D
44,570	30	Woods, Good, HSG A
1,019	55	Woods, Good, HSG B
3	77	Woods, Good, HSG D
71,632	44	Weighted Average
62,288	36	86.96% Pervious Area
9,344	98	13.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	50	0.0300	0.18		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.28"
0.2	16	0.0300	1.21		Shallow Concentrated Flow, B-C Short Grass Pasture Kv= 7.0 fps
3.2	286	0.0900	1.50		Shallow Concentrated Flow, C-D Woodland Kv= 5.0 fps
8.1	352	Total			

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Franklin

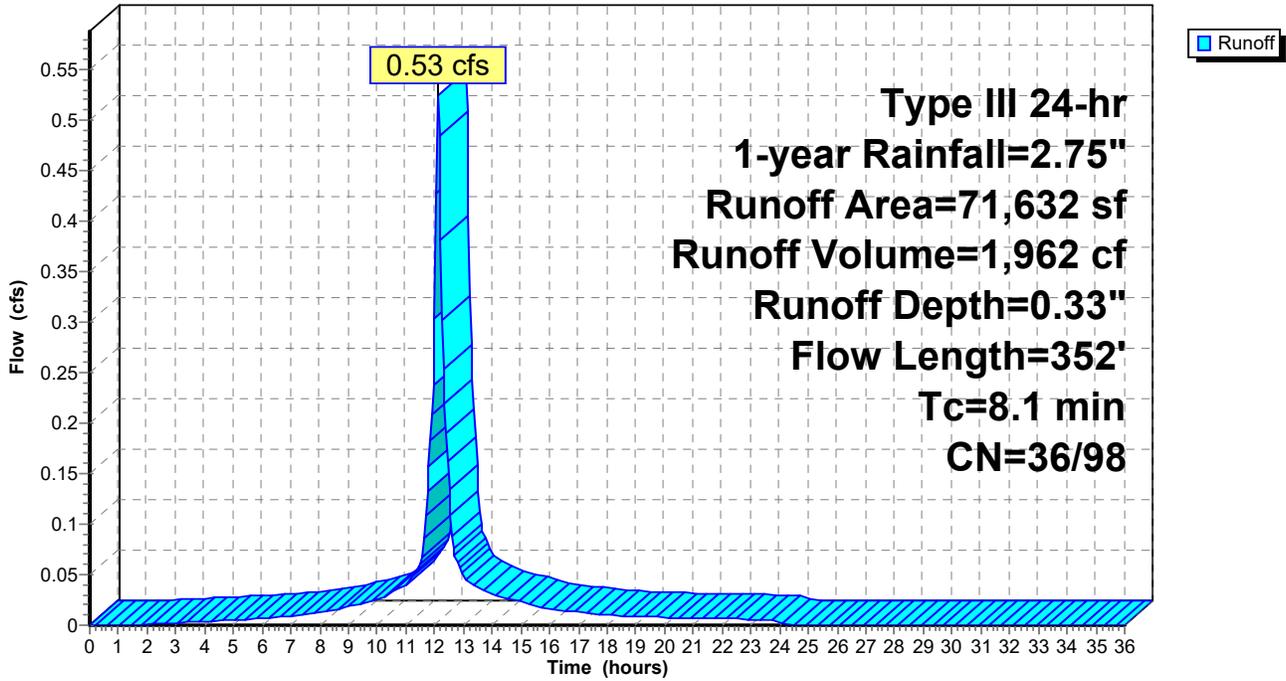
Type III 24-hr 1-year Rainfall=2.75"

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Subcatchment WS-2: Subcat WS-2

Hydrograph



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Type III 24-hr 1-year Rainfall=2.75"

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Summary for Pond IV-1: IV-1

Inflow Area = 111,271 sf, 5.60% Impervious, Inflow Depth = 0.14" for 1-year event
 Inflow = 0.26 cfs @ 12.26 hrs, Volume= 1,308 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

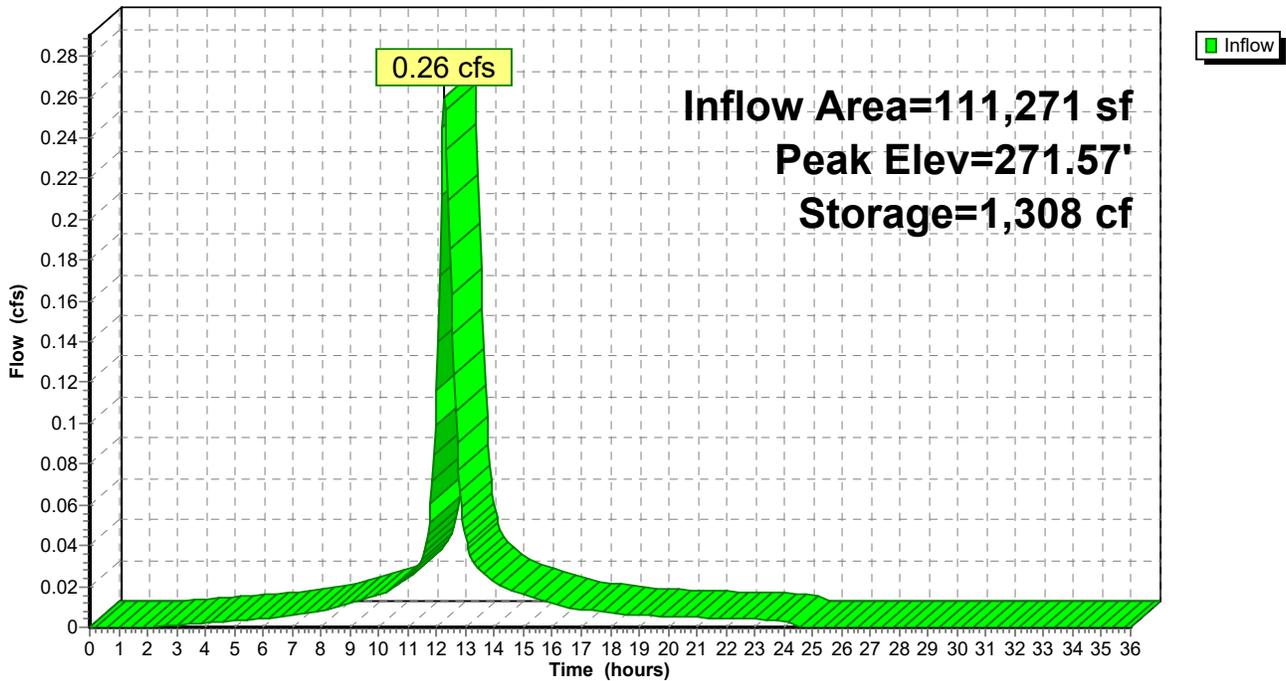
Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 271.57' @ 25.15 hrs Surf.Area= 2,499 sf Storage= 1,308 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	271.00'	2,455 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
271.00	2,110	187.0	0	0	2,110
272.00	2,817	245.0	2,455	2,455	4,116

Pond IV-1: IV-1

Hydrograph



3317-01 - IVW Calc HydroCAD

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Franklin
Type III 24-hr 1-year Rainfall=2.75"

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Summary for Pond IV-2: IV-2

Inflow Area = 71,632 sf, 13.04% Impervious, Inflow Depth = 0.33" for 1-year event
 Inflow = 0.53 cfs @ 12.11 hrs, Volume= 1,962 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

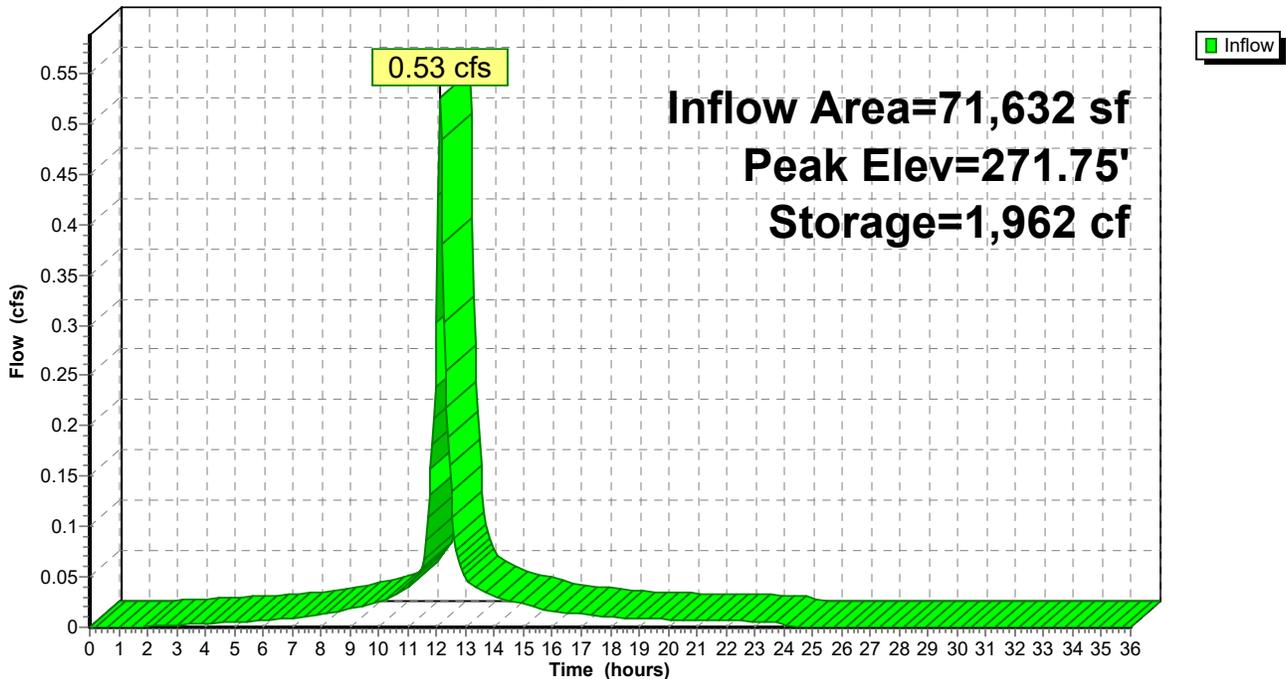
Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 271.75' @ 24.50 hrs Surf.Area= 3,579 sf Storage= 1,962 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

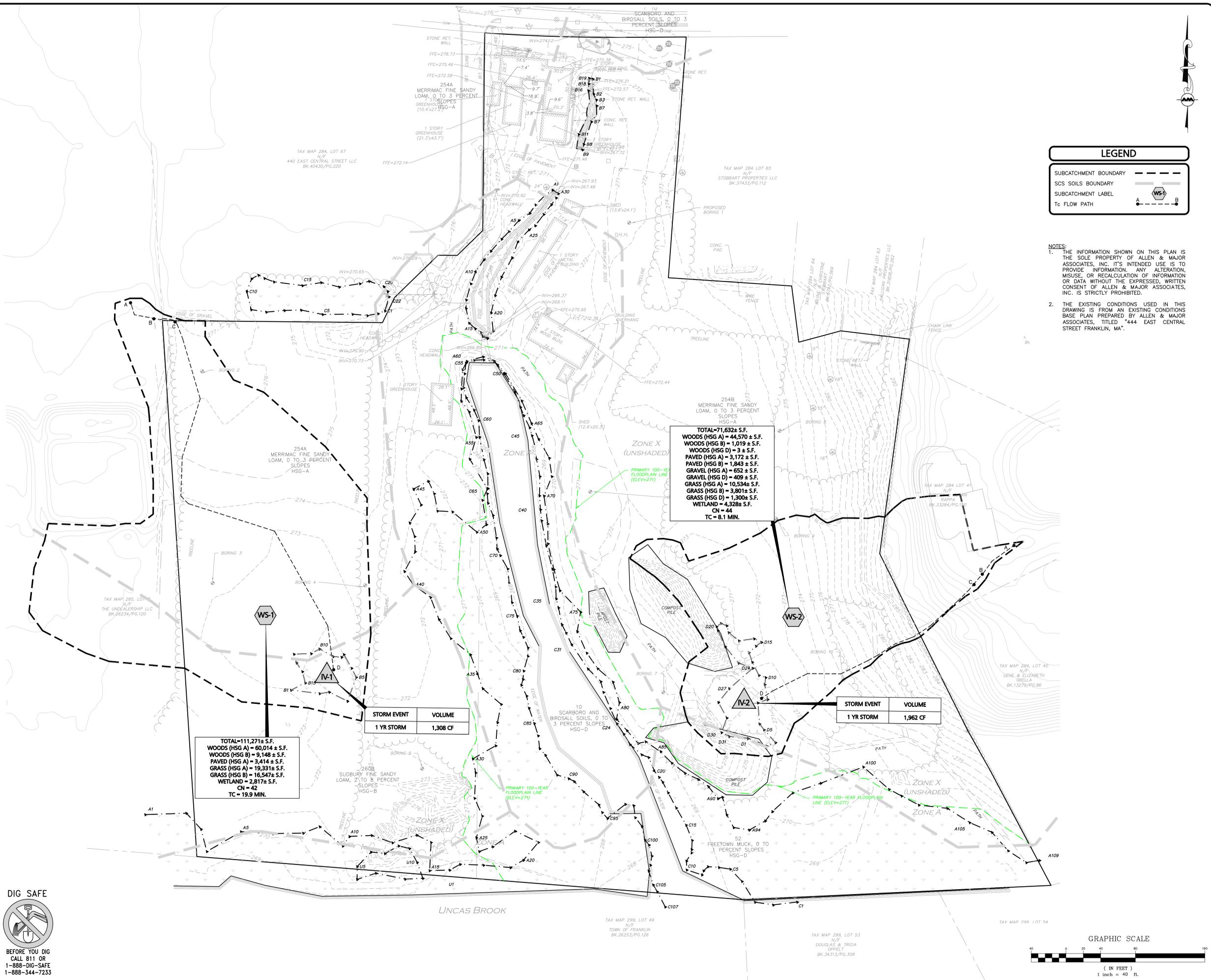
Volume	Invert	Avail.Storage	Storage Description		
#1	271.00'	2,950 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
271.00	1,761	271.0	0	0	1,761
272.00	4,328	439.0	2,950	2,950	11,260

Pond IV-2: IV-2

Hydrograph



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LEGEND

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SCS SOILS BOUNDARY

SUBCATCHMENT LABEL

Tc FLOW PATH

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TOTAL=71,632± S.F.
WOODS (HSG A) = 44,570 ± S.F.
WOODS (HSG B) = 1,019 ± S.F.
WOODS (HSG D) = 3 ± S.F.
PAVED (HSG A) = 3,172 ± S.F.
PAVED (HSG B) = 1,843 ± S.F.
GRAVEL (HSG A) = 652 ± S.F.
GRAVEL (HSG D) = 409 ± S.F.
GRASS (HSG A) = 10,534± S.F.
GRASS (HSG B) = 3,801± S.F.
GRASS (HSG D) = 1,300± S.F.
WETLAND = 4,328± S.F.
CN = 44
TC = 8.1 MIN.

TOTAL=111,271± S.F.
WOODS (HSG A) = 60,014 ± S.F.
WOODS (HSG B) = 9,148 ± S.F.
PAVED (HSG A) = 3,414 ± S.F.
GRASS (HSG A) = 19,331± S.F.
GRASS (HSG B) = 16,547± S.F.
WETLAND = 2,817± S.F.
CN = 42
TC = 19.9 MIN.

STORM EVENT	VOLUME
1 YR STORM	1,308 CF

STORM EVENT	VOLUME
1 YR STORM	1,962 CF



Carlton M. Quinn
 PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

APPLICANT/OWNER:
TAG CENTRAL LLC
275 REGATTA DRIVE
JUPITER, FL 33477

PROJECT:
LIP APPLICATION PLANS
444 EAST CENTRAL STREET
FRANKLIN, MA

PROJECT NO. 3317-01 DATE: 2025-12
 SCALE: 1" = 40' DWG. NAME: C-3317-01
 DESIGNED BY: MTB CHECKED BY: CMQ

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 civil engineering • land surveying
 environmental consulting • landscape architecture
 www.allenmajor.com
 100 COMMERCE WAY, SUITE 5
 WOBURN MA 01801
 TEL: (781) 935-6889
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