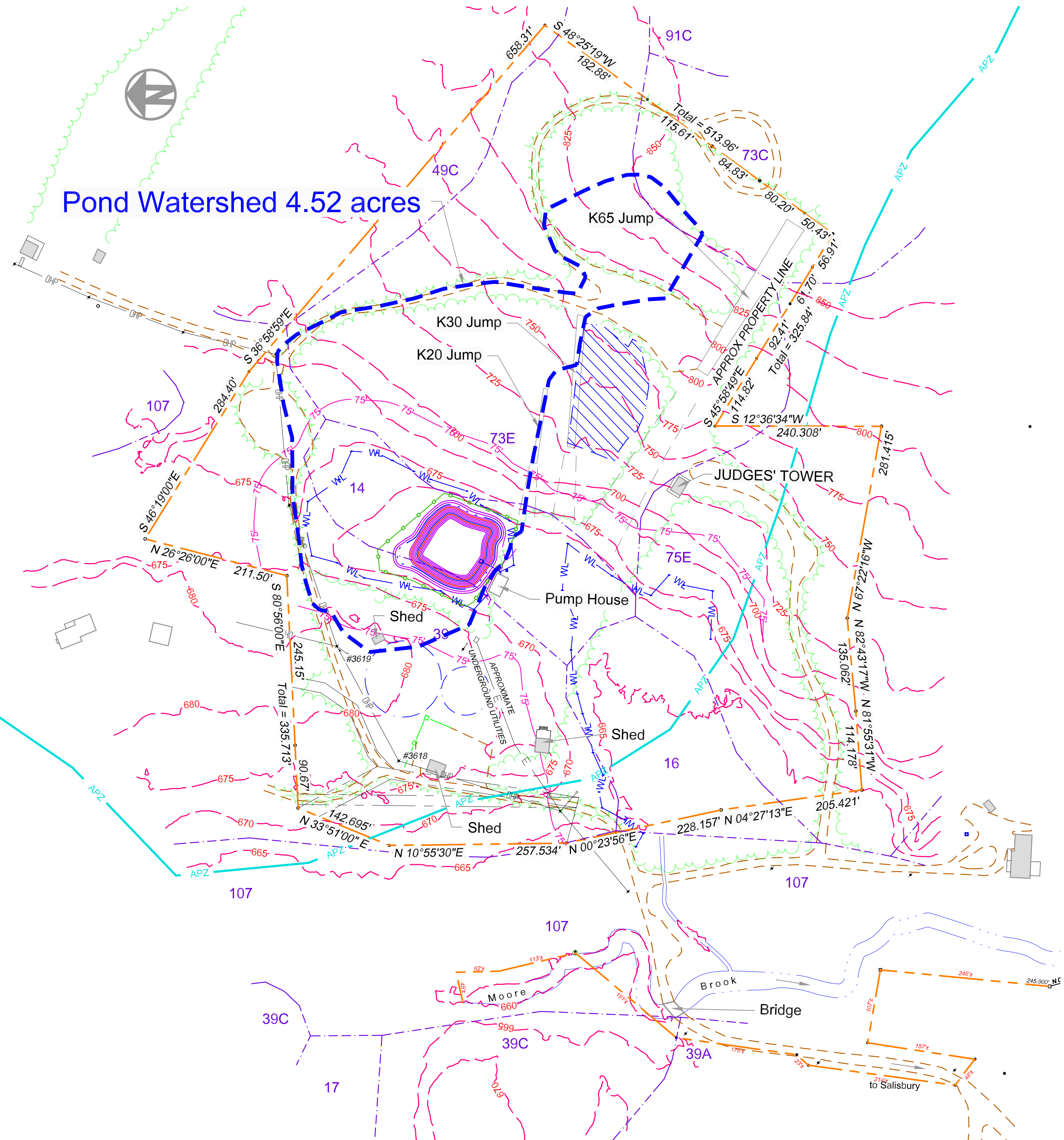
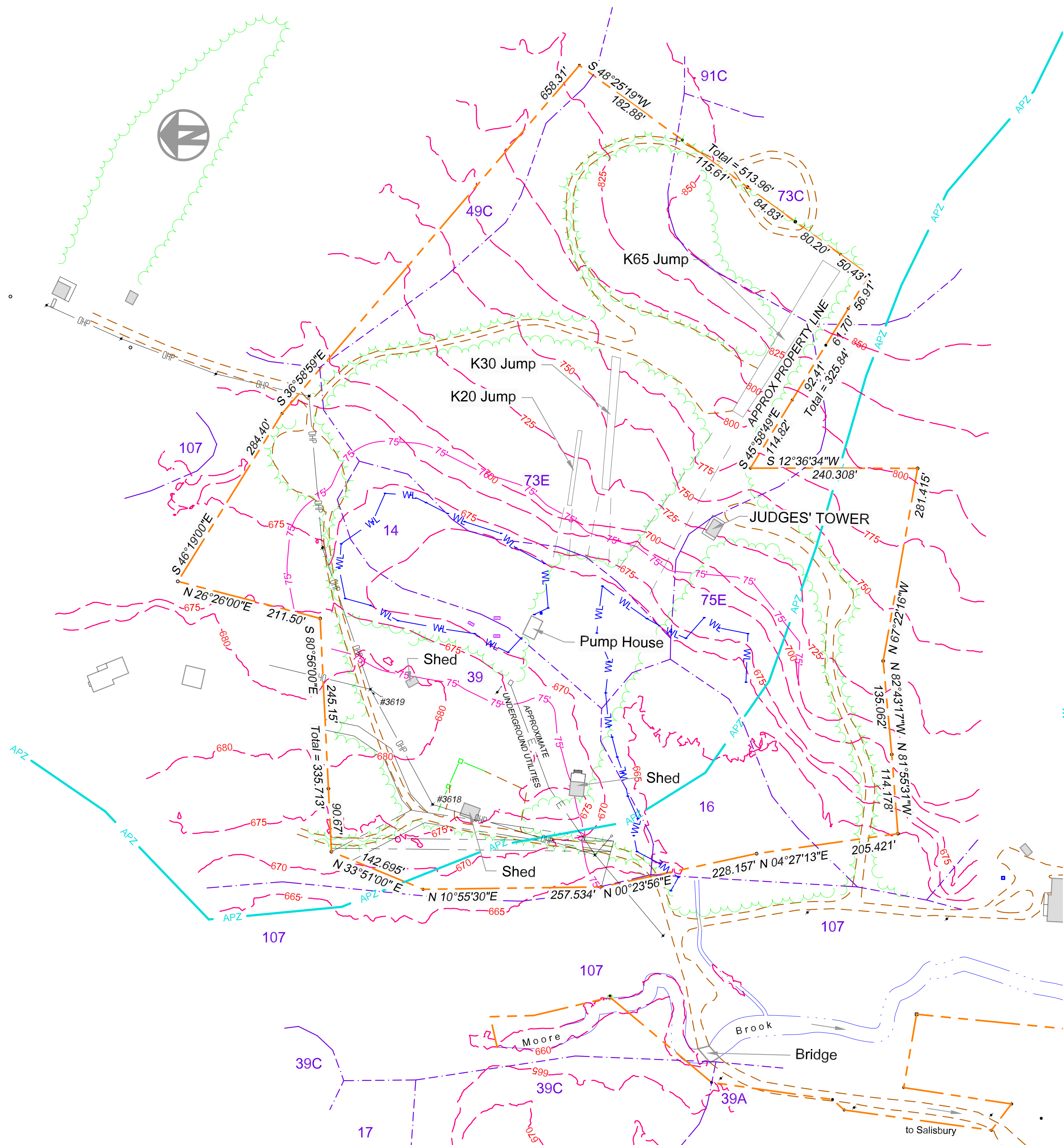
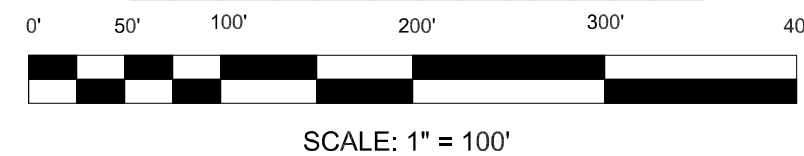




LEGEND

EXISTING	PROPOSED
PROPERTY LINE	PROPERTY CORNER
WATER LINE	W
EDGE OF ROAD	EDGE OF DRIVE
CONTOUR	CONTOUR
SPOT ELEVATION	TEST HOLE
APZ	APZ
NRCS SOIL TYPE LINE	NRCS SOIL TYPE LINE
BUILDING	BUILDING
POND PERIMETER	POND PERIMETER
PERIMETER FENCE	PERIMETER FENCE
STOCKPILE	STOCKPILE
LIMITS OF DISTURBANCE	LIMITS OF DISTURBANCE
FEED PIPE	FEED PIPE
POWER LINE ABOVE	POWER LINE ABOVE
BURIED POWER LINE	BURIED POWER LINE
CROSS SECTION	CROSS SECTION
SILTATION FENCE	SILTATION FENCE
WELL AND RADIUS	WELL AND RADIUS

PROPOSED PLAN



General Notes

- Owner: Salisbury Winter Sports Association
- Map-Block: 15-25
- Area: 18.4 Acres
- No work shall take place till all required permits are acquired.
- A meeting on site shall take place with Land Use Staff after erosion and sediment measures are in place and prior to land disturbance.
- All excavated material to be utilized on-site. No stockpiled materials shall be relocated on-site until soil consistency allows transport.
- Work in pond area shall be done with track machinery.
- See erosion and sediment control plan for detailed control measure locations

Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

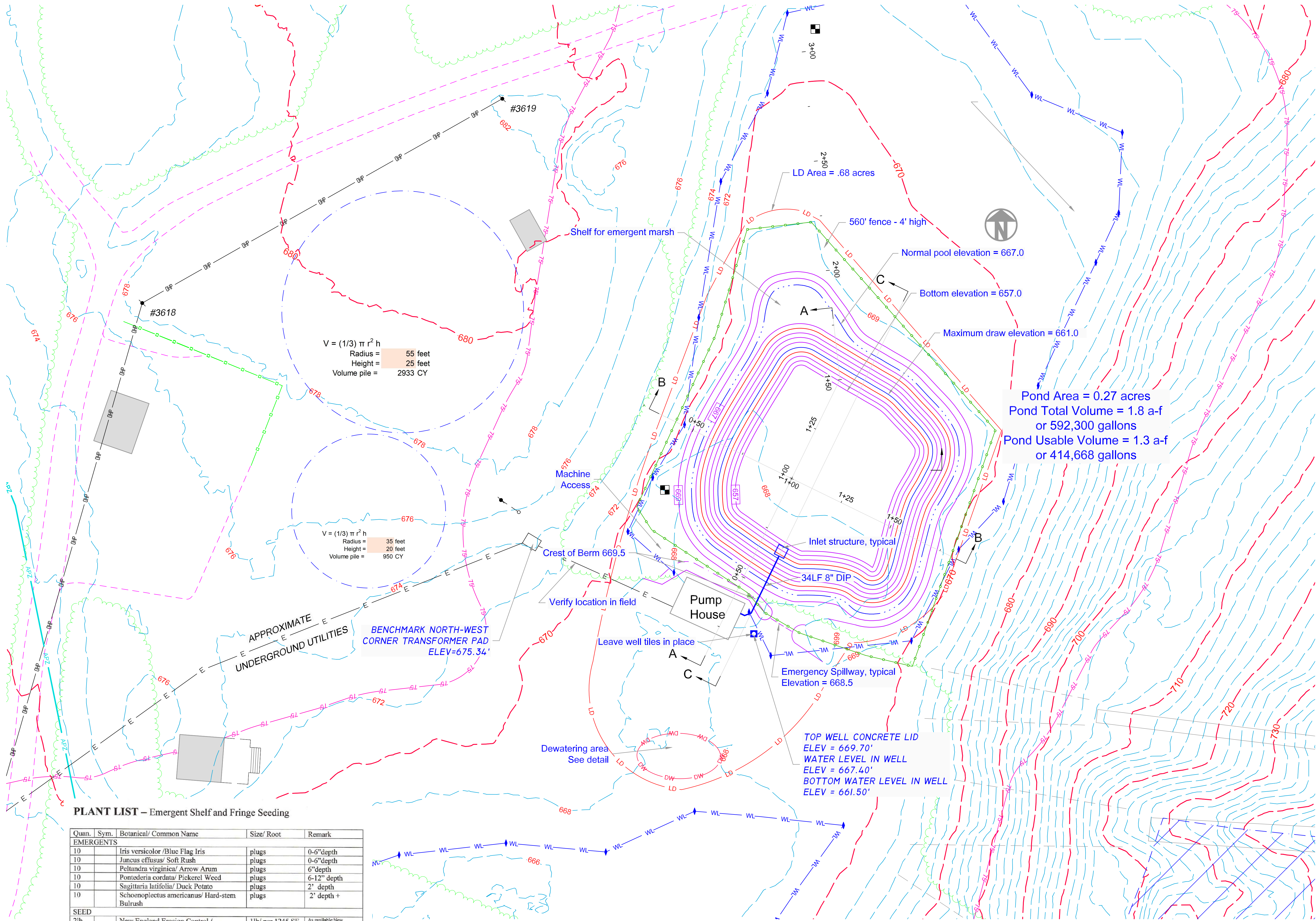
Date: July 18, 2024

Revisions:

SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

100 Scale
Existing /
Proposed
Site





PLANT LIST – Emergent Shelf and Fringe Seeding

Quan.	Sym.	Botanical/ Common Name	Size/ Root	Remark
EMERGENTS				
10		Iris versicolor/ Blue Flag Iris	plugs	0-6" depth
10		Juncus effusus/ Soft Rush	plugs	0-6" depth
10		Peltandra virginica/ Arrow Arum	plugs	6" depth
10		Pontederia cordata/ Pickerel Weed	plugs	6-12" depth
10		Sagittaria latifolia/ Duck Potato	plugs	2' depth
10		Schoenoplectus americanus/ Hard-stem Bulrush	plugs	2' depth +
SEED				
2lb		New England Erosion Control / Restoration Mix	11b/ per 1245 SF	As available: New England Wetland Plants, Inc. 413-548-8000
1lb		New England Wetmix	11b/ per 2500 SF	As available: New England Wetland Plants, Inc. 413-548-8000

PROPOSED PLAN



SCALE: 1"= 20'

Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

Date: July 18, 2024

Revisions:

SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

20-Scale
Pond Plan

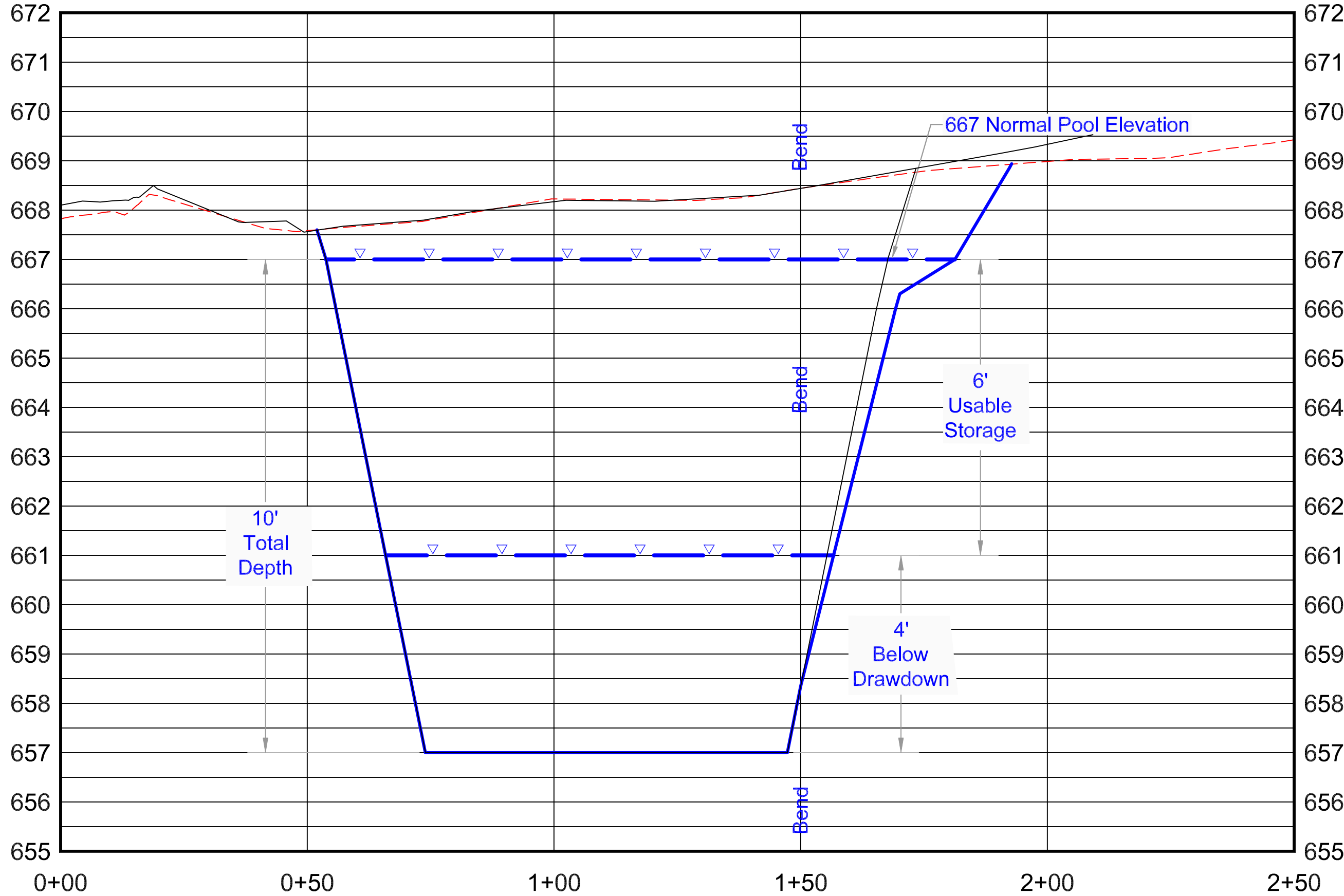


2024 Pond						
Elev	Δ H	SF @ Elev	CF	Sum CF	Gal	A-F
667	-	11,931				
666	1	10,632	11,275	11,275	84,350	0.3
665	1	9,882	10,255	21,530	161,066	0.5
664	1	9,158	9,518	31,048	232,268	0.7
663	1	8,460	8,807	39,854	298,151	0.9
662	1	7,785	8,120	47,975	358,898	1.1
661	1	7,135	7,458	55,432	414,688	1.3
660	1	6,515	6,823	62,255	465,728	1.4
659	1	5,920	6,215	68,470	512,224	1.6
658	1	5,350	5,633	74,103	554,361	1.7
657	1	4,806	5,076	79,178	592,332	1.8

Normal Pool Elevation

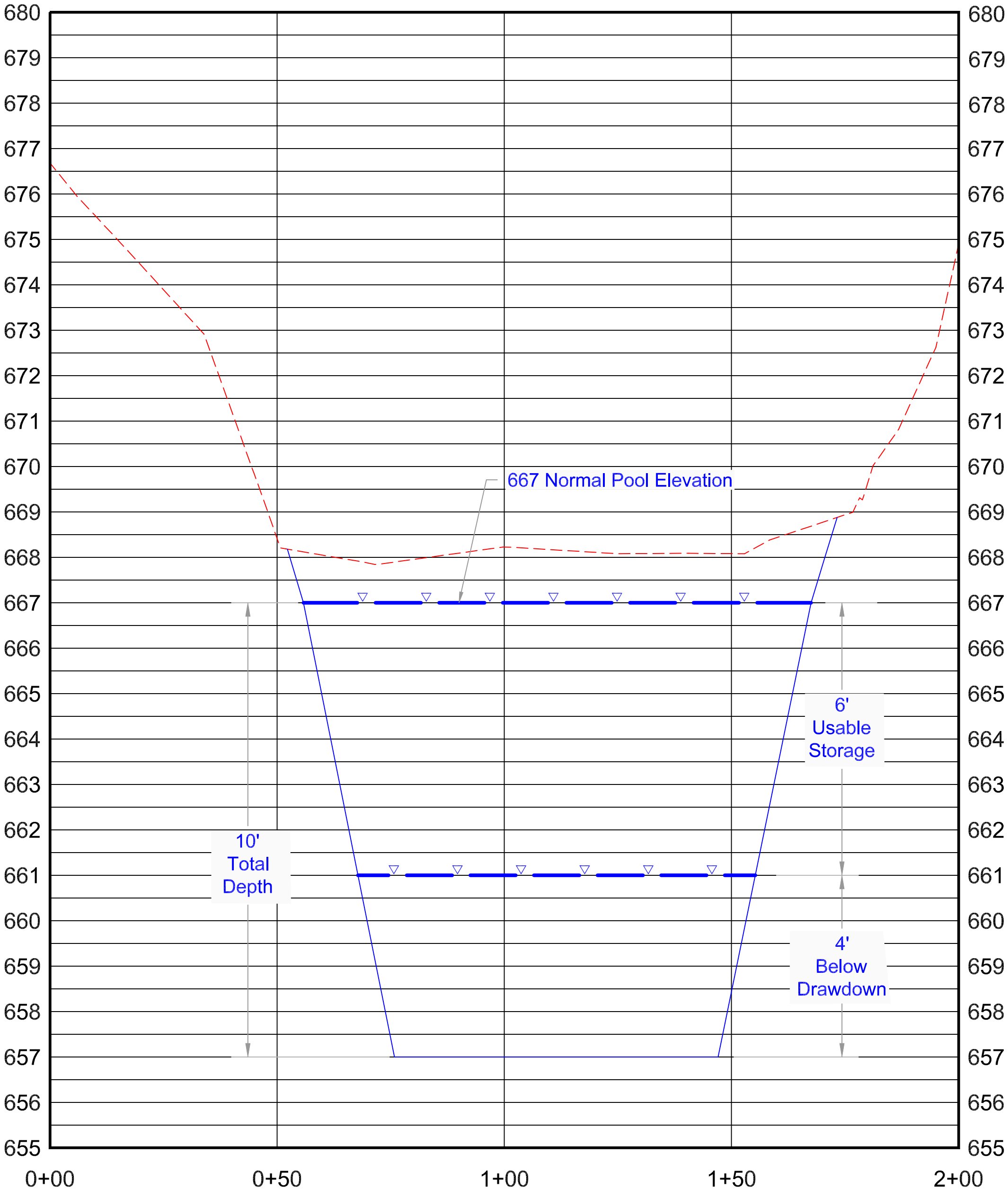
Drawdown to this depth

New Bottom (4' remaining)



South-North Section A-A

Scale: 1" = 20' Horizontal, 1" =2' Vertical



East-West Section B-B

Scale: 1" = 20' Horizontal, 1" =2' Vertical

General Notes

- Owner: Salisbury Winter Sports Association
- Map-Block: 15-25
- Area: 18.4 Acres
- No work shall take place till all required permits are acquired.
- A meeting on site shall take place with Land Use Staff after erosion and sediment measures are in place and prior to land disturbance.
- All excavated material to be utilized on-site. No stockpiled materials shall be relocated on-site until soil consistency allows transport.
- Final location has capacity for 1.2 times the in-place volume of the pond.
- Work in pond area shall be done with track machinery.
- See erosion and sediment control plan for detailed control measure locations

Project Description

A water storage pond is proposed at 80 Indian Cave Road in Salisbury, Connecticut for the purpose of making snow. The location of the pond is adjacent to an existing well tile pipe currently used to provide snow making water that cannot sustain pumping at a rate required to make snow in a timely basis.

The proposed pond has a normal pool elevation surface area of 0.274 acres and a project disturbance area of 0.46 acres. The total depth would be 10 feet with 6' of depth providing water for snowmaking. Estimated volume of water to be available is 414,700 gallons.

Current snow making equipment water and use is below 50,000 gallons in 24 hours using the tile well. With consideration given to groundwater recharge for the pond is estimated around 21,600 gpd, the volume. Near term use would not exceed 50,000 gpd. However, SWSA intends to apply for a CT DEEP Water Diversion permit subsequent to pond construction in order to utilize the pond storage capacity. This ultimately will allow peak snow making potential in a much shorter timespan.

Existing water table observations confirm use of the 667 phreatic elevation for normal pool level. Water will only be used in the winter months when groundwater is at its highest. Test holes were dug at two locations in the vicinity of the proposed pond. Soil profile consists of 2 feet of organics over a stratified sand and stone. Permeability is estimated between 1 and 10 feet per day depending on the strata thickness.

SWSA Pond

Normal Pool Elevation:	667	
Normal Pool Area:	11,930 sf	0.274 ac
Bottom Elevation:	657	
Proposed Depth:	10 feet	
Max Cut Depth:	11.4 feet	
Max Fill Depth:	0.7 feet	
Cut Volume:	3,490 CY	
Depth of organics:	24 Inches	
Volume of Organics	884	

Stockpiles

Using cones piles

$$V = (1/3) \pi r^2 h$$

Radius =	35 feet
Height =	20 feet
Volume pile =	950 CY

$$V = (1/3) \pi r^2 h$$

Radius =	55 feet
Height =	25 feet
Volume pile =	2933 CY

Final fill location volume estimate

Elev	Δ H	SF @ Elev	CF	Sum CF	CY	A-F
0	-	16,393				
10	10	3,491	91,496	91,496	3,389	2.1
11	1	200	4,943	96,439	3,572	2.2

Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

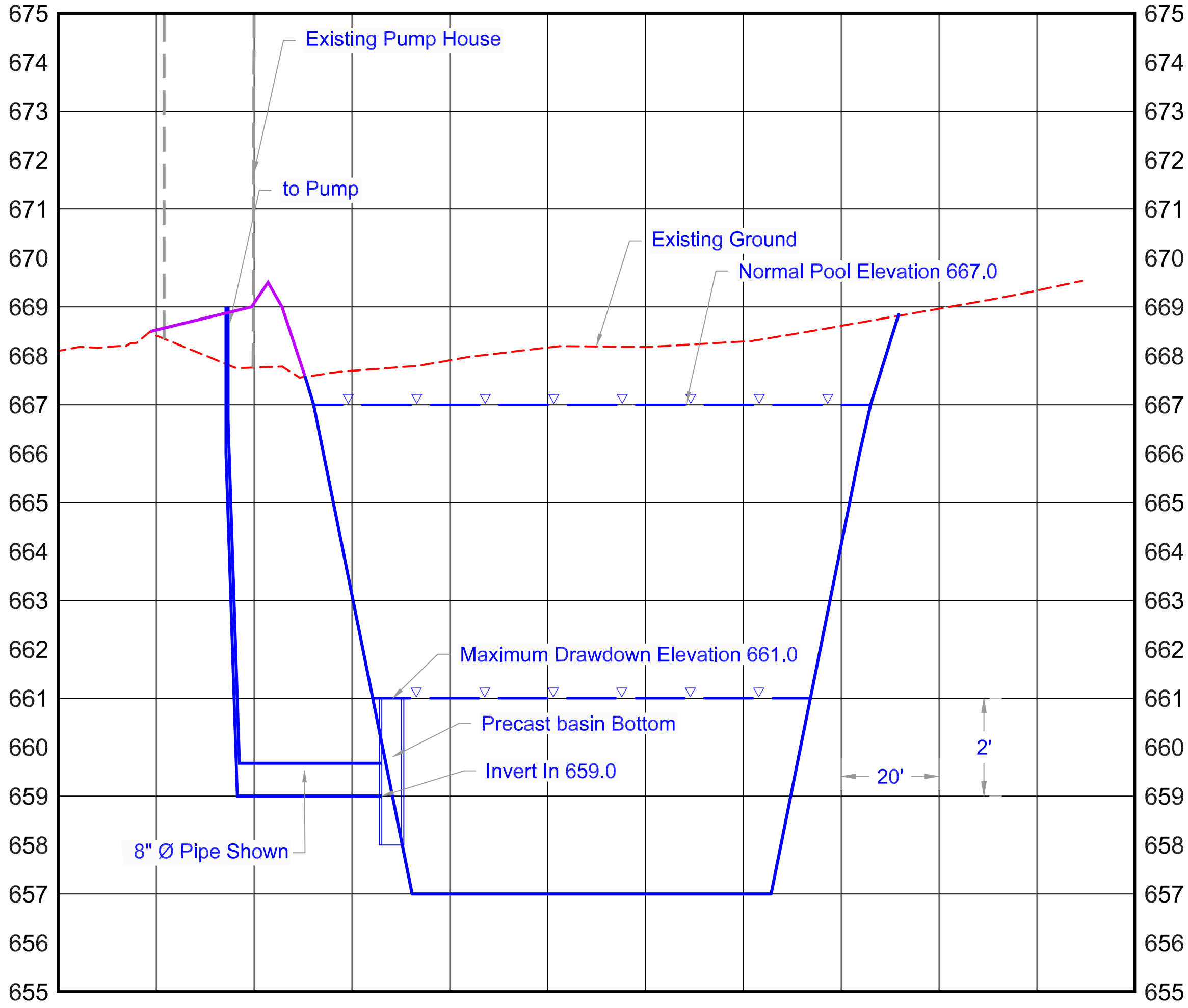
Date: July 18, 2024

Revisions:

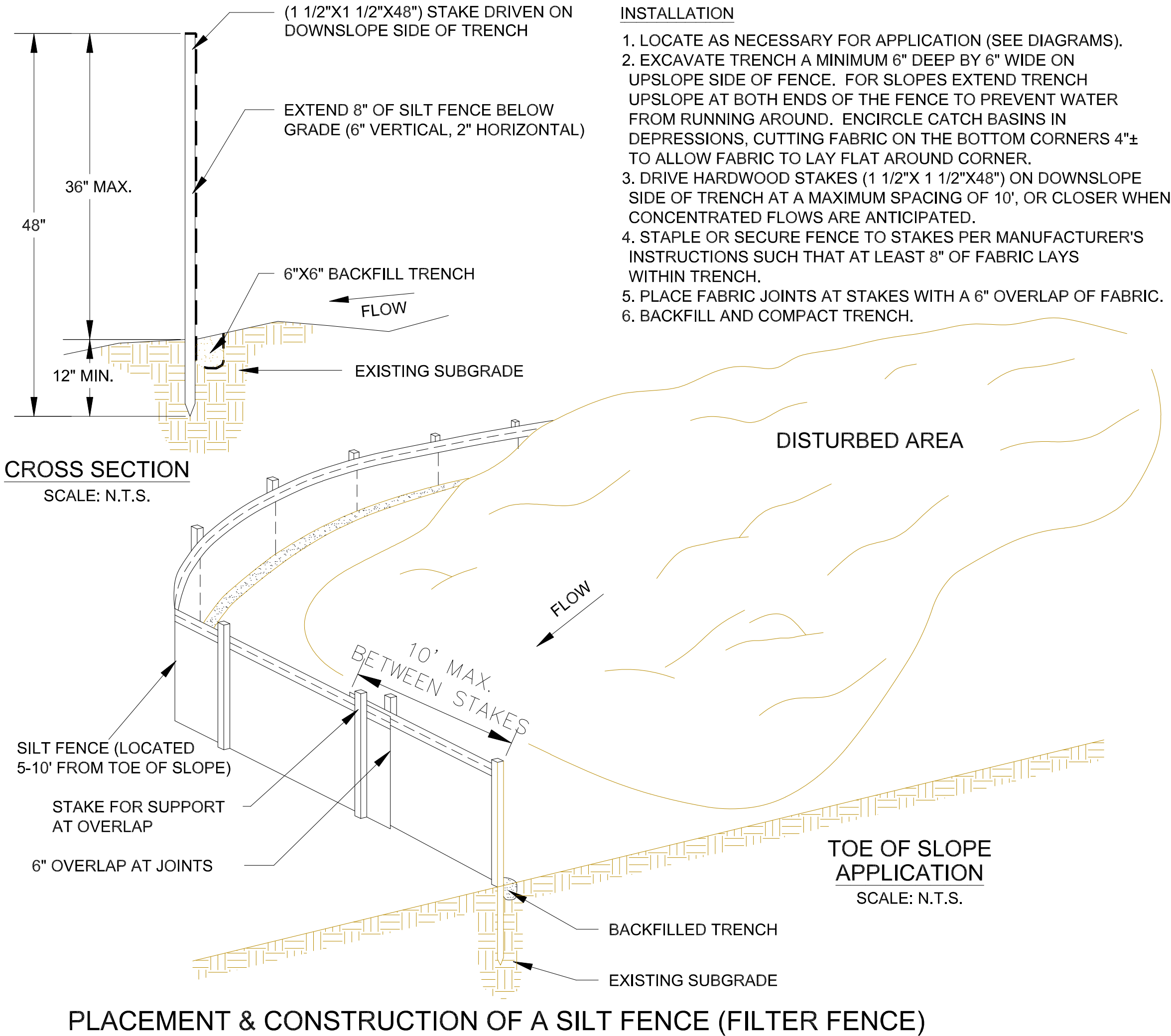
SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

20-Scale
Section





Section C-C @ Inlet Structure
Scale: 1" = 20' Horizontal, 1" =2' Vertical



2024 Pond						
Elev	Δ H	SF @ Elev	CF	Sum CF	Gal	A-F
667	-	11,931				
666	1	10,632	11,275	11,275	84,350	0.3
665	1	9,882	10,255	21,530	161,066	0.5
664	1	9,158	9,518	31,048	232,268	0.7
663	1	8,460	8,807	39,854	298,151	0.9
662	1	7,785	8,120	47,975	358,898	1.1
661	1	7,135	7,458	55,432	414,688	1.3
660	1	6,515	6,823	62,255	465,728	1.4
659	1	5,920	6,215	68,470	512,224	1.6
658	1	5,350	5,633	74,103	554,361	1.7
657	1	4,806	5,076	79,178	592,332	1.8

Normal Pool Elevation

Drawdown to this depth

New Bottom (4' remaining)

Erosion and Sediment Control Notes

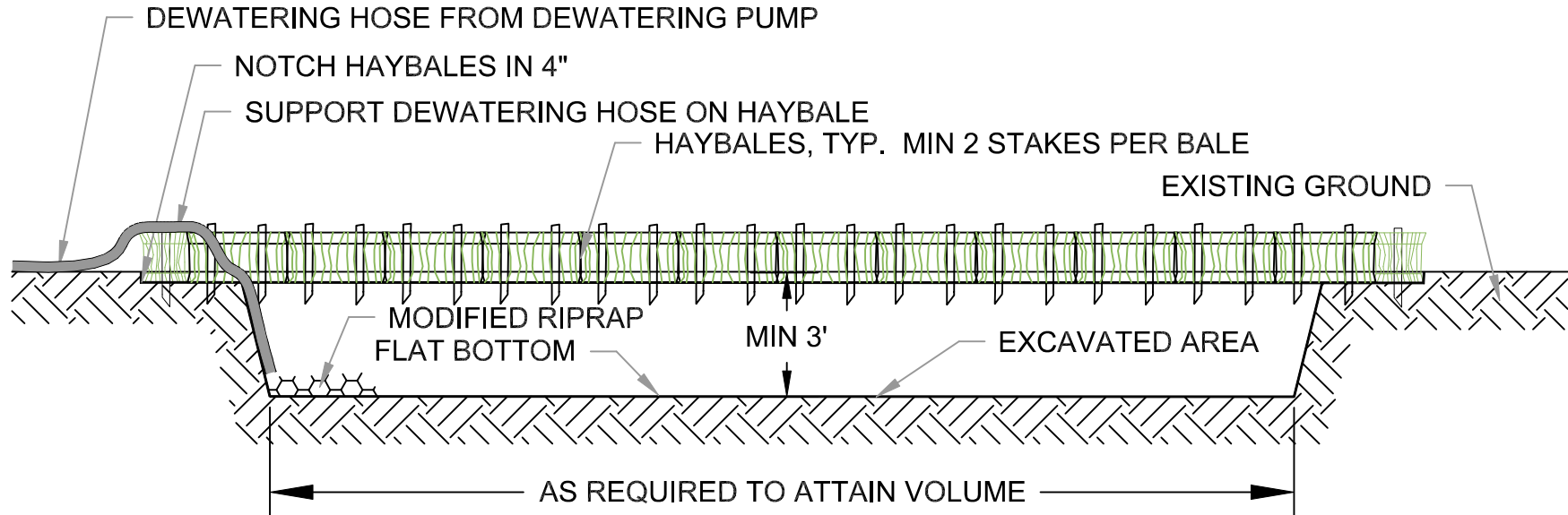
All erosion and sediment control measures shall be in place prior to commencement of work. A pre-construction meeting shall take place after erosion control measure are in and before work starts.

There are two temporary stockpile ares - the smaller one for topsoil organic material and the larger for the lower sandy deposits. Material shall be kept on site as shown on the final sheet of this plan.

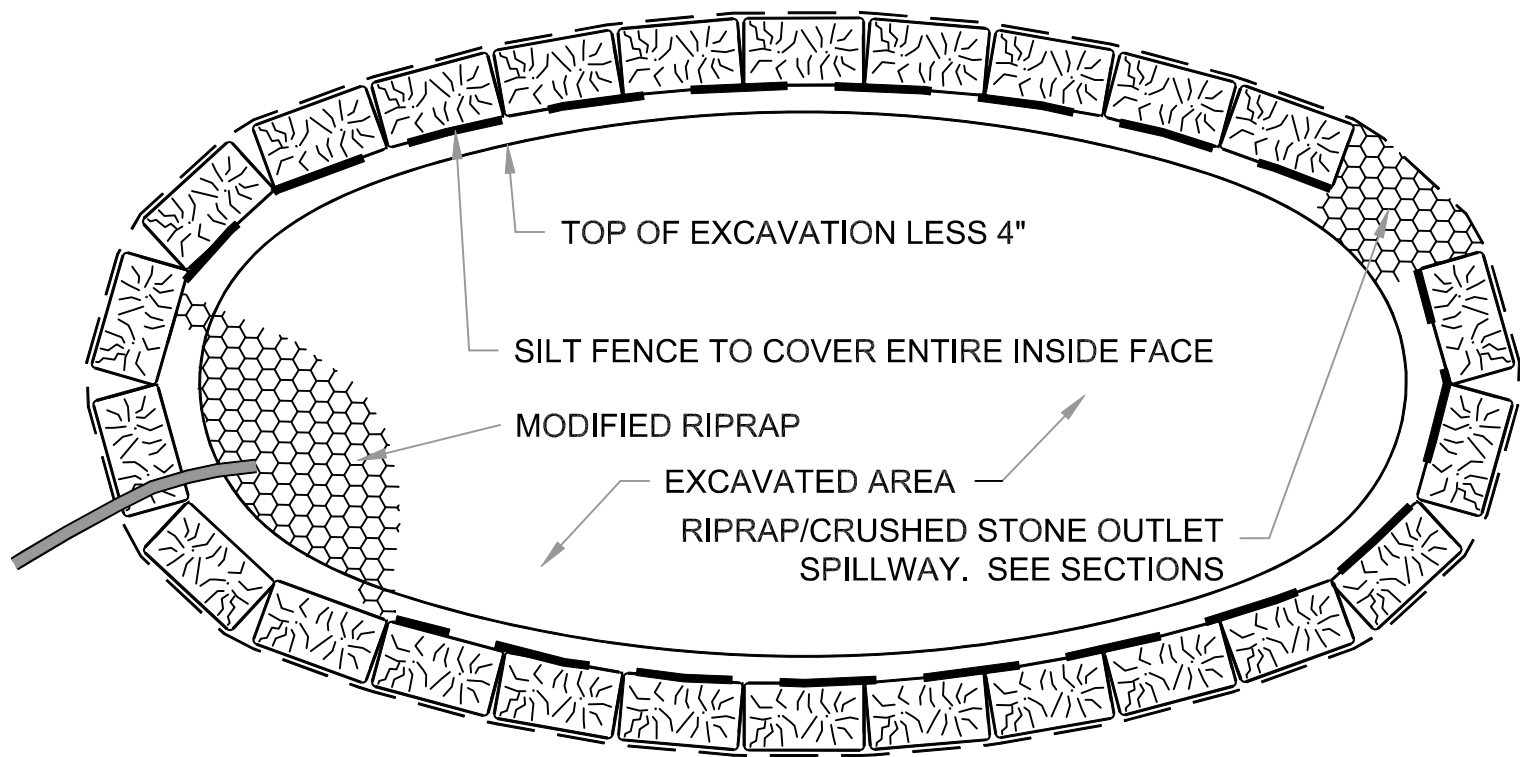
Measures shown on this plan shall be considered a minimum and additional measure shall be install as needed and directed during the project.

DEWATERING SETTLING BASIN NOTES

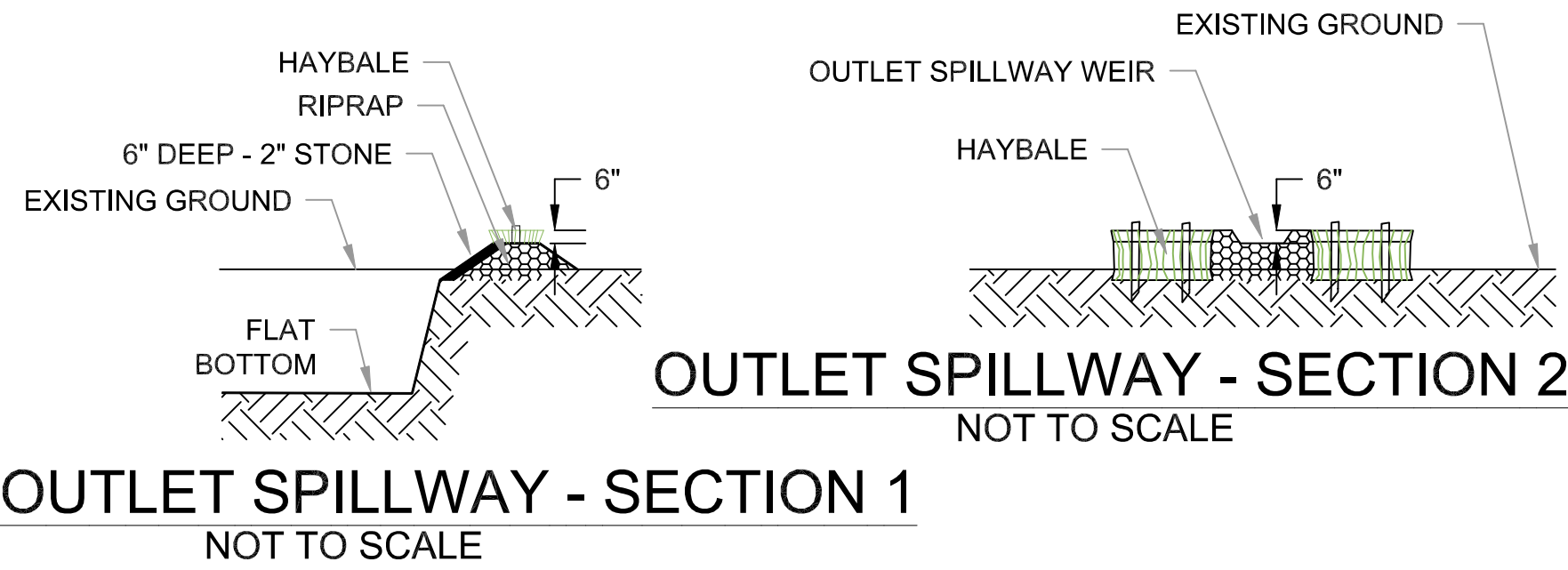
- INSPECT DEWATERING BASIN AT LEAST EVERY TWO HOURS DURING USE.
- REMOVE ACCUMULATED SEDIMENTS AFTER BASIN VOLUME IS HALF THE ORIGINAL AMOUNT.
- REMOVED SEDIMENT SHALL BE DISPOSED OF IN A LOCATION WHERE THERE IS NO POTENTIAL FOR EROSION
- WHEN DEWATERING HAS BEEN COMPLETED THE BASIN AREA SHALL HAVE SILT FENCE AND HAYBALES REMOVED AND DISPOSED OF PROPERLY. THE EXCAVATION SHALL BE FILLED AND COMPACTED IN LIFTS. FINAL GRADE SHALL CONSIST OF 4 TO 6 INCHES OF TOPSOILS. ALL DISTURBED AREAS SHALL BE STABILIZED.



DEWATERING BASIN - PLAN SECTION
NOT TO SCALE



DEWATERING BASIN - ELEVATION
NOT TO SCALE



Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

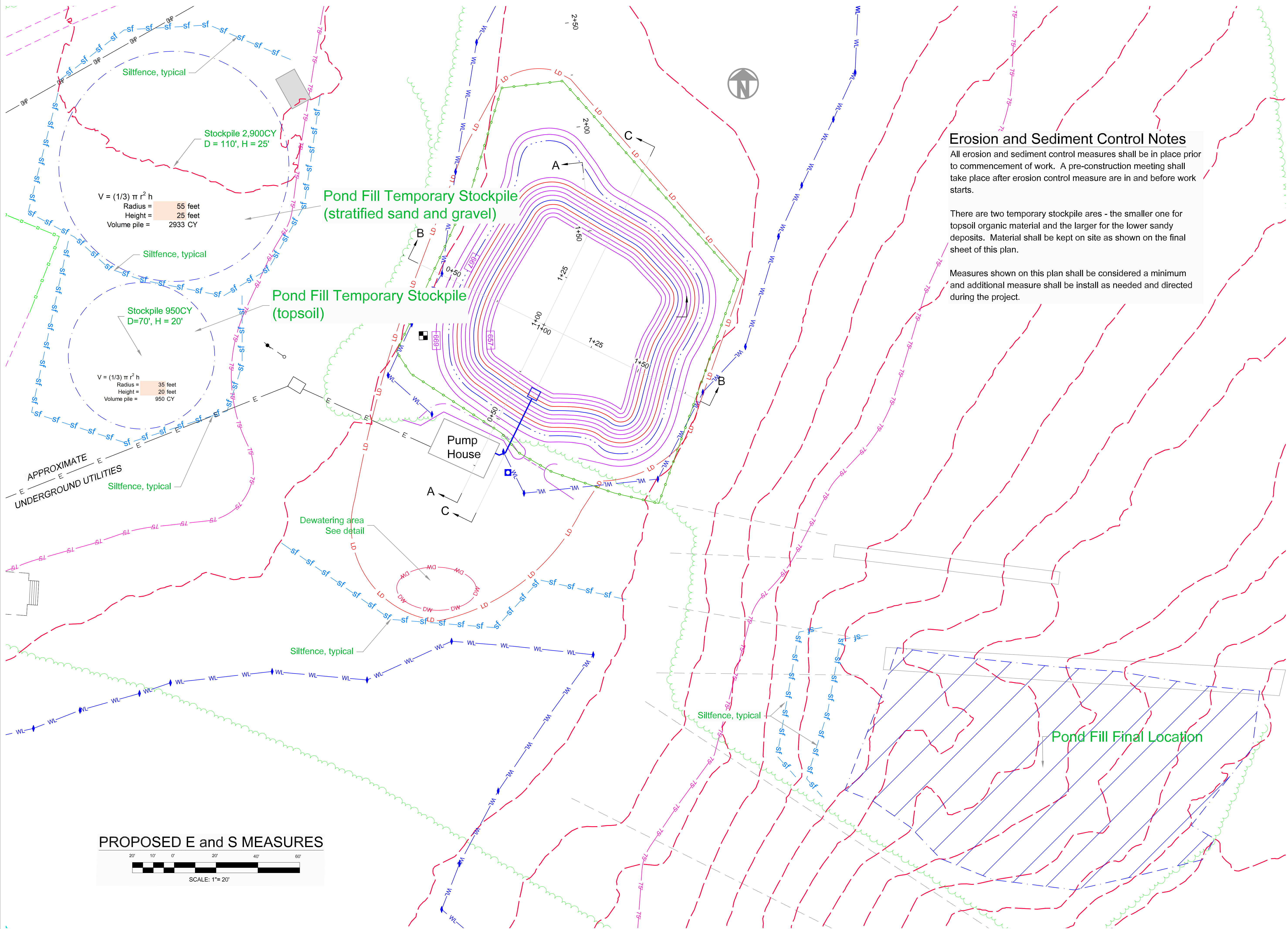
Date: July 18, 2024

Revisions:

SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

20-Scale
Section2
& Details





Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

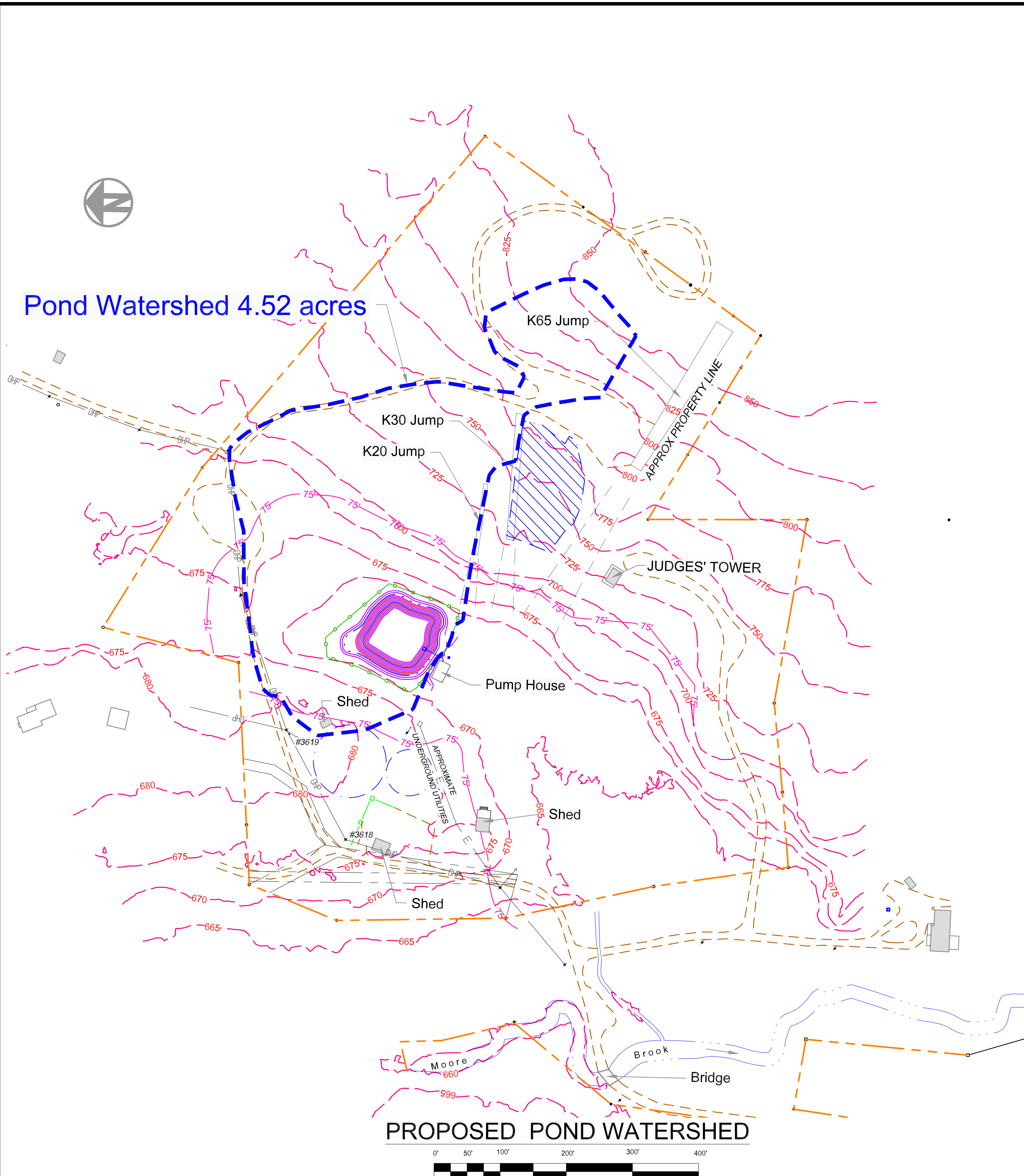
Date: July 18, 2024

Revisions:

SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

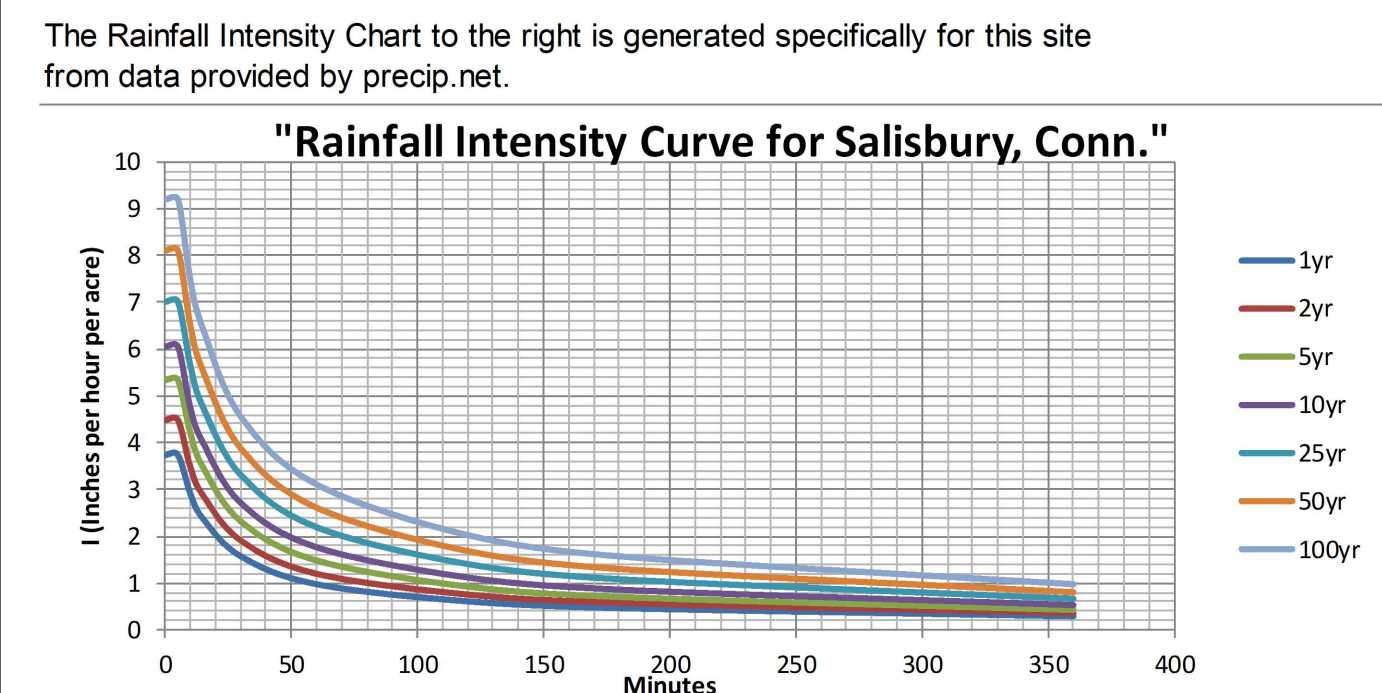
Erosion &
Sediment
Control Plan



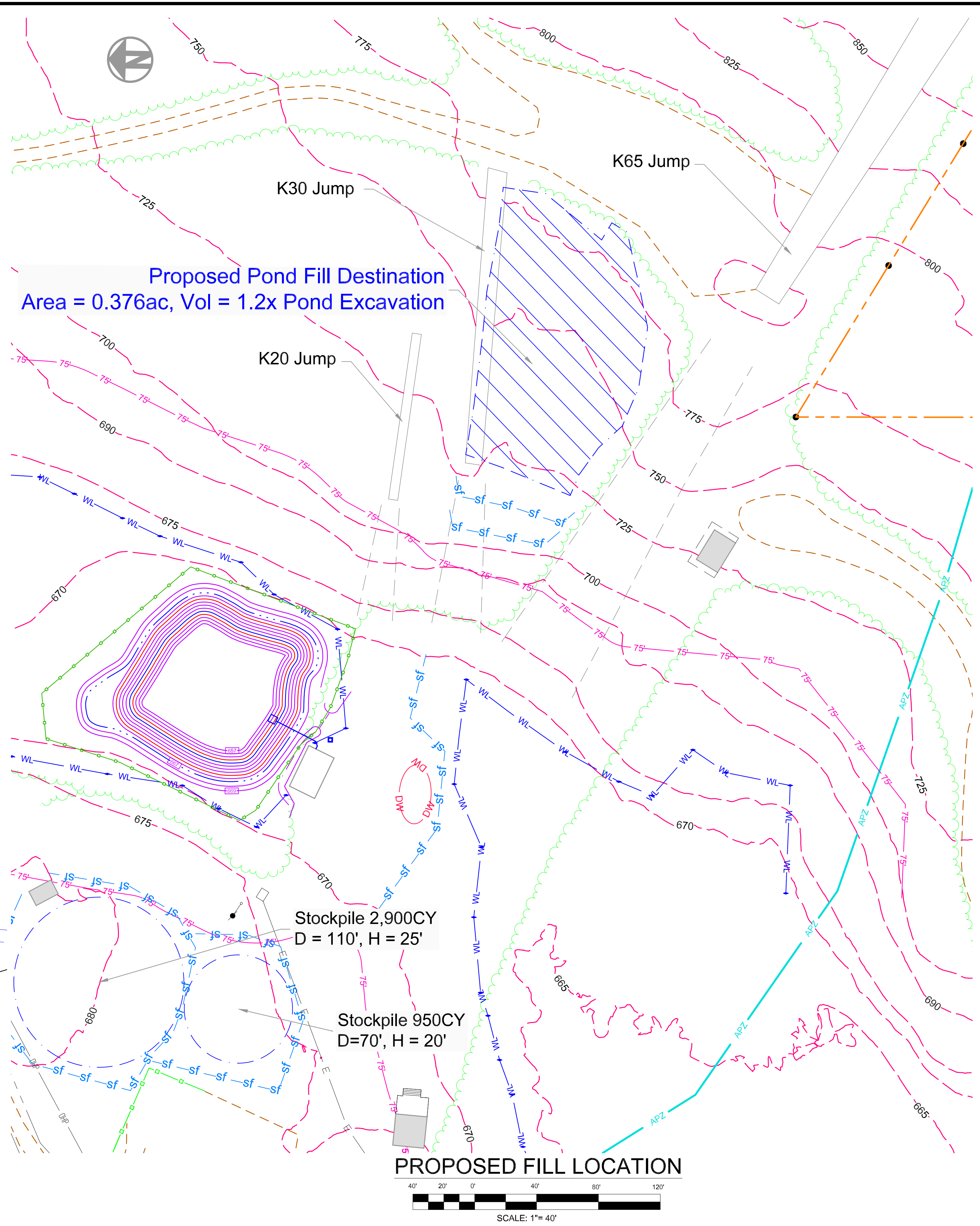


SCALE: 1" = 100'

WATERSHED DESCRIPTION	WS #	AREA (ac)	RO COEF.	Sum cA	Tc (min)	i 10 Yr	i 25 Yr	i 50 Yr	i 100 Yr	Q 10 Yr	Q 25 Yr	Q 50 Yr	Q 100 Yr	# PIPE	n	s FT/FT	V fps	Q cfs	MAX STORM	
Pond WS	WS1	4.52	0.3	1.36	15	2.7	3.3	3.9	4.5	3.69	4.49	5.24	6.1	1	15	0.012	0.05	12.8	15.6	100 YR



Min	1yr	2yr	5yr	10yr	25yr	50yr	100yr
0	3.75	4.48	5.20	5.93	6.90	7.87	8.95
5	2.84	3.39	4.11	4.66	5.51	6.35	7.26
10	2.34	2.82	3.43	3.91	4.58	5.40	6.25
15	1.93	2.32	2.82	3.26	3.85	4.54	5.31
30	1.46	1.77	2.18	2.53	3.01	3.56	4.14
60	1.07	1.29	1.60	1.87	2.24	2.68	3.16
120	0.77	0.94	1.15	1.37	1.64	1.97	2.35
180	0.62	0.76	0.94	1.11	1.34	1.62	1.94
360	0.46	0.56	0.69	0.82	0.99	1.19	1.43
720	0.35	0.42	0.51	0.61	0.74	0.89	1.07
1440	0.27	0.32	0.39	0.46	0.56	0.67	0.81
2880	0.19	0.23	0.28	0.33	0.40	0.48	0.58
5760	0.14	0.17	0.20	0.23	0.28	0.34	0.41
10080	0.10	0.12	0.14	0.16	0.19	0.23	0.28



Environmental Consultant:
Jay Fain & Associates, LLC
200 Post Road, Suite 201
Fairfield, Connecticut 06824
Surveyor:
Lamb-Kiefer Land Surveyors
55 Selleck Hill Road
Salisbury, Connecticut 06068
Engineer:
Patrick R. Hackett, P.E.
16 East Street
Lakeville, Connecticut 06039

Date: July 18, 2024
Revisions:

SALISBURY WINTER SPORTS ASSOCIATION
INDIAN CAVE ROAD
SALISBURY, CONNECTICUT
SNOWMAKING POND PLAN

40 Scale
Pond Spoils
Fill Area

