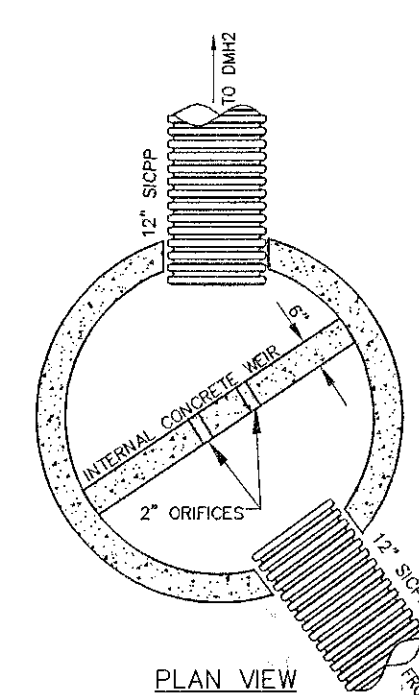


NOTES:

1. WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES MEASURED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE. THE 18 INCHES MINIMUM VERTICAL SEPARATION DISTANCE DOES NOT APPLY TO SEPARATIONS OF SEWER MAINS FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS SEPARATED FROM STORM SEWER, SANITARY SEWER AND FORCE MAINS BY 10 FEET AND FROM IRRIGATION MAINS BY 5 FEET MEASURED HORIZONTALLY BETWEEN OUTSIDE OF PIPES.
2. MINIMUM CROSSING CLEARANCE SHALL BE 18 INCHES. MINIMUM CLEARANCE USING THICKNESS CLASS 200 AWWA C-900 DRIE, PVC (CLASS 155 AWWA C-905, DR 25, PVC FOR PIPES GREATER THAN 12" IN DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSINGS. WATER MAIN CONCRETE ENCASEMENT SHALL BE 18 INCHES THICK. MINIMUM CLEARANCE SHALL BE 18 INCHES. MINIMUM CLEARANCE SHALL BE 18 INCHES. CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.
3. WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE TRENCHES.
4. WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL BE AT LEAST 18 INCHES FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 10 FEET FROM ANY OTHER PIPELINE. WATER MAINS CROSSING UNDER STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-REGULATED SANITARY SEWERS OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810.
5. 67. STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN WASTEWATER LINES AND STORMWATER LINES.
7. SEE SECTION 1 - DESIGN CRITERIA, SUBSECTIONS 1.2.3 AND 1.3 FOR ADDITIONAL REQUIREMENTS.

Topographic map showing a pond area with contour lines and property boundaries. Key features include:

- POND ACCESS DRIVE**: A road crossing the pond area.
- POCKET POND**: A small pond labeled "POCKET POND P-5".
- AQUATIC BENCH**: Two areas labeled "AQUATIC BENCH".
- PILOT CHANNEL**: A channel labeled "PILOT CHANNEL".
- Contour Lines**: Elevation contours ranging from 184 to 204 feet.
- Property Boundaries**: Dashed lines indicating boundaries with bearings and distances (e.g., N59° 54' 59" W, 150.00').
- DITCH**: Several ditches with elevations (e.g., DITCH CL=186.3', DITCH CL=186.4', DITCH CL=186.5', DITCH CL=186.6').
- Annotations**: "INV. 188.33", "INV. 187.80", "305.23'", "305.23'", "305.23'".
- Map Information**: "APPROPRIATION W/OA 504 PARCEL 609 2990 P. 102", "NYS APPROPRIATION W/OA MAR 503 PARCEL 609 L. 2990 P. 104", "202 MAR 503 PARCEL 609 L. 2990 P. 104", "203 MAR 503 PARCEL 609 L. 2990 P. 104".



TOP OF WEIR ELEVATION 191.25

3 1

14" (MIN) NYSDOT LIGHT STONE FILL

GEOTEXTILE (Mirofi 1100 or EQ.)

EMBANKMENT TO BE CONSTRUCTED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS SECTION 203 (EXCAVATION AND EMBANKMENT)

POND BOTTOM

Diagram illustrating the layout of a wetland seed mix planting area, showing three zones relative to a permanent pool (Perm. Pool).

The diagram shows a cross-section of a wetland area. A diagonal line represents the edge of a permanent pool. Above this line, there are three zones labeled ZONE 1, ZONE 2, and ZONE 3. ZONE 1 is the area closest to the pool, ZONE 2 is the middle area, and ZONE 3 is the furthest area. A wavy line represents the 100-year storm elevation. A horizontal line at the top represents the 6' wide area. Labels include: PLANT WITH ENVIRONMENTAL SEED MIX, PLANT WITH WETLAND HUMMOCK SEED MIX, 100 YR. STORM ELEV., 6' WIDE, ZONE 1, ZONE 2, ZONE 3, and 18'.

Labels and dimensions shown in the diagram:

- PLANT WITH ENVIRONMENTAL SEED MIX
- PLANT WITH WETLAND HUMMOCK SEED MIX
- 100 YR. STORM ELEV.
- 6' WIDE
- ZONE 1
- ZONE 2
- ZONE 3
- 18'

Legend for zones (from the text below the diagram):

- ZONE 1: 12" TO 18" BELOW PERM. POOL
- ZONE 2: 6" TO 12" BELOW PERM. POOL
- ZONE 3: 0" TO 6" BELOW PERM. POOL

50' RIGHT OF WAY  
(TOWN OF BETHLEHEM)  
(NOT TO SCALE)

WHM - WETLAND HUMMOCK SEED MIX		
(SOUTHERN TIER CONSULTING, INC.)		
CAREX VULPINOIDEA	FOX SEDGE	20%
LEERSIA ORYZOIDES	RICE CUT GRASS	15%
CAREX LURIDA/CRINITA		15%
JUNCUS EFFUSUS	SOFT RUSH	15%
SCIRPUS ATROVIRENS/CYPERINUS	BULRUSH	15%
CAREX COMOSA/INTENSES	SEDS	20%
SEED AT 4 LBS./ACRE ON SATURATED GROUND BETWEEN THE PERM. POOL EL. AND THE 100 YR. STORM EL.		

ESM - ENVIRONMENTAL SEED MIX		
(ENVIRONMENTAL SEED MIX IS NOT TO BE USED IN ANY WETLAND AREAS)		
<u>GRASS NAMES</u>		<u>PERCENT BY WEIGHT</u>
KENTUCKY BLUE GRASS		15%
PERENNIAL RYE GRASS		20%
TIMOTHY		15%
ORCHARD GRASS		10%
BIRDFOOT TREFOIL		15%
RED CLOVER		10%
TALL FESCUE		10%
SEED CANARY GRASS		05%
SEED AT 20 LBS/ACRE ABOVE 100 YR. STORM EL.		

5" LID

SOLID COVER  
BL=192.00

48"

2" ORIFICE

12" SICPP

8"

HOOD

188.83 (TOP OF WEIR)

186.33 (12" SICPP)

186.33 (2" ORIFICE)

SUMP ELEV. 185.50

12" MIN

UNDISTURBED EARTH OR ROCK

SLUR-BASE 18" CRUSHED STONE OR R.O.B.

ELEVATION

NOTES:

1. PRECAST REINFORCED CONCRETE MANHOLE AS MANUFACTURED BY THE FORT MILLER CO. INC., FORT MILLER, NEW YORK OR EQUAL (ASTM C 478) STEEL REINFORCEMENT: 6" X 6" - W 1.4 WWF IN BOTTOM AND SIDES (ASTM A 185)
2. 2" ORIFICES SHALL BE EQUIPPED WITH A NEENAH R-3705 HOOD OR APPROVED EQUAL.

[illegible]

NOTE: FOR ADDITIONAL CONSTRUCTION SPECIFICATIONS REFER TO THE TOWN OF BETHLEHEM SANITARY SEWER, WATER DISTRIBUTION, STORM SEWER, & HIGHWAY STANDARD DETAIL SHEETS

### MAIN POND AQUATIC BENCH PLANTINGS

HERBACEOUS COMMUNITY (EW - EMERGENT WETLAND)				
PLANT BARE ROOT HERBACEOUS PLANTS IN AT 3' SPACING STAGGERED PATTERN				
ZONE	BOT. NAME	COMMON NAME	SIZE	SPACING
1	POTAMOGETON NODOSUS	LONG-LEAVED POND WEED	BR	36"
1	ELODEA CANADENSIS	BROAD WATER WEED	BR	36"
2	SCIRPUS PUNGENS	COMMON THREE-SQUARE SEDGE	BR	36"
2	SCIRPUS WALDUI	SOFT-STEM BULRUSH	BR	36"
3	SCIRPUS CYPERINUS	SMART GRASS	BR	36"
3	POLYGYMON. SPP.	WHEEL WEED	BR	36"

NOT TO SCALE

NOTES:

1) PRIOR TO THE START OF THE CLEARING AND GRUBBING AND EXCAVATION THE ENGINEER SHALL MARK THE TREES TO BE SAVED, AND THE LOCATION OF SILT FENCES FOR TEMPORARY EROSION CONTROL & PROTECTIVE BARRIER.

AQUATIC BENCH PLANTINGS TO BE CREATED ARE GENERALLY SHOWN ON THESE PLANS AND DETAILS.

ALL AQUATIC BENCH PLANTINGS SHALL BE LAID OUT IN A RANDOM MANNER AS WOULD OCCUR IN THE NATURAL ENVIRONMENT.

ADDITIONAL PLANTING NOTES.

- PROVIDE NECESSARY TOPSOIL ENHANCEMENT WITHIN PLANTING AREAS.
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR FROM TIME OF INSTALLATION.
- CONFORM WITH AMERICAN ASSOCIATION OF NURSERYMEN FOR ALL PLANT MATERIAL STANDARDS.

- TIME OF PLANTING AND OTHER PLANTING REQUIREMENTS SHALL BE AS REQUIRED ABOVE AS WELL AS PER NURSERY AND LANDSCAPER RECOMMENDATIONS.
- POTENTIAL NURSERY PLANT SOURCE: SOUTHERN TIER CONSULTING, INC.  
(OR EQUIVALENT) 2677 ROUTE 305, P.O. BOX 30

WEST CLARKSVILLE, NY 14786  
(716) 968-3120 3122 (FAX)  
(800) 848-7614 (ORDERS)

PLANNING BOARD  
TOWN OF BETHLEHEM  
ALBANY COUNTY, NEW YORK  
By direction of the Chairman,  
These drawings are hereby approved.  
Sub. rec'd(s) 10510  
for date and signature.

TOWN OF BETHLEHEM PLANNING BOARD APPROVAL

ALBANY COUNTY DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH SERVICES

By direction of the Commissioner of Health, these plans are hereby approved. See first sheet for date and signature.

CONSTRUCTION DETAILS  
THE GROVE  
ANDREW COURT, PINE STREET & GROVE PLACE

TOWN OF BETHLEHEM COUNTY OF ALBANY STATE OF NEW YORK	DRAWN BY: TAH CADD FILE: 09-0100F	CHECKED BY: FJB JOB NO. 09-010	SCALE: AS SHOWN	SHEET 9 OF 10
DATE: NOVEMBER 19, 2009				

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS IN VIOLATION OF SECTION 7209 SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ANY COPIES MADE FROM THE ORIGINAL OF THIS DRAWING BEARING AN ORIGINAL INKED AND OR EMBOSSED SEAL AND OR SIGNATURE SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

© Copyright 2013 - Ingalls & Associates, LLP - All rights reserved

**ingals**  
lls & associates, LLP  
neering, environmental, surveying  
2803 GUILDERLAND AVENUE  
SCHENECTADY, N.Y. 12306  
PHONE: (618) 365-7125  
FAX: (618) 365-3324

NO.	DATE	REVISIONS	BY:
1	11/19/08	PRELIMINARY PLAT SUBMITTAL	TAH
2			WP
3	12/3/10	TOWN SUBMISSION	WP
4	6/30/11	REVISED PER TOWN COMMENTS	PJT
5	9/16/11	REVISED PER TOWN COMMENTS DATED 7/29/11	PJT
6	10/28/11	REVISED PER TOWN COMMENTS DATED 10/5/11	PJT
7	3/23/12	REVISED TO FINAL PLAN SET	COL
8	3/23/12	REVISED PER TOWN COMMENTS	COL