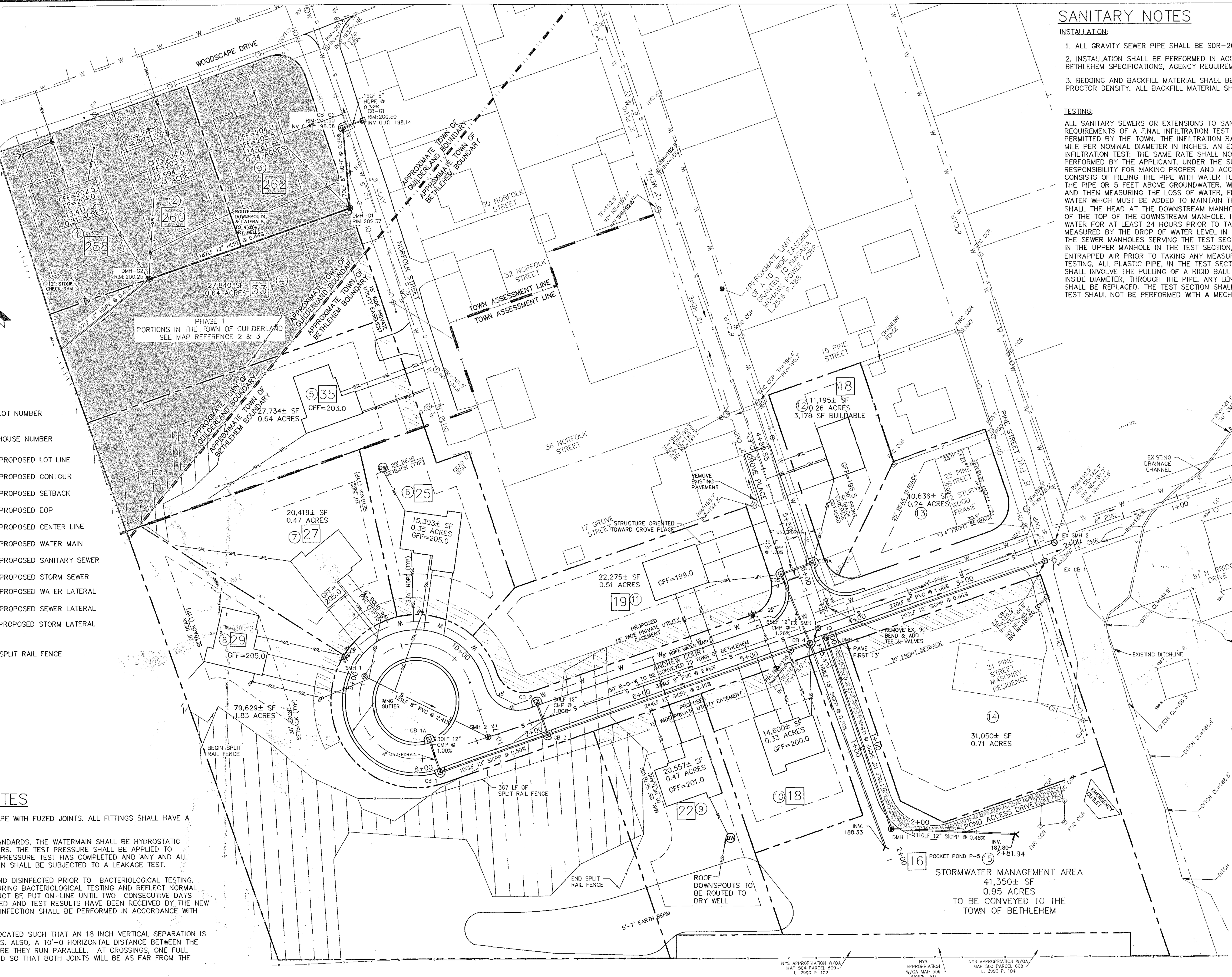


## LEGEND

- ③ LOT NUMBER
- [3] HOUSE NUMBER
- PROPOSED LOT LINE
- 194 PROPOSED CONTOUR
- PROPOSED SETBACK
- PROPOSED EOP
- PROPOSED CENTER LINE
- W W PROPOSED WATER MAIN
- S PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- WSL WSL WSL PROPOSED WATER LATERAL
- SSL SSL SSL PROPOSED SEWER LATERAL
- SPL SPL SPL PROPOSED STORM LATERAL
- X SPLIT RAIL FENCE

## SANITARY NOTES

INSTALLATION:

1. ALL GRAVITY SEWER PIPE SHALL BE SDR-26 AND SHALL MEET ASTM D-2241

2. INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, TOWNS OF GUILDERLAND & BETHLEHEM SPECIFICATIONS, AGENCY REQUIREMENTS, AND ALL APPLICABLE MANUFACTURERS SPECIFICATIONS.

3. BEDDING AND BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR DENSITY. ALL BACKFILL MATERIAL SHALL BE NYSDOT ITEM 203.07.

TESTING:

ALL SANITARY SEWERS OR EXTENSIONS TO SANITARY SEWERS, INCLUDING MANHOLES, SHALL SATISFY REQUIREMENTS OF A FINAL INFILTRATION TEST BEFORE THEY WILL BE APPROVED AND WASTEWATER FLOW PERMITTED BY THE TOWN. THE INFILTRATION RATE SHALL NOT EXCEED 25 GALLONS PER 24 HOURS PER MILE PER NOMINAL DIAMETER IN INCHES. AN EXFILTRATION TEST MAY BE SUBSTITUTED FOR THE INFILTRATION TEST; THE SAME RATE SHALL NOT BE EXCEEDED. THE EXFILTRATION TEST SHALL BE PERFORMED BY THE APPLICANT, UNDER THE SUPERVISION OF THE SUPERINTENDENT, WHO SHALL HAVE THE RESPONSIBILITY FOR MAKING PROPER AND ACCURATE MEASUREMENTS REQUIRED. THE EXFILTRATION TEST CONSISTS OF FILLING THE PIPE WITH WATER TO PROVIDE A HEAD OF AT LEAST 5 FEET ABOVE THE TOP OF THE PIPE OR 5 FEET ABOVE GROUNDWATER, WHICHEVER IS HIGHER, AT THE HIGHEST POINT UNDER TEST, AND THEN MEASURING THE LOSS OF WATER, FROM THE PIPE SECTION UNDER TEST, BY THE AMOUNT OF WATER WHICH MUST BE ADDED TO MAINTAIN THE ORIGINAL LEVEL. HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE HEAD AT THE DOWNSTREAM MANHOLE EXCEED TEN (10) FEET OR FILL TO WITHIN SIX (6) INCHES OF THE TOP OF THE DOWNSTREAM MANHOLE. IN THIS TEST, THE TEST SECTION MUST REMAIN FILLED WITH WATER FOR AT LEAST 24 HOURS PRIOR TO TAKING ANY MEASUREMENTS. EXFILTRATION SHALL BE MEASURED BY THE DROP OF WATER LEVEL IN A STANDPIPE WITH A CLOSED BOTTOM END, OR IN ONE OF THE SEWER MANHOLES SERVING THE TEST SECTION. WHEN A STANDPIPE AND PLUG ARRANGEMENT IS USED IN THE UPPER MANHOLE IN THE TEST SECTION, THERE SHALL BE SOME POSITIVE METHOD FOR RELEASING ENTRAPPED AIR PRIOR TO TAKING ANY MEASUREMENTS. ALSO PRIOR TO INFILTRATION/EXFILTRATION TESTING, ALL PLASTIC PIPE, IN THE TEST SECTION, SHALL BE TESTED FOR DEFLECTION. DEFLECTION TESTING SHALL INVOLVE THE PULLING OF A RIGID BALL OR MANDREL, WHOSE DIAMETER IS 95 PERCENT OF THE PIPE INSIDE DIAMETER, THROUGH THE PIPE. ANY LENGTH OF PIPE WITH A DEFLECTION GREATER THAN 5 PERCENT SHALL BE REPLACED. THE TEST SECTION SHALL BE FLUSHED JUST PRIOR TO DEFLECTION TESTING. THE TEST SHALL NOT BE PERFORMED WITH A MECHANICAL PULLING DEVICE.

NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE U.F.P.O. TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-962-7962

**OWNER/APPLICANT:**
THOMAS PAONESSA, TP BUILDERS
31 PINE STREET
ALBANY, NY 12203

## STRUCTURE TABLE

| STRUCTURE NAME: | RIM ELEV. | INVERTS |
|---|---|---|
| CB 1 | 201.39 | 12" CB 1A 197.09<br>12" CB 3 196.99 |
| CB 1A | 201.39 | 12" CB 1 197.39 |
| CB 2 | 200.99 | 12" CB 3 196.79 |
| CB 3 | 200.99 | 12" CB 1 196.49<br>12" CB 4 196.39<br>12" CB 2 196.49 |
| CB 4 | 196.00 | 12" CB 3 190.41<br>12" CB 5 189.14<br>15" 188.89 |
| CB 5 | 194.36 | 12" CB 5A 190.06<br>12" CB 4 189.96 |
| CB 5A | 194.36 | 12" CB 5 190.36 |
| DMH 1 | 192.00 | 12" 188.33<br>12" DMH 2 188.33 |
| DMH 2 | 196.24 | 12" EX CB 1 186.75<br>12" DMH 1 186.85 |
| EX CB 1 | 189.90 | 12" DMH 2 185.00 |
| EX SMH 1 | 196.33 | 8" SMH 2 185.00<br>8" EX SMH 2 184.90 |
| EX SMH 2 | 190.20 | 8" EX SMH 1 182.70 |
| SMH 1 | 203.29 | 8" SMH 2 195.51 |
| SMH 2 | 202.57 | 8" SMH 1 192.60<br>8" EX SMH 1 192.50 |

## WATER SUPPLY NOTES

1. ALL WATERMAINS SHALL BE 8" HDPE PIPE WITH FUZED JOINTS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI.

2. PER THE LATEST EDITION OF AWWA STANDARDS, THE WATERMAIN SHALL BE HYDROSTATIC PRESSURE TESTED AT 150 PSI FOR 2 HOURS. THE TEST PRESSURE SHALL BE APPLIED TO WATERMAINS ONLY. AFTER THE SPECIFIED PRESSURE TEST HAS COMPLETED AND ANY AND ALL REPAIRS HAVE BEEN MADE, THE WATERMAIN SHALL BE SUBJECTED TO A LEAKAGE TEST.

3. THE WATER LINE SHALL BE FLUSHED AND DISINFECTED PRIOR TO BACTERIOLOGICAL TESTING. CHLORINE LEVELS SHALL BE MEASURED DURING BACTERIOLOGICAL TESTING AND REFLECT NORMAL OPERATING LEVELS. THE WATERLINES CANNOT BE PUT ON-LINE UNTIL TWO CONSECUTIVE DAYS WITH GOOD RESULTS HAVE BEEN COMPLETED AND TEST RESULTS HAVE BEEN RECEIVED BY THE NEW YORK STATE DEPARTMENT OF HEALTH. DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C651.99

4. WATERMAINS AND SEWERS SHALL BE LOCATED SUCH THAT AN 18 INCH VERTICAL SEPARATION IS MAINTAINED AT POINTS WHERE THEY CROSS. ALSO, A 10'-0 HORIZONTAL DISTANCE BETWEEN THE TWO SHALL BE MAINTAINED IN AREAS WHERE THEY RUN PARALLEL. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.

5. WATERWORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS. WATERLINE INSTALLATION SHALL BE IN ACCORDANCE WITH AWWA STANDARDS.

6. WATER SERVICE TO EACH BUILDING SHALL BE PROVIDED USING ¾" HDPE PIPE.

7. ALL HDPE PIPE TO BE USED SHALL MEET ALL APPROPRIATE AWWA STANDARDS.

8. PRESSURE AND LEAKAGE TEST SHALL BE PERFORMED ON THE WATER SYSTEM, AND RESULTS SHALL CONFORM TO ALL APPROPRIATE AWWA STANDARDS.

9. INDIVIDUAL WATER SERVICES TO BE INSTALLED AND METERED AS REQUIRED BY THE TOWN.

10. ALL WATERLINE MATERIALS SHALL BE IN COMPLIANCE WITH TOWN SPECIFICATIONS.

11. WATERLINE INSTALLATION SHALL BE IN COMPLIANCE WITH TOWN SPECIFICATIONS AND COORDINATED WITH THE APPROPRIATE AUTHORITIES. ALL MANUFACTURER'S DATA FOR VALVES, FITTINGS, HYDRANTS, AND APPURTENANCES SHALL BE SUBMITTED TO THE TOWN OF BETHLEHEM FOR REVIEW AND APPROVAL.

STERILIZATION AND TESTING
(THE TOWN SHALL BE NOTIFIED AND HAVE A REPRESENTATIVE PRESENT FOR CHLORINATION)

CHLORINATION
MAINS TO BE FLUSHED AND CHLORINATED, A CHLORINE RESIDUAL OF NOT LESS THAN 50 ppM SHALL BE MAINTAINED FOR 24 HRS.

PRESSURE TESTING
MAINS SHALL BE TESTED AT 150PSI PRESSURE AT WHICH THEY SHALL NOT LOSE MORE THAN 0.74 GALLONS OF WATER PER 2 HOURS PER 1000 FEET.

NOTES:

1. ALL PIPES AND APPURTENANCES SHALL BE INSTALLED ACCORDING TO THE TOWNS OF BETHLEHEM & GUILDERLAND WATER AND SEWER AUTHORITY STANDARD SPECIFICATIONS.

2. THE CONTRACTOR SHALL VERIFY SIZE, TYPE, HORIZONTAL AND VERTICAL LOCATION OF THE MAIN AT THE PROPOSED CONNECTION POINT(S PRIOR TO CONSTRUCTION. CONFLICTS WITH OTHER UTILITIES TO BE CONSTRUCTED ARE TO BE AVOIDED. DISCREPANCIES OR OTHER CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE WATER SUPERINTENDENT IMMEDIATELY.

3. MINIMUM WATER MAIN DEPTH (TOP OF PIPE TO FINISH GRADE) SHALL BE 5'-0".

4. ALL FILL BELOW WATER MAIN SHALL BE COMPACTED GRANULAR MATERIAL (MIN. 95% PROCTOR TYP.)

5. ALL TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED TO PREVENT SETTLEMENT. TOP TRENCH WITH 12" MIN. APPROVED GRAVEL IN PAVED AREAS AND ALONG SIDE OF EXISTING ROAD FOR SHOULDER BASE. REPLACE DAMAGED PAVEMENTS WITH LIKE KIND AND LIKE THICKNESS.

6. THE FIRST 13' OF THE ACCESS DRIVE TO THE STORMWATER POND IS TO BE PAVED.

7. ROAD CENTERLINE SLOPES OVER 4% REQUIRE A 30" PAVED APRON.

8. THE TOWN BOUNDARY AS SHOWN ON THIS DRAWING IS AN ASSUMED BOUNDARY BASED ON THE 2010 ALBANY COUNTY TAX MAPS.

9. THE TOWN ASSESSMENT LINE AS SHOWN ON THIS DRAWING REPRESENTS THE CURRENT EXERCISE OF TAXING AUTHORITY AND THE DEFACTO BOUNDARY BETWEEN THE BETHLEHEM WATER AND SEWER DISTRICTS AND THE GUILDERLAND WATER AND SEWER DISTRICTS.


TOWN OF BETHLEHEM, NEW YORK
PLANNING DEPT. ORIGINAL
- SCANNED -
0 1 INCHES 2


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.

ALBANY COUNTY DEPARTMENT OF HEALTH APPROVAL

PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
By direction of the Chairman.
These drawings are hereby approved.
See sheet(s) 1 of 10
for date and signature.

TOWN OF BETHLEHEM PLANNING BOARD APPROVAL

| NO. | DATE: | REVISIONS | BY: |
|---|---|---|---|
| 12 | 8/25/14 | FINAL PLAT COMMENTS | BGE |
| 11 | 7/7/14 | FINAL REVISIONS | CDL |
| 10 | 3/28/14 | REVISED TO FINAL PLAN SET | CDL |
| 9 | 10/1/13 | REVISED PER TOWN COMMENTS | CDL |
| 8 | 7/24/13 | REVISED PER TOWN COMMENTS | CDL |
| 7 | 11/2/12 | REVISED ROAD LAYOUT | CDL |
| 6 | 1/24/11 | REVISED PER TDE COMMENTS | CDL |
| 4 | 9/16/11 | REVISED PER COMMENTS DATED 7/29/11, 8/2/11 & 9/9/11 | CDL |
| 3 | 6/01/11 | REVISED PER TOWN COMMENTS DATED 12/30/10 & 3/17/11 | PJY |
| 2 | 12/3/10 | TOWN SUBMISSION | TAH |
| 1 | 11/19/09 | PRELIMINARY PLAT SUBMITTAL | TAH |

STATE OF NEW YORK — DAVID FRANCIS INGALLS JR. — LICENSED PROFESSIONAL ENGINEER — 064993
DAVID F. INGALLS, JR., P.E.
N.Y.S. LIC. NO. 064993


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# UTILITY PLAN

THE GROVE
ANDREW COURT, PINE STREET & GROVE PLACE
TOWN OF BETHLEHEM
COUNTY OF ALBANY STATE OF NEW YORK

DRAWN BY: TAH
CADD FILE: 09-010DF
CHECKED BY: FJB
JOB NO. 09-010
SCALE: 1"=40'
SHEET 3 OF 10
DATE: NOVEMBER 19, 2009