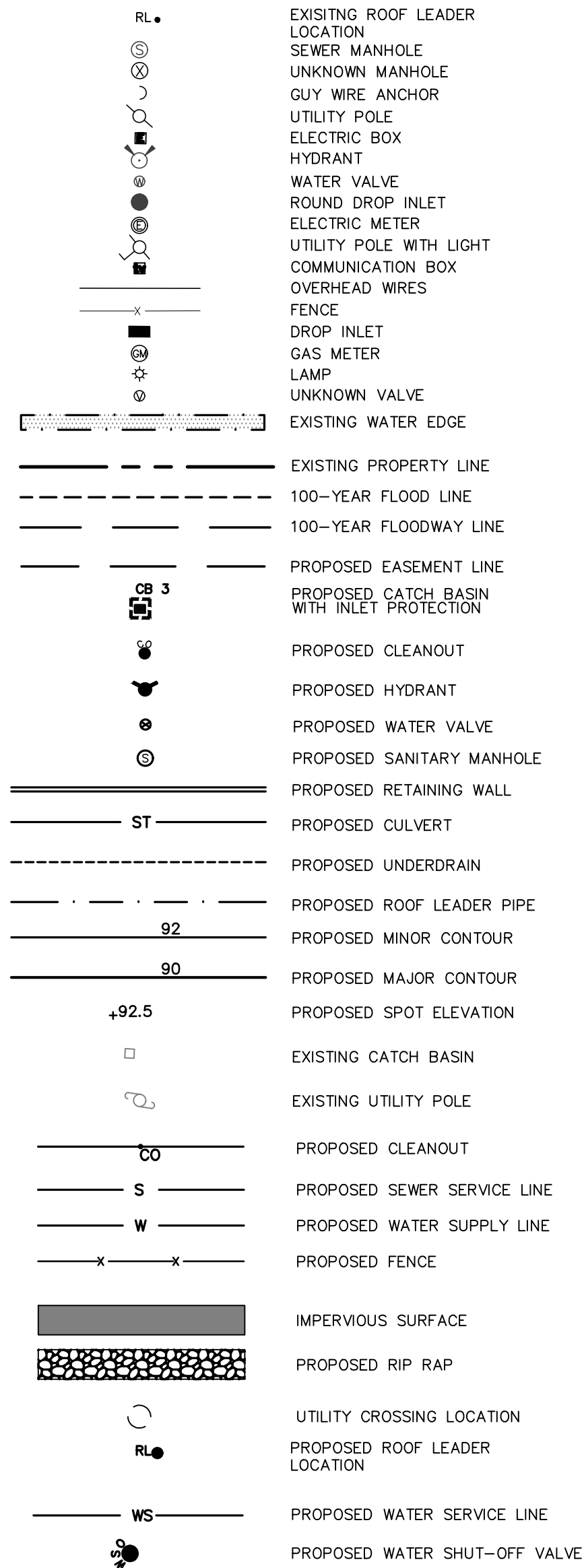


LEGEND:



INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

HYDRODYNAMIC DEVICES

THE VORTEX UNITS SHALL BE INSPECTED QUARTERLY DURING THE FIRST YEAR OF OPERATION. THE MANUFACTURER RECOMMENDS THAT THE CDS UNITS BE INSPECTED BI-ANNUALLY (ONCE IN THE SPRING AND ONCE IN THE FALL). THE STRUCTURE SHALL BE VISUALLY INSPECTED FOR BLOCKAGES OR OBSTRUCTIONS IN THE INLET OR SEPARATION SCREEN. THE INSPECTION SHOULD ALSO QUANTIFY ACCUMULATION OF HYDROCARBONS, SEDIMENT AND TRASH WITHIN THE SYSTEM. INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED BY QUALIFIED PERSONNEL WITH ADEQUATE TRAINING IN THESE TYPES OF UNITS. THE UNITS SHALL BE CLEANED BY VACUUM TRUCK ONCE A YEAR (EXCEPT FOR THE FIRST YEAR WHERE MORE FREQUENT CLEANINGS MAY BE REQUIRED).

INFILTRATION BASIN

THE INFILTRATION BASIN SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION. INFLOW PIPES, OUTLET STRUCTURES AND SPILLWAYS SHOULD ALSO BE INSPECTED FOR SEDIMENT AND DEBRIS MONTHLY. ANY ACCUMULATED SEDIMENT OR DEBRIS SHOULD BE REMOVED AS NECESSARY. PLANTINGS SHALL BE INSPECTED MONTHLY FOR HEIGHT, FERTILIZER, QUANTITY AND UNAUTHORIZED INVASIVE OR INAPPROPRIATE SPECIES. AFTER STORM EVENTS, THE INFILTRATION BASIN DRAINING DURATION SHOULD ALSO BE MONITORED. THE BASIN FLOOR SHALL BE MOVED AS REQUIRED; HOWEVER, THE GRASS HEIGHT SHALL NOT EXCEED 18". SEDIMENT SHALL BE CLEANED OUT OF THE INFILTRATION BASIN ANNUALLY.

EXISTING UNDERGROUND UTILITY NOTES:

1. CONTRACTOR SHALL DO TEST PITS TO VERIFY LOCATION, SIZE AND PIPE MATERIAL OF EXISTING UNDERGROUND UTILITIES. IF ANY EXISTING UTILITIES ARE NOT IN THE LOCATION WHERE THEY ARE SHOWN ON THE PLAN, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

GENERAL CONSTRUCTION NOTES:

1. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED PRIOR TO CONSTRUCTION. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANIES.
2. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPFO @ 1-800-962-7962.
3. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM SEWER LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
4. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATERTIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF SEWER MAINS (AND SERVICE LATERALS).

POST CONSTRUCTION NOTES:

1. UPON COMPLETION OF CONSTRUCTION OF THE STORMWATER FACILITIES, AS-BUILT DRAWINGS OF ALL STORMWATER PRACTICES AND AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON.

WATER AND SEWER MAIN RELOCATION NOTES:

1. THE SECTIONS OF SEWER MAIN TO REMAIN IN-PLACE ON SITE SHALL BE TV INSPECTED AND CLEANED TO VERIFY THE CONDITION OF THE PIPE. THIS WORK SHALL BE COORDINATED WITH THE CITY ENGINEER AND SEWER DEPARTMENT. THE PIPES TO REMAIN IN-PLACE SHALL THEN BE SLIP-UNITED BETWEEN EXISTING MANHOLE 11 TO PROPOSED SEWER MANHOLE 12, AND BETWEEN PROPOSED SEWER MANHOLE 14 AND EXISTING SEWER MANHOLE 15.
2. UPON COMPLETION OF CONSTRUCTION OF THE WATER AND SEWER FACILITIES, AS-BUILT DRAWINGS OF FINAL WATER AND SEWER MAIN LOCATIONS SHALL BE PROVIDED TO THE CITY OF BEACON.
3. THE COMPLETED WATER MAIN EXTENSION AND SEWER MAIN RE-LOCATION SHALL BE CERTIFIED BY THE LICENSED PROFESSIONAL OBSERVING CONSTRUCTION TO THE CITY OF BEACON.
4. THE WATER AND SEWER MAINS SHALL BE DEDICATED TO THE CITY OF BEACON UPON ACCEPTANCE OF THE CERTIFICATION.

SNOW REMOVAL AND STORAGE NOTES:

1. THE SITE OWNER WILL UTILIZE A LOADER TO MOVE SNOW TO THE AREAS DESIGNATED FOR SNOW STORAGE.
2. SNOW SHALL BE REMOVED WITHIN 8 HOURS AFTER A SNOW EVENT.

SITE CLEARING NOTES:

1. SITE CLEARING SHALL OCCUR BETWEEN OCTOBER 1ST THROUGH MARCH 31ST IN ACCORDANCE WITH NYSDEC REGULATIONS.

ROCK REMOVAL NOTES:

1. ROCK REMOVAL (IF NECESSARY) SHALL BE ACCOMPLISHED BY MECHANICAL METHODS AS MUCH AS POSSIBLE AND SHALL ONLY BE PERMITTED BETWEEN 8:00AM AND 5:00 PM ON ANY DAY WHICH ROCK REMOVAL IS PERMITTED.
2. ACCEPTABLE ROCK REMOVAL METHODS ARE RIPPING, HYDRAULIC HAMMER OR DRILLING HOLES WITH USE OF EXPANSIVE TOOLS AND/OR WEDGES.
3. IF MECHANICAL METHODS BECOME INEFFECTIVE DUE TO HARD ROCK, AND IT IS DETERMINED THAT BLASTING IS REQUIRED, IT SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF BEACON BUILDING DEPARTMENT. NO BLASTING SHALL COMMENCE UNTIL A BLASTING PROTOCOL IS SUBMITTED TO THE CITY OF BEACON BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.
4. BLASTING PROTOCOL SHALL BE IN ACCORDANCE WITH §111 OF THE CITY OF BEACON CODE.

PRESSURE REDUCING VALVE AND BACKFLOW PREVENTION NOTES:

1. HYDRANT FLOW TESTS IN THE VICINITY OF THE PROJECT REVEALED STATIC PRESSURES RANGING FROM 88 PSI TO 100 PSI. THEREFORE PRESSURE REDUCING VALVES WILL BE REQUIRED AT ALL PROPOSED DOMESTIC WATER CONNECTIONS TO BUILDINGS.
2. PRESSURE REDUCING VALVES (PRV) SHALL BE FURNISHED BY MUELLER OR WATTS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE.
3. SPECIFICATIONS FOR THE PROPOSED PRV SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING DEPARTMENT PRIOR TO INSTALLATION.
4. DOUBLE CHECK VALVES SHALL BE PROVIDED ON ALL SERVICE CONNECTIONS TO THE ON-SITE BUILDINGS.
5. DOUBLE CHECK VALVES SHALL BE WATTS SERIES 909 OR APPROVED EQUAL ON DOMESTIC CONNECTIONS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE.
6. SPECIFICATIONS FOR THE PROPOSED DOUBLE CHECK VALVES SHALL BE PROVIDED TO THE CITY OF BEACON PRIOR TO INSTALLATION.

RETAINING WALL NOTES:

1. ALL RETAINING WALLS SHOWN ON THIS PLAN SHALL BE DESIGNED BY A NEW YORK STATE LICENSED ENGINEER AND PLANS SHALL BE SUBMITTED TO THE BEACON BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

LOT LINE RE-ALIGNMENT NOTES:

1. PARCEL 6054-37-066670 (7-15 CREEK DRIVE) IS CONVEYING 14,700.78 SQ.FT. (0.337 AC.) TO THIS PARCEL 6054-37-037625 (23-28 CREEK DRIVE).
2. THE RESULTANT AREA FOR PARCEL 6054-37-066670 (7-15 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 449,919.03 SQ.FT. OF 41,600 AC.
3. THE RESULTANT AREA FOR PARCEL 6054-37-037625 (23-28 CREEK DRIVE) AFTER THE LOT LINE RE-ALIGNMENT IS 413,953.88 SQ.FT. OR 9,314.44 AC.

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPFO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL DRAINAGE, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
3. THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES. AS SUCH, THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AGREEMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
4. THE WATER SERVICE LINE AND METER FOR EACH UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE WATER MAIN EXTENSION SHALL BE 8" CLASS 52 DIP.
6. THE SEWER SERVICE LATERAL SHALL BE 6" SDR-35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN.
7. STREET CLOSURE FOR WATER SEWER AND GAS SERVICE CONNECTIONS AND DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS. A PLAN SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. MAIN STREET AND NORTH ELM STREET SHALL BE KEPT CLEAN AND OPEN DURING CONSTRUCTION.
9. SUMP PUMPS TO BE PROVIDED FOR FOOTING DRAINS, AS REQUIRED. THE TYPES OF PUMPS AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
10. THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NO EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED.
11. THE EXISTING WATER SERVICE LINE SHALL BE CUT, CAPPED AND ABANDONED IN-PLACE.
12. THE EXISTING SEWER SERVICE LATERAL SHALL BE REMOVED AND PLUGGED TO PREVENT ANY GROUNDWATER INFLOW INTO THE CITY SEWER SYSTEM.
13. THE EXISTING 24" SEWER MAIN SHALL BE TV INSPECTED AND THE RESULTS PROVIDED TO THE BEACON BUILDING DEPARTMENT.
14. THE EXISTING SECTIONS OF SEWER MAIN TO REMAIN IN USE ON THE PARCEL SHALL BE SLIP-UNITED.

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB1	RM = 88.31 SUMP = 87.95 PPE 1 INV OUT = 83.20
CB2	RM = 88.10 SUMP = 87.70 PPE 1 INV OUT = 83.00 PPE 2 INV OUT = 82.90
CB3	RM = 88.20 SUMP = 87.80 PPE 2 INV IN = 88.40 PPE 3 INV OUT = 87.70
CB4	RM = 88.20 SUMP = 87.80 PPE 3 INV IN = 83.00 PPE 4 INV OUT = 83.00
CB5	RM = 88.10 SUMP = 87.70 PPE 4 INV IN = 88.10 PPE 5 INV OUT = 83.00
W05	RM = 88.88 SUMP = 88.53 PPE 5 INV IN = 88.10 PPE 6 INV OUT = 83.00

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB7	RM = 87.01 SUMP = 87.00 PPE 7 INV OUT = 83.00
CB8	RM = 88.10 SUMP = 87.70 PPE 8 INV IN = 88.00 PPE 9 INV OUT = 83.00
CB9	RM = 87.90 SUMP = 87.60 PPE 9 INV IN = 88.00 PPE 9 INV OUT = 88.80

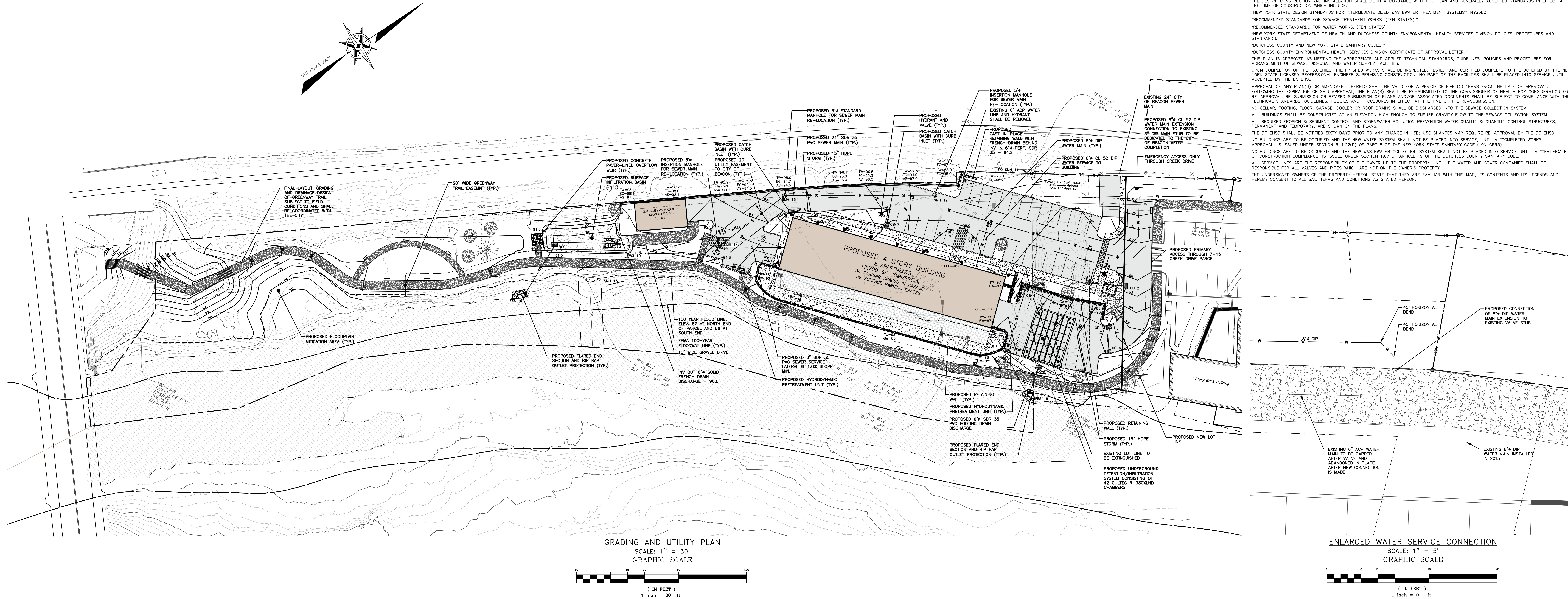
SANITARY SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
EX SHM 11	RM = 89.33 PPE 1 INV OUT = 82.80
EX SHM 15	RM = 89.23 PPE 1 INV IN = 78.21 PPE 2 INV OUT = 82.80
SHM 13	RM = 89.55 PPE 12 INV IN = 82.00 PPE 13 INV IN = 88.80
SHM 12	RM = 87.12 PPE 13 INV IN = 88.80 PPE 14 INV IN = 81.00
SHM 14	RM = 82.00 PPE 14 INV IN = 81.00 PPE 14 INV OUT = 81.20

STORM SEWER PIPE TABLE	
PIPE NAME	LENGTH SIZE AND MATERIAL SLOPE
PPE 1	19 LF 15" 4 CORR HDPE 1.03%
PPE 2	31 LF 15" 4 CORR HDPE 1.61%
PPE 3	81 LF 15" 4 CORR HDPE 4.87%
PPE 4	57 LF 15" 4 CORR HDPE 1.09%
PPE 5	17 LF 15" 4 CORR HDPE 1.18%
PPE 6	22 LF 15" 4 CORR HDPE 1.27%

STORM SEWER PIPE TABLE	
PIPE NAME	LENGTH SIZE AND MATERIAL SLOPE
PPE 7	80 LF 15" 4 CORR HDPE 3.08%
PPE 8	89 LF 15" 4 CORR HDPE 1.73%
PPE 9	106 LF 15" 4 CORR HDPE 0.47%

FLARED END SECTION TABLE	
STRUCTURE	STRUCTURE DETAILS
FES 11	PPE 8 INV IN = 88.10
FES 18	PPE 15 INV IN = 86.00
FES 19	PPE 16 INV IN = 79.50

SANITARY SEWER PIPE TABLE	
PIPE NAME	LENGTH SIZE AND MATERIAL SLOPE
PPE 11	84 LF 24 HCH PVC 3.58%
PPE 12	133 LF 24 HCH PVC 2.24%
PPE 13	73 LF 24 HCH PVC 8.81%
PPE 14	117 LF 24 HCH PVC 4.25%



DRAWN BY: MAB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED FOR PLANNING BOARD SUBMISSION	MAB				
2	02/25/19	REVISED BUILDING USE	MAB				
3	02/26/19	REVISED FOR PLANNING BOARD SUBMISSION	MAB				
4	03/26/19	REVISED PER PLANNING BOARD COMMENTS	MAB				
5	04/30/19	REVISED PER PLANNING BOARD COMMENTS	MAB				

Dig Safely.
New York
800-962-7962
www.digsafely.com
Call Before You Dig
Run The Required Tests
Confirm Utility Response
Dig With Care

HUDSON
LAND DESIGN



HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
P.E. 845-440-0826
P. 845-440-6837

GRADING AND UTILITY PLAN
23-28 CREEK DRIVE
23-28 CREEK ROAD
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-37-037625

JOB #: 2018-029
DATE: 10/23/2018
SCALE: SCALE: AS SHOWN
TITLE: GU-1
SHEET: 7 OF 12