

**BASIN MAINTENANCE NOTES:**

THE FOLLOWING TASKS SHALL BE PERFORMED ON A REGULAR BASIS AND SHALL BE CONSIDERED THE MINIMUM NUMBER OF PROCEDURES TO BE FOLLOWED FOR THE SITE:

1. OUTFALL STRUCTURES SHALL BE INSPECTED ON A ROUTINE BASIS (AT LEAST FOUR TIMES ANNUALLY) AND AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. IMPORTANT ITEMS TO EXAMINE INCLUDE DIFFERENTIAL SETTLEMENT, CRACKING, EROSION, LEAKAGE OR TREE GROWTH ON THE EMBANKMENT (BASINS), THE CONDITION OF THE RIP-RAP STONE AREAS, SEDIMENT ACCUMULATION AND THE DENSITY OF GRASS. SITE DESIGN SHOULD BE REEVALUATED SHOULD CLOGGING OCCUR TO DETERMINE THE FACTORS RESPONSIBLE FOR THE PROBLEM.
2. THE BASIN SHALL BE INSPECTED FOR CLOGGING, EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. DISPOSAL OF DEBRIS, TRASH, SEDIMENT AND OTHER WASTE MATERIAL SHALL BE DONE AT A SUITABLE DISPOSAL/RECYCLING SITES IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.
3. WHEN ESTABLISHING OR RESTORING VEGETATION ALONG SIDE SLOPES, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS ESTABLISHED. ONCE ESTABLISHED, INSPECTIONS OF VEGETATION HEALTH, DENSITY AND DIVERSITY SHOULD BE PERFORMED DURING BOTH THE GROWING AND NON-GROWING SEASON AT LEAST TWICE ANNUALLY. IF VEGETATION HAS GREATER THAN 50 PERCENT DAMAGE, THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND THE INSPECTION REQUIREMENTS PRESENTED ABOVE.  
ALL USE OF FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM SIDE SLOPE VEGETATION HEALTH MUST NOT COMPROMISE THE INTENDED PURPOSE WET POND. ALL VEGETATION DEFICIENCIES SHOULD BE ADDRESSED WITHOUT THE USE OF FERTILIZERS AND PESTICIDES WHENEVER POSSIBLE.
4. PERIODIC INSPECTIONS SHALL BE USED TO DETERMINE THE EFFECTIVENESS OF THE REGULAR MAINTENANCE SCHEDULE AS WELL AS TO DETERMINE THE TIMING OF CORRECTIVE MAINTENANCE PROCEDURES.
5. BUFFERS AND SIDE SLOPES SHALL BE MAINTAINED AT LEAST ONCE A YEAR OR WHENEVER THE GRASS OR VEGETATION EXCEEDS A HEIGHT OF 12 INCHES. A ROUTINE SHALL BE DEVELOPED FOR THE REMOVAL OF TRASH AND DEBRIS, GRASS CLIPPINGS AND ACCUMULATED ORGANIC MATTER MUST BE REMOVED. TREES, SHRUBS AND OTHER VEGETATIVE COVER ALSO REQUIRE PERIODIC MAINTENANCE SUCH AS FERTILIZING, PRUNING AND PEST CONTROL TO MAINTAIN HEALTHY GROWTH.
7. ALL STORMWATER MANAGEMENT MEASURES COMPONENTS MUST BE READILY ACCESSIBLE FOR INSPECTION AND MAINTENANCE. THEREFORE, TREES, SHRUBS, AND UNDERBUSH MUST BE PRUNED OR TRIMMED AS NECESSARY TO MAINTAIN ACCESS TO THE STORMWATER MANAGEMENT MEASURES.

**GENERAL NOTES:**

1. ALL DRAWINGS IN THIS PLAN SET ARE MADE PART OF THIS RECORD PLAN AND ALL INFORMATION SHOWN HEREON SHALL BE CONSIDERED APPLICABLE FOR THE COMPLETION OF THIS PROJECT. INDIVIDUAL PLANS SHALL NOT BE USED SINCE THEY CONSTITUTE ONLY A PART OF THE COMPLETE SET OF PLANS FOR THIS PROJECT.
2. IT IS IMPERATIVE THAT UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. CALL 1-800-272-1000 TO ORDER MARK-OUTS.
3. IT IS IMPERATIVE THAT THE PROPOSED UNDERGROUND UTILITY CONNECTIONS BE MADE STARTING AT THE MOST DOWNSTREAM END AND THAT THE LOCATION AND DEPTH OF THE EXISTING UNDERGROUND UTILITIES BE VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ENSURE THE DOWNSTREAM UTILITY CONNECTIONS CAN BE MADE AND ARE CONSTRUCTED PRIOR TO INSTALLATION OF ANY OTHER PORTIONS OF THE SYSTEM. TEST PITS SHALL BE DUG AT THE DISCRETION OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER OF ANY CONFLICTS OF EXISTING AND/OR PROPOSED UTILITY CONNECTIONS AND CROSSINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT DOWNSTREAM UTILITY CONNECTIONS CAN BE MADE AS PROPOSED AND TO THE SATISFACTION OF THE ENGINEER.
4. EXISTING SITE SURVEY WAS PREPARED BY JAMES SASSANO ASSOCIATES, INC. DATED SEPTEMBER 15, 2009 WITH NO REVISIONS. FIELD SURVEY WORK COMPLETED BY JAMES SASSANO ASSOCIATES, INC. DURING SEPTEMBER 2009. SITE CIVIL ENGINEERING MARKS NO GUARANTEE OR WARRANTY, EITHER EXPLICITLY OR IMPLIED, OF THE ACCURACY OF THE INFORMATION PROVIDED ON THE EXISTING CONDITIONS PLAN. SITE CIVIL ENGINEERING MAKES NO CERTIFICATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OF THE SURVEYED ITEMS INCLUDING, BUT NOT LIMITED TO: UTILITIES, BUILDINGS, ROADWAYS, PROPERTY LINES, AND CONTOURS.
5. LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND OBSERVATIONS AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATIONS AND DEPTH CANNOT BE GUARANTEED. ALL CONTRACTORS AND OTHER PERSONS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED THAT EACH INDIVIDUAL USING THIS PLAN MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE STARTING WORK.
6. THE EROSION AND SEDIMENT CONTROL PLAN IS AN INTEGRAL PART OF THE STORM WATER MANAGEMENT SYSTEM DURING CONSTRUCTION OF CERTAIN STAGES. THE EROSION AND SEDIMENT CONTROL PLANS SHALL BE REFERENCED AND USED IN CONJUNCTION WITH THIS DRAWING TO COMPLETE CONSTRUCTION PHASING.
7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
8. THE SITE IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE PROPOSED CONTOURS AND SPOT ELEVATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING A POSITIVE DRAINAGE FLOW TO ALL CATCH BASINS WITHOUT CREATING FLAT SPOTS THAT WILL RESULT IN STANDING WATER (PUDDLING OR PONDING).
9. PARKING AREAS SHALL HAVE A MINIMUM GRADE OF 2% TO PREVENT POOLING OF STORMWATER RUNOFF. NO PARKING AREA SHALL HAVE A GRADE IN EXCESS OF 3% IN AREAS LONGITUDINAL TO PARKING SPACES AND 5% IN CROSS SLOPE AREAS AND CIRCULATION LINES.
10. A MINIMUM 2% SLOPE SHALL BE MAINTAINED IN PARKING AND SIDEWALK AREAS.
11. A MINIMUM 2% SLOPE SHALL BE MAINTAINED IN ALL GRASS/DLAWN AREAS.
12. THE ROUTING OF ALL UTILITIES IS SUBJECT TO ADJUSTMENT TO MEET UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS OF BUILDING MECHANICAL DESIGN. WHEN BUILDING MECHANICAL DRAWINGS ARE COMPLETE AND UTILITY REQUIREMENTS ARE FINALIZED, NECESSARY ADJUSTMENTS SHALL BE MADE AS PART OF THE PREPARATION OF CONSTRUCTION DOCUMENTS.
13. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS TO REQUEST EXACT FIELD LOCATION OF UTILITIES BEFORE ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, DEPTHS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THESE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS INCLUDING BUT NOT LIMITED TO BUILDING, SIDEWALK/STREET CLOSING AND DEMOLITION.
15. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITIES ENTERING THE BUILDING, INCLUDING SANITARY SEWER, LATERALS, DOMESTIC WATER SERVICE AND FIRE PROTECTION, ELECTRIC, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
16. THE CONTRACTOR SHALL REFERENCE ALL TRENTON CITY SPECIFICATIONS FOR UTILITY MATERIALS AND CONSTRUCTION.
17. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST SIX (6) INCHES OF COVER TO ALL LANDSCAPE AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING.
18. STORM DRAINAGE STRUCTURES SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THIS DRAWING AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS AS SHOWN ON SHEET XX.
19. INLET BOXES.
20. TOP OF GRATE ELEVATIONS HAVE BEEN DETERMINED AT THE CURBLINE.
21. THE CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES, ETC. TO BE FLUSH WITH THE PROPOSED SURFACE ELEVATIONS.
22. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST UNLESS STATED OTHERWISE.
23. THE SEWER SYSTEM SHALL BE CONSTRUCTED WITH WATERTIGHT CONNECTIONS.
24. AT LOCATIONS WHERE PROPOSED DRAINAGE TIES INTO EXISTING DRAINAGE, INVERTS AND CONNECTIONS TO EXISTING STRUCTURES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
25. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (LATEST EDITION) FROM THE U.S. DEPARTMENT OF TRANSPORTATION.
26. SIDEWALKS SHALL NOT BE LESS THAN FOUR (4) FOOT IN WIDTH. SIDEWALKS SHALL BE CONSTRUCTED WITH FOUR-INCH THICK CONCRETE, 3,500 PSI (MINIMUM).
27. OBSOLETE ON-SITE UTILITY SERVICE CONNECTIONS MUST BE REMOVED. REMOVAL OF SERVICE CONNECTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY AND VERIFIED BY THE CONTRACTOR THAT THEY ARE NO LONGER ACTIVE.
28. IF CONNECTING TO AN EXISTING SEWER MAIN OR MANHOLE, UTILIZE THE METHOD OF CORING AND THE USE OF LINK-SEAL TO CONNECT.
29. PROPOSED STORM LATERALS SHALL BE 6" SCH40 PVC PIPE, UNLESS OTHERWISE NOTED.
30. ROCK IN THE LATERAL TRENCH MUST BE REMOVED TO A POINT NO LESS THAN TWO (2) FEET BEYOND THE END OF THE PIPE.
31. SEWER AND WATER SERVICE CONNECTIONS ARE MEASURED FROM THE FACE OF BUILDING TO THE CENTER OF EXISTING UTILITIES AND REPRESENTS LINEAR FOOTAGE IN PLAN VIEW. ACTUAL PIPE LENGTH MAY VARY DUE TO PIPE SLOPE.
32. THE FREE END OF LATERALS MUST BE PLUGGED WITH AN APPROVED PUSH-ON TYPE PLUG WHEN THE FREE END OF THE LATERAL IS LESS THAN TWO (2) FULL LENGTHS FROM THE SEWER MAIN, OR WHEN REQUIRED BY THE ENGINEER. AN APPROVED MECHANICAL EXPANSION PLUG SHALL BE USED. ALL PLUGS MUST BE CAPABLE OF WITHSTANDING THE REQUIRED AIR TEST AND MUST BE WATERTIGHT.
33. ALL WATER, SEWER, AND GAS MAINS SHALL BE INSTALLED UNDERGROUND. ALL ELECTRIC, TELEPHONE, AND COMMUNICATIONS SERVICES, BOTH MAIN AND SERVICE LINES, SHALL BE PROVIDED BY UNDERGROUND CABLES.
34. THE PROPERTY OWNER SHALL HAVE THE RESPONSIBILITY FOR THE PERPETUAL MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT FACILITIES. NO CHANGES SHALL BE MADE TO THE STORMWATER MANAGEMENT FACILITIES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE CITY. THE BASIN SHALL BE INSPECTED ONCE A YEAR AND AFTER EACH STORM EVENT GREATER THAN 100 YEARS TO ENSURE NONE OF THE ORIFICES ARE CLOGGED. THE BASIN SHALL BE FLUSHED EVERY 2 YEARS TO PREVENT THE BUILD UP OF DEBRIS AND SEDIMENT. THIS SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE.

ALL SPOT ELEVATIONS REPRESENT PROPOSED GUTTER LINE OF CURB ELEVATIONS UNLESS OTHERWISE NOTED. TOP OF CURB IS 0.50 FEET FROM BOTTOM OF CURB ELEVATIONS UNLESS OTHERWISE NOTED.

**LEGEND**

- FFE=120.00 FIRST FLOOR ELEVATION
- X 118.31 EXISTING SPOT ELEVATION
- 119.50 PROPOSED SPOT ELEVATION
- 119 PROPOSED CONTOUR
- D STORM SEWER
- STORM INLET
- EXISTING STORM PIPE
- EXISTING STORM INLET
- ⊕ EXISTING STORM MANHOLE
- X — EXISTING FENCE

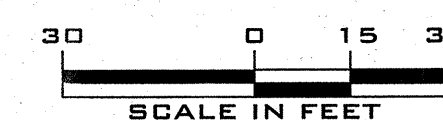
**GRADING AND DRAINAGE PLAN**

**NORTH CLINTON CHURCH OF CHRIST**  
 PLATE 215, BLOCK 21504, LOT 31 & BLOCK 21503, LOTS 9, 10 & 11  
 SITUATE IN  
 CITY OF TRENTON  
 COUNTY OF MERCER, STATE OF NEW JERSEY

**SITE CIVIL ENGINEERING**  
 213 CHERRY TREE COURT  
 FRANKLINVILLE, NEW JERSEY 08322  
 (856) 885 - 8679  
 FAX (856) 513 - 6594

FILE NUMBER 2009-107	CHECKED BY: WG	DRAWN BY: TL	DATE
WILLIAM P. GILMORE, P.E. NEW JERSEY PROFESSIONAL ENGINEER NO. 246E4783100		DATE	
SCALE: 1" = 30'	PROJECT NO. 2009 - 107	DATE: OCTOBER 19, 2009	SHEET NO. 5 of 13

REV.	DATE	DESCRIPTION	BY



THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. NO CERTIFICATION IS MADE BY SITE CIVIL ENGINEERING AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1 (800) 272-1000.

