1. STANDARD SPECIFICATIONS

EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:

1.1 STANDARD SPECIFICATIONS FOR EARTHWORK, PAVEMENT AND SIDEWALKS. ALL EARTHWORK, PAVEMENT, CURBING AND SIDEWALK ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY I.D.O.T., LATEST ADDITION AND WITH ANY SPECIAL PROVISIONS SPECIFIED HEREIN TO SAID STANDARD SPECIFICATION.

1.2 STANDARD SPECIFICATIONS FOR SANITARY SEWERS, STORM SEWERS AND WATER MAINS: ALL SANITARY SEWER, STORM SEWER AND WATER MAIN CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS" LATEST ADDITION AND WITH ANY SPECIAL PROVISIONS SPECIFIED HEREIN TO SAID STANDARD SPECIFICATIONS.

1.3 CITY OF BATAVIA SUBDIVISION CONTROL ORDINANCE DATED MARCH 1989, INCLUDING ALL PERTINENT ADDENDA AND ALL APPLICABLE CITY OF BATAVIA STANDARDS.

1.4 THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" AS PUBLISHED BY I.D.O.T., LATEST EDITION.

1.5 THE "PROCEDURES AND STANDARDS FOR URBAN EROSION CONTROL IN ILLINOIS" AS PUBLISHED BY THE ILLINOIS CONSERVATION DISTRICT.

1.6 CONFLICTS: IN THE CASE OF CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS SHOWN HEREIN AND THE APPLICABLE STANDARD SPECIFICATIONS, THESE PLANS AND SPECIFICATIONS SHOWN HEREIN SHALL TAKE PRECEDENCE, NO SUBSTITUTIONS IN MATERIALS, DETAILS OR ANY OTHER PART OF THE WORK SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER.

2. GENERAL

2.1 HEALTH AND SAFETY: THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS (SERIES 1926) AND THE APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA STANDARDS OF THE WILLIAMS STEGER OCCUPATIONAL HEALTH STATE AND SAFETY ACT OF 1970) REVISED.

2.2 BONDING AND LICENSING THE CONTRACTOR AND HIS INDIVIDUAL SUBCONTRACTORS PRIOR TO THE COMMENCEMENT OF WORK SHALL OBTAIN ALL APPLICABLE CITY PERMITS, LICENSES AND BONDS.

2.3 INCIDENTAL CONSTRUCTION: THE CONTRACTOR SHALL PERFORM ALL WORK INDICATED OR IMPLIED IN THE CONTRACT DOCUMENTS. ALL WORK NOT SPECIFIED, BUT REQUIRED TO COMPLETE THE PROJECT, INCLUDING ACCESSORIES AND APPURTENANCES, SHALL BE PERFORMED BY THE CONTRACTOR IN A SATISFACTORY MANNER. TREE TRIMMING OR TREE REMOVAL SHALL BE PERFORMED BY A LICENSED ARBORIST, AND APPROVED BY THE CITY ENGINEER OR ENGINEER'S REP.

2.4 ELECTRIC, TELEPHONE, NATURAL GAS AND OTHER UTILITY COMPANIES HAVE UNDERGROUND AND/OR OVERHEAD SERVICE FACILITIES IN THE VICINITY OF THE PROPOSED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR MAINTENANCE AND PRESERVATION OF THE FACILITIES. THE CONTRACTOR SHALL CALL JULIE. AT 800-892-0123 FOR UTILITY LOCATIONS.

2.5 EITHER THE ENGINEER NOR THE CITY OF BATAVIA ARE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY CONTRACTOR.

2.6 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. SPECIAL ATTENTION IS DRAWN TO THE FACT THAT THE ARTICLE 105.06 OF THE I.D.O.T. STANDARD SPECIFICATIONS REQUIRES THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE ABLE TO READ AND ENGLISH, HE SHALL BE CAPABLE OF UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT, AND SHALL BE RESPONSIBLE FOR SCHEDULING AND HAVE CONTROL OF ALL WORK AS THE AGENT OF THE CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS PROVIDED IN ARTICLE 109.08.

2.7 THE CONTRACTOR, ENGINEER AND DEVELOPER SHALL BE RESPONSIBLE FOR THEIR OWN RESPECTIVE AGENTS AND EMPLOYEES.

2.8 IN THE EVENT OF A DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE CITY ENGINEER SHALL BE FINAL AND CONCLUSIVE.

2.9 IN THE EVENT OF CONFLICTING SPECIFICATIONS, THE DECISION OF THE CITY ENGINEER SHALL BE FINAL AND CONCLUSIVE.

2.10 NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION"

2.11 PRIOR TO THE START OF CONSTRUCTION, THE CITY ENGINEER, PROJECT ENGINEER, THE SUBDIVIDER AND THE GENERAL CONTRACTOR SHALL ATTEND A PRECONSTRUCTION MEETING. THE PURPOSE OF THE MEETING IS TO REVIEW ACCEPTABLE SITE DEVELOPMENT AND CONSTRUCTION PRACTICES IN ACCORDANCE WITH THE CONSTRUCTION CONTROL PLAN AND CITY ORDINANCES AND POLICIES.

2.12 GRANULAR TRENCH BACKFILL: ALL TRENCH SECTIONS FOR STORM SEWERS, SANITARY SEWERS, WATER MAINS, ELECTRICAL CONDUITS AND ALL OTHER UNDERGROUND SERVICE LINES LOCATED WITHIN EXISTING AND PROPOSED PAVEMENT AREAS OR AS OTHERWISE NOTED ON THE PLAN SHALL BE BACKFILLED TO THE PROPER SUBGRADE WITH SELECTED GRANULAR TRENCH BACKFILL MATERIAL CA-6 CRUSHED LIMESTONE. THE GRANULAR TRENCH MATERIAL SHALL BE PLACED IN LAYERS NO THICKER THAN TWELVE INCHES AND THOROUGHLY COMPACTED IN PLACE ACCORD TO I.D.O.T. STANDARD SPECIFICATIONS METHOD 1. USE CA-7 OPEN GRADED FOR PERFORATED PVC, CATCH BASINS AND INLETS.

2.13 FINAL ADJUSTMENTS OF FRAMES, LIDS AND GRATES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING AND ADJUSTING FRAMES AND GRATES ON MANHOLES, INLETS AND VALVE VAULTS TO THEIR FINISHED ELEVATIONS OR AS DIRECTED BY THE ENGINEER.

2.14 EXISTING STREET CLEANLINESS: THE CONTRACTOR(S) SHALL KEEP EXISTING ADJACENT STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS. CLEAN PAVEMENTS ON A DAILY BASIS OR MORE OFTEN WHEN NECESSARY AS DIRECTED BY THE CITY ENGINEER.

2.15 CONCRETE: ALL CONCRETE USED IN CONSTRUCTING THE IMPROVEMENTS SHALL BE CLASS "SI", SIX (6) BAG MIX, AND SHALL HAVE A COMPRESSIVE STRENGTH OF 3500 PSI AFTER 14 DAYS.

2.16 EXCESS EXCAVATED TRENCH MATERIAL: ANY EXCESS EXCAVATED TRENCH MATERIAL OR EXCESS STRIPPED TOPSOIL SHALL BE SPREAD AS DIRECTED BY THE DEVELOPER.

2.17 UNDERGROUND UTILITY INSPECTION: PRIOR TO THE PLACEMENT OF BACKFILL, THE INSTALLATION OF ALL UNDERGROUND UTILITY LINES SHALL BE INSPECTED AND APPROVED BY THE CITY OF BATAVIA.

2.18 TRENCH SETTLEMENT: ANY TRENCH SETTLEMENT OCCURRING WITHIN ONE YEAR FROM THE TIME OF ACCEPTANCE, WHETHER IT BE BEFORE OR AFTER STREET PAVING HAS BEEN COMPLETED, SHALL BE REPAIRED BY THE CONTRACTOR RESPONSIBLE FOR BACKFILLING THE TRENCHES OR AUGER PITS IN QUESTION. THIS REPAIR SHALL INCLUDE BUT NOT BE LIMITED TO THE COST OF PAVEMENT, CURBS, DRIVEWAYS, TREES AND SIDEWALKS REPLACEMENT CAUSED BY THIS SETTLEMENT.

2.19 EXISTING FIELD TILES: THE LOCATION OF ANY EXISTING FIELD TILES ENCOUNTERED DURING EXCAVATION SHOULD IMMEDIATELY BE FLAGGED INSITE AND MARKED ON THE CONTRACTOR'S RECORD PLAN SET. THE CONTRACTOR SHALL RECONNECT ALL FIELD TILE OR CONNECT FIELD TILE TO THE PROPOSED STORM SEWER SYSTEM IN A MANNER ACCEPTABLE TO THE CITY ENGINEER.

2.20 PRIOR TO ANY REDUCTION IN THE CONSTRUCTION GUARANTEE, THE CITY ENGINEER SHALL CERTIFY THAT THE PROJECT IS "SUBSTANTIALLY COMPLETE."

2.21 FINAL INSPECTION OF THE CONSTRUCTION IMPROVEMENTS SHALL INCLUDE THE CITY ENGINEER, PROJECT ENGINEER, SUBDIVIDER AND CONTRACTOR(S).

2.22 BEFORE ACCEPTANCE BY THE CITY OF BATAVIA AND FINAL PAYMENTS, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS.

2.23 THE CONTRACTOR SHALL PROVIDE AND MAINTAIN COMPREHENSIVE LIABILITY INSURANCE WHICH WILL PROTECT THE CITY OF BATAVIA, ITS OFFICERS, EMPLOYEES, AGENTS AND CONSULTANTS FROM CLAIMS WHICH MAY ARISE OUT OF OR RESULT FROM THE PERFORMANCE OF WORK BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR OR SUBCONTRACTOR, OR BY ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE. COMPREHENSIVE GENERAL LIABILITY INSURANCE COVERAGE SHALL BE AS FOLLOWS: $500,000 PER ACCIDENT FOR PROPERTY; $100,000 PER PERSON AND $300,000 AGGREGATE PER ACCIDENT FOR BODILY INJURY, SICKNESS OR DISEASE, OR DEATH OF ANY PERSON. AS PROTECTION FOR ANY AND ALL CLAIMS BY ANYONE, INCLUDING THE SUBDIVIDER'S CONTRACTORS OR EMPLOYEES WHICH MAY ARISE OUT OF OR RESULT FROM SUBDIVIDER'S WORK OR BY ANYONE FOR WHOSE ACTS THE SUBDIVIDER MAY BE LIABLE. THE INSURANCE POLICY SHOULD NAME THE CITY OF BATAVIA, THEIR OFFICERS, EMPLOYEES AND AGENTS AS ADDITIONAL INSUREDS. THIS CERTIFICATE SHALL STATE THAT THE COVERAGE WILL NOT BE TERMINATED OR REDUCED WITHOUT 30 DAY ADVANCED WRITTEN NOTICE TO THE CITY OF BATAVIA.

2.24 UNLAWFUL ACTIVITIES--DRAINAGE FACILITIES--EARTHEN BERMS: IT IS UNLAWFUL FOR ANY PERSON TO CONSTRUCT OR CAUSE TO BE CONSTRUCTED ANY DRAINAGE FACILITY FOR THE PURPOSE OF THE DETENTION OR RETENTION OF WATER WITHIN A DISTANCE OF 10 FEET PLUS ONE AND ONE-HALF TIMES THE DEPTH OF ANY DRAINAGE FACILITY ADJACENT TO THE RIGHT OF WAY OF ANY PUBLIC HIGHWAY WITHOUT THE WRITTEN PERMISSION OF THE HIGHWAY AUTHORITY HAVING JURISDICTION OVER THE PUBLIC HIGHWAY. IT IS UNLAWFUL FOR ANY PERSON TO CONSTRUCT OR CAUSE TO BE CONSTRUCTED ANY EARTHEN BERM SUCH THAT THE TOE OF SUCH BERM WILL BE NEARER THAN THAN 10 FEET TO THE RIGHT-OF-WAY OF ANY PUBLIC HIGHWAY WITHOUT THE WRITTEN PERMISSION OF THE HIGHWAY AUTHORITY HAVING JURISDICTION OVER THE PUBLIC HIGHWAY.

3. EARTH WORK

WORK UNDER THIS SECTION SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

3.1 CLEARING AND REMOVAL OF ALL UNDESIRABLE TREES AND OTHER VEGETATIVE GROWTH WITHIN THE CONSTRUCTION AREA IS INCIDENTAL. TREE REMOVAL AS DESIGNATED BY THE DEVELOPER AND APPROVED BY THE CITY OF BATAVIA SHALL BE LIMITED TO A MINIMUM. THE CITY OF BATAVIA WILL NOT PERMIT THE ONSITE BURIAL OF TREES, BRUSH, MISC. CONCRETE AND ETC.

3.2 PRIOR TO ONSET OF MASS GRADING OPERATIONS THE EARTHWORK CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SOIL EROSION CONTROL SPECIFICATIONS. THE INITIAL IMPLEMENTATION OF EROSION CONTROL PROCEDURES AND THE PLACEMENT OF FILTER FENCING (SILT FENCING), ETC., TO PROTECT ADJACENT PROPERTIES, SHALL OCCUR BEFORE MASS GRADING BEGINS, IN ACCORDANCE WITH THE SOIL EROSION CONTROL CONSTRUCTION SCHEDULE.

3.3 ALL TESTING, INSPECTION AND SUPERVISION OF SOIL QUALITY, THE REMOVAL AND REPLACEMENT OF UNSUITABLE SOIL AND OTHER SOILS RELATED OPERATIONS SHALL BE ENTIRELY THE RESPONSIBILITY OF THE SOILS ENGINEER. HE OR HIS REPRESENTATIVE WILL CLOSELY SUPERVISE AND INSPECT THE GRADING OPERATIONS, PARTICULARLY DURING REMOVAL OF UNSUITABLE MATERIAL AND THE CONSTRUCTION OF EMBANKMENTS OR BUILDING PADS.

3.4 THE GRADING AND CONSTRUCTION OF THE SITE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORMWATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.

3.5 THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADES. A MINIMUM OF FOUR INCHES (4") INCHES OF TOPSOIL IS TO BE PLACED BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED.

3.6 THE SELECTED STRUCTURAL FILL MATERIAL SHALL BE PLACED IN LEVEL UNIFORM LAYERS SO THAT THE COMPACTED THICKNESS IS APPROXIMATELY SIX INCHES (6"); IF COMPACTION EQUIPMENT DEMONSTRATED TO BE ADEQUATE TO ACHIEVE THE DESIGN THICKNESS, THEN A GREATER THICKNESS MAY BE SPECIFIED. EACH LAYER SHALL BE THOROUGHLY MIXED DURING SPREADING TO INSURE UNIFORMITY.

3.7 EMBANKMENT MATERIAL WITHIN ROADWAY, PARKING LOT AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATIONS D-1557 (MODIFIED PROCTOR METHOD), OR TO OTHER SUCH DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOIL ENGINEER. EMBANKMENT MATERIAL FOR BUILDING PADS SHALL BE COMPACTED TO MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 (MODIFIED PROCTOR METHOD) OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOIL ENGINEER.

3.8 EMBANKMENT MATERIAL (RANDOM FILL) WITHIN NON-STRUCTURAL FILL AREAS SHALL BE COMPACTED TO MINIMUM OF NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 (MODIFIED PROCTOR METHOD).

3.9 THE SURFACE VEGETATION, TOPSOIL AND ANY OBVIOUSLY SOFT UNDERLYING SOIL SHOULD BE STRIPPED FROM ALL AREAS TO BE FILLED WITH CLAY FILL. IF THE UNDERLYING SUBGRADE SOILS RUT DEEPER THEN AN INCH UNDER THE CONSTRUCTION EQUIPMENT OR IF THE MOISTURE CONTENT EXCEEDS THAT NECESSARY FOR PROPER COMPACTION, THEY SHALL BE SCARIFIED, DRIED AND RECOMPACTED TO THE REQUIRED SOIL SPECIFICATIONS. (SEE SECTION 212.03 OF THE I.D.O.T. STANDARD SPECIFICATIONS).

3.10 ALL PAVEMENT SUBGRADE SHALL HAVE A MINIMUM IBR=3 AS DETERMINED BY THE SOILS ENGINEER WITH RESULTS SUBMITTED TO THE CITY ENGINEER. IF AREAS OF PAVEMENT SUBGRADE ARE DISCOVERED WHICH DO NOT PROVIDE A MINIMUM IBR=3, THEN REPLACEMENT OR PAVEMENT DESIGN REVISIONS SHALL BE PROVIDED WHICH ARE ADEQUATE TO OBTAIN EQUIVALENT PAVEMENT STRENGTH, AS DETERMINED BY THE ENGINEER AND SOILS ENGINEER.

3.11 PRIOR TO UTILITY CONSTRUCTION PROPOSED PAVEMENT AREAS, BUILDING PADS, SIDEWALKS AND YARD/OPEN SPACE AREAS SHALL BE ROUGH EXCAVATED OR FILLED TO PLUS OR MINUS ONE FOOT (1') OF DESIGN SUBGRADE ELEVATION BY THE CONTRACTOR.

3.12 THE STREET SUBGRADE SHALL BE SHAPED AND COMPACTED AS SPECIFIED IN SECTION 301 OF THE I.D.O.T. SPECIFICATIONS. JUST PRIOR TO THE CONSTRUCTION OF THE BASE COURSE, THE SUBGRADE SHALL BE PROOF-ROLLED AND WITNESSED BY THE CITY ENGINEER. IF IN THE OPINION OF THE ENGINEER FOR THE CITY ANY SUBGRADE AREAS ARE FOUND TO BE UNSTABLE, THEY SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE GRANULAR MATERIAL. IF PRECIPITATION OCCURS AFTER THE SUBGRADE PROOF-ROLLING AND BEFORE THE CONSTRUCTION OF THE BASE COURSE, THEN SAID SUBGRADE PROOF-ROLLING SHALL BE REPEATED TO VERIFY THAT THE SUBGRADE IS STABLE. IF AREAS OF THE SUBGRADE ARE FOUND TO BE UNSTABLE, THE FOLLOWING REPLACEMENT WITH ACCEPTABLE GRANULAR MATERIALS THE SOILS ENGINEER AND THE CITY ENGINEER SHALL DETERMINE THE CORRECTIVE ACTION.

3.13 GEOTEXTILE PAVING FABRIC REQUIRED ON ALL STREET SUBGRADE APPLICATIONS AND SHALL CONSIST OF A NONWOVEN GEOTEXTILE FABRIC, 12 OZ/SY MINIMUM.

3.14 THE SUBGRADE SHALL MEET MINIMUM STANDARD OF NINETY-FIVE PERCENT (95%) OF THE STANDARD PROCTOR TEST AND SHALL BE TESTED AT 200 FOOT INTERVALS, MINIMUM.

3.15 AGGREGATE BASE COURSE: AFTER APPROVAL BY THE CITY ENGINEER, THE AGGREGATE BASE SHALL BE IN ACCORDANCE WITH SECTION 351 OF THE I.D.O.T. STANDARD SPECIFICATIONS FOR TYPE A OR TYPE B CONSTRUCTION. THE MATERIAL SHALL BE CRUSHED LIMESTONE, AND MEET THE CA-6 GRADATION. THE MINIMUM COMPACTED THICKNESS SHALL BE AS SHOWN ON THE TYPICAL CROSS-SECTION DETAIL. THE AGGREGATE BASE SHALL BE PROOF-ROLLED ONE DAY PRIOR TO PLANNED APPLICATION OF THE PRIME COAT AND BINDER COURSE. IF, IN THE OPINION OF THE CITY ENGINEER THE AGGREGATE BASE IS UNSTABLE, IT SHALL BE REMOVED AND REPLACED WITH NEW SUBBASE AND AGGREGATE BASE MATERIAL AND COMPACTED TO NOT LESS THAN NINETY-FIVE PERCENT (95%) OF THE STANDARD LABORATORY DENSITY.

3.16 STORMWATER DETENTION AREAS: PROPOSED STORMWATER DETENTION AREAS SHALL BE EXCAVATED TO THE LINES, ELEVATIONS AND SLOPES SHOWN ON THE PLANS. AFTER THE AREA HAS BEEN EXCAVATED AND SHAPED TO ROUGH FINISHED GRADES, THE TOPSOIL MATERIAL SHALL BE SPREAD ON ALL AREAS AND GRADED TO FINISHED ELEVATIONS. THE FINISHED SURFACE SHALL THEN BE HYDROSEEDED WITH A CLASS 1 LAWN MIXTURE ACCORDING TO THE I.D.O.T. STANDARD SPECIFICATIONS AND EROSION BLANKET DETENTION WALLS AS SOON AS POSSIBLE AFTER ACCEPTANCE OF THE FINISHED SURFACE AND DETENTION STORAGE REQUIREMENTS. ANY DAMAGE TO THE FINISHED SURFACE AFTER ACCEPTANCE SHALL BE REPAIRED BY CONTRACTOR PRIOR TO THE FINAL SEEDING. EROSION AND PONDING AREAS WITHIN DETENTION SHALL BE COMPLETELY RESTORED PRIOR TO FINAL ACCEPTANCE BY THE CITY.

3.17 AFTER COMPLETION OF ALL UTILITIES IN THE RIGHT OF WAY THE PARKWAYS SHALL BE TOPSOILED AND SEEDED.

4. STORM SEWER CONSTRUCTION

4.1 STORM SEWER SHALL TYPICALLY BE REINFORCED CONCRETE SEWER PIPE, CLASS III OR IV AS NOTED, CONFORMING TO ASTM C-76 SPECIFICATIONS WITH MASTIC SEALED JOINTS. WHERE HORIZONTAL SEPARATION OF WATER MAIN CONTINUE TO FALL SHORT OF WATER MAIN QUALITY SHALL BE USED, WITH JOINTS CONFORMING TO ASTM D-2855. NO ALTERNATE MATERIAL SUCH AS PVC OR ABS PLASTIC PIPE WILL BE CONSIDERED ACCEPTABLE FOR THE MAIN STORM SEWER LINES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER AND THE CITY ENGINEER. UPON REQUEST, THE CONTRACTOR SHALL PROVIDE EACH WITH SUPPLIER'S PRODUCT TEST REPORTS, CATALOG INFORMATION, ALTERNATE BIDS, OR ANY OTHER INFORMATION THEY MAY FIND NECESSARY IN CONSIDERING THE PROPOSED ALTERNATE MATERIAL. THE ACCEPTANCE OF THE PROPOSED ALTERNATE MATERIAL WILL IN NO WAY BE WARRANTED BY THESE SUBMITTALS.

4.2 FRAMES, LIDS AND GRATES DESIGNATED ON THE PLANS FOR STORM SEWER INLETS, MANHOLES AND JUNCTION BOXES SHALL CONFORM TO THE FOLLOWING OR AN APPROVED EQUAL:

CURB INLET	E.J. 7221 TYPE 1 CURB BACK, TYPE M1 GRATE
MANHOLE	E.J. 1020 TYPE M1 OR TYPE A GRATE
YARD INLET	E.J. 6527
JUNCTION BOX	E.J. 1020 TYPE M1 OR TYPE A GRATE

THE WORDS "CITY OF BATAVIA", "STORM" SHALL BE CAST INTO THE LID.

4.3 MANHOLES TYPE "B": MANHOLES DESIGNATED ON THE PLANS AS TYPE "B" ARE SHALLOW DEPTH MANHOLES WITH A REINFORCED CONCRETE FLAT SLAB TOP. THE DEPTH OF THE FLAT SLAB TOP TO BE 6 INCHES.

4.4 EXISTING DRAINAGE SYSTEM CLEANING AND REPAIR: WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES OR SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO INSURE INTEGRITY.

4.5 FINAL CLEANING: PRIOR TO FINAL INSPECTION AND ACCEPTANCE BY THE CITY, ALL STORM SEWER MAINS AND STRUCTURES SHALL BE CLEANED BY JETTING OR OTHER ACCEPTABLE METHODS TO REMOVE ALL CONSTRUCTION DEBRIS OR SEDIMENT. CONSTRUCTION DEBRIS AND SEDIMENT SHALL BE COLLECTED AND NOT ALLOWED TO BE TRANSPORTED TO DOWNSTREAM SEWERS OR STORMWATER FACILITIES.

4.6 POURED INVERTS: ALL INLETS, CATCH BASINS, STORM MANHOLES AND OTHER DRAINAGE STRUCTURES SHALL BE PROVIDED WITH PRECAST CONCRETE INVERTS OR SHALL HAVE POURED IN PLACE CONCRETE INVERTS CONFORMING TO THE SHAPE OF THE PIPE OR AS OTHERWISE SHOWN ON THE PLANS. POURED IN PLACE CONCRETE SHALL BE CLASS "SI" SHAPED AND TROWELED FOR A SMOOTH FINISH.

4.7 SUMP PUMP LINES: SUMP PUMP LINES SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE CONFORMING TO ASTM D-3034. SPECIFICATIONS TYPE, 4" SDR 35. THE MINIMUM COVER DEPTH SHALL BE 2.5' MINIMUM. ALL STUBS SHALL BE EXTENDED INTO LOT 10' MINIMUM, CAPPED, AND LOCATIONS MARKED WITH 2' X 4' POST PAINTED YELLOW.

4.8 SUMP PUMP TEES: THE OUTLETS FOR PVC SUMP PUMP DRAIN LINE CONNECTIONS SHALL BE PROVIDED ON THE RCP MAIN STORM SEWER LINES AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONNECTIONS ON THE RCP SEWER LINES SHALL BE FACTORY MANUFACTURED TEES. AN ACCEPTABLE ALTERNATIVE IS MACHINE CORING AND INSTALLING AN INSERT INTO THE RCP USING THE KOR-N-SEAL OR SIMILAR METHOD ALL IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.

4.9 SUMP PUMP DRAINAGE BOXES: A PRECAST CONCRETE JUNCTION BOX OF THE SIZE AND TYPE SHOWN IN "INLET TYPE A" ON THE PLANS SHALL BE INSTALLED WHERE MULTIPLE SUMP DRAINS FLOW INTO THE RCP STORM SEWER LINE AT A COMMON CONNECTION.

5. SANITARY SEWER CONSTRUCTION

5.1 SEWER PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS EXCEPT AS APPROVED BY THE CITY ENGINEER:

1. BETWEEN DEPTHS OF SIX FEET (6') AND FOURTEEN FEET (14'), PVC PIPE ASTM D-3034 SDR 26 SHALL BE REQUIRED FOR PIPE DIAMETERS UP TO FIFTEEN INCHES (15"); FOR PIPE SIZES OVER FIFTEEN INCH (15"), PVC PIPE ASTM F679 PS115 SHALL BE REQUIRED.

2. FOR DEPTHS SHALLOWER THAN SIX FEET (6') OR DEEPER THAN FOURTEEN FEET (14') PVC PIPE SHALL BE REQUIRED MEETING THE LATEST REQUIREMENTS OF AWWA C900/905, LATEST EDITION. AWWA C900/905 PVC PIPE SHALL BE MINIMUM DR18 WITH PUSH ON JOINTS OR RESTRAINED JOINTS WHERE APPLICABLE. FOR BOTH SHALLOW DEPTH BURIAL AND DEEP BURIAL, DESIGN CALCULATIONS SHALL BE PROVIDED WHICH SHOWS THE REQUIRED WALL THICKNESS BY CONSIDERING THE SOIL CLASS, TRENCH LOAD, AND DEGREE OF BACKFILL COMPACTION.

3. FOR PIPE TWENTY FOUR INCHES (24") AND LARGER, PVC PIPE SHALL BE REQUIRED MEETING THE LATEST REQUIREMENTS OF EITHER ASTM F679 CLASS PS115 (MINIMUM).

5.2 MANHOLE FRAMES AND LIDS: THE FRAMES AND LIDS SHALL BE OF THE NON-ROCKING AND SELF-SEALING TYPE WITH RUBBER WATERTIGHT GASKET AND SHALL CONFORM TO EAST JORDAN NO 1020 OR AN APPROVED EQUAL. THE LIDS TO BE SOLID WITH CONCEALED PICK HOLE AND WITH THE WORDS "CITY OF BATAVIA" AND "SANITARY SEWER" IN THE CAST IN LID. "FAIRBURY", "CANADA" OR APPROVED EQUAL. CHIMNEY SEALS SHALL BE INSTALLED ON ALL SANITARY SEWER MANHOLES.

5.3 SEWER PIPE BEDDING AND COVER: ALL SANITARY SEWER PIPE INCLUDING SERVICE LINES SHALL BE BEDDED AND CRADLED TO THE CENTERLINE OF THE PIPE IN SAND OR FINE GRAVEL. FROM THE CENTERLINE OF THE PIPE TO 12 INCHES OVER THE TOP OF THE PIPE, GRANULAR TRENCH BACKFILL MATERIAL SHALL BE HAND PLACED AND COMPACTED. ALL TO THE DETAILS SHOWN ON THE PLANS. PVC PIPE SHALL BE BEDDED AND CRADLED IN ACCORDANCE WITH ASTM D-2321 (CLASS 1) SPECIFICATIONS. ALL TRENCHES WITHIN STREETS AND FOR SANITARY SEWERS CONSTRUCTED UNDER PROPOSED PAVED AREAS SHALL BE BACKFILLED PRIOR TO SUCH AS CRUSHED STONE, FLOWABLE FILL, IN ACCORDANCE WITH I.D.O.T. SPECIAL PROVISION FOR CONTROLLED LOW-STRENGTH MATERIALS (CLSM) MAY BE REQUIRED UNDER SOME CIRCUMSTANCES AS DIRECTED BY THE DEPT. OF PUBLIC WORKS OR THE CITY ENGINEER. CA-6 CRUSHED STONE TRENCH BACKFILL (95% COMPACTION @ ONE FOOT INTERVALS ACCORDING TO CITY POLICY) OR OTHER SUITABLE TRENCH BACKFILL MAY BE SUBSTITUTED FOR CA-7 UNDER THE FOLLOWING CONDITIONS: 1) WITH THE PRIOR APPROVAL OF THE DEPARTMENT SUPERINTENDENT AND CITY ENGINEER, 2) ON-SITE INSPECTION OF TRENCH BACKFILL WITH ACCEPTANCE.

5.4 SANITARY SEWER SERVICES: SANITARY SEWER STUBS INSTALLED FOR HOUSE SERVICE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS OR THE STANDARD SPECIFICATIONS. SEWER STUBS SHALL BE EXTENDED TO THE R.O.W. THE EXACT LOCATION SHALL BE DETERMINED IN THE FIELD, AND THE CONSTRUCTED LOCATION ACCURATELY RECORDED AND THE END MARKED WITH A 2"X4" POST PAINTED GREEN. SERVICE LINES SHALL HAVE A MINIMUM SLOPE OF 2.0%.

5.5 LEAKAGE TESTING: ALL SANITARY SEWERS SHALL BE TESTED FOR WATERTIGHTNESS BY THE AIR TESTING METHOD SPECIFIED IN THE STANDARD SPECIFICATIONS.

5.6 DEFLECTION TESTING: ALL SANITARY SEWER MAIN CONSTRUCTED OF PVC PIPE SHALL BE TESTED FOR DEFLECTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

5.7 ALL COMPLETED SEWERS SHALL BE INSPECTED USING COLOR CLOSED CIRCUIT TELEVISION CAMERA (CCTV) AND DOCUMENT THE INSPECTION ON A DIGITAL RECORDER. THE CONTRACTOR OR DEVELOPER SHALL HAVE THE LINE TELEVISED. TELEVISING SHALL BE PERFORMED WITH APPROXIMATELY ONE HALF INCH (½") CONTINUAL FLOW IN THE SEWER. ALL INSPECTIONS SHALL BE CAPTURED IN EITHER MPEG OR WINDOWS MEDIA VIDEO (.WMV) FILE FORMAT AND SAVED TO PORTABLE HARD DRIVES FOR SUBMITTAL AND REPAIRS COMPLETED AS NECESSARY, PRIOR TO ACCEPTANCE BY THE SEWER OWNER. THE FINAL INSPECTION VIDEOS PROVIDED SHALL BECOME THE PROPERTY OF THE CITY. ALL WORK WILL CONFORM TO CURRENT NASSCO PIPELINE ASSESSMENT CERTIFICATION PROGRAM (PACP) CODING CONVENTIONS AND ALL SOFTWARE USED BY THE CONTRACTOR WILL BE PACP COMPLIANT.

5.8 VACUUM TESTING: VACUUM TESTING SHALL BE CARRIED OUT IMMEDIATELY AFTER ASSEMBLY AND PRIOR TO BACKFILLING. ALL LIFT HOLES SHALL BE PLUGGED USING PRE-CAST NON-SHRINK GROUT, OR R