

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1441	00-00059-00-BR	KANE	154	4
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

6. SIDEWALK AND CURB CONSTRUCTION

4.8 VACUUM TESTING:
VACUUM TESTING SHALL BE CARRIED OUT IMMEDIATELY AFTER ASSEMBLY AND PRIOR TO BACKFILLING. ALL LIFT HOLES SHOULD BE PLUGGED WITH AN APPROVED NON-SHRINK GROUT OR RUBBER PLUG. NO GROUT WILL BE PLACED IN THE HORIZONTAL JOINTS BEFORE TESTING. ALL PIPES ENTERING THE MANHOLE SHALL BE PLUGGED, TAKING CARE TO SECURELY BRACE THE PLUGS FROM BEING DRAWN INTO THE MANHOLE. A VACUUM OF TEN (10) INCHES OF MERCURY SHALL BE PLACED ON THE MANHOLE AND THE TIME MEASURED FOR THE VACUUM TO DROP TO NINE (9) INCHES OF MERCURY. THE VACUUM SHALL NOT DROP BELOW NINE (9) INCHES OF MERCURY FOR THE FOLLOWING TIME PERIODS FOR EACH SIZE MANHOLE:

FORTY-EIGHT (48) INCHES DIAMETER-- SIXTY (60) SECONDS
SEVENTY-TWO (72) INCHES DIAMETER-- NINETY (90) SECONDS

THE VACUUM TESTER SHALL BE MANUFACTURED BY P.A. GLAZER, INC., WORCESTER, MA. 01613, PHONE (800) 822-6488, OR OTHER TESTING EQUIPMENT MEETING THE SAME STANDARDS, IF APPROVED BY THE CITY DEPARTMENT OF PUBLIC WORKS ALL TESTING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF P.A. GLAZER, INC. IF TESTING FAILS THE CONTRACTOR SHALL SEAL ALL LEAKS WITH MATERIAL AND METHODS RECOMMENDED BY P.A. GLAZER, INC. AND RE-TESTED UNTIL ACCEPTABLE. IT IS RECOMMENDED THAT THIS TESTING BE DONE BEFORE BACKFILLING SO THAT ANY LEAKS CAN BE FOUND AND FIXED EXTERNALLY. THE MANHOLE FRAME AND ADJUSTING RINGS SHALL BE IN PLACE WHEN TESTING. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF SANITARY SEWER.

4.9 MANHOLES:
ALL SANITARY SEWER MANHOLES SHALL BE OF PRECAST CONCRETE CONSTRUCTION, AND SHALL HAVE RUBBER GASKETED COUPLINGS FOR ALL INLET AND OUTLET PIPES. INVERTS SHALL BE PRECAST CONCRETE ON FORMING TO THE SIZE AND SHAPE OF THE SHAPE OF THE PIPE OR POURED IN PLACE CLASS "SI" CONCRETE SHAPED AND TROWELED FOR A SMOOTH FINISH CONFORMING TO THE SIZE AND SHAPE OF THE PIPE. MINIMUM SLOPE ON BENCHES SHALL BE ONE INCH PER FOOT. SEWER DROPS ARE TO BE INSTALLED WHERE INLETS TO MANHOLE ARE GREATER THEN TWO (2) FEET ABOVE THE OUTLET INVERT.

4.10 A NON-SHEAR "MISSION" BRAND COUPLING SHALL BE USED WHEN JOINING PIPES MADE OF DISSIMILAR MATERIAL OR WHERE NO "HUB" END EXISTS. PVC TRANSITION FITTINGS SHALL BE USED WHEN JOINING PVC PIPES OF DISSIMILAR MATERIAL SPECIFICATIONS SUCH AS WITH STORM SEWER OR WATER MAIN. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF SANITARY SEWER.

5. PAVEMENT CONSTRUCTION

5.1 THE PROPOSED BITUMINOUS CONCRETE PAVEMENT SHALL CONSIST OF THE SUB-BASE COURSE, BITUMINOUS BINDER COURSE, AND BITUMINOUS SURFACE COURSE. OF THE THICKNESS AND MATERIALS AS SPECIFIED ON THE CONSTRUCTION PLANS. PRIME COAT SHALL BE APPLIED TO THE SUB-BASE COURSE AT A RATE OF 0.33 GALLONS PER SQUARE YARD. ALL PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.

5.2 AFTER THE INSTALLATION OF THE SUB-BASE COURSE, ALL TRAFFIC SHALL BE KEPT OFF THE BASE UNTIL THE BINDER COURSE IS LAID. AFTER INSTALLATION OF THE BINDER COURSE (AND FOR PUBLIC IMPROVEMENTS AFTER THE BINDER COURSE HAS BEEN IN PLACE FOR ONE WINTER MINIMUM), AND UPON THE COMPLETION OF INSPECTION OF SAME AND APPROVAL BY THE CITY AND DEVELOPER, THE PAVEMENT SHALL BE CLEANED, PRIMED AND THE SURFACE COURSE LAID. ALL DAMAGED AREAS IN THE BINDER BASE OR BINDER SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY AND DEVELOPER PRIOR TO LAYING THE SURFACE COURSE. THE PAVING CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND MANPOWER IS NECESSARY, INCLUDING THE USE OF POWER BROOMS, TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. A TACK COAT SHALL BE APPLIED TO THE BINDER AT A RATE OF 0.1 GALLONS PER SQUARE YARD.

5.3 THE BITUMINOUS CONCRETE BINDER COURSE SHALL CONFORM TO SECTION 406 OF THE IDOT STANDARD SPECIFICATIONS. ALL WORK AND MATERIALS SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECTION 406 OF THE IDOT STANDARD SPECIFICATIONS. THE MINIMUM THICKNESS OF THE COMPLETED BITUMINOUS BINDER COURSE, AS MEASURED AT ANY POINT ON THE PAVEMENT SURFACE, SHALL BE IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DETAILS SHOWN ON THE ENGINEERING PLANS.

5.4 PRIOR TO CONSTRUCTION OF THE FINAL BITUMINOUS SURFACE COURSE ON PREVIOUSLY CONSTRUCTED BITUMINOUS BINDER COURSE SUBJECT TO EXTENDED TRAFFIC USE, A BITUMINOUS TACK COAT SHALL BE APPLIED TO SAID BITUMINOUS BINDER COURSE SURFACE. THE BITUMINOUS CONCRETE SURFACE COURSE SHALL BE CLASS "I" CONSTRUCTED ON PREVIOUSLY PLACED BITUMINOUS BINDER COURSE. THE WORK AND MATERIALS SHALL CONFORM TO APPLICABLE PROVISIONS OF SECTION 406 OF THE STANDARD I.D.O.T. SPECIFICATIONS. THE BITUMINOUS MIXTURE SHALL BE SHOWN ON THE PLANS OR SPECIFIED IN THE PROJECT SPECIFICATIONS AND APPROVED BY THE CITY ENGINEER. NO RECYCLED BITUMINOUS MATERIAL WILL BE PERMITTED IN THE FINAL BITUMINOUS SURFACE COURSE MIXTURE UNLESS APPROVED BY THE CITY ENGINEER. THE MINIMUM THICKNESS OF THE FINAL COMPLETED BITUMINOUS SURFACE COURSE, AS MEASURED AT ANY POINT ON THE PAVEMENT SURFACE, SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS SHOWN ON THE PLANS.

5.5 THE CONTRACTOR SHALL GUARANTEE THE PAVEMENT FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST SETTLEMENT, LOW SPOTS, AND/OR RAVELING OUT OF SURFACE. THE CONTRACTOR SHALL MAKE ANY REPAIRS NECESSARY DURING THE GUARANTEE PERIOD TO MAINTAIN THE FINISHED PAVEMENT IN SATISFACTORY CONDITION. REPAIR SHALL INCLUDE BUT NOT BE LIMITED TO REMOVING DEFECTIVE PAVEMENT AND REPLACING WITH NEW PAVEMENT AS DIRECTED BY THE CITY ENGINEER.

5.6 SUB-BASE GRANULAR MATERIAL, TYPE A SHALL HAVE WATER MECHANICALLY BLENDED INTO IT AT A CENTRAL MIX PLANT PRIOR TO TRANSPORTING TO THE PROJECT IN ACCORDANCE WITH ARTICLE 311.05 OF THE STANDARD SPECIFICATIONS.

6.1 COMBINATION CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE I.D.O.T. STANDARD SPECIFICATIONS. THE CONCRETE CURB AND GUTTER SHALL BE TYPE B6.12 UNLESS DETAILED OTHERWISE IN THE CONSTRUCTION PLANS. THE CONTRACTOR IS CAUTIONED TO REFER TO THE CONSTRUCTION STANDARDS AND THE PAVEMENT CROSS-SECTION TO DETERMINE THE GUTTER FLAG THICKNESS AND THE AGGREGATE BASE COURSE THICKNESS BENEATH THE CURB AND GUTTER. THE CONCRETE SHALL BE CLASS "SI". IT SHALL HAVE AN AIR CONTENT OF NOT LESS THAN 5% NOR MORE THAN 7% OF THE VOLUME OF THE CONCRETE. IT SHALL DEVELOP A MINIMUM OF 3,500 PSI COMPRESSIVE STRENGTH AT 14 DAYS. TEST CYLINDERS SHALL BE TAKEN AND THE CERTIFIED COMPRESSION TEST RESULTS SUBMITTED TO THE CITY ENGINEER.

6.2 REINFORCING BARS SHALL BE RUN CONTINUOUSLY THROUGH ITS LENGTH, EXCEPT AT EXPANSION JOINTS. AT EACH EXPANSION JOINT PROVIDE TWO 18" LONG NO. 6 SMOOTH BARS WITH EXPANSION CAPS AND 1/4" PREMOLDED, NON-EXTRUDING JOINT FILLER. EXPANSION JOINTS ARE TO BE PROVIDED AT ALL RADIUS POINTS, 5' TO 10' EITHER SIDE OF STRUCTURES AND 100' INTERVALS. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF CURB AND GUTTER.

6.3 CONTRACTION JOINTS SHALL BE SAWED AT A MAXIMUM OF TEN FEET (10') SPACING. THE CONTRACTION JOINTS SHALL BE CUT IN THE UPPER 1/3 OF CURBS AND GUTTERS WITHIN 24 HOURS OF PLACEMENT. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF CURB AND GUTTER.

6.4 ALL CURB AND GUTTER SHALL BE BROOM FINISHED. FINISHED SURFACES OF ALL NEWLY CONSTRUCTED CURB AND GUTTER SHALL BE COATED WITH ANTI-SPALL AND CURING COMPOUND APPROVED BY THE CITY ENGINEER. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF CURB AND GUTTER.

6.5 CURING AND PROTECTION OF ALL EXPOSED CONCRETE SURFACES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. NO HONEY-COMBING OF THE CURB AND GUTTER WILL BE ACCEPTED.

6.6 BACKFILLING OF CURBS SHALL BE COMPLETED PRIOR TO PLACEMENT OF ROADWAY BASE-COURSE. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF CURB AND GUTTER.

6.7 SIDEWALKS SHALL BE FIVE INCHES (5") THICK EXCEPT THRU DRIVEWAYS, HANDICAP RAMPS AND WHERE THE SIDEWALK IS ADJACENT TO CURB THE THICKNESS IS TO BE SIX INCHES (6"). THE WIDTH OF THE SIDEWALK SHALL BE A MINIMUM OF FIVE FEET (5'). ALL SIDEWALK CONCRETE SHALL DEVELOP A MINIMUM OF 3,500 PSI COMPRESSIVE STRENGTH AT 14 DAYS. CONTRACTION JOINTS SHALL BE SET AT 5 FOOT CENTERS WITH 1/4" PREMOLDED FIBER EXPANSION JOINTS AT 50 FEET CENTERS, AND WHERE SIDEWALK MEETS THE CURB, A BUILDING, OR ANOTHER SIDEWALK OR AT THE END OF EACH POUR. ALL SIDEWALKS SHALL BE BROOM FINISHED. IF A MANHOLE FRAME FALLS WITHIN THE LIMITS OF A SIDEWALK, A BOX-OUT SECTION SIDEWALK SHALL BE PLACED AROUND FRAME WITH A 1/2" EXPANSION JOINT.

6.8 HANDICAP SIDEWALK RAMPS SHALL BE INSTALLED AT ALL SIDEWALK/STREET INTERSECTIONS AS SHOWN ON DETAIL.

6.9 SIDEWALK SHALL NOT BE PLACED UNTIL BUILDING CONSTRUCTION HAS BEEN COMPLETED TO THE POINT THAT CONSTRUCTION TRAFFIC NEED NO LONGER CROSS THE SIDEWALK AREA, OR AS OTHERWISE DIRECTED BY THE ENGINEER.

7. RESTORATION AND LANDSCAPING

7.1 ALL EXCAVATED MATERIALS FOR CURBS OR WALKS TO BE REMOVED FROM SITE. THIS SPOIL IS NOT TO BE USED AS BACKFILL. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF CURBS AND WALKS.

7.2 CUT EDGE OF EXCAVATION AWAY TO ALLOW FOR PROPER COMPACTION.

7.3 BACKFILL ALL OVER-DUG OR EXCAVATED AREAS MANUALLY OR MECHANICALLY WITH PULVERIZED TOPSOIL. SOURCE TO BE APPROVED BY CITY ENGINEER OR ENGINEERS REPRESENTATIVE

7.4 COMPACT PULVERIZED TOPSOIL IN 4" TO 6" LIFTS MINIMIZING SETTLEMENT TO ENGINEER'S APPROVAL.

7.5 MANUALLY FEATHER PULVERIZED TOPSOIL INTO EXISTING GRADES BEHIND NEW CURBS OR WALKS OR BOTH SIDE OF EXCAVATION FOR PUBLIC IMPROVEMENTS APPROXIMATELY 2' TO 4' FEET IN FRONT OF AND BEHIND OR AS DIRECTED TO CREATE A SMOOTH AND CONSISTENT MAINTAINABLE SURFACE. (NOTE: ON LARGER PROJECTS THIS MAY BE DONE MECHANICALLY BUT IN ALL CASES WHEN WORK IS NEXT TO EXISTING TURF FINISH WORK MUST BE MANUALLY RAKED)

7.6 SEED BLENDS:
A) LOW SALT IMPACT AREAS:
EQUAL QUANTITIES OF 2 VARIETIES OF IMPROVED KENTUCKY BLUE GRASS (98/85)
50% EQUAL QUANTITIES OF 2 VARIETIES OF TURF TYPE PERENNIAL RYE GRASS (98/90)
B) HIGH SALT IMPACT AREAS:
USE CLASS 1a SALT TOLERANT "IDOT" BLEND WITH 1/2 RATE OF LOW SALT IMPACT AREA BLEND

7.7 SEED TO BE INSTALLED EVENLY AT A RATE OF 6-8 LBS. PER 1000 SQ. FT. THIS MAY BE ACCOMPLISHED MECHANICALLY OR MANUALLY. SEED TO BE RAKED IN OR LIGHTLY COVERED IN A METHOD APPROVED BY CITY ENGINEER OR ENGINEERS REPRESENTATIVE.

7.8 WITHIN 48 HRS. SEEDED AREAS TO BE COVERED MANUALLY WITH CHOPPED WHEAT STRAW. ON LARGE AREAS THIS MAY BE ACCOMPLISHED MECHANICALLY WITH AN APPROVED STRAW BLOWER. WHEAT STRAW TO COVER SEEDED AREAS SO AS NOT TO SMOOTHER NEWLY GERMINATING SEED. MAX 1" DEPTH.

7.9A IMMEDIATELY UPON COMPLETION OF STRAW PLACEMENT A LIGHT COVERING OF ADHESIVE TREATED HYDROMULCH TO BE INSTALLED TO HOLD STRAW IN PLACE.

7.9B ALL MATERIALS, WORK METHOD, EQUIPMENT AND SCHEDULING OF WORK TO BE APPROVED BY CITY ENGINEER OR ENGINEERS REP. PRIOR TO COMMENCEMENT OF LANDSCAPE RESTORATION WORK.

8. STORM SEWER CONSTRUCTION

8.1 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 FROM WATER MAIN CONTROLS, PVC STORM SEWER OF WATER MAIN QUALITY SHALL BE USED, WITH JOINTS CONFORMING TO ASTM D-2855. NO ALTERNATE PIPE MATERIAL, SUCH AS PVC OR ADS PLASTIC, ETC., SHALL 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.

8.2 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. 7220 TYPE 1 CURB BACK, TYPE M1 GRATE
MANHOLE E.J. 1020 FRAME & SOLID LID
THE WORDS "CITY OF BATAVIA" & "STORM" SHALL BE CAST INTO THE LID.

YARD INLET E.J. 6527
JUNCTION BOX E.J. 1020 TYPE M1 OR TYPE A GRATE

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

8.4 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.

8.5 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. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF STORM SEWER.

8.6 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. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF STORM SEWER.

8.7 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.

8.8 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.

8.9 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.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

LOCATION(S):	WILSON STREET			
MIXTURE USE(S):	SURFACE	LEVELING	TEMP PAVEMENT	BIKE TRAIL SURFACE
PG:	PG 64-22	PG 64-22	PG 58-22	PG 64-22
RAP % (MAX)	10	10	50	15
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	2.0% @ Ndes=50	4.0% @ Ndes=50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL-12.5 OR IL-9.5	IL-9.5	IL-19.0 OR IL-25.0	IL-12.5 OR IL-9.5
FRICTION AGGREGATE	MIXTURE D			MIXTURE C
MIXTURE WEIGHT:	112.0 LB/SQ YD/IN			112.0 LB/SQ YD/IN

9. WATER MAIN CONSTRUCTION

9.1 PIPE MATERIAL:
ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE, CLASS 52, OR 54 OR AS OTHERWISE SHOWN ON THE PLANS AND SHALL BE CEMENT LINED HALF THICKNESS. JOINTS SHALL BE PUSH-TYPE UNLESS OTHERWISE SHOWN ON THE PLANS. NO ALTERNATE PIPE MATERIAL, SUCH AS PVC PLASTIC, ETC., SHALL BE CONSIDERED ACCEPTABLE WITHOUT THE WRITTEN CONSENT OF THE CITY ENGINEER, AND ALL PUBLIC BODIES HAVING JURISDICTION. UPON REQUEST, THE CONTRACTOR SHALL PROVIDE THE CITY AND ENGINEER WITH SUPPLIER'S PRODUCT TEST REPORTS, CATALOG INFORMATION, ALTERNATE BIDS OR ANY OTHER INFORMATION THAT THE CITY AND ENGINEER MAY FIND NECESSARY IN CONSIDERING THE ALTERNATE MATERIAL. THE ACCEPTANCE OF THE PROPOSED ALTERNATE WILL IN NO WAY BE WARRANTED BY THESE SUBMITTALS.

9.2 MAIN FITTINGS:
ALL WATER MAIN FITTINGS SHALL BE DUCTILE IRON PIPE FITTINGS, CLASS 52, WITH MECHANICAL JOINTS. FITTINGS AND SPECIALS SHALL BE EITHER CAST IRON OR DUCTILE IRON AND SHALL CONFORM TO ANSI A21.10 (AWWA C-110). JOINTS SHALL BE MECHANICAL JOINT IN ACCORDANCE WITH ANSI A21.11 (AWWA C-111 AND AWWA C-600). FITTINGS AND SPECIALS SHALL BE BITUMINOUS (SEAL) COATED ON THE EXTERIOR AND CEMENT-MORTAR LINED ON THE INTERIOR IN ACCORDANCE WITH ANSI A21.4 (AWWA C-104). FITTINGS AND SPECIALS SHALL BE FURNISHED AND INSTALLED WITH ACCESSORIES NECESSARY FOR A COMPLETE AND OPERATING INSTALLATION. MEGA-LUG RETAINER GLANDS SHALL BE USED ON ALL OFF-SET FITTINGS.

9.3 VALVE VAULT FRAMES AND LIDS:
FRAMES AND LIDS FOR VALVE VAULTS SHALL CONFORM TO EAST JORDAN CASTING NO. 1020 OR APPROVED EQUAL. THE WORDS "CITY OF BATAVIA" AND "WATER" SHALL BE CAST INTO THE LIDS.

9.4 FIRE HYDRANT ASSEMBLY:
FIRE HYDRANTS SHALL HAVE A 6-INCH DIAMETER BARREL AND SHALL BE OF THE TYPE STANDARD WITH THE CITY WHICH ARE LIMITED TO MUELLER, CLOW OR WATERLOO. THE FIRE HYDRANT ASSEMBLY SHALL CONSIST OF: MAIN LINE TEE, CONNECTING 6-INCH PIPE 6-INCH AUXILIARY GATE VALVE WITH CAST IRON BOX, CONNECTING RODS, AND HYDRANT WITH BREAKAWAY FLANGE AND BRONZE TO BRONZE SEATING, AND ALL OTHER WORK AND MATERIALS FOR A COMPLETED INSTALLATION. ALL BELOW GROUND LEVEL NUTS BOLTS ARE TO BE STAINLESS STEEL. ALL HYDRANTS SHALL HAVE TWO COATS OF PAINT MATCHING THE THE CITY OF BATAVIA COLOR (see detail sheet). HYDRANTS SHALL HAVE HYDRANT LOCATORS PER CURRENT CITY POLICY.

9.5 MINIMUM COVER:
ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 5.5 FEET AND A MAXIMUM OF 10' UNLESS APPROVED BY THE CITY ENGINEER MEASURED FROM PROPOSED FINISHED GROUND LINE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THIS MINIMUM DEPTH OF COVER.

9.6 GATE VALVES:
THE CONTRACTOR SHALL FURNISH AND INSTALL RESILIENT WEDGE GATE VALVES CONFORMING TO (AWWA C-509) AND SHALL BE MUELLER, WATERLOO, CLOW OR APPROVED EQUAL. VALVES TO BE INSTALLED IN A VALVE VAULT AS SHOWN ON THE PLANS. ALL NUTS AND BOLTS ON VALVE ARE TO BE STAINLESS STEEL. MEG-A-LUGS SHALL BE USED. INTERIOR OF VALVE SHALL BE COATED WITH A RESINOUS OR POLYMERIC COATING CONFORMING TO AWWA C-550. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DELIVERY OF VALVES TO CONSTRUCTION SITE. SUBMITTAL WILL INCLUDE CATALOGUE DATA, WEIGHT, INFORMATION, ASSEMBLY DRAWINGS, AFFIDAVIT OF COMPLIANCE, AND RECORDS OF THE FOLLOWING TESTS: OPERATION TEST, SHELL TEST, SEAL TEST, HYDROSTATIC TEST, TORQUE TEST, LEAKAGE TEST AND PRESSURE TEST AS SET FORTH IN AWWA C-509.

9.7 REINFORCED CONCRETE THRUST BLOCKS:
USE OF THRUST BLOCKS SHALL BE LIMITED TO FIRE HYDRANT INSTALLATIONS AS NOTED ON DETAIL DRAWING. MEG-A-LUGS TO BE USED FOR ALL OTHER THRUST RESTRAINTS.

9.8 POLYETHYLENE ENCASEMENT TUBING:
THE CONTRACTOR SHALL FURNISH AND INSTALL POLYETHYLENE ENCASEMENT TUBING FOR ALL DUCTILE IRON PIPE. POLYETHYLENE ENCASEMENT TUBING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH ANSI A21.5 (AWWA C-105), SHALL BE CLASS "C" POLYETHYLENE MATERIAL, AND SHALL BE INSTALLED EITHER BY "METHOD A" OR "METHOD B" AS LISTED IN ANSI A21.5 SPECIFICATIONS.

9.9 SERVICE PIPE AND FITTINGS:
WATER SERVICE PIPE INSTALLED FOR HOUSE SERVICES SHALL BE MINIMUM 1-INCH DIAMETER COPPER PIPE, TYPE "K" CONFORMING TO ASTM B-88 AND B-281 SPECIFICATIONS. FITTINGS SHALL BE BRONZE AND OF THE COMPRESSION TYPE.

9.10 CORPORATION AND CURB STOPS:
WATER SERVICE STOPS SHALL BE OF BRASS, AND OF THE TYPE THAT IS STANDARD WITH THE CITY MUELLER H-15000.

9.11 TAPPING VALVE AND SLEEVE:
TAPPING VALVES AND SLEEVES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE SIZE SHOWN ON THE PLANS. TAPPING VALVES SHALL CONFORM TO AWWA SPECIFICATION C509, RESILIENT WEDGE GATE VALVES. TAPPING VALVES AND SLEEVES SHALL BE INSTALLED IN PRECAST CONCRETE VAULTS OF THE SIZE AND TYPE SHOWN ON THE PLAN. ALL TAPPING TEES SHALL BE STAINLESS STEEL UNLESS THE TAP IS THE SAME DIAMETER AS THE PIPE BEING TAPPED, OR GREATER THAN OR EQUAL TO 12" DIAMETER, IN WHICH CASE THE TAPPING TEE SHALL BE IRON.

9.12 LEAKAGE TESTING AND DISINFECTING:
ALL WATER MAINS SHALL BE TESTED FOR LEAKAGE UNDER PRESSURE AND BE DISINFECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO THE SATISFACTION OF THE CITY OF BATAVIA WATER DEPARTMENT. THIS WILL BE CONSIDERED AS INCLUDED IN THE COST OF WATER MAIN.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION WILSON STREET
NAME	DATE	
		GENERAL NOTES AND COMMITMENTS

SCALE: NTS
DATE 07/28/2006
DRAWN BY RVM
CHECKED BY AKK