

**GENERAL NOTES AND CONSTRUCTION SPECIFICATIONS
VILLAGE OF GLENDALE HEIGHTS**

Revised 3/97

MISCELLANEOUS

1. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 1997 AND ALL SUBSEQUENT REVISIONS AND THE "SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", FIFTH EDITION DATED MAY 1996 AND ALL SUBSEQUENT REVISIONS, AND THE VILLAGE CODE OF GLENDALE HEIGHTS. IN CASE OF CONFLICT THE VILLAGE CODE SHALL TAKE PRECEDENCE.
2. CODES OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY TITLE 35, AND O.S.H.A. SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.
3. ALL REQUIRED PERMITS FROM THE PROPER GOVERNING AGENCY SHALL BE OBTAINED FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHEETING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE AGENCY, AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC.
4. BOTH THE COMMUNITY DEVELOPMENT DEPARTMENT (CALL 260-6030) AND PUBLIC SERVICES DEPARTMENT (CALL 260-6040) SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION OF VARIOUS PUBLIC IMPROVEMENTS. THIS INCLUDES ALL STREET AND DRAINAGE IMPROVEMENT CONSTRUCTION AND/OR TESTING WATER MAIN AND SANITARY SEWER IMPROVEMENT CONSTRUCTION AND/OR TESTING.
5. ALL UTILITY COMPANIES (GAS, ELECTRIC, TELEPHONE, CABLE, ETC.) AND THE VILLAGE SHALL BE NOTIFIED TO DETERMINE THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION IN ORDER TO AVOID CONFLICTS. (PHONE J.U.L.I.E. AT: 1-800-892-0123).
6. EASEMENTS FOR EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS PREPARED BY THE PROJECT ENGINEER ACCORDING TO INFORMATION

AVAILABLE FROM PUBLIC RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND FOR THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE UTILITY OWNER BY THE CONTRACTOR.
8. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.
9. FIELD CHECK ALL DIMENSIONS, COORDINATES, AND ELEVATIONS BEFORE PROCEEDING WITH NEW WORK. NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
10. ALL PROPERTY MARKERS AND REFERENCE MARKERS SHALL BE CAREFULLY PRESERVED DURING CONSTRUCTION UNTIL THEIR LOCATION HAS BEEN WITNESSED OR OTHERWISE TIED IN BY AN AUTHORIZED AGENT OR SURVEYOR.
11. THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS SHALL BE PROVIDED WHERE OPERATIONS ABUT PUBLIC THROUGH-FARES AND ADJACENT PROPERTY.
12. ANY AREA OUTSIDE THE PROPERTY LINE USED BY THE GENERAL OR SUB-CONTRACTORS SHALL BE RETURNED TO THE STATE IT WAS FOUND PRIOR TO NEW CONSTRUCTION, EXCEPT WHERE NEW WORK IS SHOWN.
13. ALL PUBLIC R.O.W. SHALL BE RESTORED WITH 4" TOP SOIL AND SODDING.
14. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, THE FOLLOWING METHOD SHALL BE USED:
 - A. CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP": MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.
15. ALL FLOOR DRAINS SHALL BE CONNECTED TO THE SANITARY SEWER. ALL FOOTING DRAINS AND DOWNSPOUTS SHALL DISCHARGE ONTO THE GROUND OR INTO THE STORM SEWER SYSTEM.

16. ALL SANITARY SEWERS, WATERMAINS AND STORM SEWERS MUST BE PLACED ON PROPERLY COMPACTED BEDDING. BEDDING MATERIAL SHALL BE PLACED A MINIMUM OF 4 INCHES THICK UNDER THE BARREL OF THE PIPE AND FOR PVC PIPE MATERIAL SHALL BE EXTENDED 6" OVER THE TOP OF PIPE. BEDDING MATERIAL SHALL BE CRUSHED GRAVEL OR STONE MEETING GRADATION CA-6.
17. TRENCH BACKFILL MATERIAL (CA-6 CRUSHED STONE) SHALL BE PLACED TO EITHER THE SPRINGLINE OF THE PIPE OR HALF THE DIAMETER OF THE PIPE AND COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR DENSITY (A.S.T.M. D-1557) OVER ALL UNDERGROUND UTILITIES WHICH ARE CONSTRUCTED UNDER, OR WITHIN 2 FEET OF, ANY PROPOSED OR EXISTING PAVEMENT, PARKING LOTS, SIDEWALKS, CURB, OR OTHER STRUCTURE.
18. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.
19. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, DRIVE, ETC.) OR TOPSOIL AS SHOWN.
20. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS AS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.
21. ALL TOP OF FRAMES FOR STORM AND SANITARY SEWERS AND VALVE VAULT COVERS ARE TO BE ADJUSTED TO MEET FINAL FINISH GRADE.
22. BEFORE INITIAL ACCEPTANCE BY THE OWNER/VILLAGE, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER AND VILLAGE OR HIS REPRESENTATIVES. THE CONTRACTOR SHALL GUARANTEE HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE AND SHALL BE HELD RESPONSIBLE FOR ANY DEFECTS IN MATERIAL OR WORKMANSHIP OF THIS WORK DURING THAT PERIOD AND UNTIL FINAL ACCEPTANCE IS MADE.
23. ALL MATERIAL SHALL BE NEW WITH PRODUCTION DATES NOT MORE THAN ONE YEAR OLD AT INSTALLATION DATE.

IEPA WATER MAIN PROTECTION

(FROM STATE OF ILLINOIS RULES AND REGULATIONS TITLE 35)

WATER MAINS:

1. HORIZONTAL SEPARATION:

- A) WATER MAINS SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER OR SEWER SERVICES CONNECTION.
- B) WATER MAINS MAY BE LAID CLOSER THAN TEN FEET TO A SEWER LINE WHEN:
 - 1) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN FEET;
 - 2.) THE WATER MAIN INVERT IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER; AND
 - 3.) THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.
- C) BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING THE REQUIREMENTS OF SECTION 653.111 WHEN IT IS IMPOSSIBLE TO MEET (A) OR (B) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.

2. VERTICAL SEPARATION:

- A) A WATER MAIN SHALL BE LAID SO THAT ITS INVERT IS 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANCE FROM THE SEWER OR DRAIN.
- B) BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING REQUIREMENTS OF SECTION 653.111 WHEN:
 - 1) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (A) ABOVE; OR
 - 2) THE WATER MAIN PASSES UNDER A SEWER OR DRAIN.
- C) A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A

SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.

- D) CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET.

WATERMAIN CONSTRUCTION

1. ALL WATERMAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, FIFTH EDITION, DATED MAY, 1996 AND REVISIONS THERETO, THE SPECIAL PROVISIONS, THE NOTES IN THE PLANS, AND IN ACCORDANCE WITH CODES AND ORDINANCES OF THE GOVERNING AUTHORITIES. IN CASE OF CONFLICT, VILLAGE CODE SHALL GOVERN.
2. WATER MAINS: WATER MAIN SHALL BE LAID IN ACCORDANCE WITH DIVISION IV, SECTION 41 OF THE "STANDARD SPECIFICATIONS". SURPLUS EXCAVATED MATERIALS FROM THE TRENCH WILL BE DISPOSED OF BY THE CONTRACTOR. PIPE WILL BE LAID WITH A MINIMUM AND MAXIMUM COVER OF FIVE AND ONE-HALF (5 1/2) FEET FROM THE PROPOSED FINISH GRADE INDICATED ON THE PLANS OR TO THE SPECIFIC GRADE INDICATED ON THE PLANS FOR THE WATER MAIN. NO BERMS ALLOWED OVER WATERMAINS. A TIGHT PLUG SHALL BE PLACED IN THE END OF THE PIPE AT THE END OF EACH CONSTRUCTION DAY.
3. PIPE SHALL BE DUCTILE IRON, CLASS 52, CONFORMING TO THE REQUIREMENTS OF DIVISION IV, SECTION 40-2.02 OF THE "STANDARD SPECIFICATIONS", CENTRIFUGALLY CAST WITH STD. THICKNESS CEMENT LINING (AWWA STD.112). JOINTS WILL COMPLY WITH THE PROVISIONS OF DIVISION IV, SECTION 41-2.05B OR SECTION 41-2.05C OF THE "STANDARD SPECIFICATIONS". ALL FITTINGS MUST EMPLOY AMERICAN MADE DUCTILE IRON RETAINER GLANDS OR CAST-IN-PLACE P.C.C. THRUST BLOCKING. **NO FOREIGN MATERIAL WILL BE ALLOWED.**
4. THRUST BLOCKING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 41-2.09 OF THE "STANDARD SPECIFICATIONS".
5. FIRE HYDRANTS: THIS WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF DIVISION IV, SECTION 45 OF THE "STANDARD SPECIFICATIONS". ALL FIRE HYDRANTS SHALL BE MUELLER CENTURION, OR KENNEDY GUARDIAN 5 1/4" VALVE OPENING WITH NATIONAL STANDARD THREADS WITH 4 1/2" PORT AND 2 1/2" PORTS AND WITH BREAKAWAY TRAFFIC FLANGES AND SHALL BE DESIGNED FOR A MINIMUM OF FIVE AND ONE-HALF (5 1/2) FEET OF COVER. THE BASE ELBOW OF THE HYDRANT SHALL BE PROPERLY THRUST BLOCKED AND SHALL BE

PROVIDED WITH CLEAN WASHED STONE AND A POLYETHYLENE COVERING.

6. ALL FIRE HYDRANTS SHALL BE FURNISHED AND INSTALLED COMPLETE WITH A SIX (6) INCH AUXILIARY VALVE AND CAST IRON VALVE BOX. VALVES SHALL BE RESILIENT VALVE BOXES SHALL BE CLOW F-2454 WITH CLOW F-2495 COVERS OR APPROVED EQUAL. FIRE HYDRANTS TO BE PAINTED "SAFETY" YELLOW.

WATER SERVICES AND SERVICE CONNECTIONS:

1. ALL FITTINGS SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY, DECATUR, ILLINOIS, CONFORMING WITH THE FOLLOWING:

	NUMBER
CORPORATION STOP	H-15000
CURB STOP (MINNESOTA TOP)	H-15154
CURB BOX (BUFFALO TYPE) 100-F	H-10302

2. SERVICE BOX SHALL BE OF SUFFICIENT LENGTH TO PERMIT THE TOP TO BE INSTALLED APPROXIMATELY 3" ABOVE FINISH GRADE. EACH SERVICE BOX SHALL BE PROVIDED WITH A CAP WITH THE WORD "WATER" CAST IN THE TOP. B. BOX TO BE INSTALLED AT THE RIGHT OF WAY (R.O.W).
3. DIMENSIONALLY TIE IN THE ENDS OF ALL SERVICES BY MEASUREMENTS TO LOT CORNERS AND FURNISH A COPY OF SUCH TIE-INS TO THE PROJECT ENGINEER FOR THE PREPARATION OF RECORD "AS-BUILT" DRAWINGS.
4. MARK AT THE LOCATION OF ALL SERVICE BOXES INSTALLED A 2" X 4" WOOD POST AT LEAST SIX (6) FEET IN LENGTH. THE POST SHALL BE BURIED NEXT TO THE SERVICE BOX WITH APPROXIMATELY THREE (3) FEET OF ITS LENGTH EXPOSED. THE EXPOSED PORTION OF THE STAKE SHALL BE PAINTED BLUE.
5. FURNISH AND INSTALL GRANULAR TRENCH BACKFILL IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE IMPROVEMENT PLANS AT ALL LOCATIONS WHERE TRENCHES FOR WATER SERVICE LINES ARE WITHIN AREAS TO BE PAVED.
6. VALVES AND VALVE BOXES OR VAULTS: THIS WORK SHALL BE IN ACCORDANCE WITH DIVISION IV, SECTION 42 OF THE "STANDARD SPECIFICATIONS".
7. VALVES SHALL CONFORM TO THE STANDARDS OF THE LATEST AWWA C500, AND SHALL HAVE MECHANICAL JOINT ENDS. VALVES SHALL BE

RESILIENT. TAPPING SLEEVES SHALL BE ALL STAINLESS STEEL WITH A STAINLESS STEEL FLANGE OR ALL DUCTILE IRON.

8. ALL VALVES UNDER 10" DIAMETER SHALL BE INSTALLED IN VALVE VAULTS HAVING A MINIMUM DIAMETER OF FOUR (4) FEET BELOW THE CONCENTRIC CONE SECTION. THE VAULTS SHALL BE CONSTRUCTED OF PRECAST CONCRETE RINGS AND SHALL CONFORM TO DETAILS IN PLANS TOGETHER WITH THE MODIFICATIONS SPECIFIED, AS INDICATED ON THE DETAIL IN THE PLANS. ALL VALVE VAULTS SHALL BE LEAK PROOF. ALL VALVES 10" DIAMETER AND LARGER SHALL BE IN A FIVE (5) FOOT DIAMETER VALVE VAULT.
9. MANHOLE STEPS IN THE VALVE VAULTS WILL BE REQUIRED.
10. PRECAST CONCRETE ADJUSTING RINGS ARE NOT TO EXCEED 12" INCHES IN OVERALL HEIGHT AND SHALL BE USED IF AN ADJUSTMENT TO THE FINISHED GRADE ESTABLISHED BY THE PROJECT ENGINEER IS NECESSARY.
11. TESTING FOR ACCEPTANCE OF WATER MAIN: REQUIRED TESTS - WATER MAINS SHALL BE TESTED FOR ACCEPTABILITY BY CONDUCTING A HYDROSTATIC PRESSURE TEST AND A BACTERIOLOGICAL TEST IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS" AND THE REQUIREMENTS OF THE VILLAGE.
12. ALL TEMPORARY CONNECTIONS FOR CONSTRUCTION PURPOSES TO NEWLY INSTALLED OR EXISTING WATER MAINS SHALL BE MADE AND METERED IN ACCORDANCE WITH GLENDALE HEIGHTS PUBLIC WORKS DEPARTMENT REQUIREMENTS.
13. ALL WATERMAIN MUST BE POLY-WRAPPED.

SANITARY SEWER CONSTRUCTION

1. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, FIFTH EDITION, DATED MAY, 1996, AND REVISIONS THERETO, THE SPECIAL PROVISIONS, THE NOTES IN THE PLANS, AND IN ACCORDANCE WITH CODES AND ORDINANCES OF THE GOVERNING AUTHORITIES. IN CASE OF CONFLICT, VILLAGE CODE SHALL GOVERN.
2. ALL TRENCHES RESULTING FROM THE CONSTRUCTION OF WATERMAIN AND SEWER AND SERVICE PIPE SHALL BE BACKFILLED WITH COMPACTED TRENCH BACKFILL ACCORDING TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

3. SEWER CONSTRUCTION - PIPE SEWERS: ALL WORK SHALL CONFORM TO THE PROVISIONS OF THE STANDARD SPECIFICATIONS EXCEPT AS SAME MAY BE MODIFIED BY THE FOLLOWING: CONSTRUCTION SHALL COMMENCE AT THE EXISTING MANHOLES AS SHOWN ON THE PLANS. A TIGHT PLUG SHALL BE PLACED AND LEFT IN PLACE AT THE POINT OF COMMENCEMENT UNTIL THE BALANCE OF THE SEWERS HAVE BEEN COMPLETED AND CHECKED AND ARE READY FOR ACCEPTANCE. ALL WATER FROM THE TRENCH AND PIPELINES ABOVE THE MANHOLES WILL BE PUMPED OUT BY THE CONTRACTOR AND DISPOSED OF IN SUCH A MANNER THAT IT WILL NOT INTERFERE OR DAMAGE THE WORK OF THIS OR OTHER CONTRACTORS. PUMPING SHALL BE CONTINUOUS (24 HOURS A DAY, SEVEN DAYS A WEEK) AS LONG AS SUFFICIENT WATER COLLECTS TO WARRANT THIS. STORM SEWERS IN THE AREA MAY BE USED TO DISPOSE OF THE WATER COLLECTED, IF APPROVED BY THE VILLAGE.
4. BEFORE BACKFILLING LATERAL TRENCHES A GREEN TIPPED 2" X 4" POST WILL BE SET AT THE UPPER END OF EACH LATERAL EXTENDING FROM THE BOTTOM OF THE TRENCH TO A POINT THREE (3) FEET ABOVE THE GROUND SURFACE. IN ADDITION, THE CONTRACTOR IS REQUIRED TO RECORD THE LOCATION OF ALL TEES OR WYES IN THE MAIN SEWER AND FURNISH THE PROJECT ENGINEER THIS INFORMATION. THE CONTRACTOR SHALL LOCATE THE ENDS OF ALL SERVICES BY MEASUREMENTS TO LOT CORNERS AND SHALL FURNISH A COPY OF SUCH LOCATIONS TO THE PROJECT ENGINEER. THIS INFORMATION SHALL ALSO INCLUDE THE DEPTH OF THE ENDS OF EACH SERVICE. IF THE CONTRACTOR FAILS TO PROPERLY LOCATE ANY SEWER STUB, HE SHALL BE RESPONSIBLE FOR ALL COSTS WHICH ARE INCURRED AS A RESULT OF THE IMPROPERLY LOCATED STUB.
5. ALL SANITARY SEWER PIPE SHALL BE PVC PIPE CONFORMING TO ASTM DESIGNATION D-3034-73 SDR 26 OR AN APPROVED EQUAL. ALL PVC PIPE SHALL BE FURNISHED WITH FACTORY MANUFACTURED JOINTS UTILIZING A RUBBER RING LOCKED IN THE BELL OF THE PIPE. ALL PVC PIPE IN CLOSE PROXIMITY TO A WATERMAIN SHALL BE PRESSURE PIPE.
6. GRANULAR TRENCH BACKFILL FOR SERVICE LINES: THE CONTRACTOR SHALL FURNISH AND INSTALL GRANULAR TRENCH BACKFILL IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE IMPROVEMENT PLANS AT ALL LOCATIONS WHERE TRENCHES FOR SANITARY SEWER LINES ARE WITHIN AREAS TO BE PAVED.
7. SANITARY SEWER SERVICES SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS IN THE PLANS, AND THE EXACT LOCATION OF EACH SHALL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS OF SANITARY SEWER SERVICES AT THE COMPLETION OF CONSTRUCTION.

8. SANITARY SEWER SERVICE PIPE SHALL BE CONNECTED TO SANITARY SEWER MAIN BY WYE CONNECTIONS IN ALL INSTANCES.
9. MANHOLES FOR SANITARY SEWERS: PRECAST CONCRETE MANHOLES SHALL BE PROVIDED FOR THIS IMPROVEMENT, CONFORMING TO THE APPLICABLE PORTIONS OF DIVISION III, SECTION 32 OF THE STANDARD SPECIFICATIONS AND THE DETAILS IN THE PLANS. IN ADDITION, A FLEXIBLE TYPE JOINT SHALL BE FURNISHED AT POINTS OF ENTRY INTO AND EXIT FROM MANHOLE STRUCTURES OF DESIGN APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. THIS FLEXIBLE JOINT MAY CONSIST OF A SLEEVE OF HIGH QUALITY SYNTHETIC RUBBER WITH A SUBSTANTIAL SERRATED FLANGE WHICH IS CAST DIRECTLY INTO THE WALL OF THE MANHOLE BASE TO FORM A TIGHT WATERSTOP AND PROTRUDES OUTSIDE OF THE MANHOLE WALL TO CONNECT WITH THE PIPE ENTERING/EXITING THE MANHOLE. WHEN THIS TYPE OF FLEXIBLE JOINT IS USED, THE SLEEVE SHALL SLIP OVER THE END OF THE PIPE ADJACENT TO THE MANHOLE BASE AND SHALL BE SECURED BY MEANS OF A STAINLESS STEEL STRAP CLAMP EQUIPPED WITH A DRAW BOLT AND NUT. SANITARY MANHOLE OUTSIDE SURFACES TO BE DOUBLE COATED WITH BITUMINOUS PAINT.
10. ALL ADJUSTMENTS NECESSARY SHALL BE MADE WITH PRECAST CONCRETE ADJUSTING RINGS NOT TO EXCEED A MAXIMUM OF TWELVE (12) INCHES OVERALL IN HEIGHT. BUTYROPE JOINT SEALANT SHALL BE USED ON ALL JOINTS BETWEEN THE PRECAST ELEMENTS.
11. AFTER FINAL ADJUSTMENTS HAVE BEEN MADE, ALL JOINTS IN PRE-CAST STRUCTURES SHALL BE MORTARED. THE MORTAR SHALL BE COMPOSED OF ONE PART CEMENT TO (3) PARTS SAND, BY VOLUME, BASED ON DRY MATERIALS AND SHALL BE THOROUGHLY WETTED BEFORE LAYING.
12. SANITARY SEWER MANHOLES SHALL BE 4' IN DIAMETER UNLESS OTHERWISE NOTED IN THE PLANS.
13. TESTING FOR ACCEPTANCE OF SANITARY SEWERS: UPON COMPLETION OF THE SANITARY SEWER SYSTEM, INCLUDING THE SERVICE LINES, ALL SEWERS WILL BE TESTED, AND WITNESSED BY THE VILLAGE, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 31-1.11 OF THE "STANDARD SPECIFICATIONS" WITH METHODS **A**, **D**, AND **E** TO BE USED.

STORM DRAIN CONSTRUCTION

1. ALL STORM DRAIN CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS, AS ADOPTED JANUARY 1, 1997, AND REVISIONS THERETO, THE NOTES IN THE PLANS, THE SPECIAL PROVISIONS, AND THE VILLAGE REQUIREMENTS. IN CASE OF CONFLICT, VILLAGE CODE SHALL GOVERN.

2. MANHOLES, CATCH BASINS AND INLETS: THESE ITEMS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION OF THE STANDARD ILLINOIS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND IN ACCORDANCE WITH THE DETAILS CONTAINED IN THESE ITEMS.
3. NO MORE THAN 12" OF ADJUSTING RINGS SHALL BE PERMITTED ON MANHOLE, CATCH BASIN AND INLET STRUCTURES, AND NO MORE THAN **ONE** 2" ADJUSTING RING.
4. UNLESS OTHERWISE INDICATED IN THE PLANS, STORM DRAIN PIPE 12" IN DIAMETER AND LARGER SHALL BE REINFORCED CONCRETE PIPE, CLASS III, CONFORMING TO ASTM DESIGNATION C-76. 10" STORM DRAIN SHALL BE REINFORCED CONCRETE PIPE, CLASS V.
5. ALL STORM DRAINS THAT FALL WITHIN PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR TRENCH BACKFILL ACCORDING TO ILLINOIS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
6. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT.

SEDIMENTATION AND EROSION CONTROL

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES MUST COMPLY WITH THE LATEST EDITION OF THE DUPAGE COUNTYWIDE STORMWATER ORDINANCE AS ADOPTED BY THE VILLAGE.

SITE GRADING AND ROADWAY

1. ALL SITE WORK, GRADING, AND PAVING OPERATIONS, AND ALL ROADWAY AND STREET CONSTRUCTION WITHIN THE LIMITS OF THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS, AS ADOPTED **JANUARY 1, 1997** AND ALL REVISIONS THERETO, WITH THE "SPECIAL PROVISIONS" AND WITH THESE CONSTRUCTION NOTES AND IN ACCORDANCE WITH VILLAGE CODE. IN CASE OF CONFLICT, VILLAGE CODE SHALL GOVERN.
2. EARTH EXCAVATION SHALL INCLUDE CLEARING, STRIPPING, AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE

CONSTRUCTION OF EMBANKMENTS, NON-STRUCTURAL FILLS, FINAL SHAPING AND TRIMMING TO THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECTION 200 OF THE STANDARD SPECIFICATIONS. ALL UNSUITABLE OR EXCESS MATERIAL SHALL BE DISPOSED OF ON LOW AREAS OF THE SITE SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER IN THE FIELD.

3. TOPSOIL EXCAVATED SHALL BE STOCKPILED ON THE SITE IN AREAS DESIGNATED BY THE PROJECT ENGINEER UNTIL SUCH TIME THAT THIS TOPSOIL CAN BE USED FOR FINAL GRADING.
4. THE SOILS INVESTIGATION REPORT FOR THE SITE AND ALL ADDENDA THERETO ARE SUPPORTING DOCUMENTS TO THE PERMIT FOR THE PROJECT. THE RECOMMENDATIONS AS STATED IN SAID REPORT ARE HEREBY INCORPORATED INTO THESE CONSTRUCTION NOTES BY REFERENCE AND SHALL BE FOLLOWED BY ALL CONTRACTORS. THE GRADING OPERATIONS ARE TO BE CLOSELY SUPERVISED AND INSPECTED, PARTICULARLY DURING THE REMOVAL OF UNSUITABLE MATERIAL AND THE CONSTRUCTION OF EMBANKMENTS OR BUILDING PADS, BY THE SOILS ENGINEER OR HIS REPRESENTATIVE. FURTHER CONSTRUCTION OPERATIONS WILL NOT BE PERMITTED UNTIL THE SOILS ENGINEER ISSUES A WRITTEN STATEMENT THAT THE AREA IN QUESTION HAS BEEN SATISFACTORILY PREPARED AND IS READY FOR CONSTRUCTION.
5. ALL TESTING, INSPECTION AND SUPERVISION OF SOIL QUALITY, UNSUITABLE SOIL REMOVAL AND ITS REPLACEMENT AND OTHER SOILS RELATED OPERATIONS SHALL BE ENTIRELY THE RESPONSIBILITY OF THE OWNER.
6. THE CONTRACTOR SHALL USE CARE IN GRADING NEAR TREES, SHRUBS, AND BUSHES WHICH ARE NOT TO BE REMOVED SO AS NOT TO CAUSE INJURY TO ROOTS OR TRUNKS.
7. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH ARE NOT INDICATED TO BE REMOVED. ANY DAMAGE DONE TO THESE EXISTING ITEMS BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE.
8. UNSUITABLE MATERIAL ENCOUNTERED IN EXCAVATING FOR ROADWAY SUBGRADES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO THE LIMITS APPROVED BY THE PROJECT ENGINEER.
9. REMOVED DRIVEWAY PAVEMENT, SIDEWALK, CURBS, CURB AND GUTTER, SHALL BE DISPOSED OF AT LOCATIONS PROVIDED BY THE CONTRACTOR. LOCATION OF DISPOSAL AREAS SHALL BE APPROVED.

10. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE, AND, IF DAMAGED, SHALL BE REPLACED PROMPTLY TO MEET STATE AND VILLAGE, STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.
11. ALL CONCRETE POURED ON PUBLIC PROPERTY SHALL BE THE TYPE SPECIFIED IN ARTICLE 1020 OF THE STANDARD SPECIFICATIONS.
12. ALL CURBS CONSTRUCTED OVER A UTILITY TRENCH SHALL BE REINFORCED WITH 2 - #4 REBARS FOR A LENGTH OF 20' CENTERED OVER TRENCH. SIDEWALKS SHALL BE TREATED IN THE SAME MANNER USING 3 - #6 REBARS.
13. THE GRADING AND CONSTRUCTION OF THE STREET IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.
14. THE SLOPE OF A DRIVEWAY APPROACH SHALL NOT EXCEED TEN PERCENT (10%). DRIVEWAYS SHALL BE CONSTRUCTED SO AS NOT TO IMPEDE THE SURFACE DRAINAGE SYSTEM.
15. TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION. STANDARDS SHALL BE INSTALLED AND PROVIDED WHENEVER CONSTRUCTION FOR UTILITIES ARE WITHIN STREET AREAS. ALSO, ORDINANCES OF THE CITY, COUNTY OR STATE SHALL GOVERN THE TRAFFIC CONTROL.
16. STREET LIGHTS OF THE TYPE SPECIFIED SHALL BE INSTALLED WHERE INDICATED ON THE PLANS. ALL STREET LIGHTING INCLUDING UNDERGROUND SERVICE CABLE, MATERIALS, EQUIPMENT, AND METHODS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE VILLAGE SPECIFICATIONS AND THE SPECIAL PROVISIONS.
17. ALL ROAD SIGNS, STREET SIGNS AND TRAFFIC SIGNS WHICH NEED TO BE RELOCATED OR MOVED DUE TO CONSTRUCTION SHALL BE TAKEN DOWN AND STORED BY THE CONTRACTOR. EXCEPT THOSE WHICH THE PROJECT ENGINEER SHALL DEEM NECESSARY FOR PROPER TRAFFIC CONTROL, WHICH SHALL BE TEMPORARILY RESET UNTIL COMPLETION OF CONSTRUCTION OPERATIONS. AFTER COMPLETION OF THE WORK THE CONTRACTOR SHALL RESET ALL SAID SIGNS.
18. ALL EXISTING SIGNS AND LIGHT STANDARDS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND NOT NOTED FOR REMOVAL AND DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.