

GENERAL

1. THE CONTRACTOR SHOULD BE AWARE THAT THE INSTALLATION OF THE SANITARY SEWER AND/OR WATER LINE MAY REQUIRE THE REMOVAL AND REPLACEMENT OF PAVEMENT, DRAINAGE PIPE, AND GRANULAR BACKFILL. THE LABOR AND MATERIAL COSTS ARE TO BE INCLUDED IN THE UNIT PRICES BID UNDER ITEM 801, SEE SPEC SECTIONS 801.03, 801.07, 801.08 AND ITEM 901, SEE SPEC SECTIONS 901.03, 901.08 AND 901.09.
2. PRICES BID PER FOOT FOR ALL PIPE IS COMPLETE IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS.
3. EXISTING UTILITIES SHOWN ARE FROM BEST AVAILABLE RECORDS AND FIELD INVESTIGATIONS, AND ARE NOT NECESSARILY COMPLETE OR EXACT. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION AND SHALL MAKE ADJUSTMENTS IN ELEVATIONS TO PROVIDE SUFFICIENT CLEARANCE BETWEEN THE PROPOSED AND EXISTING UTILITIES FOR TRADITIONAL AND TRENCHLESS CONSTRUCTION METHODS. UTILITY SERVICES BROKEN OR DAMAGED SHALL BE REPAIRED AT ONCE TO AVOID INCONVENIENCE TO CUSTOMERS. STORM SEWERS SHALL NOT BE INTERRUPTED OVERNIGHT. THE CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) THREE WORKING DAYS PRIOR TO WORK EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS.
4. THE SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS OF THE PORTAGE COUNTY WATER RESOURCES DEPARTMENT TOGETHER WITH THE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED HEREIN, IN FORCE AT THE TIME OF CONTRACT, SHALL GOVERN THIS PROJECT. SANITARY SEWER CONNECTIONS AND WATER LINE CONNECTIONS SHALL BE GOVERNED BY PORTAGE COUNTY RULES AND REGULATIONS AND MUST BE INSPECTED BY THE PORTAGE COUNTY WATER RESOURCES DEPARTMENT (PCWR) OR AUTHORIZED REPRESENTATIVE. FORTY-EIGHT HOURS ADVANCE NOTICE OF WORK SHALL BE GIVEN FOR THE SCHEDULING OF AN INSPECTOR.
5. THE CONTRACTOR SHALL BASE HIS PROJECTED WORK SCHEDULES UPON THE FOLLOWING CRITERIA:
 - A. CONSTRUCTION HOURS SHALL BE FROM 8:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY.
 - B. THE FOLLOWING GOVERNMENT HOLIDAYS SHALL BE OBSERVED BY THE CONTRACTOR:
 1. NEW YEARS DAY
 2. MARTIN LUTHER KING DAY
 3. PRESIDENT'S DAY
 4. MEMORIAL DAY
 5. JUNETEENTH
 6. INDEPENDENCE DAY
 7. LABOR DAY
 8. COLUMBUS DAY
 9. VETERAN'S DAY
 10. THANKSGIVING DAY
 11. THANKSGIVING DAY AFTER
 12. CHRISTMAS DAY
6. ALL CONSTRUCTION SHALL CONFORM TO THE DEPT. OF LABOR, BUREAU OF LABOR STANDARDS SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND THE CONTRACT WORK HOURS AND SAFETY ACT. (CHAPTER XVII TITLE C&R, PART 1926 AND ALL ADDITIONS AND REVISIONS).

SOIL BORES

NO TEST BORINGS WERE TAKEN AS PART OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL TAKE ALL BORINGS HE DEEMS NECESSARY. AT LEAST 48 HOUR NOTICE MUST BE GIVEN TO THE OWNER, AND THE LOCATION OF ALL TEST HOLES IS SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM DIGGING THESE HOLES AND HE SHALL RESTORE ALL PROPERTY TO A CERTAIN SIMILAR OR EQUAL TO THE CONDITION THAT EXISTED BEFORE SUCH DIGGING WAS DONE. THE CONTRACTOR SHALL NOTE ALL DEWATERING, SHEETING, ETC. WHICH SHALL BE REQUIRED FOR CONSTRUCTION DUE TO SOIL AND WATER CONDITIONS. COST FOR DEWATERING, SHEETING, ETC., SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF RESPECTIVE ITEMS. ANY FOUNDATION CRUSHED ANGULAR STONE REQUIRED SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF RESPECTIVE ITEMS.

ROAD PERMITS

APPLICABLE ROAD PERMITS HAVE BEEN INCLUDED IN THE SPECIAL CONSTRUCTION REQUIREMENTS AND SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT. ANY COST FOR LABOR, EQUIPMENT, MATERIAL, ETC., TO COMPLY WITH THESE PERMITS SHALL BE INCLUDED IN THE PRICES BID. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE EXISTING RIGHT-OF-WAYS, CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE OWNER. THE CONTRACTOR SHALL BE SURE THAT ALL PERMITS REQUIRED TO OPEN CUT ROADS HAVE BEEN OBTAINED FROM THE GOVERNING LOCAL, COUNTY OR STATE DEPARTMENT PRIOR TO COMMENCEMENT OF WORK.



PORTAGE COUNTY WATER RESOURCES

GENERAL WATER & SEWER NOTES

04-01-2023

GN-1

APPROVED DATE

STORM SEWER

1. THE CONTRACTOR SHALL REPLACE/REPAIR ALL EXISTING STORM SEWERS AND CATCH BASINS DISTURBED AS A RESULT OF THIS PROJECT. ANY STORM SEWERS UNDERNEATH ROADWAYS AND DRIVEWAYS SHALL BE ODOT AND PCWR APPROVED PIPE SECTIONS. STORM SEWERS REPLACED WITHIN YARDS SHALL BE NON-PERFORATED HI-Q HDPE DUAL WALLED, CORRUGATED EXTERIOR, SMOOTH INTERIOR, STORM DRAINAGE PIPE BY HANCOR OR PCWR APPROVED EQUAL. ALL WORK SHALL BE PER ODOT ITEM 611 REQUIREMENTS. THIS WORK IF REQUIRED SHALL BE INCLUDED IN THE PRICE BID UNDER ITEM 901, SANITARY SEWER COMPLETE IN PLACE.
2. ALL STORM INLET STRUCTURES SHALL BE PROTECTED FROM SILT INFILTRATION. ALL STORM INLET STRUCTURES SHALL BE PROTECTED WITH GEOTEXTILE INLET PROTECTION FABRIC TO PREVENT SILT FROM ENTERING STORM SYSTEM.

TREE REMOVAL & PROTECTION

RIGHT-OF-WAY: ALL TREES, STUMPS, BRUSH, SHRUBS, AND BUSHES WHOSE TRUNK IS LOCATED WITHIN THE LIMITS OF ROADWAY RIGHT OF WAY SHALL BE CUT DOWN, REMOVED AND LEGALLY DISPOSED OF BY THE CONTRACTOR, REGARDLESS OF INSTALLATION METHODS; TO INCLUDE TRENCHLESS DRILLING CONSTRUCTION. TREE STUMPS OUTSIDE OF THE TRENCH EXCAVATION LIMITS AND WITHIN FIELD OR WOODED AREAS MAY REMAIN BUT SHALL BE CUT FLUSH WITH THE GROUND ELEVATION. TREE STUMPS WITHIN LAWN YARD AREAS SHALL BE GROUND AND REMOVED TO 6" BELOW THE GROUND ELEVATION. TREES, STUMPS, BRUSH, SHRUBS, AND BUSHES SHALL BE REMOVED WITHIN THE RIGHT-OF-WAY REGARDLESS OF TRENCHLESS DRILLING CONSTRUCTION INSTALLATION METHODS USED BY THE CONTRACTOR. THE CONTRACTOR SHALL SAVE AND PROTECT ALL TREES OUTSIDE OF THE RIGHT-OF-WAY. WHEN PROTECTED TREES HAVE LIMBS PROTRUDING INTO THE RIGHT-OF-WAY AND IN CONFLICT WITH CONSTRUCTION EQUIPMENT, THE PROPERTY OWNER MAY GRANT PERMISSION TO PRUNE. THE CONTRACTOR SHALL GET APPROVAL FOR ALL TREE PRUNING FROM THE PCWR CONSTRUCTION ENGINEER. THE CONTRACTOR COSTS TO PERFORM ALL OF THIS DESCRIBED WORK WITHIN THE RIGHT-OF-WAY IS INCLUDED IN THE COST OF THE VARIOUS BID ITEMS.

EASEMENT: ALL TREES, STUMPS, BRUSH, SHRUBS, AND BUSHES WHOSE TRUNK IS LOCATED WITHIN THE PERMANENT EASEMENT SHALL BE CUT DOWN, REMOVED AND LEGALLY DISPOSED OF BY THE CONTRACTOR. TREE TRUNKS AND LIMBS OF 6" DIAMETER AND GREATER SHALL BE CUT TO 18" LENGTHS, SAVED AND OFFERED TO THE PROPERTY OWNER. IF THE PROPERTY OWNER DOES NOT WANT THE WOOD, THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL AND DISPOSE OFF THE SITE. TREE STUMPS OUTSIDE OF THE TRENCH EXCAVATION LIMITS AND WITHIN FIELD OR WOODED AREAS MAY REMAIN BUT SHALL BE CUT FLUSH WITH THE GROUND ELEVATION. TREE STUMPS WITHIN LAWN YARD AREAS SHALL BE GROUND AND REMOVED TO 6" BELOW THE GROUND ELEVATION. TREES, STUMPS, BRUSH, SHRUBS, AND BUSHES SHALL BE REMOVED WITHIN THE PERMANENT EASEMENT REGARDLESS OF TRENCHLESS DRILLING CONSTRUCTION INSTALLATION METHODS USED BY HE CONTRACTOR. THE CONTRACTOR SHALL SAVE AND PROTECT ALL TREES OUTSIDE OF THE PERMANENT EASEMENT. WHEN PROTECTED TREES HAVE LIMBS PROTRUDING INTO THE PERMANENT EASEMENT AND IN CONFLICT WITH CONSTRUCTION EQUIPMENT, THE PROPERTY OWNER MAY GRANT PERMISSION TO PRUNE. THE CONTRACTOR SHALL GET APPROVAL FOR ALL TREE PRUNING FROM THE PCWR CONSTRUCTION OR DESIGN ENGINEER. THE CONTRACTOR COSTS TO PERFORM ALL OF THIS DESCRIBED WORK WITHIN THE PERMANENT EASEMENT IS INCLUDED IN THE COST OF THE VARIOUS BID ITEMS.

ROADWAYS & DUST CONTROL

1. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE OHIO AND FEDERAL MANUALS OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL THOROUGHLY CLEAN OFF ALL ROADS OF ANY DIRT OR DEBRIS DAILY AND SHALL UTILIZE DUST CONTROL AS NECESSARY OR AS REQUESTED BY THE ENGINEERING INSPECTOR.
3. ALL DISTURBED UTILITIES, SIGNS, GUARD RAIL, MAIL AND/OR PAPER BOXES, ROADWAYS AND DRIVEWAYS SHALL BE PUT TEMPORARILY IN SERVICE AT THE END OF EACH WORK DAY, UNTIL PERMANENT REPAIRS CAN BE COMPLETED. THE CONTRACTOR SHALL REPLACE ALL DAMAGED SIDEWALKS AND DECORATIVE ISLANDS WITHIN GRANTED WORK EASEMENTS.



PORTAGE COUNTY WATER RESOURCES

GENERAL WATER & SEWER NOTES

04-01-2023

APPROVED DATE

GN-2

SANITARY SEWERS

1. THE COST OF PLUMBING, REROUTING AND DIVERTING ALL WATER AND SEWAGE BYPASS PUMPING DURING CONSTRUCTION SHALL BE INCLUDED FOR PAYMENT IN THE VARIOUS SEWER PAY ITEMS.
2. GRAVITY SEWERS SHALL HAVE REINFORCED FLEXIBLE ADAPTERS WITH STAINLESS STEEL SHEAR BAND AND HARDWARE AT CONNECTIONS OF DISSIMILAR PIPE. CONCRETE COLLARS ARE NOT ACCEPTABLE.
3. ALL CONSTRUCTION SHALL CONFORM TO THE DEPT. OF LABOR, BUREAU OF LABOR STANDARDS SAFETY AND HEALTH REGULATIONS FOR THE CONSTRUCTION AND THE CONTRACT WORK HOURS AND SAFETY ACT. (CHAPTER XVII TITLE C&R, PART 1926 AND ALL ADDITIONS AND REVISIONS).
4. ALL WATER AND SANITARY OR STORM SEWER CROSSINGS SHALL HAVE AN EIGHTEEN INCH (18") MINIMUM VERTICAL SEPARATION OUTSIDE DIAMETER (O.D.) TO (O.D.) ALL WATER AND SANITARY OR STORM SEWER SHALL HAVE A TEN FOOT (10') MINIMUM HORIZONTAL SEPARATION (O.D.) TO (O.D.). ALL WATER LINES CROSSING OTHER UTILITIES SHALL HAVE A TWELVE INCH (12") MINIMUM VERTICAL SEPARATION (O.D.) TO (O.D.) AND FOUR FOOT (4') MINIMUM HORIZONTAL CLEARANCE SEPARATION (O.D.) TO (O.D.).
5. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE STRICTLY PROHIBITED.
6. NO BRICK MANHOLE CONSTRUCTION WILL BE PERMITTED. MANHOLE CASTING AND COVER TO BE INDENTED SOLID TOP DESIGN WITH HIDDEN PICKHOLES. ALL LIDS TO BE LABELED "PORTAGE COUNTY WATER RESOURCES SANITARY SEWER", CASTING SHALL BE NEENAH R-1783-A WITH EXTRA HEAVY DUTY TYPE "B" LID (TOTAL WEIGHT APPROX. 470#) OR EAST JORDAN IRON WORKS CASTING 1522 WITH TYPE "A" LID. WHERE LABELED "WATERTIGHT" ON PLANS, LIDS SHALL BE SEALED WITH A NEOPRENE GASKET AND FOUR (4) 5/16" DIA. STAINLESS STEEL BOLTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING 2" DIAMETER PVC MARKERS OR 3"x3" HARDWOOD LUMBER, PER SM-7, PAINTED BLUE FOR WATER AND GREEN FOR SANITARY SEWER AT ALL MANHOLES, CLEAN-OUTS, AIR RELEASE VALVE PITS, LINE VALVES, ETC. ON CROSS-COUNTRY SEWER LINES. INCLUDE A GPS NORTHING, EASTING AND ELEVATION READING ON ALL REFERENCED ITEMS ABOVE. AFTER LATERAL WYE BRANCH, RISER AND CONNECTION HAVE BEEN INSTALLED, THE END OF THE CONNECTION SHALL BE SEALED WITH AN AIR TIGHT SPIGOT CAP OR AIR TIGHT PLUG AND THE CAP OR PLUG. THE END OF THE SANITARY CONNECTION SHALL BE MARKED WITH A 3"x 3" HARDWOOD STAKE, EXTENDING VERTICALLY FROM THE END OF THE CONNECTION TO A POINT APPROX. 3' ABOVE THE SURFACE OF THE GROUND.
8. LEAKAGE TEST FOR MANHOLES - VACUUM TESTING OF CONCRETE SEWER MANHOLES SHALL BE TESTED (IAW) IN ACCORDANCE WITH ASTM C-1244-11. LEAKAGE TEST FOR SEWERS - EITHER WATER OR VACUUM AIR TEST SHALL BE CONDUCTED TO SHOW EXFILTRATION OR INFILTRATION NOT TO EXCEED 100 GALLONS PER INCH DIAMETER PER MILE PER DAY, AND A MINIMUM POSITIVE HEAD OF 2 FEET. AIR TESTING SHALL CONFORM TO ASTM F-1417-11A FOR PLASTIC PIPE. DEFLECTION TESTS FOR FLEXIBLE PIPE - NO PIPE SHALL EXCEED A DEFLECTION OF 5 PERCENT. ALL INSPECTION AND TESTING SHALL BE DONE BY AN EXPERIENCED AND QUALIFIED FIRM ENGAGED IN THIS TYPE OF WORK, AS APPROVED BY PCWR. WRITTEN REPORTS FOR ALL INSPECTION AND TESTING SHALL BE SUBMITTED TO PCWR FOR APPROVAL. ALL SANITARY SEWERS MUST BE FLUSHED AND PASS THE LATEST PROPOSED LOW PRESSURE AIR TEST REQUIREMENTS AND DEFLECTION TEST REQUIREMENTS OF THE OEPA. ALL FINAL TESTING AND INSPECTIONS SHALL BE PERFORMED AFTER COMPLETION OF CONSTRUCTION AND SEEDING OF DISTURBED AREAS. IF THE INSTALLATION FAILS TO MEET THE REQUIREMENTS OF THESE TESTS AND INSPECTIONS, THE CONTRACTOR SHALL REPAIR ALL DEFECTS AND RETEST THE INSTALLATION WITH NO ADDITIONAL COST TO THE COUNTY. ALL SANITARY SEWERS MUST BE FLUSHED AND CCTV'D FOR FINAL APPROVAL.
9. EACH SECTION OF FORCE MAIN SHALL BE SUBJECTED TO A HYDROSTATIC TEST OF 50 PSI AT THE HIGH END OF THE PIPE OR TWICE THE WORKING PRESSURE WHICHEVER IS THE GREATER. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE. THE ALLOWABLE LEAKAGE PER 1000 FEET OF FORCE MAIN PER HOUR SHALL COMPLY WITH PORTAGE COUNTY STANDARDS SPECS SECTION 920.06.
10. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING SEWERAGE SYSTEM RESULTING FROM NON-CONFORMANCE WITH PCWR STANDARDS OR GENERAL NEGLIGENCE. ALL REPAIRS OR REPLACEMENTS MUST CONFORM TO PCWR STANDARDS.



PORTAGE COUNTY WATER RESOURCES

GENERAL WATER & SEWER NOTES

04-01-2023

APPROVED DATE

GN-3

11. TWELVE (12") INCH GRADE ADJUSTMENT OF MANHOLES PERMITTED WITH CONCRETE GRADE RINGS. MAXIMUM ADJUSTMENT NOT TO EXCEED 12 INCHES. MINIMUM OF ONE GRADE RING REQUIRED.
12. WHERE INLET AND OUTLET PIPES CONNECT TO MANHOLES A FLEXIBLE WATERTIGHT JOINT AS APPROVED BY PCWR IS REQUIRED.
13. THE GRAVITY SEWER AND FORCE MAIN SEWER SHALL CONFORM TO THE MATERIAL TYPES AS NOTED IN THE PLANS AND PROJECT SPECIFICATIONS. ALL NONMETALLIC PIPE SHALL INCLUDE THE INSTALLATION OF A TRACE WIRE. WATER TRACE WIRE SHALL BE #12 AWG STEEL-COPPER COMPOSITE WIRE WITH 45 MIL HIGH DENSITY POLYETHYLENE EXTERIOR COATING, 21% IACS CONDUCTIVITY, BLUE IN COLOR, AND HAVE 1,030 POUND MINIMUM BREAK LOAD. SEWER TRACE WIRE SHALL BE #12 AWG STEEL-COPPER COMPOSITE WIRE WITH 45 MIL HIGH DENSITY POLYETHYLENE EXTERIOR COATING, 21% IACS CONDUCTIVITY, GREEN IN COLOR, AND HAVE 1,030 POUND MINIMUM BREAK LOAD.
14. THE PREFERRED MINIMUM COVER FOR SANITARY SEWERS CONSTRUCTED UNDER A ROAD IS FIVE FEET (5'). UNDER NO CIRCUMSTANCES SHALL THE COVER FOR ANY SANITARY SEWER BE LESS THAN FOUR FEET (4').
15. SANITARY SEWER LATERALS ARE TO BE SIX INCH (6") DIAMETER AT A GRADE OF 1.0% UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE PCWR CONSTRUCTION ENGINEER. A MINIMUM OF FOUR FOOT (4') COVER IS TYPICAL. ALL LATERALS SHALL MAINTAIN AN EIGHTEEN INCH (18") VERTICAL AND TEN FOOT (10') HORIZONTAL SEPARATION FROM ALL WATER LINES AND STORM SEWER UNLESS THE LATERAL IS CONSTRUCTED USING (D.I.P) DUCTILE IRON PIPE CLASS 53. ALL NEW LATERALS SHALL ENTER THE NEW SEWER PIPE AT A 45° ANGLE. NO LATERAL SHALL DROP AT A 90° ANGLE INTO THE SEWER PIPE.
16. PLACE PLUGS IN ENDS OF UNCOMPLETED CONDUIT AT THE END OF EACH DAY OR WHENEVER WORK STOPS. ALL NEWLY LAID SEWER SHALL BE FLUSHED AND CLOSED CIRCUIT TELEVISED AND RECORDED IN VIDEO FORMAT. ALL MANHOLES SHALL BE INSPECTED FOR CLEANLINESS UPON COMPLETION OF THE PROJECT.

WATER MAINS

1. ALL WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTAGE COUNTY WATER RESOURCES DEPARTMENT, ITEM 800 SPECIFICATIONS (INCLUSIVE).
2. ANY EXISTING HYDRANTS, VALVES, VALVE BOXES, METER PITS, SERVICE LINES, CURB BOXES OR WATER MAINS THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED, MUST BE REPAIRED, ADJUSTED, MOVED AND/OR REPLACED FOLLOWING PORTAGE COUNTY WATER RESOURCES STANDARD DETAILS AND SPECIFICATIONS AT THE CONTRACTORS EXPENSE.
3. FIRE HYDRANTS SHALL BE PROVIDED AND INSTALLED AS PER PORTAGE COUNTY WATER STANDARD DETAILS AND SPECIFICATIONS.
4. ALL WATER AND SANITARY OR STORM SEWER CROSSINGS SHALL HAVE AN EIGHTEEN INCH (18") MINIMUM VERTICAL SEPARATION OUTSIDE DIAMETER (O.D.) TO (O.D.). ALL WATER AND SANITARY OR STORM SEWER SHALL HAVE A TEN FOOT (10') MINIMUM HORIZONTAL SEPARATION (O.D.) TO (O.D.). ALL WATER LINES CROSSING OTHER UTILITIES SHALL HAVE A TWELVE INCH (12") MINIMUM VERTICAL SEPARATION (O.D.) TO (O.D.) AND FOUR FOOT (4') MINIMUM HORIZONTAL CLEARANCE SEPARATION (O.D.) TO (O.D.).
5. ALL WATER LINE INSTALLATION AND PRESSURE TESTING SHALL FOLLOW AMERICAN WATER WORKS ASSOCIATION C-600 SPECIFICATIONS.
6. ALL WATER LINE DISINFECTION SHALL FOLLOW (AWWA) C-651 SPECIFICATIONS.
7. BOOSTER PUMPS ARE NOT PERMITTED IN SERVICE CONNECTIONS. PORTAGE COUNTY MAY GRANT SPECIAL PERMISSION ON BUILDINGS SIX STORIES AND HIGHER. (PER OEPA)
8. ALIGNMENT STAKE LOCATIONS FOR WATER LINE EVERY 100 FEET.
9. THE GROUND OVER THE WATER MAIN SHALL REMAIN FREE OF ALL TRASH CONTAINERS, TREES, SHRUBS, AND OTHER VEGETATION (EXCLUDING GRASS). THERE SHALL BE NO PARKING OVER THE WATER LINE.
10. ALL TESTING SHALL BE DONE IN ACCORDANCE WITH ITEM 801.09.



PORTAGE COUNTY WATER RESOURCES		
GENERAL WATER & SEWER NOTES	04-01-2023	GN-4
	APPROVED DATE	

11. ALL CAST IRON WATER MAIN SHALL BE WRAPPED IN POLYETHYLENE.
12. ALL VALVES WITH VALVE BOXES SHALL BE CHECKED FOR CENTER AT COMPLETION OF THE PROJECT, PER DETAIL ON WS-4. VALVE BOX SHALL BE WITHIN $\frac{1}{4}$ " OF PLUMB CENTER AS IT RELATES TO VALVE NUT.
13. ALL NEWLY INSTALLED HYDRANTS SHALL BE FLUSHED AND INSPECTED FOR OPERATION AT COMPLETION OF THE PROJECT
14. CURB BOXES AND VALVE BOXES SHALL NOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.
15. COMMERCIAL WATER LATERALS WILL REQUIRE THE SAME TESTING AS WATER MAINS.
16. ALL NONMETALLIC PIPE SHALL INCLUDE THE INSTALLATION OF A TRACE WIRE. WATER TRACE WIRE SHALL BE #12 AWG STEEL-COPPER COMPOSITE WIRE WITH 45 MIL HIGH DENSITY POLYETHYLENE EXTERIOR COATING, 21% IACS CONDUCTIVITY, BLUE IN COLOR, AND HAVE 1,030 POUND MINIMUM BREAK LOAD. SEWER TRACE WIRE SHALL BE #12 AWG STEEL-COPPER COMPOSITE WIRE WITH 45 MIL HIGH DENSITY POLYETHYLENE EXTERIOR COATING, 21% IACS CONDUCTIVITY, GREEN IN COLOR, AND HAVE 1,030 POUND MINIMUM BREAK LOAD.
17. ALL ROAD CROSSINGS SHALL BE BORED UNLESS APPROVED OTHERWISE BY PORTAGE COUNTY WATER RESOURCES AND THE GOVERNING ROADWAY AUTHORITY.
18. VALVES SHALL OPERATE OPEN TO THE LEFT IN A COUNTERCLOCKWISE MOTION.

PROHIBITED CONSTRUCTION ACTIVITIES

1. USING ANY SUBSTANCE OTHER THAN WATER TO CONTROL DUST.
2. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT OR DISPOSING OF THE TREES AND STUMPS.
3. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS.
4. DISCHARGING POLLUTANTS – SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWERAGE – AND OTHER HARMFUL WASTE INTO OR ALONGSIDE RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
5. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, ASPHALT OR CONCRETE ROADWAY SURFACES (INCLUDING ANY EARTH EXCAVATION OR EMBANKMENT MATERIAL), NOT PREVIOUSLY SPECIFIED OR APPROVED BY THE ENGINEER FOR SAID PURPOSES.
6. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
7. HEAVY MOTORIZED CONSTRUCTION EQUIPMENT ENTERING THE STREAM CHANNEL.
8. DISPOSAL OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.



PORTAGE COUNTY WATER RESOURCES		
GENERAL WATER & SEWER NOTES	04-01-2023 APPROVED DATE	GN-5