

SANITARY SEWER NOTES

ITEM SPECIAL PIPE TESTING AND FINAL INSPECTION

IN LIEU OF THE TESTING REQUIREMENTS SPECIFIED IN 603.06 THE CONTRACTOR SHALL TEST CONDUIT PLACED FOR THE SANITARY SEWER ACCORDING TO THE FOLLOWING PROVISIONS FOR EXFILTRATION AND INFILTRATION TESTING:

ALL SANITARY SEWERS, INCLUDING COMPLETED MANHOLES AND LATERAL CONNECTION, MUST PASS BOTH AN EXFILTRATION TEST AND AN INFILTRATION TEST AFTER CONSTRUCTION HAS BEEN COMPLETED, THE SANITARY SEWERS AND MANHOLES CLEANED, AND THE MANHOLES INSPECTED AND FOUND SATISFACTORY.

AS A DEMONSTRATION OF THE WORKMANSHIP AND MATERIALS PROPOSED TO BE USED, THE CONTRACTOR SHALL TEST THE FIRST SECTION BEFORE PROCEEDING WITH CONSTRUCTION FURTHER THAN FOUR SECTIONS. AFTER THE FIRST SECTION PASSES TEST CONSTRUCTION MAY RESUME. THE TESTING OPERATION SHALL BE CONTINUOUS THROUGHOUT THE CONSTRUCTION OF THE PROJECTS AND AT NO TIME DURING CONSTRUCTION SHALL THERE BE MORE THAN FOUR (4) SECTIONS NOT TESTED.

EXFILTRATION TEST-THE EXFILTRATION TEST SHALL BE PERFORMED FIRST WITH A MINIMUM HEAD OF WATER THREE (3) FEET ABOVE THE TOP OF THE HIGH END OF THE MAIN OR TWO (2) FEET ABOVE THE HIGH END OF HIGHEST LATERAL IN THE SECTION OR SECTIONS TO BE TESTED, OR THREE (3) FEET ABOVE THE EXISTING GROUND WATER ELEVATION WHICH EVER IS HIGHER. MAKE-UP WATER SHALL BE ADDED AT FIFTEEN (15) MINUTE INTERVALS TO THE ORIGINAL TEST WATER LEVEL TO MAINTAIN A CONSTANT HEAD. THE DURATION OF THE TEST SHALL BE NINETY (90) MINUTES, IF LOSS IS ACCELERATING, OR SIXTY (60) MINUTES, IF CONSTANT OR DECELERATING, AS DETERMINED BY THE ENGINEER.

THE MAXIMUM ALLOWABLE RATE OF LOSS SHALL BE 200 GALLONS PER INCH DIAMETER OF SEWER PER MILE PER 24 HOURS.

INFILTRATION TEST - AN INFILTRATION TEST SHALL THEN BE CONDUCTED FOR ALL SECTIONS OF SEWER HAVING A GROUND-WATER ELEVATION HIGHER THAN THAT OF THE SEWER, USING THE NORMAL GROUNDWATER CONDITION AFTER THE USE OF WELL POINT PUMPS OR OTHER DEWATERING DEVICES HAS BEEN DISCONTINUED FOR A PERIOD OF TIME SUFFICIENT TO PERMIT THE GROUND WATER TABLE TO RETURN TO A STATIC CONDITION. THE TEST SHALL BE MADE BY SEALING OFF A SECTION OF SEWER AND MEASURING THE INFILTRATE FOR A DEFINITE PERIOD OF TIME. MEASUREMENTS SHALL BE BY A WEIR OR DETERMINATION OF TIME TO FILL A CONTAINER OF KNOWN VOLUME. THE METHOD USED MUST MEET WITH THE APPROVAL OF THE PROJECT ENGINEER AND THE LAKE COUNTY SANITARY ENGINEER.

ANY SECTION OF SEWER PREVIOUSLY TESTED MAY BE RETESTED BY THE PROJECT ENGINEER AND INSPECTORS FOR THE LAKE COUNTY SANITARY ENGINEER BY THE INFILTRATION METHOD UNDER EXISTING CONDITIONS BEFORE IT IS ACCEPTED FOR SERVICE. ALL UNDERDRAINS OR DEWATERING EQUIPMENT SHALL BE STOPPED AND THE GROUNDWATER LEVEL ALLOWED TO RETURN TO NORMAL. INFILTRATION INTO THE COMPLETED SEWER, INCLUDING SERVICE LINES WITH BACKFILL IN PLACE, SHALL NOT EXCEED 200 GALLONS PER INCH OF DIAMETER PER 24 HOURS PER MILE OF SEWER BEING TESTED UNDER NATURAL GROUNDWATER LEVELS OBTAINED.

IF THE LEAKAGE SO MEASURED DOES NOT COME WITHIN THE LIMIT SPECIFIED, THE CONTRACTOR WILL BE REQUIRED TO DO SUCH WORK AS MAY BE NECESSARY TO INSURE CONFORMANCE.

FINAL INTERIOR INSPECTION - AFTER THE SEWERS HAVE BEEN COMPLETED AND TESTED THEY WILL BE SUBJECT TO VISUAL, TELEVISION AND/OR PHOTOGRAPHIC INSPECTION BEFORE THEY ARE ACCEPTED FOR SERVICE. IN ORDER TO PROVIDE THIS INSPECTION THE CONTRACTOR WILL BE REQUIRED TO USE PERSONNEL AND TELEVISION EQUIPMENT AVAILABLE THROUGH THE LAKE COUNTY SANITARY ENGINEER'S OFFICE. THE SEWER LINE WILL BE INSPECTED FOR GRADE, ALIGNMENT AND CLEANLINESS. ANY BROKEN PIPE SHALL BE REPLACED. ALL POROUS PIPE WITH LEAKAGE THROUGH THE BARREL OR PIPE WITH OBVIOUS LEAKAGE THROUGH JOINTS SHALL BE REMOVED AND REPLACED OR REPAIRED. THE PIPE INTERIOR SHALL BE FREE OF ALL OBSTRUCTIONS OF DEBRIS THAT WOULD INTERFERE WITH FLOW. ALL REPLACEMENT, REPAIR OR CLEANING SHALL BE DONE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

PAYMENT FOR ALL TESTING AND INSPECTION AS DESCRIBED HEREIN AND FOR ANY INCIDENTALS NECESSARY TO COMPLETE THESE SPECIFIED ITEMS WILL BE MADE AT THE LUMP SUM BID FOR:

ITEM SPECIAL - PIPE TESTING AND FINAL INSPECTION

STATUS OF INSPECTORS FOR THE LAKE COUNTY SANITARY ENGINEER

INSPECTORS AS DESIGNATED BY THE LAKE COUNTY SANITARY ENGINEER SHALL BE AUTHORIZED TO INSPECT ALL WORK DONE AND MATERIALS FURNISHED IN CONJUNCTION WITH THE PROPOSED SANITARY SEWER. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE SANITARY SEWAGE SYSTEM, AND TO THE PREPARATION OR MANUFACTURE OF THE MATERIALS USED IN THE SANITARY SEWAGE SYSTEM. THE INSPECTOR AS DESIGNATED BY THE LAKE COUNTY SANITARY ENGINEER SHALL MAKE WORK INSTRUCTIONS THROUGH THE PROJECT ENGINEER.

ITEM SPECIAL - FEE FOR SEWER TAP PERMIT

THE CONTRACTOR WILL NOT BE PERMITTED TO CONNECT THE REST AREA SEWER TO THE LAKE COUNTY SANITARY SEWER SYSTEM UNTIL HE HAS OBTAINED A SEWER TAP PERMIT ISSUED BY THE LAKE COUNTY SANITARY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE. THIS PERMIT WILL NOT BE SERVED UNTIL THE PROPOSED SANITARY SEWER HAS BEEN CERTIFIED FOR COMPLETION BY THE LAKE COUNTY SANITARY ENGINEER. THE CERTIFICATE OF COMPLETION WILL BE ISSUED SUBSEQUENT TO SATISFACTORY COMPLETION OF ALL REQUIRED INSPECTION AND TESTS. IT IS ANTICIPATED THAT THE FEE FOR THE SEWER TAP PERMIT WILL BE FORTY EIGHT THOUSAND FIVE HUNDRED DOLLARS (\$48,500.00). THE SEWER TAP PERMIT FEE IS INDEPENDENT OF ANY ADDITIONAL PERMITS, LICENSES, AND TAXES WHICH MAY BE REQUIRED AS PER 107.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. PAYMENT FOR SECURING THE SEWER TAP PERMIT WILL BE MADE AT THE LUMP SUM BID FOR:

ITEM SPECIAL - FEE FOR SEWER TAP PERMIT

ITEM 603 - 8" CONDUIT TYPE C, 706.08 EXTRA STRENGTH WITH 706.12 JOINTS, AS PER PLAN

OAKRIDGE DR.
AS PART OF THIS CONTRACT, IT WILL BE NECESSARY TO INSTALL AN 8" CONDUIT UNDER INTERSTATE 90 AND THROUGH THE SEWER EASEMENT BY METHOD OF BORING. THE CONDUIT SHALL BE PLACED ON WOODEN SKIDS TO OBTAIN THE REQUIRED GRADE. THE VOID AREAS BETWEEN THE PIPE AND THE CASING SHALL BE FILLED WITH AN ACCEPTABLE GROUT OR SAND. NO BORING PITS OR EQUIPMENT SHALL BE CLOSER THAN TEN (10) FEET TO THE EDGE OF THE SHOULDER ON INTERSTATE 90. PAYMENT FOR ALL MEN, MATERIALS, AND EQUIPMENT REQUIRED TO INSTALL CONDUIT BY METHOD OF BORING WILL BE MADE AT THE CONTRACT PRICE BID PER LINEAL FOOT FOR:

ITEM 603 - 8" CONDUIT TYPE C - 706.08 EXTRA STRENGTH WITH 706.12 JOINTS, AS PER PLAN.

ITEM 660 - SODDING, AS PER PLAN

AS PART OF THIS CONTRACT, SOD WILL BE USED TO REPAIR CONSTRUCTION SCARS CAUSED BY BORING PITS ON THOSE PRIVATELY OWNED PROPERTIES ADJACENT TO OAKRIDGE DRIVE PAYMENT FOR THE SOD SHALL BE:

ITEM 660 - SODDING, AS PER PLAN