

**DRAINAGE**

INLET, BY TYPE

DUE TO THE CLOSE PROXIMITY OF THE INLETS TO THE TRAVELED LANE, THE 2" (50 mm) DEPRESSION SHOWN IN STANDARD DRAWING I-1.2M SHALL BE DEVELOPED IN THE 18" ADJACENT TO THE CURB. A CONCRETE APRON IS NOT REQUIRED. ALL OTHER DETAILS IN STANDARD DRAWING I-1.2M SHALL APPLY.

- ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN
- ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN
- ITEM 604 - MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN

ALL CASTINGS, EXCEPT THOSE OWNED BY PRIVATE COMPANIES SHALL BE ADJUSTED BY THE CONTRACTOR. THE TIME BETWEEN ADJUSTING THE CASTINGS AND RESURFACING SHALL BE AN ABSOLUTE MINIMUM. THE USE OF ADJUSTING RINGS SHALL NOT BE AN ACCEPTED MEANS OF ADJUSTING CASTINGS. OTHERWISE ALL WORK SHALL BE IN ACCORDANCE WITH ITEM 604.

ITEM 604 - INLET, NO. 2, BY TYPE, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF THE EXISTING INLET UPPER BOX AND PLACING A PROPOSED UPPER BOX OF THE SPECIFIED SIZE. THIS ITEM SHALL ALSO INCLUDE ANY ADDITIONAL WORK NECESSARY TO INSTALL THE PROPOSED INLET UPPER BOX TO THE SATISFACTION OF THE ENGINEER. THIS WORK MAY INCLUDE, BUT IS NOT LIMITED TO, ADDITIONAL EXCAVATION NEEDED FOR THE PROPOSED UPPER BOX, GROUND PREPARATION UNDER THE UPPER BOX AND ANY MORTAR AND BRICKS AT THE EXISTING SUMP WALLS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 604, EACH, INLET, NO. 2, BY TYPE, AS PER PLAN.

ITEM 604 - DRAINAGE STRUCTURE MISC.; INLET, NO. 2, SUMP STRUCTURE

AFTER THE REMOVAL OF THE INLET UPPER BOX, THE ENGINEER SHALL DETERMINE IF THE EXISTING SUMP STRUCTURE NEEDS TO BE REPLACED. IF IT IS DETERMINED THAT THE SUMP STRUCTURE NEEDS TO BE REPLACED, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SUMP STRUCTURE AND CONSTRUCT THE PROPOSED SUMP STRUCTURE AS DETAILED IN THE PLANS AND STANDARD DRAWINGS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 604, EACH, DRAINAGE STRUCTURE MISC.; INLET, NO. 2, SUMP STRUCTURE AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIAL NECESSARY TO PERFORM THIS ITEM OF WORK.

THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED, AS DIRECTED BY THE ENGINEER, TO REPLACE THE SUMP STRUCTURE AND ANY PIPE LEADING INTO THE EXISTING SUMP STRUCTURE:

ITEM	DESCRIPTION	QUANTITY
603	12" CONDUIT, TYPE B, AS PER PLAN .	10 LIN. FT.
603	12" CONDUIT, TYPE C, AS PER PLAN .	40 LIN. FT.
603	6" CONDUIT, TYPE F, 707.33 707.41 OR 707.42 . . . . .	50 LIN. FT.
604	DRAINAGE STRUCTURE MISC.; INLET, NO. 2, SUMP STRUCTURE . .	5 EACH

ITEM 604 - RECONSTRUCTED TO GRADE BY TYPE

THE CONTRACTOR AND THE PROJECT ENGINEER SHALL FIELD CHECK ALL EXISTING MANHOLES, CATCH BASINS, AND INLETS LOCATED WITHIN THE LIMITS OF THE PROJECT AND ARE NOT BEING REPLACED. ANY MANHOLE, CATCH BASIN OR INLET FOUND THAT EXHIBITS SUBSTANTIAL DETERIORATION AND REQUIRES MORE WORK THAN IS SPECIFIED UNDER ADJUSTMENT TO GRADE SHALL BE RECONSTRUCTED TO GRADE AS DIRECTED BY THE ENGINEER.

- ITEM - 604 MANHOLE RECONSTRUCTED TO GRADE . . . . . 2 EACH
- ITEM - 604 CATCH BASIN RECONSTRUCTED TO GRADE . . . . . 2 EACH
- ITEM - 604 INLET RECONSTRUCTED TO GRADE . . . . . 2 EACH

RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 PS46 MIN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

- ITEM 603 - 6" CONDUIT, TYPE B FOR DRAINAGE CONNECTION. 100 L.F.
- ITEM 603 - 6" CONDUIT, TYPE C FOR DRAINAGE CONNECTION. 100 L.F.

UNRECORDED SANITARY CONNECTIONS

ANY UNRECORDED ACTIVE CONNECTION TO A SANITARY SEWER ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED TO THE EXISTING SANITARY SEWER TO THE SATISFACTION OF THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 PS46 MIN., 706.01, 706.02 OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE WORK NOTED ABOVE:

- ITEM 603 - 6" CONDUIT, TYPE B, FOR SANITARY . . . . . 100 L.F.
- ITEM 603 - 6" CONDUIT, TYPE C, FOR SANITARY . . . . . 100 L.F.

CATCH BASIN, INLET OR MANHOLE REMOVED

THE COST FOR REMOVING CATCH BASINS, INLETS OR MANHOLES THAT WILL BE REPLACED AT THE SAME LOCATION SHALL BE INCLUDED IN THE PERTINENT 604 ITEM. THIS WORK SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE REMOVAL AND DISPOSAL OF CATCH BASINS, INLETS AND MANHOLES AS PER SECTION 202.08 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS ANY ADDITIONAL EXCAVATION REQUIRED TO CONSTRUCT THE CATCH BASIN, INLET OR MANHOLE.

PIPE REMOVED

THE COST FOR REMOVING PIPE THAT WILL BE REPLACED (EITHER THE SAME SIZE PIPE OR A LARGER PIPE) AT THE SAME LOCATION SHALL BE INCLUDED IN THE PERTINENT 603 ITEM. THIS WORK SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE REMOVAL AND DISPOSAL OF PIPE AS PER SECTION 202.04 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 932 AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

- ITEM SPECIAL - MISCELLANEOUS METAL . . . . . 5000 LBS.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

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CALCULATED  
EMK  
CHECKED  
ENF  
GENERAL NOTES  
DRAINAGE  
CUYAHOGA COUNTY  
LAKE COUNTY  
CUY/LAK-91-15.42/0.00  
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