

GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	ACI-1103 (30)	

LAKE COUNTY
LAK-1-22.43

EXCAVATION FOR STRUCTURES

AN ITEM E-2 EXCAVATION FOR STRUCTURES HAS BEEN INCLUDED IN THE COMPUTATION SHEET TO PROVIDE FOR ALL HEADWALL EXCAVATION UNDER ITEM 1-2 STORM SEWERS.

RECORDS

ITEMS SET UP IN THE GENERAL NOTES FOR USE UNDER THE DIRECTION OF THE ENGINEER SHALL REQUIRE PROPER RECORDS AND VERIFICATION BEFORE PAYMENT IS APPROVED.

REPLACEMENTS

THE CONTRACTOR SHALL REPLACE AT HIS OWN EXPENSE ANY ITEM NOT SPECIFICALLY LISTED FOR REMOVAL THAT IS DAMAGED OR DESTROYED BY HIS OPERATIONS.

TEMPORARY DRAINAGE

TEMPORARY DRAINAGE WILL BE REQUIRED FOR THE PIPE UNDER DRAINS AND SUBBASE DURING CONSTRUCTION OF THIS SECTION. PAYMENT FOR WHICH IS INCLUDED IN THE PRICE BID PER LINEAR FOOT FOR ITEM 1-4 UNDERDRAIN.

MANHOLE CASTING

MANHOLE CASTINGS LOCATED IN SLOPES SHALL BE SET SO THAT THE COVER WILL CONFORM WITH THE PLANE OF THE SLOPED SURFACE.

GRATE ELEVATIONS

THE FLOW LINE OF GRATE ELEVATIONS SHOWN FOR 1-8 #4 CATCH BASIN AND 1-8 #5 CATCH BASIN IS THE LOWEST POINT ON THE GRATE.

PIPE UNDERDRAINS

THE LOCATION OF THE TRANSVERSE PIPE UNDERDRAINS LOCATED AT THE POINTS CUT TO FILL AND FILL TO CUT MAY BE REVISED SLIGHTLY DURING CONSTRUCTION TO ASSURE THAT THE UNDERDRAINS WILL BE PLACED IN CUT.

PIPE SPECIALS

1-5 PIPE SPECIALS HAVE BEEN COMPUTED ON THE BASIS OF 4' - 0".

EROSION CONTROL AT BRIDGES

SODDED CHANNELS SHALL BE PROVIDED AT THE ENDS OF THE BRIDGES WHERE REQUIRED BY THE PLANS. COST OF ALL WORK NECESSARY TO COMPLETE THE ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM L-10, SODDING FOR SPECIAL BERM AND SLOPE PROTECTION.

SIGHT DISTANCE

BASIS FOR MEASURING SIGHT DISTANCE SHALL BE 4.0 FEET FOR HEIGHT OF EYE AND ZERO FEET FOR HEIGHT OF OBJECT. THE MINIMUM STOPPING SIGHT DISTANCE ON THIS PROJECT IS 600 FEET.

REMOVAL OF BUILDINGS

WHERE THE PLAN SHOWS A STRUCTURE TO BE REMOVED UNDER ITEM S-24, THE ENTIRE BUILDING WITHIN AND WITHOUT THE RIGHT-OF-WAY SHALL BE REMOVED TO GROUND LEVEL AND THE BASEMENT FILLED.

E-101 EMBANKMENT

IN ADDITION TO THE REQUIREMENTS OF SEC E-10108(f) THE MOISTURE CONTENT OF ALL EMBANKMENT MATERIALS THAT DISPLAY PRONOUNCED ELASTICITY OR DEFORMATION UNDER THE ACTION OF CONSTRUCTION EQUIPMENT SHALL NOT EXCEED OPTIMUM AT THE TIME OF COMPACTION.

EXISTING DRAINAGE

IT IS ANTICIPATED THAT SOME EXISTING DRAINS OTHER THAN THOSE CARRYING DOMESTIC WASTE WILL BE INTERCEPTED AND SEVERED BY THE PROPOSED ROADWAY AND CHANNEL EXCAVATION. IN ANY SUCH CASE A SECTION OF THE PIPE SO SEVERED WILL BE REMOVED TO MAKE WAY FOR THE NECESSARY EXCAVATION. IF THE REMAINING PIPE FLOWS AWAY FROM THE EXCAVATION AND THE PLANS DO NOT INDICATE THAT IT IS TO BE USED AS AN OUTLET, IT SHALL BE BLOCKED AT ITS UPPER END IN ACCORDANCE WITH THE PROVISIONS OF ITEM 2.04. PAYMENT FOR PLUGGING IS INCLUDED IN THE UNIT PRICE BID FOR ITEM E-101, ROADWAY EXCAVATION. IF THE PIPE FLOWS TOWARD THE DITCH EXCAVATION, THE TILE SHALL BE PRESERVED AND A PROPER OUTLET PROVIDED.

THE FOLLOWING QUANTITIES HAVE BEEN SET UP IN THE GENERAL SUMMARY TO BE USED FOR THE ABOVE PURPOSE AS DIRECTED BY THE ENGINEER

1-3	6"	ROADWAY DRAINAGE	50 LIN FT
1-3	8"	"	50 LIN FT
1-3	8"	PIPE OUTLETS FOR ROADWAY DRAINAGE	50 LIN FT - SEC M 6.4 (b)
1-3	10"	"	50 LIN FT
1-3	12"	"	50 LIN FT
1-2	8"	UNDER PAVEMENT OR APPROACHES	100 LIN FT - SEC M 6.5 (b) OR M 6.8 (b)
1-2	12"	"	100 LIN FT

THE AMOUNT AND LOCATION OF SUCH MATERIAL SHALL BE RECORDED AS USED AND SHALL BE SUBMITTED WITH FINAL ESTIMATE

EROSION CONTROL AT HEADWALLS

AN 18" WIDE STRIP OF SOD SHALL BE PLACED ALONG THE BACK AND BOTH ENDS OF EACH STANDARD HEADWALL TYPE A, B AND C TO PREVENT EROSION. THE QUANTITY OF SODDING REQUIRED TO PREVENT EROSION AT THE HEADWALLS IS INCLUDED IN EACH OF THE CULVERT ESTIMATED QUANTITIES.

CENTERLINE REFERENCE MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED OF CLASS "C" CONCRETE CAST-IN-PLACE IN A CIRCULAR HOLE, EIGHT INCHES IN DIAMETER AND FORTY-FOUR INCHES IN DEPTH. TOP OF CONCRETE SHALL BE FINISHED TWO INCHES BELOW GROUND LEVEL AND THE UPPER SIX INCHES PORTION OF THE CONCRETE SHALL BE FORMED. A 16# NAIL SHALL BE EMBEDDED IN THE WET CONCRETE AS DIRECTED BY THE ENGINEER TO MARK THE CENTERLINE AND STATION. MONUMENTS SHALL NOT BE PLACED UNTIL SEEDING IS COMPLETED

EXISTING WATER WELLS

DUG WELLS ENCOUNTERED WITHIN THE WORK LIMITS SHALL BE FILLED WITH ROCK OR GRANULAR MATERIAL. DRILLED WELL CASING SHALL BE REMOVED TO AN ELEVATION APPROXIMATELY THREE FEET BELOW FINISHED GRADE AND COVERED WITH A PRE-CAST CONCRETE SLAB OR A LARGE ROCK. PRIOR TO CONSTRUCTION OF EMBANKMENT, THE CONTRACTOR SHALL REMOVE ANY MASONRY SURROUNDING A WELL WITHIN THREE FEET OF FINISHED GRADE. PUMPS AND OTHER APPURTENANCES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM. THE COST OF FILLING OR CAPPING OF WELLS SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF ROADWAY EXCAVATION, ITEM E-101, FOR PAYMENT.

HEAVY EQUIPMENT

THE CONTRACTOR SHALL EXERCISE CARE IN THE USE OF HEAVY EQUIPMENT OVER FINISHED WORK AND WILL BE REQUIRED TO REMOVE AND REPLACE ANY COMPLETED WORK DESTROYED THEREBY. CULVERTS SHALL BE BACKFILLED TO A HEIGHT OF FOUR FEET BEFORE LOADED EARTH-MOVING EQUIPMENT IS PERMITTED TO CROSS THE TRENCH. HEAVY EQUIPMENT SHALL NOT BE OPERATED OVER ANY COMPLETED LAYER OF EMBANKMENT, COMPACTED SUB-GRADE OR SUB-BASE, IF SUCH OPERATION TENDS TO DESTROY THE SOIL STRUCTURE OR PIPE UNDERDRAINS; HOWEVER IF SUCH OPERATION CANNOT BE AVOIDED, THE CONTRACTOR WILL BE REQUIRED TO REDUCE THE SIZE OF LOADS TO AN EXTENT THAT DAMAGE DOES NOT OCCUR.

PIPE CONNECTIONS

LONGITUDINAL PIPE LINES, WHERE CONNECTED TO PIPE CULVERTS, SHALL BE JOINED TO CULVERT PIPE SPECIALS, ITEM 1-5. THE PIPE SPECIAL SPUR AND THE INITIAL EIGHT FOOT LENGTH OF LONGITUDINAL PIPE SHALL BE OF THE SAME KIND AND CLASS OF PIPE AS USED IN THE PIPE CULVERT AND SHALL BE JOINED BY MEANS OF 6" x 24" CONCRETE COLLAR OR METAL BAND. THE INITIAL EIGHT FEET OF LONGITUDINAL PIPE SHALL BE MANUFACTURED AS A SINGLE UNIT, WITH THE EXCEPTION OF RIGID PIPES 18 INCHES IN DIAMETER AND SMALLER, IN WHICH CASE TWO 4 FOOT LENGTHS MAY BE SHOP JOINED BY MEANS OF A REINFORCED CONCRETE COLLAR STRONG ENOUGH TO RESIST SEPARATION OF THE JOINT BECAUSE OF BACKFILL LOADING. ALL ADDITIONAL COST OF PROVIDING THE CULVERT PIPE AND COLLARS IN THE INITIAL SECTION OF THE LONGITUDINAL PIPE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PIPE SPECIAL.

PLUGGING PIPE ENDS

THE UPSTREAM ENDS OF PIPE LINES OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE LENGTH IS ENCOUNTERED, WHICH SHALL BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE PRICE BID FOR ROADWAY EXCAVATION

REMOVALS

ALL ITEMS MARKED FOR REMOVAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM. WHERE PIPE IS MARKED FOR REMOVAL WITH HEADWALLS AND/OR CATCH BASINS INVOLVED, THE COST OF SUCH REMOVAL SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT FOR ITEM E-12 PIPE REMOVAL.

COOPERATION BETWEEN CONTRACTORS

THE WORK COVERED BY THESE PLANS ADJOINS OTHER CONSTRUCTION SECTIONS OF S. R. 1 TO THE WEST AND TO THE EAST. IN THE EVENT THAT CONSTRUCTION ON THE ADJOINING SECTIONS IS BEING CARRIED ON SIMULTANEOUSLY WITH THIS SECTION, THE CONTRACTOR SHALL PLAN AND COORDINATE HIS WORK WITH THAT OF THE OTHER CONTRACTOR(S) SO THAT A MINIMUM OF INTERFERENCE AND INCONVENIENCE WILL RESULT.

DEEP LONGITUDINAL DRAINAGE

IT IS INTENDED THAT DEEP LONGITUDINAL UNDERDRAINS BE PROVIDED UNDER EACH OUTSIDE SHOULDER FOR ITS ENTIRE LENGTH THROUGH EACH SOIL CUT. AT EACH END OF EACH SOIL CUT, A TRANSVERSE DRAIN IS LOCATED AT THE POINT WHERE SUBGRADE CHANGES FROM CUT TO FILL, AND SHALL DISCHARGE INTO THE DEEP UNDERDRAIN. IT IS ALSO INTENDED THAT SHALLOW LONGITUDINAL UNDERDRAINS SEC M-6.4 (h) BE PROVIDED UNDER EACH OUTSIDE SHOULDER FOR ITS ENTIRE LENGTH THROUGH EACH ROCK CUT

THE ENGINEER SHALL MAKE WHATEVER ADJUSTMENTS IN THE LENGTHS OF UNDERDRAINS OR LOCATIONS OF TRANSVERSE UNDERDRAINS THAT ARE NECESSARY TO ACCOMPLISH THE ABOVE.

SPECIAL DITCHES

FOR SPECIAL DITCH GRADES, SEE CROSS SECTIONS.

PIPE FOR SUBGRADE DRAINAGE

10 LIN. FT. OF 8" CORRUGATED METAL PIPE, SEC. M. 6. 4 (a), SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR, IN MANHOLES, CATCH BASINS AND INLETS FOR EACH SUBGRADE DRAIN, WHERE, AND AS DIRECTED BY THE ENGINEER. PAYMENT FOR EACH SHALL BE MADE AT THE PRICE BID PER LINEAL FOOT OF PIPE UNDERDRAIN OUTLETS.

PIPE

WHEN BELL AND SPIGOT PIPE IS USED, ANY NECESSARY PIPE CUT-OFFS WILL BE MADE AT THE SPIGOT END OF THE LENGTH OF PIPE ADJACENT TO THE END LENGTH. WHEN TONGUE AND GROOVE PIPE IS USED THE LENGTH OF PIPE NEXT TO THE END LENGTH SHALL BE CUT AND BUTT JOINT FORMED WITH A COLLAR 12" LARGER THAN THE OUTSIDE DIAMETER AND 12" IN LENGTH. THE COST OF THE JOINT AND COLLAR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

REMOVAL OF EXISTING DRAINS

THE REMOVAL OF ALL EXISTING PIPE DRAINS WHICH INCLUDES SANITARY, YARD, ROOF, BASEMENT OR OTHER SIMILAR PIPE DRAINS WITHIN THE ROADWAY CONSTRUCTION LIMITS SHALL BE CLASSIFIED AND PAID FOR AS ROADWAY EXCAVATION, UNLESS OTHERWISE ITEMIZED FOR PAYMENT IN THE PLANS.

REMOVAL OF TREES AND STUMPS

THE SIZE AND NUMBER OF TREES AND STUMPS SHOWN BELOW FOR REMOVAL UNDER THE CONSTRUCTION AS DETAILED ON THESE PLANS, ARE AS NEARLY CORRECT AS AVAILABLE INFORMATION PERMITS. THE STATE OF OHIO WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION. THE LUMP SUM BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS, SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ALL TREES AND STUMPS WITHIN THE LIMITS OF THE LIMITED ACCESS RIGHT OF WAY ON THE MAIN LINE AND THE WORK LIMITS ON THE CROSS ROADS AND CHANNEL IMPROVEMENT SHALL BE REMOVED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TREES TO BE PRESERVED WILL BE CONSPICUOUSLY MARKED BY THE ENGINEER.

TREES OR STUMP	6"	-	100
TO BE	8"	-	80
REMOVED	12"	-	50
	24"	-	20
	30"	-	20
TOTAL	-	-	270

ROUNDING OF CORNERS ON CROSS SECTIONS

THE ROUNDED CORNERS, AS SHOWN ON STANDARD DRAWING RI-1, APPLY TO ALL CROSS SECTIONS UNLESS OTHERWISE SHOWN ON THE TYPICAL SECTIONS.

R/W MONUMENTS, FEDERAL PROJECT MARKERS & SECTION MARKERS

EXISTING R/W MONUMENTS, BENCH MARKS, FEDERAL PROJECT MARKERS AND SECTION MARKERS THAT WILL BE REMOVED BY CONSTRUCTION, SHALL BE PROTECTED BY THE CONTRACTOR AS PER SECTION G-7.09 UNTIL THEY CAN BE WITNESSED, REFERENCED AND RESET BY THE CONSTRUCTION CREW.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U. S. G. S. DATUM.

LOCATION AND SIZE OF PIPES

THE LOCATION, TYPE, DEPTH AND SIZE OF ALL EXISTING PIPES ARE SHOWN AS NEAR EXACT AS THE AVAILABLE INFORMATION WILL PERMIT. THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE FOR THE EXCLUSIVE USE OF THE STATE EMPLOYEES, IN ACCORDANCE WITH SEC. S-0.01 (b), HAVING A MINIMUM OF 500 SQUARE FEET OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THE FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL ALSO INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING TO OFFICE EQUIPMENT, AND PROVIDE 110 VOLT ALTERNATING CURRENT DURING THE CONSTRUCTION OF THIS PROJECT.

DESIGN SPEED

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 70 MILES PER HOUR.