

# GENERAL NOTES

LAKE COUNTY  
LAK-1-20.03

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	ACI-1103(28)	

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211

## ROAD NAME SIGNS

ALL COUNTY, TOWNSHIP, CITY OR VILLAGE ROAD OR STREET NAME SIGNS THAT WILL BE DISTURBED BY THE CONSTRUCTION SHALL BE CAREFULLY REMOVED AND STORED BY THE CONTRACTOR FOR DISPOSAL BY THEIR RESPECTIVE OWNERS. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

## 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.

## UTILITIES

THE CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS BEFORE BREAKING GROUND ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND SHOWN ON THESE PLANS. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

## ROUNDING OF CORNERS ON CROSS SECTIONS

THE ROUNDED CORNERS, 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 CONTRACTORS 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.

## 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 OR STUMP	6" -	2004
TO BE	8" -	1600
	12" -	1000
REMOVED	24" -	800
	30" -	700
TOTAL	-	6104

## FLARING GUARD RAIL AT BRIDGES

GUARD RAIL ON CROSS ROADS SHALL BE FLARED TO MEET THE BRIDGE RAILING IN SUCH A MANNER THAT THE CHANGE IN ALIGNMENT OF THE GUARD RAIL SHALL NOT EXCEED 1:20.

## 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 TRAVERSE 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.

## TILE 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 GROVE 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.

## STONE UNDERDRAIN NO. 2

NO. 2 STONE UNDERDRAIN HAS BEEN ESTIMATED FOR CROSS ROAD DRAINAGE AT 50 FEET INTERVALS ON EACH SIDE WHERE 1-4 DRAINAGE IS NOT PROVIDED. THEY SHALL BE PLACED NOT OVER 50 FEET APART AND STAGGERED. ON SUPERELEVATED SECTIONS THE UNDERDRAINS WILL BE PLACED ON 50 FOOT INTERVALS ON LOW SIDE ONLY. THIS QUANTITY IS TO BE USED IN ITS ENTIRETY.

## PIPE CONNECTIONS

LONGITUDINAL PIPE LINES, WHERE CONNECTED TO PIPE CULVERTS, SHALL BE JOINED TO CULVERT PIPE SPECIALS, ITEM I-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.

## GUARD RAIL REMOVAL

THE REMOVAL OF ANY GUARD RAIL OR GUARD RAIL POSTS LYING WITHIN THE LIMITS OF ROADWAY EXCAVATION OR EMBANKMENT (AND NOT SPECIFICALLY PAID FOR UNDER A SEPARATE ITEM) IS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ROADWAY EXCAVATION. ALL RESULTING MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM AT NO EXTRA COST TO THE STATE, EXCEPT THAT THE STEEL RAIL ON ALL EXISTING STEEL BEAM TYPE OR STEEL CABLE ON STEEL CABLE TYPE GUARD RAILS SHALL BE STORED ON THE RIGHT-OF-WAY FOR DISPOSAL BY THE OWNER.

## 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.

## SUBGRADE COMPACTION FOR DRIVES & MAIL BOX TURNOUTS

THE SUBGRADE UNDER B-119 OR T-70 MATERIAL USED ON DRIVES AND MAIL BOX TURNOUTS SHALL BE COMPACTED FOR A DEPTH OF SIX INCHES (6") TO THE DENSITY REQUIREMENTS OF TABLE III IN ITEM E-1. PAYMENT FOR SUBGRADE COMPACTION AS SPECIFIED ABOVE, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

## EXCAVATION FOR ITEM B-119

EXCAVATION FOR B-119 MATERIAL USED ON SIDE ROAD APPROACHES, MAIL BOX TURNOUTS AND DRIVES HAS BEEN INCLUDED IN EARTHWORK QUANTITIES WHEN SAME IS IN "CUT". WHERE SIDE APPROACHES, MAIL BOX TURNOUTS, AND DRIVES ARE IN "FILL", EXCAVATION FOR B-119 MATERIAL SHALL BE MADE BY THE CONTRACTOR AT HIS OWN EXPENSE IF HE BUILDS THE EMBANKMENT UP TO FINISH GRADE BEFORE PLACING THE B-119 MATERIAL.

## DRAINAGE OF SUBBASE MATERIAL

WHERE THE SUBBASE MATERIAL IS DRAINED BY I-9 STONE UNDERDRAIN OR BY EXTENSIONS THROUGH THE SHOULDERS TO THE FILL SLOPE OR THE DITCH LINE, THE CONTRACTOR SHALL FINISH, SEED AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE SUBBASE MATERIAL. THE ACTUAL AREA OF THE OUTCROP OF THE SUBBASE MATERIAL OR I-9 UNDERDRAIN SHALL NOT BE SEEDED.

## PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY OF BUILDING CERTAIN CROSS ROADS UNDER TRAFFIC AND CONSTRUCTING THE PAVEMENT PART AT A TIME, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT ON CENTERLINE IN THE BASE AND SUBBASE COURSES.

THIS SHALL BE ACCOMPLISHED BY BUILDING THE BASE AND SUB-BASE COURSES PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT, AT LEAST EIGHTEEN INCHES (18") BEYOND THE CENTERLINE AND BY SURFACING NO CLOSER THAN EIGHTEEN INCHES (18") TO THE EDGE OF THE ABOVE COURSES. WHEN THE SECOND PORTION OF THE PAVEMENT IS BUILT, AT LEAST TWELVE INCHES (12") OF THESE PROJECTING COURSES SHALL BE BROKEN DOWN AND THOROUGHLY KEYS IN WITH THE NEWLY PLACED CORRESPONDING COURSES IN THE SECOND PORTION OF THE PAVEMENT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

## EXISTING FLEXIBLE PAVEMENT

WITHIN THE LIMITS OF CONSTRUCTION WHERE THE EXISTING FLEXIBLE PAVEMENT WILL HAVE LESS THAN SIX (6") INCHES OF FILL PLACED UPON IT, THE PAVEMENT SHALL BE THOROUGHLY SCARIFIED FOR ITS FULL DEPTH, MIXED WITH SUFFICIENT SOIL AND PROPERLY RECOMPACTED TO INSURE THE ELIMINATION OF ANY PLANE OF SEPARATION BETWEEN IT AND THE EMBANKMENT PLACED THEREON. OUTSIDE THE LIMITS OF CONSTRUCTION THE EXISTING FLEXIBLE PAVEMENT SHALL BE THOROUGHLY SCARIFIED, MIXED WITH SUFFICIENT SOIL AND SHAPED TO FIT THE SURROUNDING TERRAIN IN SUCH A MANNER AS TO INSURE THE GROWTH OF SEED PLANTED THEREON. PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

## NON-RIGID PAVEMENT REMOVAL

COST OF REMOVING NON-RIGID PAVEMENT IS TO BE INCLUDED WITH THE PRICE BID FOR ROADWAY EXCAVATION.

## GUARD RAIL POST ANCHORS

AT LOCATIONS WHERE PIER FOOTINGS INTERFERE WITH INSTALLATION OF FULL LENGTH GUARD RAIL POSTS, SHORT POSTS SHALL BE PROVIDED AND SHALL BE ANCHORED IN ACCORDANCE WITH THE DETAIL SHOWN ELSEWHERE IN THE PLANS. COST OF PROVIDING AND INSTALLING NECESSARY ANCHORS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT FOR GUARD RAIL.

## GUARD RAIL PARAPET ANCHORS

COST OF PROVIDING AND INSTALLING ANCHOR FOR CONNECTING DEEP STEEL BEAM GUARD RAIL TO BRIDGE PARAPET IS INCLUDED IN THE BRIDGE QUANTITIES FOR PAYMENT. CONTRACTOR SHALL PROVIDE ONE ADDITIONAL GUARD RAIL POST IN THE CENTER OF THE FIRST PANEL OF DEEP STEEL BEAM GUARD RAIL WHERE ANCHORED TO THE PARAPET, COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF GUARD RAIL.

## EROSION CONTROL AT BRIDGES

SODDED CHANNELS SHALL BE PROVIDED AT ENDS OF 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".