

# GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16  
384

LAKE COUNTY  
LAK-2-1422

## 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, ITEM E-1.

## 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, WEST OF THE RELOCATION OF RICHMOND STREET AND 60 MILES PER HOUR ON THE REMAINDER OF THE PROJECT ALONG S. R. 2.

## 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, 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.

## 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 ON STANDARD DRAWING NO. 1-15 NO. 6. COST OF PROVIDING AND INSTALLING NECESSARY ANCHORS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT FOR GUARD RAIL.

## CHANNEL EXCAVATION

WHERE CHANNEL EXCAVATION IS CARRIED THROUGH A PROPOSED PIPE STRUCTURE SITE, ADDITIONAL EXCAVATION REQUIRED TO OBTAIN A STABLE FOUNDATION FOR THE STRUCTURE SHALL BE MEASURED AND PAID FOR AS ITEM E-3, CHANNEL EXCAVATION.

## REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES AND STUMPS FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS
12" - 18"	135	1
18" - 24"	36	
24" - 30"	24	
30" - 36"	14	2
36" - 42"	7	
42" - 48"	3	1
Over 48"	8	

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

## 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.

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 AND/OR PLANS.

## PIPE FOR SUBGRADE DRAINAGE

10 LIN. FT. OF 8" CORRUGATED METAL PIPE, SEC. M-6.4(c), SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR, IN MANHOLES, CATCH BASINS AND INLETS FOR SUBGRADE DRAINAGE 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.

## 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.

## AGGREGATE BASE COURSE

THE COMPLETED AGGREGATE BASE COURSE B-19 MAY BE USED FOR MAINTAINING LOCAL TRAFFIC ON THIS PROJECT. ANY DAMAGE DONE TO THE BASE, SUBBASE OR SUBGRADE BY LOCAL TRAFFIC SHALL BE REPAIRED BY RESHAPING, RE-COMPACTING AND BY ADDITION OF EXTRA B-19 MATERIAL AT NO ADDITIONAL COST TO THE STATE.

## UTILITY ADJUSTMENT

ANY OR 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.

## PLUGGING PIPE

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS (AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE) 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, OR A PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

## PROTECTION OF PAVEMENTS

SELF-PROPELLED, CRAWLER-DRIVEN MACHINERY, EQUIPPED WITH CLEATS, SHALL NOT BE OPERATED ON THE EXISTING PAVEMENT, UNLESS PADS ARE FASTENED TO TRACKS BETWEEN CLEATS SUCH THAT CLEATS WILL BE PREVENTED FROM MAKING CONTACT WITH THE PAVEMENT. CRAWLER EQUIPMENT SHALL BE OPERATED IN A MANNER THAT DAMAGE TO EXISTING OR NEW SURFACE WILL NOT OCCUR.

## 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 SUBGRADE OR SUBBASE, 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.

## SEALING OF PIPE JOINTS

WHERE CONNECTIONS ARE MADE BETWEEN RIGID AND FLEXIBLE PIPE SECTIONS OR BETWEEN PIPE SECTIONS OF DIFFERENT KIND OR TYPE OF END FABRICATION, WHETHER REQUIRED BY THE PLANS, ARISING FROM PERMISSIBLE USE OF OPTIONAL MATERIALS, OR ENCOUNTERED IN CONNECTION TO EXISTING FACILITIES, THE JOINT SHALL BE SEALED, IF SEALING IS REQUIRED BY THE SPECIFICATIONS, BY MEANS OF A CLASS "E" CONCRETE COLLAR HAVING A MINIMUM THICKNESS OF 6 INCHES AND A MINIMUM LENGTH OF 12 INCHES. PAYMENT FOR SEALING AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

## EXCAVATION FOR ITEM B-19

EXCAVATION FOR B-19 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-19 MATERIAL SHALL BE MADE BY THE CONTRACTOR AT HIS OWN EXPENSE IF HE BUILDS THE EMBANKMENT UP TO FINISH GRADE BEFORE PLACING THE B-19 MATERIAL.

## 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 1:10, UNLESS OTHERWISE SHOWN IN THE PLANS.

## 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 SUBBASE COURSES PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT, AT LEAST EIGHTEEN INCHES (18") BEYOND THE CENTER LINE 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 INCHES (6") 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.

WHERE REMOVAL IS CALLED FOR ON THE PLAN, THE COST SHALL BE INCLUDED WITH THE PRICE BID FOR ROADWAY EXCAVATION.

## CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

## 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". PLACEMENT SHALL BE MADE IN ACCORDANCE WITH THE METHOD SHOWN ON SHEET 269.

*ESTIMATED QUANTITIES*  
Specific locations and usage of estimated quantities set up on the plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project.

## REPLACEMENTS

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