GENERAL NOTES

CALCULATED K.J.K. 10-95
CHECKED D.J.W. 10-95

GENERAL NOTES

GENERAL

ELEVATION DATUM

ALL ELEVATIONS REFER TO U.S.G.S. DATUM.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THE PLANS.

UNDERGROUND UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.04 O.R.C.

UTILITIES

THE FOLLOWING IS A LIST OF UTILITIES WITHIN OR ADJACENT TO THE CONSTRUCTION LIMITS OF THIS PROJECT:

THE CLEVELAND ELECTRIC ILLUMINATING CO.
55 PUBLIC SQUARE
P.O. BOX 5000
CLEVELAND, OHIO 44101
PH. 216-479-3452

AMERITECH
13630 LORAIN AVE., RM 400
CLEVELAND, OHIO 44111
PH. 216-476-6135

THE EAST OHIO GAS CO.
1201 EAST 55TH STREET
CLEVELAND, OHIO 44113
PH. 216-736-6675

CITY OF WILLOUGHBY
ONE PUBLIC SQUARE
WILLOUGHBY, OHIO 44094
PH. 216-951-2800

LAKE COUNTY DEPARTMENT OF UTILITIES
ADMINISTRATION BUILDING
105 MAIN STREET
PAINESVILLE, OHIO 44077
PH 216-664-3247

CONTINENTAL CABLEVISION
7820 DIVISION DR.
MENTOR, OHIO 44060
PH. 216-974-3201

REMOVAL OF TREES OR STUMPS

ALL TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	7	1	14

LOCATION OF GUARDRAIL

THE LOCATION OF GUARDRAIL RUN, AS SHOWN IN THESE PLANS, IS SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED OR PUNCHED. THE CONNECTION SHALL BE MADE BY USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

DUST CONTROL

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR APPLICATION FOR THE PREVENTION OR ALLEVIATION OF DUST AS DIRECTED BY THE ENGINEER.

ITEM 616	WATER	5 M. GAL.
ITEM 616	CALCIUM CHLORIDE	1 TON

EROSION CONTROL

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

WATERING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09:

ITEM 659	WATER	1 M. GAL.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 207	STRAW OR HAY BALES	50 EACH
ITEM 207	TEMPORARY SEEDING AND MULCHING	245 SQ.YDS.
ITEM 207	FILTER FABRIC FENCE	800 LIN.FT.
ITEM 659	REPAIR SEEDING AND MULCHING	61 CU.YD.S.
ITEM 659	WATER	1 M.GAL.
ITEM 659	COMMERCIAL FERTILIZER	0.01 TON

THESE QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM 407-TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 202- GUARDRAIL REMOVED, AS PER PLAN

EXISTING TEMPORARY RETAINING WALLS REMOVED SHALL BE INCLUDED WITH ITEM 202-GUARDRAIL REMOVED, AS PER PLAN.

LOSS OF MATERIAL BEHIND LAGGING

THE LAGGING SHALL BE INSTALLED FROM THE TOP DOWN AS EXCAVATION PROCEEDS. ANY LOSS OF MATERIAL BEHIND THE LAGGING SHALL BE FULLY REPLACED WITH PEA GRAVEL AT NO EXPENSE TO THE STATE.

STRUCTURE

ITEM 513 - STRUCTURAL STEEL (ASTM A36)

THE SOLDIER BEAMS AND ANY MISCELLANEOUS STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF ASTM A36 AND ITEM 513. THE SOLDIER BEAMS SHALL HAVE A MINIMUM EMBEDMENT AS PER THE TYPICAL SECTION. THE SOLDIER BEAMS SHALL BE LOCATED WITHIN A 1/2" RADIUS OF THE POSITION SHOWN ON THE PLAN AND SHALL NOT DEVIATE MORE THAN 1/8" PER FOOT FROM THE VERTICAL AXIS.

SPECIAL CARE SHALL BE TAKEN TO MAINTAIN GOOD CONTROL OF THE ALIGNMENT AND PLUMBNESS OF THE SOLDIER BEAMS DURING THE INSTALLATION.

ITEM 509 - REINFORCING STEEL, GRADE 60

REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF ITEM 509. THE REINFORCING STEEL SHALL BE GRADE 60. SEE PLAN SHEETS FOR DETAILS OF REINFORCING STEEL. THE REINFORCING STEEL SHALL BE COMPLETELY ASSEMBLED PRIOR TO PLACEMENT.

ITEM 524 - DRILLED SHAFT, 30" DIAMETER AS PER PLAN

CONCRETE PLACEMENT

THE CONCRETE FOR THE DRILLED SHAFTS SHALL BE PLACED AS PER ITEM 511 EXCEPT AS MODIFIED BY THE PLANS. IF THE SHAFT HAS BEDROCK SOCKET, THE CONCRETE FOR THE BEDROCK SOCKET SHALL BE PLACED AGAINST THE IN-SITU BEDROCK. THE CONCRETE FOR THE DRILLED SHAFT SHALL BE PLACED PROMPTLY AFTER THE FINAL INSPECTION OF THE SHAFT. IF PRACTICABLE, THE THE CONCRETE SHALL BE PLACED IN A CLEAN DRY EXCAVATION, HOWEVER, NO MORE THAN 2 INCHES OF STANDING WATER WILL BE PERMITTED. THE DRY CONSTRUCTION METHOD CAN ONLY BE USED WHEN LESS THAN 12 INCHES OF WATER ACCUMULATES ABOVE THE BASE OF THE HOLE DURING A ONE HOUR PERIOD WHEN NO PUMPING IS PERMITTED. CARE SHALL BE TAKEN TO ENSURE THAT CONCRETE IS NOT BEING PLACED IN MOVING WATER. THE CONCRETE MAY BE PLACED IN A DRY DRILLED SHAFT EXCAVATION BY THE FREE FALL METHOD PROVIDED THE CONCRETE FALLS TO ITS FINAL POSITION THROUGH AIR WITHOUT STRIKINGTHE SIDES OF THE HOLE, H-PILE OR ANY OTHER OBSTRUCTION. THE FREE FALL METHOD ALLOWS THE CONCRETE TO BE DROPPED FROM THE TOP THROUGH A CENTERING CHUTE TO THE CONCRETE'S FINAL POSITION. USE FREE FALL PLACEMENT WITH A 25 FOOT MAXIMUM HEIGHT FREE FALL. SUPPORT THE DROP CHUTE SO THAT THE MAXIMUM HEIGHT OF FREE FALL OF THE CONCRETE MEASURED FROM THE BOTTOM OF THE CHUTE IS 25 FEET.

CONCRETE

TWO TYPES OF CONCRETE SHALL BE USED TO FILL THE TYPE A PREBORED HOLES AND SHALL BE IN ACCORDANCE WITH ITWM 511 EXCEPT AS MODIFIED AND SUPPLEMENTED HEREIN. CLASS S (COMPRESSIVE STRENGTH 4,500 psi) SHALL BE PLACED FROM THE BOTTOM OF THE HOLE TO THE BOTTOM ELEVATION OF THE PERMANENT CONCRETE FACE. LOW STRENGTH CONCRETE (COMPRESSIVE STRENGTH 100 TO 500 psi) SHALL BE PLACED ABOVE THE BOTTOM ELEVATION OF THE PERMANENT CONCRETE FACE. IF CONCRETE IS PLACED UNDER WATER, THE REQIURMENT OF ADDING 10 PERCENT MORE CEMENT TO THE CONCRETE MIX SHALL BE WAIVED. THE MAXIMUM COARSE AGGREGATE SIZE SHALL BE NO. 8. THE TOP 5' TO 10' IS REQUIRED TO BE VIBRATED. ONLY A MINIMAL VIBRATORY EFFORT IS NECESSARY. SPECIAL CARE SHALL BE TAKEN NOT TO OVER-VIBRATE THE CONCRETE. NOTE: IF THE CASING IS REMOVED USING A VIBRATORY HAMMER, NO OTHER VIBRATORY EFFORT IS NEEDED.

THE CLASS S CONCRETE SHALL HAVE A SLUMP OF 6", PLUS OR MINUS 1/2" AND THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.50.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH HIS PROPOSED LEAN CONCRETE MIX DESIGN AND SHALL INCLUDE DOCUMENTATION BY APPROPRIATE STANDARD TEST RESULTS THAT THE PROPOSED MIX DESIGN WILL DEVELOP A SEVEN-DAY COMPRESSIVE STRENGTH BETWEEN 100 TO 500 psi.

INSPECTION

AN INSPECTION RECORD CHART HAD BEEN INCLUDED WITH THE PLANS ON SHEET 42 OF 53 AND SHOULD BE COMPLETED BY THE ENGINEER. MEASUREMENTS SHOULD BE OBTAINED PRIOR TO PLACING CONCRETE. THE CONTRACTOR SHOULD PROVIDE ALL NECESSARY EQUIPMENT NEEDED TO OBTAIN MEASUREMENTS FOR COMPLETING THE CHART. THE CONTRACTOR SHALL ASSIST THE ENGINEER IN OBTAINING THESE MEASUREMENTS. WHEN THE INSPECTION RECORD CHART IS COMPLETED, THE PROJECT ENGINEER SHOULD SUBMIT A COPY TO THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN: ATTENTION: FOUNDATION ENGINEER.

SEQUENCE OF INSTALLATION

THE INSTALLATION SEQUENCE SHALL BE SUCH THAT NO DRILL SHAFT IS INSTALLED ADJACENT TO EITHER AN OPEN DRILLED SHAFT EXCAVATION OR A DRILLED SHAFT IN WHICH THE CONCRETE HAS LESS THAN A SEVEN DAY CURE. INSTALLING THE SHAFTS IN AN ALTERNATING SEQUENCE OR ANY OTHER SEQUENCE THAT MEETS THIS CRITERIA IS PERMISSIBLE.

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