

G E N E R A L N O T E S

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| LAKE COUNTY | OHIO |
| LAKE-90/86-16.20/2.29 | FHWA REGION 5 |
| | FEDERAL PROJECT |

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BR-58-91

PROPOSED WORK

1. PLACEMENT OF ROCK CHANNEL PROTECTION AROUND PIER FOOTERS OF LAK-90-2003 L&R AND THE ABUTMENT FOOTER OF LAK-86-0229.
2. CLEANING OF DEBRIS RACK AND INSTALLATION OF CONCRETE FILLED FABRIC BAGS ON LAK-90-1620.

RIGHT OF WAY

ALL WORK WILL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY AND EASEMENTS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS, PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT, THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD. PLANS OF THE EXISTING STRUCTURES ARE AVAILABLE FOR EXAMINATION AT THE ODOT DISTRICT TWELVE OFFICE IN GARFIELD HEIGHTS, OHIO.

ITEM 202 - DEBRIS REMOVAL

THIS WORK SHALL INCLUDE THE REMOVAL AND DISPOSAL OFF THE JOB SITE OF ALL DEBRIS CAUGHT BY THE DEBRIS RACK OR CULVERT AND SHALL INCLUDE THE REMOVAL OF ANY ADDITIONAL DEBRIS WHICH MAY BE DEPOSITED FROM THE TIME OF THE INITIAL REMOVAL OF THE DEBRIS UNTIL FINAL INSPECTION IS COMPLETED.

THIS DEBRIS INCLUDES: TREES AND BRANCHES DEPOSITED BY THE RIVER, GRAVEL MATERIAL DEPOSITED BEHIND THE RACK WHICH NEEDS TO BE REMOVED TO GAIN ACCESS TO ALL DEBRIS, AND LOOSE MATERIAL INSIDE CULVERT DOWN TO THE SHALE. BEDROCK SHALL NOT BE DISTURBED. PAYMENT FOR THIS ITEM SHALL BE FULL COMPENSATION FOR MATERIAL, LABOR, EQUIPMENT AND ALL OTHER INCIDENTALS NECESSARY TO REMOVE THE DEBRIS FROM THE DEBRIS RACK. PAYMENT SHALL BE MADE UNDER:

| ITEM | UNIT | DESCRIPTION |
|------|------|----------------|
| 202 | LUMP | DEBRIS REMOVAL |

ITEM SPECIAL: CONCRETE FILLED FABRIC BAGS

A. DESCRIPTION

ALL WORK SHALL CONFORM TO THESE PLANS AND NOTES. THIS ITEM SHALL CONSIST OF FURNISHING, FIELD TAILORING AS NECESSARY AND INSTALLING CONCRETE FILLED FABRIC BAGS IN ACCORDANCE WITH THESE SPECIFICATIONS AND REASONABLY CLOSE CONFORMANCE WITH THE DESIGN AND DIMENSIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS INCLUDING FABRIC BAGS, CONCRETE GROUTING, AND ALL OTHER ITEMS OF WORK, NOT ITEMIZED AS SEPARATE ITEMS, NECESSARY TO PROVIDE A COMPLETE INSTALLATION OF CONCRETE FILLED FABRIC BAGS.

B. MATERIALS

THE FABRIC BAG SHALL BE MADE OF HIGH STRENGTH PERMEABLE FABRIC AS MANUFACTURED BY CONSTRUCTION TECHNIQUES, INC., 1700 THE SUPERIOR BLDG. CLEVELAND, OHIO 44114, TELEPHONE NUMBER, (216) 267-7310 OR TEXICON, 6929 WEST 130TH STREET, SUITE 510, CLEVELAND, OHIO 44130, TELEPHONE: (216) 843-3888. SEAMS SHALL BE FOLDED AND DOUBLED STITCHED. EACH BAG SHALL BE PROVIDED WITH A SELF CLOSING INLET VALVE TO ACCOMMODATE INSERTION OF THE CONCRETE PUMPING HOSE.

GROUT

CONCRETE GROUT SHALL CONSIST OF THE MIXTURE OF CEMENT, AGGREGATE, ADMIXTURE, AND WATER SO PROPORTIONED AS TO PROVIDE A PUMPABLE MIXTURE. THE CONCRETE SHALL BE MACHINE MIXED ACCORDING TO CMS 499, EXCEPT THAT 499.03 DOES NOT APPLY. THE CONCRETE SHALL BE PROPORTIONED OF MATERIALS SPECIFIED IN CMS 499.02 TO PROVIDE A MINIMUM CYLINDER STRENGTH OF 3,000 PSI IN 28 DAYS, AS DETERMINED FROM TESTING OF AT LEAST 3 CYLINDERS BY THE LABORATORY.

C. CONTRACTOR QUALIFICATIONS

THE CONTRACTOR SHALL FURNISH RECORDS OF HIS PAST EXPERIENCE IN PERFORMING THIS TYPE OF WORK. HE SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL, A DESCRIPTION OF THE MATERIALS TO BE USED AND SCHEDULE OF INSTALLATION SEQUENCE.

D. EQUIPMENT

PUMPING CAPACITY SHOULD BE ABOUT 12 CU. YDS. PER HOUR. A MINIMUM 2 IN. PIPE OR HOSE SHALL BE USED BETWEEN THE PUMP AND THE FABRIC BAGS.

E. INSTALLATION

INSTALLATION SHALL BE IN ACCORDANCE WITH THE METHOD PROVIDED BY THE REPRESENTATIVE OF THE CONCRETE FILLED FABRIC BAGS MANUFACTURER, WHO SHALL ACT THROUGH THE ENGINEER.

INSTALL LEVELING BAGS AND ALLOW TO CURE FOR 24 HOURS BEFORE INSTALLING REMAINING BAGS.

INSERT THE INJECTION PIPE THROUGH A SMALL SLIT CUT IN THE UPPER LAYER OF FABRIC. WRAP A PIECE OF BURLAP AROUND THE INSERT TO ACT AS A PACKER. USE CARE TO AVOID GROUT SPILLAGE.

IN FLOWING WATER, THE UPSTREAM EDGE OF THE MAT SHALL BE PUMPED FIRST. MAXIMUM ALLOWABLE WATER VELOCITY USING ROUTINE INSTALLATION PROCEDURES IS ABOUT 3 FT. PER SECOND.

DO NOT WALK ON THE BAG FOR ABOUT ONE HOUR AFTER PUMPING OR UNTIL THE GROUT IS SUFFICIENTLY HARD SO AS TO NOT LEAVE INDENTATIONS.

REMOVE BURLAP FROM INSERT HOLES AND SMOOTH MORTAR BY HAND.

F. INSPECTION

THE CONCRETE FILLED FABRIC BAG MANUFACTURER SHALL PROVIDE A REPRESENTATIVE WHO SHALL PROVIDE ON-SITE TECHNICAL ASSISTANCE TO THE ENGINEER AND ENSURE THAT THE CONTRACTOR FULLY UNDERSTANDS THE PROPER CONSTRUCTION PROCEDURES. THE REPRESENTATIVE SHALL PROVIDE THE ENGINEER A WRITTEN INSPECTION REPORT OF ALL MEASUREMENTS AND FINDINGS.

G. PAYMENT

PAYMENT FOR THE MATERIALS AND LABOR, EQUIPMENT, AND MANUFACTURER'S REPRESENTATIVE NECESSARY TO COMPLETE THE PLACEMENT OF ALL ACCEPTED FABRIC BAGS INCLUDING LEVELING BAGS SHALL BE MADE UNDER THE LIN. FT. OF BAGS MEASURED ALONG THE CENTERLINE OF CULVERT. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE FABRIC BAG SYSTEM.

PAYMENT WILL BE MADE UNDER:

| ITEM | UNIT | DESCRIPTION |
|---------|---------|----------------------------|
| SPECIAL | LIN FT. | CONCRETE FILLED FABRIC BAG |

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE B WITH FILTER, AS PER PLAN

THIS ITEM SHALL BE USED WITH FILTER FABRIC AND GROUT FILLER AT THE SOUTHERNMOST FOOTER OF LAK-86-0229.

THE GROUT FILLER TO BE USED SHALL BE CLASS F CONCRETE AS PER ITEM 499 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. GROUT FILLER SHALL BE PLACED IN SUFFICIENT QUANTITY TO COMPLETELY COVER MOST ROCKS. LARGE ROCKS SHALL BE GROUTED A MINIMUM DEPTH EQUAL TO 3/4 THEIR SIZE. ALL COSTS FOR GROUTING WITH CLASS F CONCRETE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 601 - ROCK CHANNEL PROTECTION, TYPE B WITH FILTER, AS PER PLAN.

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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 12 LOCATION & DESIGN | | | | |
| GENERAL NOTES | | | | |
| BRIDGE NOS.: LAK-90-1620, LAK-90-2003 L+R, AND LAK-86-0229 | | | | |
| LAKE COUNTY OHIO | | | | |
| DESIGNED BGW DATE | TRACED PDP DATE | CHECKED DWL DATE | REVIEWED GWM DATE 12/19/91 | REVISED |
| | | | | SHEET / |