ITEM SPECIAL - CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REPAIR DETERIORATED PORTIONS OF THE TOP OF THE BRIDGE DECKS THAT ARE EXPOSED TO VEHICULAR TRAFFIC INCLUDING SURFACE PREPARATION AND PATCHING.

A REPAIR DEPTH OF 3.25" IS ASSUMED FOR THE HAM-71-0000L BRIDGE DECK REPAIR QUANTITIES. A REPAIR DEPTH OF 2.75" IS ASSUMED FOR THE HAM-71-0159 BRIDGE DECK REPAIR QUANTITIES. THE REPAIR DEPTH SHALL BE ADJUSTED AS NECESSARY TO ENSURE THAT THE PATCH IS PLACED ADJACENT TO SOUND CONCRETE. HOWEVER, THE MAXIMUM REPAIR DEPTH SHALL BE LIMITED TO SIX INCHES. CONTACT THE ENGINEER IMMEDIATELY SHOULD THE EXTENT OF DETERIORATION EXCEED THESE LIMITS ESPECIALLY NEAR THE EXPANSION JOINTS. THE CONTRACTOR SHALL USE THE FOLLOWING PRODUCT TO PERFORM THE REPAIRS:

FIBRECRETE "B" BY MARKETING ASSOCIATES INC.
131 ST. JAMES WAY
MOUNT AIRY, NC 27030
PHONE: 336-789-7259
FAX: 336-789-7425
ATTN: BART PHARR
BPHARR@MARKETINGASSOCIATESINC.COM
WWW.MARKETINGASSOCIATESINC.COM

ANY APPROVED EQUAL WILL HAVE TO BE APPROVED BY THE DEPARTMENT PRIOR TO PLACEMENT. IN ORDER TO BE CONSIDERED AN APPROVED EQUAL, THE CONTRACTOR WILL HAVE TO DEMONSTRATE THAT THE PRODUCT CAN BE PLACED AT 15 DEGREES FAHRENHEIT AND ATTAIN THE NECESSARY STRENGTH SPECIFIED BY THE MANUFACTURER TO OPEN TO TRAFFIC WITHIN 2 HOURS. A FIELD MOCK-UP MAY BE REQUIRED BY THE ENGINEER UNDER THESE CONDITIONS.

PRODUCT DESCRIPTION

FIBRECRETE "B" IS A FLEXIBLE REPAIR FOR JOINTS, LARGE CRACKS, SPALLS, AND POT HOLES IN ASPHALT AND CONCRETE. IT IS A HOT-APPLIED POLYMER MODIFIED MASTIC ASPHALT BINDER; FACTORY BLENDED WITH GRADED FILLERS, STEEL FIBERS, GRANITE AGGREGATES AND RECYCLED TIRE RUBBER.

THE INSTALLED PRODUCT IS A LOAD TRANSFERRING REPAIR THAT HAS SUPERIOR TENSILE STRENGTH AND FLEXIBILITY TO ACCOMMODATE JOINT AND CRACK MOVEMENT ASSOCIATED WITH THERMAL EXPANSION AND CONTRACTION, AND VIBRATORY MOVEMENTS. FIBRECRETE "B" HAS EXCEPTIONAL RESISTANCE TO WATER INTRUSION AND TO A BROAD RANGE OF SALTS, BASES, AND ORGANIC MATERIALS, MAKING THE REPAIR A LONG-TERM SOLUTION FOR HIGHWAY MAINTENANCE PROJECTS.

MATERIAL SPECIFICATIONS
FIBRECRETE "B" IS SUPPLIED IN 50 POUND, EASY RELEASE CARDBOARD BOXES:

PROPERTIES	METHOD	REQUIREMENT
COLOR		BLACK
TENSILE STRAIN	FTL 548-C	35% MINIMUM @ 2"/MINUTE
CONE FLOW	FTL 549-C	10% MAXIMUM
AGGREGATE SETTLEMENT	FTL 551-C	5% MAXIMUM
FLEXIBILITY / MANDREL	FTL 550-C	GOOD OR BETTER (NO TEARING AT BEND POINT)
RESILIENCE	FTL 547-C	50% RECOVERY
RECOMMENDED APPLICATION TEMP.		300°F - 380°F
SPECIFIC GRAVITY		1.7 -2.0

* FTL TEST METHODS ARE AVAILABLE UPON REQUEST.

SITE PREPARATION

THE JOINT OR CRACK SHALL BE MILLED WITH AN APPROVED MILLING MACHINE TO THE SPECIFIED WIDTH AND DEPTH . THE POT HOLE OR SPALL SHALL BE MILLED, SAW CUT AND JACK HAMMERED, OR CORED AND JACK HAMMERED TO REMOVE THE DEFECTIVE AREAS. THE REPAIR SURFACES WILL BE CLEANED BY USING COMPRESSED AIR TO REMOVE SMALL DEBRIS. THE REPAIR AREA WILL THEN BE DRIED WITH A HOT COMPRESSED AIR LANCE (HCA). INSTALLATION IN CONCRETE OVERLAYS REQUIRES SANDBLASTING OF THE CONCRETE VERTICAL WALLS AND ADJACENT DECK AREA PRIOR TO THE USE OF THE HCA LANCE APPLICATION.

THE RECESSED AREA AND VERTICAL WALLS WILL BE TREATED WITH A PRIMER AGENT TO PROMOTE ADHESION AND PREVENT MOISTER INTRUSION (FOR CONCRETE APPLICATIONS ONLY).

INSTALLATION PROCEDURES

THE FIBRECRETE MATERIAL WILL BE HEATED IN A THERMOSTATICALLY CONTROLLED PURPOSE BUILT MIXER, HAVING A HORIZONTAL AGITATOR THAT ENSURES COMPLETE MIXING. ONCE THE MATERIAL HAS REACHED APPROXIMATELY 300 - 320°F, THE MOLTEN FIBRECRETE WILL BE INTRODUCED INTO THE PREPARED REPAIR AREA, SEALING THE BOTTOM OF THE REPAIR FROM WATER INTRUSION.

IF THE DEPTH OF THE REPAIR EXCEEDS 1 INCH, THE REMAINDER OF THE REPAIR PROCESS WILL CONSIST OF LAYERING COARSE HOT ANGULAR AGGREGATE (CLEANED AND DRIED) AT A RATE OF 25%-35% BY VOLUME WITH THE MOLTEN FIBRECRETE UNTIL WITHIN ¾" OF THE TOP OF THE REPAIR. THE BULKING AGGREGATE MUST BE WORKED INTO THE PATCH COMPLETELY. NO DRY LAYERS OF BULKING AGGREGATE WILL BE ALLOWED.

THE FINAL ¾" OF THE REPAIR WILL BE FIBRECRETE MATERIAL FOR OPTIMUM FLEXIBILITY OF THE REPAIR. ONCE THIS TOP LAYER HAS BEEN SCREEDED TO A LEVEL GRADE, A HIGH POLISHED STONE VALUE (PSV) AGGREGATE WILL BE APPLIED TO THE TOP OF THE REPAIR TO ENSURE PROPER SKID RESISTANCE. DEPENDING ON THE DEPTH OF THE REPAIR, THE FIBRECRETE MATERIAL WILL BE READY FOR TRAFFIC RETURN BETWEEN 30 MINUTES TO 1 HOUR.

PRIOR TO DEPARTURE, THE CREW SHALL INSURE THAT THE ENTIRE WORK AREA IS CLEAN OF DEBRIS. ALL REMOVED MATERIALS AND RESIDUAL REPAIR MATERIALS WILL BE RECOVERED AND DISPOSED OF AWAY FROM THE SITE ACCORDING TO THE CMS 202 AND 107.19.

SAFETY REQUIREMENTS AND PRECAUTIONS: COMPLY WITH APPLICABLE SAFETY REQUIREMENTS OF THE OHIO INDUSTRIAL COMISSION AND OSHA. PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) AT THE PRECONSTRUCTION MEETING FOR ALL MATERIALS AND ABRASIVES USED ON THIS PROJECT. DO NOT BEGIN WORK UNTIL SUBMITTING THE MSDS TO THE ENGINEER.

WEATHER:

THE FIBERCRETE DECK REPAIR MATERIAL SHALL NOT BE INSTALLED IF ANY PRECIPITATION IS EXPECTED AT THE JOBSITE.

INSTALLATION CREWS:
THE FIBRECRETE SYSTEM IS TO BE INSTALLED ONLY BY FACTORY TRAINED AND CERTIFIED INSTALLATION PROFESSIONALS.

QUALITY CONTROL

UPON REQUEST, CERTIFICATION OF THE MATERIALS SHALL BE PROVIDED.

THE ENGINEER MAY REQUIRE THE CONTRACTOR TO PROVIDE SAMPLES DURING THE COURSE OF THE WORK FOR LABORATORY TEST OF ANY OR ALL OF THE PROPERTIES SPECIFIED.

MANUFACTURER REPRESENTATIVE:

INSTALL THE FIBERCRETE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE DETAILS IN THESE PLANS. IN THE EVENT OF A CONFLICT, INSTALLATION INSTRUCTIONS IN THESE PLANS SUPERSEDE THOSE OF THE MANUFACTURER UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

A REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT FOR THE FIRST TWO DAYS OF THE INSTALLATION. THE REPRESENTATIVE SHALL BE FULLY CONVERSANT IN ALL RESPECTS WITH THE CORRECT INSTALLATION METHODS. THE REPRESENTATIVE SHALL BE RESPONSIBLE TO ADVISE BOTH THE ENGINEER AND THE CONTRACTOR THAT THE PROPER INSTALLATION METHOD IS BEING FOLLOWED. THE REPRESENTATIVE SHALL INSPECT THE INSTALLATION AND SHALL CERTIFY THAT THE CONTRACTOR IS PROFICIENT AND MEETS ALL OF THE MANUFACTURER'S SPECIFICATIONS. AFTER THE FIRST TWO DAYS, THE NEED FOR ANY ADDITIONAL ON SITE VISITS BY THE MANUFACTURER'S REPRESENTATIVE SHALL BE DETERMINED BY THE ENGINEER. SITE VISITS SHALL BE PAID FOR ON AN DAILY BASIS PER ITEM SPECIAL - STRUCTURE, MISC.: MANUFACTURER'S REPRESENTATIVE.

EQUIPMENT

THE EQUIPMENT WILL CONSIST OF:
1. SMALL SELF PROPELLED DRY CUT SAW.
2. PNEUMATIC COMRESSOR OF 185 CFM CAPACITY.
3. ONE HOT-COMPRESSED AIR (HCA) LANCE, CAPABLE OF DELIVERING A FLAME RETARDED AIR STREAM WITH A TEMPERATURE OF 3,000°F (1,648°C), AT A SPEED OF 3,000 FEET PER SECOND.
4. ROTATING VENTED OR UN-VENTED DRUM TYPE MIXERS EACH WITH A HCA LANCE OR A PRESSURE-AIR INJECTION (PAI) TORCH.
5. MELTER UNIT EQUIPPED WITH AGITATION AND AN AUTOMATIC TEMPERATURE CONTROL WHICH CAN ACCURATELY MAINTAIN THE MATERIAL TEMPERATURE FROM 100° - 375°F (38° - 191°C). A THERMOMETER TO MONITOR THE MATERIAL TEMPERATURE MUST BE PROVIDED. THE BURNER SYSTEM SHALL HAVE A SAFETY PILOT CAPABLE OF SHUTTING OFF THE GAS SUPPLY IN THE EVENT OF A FLAME-OUT.
6. 100 LB. BOTTLES OF PROPANE OR SMALLER.
7. CHOP-SAW WITH CARBIDE BLADE, IF NEEDED.
8. SANDBLASTING EQUIPMENT, REQUIRED ONLY FOR INSTALLATION IN A CONCRETE OVERLAY.
9. SAFETY CLOTHING AND EQUIPMENT AS REQUIRED BY OSHA.

WARRANTY

ALL PATCHES (FIBRECRETE OR EQUAL), WILL BE WARRANTED FOR 1 YEAR. ANY POPOUTS, DEBONDED, RUTTED, OR SHOVED AREAS OF THE PATCHING MATERIAL WILL BE CONSIDERED FAILURE AND IN NEED OF REPLACEMENT. FAILURE OF SURROUNDING AREAS ARE NOT INCLUDED IN THIS WARRANTY. ODOT WILL NOTIFY THE CONTRACTOR OF ANY FAILURES WITHIN ONE YEAR OF PROJECT COMPLETION. THE CONTRACTOR SHALL HAVE 30 DAYS TO REPAIR THE FAILED PATCH. ALL COSTS ASSOCIATED WITH PATCH REPAIRS INCLUDING BUT NOT LIMITED TO MAINTENANCE OF TRAFFIC, MATERIAL, LABOR, ETC. SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

FIBRECRETE TECHNOLOGIES, LLC (THE MANUFACTURER), WARRANTS THAT THE FIBRECRETE PRODUCTS MEET APPLICABLE SPECIFICATIONS AT THE TIME OF SHIPMENT AND THAT IT IS MANUFACTURED IN THE USA UNDER STRICT QUALITY STANDARDS.

METHOD OF MEASUREMENT

THE DEPARTMENT WILL MEASURE THE DECK REPAIR COMPLETELY INSTALLED BY THE NUMBER OF CUBIC FEET PLACED AT THE LOCATIONS INDICATED IN THE PLANS AND/OR PLACED AS DIRECTED BY THE ENGINEER. VOLUME OF MATERIAL INSTALLED SHALL ACCOUNT FOR THE VOLUME OF MODIFIED ASPHALT IN THE MACHINE AT TIME OF START PLUS THE POUNDS OF FIBERCRETE ADDED MINUS THE ENDING VOLUMNE OF MODIFIED ASPHALT IN THE MACHINE PLUS THE POUNDS OF ¾" STONE USED PLUS THE POUNDS OF TOPPING STONE USED.

BASIS OF PAYMENT

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITES AT THE CONTRACT PRICE AS FOLLOWS:

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTIONS OF THE BRIDGE THAT ARE TO REMAIN IN SERVICE. ANY DAMAGES THAT OCCUR WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT, THE COST TO PRODUCE FIELD SAMPLES, THE COST FOR MATERIALS TESTING AND ANY APPURTENANCES REQUIRED TO COMPLETE THE REPAIRS.

IF THE CONTRACTOR CAUSES DAMAGE OR INJURY TO PUBLIC OR PRIVATE PROPERTY, THE DEPARTMENT WILL NOT PAY FOR RESTORING THE PROPERTY TO ITS ORIGINAL CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIRING THE FIBRECRETE SYSTEM BECAUSE OF FAILURE TO MEET THESE SPECIFICATIONS.

THE COST OF HAVING A MANUFACTURER REPRESENTATIVE ON-SITE FOR THE INSTALLATION OF THE FIBRECRETE SYSTEM IS CONSIDERED INCIDENTAL TO THE COST OF THE SPECIFIED REPAIRS.

THE DEPARTMENT WILL NOT PAY FOR ACCESSING, INSPECTING, AND REPAIRING AREAS THAT ARE NOT FOUND TO BE IN CONFORMANCE WITH THE SPECIFICATIONS AND PERTINENT CONTRACT DOCUMENTS.

SAWCUTTING, MILLING AND THE REMOVAL OF ALL LOOSE AND UNSOUND CONCRETE AND BITUMINOUS PATCHES SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FT SPAN, AS PER PLAN FOR PAYMENT.

ALL OTHER REQUIREMENTS OF THIS SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL - CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 35-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

SUPERSTRUCTURE WORK CONSISTS OF THE REMOVAL OF ALL LOOSE AND UNSOUND PORTIONS OF THE CONCRETE OVERLAYS AND DECKS, ETC. AS WELL AS REMOVAL OF BITUMINOUS

DESIGN AGENCY
STATE OF OHIO
DEPT. OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

DESIGNED	DRAWN	REVIEWED	DATE
CAH	CAH	SCS	12-24-12
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCC		VARIES	

STRUCTURE GENERAL NOTES
BRIDGE No.: VARIES

HAM-71-0.27L / 1.59
PID No. 95132

PATCHES TO ACCOMMODATE PATCHING WITH FLEXIBLE CONCRETE. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING OVERLAY AND DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. THE CONTRACTOR MAY USE A HAMMER NO HEAVIER THAN 35 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS SHALL ENSURE ADEQUATE DEPTH CONTROL TO PROTECT THE PORTION OF DECK AND OVERLAY TO REMAIN IN SERVICE.

REPAIR AREAS SHOWN ON THE PLANS ARE CONSIDERED TENTATIVE AND APPROXIMATE. THE PROJECT ENGINEER SHALL SOUND (IF REQUIRED) AND MARK THE PERIMETER OF THE DELAMINATED AREAS TO BE REPAIRED ONCE CONSTRUCTION BEGINS IN ACCORDANCE WITH THE PHASED MAINTENANCE OF TRAFFIC.

SOUNDING MAY HAVE TO BE DELAYED UNTIL THE DECK IS SUFFICIENTLY DRY TO PERMIT DETECTION OF ALL AREAS OF DELAMINATION. THE PERIMETER OF ALL REMOVAL AREAS SHALL BE SAWED TO A DEPTH OF 1 INCH (25 MM) TO PRODUCE A VERTICAL OR SLIGHTLY UNDERCUT FACE. REMOVE CONCRETE TO A ROUGH SURFACE. ADDITIONAL SAW CUTS MAY BE REQUIRED TO FACILITATE REMOVAL. ALL UNSOUND CONCRETE INCLUDING ALL PATCHES OTHER THAN SOUND PORTLAND CEMENT CONCRETE, AND ALL LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED. THE UNSOUND CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 35 POUND (16 KG) CLASS AND SHALL BE OPERATED AT AN ANGLE OF LESS THAN 45 DEGREES MEASURED FROM THE SURFACE OF THE DECK CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING OR DAMAGING REINFORCING STEEL. WHERE THE BOND BETWEEN THE CONCRETE AND A PRIMARY REINFORCING BAR HAS BEEN DESTROYED, OR WHERE MORE THAN ONE HALF OF THE PERIPHERY OF SUCH A BAR HAS BEEN EXPOSED, THE ADJACENT CONCRETE SHALL BE REMOVED TO A DEPTH THAT WILL PROVIDE A MINIMUM 3#4 INCH CLEARANCE AROUND THE BAR EXCEPT WHERE OTHER REINFORCING BARS MAKE THIS IMPRACTICABLE. REINFORCEMENT WHICH HAS BECOME LOOSE SHALL BE ADEQUATELY SUPPORTED AND TIED BACK INTO PLACE. AFTER COMPLETION OF THE REMOVAL OPERATIONS, THE ENGINEER WILL RE-SOUND THE DECK TO ENSURE THAT ONLY SOUND CONCRETE REMAINS. MINIMIZE CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL ONLY BE PLACED ON THE PERIMETER OF THE REMOVAL AREAS.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN-UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN-UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

EXISTING BRIDGE PLANS

EXISTING BRIDGE PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR AT THE ODOT DISTRICT EIGHT OFFICE IN LEBANON, OHIO.

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 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 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

HAM-71-0000L ESTIMATED STRUCTURE QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP		6/10
511	81500	259	CU FT	CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE			259		
SPECIAL	53000520	2	DAY	STRUCTURE, MISC.: MANUFACTURER'S REPRESENTATIVE			2		

HAM-71-0159 ESTIMATED STRUCTURE QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP		6/10
511	81500	367	CU FT	CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE			367		
SPECIAL	53000520	2	DAY	STRUCTURE, MISC.: MANUFACTURER'S REPRESENTATIVE			2		

DESIGN AGENCY
STATE OF OHIO
DEPT. OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

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BCC		VARIES	

STRUCTURE GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE No.: VARIES

HAM-71-0.27L/1.59
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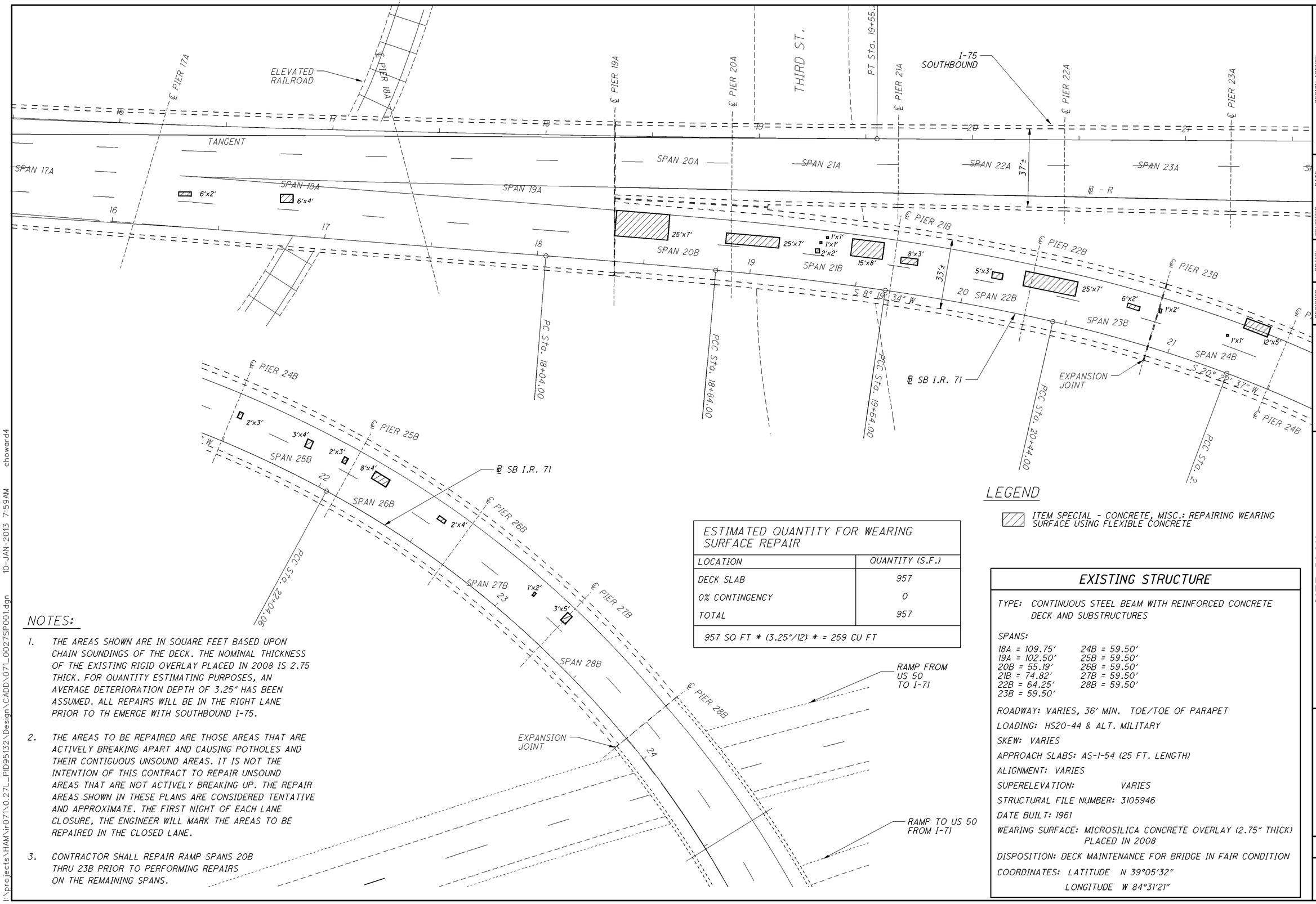

LEGEND

ITEM SPECIAL - CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE

ESTIMATED QUANTITY FOR WEARING SURFACE REPAIR

LOCATION	QUANTITY (S.F.)
DECK SLAB	957
0% CONTINGENCY	0
TOTAL	957

957 SQ FT * (3.25"/12) * = 259 CU FT

NOTES:

1. THE AREAS SHOWN ARE IN SQUARE FEET BASED UPON CHAIN SOUNDINGS OF THE DECK. THE NOMINAL THICKNESS OF THE EXISTING RIGID OVERLAY PLACED IN 2008 IS 2.75 THICK. FOR QUANTITY ESTIMATING PURPOSES, AN AVERAGE DETERIORATION DEPTH OF 3.25" HAS BEEN ASSUMED. ALL REPAIRS WILL BE IN THE RIGHT LANE PRIOR TO TH EMERGE WITH SOUTHBOUND I-75.

2. THE AREAS TO BE REPAIRED ARE THOSE AREAS THAT ARE ACTIVELY BREAKING APART AND CAUSING POTHOLES AND THEIR CONTIGUOUS UNSOUND AREAS. IT IS NOT THE INTENTION OF THIS CONTRACT TO REPAIR UNSOUND AREAS THAT ARE NOT ACTIVELY BREAKING UP. THE REPAIR AREAS SHOWN IN THESE PLANS ARE CONSIDERED TENTATIVE AND APPROXIMATE. THE FIRST NIGHT OF EACH LANE CLOSURE, THE ENGINEER WILL MARK THE AREAS TO BE REPAIRED IN THE CLOSED LANE.

3. CONTRACTOR SHALL REPAIR RAMP SPANS 20B THRU 23B PRIOR TO PERFORMING REPAIRS ON THE REMAINING SPANS.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURES

SPANS:

18A = 109.75'	24B = 59.50'
19A = 102.50'	25B = 59.50'
20B = 55.19'	26B = 59.50'
21B = 74.82'	27B = 59.50'
22B = 64.25'	28B = 59.50'
23B = 59.50'	

ROADWAY: VARIES, 36' MIN. TOE/TOE OF PARAPET

LOADING: HS20-44 & ALT. MILITARY

SKEW: VARIES

APPROACH SLABS: AS-1-54 (25 FT. LENGTH)

ALIGNMENT: VARIES

SUPERELEVATION: VARIES

STRUCTURAL FILE NUMBER: 3105946

DATE BUILT: 1961

WEARING SURFACE: MICROSILICA CONCRETE OVERLAY (2.75" THICK) PLACED IN 2008

DISPOSITION: DECK MAINTENANCE FOR BRIDGE IN FAIR CONDITION

COORDINATES: LATITUDE N 39°05'32"
LONGITUDE W 84°31'21"

DESIGN AGENCY
STATE OF OHIO
DEPT. OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

DESIGNED	DRAWN	REVIEWED	DATE
CAH	CAH	SCS	12-24-12
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCC		3105946	

HAMILTON COUNTY
STA. 16+00.00
STA. 24+00.00

SITE PLAN
BRIDGE No.: HAM-71-0000
I-71 OVER THIRD STREET

HAM-71-0.27/1.59
PID No. 95132

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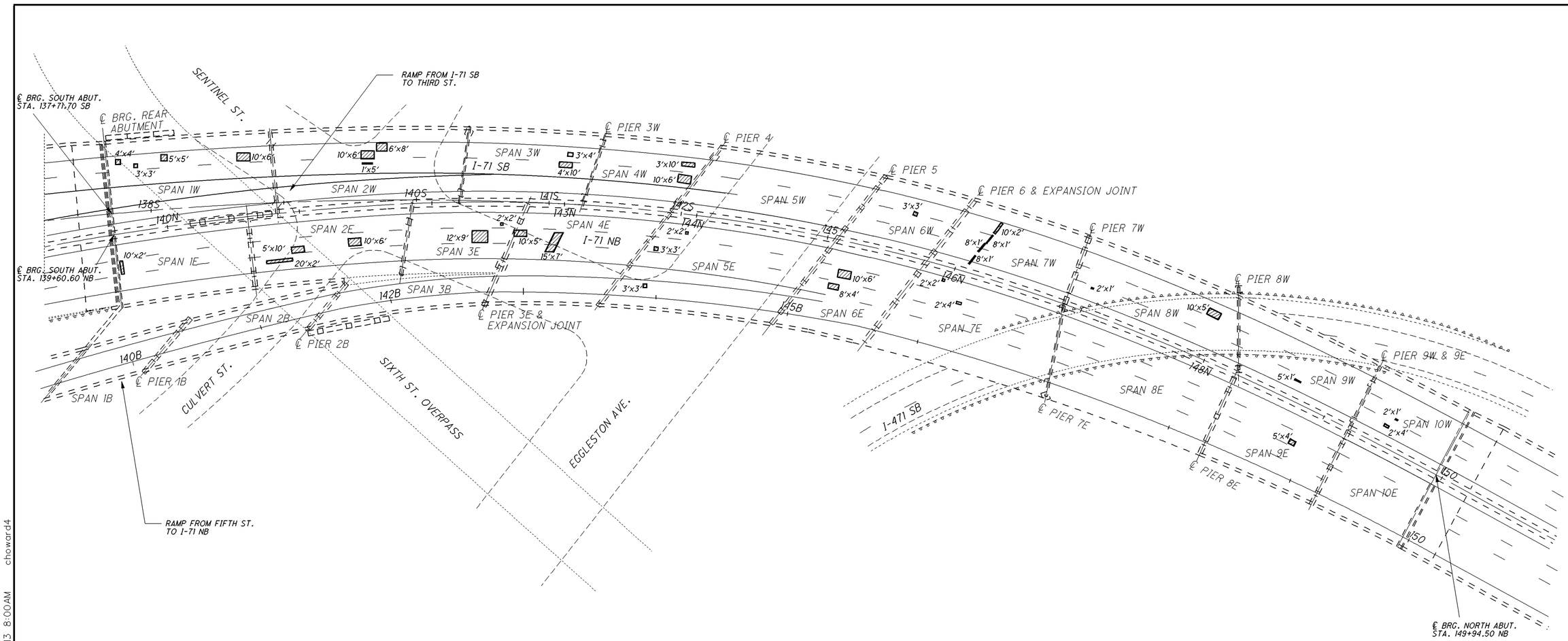

NOTES:

1. THE AREAS SHOWN ARE IN SQUARE FEET ARE BASED UPON VISUAL OBSERVATIONS FROM THE SHOULDER. THE NOMINAL THICKNESS OF THE EXISTING RIGID OVERLAY PLACED IN 1995 IS 1.75" THICK. FOR QUANTITY ESTIMATING PURPOSES, AN AVERAGE DETERIORATION DEPTH OF 2.75" HAS BEEN ASSUMED. ADDITIONALLY, THE OVERALL QUANTITY FOR THIS STRUCTURE HAS BEEN INCREASED BY 50% TO ACCOUNT CONTIGUOUS AREAS THAT ARE FOUND TO BE UNSOUND.

2. THE AREAS TO BE REPAIRED ARE THOSE AREAS THAT ARE ACTIVELY BREAKING APART AND CAUSING POTHOLES AND THEIR CONTIGUOUS UNSOUND AREAS. IT IS NOT THE INTENTION OF THIS CONTRACT TO REPAIR UNSOUND AREAS THAT ARE NOT ACTIVELY BREAKING UP. THE REPAIR AREAS SHOWN IN THESE PLANS ARE CONSIDERD TENTATIVE AND APPROXIMATE. THE FIRST NIGHT OF EACH LANE CLOSURE, THE ENGINEER WILL MARK THE AREAS TO BE REPAIRED IN THE CLOSED LANE(S).

ESTIMATED QUANTITY FOR WEARING SURFACE REPAIR

LOCATION	QUANTITY (S.F.)
DECK SLAB	1,068
50% CONTINGENCY	534
TOTAL	1,602
1,602 SQ FT * (2.75"/12) = 367 CU FT	

LEGEND

ITEM SPECIAL - CONCRETE, MISC.: REPAIRING WEARING SURFACE USING FLEXIBLE CONCRETE

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL GIRDER BRIDGE WITH REINFORCED CONCRETE DECK, ABUTMENTS AND CAP AND COLUMN PIERS.

NB SPANS: 100.4',125',86',108.7',126.3',70',108.4',139.1',95',73'

SB SPANS: 122.3',137.5',91.5',69.5',126.3',70',108.4',141.1',93',73'

RAMP SPANS: 83',128.5',125.9'

ROADWAY: VARIES, 50' MIN. TOE/TOE OF PARAPET NB & SB

LOADING: HS20-44

SKEW: VARIES

APPROACH SLABS: AS-1-54 (25' LENGTH)

ALIGNMENT: VARIES

SUPERELEVATION: VARIES

STRUCTURAL FILE NUMBER: 3106608

DATE BUILT: 1966

WEARING SURFACE: LATEX MODIFIED CONCRETE OVERLAY (1.75" THK.) PLACED CIRCA 1995

DISPOSITION: DECK MAINTENANCE FOR BRIDGE IN FAIR CONDITION

COORDINATES: LATITUDE N 39° 06' 14"
LONGITUDE W 84° 30' 16"

DESIGN AGENCY
STATE OF OHIO
DEPT. OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

DESIGNED	DRAWN	REVIEWED	DATE
CAH	CAH	SCS	12-24-12
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCC		3106608	

HAMILTON COUNTY
STA. STA. 137+71.70
STA. STA. 149+94.50

SITE PLAN

BRIDGE No.: HAM-71-0159
I-71 OVER EGGLESTON AVE. AND RAMP TO I-471 SB

HAM-71-0.27/1.59
PID No. 95132

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