E. FABRICATION AND QUALITY CONTROL:

1. BRIDGE FABRICATOR SHALL BE CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION TO HAVE THE PERSONNEL, ORGANIZATION, EXPERIENCE, CAPABILITY, AND COMMITMENT TO PRODUCE FABRICATED STRUCTURAL STEEL FOR MAJOR STEEL BRIDGE STRUCTURES AS SET FORTH IN THE AISC CERTIFICATION PROGRAM. FABRICATORS HAVING CERTIFICATION IN ONLY THE SIMPLE STEEL BRIDGE CATEGORY WILL NOT BE ACCEPTABLE.

2. WORKMANSHIP, FABRICATION, AND SHOP CONNECTIONS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE AISC, AWS AND AASHTO SPECIFICATIONS.

3. BRIDGE SHALL BE INSPECTED BY A CERTIFIED WELD INSPECTOR THAT IS QUALIFIED UNDER THE AWS QC–1 PROGRAM. THIS INSPECTION SHALL INCLUDE AS A MINIMUM REQUIREMENT THE FOLLOWING: REVIEW OF SHOP DRAWINGS, WELD PROCEDURES, WELDER QUALIFICATIONS AND WELD TESTING REPORTS, VISUAL INSPECTION OF WELDS AND VERIFICATION OF OVERALL DIMENSIONS AND GEOMETRY OF BRIDGE. A REPORT SHALL BE PRODUCED INDICATING THE ABOVE ITEMS WERE REVIEWED. THE REPORT SHALL BE SIGNED BY THE CWI, SIGNIFYING COMPLIANCE WITH AWS D1.1 CODES.

4. ALL STRUCTURAL ELEMENTS USED IN THE BRIDGE SHALL BE IDENTIFIED BY THE HEAT NUMBER OF THE STEEL MEMBER USED. SPECIFIC MILL TEST REPORTS AND INDIVIDUAL WELDER CERTIFICATES SHALL BE TRACKED AND KEPT ON FILE TO BE PROVIDED AT THE REQUEST OF THE OWNER OR ENGINEER.

5. WELDING OPERATORS SHALL BE PROPERLY ACCREDITED EXPERIENCED OPERATORS, EACH OF WHOM SHALL SUBMIT SATISFACTORY EVIDENCE OF EXPERIENCE AND SKILL IN WELDING STRUCTURAL STEEL WITH THE KIND OF WELDING TO BE USED IN THE WORK, AND WHO HAVE DEMONSTRATED THE ABILITY TO MAKE UNIFORM GOOD WELDS MEETING THE SIZE AND TYPE OF WELD REQUIRED. WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS D1.1.

6. ALL WELDING SHALL UTILIZE E70 OR E80 SERIES ELECTRODES. THE WELD PROCESS USED SHALL BE FLUX CORE ARC WELDING (FCAW) OR GAS METAL ARC WELDING (GMAW) OR SHIELDED MANUAL ARC WELDING (SMAW PER ANSI/AASHTO/AWS D1.5) "BRIDGE WELDING CODE."

7. MANUFACTURER SHALL INSTALL DRAIN HOLES IN TUBES TO ALLOW MOISTURE TO ESCAPE.

F. RAILINGS & ACCESSORIES:

1. ALL RAILINGS SHALL HAVE A SMOOTH INSIDE SURFACE WITH NO PROTRUSIONS OR DEPRESSIONS. ALL ENDS OF ANGLES AND TUBES SHALL BE CLOSED AND GROUND SMOOTH. RAILINGS FOR PEDESTRIAN/BIKEWAY USE SHALL BE A MINIMUM OF 54" ABOVE THE DECK FLOOR. STRUCTURAL DESIGN OF RAILING SYSTEMS SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.

2. CONTINUOUS TIMBER RAILS SHALL BE LOCATED ON THE INSIDE OF THE TRUSSES. THE RAILS SHALL BE AS SHOWN ON THE DRAWINGS. TIMBER RAILING SHALL BE NO. 1 SOUTHERN YELLOW PINE TREATED TO A MINIMUM OF 0.40 POUNDS OF PRESERVATIVE PER CUBIC FOOT OF WOOD. HORIZONTOL RAILS SHALL BE SPACED IN SUCH A WAY THAT A 4" SPHERE WILL NOT PASS THROUGH RAIL OPENINGS.

G. FINISHES:

1. FINISHING FOR WEATHERING STEEL:

TO AID IN PROVIDING A UNIFORMLY "WEATHERED" APPEARANCE, ALL EXPOSED SURFACES OF STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS NO. 7 BRUSH–OFF BLAST CLEANING, SSPC–SP7 LATEST EDITION.

EXPOSED SURFACES OF STEEL SHALL BE DEFINED AS THOSE SURFACES SEEN FROM THE DECK AND FROM OUTSIDE OF THE STRUCTURE. STRINGERS, FLOOR BEAMS, LOWER BRACE DIAGONALS AND THE INSIDE FACE OF THE TRUSS BELOW DECK AND BOTTOM FACE OF THE BOTTOM CHORD SHALL NOT BE BLASTED.

H. DELIVERY AND ERECTION:

1. BRIDGE SHALL BE DELIVERED BY TRUCK TO A LOCATION NEAREST TO THE SITE ACCESSIBLE BY ROADS. HAULING PERMITS AND FREIGHT CHARGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

2. THE MANUFACTURER WILL NOTIFY THE CONTRACTOR IN ADVANCE OF THE EXPECTED ARRIVAL TIME. INFORMATION REGARDING DELAYS AFTER THE TRUCKS DEPART THE PLANT SUCH AS INCLEMENT WEATHER, DELAYS IN PERMITS, RE–ROUTING BY PUBLIC AGENCIES OR OTHER CIRCUMSTANCES WILL BE PASSED ON TO THE CONTRACTOR AND OWNER AS SOON AS POSSIBLE. THE EXPENSE OF SUCH DELAYS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

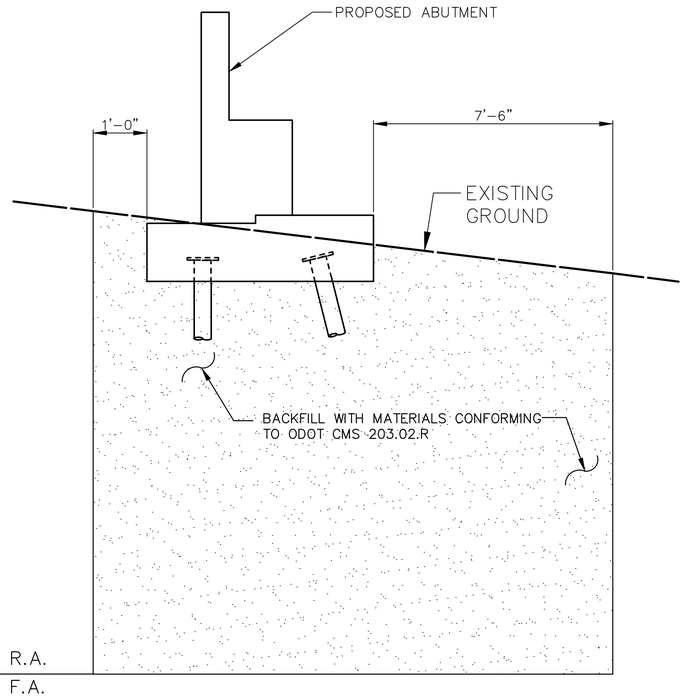
3. THE MANUFACTURER WILL ADVISE THE CONTRACTOR OF THE ACTUAL LIFTING WEIGHTS, ATTACHMENT POINTS AND ALL NECESSARY INFORMATION TO INSTALL THE BRIDGE. UNLOADING, SPLICING, BOLTING, PROPER LIFTING EQUIPMENT, SETTING IN PLACE, ETC. ARE THE RESPONSIBILITY OF THE CONTRACTOR.

4. THE CONTRACTOR SHALL INSTALL THE ANCHOR BOLTS IN ACCORDANCE WITH THE MANUFACTURER'S ANCHOR BOLT SPACING DIMENSIONS.

5. ENGINEERING DESIGN OF THE BRIDGE ABUTMENTS, PIERS AND/OR FOOTING SHALL BE BY THE OWNER.

I. WARRANTY

1. THE MANUFACTURER SHALL PROVIDE A WARRANTY AGAINST DEFECTS IN DESIGN, MATERIAL AND WORKMANSHIP FOR A PERIOD OF TEN YEARS FROM THE DATE OF DELIVERY. REPAIR OR REPLACEMENT SHALL BE THE SPECIFIC REMEDY FOR DEFECTS UNDER THE WARRANTY.



EXCAVATION DETAIL

7. HIGH FRICTION SURFACE TREATMENT

A. GENERAL

THIS WORK SHALL CONSIST OF THE APPLICATION OF A HIGH FRICTION SURFACE TREATMENT TO THE FINISHED WOOD DECK SURFACE OF THE PEDESTRIAN BRIDGE. THE SURFACE TREATMENT SHALL BE MACHINE OR HAND APPLIED, HIGH FRICTION, MULTIPURPOSE SURFACE TREATMENT SUITABLE FOR APPLICATION ON ASPHALT, CONCRETE AND WOOD SURFACES. THE INSTALLED SYSTEM WILL PROVIDE A DURABLE, HIGH FRICTION SURFACE FOR VEHICLES OR PEDESTRIANS ON DRY OR WET PAVEMENTS.

B. MATERIALS

THE HIGH FRICTION SURFACE TREATMENT SHALL BE MANUFACTURED BY PAVETECH INTERNATIONAL, 4660 DUKE DRIVE, SUITE 390, MASON, OHIO 45040, PHONE 1–800–544–7737, OR APPROVED EQUAL.

THE SYSTEM SHALL BE COMPRISED OF A TWO PART COLD APPLIED EPOXY RESIN SURFACE TREATMENT CONTAINING (PIGMENTED) EPOXY/AMINO BINDER COVERED WITH NATURAL OR PIGMENTED AGGREGATES. THE BINDER AND AGGREGATE COLORS SHALL BE SUBMITTED VIA A COLOR CHART WITH THE SHOP DRAWINGS USING THE MATERIALS, COLORS, AND 1–3MM BAUXITE/RED GRANITE AGGREGATES.

C. INSTALLATION

WEATHER LIMITATIONS: DO NOT APPLY EPOXY BINDER MATERIAL ON A WET SURFACE OR WHEN ANTICIPATED WEATHER CONDITIONS WOULD PREVENT THE PROPER CONSTRUCTION OF THE SURFACE TREATMENT AS DETERMINED BY THE MANUFACTURER. THE AMBIENT AND/OR SURFACE TEMPERATURE SHOULD BE A MINIMUM OF 45°F AND RISING.

SURFACE PREPARATION: EXISTING SURFACES SHALL BE CLEANED BY USE OF MECHANICAL SWEEPERS, HIGH PRESSURE AIR OR OTHER METHODS APPROVED BY THE ENGINEER PRIOR TO USE. RECEIVING SURFACES MUST BE CLEAN, DRY AND FREE OF ALL DUST, OIL, DEBRIS AND ANY OTHER MATERIAL THAT MIGHT INTERFERE WITH THE BOND BETWEEN THE EPOXY BINDER MATERIAL AND EXISTING SURFACES. SURFACES MAY NEED TO BE WASHED WITH A MILD DETERGENT, RINSED AND DRIED USING A HOT COMPRESSED AIR LANCE. ADEQUATE CLEANING OF ALL SURFACES WILL BE DETERMINED BY THE ENGINEER AND/OR MANUFACTURER'S REPRESENTATIVE.

COVER AND PROTECT ALL ADJACENT SURFACES NOT INTENDED TO BE TREATED PRIOR TO PLACEMENT OF THE SURFACE TREATMENT.

A MANUFACTURER'S REPRESENTATIVE OR MANUFACTURER'S APPROVED APPLICATOR MUST BE ON SITE TO PROVIDE TECHNICAL ASSISTANCE DURING PREPARATION, MATERIAL PLACEMENT AND DURING ANY NECESSARY REMEDIAL WORK.

INSTALLATION: MEASURE AND MARK THE SURFACE AREA TO BE TREATED. APPLY MARKING TAPE AS NECESSARY AT THE PERIMETER OF THE AREA TO BE TREATED. THE EPOXY BINDER COMPONENTS (A & B) SHALL BE PROPORTIONED TO THE CORRECT RATIO (50:50 +/– 5% BY WEIGHT), MIXED USING A LOW SPEED HIGH TORQUE DRILL FITTED WITH A HELICAL STIRRER SPREAD BY SERRATED EDGE SQUEEGEE.

EPOXY BINDER SHALL BE UNIFORMLY DISTRIBUTED OVER THE SECTION TO BE TREATED AND WITHIN THE TEMPERATURE RANGE SPECIFIED. OPERATIONS SHALL PROCEED IN SUCH A MANNER THAT WILL NOT ALLOW THE EPOXY MATERIAL TO CHILL, SET UP, DRY OR OTHERWISE IMPAIR RETENTION OF THE COVERED AGGREGATE.

THE MIXED COMPONENTS MAY BE MACHINE OR HAND APPLIED ONTO THE CLEANED SURFACE AT A MINIMUM COVERAGE RATE OF APPROXIMATELY 2.4 LBS. – 2.8 LBS. PER SQUARE YARD DEPENDING ON SURFACE POROSITY. HAND APPLIED BINDER SHALL BE UNIFORMLY SPREAD ONTO THE SUBSTRATE SURFACE BY MEANS OF A SERRATED EDGE SQUEEGEE. MACHINE APPLIED DISTRIBUTING EQUIPMENT SHALL INCLUDE ACCURATE MEASURING DEVICES AND/OR CALIBRATED CONTAINERS AND THERMOMETERS FOR MEASURING THE BINDER TEMPERATURE PRIOR TO PLACEMENT. BINDER APPLIED TO THE EXISTING SURFACE SHALL ACHIEVE APPROXIMATELY 50–75 MILS OF THICKNESS.

IMMEDIATELY APPLY TYPE II– PEDESTRIAN GRADE AGGREGATE, AT AN EXCESS RATE OF 16–18 LBS. PER SQUARE YARD COVERAGE.

THE PLACEMENT OF THIS MATERIAL DOES NOT REQUIRE ANY COMPACTION.

CURING: ALLOW THE TREATMENT TO CURE IN ACCORDANCE WITH MANUFACTURE RECOMMENDATIONS, APPROXIMATELY 3 HOURS AT AN AMBIENT TEMPERATURE OF 68°F. REMOVE THE EXCESS AGGREGATE BY HAND OR SUCTION SWEEPING BEFORE OPENING TO TRAFFIC. ADDITIONAL SWEEPING MAY BE NECESSARY AFTER THE SYSTEM FULLY CURES. THE COVERAGE RATE OF THE RETAINED AGGREGATE IS APPROXIMATELY 12–15 LBS. PER SQUARE YARD.

INSTALLATIONS ON NEW PRESSURE TREATED LUMBER: ALLOW ALL NEW CCA PRESSURE TREATED LUMBER TO DRY OUT WITH MINIMUM TIME FRAME AS RECOMMENDED BY THE FRICTION SURFACE TREATMENT MANUFACTURER.

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REV.	DATE	DESCRIPTION
1	06/02/14	REVISED PER LOCAL AGENCY COMMENTS
2	06/27/14	REVISED PER LOCAL AGENCY COMMENTS
3	07/18/14	REVISED PER LOCAL AGENCY COMMENTS
4	07/25/14	REVISED PER LOCAL AGENCY COMMENTS
5	08/01/14	MILLER PARCEL UTILITY UPDATE
6	08/05/14	COMMENTS FOR GRADING APPROVAL
7	08/20/14	REVISED PER LOCAL AGENCY COMMENTS
8	08/22/14	SANITARY REVISION MH 300–302
9	09/12/14	REVISED PER LOCAL AGENCY COMMENTS

THE PRESERVE AT MILLER'S FARM
SE CORNER OF SR 18 AND MEDINA LINE RD
COPLEY, OHIO 44321

BRIDGE
(FOR INFORMATIONAL PURPOSES ONLY)
NOTES

ISSUED FOR:	
PERMIT	06-02-14
BID	06-02-14
CONSTRUCTION	09-16-14
RECORD	-

PROJECT MANAGER	DESIGNER
MAL	DGN

JOB NO. 2013258.00

Drawing Name: O:\2013\2013258\00\DWG\Construction Documents\2013258 00 Bridge Plans.dwg
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