THE CITY OF ANN ARBOR

PARKS & RECREATION SERVICES

2019 PARK BRIDGE REPAIRS AND RENOVATIONS

OCTOBER 2019

ITB NO. 4597

NOTES:

THE PROPOSED IMPROVEMENTS ARE BASED ON THE 17TH EDITION OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE CONTRACT DOCUMENTS, ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN CONFORMITY WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY PERMIT REQUIREMENTS.

IN CASE OF DISCREPANCY, THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL GOVERN OVER THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:

- CONCRETE: GRADE S2
  \[ f'_c = 3,000 \text{ psi} \]
- CONCRETE: GRADE D
  \[ f'_c = 4,000 \text{ psi} \]
- STEEL REINFORCEMENT
  \[ f_y = 60,000 \text{ psi} \]
- STRUCTURAL STEEL:
  - AASHTO M270
    - GRADE 36
      \[ f_y = 36,000 \text{ psi} \]
    - GRADE 50 AND 50W
      \[ f_y = 50,000 \text{ psi} \]
  - ASTM A441
    \[ f_y = 50,000 \text{ psi} \]

ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.

UNLESS OTHERWISE SHOWN ON THE PLANS PROVIDE MINIMUM CONCRETE CLEAR COVER FOR REINFORCEMENT ACCORDING TO THE FOLLOWING:

- CONCRETE CAST AGAINST EARTH: 3 in.
- ALL OTHER UNLESS SHOWN ON PLANS: 2 in.

NORTH BARTON PARK PEDESTRIAN STRUCTURE
OVER HURON RIVER

SOUTH BARTON PARK PEDESTRIAN STRUCTURE
OVER HURON RIVER

BANDEMER PARK PEDESTRIAN AND VEHICLE STRUCTURES
OVER HURON RIVER

ARGO DAM PEDESTRIAN STRUCTURE
OVER ARGO CANOE LIVERY

MITCHELL FIELD PEDESTRIAN STRUCTURE
OVER HURON RIVER

GALLUP PARK VEHICLE STRUCTURE
OVER HURON RIVER

THE CEMENT OF ANY CURRENT STANDARD DETAIL DOES NOT REPLACE THE CONTRACT DOCUMENTS. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICES DEPARTMENT SPECIFICATIONS AND DETAILS.

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### GENERAL NOTES

**UTILITIES**

MISS SIG/UNDERGROUND UTILITY NOTIFICATION

For the protection of underground utilities and in accordance with MCL 460.171, et seq., the Contractor shall contact MISS SIG System, Inc. by phone at 811 or 800-482-7771 or via the web at either locates.mيس.org for single address or rtre.mيس.org, a minimum of 3 work days prior to excavation, excluding weekends and holidays.

### OLD PLANS

**OLD ROAD PLANS**

The following old road plans were referred to in the design of this project:

- 91905 N Bartton Pedestrian Confidential Plans
- 91909 S Bartton Pedestrian Confidential Plans
- 94483 Bandemer Pedestrian Confidential Plans
- 94484 Bandemer Vehicle Pedestrian Confidential Plans
- Mitchell Field Bridge Construction Plans
- 4849193-1 Argo Pedestrian Confidential Drawings

These plans may be obtained by contacting Hilary Hazell at (734) 794-6230, ext. 42548.

### EARTHWORK

Earthwork quantities are computed based upon limited survey information. These quantities are for bidding purposes only and will be adjusted by the Engineer based upon actual field measurements.

### SLOPES

Slope Restoration, Type B, shall be constructed on this project, where indicated.

### EARTH DISTURBANCE LIMITS

Contractor shall remedy any disturbance to any construction staging area, material storage locations, work areas, and the like with topsoil, seed, and mulch as approved by the Engineer. The Contractor shall fill in any ruts or depressions caused by the work. Depending upon the level of disturbance caused by the work, the Contractor may elect to make the existing topsoil friable by scarifying and raking, and re-seed with approved seeding mixtures, and place mulch as needed to re-establish the disturbed turf areas. This work shall not be paid for separately, but shall be included in the item of work “General Conditions, Max. $50,000.”

### SOIL EROSION MEASURES

Appropriate soil erosion and sedimentation control measures shall be in place prior to earth-disturbing activities. The Engineer will not determine the precise soil erosion and sedimentation control measures to employ on this project. It is the responsibility of the Contractor to prevent and remedy any erosion, siltation, or surface disturbances by providing appropriate control measures. This work shall not be paid for separately, but shall be included in the item of work “General Conditions, Max. $50,000.”

### TREE AND BRUSH CLEARING

If the Contractor determines that tree and/or brush removal is required adjacent to any structure to provide access or complete the work of this project, they shall contact Hilary Hazell at (734) 794-6230, ext. 42548, and provide the location(s) and extent of clearing requested. The Owner will review the locations and extent of the requested removal(s) and will complete the removal(s) to the extent determined feasible and acceptable to the Owner. A low fence (3”) working days after request for the Owner is complete clearing at any one structure.

### SIGNAGE

**GENERAL**

All signs shall be installed, removed and/or salvaged according to the current edition of “Michigan Manual on Uniform Traffic Control Devices” and the current edition of Michigan Department of Transportation (MDOT) “Standard Plans for Roadway Design.”

All signs on the plans or in the log that do not have a recommendation are to be retained.

### EXISTING SIGN RELOCATION

Any permanent signs requiring relocation due to Contractor operations shall be salvaged and reset by the Contractor at locations designated by the Engineer. Signs and posts damaged during the removal and storage operations shall be replaced with new signs and posts. The cost of this work shall be borne by the Contractor.

### SHEETING

Handing and installation of all signs shall conform to the sheeting manufacturer’s specifications and guidelines.

Splice sheeting used for Type I signs with a 3” overlap.

Signs that have wrinkled or twisted sheeting may be rejected.

### SIGN INSTALLATION

When attaching signs to supports, tighten the nut, not the bolt head.

### NOTES APPLYING TO MODOT STANDARD PLANS

Where the following items are called for on plans, they are to be constructed according to the MDOT standard plan given below opposite each item unless otherwise indicated.

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<th>Quantity</th>
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<th>Category 0007 – Gallup Park Vehicle Structure</th>
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NOTES:

1. The structure is located in Barton Park, on the east side of W. Huron River Drive, just south of the intersection with Bird Road. The Barton Pond Dam is located approximately 400 feet upstream of the structure.

2. The existing structure is a two-span, weathering steel truss structure, a total of 190'-10" in length, with a concrete wall pier and concrete abutments. The bridge has a clear width of 10'-0". The existing structure was designed for 85 PSF uniform live loading or, 20 PSF pedestrian uniform load plus one 6,000 lb vehicle load.

3. The work consists of chipping and patching the west end of the pier, located on the southeast side of the river and placing washers and nuts on the anchor bolts on the truss bearings at the same pier.

4. Access to the area shall be from the parking lot located approximately 700 feet northwest of the structure. The contractor may use an area of the gravel surface parking lot for equipment, material storage, and employee parking. The area shall not exceed 40 feet in length by approximately 20 feet in width, and shall be located along the west edge of the parking lot. The use of any trails or grass areas for these purposes is strictly forbidden. The contractor shall not block the use of any trail within the park, adjacent to this structure. The trail and structure shall remain open at all times. Pedestrian usage of the trail and structure shall be maintained at all times.
CONCRETE PATCHING DETAIL

NOTE: LIMITS OF REPAIR TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. TO BE USED FOR SUBSTRUCTURE REPAIRS AS DIRECTED BY THE ENGINEER. SEE NOTE 1 FOR MORE DETAILS.

SECTION AT SUBSTRUCTURE PATCHING

NOTE: CONTRACTOR TO PREPARE AREAS FOR CONCRETE REPAIRS, FOR REVIEW BY THE ENGINEER. PRIOR TO FORMING AND PLACING PATCHING MATERIAL. REPAIR OF REPAIR AREAS PRIOR TO FORMING AND PATCHING SHALL INCLUDE, BUT NOT BE LIMITED TO: COMPLETING THE SPECIFIED SAW CUTTING; REMOVING UNSOUND CONCRETE; BLAST CLEANING EXPOSED REINFORCING STEEL, FLUSHING AREA WITH CLEAN WATER UNDER PRESSURE AND BLOWING OUT AREA WITH OIL-FREE COMPRESSED AIR; PLACING GALVANIC ANODES; AND, REPLACING DETERIORATED REINFORCING BARS, AS REQUIRED.

1. THE CONTRACTOR SHALL REPLACE TEMPORARY SUPPORT(S) AT THE TRUSS BEARING DURING CHIPPING OPERATIONS IF THE BEARING PLATE IS UNDERMINED OR UNSUPPORTED FOR OVER 50% OF ITS INTENDED BEARING AREA. THIS WORK WILL BE INCLUDED IN THE ITEM OF WORK "HAND CHIPPING, OTHER THAN DECK".

2. ALL TRUSS BEARINGS SHALL BE RESTORED TO THE ORIGINAL CONDITION OF DOUBLE NUTS AND DOUBLE WASHERS AND IS NOT PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

3. PENETRATING WATER REPELLENT TREATMENT SHALL BE APPLIED TO THE ENTIRE EXPOSED SURFACE OF THE PATCHED AREA AND 6" BEYOND.

4. CONCRETE PIER ELEVATION

EX 1"Ø ANCHOR BOLT

EX BEARING PLATE

PATCHING CONC, C-L

1" MIN. DEEP SAW CUT

EX CONC PIER TO REMAIN

CONCRETE REPAIR AREA

REPAIR AREA SHALL BE REPLACED AT A TIME, AS DIRECTED BY THE ENGINEER.
NOTE:
1. THE STRUCTURE IS LOCATED IN BARTON PARK, APPROXIMATELY 40 FEET NORTH OF W. HURON RIVER DRIVE AND 0.20 MILES WEST OF M-14/US-23.
2. THE EXISTING STRUCTURE IS A THREE-SPAN WEATHERING STEEL TRUSS STRUCTURE, 304'-10" IN LENGTH, WITH CONCRETE PIERS AND ABUTMENTS. THE SOUTH SPAN IS 84'-2" IN LENGTH. THE CLEAR WIDTH IS 8'-0".
3. THE WORK CONSISTS OF: REMOVAL OF THE EXISTING TIMBER, GROUND-SUPPORTED STRUCTURE AT THE SOUTH END OF THE SOUTH TRUSS SPAN; REMOVAL OF TIMBER DECKING; EXCAVATION AND GRADING BELOW THE SOUTH TRUSS SPAN; PLACEMENT OF A TIMBER, GROUND-SUPPORTED STRUCTURE AT THE SOUTH END OF THE SOUTH TRUSS SPAN; PLACEMENT OF TIMBER DECK; PLACEMENT OF SLOPE RESTORATION;  AND CLOSING STRUCTURE TO PEDESTRIAN USAGE AND THE GRAVEL PARKING LOT TO VEHICLE/PEDESTRIAN USAGE DURING CONSTRUCTION.
4. THE CONTRACTOR MAY USE THE ENTIRE GRAVEL SURFACE PARKING LOT IMMEDIATELY SOUTH OF THE SOUTH END OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE CONTRACTOR SHALL PLACE DRUMS AND TEMPORARY CONSTRUCTION FENCING ALONG THE EDGE OF W. HURON RIVER DRIVE TO BLOCK ALL ACCESS TO THE PARKING LOT DURING CONSTRUCTION. THE USE OF ANY TRAILS OR GRASS AREAS FOR THESE PURPOSES IS STRICTLY FORBIDDEN. THE CONTRACTOR SHALL NOT BLOCK THE USE OF ANY TRAIL WITHIN THE PARK, EXCEPT FOR THE STRUCTURE PORTION.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.

TRAFFIC CONTROL PLAN

SEE TRAFFIC CONTROL QUANTITIES AND DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING FOR ADDITIONAL INFORMATION.
BRIDGE RENOVATION, STRINGER AND FLOOR BEAM FRAMING PLAN

SCALE: 1/4"=1'-0"

PROPOSED RENOVATION SECTION

SCALE: 1/4"=1'-0"

PROPOSED COLUMN DETAIL

SCALE: 1 1/2"=1'-0"

NOTE:
ALL LABOR, MATERIAL AND EQUIPMENT COSTS TO
EXCAVATE AND PROPERLY DISPOSE OF EXCAVATED
MATERIALS ASSOCIATED WITH THIS STRUCTURE SHALL
NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED
IN THE PAY ITEM "EXCAVATION, FDN."

THE CITY OF ANN ARBOR - PARKS AND RECREATION SERVICES

2019 PARK BRIDGE REPAIRS AND RENOVATIONS

SOUTH BARTON PEDESTRIAN STRUCTURE

BRIDGE RENOVATION DETAILS
NOTES:

1. THE EXISTING STRUCTURES ARE LOCATED IN BANDEMER PARK, WHICH IS SOUTH OF THE BARTON DRIVE EXIT FROM SB M-14US-23 BUSINESS. THE INTERSECTION OF BARTON DRIVE/BARTON SHORE DRIVE/HYMORE LAKE ROAD IS LOCATED 0.10 MILES NORTH OF THE STRUCTURE. THE ENTRANCE TO THE PARK IS LOCATED ON BARTON DRIVE. APPROXIMATELY 0.5 MILES WEST OF M-14US-23 BUSINESS. THE PEDESTRIAN STRUCTURE AND VEHICLE STRUCTURE ARE ADJACENT TO EACH OTHER.

2. THE EXISTING STRUCTURES ARE SINGLE-SPAN WEATHERING STEEL TRUSSES. SUPERSTRUCTURES: 118'-6" IN LENGTH, WITH CONCRETE ABUTMENTS. THE PEDESTRIAN STRUCTURE IS DESIGNED FOR 85 PSF UNIFORM LIVE LOADING OR ONE 9,000 LB VEHICLE. THE CLEAR WIDTH IS 8'-0". THE VEHICLE STRUCTURE IS DESIGNED FOR HS-20 VEHICLE LOAD. THE CLEAR ROADAWAY WIDTH IS 10'-0".

3. THE WORK FOR THE PEDESTRIAN STRUCTURE CONSISTS OF: REMOVAL OF THE EXISTING WOOD DECKING; REMOVAL OF PORTIONS OF THE EXISTING STRINGERS; CLEANSING AND COATING THE EXISTING FLOOR BEAMS; REMOVAL OF THE EXISTING WOOD HAND RAILS; REMOVAL OF THE EXISTING GUARDRAILS AND BACKUP RAILS; PLACEMENT OF WOOD DECKING; PLACEGUARDRAILS AND BACKUP RAILS; PLACEMENT OF COMPOSITE HANDRAILS AND; CLOSING THE STRUCTURE TO PEDESTRIAN USAGE DURING CONSTRUCTION.

4. THE WORK FOR THE VEHICLE STRUCTURE CONSISTS OF: REMOVAL OF THE EXISTING WOOD DECKING; REMOVAL OF PORTIONS OF THE EXISTING STRINGERS, END STOPS AND JOINT COVER PLATE; CLEANSING AND COATING THE EXISTING FLOOR BEAMS; REMOVAL OF THE EXISTING WOOD HAND RAILS, REMOVAL OF THE EXISTING GUARDRAILS AND BACKUP RAILS; PLACEMENT OF WOOD DECKING; PLACEMENT OF GALVANIZED STRINGERS, END STOPS AND JOINT COVER PLATES; PLACEMENT OF GUARDRAILS AND BACKUP RAILS; PLACEMENT OF COMPOSITE HANDRAILS AND; CLOSING THE STRUCTURE TO VEHICLE TRAFFIC DURING CONSTRUCTION.

5. THE CONTRACTOR MAY USE AN AREA OF THE PAVED SURFACE PARKING LOT IMMEDIATELY NORTH OF THE NORTH END OF THE STRUCTURES FOR EQUIPMENT, MATERIAL STORAGE, AND WORK ZONES FOR THE VEHICLE STRUCTURE. NO PARKING PERMITTED. THE CONTRACTOR SHALL USE THE ROADWAY BY APPROXIMATELY 15 FEET. THE USE OF ANY TRAILS OR GRASS AREAS FOR THESE PURPOSES IS STRICTLY FORBIDDEN. THE CONTRACTOR SHALL NOT BLOCK THE USE OF ANY TRAIL WITHIN THE PARK, EXCEPT FOR THE STRUCTURE PORTION.

6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.

7. THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE CLEANED AND COATED ON THE PEDESTRIAN STRUCTURE IS 340 SFT. THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE CLEANED AND COATED ON THE VEHICLE STRUCTURE IS 1020 SFT. THIS INCLUDES THE FLOOR BEAMS OF THE TRUSS SUPERSTRUCTURES.

8. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.


TRAFFIC CONTROL NOTES:

PLACE THREE (3) TYPE I BARRICADES ON BANDEMER PARK ROADWAY AND PEDESTRIAN PATH WITH ONE (1) "BRIDGE CLOSED" (R11-2) SIGN ON SEPARATE SUPPORTS. ONE (1) SET OF BARRICADES TO BE PLACED ACROSS GRAVEL PATH TO DETER ILLEGAL CROSSING OF RAILROAD TRACKS.

PLACE PROTECTIVE FENCING AROUND PROJECT SITE IN ACCORDANCE WITH THE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING.

PLACE "BRIDGE CLOSED" (R11-2) SIGN AND "TRAIL CLOSED - 1/2 MILE AHEAD" (SF-2) SIGN WHEN THE STRUCTURES AT BANDEMER PARK ARE CLOSED FOR CONSTRUCTION.

ESTIMATED QUANTITIES OF TRAFFIC CONTROL DEVICES FOR BANDEMER PARK STRUCTURES:

<table>
<thead>
<tr>
<th>PAY ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SIGN, TYPE B, TEMP, PRISMATIC, OPER</td>
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<td>4. SIGN, TYPE B, TEMP, PRISMATIC, OPER</td>
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<tr>
<td>5. FENCE, PROTECTIVE</td>
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</tr>
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<td>6. SIGN, TYPE B, TEMP, PRISMATIC, OPER</td>
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<td>7. SIGN, TYPE B, TEMP, PRISMATIC, OPER</td>
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CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.

PLACE THREE (3) TYPE I BARRICADES ON BANDEMER PARK ROADWAY AND PEDESTRIAN PATH WITH ONE (1) "BRIDGE CLOSED" (R11-2) SIGN ON SEPARATE SUPPORTS. ONE (1) SET OF BARRICADES TO BE PLACED ACROSS GRAVEL PATH TO DETER ILLEGAL CROSSING OF RAILROAD TRACKS.

PLACE PROTECTIVE FENCING AROUND PROJECT SITE IN ACCORDANCE WITH THE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING.

PLACE "BRIDGE CLOSED" (R11-2) SIGN AND "TRAIL CLOSED - 1/2 MILE AHEAD" (SF-2) SIGN WHEN THE STRUCTURES AT BANDEMER PARK ARE CLOSED FOR CONSTRUCTION.

ESTIMATED QUANTITIES OF TRAFFIC CONTROL DEVICES FOR BANDEMER PARK STRUCTURES:

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<th>PAY ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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<td>7. FENCE, PROTECTIVE</td>
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</tbody>
</table>
EXISTING STRUCTURE STRINGER AND FLOOR BEAM FRAMING PLAN

1. REMOVE EXISTING TIMBER HANDRAIL AT NW AND SE QUADRANTS APPROX 27' LONG EACH LOCATION (TYP)
2. REMOVE EXISTING 3"x12" STRUCTURAL WOOD DECKING
3. REMOVE EXISTING HSS 5"x3"x\(\frac{3}{16}\)" STRINGERS, EXCEPT FOR PORTION OF BOTTOM FLANGE WELDED TO FLOOR BEAM (TYP)
4. REMOVE EXISTING WOOD DECKING TO BE REMOVED
5. REMOVE EXISTING HSS 10"x4" FLOOR BEAMS TO REMAIN (TYP)
6. EXISTING WOOD DECKING TO BE REMOVED
7. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
8. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
9. REMOVE EXISTING TIMBER HANDRAIL (TYP)
10. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
11. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
12. REMOVE EXISTING HSS 10"x6" END FLOOR BEAMS TO REMAIN (TYP)
13. REMOVE EXISTING WOOD DECKING, FULL LENGTH OF TRUSS - SEE DETAIL (TYP)
14. REMOVE EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
15. EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
16. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
17. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
18. REMOVE EXISTING TIMBER HANDRAIL (TYP)
19. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
20. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
21. REMOVE EXISTING HSS 10"x4" FLOOR BEAMS TO REMAIN (TYP)
22. EXISTING WOOD DECKING TO BE REMOVED
23. REMOVE EXISTING TIMBER HANDRAIL AT NW AND SE QUADRANTS APPROX 27' LONG EACH LOCATION (TYP)
24. REMOVE EXISTING 3"x12" STRUCTURAL WOOD DECKING
25. REMOVE EXISTING HSS 5"x3"x\(\frac{3}{16}\)" STRINGERS, EXCEPT FOR PORTION OF BOTTOM FLANGE WELDED TO FLOOR BEAM (TYP)
26. REMOVE EXISTING WOOD DECKING TO BE REMOVED
27. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
28. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
29. REMOVE EXISTING TIMBER HANDRAIL (TYP)
30. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
31. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
32. REMOVE EXISTING HSS 10"x6" END FLOOR BEAMS TO REMAIN (TYP)
33. REMOVE EXISTING WOOD DECKING, FULL LENGTH OF TRUSS - SEE DETAIL (TYP)
34. REMOVE EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
35. EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
36. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
37. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
38. REMOVE EXISTING TIMBER HANDRAIL (TYP)
39. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
40. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
41. REMOVE EXISTING HSS 10"x4" FLOOR BEAMS TO REMAIN (TYP)
42. EXISTING WOOD DECKING TO BE REMOVED
43. REMOVE EXISTING TIMBER HANDRAIL AT NW AND SE QUADRANTS APPROX 27' LONG EACH LOCATION (TYP)
44. REMOVE EXISTING 3"x12" STRUCTURAL WOOD DECKING
45. REMOVE EXISTING HSS 5"x3"x\(\frac{3}{16}\)" STRINGERS, EXCEPT FOR PORTION OF BOTTOM FLANGE WELDED TO FLOOR BEAM (TYP)
46. REMOVE EXISTING WOOD DECKING TO BE REMOVED
47. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
48. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
49. REMOVE EXISTING TIMBER HANDRAIL (TYP)
50. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
51. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
52. REMOVE EXISTING HSS 10"x6" END FLOOR BEAMS TO REMAIN (TYP)
53. REMOVE EXISTING WOOD DECKING, FULL LENGTH OF TRUSS - SEE DETAIL (TYP)
54. REMOVE EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
55. EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
56. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
57. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
58. REMOVE EXISTING TIMBER HANDRAIL (TYP)
59. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
60. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
61. REMOVE EXISTING HSS 10"x4" FLOOR BEAMS TO REMAIN (TYP)
62. EXISTING WOOD DECKING TO BE REMOVED
63. REMOVE EXISTING TIMBER HANDRAIL AT NW AND SE QUADRANTS APPROX 27' LONG EACH LOCATION (TYP)
64. REMOVE EXISTING 3"x12" STRUCTURAL WOOD DECKING
65. REMOVE EXISTING HSS 5"x3"x\(\frac{3}{16}\)" STRINGERS, EXCEPT FOR PORTION OF BOTTOM FLANGE WELDED TO FLOOR BEAM (TYP)
66. REMOVE EXISTING WOOD DECKING TO BE REMOVED
67. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
68. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
69. REMOVE EXISTING TIMBER HANDRAIL (TYP)
70. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
71. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
72. REMOVE EXISTING HSS 10"x6" END FLOOR BEAMS TO REMAIN (TYP)
73. REMOVE EXISTING WOOD DECKING, FULL LENGTH OF TRUSS - SEE DETAIL (TYP)
74. REMOVE EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
75. EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
76. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
77. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
78. REMOVE EXISTING TIMBER HANDRAIL (TYP)
79. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
80. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
81. REMOVE EXISTING HSS 10"x4" FLOOR BEAMS TO REMAIN (TYP)
82. EXISTING WOOD DECKING TO BE REMOVED
83. REMOVE EXISTING TIMBER HANDRAIL AT NW AND SE QUADRANTS APPROX 27' LONG EACH LOCATION (TYP)
84. REMOVE EXISTING 3"x12" STRUCTURAL WOOD DECKING
85. REMOVE EXISTING HSS 5"x3"x\(\frac{3}{16}\)" STRINGERS, EXCEPT FOR PORTION OF BOTTOM FLANGE WELDED TO FLOOR BEAM (TYP)
86. REMOVE EXISTING WOOD DECKING TO BE REMOVED
87. REMOVE EXISTING HAND RAIL AND HARDWARE - MAINTAIN ANGLE CONNECTION
88. REMOVE EXISTING SCREWS - PLANK HOLD DOWN TO REMAIN - PROTECT (TYP)
89. REMOVE EXISTING TIMBER HANDRAIL (TYP)
90. REMOVE EXISTING WOOD DECKING - MAINTAIN ANGLE CONNECTION
91. REMOVE EXISTING HSS 10"x4" END FLOOR BEAMS TO REMAIN (TYP)
**Bridge Renovation, Stringer and Floor Beam Framing Plan**

**Bridge Renovation Section**
- Scale: 1/5"=1'-0"
- Existing Truss Structure to Remain (Typ)
- Existing Plank Holddown (Typ)
- Partial Stringer Section
- Scale: 1/2"=1'-0"
- 2019 Park Bridge Repairs and Renovations
- Bandemer Park Pedestrian Structure
- BRIDGE RENOVATION DETAILS

**Bridge Renovation Details**
- Replace existing handrail with 2"x4" composite material handrail at NW and SW quadrants, approx. 27' long each location. Connect to existing angle with (2) GALV. 5/16" bolts, washers, and nuts at each connection location (see detailed specification for timber decking and composite handrail) (Typ).

**Existing HSS 10"x4" Floor Beam**
- Connect to existing stringer with (2) GALV. 5/16" bolts, washers, and nuts at each connection location (see detailed specification for timber decking and composite handrail) (Typ).

**Existing Truss Structure to Remain (Typ)**
- 2"x4" wood decking (see detailed specification for timber decking and composite handrail) (Typ).

**Existing Plank Holddown (Typ)**
- 2.25" wood decking (see detailed specification for timber decking and composite handrail) (Typ).

**Existing Truss Structure to Remain (Typ)**
- 2.25" wood decking (see detailed specification for timber decking and composite handrail) (Typ).

**Existing HSS 10"x4" Floor Beam**
- Connect to existing stringer with (2) GALV. 5/16" bolts, washers, and nuts at each connection location (see detailed specification for timber decking and composite handrail) (Typ).

**C of Truss**
- 7'-3" (Typ)

**Cont 2x2x1/4" GALV Deck Connection Angle**
- (Typ)

**1st Location (Typ of 6)**
- See Plan View for Stringer Joint Locations (Typ)

**Bridge Renovation Section**
- Scale: 1/5"=1'-0"
- 2019 Park Bridge Repairs and Renovations
- Bandemer Park Pedestrian Structure
- Bridge Renovation Details

**2019 PARK BRIDGE REPAIRS AND RENOVATIONS**

**THE CITY OF ANN ARBOR - PARKS AND RECREATION SERVICES**

**SCALE:** 1/8"=1'-0"
**Bridge Renovation, Stringer and Floor**

**Beam Framing Plan**

Scale: 1/2"=1'-0"

---

**Partial Stringer Section**

Scale: 1/8"=1'-0"

---

**Stringer Connection Detail**

Scale: 1/16"=1'-0"

---

**Deck Stop Connection Detail**

Scale: 1/16"=1'-0"

---

**Existing Structure Section**

Scale: 3/8"=1'-0"

---

**Deck Stop Connection Section**

Scale: 1/16"=1'-0"

4 locations each end
NOTES:
1. THE STRUCTURE IS LOCATED AT THE SOUTHEAST CORNER OF ARGO PARK, WEST OF THE INTERSECTION OF BROADWAY STREET AND SWIFT STREET. THE ENTRANCE TO THE PATH IS LOCATED ON SHIFT STREET; APPROXIMATELY 0.14 MILES NORTHWEST OF BROADWAY STREET.

2. THE EXISTING STRUCTURE IS A SINGLE-SPAN STEEL TRUSS STRUCTURE, 30'-0" IN LENGTH, WITH CONCRETE ABUTMENTS. THE DESIGN LOAD IS 85 PSF UNIFORM LIVE LOADING OR ONE 20,000 POUND VEHICLE LOAD. THE CLEAR BRIDGE WIDTH IS 12'-0".

3. THE WORK CONSISTS OF: REMOVAL AND SALVAGING THE EXISTING TIMBER DECKING; CLEANING AND COATING OF THE EXISTING FLOOR BEAMS, STRINGERS AND BRACE DIAGONALS; PLACEMENT OF SALVAGED TIMBER DECKING; AND PEDESTRIAN TRAFFIC CONTROL.

4. THE CONTRACTOR MAY USE AN AREA OF THE PAVED SURFACE DRIVE IMMEDIATELY SOUTH OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE AREA USED SHALL NOT EXCEED 40 FEET IN LENGTH BY APPROXIMATELY 15 FEET. THE USE OF ANY TRAILS OR GRASS AREAS FOR THESE PURPOSES IS STRICTLY FORBIDDEN.

5. THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE CLEANED AND COATED IS 470 SFT. THIS INCLUDES THE STRINGERS, FLOOR BEAMS AND BRACING DIAGONALS OF THE TRUSS SUPERSTRUCTURE.

6. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO AVOID OVERSPRAY ON ADJACENT SUBSTRUCTURE AND SUPERSTRUCTURE CONCRETE SURFACES AND ON ADJACENT STEEL AREAS NOT TO BE CLEANED AND COATED. (INCLUDED IN THE BID ITEM "STEEL STRUCTURE, COATING, PARTIAL, SPECIAL (ARGO)."

7. MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. IF DEBRIS FALLS INTO THE WATERWAY, IT SHALL BE REMOVED IMMEDIATELY. SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF, THE PREVENTIVE MEASURES MUST BE EFFECTIVE.

TRAFFIC CONTROL NOTES:
PLACE TWO (2) TYPE III BARRICADES ON ARGO PARK PATH WITH ONE (1) "BRIDGE CLOSED" (R11-2) SIGN ON SEPARATE SUPPORTS, AT EACH END OF STRUCTURE. PLACE PROTECTIVE FENCING AROUND PROJECT SITE. SEE THE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING FOR ADDITIONAL INFORMATION.

PLACE "BRIDGE CLOSED" (R11-2) AND "SIDEWALK CLOSED (R9-9). SEE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING.
ALL SIGN LOCATIONS TO BE APPROVED BY ENGINEER/OWNER.

ESTIMATED QUANTITIES OF TRAFFIC CONTROL DEVICES FOR ARGO PARK:

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<tr>
<th>PAY ITEM</th>
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<th>QUANTITY</th>
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<td>BARRICADE, TYPE III HIGH INTENSITY, LIGHTED, FURN</td>
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<td>SIGN, TYPE B, TEMP, PRISMATIC, FURN</td>
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PLAN OF ARGO PARK PEDESTRIAN STRUCTURE
NO SCALE
EXISTING STRUCTURE STRINGER AND FLOOR BEAM FRAMING PLAN

1. REMOVE EXISTING SCREWS PLANK HOLD DOWN TO REMAIN - PROTECT (TYP) PLACE (1) 3/8" ZP WAS EACH END OF PLANK

2. REMOVE EXISTING SCREWS PLANK HOLD DOWN TO REMAIN - PROTECT (TYP) PLACE (1) 1/2" ZP WAS EACH END OF PLANK

3. CLEAN AND COAT ALL EXISTING HSS 5"x3" STRINGERS, HSS 8"x6" AND HSS 10"x4" FLOOR BEAMS, HOLD DOWN ANGLES AND HSS 2"x2" BRACE DIAGONALS AFTER REMOVING AND SALVAGING EXISTING WOOD DECKING (SEE DETAILED SPECIFICATION) (TYP)

4. REMOVE AND SALVAGE EXISTING 3"x12" STRUCTURAL WOOD DECKING

5. REMOVE AND SALVAGE EXISTING WOOD DECKING (SEE DETAILED SPECIFICATION) (TYP)

EXISTING TRUSS STRUCTURE TO REMAIN (TYP)
NOTES:
1. THE STRUCTURE IS LOCATED AT THE SOUTHEAST CORNER OF MITCHELL FIELD, SOUTH OF FULLER COURT AND FULLER ROAD.
3. THE WORK ON THE TRUSS SUPERSTRUCTURE CONSISTS OF: REMOVAL OF THE EXISTING TIMBER DECKING; REMOVAL OF PORTIONS OF THE EXISTING STRINGERS; CLEANING AND COATING THE EXISTING FLOOR BEAMS AND FASCIA STRINGERS; REMOVAL OF THE EXISTING TIMBER HANDRAILS AND ALL HORIZONTAL TIMBER RAILS; REMOVAL AND PLACEMENT OF HANDRAILS AND HORIZONTAL RAILS ON THE APPROACH RAILINGS NORTH OF THE TRUSS SUPERSTRUCTURE; PLACEMENT OF TIMBER DECKING; PLACEMENT OF GALVANIZED STRINGERS; PLACEMENT OF COMPOSITE HANDRAILS AND ALL TIMBER RAILS.
4. THE WORK ON THE ELEVATED TIMBER BOARDWALK STRUCTURE CONSISTS OF: REMOVAL OF THE HANDRAILS (ALL COMPONENTS); REMOVAL OF THE TIMBER STRINGERS; REMOVAL OF THE TIMBER FLOOR BEAMS AND FASCIA STRINGERS; REMOVAL OF THE TIMBER DECKING; REMOVAL OF THE TIMBER FLOOR BEAMS AND TIMBER PIER HEADER BEAMS; PLACEMENT OF TIMBER BEAM AND HEADER AT THE SHARED PIER; PLACEMENT OF TIMBER BEAR BEAMS AND HEAD AND HEADER AT THE SHARED PIER; PLACEMENT OF TIMBER STRINGERS; PLACEMENT OF TIMBER DECKING; PLACEMENT OF RAILINGS; PLACEMENT OF HANDRAILS AND HORIZONTAL RAILS ON THE APPROACH RAILINGS SOUTH OF THE ELEVATED TIMBER BOARDWALK STRUCTURE. PAYMENT FOR THE HORIZONTAL RAILS IS INCLUDED IN THE PAY ITEM "COMPOSITE RAILING, 2 INCH BY 4 INCH," AND "COMPOSITE RAILING, 2 INCH BY 8 INCH." ALL OTHER ITEMS OF WORK ARE INCLUDED IN THE PAY ITEM "STRUCTURE, TIMBER, BOARDWALK (MITCHELL BOARDWALK)."
5. THE CONTRACTOR MAY USE AN AREA THE AREA SHOWN AT LEFT AND/OR AN AREA SOUTH OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE AREA SOUTH OF THE STRUCTURE, IF USED, SHALL NOT EXCEED 100 FEET IN LENGTH ALONG THE TRAIL BY WIDTH OF THE TRAIL. ACCESS TO THIS AREA IS TO BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR MAY USE AN AREA THE AREA SHOWN AT LEFT AND/OR AN AREA SOUTH OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE AREA SOUTH OF THE STRUCTURE, IF USED, SHALL NOT EXCEED 100 FEET IN LENGTH ALONG THE TRAIL BY WIDTH OF THE TRAIL. ACCESS TO THIS AREA IS TO BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR MAY USE AN AREA THE AREA SHOWN AT LEFT AND/OR AN AREA SOUTH OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE AREA SOUTH OF THE STRUCTURE, IF USED, SHALL NOT EXCEED 100 FEET IN LENGTH ALONG THE TRAIL BY WIDTH OF THE TRAIL. ACCESS TO THIS AREA IS TO BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT BLOCK THE USE OF ANY TRAIL WITHIN THE PARK OTHER THAN THE AREA DESCRIBED ABOVE.
6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.
7. THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE CLEANED AND COATED IS 780 SFT. THIS INCLUDES THE FASCIA STRINGERS AND FLOOR BEAMS OF THE TRUSS SUPERSTRUCTURE.
8. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO AVOID OVERSPRAY ON ADJACENT SUBSTRUCTURE AND SUPERSTRUCTURE CONCRETE SURFACES AND ON ADJACENT STEEL AREAS NOT TO BE CLEANED AND COATED (INCLUDED IN THE BID ITEM "STEEL STRUCTURE, COATING, PARTIAL, SPECIAL (MITCHELL TRUSS))."

TRAFFIC CONTROL NOTES:
PLACE TWO (2) TYPE II BARRICADES ON PATH WITH ONE (1) "BRIDGE CLOSED" (R11-2) SIGN ON SEPARATE SUPPORTS AT EACH END OF STRUCTURE. PLACE ONE (1) TYPE II BARRICADE ON APPROPRIATE ROAD EXIT. PLACE PROTECTIVE FENCING AROUND PROJECT SITE IN ACCORDANCE WITH THE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING. SEE PLANS FOR GALLUP PARK FOR AN ADDITIONAL SIGN AND BARRICADES REQUIRED TO BE PLACED ON THE BORDER TO BORDER TRAIL IN GALLUP PARK DURING CONSTRUCTION OF THE MITCHELL FIELD STRUCTURES. PLACE "BRIDGE CLOSED" (R11-2) SIGN. PLACE PEDESTRIAN DETOUR SIGNS (M4-1a, STRAIGHT, LEFT AND RIGHT) ALONG A ROUTE WITH SIGNS IN BOTH DIRECTIONS. PLACE PEDESTRIAN DETOUR SIGNS IN DIRECTIONS FROM GALLUP PARK ENTRANCE ON FULLER ROAD ALONG FULLER ROAD AND FULLER COURT TO THE BORDER TO BORDER CROSSING TRAIL CROSSING AT FULLER ROAD. APPROXIMATELY 200 FEET WEST OF THE FULLER ROAD/FULLER COURT INTERSECTION - CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL THE SIGN LAYOUT. THE PLAN QUANTITIES FOR THIS WORK ARE AS FOLLOWS:
- M4-1a (STRAIGHT): 12
- M4-1a (LEFT): 4
- M4-1a (RIGHT): 4

ESTIMATED QUANTITIES OF TRAFFIC CONTROL DEVICES FOR MITCHELL FIELD:

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EXISTING BOARDWALK CONDITIONS AND REMOVALS

- REMOVE EXISTING WOOD DECKING (TYP)
- REMOVE EXISTING HANDRAIL AND RAILS (TYP)
- REMOVE EXISTING STRINGERS AND BLOCKING (TYP)
- REMOVE EXISTING POSTS (TYP)
- REMOVE EXISTING HANDRAIL AND RAILS (TYP)
- REMOVE EXISTING POSTS (TYP)
- REMOVE FLOOR BEAMS

EXISTING STRUCTURE SECTION

- REMOVE EXISTING FLOOR BEAMS
- REMOVE EXISTING WOOD DECKING (TYP)
- REMOVE EXISTING STRINGERS AND BLOCKING (TYP)
- STEEL H PILE TO REMAIN (TYP)

EXISTING BOARDWALK PLAN

- 2"x12" BASE PLATE AND BACK PLATE TO BE REMOVED
- CONCRETE PIER TO REMAIN
- STEEL H PILE TO REMAIN (TYP)
- BACKWALL TIMBERS, H PILES AND WINGWALLS TO REMAIN (TYP)
- REMOVE EXISTING WOOD DECKING (TYP)
- 2"x12" BASE PLATE AND BACK PLATE TO BE REMOVED
- CONCRETE PIER TO REMAIN
- STEEL H PILE TO REMAIN (TYP)
- BACKWALL TIMBERS, H PILES AND WINGWALLS TO REMAIN (TYP)

DRAWING NO. 2019 PARK BRIDGE REPAIRS AND RENOVATIONS
MCCHELL FIELD PEDESTRIAN STRUCTURE
EXISTING BOARDWALK CONDITIONS AND REMOVALS
BOARDWALK CONSTRUCTION PLAN

SCALE: 3/8"=1'-0"

TRUSS SUPERSTRUCTURE

4 SPA @ 2'-9" = 11'-0"

4" Rail Post (Typ)

2"x10" Decking

(2) 2"x4" Composite Railing Attach to Posts with 4" Lag Bolts, Countersunk Heads (Typ)

2"x4" Composite Guardrails Attach to Posts with 4" Lag Bolts, Countersunk Heads (Typ)

EXISTING H-PILE (Typ)

EXISTING Floor Beams

EXISTING Wingwall

EXISTING H-Pile (Typ)

EXISTING Concrete Piers

EXISTING Existing floor beams

EXISTING Existing H-Pile (Typ)

EXISTING Existing concrete piers

RAILING ATTACHMENT DETAIL

SCALE: 1"=1'-0"

4" Rail Posts

2"x10" Decking

(2) 2"x4" (1" 3/4") Composite Railing to Existing Posts with 4" Lag Bolts, Countersunk Heads (Dimensions to Match Bridge Railing (Typ)

(2) 3"x4" & (1) 2"x8" Composite Guardrails (Typ)

2"x10" Decking

RAILING ATTACHMENT SECTION

SCALE: 1/2"=1'-0"

BASE PLATE AND BACK PLATE SECTION

SCALE: 1/2"=1'-0"

BOARDWALK CONSTRUCTION SECTION

SCALE: 1/2"=1'-0"

COMPOSITE FLOOR BEAM SECTION

SCALE: 1/2"=1'-0"

NOTE:

PRE-DRILL ALL LAG BOLT HOLES WITH APPROPRIATE BIT SIZE TO PREVENT UNNECESSARY SPLITTING OR CHECKING OF THE WOOD.

THE CITY OF ANN ARBOR - PARKS AND RECREATION SERVICES

2019 PARK BRIDGE REPAIRS AND RENOVATIONS

MICHETT FIELD PEDESTRIAN STRUCTURE BOARDWALK RENOVATION DETAILS

DLZ

AS SHOWN

DATE

SHEET NO.
NOTES:

1. THE STRUCTURE IS LOCATED IN GALLUP PARK, WHICH IS SOUTHWEST OF THE INTERSECTION OF FULLER/GEDDES ROAD AND HURON PARKWAY. THE ENTRANCE TO THE PARK IS LOCATED ON FULLER ROAD, APPROXIMATELY 0.08 MILES WEST OF HURON PARKWAY. THE STRUCTURE IS LOCATED APPROXIMATELY 0.17 MILES SOUTH OF FULLER ROAD.

2. THE EXISTING STRUCTURE IS A THREE-SPAN GLUE-LAMINATED STRUCTURE, 123'-0" IN LENGTH, WITH TIMBER PILE PIERS AND GLUE-LAMINATED ABUTMENTS. THE BRIDGE IS POSTED FOR 33 TONS. THE CLEAR ROADWAY WIDTH IS 12'-0" AND THE CLEAR SIDEWALK WIDTHS ARE 5'-0".

3. THE WORK CONSISTS OF: REMOVAL OF THE EXISTING CONNECTION BRACKETS BETWEEN THE DECK PANELS AND SIDEWALK PANELS AND THE FLOOR BEAMS AND SPREADER BEAMS; PLACEMENT OF NEW GALVANIZED CONNECTION BRACKETS AT SIMILAR LOCATIONS; CLOSING THE STRUCTURE TO VEHICLE TRAFFIC AND PROVIDING A SAFE PASSAGE AREA FOR RIDERS AND Pedestrians PASSAGE ACROSS THE STRUCTURE SHALL BE MAINTAINED ON AT LEAST ONE SIDEWALK AT ALL TIMES DURING CONSTRUCTION. PEDESTRIAN PASSAGE ACROSS THE STRUCTURE SHALL BE MAINTAINED ON AT LEAST ONE SIDEWALK AT ALL TIMES DURING CONSTRUCTION. PEDESTRIAN PASSAGE ACROSS THE STRUCTURE SHALL BE MAINTAINED ON AT LEAST ONE SIDEWALK AT ALL TIMES DURING CONSTRUCTION.

4. THE CONTRACTOR MAY USE AN AREA OF THE GRAVEL SURFACE PARKING LOT IMMEDIATELY NORTHWEST OF THE NORTH END OF THE STRUCTURE FOR EQUIPMENT, MATERIAL STORAGE, AND EMPLOYEE PARKING. THE AREA USED SHALL NOT EXCEED 60 FEET IN LENGTH ALONG THE PAVED ROADWAY BY APPROXIMATELY 25 FEET. THE USE OF ANY TRAILS OR GRASS AREAS FOR THESE PURPOSES IS STRICTLY FORBIDDEN. THE CONTRACTOR SHALL NOT BLOCK THE USE OF ANY TRAIL WITHIN THE PARK, EXCEPT FOR ONE SIDEWALK AT A TIME ON THE STRUCTURE.

5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF PROPOSED WORK.

6. MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. IF DEBRIS FALLS INTO THE WATERWAY, IT SHALL BE REMOVED WITHIN 24 HOURS. SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF, THE PREVENTIVE MEASURES MUST BE EFFECTIVE.

TRAFFIC CONTROL NOTES:

PLACE THREE (3) TYPE III BARRICADES ON GALLUP PARK ROAD WITH ONE (1) "BRIDGE CLOSED" (R11-2) SIGN AND ONE (1) "TRAIL OPEN" (SF-3) SIGN ON SEPARATE SUPPORTS, AT EACH END OF THE STRUCTURE, AS NOTED ON PLAN. PLACE PROTECTIVE FENCING AROUND PROJECT SITE. ONE SIDEWALK ACROSS STRUCTURE SHALL REMAIN OPEN AT ALL TIMES IN ACCORDANCE WITH THE DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCING.

PLACE "BRIDGE CLOSED" (R11-2) SIGN AND "TRAIL CLOSED - 1 MILE AHEAD" (SF-1) SIGN WHEN THE STRUCTURE AT MITCHELL FIELD IS CLOSED FOR CONSTRUCTION.

ESTIMATED QUANTITIES OF TRAFFIC CONTROL DEVICES FOR GALLUP PARK:

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<th>PAY ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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LEGEND

1. GALLUP PARK ENTRANCE
2. EXISTING GALLUP PARK VEHICLE STRUCTURE
3. BORDER TO BORDER TRAIL
4. HURON PARKWAY
5. HURON RIVER
6. GALLUP PARK ROAD
7. FULLER ROAD
8. GEDDES ROAD
9. PLAN OF GALLUP PARK STRUCTURE
10. NOT SCALE

THE CITY OF ANN ARBOR - PARKS AND RECREATION SERVICES

2019 PARK BRIDGE REPAIRS AND RENEWALS

GALLUP PARK VEHICLE STRUCTURE GENERAL PLAN OF SITE
DECK SECTION AT EXISTING FLOOR BEAM SUPPORT

SCALE: 3/8" = 1'-0"

DECK SECTION AT EXISTING SPREADER BEAM SUPPORT

SCALE: 3/8" = 1'-0"

EX LAMINATED WOOD DECK

NEAR SIDE SUPPORT (TYP)

FAR SIDE SUPPORT (TYP)

FLOOR BEAM SECTION

SCALE: 1"=1'-0"

SPREADER BEAM SECTION

SCALE: 1"=1'-0"

THE CITY OF ANN ARBOR - PARKS AND RECREATION SERVICES

2019 PARK BRIDGE REPAIRS AND RENOVATIONS

GALLUP PARK VEHICLE STRUCTURE SUPERSTRUCTURE DETAILS