THE CHARTER TOWNSHIP OF VAN BUREN, MICHIGAN

REQUEST FOR PROPOSAL FOR

DENTON ROAD BRIDGE REPLACEMENT PROFESSIONAL DESIGN SERVICES

RFP TIMELINE

ACTION	DATE	TIME
RFP Issue Date	3/2/2023	
Pre-Response Questions Due	3/9/2023	5:00 p.m. EDT
Responses to Questions	3/16/2023	
Responses Due	3/24/2023	9:00 a.m. EDT
Selection Notification Data*	By 3/31/2023	

*Estimated Date.

Van Buren Township Contact: Ron Akers, Director of Municipal Services
734-699-8913
rakers@vanburen-mi.org

Description: The Charter Township of Van Buren is requesting responses to this Request for Proposals (RFP) from qualified engineering firms for the purpose to provide professional engineering design services to reconstruct the Denton Road Bridge over Belleville Lake/Huron River.

Pre – Response Questions: Questions may be submitted via email to rakers@vanburen-mi.org prior to 5:00 p.m. on the date listed above. A response from the Township will be provided before the above listed response to questions date.

PART 1 – REQUEST FOR PROPOSALS

SECTION 1.0 – INTRODUCTION, OVERVIEW & INSTRUCTIONS

1.1 INTRODUCTION:

Through this Request for Proposals (RFP), the Charter Township of Van Buren (Township), on behalf of Wayne County hereby invites business who meet the qualifications and specifications set forth herein to submit responses for the purpose of providing design engineering services to prepare construction bid documents and permit applications required for the reconstruction of the Denton Road Bridge over Belleville Lake/Huron River. The bridge project is located on Denton Road, west of Belleville Road, within the limits of Van Buren Township. The Bridge crosses Belleville Lake/Huron River.

1.2 SCOPE:

Van Buren Township will award a contract for professional engineering services. The general objections of this solicitation are the following:

- Award a contract for services
- Ensure there is a fair process of procurement
- To fulfill the request in a timely manner
- Ensure that taxpayers dollars are spent wisely

The specific objectives of the solicitation are the following: The Charter Township of Van Buren is seeking professional engineering design services for the reconstruction of the Denton Road Bridge over Belleville Lake/Huron River in the Charter Township of Van Buren, Michigan.

1.3 OVERVIEW OF SOLICITATION (RFP) DOCUMENT:

This solicitation is composed of the following two (2) parks:

PART 1: REQUEST FOR PROPOSAL

Section 1.0: INTRODUCTION/OVERVIEW/INSTRUCTIONS

Section 2.0: SCOPE OF WORK

Section 3.0: EVALUATION CRITERIA AND SUBMITTAL PROCESS

PART 2: RESPONSE

Section 4.0: RESPONDENTS INFORMATION, MINIMUM QUALIFICATIONS & CERTIFICATIONS

1.4 VAN BUREN TOWNSHIP RIGHTS & RESPONSIBILITIES:

Van Buren Township has the right to amend this RFP by one of more written addenda. Van Buren Township is responsible only for that which is expressly stated in the RFP document and any authorized written addenda thereto.

Should any such addendums requesting additional information not previously requested, failure to address the requirements of such addenda may result in the response not being considered, as determined in the sole discretion of Van Buren Township. Van Buren Township is not responsible for and shall not be bound by any representations otherwise made by any individual acting or purporting to act on its behalf, other than the stated contact for the solicitation.

Clarifications, modifications or amendments may be made to the RFP at any time prior to the Response Deadline at the discretion of the Township. It is the respondent's responsibility to periodically check the source of the RFP until the posted Response Deadline to obtain any issued addendums, however Van Buren Township will make reasonable efforts to inform all respondents of any clarifications, modifications, or amendments.

1.5 MINIMUM MANDATORY REQUIREMENTS:

Interested and qualified respondents that can demonstrate their ability to successfully provide services requested under the RFP are invited to submit responses, provided they meet the outlined minimum requirements.

1.6 DISQUALIFICATION OF RESPONDENTS:

Any one or more of the following causes may be considered sufficient for the disqualification of a respondent and the rejection of the response:

a. Evidence of collusion among respondents
b. Lack of competency as revealed by either financial, experience, or equipment statements.
c. Lake of responsibility as show by past work
d. Uncompleted work under other contracts which, in the judgement of the Township, might hinder or prevent the prompt completion of additional work if awarded.

1.7 FREEDOM OF INFORMATION ACT (FOIA):

Responses, resultant contract(s) and all information submitted to Van Buren Township by respondents and contractors is subject to the Michigan Freedom of Information Act (FOIA), 1976 PA 442, MCL 15.231, et seq.

1.8 DISCLOSURE OF CONTENTS:

All information provided in the response shall be held in confidence and shall not be revealed or discussed with competitors, until after award of the contract except as provided by law or court decision. All material submitted with the response becomes the property of the Township and may be returned only at the Township's option.

Respondents must make no other distribution of their responses other than authorized by the RFP. A respondent who shares cost information contained in its response with other competing respondent personnel shall be subject to disqualification.

1.9 CONTRACT TERM

The term of the resultant contract shall be for a period of two (2) years from the date of Township Board approval, with one (1) additional year extension option, which may be exercised at the discretion of the Township.

1.10 FINAL AGREEMENT AWARD DETERMINATION

The Township reserves the right to withdraw the RFP, to award to one Respondent, to any combination of Respondents, by item, group of items, or total response. The Township may waive informalities. The Respondent to whom the award is made will be notified at the earliest possible date. Tentative acceptance of the response, intent to recommend award of a contract and actual award of the contract will be provided by written notice sent to the Respondent at the email address designated in the response. If, for any reason, a contract is not executed with the selected Respondent within a reasonable amount of time, as determined by the Township, after notice of recommended award, then the Township may recommend the next most responsive and responsible Respondent. Award of this RFP is contingent upon the availability of funds for this project, within the sole discretion of the Township. Acceptance of the Respondent's response does not constitute a binding contract.

There is no contract until the agreement is approved by the Van Buren Township Board of Trustees (if such approval is required by the Procurement Ordinance) and executed by the Township Supervisor.

The Township is not liable for performance costs until the successful Respondent has been given a fully executed contract.

1.11 CONFLICT OF INTEREST

No Van Buren Township employee or agent whose position in Van Buren Township enables him/her to influence the selection of a Supplier for this RFP, or any competing RFP, nor any spouse of economic dependent of such employees, shall be employed in any capacity by a Respondent or have any other direct or indirect financial interest in the selection of a Supplier.

The Township will ensure compliance with the approved MDOT Conflict of Interest Policy. The policy can be found at the following link: (https://www.michigan.gov/mdot/-/media/Project/Websites/MDOT/Business/Vendor-and-Consultant-Services/Other/Conflict-of-Interest-Guidance.pdf?rev=e69a2e2482ca4e1aae4e3c92b5f7e868&hash=F5433A5F2313F5346C5B3FA3C98A73F5)

1.12 GRATUITIES

A Proposer shall not offer or give either directly or through an intermediary, consideration, in any form, to a Van Buren Township officer, employee or agent for the purpose of securing favorable treatment with respect to the award of the Contract.

1.13 COMPLIANCE WITH LAWS

The Respondent must comply with all federal, state, and local laws and policies.

1.14 CONTRACT TYPE & METHOD OF PAYMENT

The anticipated contract shall be a fixed fee contract with a not to exceed amount. The Township will also request an hourly rate schedule submitted from the selected consultant to evaluate progress payments based actual hours worked.

Progress payments may be made for reimbursement of amounts earned to date and shall include costs as specified in the contract. These payments will be made upon the submission by the CONSULTANT of a billing, accompanied by properly completed reporting forms and such other evidence of progress as may be required by the Township and/or County. Partial payments shall be made only one a month.

Final billing shall be submitted in a timely manner but not later than three (3) months after completion of the services.

1.15 COST PROPOSAL

A cost proposal will be requested from the most highly qualified consultant once all RFP's have been scored and ranked.

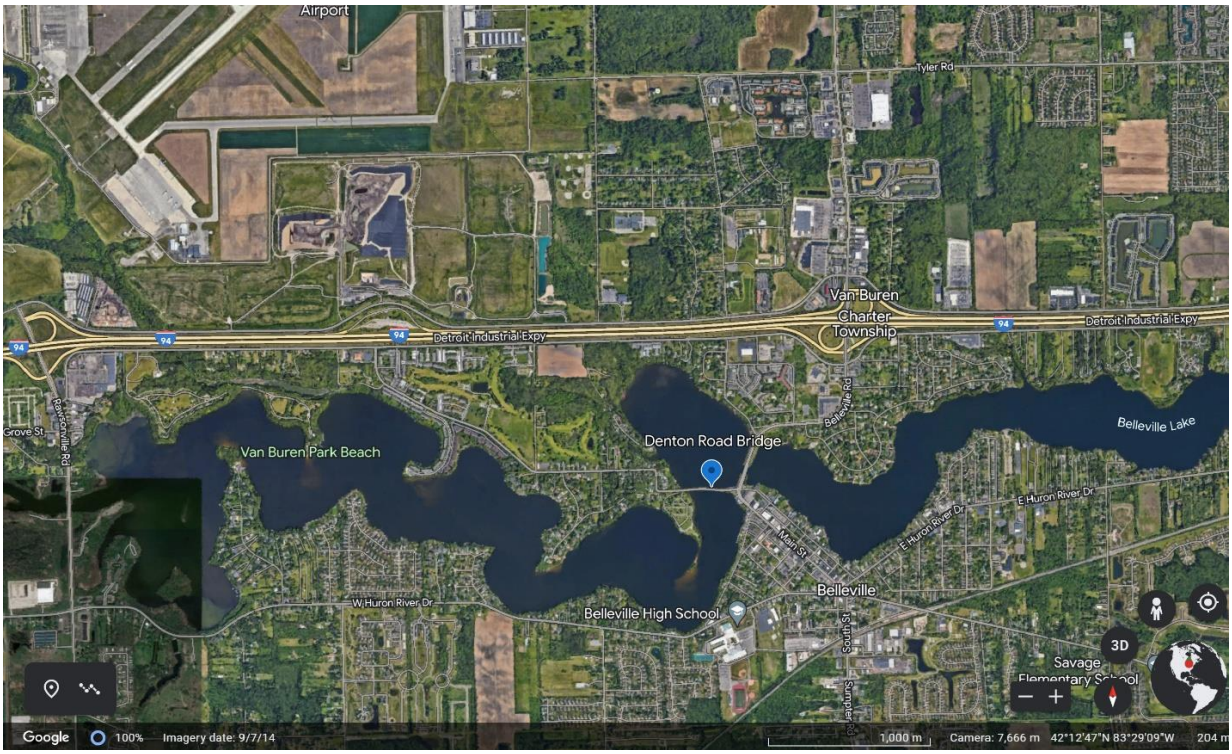
SECTION 2.0 – QUALIFICATIONS / SCOPE OF WORK / REQUIREMENTS

2.1 INTRODUCTION:

Van Buren Township on behalf of Wayne County (herein referred to as "Township") solicits proposals from qualified and experienced consulting engineering firms (herein referred to as "Consultant") for the purpose of entering into a contract to provide professional engineering design services to reconstruct Denton Road Bridge over Belleville Lake/Huron River, Structure Number12033. The current bridge consists of slab deck resting on steel girders that resting on two piers (three spans) with approximate length and width of 104 feet and 29.2 feet respectively. The bridge was built in 1947. It is the Township's intention to perform the bridge replacement during the construction season of 2024. Therefore, the final set of construction documents shall be completed and ready for construction bidding around May 2024. The engineering cost estimate is about $8.078M.

2.2 PROJECT LOCATION:

The bridge project is located on Denton Road, west of Belleville Road, within the limits of Van Buren Township. The Bridge crosses Belleville Lake/Huron River.



2.3 MINIMUM QUALIFICATIONS:

a. Respondents (specifically, the business that will be contractually bound under the contract with the Township) will be deemed non-responsible and rejected without any further evaluation if they do not meet the following mandatory qualifications: The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have 10 years' experience providing bridge design services.

b. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have 10 years' experience providing geotechnical investigation including soil borings.

c. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have worked on at least three comparable projects.

d. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must be prequalified by MDOT in the following:

- Design – Bridges
- Design – Bridges: Load Rating
- Design – Geotechnical: Advanced
- Design – Hydraulics II
- Design – Traffic: Work Zone Maintenance of Traffic
- Surveying: Hydraulics
- Surveying: Structure

2.3 PURPOSE:

In accordance with the federal requirements, each bridge under the Wayne County Public Services Department jurisdiction is subject to rehabilitation and/or reconstruction as needed and to be rated in accordance with Federal Highway Administration (FHWA), National Bridge Inspection (NBI) Standards, and Michigan Department of Transportation (MDOT) Bridge Analysis Guide requirements.

The current bridge condition is closed and critical (2) mainly due to substructure deteriorations. The guardrail may need adjustment/replacement to be in compliance with the current State and Federal standards and requirements. It is the County intention to address and repair all the bridge's deficiencies sighted in the MDOT's Safety Inspection Report (posted on MIbridge website).

2.4 SCOPE OF SERVICES:

<u>Description of Services</u>:

Denton Road Bridge is located on Denton Road, west of Belleville Road, within the limits of Van Buren Township and crosses Belleville Lake/Huron River. The bridge consists of slab deck resting on steel girders that resting on two piers (three spans) with approximate length and width of

104 feet and 29.2 feet respectively

The design engineering services are for bridge replacement. These services are itemized accordingly thereafter to meet the desired project's quality assurance and quantity control, as well as the project's deliverables.

1.0 Pre - Design Service

1.1 Review of Mibridge Safety Inspection Reports.
1.2 Review of the existing bridge plans.
1.3 Review of EGLE field review comments and recommendations.
1.4 Review of Real Estate documents and obtain property information of Denton Road and adjacent properties.
1.5 Kickoff meeting with Van Buren Township and/or WCDPS to collect any additional existing information and review potential options for the proposed replacement and scheduling.
1.6 Propose of construction staging. Full road closure is preferred.
1.7 Perform traffic counts in accordance with State of Michigan requirements (if the available counts are older than 3 years).

2.0 Real Estate & Survey Service

2.1 Perform all necessary topographic and right-of-way surveys including cross sections (channel), hydraulic analysis (existing and proposed conditions), Michigan Department of Environment, Great Lakes, and Energy (EGLE) permit requirements, and earthwork quantity calculations, as necessary. Survey shall reference the NAD83 Michigan South coordinate system, international feet, and NAVD88 vertical datum for the survey. Topographic survey limits will extend approximately 500 feet each side (East & West) of the bridge center.
2.2 The road right-of-way and adjacent landowners will be researched and identified utilizing Wayne County plats and tax maps. This information will be placed onto the plans accordingly. Plans shall be developed in AutoCAD format, and the topographic mapping shall be reviewed in the field for accuracy. Any necessary adjustments shall be made accordingly to the plans.

3.0 Testing & Geotechnical Service

3.1 Obtain soil borings, sediment samples, rock coring, etc. within the project's limits and provide a geotechnical investigation report and analysis of the following to the Township and/or County:
   a. Roadway soil classifications.
   b. Roadway ground water table.
   c. Streambed scour analysis.
   d. Rock coring within streambed.
   e. Bridge foundation recommendations.

3.2 Obtain samples for the asbestos testing and determinations in accordance with EPA/EGLE and MIOSHA procedures and requirements. Asbestos Determination Certification shall be provided to the Township and/or County.

3.3 If applicable, obtain samples for the lead paint testing and determinations in accordance with EPA/EGLE and MIOSHA procedures and requirements. Lead Paint Determination Certification shall be provided to the Township and/or County.

3.4 Apply and purchase/secure all necessary permits for the soil boring and other samples investigations.

4.0 Utility Coordination

4.1 Send out utility information requests to the various public and private utilities located within the project limits and shall be cross-checked against the collected survey information. Any potential utility conflict shall be reported to the Township and/or County.

4.2 Set up, contact the various utility owners, and attend a utility coordination meeting. Any planned and/or required (due to conflict) utility removals and/or relocations shall be designed accordingly and coordinated prior to the project startup. Also, to be incorporated into the construction documents as appropriate.

4.3 If needed and as directed by the Township and/or County, prepare the plans for Municipal utilities relocation to obtain a permit from the County and State agencies.

5.0 Plan Preparation / Specifications / Estimates (PS&E) Bid Documents

5.1 Summarize and analyze all collected obtained information during the stages of Pre-Design, Real Estate & Survey, Testing & Geotechnical, and Utility Coordination services. This information shall be developed into AutoCAD format plans and documentations. Any potential issues shall be addressed and resolved during design sequences.

5.2 Perform necessary hydraulic computations and scour analysis as required by the EGLE. This analysis will be completed to determine the impact to the water surface elevation and energy grade line between the existing condition and proposed condition. The hydraulic analysis shall be completed as follows:

1. Review of FEMA Flood Insurance Studies and Flood Insurance Rate Maps (does not include FEMA coordination).
2. Request flood discharges from the EGLE.
3. Use hydraulic and topographic survey supplemented with existing plans to create hydraulic model cross-sections and bridge data.
4. Compare existing and proposed hydraulic models.
5. Prepare hydraulic report per EGLE report submittal requirements.

5.3 Perform scour analysis and use MDOT Bridge Advisories. The results from the scour analysis will be used to determine proposed footing depths and/or to design scour countermeasures. A scour report will be prepared to summarize scour findings and countermeasure requirements.

5.4 Design for HL-93 Modified live load per the latest AASHTO LRFD Bridge Design

Specification. Provide initial load rating for the proposed superstructure rehab/replacement design to verify the proposed structure will carry all Michigan 28 legal truck loading.

5.5 Prior to the preliminary plans, a Type, Size, and Location (TS&L) plan will be developed with associated construction costs for submittal, review, and approval to the Township and/or County.

5.6 Prepare necessary hydraulic and structure engineering data and apply for the Joint Permit Application required by the EGLE / United States Army Corps of Engineers and/or United States Coast Guard.

5.7 Prepare and apply for a permit/clearance from:
   a. U.S. Fish and Wildlife Service (USFWS).
   b. Michigan Natural Features Inventory (MNFI).

5.8 Prepare preliminary structure plans in compliance with the County requirements.

5.9 Prepare special provisions for construction. Standard specifications will follow both Wayne County standard specifications, as well as MDOT standard specifications, as they relate to structure construction and road way construction.

5.10 Develop quantities and prepare preliminary construction cost estimates (MERL) for the project.

5.11 Prepare traffic control plans (including development of the maintenance of traffic quantities and any specific requirements). Apply and purchase/secure a permit from MDOT, local municipalities, railroad, etc.

5.12 Incorporate soil erosion and sedimentation control measures into the plans.

5.13 Incorporate necessary permanent pavement markings and signing into the plans.

5.14 Plan to attend a project coordination/utility coordination meeting during preliminary plan development (~65% complete) with the Township, County, and any affected utilities (as mentioned above in Utility Coordination).

5.15 Submit the 95% complete preliminary final plan package (plans, specifications, and cost estimates) to the Township & County for review and approval.

5.16 Prepare for the preliminary final plan package review meeting and attend the meeting.

5.17 Make necessary revisions and modifications to the PS&E documents per the comments addressed at the preliminary final plan package review meeting.

5.18 Submit 100% complete final plans, specifications, and a final cost estimate (PS&E) to the Township & County for advertisement.

5.19 All digital information (i.e., dwg, xml, csv, docx, etc.) for the project design including, but not limited to, spreadsheets, AutoCAD files, hydraulic analysis files, bridge design files, scour analysis files, survey, and all other documentation required to complete the design shall be submitted to the Township & County.

6.0 Engineering Assistance during Letting and Construction

6.1 Respond to all Contractors' Requests for Information (RFIs) during bidding and construction.

6.2 Attend the preconstruction meeting.

6.3 Review and approve shop drawings as necessary. The shop drawing may consist one

and/or all of following:

a. Precast elements (pre-stressed concrete beams or elements).
b. Steel elements (Girders, beams, stringers).
c. Bearings.
d. Railings.
e. Stay-in-place forms.
f. Street lights fabrication.
g. Others.

6.4 Attend meetings and site visits during construction (three meetings/site visits).

6.5 Upon construction completion:

a. Final as-built constructed plans shall be provided to the Township & County for the Township's & County's records.
b. Final load rating shall be prepared and provided to the Township & County (to assure the County that the load rating for the bridge is in compliance with NBIS). The load rating shall be prepared by using AASHTOWare Virtis Software (BrR) [(1), (2)].
c. Post-Construction inspection per NBI guidelines shall be performed.
d. Bridge/culvert safety inspection report (BSIR/CSIR), and structure inventory and appraisal (SI&A) form shall be updated and provided to the Township & County.

7.0 Primary Design Elements

Below are the design elements that are the main focus of the project design. However, it shall not preclude including other elements that are needed to fully complete the design.

7.1 Bridge Replacement:

a. Replace completely bridge's deck, beams, abutments, pier, and approaches, with the associated sidewalks, guardrails, and railings.

   Sidewalks: 10' shared path on the north side of the bridge. The sidewalk should be protected by a raised wall and potentially a safety rail like the bridge near Haggerty and Huron River Drive in the Township.

b. The new bridge is desired to have one span only (no piers).
c. Possibility of placing lighting on the bridge vs adjacent to the bridge.
d. Possibility to increase the height of new bridge at least 40".
e. The new design should be similar to the Belleville Road bridge over Belleville Lake to match for the area. The bridge should include brick columns with a round ball on top approximately every 50 feet on both sides of the bridge with the vertical edges of the bridges being half concrete and half aluminum fencing.
f. The new bridge shall be hydraulically adequate.
g. Reconfiguration to the bridge/road storm sewer system shall be as needed.

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[1] If applicable; otherwise using other Software for rating bridge superstructure in accordance with the AASHTO Manual for Bridge Evaluation to verify that the structure will carry all Michigan 28 legal trucks loading.

[2] Load rating summary and assumption sheet along with XML input data file for BrR shall be provided to the County.

7.2 **Channel Pathway:**

a. Clean/remove some of sediment accumulated at the face of the abutments. Contaminated sediments shall be disposed appropriately, and a coffer dam shall be required.

b. Clear/remove vegetation of the channel's pathway within the road right-of-way.

7.3 **Guardrail Repairs:**

a. Replace/Adjust existing guardrail to be in compliance with the current State and Federal standards and regulations. Guardrail replacement/adjustment limits shall be up to wherever it meets the standards (may extend beyond bridge replacement limits).

8.0 Deliverables:

Schedule (from NTP)	**Activities**
TBD	Anticipated Notice to Proceed (NTP).
2 Weeks	Kickoff Meeting with the Township and/or Wayne County
5 Weeks	Topo Survey
8 Weeks	Geotechnical Investigation Report
10 Weeks	Hydraulics and submittal for EGLE, SHPO, USFWS, and MNFI Permits/Clearances.
10 Weeks	TS&L Report submittal to Van Buren Township and Wayne County.
18 Weeks	Package submittal (80-95% completed) to Van Buren Township and Wayne County. (GI)
20 Weeks	Plan review meeting with Van Buren Township and Wayne County. (GI meeting)
26 Weeks	Final Design Plan, Spec & Estimate submittal to Van Buren Township and Wayne County (100% completed).

2.5 CONSULATANTS RESPONSIBILITIES:

a. The Consultant must furnish all services and labor necessary to conduct and complete the Services described herein. The Consultant must also furnish all materials, equipment, supplies, training, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Township and/or County), and check and/or test the materials, equipment, supplies, and incidentals as necessary in carrying out this work. The Services must be performed to the satisfaction of the Township and/or County and consistent with applicable professional standards.

b. The Consultant's principal contact with the Township must be through the designated Project Manager.

c. The Services described herein are financed with public funds. The Consultant must comply with all applicable Federal, State and County laws, rules, and regulations.

d. The Consultant will notify the Township Project Manager, in writing, prior to any personnel changes from those specified in the Consultant's original approved proposal. Any personnel substitutions are subject to the review and approval of the Township Project Manager.

e. Consultant must contact the Township Project Manager prior to beginning any work on an authorized work assignment.

f. The Consultant must perform field operations in accordance with MIOSHA regulations and accepted safety practices.

g. The Consultant is responsible for any traffic control required for field work.

h. Coordinate, setup, and attend Utility coordination meeting at least two weeks before MDOT G.I. meeting.

i. Submit MDOT G.I package to MDOT if necessary and WCDPS and attend MDOT G.I. meeting if necessary.

j. Attend pre-design meeting - with Wayne County DPS and the City and/or Township to verify the concept and scope of the project. Provide meeting minutes.

k. Submit construction bid documents to MDOT if necessary and WCDPS no later than four (4) weeks after MDOT G.I meeting.

2.6 VAN BUREN TOWNSHIP RESPONSIBILITIES:

Van Buren Township Project Manager:

Contact: Ron Akers, Municipal Services Director
Address: 46425 Tyler Road, Van Buren Township, MI 48111
Phone: 734-699-8913
E-mail: rakers@vanburen-mi.org

Predesign Meeting: Van Buren Township and/or Wayne County will set up the predesign meeting within five (5) working days of notice to proceed.

GI Package**:** Van Buren Township and/or Wayne County will review in a timely matter and return package to Consultant no later than ten (10) working days from the receiving date.

Final Submittal (Construction Bid Documents): Van Buren Township and/or Wayne County will review in a timely matter and return package to Consultant no later than ten (10) working days from the receiving date.

2.7 COST PROPOSALS NOT CONSIDERED FOR EVALUATION

Cost proposals will not be considered during the evaluation, ranking, and selection phase.

2.8 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION:

Contract awards that are an outcome of this RFP may be funded with federal funds. For those contracts, DBE participation is anticipated. Information on this requirement shall be included in any relevant RFP.

SECTION 3.0 – EVALUATION CRITERIA AND SUBMITTAL PROCESS

This section contains key project dates and activities as well as instructions to respondents on how to prepare and submit their response:

3.1 EVALUATION:

All Responses received by an Evaluation Committee comprised of Township representatives. The Experience and Qualifications will be considered in making the selection of the qualified Respondents.

Each Response submitted in response to this RFP shall focus on the above-mentioned criteria. The Evaluation Committee also may consider past performance of the Respondent on other contracts with the Township or other entities. Responses will be evaluated equally and fairly; no preference will be given to any Respondent based solely on previous experience with the Township or to an incumbent thereof. The Township reserves the right to make additional inquiries and may request the submission of additional information.

3.2 GENERAL SUBMITTAL REQUIREMENTS

a. Response Submittal: Responses, all attachments, and any modifications or withdrawals, must be to the Van Buren Township Clerk's office at 46425 Tyler Road, Van Buren Township, MI 48111 by the submittal deadline. The Township will require a sealed response of five (5) paper copies and a USB drive with a digital version of the provided information. The Respondents failure to submit a response as required may result in disqualification of such response. The response and attachments must be sealed and submitted prior to the due date identified.

b. Response Format: Each Response should be prepared simply and economically. Responses shall include the requirements listed below and in the following section.

c. Response Content: The Respondent must include the following items, or the response may be deemed non-responsive and rejected without further evaluation.

   i. All required forms including the following:
      i. Attachment A: Proposal Recommendations
      ii. Attachment B: Proposal Exceptions
      iii. Attachment C: Proposal Certification

ii. Evidence showing that the respondent meets the minimum qualifications listed in the scope of work of this RFP.

iii. A complete response to each of the items in Section 3.3, what are specific to the evaluation criteria.

3.3 SUBMITTAL REQUIREMENTS SPECIFIC TO EVALUATION CRITERIA

Submit a complete response to each of the following items. List them in the order below.

3.3.1 Understanding of Project (25 points)

Describe the firm's understanding of the services to be provided. The following, at a minimum should be specifically addressed.

i. Understanding of the Project's scope and schedule.
ii. Understanding of the design requirements needed.
iii. Understanding of impacts on the adjacent communities and traveling public.
iv. Potential project innovations.

3.3.2 Qualifications of Team (50 points)

Provide the qualifications of the Submitter's team that will actually perform required work. The information, at a minimum should address the following:

I. Management and staff experience, capabilities and functions on projects with a similar scope, schedule and with similar design requirements.
II. Effective project management structure, coordination/communication protocols for/and interaction with Van Buren Township, MDOT or other entities.
III. Effective utilization of personnel and experience of team members working, coordinating and communicating together.
IV. Experience with timely completion on comparable projects.
V. Experience with on-budget completion of comparable projects.

A. Organization of Project Team.

Describe the roles of all Key Personnel, Major Participants and identified subcontractors. Provide an organizational chart showing the flow of the "chain of command" with lines identifying participants who are responsible for major functions to be performed and their reporting relationships, in managing and designing the Project. The chart must show the functional structure of the organization down to the design discipline leader. The chart must identify Key Personnel by name and their role. Identify the Submitter and all known Major Participants in the chart(s).

B. Project Team Communication.

The Submitter shall provide information that will show how the Submitter communicates during the execution of the Project. Wayne County's desire is to have a strong single point of contact that controls the project during all phases, including planning, design, and assistance during construction.

C. Resumes of Key Personnel.

Resumes of Key Personnel shall be provided. Resumes of Key Personnel shall be limited to three pages each. If an individual fills more than one position, only one resume is required. The listing below describes the minimum key personnel for this RFP, others may be added by the Submitter.

Key Personnel
a) Submitter's Project Manager
b) Design Quality Control Manager
c) Lead Structures Engineer
d) Lead Road Engineer
e) Lead Traffic Engineer
f) Lead Geotechnical Engineer

D. Qualifications of Key Personnel.

Key Personnel will be evaluated, in part, based on the extent they meet and/or exceed the listed qualifications including, but not limited to, relevant education, training, certification, and experience. The following provides expected qualifications of the Key Personnel assigned to the Project. Key Personnel, except as noted, may perform Work in more than one position in the organization.

1. <u>Submitter's Project Manager</u>
   The Submitters Project Manager must have significant experience managing the bridge design on projects of similar scope and complexity. The Project Manager will be responsible for the overall design, quality management and contract administration for the Project and will:

   i. Have full responsibility for the prosecution of the Work,
   ii. Act as agent and be a single point of contact in all matters on behalf of the Design Team
   iii. Be available (or the Approved designee will be available) at all times that Work is performed, and
   iv. Have authority to bind Submitter on all matters relating to the Project.

2. Design Quality Control Manager

   The Design Quality Control Manager must have significant experience managing the design quality of bridge projects of similar scope and complexity and must be a licensed Professional Engineer in the State of Michigan. The Design Quality Control Manager will be responsible for design quality assurance for the project. The Design Quality Control Manager will:

   i. Be independent of design production and associated activities,
   ii. Be available whenever design activities are being performed,
   iii. Work under the direct supervision of Project Manager.

3. Lead Structure Engineer

   The Lead Structures Engineer must be experience in design of structures of similar size and type required for the RFP and must be a registered Professional Engineer in the State of Michigan.

4. Lead Road Engineer

   The Lead Road Engineer must be experienced in roadway design on projects of similar size and complexity related to roadway reconstruction projects and must be a registered Professional Engineer in the State of Michigan.

5. Lead Traffic Engineer

   The Lead Traffic Engineer must be experienced in work zone safety, work zone traffic control design, signing design, pavement marking design, have significant recent experience in traffic engineering and traffic management on similar projects, and must be a registered Professional Engineer in the State of Michigan.

6. Lead Geotechnical Engineer

   The Lead Geotechnical Engineer will be responsible for ensuring that the geotechnical designs and any necessary structural designs are completed in accordance with contract requirements. They must have significant experience on projects of similar size and complexity and must be a registered Professional Engineer in the State of Michigan.

3.3.3 Submitter Experience (25 points)

Describe at least three but a maximum of five projects the Submitter has completed or participated in and at least three but a maximum of five projects each listed Major Participant has managed or designed. For projects in which several of the proposed Major Participants were involved, the Submitter may provide a single project description. Highlight experience

relevant to the Project that the Submitter/Major Participants have gained in the last 10 years. Cite projects with levels of scope comparable to that anticipated for this RFQ(u). Also consider citing projects where design schedules were kept, and original design budgets were not increased. Describe the experiences that could apply to this RFP. The experience of the Submitter will account for a maximum of 15 points out of the 25 points available in this category. The experience of the Major Participants will account for a maximum of 10 points out of the 25 points available in this category.

Each project description should include the following information:

i. Name of the project and either the owner's contract number or state project number.
ii. Owner's project manager and their current telephone number.
iii. Dates of design and construction.
iv. Description of the work or services provided and percentage of the overall project actually performed.
v. Description of scheduled completion deadlines and actual completion dates.
vi. Original design and construction budget and final design and construction cost.

PART 2 – RESPONSE (SUPPLIER'S/CONTRACTOR'S RESPONSE)

SECTION 4.0 – RESPONSDENT'S INFORMATION, MINIMUM QUALIFICATIONS & CERTIFICATIONS

4.1 CONSULTANT SUBMITTAL CHECKLIST

Check Box	Required Information
	Attachment A: Proposal Recommendations
	Attachment B: Proposal Exceptions
	Attachment C: Proposal Certification
	Documentation showing the respondent meets the minimum qualifications in section 2.3 of this RFP
	Response to items in section 3.3 specific to the evaluation criteria
	References as required in section 4.3.

4.2 MINIMUM QUALIFICATIONS:

The following are the minimum qualifications restated from section 2.3.

a. Respondents (specifically, the business that will be contractually bound under the contract with the Township) will be deemed non-responsible and rejected without any further evaluation if they do not meet the following mandatory qualifications: The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have 10 years' experience providing bridge design services.

b. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have 10 years' experience providing geotechnical investigation including soil borings.

c. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must have worked on at least three comparable projects.

d. The Proposer OR Proposer or its subcontractor OR Proposer or its key personnel must be prequalified by MDOT in the following:

- Design – Bridges
- Design – Bridges: Load Rating
- Design – Geotechnical: Advanced
- Design – Hydraulics II
- Design – Traffic: Work Zone Maintenance of Traffic
- Surveying: Hydraulics

- Surveying: Structure

4.3 REFERENCES

The Respondent shall provide a minimum of three (3) references for services of a similar scope dating within the past ten (10) years. Information to be provided shall include:

- Entity Name
- Contact Name and Title
- Contact Information (Phone, Mailing Address, Email)
- When the services were provided
- Description of the services provided.

ATTACHMENT A:

PROPOSAL RECOMMENDATIONS

(Provide itemized list of all proposal recommendations)

1.

ATTACHMENT B

PROPOSAL EXCEPTIONS

(Provide itemized list of all proposal exceptions)

1.

ATTACHMENT C

PROPOSAL CERTIFICATION

We certify that are committed to provide the above-mentioned services for the amount described on Attachment C: Pricing Cost Summary and adhering to the listed "Deliverables" with the recommendations listed on "Attachment A" and exceptions listed on "Attachment B".

_____
Signature

_____
Name

_____
Title

_____
Phone

_____
E-mail

_____
Organization Name

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 12033 BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
Feature	**Length / Width / Spans**	**Owner**	
BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

NBI INSPECTION V7MR

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Michael Nicolls	Wade Trim	12	11/22/2022

GENERAL NOTES

Local Bridge No. 0447; Max Water depth 27 ft at west pier
STRUCTURE IS CLOSED - Road Closed Signs in Place at each end and at closest intersections; Detour signing for Denton in place. Structure is closed due to extensive deterioration and scour of abutment pile foundations as reported in Underwater Inspection Completed 9/30/2022
Inspection Frequency Lowered to 12 months

Weight limit signs in place on both ends of bridge	NO
Required advance warning weight limit signs in place	NO

DECK

	05/19	05/21	11/22	
1. Surface (SIA-58A)	7	7	6	Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. (11/22) Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. (05/21) Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. (05/19)
2. Expansion Joints	4	4	4	Exp jt device debris filled and not continuous through sidewalks at E abut. West end joint is debris filled in deck and sidewalks. (11/22) Exp jt device debris filled and not continuous through sidewalks at E abut. West end joint is debris filled in deck and sidewalks. (05/21) Exp jt device debris filled and not continuous through sidewalks at E abut. No joint at W abut. No capacity for expansion. (05/19)
3. Other Joints	N	5	5	Construction joints at barrier and sidewalks exhibit minor to moderate distress with cracks arresting at const jts at multiple locations. (11/22) Construction joints at barrier and sidewalks exhibit minor to moderate distress with cracks arresting at const jts at multiple locations. (05/21) (05/19)
4. Railings	6	6	5	Solid Concrete Parapet w/ 4 ft Chain Link Fence (CLF) - Hairline cracks & shallow spalls. Embedded CLF posts in top of rail causing cracks. Railing rust covered from CLF. Fence 100% surface rusted and leaking onto concrete railing. (11/22) Solid Concrete Parapet w/ 4 ft Chain Link Fence (CLF) - Hairline cracks & shallow spalls. Embedded CLF posts in top of rail causing cracks. Railing rust covered from CLF. Fence 100% surface rusted and leaking onto concrete railing. (05/21) Solid Concrete Parapet w/ 4 ft Chain Link Fence - Tight cracks & shallow spalls. Embeded CLF fence posts in top of rail causing cracks. Railing rust covered from CLF. Fence 100% surface rusted and leaking onto concrete railing. (05/19)
5. Sidewalks or Curbs	4	4	4	Raised concrete sidewalk each side. Heavy map cracking in NW curb. Spall in NW corner 8' from reference line. A few spalls from movement distress. Conc popouts throughout. Deep spall to steel in SE quad sidewalk overhang. (11/22) Raised concrete sidewalk each side. Heavy map cracking in NW curb. Spall in NW corner 8' from reference line. A few spalls from movement distress. Conc popouts throughout. Deep spall to steel in SE quad sidewalk overhang. (05/21) Raised concrete sidewalk each side. Heavy map cracking in NW curb. Spall in NW corner 8' from reference line. A few spalls from movement distress. Conc popouts throughout. Deep spall to steel in SE quad sidewalk overhang. (05/19)

STR 12033 BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
Feature	**Length / Width / Spans**	**Owner**	
BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

6. Deck Bottom Surface (SIA-58B)	4	4	4	Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (11/22) Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (05/21) Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (05/19)
7. Deck (SIA-58)	5	5	5	Surface: Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. Bottom: Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (11/22) Surface: Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. Bottom: Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (05/21) Surface: Concrete overlay surface. Tight longitudinal cracks throughout, 3 nearly full length. Bottom: Concrete deck between steel beams. Spalls to steel throughout. A few cracks w/ effl mostly in transverse direction. A few incipient spalls over navigable waterway. 4 ft by 8 ft plywood sheet connected to bottom of deck in center span. (05/19)
8. Drainage				(20) Deck Drains on each side of bridge without downspouts. (11/22) (20) Deck Drains on each side of bridge without downspouts. (05/21) (20) Deck Drains on each side of bridge without downspouts. (05/19)

SUPERSTRUCTURE

	05/19	05/21	11/22	
9. Stringer (SIA-59)	6	6	6	Continuous steel beams (6 each) - Minor rusting throughout w/ largest rust area in center span at plywood deck patch. Most rust concentrated on edges of bottom flanges. (11/22) Continuous steel beams (6 each) - Minor rusting throughout w/ largest rust area in center span at plywood deck patch. Most rust concentrated on edges of bottom flanges. (05/21) Continuous steel beams (6 each) - Minor rusting throughout w/ largest rust area in center span at plywood deck patch. Most rust concentrated on edges of bottom flanges. (05/19)
10. Paint (SIA-59A)	6	6	6	Light gray. Monor flaking on sharp edges, some to bare steel. Heaviest under plywood patched deck area. (11/22) Light gray. Monor flaking on sharp edges, some to bare steel. Heaviest under plywood patched deck area. (05/21) Light gray. Monor flaking on sharp edges, some to bare steel. Heaviest under plywood patched deck area. (05/19)
11. Section Loss	2	2	2	Section loss beginning on steel beams in several places where bare steel exposed. (11/22) Section loss beginning on steel beams in several places where bare steel exposed. (05/21) Section loss beginning on steel beams in several places where bare steel exposed. (05/19)
12. Bearings	7	7	7	Steel plates and rockers over piers and abutments. Light rust. (11/22) Steel plates and rockers over piers and abutments. Light rust. (05/21) Steel plates and rockers over piers and abutments. Light rust. (05/19)

SUBSTRUCTURE

	05/19	05/21	11/22	
13. Abutments (SIA-60)	5	5	2	Concrete wall abutments. Spalls to steel in all corners. Worst location is 1' deep spall in NW corner at waterline. Abutments Rating reduced due to extensive deterioration of foundation piles at each abutment - Underwater Inspection 09-30-2022 (11/22) Concrete wall abutments. Spalls to steel in all corners. Worst location is 1' deep spall in NW corner at waterline. (05/21) Concrete wall abutments. Spalls to steel in all corners. Worst location is 1' deep spall in NW corner at waterline. (05/19)

STR 12033 BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
Feature	**Length / Width / Spans**	**Owner**	
BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

14. Piers (SIA-60)	6	6	6	H-Piles Bents, (7) piles per pier with steel built-up section caps - Moderate rust @ waterline. (11/22) H-Piles Bents, (7) piles per pier with steel built-up section caps - Moderate rust @ waterline. (05/21) H-Piles Bents, (7) piles per pier with steel built-up section caps - Moderate rust @ waterline. (05/19)
15. Slope Protection	N	N	N	Bridge over waterway (11/22) (05/21) (05/19)
16. Channel (SIA-61)	8	8	6	Flow entire width between abutment faces. Bridge Spans Belleville Lake/Huron River. Causeway on either end of bridge with channel protection riprap and broken concrete lining banks. (11/22) Flow entire width between abutment faces. Bridge Spans lake. Causeway on either end of bridge with riprap and broken concrete lining banks. (05/21) Flow entire width. Situated in lake. Causeway on either end of bridge with riprap and broken concrete lining banks. (05/19)
17. Scour Inspection	5	5	2	Water 25 to 27 ft at piers. Scour Inspection Rating reduced due to extensive deterioration of foundation piles at each abutment - Underwater Inspection 09-30-2022 (11/22) Water 25 ft (+) at piers. Underwater inspection is recommended for accurate condition of streambed and presence of scour. (05/21) Water 25'+ at piers. Solid ground noted with plumb bob. Diver needed to accurately determine if scour a concern. (05/19)

APPROACH

	05/19	05/21	11/22	
18. Approach Pavement	7	6	6	HMA surface at both approaches. Cracks extend full width of pavement surface at each end. Minor unsealed random cracks starting to form throughout. (11/22) HMA surface at both approaches. Cracks extend full width of pavement surface at each end. Minor unsealed random cracks starting to form throughout. (05/21) HMA - Repaved in 2012 with 2.5 inches of HMA both approaches. Minor unsealed random cracks starting to form throughout. (05/19)
19. Approach Shoulders Sidewalks	7	4	3	Approach sidewalks are cantilevered along sides of abutment structure at each end and each side with heavy deterioration along the bottom surface with spalls to steel and cracking. Deep Erosion hole at east end of south sidewalk exposing guardrail posts. (11/22) Approach sidewalks are cantilevered along sides of abutment structure at each end and each side with heavy deterioration along the bottom surface with spalls to steel and cracking. Erosion hole at east end of south sidewalk exposing guardrail posts. (05/21) Sidewalks end at ends of bridge (05/19)
20. Approach Slopes				At each quadrant, light vegetation with steep slopes down to lake water surface. (11/22) At each quadrant, light vegetation with slopes down to lake water surface. (05/21) Bare earth with light vegetation and lake. (05/19)
21. Utilities				Gas conduit attached to north fascia with brackets. Light Pole at east side of south approach. (11/22) Gas conduit attached to fascia with brackets at north side of bridge. Light Pole at east side of south approach. (05/21) Conduit on north side of bridge (05/19)
22. Drainage Culverts				None noted (11/22) None noted (05/21) None noted (05/19)

MISCELLANEOUS

Guard Rail

Item	Rating
36A. Bridge Railings	1

Other Items

Item	Rating
71. Water Adequacy	9

STR 12033 BRIDGE SAFETY INSPECTION REPORT

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Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

36B. Transitions	1	**72. Approach Alignment**	8
36C. Approach Guardrail	1	**Temporary Support**	0 No Temporary Supports
36D. Approach Guardrail Ends	1	**High Load Hit (M)**	No
		Special Insp. Equipment	1
		Underwater Insp. Method	3

False Decking (Timber) Removed to Complete Inspection N/A - No False Decking

Critical Feature Inspections (SIA-92)

	Freq	Date
92A. Fracture Critical		
92B. Underwater	60	09/30/2022
92C. Other Special		
92D. Fatigue Sensitive		

STR 12033 UNDERWATER INSPECTION REPORT [SIA #92-B]

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
Feature	**Length / Width / Spans**	**Owner**	
BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

UNDERWATER SPECIAL INSPECTION L4DW

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Matthew Davis	Great Lakes Engineering Group, LLC	60	09/30/2022

GENERAL NOTES

Denton Rd over Belleville Lake / the Huron River is a three span structure with a steel stringer superstructure. Piers 1w and 2w, along with the west and east abutments are submerged in the waterway. The bridge was originally constructed in 1924. In 1948 the bridge was rehabilitated. The original pony truss was removed, two pile pier bents were constructed, the top of the abutments were modified, and a new steel superstructure was constructed. The original 1924 concrete abutments, which are supported by timber pile, remained in place. The 1948 plans show that at the east abutment, three rows of pile are exposed between the channel bottom and the bottom of the abutment footing. Additionally, the original 1924 plans show that between the top of the timber pile and the bottom of the concrete footing there is 3" timber planking and 3"x12" timber stringers.

On 9/30/2022 during the underwater inspection, extensive deterioration of the timber piles at the east abutment was noted. The timber pile in row 1 are no longer in contact with the bottom of the abutment footing. The dive inspector also verified that the pile in row 2 where in similar condition as row 1. As a result of the deteriorated pile condition at the east abutment, the bridge was recommended to be closed. Refer to RFA 10/3/2022.

INSPECTION PROCEDURES

The team performing the underwater inspection is qualified in accordance with the National Bridge Inspection Standards 23 CFR Part 650.309. The underwater inspection was conducted by a three-person team consisting of a Dive Team Leader/Qualified Team Leader/Qualified Dive Inspector, a Qualified Dive Inspector/Dive Safety Supervisor, and a Professional Engineer/Qualified Team Leader/Dive Tender/Qualified Dive Inspector.

The inspection was completed using a surface supplied air system with dive helmets. During the inspection the divers accessed the bridge and worked from an 18.5-foot dive safety vessel, which was moored to each pier. Two-way wired communications were used to convey inspection notes from the diver to the team leader and recorded on note sheets. Other equipment consisted of an underwater digital camera, underwater video camera, high intensity submersible dive lights, dive knife, scraper, probing rod, 25-foot survey rod, and a down scan/side scan sonar unit.

The Level I underwater inspection consisted of a close visual and tactile examination using large sweeping motions of the hands where visibility was limited. A Level II inspection was performed on 10% of the submerged units. The inspection was conducted over the total exterior surface of each underwater substructure unit. Probing along the mud line was also done along each substructure unit and the adjacent streambed. Upstream and downstream cross sections were taken and recorded using elevation information from existing plans.

This bridge does not fall under the jurisdiction of the United States Coast Guard (USCG). Approval was not required to perform the underwater inspection.

NAVIGATION PROTECTION SYSTEMS

Protection Systems

Inspection Comments

N/A

SCOUR PROTECTION

Number of Substructure Elements in Waterway

Scour Counter Measures Rip-Rap

Inspection Comments

There is submerged riprap along the south and north sides of the returnwalls at the west and east abutments. There is also scattered riprap along the channel banks. The riprap does not extend in front of the abutments to the channel sides. Timber piling is exposed below the abutment footings. The pier design does not warrant scour countermeasures.

Scour Critical Action Plan Available? Y

Scour Critical Action Plan Location

STR 12033 UNDERWATER INSPECTION REPORT [SIA #92-B]

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
Feature	**Length / Width / Spans**	**Owner**	
BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

WATERWAY & WEATHER CONDITIONS

Current Speed	0.0	**Turbidity**	2.0	**Water Temperature**	63
Stream Bed Material	Stone	**Maximum Depth**	29	**Air Temperature**	62

Marine Growth on Structure

Heavy marine growth including algae and zebra mussels are present on the submerged portions of the substructure units.

Weather Conditions on Day of Dive

Mostly sunny, mild conditions.

INSPECTION STAFF & EQUIPMENT

Engineer	Eric Rickert
Diver	Paul Davis
Tender	Brian Hebden
Dive Equipment	Surface Supplied Air, Boat

Nearest Boat Launch Site

Belleville boat launch, approximately 1 mile west of bridge off of Huron River Dr.

Safety Concerns

Low visibility, overhead environment at abutments, recreational marine traffic, entanglement hazards (fishing line) at piers.

INSPECTION DETAILS

Waterway and Bank Observations

The channel banks adjacent to the structure have broken concrete riprap along the waterline in all quadrants. There are areas of raw bank adjacent the waterline and returnwalls at both abutments. Vegetation is also present along the channel banks. The channel banks are in fair condition.

Substructure Observations (Above the waterline)

West abutment: Heavy spalls and deep scaling with exposed steel reinforcement in SW and NW corners of abutment. Exposed steel reinforcement exhibits heavy section loss. Heavy scaling is typical along the waterline. Multiple areas of map cracking and leaching vertical and horizontal cracking.
East abutment: Heavy scaling in SE and NE corners, with exposed steel reinforcement in SE corner. Exposed steel has heavy section loss. Heavy scaling is typical along the waterline. Diagonal cracks in face of abutment. Full height vertical cracks in both returnwalls, 2 in south returnwall and 1 in north returnwall.
Pier 1w: Light rust and scale in piles at the waterline and just above the waterline. Rust and scale extends approximately 1' above the waterline. Random spots of rust staining in pile cap.
Pier 2w: Light rust and scale in piles at the waterline and just above the waterline. Rust and scale extends approximately 1' above the waterline. Pile 1s has impact damage on west flange just above waterline. Random spots of rust staining in pile cap.

Substructure Observations (Below the waterline)

West abutment: Exposed timber along abutment exhibit typical decay, splits, and checks up to 3" deep. Outer layer of timber piles is soft. Heavy spalls and scaling in SW and NW corner continue below waterline for approximately 1'. Remaining concrete within spalls and scaled areas is soft and can be chipped off. Cutoff timber pile in SW corner of abutment. Submerged riprap along south and north returnwalls.
East abutment: Exposed timber piling in row 1 is no longer in contact with bottom of abutment footing. The timber planking, timber stringers, and the top portion of the timber pile have rotted away. This condition was also verified in pile row 2. Piles exhibit typical decay, splits, and checks up to 3" deep. Outer layer of timber piles is soft. Scaling in SE and NE corners continues below waterline for approximately 1'. Submerged riprap along south and north returnwalls.
Pier 1w: Small rust nodules present on piles, typical. No corrosion or section loss noted in piles. Light rust and surface scaling continues for approximately 6" below the waterline.
Pier 1w: Small rust nodules present on piles, typical. No corrosion or section loss noted in piles. Light rust and surface scaling continues for approximately 6" below the waterline.

Debris in Waterway

Minor submerged debris along channel bottom at both abutments and piers. Debris is not restricting the channel.

Recommendations

Underwater Video Available? Y

STR 12033 UNDERWATER INSPECTION REPORT [SIA #92-B]

Facility	**Latitude / Longitude**	**MDOT Structure ID**	**Structure Condition**
DENTON ROAD	42.2104 / -83.495	82200029000B010	Critical Condition(2)
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BELLEVILLE LK HURON RIVR	104 / 29.2 / 3	County: Wayne(82)	
Location	**Built / Recon. / Paint / Ovly.**	**TSC**	**Operational Status**
BELLEVILLE W/BELLEVILL RD	1947 / / 1958 /	Taylor(25)	K Closed to all traffic(K)
Region / County	**Material / Design**	**Last NBI Inspection**	**Scour Evaluation**
Metro(7) / Wayne(82)	4 Steel Continuous / 32 Multi Str Comp	11/22/2022 / V7MR	2 SC - Extensive Scour

Underwater Video Description	STR 12033 UW Inspection 2022.09.30
Underwater Video Location	GLEG Server
Stream Bed Profile Completed?	Y
Site Plan Completed?	Y
Photographs?	Y

RECOMMENDATIONS AND ACTION ITEMS

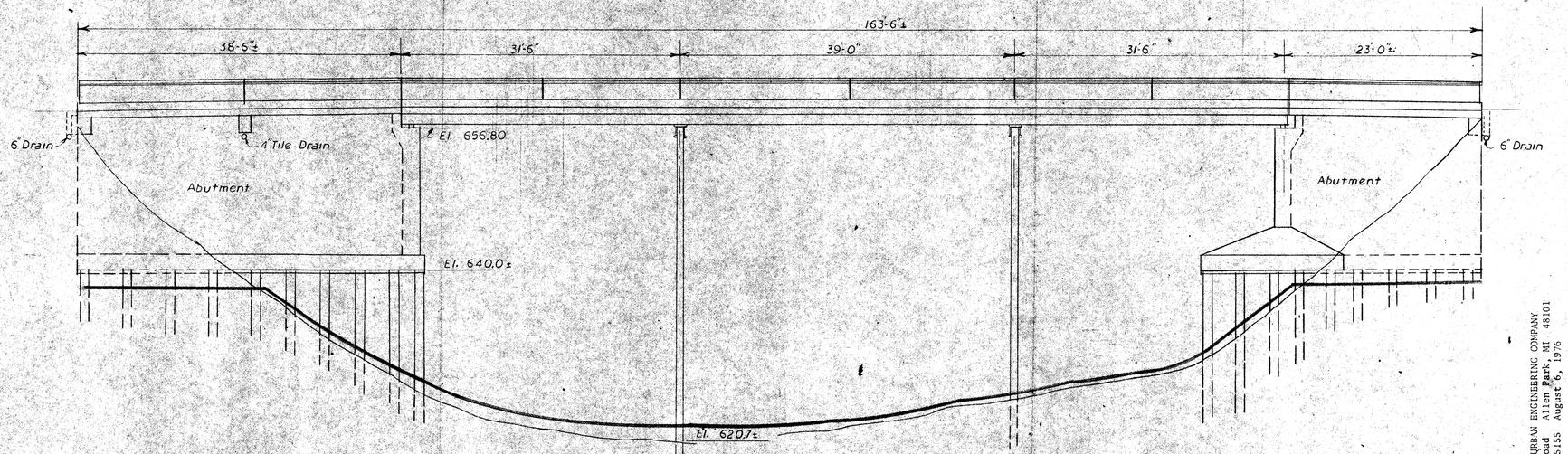
Recommendation

Other

Priority	Comments
H	Recommend closure of bridge. See RFA 10/3/2022.

(11X34) UNDERGROUND CONDUIT RECORD M.B.T. CO. FORM 4889-C

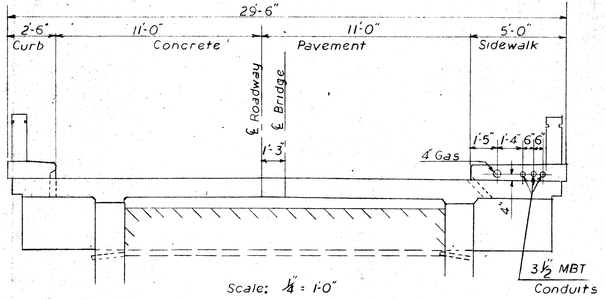
DENTON ROAD BRIDGE OVER BELLEVILLE LAKE



PROPOSED 300 PR. 26 GA CABLE FOR MBT CO. RIVER BOTTOM

Elevation – Looking North
Scale: 1/8" = 1'-0"

BRIDGE & CHANNEL DETAIL



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

Survey By: URBAN ENGINEERING COMPANY
6748 Allen Road Allen Park, MI 48101
Phone: 383-5155 August 6, 1976
Job No. 4726

OFFICE COPY
REC'D 5-17-77
#447

MANHOLES

M H NO	INSIDE DIMEN'S L-W-HD RM	OTHER OWNERSHIP	DATE	REMARKS

U.G. OBSTRUCTION AS OF _____

REVISED

DETAILED WORK PLAN

RECORD INDEX PL. _____ NO. _____

PREPOST YES ☐ NO ☐

LABOR CLASSES ☐ 10 ☐ 11

BELLEVILLE — CITY, TOWN, VILLAGE, TWP. OR CO.

L-2800 — LOCATION NUMBER

me — PREPARED

REGROUP ☐ P & F RECORDS ☐

RIGHT OF WAY ☐ P.A. RECORDS ☐

CONST. PERMITS ☐ T.C.L. RECORDS ☐

POWER CO. ☐ M.A. ☐

DWG. 2-2-76 — DATE

L-6854 — LOC. NUMBER

CO. CLASS — DWG. NUMBER

SUPP. NO.

D. DREAU — PLANT ENGINEER

282-2911 — TELEPHONE NO.

APPROVED R.J. Sukkit — MGR. OUTSIDE PLANT

DATES: ISSUED 3/15/77

REVISED — VARIOUS

COMPLETED 3-9-77 — DATE

DATE

AREA _____

MICHIGAN BELL TELEPHONE CO.

EXCHANGE OR C.O. AREA NAME

PLAT NO.

DETAILED WORK PLAN

OFFICE OR TOWN - AREA NO.	BELLEVILLE 63000	EST. OR ORDER NO.	68554	SUPP. NO.	DWGS 2 OF	DATE ISSUED	3/15/77
PREPARED	M. DREW	PLANT ENGINEER	282-2911	APPROVED	R.D. Sutter	REVISED	3-9-77
		TELEPHONE NO.			AREA ENGR.	DATE	

INCORD: PL
R.C.S. #
TERM.SEC. #

LABOR CLASSES: 01 10 11

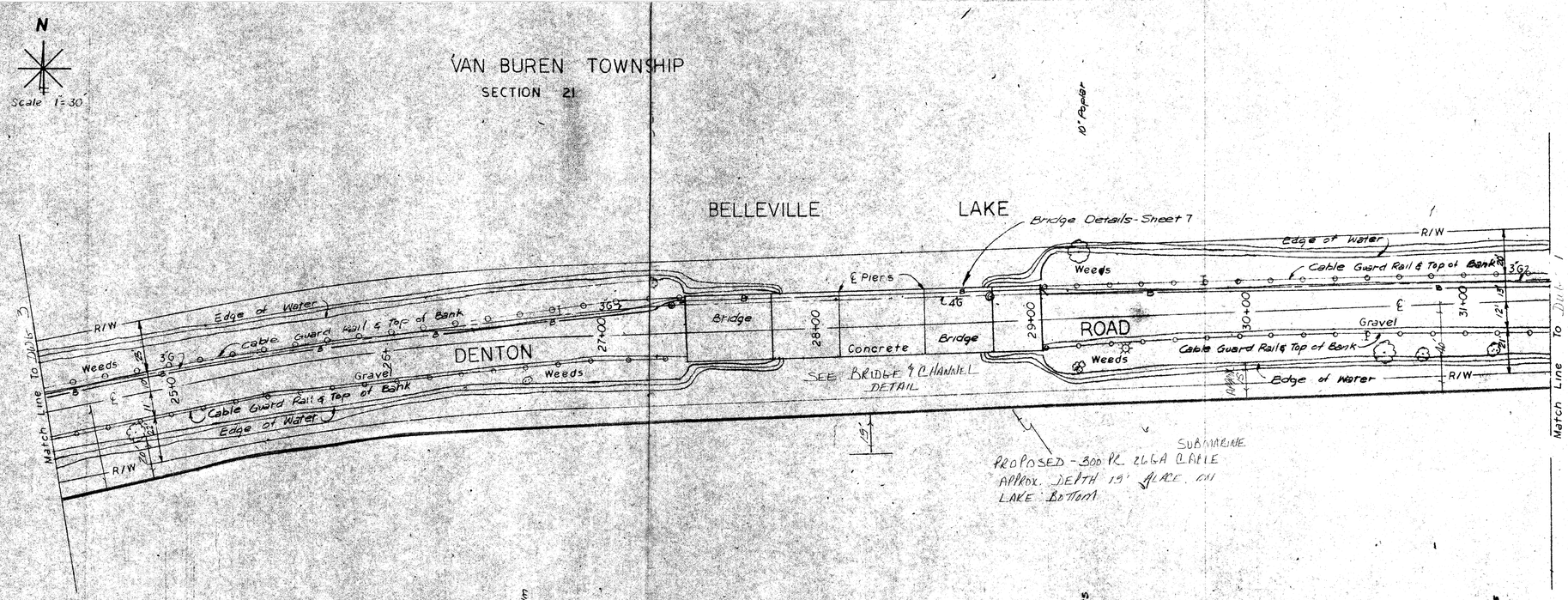
☐ RIGHTOF WAY ☐ CONST. PERMITS ☐ POWER CO. ☐ N.A. RECORDS
☐ P.A. RECORDS ☐ T.C.L. RECORDS
☐ P.E. RECORDS
☐ CONDUCTOR STUDY ISSUED

COST DATA

CODE	EST. COST BY CODE
TOTAL C & X	
TOTAL M	
TOTAL NET	

COMPLETED: DATE
MAJOR MATERIAL

THIS DWG. NOT VALID WITHOUT ATTACHMENT VR



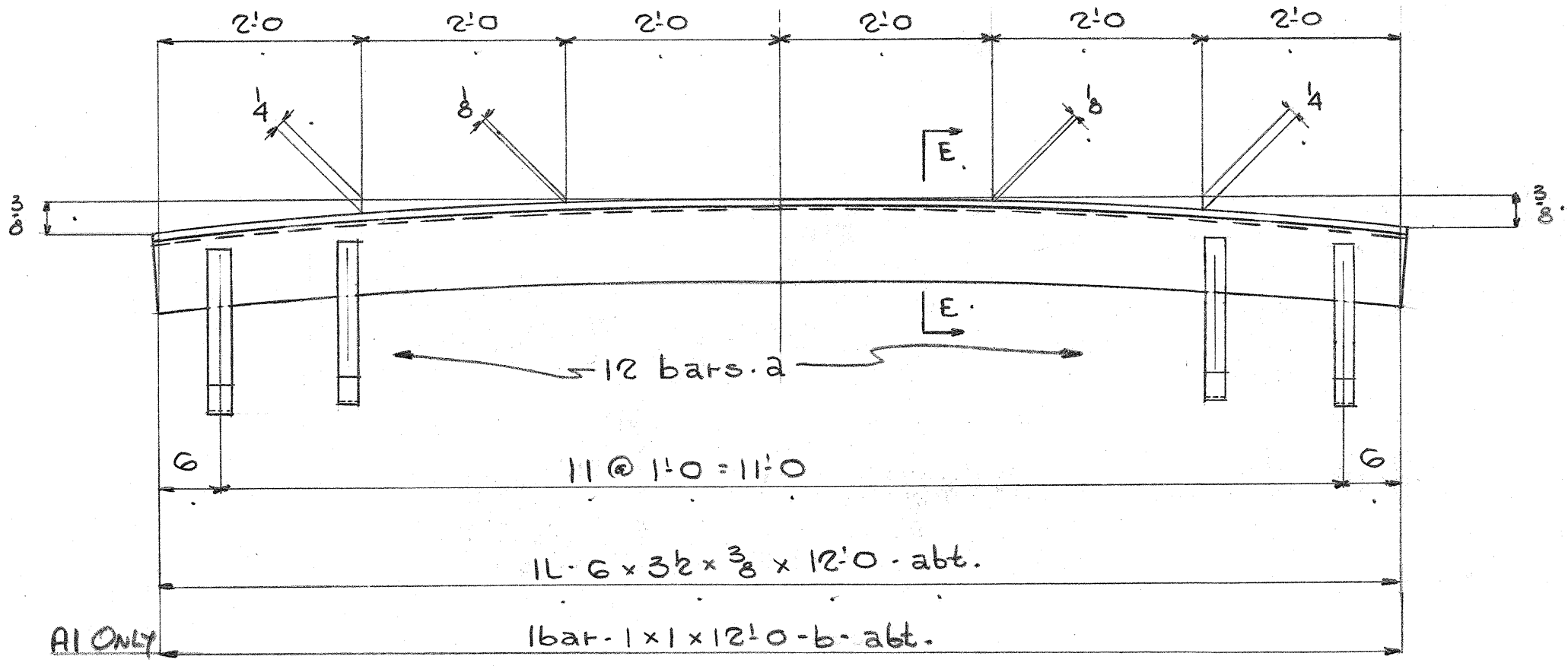
Survey By: URBAN ENGINEERING COMPANY
6748 Allen Road Allen Park, MI 48101
Phone: 383-5155 August 6, 1976
Job No. 4726-

WHITEHEAD & KALES CO.
DETROIT

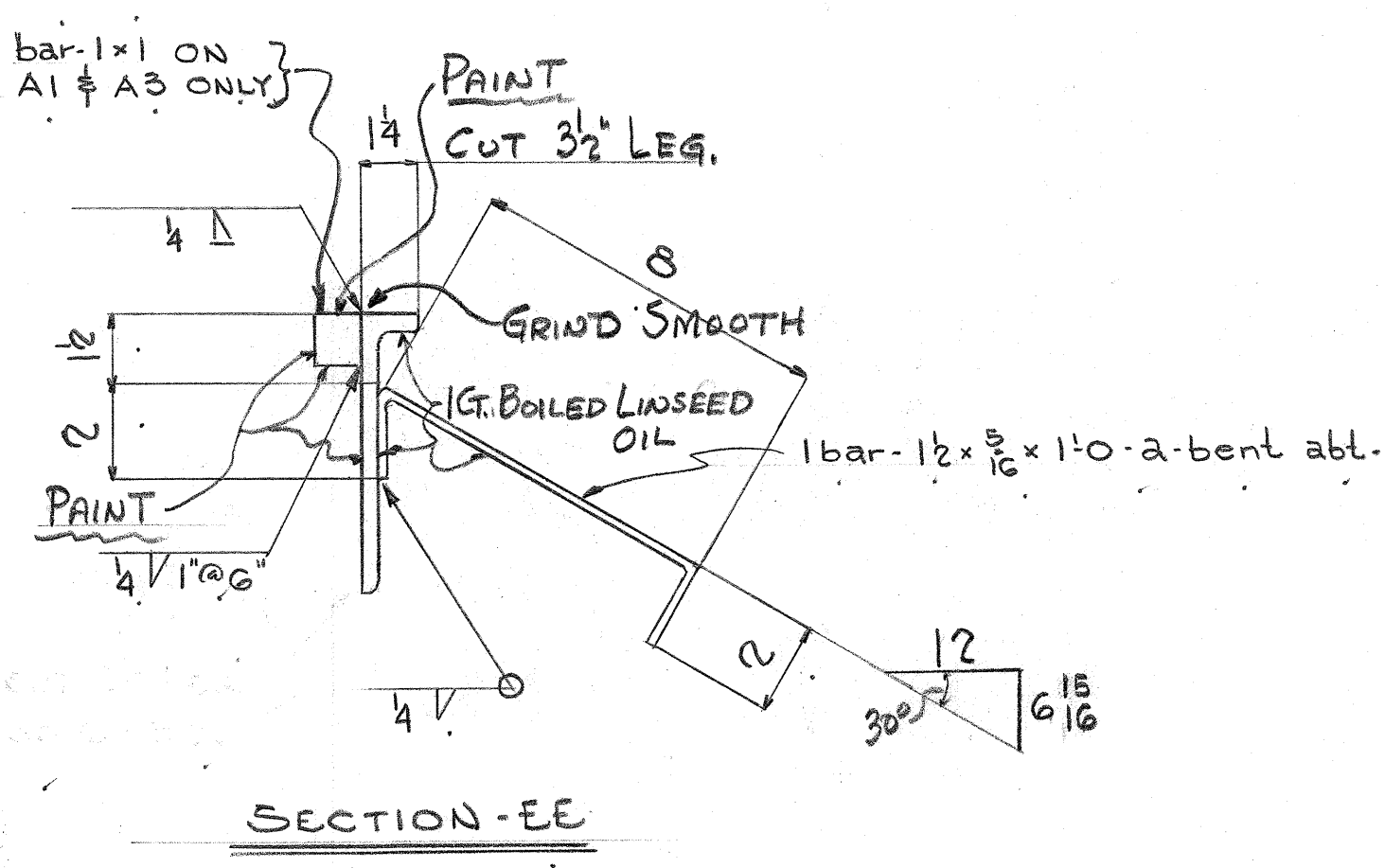
FOR DENTON ROAD BRIDGE over BELLEVILLE LAKE
WAYNE COUNTY ROAD COMMISSION'S JOB #447

SHEET NO. Q4
ORDER NO. 1238-N.
FOLDER NO.
DATE 1-21-48

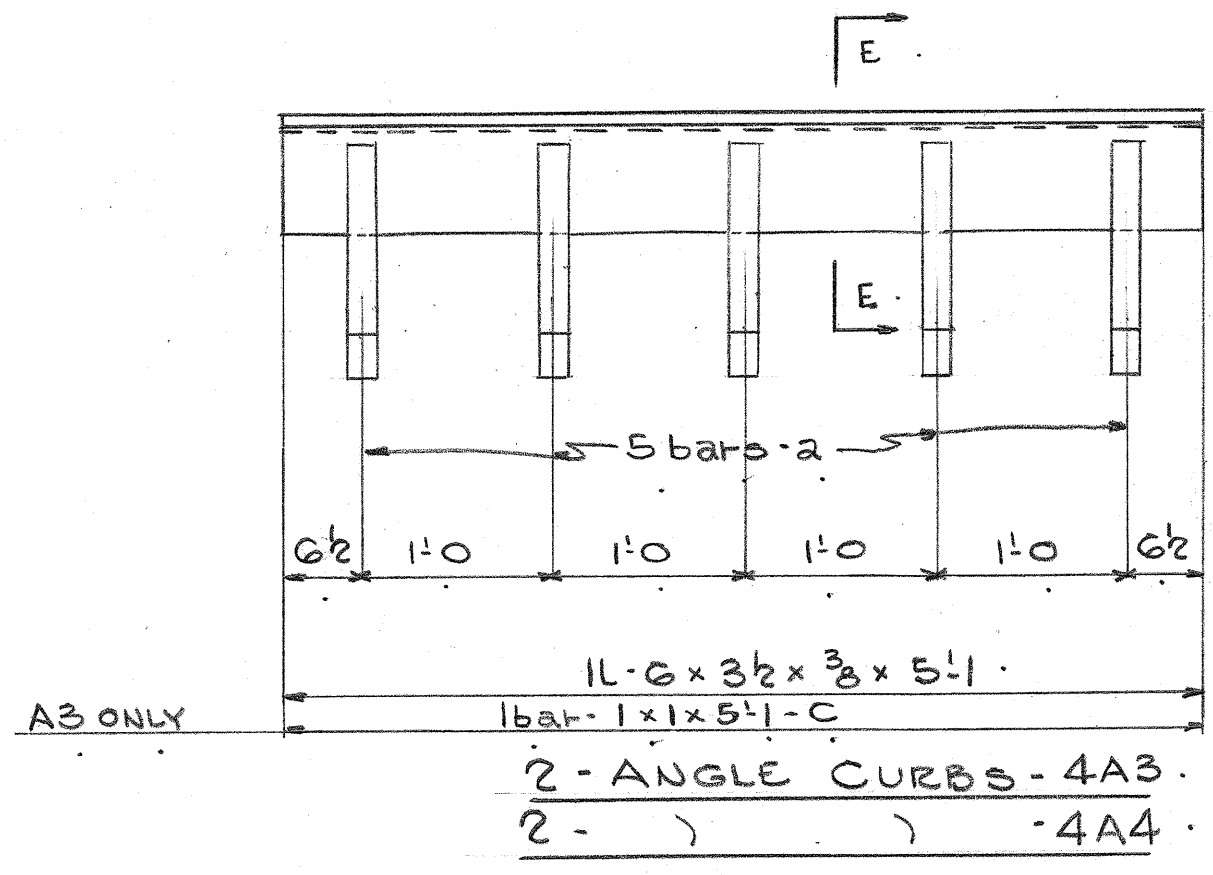
Q4



ONE - ANGLE CURB - 4A1
ONE - " " - 4A2



SECTION - EE



2 - ANGLE CURBS - 4A3
2 - " " - 4A4

MICROFILMED

MADE BY H.M.G. CHECKED BY MARQUART SCALE RIVETS UNLESS NOTED
SHOP PAINT 1GT. M.S.H.D. MIX. 1A AS NOTED, REMAINDER HOLES " "
CONTRACT No. 1238-N SHEET No. Q4 TO HAVE 1 GT. BOILED LINSEED OIL

FORM 859A—2M—1-48-TP-A13233—207

Job 447-14

WHITEHEAD & KALES CO.
DETROIT

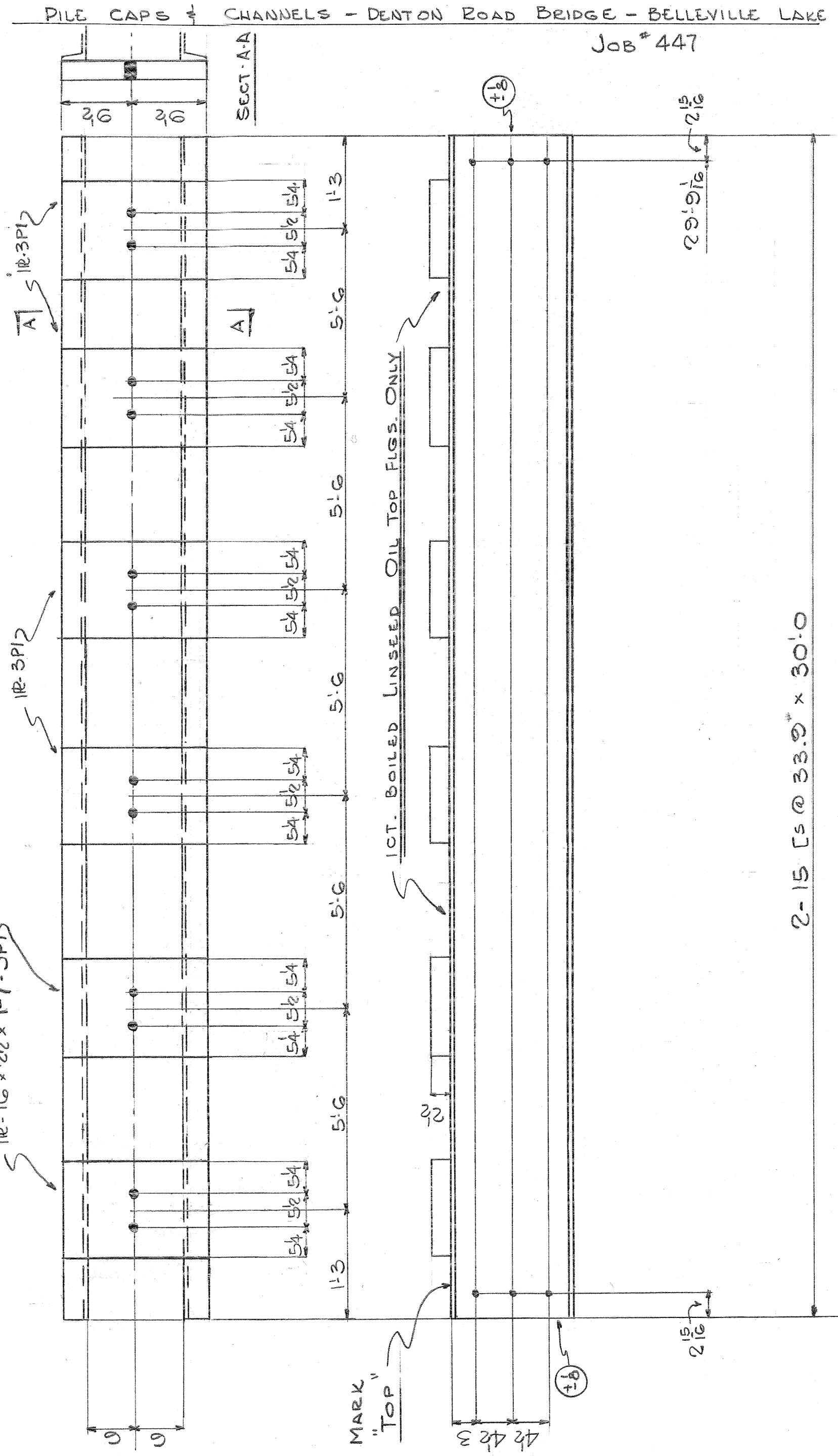
FOR WAYNE COUNTY ROAD COMMISSIONERS - DETROIT - MICHIGAN

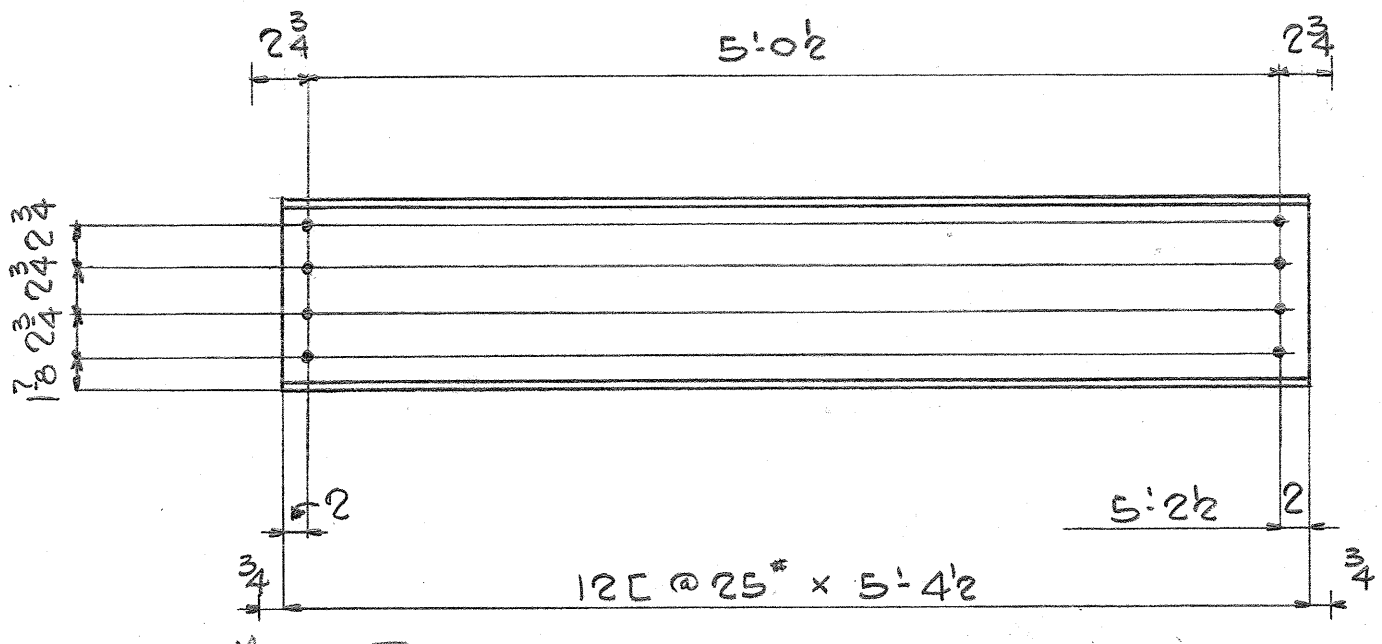
PILE CAPS & CHANNELS - DENTON ROAD BRIDGE - BELLEVILLE LAKE

SHEET NO. Q3
ORDER NO. 1238-N
FOLDER NO.
DATE 1-14-47

Q3

JOB # 447





20-CHANNELS - 3CI

MICROFILMED

MADE BY A-M-G CHECKED BY MARQUART SCALE RIVETS UNLESS NOTED

SHOP PAINT ICT-M-S-H-D MIXTURE 1-A PAINT → EXCEPT AS NOTED HOLES " " 15/16 ϕ

CONTRACT No. 1238-N SHEET No. Q3

FORM 859A—1M—8-47-TA12439—207

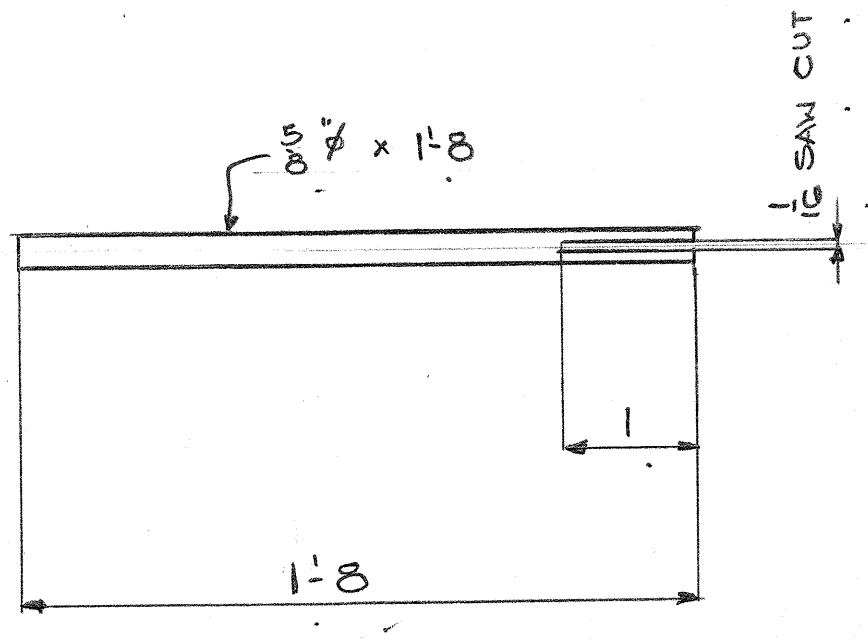
Job 447 Sh # 13

WHITEHEAD & KALES CO.
DETROIT

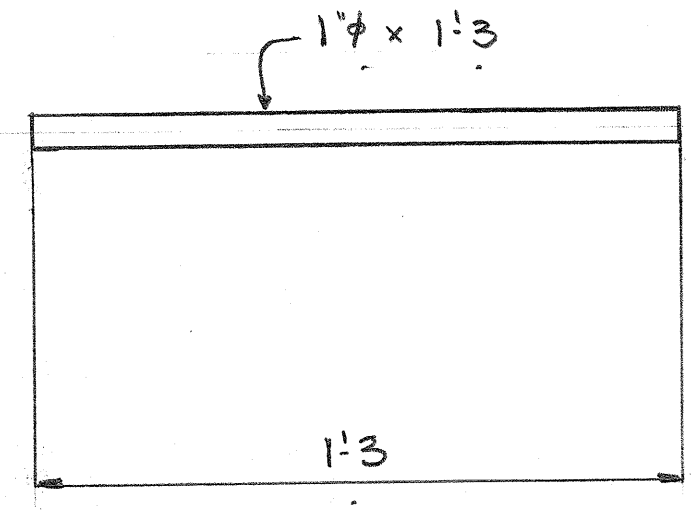
FOR DENTON ROAD BRIDGE OVER BELLEVILLE LAKE
WAYNE COUNTY ROAD COMMISSION'S JOB # 447

SHEET NO. Q5
ORDER NO. 1238-N
FOLDER NO.
DATE 1-22-48

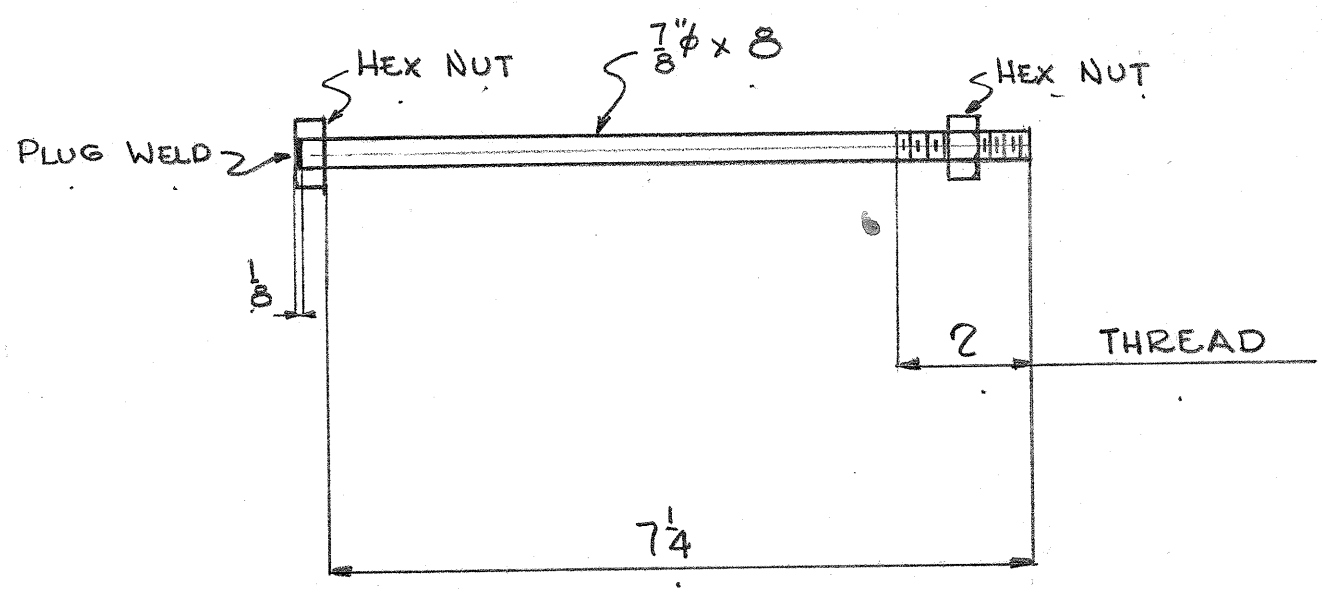
Q5



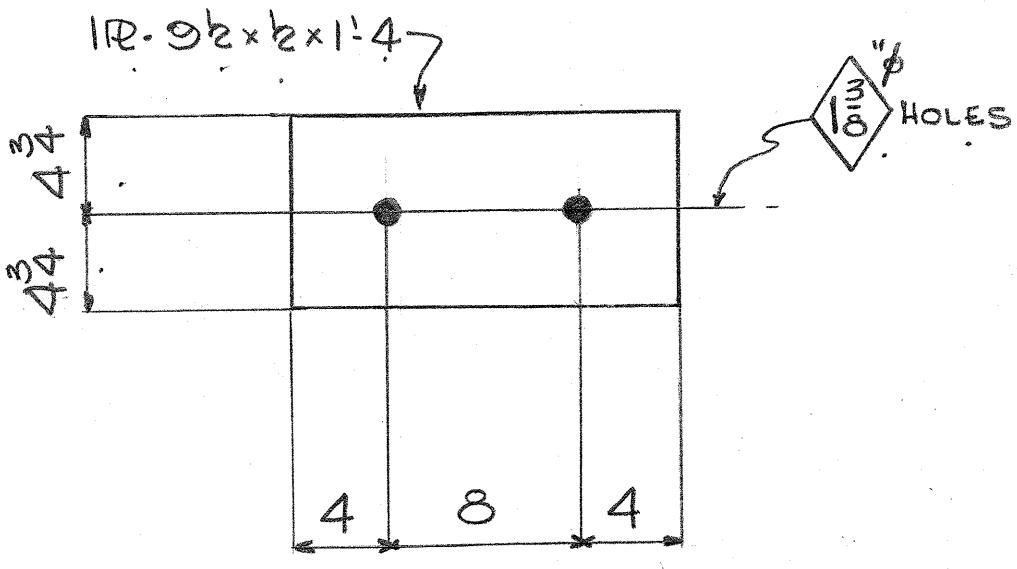
52-DOWELS-5R1



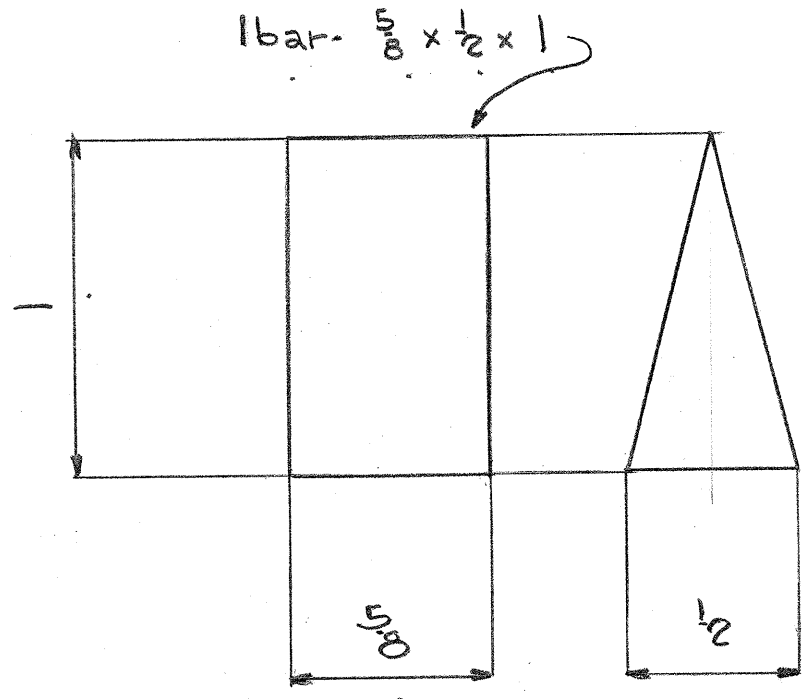
16-DOWELS-5R2



24-RODS-5X1



4-PLATES-5P1



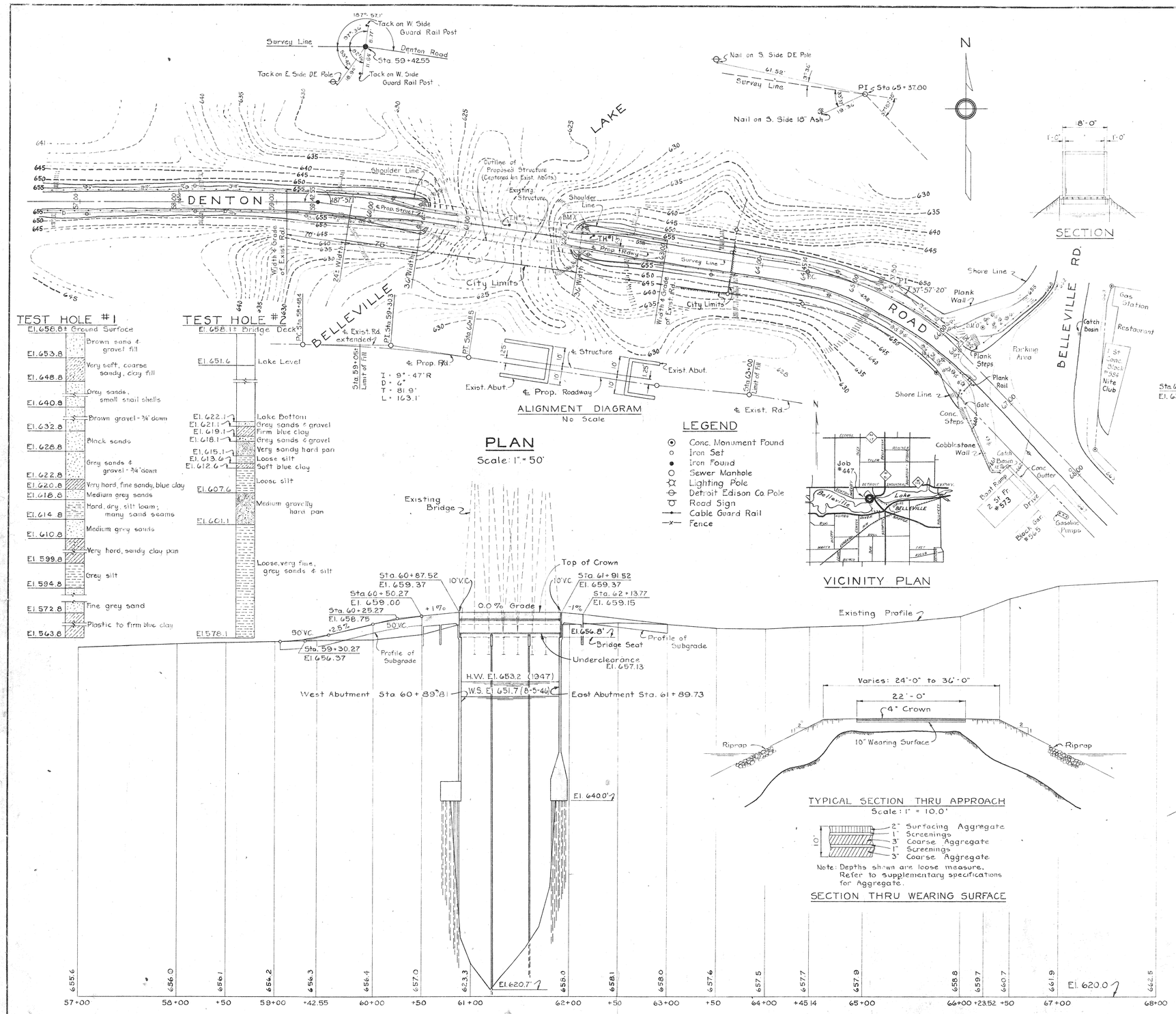
65-WEDGES-5W1

MICROFILMED

MADE BY A.M.G. CHECKED BY MARQUART SCALE RIVETS UNLESS NOTED
SHOP PAINT NO PAINT HOLES " "
CONTRACT No. 1238-N SHEET No. Q5

FORM 859A—2M—1-48-TP-A13233—207

Job 447-15



ALIGNMENT DIAGRAM

No Scale

PLAN

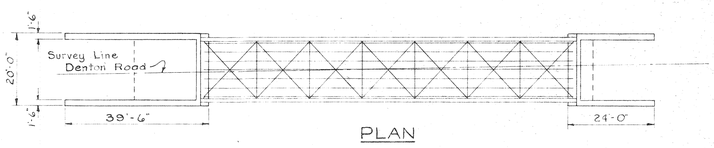
Scale: 1" = 50'

LEGEND

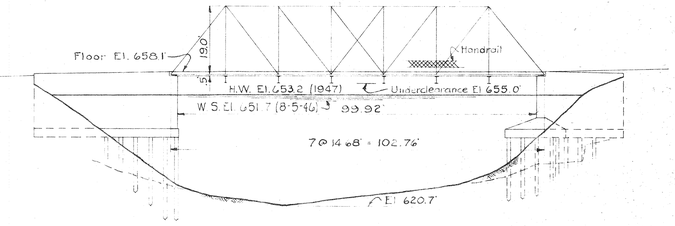
- Conc. Monument Found
- Iron Set
- Iron Found
- Sewer Manhole
- Lighting Pole
- Detroit Edison Co Pole
- Road Sign
- Cable Guard Rail
- Fence

VICINITY PLAN

SECTION



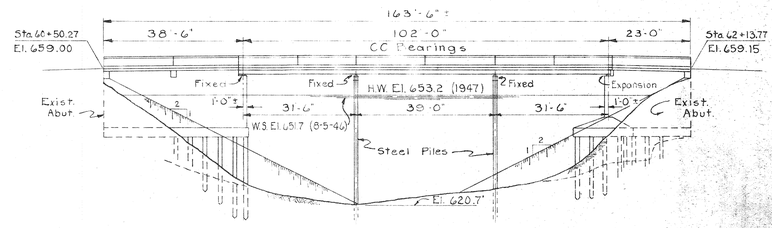
PLAN



ELEVATION

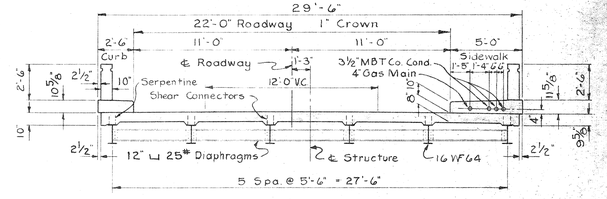
DETAILS OF EXISTING BRIDGE

Scale: 1" = 20'



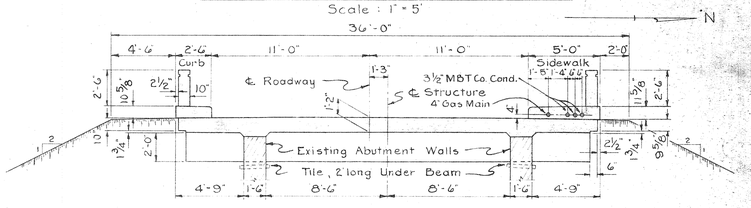
ELEVATION

Scale: 1" = 20'



TYPICAL SECTION THRU BRIDGE

Scale: 1" = 5'



TYPICAL SECTION THRU ABUTMENT

Scale: 1" = 5'

DETAILS OF PROPOSED BRIDGE

PROFILE

Scale: Hor. 1" = 50'
Vert. 1" = 5'

TYPICAL SECTION THRU APPROACH

Scale: 1" = 10.0'

Note: Depths shown are loose measure. Refer to supplementary specifications for Aggregate.

SECTION THRU WEARING SURFACE

WORK TO BE DONE BY OTHERS

1. Approach Fill - 4000 Cu. Yds. Approx.
2. Approach Surfacing
3. Riprap
4. Setting of Guard Rail
5. Furnishing & Placing of Bell Tel. Co. Conduits
6. Furnishing & Placing of Mich. Cons. Gas Co. Main
7. Precast Approach Curbs

GENERAL NOTES:

Specifications: General - Board of County Road Commissioners, Wayne County, General Specifications for the Construction of Roads and Bridges, May 1, 1940, and supplementary Specifications for Job No. 447.
Welding - A.W.S. Current "Specifications for Design, Construction and Repair of Welded Highway and Railway Bridges".
Design - AASHO 1944: Loading H20 - S16 - 44.

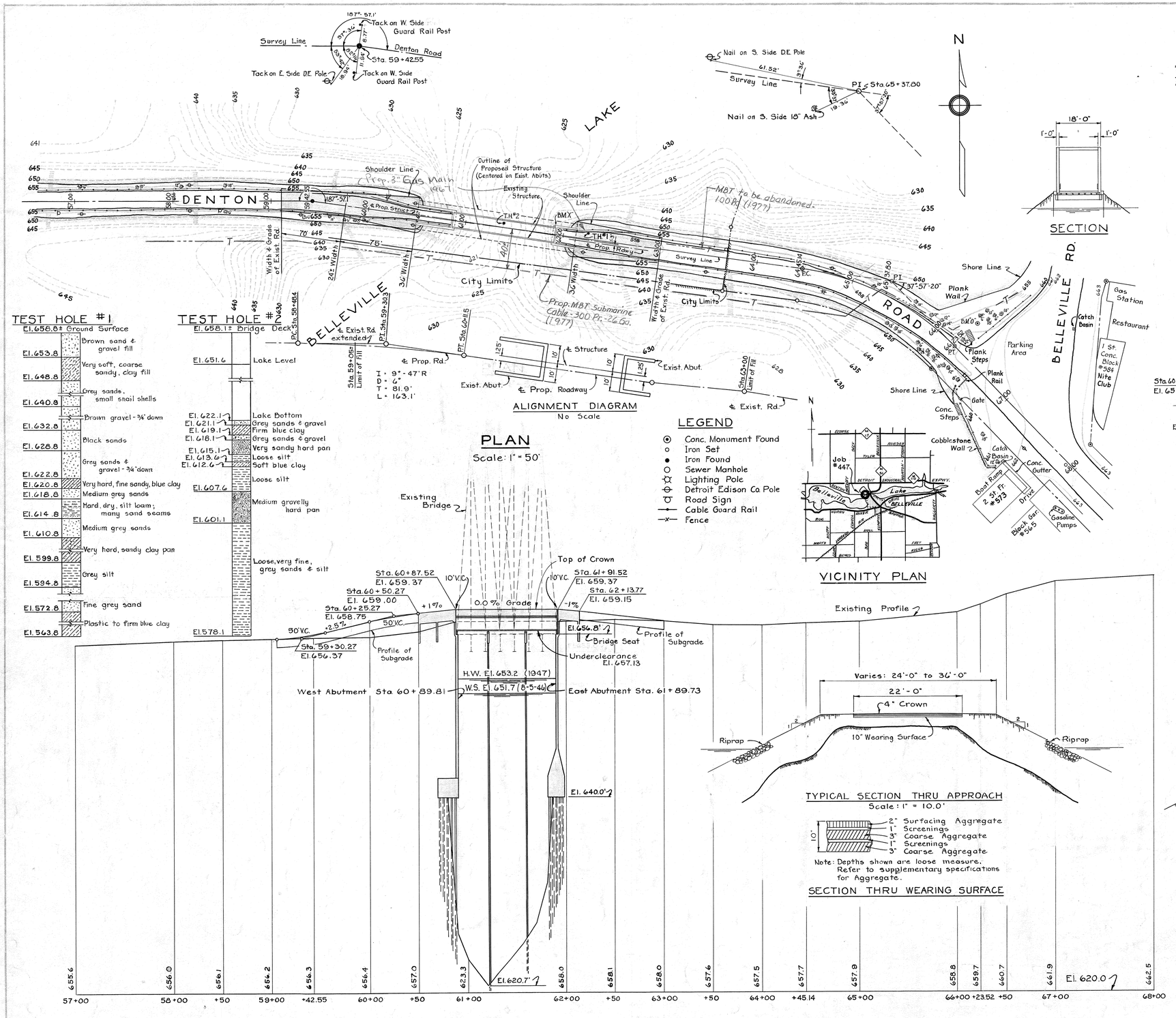
Datum: Elevations shown are based on Wayne County Precise Datum.

Bench Marks: B.M. "X" - Top of bolt head on N.W. corner of East Abutment backwall (Sta. 61+92 - 9' N.) (El. 658.07).
B.M. "O" - Top of pipe in Concrete Monument at N.W. corner of Denton and Belleville Roads. (El. 657.23)

Survey Notes from Field Books Nos. 110 & 339

REVISIONS	BOARD OF WAYNE COUNTY ROAD COMMISSIONERS, DETROIT, MICHIGAN	
② Checker's Revisions and Additions 4-12-47 JCP, - G.E.D.	MICHAEL J. O'BRIEN, COMMISSIONER · PRESCOTT G. BROWN, CHAIRMAN · CHARLES L. WILSON, VICE CHAIRMAN	
③ Approach Fills, Tel. & Gas Conduits added. 5-27-47 JCP, - A.W.J.	DRAWN BY JCP · CHECKED BY R.M.M.	LOCATION PLAN DENTON ROAD OVER BELLEVILLE LAKE
④ Approach Fill Quantity Added 5-11-48 JCP, - A.W.J.	DATE 12-19-46 · ISSUE NO. 2 · DATE 5-11-48	CORRECT / APPROVED — ENGINEERS OF BRIDGES AND STRUCTURES; REG. CIV. ENG.
		CORRECT / APPROVED — ENGINEER OF STRUCTURAL DESIGN; REG. CIV. ENG. COUNTY HIGHWAY ENGINEER
	SCALE: As Shown · SHEET NO. 1 · JOB NO. 447	

Job 447-1



ALIGNMENT DIAGRAM
No Scale

PROFILE

Scale: Hor. 1" = 50'
Vert. 1" = 5'

LEGEND

- Conc. Monument Found
- Iron Set
- Iron Found
- Sewer Manhole
- Lighting Pole
- Detroit Edison Co. Pole
- Road Sign
- Cable Guard Rail
- Fence

VICINITY PLAN

TYPICAL SECTION THRU APPROACH
Scale: 1" = 10.0'

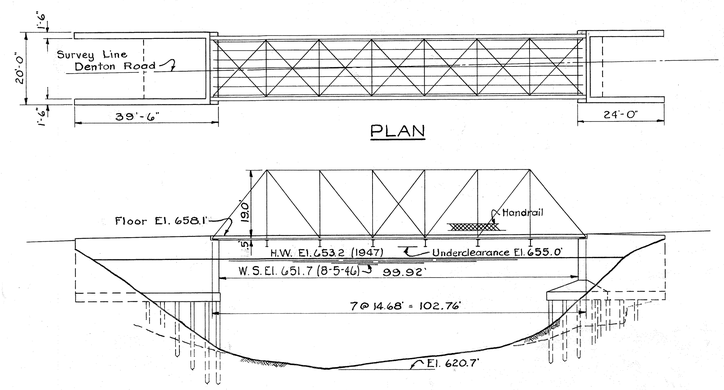
Note: Depths shown are loose measure. Refer to supplementary specifications for Aggregate.

SECTION THRU WEARING SURFACE

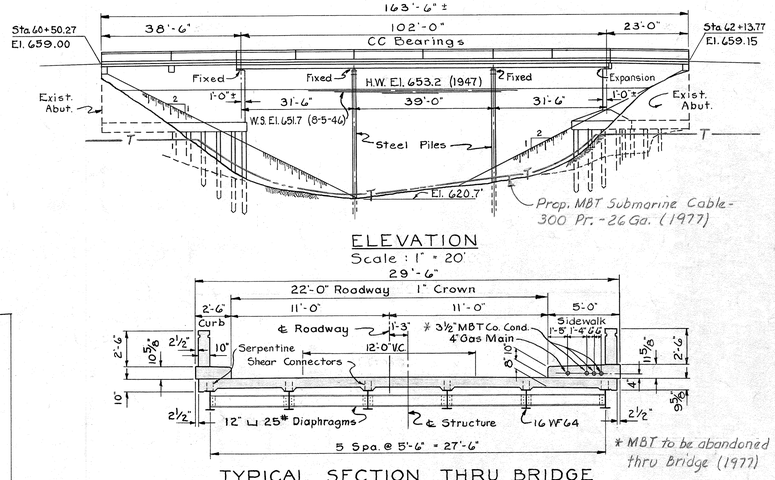
WORK TO BE DONE BY OTHERS

1. Approach Fill - 4000 Cu. Yds. Approx.
2. Approach Surfacing
3. Riprap
4. Setting of Guard Rail
5. Furnishing & Placing of Bell Tel. Co. Conduits
6. Furnishing & Placing of Mich. Cons. Gas Co. Main
7. Precast Approach Curbs

SECTION

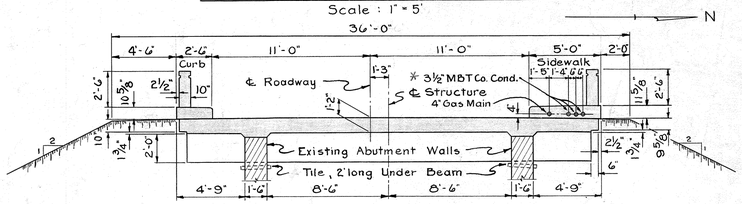


DETAILS OF EXISTING BRIDGE
Scale: 1" = 20'



ELEVATION
Scale: 1" = 20'

TYPICAL SECTION THRU BRIDGE
Scale: 1" = 5'



TYPICAL SECTION THRU ABUTMENT
Scale: 1" = 5'

DETAILS OF PROPOSED BRIDGE

GENERAL NOTES:

Specifications: General - Board of County Road Commissioners, Wayne County, General Specifications for the Construction of Roads and Bridges, May 1, 1940, and supplementary Specifications for Job No. 447.
Welding - A.W.S. Current "Specifications for Design, Construction and Repair of Welded Highway and Railway Bridges."
Design - AASHO 1944: Loading H20 - S16 - 44.

Datum: Elevations shown are based on Wayne County Precise Datum.

Bench Marks: B.M. "X" - Top of bolt head on N.W. corner of East Abutment backwall (Sta. 61+92 - 9' N.) (El. 658.07)
B.M. "O" - Top of pipe in Concrete Monument at N.W. corner of Denton and Belleville Roads. (El. 657.23)

Survey Notes from Field Books Nos. 110 & 339

MICROFILMED

REVISIONS:
② Checker's Revisions and Additions 4-12-47 JCP, by G.E.D.
③ Approach Fills, Tel. & Gas Conduits added. 5-27-47 JCP, by R.M.M.
④ Approach Fill Quantity Added 5-11-48 JCP, by R.M.M.

BOARD OF WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN, COMMISSIONER — PRESCOTT G. BROWN, CHAIRMAN — CHARLES L. WILSON, VICE CHAIRMAN

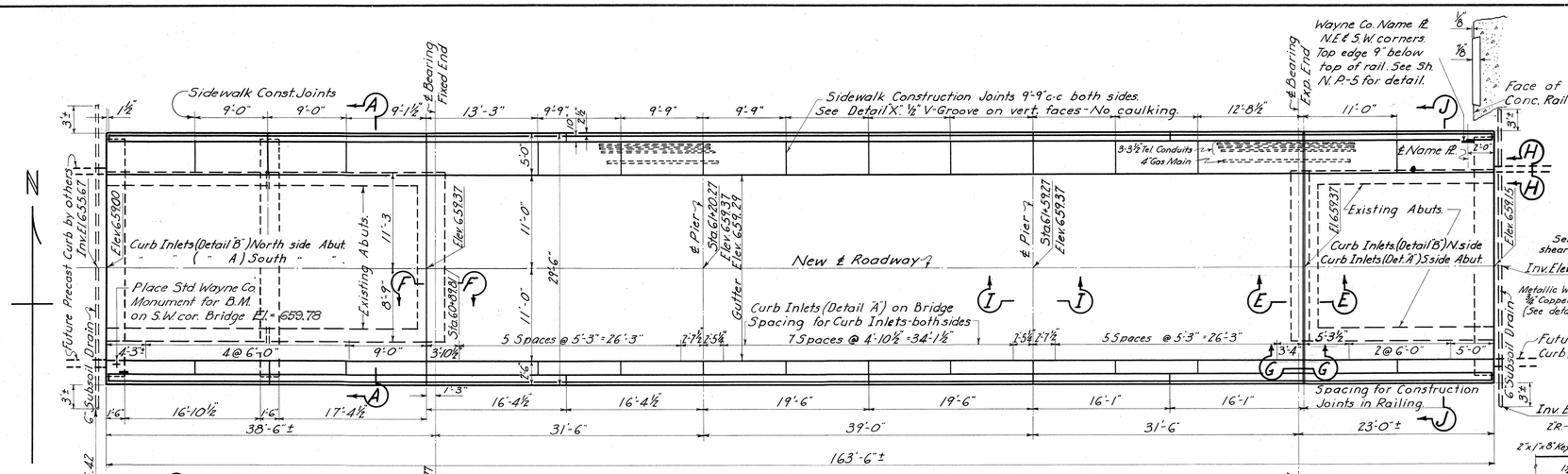
LOCATION PLAN
DENTON ROAD
OVER BELLEVILLE LAKE

DRAWN BY	JCP
CHECKED BY	R.M.M.
DATE	12-19-46
ISSUE NO.	4
DATE	5-11-48
SCALE	As Shown
SHEET NO.	1
JOB NO.	447

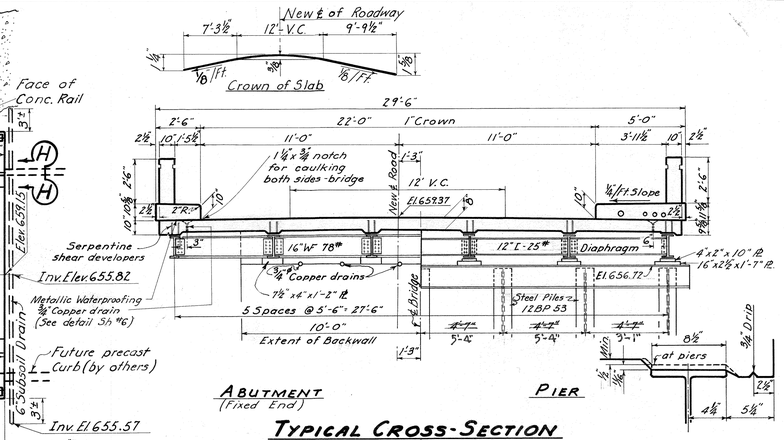
CHIEF ENGINEER — REG. CIV. ENG. — ENGINEER OF BRIDGES AND STRUCTURES
CORRECT — APPROVED — REG. CIV. ENG. — COUNTY HIGHWAY ENGINEER

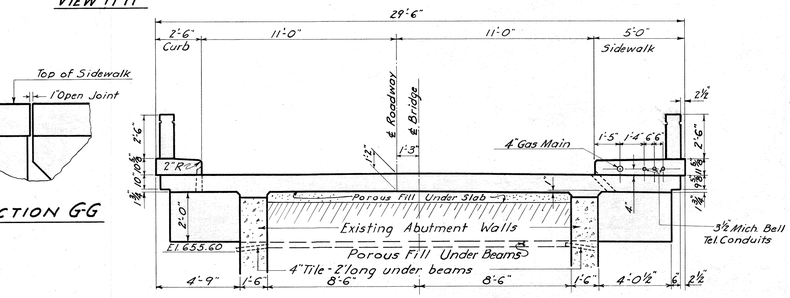
Job 447-1

F.H.S.

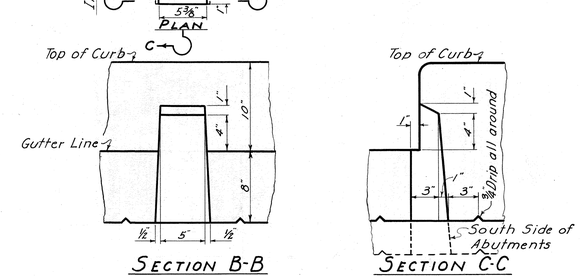


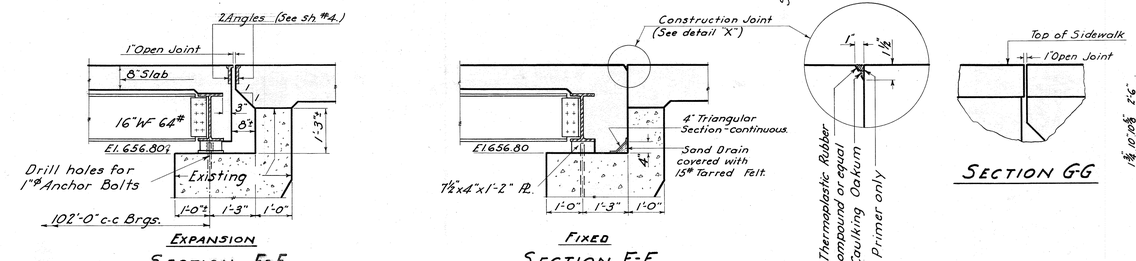
PLAN
Scale: 1/8" = 1'-0"



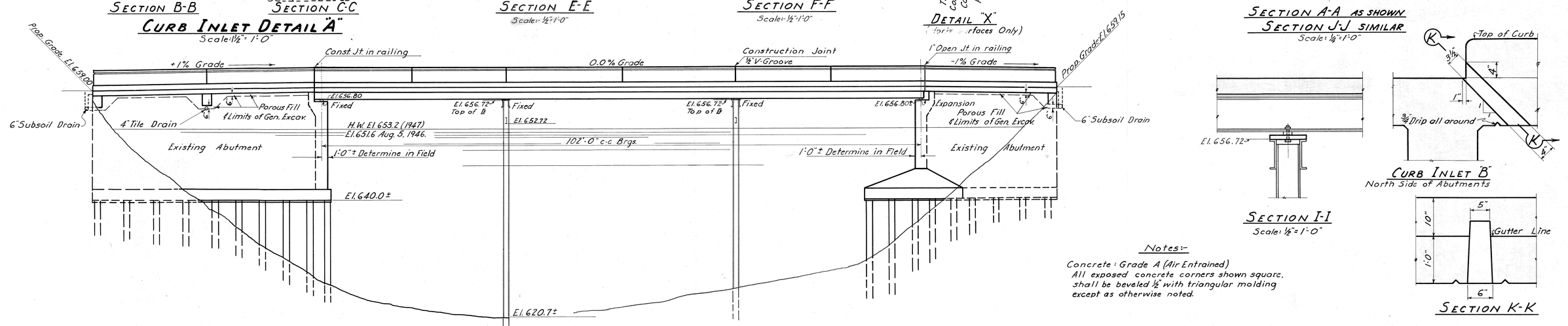


Section A-A as shown
Section J-J similar
Scale: 1/4" = 1'-0"

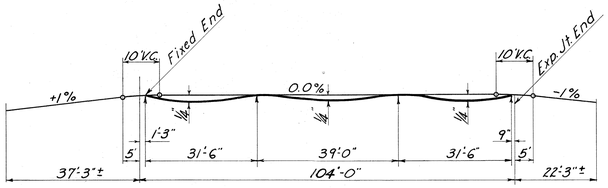




Curb Inlet Detail "A"
Scale: 1½" = 1'-0"



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



Grades and Dead Load Deflections
No Scale

Notes:-

Concrete: Grade A (Air Entrained)
All exposed concrete corners shown square, shall be beveled ½" with triangular molding except as otherwise noted.

Quantities

6" Subsoil Drain _____ 71 L.F.
General Excavation ____ 27 Cu. Yds.
Porous Fill _____ 29 Cu. Yds.

MICROFILMED

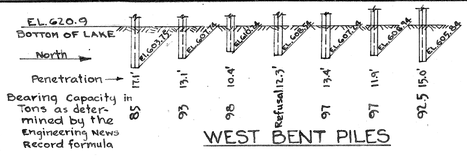
REVISIONS	DRAWN BY	CHECKED BY	DATE	APPROVED
② Checkers Revisions 4-5-47. R.M.M. A.W.J. ③ Gas Main & Tel. Cond. Added. 6-4-47. R.M.M. A.W.J. ④ Rev. Exp. Jt. detail Add. Grade & Det. Diag. R.M.M. 7-2-47 - A.W.J. ⑤ Tr. Dr. J.M.K. 3-3-48 J.C.P. Rev. Fig. Dimens. 3-3-48 A.W.J. J.C.P.	R.M.M.	A. W. J.	3-28-47.	ENGINEER OF BRIDGES AND STRUCTURES
	CORRECT			APPROVED
	ENGINEER OF STRUCTURAL DESIGN			COUNTY HIGHWAY ENGINEER

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN — PRESCOTT G. BROWN — CHARLES L. WILSON

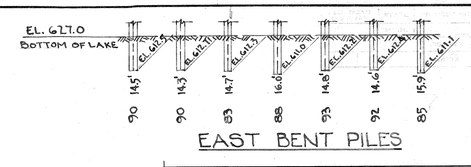
GENERAL PLAN OF BRIDGE
DENTON ROAD OVER BELLEVILLE LAKE

STATE FILE	COUNTY JOB
	447
ISSUE NO. 5	SHEET NO.
DATE 3-3-48	2

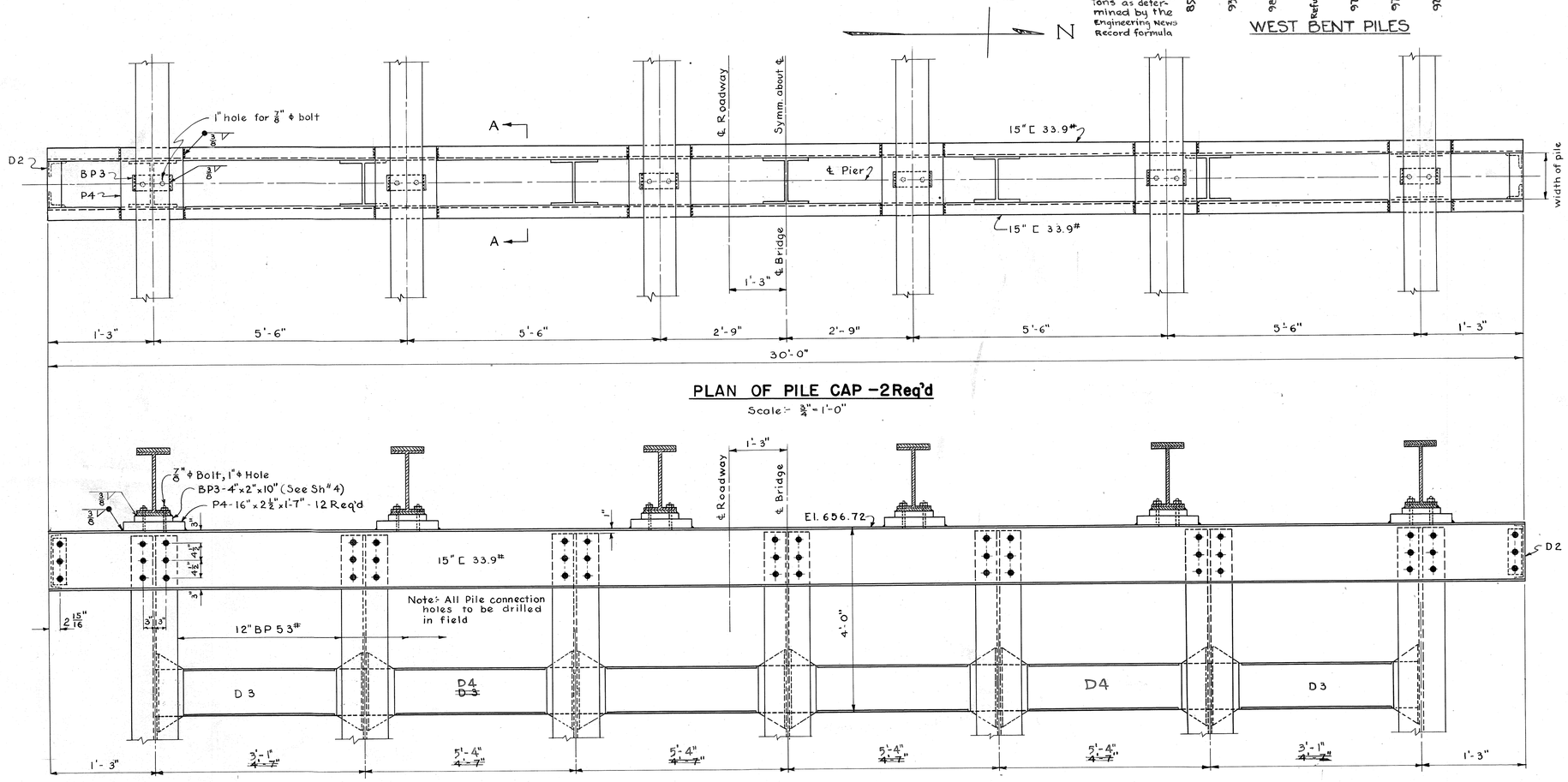
Job 447-2



WEST BENT PILES



EAST BENT PILES

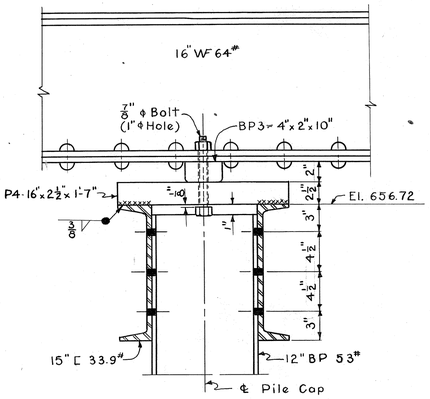


PLAN OF PILE CAP - 2 Req'd

Scale:- ¾" = 1'-0"

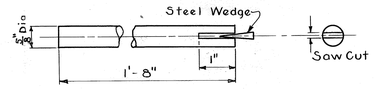
ELEVATION

Scale:- ¾" = 1'-0"

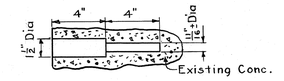


SECTION A-A

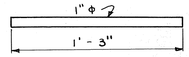
Scale:- 1½" = 1'-0"



DETAIL OF DOWEL R1 - 52 Req'd.

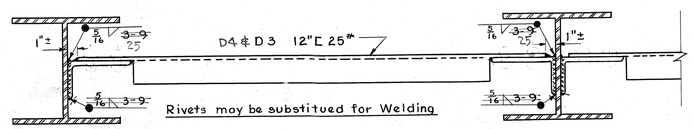


DETAIL OF HOLE FOR DOWEL R1.

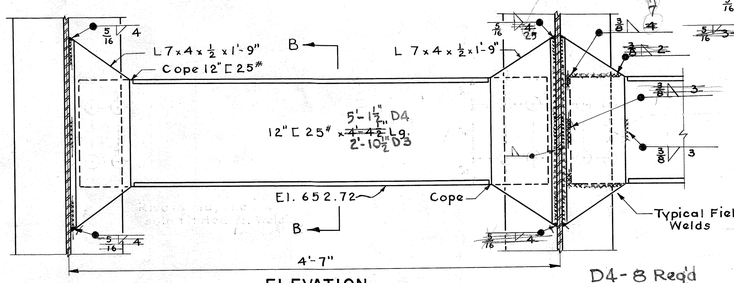


DETAIL OF DOWEL R2 - 16 Req'd.

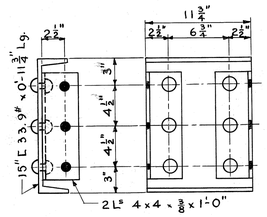
No Scale for Dowel Details



PLAN

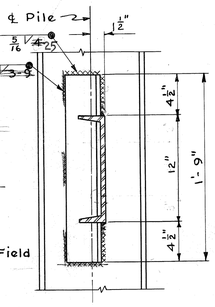


ELEVATION



DIAPHRAGM D2 - 4 Req'd

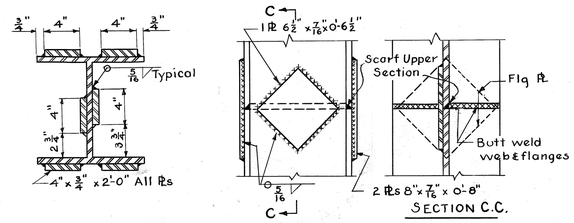
Scale:- 1½" = 1'-0"



SECTION B-B

DIAPHRAGM D4 - 8 Req'd D3 - ~~12~~ Req'd

Scale:- 1½" = 1'-0"



ALTERNATE No. 1 ALTERNATE No. 2

DETAILS OF TYPICAL PILE SPLICES

Scale:- 1½" = 1'-0"

QUANTITIES

Structural Steel, Furnishing & Erecting	8023 Lbs
Driving Steel H Piles	770 L.F.
Cutting - off Piles	28 L.F.
Splicing Piles	7 ± Each

NOTES

General:- See Sheet Nos. 1 & 4

Paint:- Pile Caps to have same paint as Superstructure. Piles shall be painted down to water line

Rivets:- 7/8" ϕ

Open Holes 15/16" ϕ Except as noted.

BEARING PILES

Steel Piles to be furnished by the Board at Wyoming Yard, Wyoming Ave. and Penna. R.R. Detroit, Mich.

9 - 12" BP 53# 75' Long

5 - 12" BP 53# 85' Long

Pile Loads:-

D.L. + L.L. + Imp = 28 tons/pile

WORK SHEETS 3 & 4 TOGETHER

STATE FILE	BRIDGE	
	ROAD	

REVISIONS

1. Checkers Revisions R.M.M. 5-1-47 A.W.J.
2. Revised & Redrawn J.C.P. 7-2-47 A.W.J.
3. Traced T. G.K.E. 1-23-48
4. Revisions A.W.J.
5. REV. PILE SPACING & D3, D4 2-2-48 A.W.J.
6. PILE DATA REVISED 3-19-48 A.W.J.
7. REV. DIAPH. WEBS 4-23-48 A.W.J.

DRAWN BY	CHECKED BY	DATE
JCP	A.W.J.	7-2-47

CORRECT

J. C. MEAD
ENGINEER OF STRUCTURAL DESIGN

APPROVED

H. A. SHUPTRINE
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED

L. C. SMITH
COUNTY HIGHWAY ENGINEER

BOARD OF

WAYNE COUNTY ROAD COMMISSIONERS

DETROIT, MICHIGAN

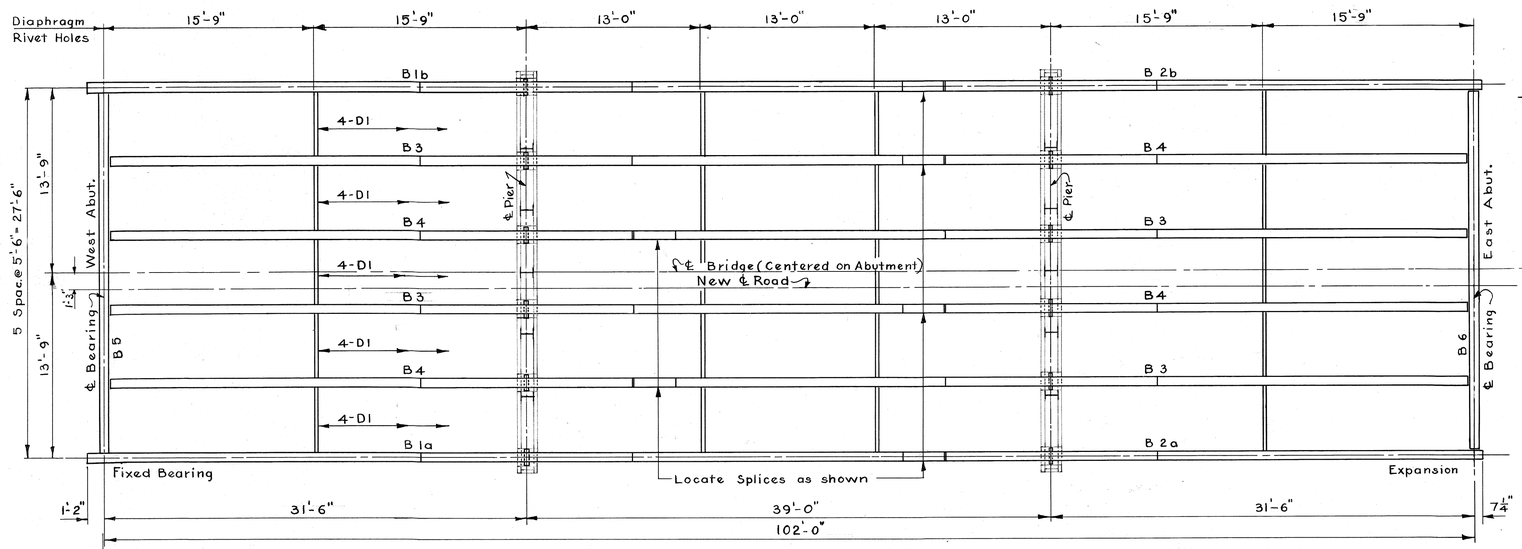
MICHAEL J. O'BRIEN PRESCOTT G. BROWN CHARLES L. WILSON

JOHN C. LODGE FREEWAY

SUBSTRUCTURE
STRUCTURAL STEEL DETAILS
DENTON ROAD over BELLEVILLE LAKE

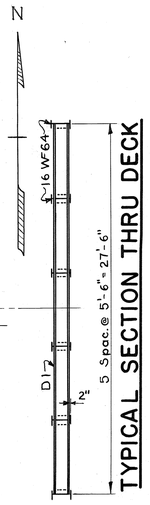
STATE PROJECT	COUNTY JOB
	447
ISSUE NO.	SHEET NO.
DATE	3

Job 447-3

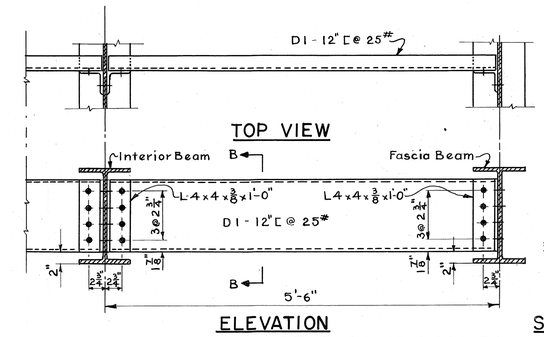


PLAN

Scale :- 3/16" = 1'-0"



TYPICAL SECTION THRU DECK

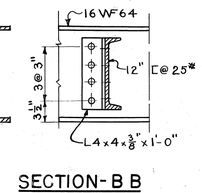


ELEVATION

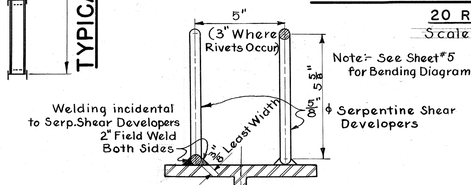
DETAIL OF DIAPHRAGM D1.

20 REQUIRED

Scale :- 1" = 1'-0"

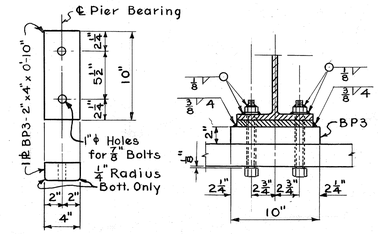


SECTION-B B



SECTION - A A

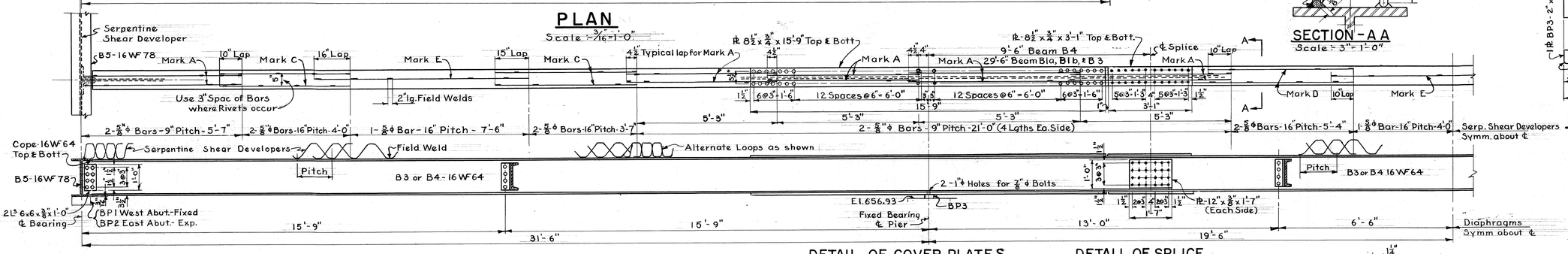
Scale :- 3" = 1'-0"



DETAIL OF PLATE BP3

12 REQUIRED

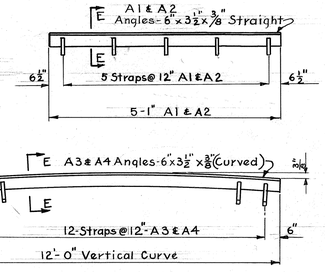
Scale :- 1½" = 1'-0"



DETAIL OF COVER PLATES

DETAIL OF SPLICE

6 REQUIRED



DETAIL OF ANGLES AT EXPANSION JOINT

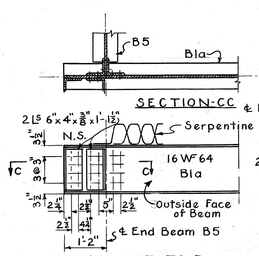
REQUIRED TWO EA-A1 & A2. ONE EA-A3 & A4

No Scale, Except as shown

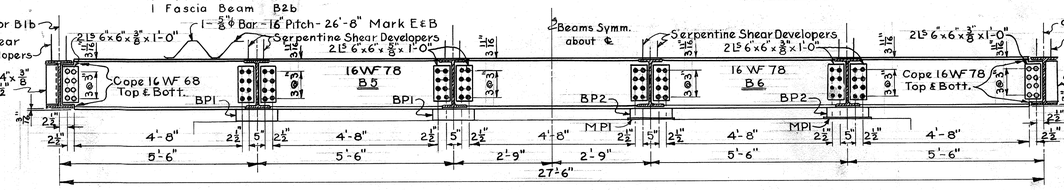
TYPICAL DETAIL OF INTERIOR BEAMS - B3 & B4
FASCIA BEAMS - B1a, B1b, B2a, & B2b SAME EXCEPT FOR END

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

REQUIRED
4 Interior Beams - B3
4 Interior Beams - B4
1 Fascia Beam - B1a
1 Fascia Beam - B1b
1 Fascia Beam - B2a
1 Fascia Beam - B2b



DETAIL OF END OF FASCIA BEAM B1a BEAM B1b OPPOSITE HAND



WEST ABUTMENT FIXED

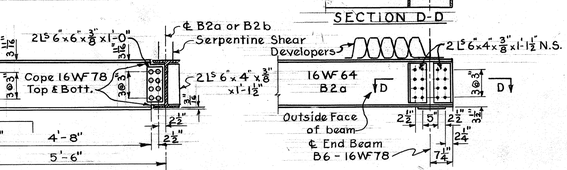
EAST ABUTMENT - EXPANSION

TYPICAL DETAIL - END BEAMS B5 & B6

B5 SAME AS B6 EXCEPT FOR BEARING DETAILS AS NOTED

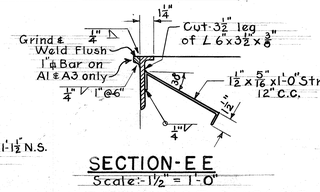
Scale :- 1/2" = 1'-0"

REQUIRED
1 End Beam - B5
1 End Beam - B6



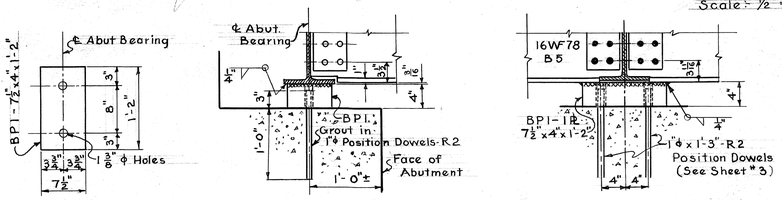
DETAIL OF END OF FASCIA BEAM B2a BEAM B2b OPPOSITE HAND

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



SECTION-E E

Scale :- 1½" = 1'-0"



PLAN OF BP1

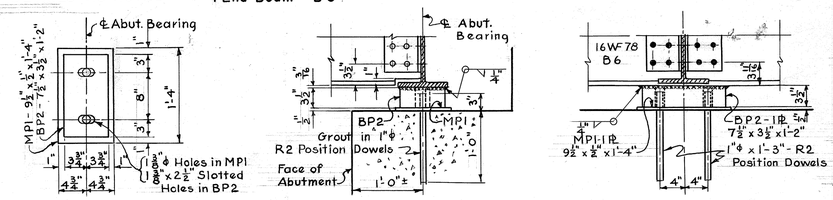
SECTION THRU END BEAM

SECTION THRU INT. BEAM

DETAILS AT WEST ABUTMENT

Scale :- 1" = 1'-0"

REQUIRED
4 Base Plates - BP1



PLAN OF MPI & BP2

SECTION THRU END BEAM

SECTION THRU INT. BEAM

DETAILS AT EAST ABUTMENT

Scale :- 1" = 1'-0"

REQUIRED
4 Base Plates - BP2
4 Base Plates - MPI

NOTES

SPECIFICATIONS - See Sheet No. 1
RIVETS - ⅞"
OPEN HOLES - 15/16" ϕ except as shown
BEARING PLATES - 4" Bearing plates may be built up by welding together two 2" plates.
WELDS - ¼" Fillet welds unless otherwise noted.

SERPENTINE SHEAR DEVELOPERS - Long length bars shall be used wherever possible. Bars shall be lapped as shown at splices. (See Details Sh. #5)
PAINTING - One shop coat and two field coats in accordance with General Specifications. Upper surface of top flanges of all beams, top cover plates and back surface of end beams B5 & B6 to have one coat of boiled linseed oil only.
The following Mich. State Highway Dept. Standard mixture classifications shall be used.

Shop Coat	Mixture #1A	Red Oil Paint
1st Field Coat	Mixture #2A	Brown Oil Paint
2nd Field Coat	Mixture #3	Aluminum Paint

REAMING - As per A.R.E.A. Specifications.

QUANTITIES

STRUCTURAL STEEL
FURNISHING & ERECTING 58.026 Lbs.

MICROFILMED

WORK SHEETS 3 & 4 TOGETHER

REVISIONS
(2) Checkers Revisions 6-15-47 J.C.P./A.W.J.
(3) Exp Angles Revised 7-2-47 J.C.P./A.W.J.
(4) Shear Developers Rev. 1-24-48 J.C.P./A.W.J.
(5) Rev. Cover PL to ¾" ⅜" not available 2-20-48 J.C.P./A.W.J. Alterations & Traced 2-27-48 T.G.R./J.C.P.

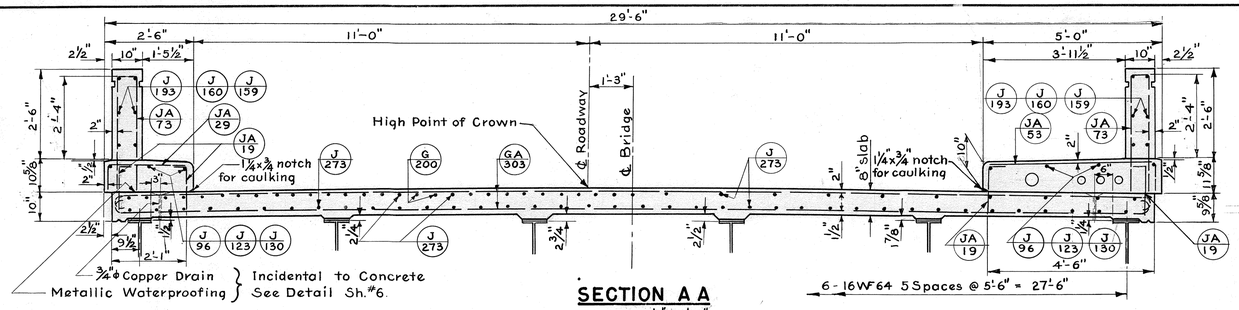
DRAWN BY	CHECKED BY	DATE	APPROVED
J.C.P.	A.W.J.	4-4-47	ENGINEER OF BRIDGES AND STRUCTURES
CORRECT			APPROVED
ENGINEER OF STRUCTURAL DESIGN			COUNTY HIGHWAY ENGINEER

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN — PRESCOTT G. BROWN — CHARLES L. WILSON

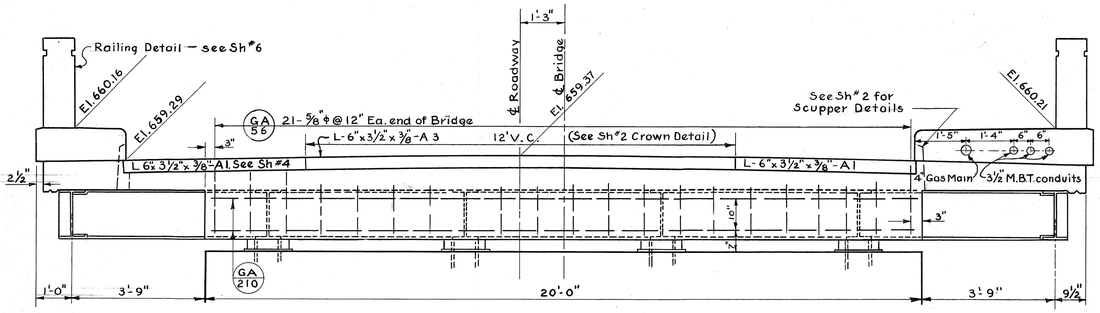
SUPERSTRUCTURE
STRUCTURAL STEEL DETAILS
DENTON ROAD over BELLEVILLE LAKE

STATE FILE	COUNTY JOB
	447
ISSUE NO. 5	SHEET NO.
DATE 4-12-48	4

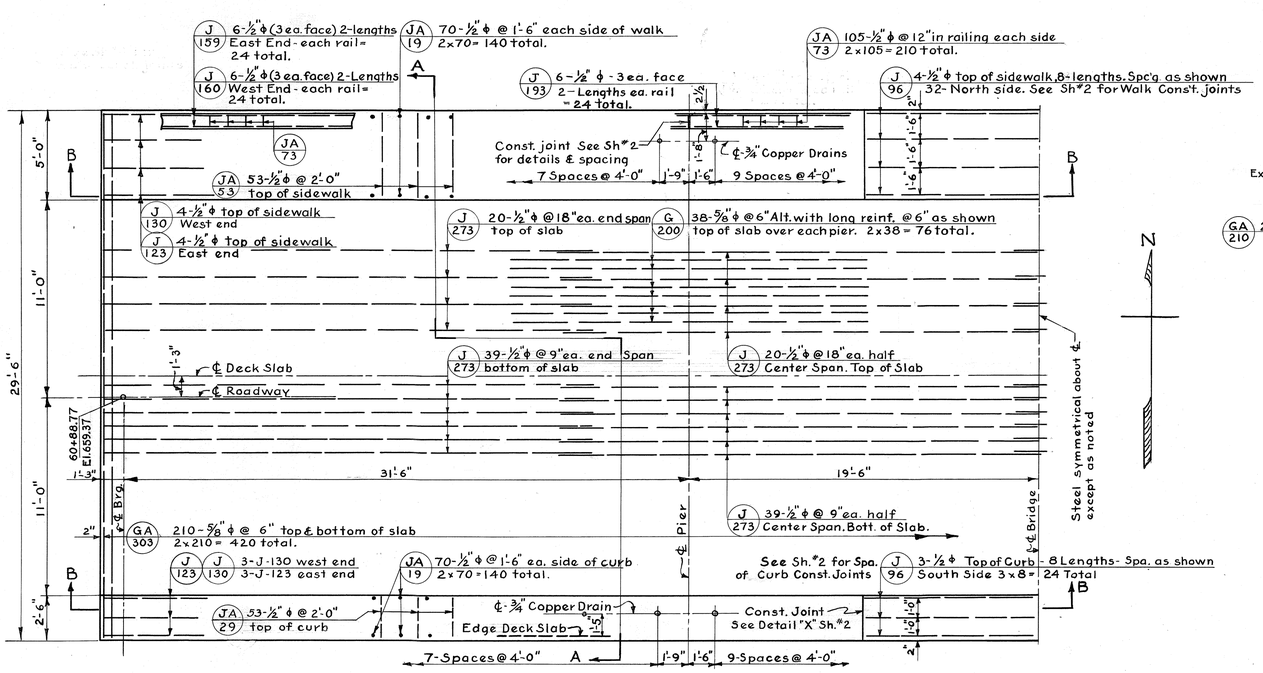
Job 447-4



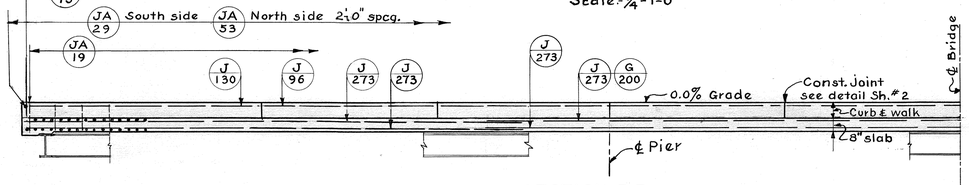
SECTION A A
Scale:- ½" = 1'-0"



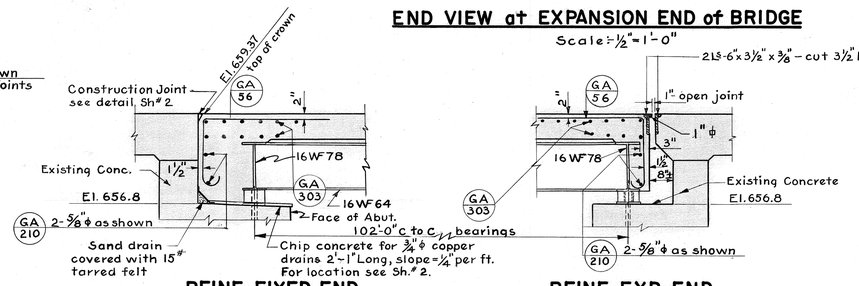
END VIEW at EXPANSION END of BRIDGE
Scale:- ½" = 1'-0"



HALF PLAN
Scale:- ¼" = 1'-0"

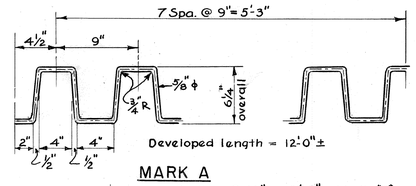


SECTION B B
Scale:- ¼" = 1'-0"

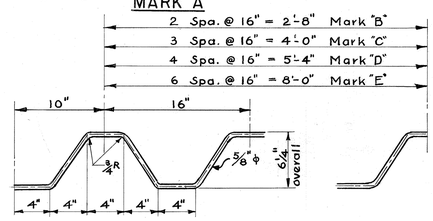


REINF. FIXED END
Scale:- ½" = 1'-0"

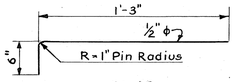
REINF. EXP. END
Scale:- ½" = 1'-0"



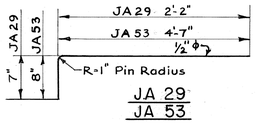
MARK A



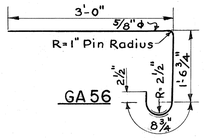
SHEAR DEVELOPERS
Note:- For location of Shear Developers, see sh#4.
Welding is incidental to Shear Developers.



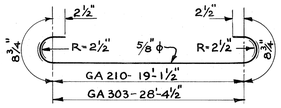
JA 19



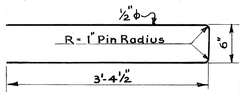
JA 29
JA 53



GA 56



GA 210
GA 303



JA 73

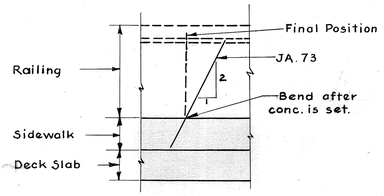


DIAGRAM SHOWING PLACING OF JA 73 BARS

QUANTITIES

Concrete Grade "A" air entrained		106.6 C.Y.
Reinforcing Steel		21562 Lb.
Concrete Handrail		207.8 L.F.
Concrete	16.0 C.Y.	
Reinforcing Steel	818 Lb.	
Rubbed Surface Finish		1748 Sq.Ft.
Serpentine Shear Developers		2348 Lb.
15# Tarred Felt (Incidental to Conc.)		228 S.F.
¾" ϕ Copper Pipe (Incidental to Conc.)		46 L.F.
Metallic Waterproofing (Incidental to Conc.)		737 S.F.

BILL OF REINFORCING BARS

	Mark	No.	Size	Length	Remarks
Deck	J-273	236	½"ϕ	27'-3"	Straight
	G-200	76	⅝"ϕ	20'-0"	"
	GA303	420	⅝"ϕ	30'-3"	Bent
	GA56	42	⅝"ϕ	5'-6"	"
	GA210	4	⅝"ϕ	21'-0"	"
	JA19	280	½"ϕ	1'-9"	"
Walk & Curb	JA53	53	½"ϕ	5'-3"	Bent
	J-130	7	½"ϕ	13'-0"	Straight
	J-123	7	½"ϕ	12'-3"	"
	J-96	56	½"ϕ	9'-6"	"
	JA29	53	½"ϕ	2'-9"	Bent
	JA73	210	½"ϕ	7'-3"	"
Railing	J-193	24	½"ϕ	19'-3"	Straight
	J-160	24	½"ϕ	16'-0"	"
	J-159	24	½"ϕ	15'-9"	"
Shear Developers	A	120	⅝"ϕ	12'-0" (Developed length)	Bent
	B	2	⅝"ϕ	4'-9"	"
	C	48	⅝"ϕ	6'-6"	"
	D	24	⅝"ϕ	8'-4"	"
	E	24	⅝"ϕ	12'-0"	"

Notes:- See Sh.#2 for general notes. Caulking, sand drains, under sidewalk drains, metallic waterproofing and sidewalk, const'n joint seal are incidental to concrete.

Shear Developers shall be plain round bars. Shear developers and all other reinforcing may be either Structural or Intermediate grade steel, but shear developers shall be of one grade and all other reinforcing shall be of one grade throughout.

MICROFILMED

REVISIONS	
② Checkers Revisions and Additions R.M.M. 5-6-46 / G.E.D.	Revise Shear Developers R.M.M. 7-11-47 / A.W.J.
③ Remove Conc Diaphram. Revise Steel - Add 4" gas main & 3-3½" M.B.T. Ducts R.M.M. 7-2-47 / G.E.D.	④ Detail Shear Developers R.M.M. 1-27-48 / A.W.J. ⑤ Traced 3-12-48 T.E. / A.W.J.

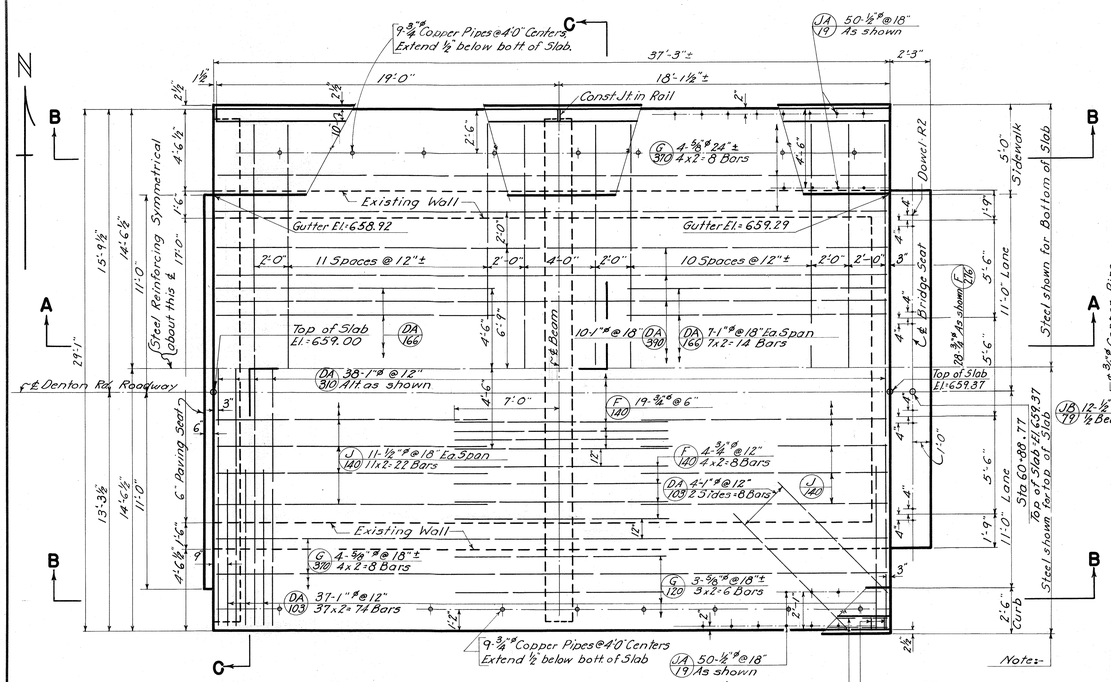
DRAWN BY	CHECKED BY	DATE	APPROVED
R.M.M.	G.E.D	4-11-47	ENGINEER OF BRIDGES AND STRUCTURES
CORRECT			APPROVED
ENGINEER OF STRUCTURAL DESIGN			COUNTY HIGHWAY ENGINEER

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN — PRESCOTT G. BROWN — CHARLES L. WILSON

DETAILS of BRIDGE DECK
DENTON RD. over BELLEVILLE LAKE

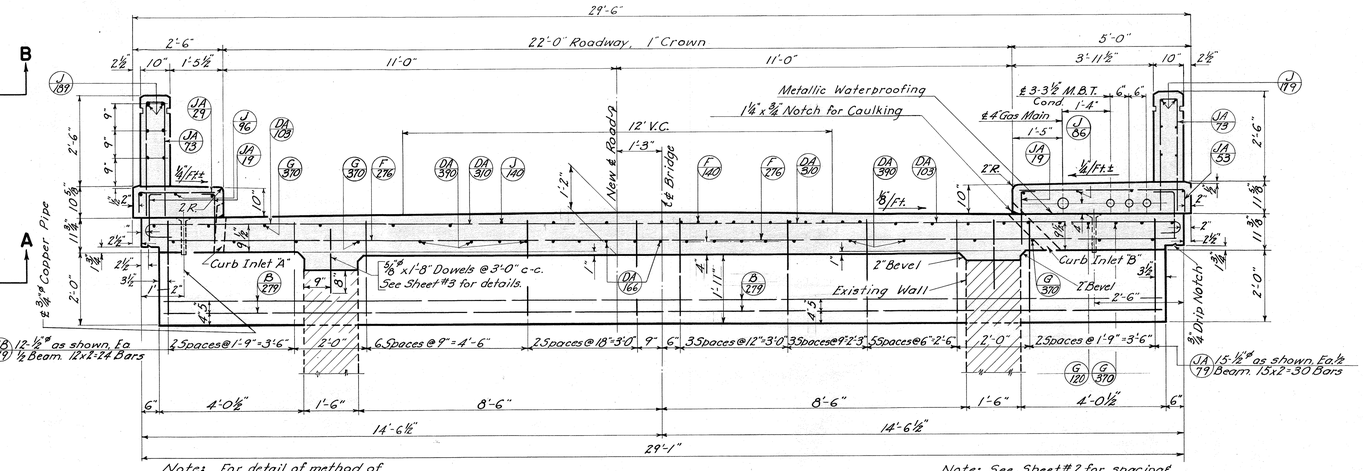
STATE FILE	COUNTY JOB
	447
ISSUE NO. 5	SHEET NO.
DATE 4-12-48	5

Job 447-5



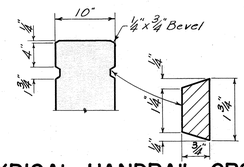
PLAN

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



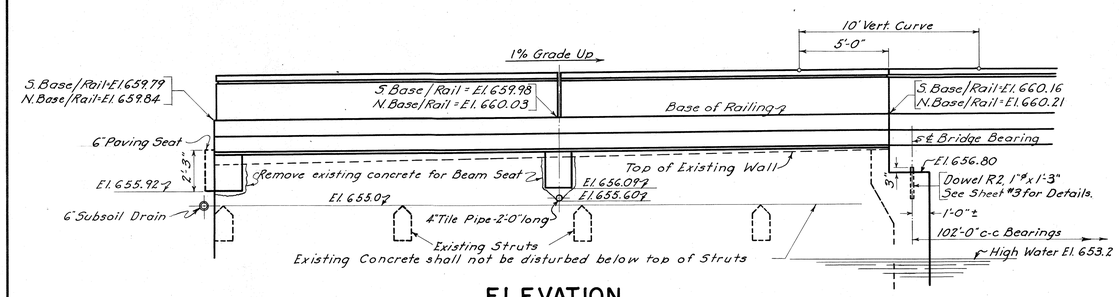
SECTION C-C

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



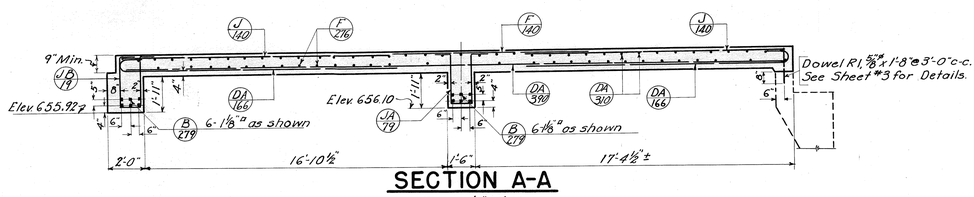
TYPICAL HANDRAIL CROSS-SECTION

Not to Scale



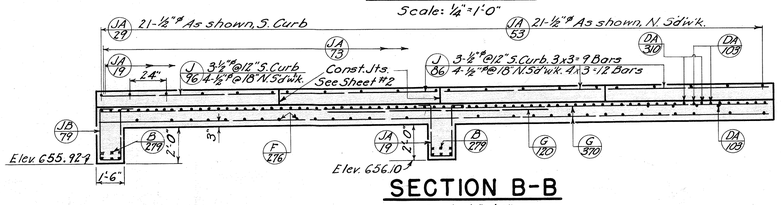
ELEVATION

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



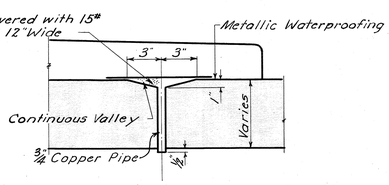
SECTION A-A

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



SECTION B-B

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



DETAILS OF UNDER-S'D'W'K. DRAIN

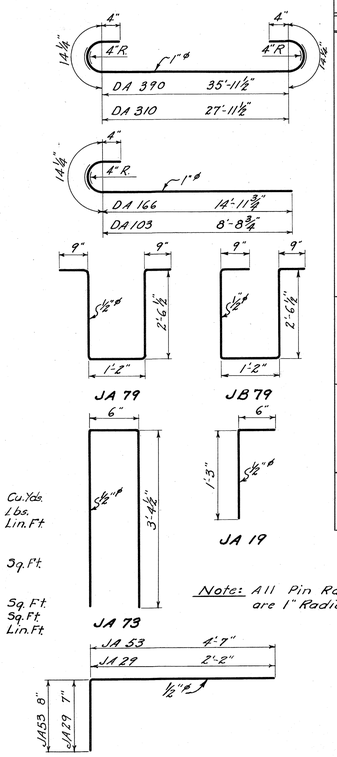
Not to Scale

QUANTITIES

Superstructure Concrete, Grade A, Air Entrained Concrete	61.3	Cu. Yds.
Reinforcing Steel (Slab, Walk, & Curb)	12,343	Lbs.
Concrete Handrail	74.3	Lin. Ft.
Concrete 5.7 Cu. Yds.		
Reinforcing Steel 293 Lbs.		
Rubbed Surface Finish	731	Sq. Ft.
* Wayne County Name Plate	1	
* Std. Wayne County Bench Mark Monument	1	
Metallic Waterproofing, Incidental to Conc.	264	Sq. Ft.
15# Tarred Felt, Incidental to Conc.	75	Sq. Ft.
3/4" ϕ Copper Pipe, " " "	18	Lin. Ft.

* (Furnished by Board and Placed by Contractor.) See Sheet #2 for Location.

Note:- The following Items are Incidental to Concrete:-
Caulking at Gutter Line & Sd'w'k. Const. Jt. Seals
4" Tile Pipe Drains
Removal of Existing Conc. for Beam Seats
Drilling Holes for Dowels
Under-Sidewalk Drains
Metallic Waterproofing



Note: All Pin Radii not dimensioned are 1" Radius.

BILL OF REINFORCING BARS

	Mark	Number	Size	Length	Remarks
SLAB	B 279	12	1 1/8" ϕ	27'-9"	Straight
	DA 390	10	1" ϕ	39'-0"	Bent
	DA 166	14	1" ϕ	16'-6"	"
	DA 103	82	1" ϕ	10'-8"	"
	F 276	28	3/4" ϕ	27'-6"	Straight
	F 140	27	3/4" ϕ	14'-0"	"
	G 310	16	5/8" ϕ	37'-0"	"
	G 120	6	5/8" ϕ	12'-0"	"
	DA 310	38	1" ϕ	31'-0"	Bent
	J 140	22	1/2" ϕ	14'-0"	Straight
WALK	JA 79	30	1/2" ϕ	7'-9"	Bent
	JB 79	24	1/2" ϕ	7'-9"	"
	JA 19	100	1/2" ϕ	1'-9"	"
	J 96	4	1/2" ϕ	9'-6"	Straight
	J 86	12	1/2" ϕ	8'-6"	"
	JA 53	21	1/2" ϕ	5'-3"	Bent
	JA 73	38	1/2" ϕ	7'-3"	"
CURB	J 96	3	1/2" ϕ	9'-6"	Straight
	J 86	9	1/2" ϕ	8'-6"	"
	JA 29	21	1/2" ϕ	2'-9"	Bent
	JA 73	38	1/2" ϕ	7'-3"	"
RAIL	J 189	12	1/2" ϕ	18'-9"	Straight
	J 179	12	1/2" ϕ	17'-9"	"

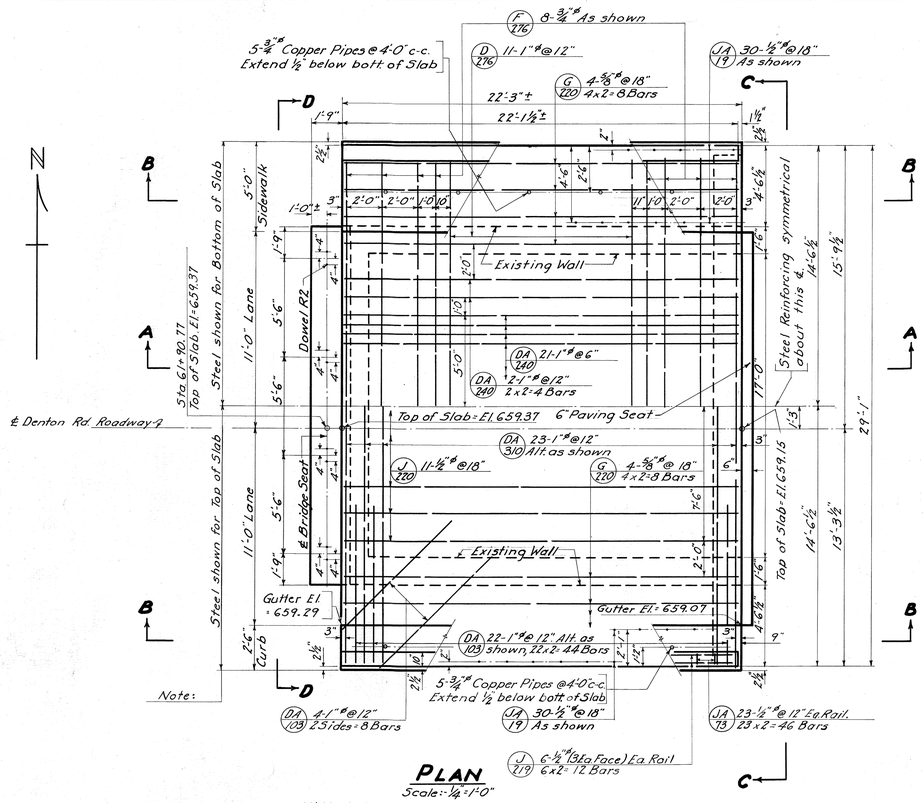
REVISIONS	DRAWN BY	CHECKED BY	DATE	APPROVED
① Slab deepened between existing abutment walls 6-18-47 J.K. - G.D. Added Under-sidewalk Drains 6-19-47 J.K. Added Railing & Sidewalk & Curb Dowels Rev. 7-8-47 J.K. G.D. ② Trace By J.M.P. 3-9-48. ✓ VCP	J. K.	G. E. D.	4-13-47	ENGINEER OF BRIDGES AND STRUCTURES
	CORRECT			APPROVED
	ENGINEER OF STRUCTURAL DESIGN			COUNTY HIGHWAY ENGINEER

WAYNE COUNTY ROAD COMMISSIONERS
BOARD OF
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN — PRESCOTT G. BROWN — CHARLES L. WILSON

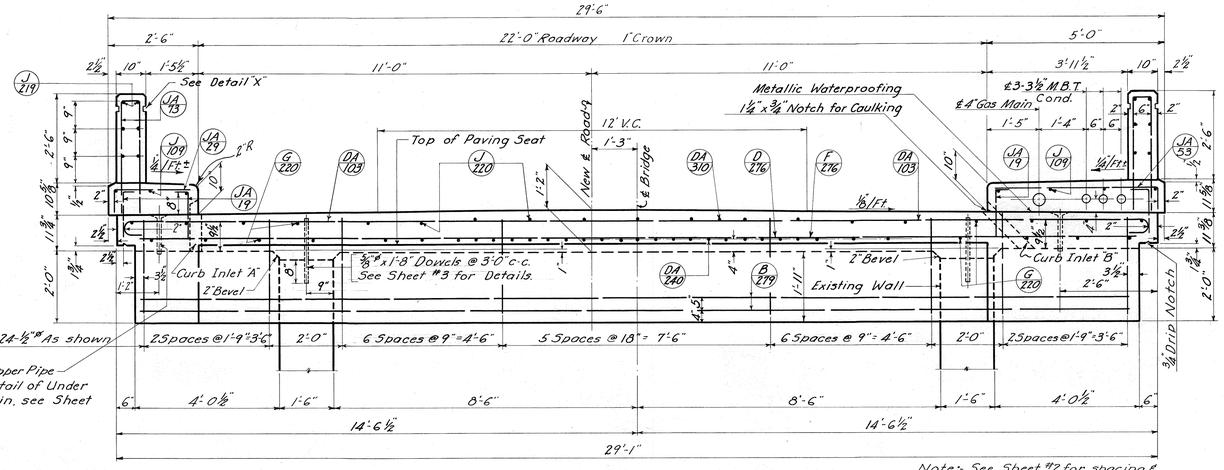
DETAILS OF WEST ABUTMENT DECK DENTON ROAD OVER BELLEVILLE LAKE

STATE FILE	COUNTY JOB
	447
ISSUE NO. 3	SHEET NO.
DATE 4-12-48	6

Job 447-6



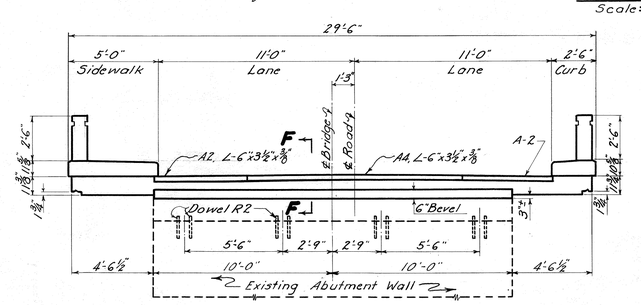
PLAN
Scale: 1/4"=1'-0"



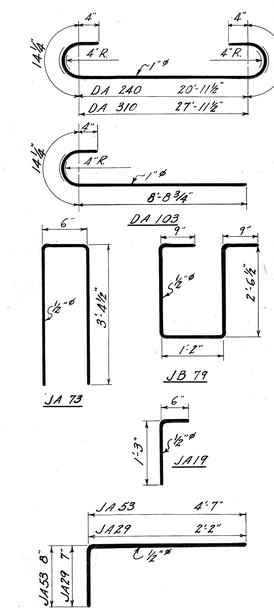
Note:- For Detail of Method of placing Bars JA 73, see sheet #5.

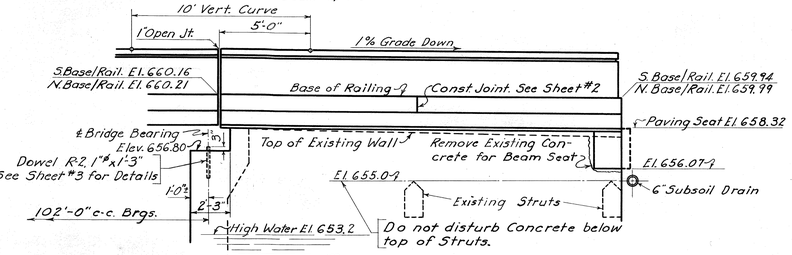
Note:- See Sheet #2 for spacing & Details of Curb Inlets "A" & "B".

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

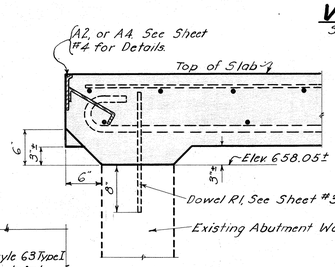


VIEW D-D
Scale:- 1/4"=1'-0"

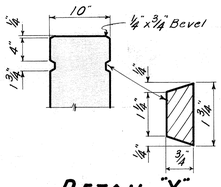




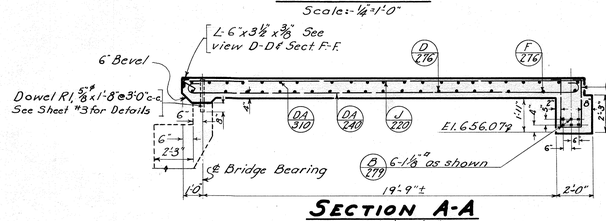
ELEVATION
Scale:- 1/4"=1'-0"



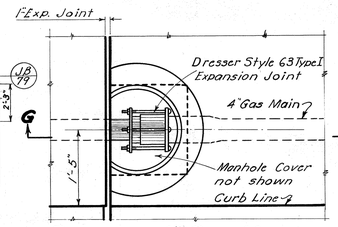
SECTION F-F
Scale: 1"=1'-0"



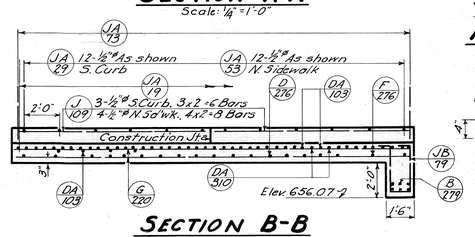
DETAIL "X"
Not to Scale



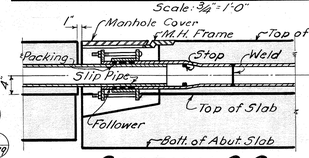
SECTION A-A
Scale: 1/4"=1'-0"



PLAN OF 4" GAS MAIN AT EXP. JOINT
Scale: 3/4"=1'-0"



SECTION B-B
Scale: 1/4"=1'-0"



SECTION G-G
Scale: 3/4"=1'-0"

Note:- 4" Gas Main, Expansion Joint Coupling, & M.H. Frame and Cover are to be furnished and placed by Mich. Consolidated Gas Co., Placing to be subject to the approval of the Engr.

BILL OF REINFORCING BARS

	Mark	Number	Size	Length	Remarks
SLAB	B279	6	1 1/8"ø	27'-9"	Straight
	D276	11	1"ø	27'-6"	"
	DA240	25	1"ø	24'-0"	Bent
	DA103	52	1"ø	10'-3"	"
	F276	8	3/4"ø	27'-6"	Straight
	G220	16	5/8"ø	22'-0"	"
	J220	11	1/2"ø	22'-0"	"
	DA310	23	1"ø	31'-0"	Bent
	JB79	24	1/2"ø	7'-9"	Bent
	JA19	60	1/2"ø	1'-9"	"
RAIL CURB WALK	J109	8	1/2"ø	10'-9"	Straight
	JA53	12	1/2"ø	5'-3"	Bent
	JA73	23	1/2"ø	7'-3"	"
	J109	6	1/2"ø	10'-9"	Straight
	JA29	12	1/2"ø	2'-9"	Bent
	JA73	23	1/2"ø	7'-3"	"
	J219	12	1/2"ø	21'-9"	Straight

Note: All pin radii not dimensioned are 1" Radius.

QUANTITIES

Superstructure Concrete, Grade A.		
Air Entrained Concrete	36.3	Cu. Yds.
Reinforcing Steel (Slab, Walk, & Curb)	7894	Lbs.
Concrete Handrail	44.3	Lin. Ft.
Concrete 3.4 Cu. Yds		
Reinforcing Steel 174 Lbs.		
Rubbed Surface Finish	437	Sq. Ft.
*Wayne County Name Plate	1	
15# Tarred Felt (Incidental to Conc.)	45	Sq. Ft.
Metallic Waterproofing (Incidental to Conc.)	157	Sq. Ft.
3/4"ø Copper Pipe (Incidental to Conc.)	10	Lin. Ft.

* Furnished by Board and placed by Contractor. (See Sheet #2 for Location)

Notes:- The following Items are incidental to the Concrete:
Caulking at Gutter Line & Sidewalk Const. Joint Seals
Removal of Existing Conc. for Beam Seats
Drilling Holes for Dowels
Metallic Waterproofing
Under-Sidewalk Drains

MICROFILMED

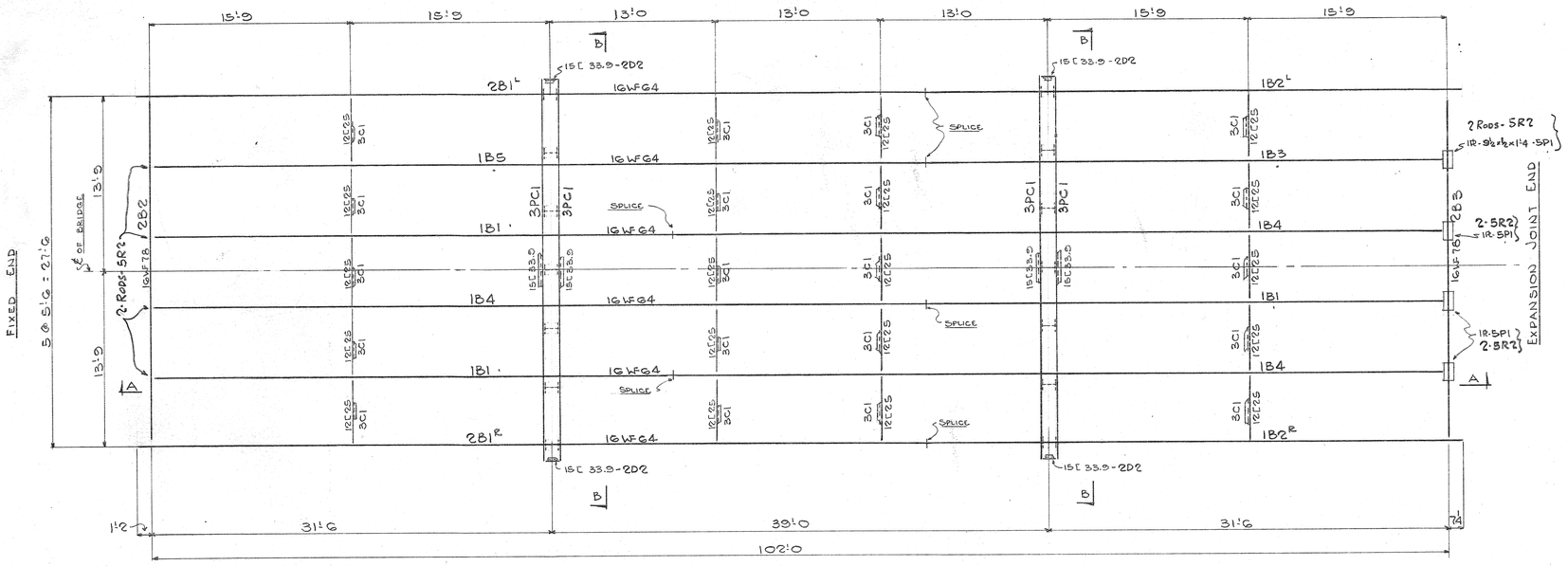
REVISIONS	DRAWN BY	CHECKED BY	DATE	APPROVED
① Slab deepened between East Abut walls. 5-16-48 J.K. + G.E.D. Added under Slab & drains. 6-9-48 J.K. + JMV Railing, Sidewk & Curb Dowels revised. Added Gas Main Exp. Jt. 7-9-48 J.K. + JMV. ② Traced by J.M.V. 2-26-48. J.K.	J. K.	G. E. D.	4-14-47.	ENGINEER OF BRIDGES AND STRUCTURES
	CORRECT			APPROVED
	ENGINEER OF STRUCTURAL DESIGN			COUNTY HIGHWAY ENGINEER

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN — PRESCOTT G. BROWN — CHARLES L. WILSON

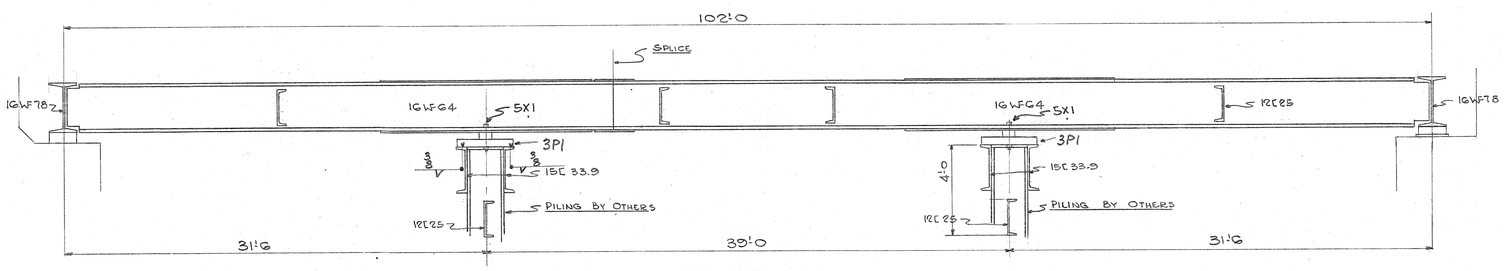
DETAILS OF EAST ABUTMENT DECK
DENTON ROAD OVER BELLEVILLE LAKE

STATE FILE	COUNTY JOB
	447
ISSUE NO. 3 DATE 4-12-48	SHEET NO. 7

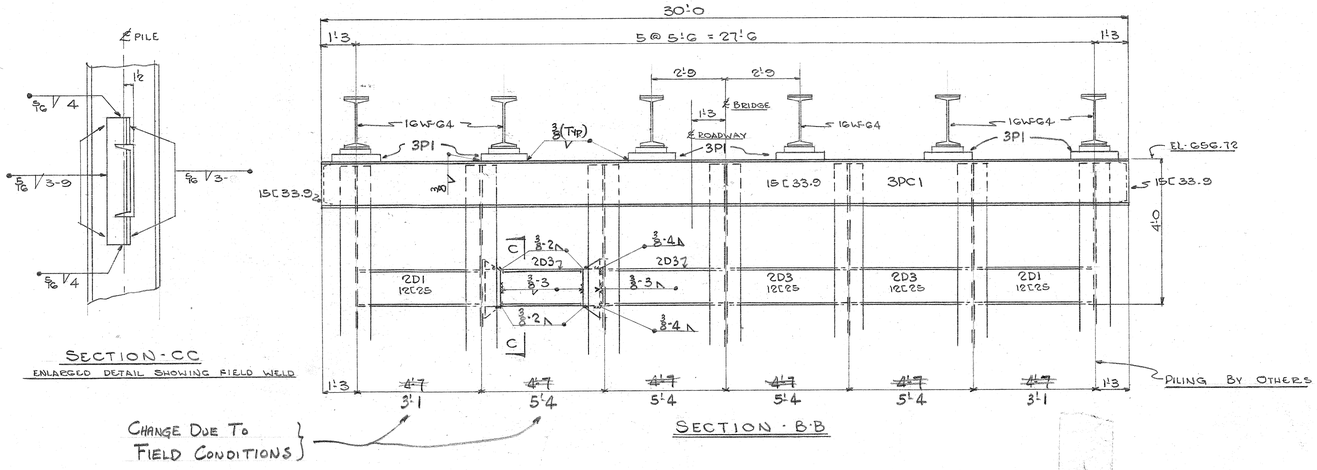
Job 447-7



STEEL FRAMING PLAN



SECTION - A-A



SECTION - CC

ENLARGED DETAIL SHOWING FIELD WELD

SECTION - B-B

CHANGE DUE TO FIELD CONDITIONS

MICROFILMED

SHOP PAINT ALL HOLES UNLESS OTHERWISE CALLED FOR ALL RIVETS

REVISIONS	WHITEHEAD & KALES COMPANY	
① 3-2-48 REV. SPACING SECTION-BB	DETROIT, MICHIGAN	
	STEEL FRAMING PLAN	
	DENTON ROAD BRIDGE OVER BELLEVILLE LAKE	
	WAYNE COUNTY ROAD COMMISSIONERS JOB # 447	
	DETROIT - MICHIGAN	
DRWN. H.M.G.	DATE 1-8-48	TRACED BY
CHKD. MARQUART	DATE 1-21-48	
CONTRACT 1238	SHEET No. E1-1	

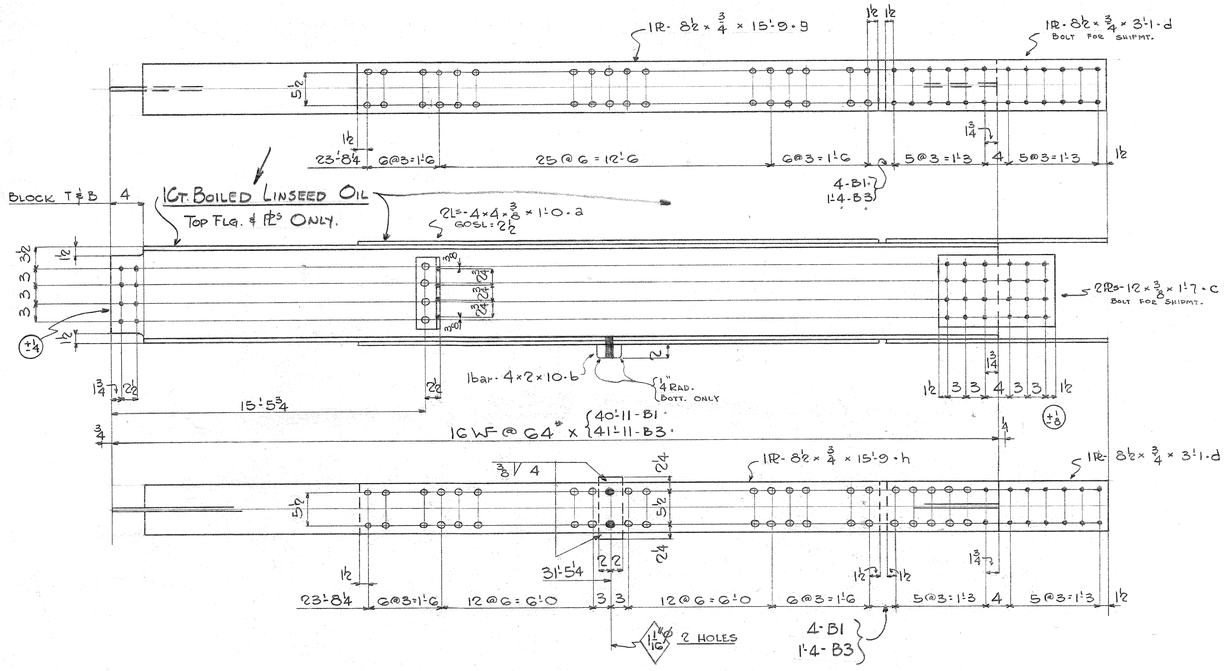
FORM 633B—2M—10-47-TP-A12684

Job 447-10

a b o d f g h k m n p s t v w y

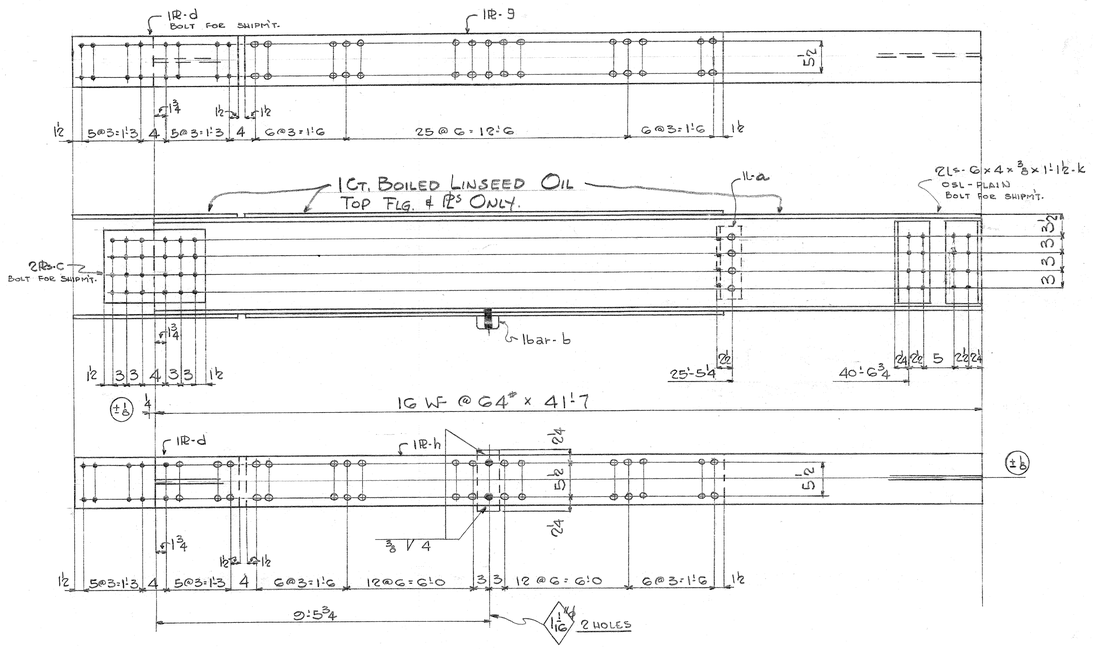
aa ab ac ad af ag ah ak am an ap as at av aw ay

ba bb bc bd bf bg bh bk bm bn bp bs tb bv bw by



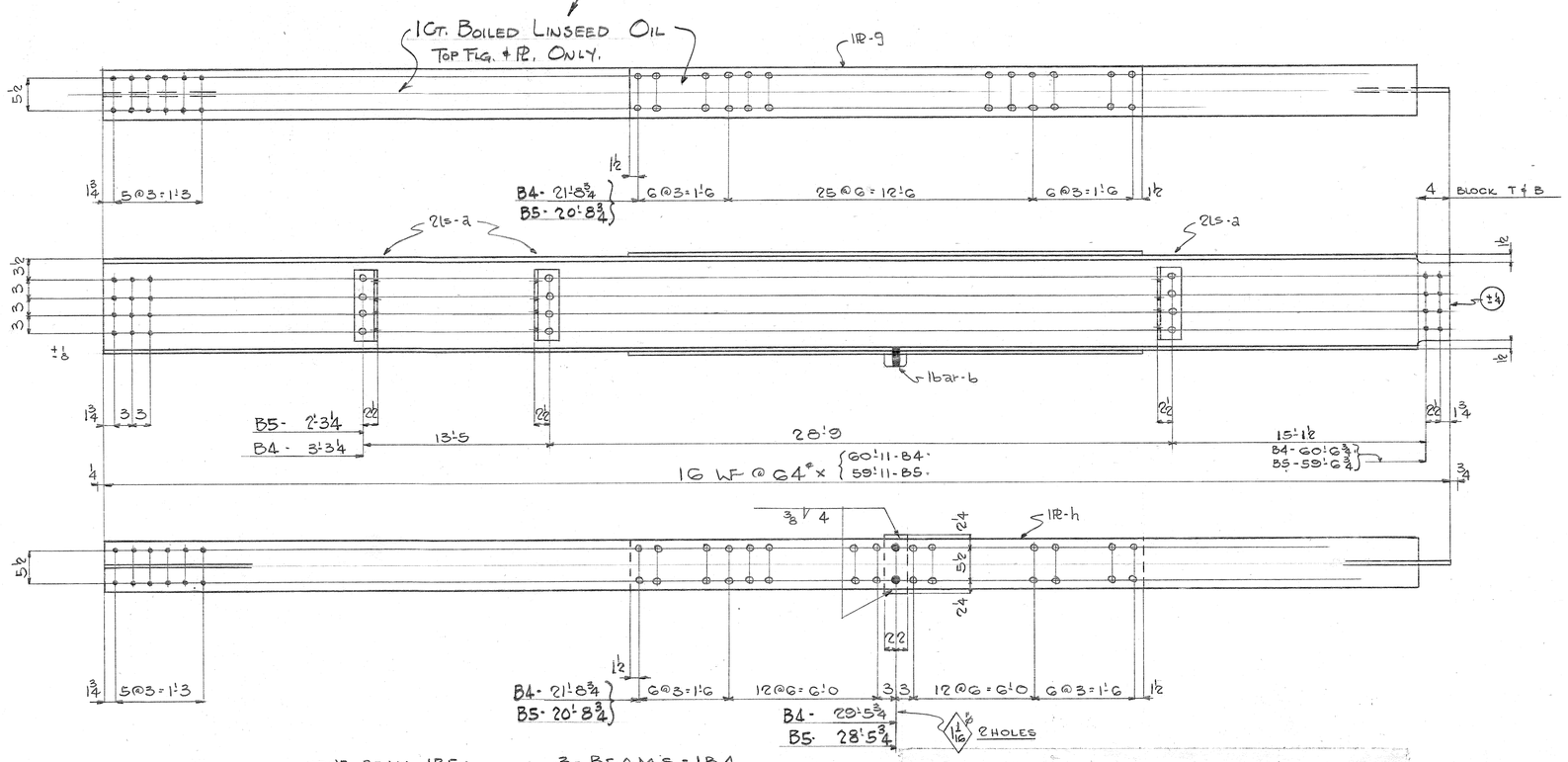
3-BEAMS-1B1

ONE-BEAM-1B3



ONE-BEAM-1B2R-AS SHOWN

ONE- " -1B2L-OPP. HAND



ONE-BEAM-1B5

3-BEAMS-1B4

SHOP PAINT {EXCEPT AS NOTED / CT. M-S-H-D MIXTURE 1-A PAINT} ALL HOLES 15/16 ϕ UNLESS OTHERWISE CALLED FOR ALL RIVETS ⅞ ϕ

MICROFILMED

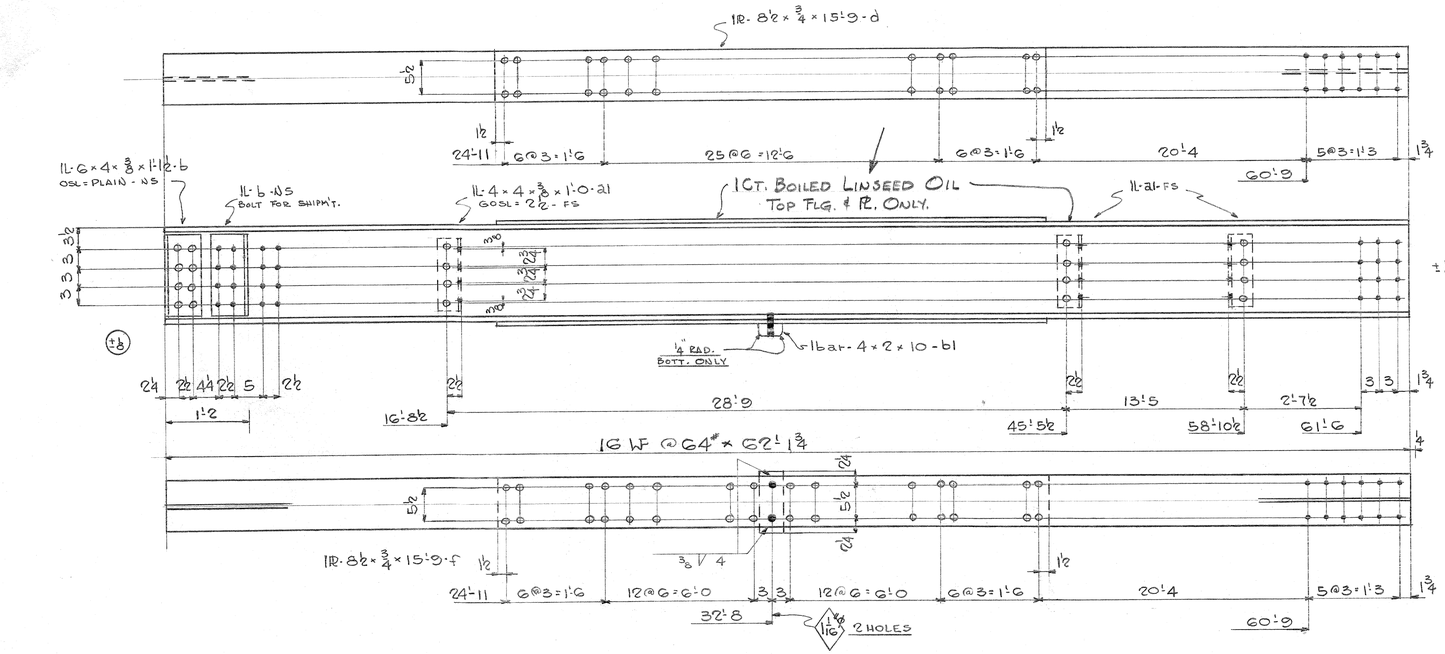
REVISIONS	WHITEHEAD & KALES COMPANY DETROIT, MICHIGAN
① 2/24/48 CHANGED AMOUNT OF 1B1 & 1B4 & ADDED 1B3 & 1B5	STEEL BEAMS
	DENTON ROAD BRIDGE — BELLEVILLE LAKE
	WAYNE COUNTY ROAD COMMISSIONERS - JOB # 447
	DETROIT - MICHIGAN

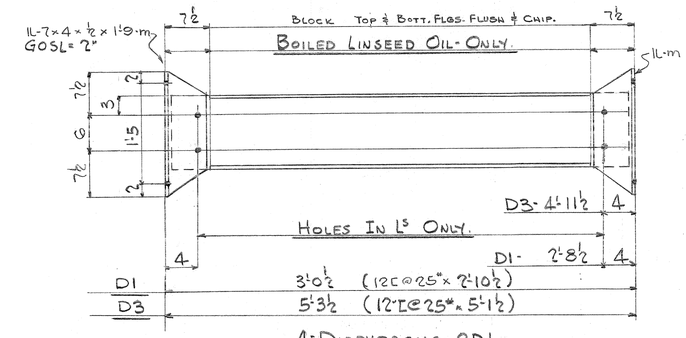
DRWN.	H.M.G	DATE	1-12-48	TRACED BY
CHKD.	MARQUART	DATE	1-21-48	

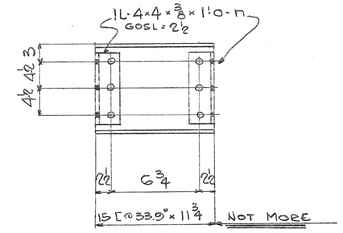
CONTRACT 1238-N SHEET No. 1-1

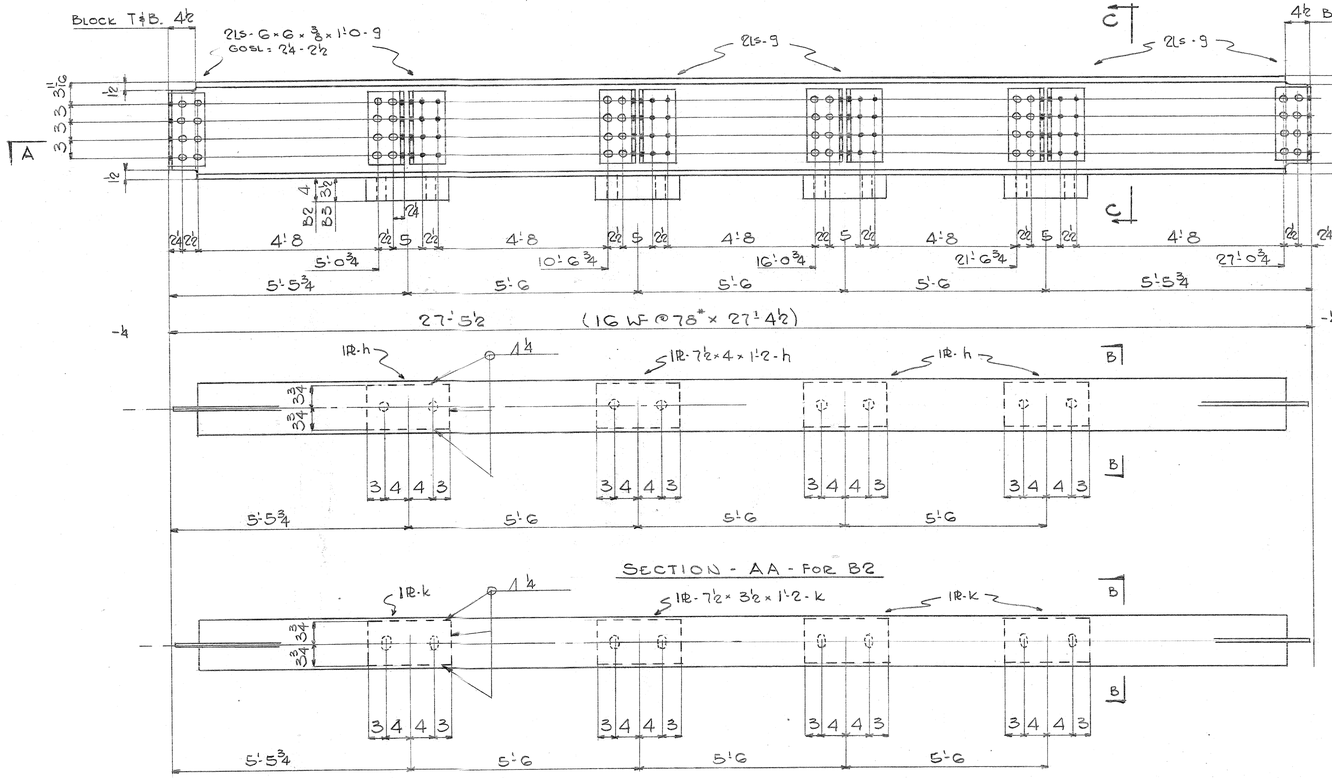
FORM 6338—2M—10-47-TP-A12854

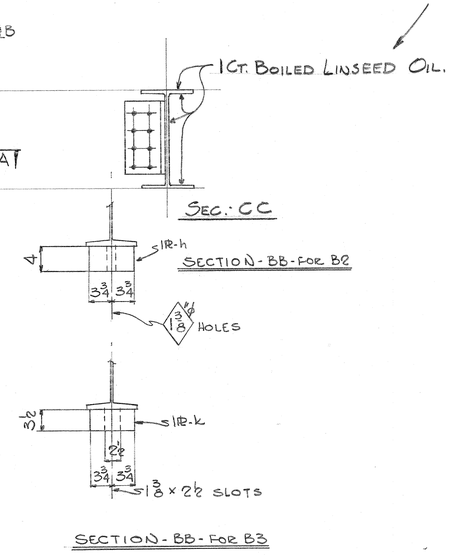
Job 447-11











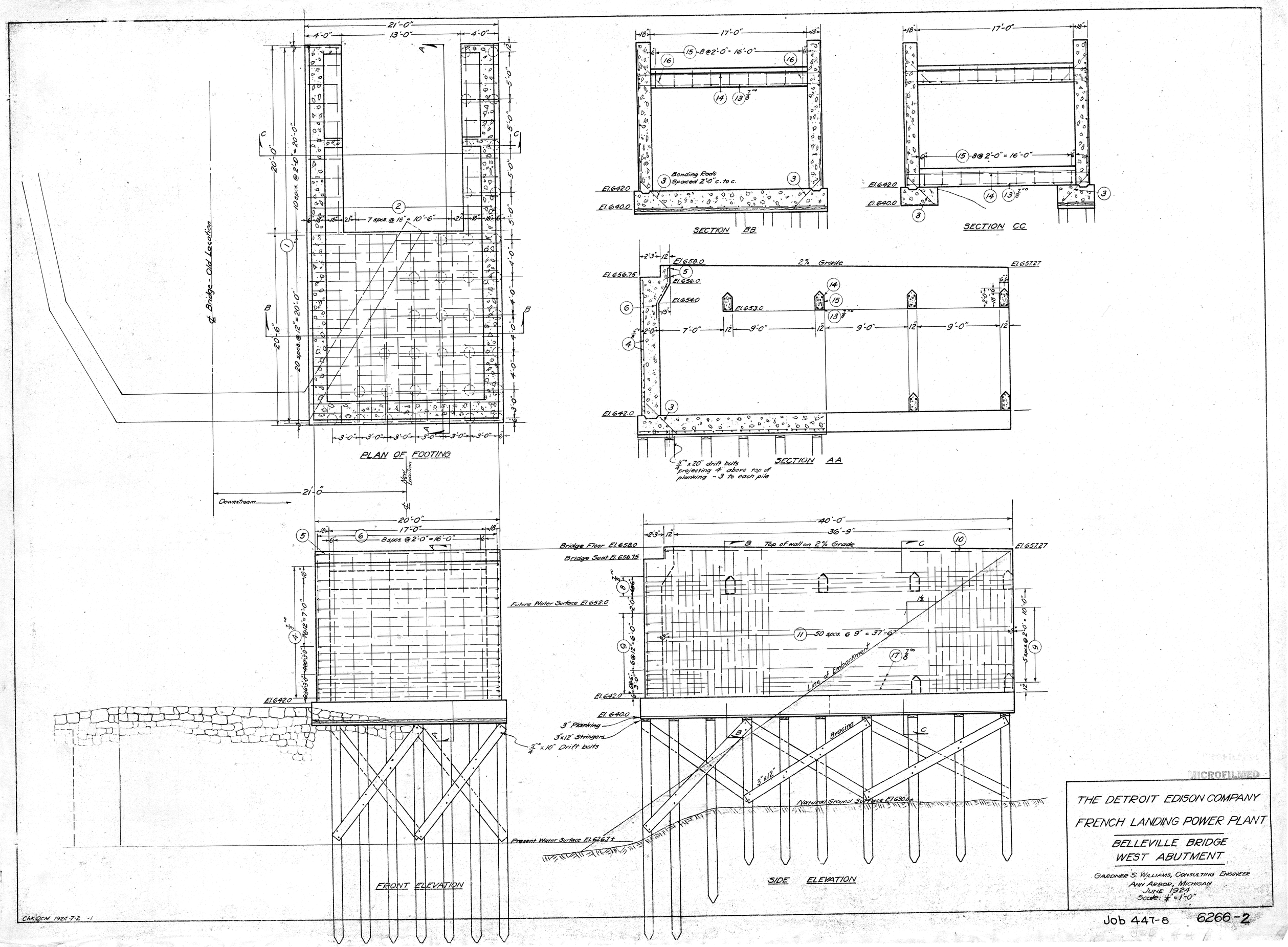
MICROFILMED

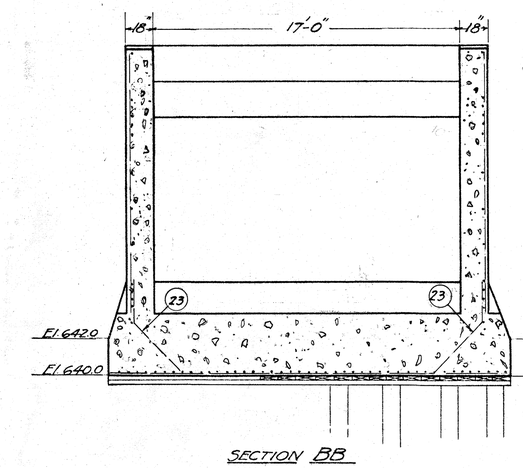
SHOP PAINT {EXCEPT AS NOTED 1CT-M-S-H-O MIXTURE 1A PAINT} ALL HOLES 15/16 ϕ UNLESS OTHERWISE CALLED FOR ALL RIVETS 7/8 ϕ

REVISIONS	WHITEHEAD & KALES COMPANY DETROIT, MICHIGAN
① 3-1-48 REV. 2D1 & ADDED 2D3	STEEL BEAMS & DIAPHRAGMS DENTON ROAD BRIDGE OVER BELLEVILLE LAKE WAYNE COUNTY ROAD COMMISSIONERS JOB #447 DETROIT - MICHIGAN
	DRWN. U.M.G. DATE 1-13-48 TRACED BY CHKD. MARQUART DATE 1-21-48 CONTRACT 1238-N SHEET No. 2-1

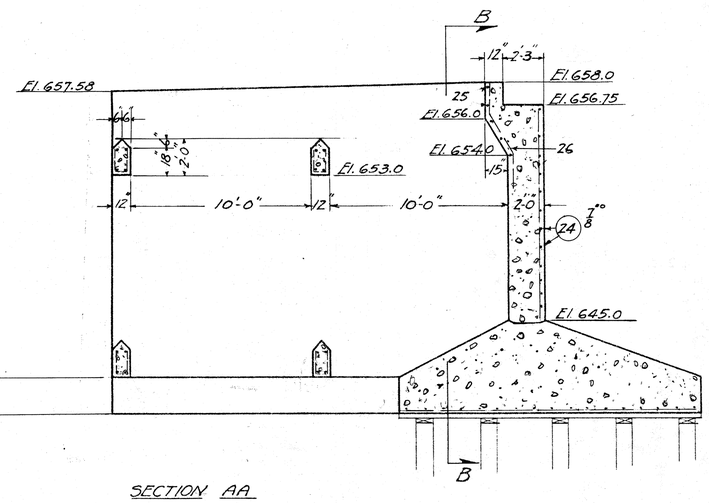
FORM 6339B—2M—10-47-TP-A12894

Job 447-12

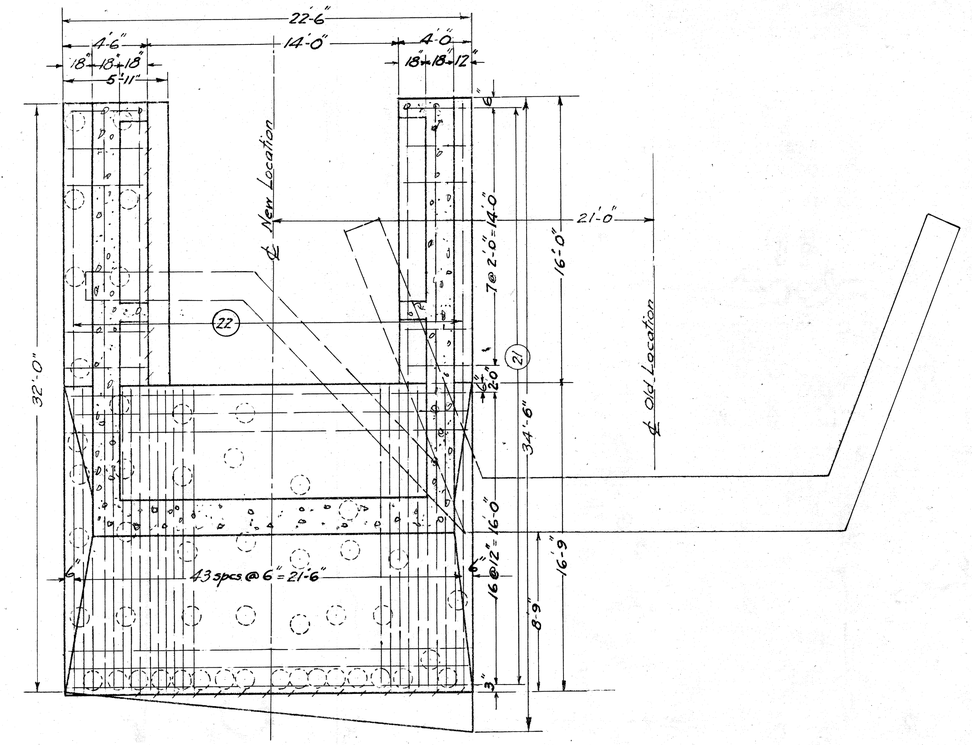

PLAN OF FOOTING
SECTION BB
SECTION CC
SECTION AA
FRONT ELEVATION
SIDE ELEVATION
℄ Bridge - Old Location
℄ New Location
Downstream
Bonding Rods Spaced 2'-0" c. to c.
El. 642.0
El. 640.0
El. 658.0
El. 657.27
El. 656.75
El. 656.0
El. 654.0
El. 653.0
2% Grade
3/4" x 20" drift bolts projecting 4" above top of planking - 3 to each pile
Bridge Floor El. 658.0
Bridge Seat El. 656.75
Top of wall on 2% Grade
Future Water Surface El. 652.0
3" Planking
3"x12" Stringers
3/4" x 10" Drift bolts
Line of Embankment
Bracing
3"x12"
Natural Ground Surface El. 630.0±
Present Water Surface El. 626.3±
THE DETROIT EDISON COMPANY
FRENCH LANDING POWER PLANT
BELLEVILLE BRIDGE
WEST ABUTMENT
GARDNER S. WILLIAMS, CONSULTING ENGINEER
ANN ARBOR, MICHIGAN
JUNE 1924
Scale: 1/4" = 1'-0"
Job 447-8
6266-2
MICROFILMED



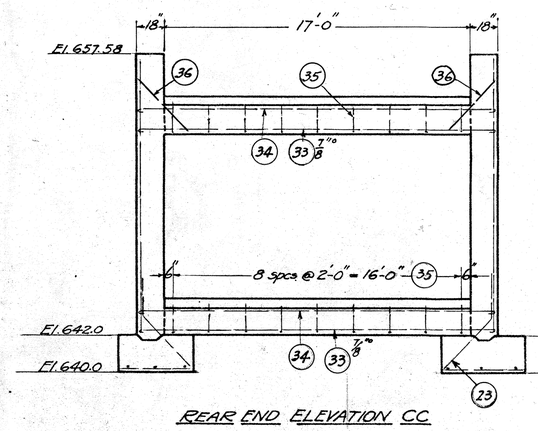
SECTION BB



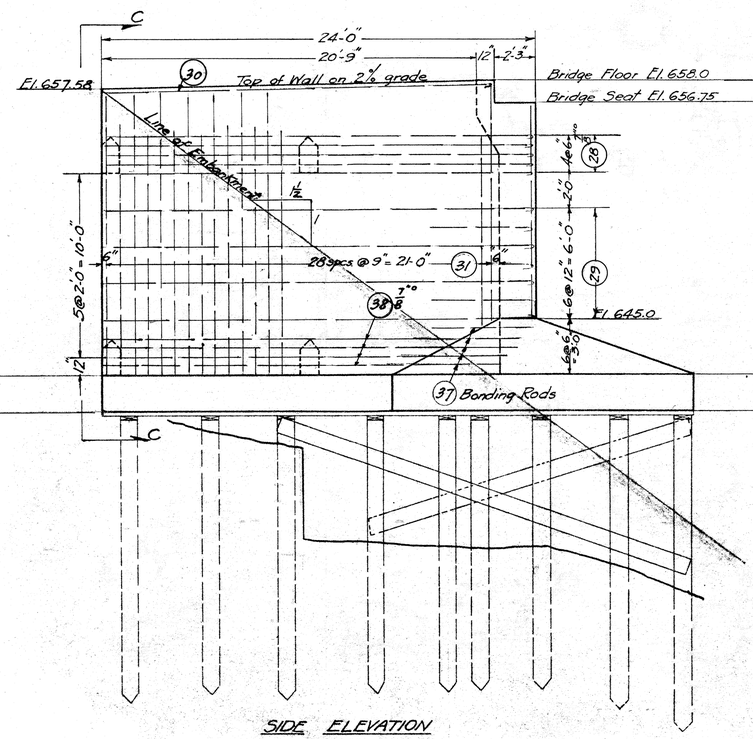
SECTION AA



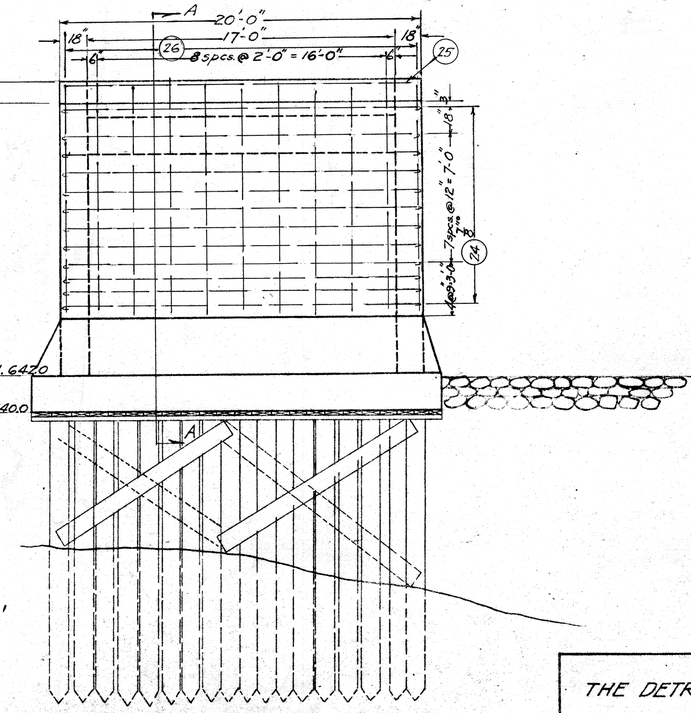
PLAN OF FOOTING



REAR END ELEVATION CC



SIDE ELEVATION



FRONT ELEVATION

THE DETROIT EDISON COMPANY

FRENCH LANDING POWER PLANT

BELLEVILLE BRIDGE
EAST ABUTMENT

GARDNER S. WILLIAMS, CONSULTING ENGINEER
ANN ARBOR, MICHIGAN
AUGUST, 1924
Scale 1/4" = 1'-0"

Field corrections made
1925-9-25 H.I.C.

Job 447-9 6265-3

Wisam Al-Musawi

From: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Sent: Tuesday, December 6, 2022 11:14 AM
To: Wisam Al-Musawi
Cc: Ali Aljawad
Subject: RE: vpr 82 Denton Rd over Belleville Lake
Attachments: RSX Field Notes Denton Rd @ Belleville L Nov 16 Skubinna.jpeg

Hi Wisam,

Thanks for meeting on-site to review this crossing. A copy of my field notes from our inspection is attached.

As discussed on-site, this crossing is of the lake impoundment of Ford Dam, not a crossing of a stream. So your recommendations are primarily related to navigation beneath the bridge, and the fact that the bridge spans between to narrow land bridges that extend into Belleville Lake, rather than the shape and size of a stream.

To ensure full navigation without navigation hazards presented by the bridge, we recommend a single span structure with similar span as the existing bridge, but with a slightly higher low beam. To be fully passable for the type of recreational vessels that are likely to use this bridge, we recommend raising the low beam 6 in. higher than the low beam of the existing bridge.

However, because it is very important to not have any fill below the OHWM of the lake, that recommendation is only made if raising the low beam can be accomplished without having to widen the narrow land bridges along the bridge approaches. If it requires widening the land bridges, then a bridge with the same low beam elevation will likely meet criteria for a permit. Just be sure to provide a written description of that limitation in your permit application, when you submit it.

The same is true about widening the bridge to accommodate sidewalks, and additional lanes. Placing fill below the OHWM of a lake to widen roads, or bridges does not meet criteria for a permit under Part 301, because of the loss to the public trust, the loss of high value ecological resources, and the fact that alternatives exist. And lake mitigation would be required, and I doubt you have an opportunity to create a lake somewhere as mitigation. So we do not recommend widening the existing land bridges within the lake to accommodate sidewalks, and additional lanes.

The existing land bridges are narrow, but may have enough existing width to add sidewalks to the bridge without needing to widen the land bridges. But it is doubtful that they are wide enough to accommodate additional lanes without fill below the OHWM of the lake to widen the road. The bottomline is that the bridge can be widened to accommodate sidewalks, or additional lanes, only if that can be accomplished without needing to widen the land bridges.

We have screened this location for potential impacts to T&E species, and did not find any. Work limitations between March 1 – June 30 are likely to be applied to protect spawning/migrating fish.

Let me know if you have any questions as you are working on design.

Thanks,

John Skubinna
Transportation Review Unit
WRD-EGLE

517-256-1469

From: Wisam Al-Musawi <wamusawi@waynecounty.com>
Sent: Monday, December 5, 2022 9:26 AM
To: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Cc: Ali Aljawad <Aaljawad@waynecounty.com>
Subject: RE: vpr 82 Denton Rd over Belleville Lake

Good Morning John,

I know you're busy, but this is just a friendly reminder regarding Denton bridge over Belleville Lake EGLE recommendations. On December 14, Wayne county staff will have a meeting with our leaders to discuss the options of future Denton bridge construction, so please if you can provide your recommendations prior this meeting date.

Thank you,

Wisam Al-Musawi, MSCE
Structure Engineer
Wayne County Dept. of Public Service
Engineering Division
33809 Michigan Ave.
Wayne, MI 48184
(313) 610-1868

From: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Sent: Wednesday, November 2, 2022 9:20 AM
To: Wisam Al-Musawi <wamusawi@waynecounty.com>
Cc: Ali Aljawad <Aaljawad@waynecounty.com>
Subject: RE: vpr 82 Denton Rd over Belleville Lake

Great. Thanks. I'll plan on it.

John

From: Wisam Al-Musawi <wamusawi@waynecounty.com>
Sent: Wednesday, November 2, 2022 9:07 AM
To: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Cc: Ali Aljawad <Aaljawad@waynecounty.com>
Subject: RE: vpr 82 Denton Rd over Belleville Lake

Sounds good.

I will be available on Wed. November 16 at 8:30 am.

Thank you,

Wisam Al-Musawi, MSCE
Structure Engineer
Wayne County Dept. of Public Service
Engineering Division
33809 Michigan Ave.
Wayne, MI 48184
(313) 610-1868

From: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Sent: Wednesday, November 2, 2022 8:27 AM
To: Wisam Al-Musawi <wamusawi@waynecounty.com>
Cc: Ali Aljawad <Aaljawad@waynecounty.com>
Subject: RE: vpr 82 Denton Rd over Belleville Lake

Thanks, Wisam.

Let's plan on Wed. November 16 at 8:30 am.

John

From: Wisam Al-Musawi <wamusawi@waynecounty.com>
Sent: Tuesday, November 1, 2022 3:43 PM
To: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Cc: Ali Aljawad <Aaljawad@waynecounty.com>
Subject: RE: vpr 82 Denton Rd over Belleville Lake

Hi Jon,

My availability week of November 14

Monday 11/14 PM Only
Wednesday 11/16 All day.

Thank you,

Wisam Al-Musawi, MSCE
Structure Engineer
Wayne County Dept. of Public Service
Engineering Division
33809 Michigan Ave.
Wayne, MI 48184
(313) 610-1868

From: Skubinna, John (EGLE) <SKUBINNAJ@michigan.gov>
Sent: Tuesday, November 1, 2022 3:20 PM

To: Wisam Al-Musawi <wamusawi@waynecounty.com>
Subject: vpr 82 Denton Rd over Belleville Lake

Hi Wisam,

Apologize for the delay. I am finally able to schedule an on-site inspection of this project.

I have an opening this week on Thurs. at 1:00 pm, if you are available.

If that is too short notice, I'll need to wait to schedule it on the week of November 14-18. I can be more flexible. Just let me know your availability during that week.

Let me know,

John