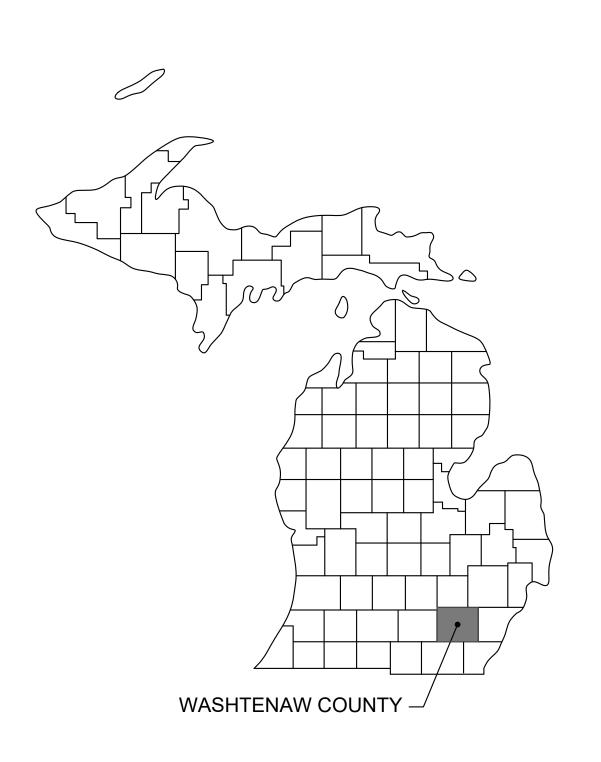
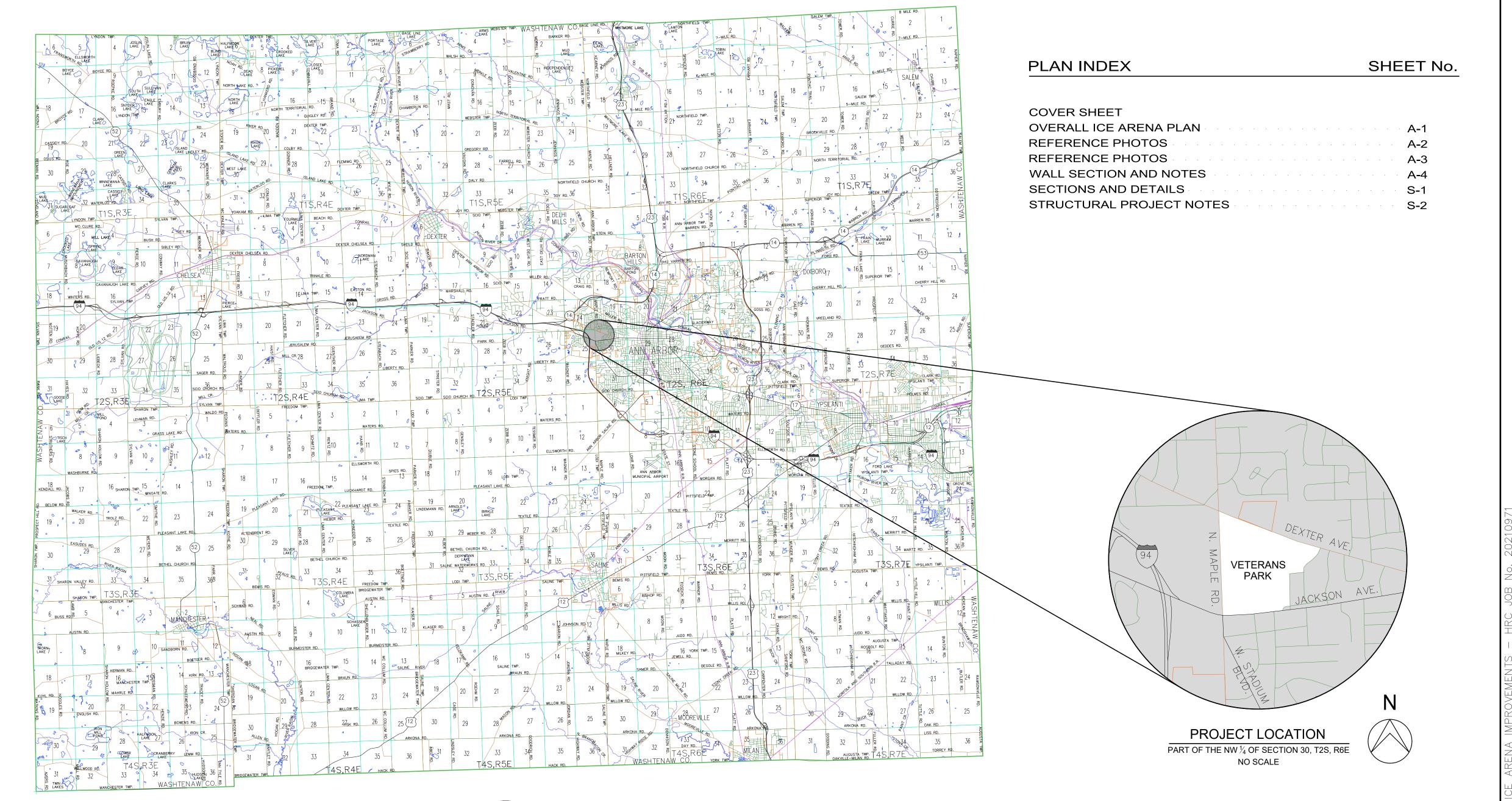
# VETERAN'S PARK ICE ARENA IMPROVEMENTS CITY OF ANN ARBOR

WASHTENAW COUNTY, MICHIGAN HRC PROJECT NO. 20210971







WASHTENAW COUNTY

NO SCALE



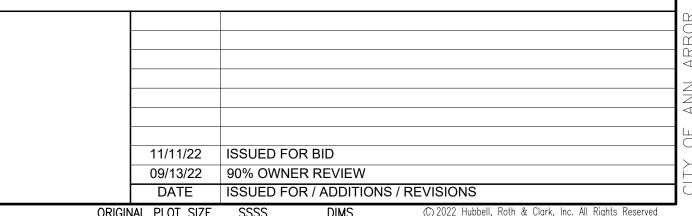
P.O. BOX 824 48303 - 0824

PHONE: (248) 454-6300 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359 WEB SITE: http://www.hrcengr.com

555 HULET DRIVE

BLOOMFIELD HILLS, MICH.





SCALE: 1" = 10'-0"

KEYED NOTES

- 1 REPLACE BOTTOM SECTION OF BLEACHER COLUMN; CLEAN, PREP AND PAINT NEW STEEL AND TOUCH UP ABRADED REMAINING SURFACES
- REPLACE BOTTOM SECTION OF RIGID FRAME BUILDING COLUMN; CLEAN, PREP AND PAINT NEW STEEL AND TOUCH UP ABRADED REMAINING
- REPLACE BOTTOM SECTION OF END WALL BUILDING COLUMN; CLEAN, PREP AND PAINT NEW STEEL AND TOUCH UP ABRADED REMAINING SURFACES
- 2 REPLACE ENTIRE BLEACHER COLUMN; PREP AND PAINT ENTIRE COLUMN
- CLEAN, PREP AND REPAINT BLEACHER COLUMN TO 18" ABOVE FIN. FLOOR
- CLEAN, PREP AND REPAINT RIGID FRAME BUILDING COLUMN TO 18" ABOVE FIN. FLOOR

CLEAN, PREP AND REPAINT END WALL BUILDING COLUMN TO 18" ABOVE FIN. FLOOR

DENOTES PHOTO NUMBER & SHEET LOCATION

· REPLACE (4)

BROKEN/ CRACKED

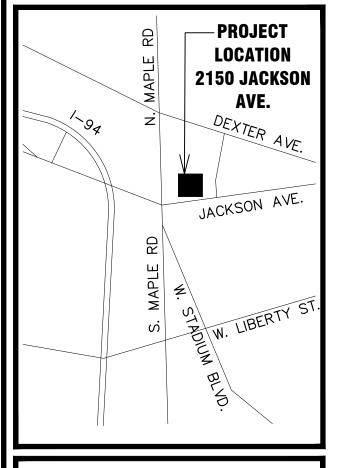
CMU AT CORNER

**HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915** 

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**VETERANS PARK ICE ARENA IMPROVEMENTS** 

**OVERALL** ICE ARENA PLAN

HRC JOB NO. 1/4'=1'-0" 20210971 A-1May 2022

ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)

02 A-2

BROKEN/ CRACKED

CMU AT CORNER

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PROVIDE NEW BACKER ROD AND SEALANT AT ALL GAPS

AT EXTERIOR CMU (TYP.) -



PHOTO NO. 09

PHOTO NO. 05

EXISTING EXTERIOR CMU TO BE CLEANED AND THOROUGHLY DRIED PER MFR. RECOMMENDATIONS BEFORE APPLYING NEW WATER REPELLENT COATING, PAYING SPECIAL ATTENTION TO INTERIOR SURFACES

- REMOVE AND REPLACE CAULK AT ALL LOUVER AND

DOOR OPENINGS (TYP.)

OF RIBS (TYP.) —

REMOVE AND REPLACE CAULK AT JOINT BETWEEN METAL PANELS AND FLASHING

- CAREFULLY TOOL JOINT TO ENSURE WATERTIGHT CONDITION, PAYING SPECIAL ATTENTION TO ALL CORNERS WHERE METAL PANELS MEET (TYP.)

PHOTO NO. 02

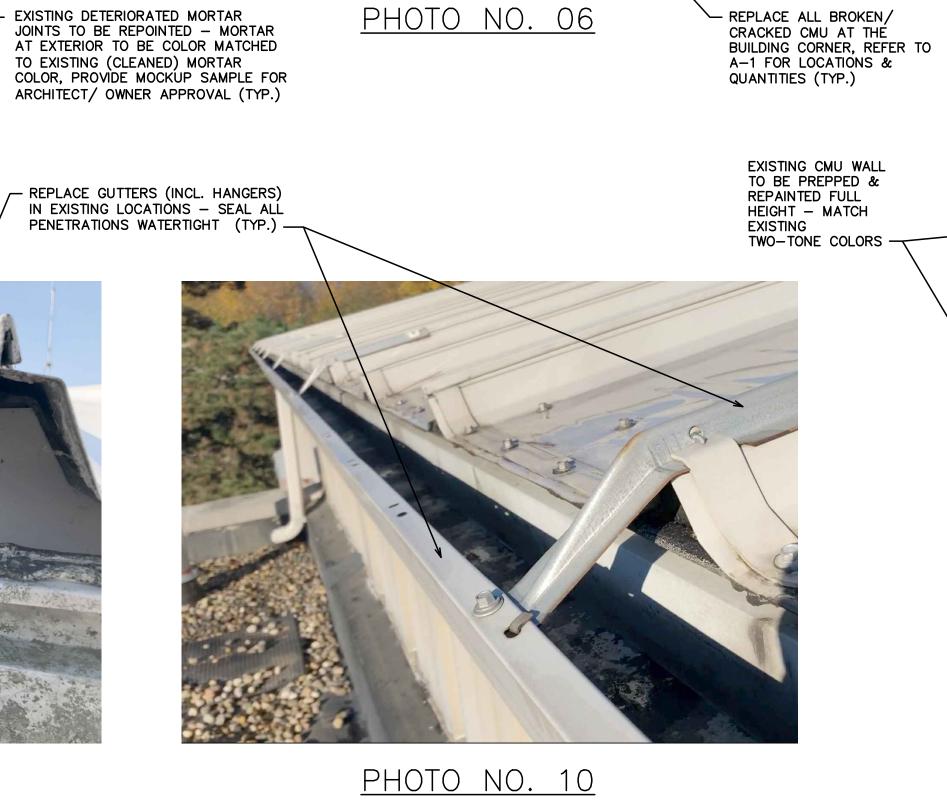
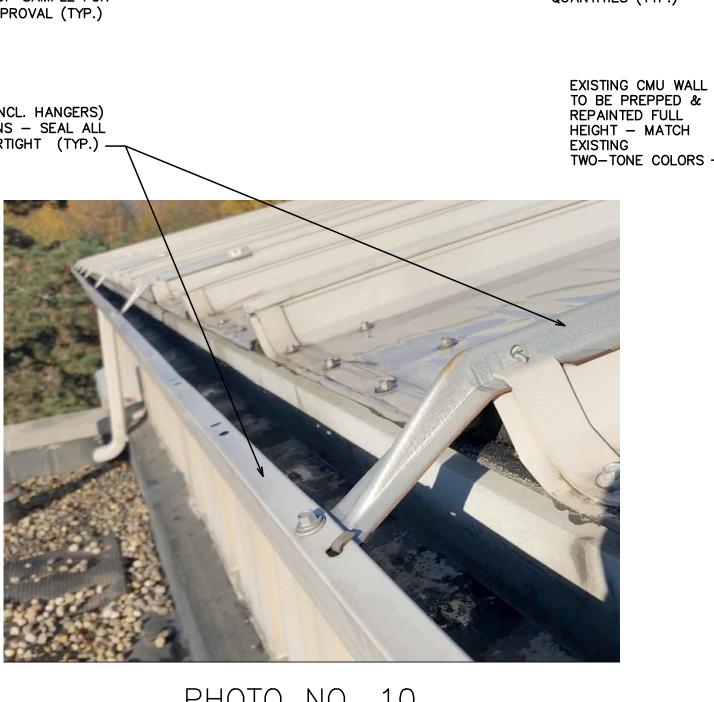
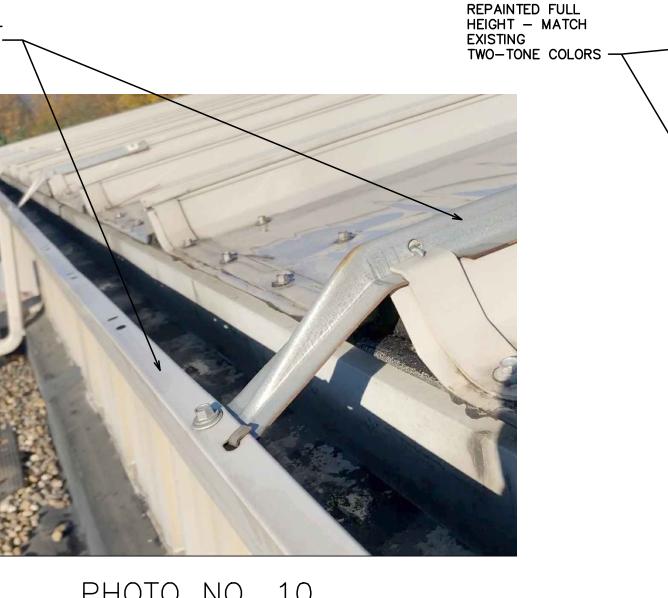
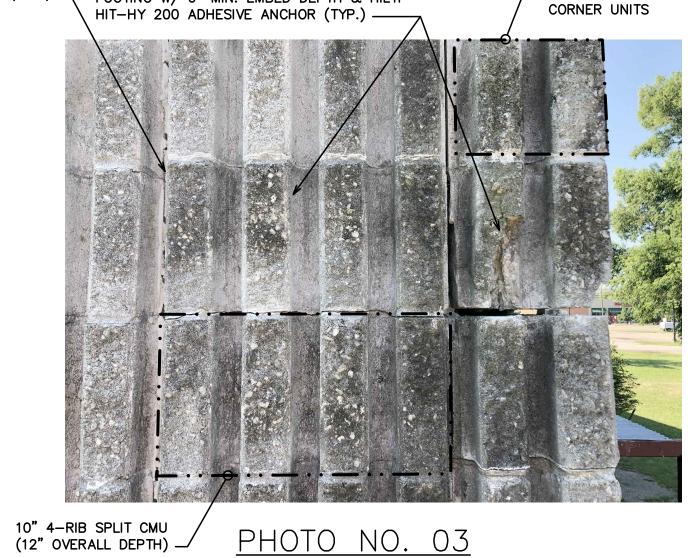


PHOTO NO. 06







L CORNER 4 RIB
 SPLIT CMU SPECIALTY

REPLACE ALL CMU FULL HEIGHT AT THESE TWO COURSES AT THE BUILDING CORNER — INSTALL #5 BARS AT EACH CORE FULL HEIGHT, GROUT SOLID AND DOWEL TO FOOTING W/ 6" MIN. EMBED DEPTH & HILTI

REMOVE AND REPLACE CAULK AT ALL CONTROL JOINTS AND

WALL OPENINGS (TYP.) -

REMOVE EXISTING CAULK AND INSTALL NEW CAULK AT ALL EXTERIOR JOINTS — EXISTING DOWNSPOUTS TO BE CAREFULLY REMOVED

AND REINSTALLED TO ACCOMMODATE

RECAULKING JOINTS BEHIND THEM (TYP.)

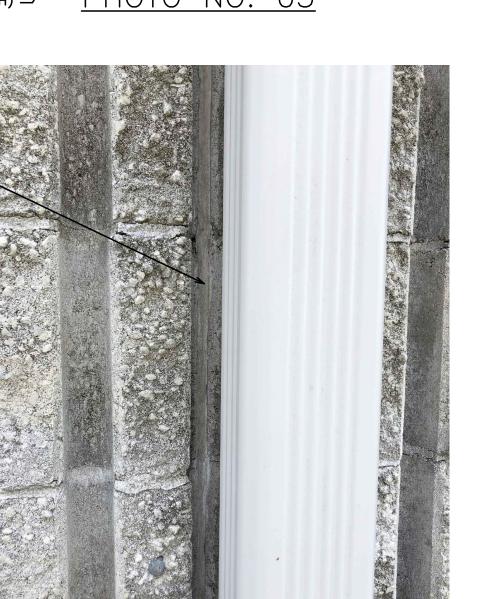








PHOTO NO. 11





PHOTO NO. 08

PHOTO NO. 04

REMOVE AND REPLACE CAULK AT JOINT BETWEEN METAL PANELS AND FLASHING — CAREFULLY TOOL JOINT TO ENSURE WATERTIGHT CONDITION, PAYING SPECIAL ATTENTION TO ALL CORNERS WHERE METAL PANELS MEET (TYP.)





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- SPECIAL ATTENTION MUST
BE GIVEN TO APPLYING
WATER REPELLENT
COATING TO INTERIOR
EDGES OF EXT. FLUTES AT

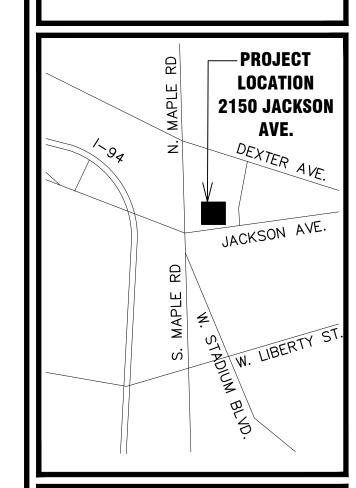
CMU (TYP.)

EXISTING FLASHING

TO REMAIN

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APPROVED JFB



**VETERANS PARK ICE ARENA IMPROVEMENTS** 

> REFERENCE PHOTOS

HRC JOB NO. SCALE NONE 20210971 May 2022



20210971

ADDITIONS AND/OR REVISIONS

-PROJECT LOCATION 2150 JACKSON

JACKSON AVE.

**VETERANS PARK** 

**ICE ARENA** 

**IMPROVEMENTS** 

REFERENCE PHOTOS

SCALE

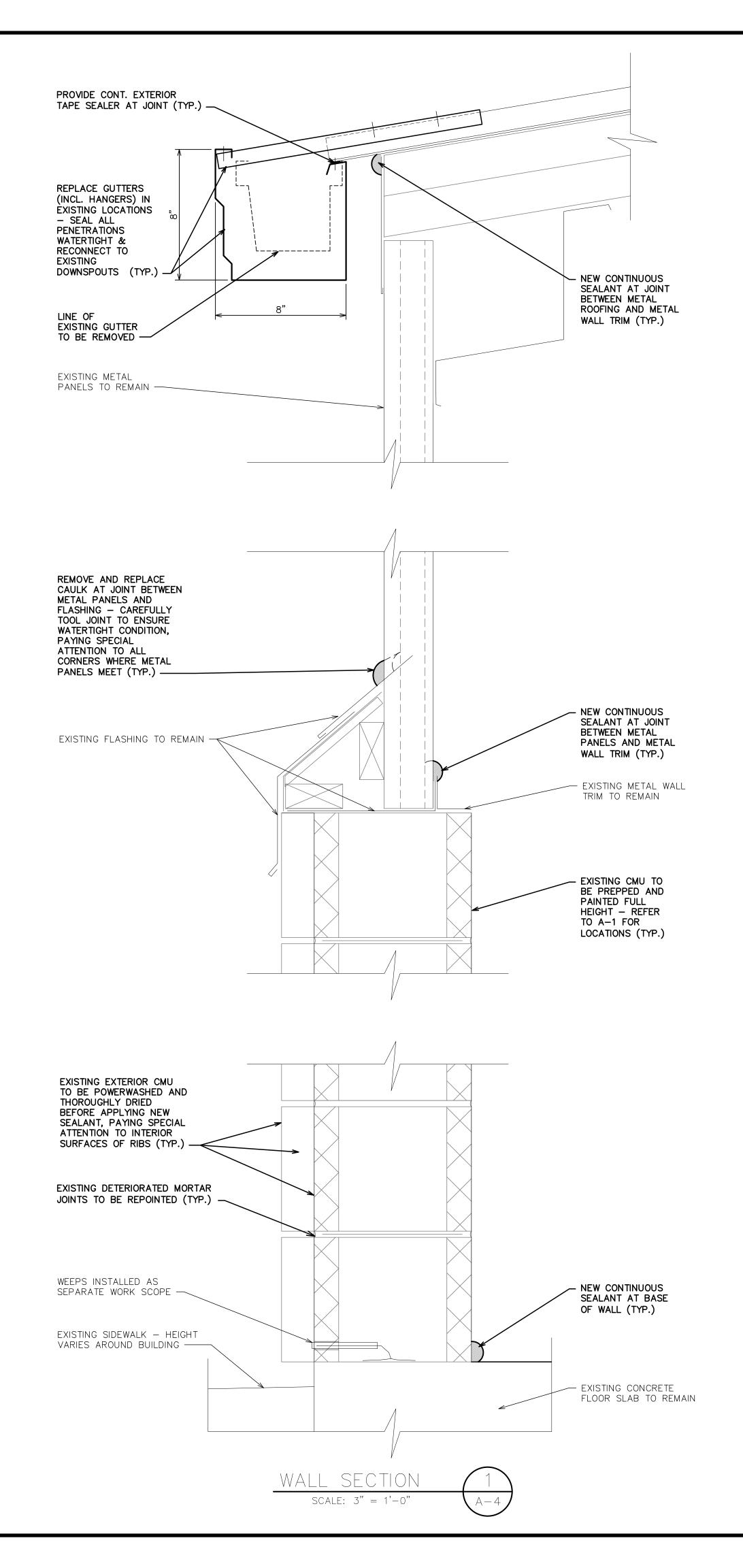
NONE

# PROJECT NOTES:

- **GENERAL REQUIREMENTS:** 1. CONTRACTOR SHALL COORDINATE ALL WORK PRIOR TO INSTALLATION OR FABRICATION OF ANY COMPONENTS. ALL OPENINGS SHALL ALSO BE
- 2. ALL WORK MUST CONFORM TO ALL STATUTES OF THE MICHIGAN BUILDING CODE (EDITION IN EFFECT AT THE TIME OF PERMIT), ALL STATE, COUNTY AND LOCAL ORDINANCES, CURRENT BARRIER FREE REGULATIONS, MIOSHA STRUCTURAL GUIDELINES, ASTM STANDARD TESTING PROCEDURES, OWNER'S PRACTICES AND GENERALLY ACCEPTED DESIGN PRACTICES. DISCREPANCIES IN DRAWING APPEAR, WORK MUST BE DONE PER CODE. CITY WILL COVER THE COST OF BUILDING, ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS. CONTRACTOR MUST STILL APPLY FOR THE PERMITS.
- 3. EXISTING CONDITIONS OF BUILDING SHOWN ON CONSTRUCTION DOCUMENTS ARE ILLUSTRATIVE OF CONDITIONS VISIBLE TO ARCHITECT AND BASED ON EXISTING DRAWINGS. ALL EXISTING DIMENSIONS, CONDITIONS, SIZES & LOCATIONS ARE TO BE FIELD VERIFIED.
- 4. CONTRACTOR SHALL PROVIDE NEW OPENINGS AND SUPPORTS AS NOTED. FINAL OPENING DIMENSIONS, CONNECTION SIZES, CLEARANCES, ETC. MUST BE COORDINATED DURING CONSTRUCTION WITH APPROVED COMPONENTS. SEAL TIGHT ALL OPENINGS (ROOF, WALL AND CEILING), EQUIPMENT AND/OR PENETRATIONS - FROM AIR AND MOISTURE.
- 5. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND APPROVED MANUFACTURERS.
- 6. ALL INSTALLATIONS TO BE COORDINATED WITH EXISTING CONDITIONS FOR PROPER SIZE, LOCATION AND PROVISIONS REQUIRED TO INSTALL
- 7. PIPING & CONDUIT HANGERS AND SUPPORT LOCATION ARE NOT SHOWN ON DRAWINGS. THE CONTRACTOR SHALL COORDINATE NEW INSTALLATIONS WITH EXISTING PIPING AND CONDUIT HANGERS AND SUPPORTS AS NECESSARY.
- 8. CONTRACTOR SHALL PROVIDE ALL REQUIRED TRANSITIONS, FITTINGS AND APPURTENANT CONNECTIONS.
- 9. CONFIRM ANY COLOR SELECTIONS WITH OWNER. COLORS TO COORDINATE WITH EXISTING BUILDING.
- 10. PREVENT GALVANIC ACTION AND OTHER FORMS OF CORROSION BY INSULATING METALS OR OTHER MATERIALS FROM DIRECT CONTACT WITH INCOMPATIBLE MATERIALS.
- 11. SHOP DRAWINGS AND PRODUCT DATA THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND PROJECT ENGINEER, SHOP DRAWINGS & PRODUCT DATA SUBMITTALS FOR ALL PRODUCTS AND COMPONENTS TO BE USED ON THIS PROJECT. MAINTAIN ONE COPY OF ALL APPROVED SUBMITTALS AT THE SITE FOR THE OWNER'S REFERENCE.
- 12. "RECORD" DRAWINGS THE CONTRACTOR SHALL MAINTAIN A SET OF "AS-BUILT" PRINTS, MARKED UP AT THE SITE, CONTAINING ALL "AS-BUILT" INFORMATION. TURN SET OVER TO ENGINEER UPON COMPLETION OF THE
- 13. INSTALL ALL MATERIALS IN COMPLIANCE W/ MFR. RECOMMENDATIONS AND CODE REQUIREMENTS.
- 14. CONTRACTOR MUST VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO START OF DEMOLITION AND MAKE EVERY EFFORT TO PROTECT THEM OR RELOCATE AS REQUIRED.
- 15. ALL PERMANENT WOOD BLOCKING, SHEATHING, FRAMING, ETC. UTILIZED IN CONSTRUCTION TO BE FIRE RETARDANT TREATED.

# **GENERAL NOTES:**

- 1. REFER TO PLANS AND PHOTOS TO DETERMINE SCOPE OF EXTERIOR AND INTERIOR MASONRY REPOINTING. VERIFY EXACT EXTENT OF REPAIR EFFORTS
- 2. INTERIOR SPACES OF BUILDINGS AFFECTED BY THIS WORK SCOPE ARE TO BE CLEANED OF ALL DUST AND DEBRIS PRIOR TO FINAL CLOSE OUT OF
- 3. ANY EXISTING BROKEN OR DAMAGED CMU ARE TO BE REPLACED WITH NEW TO MATCH EXISTING (MODULE, COLOR, TEXTURE, ETC.) - SEE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. NEW MASONRY AT INFILL AND REPLACEMENT LOCATIONS MUST MATCH
- 4. MOLD WAS OBSERVED ON A NUMBER OF SURFACES AT AFFECTED AREAS OF CONSTRUCTION. AS PART OF THIS WORK SCOPE, CONTRACTOR MUST IDENTIFY SPECIFIC AREAS WITH MOLD AND REMEDIATE IN ACCORDANCE WITH INDUSTRY STANDARDS AND BEST PRACTICES.
- 5. TOUCH UP PAINT AT WALLS AND CEILINGS WHERE DAMAGED OR DISTURBED BY WORK SCOPE. MATCH EXISTING COLOR/FINISH.

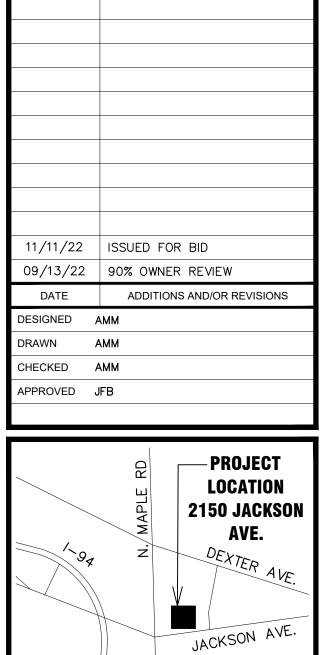




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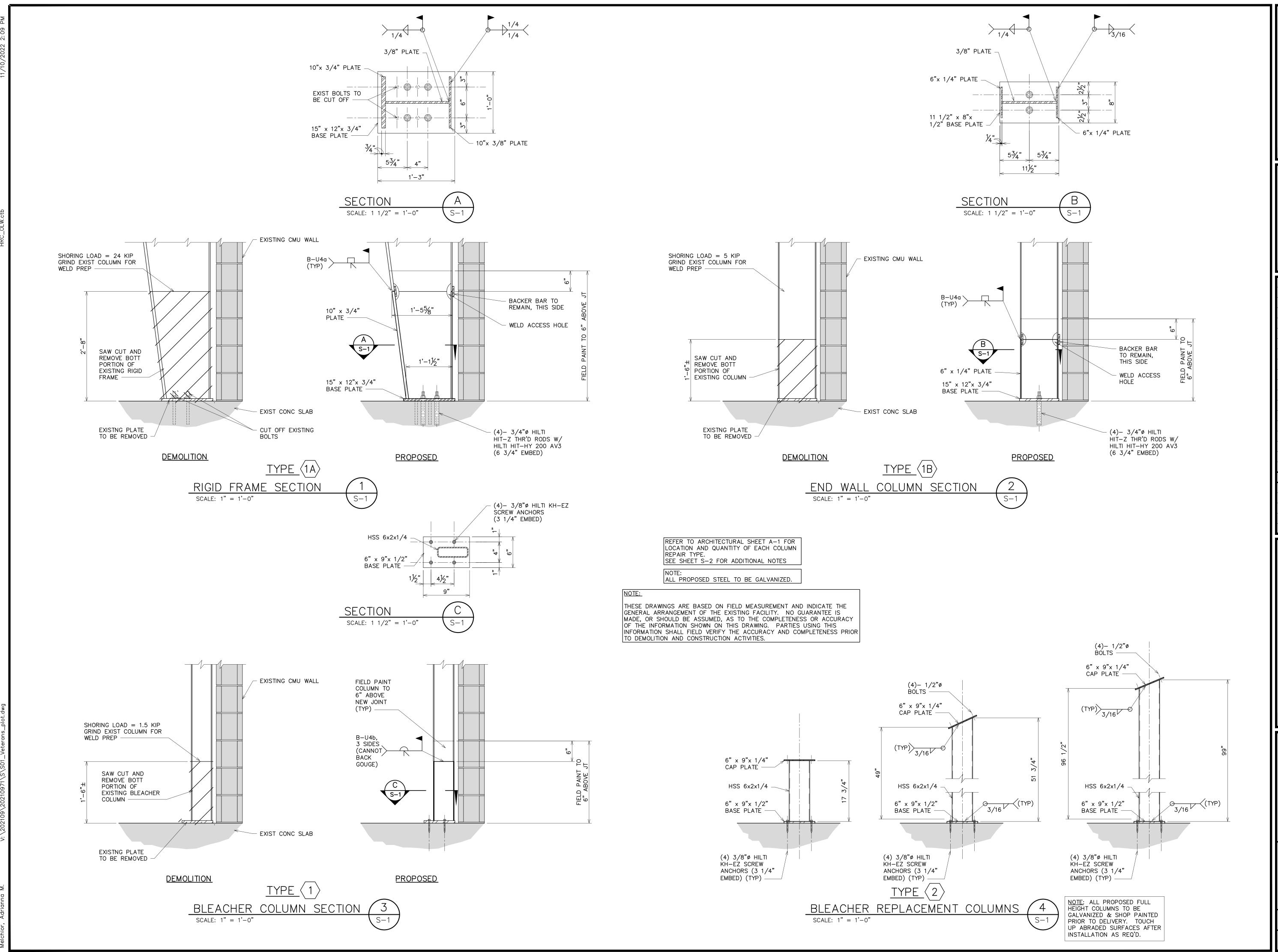
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# **VETERANS PARK ICE ARENA IMPROVEMENTS**

WALL SECTION AND NOTES

HRC JOB NO. SCALE AS NOTED 20210971 May 2022

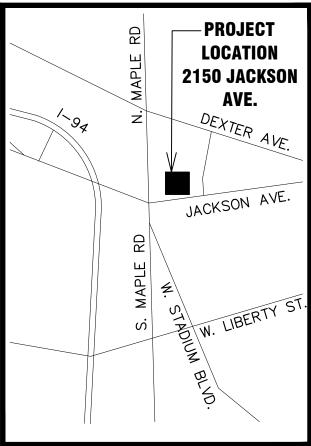


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**VETERANS PARK ICE ARENA IMPROVEMENTS** 

> SECTIONS AND DETAILS

HRC JOB NO. SCALE AS NOTED 20210971 NO. S-1 May 2022

### **GENERAL NOTES:**

ELEMENTS ADJACENT TO HIS WORK.

- 1. EXISTING CONDITIONS OF THE STRUCTURE/AREA SHOWN ARE BASED ON EXISTING DRAWINGS. ALL EXISTING DIMENSIONS, CONDITIONS, SIZES AND EQUIPMENT LOCATIONS ARE TO BE FIELD VERIFIED, PRIOR TO CONSTRUCTION. CONFLICTS OR INCONSISTENCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF WORK
- 2. ALL CONSTRUCTION MUST CONFORM TO CURRENT MIOSHA SAFETY STANDARDS. 3. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO

ENSURE THAT NO DAMAGE SHALL COME TO THE EXISTING FACILITIES, UTILITIES AND

- 4. CONTRACTOR TO PROTECT THOSE EXISTING ELEMENTS DESIGNATED TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OF ANY ELEMENTS DAMAGED
- 5. THE CONTRACTOR SHALL NOT BURN, CUT, DRILL OR MODIFY STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ENGINEER.
- 6. THE CONTRACTOR'S PREPARATION AND SUBMISSION INFORMATION, CERTIFICATION, DATA SHEETS, SHOP DRAWINGS, ETC. FOR ENGINEERS APPROVAL OF ALL MATERIALS USED SHALL BE INCLUDED IN THE PROJECT AND SHALL NOT BE PAID FOR
- 7. THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE
- 8. CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER PRIOR TO INSTALLATION OR FABRICATION OF ANY COMPONENTS.
- 9. CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL OWNER REQUIREMENTS AND CONDITIONS.
- 10. THE CONTRACTOR SHALL KEEP THE SITE IN A NEAT AND ORDERLY CONDITION AND SHALL REMOVE RUBBISH DAILY OR AS DIRECTED BY THE OWNER. ALL STAGING AND MATERIAL STORAGE SHALL BE COORDINATED WITH THE OWNER. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO ISOLATE CONSTRUCTION ACTIVITIES FROM ADJACENT AREAS THAT ARE TO REMAIN IN OPERATION DURING CONSTRUCTION.
- 11. SHOP DRAWINGS AND PRODUCT DATA THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND PROJECT ENGINEER, SHOP DRAWINGS AND PRODUCT DATA SUBMITTALS FOR ALL PRODUCTS AND COMPONENTS TO BE USED ON THE PROJECT, INCLUDING TEMPORARY SUPPORTS.
- 12. INSTALL ALL MATERIALS IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS AND CODE REQUIREMENTS.
- 13. FIELD CUTTING OF REINFORCEMENT, WHERE NOTED, SHALL BE CUT BY MECHANICAL MEANS. FLAME CUTTING OF REINFORCEMENT IS NOT ACCEPTABLE
- 14. DO NOT USE DRAWING SCALES CONTAINED WITHIN THESE CONTRACT DOCUMENTS. SCALES ARE NOT ACCURATE AND ARE PROVIDED FOR CONVENIENCE ONLY.

## **SHORING NOTES:**

- 1. CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN TO PREPARE ANY REQUIRED SHORING OR TEMPORARY BRACING DRAWINGS, INCLUDING THE CONTRACTOR'S PROPOSED SHORING PROCEDURE. SEALED SHORING DRAWINGS, CALCULATIONS, AND SHORING PROCEDURE SHALL BE SUBMITTED FOR RECORD PRIOR TO COMMENCING WORK.
- 2. CONTRACTOR SHALL ESTABLISH A BENCHMARK TO DETERMINE AND MONITOR ALL ELEVATION CHANGES DURING THE PROCEDURE.
- 3. SHORING SHALL BE PERFORMED USING CALIBRATED JACKS. JACK SPECIFICATION AND RECENT CERTIFICATION SHALL BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCING
- 4. SHORING LOAD SHALL BE APPLIED TO THE STRUCTURE UNIFORMLY AND GRADUALLY, APPROXIMATELY 20% EVERY 30 MINUTES, TO TRANSMIT THE FORCES IN A STATIC
- 5. SHORING LOAD SHALL BE REMOVED FROM THE STRUCTURE UNIFORMLY AND GRADUALLY, APPROXIMATELY 20% EVERY 30 MINUTES, TO PREVENT THE APPLICATION OF IMPACT FORCES TO THE STRUCTURE.

- 1. ALL DEMO'D COMPONENTS TO BE PROTECTED AND CAREFULLY REMOVED FOR SALVAGE / REUSE AS NOTED. DEMOLISHED ITEMS THAT ARE NOT TO BE REUSED ARE TO BE REMOVED FROM PROJECT SITE PROMPTLY AND DISPOSED IN ACCORDANCE WITH OWNER STANDARDS. PROTECT EXISTING FACILITIES IN A MANNER AS TO NOT ADVERSELY AFFECT THE EXISTING FACILITIES OPERATIONS.
- 2. VERIFY ALL POINTS OF EXIST. BEARING AND PROVIDE TEMPORARY SUPPORT/ SHORING AS REQ'D UNTIL ALL EXISTING BEARING CONDITIONS ARE VERIFIED AND TRANSFERRED TO PERMANENT SUPPORT, VERIFY CAPACITY OF EXIST, LOAD CARRYING
- 3. PROTECT EXISTING FACILITIES IN A MANNER AS TO NOT ADVERSELY AFFECT THE EXISTING FACILITIES OPERATIONS AND SURROUNDING NEIGHBORS.
- 4. THE BUILDING DESIGN ENGINEER/ ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE DESIGN OR PROPER INSTALLATION OF TEMPORARY BUILDING BRACING OR SHORING REQUIRED TO REMOVE THE DESIGNATED PORTION OF THE PROJECT.
- 5. CONTRACTOR IS TO ASSUME THAT THE EXISTING PAINT AT SURFACES IN AFFECTED AREAS IS LEAD—CONTAINING, AND IS TO BE HANDLED IN ACCORDANCE WITH ALL STATE AND FEDERAL GUIDELINES.
- 6. PROVIDE INFILL CONCRETE SLAB TO MATCH AND ALIGN WITH EXISTING WHERE SAWCUT FOR NEW UTILITIES - EXISTING BASE TO BE RECOMPACTED PRIOR TO PLACEMENT TO ENSURE SETTLEMENT WILL NOT OCCUR.
- 7. DURING SELECTIVE REMOVAL OF MASONRY UNITS, DOOR FRAMES, ETC., DO NOT DAMAGE ADJACENT EXISTING UNITS TO REMAIN. DO NOT PRY AGAINST EXISTING UNITS TO REMAIN. REPAIR ALL DAMAGE INCURRED TO LIKE NEW APPEARANCE.

## STRUCTURAL STEEL NOTES:

## A. GENERAL

- 1. STRUCTURAL STEEL CONTRACTOR/FABRICATOR SHALL ESTABLISH FABRICATION SCHEDULE WITH SEQUENCING COORDINATED WITH THE OWNER PRIOR TO DETAILING AND FABRICATION ACTIVITIES. DRAWING SUBMITTAL REVIEW WILL BE BASED ON FABRICATION SEQUENCES. SUBMITTALS MUST BE MADE PRIOR TO FABRICATION. MULTIPLE SEQUENCE SUBMITTALS SHOULD NOT BE MADE. SUBMIT COMPLETE AND CHECKED ERECTION DRAWINGS WITH EACH STEEL SHOP DRAWING SUBMITTAL.
- 2. THE ENGINEERS SIGNATURE ON THE SHOP DRAWINGS IS TO BE INTERPRETED ONLY AS A REVIEW OF THE GENERAL FABRICATION DESIGN REQUIREMENTS. THE SIGNATURE DOES NOT RELIEVE THE CONTRACTOR OF THE NECESSITY TO CORRECT DETAILS ON THE DRAWINGS OR COMPLETED WORK I THE FIELD AS MY THEREAFTER BE FOUND TO BE DEFICIENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS NOTED ON THE SHOP DRAWINGS ALONG WITH ALL SHOP/FIELD FABRICATION ERRORS
- 3. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS:
- A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL
- CONSTRUCTION (14TH EDITION—ASD) INCLUDING: - AISC 303 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND
- BRIDGES, LATEST EDITION - AISC 360 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST
- RSCS SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH
- BOLTS, LATEST EDITION B. AISC DESIGN GUIDE 27 - STRUCTURAL STAINLESS STEEL, LATEST EDITION
- C. MIOSHA PART 26 SAFETY STANDARDS FOR STEEL ERECTION, FINAL
- D. GOVERNING LOCAL OR STATE CODES

STEEL SHALL BE GROUND SMOOTH.

- 4. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM REQUIREMENTS
- A. WIDE FLANGE SHAPES- ASTM A992, GR 50 (FY = 50,000 PSI)
- B. ANCHOR BOLTS & THREADED RODS ASTM F1554, GR 105 (FY = 105,000 PSI)
- C. ANCHOR BOLTS IN MASONRY ASTM A449 (FY = 81,000 PSI)
- D. ANGLE, BARS, BASE PLATES, CHANNEL, PLATES— ASTM A572, GR 50 (FY = 50,000 PSI
- E. S SHAPES- ASTM A36, GR 36 (FY = 36,000 PSI)
- 5. STRUCTURAL STAINLESS-STEEL (SS) SHALL CONFORM TO THE FOLLOWING ASTM REQUIREMENTS (UON):
- A. ANCHOR BOLTS & THREADED RODS ASTM F593—CW2 316 (FY =
- 45,000 PSI) B. ANGLE, BARS, BASE PLATES, CHANNEL — ASTM A276, TYPE 316, (FY =
- 34,000 PSI)
- C. PLATE, SHEET, STRIP- ASTM A240, TYPE 316 (FY = 34,000 PSI)
- 6. BASE PLATE GROUT AND GROUT PADS IN GENERAL (UON) SHALL CONSIST OF NON-SHRINK, NON-METALLIC, NON-STAINING DIMENSIONALLY STABLE, INORGANIC GROUT AS MANUFACTURED BY THE EUCLID CHEMICAL COMPANY "NS GROUT", OR EQUAL, WITH A MINIMUM COMPRESSIVE STRENGTH OF 7,000

D. TUBE, HOLLOW SECTIONS, PIPE- ASTM A312, TYPE 316 (FY = 30,000 PSI)

- PSI AT 28-DAYS. 7. ANCHOR BOLT, SETTING DIAGRAMS AND TEMPLATES SHALL BE SUPPLIED BY THE STEEL CONTRACTOR AND SET PLUMB AND VERTICAL BY THE FOUNDATION CONTRACTOR. LEVELING NUTS AND/OR LEVELING PLATES SHALL BE USED FOR LEVELING COLUMN BASE PLATES. GROUT COLUMN BASE PLATES ONLY AFTER
- ALL STEEL HAS BEEN ERECTED. PLUMBED AND SQUARED. 8. ALL PROJECTED CORNERS, BURS, EXPOSED EDGES AND SHARP CORNERS OF
- 9. COORDINATE ALL PAINTING REQUIREMENTS WITH SPECIFICATIONS SECTION

BY SHERWIN-WILLIAMS, HI-BULID EPOXOLINE II SERIES N69 BY TNEMEC. OR

- 9900. CONTRACTOR SHALL MAKE PROVISIONS FOR PAINT TOUCH-UP IN FIELD. 10. ALL STRUCTURAL STEEL SHALL BE GALVANIZED PER ASTM A123 AND SHOP COATED WITH TOTAL DRY FILM THICKNESS OF 20 MILS OF MACROPOXY 646
- APPROVED EQUAL. 11. FLAME CUTTING OF MEMBERS AND HOLES IS STRICTLY PROHIBITED. PLUG-WELD, GRIND AND RE-DRILL HOLES THAT DO NOT LINE UP (MIS-FABRICATED). REAM UNDERSIZED HOLES. CONTACT OWNERS REPRESENTATIVE OR ARCHITECT-ENGINEER FOR CONDITIONS WHERE MEMBER FIT-UP REQUIRES FIELD MODIFICATION. SEE SPECIFICATIONS FOR FURTHER

# B. BOLTING:

INFORMATION.

- 1. ALL STRUCTURAL STEEL CONNECTIONS SHALL BE BOLTED UNLESS NOTED OR DETAILED OTHERWISE ON THESE PLANS
- 2. (HS) AND (A325) REFER TO HIGH STRENGTH BOLTS CONFORMING TO THE REQUIREMENTS OF ASTM F3125 GR A325. HIGH STRENGTH BOLTS SHALL BE 3/4" DIAMETER, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 3. ALL HOLES FOR BOLTS SHALL BE ACCURATELY SPACED AND SHALL BE A DIAMETER 1/16" GREATER THAN THE NOMINAL DIAMETER OF THE BOLT (STANDARD), UNLESS OTHERWISE NOTED ON THE DRAWINGS. FOR GALVANIZED MEMBERS, HOLES FOR BOLTS SHALL BE A DIAMETER 1/8" GREATER THAN THE NOMINAL DIAMETER OF THE BOLT (OVERSIZED), UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 4. ALL BOLTS (UON) SHALL BE HIGH STRENGTH BOLTS (ASTM F3125 GR 325) OR HIGH STRENGTH SS BOLTS (ASTM A320 GR B8M CL 2, FY = 95,000 PSI) AND SHALL BE TIGHTENED BY CALIBRATED WRENCHES OR "TURN OF THE NUT" METHOD TO ACHIEVE A SLIP CRITICAL CONNECTION. IMPACT WRENCHES SHALL BE CALIBRATED DAILY FOR THE SIZE OF BOLTS BEING CURRENTLY PLACED. ONLY NEW BOLTS AND NUT ARE TO BE USED. HARDENED FLAT WASHERS SHALL BE USED IN THE CALIBRATOR, THE SAME AS IN THE ACTUAL STRUCTURE, ON THE TIGHTENED SIDE. LOCK WASHERS AND LOCK NUTS ARE STRICTLY PROHIBITED. ADDITIONALLY, THE USE OF MACHINE BOLTS FOR STRUCTURAL CONNECTIONS IS PROHIBITED.
- 5. HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED PER ASTM F329 (UON)

## WELDING:

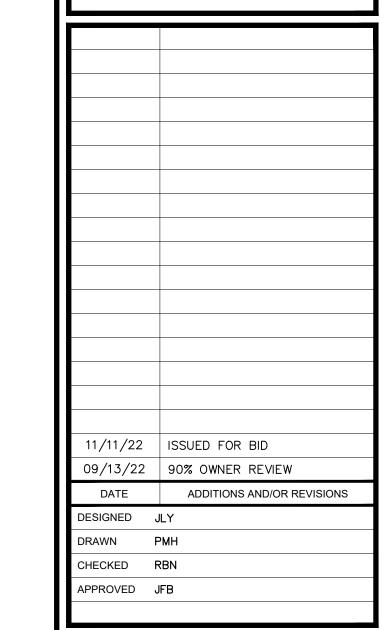
- 1. ALL WELDING AND WORKMANSHIP SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS:
- A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL
- CONSTRUCTION (14TH/ EDITION ASD) INCLUDING: -AISC 303 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND
- BRIDGES, LATEST EDITION
- AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST
- B. AMERICAN WELDING SOCIETY D.1.1 CODE FOR WELDING IN BUILDING CONSTRUCTION AND APPLICABLE ADDENDA AND SUPPLEMENTS
- C. AMERICAN WELDING SOCIETY D.1.6 CODE FOR WELDING IN BUILDING CONSTRUCTION AND APPLICABLE ADDENDA AND SUPPLEMENTS
- 2. ALL SHOP AND FIELD WELDING SHALL BE DONE BY THE SHIELDED METAL ARC WELDING PROCESS AND BY PROPERLY QUALIFIED AND CERTIFIED WELDERS.
- 3. LOW HYDROGEN E-70 ELECTRODES 1/4" OR LESS IN DIAMETER SHALL BE USED.
- MINIMUM SIZE OF WELD PROVIDED TO TRANSMIT STRESSES SHALL BE 3/16".
- 4. WELD SIZE INDICATED IS THE LEG SIZE, OR THE SIZE OF CONTACT A WELD HAS WITH EACH MEMBER JOINED BY IT.
- 5. SURFACE OF MEMBERS TO BE WELDED SHALL BE FREE FROM LOOSE SLAG, SCALE, RUST, GREASE, PAINT OR OTHER FOREIGN MATERIAL. SURFACES WHICH WERE PAINTED BEFORE WELDING SHALL HAVE THE PAINT REMOVED TO EXPOSE CLEAN STEEL SURFACE PRIOR TO WELDING.

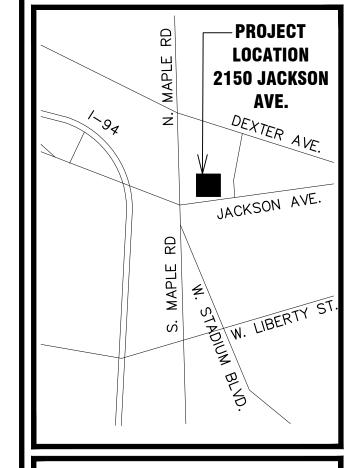
## CMU WALL AND COLUMN REPAIR NOTES:

- 1. BRICK TIE: HOHMANN & BARNARD TYPE 316 STAINLESS STEEL, HOT-DIP GALVANIZED 359 WELD-ON TIES; WITH TYPE 316 STAINLESS STEEL, HOT-DIP GALVANIZED, 3/16" DIAMETER VBT-VEE BYNA-TIE, OR APPROVED EQUAL
- 2. FLASHING: MANUFACTURER'S STANDARD COMPOSITE FLASHING PRODUCT CONSISTING OF A PLIABLE AND HIGHLY ADHESIVE RUBBERIZED-ASPHALT COMPOUND, BONDED TO A HIGH-DENSITY, CROSS-LAMINATED POLYETHYLENE FILM TO PRODUCE AN OVERALL THICKNESS OF 0.040 INCH (1.0 MM)
- A. W.R. GRACE & CO., CONSTRUCTION PRODUCTS DIVISION, PERM-A-BARRIER WALL FLASHING.
- B. HOHMANN & BARNARD, INC., TEXTROFLASH.
- C. WILLIAMS PRODUCTS, INC., EVERLASTIC MF-40.
- 3. WEEPS: PROVIDE CAVCLEAR WEEP VENTS MANUFACTURED BY CAVCLEAR/ARCHOVATIONS, INC., HUDSON WI 54016, (888)-436-2620 OR
- APPROVED EQUAL. A. NON-WOVEN MESH WITH M NOTCHED BOTTOM.
- B. COLOR TO MATCH MORTAR AS SELECTED BY THE OWNER. C. SIZE: 3/8 INCH BY 2 ½ INCHES HIGH BY 3 ½ INCHES WIDE.
- 4. INCLUDES THE PROVIDING OF ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM ALL WORK ASSOCIATED WITH THE REMOVAL AND OFF-SITE DISPOSAL OF STEEL AND MASONRY; THE FURNISHING, INSTALLATION AND NON-DESTRUCTIVE TESTING OF THE REPAIR MATERIALS AND ALL ASSOCIATED REPAIR ITEMS AS NOTED. THE CONTRACTOR SHALL BE PAID IN FULL FOR ALL COST ASSOCIATED WITH THIS WORK AFTER COMPLETION OF THE WORK. ITEMS INDIVIDUAL (NOT PAID FOR SEPARATELY):
- CONTRACTOR SHALL FURNISH ALL ACCESS LADDERS, SCAFFOLDING AS
- NECESSARY FOR ENGINEER'S DETERMINATION LIMITS OF REPAIR. TEMPORARY SHORING FOR MASONRY AND BEAMS. TEMPORARY SHORING CALCULATIONS AND ERECTION DRAWINGS SHALL BE PREPARED BY, OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN AND SHALL BEAR THEIR SEAL. ALL APPLICABLE
- CALCULATIONS SHALL BE SEALED/CERTIFIED AND INCLUDED WITH THE APPROPRIATE ERECTION DRAWING SUBMITTAL.
- REMOVAL AND OFF-SITE DISPOSAL OF MASONRY AND STEEL • PREPARE SURFACE OF THE EXPOSED STEEL PER MANUFACTUREWR'S SURFACE
- PREPARATION RECOMNMENDATION. • INSTALLATION OF MASONRY INCLUDING BRICK TIES, FLASHING, AND WEEPS.



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# **VETERANS PARK ICE ARENA IMPROVEMENTS**

STRUCTURAL PROJECT **NOTES** 

HRC JOB NO. SCALE AS NOTED 20210971 S-2 May 2022