



# CITY OF NEGAUNEE

## PLAN OF PROPOSED ROCK STREET RETAINING WALL RESTORATION PROJECT



**DESCRIPTION OF PROJECT:**  
PROJECT CONSISTS OF INSTALLATION OF GUARDRAIL AND CONCRETE RETAINING WALL SURFACE RESTORATIONS.

**UTILITIES - PROJECT CONTACTS**

THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT-OF-WAY OF THIS PROJECT:

**WATER/SEWER/STORM/ELECTRIC**  
CITY OF NEGAUNEE PUBLIC WORKS  
600 CHERRY STREET  
NEGAUNEE, MI 49866  
ATTN: MARK DAAVETILLA  
PHONE: 906-475-9991

**CABLE:**  
NEGAUNEE CABLE COMPANY  
225 N. PIONEER AVE  
NEGAUNEE, MI 49866  
PHONE: 906-464-6064

**CABLE:**  
CHARTER COMMUNICATIONS  
359 US 41 EAST  
NEGAUNEE, MI 49866  
ATTN: HERB WALLINE  
PHONE: 906-401-0639

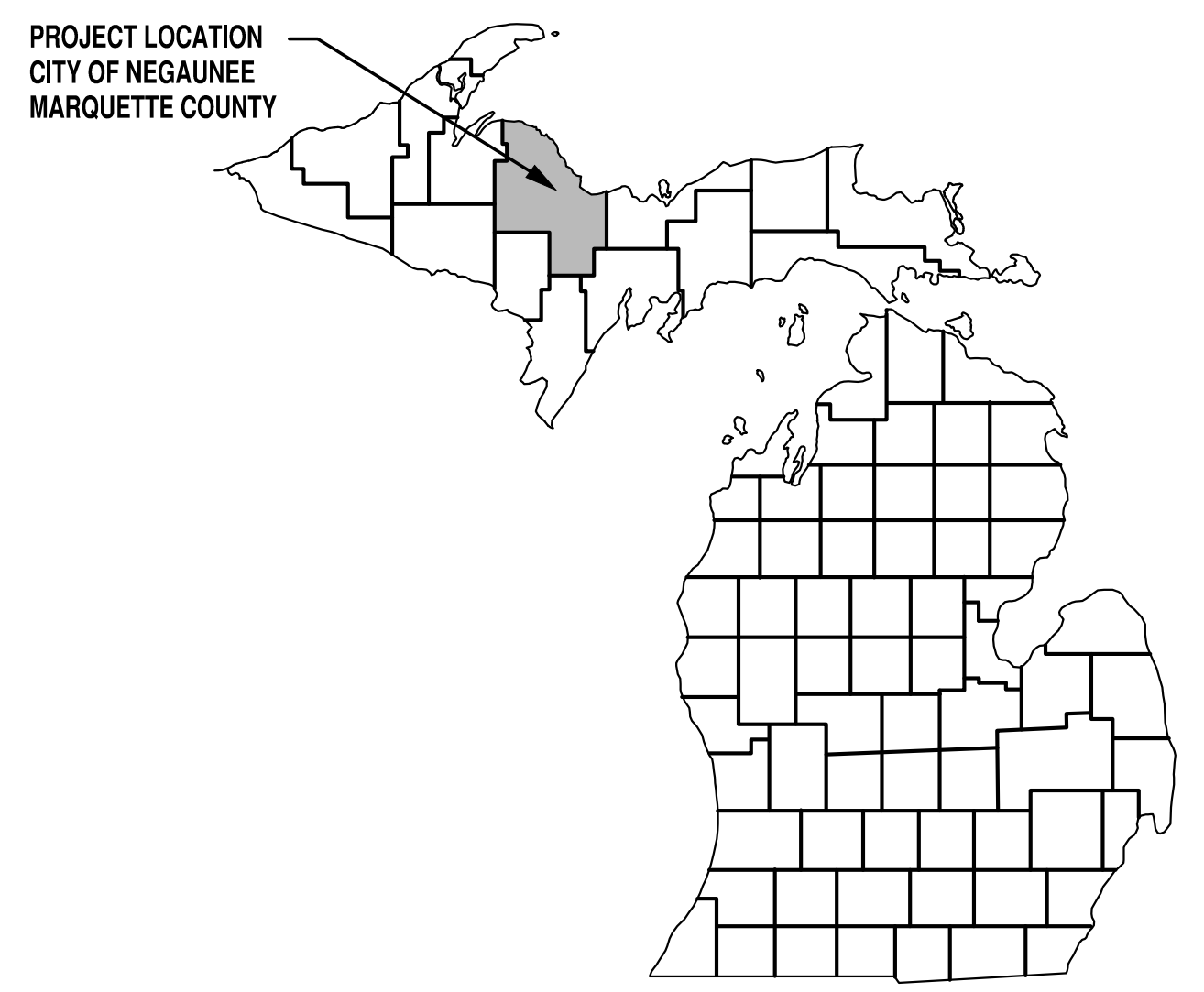
**TELEPHONE:**  
AT&T  
200 NORTH 3RD STREET  
MARQUETTE, MI 49855  
ATTN: KURT BABCOCK  
PHONE: 906-225-6168

**GAS:**  
SEMCO ENERGY, INC  
34 US HWY 41 E  
NEGAUNEE, MI 49866  
ATTN: ROBERT BORTOLAMEOLLI  
PHONE: 906-475-9901 5911

CONTRACTOR SHALL COORDINATE ALL OF THEIR WORK AND THE UTILITY COMPANIES RELOCATION WORK AT NO ADDITIONAL COST TO THE PROJECT.

FOR PROTECTION OF UNDERGROUND UTILITIES, AND IN CONFORMANCE WITH PUBLIC ACT 53, 1974, THE CONTRACTOR SHALL CALL TOLL FREE 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. ALL "MISS DIG" PARTICIPATING MEMBERS WILL BE THUS ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR FROM NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

**ROCK ST RETAINING WALL RESTORATION PROJECT**  
CITY OF NEGAUNEE  
NEGAUNEE, MICHIGAN



PROJECT LOCATION  
ROCK STREET  
BETWEEN PIONEER  
AVE AND TEAL LAKE  
AVE.



**LOCATION MAP**  
SCALE: 1"=600'

PLAN INDEX	
SHEET	DESCRIPTION
G001	COVER SHEET
C1.0	PROPOSED PLAN AND PROFILE
C2.0	DETAILS AND TECHNICAL SPECIFICATIONS

**CITY OF NEGAUNEE**

NATE HEFFRON, CITY MANAGER \_\_\_\_\_ DATE \_\_\_\_\_

**PREPARED UNDER SUPERVISION OF**

**KEVIN O. NANCARROW, P.E.**  
REGISTERED PROFESSIONAL ENGINEER

**U.P. ENGINEERS AND ARCHITECTS, INC.**  
ORGANIZATION

**424 S. PINE STREET, ISHPEMING, MI 49849**  
ADDRESS

ISSUED FOR:	DATE:
ISSUED FOR BIDS	2-25-21
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CITY OF NEGAUNEE  
ROCK ST RETAINING WALL RESTORATION PROJECT

PROJECT NO: 01403

DESIGNED BY:	KN
DRAWN BY:	DP
CHECKED:	KN
APPROVED:	KN

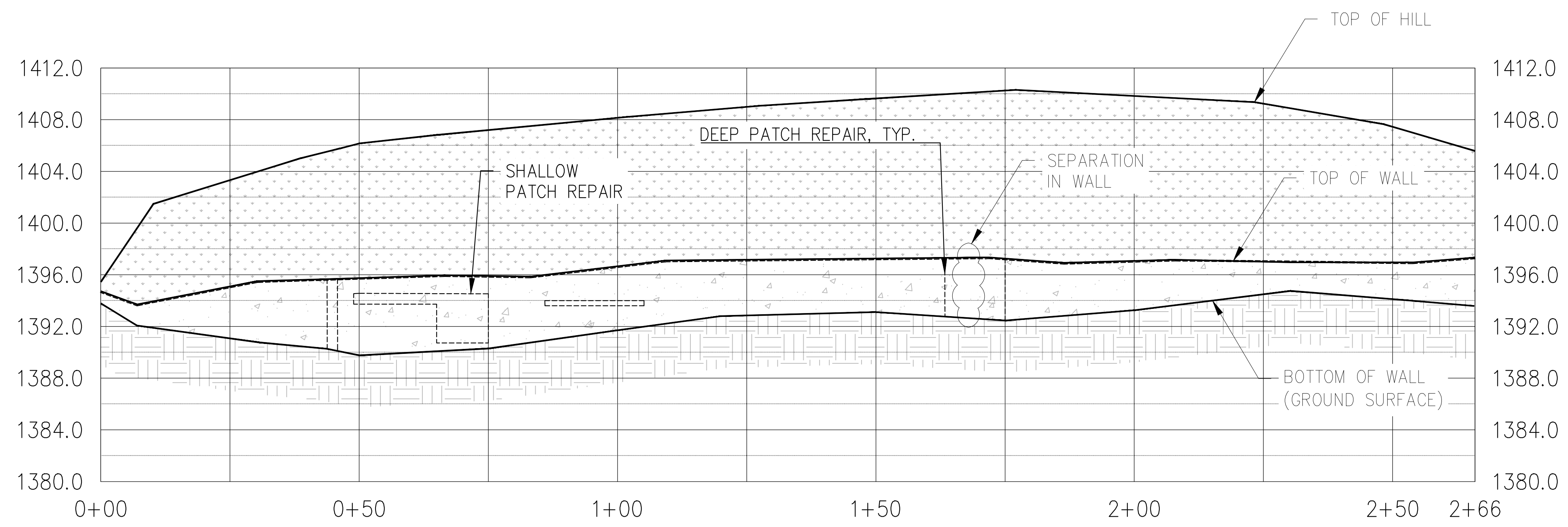
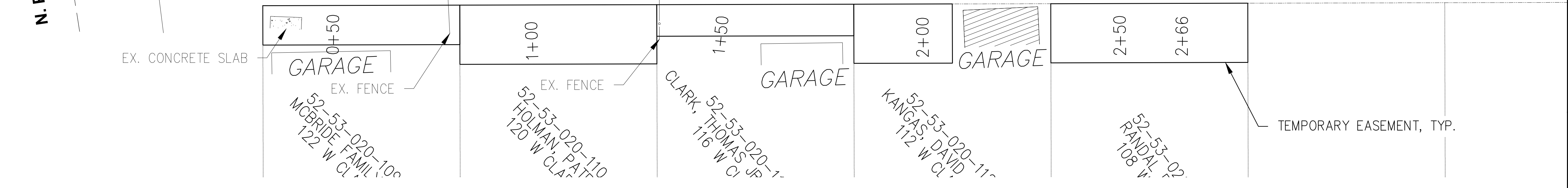
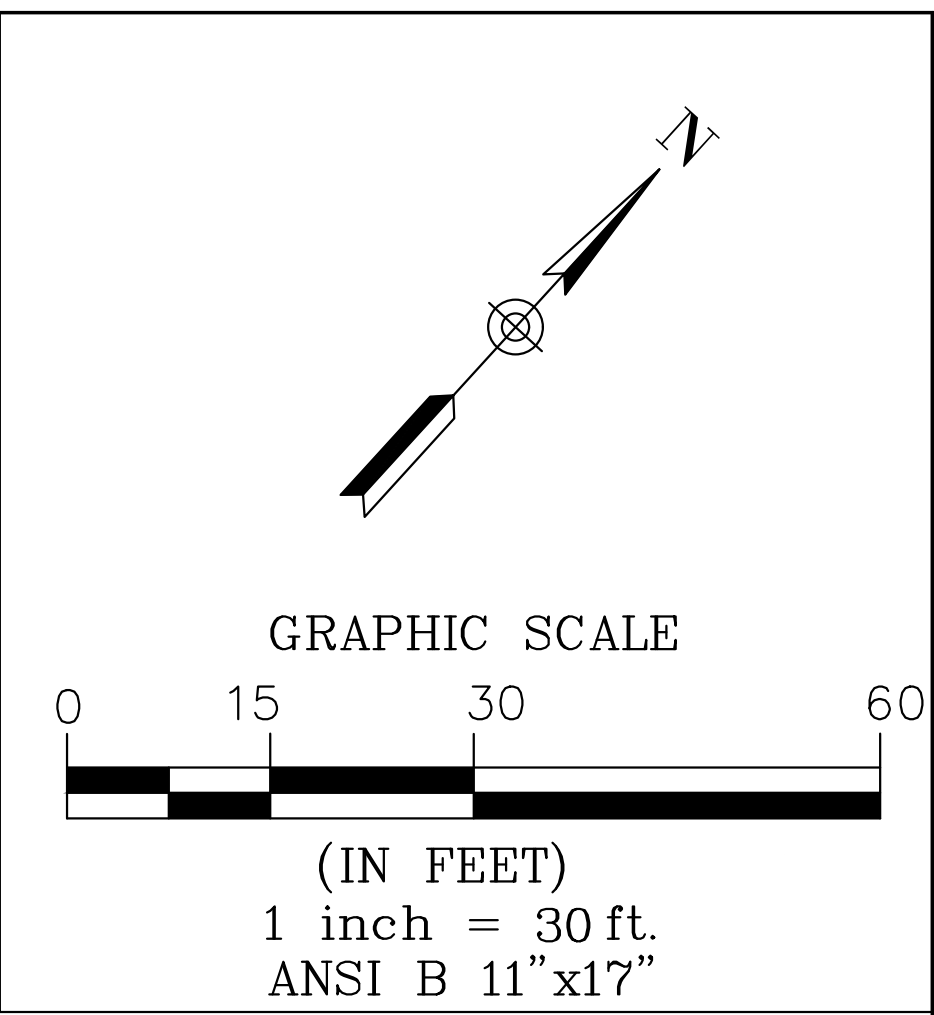
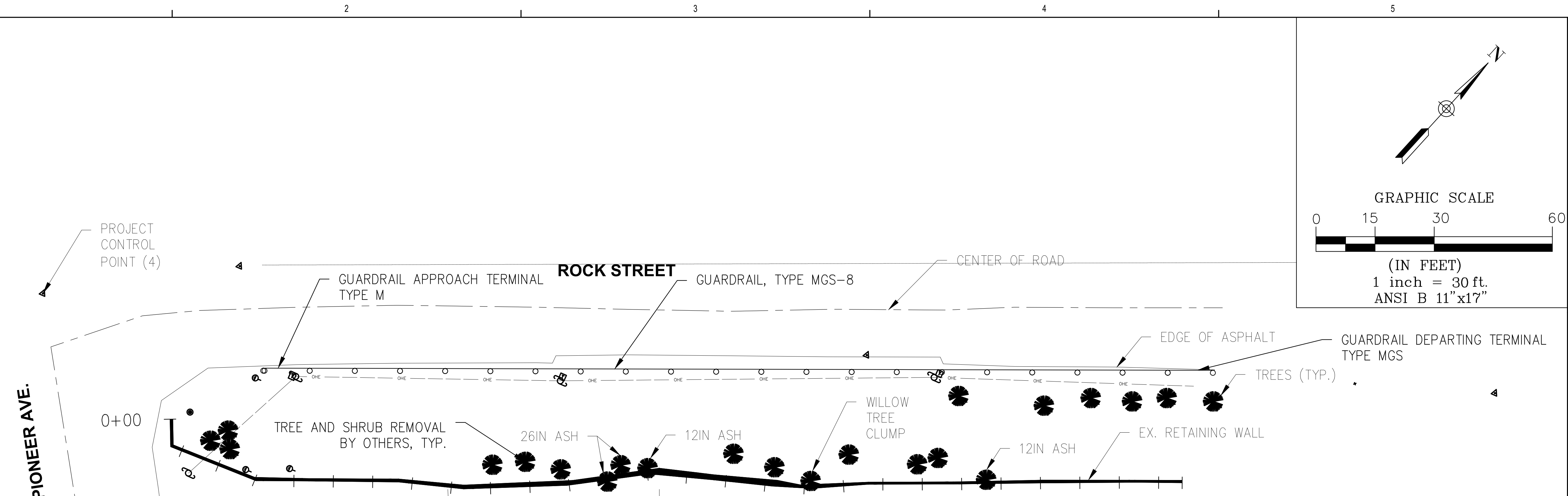
**COVER SHEET**

**G001**



**U.P. ENGINEERS & ARCHITECTS, INC.**  
ENGINEERING ARCHITECTURE PLANNING SURVEYING ENVIRONMENTAL

250202 12:42 PM P:\101040 NEGAUNEE CITY-ROCK STREET RETAINING WALL\DRWG\PHASE 1 WATER - COVER.DWG

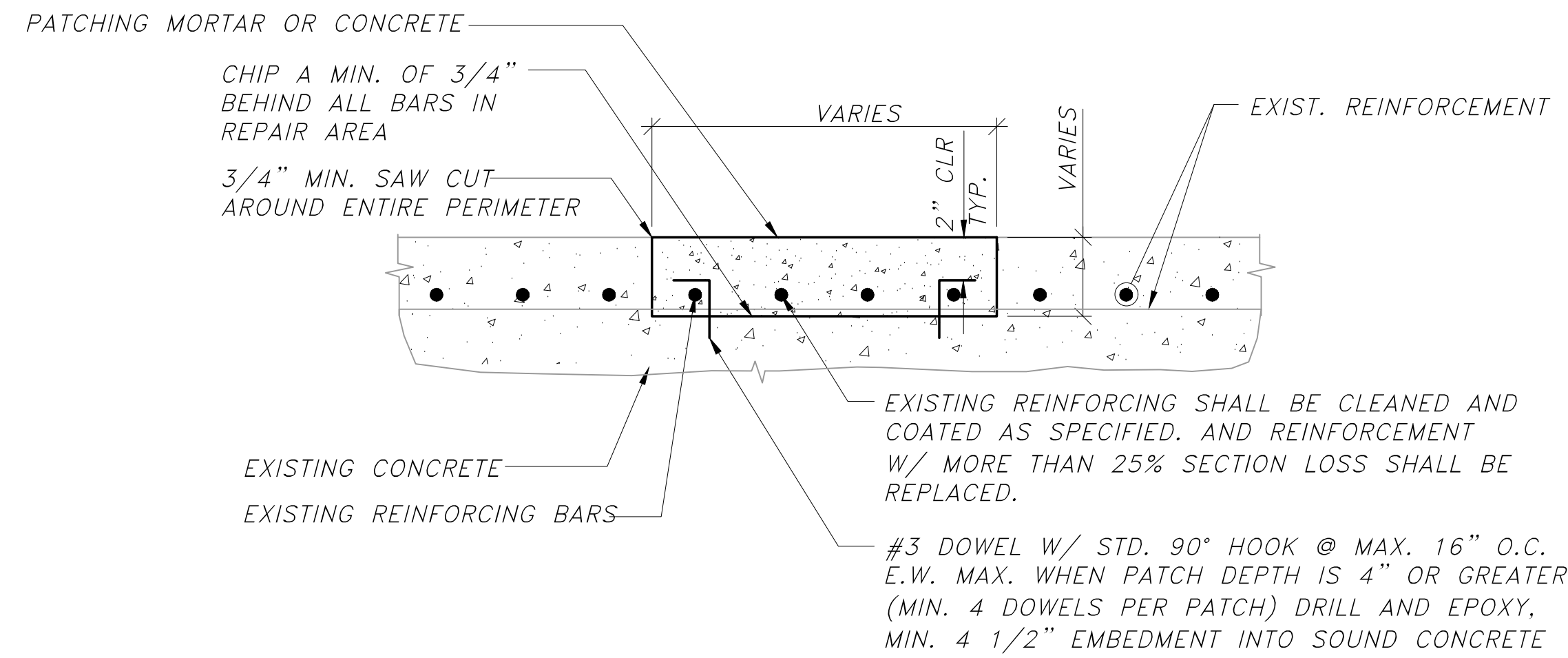


**PATCH REPAIR NOTES:**  
 1) SEE EXECUTION REQUIREMENTS ON SHEET C2.0. PATCH REPAIR AREAS IDENTIFIED ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED BY THE OWNER/ENGINEER PRIOR TO CONSTRUCTION. THE GENERAL INTENT OF THIS PROJECT IS TO PROVIDE SURFACE COATING TO THE WALL AND SIGNIFICANT DEMOLITIONS AND REPLACEMENTS ARE NOT ANTICIPATED.  
 2) COPIES OF TEMPORARY CONSTRUCTION EASEMENTS SIGNED BY CLARK STREET RESIDENTS THAT DETAIL CONSTRUCTION EASEMENTS WILL BE PROVIDED TO THE CONTRACTOR. EACH LOT HAS VARYING EASEMENT WIDTHS FROM THE RIGHT-OF-WAY FROM 8' TO 15'.

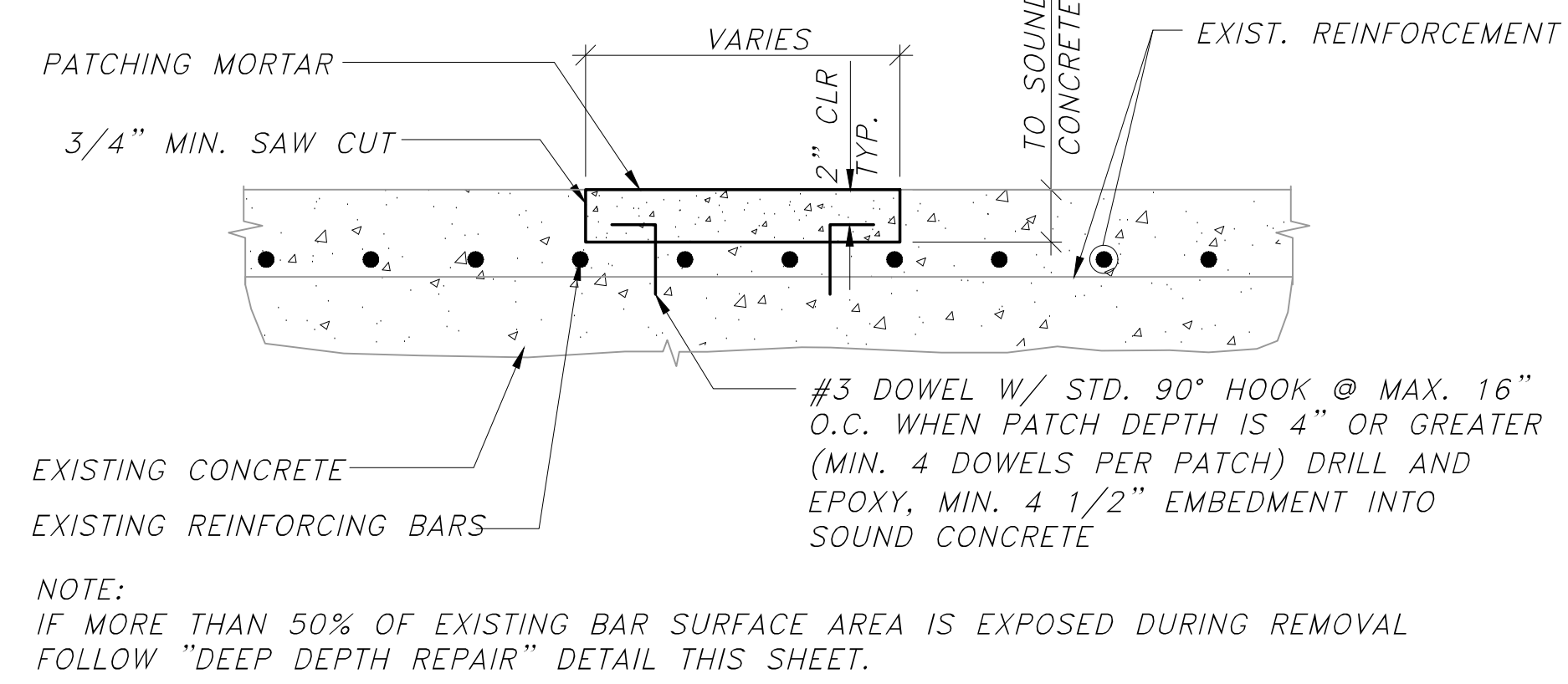
**ROCK ST RETAINING WALL RESTORATION PROJECT**  
 CITY OF NEGAUNEE  
 NEGAUNEE, MICHIGAN

ISSUED FOR:	ISSUED FOR BIDS	####
	DATE:	2-25-21
CITY OF NEGAUNEE ROCK ST RETAINING WALL RESTORATION PROJECT	PROJECT NO:	01403
	DESIGNED BY:	KN
	DRAWN BY:	DP
	CHECKED:	KN
	APPROVED:	KN
	PROJECT NO:	01403

**PROPOSED PLAN & PROFILE**  
**C1.0**



**DEEP PATCH REPAIR**  
NOT TO SCALE



**SHALLOW PATCH REPAIR**  
NOT TO SCALE

**CONTRACTOR EXECUTION REQUIREMENTS**

- SUBSTANTIAL COMPLETION IS DESIRED PRIOR TO COLD WEATHER CONCRETE CONDITIONS. IN THE EVENT WEATHER CONDITIONS FALL BELOW 50 DEGREES FAHRENHEIT AT ANY TIME DURING CONSTRUCTION, THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE TO ACI 306 AT NO ADDITIONAL COST TO THE OWNER INCLUDING BUT NOT LIMITED TO TEMPORARY BLANKETS, TENTING, AND HEAT. THE CONTRACTOR ALSO SHALL FOLLOW ACI 305 DURING HOT WEATHER AT NO ADDITIONAL COST TO THE OWNER AND OBSERVE THAT THE ROCK STREET RETAINING WALL FACES SOUTH WITH LIMITED EXISTING SHADE COVER. THE CONTRACTOR SHALL MONITOR CEMENTIOUS WALL TEMPERATURES THROUGHOUT CONSTRUCTION.
- THE FOLLOWING IS THE PROPOSED SCHEDULE AND PROCEDURE FOR OPERATIONS TO BE FOLLOWED BY THE CONTRACTOR. THE CONTRACTOR MAY SUBMIT ALTERNATE MEANS AND METHODS FOR REVIEW AND APPROVAL.
  - CONTRACTOR TO SUBMIT ALL MATERIAL PRODUCT DATA AND PROJECT SCHEDULE TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO PROVIDE WRITTEN NOTIFICATION TO RESIDENTS AND RECEIVE CONTACT WITH HOME OWNERS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO PERFORM GENERAL CLEANING OF THE WALL INCLUDING EXPOSING THE TOP OF WALL FROM EARTHEN OF VEGETATION DEBRIS.
  - CONTRACTOR TO PERFORM POWER WASHING OF THE ENTIRE EXPOSED FRONT AND TOP WALL FACES AND REMOVE ANY LOOSE DEBRIS TO A CLEAN EXISTING SURFACE.
  - CONTRACTOR TO NOTIFY OWNER AND OWNER/ENGINEER TO PERFORM CLEAN WALL INSPECTION.
  - CONTRACTOR TO PROCEED WITH REPAIRS AS DIRECTED BY THE OWNER:
    - ALL "DEEP" PATCH REPAIRS OR REPAIRS REQUIRING MECHANICAL REMOVAL OF EXISTING CONCRETE IS TO BE DESIGNATED AND MARKED BY THE OWNER/ENGINEER PRIOR TO CONSTRUCTION.
    - CONTRACTOR TO REMOVE AND CLEAN ADDITIONAL CONCRETE AS DIRECTED, IF REQUIRED.
    - CONTRACTOR TO INSTALL DOWELS, IF REQUIRED, AND FORM AND POUR DEEP PATCHWORK USING SPECIFIED GROUT PER MANUFACTURERS AND ACI RECOMMENDATIONS AND REQUIREMENTS OR APPROVED REDI-MIX CONCRETE IN ACCORDANCE TO ACI.
    - REMOVALS AND REPLACEMENTS FOR THIS TYPE OF REPAIR SHALL BE MEASURED AND PAID FOR UNDER THE UNIT PRICE ITEMS "HAND CHIPPING, OTHER THAN DECK" "PATCHING MORTAR OR CONC.", AND "PATCH, FORMING".
      - SUBSTRATE TO BE SATURATED AS DIRECTED BY PRODUCT DATA IF REQUIRED.
    - CONTRACTOR TO PROCEED WITH SKIM COAT AND SHALLOW PATCH REPAIRS OF THE WALL FRONT VERTICAL FACE AND WALL HORIZONTAL CREST USING SIKAQUICK VOH OR APPROVED EQUAL, AND CURE AS SPECIFIED BY ACI AND/OR MANUFACTURER REQUIREMENTS AND RECOMMENDATIONS. THIS REPAIR WILL BE MEASURED AND PAID FOR UNDER THE UNIT PRICE ITEM "CONCRETE SHALLOW PATCHING"
    - CONTRACTOR TO APPLY FINISH COATING PER MANUFACTURER/ACI RECOMMENDATIONS AND REQUIREMENTS. MasterKure CC 160WB OR APPROVED EQUAL. THIS REPAIR WILL BE MEASURED AND PAID FOR UNDER THE UNIT PRICE ITEM "CONCRETE COATING".
- CONTRACTOR TO RESTORE DISTURBANCES BY CONSTRUCTION EFFORTS SUCH AS GRASS RESTORATION IF REQUIRED AND LEAVE THE SITE IN A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS. CONTRACTOR TO NOTIFY OWNER TO PERFORM FINAL INSPECTION OF THE SITE AND PERFORM FINAL CORRECTIONS AS DIRECTED. GRASS RESTORATION WILL BE MEASURED AND PAID FOR UNDER THE UNIT PRICE ITEM "SLOPE RESTORATION, NON-FREEWAY".
- GUARDRAIL INSTALLATION SHALL BE PERFORMED IN A MANNER TO LIMIT DISTURBANCES TO TRAFFIC FLOW AND ALLOW HOMEOWNER ACCESS TO DRIVEWAYS DURING CONSTRUCTION. ROCK STREET SHALL BE CLOSED TO THRU-TRAFFIC DURING CONSTRUCTION AND THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND/OR THE MDOT 2020 SPECIFICATIONS FOR CONSTRUCTION. ANY BARRIERS, FLAGGING, OR OTHER TRAFFIC CONTROL DEVICES ARE TO BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

**GENERAL NOTES**

- THESE PLANS ARE BASED ON FIELD OBSERVATIONS SUBJECT TO CHANGE. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND REPORT DISCREPANCIES TO THE OWNER PRIOR TO COMMENCING WORK.
- CONCRETE DEMOLITION SHALL BE PERFORMED BY SAW CUTTING AROUND THE REPAIR AREAS AND USING CHIPPING AND/OR HYDRO-DEMOLITION TECHNIQUES TO REMOVE MATERIAL TO SOUND CONCRETE. LIMIT CHIPPING HAMMERS TO THE SMALLEST SIZE WHICH WILL REMOVE THE LOOSE MATERIAL TO AVOID CRACKING SOUND CONCRETE. EXISTING REINFORCING STEEL (IF ENCOUNTERED) SHALL BE LEFT IN PLACE AND CLEANED FREE OF CORROSION. THE FINAL SURFACE SHALL BE CLEANED WITH A 6,000 PSI WATER BLASTER TO ASSURE ALL LOOSE MATERIAL IS REMOVED. LEAVE 1/4 INCH PROFILE ON CLEANED SURFACE TO PROMOTE ADHESION OF NEW CONCRETE.
- MATERIAL REQUIREMENTS:
 

CEMENTITIOUS PATCHING FOR REPAIRS LESS THAN 3" INCHES THICK SHALL BE SikaQuick VOH OR APPROVED EQUAL. MIX AND APPLY PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CEMENTITIOUS CAST-IN-PLACE PATCHING CONCRETE FOR FORMED REPAIRS GREATER THAN 3" INCHES THICK SHALL BE MASTEREMACO S 466CI OR APPROVED EQUAL. MIX AND APPLY PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REDI-MIX CONCRETE MAY BE APPROVED FOR LARGE PATCHWORK WITH REVIEW OF MIX DESIGN BY OWNER. LARGE SCALE REMOVALS AND REPLACEMENTS OF CONCRETE ALONG THE ROCKWALL FACE ARE NOT ANTICIPATED FOR THIS PROJECT.

ALL REPAIRS AND CLEANED EXISTING CONCRETE IS TO BE COATED WITH MasterKure CC 160WB OR APPROVED EQUAL.

REINFORCING STEEL, ASTM A615, GRADE 60

ADHESIVE ANCHORING SYSTEM, HILTI HY-200
- DESIGN, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE FOLLOWING STANDARDS:
  - ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE
  - ACI 305, HOT WEATHER CONCRETING
  - ACI 306, COLD WEATHER CONCRETING
  - ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES
  - ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
  - 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- WET CURE EXPOSED PATCHING SURFACES FOR A MINIMUM OF 7 DAYS BY LEAVING FORMS IN PLACE, USING WATER-SATURATED ABSORPTIVE COVERS OR CURING COMPOUND COMPLYING WITH ASTM C309.
- PROVIDE ENCLOSURE AND HEAT PATCHING MATERIALS AND EXISTING CONCRETE TO AT LEAST 40 DEGREES FAHRENHEIT. MAINTAIN TEMPERATURES ABOVE 32 DEGREES FAHRENHEIT FOR AT LEAST 7 DAYS FOR CONCRETE PATCH REPAIRS. STORE 1 EXTRA CYLINDER / GROUT CUBE ON SITE WITHIN THE ENCLOSURE IN ACCORDANCE WITH ACI 306.
- REPAIR CONCRETE SURFACE CRACKING AND SPALLING PER GENERAL NOTES AND PATCH REPAIR DETAILS ON THIS SHEET. FINAL LIMITS OF CONCRETE REMOVAL AND REPLACEMENT TO BE APPROVED BY OWNER PRIOR TO COMMENCING THE WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER ONCE THE WALL HAS BEEN POWER WASHED AND/OR CLEANED TO ALLOW FOR INSPECTION AND APPROVAL OF PATCHING REPAIR PLAN. NO HAMMER CHIPPING, SAWCUTTING, OR CONCRETE REMOVALS OTHER THAN BY POWER WASHING SHALL BE COMMENCED WITHOUT PRIOR INSPECTION AND APPROVAL BY THE OWNER TO PROCEED.
- CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROHIBIT DEBRIS AND DISTURBANCES ON ADJACENT RESIDENTIAL PRIVATE PROPERTY. THE CONTRACTOR HOLDS ALL RESPONSIBILITY FOR PROTECTION OF PRIVATE PROPERTY AND THE CITY OF NEGAUNEE SHALL NOT BE HELD LIABLE FOR ANY DAMAGES OR CLAIMS. RESTORATION BEYOND THE PROJECT WORK LIMIT OF THE ROCK ST. RIGHT-OF-WAY SHALL BE PERFORMED AT NO COST TO THE CITY OF NEGAUNEE. TEMPORARY CONSTRUCTION EASEMENTS HAVE BEEN PROVIDED TO ALLOW 8'-15' OF ADDITIONAL CLEARANCE FROM THE RIGHT-OF-WAY WHICH IS WITHIN 3' OF THE WALL FACE IN CERTAIN LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY RESIDENTS OF CLARK STREET ALONG THE RETAINING WALL WITH WRITTEN NOTICE A MINIMUM OF TWO WORKING DAYS PRIOR TO STARTING CONSTRUCTION.



www.upea.com

**ROCK ST RETAINING WALL RESTORATION PROJECT**  
CITY OF NEGAUNEE  
NEGAUNEE, MICHIGAN

ISSUED FOR:	ISSUED FOR BIDS	DATE:	2-25-21
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**PROPOSED  
DETAILS  
& NOTES**

**C2.0**