DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division

CONSTRUCTION BID ADDENDUM NO. 1

This form identifies an Addendum to Bidding Documents, and incorporates interpretations or clarifications, modifications, acceptance of proposed "or equal" materials, and other information into the Bidding Documents. Addenda will be numbered by the Professional and distributed through www.michigan.gov/SIGMAVSS as an attachment.

TO:		DATE ISSUED
ALL BIDDERS		8/23/2024
PROJECT NAME Construct MVSB Howell		FILE NUMBER 511/24024.CAK
PROFESSIONAL Beckett & Raeder, Inc.	PROJECT DIRECTOR Chris Kulhanek	BID OPENING DATE: 9/4/2024

ADDENDUM ITEMS:

Pre-Bid Walk-Through Notes:

1. Anticipated contract approval on 9/24/24, with potential for a mid-October start; substantial completion date of 6/30/25.
2. Liquidated damages are $700/day.
3. Davis-Bacon wage requirements apply.
4. Work hours 7:30 a.m. to 4:30 p.m., Monday through Friday. Work outside those hours and days requires special permission.
5. Material testing shall be provided through the PSC's contract – not the contractor.
6. Soil erosion and sedimentation control measures are required and are shown on the drawings.
7. When the security fence is removed for construction, temporary fencing will need to be installed. This shall be standard construction barrier fencing.
8. Temporary bypass pumping shall be included in the bids as the storm sewer will be relocated and bypass pumping will likely be necessary.
9. Directionally drill gas and electric connections to the proposed building.
10. Qualified disabled veteran contractor preference applies.
11. The contractor is required to provide Builder's Risk insurance.
12. Contingency Allowance is $100,000.00.

Sign-In Sheets:

1. Pre-Bid Sign-In Sheet from the in-person meeting and from the Microsoft TEAMS meeting is attached.

Technical Specifications:

1. 312500 Erosion and Sedimentation Control
2. 321373 Concrete Paving Joint Sealants

Sheet C3.0:

1. Provide new underground conduit from the existing building to the new grade box noted at the existing utility pole to connect to the existing underground conduit that is run to the existing MDP inside the building. Remove the existing wiring from the utility pole to the MDP and replace with new wiring for the entire run underground from the MDP to the existing building panel. The new underground conduit would be 1&1/4" to connect to the existing 1&1/4" conduit from the Armory Building and the existing MDP. The new conductors would be 3 #2 + 1 #4 GRD (copper), which are sized to account for voltage drop over the length of the feeder, with the ground adjusted proportionally to the phase conductors per the NEC Article 250.

Bidder Questions:

1. Seismic Ss and S1 values need to be confirmed for the design group. We can assume the values via the ASCE website, but please confirm. **Follow ASCE for values. Refer to the soil boring report to determine the Site Class designation.**

2. The collateral loads are undefined. The drawings indicated 38 lbs +10 plf for radiant heaters; 25 lbs load at light fixture and 10 psf load for overhead door. Does the 38 +10 apply for the whole roof or just where the radiant heaters are located? Or are you looking for specialized loading in just those certain areas? **The additional load items are only for those items at their location and are not intended to be for the entire roof.**

3. Girt horizontal deflection- The specifications call for no more than L/120. We will be using our standard of L/180, which is used when Insulated Metal Panels are the wall system. Insulated Metal Panels need more horizontal girt support because they are heavier than single skin sheeting. Is this permissible? **Use L/180 to size the girts.**

4. The number of overhead doors on the BSW of the building make it difficult to add bracing to that sidewall. A portal frame requires 1'6" of clearance on each side. We need clarification regarding if we can move one of the doors in bays 1 or 5. The door would only need to move about 1' from its current location. **This would be discussed with the winning bidder.**

5. Is the electrical for the new building tying into the existing main structure or will it be an entirely different hook-up? **The electrical for the new building is connecting back to the existing Main Distribution Panel in the Armory Building, as indicated on the drawings.**

6. Who is responsible for organizing the soil testing, and does that cost need to be accounted for in our bid proposal? **Cost for material testing will be handled through the PSC contract, not the bidder. The bidder will be responsible for coordination of testing during construction.**

ACKNOWLEDGEMENT: This Addendum must be acknowledged by the Bidder in the space provided in the Bid Summary and Bid Form. Failing to acknowledge Addenda may be cause for the Bid to be rejected. Addenda will become part of the Contract Documents.

PROFESSIONAL: Kristofer Enlow, P.E., Beckett & Raeder, Inc.	DATE: 8/23/2024
APPROVED BY: PROJECT DIRECTOR:	 DATE: 8/23/2024

DTMB-0441 (R 19.02)

MEETING ATTENDANCE RECORD

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division

PROJECT DESCRIPTION/LOCATION		DATE	TIME
Construct MVSB Howell		2024-08-19	1:30 p.m.
FILE NUMBER	CONTRACT NUMBER	MEETING PLACE	
511/24024.CAK		725 Isbell St., Howell, MI 48843	

PLEASE PRINT YOUR NAME	FIRM YOU REPRESENT	EMAIL ADDRESS	TELEPHONE NUMBER
Kristofer Enlow	Beckett & Raeder	kenlow@bria2.com	734-216-2975
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Bryce Muck	Fuson Bros LLC	Bmuck@smrestore.net	925-440-1170
Rob Lentz	Antler Construction	lentzdale@yahoo.com	734.674.5884
Ryan DeLaca	DeLaca GROUP LLC	rdelaca@delacagroup.com	734-751-1759
Keith Sitosky	B&B CONST	KSitosky@bandbconstruction.com	313-407-8774
Tony GATTI	B & B Construction	SMDS construction services@gmail.com	586-552-5472
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Carter Vandlen	RAS Contracting Inc.	Info@rascontractinginc.com	517-525-6343
COLLIN CHESNEY	WOLVERINE BUILDING GROUP	CCHESNEY@WOLVGROUP.COM	810 434 5430
Robert SASS	BNC Excavating	RSASS68@Yahoo.com	248-255-1912
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BEN PETERSON	HIGHLAND SERVICES	BEN@HIGHLANDSERVICESLLC.COM	810-986-9293
MIKE Bramlett	Bramlett HVAC	Mike@bramlettHVAC	517546-8295
Mitch DeHaan	Wieland Corporation	mdeHaan@WielandBuilders.com	616-502-5525
MARK MALONEY	SORENSEN GROSS	mmaloney@sgcompany.com	810-288-8563
Bruce Smith	Costal Construction	bobs@costalconstruction.com	248-767-7764

Mickey Mortimer 734-575-8856
Altech Docs Mickey.altechdocs@gmail.com

Ted Smith Daniels Building Company 248-914-7861
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DTMB-0441 (R 19.02)

MEETING ATTENDANCE RECORD

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
State Facilities Administration
Design and Construction Division

PROJECT DESCRIPTION/LOCATION	DATE	TIME
Construct MVSB Howell	2024-08-19	1:30 p.m.

FILE NUMBER	CONTRACT NUMBER	MEETING PLACE
511/24024.CAK		On-Line via Microsoft TEAMS

PLEASE PRINT YOUR NAME	FIRM YOU REPRESENT	EMAIL ADDRESS	TELEPHONE NUMBER
Adam Tuffs	Quest Design Build	agroulx@questdesign	269-425-6486
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Jason Axelson	Wm. Floyd Company	jaxelson@wmfloyd.net	517-614-9500
James Beckering	44th Street	dj@44thsc.com	616-855-0029
	Construction		
Brian Fuson	Fuson Bros, LLC	bfuson@smrestore.net	925-440-1170
Tony Datpilro	Frontline		

SECTION 312500 – EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes conducting earthwork and earth change activity operations in a manner to protect Waters of the State of Michigan, storm drains, and adjacent properties from soil erosion and sedimentation.

1.2 DEFINITIONS

A. "Waters of the State" includes the Great Lakes and their connecting waters, lakes, ponds and streams which may or may not be serving as a County drain as defined by the drain code; or any other body of water that has definite banks, a bed and visible evidence of a continued flow or continued occurrence of water or wetlands regulated under Part 303.

1.3 SUBMITTALS

A. Submit product information for materials proposed for use.

B. Prior to the start of construction, the Contractor must submit a construction sequence and Soil Erosion and Sedimentation Control (SESC) Implementation Plan to the Department of Military & Veterans Affairs, Environmental Section, Construction & Facilities Management Office, Soil Erosion and Sedimentation Control Program. Upon approval of the Contractor’s Implementation Plan , an Authorization to Proceed with Earth Change will be issued by the DMVA Environmental Section.

1.4 QUALITY CONTROL

A. Pursuant to Part 91 of 1994 PA 451, Soil Erosion and Sedimentation Control (SESC), formerly 1972 PA 347, as amended, the Department of Military & Veterans Affairs (DMVA), an Authorized Public Agency (APA), has promulgated standard procedures and specifications for soil erosion that shall be considered a part of the Contract documents. SESC measures will be monitored and enforced by the Environmental Section through the review of the Contractor’s implementation plans and site inspections. The Environmental Section, Construction & Facilities Management Office or the Engineer will notify the Contractor in writing of any violation(s) of the applicable SESC statutes and/or the corrective action(s) undertaken by the Owner and may issue stop work orders. The Design and Construction Division has the right to assess a fine (up to $500.00 per day and assessment of actual damage costs) to the Contractor for non-compliance with the provisions of the Contract documents and/or SESC regulations applicable to this work, and fines shall be in addition to any other remediation costs or liquidated damages applicable to the project and may exceed the value of the Contract.

1.5 PERFORMANCE REQUIREMENTS

A. Implement the soil erosion and sedimentation control plan including required maintenance during construction and final removal as directed in the plans, and as needed per site conditions and as

required by site inspections by the Department of Military & Veterans Affairs, Environmental Section, Construction & Facilities Management Office.

B. Control runoff, soil erosion, and sedimentation. No sediment should leave the site.

C. Prevent wind erosion. No visible emissions (dust) should leave the site.

1.6 REFERENCES

A. Soil Erosion and Sedimentation Control Guidebook, State of Michigan, Department of Military & Veterans Affairs, Environmental Section, Construction & Facilities Management Office

PART 2 - PRODUCTS

2.1 SILT FENCE

A. Silt fence shall be Amoco Propex Silt Stop Sediment Control Fabric, or approved equal.

2.2 MULCH BLANKET

A. Mulch Blanket shall be North American Green SC150 BN, or approved equal.

2.3 INLET PROTECTION FABRIC DROP

A. Fabric Drop shall be Catch Basin Sediment Guard as manufactured by Silt-Saver, Inc.

2.4 SEED

A. Temporary Seed shall be perennial ryegrass with a minimum purity of 98% and a minimum germination of 90%. Seed shall be fresh, clean, new-crop seed.

PART 3 - EXECUTION

3.1 PREPARATION

A. Where the following events result in the need for additional or modified soil erosion and sedimentation control installations to meet the objective of the referenced procedures, provide remedial installations on a timely basis.
   1. Unanticipated alterations to the construction schedule.
   2. Unanticipated site conditions except Acts of God such as a tornado or fire.

B. Install temporary erosion and sedimentation control measures prior to or upon commencement to earthwork activities.
   1. Install an entrance anti-tracking pad with a minimum of 50 feet in length. A geotextile filter fabric should be placed under 6 inches of limestone aggregate.
   2. Install temporary inlet protection at all adjacent and down-gradient storm water inlets, catch basins and manholes that may be impacted.

3. Install silt fence with stakes on the side down gradient from the disturbed area. Toe in six inches of the fencing material.
4. Place stockpiles and other spoil piles away from the drainage system to minimize sediment transport. Keep as few stockpiles as possible during the course of the project. If the stockpile and/or spoil pile must remain on-site overnight, or if the weather conditions indicate the chance for precipitation,
    a. cover the pile with water repellent material to prevent erosion or
    b. install silt fencing around the base of the pile to prevent transport of sediment to the storm water system and wet the pile as needed to prevent wind erosion, or
    c. apply other control methods as appropriate to the site.
5. Where runoff enters the existing storm water system, protect the storm system from sedimentation.
    a. Temporary inlet protection must prevent the release of sediment and allow for proper drainage.
        1) Use of burlap is not acceptable as a SESC measure.
        2) If filter fabric is used on drains, ensure the filter fabric is placed over (not under) the storm grates to facilitate maintenance (cleaning) of the controls.
        3) If high storm water flows are expected, use silt sacks in lieu of filter fabric for drain protection. Based on site conditions select regular or high flow silt sacks as appropriate.

C. Utilize a water truck as needed for dust control.

D. Utilize a sweeping machine to remove sediment tracked onto the pavement on a daily basis at minimum. Use sweeper more frequently as dictated by site conditions.

E. Maintain erosion and sedimentation controls on a daily basis until the contract has been completed and accepted. Maintenance shall include:
1. Repair of damaged installations.
2. Replacement of lost soil erosion & sedimentation control measures.
3. Periodic removal of collected silt and sedimentation as required or directed to maintain effectiveness of the silt traps, filters and basins.

F. Correct non-conforming soil erosion and sedimentation control Work on a timely basis within 24 hours, if Waters of the State are being impacted or within 5 days if not impacting Waters of the State.

G. Complete permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area within 5 calendar days after final grading or the final earth change has been completed. Maintain temporary control measures until permanent soil erosion control measures are in place and the area is stabilized.

3.2 CLEAN UP

A. Remove temporary erosion control measures after permanent soil erosion measures are in place and the area is stabilized, unless ordered by the Owner's Representative to remain in place. Care shall be taken during removal to prevent soil erosion and sedimentation.

END OF SECTION 31 25 00

SECTION 321373 - CONCRETE PAVING JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Cold-applied joint sealants.
2. Hot-applied joint sealants.
3. Cold-applied, fuel-resistant joint sealants.
4. Hot-applied, fuel-resistant joint sealants.
5. Joint-sealant backer materials.
6. Primers.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150-mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

C. Paving-Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of joint sealant and accessory.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Product Testing: Test joint sealants using a qualified testing agency.

1.7 FIELD CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backing materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

2.2 COLD-APPLIED JOINT SEALANTS

A. Single-Component, Nonsag, Silicone Joint Sealant: ASTM D5893/D5893M, Type NS.

2.3 JOINT-SEALANT BACKER MATERIALS

A. Round Backer Rods for Cold- and Hot-Applied Joint Sealants: ASTM D5249, Type 1, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.

B. Round Backer Rods for Cold-Applied Joint Sealants: ASTM D5249, Type 3, of diameter and density required to control joint-sealant depth and prevent bottom-side adhesion of sealant.

C. Backer Strips for Cold- and Hot-Applied Joint Sealants: ASTM D5249; Type 2; of thickness and width required to control joint-sealant depth, prevent bottom-side adhesion of sealant, and fill remainder of joint opening under sealant.

2.4 PRIMERS

A. Primers: Product recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Before installing joint sealants, clean out joints immediately to comply with joint-sealant manufacturer's written instructions.

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

B. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALANTS

A. Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.

B. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions.

C. Install joint-sealant backings to support joint sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of joint-sealant backings.

2. Do not stretch, twist, puncture, or tear joint-sealant backings.
3. Remove absorbent joint-sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install joint sealants immediately following backing installation, using proven techniques that comply with the following:

1. Place joint sealants so they fully contact joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Joint Sealants: Immediately after joint-sealant application and before skinning or curing begins, tool sealants according to the following requirements to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint:

1. Remove excess joint sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by joint-sealant manufacturer and that do not discolor sealants or adjacent surfaces.

F. Provide joint configuration to comply with joint-sealant manufacturer's written instructions unless otherwise indicated.

3.4 CLEANING AND PROTECTION

A. Clean off excess joint sealant as the Work progresses, by methods and with cleaning materials approved in writing by joint-sealant manufacturers.

B. Protect joint sealants, during and after curing period, from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations in repaired areas are indistinguishable from the original work.

END OF SECTION 321373

LAYOUT & MATERIALS NOTES

1. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH CURRENT ADA STANDARDS.
2. ALL DIMENSIONS ARE TO BACK OF CURB, FACE OF BUILDING OR EDGE OF MATERIAL UNLESS OTHERWISE NOTED.
3. ALL LINES ARE PARALLEL OR PERPENDICULAR TO THE CURB/ PAVEMENT/ BUILDING LINE FROM WHICH THEY ARE DIMENSIONED UNLESS OTHERWISE NOTED.
4. FOLLOWING LAYOUT OF ALL MATERIALS, CONTRACTOR SHALL REVIEW WITH OWNER'S REPRESENTATIVE.
5. ANY DISCREPANCIES IN THE LAYOUT PLAN SHOULD BE IMMEDIATELY REPORTED TO OWNER'S REPRESENTATIVE.

GRADING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION ALL WORK COMPLETED IN CONFORMANCE WITH CURRENT ADA STANDARDS.
2. PROPOSED CONTOUR LINES AND SPOT ELEVATIONS REFLECT FINISH GRADES. HOLD DOWN SUBGRADE ELEVATIONS ACCORDINGLY. ADJUST RIM ELEVATIONS OF ALL UTILITIES AFFECTED BY WORK IN THIS CONTRACT. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ON THE SITE. ANY AREA THAT APPEARS TO NOT PROPERLY DRAIN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT/ ENGINEER FOR RESOLUTION.

UTILITIES NOTES

1. ALL UTILITIES SHOWN FOR CONCEPTUAL DESIGN DEVELOPMENT ONLY. FINAL ROUTING, SIZING AND CONNECTIONS WILL VARY.
2. PROPOSED CONTOUR LINES AND SPOT ELEVATIONS REFLECT FINISH GRADES. HOLD DOWN SUBGRADE ELEVATIONS ACCORDINGLY. ADJUST RIM ELEVATIONS OF ALL UTILITIES AFFECTED BY WORK IN THIS CONTRACT. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ON THE SITE. ANY AREA THAT APPEARS TO NOT PROPERLY DRAIN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT/ ENGINEER FOR RESOLUTION.
3. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS, DEPTHS AND ELEVATIONS PRIOR TO CONSTRUCTION. NO CHANGES IN CONTRACT PRICE WILL BE AWARDED FOR ACTUAL DISCREPANCIES IN UTILITY LOCATIONS DUE TO THE FAILURE TO VERIFY ACTUAL FIELD LOCATIONS.
4. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY HIS CONSTRUCTION OPERATIONS TO A CONDITION EQUAL TO OR BETTER THAN THAT EXISTING PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CLEAN UP AND HAUL AWAY ALL CONSTRUCTION DEBRIS AND LITTER CAUSED BY HIS OPERATIONS.
5. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE INCURRED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. ALL UTILITY CROSSINGS SHALL HAVE A MINIMUM OF 18" VERTICAL CLEARANCE.
7. SEE ARCHITECTURAL AND MECHANICAL SHEETS FOR CONTINUATION OF UTILITIES WITHIN STRUCTURES.
8. PROVIDE NEW UNDERGROUND CONDUIT FROM THE EXISTING BUILDING TO THE NEW GRADE BOX NOTED AT THE EXISTING UTILITY POLE TO CONNECT TO THE EXISTING UNDERGROUND CONDUIT THAT IS RUN TO THE EXISTING MDP INSIDE THE BUILDING. REMOVE THE EXISTING WIRING FROM THE UTILITY POLE TO THE MDP AND REPLACE WITH NEW WIRING FOR THE ENTIRE RUN UNDERGROUND FROM THE MDP TO THE EXISTING BUILDING PANEL. THE NEW UNDERGROUND CONDUIT WOULD BE 1&1/4" TO CONNECT TO THE EXISTING 1&1/4" CONDUIT FROM THE ARMORY BUILDING AND THE EXISTING MDP. THE NEW CONDUCTORS WOULD BE 3 #2 + 1 #4 GRD (COPPER), WHICH ARE SIZED TO ACCOUNT FOR VOLTAGE DROP OVER THE LENGTH OF THE FEEDER, WITH THE GROUND ADJUSTED PROPORTIONALLY TO THE PHASE CONDUCTORS PER THE NEC ARTICLE 250.

EXISTING GAS METER
EXISTING LOAD: 4920 CFH
(PER EXISTING PLANS - V.I.F.)
ADDED LOAD
NEW GARAGE + 400 CFH
NEW TOTAL: 5320 CFH
PROVIDE NEW 4" HEADER (BLACK STEEL) AT METER WITH 3" TAP FOR EX. BLDG & 2" TAP FOR NEW GARAGE. FIELD VERIFY AND COORDINATE ALL REQUIRED WORK.

LAYOUT & MATERIALS LEGEND

- PARCEL LINE
- RIGHT-OF-WAY LINE
- LIMIT OF WORK LINE
- EXISTING BUILDING / STRUCTURE
- H.D. CONCRETE PAVEMENT (CONTROL JOINT / EXPANSION JOINT)
- SECURITY FENCE
- POST/BOLLARD

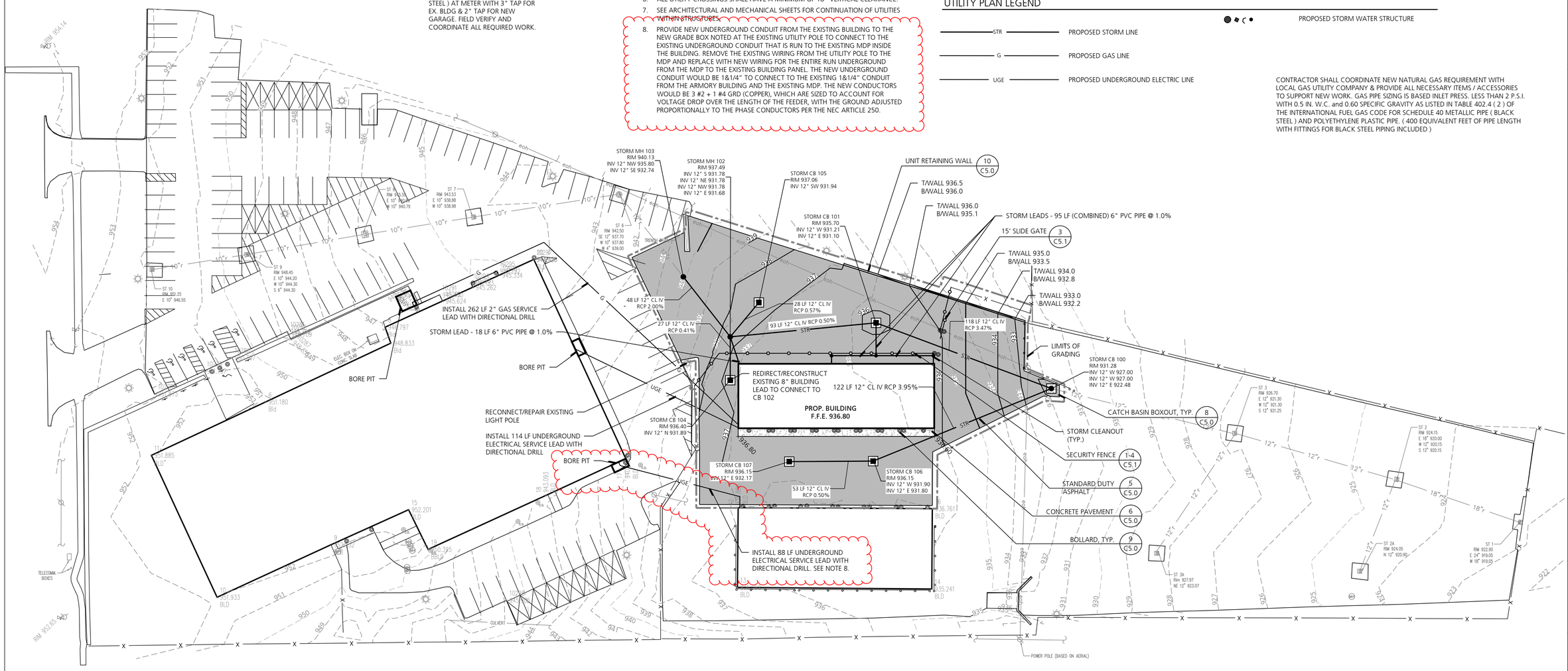
GRADING & DRAINAGE LEGEND

- + 931.83 — EXISTING SPOT GRADE
- 880 — EXISTING MAJOR CONTOUR
- 878 — EXISTING MINOR CONTOUR
- 885 — PROPOSED MAJOR CONTOUR
- 888 — PROPOSED MINOR CONTOUR
- + ME — MATCH EXISTING GRADE
- + 80.84 — PROPOSED SPOT GRADE
- RIM 89.00 — PROPOSED RIM ELEVATION
- INV 73.25 — PROPOSED INVERT ELEVATION

UTILITY PLAN LEGEND

- PROPOSED STORM WATER STRUCTURE
- STR — PROPOSED STORM LINE
- G — PROPOSED GAS LINE
- UGE — PROPOSED UNDERGROUND ELECTRIC LINE

CONTRACTOR SHALL COORDINATE NEW NATURAL GAS REQUIREMENT WITH LOCAL GAS UTILITY COMPANY & PROVIDE ALL NECESSARY ITEMS / ACCESSORIES TO SUPPORT NEW WORK. GAS PIPE SIZING IS BASED INLET PRESS. LESS THAN 2 P.S.I. WITH 0.5 IN. W.C. and 0.60 SPECIFIC GRAVITY AS LISTED IN TABLE 402.4 (2) OF THE INTERNATIONAL FUEL GAS CODE FOR SCHEDULE 40 METALLIC PIPE (BLACK STEEL) AND POLYETHYLENE PLASTIC PIPE. (400 EQUIVALENT FEET OF PIPE LENGTH WITH FITTINGS FOR BLACK STEEL PIPING INCLUDED)



Know what's below. Call before you dig.

SCALE: 1" = 30'

0 15 30 60 90 120

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STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

B R Beckett&Raeder
Landscape Architecture
Planning & Engineering

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Ann Arbor, MI 48103
734 663 2622 ph
734 663 8759 fx

Department of
Military and Veterans Affairs
Construct MVSB Howell
GRADING + UTILITIES PLAN

DESIGNED: KE	
DRAWN: MK, BR	
CHECKED: KE	
APPROVED:	
DATE	AUG 21, 2024
ISSUED FOR	☐ PRELIMINARY ■ CONSTRUCTION ☐ FINAL RECORD
IDENTIFICATION NO.	DMVA PROJECT NO. 268823004 DTMB PROJECT NO. 511/24024CAK
SHEET	C3.0