



Troy Schools District

RFP #2324-15 BP#3A Smith Middle School – Foundations and Steel -Addendum #2.1 February 8th, 2024

Content Included in this Addendum:

Cover Page (1 Page) Barton Malow Write Up (34 Pages) TMP Addendum #2 (35 Page) Temporary Road and Laydown Plan (1 Page)

TOTAL PAGES: 71 Pages



February 08, 2024

Troy Schools District - BP#3A Smith Middle School - Foundations and Steel

Addendum #2.1 Bidder Clarifications

A. General Clarifications

- Added TMP Addendum #2 Complete
- Added revised Temp Road and Laydown Plan

B. Clarifications and Additions to Work Scopes

- Scope of Work Foundations and Flatwork
 - Base bid is to form ALL foundations. Trench forming will be allowed if soil conditions permit. However, for consistent bids please price as if traditionally formed. Provide a unit price for a LF deduct to trench form in lieu of traditional forming.
 - Concrete Building Pad
 - Stripping of topsoil is no longer the responsibility of this contractor.
 - Base bid is to provide class II sand fill subbase beneath the slab.
 - Provide fill 15 feet around the exterior of the building to match the grade of the building pad.
 - Proof roll building pad to meet compaction requirements and Geotech approval.
 - Provide hauling and legal disposal of all spoils from this contractors' digging operations.
 - Polished Concrete floor finishing was removed from scope of work.
 - Unit Pricing Addition
 - Provide LF deduct to trench form footings in lieu of traditionally forming.
 - Unit of measurement: LF
 - Alternate #2 Building Pad Fill Alternate Material
 - Base Bid: Provide class II sand fill for building pad.
 - Alternate: Provide class II limestone sand fill for building pad.
- Scope of Work Site Prep and SESC
 - This contractor is responsible for stripping all topsoil indicated on plans and under building footprint.
 - Alternate #3 Geotech style fabric under temp road
 - Base bid: Temp road is 1" X 3" & 21AA crushed concrete
 - Alternate: Geofabric under the crushed concrete stone and overlap seams by at least 12"

C. RFI Responses

- **Q:** Who backfills after the mason?
- A: The foundations and flatwork contractor.

Q: Site demo and SESC category does all site demo (asphalt, concrete, etc.) for the entire site. Foundations and flatwork does the earthwork only to install the pad in the footprint of the building. **A:** Site prep and SESC category is responsible for the following:

- All site demo.
- Strip all topsoil on site as indicated on plans, and within the footprint of the new building.

- Install temporary road and laydown areas.
- Haul topsoil and spoils off site.
- The Foundations and Flatwork category is responsible for; Earthwork for the building pad, including but not limited to all balancing, cut and or fill, proof rolling, fine grading, legal disposal of spoils from work, etc.

SECTION 002203.01 FOUNDATIONS AND FLATWORK - SCOPE OF WORK BID PACKAGE 3A

BID CATEGORY – FOUNDATIONS AND FLATWORK

GENERAL

- 1.01 THE WORK OF THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO PROVIDING ALL SUPERVISION, LABOR, EQUIPMENT, MATERIALS, TAXES, BONDS, INSURANCE, SCAFFOLDING, HOISTING AND INCIDENTALS TO COMPLETE THE WORK PER ALL CONTRACT DOCUMENTS FOR THE TROY SCHOOL DISTRICT - BP#3A - NEW SMITH MIDDLE SCHOOL FOUNDATIONS AND STEEL PACKAGE AS DEFINED BY THE BID PACKAGE NO. 3A BID/WORK SCOPE DOCUMENT INCLUDING ITS SUPPLEMENTARY DOCUMENTS AND IN ACCORDANCE WITH ANY APPLICABLE CODES. ALL WORK IS TO BE PERFORMED AS SHOWN ON THE PLANS AND AS SPECIFIED IN THE FOLLOWING TECHNICAL SPECIFICATION SECTIONS:
 - A. Division 0 Procurement and Contracting Complete
 - B. Division 01 General Requirements Complete
 - C. Division 03 Concrete
 - 1. 03 3000 Cast-in-Place Concrete Complete
 - 2. 03 3003 Cast-in-Place Concrete Requirements for Floor Slabs Complete

IN ADDITION TO THE ABOVE, THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO THE BIDDING DOCUMENTS, THE BIDDING AND CONTRACT REQUIREMENTS AND DIVISION 1 GENERAL REQUIREMENTS OF THE BARTON MALOW BUILDERS PROJECT MANUAL AND VARIOUS OTHER DOCUMENTS AND TECHNICAL SPECIFICATIONS INTERFACING WITH THIS WORK PROVIDED BY THE OWNER, ARCHITECT AND/OR ENGINEERS. THE BIDDER IS ADVISED TO REVIEW THE WORK DESCRIPTIONS OF THE OTHER CATEGORIES SO AS NOT TO MISUNDERSTAND SCOPE RESPONSIBILITIES.

PRODUCTS – NOT USED

2.01 EXECUTION

THE SCOPE OF WORK WILL INCLUDED AND IS NOT LIMITED TO THE FOLLOWING ITEMS:

- A. Performance of the Work shall be in accordance with all Division 01 General Requirements.
- B. Refer to the Project Manual for additional bidding and project general requirements and conditions.
- C. In addition to the requirements set forth in Division 01 General Requirements, the Work shall include the following:
 - 1. Additional Meetings & Quality Control Requirements:
 - a. Pre-Pour Conferences
 - b. Pre-Pour Field Inspections
 - c. Mockups
 - d. Additional Photographic documentation, etc.
 - e. Provide concrete cylinder cure box, to be located on-site. Cure box to be sized as required based on the anticipated volume of cylinders. Cure box to meet the appropriate ASTM requirements.
- D. Submittals/Close Out:

- 1. Submit all start-up documents, and product submittals on materials & products within two (2) weeks after Notice to Proceed (NTP).
- 2. Submit all shop drawings in accordance with the contract documents and all code requirements within four (4) weeks after Notice to Proceed (NTP).
- 3. Contractor is to submit a long lead item log to Barton Malow Builders for materials and equipment with lead times of 6 weeks or more. The long lead item log shall include submitted date, submittal approval date, lead time, order date, & approximate delivery date. Contractor shall update and submit weekly to Barton Malow Builders.
- 4. All equipment, products, & materials that are installed without submittal approval and not acceptable by the Architect/Engineer and Owner will be removed at the installing Contractors cost. Contractor will be held responsible for all back charges caused by the project delay to the Owner and Trades working onsite due to no specified material/equipment install and/or lack of or late submittal approvals.
- 5. Provide shop drawings for reinforcing steel submittals.
- 6. Provide pour/construction joint schedule and drawing indicating location of pour breaks, proposed joints for concrete slabs, walls, and bulkhead locations to be reviewed by Architect/Engineer.
- 7. Engineered formwork and shoring drawings must be signed and sealed by a Registered Engineer in accordance with contract documents and state law?
- 8. Contractor shall include all cost necessary for as-built, asset sheet data spreadsheet, closeout documents (including O&M manuals, valve charts, guarantees or warranties on equipment and/or materials, testing and system check-out or approval, and Owner's training as required) per the Contract Documents.
- 9. Contractor to provide additional manpower dedicated to Barton Malow Builders to complete Barton Malow Builders punch list work for a minimum of ten (10) working days prior to the listed Architect/Engineer project punch list in the project schedule. This manpower will be under the direction of the Barton Malow Builders Superintendent to complete punch list work of their bid category and will report directly to the Barton Malow Builders each day. Failure to provide required manpower may result in a delay in receiving the Contractor's progress payment from Barton Malow Builders.
- 10. Architect/Engineer's punch list will not start until all work has been completed.
- 11. Contractor may not drop retainage to 5% until work of this bid category is substantially complete according to the contract documents. In addition, all warranties, o/m manuals, testing, commissioning, training, extra materials, and punch list items have been completed, turned over, accepted, and documented. Contractors must also have up to date partial and final waivers from all Subcontractors, suppliers, and other Subordinate Parties including a AIA G707a Consent of Surety to partial reduction in retainage form signed and sealed by the Surety.
- 12. To bill out the remainder of retainage (from 5% to 0%), the Contractor must set up a meeting with Barton Malow Builders to go over and/or collect the remaining closeout items for final payment as specified in the project manual and submit a AIA G707 Consent of Surety for final payment form signed and sealed by the Surety.

E. General Scope:

- 1. Contractor is to incorporate all project bidding documents into their subordinate party agreements.
- 2. All bidders are required to review the General Conditions of the Contract located in the project manual.
- 3. Contractor is to be licensed to perform work in the State of Michigan. This includes all Contractors and 2nd or 3rd (etc.) tiered subcontractors.
- 4. Contractor shall maintain on site, a copy of all applicable code books specifically pertaining to this scope of work. These code books are to follow the city, state, and all other authorities having jurisdiction per the specific year each authority has designated for

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this particular project. This Contractor is responsible for all research and compliance with all applicable regulations.

- 5. This Contractor is responsible to coordinate with Barton Malow Builders to schedule inspections with the Local Governing Agency and/or the State of Michigan as well as the testing agency. Inspection results and records will be kept in the Barton Malow Builders jobsite office. During all inspections each Contractor is to have a Foreman/Superintendent on site.
- 6. Contractor must verify that work installed by others, complies in its entirety with the contract documents prior to commencing their work, which ties in, overlays and/or follows the installed work. Any non-conforming work shall be identified in writing to Barton Malow Builders immediately.
- 7. Anyone listed on the National Sex Offender List is not allowed to be a part of this project and anyone who is convicted of a listed offense will be immediately dismissed from project. Provide photo identification upon arriving to the site and badges are to be worn by Contractor's field personnel at all times.
- 8. Contractor shall have their Superintendent/Foreperson attend a daily coordination meeting every morning from 6:45am 7:00am. Participation is mandatory.
- 9. Project daily working hours are Monday Friday, Site Opens @ 7:00am and closes at 4:00pm. There will be a 5-day minimum work week. Should scheduled workdays or production be lost due to inclement weather or this Contractor's delays, overtime during the work week and weekends will be required to maintain the project schedule at this Contractor's expense. Any work performed outside normal working hours requires approval from Barton Malow Builders.
- 10. Contractor is only to take direction from Barton Malow Builders.
- 11. Review all specifications and project drawings, drawing notes, schedules, and schedule notes for areas requiring work described by this bid category and coordinate work with the respective contractors, include all costs in base bid.
- 12. Include all manpower, overtime, composite crews and mobilizations in base bid to complete work per the project schedule. All mobilizations required to complete this Scope of Work have been included in the base contract price, unless specifically addressed otherwise in this Contract Agreement. It is understood and agreed that this work may not be performed in a continuous operation and during normal business hours. This contractor has included the cost of the multiple mobilizations / remobilizations and cost to work during non-normal business hours.
- 13. Contractor will be required to perform after-hours and overtime work as necessary to minimize disruption to Troy School District.
- 14. If Contractor is behind schedule and is notified by Barton Malow Builders, the Contractor shall be required to accelerate the work at its own expense. The Contractor shall employ such means as overtime work, multiple work shifts, and additional equipment, and shall continue to do so until the progress of the work, in the opinion of Barton Malow Builders, is in conformance with the master project construction schedule.
- 15. Provide and install all materials per the construction documents. Bid proposals must be per plan and specs. Bids not conforming to plans and specifications will be rejected. Substitutions must be pre-approved in writing prior to bids or be submitted as voluntary alternates on the bid form.
- 16. Contractor must include costs and utilize Autodesk Build and Textura for this project. Information and cost for Textura can be found in section 012000-Price and Payment Procedures and AutoDesk Build in section 013000-Administrative Requirements.
- 17. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings.

Troy, Michigan

- 18. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.
- 19. This project surrounded by Troy School District staff and students. Contractor is to take proper measures to ensure minimal disruptions to the roads and sidewalks around the project. Contractor is responsible for proper barricading and signage if his work activity interrupts the normal flow of operations around the facility. All Contractor employees and subordinate parties are to conduct themselves in a manner not to offend nor interfere with the staff, students, or any other public person. Barton Malow Builders and Troy School District Code of Conduct includes immediate termination for foul language/derogatory conversation. Those who are not in compliance will be asked to leave the project and not return.
- 20. Provide all temporary protection for work of this bid category. Removal of this protective material at the conclusion of the project is this contractor's responsibility.
- 21. Minimize disturbances to landscape and wetland areas. Excessive or malicious (as deemed by)Barton Malow Builders landscape disturbance will be the responsibility of this contractor to restore at own expense.
- 22. Protect equipment and finish items to remain during construction including roof, ceilings, walls, flooring, and landscaping during work of this bid category. In addition, all work being performed through ceilings, be it grid, ceiling pads, drywall or plaster, etc. must be protected from damage during work of this bid category. Correction of damage due to lack of adequate protection will be the responsibility of this contractor.
- 23. Deliveries must occur after 7am and prior to 2pm and not between noon and 1pm, unless scheduled with a Barton Malow Builders Superintendent or risk having the delivery turned away. Unloading, hoisting, transport of materials out of truck to staging location, and delivery acceptance is by the Contractor who is responsible for the material.
- 24. Contractor is responsible for storage of all materials. Deliver materials to the site as needed. Storage in the building will be limited. Materials in building must be on pallets or material/pipe carts.
- 25. Stocking of material on floors will be limited to a three (3) day maximum in the area of work, if approved by Barton Malow Builders Superintendent. No other material storage will be allowed in the building.
- 26. All materials used are to be new, unused and undamaged. Any damaged or questionable material is to be removed and replaced at no cost to the Owner or Barton Malow Builders.
- 27. Include all rigging and hoisting to deliver, install, and remove materials to / from all floor levels complete.
- 28. All crane and boom truck lifts must be properly barricaded to keep public at a safe distance. Provide ground spotters and barricading to keep public out of the swing radius of the crane or boom truck.
- 29. The use of the existing and/or new elevator will not be permitted.
- 30. This contractor is responsible for all lifts and scaffolding, if required, for work of this bid category. Coordinate use of your lifts and scaffolding with other trades.
- 31. Scaffolding and staging as required. Engineered installation drawings, as required.
- 32. Include field layout for work of this bid category, also included is field time for this contract to survey existing conditions prior to beginning each phase of work. Any discrepancies between existing conditions and the contract drawings are to be reported to Barton Malow Builders immediately.
- 33. Coordination drawing meetings will be scheduled. Contractor understands that Barton Malow Builders is not issuing change orders for items not coordinated with other trades. Contractor also understands any conflicts of existing structure with their new work must be brought to Barton Malow Builders and Architect/Engineer attention in advance of start of work.

- 34. Contractor shall have no claims for additional cost because Contractor has failed to install work in proper sequence and not in accordance with Coordination drawings. Likewise, any cost for removal of materials or damage caused by Contractors who have failed to perform their Work in the proper sequence will be borne by that Contractor.
- 35. Participation in coordination meeting/s, weekly progress meetings, and drawings process is mandatory. Minimum eight (8) hours per week shall be included for meetings and coordination with Barton Malow Builders. Representative must be able to make all decisions for their Company and Subcontractors.
- 36. Contractor to have one (1) full time on-site superintendent, for the duration of the project. The assigned personnel will be responsible to manage the "entire" scope of work including their Subcontractors/Suppliers and will be the single point of contact for this scope of work. Contractor will be responsible to complete the daily report & JHA form each day including for their Subcontractors regardless if the Contractor has self-perform crews on site or not. Representative must be able to make all field & financial decisions. If full time supervision is not onsite by the Contractor, their Subcontractors will be told to leave the site until the next calendar working day. Contractor will be held responsible for delays and back charged due to lack of project supervision.
- 37. Contractor is to provide site Supervision and Foreman an Apple iPad with unlimited data/cellular plan service. It is required that Contractor download BluebeamRevu and Autodesk Build via the app store on each device. Contractor may access Owner guest Wi-Fi network if available.
- 38. Contractor must complete and submit electronic daily Flypaper reports and pre-task plans via Autodesk Build to Barton Malow Builders on a daily basis. These reports must show total number of manpower, total number of hours, and each day's specific activities. If this is not done, Barton Malow Builders reserves the right to withhold this Contractor's monthly payments until satisfied with this Contractor's response.
- 39. Items shown to be turned over on the project documents and for closeout attic stock to Owner must be accompanied by a transmittal and copied with signature of receipt to Barton Malow Builders. If a transmittal is not provided and Owner's items are missing, it is this contractor's responsibility to purchase and replace with new materials.
- 40. Contractor is responsible for the quality control for work of this bid category (including for their subordinate parties). Contractor is to strictly observe tolerances and to maintain strict quality control throughout the execution of his work. All work is to be checked for compliance at each stage of completion per applicable codes, project drawings, specifications, and manufactures shop drawings/written instructions. Any work that is not within specified tolerances is to be removed and replaced.
- 41. Provide Ground Penetrating Radar (GPR) to locate and mark existing gas, water, electrical site utilities, conduits, fiber, and mechanical piping prior to proceeding with any demo or excavation work.
 - a. Locate all underground utilities (public and private) prior to any demo or excavations. Note that Miss Dig will not locate private utilities on the Owner's property. It is the responsibility of this contractor to hire an outside firm and locate private utilities.
 - Damage to existing utilities, public or private, including but not limited to gas, water, electric, mechanical, communication, and irrigation lines caused by work of this bid category will be the responsibility of this contractor. Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (a) Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (b) Contractor will also be charged a minimum of \$1,500 for each occurrence for Barton Malow administrative costs.
 - (c) Contractor will be responsible for all Owner personnel, administrative costs, and damages for each occurrence.

- 42. Ticket work is to be signed by Barton Malow Builders at the end of each workday. Tickets not reviewed or signed by the Barton Malow Builders Superintendent will not be accepted or processed. Pricing is to have detailed explanations of work performed. Barton Malow Builders directed ticket work shall NOT include foreman time, work/service truck, cartage, or overhead and profit mark-up. Tickets shall include only approved labor and materials used. Signature from Barton Malow Builders Superintendent does not necessarily equal additional funds. Barton Malow Builders Project Manager will decide if ticket work is added scope to the contract.
- 43. All change pricing is to be submitted within ten (10) days from receipt of the change vehicle, unless otherwise agreed by Barton Malow Builders or Owner. All change order pricing is to include a detailed breakdown of costs Material, Labor, Equipment, etc. along with any signed work orders. No lump sum pricing allowed. Change order pricing will not be accepted without a detailed breakdown. Failure to submit change order pricing within ten (10) days will result in a \$0 change order.
- 44. Provide all cutting/patching, coring, patching of penetrations, and block-outs for work of this bid category. This is to include but not limited to cutting and patching of all openings in deck (concrete or metal) if required. Patch walls where adjacent existing walls were removed. Patch and repair work is to be done professionally by trained, skilled craftsmen.
- 45. Provide and install temporary protection for all excavations, floor, or roof openings created by work of this bid category. Temp protection shall be installed per OSHA standards with robust, securely fixed and clearly marked (e.g. 'Hole below do not remove') covers to prevent the fall of materials or persons through them. Covers should be constructed to be removable sections and that they do not present a tripping hazard.
- 46. Contractor is responsible for all dewatering and snow/ice removal necessary to complete this Scope of Work.
- 47. Cleanup is to be performed continuously as work is progressing. This means cleaning up each and every hour. This includes the removal of debris, sweeping (Contractor to provide sweeping compound), wiping down of all finished surfaces, and the proper storage of unused equipment and materials. Cleanup not performed by the Contractor will be completed by a third party (chosen by Barton Malow Builders) and back charged accordingly. Written warnings will not be issued.
- 48. Contractor shall participate in the Composite Cleanup Crew as described in the project manual. These requirements are in addition to normal daily cleaning responsibilities and costs for this are included in the contract price.
- 49. Include all cost in base bid to comply with the latest Federal mandate, State of Michigan Executive Order, OSHA requirements, Local Jurisdiction Requirements, Owners Requirements, whichever is more stringent related to Covid-19: testing, PPE, social distancing, and all other requirements for your workers and subordinate parties. This shall include identifying your competent Covid 19 supervisor that will review, monitor, record, and enforce all requirements. In addition, each worker onsite is required to sign in each day prior to work using the Barton Malow QR Reader Questionnaire on a smart phone or tablet.

F. Specific Scope:

- 1. Arrange and pay for all permits and inspection fees as required.
- 2. Contractor shall include costs associated with any required mock-ups as indicated in the Contract Documents, removal of same is included in the cost.
- 3. Contractor shall include multiple mobilizations to complete the Work.
- 4. Coordinate with all trades for installation of piping, drains, sleeves, conduits, boxes, grounding and all required inspections to allow work of other trades to be complete and approved prior to concrete placement.
- 5. Contractor shall coordinate and ensure that all concrete surfaces that are scheduled to receive waterproofing, traffic coating, or other items such as ceramic tile, VCT or

carpeting, are properly finished in accordance with the requirements of the contract documents and the manufacturer.

- 6. Temporary Measures:
- a. Protect all materials from damage prior to installation.
- 7. Temporary Electricity and Lighting:
 - a. Temporary electricity may not be available for use. Accordingly, Contractor is responsible for all means to power any tools or equipment it requires to perform the Work. If Contractor requires generators to perform its Work, Contractor is responsible for all costs to provide, fuel and operate such equipment. If deemed necessary by Barton Malow Builders, generators are to be diesel units and shall use bio-fuel and have scrubbers installed.
 - b. Contractor is responsible for providing, fueling, and operating any temporary lighting towers required to perform the Work.
- 8. Temporary Lighting:
 - a. Contractor shall provide task lighting and temporary light stands as necessary.
- 9. Temporary Guardrail and Access Systems:
 - a. Maintain all temporary guardrail system during the course of construction. At such time when it can or must be removed to perform work, appropriate safety precautions are to be implemented. After this Contractor completes areas of work, which do not offer appropriate fall protection due to gaps or openings, this contractor is to provide appropriate temporary guardrails across openings.
- 10. Temporary Controls:
 - a. Provide de-watering as required to complete the Work. This contractor has complete control of the building pad any and all water inside the confines of this scope is a responsibility of this contractor to remove and pump as needed.
- 11. Coordination and Layout
 - a. Contractor will be responsible for the complete coordination of work of this bid category with all other trades to identify and resolve conflicts. Any and all financial implications emanating from this Contractor's lack of planning and coordination will be borne by this Contractor. This shall include blocking, backing conduits, sleeves, penetrations, and any other appurtenances which may not be specifically identified by the contract documents but are required to complete this scope of work.
 - b. This Contractor is responsible for all detailed layout required for proper location and coordination of work.
 - c. Contractor shall review the critical dimensions and elevations of all work and shall otherwise verify the conformity of existing work to the Contract Documents and to its suitability. Contractor shall promptly submit a written statement to Barton Malow Builders and Architect/Engineer noting any discrepancies or unacceptable conditions as they relate to its work
 - d. Contractor shall attend all meetings as required to properly coordinate its Work with that of Others. Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - e. Contractor shall visit the site and attend meetings as required to properly coordinate the Work.
 - 1) Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - f. Initial benchmarks are shown on the project drawings.
 - g.
- 12. The Owner will independently contract a testing agency to test and inspect the work at the Owner's expense. Though the Owner will test and inspect the work, this does not absolve this Contractor from the proper execution of its work including its own testing and inspection. This Contractor is responsible to prepare for, coordinate with, and respond to

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the Owner's testing of the work including discovered deficiencies. This Contractor to provide access and assistance to the Owner's Testing Agency and Architect/Engineer in order to adequately reach testing locations as required (lift, ladder, etc.).

- a. Contractor shall immediately correct all deficiencies noted by Owner's Testing Agency and Architect/Engineer.
- 13. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.
- 14. Contractor shall provide and install all expansion joint assemblies within its work.
- 15. Contractor shall provide and install all block outs for expansion joints scheduled to be installed its Work. At locations where there is an expansion joint between new and existing work, Contractor shall sawcut, chip, grind or otherwise modify the existing concrete as required to receive the scheduled expansion joint assembly.
- 16. Provide and install slip-resistant aggregate as scheduled.
- 17. Provide and install all column base plate grout.
- 18. Vehicle access and Traffic Control:
 - a. Contractor to provide designated individuals during concrete pours to ensure that vehicles are properly directed while on-site. The location and responsibilities for the individuals is to be discussed during the pre-pour conference.
 - b. Contractor to provide dust control
 - c. Contractor to provide personnel to wash down concrete trucks prior to their departing the property. Failure to properly wash down vehicles will result in Contractor having to provide public road sweeping and/or cleaning.
 - d. Repair any damage to the temporary access roads caused by equipment.
 - e. Provide a queuing plan for trucks during pours.
- 19. This contractor is responsible for wash out dumpsters for footings and slab on grade.
- 20. Excavations:
 - a. Provide for all excavation
 - b. Provide for the removal and proper disposal of excess spoils to a legal dump
 - c. Provide and install backfill and compaction
 - d. Provide and install all rough and fine grading
 - e. Provide specified engineered fill under slabs, walks, curbs, or foundations
 - f. Underground utilities to be identified and located by third party before any underground work is started.
 - g. Provide Ground Penetrating Radar (GPR) to locate and mark existing gas, water, electrical site utilities, conduits, fiber, and mechanical piping prior to proceeding with any demo or excavation work.
 - Locate all underground utilities (public and private) prior to any demo or excavations. Note that Miss Dig will not locate private utilities on the Owner's property. It is the responsibility of this contractor to hire an outside firm and locate private utilities.
 - (a) Damage to existing utilities, public or private, including but not limited to gas, water, electric, mechanical, communication, and irrigation lines caused by work of this bid category will be the responsibility of this contractor. Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (1) Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (2) Contractor will also be charged a minimum of \$1,500 for each occurrence for Barton Malow administrative costs.
 - (3) Contractor will be responsible for all Owner personnel, administrative costs, and damages for each occurrence.

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- 21. Finishing of exposed concrete surfaced
 - a. It is the expectation of Barton Malow Builders that all exposed concrete surfaces are consistent in color, appearance, and texture. Excessive pinhole or other surface defects will not be accepted on this project. Nor will localized "patching" or "rubbing" that creates a noticeable inconsistent finish on the surface. Contractor may be required to rub entire sections or runs of walls to achieve the desired finish, in the event successful consolidation of the concrete against the formwork is not achieved.
- 22. Concrete Placement Special Requirements
 - a. Contractor shall include all items as required to place concrete in accordance with the contract documents and per the Project Schedule. This includes all necessary hot and cold weather provisions and measures to ensure the progress of the Work.
 - b. Concrete supplier quality control technician to be on-site during pours over 100 yards and is to be responsible for water control. Concrete supplier to ensure water content does not exceed the mix design.
 - c. Contractor shall include weather protection measures, shift work and plant surcharge costs, as may be required to place smaller areas of Work and maintain the progress of the Work, during periods of time when the frequency of rainfall is higher. Contractor will not receive any extensions of time when the frequency or amount of rainfall is less than the five (5) year average for the same month.
- 23. Waterproofing/Vapor Barrier
 - a. Provide waterproofing system per Contract Documents,
 - b. Provide membrane waterproofing complete, including primers, sheet flashing materials, liquid membranes, mastic, adhesive, tapes, leveling and patching compounds, protection board, backer rod.
 - c. Provide all bituminous damproofing, including protection board and felt.
 - d. Provide rigid insulation to be applied over concrete.
 - e. Clean surfaces of concrete projections and dirt fill voids ready for proper adhesion and application of waterproofing and for structural integrity.
 - f. Provide and install all waterproofing and damproofing for the elevator pits.
 - g. Provide and install all waterproofing and damproofing at below grade cast in place walls prior to backfill. Form as required for waterproofing/dampproofing application.
 - h. Provide and place vapor barrier, keyway joints, reinforcing, welded wire mesh, expansion joints/fillers, chamfers, screeds, isolation joints at columns, construction joints, water stops, compressible filler, wedge inserts, bearing pads, etc. as required by the contract documents or industry standards.
 - i. Vapor barrier to wrap to top of formwork. Joint treatment is per the manufacturer's instruction with approved adhesive. Noncompliance remediation costs (rework/loss of time) are the responsibility of this Contractor.
 - j. Demolition of existing concrete slab, concrete walls or concrete structure is by this Contractor.
- 24. Foundations /Grade Beams/ Sub-Structure
 - a. Verify all existing and newly installed underground utilities prior to excavation for foundations. If any utility is distributed it must be repaired and replaced and placed in service immediately by this Category.
 - b. Provide and install all granular material/fill as required to achieve bearing requirements for placement of foundations.
 - c. All items are to be formed in lieu of earth formed.
 - d. This Contractor shall perform all dewatering of subgrade and excavations for foundations / sub-structure as required to properly control rain and/or groundwater accumulation for all Work. Refer to the Geotechnical Engineering Report for water conditions relative to this site.

- e. Contractor to excavate, form, reinforce, place and finish exterior structure and building foundations / sub-structure.
- f. Provide and install all forms, ties, bracing, kickers, anchors, and all necessary items to complete all foundation work.
- g. Remove all overpour from concrete poured footings.
- h. Superstructure / Walls
 - 1) Contractor to form, reinforce, place and finish concrete superstructure including, but not limited to walls, columns, beams & girders.
- 25. Building Pad
 - a. This contractor is responsible for installation of building pad.
 - b. Strip and Excavate per geo report, details and site requirements.
 - c. Provide and install all fill necessary to meet all compaction requirements. Base bid is to provide class II sand fill subbase beneath the slab.
 - d. Provide fill 15 feet around the exterior of the building to match the grade of the building pad.
 - e. Proof roll building pad to meet compaction requirements and Geotech approval.
 - f. Provide hauling and legal disposal of all spoils from this contractor stripping and digging operations.
 - g. Coordinate with MEP contractors on installation of underground. The MEP contractor is responsible for compaction and backfill. This contractor is responsible for fine tuning and finish grade.
- 26. Slab on Grade
 - a. This Contractor shall confirm slab elevation is ready for slab-on-grade prep.
 - b. Provide and install all engineered fill as specified and/or required.
 - c. Provide fine grade and proof roll of subgrade and subbase.
 - d. Contractor to provide and install all work associated with the slab on grade including all thickened slabs, rigid insulation, saw cutting, control joints, expansion joints, compressible fillers, joint sealants, vapor barriers, chairs, reinforcing, embeds, keyways, curing and sealing compounds, hardeners, depressions and elevation changes. Coordinate with all Contractors interfacing with this work to allow their scope to be installed, tested and inspected prior to concrete placement.
 - e. Provide and install all thicken slab shown or specified.
 - f. Contractor to form, reinforce, place and finish concrete slab on grade. Contractor to provide the necessary curbs on slab where indicated on plans.
 - g. Contractor is responsible for all required pest control as it relates to this scope of work.
 - h. Slope surfaces to all floor drains for proper drainage as indicated on the contract documents. Take special care to work with other trades particularly mechanical and electrical so as to ensure in slab rough-ins are kept plumb and true.
 - i. Comply with all ADA requirements on ramps.
 - j. Slab on grade underneath wood gym floor MUST BE poured with a laser screed and pass levelness test within 24 hours.
- 27. Slab on Metal Deck
 - a. Contractor to provide and install all work associated with the slab on metal deck including all reinforcing, chairs, formwork, deck edgers, pour stops, keyways, angles, dowels, embeds, concrete stairs, infill of metal stair treads and landings, shores, reshores, bracing and curing and sealing compounds. Coordinate with all trades interfacing with this work to allow their scope to be installed, tested and inspected prior to concrete placement.
 - b. Contractor to form, reinforce, place and finish the slab on metal deck. Contractor to provide the necessary curbs on slab where indicated on plans.

- c. Contractor shall ensure all holes in metal deck are filled and/or covered to avoid concrete and water dripping through to the floors below.
- d. Contractor shall include and coordinate MEP openings and penetrations and reinforcing of MEP openings and penetrations, identified and located on returned shop drawings in accordance with the Contract Documents.
- 28. Stairs
 - a. Provide and install all metal stair pan concrete fill. Coordinate finish with any scheduled flooring requirements.
 - b. Provide and install all cast-in-place concrete stairs. Include any required embedded items shown or scheduled, including but not limited to nosings, embed plates, sleeves, etc.
- 29. Embedded Items:
 - a. Contractor shall provide and install all embedded items
 - b. Contractor shall install all embedded items
 - c. Provide and install all dovetail slots where masonry abuts concrete.
 - d. Contractor is responsible to receive, store, unload, hoist, install embeds and anchor bolts.
 - e. Install all anchor bolts provided by this Contractor per approved anchor bolt layout drawings.
 - 1) All anchor bolts are to be left clean and protected. Contractor shall provide certified as-builts of the anchor bolt foundations and is to set and mark clearly one leveling nut.
- 30. Polished Concrete Floor Finishing
 - 1) Contractor shall provide all grinding and polishing to specified levels shown and specified on the contract documents.
 - 2) Contractor shall provide and install all concrete stains, sealants, and hardeners called for in the contract documents.
 - (a) Provide full mock-up for Architect/Engineer and Owner approval prior to start of work.
 - Work includes the installing of diamond polish concrete floor surfaces with power disc machine recommended by floor finish manufacturer. Sequence with coarse to fine grit using dry method.
 - 4) Work includes adhering to Polished Concrete standards specification
 - 5) Work included treating any non-moving cracks with flexible epoxy membrane, and sand prior to applying primer.
 - 6) Work includes installing divider and control joint strips straight and level to locations indicated.
 - 7) Work includes utilizing hand grinding/polishing along with specialized edging equipment at all perimeter walls, penetrations in the concrete surface, electrical poke through, columns, casework, equipment, door frames, walk off mats, storefront systems, and other adjacent finishes to achieve the required level finish.
 - 8) Work includes Contractor providing Polish Levels as described in the contract documents.
 - 9) Work includes installation of all products to meet temperature requirements, per manufacturer's written instructions and specifications.
 - 10) Contractor is responsible for all testing requirements specified in the contract documents.
- G. Schedule and Manpower
 - 1. Please be advised of the schedule the duration of the footing activity is four weeks complete, make sure to have enough crew on site to complete.

H. Exclusions:

a. Site Demolition is excluded from this contractors scope of work, but this contractor is responsible for stripping, balancing, grading, excavating and backfilling within the confines of the building.

2.02 SPECIAL CONSIDERATIONS:

- A. Labor Rates/Unit Prices/Alternates: Provide the following information on the bid form:
- B. Labor/Equipment Rates:
 - 1. This Contractor is to provide as a part of his proposal a fully detailed labor rates for Barton Malow Builders approval for work associated with this Contractor's and for each of their Subordinate Parties Trades. In addition, labor rates will be required for all equipment involved with the performance of the work required by this Bid Category.
- C. Unit Pricing:
 - 1. Provide unit price per tons of 21AA fill, including all equipment, labor, foreman, site trucks complete
 - a. Unit of Measurement: Tons
 - 2. Provide unit price per tons of sand fill, including all equipment, labor, foreman, site trucks complete installation per ton
 - a. Unit of Measurement: Tons
 - 3. Unsuitable Soils Off Site
 - a. Description: Removal of unsuitable soils to be replaced by satisfactory soils with the unsuitable soils being removed off-site
 - b. Unit of Measurement: Tons
 - 4. Provide unit price per tons of undercuts, including all equipment, labor, foreman, site trucks complete
 - a. Unit of Measurement: Tons
 - 5. Provide unit price per tons of material trucked off site a. Unit of Measurement: Tons
 - 6. Provide LF deduct to trench form footings in lieu of traditionally forming a. Unit of Measurement: LF
- D. Allowances: This Contractor must obtain written authorization from Barton Malow Builders prior to performing the associated work below. Include in this Contractor's bid, allowances for work as follows.
 - 1. Provide Allowance for the following
 - a. Include an allowance of \$100,000 in this Contractor's bid for additional unidentified Concrete work and site work. Allowance is to be used at the direction of Barton Malow Builders.
- E. Alternates: This bidder shall be required to submit alternate prices identified in the contract documents which pertain to their work. These alternate prices shall be separate from their base bid on the bid proposal form.
 - 1. Alternate #2 Building Pad Fill Alternate Material
 - a. Base Bid: Provide class II sand fill for building pad
 - b. Alternate: Provide class II limestone sand fill for building pad

END OF SECTION 002203.01

Troy School District Troy School District - BP#3A -New Smith Middle School Foundations and Steel Package Troy, Michigan

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SECTION 002205.01 STRUCTURAL STEEL - SCOPE OF WORK BID PACKAGE 3A

BID CATEGORY – STRUCTURAL STEEL

PART 1 GENERAL

2.01 THE WORK OF THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO PROVIDING ALL SUPERVISION, LABOR, EQUIPMENT, MATERIALS, TAXES, BONDS, INSURANCE, SCAFFOLDING, HOISTING AND INCIDENTALS TO COMPLETE THE WORK PER ALL CONTRACT DOCUMENTS FOR THE TROY SCHOOL DISTRICT - BP#3A - NEW SMITH MIDDLE SCHOOL FOUNDATIONS AND STEEL PACKAGE AS DEFINED BY THE BID PACKAGE NO. 3A BID/WORK SCOPE DOCUMENT INCLUDING ITS SUPPLEMENTARY DOCUMENTS AND IN ACCORDANCE WITH ANY APPLICABLE CODES. ALL WORK IS TO BE PERFORMED AS SHOWN ON THE PLANS AND AS SPECIFIED IN THE FOLLOWING TECHNICAL SPECIFICATION SECTIONS:

A. Division 0 - Procurement and Contracting Complete

IN ADDITION TO THE ABOVE, THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO THE BIDDING DOCUMENTS, THE BIDDING AND CONTRACT REQUIREMENTS AND DIVISION 1 GENERAL REQUIREMENTS OF THE BARTON MALOW BUILDERS PROJECT MANUAL AND VARIOUS OTHER DOCUMENTS AND TECHNICAL SPECIFICATIONS INTERFACING WITH THIS WORK PROVIDED BY THE OWNER, ARCHITECT AND/OR ENGINEERS. THE BIDDER IS ADVISED TO REVIEW THE WORK DESCRIPTIONS OF THE OTHER CATEGORIES SO AS NOT TO MISUNDERSTAND SCOPE RESPONSIBILITIES.

2.02 PART 2 PRODUCTS – NOT USED

2.03 PART 3 EXECUTION

THE SCOPE OF WORK WILL INCLUDED AND IS NOT LIMITED TO THE FOLLOWING ITEMS:

- A. Performance of the Work shall be in accordance with all Division 01 General Requirements.
- B. Refer to the Project Manual for additional bidding and project general requirements and conditions.
- C. In addition to the requirements set forth in Division 01 General Requirements, the Work shall include the following:
 - 1. Additional Meetings & Quality Control Requirements:
 - a. Mockups
 - b. Additional Photographic documentation, etc.
 - c. As-builts

D. Submittals/Close Out:

- 1. Submit all start-up documents, and product submittals on materials & products within two (2) weeks after Notice to Proceed (NTP).
- 2. Submit all shop drawings in accordance with the contract documents and all code requirements within two (2) weeks after Notice to Proceed (NTP).
- 3. Submittal of all required detailing to allow for Architect/Engineer review and approval, corrections, fabrication, and delivery without impacting the construction schedule.
- 4. Contractor is to submit a long lead item log to Barton Malow Builders for materials and equipment with lead times of 6 weeks or more. The long lead item log shall include submitted date, submittal approval date, lead time, order date, & approximate delivery date. Contractor shall update and submit weekly to Barton Malow Builders.

5.

All equipment, products, & materials that are installed without submittal approval and not acceptable by the Architect/Engineer and Owner will be removed at the installing Contractors cost. Contractor will be held responsible for all back charges caused by the project delay to the Owner and Trades working onsite due to no specified material/equipment install and/or lack of or late submittal approvals.

- 6. Provide all necessary welding and mill certificates as required by the contract documents or as requested by Barton Malow Builders or Architect/Engineer.
- 7. Actively participate in BIM Coordination per Section 01370 in the BMC Project Manual, and coordinate the installation of this Contractor's work to allow installation and access to all other M/E/P and architectural/structural supports. Installed systems must be placed where determined in the overhead coordination process; deviations will not be acceptable. During the overhead coordination process, CAD files must be compliant with Revit 2020 software.
- 8. Revit or similar model of steel is to be provided for coordination. This is to be expedited upon award of contract.
- 9. Engineered shop drawings must be signed and sealed by a Registered Engineer in accordance with contract documents and state law.
- 10. Contractor shall include all cost necessary for as-built, asset sheet data spreadsheet, closeout documents (including O&M manuals, valve charts, guarantees or warranties on equipment and/or materials, testing and system check-out or approval, and Owner's training as required) per the Contract Documents.
- 11. Contractor to provide additional manpower dedicated to Barton Malow Builders to complete Barton Malow Builders punch list work for a minimum of ten (10) working days prior to the listed Architect/Engineer project punch list in the project schedule. This manpower will be under the direction of the Barton Malow Builders Superintendent to complete punch list work of their bid category and will report directly to the Barton Malow Builders each day. Failure to provide required manpower may result in a delay in receiving the Contractor's progress payment from Barton Malow Builders.
- 12. Architect/Engineer's punch list will not start until all work has been completed.
- 13. Contractor may not drop retainage to 5% until work of this bid category is substantially complete according to the contract documents. In addition, all warranties, o/m manuals, testing, commissioning, training, extra materials, and punch list items have been completed, turned over, accepted, and documented. Contractors must also have up to date partial and final waivers from all Contractors, suppliers, and other Subordinate Parties including a AIA G707a Consent of Surety to partial reduction in retainage form signed and sealed by the Surety.
- 14. To bill out the remainder of retainage (from 5% to 0%), the Contractor must set up a meeting with Barton Malow Builders to go over and/or collect the remaining closeout items for final payment as specified in the project manual and submit a AIA G707 Consent of Surety for final payment form signed and sealed by the Surety.

E. General Scope:

- 1. Contractor is to incorporate all project bidding documents into their subordinate party agreements.
- 2. All bidders are required to review the General Conditions of the Contract located in the project manual.
- 3. Contractor is to be licensed to perform work in the State of Michigan. This includes all Contractors and 2nd or 3rd (etc.) tiered Contractors.
- 4. Contractor shall maintain on site, a copy of all applicable code books specifically pertaining to this scope of work. These code books are to follow the city, state, and all other authorities having jurisdiction per the specific year each authority has designated for this particular project. This Contractor is responsible for all research and compliance with all applicable regulations.

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- 5. This Contractor is responsible to coordinate with Barton Malow Builders to schedule inspections with the Local Governing Agency and/or the State of Michigan as well as the testing agency. Inspection results and records will be kept in the Barton Malow Builders jobsite office. During all inspections each Contractor is to have a Foreman/Superintendent on site.
- 6. Contractor must verify that work installed by others, complies in its entirety with the contract documents prior to commencing their work, which ties in, overlays and/or follows the installed work. Any non-conforming work shall be identified in writing to Barton Malow Builders immediately.
- 7. Anyone listed on the National Sex Offender List is not allowed to be a part of this project and anyone who is convicted of a listed offense will be immediately dismissed from project. Provide photo identification upon arriving to the site and badges are to be worn by Contractor's field personnel at all times.
- 8. Contractor shall have their Superintendent/Foreperson attend a daily coordination meeting every morning from 6:45am 7:00am. Participation is mandatory.
- 9. Project daily working hours are Monday Friday, Site Opens @ 7:00am and closes at 4:00pm. There will be a 5-day minimum work week. Should scheduled workdays or production be lost due to inclement weather or this Contractor's delays, overtime during the work week and weekends will be required to maintain the project schedule at this Contractor's expense. Any work performed outside normal working hours requires approval from Barton Malow Builders.
- 10. Contractor is only to take direction from Barton Malow Builders.
- 11. Review all specifications and project drawings, drawing notes, schedules, and schedule notes for areas requiring work described by this bid category and coordinate work with the respective contractors, include all costs in base bid.
- 12. Include all manpower, overtime, composite crews and mobilizations in base bid to complete work per the project schedule. All mobilizations required to complete this Scope of Work have been included in the base contract price, unless specifically addressed otherwise in this Contract Agreement. It is understood and agreed that this work may not be performed in a continuous operation and during normal business hours. This contractor has included the cost of the multiple mobilizations/remobilizations and cost to work during non-normal business hours.
- 13. Contractor will be required to perform after-hours and overtime work as necessary to minimize disruption to Troy School District.
- 14. If Contractor is behind schedule and is notified by Barton Malow Builders, the Contractor shall be required to accelerate the work at its own expense. The Contractor shall employ such means as overtime work, multiple work shifts, and additional equipment, and shall continue to do so until the progress of the work, in the opinion of Barton Malow Builders, is in conformance with the master project construction schedule.
- 15. Provide and install all materials per the construction documents. Bid proposals must be per plan and specs. Bids not conforming to plans and specifications will be rejected. Substitutions must be pre-approved in writing prior to bids or be submitted as voluntary alternates on the bid form.
- 16. Contractor must include costs and utilize Autodesk Build and Textura for this project. Information and cost for Textura can be found in section 012000-Price and Payment Procedures and AutoDesk Build in section 013000-Administrative Requirements.
- 17. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings.
- 18. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.

- 19. This project surrounded by Troy School District staff and students. Contractor is to take proper measures to ensure minimal disruptions to the roads and sidewalks around the project. Contractor is responsible for proper barricading and signage if his work activity interrupts the normal flow of operations around the facility. All Contractor employees and subordinate parties are to conduct themselves in a manner not to offend nor interfere with the staff, students, or any other public person. Barton Malow Builders and Troy School District Code of Conduct includes immediate termination for foul language/derogatory conversation. Those who are not in compliance will be asked to leave the project and not return.
- 20. Provide all temporary protection for work of this bid category. Removal of this protective material at the conclusion of the project is this contractor's responsibility.
- 21. Minimize disturbances to landscape areas. Excessive or malicious (as deemed by)Barton Malow Builders landscape disturbance will be the responsibility of this contractor to restore at own expense.
- 22. Protect equipment and finish items to remain during construction including roof, ceilings, walls, flooring, and landscaping during work of this bid category. In addition, all work being performed through ceilings, be it grid, ceiling pads, drywall or plaster, etc. must be protected from damage during work of this bid category. Correction of damage due to lack of adequate protection will be the responsibility of this contractor.
- 23. Deliveries must occur after 7am and prior to 2pm and not between noon and 1pm, unless scheduled with a Barton Malow Builders Superintendent or risk having the delivery turned away. Unloading, hoisting, transport of materials out of truck to staging location, and delivery acceptance is by the Contractor who is responsible for the material.
- 24. Contractor is responsible for storage of all materials. Deliver materials to the site as needed. Storage in the building will be limited. Materials in building must be on pallets or material/pipe carts.
- 25. Stocking of material on floors will be limited to a three (3) day maximum in the area of work, if approved by Barton Malow Builders Superintendent. No other material storage will be allowed in the building.
- 26. All materials used are to be new, unused and undamaged. Any damaged or questionable material is to be removed and replaced at no cost to the Owner or Barton Malow Builders.
- 27. Include all rigging and hoisting to deliver, install, and remove materials to / from all floor levels complete.
- 28. All crane and boom truck lifts must be properly barricaded to keep public at a safe distance. Provide ground spotters and barricading to keep public out of the swing radius of the crane or boom truck.
- 29. The use of the existing and/or new elevator will not be permitted.
- 30. This contractor is responsible for all lifts and scaffolding, if required, for work of this bid category. Coordinate use of your lifts and scaffolding with other trades.
- 31. Scaffolding and staging as required. Engineered installation drawings, as required.
- 32. Include field layout for work of this bid category, also included is field time for this contract to survey existing conditions prior to beginning each phase of work. Any discrepancies between existing conditions and the contract drawings are to be reported to Barton Malow Builders immediately.
- 33. Coordination drawing meetings will be scheduled. Contractor understands that Barton Malow Builders is not issuing change orders for items not coordinated with other trades. Contractor also understands any conflicts of existing structure with their new work must be brought to Barton Malow Builders and Architect/Engineer attention in advance of start of work.
- 34. Contractor shall have no claims for additional cost because Contractor has failed to install work in proper sequence and not in accordance with Coordination drawings. Likewise, any

cost for removal of materials or damage caused by Contractors who have failed to perform their Work in the proper sequence will be borne by that Contractor.

- 35. Participation in coordination meeting/s, weekly progress meetings, and drawings process is mandatory. Minimum eight (8) hours per week shall be included for meetings and coordination with Barton Malow Builders. Representative must be able to make all decisions for their Company and Contractors.
- 36. Contractor to have one (1) full time on-site superintendent, for the duration of the project. The assigned personnel will be responsible to manage the "entire" scope of work including their Subcontractors/Suppliers and will be the single point of contact for this scope of work. Contractor will be responsible to complete the daily report & JHA form each day including for their Subcontractors regardless if the Contractor has self-perform crews on site or not. Representative must be able to make all field & financial decisions. If full time supervision is not onsite by the Contractor, their Subcontractors will be told to leave the site until the next calendar working day. Contractor will be held responsible for delays and back charged due to lack of project supervision.
- 37. Contractor is to provide site Supervision and Foreman an Apple iPad with unlimited data/cellular plan service. It is required that Contractor download BluebeamRevu and Autodesk Build via the app store on each device. Contractor may access Owner guest Wi-Fi network if available.
- 38. Contractor must complete and submit electronic daily Flypaper reports and pre-task plans via Autodesk Build to Barton Malow Builders on a daily basis. These reports must show total number of manpower, total number of hours, and each day's specific activities. If this is not done, Barton Malow Builders reserves the right to withhold this Contractor's monthly payments until satisfied with this Contractor's response.
- 39. Items shown to be turned over on the project documents and for closeout attic stock to Owner must be accompanied by a transmittal and copied with signature of receipt to Barton Malow Builders. If a transmittal is not provided and Owner's items are missing, it is this contractor's responsibility to purchase and replace with new materials.
- 40. Contractor is responsible for the quality control for work of this bid category (including for their subordinate parties). Contractor is to strictly observe tolerances and to maintain strict quality control throughout the execution of his work. All work is to be checked for compliance at each stage of completion per applicable codes, project drawings, specifications, and manufactures shop drawings/written instructions. Any work that is not within specified tolerances is to be removed and replaced.
- 41. Provide Ground Penetrating Radar (GPR) to locate and mark existing gas, water, electrical site utilities, conduits, fiber, and mechanical piping prior to proceeding with any demo or excavation work.
 - a. Locate all underground utilities (public and private) prior to any demo or excavations. Note that Miss Dig will not locate private utilities on the Owner's property. It is the responsibility of this contractor to hire an outside firm and locate private utilities.
 - Damage to existing utilities, public or private, including but not limited to gas, water, electric, mechanical, communication, and irrigation lines caused by work of this bid category will be the responsibility of this contractor. Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (a) Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (b) Contractor will also be charged a minimum of \$1,500 for each occurrence for Barton Malow administrative costs.
 - (c) Contractor will be responsible for all Owner personnel, administrative costs, and damages for each occurrence.

- 42. Ticket work is to be signed by Barton Malow Builders at the end of each workday. Tickets not reviewed or signed by the Barton Malow Builders Superintendent will not be accepted or processed. Pricing is to have detailed explanations of work performed. Barton Malow Builders directed ticket work shall NOT include foreman time, work/service truck, cartage, or overhead and profit mark-up. Tickets shall include only approved labor and materials used. Signature from Barton Malow Builders Superintendent does not necessarily equal additional funds. Barton Malow Builders Project Manager will decide if ticket work is added scope to the contract.
- 43. All change pricing is to be submitted within ten (10) days from receipt of the change vehicle, unless otherwise agreed by Barton Malow Builders or Owner. All change order pricing is to include a detailed breakdown of costs Material, Labor, Equipment, etc. along with any signed work orders. No lump sum pricing allowed. Change order pricing will not be accepted without a detailed breakdown. Failure to submit change order pricing within ten (10) days will result in a \$0 change order.
- 44. Provide all cutting/patching, coring, patching of penetrations, and block-outs for work of this bid category. This is to include but not limited to cutting and patching of all openings in deck (concrete or metal) if required. Patch walls where adjacent existing walls were removed. Patch and repair work is to be done professionally by trained, skilled craftsmen.
- 45. Provide and install temporary protection for all excavations, floor, or roof openings created by work of this bid category. Temp protection shall be installed per OSHA standards with robust, securely fixed and clearly marked (e.g. 'Hole below do not remove') covers to prevent the fall of materials or persons through them. Covers should be constructed to be removable sections and that they do not present a tripping hazard.
- 46. Contractor is responsible for all dewatering and snow/ice removal necessary to complete this Scope of Work.
- 47. Cleanup is to be performed continuously as work is progressing. This means cleaning up each and every hour. This includes the removal of debris, sweeping (Contractor to provide sweeping compound), wiping down of all finished surfaces, and the proper storage of unused equipment and materials. Cleanup not performed by the Contractor will be completed by a third party (chosen by Barton Malow Builders) and back charged accordingly. Written warnings will not be issued.
- 48. Contractor shall participate in the Composite Cleanup Crew as described in the project manual. These requirements are in addition to normal daily cleaning responsibilities and costs for this are included in the contract price.
- 49. Include all cost in base bid to comply with the latest Federal mandate, State of Michigan Executive Order, OSHA requirements, Local Jurisdiction Requirements, Owners Requirements, whichever is more stringent related to Covid-19: testing, PPE, social distancing, and all other requirements for your workers and subordinate parties. This shall include identifying your competent Covid 19 supervisor that will review, monitor, record, and enforce all requirements. In addition, each worker onsite is required to sign in each day prior to work using the Barton Malow QR Reader Questionnaire on a smart phone or tablet.

F. Specific Scope:

- 1. Temporary Measures:
 - a. Protect all materials from damage prior to installation.
 - b. Temporary Electricity:
 - 1) Temporary Generator: This Contractor shall provide temporary gas powered generators as required to complete all work related to this scope (welder, 220V, etc.).
 - 2) No temporary electricity will be available to this Contractor. Contractor to provide all gas or diesel operated generators required for their scope of work
 - c. Temporary Lighting:

- 1) Contractor shall provide task lighting and temporary light stands as necessary.
- d. Temporary Guardrail Systems:
 - Maintain all temporary guardrail system during the course of construction. At such time when it can or must be removed to perform work, appropriate safety precautions are to be implemented. After this Contractor completes areas of work, which do not offer appropriate fall protection due to gaps or openings, this Contractor is to provide appropriate temporary guardrails across openings.
- 2. Coordination and Layout
 - a. Actively participate in Mechanical, Electrical and Plumbing (M/E/P) overhead coordination process per the Barton Malow Builders Project Manual, and coordinate the installation of this Contractor's work to allow installation and access to all other M/E/P and architectural/structural supports. Installed piping must be placed where determined in the overhead coordination process; deviations will not be acceptable and will be at the Contractors' expense to correct if found in the field.
 - b. Contractor will be responsible for the complete coordination of work of this bid category with all other trades to identify and resolve conflicts. Any and all financial implications emanating from this Contractor's lack of planning and coordination will be borne by this Contractor. This shall include blocking, backing conduits, sleeves, penetrations, and any other appurtenances which may not be specifically identified by the contract documents but are required to complete this scope of work.
 - c. This Contractor is responsible for all detailed layout required for proper location and coordination of work.
 - d. Contractor shall review the critical dimensions and elevations of all work and shall otherwise verify the conformity of existing work to the Contract Documents and to its suitability. Contractor shall promptly submit a written statement to Barton Malow Builders and Architect/Engineer noting any discrepancies or unacceptable conditions as they relate to its work
 - e. Contractor shall attend all meetings as required to properly coordinate its Work with that of Others. Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - f. Contractor shall visit the site and attend meetings as required to properly coordinate the Work.
 - 1) Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - g. Initial benchmarks are shown on the project drawings.
- 3. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.
- 4. Contractor shall include multiple mobilizations to complete the Work.
- 5. Replaced in its entirety all fireproofing disturbed by this Contractor's installations. Patching material shall match the material used by the Fireproofing Contractor.
- 6. All welding must be performed by a "certified" welder and this Contract shall submit a copy of each welder's certification to Barton Malow Builders prior to onsite mobilization.
- 7. Gas-powered portable welders must be exhausted to the outside of the building and kept away from outside air openings, doors, windows, as so not to get any fumes into the building. This includes but is not limited to welder trucks, lifts and generators. Barton Malow Builders will not be held liable for lost time due to noncompliance with this request. This Contractor will be held financially responsible for any delays to the overall construction schedule.
- 8. Coordination and installation of any materials required during the structural steel erection, masonry, glazing, and concrete installation.
- 9. Temporary and permanent bracing required for this scope of work.

10. Metals

- a. This Contractor is responsible for providing traffic control procedures as required for all deliveries to the jobsite.
- b. Field dimensions and measurements as required for this work. Prior to fabrication and erection Contractor shall verify existing conditions and anchor bolt locations through means of a qualified 3rd party independent surveyor to verify correct installation. Contractor is submit survey results to Barton Malow Builders and Architect/Engineer. Any errors or discrepancies need to be identified in writing. Corrections will be made by the Contractor responsible for the original installation. Cost for all field visits/surveying must be in base bid.
- c. This Contractor will employ a 3rd party independent surveyor to verify and monitor the plumbness of the building. Surveyor is to be licensed in the State of Michigan. Complete as built surveys should be submitted for review following concrete deck pours for each respective building level. This Contractor should take care to keep the building within acceptable tolerances including surveying of anchor bolts before and after the pour. Contractor shall refer to the specified steel tolerances as noted in the specifications. Costs for all field visits/surveying must be included in base bid.
- d. Provide fire watch 100% of the time while any cutting/torching or welding operations occur. The fire watch shall NOT be performed by the person doing the cutting/torching or welding. Fire watch shall occur for 2 hours after the last cutting/torching or welding operation finishes.
- e. Fill out burn permit daily and turn in daily to Barton Malow Builders and Autodesk Build.
- f. Smoke control barricades and/or smoke eaters shall be used 100% of the time that interior cutting/torching or welding occurs or where exterior operations could allow smoke to enter through mechanical air intakes.
- g. Contractor is to complete and turn in all lift plans, equipment inspections and Crane operator certifications into prior to install.
- h. Provide and install all temporary guardrails, at all leading edges including exterior perimeter of roof, shafts, openings, etc. Maintain and restore rails as a result of the execution of this work. Temporary guardrails will be removed by this same Contractor at the direction of Barton Malow Builders.
 - Guard rails shall include two strand cable (minimum 3/8" in diameter) including 3"x3"x1/4" minimum angle vertical supports at the perimeter of all openings (including but not limited to: elevators, stairs, large mechanical openings, etc.) and the perimeter of the floors. Requirements include intermediate supports at the perimeter of all floors above grade including roofs and penthouse / roofs. Include touch-up painting of structural steel after removal of safety cable and supports. Turnbuckles every 50'-0" and one turnbuckle for each floor opening. Install temporary guardrail such that removal of one bay (column centerline to an adjacent column centerline) does not affect the railing of adjacent bays. Punching column flanges will not be permitted. This work must comply with MIOSHA requirements.
 - 2) During installation, this Contractor is responsible to maintain guardrails and perimeter cables as required until work is completed. If guardrails and perimeter safety cables need to be removed, this Contractor is responsible for providing temporary protection, during the operations, and restoring the guardrail and cables to their previous condition when complete. This Contractor is to provide appropriate temporary guardrails as needed
- i. Provide and install all necessary shoring, bracing, flashers, safety barricades and other safety equipment in accordance with MIOSHA/OSHA rules and regulations. Provide covers for holes per MIOSHA/OSHA rules and regulations.

- 1) Include drying all decks as required for the complete execution of this work during the duration of work.
- j. During the duration of this contract, this Contractor is responsible for protecting (as approved by the project superintendent) the existing building from smoke/smells/odors created during the welding of the new steel to existing steel, weather protection at tie in points, including areas where new steel and existing steel are being attached, and fire protection / fire watch needed for welding operations.
- k. The Owner will independently contract a testing agency to test and inspect the work at the Owner's expense. Though the Owner will test and inspect the work, this does not absolve this Contractor from the proper execution of its work including its own testing and inspection. This Contractor is responsible to prepare for, coordinate with, and respond to the Owner's testing of the work including discovered deficiencies. This Contractor to provide access and assistance to the Owner's Testing Agency and Architect/Engineer in order to adequately reach testing locations as required (lift, ladder, etc.).
 - 1) Contractor shall immediately correct all deficiencies noted by Owner's Testing Agency and Architect/Engineer.
- 11. Structural Steel Framing
 - a. Provide and install all structural steel columns, girders, beams, joists, etc.
 - b. Provide and install structural steel framing shown included in the Structural, Architectural, Roofing, Mechanical, and Electrical drawings.
 - 1) Provide and install attachments/anchors required to complete this scope of work.
 - c. This Contractor is responsible for proper storage and protection of steel from corrosion, deformation and other damage on site.
 - This Contractor is responsible for providing steel complying with all standards listed in specifications. All steel shall be reworked as necessary to provide a complete installation. Coordination with other Contractors is required to determine required conditions of steel for completion of work by other Contractors. Contractor is responsible to provide and install steel to the conditions required for all other Contractors to complete work.
 - d. This Contractor shall be responsible for receiving, off-loading, into/onto building including the safe and secure storage of materials related to this work.
 - e. Provide engineered, temporary shoring as required for steel erection.
 - f. Provide anchor bolts and setting templates to Concrete Footing Contractor.
 - g. Provide and Install (weld/mechanically fasten) all shear studs, including coordination of required testing.
 - h. Threshold inspection is by the Owner's testing agency but coordinated by this Contractor.
 - i. Provide all embeds and placement drawings to the requiring Contractor in sequence to be installed by Concrete and/or Masonry Contractor. All embeds are to be expedited to prevent schedule delay to other Contractors' work.
 - j. Provide all embedded items to requiring Contractor including, but not limited to, steel lintels, concrete embeds, all angles, stair nosing, anchor bolts, pipe bollards, etc., indicated by the contract documents (not limited to the structural drawings).
 - k. Contractor is responsible for survey anchor bolt and embed locations ahead of time to avoid any delays in erection. Report any non-conforming work to Barton Malow Builders.
 - I. Grouting of base plates is by Concrete Contractor.
 - m. Laydown space is limited so delivery of steel is to be coordinated with Barton Malow Builders prior to delivery.

- n. Provide and install specified galvanizing, primers, paint, coatings, etc. for ferrous metals, galvanized metals, welds, and aluminum are required and are the responsibility of this Contractor. Field touch up of shop paint as required. Shop preparation and painting of all structural and miscellaneous metals as indicated on the contract drawings.
- o. Contractor to provide all cranes, hoisting and hoisting equipment. This Contractor shall provide Barton Malow Builders with all necessary crane/hoisting information (size). This information will be used to prepare the site for the equipment mentioned by this Contractor. Four weeks prior to site mobilization, meet with Barton Malow Builders, Architect/Engineer, and Owner to discuss and resolve any issues relating to status of material procurements, site conditions, access, staging/storage requirements, material testing program and scheduling.
- p. For areas shown to receive paint, intumescent paint, or spray-on fireproofing, this Contractor shall ensure metal decking and steel framing is free of oils or any other materials that could jeopardize adhesion of spray-on fireproofing or paint.
- q. All steel will be left in a condition to accept fireproofing and/or intumescent paint.
- r. Coordinate penetrations and related framing with other Contractors during detailing phase. Provide framing plans to Mechanical and Electrical Contractor for verification.
- s. Assume all structural steel erection shall be completed while working off of subgrade, below slab on grade. Alternatively, this Contractor may provide gravel/stone base within the building footprint as required to complete all work related to this bid category if it so chooses.
- t. This Contractor is responsible for breaking off and removing all shear stud ferrules.
- u. Include touch up of applied liquid products to steel, i.e. primer or galvanizing compound, in order to return same to a shop finish condition due to damage caused by this Contractor's work.
- v. Include cleaning and touch up painting of bolted connections, welded connections, and abraded areas. After erection, field coat all abrasions, nuts and bolts, washers and surfaces left unpainted.
- w. Provide and install temporary ladders and vertical circulation to all levels until the installation of the permanent stairs/rails is complete. Temporary vertical circulation shall be for the use of Barton Malow Builders, Owner, and Contractors. Remove same when directed by Barton Malow Builders.
- x. Provide and install all un-sized members and connections shown to fully anticipate a complete installation.
- y. Coordinate slab edge details and locations with the Architectural and Glazing or other Contractors / Contractors whose work attaches to the slab.
- z. Contractor is required to provide and install all Architectural Exposed Steel Framing (AESS) shown or required on this project. This Contractor shall remove all factory labels and provide finished AESS surfaces complying with specifications, Barton Malow Builders and UM. Contractor shall provide all submittal documentation related to AESS, including mock-ups.
- 12. Metal Deck
 - a. Provide and install floor and roof metal decking.
 - b. Fill all gaps and holes with closure plates and strips to ensure minimal seepage of concrete.
 - c. Provide and install all deck welding and/or mechanical attachment, as required.1) Touch up all welds with specified metal primer.
 - d. Provide and install all deck laps and spacing as required.
 - e. Prevent workers from accessing decking placement areas prior to deck attachment to steel frame.

- f. Coordinate with the Concrete Contractor for proper access in order to accommodate placement of deck reinforcement.
- g. For areas shown to receive paint, intumescent paint, or spray-on fireproofing, this Contractor shall ensure metal decking and steel framing is free of oils or any other materials that could jeopardize adhesion of spray-on fireproofing or paint.
- 13. Metal Fabrications
 - a. Provide and install all miscellaneous steel and metal fabrication items are to be provide and installed by this Contractor unless specifically excluded by this work scope.
 - b. Provide and install slab edge and miscellaneous steel at roof and slab openings (see Structural, Architectural, Roofing, Mechanical, and Electrical drawings for additional openings, dimensions and coordination).
 - c. Provide and install all stairs and handrails shown on the contract documents (to be delivered and installed with elevated slab pour). Include stair 3, 4, 5, metal pan interior steel wall and picket handrails. Include mezzanine and monumental stairs complete with handrails, including overlook handrails.
 - d. Provide and install interior and exterior pipe handrails shown on the contract documents.
 - e. Provide and install loose steel angles for reinforcing of metal deck.
 - f. Provide and install lintels attached to structure for masonry and window openings.
 - g. Provide all loose steel lintels shown on the contract documents. Label for location. Turn over to appropriate installing trade.
 - h. Provide and install overhead coiling grill and sliding folding security grill support steel complete. Includes coordination with applicable trades.
 - i. Sill support framing below windows and curtain walls.
 - j. Provide and install in-wall steel supports, thru-wall countertop and lavatory supports, lead-lined door frame supports.
 - k. Provide knee wall supports as required, coordinate with architectural and casework drawings. Turn over and coordinate install with appropriate trade.
 - I. Provide and install top of masonry wall supports, clips, angles and kickers.
 - m. Provide and install additional miscellaneous steel necessary for the support of mechanical and electrical equipment including raised curbs, as shown on the Structural, Architectural, Roofing, Mechanical, and Electrical.
 - n. Provide and install elevator sill angles, hoist beam, separator beams, rail support beams, ladders and sump pit grates and covers per approved elevator shop drawings and contract documents.
 - o. Provide and install roof level tie back anchors around the perimeter of the roof. Exact locations will be provided by Architect/Engineer or Barton Malow Builders during steel erection.
 - p. Provide and install all framing around mechanical openings in floor or decking including but not limited to RTU and curb openings, flue openings, shaft openings, roof hatch openings, etc..
 - q. Provide and install all roof screens for various roof equipment as shown on drawings and details.
 - r. Provide and install vertical cages, ships ladder or miscellaneous stairs for roof access.
 - s. Provide and install II steel supports for medical equipment including, but not limited to OR lights, anesthesia booms, OR monitor booms and all imaging equipment as required.
 - t. Provide and install supplemental steel supports at all roof hatch openings, roof drains, canopy framing, etc.
 - u. Provide and install steel pan stair, stringer and landing systems.

- v. Touch up all welds with specified metal primer.
- G. Schedule and Manpower
 - 1. Please note the importance of shop drawings as detailed on project schedule. Procurement phased as necessary to deliver steel to site when needed.
 - 2. Milestone events:
 - a. Approval and procurement of anchor bolts for June 10th, 2024 on site.
 - b. First area of structural steel arrive on site, July 10th, 2024.

2.04 SPECIAL CONSIDERATIONS:

- A. Labor Rates/Unit Prices/Alternates: Provide the following information on the bid form:
- B. Labor/Equipment Rates:
 - 1. This Contractor is to provide as a part of his proposal a fully detailed labor rates for Barton Malow Builders approval for work associated with this Contractor's and for each of their Subordinate Parties Trades. In addition, labor rates will be required for all equipment involved with the performance of the work required by this Bid Category.
- C. Allowances: This Contractor must obtain written authorization from Barton Malow Builders prior to performing the associated work below. Include in this Contractor's bid, allowances for work as follows.
 - 1. Provide Allowance for the following
 - a. Include an allowance of \$75,000 in this Contractor's bid for additional unidentified Metals work. Allowance is to be used at the direction of Barton Malow Builders.
- D. Alternates: This bidder shall be required to submit alternate prices identified in the contract documents which pertain to their work. These alternate prices shall be separate from their base bid on the bid proposal form.

END OF SECTION 002205.01

SECTION 002231.01 SITE DEMOLITION AND SESC - SCOPE OF WORK

BID PACKAGE 3A

BID CATEGORY – SITE DEMOLITION AND SESC

PART 1 GENERAL

THE WORK OF THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO PROVIDING ALL SUPERVISION, LABOR, EQUIPMENT, MATERIALS, TAXES, BONDS, INSURANCE, SCAFFOLDING, HOISTING AND INCIDENTALS TO COMPLETE THE WORK PER ALL CONTRACT DOCUMENTS FOR THE TROY SCHOOL DISTRICT - BP#3A - NEW SMITH MIDDLE SCHOOL FOUNDATIONS AND STEEL PACKAGE AS DEFINED BY THE BID PACKAGE NO. 3A, BID SCOPE DOCUMENT INCLUDING ITS SUPPLEMENTARY DOCUMENTS AND IN ACCORDANCE WITH ANY APPLICABLE CODES. ALL WORK IS TO BE PERFORMED AS SHOWN ON THE PLANS AND AS SPECIFIED IN THE FOLLOWING TECHNICAL SPECIFICATION SECTIONS:

- A. Division 0 Procurement and Contracting Complete
- B. Division 01 General Requirements Complete
- C. Division 02 Existing Conditions Complete
 - 1. 02 4100 Demolition Complete

IN ADDITION TO THE ABOVE, THIS BID CATEGORY INCLUDES BUT IS NOT LIMITED TO THE BIDDING DOCUMENTS, THE BIDDING AND CONTRACT REQUIREMENTS AND DIVISION 1 GENERAL REQUIREMENTS OF THE BARTON MALOW BUILDERS PROJECT MANUAL AND VARIOUS OTHER DOCUMENTS AND TECHNICAL SPECIFICATIONS INTERFACING WITH THIS WORK PROVIDED BY THE OWNER, ARCHITECT AND/OR ENGINEERS. THE BIDDER IS ADVISED TO REVIEW THE WORK DESCRIPTIONS OF THE OTHER CATEGORIES SO AS NOT TO MISUNDERSTAND SCOPE RESPONSIBILITIES.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

THE SCOPE OF WORK WILL INCLUDED AND IS NOT LIMITED TO THE FOLLOWING ITEMS:

- A. Performance of the Work shall be in accordance with all Division 01 General Requirements.
- B. Refer to the Project Manual for additional bidding and project general requirements and conditions.
- C. In addition to the requirements set forth in Division 01 General Requirements, the Work shall include the following:
 - 1. Additional Meetings & Quality Control Requirements:
 - a. Additional Photographic documentation, etc.
 - b. As-builts

D. Submittals/Close Out:

- 1. Submit all start-up documents, and product submittals on materials & products within two (2) weeks after Notice to Proceed (NTP).
- 2. Submit all shop drawings in accordance with the contract documents and all code requirements within four (4) weeks after Notice to Proceed (NTP).

- 3. Contractor is to submit a long lead item log to Barton Malow Builders for materials and equipment with lead times of 6 weeks or more. The long lead item log shall include submitted date, submittal approval date, lead time, order date, & approximate delivery date. Contractor shall update and submit weekly to Barton Malow Builders.
- 4. All equipment, products, & materials that are installed without submittal approval and not acceptable by the Architect/Engineer and Owner will be removed at the installing Contractors cost. Contractor will be held responsible for all back charges caused by the project delay to the Owner and Trades working onsite due to no specified material/equipment install and/or lack of or late submittal approvals.
- 5. Contractor shall include all cost necessary for as-built, asset sheet data spreadsheet, closeout documents (including O&M manuals, valve charts, guarantees or warranties on equipment and/or materials, testing and system check-out or approval, and Owner's training as required) per the Contract Documents.
- 6. Contractor to provide additional manpower dedicated to Barton Malow Builders to complete Barton Malow Builders punch list work for a minimum of ten (10) working days prior to the listed Architect/Engineer project punch list in the project schedule. This manpower will be under the direction of the Barton Malow Builders Superintendent to complete punch list work of their bid category and will report directly to the Barton Malow Builders each day. Failure to provide required manpower may result in a delay in receiving the Contractor's progress payment from Barton Malow Builders.
- 7. Architect/Engineer's punch list will not start until all work has been completed.
- 8. Contractor may not drop retainage to 5% until work of this bid category is substantially complete according to the contract documents. In addition, all warranties, o/m manuals, testing, commissioning, training, extra materials, and punch list items have been completed, turned over, accepted, and documented. Contractors must also have up to date partial and final waivers from all Contractors, suppliers, and other Subordinate Parties including a AIA G707a Consent of Surety to partial reduction in retainage form signed and sealed by the Surety.
- 9. To bill out the remainder of retainage (from 5% to 0%), the Contractor must set up a meeting with Barton Malow Builders to go over and/or collect the remaining closeout items for final payment as specified in the project manual and submit a AIA G707 Consent of Surety for final payment form signed and sealed by the Surety.

E. General Scope:

- 1. Contractor is to incorporate all project bidding documents into their subordinate party agreements.
- 2. All bidders are required to review the General Conditions of the Contract located in the project manual.
- 3. Contractor is to be licensed to perform work in the State of Michigan. This includes all Contractors and 2nd or 3rd (etc.) tiered Contractors.
- 4. Contractor shall maintain on site, a copy of all applicable code books specifically pertaining to this scope of work. These code books are to follow the city, state, and all other authorities having jurisdiction per the specific year each authority has designated for this particular project. This Contractor is responsible for all research and compliance with all applicable regulations.
- 5. This Contractor is responsible to coordinate with Barton Malow Builders to schedule inspections with the Local Governing Agency and/or the State of Michigan as well as the testing agency. Inspection results and records will be kept in the Barton Malow Builders jobsite office. During all inspections each Contractor is to have a Foreman/Superintendent on site.
- 6. Contractor must verify that work installed by others, complies in its entirety with the contract documents prior to commencing their work, which ties in, overlays and/or follows

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the installed work. Any non-conforming work shall be identified in writing to Barton Malow Builders immediately.

- 7. Anyone listed on the National Sex Offender List is not allowed to be a part of this project and anyone who is convicted of a listed offense will be immediately dismissed from project. Provide photo identification upon arriving to the site and badges are to be worn by Contractor's field personnel at all times.
- 8. Contractor shall have their Superintendent/Foreperson attend a daily coordination meeting every morning from 6:45am 7:00am. Participation is mandatory.
- 9. Project daily working hours are Monday Friday, Site Opens @ 7:00am and closes at 4:00pm. There will be a 5-day minimum work week. Should scheduled workdays or production be lost due to inclement weather or this Contractor's delays, overtime during the work week and weekends will be required to maintain the project schedule at this Contractor's expense. Any work performed outside normal working hours requires approval from Barton Malow Builders.
- 10. Contractor is only to take direction from Barton Malow Builders.
- 11. Review all specifications and project drawings, drawing notes, schedules, and schedule notes for areas requiring work described by this bid category and coordinate work with the respective contractors, include all costs in base bid.
- 12. Include all manpower, overtime, composite crews and mobilizations in base bid to complete work per the project schedule. All mobilizations required to complete this Scope of Work have been included in the base contract price, unless specifically addressed otherwise in this Contract Agreement. It is understood and agreed that this work may not be performed in a continuous operation and during normal business hours. This contractor has included the cost of the multiple mobilizations/remobilizations and cost to work during non-normal business hours.
- 13. Contractor will be required to perform after-hours and overtime work as necessary to minimize disruption to Troy School District.
- 14. If Contractor is behind schedule and is notified by Barton Malow Builders, the Contractor shall be required to accelerate the work at its own expense. The Contractor shall employ such means as overtime work, multiple work shifts, and additional equipment, and shall continue to do so until the progress of the work, in the opinion of Barton Malow Builders, is in conformance with the master project construction schedule.
- 15. Provide and install all materials per the construction documents. Bid proposals must be per plan and specs. Bids not conforming to plans and specifications will be rejected. Substitutions must be pre-approved in writing prior to bids or be submitted as voluntary alternates on the bid form.
- 16. Contractor must include costs and utilize Autodesk Build and Textura for this project. Information and cost for Textura can be found in section 012000-Price and Payment Procedures and AutoDesk Build in section 013000-Administrative Requirements.
- 17. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings.
- 18. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.
- 19. This project surrounded by Troy School District staff and students. Contractor is to take proper measures to ensure minimal disruptions to the roads and sidewalks around the project. Contractor is responsible for proper barricading and signage if his work activity interrupts the normal flow of operations around the facility. All Contractor employees and subordinate parties are to conduct themselves in a manner not to offend nor interfere with the staff, students, or any other public person. Barton Malow Builders and Troy School District Code of Conduct includes immediate termination for foul language/derogatory

conversation. Those who are not in compliance will be asked to leave the project and not return.

- 20. Provide all temporary protection for work of this bid category. Removal of this protective material at the conclusion of the project is this contractor's responsibility.
- 21. Minimize disturbances to landscape areas. Excessive or malicious (as deemed by)Barton Malow Builders landscape disturbance will be the responsibility of this contractor to restore at own expense.
- 22. Protect equipment and finish items to remain during construction including roof, ceilings, walls, flooring, and landscaping during work of this bid category. In addition, all work being performed through ceilings, be it grid, ceiling pads, drywall or plaster, etc. must be protected from damage during work of this bid category. Correction of damage due to lack of adequate protection will be the responsibility of this contractor.
- 23. Deliveries must occur after 7am and prior to 2pm and not between noon and 1pm, unless scheduled with a Barton Malow Builders Superintendent or risk having the delivery turned away. Unloading, hoisting, transport of materials out of truck to staging location, and delivery acceptance is by the Contractor who is responsible for the material.
- 24. Contractor is responsible for storage of all materials. Deliver materials to the site as needed. Storage in the building will be limited. Materials in building must be on pallets or material/pipe carts.
- 25. Stocking of material on floors will be limited to a three (3) day maximum in the area of work, if approved by Barton Malow Builders Superintendent. No other material storage will be allowed in the building.
- 26. All materials used are to be new, unused and undamaged. Any damaged or questionable material is to be removed and replaced at no cost to the Owner or Barton Malow Builders.
- 27. Include all rigging and hoisting to deliver, install, and remove materials to / from all floor levels complete.
- 28. All crane and boom truck lifts must be properly barricaded to keep public at a safe distance. Provide ground spotters and barricading to keep public out of the swing radius of the crane or boom truck.
- 29. The use of the existing and/or new elevator will not be permitted.
- 30. This contractor is responsible for all lifts and scaffolding, if required, for work of this bid category. Coordinate use of your lifts and scaffolding with other trades.
- 31. Scaffolding and staging as required. Engineered installation drawings, as required.
- 32. Include field layout for work of this bid category, also included is field time for this contract to survey existing conditions prior to beginning each phase of work. Any discrepancies between existing conditions and the contract drawings are to be reported to Barton Malow Builders immediately.
- 33. Coordination drawing meetings will be scheduled. Contractor understands that Barton Malow Builders is not issuing change orders for items not coordinated with other trades. Contractor also understands any conflicts of existing structure with their new work must be brought to Barton Malow Builders and Architect/Engineer attention in advance of start of work.
- 34. Contractor shall have no claims for additional cost because Contractor has failed to install work in proper sequence and not in accordance with Coordination drawings. Likewise, any cost for removal of materials or damage caused by Contractors who have failed to perform their Work in the proper sequence will be borne by that Contractor.
- 35. Participation in coordination meeting/s, weekly progress meetings, and drawings process is mandatory. Minimum eight (8) hours per week shall be included for meetings and coordination with Barton Malow Builders. Representative must be able to make all decisions for their Company and Contractors.
- 36. Contractor to have one (1) full time on-site superintendent, for the duration of the project. The assigned personnel will be responsible to manage the "entire" scope of work including

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their Subcontractors/Suppliers and will be the single point of contact for this scope of work. Contractor will be responsible to complete the daily report & JHA form each day including for their Subcontractors regardless if the Contractor has self-perform crews on site or not. Representative must be able to make all field & financial decisions. If full time supervision is not onsite by the Contractor, their Subcontractors will be told to leave the site until the next calendar working day. Contractor will be held responsible for delays and back charged due to lack of project supervision.

- 37. Contractor is to provide site Supervision and Foreman an Apple iPad with unlimited data/cellular plan service. It is required that Contractor download BluebeamRevu and Autodesk Build via the app store on each device. Contractor may access Owner guest Wi-Fi network if available.
- 38. Contractor must complete and submit electronic daily Flypaper reports and pre-task plans via Autodesk Build to Barton Malow Builders on a daily basis. These reports must show total number of manpower, total number of hours, and each day's specific activities. If this is not done, Barton Malow Builders reserves the right to withhold this Contractor's monthly payments until satisfied with this Contractor's response.
- 39. Items shown to be turned over on the project documents and for closeout attic stock to Owner must be accompanied by a transmittal and copied with signature of receipt to Barton Malow Builders. If a transmittal is not provided and Owner's items are missing, it is this contractor's responsibility to purchase and replace with new materials.
- 40. Contractor is responsible for the quality control for work of this bid category (including for their subordinate parties). Contractor is to strictly observe tolerances and to maintain strict quality control throughout the execution of his work. All work is to be checked for compliance at each stage of completion per applicable codes, project drawings, specifications, and manufactures shop drawings/written instructions. Any work that is not within specified tolerances is to be removed and replaced.
- 41. Provide Ground Penetrating Radar (GPR) to locate and mark existing gas, water, electrical site utilities, conduits, fiber, and mechanical piping prior to proceeding with any demo or excavation work.
 - a. Locate all underground utilities (public and private) prior to any demo or excavations. Note that Miss Dig will not locate private utilities on the Owner's property. It is the responsibility of this contractor to hire an outside firm and locate private utilities.
 - Damage to existing utilities, public or private, including but not limited to gas, water, electric, mechanical, communication, and irrigation lines caused by work of this bid category will be the responsibility of this contractor. Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (a) Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (b) Contractor will also be charged a minimum of \$1,500 for each occurrence for Barton Malow administrative costs.
 - (c) Contractor will be responsible for all Owner personnel, administrative costs, and damages for each occurrence.
- 42. Ticket work is to be signed by Barton Malow Builders at the end of each workday. Tickets not reviewed or signed by the Barton Malow Builders Superintendent will not be accepted or processed. Pricing is to have detailed explanations of work performed. Barton Malow Builders directed ticket work shall NOT include foreman time, work/service truck, cartage, or overhead and profit mark-up. Tickets shall include only approved labor and materials used. Signature from Barton Malow Builders Superintendent does not necessarily equal additional funds. Barton Malow Builders Project Manager will decide if ticket work is added scope to the contract.
- 43. All change pricing is to be submitted within ten (10) days from receipt of the change vehicle, unless otherwise agreed by Barton Malow Builders or Owner. All change order

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pricing is to include a detailed breakdown of costs – Material, Labor, Equipment, etc. along with any signed work orders. No lump sum pricing allowed. Change order pricing will not be accepted without a detailed breakdown. Failure to submit change order pricing within ten (10) days will result in a \$0 change order.

- 44. Contractor is responsible for all dewatering and snow/ice removal necessary to complete this Scope of Work.
- 45. Cleanup is to be performed continuously as work is progressing. This means cleaning up each and every hour. This includes the removal of debris, sweeping (Contractor to provide sweeping compound), wiping down of all finished surfaces, and the proper storage of unused equipment and materials. Cleanup not performed by the Contractor will be completed by a third party (chosen by Barton Malow Builders) and back charged accordingly. Written warnings will not be issued.

F. Specific Scope:

- 1. Temporary Measures:
 - a. For any permanent equipment that will be used for temporary work during construction, include extended warranties to cover the time the equipment is in use prior to Substantial Completion.
 - b. Provide, maintain, and remove temporary systems upon completion and activation for use of the permanent systems
- 2. Temporary Clean Up:
 - a. Provide daily identifiable cleanup for this Contractor's work.
 - b. Provide all dumpsters required for this Contractor's work.
- 3. Temporary Electricity:
 - a. No temporary electricity will be available to this Contractor. Contractor to provide all gas or diesel operated generators required for their scope of work
- 4. Temporary Lighting:
 - a. Contractor shall provide task lighting and temporary light stands as necessary.
- 5. Coordination and Layout
 - a. Contractor will be responsible for the complete coordination of work of this bid category with all other trades to identify and resolve conflicts. Any and all financial implications emanating from this Contractor's lack of planning and coordination will be borne by this Contractor. This shall include blocking, backing conduits, sleeves, penetrations, and any other appurtenances which may not be specifically identified by the contract documents but are required to complete this scope of work.
 - b. This Contractor is responsible for all detailed layout required for proper location and coordination of work.
 - c. Contractor shall review the critical dimensions and elevations of all work and shall otherwise verify the conformity of existing work to the Contract Documents and to its suitability. Contractor shall promptly submit a written statement to Barton Malow Builders and Architect/Engineer noting any discrepancies or unacceptable conditions as they relate to its work
 - d. Contractor shall attend all meetings as required to properly coordinate its Work with that of Others. Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - e. Contractor shall visit the site and attend meetings as required to properly coordinate the Work.
 - 1) Coordination efforts should be focused on minimizing any post-installation damage and required patching operations.
 - f. Initial benchmarks are shown on the project drawings.
- 6. If there are discrepancies between any of the project drawings, project schedules, project notes/keynotes, specifications, work scopes, or project manual, the Contractor shall include the most stringent (expensive) cost in base bid.

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- 7. Contractor shall include multiple mobilizations to complete the Work.
- 8. Earthwork
 - a. Arrange and pay for all city, county, and MDOT permits, inspection fees, and maintenance bonds as required for work of this bid category.
 - b. Obtain and pay for Soil Erosion Permit
 - c. Provide, install, and maintain all soil erosion control measures shown on the drawings and remove upon job completion. Measures shall also include but are not limited to road sweeping including water trucks for dust control. Grade and seed where soil erosions fencing has been removed.
 - d. Owner and City/County roads must be cleaned and maintained daily by sweeping trucks that utilize water for dust control.
 - e. Restore all erosion control measures disturbed by your scope of work as indicated on the drawings or required by authorities having jurisdiction to complete this scope of work.
 - f. Work includes all Erosion and Sediment Control installation, maintenance, and removal. Includes inspections, corrections, and reporting required by the contract documents and in accordance with the Agencies Having Jurisdiction (AHJ0. This includes all materials such as filter bags, replacement silt fence, etc.
 - g. Soil erosion control measures and low point filters. Include maintenance of these measures during the course of the project and their removal when no longer needed, as directed by Barton Malow Builders. The silt fence is to be trenched and staked prior to any other work. Maintenance of the silt fence during construction is vital.
 - h. Provide Ground Penetrating Radar (GPR) to locate and mark existing gas, water, electrical site utilities, conduits, fiber, and mechanical piping prior to proceeding with any demo or excavation work.
 - Locate all underground utilities (public and private) prior to any demo or excavations. Note that Miss Dig will not locate private utilities on the Owner's property. It is the responsibility of this contractor to hire an outside firm and locate private utilities.
 - (a) Damage to existing utilities, public or private, including but not limited to gas, water, electric, mechanical, communication, and irrigation lines caused by work of this bid category will be the responsibility of this contractor. Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (1) Contractor will be responsible for all fees to restore the utilities and temporary measures needed until repairs are made.
 - (2) Contractor will also be charged a minimum of \$1,500 for each occurrence for Barton Malow administrative costs.
 - (3) Contractor will be responsible for all Owner personnel, administrative costs, and damages for each occurrence.
 - i. All excavations are to comply with MIOSHA requirements. At no time shall an excavation be left unattended unless properly barricaded by this Contractor. Confined space requirements will be enforced during construction.
 - j. Provide dust control, de-mudding of vehicles and road cleaning as required by Barton Malow Builders. Sweeping of roads to be with a vacuum sweeper.
 - k. Properly de-water the site and excavations of all surface and ground water. Dewatering of the excavations until back-filling and compaction is complete.
 - I. Work includes installation, maintenance, and removal of designated construction entrances/exits. Include 2 (two) construction entrances. Entrances will be phased. Installation is per the direction of Barton Malow Builders. Maintenance includes refreshing of SEC measures when directed by Barton Malow Builders.

- m. Building Access and laydown area: The intent is to provide a suitable access around the building and, laydown and parking area. This Contractor shall complete all earthwork, temporary roads (crushed concrete) in the areas per the contract documents or as determined by Barton Malow Builders. Temporary roads shall be maintained throughout construction and removed and finish earthwork completed when directed by Barton Malow Builders.
 - Provide and install the 1" X 3" & 21AA crushed concrete temp road and staging area shown on the documents. Temp road and staging area shall have Tenser geogrid and geofabric under the crushed concrete stone and overlap seams by at least 12". Spoils from excavation of temp road is to be shaped and seeded. Regrade and seed after temp road has been removed and provide positive drainage. Remove temp road at the direction of Barton Malow Builders.
- n. Provide, Install, and maintain on a daily basis 1000 lineal feet of reinforced orange snow fencing at the direction of Barton Malow Builders with metal stakes no more than 10' apart. Fence is to be installed after temp road/staging area is built and removed at the end of the project.
- o. Work includes all site/utility demolition as shown on the Contract Documents.
- p. Work includes miscellaneous clearing and grubbing operations to accommodate new work as identified on the Contract Documents.
- q. All spoils removed off site shall be taken to a legal dump.
- r. Provide topographical survey of all completed site grades for record.
- s. Strip topsoil underneath building footprint and where indicated on plans

G. EXCLUDED:

1. Site grading, excavation for foundations, balancing, and building pad

4.02 SPECIAL CONSIDERATIONS:

- A. Labor Rates/Unit Prices/Alternates: Provide the following information on the bid form:
- B. Labor/Equipment Rates:
- C. This Contractor is to provide as a part of his proposal a fully detailed labor rates for Barton Malow Builders approval for work associated with this Contractor's and for each of their Subordinate Parties Trades. In addition, labor rates will be required for all equipment involved with the performance of the work required by this Bid Category.
- D. Unit Pricing:

1.

- E. Allowances: This Contractor must obtain written authorization from Barton Malow Builders prior to performing the associated work below. Include in this Contractor's bid, allowances for work as follows.
- F. Provide Allowance for the following
 - 1. Include an allowance of \$\$15,000 \$50,000 in this Contractor's bid for additional unidentified Earthwork work and SESC maintenance through the duration of the job. Allowance is to be used at the direction of Barton Malow Builders.
- G. Alternates: This bidder shall be required to submit alternate prices identified in the contract documents which pertain to their work. These alternate prices shall be separate from their base bid on the bid proposal form.

END OF SECTION 002231.01



Addendum

Date	February 8, 2024
Project Name	Troy School District – New Smith Middle School
TMP Project No.	22102
Bid Package No.	03A
Addendum No.	Two (2)

ADDENDUM NO. 1 WAS PREVIOUSLY ISSUED ON January 31, 2024.

The Bidding Documents are modified, supplemented, or augmented as follows and the Addendum is hereby made a part of the proposed Contract Documents.

The following Drawing(s) are issued with this Addendum:

Drawing No(s).:	C-2.0, S0.0, S1.0A, S1.0B, S1.0C, S1.0D, S1.0E, S1.0F, S1.2A, S1.2B, S1.2C, S1.2D, S1.2E, S1.2F, S1.3A, S1.3B, S1.3C, S1.3D, S1.3E, S3.2, S4.1, S4.2, S5.1, S5.2, S5.3, S6.1, S6.2, S6.3, S6.4, S6.5
Item No.	Civil Drawing Changes
CD-1	Refer to Drawing No. C-2.0 (reissued): A. Revised areas of demolition and limits of earth disruption as indicated.
Item No.	Structural Drawing Changes
SD-1	Refer to Drawing No. S0.0 (reissued): A. Added Metal Stair Design Criteria as indicated.
SD-2	 Refer to Drawing No. S1.0A (reissued): A. Added note 7 as indicated. B. Added C-5 and F-5 as indicated. C. Revised gym footings to F-12 as indicated. D. Added recessed slabs and labels as indicated.
SD-3	Refer to Drawing No. S1.0B (reissued): A. Added note 7 as indicated. B. Added recessed slabs and labels as indicated.

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February 8, 2024 Troy School District – New Smith Middle School TMP Project No. 22102 Bid Package No. 03A Addendum No. Two (2)

Page 2 of 5

SD-4	Refer to Drawing No. S1.0C (reissued): A. Added note 7 as indicated.
SD-5	 Refer to Drawing No. S1.0D (reissued): A. Added note 7 as indicated. B. Added recessed slabs and labels as indicated. C. Added C-5 column as indicated. D. Revised footing sizes as indicated.
SD-6	Refer to Drawing No. S1.0E (reissued):A. Added note 7 as indicated.B. Added recessed slabs and labels as indicated.C. Revised CMU walls to 8" as indicated.
SD-7	Refer to Drawing No. S1.0F (reissued):A. Added note 7 as indicated.B. Added recessed slabs and labels as indicated.
SD-8	 Refer to Drawing No. S1.2A (reissued): A. Revised note 6 as indicated. B. Added dumpster and screen wall framing sizes and elevations as indicated. C. Revised canopy framing as indicated. D. Added W10x19 on Line H as indicated. E. Added Detail Cut 16/S6.3 and beam W8x31 as indicated.
SD-9	 Refer to Drawing No. S1.2B (reissued): A. Revised note 6 as indicated. B. Added axial load to brace as indicated. C. Added HSS lintel as indicated. D. Added screenwall framing as indicated. E. Added HSS between joists, knee braces, and Detail Cut 10/S6.4 indicated. F. Removed moment connections at Line 28 as indicated.
SD-10	 Refer to Drawing No. S1.2C (reissued): A. Revised note 6 as indicated. B. Added Detail cuts 9/S5.3, 10/S.3, and 7/S5.3 as indicated. C. Revised canopy framing as indicated. D. Added bent plates and continuous angle as indicated. E. Added stair note as indicated.

February 8, 2024 Troy School District – New Smith Middle School TMP Project No. 22102 Bid Package No. 03A Addendum No. Two (2)

Page 3 of 5

SD-11	 Refer to Drawing No. S1.2D (reissued): A. Revised note 6 as indicated. B. Revised dimension at Line 25 as indicated. C. Added linework for braces as indicated (refer to revised Detail 3/S6.2). D. Revised learning stair framing as indicated. E. Added Detail Cuts 6/S6.5 and 8/S6.5 as indicated.
SD-12	Refer to Drawing No. S1.2E (reissued): A. Revised note 6 as indicated. B. Added stair framing and revised note as indicated.
SD-13	Refer to Drawing No. S1.2F (reissued): A. Revised note 6 as indicated.
SD-14	 Refer to Drawing No. S1.3A (reissued): A. Revised note 6 as indicated. B. Added design moments as indicated. C. Added bracing and angles as indicated. D. Revised beam size from W12 to HSS12 as indicated. E. Added Detail cut 14/S6.3 as indicated.
SD-15	 Refer to Drawing No. S1.3B (reissued): A. Revised note 6 as indicated. B. Revised framing spacing as indicated. C. Revised HSS size as indicated.
SD-16	 Refer to Drawing No. S1.3C (reissued): A. Revised note 6 as indicated. B. Added design moments as indicated. C. Revised beam sizes to HSS10 as indicated. D. Added W12x26 at Line 37 as indicated. E. Added Detail cuts 15/S6.3 as indicated.
SD-17	 Refer to Drawing No. S1.3D (reissued): A. Revised note 6 as indicated. B. Added design moments as indicated. C. Revised quantity of hangers and braces as indicated. D. Added HSS struts at columns and between HSS 6x4 at hangers as indicated. E. Added Detail cut 7/S6.4 Sim as indicated. F. Added broken back note as indicated.

February 8, 2024 Troy School District – New Smith Middle School TMP Project No. 22102 Bid Package No. 03A Addendum No. Two (2)

Page 4 of 5

	G. Added Detail Cuts 5/S6.4 and 8/S6.4 as indicated.H. Revised dimension as indicated.
SD-18	 Refer to Drawing No. S1.3E (reissued): A. Revised note 6 as indicated. B. Revised dimensions, added roof drains, and added elevations at Stair Roof Framing Plan as indicated.
SD-19	Refer to Drawing No. S3.2 (reissued): A. Removed roof framing from isometrics as indicated.
SD-20	Refer to Drawing No. S4.1 (reissued): A. At FOOTING SCHEDULE: Added F-13 as indicated.
SD-21	Refer to Drawing No. S4.2 (reissued): A. Detail 5: Revised base plate as indicated.
SD-22	Refer to Drawing No. S5.1 (reissued): A. Detail 18: Added flexible anchors as indicated.
SD-23	 Refer to Drawing No. S5.2 (reissued): A. Details 5 & 6: Removed brick veneer and shelf angle as indicated. B. Detail 11: Revised wall construction and angles/anchors as indicated. C. Detail 15: Revised top of CMU wall, added HSS, and revised dimensions as indicated.
SD-24	Refer to Drawing No. S5.3 (reissued): A. Details 2,3, & 6: Added T.O.S. as indicated. B. Details 7, 8, 9, & 10: Added details as indicated.
SD-25	Refer to Drawing No. S6.1 (reissued): A. Detail 19: Added max spacing as indicated. B. At COLUMN SCHEDULE: Revised C-5 and C-12 as indicated.
SD-26	Refer to Drawing No. S6.2 (reissued): A. Detail 3: Revised dimension and added brace as indicated.

February 8, 2024 Troy School District – New Smith Middle School TMP Project No. 22102 Bid Package No. 03A Addendum No. Two (2)

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SD-27	 Refer to Drawing No. S6.3 (reissued): A. Detail 5: Added framing as indicated. B. Detail 14: Added CFM framing, added HSS and miscellaneous angles as indicated. C. Details 15 & 16: Added details as indicated.
SD-28	 Refer to Drawing No. S6.4 (reissued): A. Detail 4: Revised HSS size and added hanger as indicated. B. Detail 5: Added HSS strut as indicated. C. Detail 7: Revised plate size indicated. D. Detail 9: Added CMU, lintel, brick veneer, and brick support framing as indicated. E. Detail 10: Added detail as indicated.
SD-29	 Refer to Drawing No. S6.5 (reissued): A. Details 1 & 6: Revised dimension note as indicated. B. Details 3, 5, 6, & 7: Revised stringer size as indicated. C. Detail 4: Revised stringer size, removed HSS, and revised arrangement as indicated. D. Detail 7: Added shim plate note as indicated. E. Detail 8: Added detail as indicated.

END OF ADDENDUM NO. 2 - BID PACKAGE NO. 03A



S 00-10-00 E 169.24 FT FROM NW SEC COR, TH S 89-40-00 E 624.96 683.20 FT, TH N 89-08-00 W 901.78 FT, TH N 00-10-00 W 637.72 FT, TH TH N 00-10-00 W 39.24 FT TO BEG 13.79 A	FT, TH S 00-10-00 E H S 89-02-00 E 275.00 FT,	
PARCEL ID 20-10-151-022		
T2N, R11E, SEC 10 SUPERVISOR'S PLAT NO 25 LOTS 5, 6 & 7, ALSO ALSO LOT 10 EXC W 357.82 FT OF S 104.29 FT	E 900 FT OF LOTS 8 & 9,	
BENCHMARKS: (GPS DERIVED - NAVD88)		
BM #300 ARROW ON A HYDRANT LOCATED AT THE SOUTHWEST CORNE THE FRONT PARKING LOT.	R OF	
ELEV 724.13 BM #301 ARROW ON A HYDRANT LOCATED ON THE SOUTHWEST CORNER OF THE BACK PARKING LOT.		
GENERAL DEMOLITION NOTES:		
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES O	N THIS PROJECT:	
PLANS OR NOT, SHALL BE REMOVED FROM THE SITE E AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO BURN PITS SHALL BE ALLOWED.	BY THE CONTRACTOR ON-SITE BURY OR	
2. ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL ORDINANCES.	L CODES AND	
3. STAGING/PHASING OF DEMOLITION AND CONSTRUCTION COORDINATED WITH THE OWNER AND THE CONTRACTOR CONSTRUCTION.	IS TO BE R PRIOR TO	
4. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS T THESE ITEMS SHALL BE COMPLETELY REMOVED BY THI AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERI CONDITIONS AND EXTENTS OF THE DEMOLITION THAT W PRIOR TO SUBMITTING A BID.	THE PLANS AS A THE INTENT THAT E CONTRACTOR ABOVE THERWISE, AND THAT ' BE LIMITED TO FY EXISTING MLL BE REQUIRED	
5. REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOT WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCI TREES, ETC.	ACCORDING TO THE TINGS, FOUNDATION RETE, ASPHALT,	
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN CONTROL, STREET SWEEPING AND HOURS OF OPERATIO WITH THE LOCAL CODES.	I UP, NOISE, DUST ON IN ACCORDANCE	
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BA MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEV WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGE AND IN ACCORDANCE WITH THE LATEST EDITION OF OF UNIFORM TRAFFIC CONTROL DEVICES.	ARRICADES, SIGNAGE, ICES TO PROTECT THE NCY REQUIREMENTS THE STATE MANUAL	
8. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN PRIOR TO DEMOLITION.	UTILITY COMPANIES OUT OF SERVICE	
9. ALL BUILDING GAS LEADS, METERS AND ASSOCIATED E REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL WITH THE APPROPRIATE UTILITY COMPANY.	EQUIPMENT SHALL BE ASSOCIATED WORK	
10. REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRIC AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. O SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND MAY ALSO BE LOCATED ON OVERHEAD LINES.)	AL LINES WITHIN THE COORDINATE E PROVIDER OR THE CABLE T.V. SERVICES	
11. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTI FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQU OF JURISDICTION. THE CONTRACTOR SHALL REPLACE A AND SUPPORTS AT NO ADDITIONAL COST TO THE OWN	AND REPLACEMENT S NECESSARY TO ED OR STOCKPILED IRED BY THE AGENCY ANY DAMAGED SIGNS IER.	
12. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 8 LOCATING CENTER, THE CITY ENGINEER AND/OR THE / JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGIN CONSTRUCTION.	11/ONE CALL UTILITY AUTHORITY HAVING NING OF	
DEMOLITION LEGEND:		
ITEM TO BE REMOVED	\boxtimes	
CURB/FENCE REMOVAL	· [·[·[·[·[·[·[·[·]·	
SIDEWALK REMOVAL		
AREA OR ITEMS TO BE REMOVED		
UTILITY REMOVAL	· XXXXXXXXXXXXXXXXX	
ASPHALT REMOVAL		
SAWCUT LINE		
SYMBOLS: EROSION CONTROL:		
(SP-9) TEMPORARY STONE ACCESS [DRIVE	
REFER TO O.C.W.R.C. SOIL EROSION AND SEDIMENTATION C SHEET FOR ALL DEVICE DETAILS.	CONTROL DETAILS	
GENERAL SITE CONDITIONS:		
1. ACCORDING TO THE SOIL SURVEY INFORMATION SUPPL NRCS, THE SITE CONSISTS OF THE FOLLOWING SOIL TO	.IED BY THE USDA /PES:	
 10B MARLETTE SANDY LOAM, 1 TO 6 PERCENT SLOPE 41B AQUENTS, SANDY, LOAMY, UNDULATING Shbhab SHEBEON SANDY LOAM, 0 TO 4 PERCENT SL Shbuab SHEBEON-URBAN LAND COMPLEX, 0 TO 4 P 2. TOTAL DISTURBED AREA = ±10.9 ACRES 	es .opes ercent slopes	
3. N.P.D.E.S. NOTICE OF COVERAGE IS REQUIRED		
EROSION CONTROL QUANTITIES:		
SILT FENCE TEMPORARY CONSTRUCTION ACCESS DRIVE	3,875 LF 1 EA.	

FLOODPLAIN:

CHANCE FLOOD

ANNUAL CHANCE FLOOD.

29, 2006

OTHER AREAS

LEGAL DESCRIPTION:

PARCEL ID 20-10-101-054

ZONE X

PER FLOOD INSURANCE RATE MAP NUMBER 26125C0532F, DATED SEPTEMBER

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL

THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE

AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. AREAS OF

AREA TO BE DETERMINED OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

T2N, R11E, SEC 10 PART OF NW 1/4 BEG AT PT DIST S 571.05 FT & S 88-57-00 E 697.50 FT &

SPECIAL FLOOD HAZARD INCLUDE ZONES A, AE, AH, AO, AR, A99, V AND VE. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1%

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

ZONE A - NO BASE FLOOD ELEVATIONS DETERMINED.

Land in the City of Troy, Oakland County, Michigan, described as follows:







CAUTION!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.





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02/08/24	ADDENDUM 2	
01/23/24	BIDS	
DATE:	ISSUED FOR:	
DRAWN	WL	
CHECKED	TD	
APPROVED	TD	



PROJECT TITLE **New Smith Middle** School **Bid Package No. 03A**



CONSULTANT

REGISTRATION SEAL

TMP ARCHITECTURE INC 1191 WEST SQUARE LAKE ROAD BLOOMFIELD HILLS • MICHIGAN • 48302 PH • 248.338.4561 FX • 248.338.0223 EM · INFO @ TMP-ARCHITECTURE.COM

ARCHITECTURE

STRUCTURAL GENERAL NOTES

GENERAL

- THIS BUILDING HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE, 2015 EDITION.
- THE OWNER WILL EMPLOY QUALIFIED SPECIAL INSPECTORS TO PERFORM INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE MICHIGAN BUILDING CODE EXCEPT AS NOTED BELOW. SPECIAL INSPECTIONS WILL BE PERFORMED FOR THE FOLLOWING:
- A. SOILS. **B. CONCRETE**
- C. MASONRY I. MASONRY SPECIAL INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH TMS 402 & TMS 602 AND SHALL BE LEVEL B QUALITY ASSURANCE.
- D. STEFI I. STEEL SPECIAL INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH AISC 360 E. STEEL JOISTS.
- F. WOOD.
- WHEN "PROFESSIONAL ENGINEER" IS REFERRED TO IN THE FOLLOWING NOTES, IT DENOTES A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN, QUALIFIED TO PERFORM THE WORK.
- . THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS, THE OWNERS REQUIREMENTS FOR ACCESS TO THE SITE AND CONTINUED OPERATIONS DURING CONSTRUCTION.
- THE PLAN, DETAIL DIMENSIONS & ELEVATIONS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM AVAILABLE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH DIMENSIONS, ELEVATIONS & DETAILS AS NECESSARY AND MAKE APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL.
- THE CONTRACTOR SHALL SUBMIT PRECAST CONCRETE, CONCRETE REINFORCING. STRUCTURAL STEEL, METAL DECK, STEEL JOIST, COLD FORMED METAL, COLD FORMED METAL TRUSS AND WOOD TRUSS SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL ALSO SUBMIT MATERIAL REQUIREMENTS AND CONCRETE MIX DESIGNS. ALLOW (2) WEEKS FOR ENGINEER REVIEW.
- THE STRUCTURE SHALL BE CONSIDERED TO BE IN AN UNSTABLE CONDITION UNTIL ALL FLOOR, WALL AND ROOF STRUCTURES ARE COMPLETED. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR STABILITY AND TO RESIST LATERAL LOADS DURING ERECTION.
- 8. ALL NON LOAD BEARING WALLS, EXCEPT INDICATED SHEAR WALLS, SHALL BE CONSTRUCTED TO ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE ABOVE.
- **DIVISION 2 DEMOLITION/SHORING** CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING WHERE REQUIRED DURING CONSTRUCTION. SHORING SHALL BE DESIGNED & DETAILED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER. SHORING PROCEDURES, DESIGNS AND DETAILS SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF WORK, ALLOW (2) WEEKS FOR ENGINEER TO REVIEW.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ERECTION PROCEDURE AND SEQUENCING AND TO SUBMIT WRITTEN PROCEDURES TO ENSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENTS DURING ERECTION.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION. IF CONDITIONS EXIST THAT ARE DIFFERENT FROM WHAT IS INDICATED ON THE DRAWINGS, NOTIFY ARCHITECT FOR DIRECTION BEFORE PROCEEDING.
- 4. DUE CARE MUST BE TAKEN NOT TO UNDERMINE OR DISTURB EXISTING SOIL AND FOUNDATIONS WHEN EXCAVATING ADJACENT TO EXISTING FOUNDATIONS. FIELD VERIFY THE DEPTH AND WIDTH OF ANY EXISTING FOOTINGS & NOTIFY ARCHITECT OF ANY INTERFERENCE'S WITH NEW WORK.

DIVISION 3 - CONCRETE

- THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND CONSTRUCTION OF ALL REINFORCED CONCRETE: A. AMERICAN CONCRETE INSTITUTE (ACI) ACI 318, BUILDING CODE REQUIREMENTS
- FOR REINFORCED CONCRETE. B. ACI 315, DETAILS & DETAILING OF CONCRETE REINFORCEMENT.
- REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL SPECIFICATIONS. A. DEFORMED BAR REINFORCING: ASTM A615 GRADE 60.
- B. WELDED WIRE REINFORCEMENT: A1064 (FLAT SHEETS ONLY).
- ALL EXTERIOR CONCRETE (INCLUDING FOUNDATION WALLS, PIERS & FOOTINGS) SHALL BE AS FOLLOWS: A. MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) = 4500 PSI.
- B. SLUMP = 3" TO 5". . WATER/CEMENTITIOUS RATIO = 0.45.
- D. AIR ENTRAINMENT = $6\% \pm 1\%$. E. EXPOSURE CLASSES = F3, S0, W1, & C2.
- 4. ALL INTERIOR CONCRETE SHALL BE AS FOLLOWS: A. MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) = 4000 PSI. B. SLUMP = 3" TO 5". WATER/CEMENTITIOUS RATIO = 0.50.
- D. EXPOSURE CLASSES = F0, S0, W1, & C1. SPLICES FOR DEFORMED BARS SHALL BE CLASS B WITH APPLICABLE INCREASES FOR BAR SPACING, COVER, TOP BAR EFFECT ETC. PER ACI 318.
- BEFORE PLACING CONCRETE REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PIPE SLEEVES, EMBEDDED ITEMS, OPENINGS, EQUIPMENT PADS, ELECTRICAL CONDUITS, RECESSES, DRAINS, ETC. ALL OPENINGS FOR PIPE, CONDUITS, ETC. SHALL BE SLEEVED. MINIMUM SLEEVE SPACING SHALL BE 3 SLEEVE DIAMETERS.
- SUGGESTED CONSTRUCTION AND CONTROL JOINT LOCATIONS ARE INDICATED ON THE DRAWINGS. THE CONTRACTOR MAY DEVIATE FROM SUGGESTED JOINT LOCATIONS WITH PRIOR APPROVAL OF THE ARCHITECT.
- CONCRETE CONTROL JOINTS SHALL BE CUT AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT DISLODGMENT OF AGGREGATES. SAW A CONTINUOUS SLOT TO A DEPTH OF 1/4 THE THICKNESS OF THE SLAB BUT NOT LESS THAN 1". COMPLETE SAWING WITHIN 12 HOURS AFTER PLACEMENT.
- PROVIDE A RECESS IN THE TOP OF FOUNDATION WALLS AT DOOR OPENINGS FOR SUPPORT OF THICKENED FLOOR SLABS AND TO RECEIVE DOOR JAMBS. DEPTH OF RECESS TO BE 2" GREATER THAN THICKNESS OF THE FLOOR SLABS, UNLESS NOTED OTHERWISE.
- 10. PROVIDE BENT CORNER BARS IN ALL WALLS AND FOOTINGS OF THE SAME SIZE AND NUMBER AS THE CONTINUOUS REINFORCEMENT. 1. CONCRETE SHALL BE TESTED BY AN INDEPENDENT TESTING AGENCY, A SET OF (3)
- CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTED FOR COMPRESSION STRENGTH AT 7 AND 28 DAYS OR EVERY 50 CUBIC YARDS OF CONCRETE CAST (MINIMUM OF (1) SET PER DAY OF CASTING). ALSO SLUMP AND UNIT WEIGHT TESTS SHALL BE PERFORMED EVERY OTHER TRUCK LOAD. CONTRACTOR MADE CONCRETE TEST CYLINDERS ARE NOT ACCEPTABLE.

DIVISION 3 - COMPOSITE FLOOR 1. SHEAR CONNECTORS ARE 3/4"ø ASTM A108, GRADE 1015 HEADED STUDS. STUD LENGTH SHALL BE AS REQUIRED TO PROVIDE 1 1/2" PROJECTION ABOVE DECK. STUDS 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, SHALL BE RESISTANCE-WELDED THROUGH THE DECKING TO THE SUPPORTING STEEL BY CONTRACTOR HAVING AT LEAST 3 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON SIMILAR PROJECTS. 2. REFER TO TYPICAL DETAILS FOR STUD SPACING.

- 3. TEST STUD ATTACHMENT TO BEAMS PER AWS D1.1, BUT NOT LESS THAN THE FOLLOWING:
- A. VISUALLY INSPECT STUDS FOR UNIFORM WELD ALL AROUND.
- B. TAP EACH STUD WITH HAMMER TO VERIFY BY SOUND.
- C. END EVERY TENTH STUD TO A SLOPE OF 15 DEGREES FROM VERTICAL, AWAY FROM SUPPORT WITHOUT LOSING STRENGTH OF ATTACHMENT, WHERE ATTACHMENT IS LOST, TEST AT LEAST TWO STUDS EACH SIDE OF FAILED STUD. 4. REPLACE ALL FAILED STUDS. NOTIFY ARCHITECT TO COORDINATE FINAL REVIEW
- PRIOR TO CONCRETE PLACEMENT. 5. PLACE REINFORCING BARS ACROSS GIRDERS ON SUPPORTS TO MAINTAIN POSITION
- AT TOP OF SLAB & ALL RE-ENTRANT CORNERS IN SLAB. 6. CLEAN DECK OF DUST, RUBBLE AND OTHER MATERIALS THAT COULD INTERFERE WITH
- THE BOND OF THE DECK AND THE CONCRETE. 7. WHEN PLACING CONCRETE, SCREED TO A LEVEL SURFACE. THIS MAY REQUIRE PLACING CONCRETE IN ADJACENT AREAS PRIOR TO FINAL SCREEDING, SO THAT
- STEELWORK AND DECK DEFLECTION WILL BE INCLUDED IN THE FINAL ELEVATION. IT IS LIKELY THAT MORE CONCRETE WILL BE REQUIRED TO COMPENSATE FOR DEFLECTION. 8. SUBMIT CONSTRUCTION JOINT LOCATIONS FOR ARCHITECT/ENGINEER REVIEW.
- APPLY CURING METHOD AS SOON AS POSSIBLE AFTER FINISHING.

DIVISION 4 - MASONRY

- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING AND CONSTRUCTION OF ALL MASONRY: A. THE MASONRY SOCIETY (TMS) TMS 402, BUILDING CODE REQUIREMENTS FOR
- MASONRY STRUCTURES. B. TMS 602, SPECIFICATIONS FOR MASONRY STRUCTURES.
- ALL MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF F'm = 2000 PSI. 3. ALL MORTAR SHALL BE TYPE S, PROPORTIONED BY VOLUME ACCORDING TO ASTM
- 4. ALL GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI AND
- SHALL BE PROPORTIONED BY VOLUME ACCORDING TO ASTM C476. 5. ALL CONCRETE MASONRY UNITS SHALL BE MEDIUM OR HEAVY WEIGHT ASTM C90,
- GRADE N, UNITS UNLESS NOTED OTHERWISE. UNITS SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2800 PSI. 6. ALL MASONRY WALLS SHALL HAVE HORIZONTAL JOINT REINFORCEMENT (9 GA, HOT DIPPED GALVANIZED) AT 16" O.C. PROVIDE PREFABRICATED CORNER PIECES AT ALL
- CORNERS AND INTERSECTIONS OF WALLS. 7. ALL DEFORMED BAR REINFORCING SHALL BE ASTM A615, GRADE 60. AT LOCATIONS WHERE REINFORCING IS TO BE WELDED, THE DEFORMED BAR REINFORCING SHALL BE
- ASTM A706, GRADE 60. 8. LAP SPLICES IN WALLS SHALL BE DETERMINED IN ACCORDANCE WITH TMS 402 AND ARE INDICATED IN THE TYPICAL DETAILS, THE MINIMUM SPLICE SHALL BE 48 BAR
- DIAMETERS 9. ALL MASONRY REINFORCING SHALL BE SECURED IN PLACE WITH REBAR POSITIONERS AND SPACERS.
- 10. ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL BE CENTERED ON THE WALL, DOWELED INTO THE FOOTINGS, AND GROUTED SOLID, UNLESS NOTED OTHERWISE ON DETAILS.
- 11. IN ADDITION TO ALL OTHER REINFORCING IN MASONRY WALLS PROVIDE A MINIMUM OF (1) #5 BAR AT EACH SIDE OF ALL OPENINGS, EACH SIDE OF CONTROL JOINTS, AT CORNERS OR ENDS OF WALLS AND AT BEAM OR LINTEL BEARING. BAR TO BE FULL HEIGHT OF WALL.
- 12. ALL MASONRY WALLS SHALL HAVE A CONTINUOUSLY REINFORCED BOND BEAM NEAR THE TOP OF THE WALL, WITH (2) #5 BARS U.N.O. PROVIDE BENT CORNER BARS AT ALL BOND BEAM INTERSECTIONS. REFER TO APPROPRIATE DETAILS FOR LOCATION OF BOND BEAM.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY WALL BRACING ADEQUATE TO RESIST LATERAL LOADS.
- 14. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WALL CONTROL JOINTS AND EXPANSION JOINTS.
- 15. UNLESS NOTED OTHERWISE ON PLANS, LINTELS IN NON-LOAD BEARING MASONRY WALLS SHALL BE SIZED AS PER THE LOOSE LINTEL SCHEDULE ON THE DRAWINGS.
- 16. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR TYPE, SIZE, LOCATION AND ATTACHMENT REQUIREMENTS FOR MASONRY VENEER AND OTHER CLADDING.

DIVISION 5 - STRUCTURAL STEEL

SPECIFICATIONS:

- FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL. A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) AISC 360, SPECIFICATION
- FOR STRUCTURAL STEEL BUILDINGS. B. AISC 303, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. 2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL
- A. W AND WT SHAPES: ASTM A992, GRADE 50 (Fy = 50 KSI). B. MISCELLANEOUS SHAPES AND PLATES: ASTM A36 (Fy = 36 KSI). C. PIPE: ASTM A53, GRADE B, TYPE E OR S (Fy = 35 KSI). D. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C (Fy = 50 KSI). E. ALL COLUMN ANCHOR RODS SHALL BE ASTM F1554 (Fy = 36 KSI).
- . ALL WELDING SHALL BE PERFORMED USING THE ELECTRIC ARC METHOD IN ACCORDANCE WITH THE LATEST REVISION OF THE AMERICAN WELDING SOCIETY (AWS) D1.1 "STRUCTURAL WELDING CODE". E70XX ELECTRODES CONFORMING TO AWS A5.1 OR A5.5 SHALL BE USED FOR SHIELDED METAL ARC METHOD & FX7-ECXX FLUX -ELECTRODE COMBINATION CONFORMING TO AWS A5.17 FOR SUBMERGED ARC
- METHOD. 4. ALL BOLTS SHALL BE 3/4" DIAMETER ASTM F3125 GRADE A325 TYPE N BOLTS. ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT BEARING TYPE BOLTS UNLESS NOTED OTHERWISE
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES, DESIGN VALUES, MATERIALS, DIMENSIONS AND CONNECTIONS.
- 6. ALL CONNECTIONS NOT SPECIFICALLY DETAILED, SHALL BE DESIGNED AND DETAILED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER. DETAILING SHALL BE PERFORMED USING RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE GENERAL DETAILS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND DO NOT INDICATE THE REQUIRED
- NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED. 7. PROVIDE "SLIP-CRITICAL" CONNECTIONS AT BRACING, WHERE BOLTS ARE IN TENSION AND AT MOMENT CONNECTIONS.
- 8. ALL BEAM CONNECTIONS ARE TO CONFORM TO AISC STANDARD TWO ANGLE WEB CONNECTIONS CAPABLE OF SUPPORTING 66% OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM OR FOR LOADS INDICATED ON DRAWING. NO CONNECTION SHALL CONSIST OF LESS THAN TWO 3/4" DIAMETER BOLTS OR A WELD DEVELOPING LESS THAN 10 KIPS.
- . DESIGN HORIZONTAL AND VERTICAL BRACING END CONNECTIONS FOR LOADS INDICATED ON THE DRAWINGS OR 50% OF THE TENSILE CAPACITY OF THE MEMBER WHICHEVER IS GREATER.
- 10. ALL FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE. FIELD WELDING IS NOT ALLOWED EXCEPT WHERE SPECIFICALLY INDICATED OR APPROVED. 11. PROVIDE 3/4" DIAMETER SHOULDER BOLTS WITH LOCK WASHERS AT ALL SLOTTED CONNECTIONS OF WIND COLUMNS OR AS NOTED.
- 12. ALL SHOP AND FIELD WELDS SHALL BE VISUALLY INSPECTED PER AWS D1.1. ALL DEFICIENT OR NON CONFORMING ITEMS SHALL BE REPORTED TO THE ENGINEER WHO WILL DETERMINE THE CORRECTIVE ACTION REQUIRED.
- 13. ALL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. PROVIDE CAMBERS AS INDICATED ON THE DRAWINGS.
- 14. GROUT REQUIRED UNDER COLUMN BASE PLATES AS SHOWN IN THE DETAILS SHALL BE A STANDARD NON-SHRINK GROUT SUCH AS "MASTERFLOW 100" BY MASTER BUILDERS.
- 15. PRIME PAINT ALL STRUCTURAL STEEL WITH FABRICATOR'S STANDARD LEAD AND CHROMATE- FREE, NONASPHALTIC, RUST-INHIBITING PRIMER COMPLYING WITH MASTER PAINTER INSTITUTE (MPI) #79. APPLY PRIMER ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND AT RATE RECOMMENDED BY SSPC TO PROVIDE A MINIMUM DRY FILM THICKNESS OF 1.5 MILS. USE PRIMING METHODS THAT RESULT IN FULL COVERAGE OF JOINTS, CORNERS, EDGES, AND EXPOSED SURFACES. TOUCH-UP DAMAGED OR MISSING PAINT AFTER STEEL ERECTION IS COMPLETE. OMIT PAINT AT: HOLES FOR SLIP CRITICAL CONNECTIONS, AT STEEL TO BE FIRE PROOFED,
- AT STEEL ENCASED IN CONCRETE AND ON THE TOP FLANGE OF STEEL BEAMS WITH SHEAR CONNECTIONS. 16. PROVIDE AND HAVE IN PLACE ADEQUATE LATERAL BRACING AND VERTICAL SUPPORTS FOR THE SAFE ERECTION AND TRUE ALIGNMENT OF THE STRUCTURAL STEEL. THIS CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE SAFE ERECTION AND
- TEMPORARY BRACING OF STRUCTURAL STEEL. 17. VERIFY NUMBER AND SIZE OF OPENINGS IN ROOF, WALLS AND FLOOR WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, SEE DETAILS, AND SPECIFICATIONS, FOR STRUCTURAL REQUIREMENTS. VERIFY ALL INFORMATION WITH
- THE APPROPRIATE CONTRACTOR. 18. ALL DIMENSIONS RELATED TO STRUCTURAL STEEL USED TO SUPPORT EQUIPMENT OR FRAME OPENINGS SHALL BE VERIFIED WITH CERTIFIED AND APPROVED SHOP DRAWINGS OF PURCHASED EQUIPMENT PRIOR TO DETAILING AND FABRICATION.
- 19. PROVIDE L3x3x1/4 SHELF ANGLES AT TOPS OF COLUMNS AS REQUIRED TO SUPPORT ROOF DECK. 20. ALL EDGES OF METAL DECK SHALL BE SUPPORTED AT A CHANGE IN DECK SPAN
- WHETHER SHOWN ON DRAWINGS OR NOT. PROVIDE TUBE STEEL OR A DOUBLE ANGLE BETWEEN JOIST OR STRUCTURAL STEEL AND METAL DECK. 21. ALL FREE EDGES OF METAL DECK SHALL BE SUPPORTED WITH AN EDGE ANGLE
- L3x3x1/4 OR OTHER SUITABLE SUPPORT. THIS SHALL BE PROVIDED WHETHER SHOWN ON DRAWINGS OR NOT. 22. ALL BEAMS, JOISTS, OR LINTELS BEARING ON MASONRY WALLS SHALL HAVE BEARING PLATES WITH ANCHOR BOLTS. IF NOT NOTED ON PLAN, SEE TYPICAL DETAILS.
- 23. ALL WF BEAMS SUPPORTING MASONRY AND WITH SPANS GREATER THAN 6'-0" SHALL HAVE 1/2" DIAMETER BY 6" LONG HEADED CONCRETE ANCHORS SPACED AT 2'-0" O.C.
- 24. ALL STEEL IN EXTERIOR MASONRY WALLS IS TO BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123.

WELDED TO THE TOP FLANGE.

DIVISION 5 - STEEL DECK

- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, MANUFACTURING AND ERECTION OF STEEL DECK.
- A. STEEL DECK INSTITUTE (SDI) MOC3, MANUAL OF CONSTRUCTION WITH STEEL DECK. B. SDI FDDM, FLOOR DECK DESIGN MANUAL C. SDI RDDM, ROOF DECK DESIGN MANUAL.
- 2. ALL FLOOR DECK SHALL BE AS FOLLOWS:
- A. ALL FLOOR DECK SHALL BE 2" DEEP, 20 GA, WIDE RIB GALVANIZED DECK 2.0VL BY VULCRAFT OR APPROVED EQUAL. ALL DECKS SHALL SPAN A MINIMUM OF 3 SPANS WHERE POSSIBLE. B. GRADE 50 STEEL, FY = 50 KSI.
- ALL TYPICAL ROOF DECK SHALL BE AS FOLLOWS:
- A. ALL ROOF DECK SHALL BE 1 1/2" DEEP 20 GA WIDE RIB GALVANIZED DECK, 3 SPAN MINIMUM. 1.5B BY VULCRAFT OR AN APPROVED EQUAL. B. GRADE 50 STEEL, FY = 50 KSI.
- 4. ALL ACOUSTICAL ROOF DECK SHALL BE AS FOLLOWS:
- A. ALL ACOUSTICAL ROOF DECK SHALL BE 2" DEEP 20 GA ACOUSTICAL DOVETAIL GALVANIZED DECK, 3 SPAN MINIMUM. 2.0DA BY VULCRAFT OR AN APPROVED FQUAI B. GRADE 40 STEEL, FY = 40 KSI.
- 5. PROVIDE ADDITIONAL SUPPORT FRAMING AT OPENINGS IN ROOF AND FLOOR PER TYPICAL DETAILS. COORDINATE LOCATIONS WITH APPROPRIATE TRADES.
- 6. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES INCLUDING CLOSURES, "Z" CLOSURES, COLUMN CLOSURES, SCREED ANGLES, GIRDER FILLERS, CANT STRIP, FILLER SHEET AND REINFORCING CHANNEL, AS REQUIRED.
- 7. ALL DECKING SHALL BE WELDED TO STRUCTURAL STEEL BY QUALIFIED WELDERS USING PRE-QUALIFIED PROCEDURES. THE ERECTOR SHALL ESTABLISH A WELDING PROCEDURE FOR THE PLUG WELD OF THE STEEL DECKING TO THE STRUCTURAL STEEL FOR THE PARTICULAR GAGE USED. PRIOR TO THE START OF ERECTION OF THE STEEL DECK, EACH WELDER SHALL BE QUALIFIED USING THIS PROCEDURE AS WITNESSED BY THE OWNER'S TESTING AGENCY.
- 8. THE METAL DECK SHALL BE DESIGNED TO BE CONTINUOUS OVER THREE (3) SPANS IN THE DIRECTION INDICATED. SINGLE AND DOUBLE SPANS, IF REQUIRED, SHALL SATISFY LOAD AND DEFLECTION REQUIREMENTS.
- 9. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ANY ROOF DECK. ALL HANGERS FOR CEILINGS, DUCTWORK, ELECTRICAL CONDUIT, PIPING, ETC. SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL WORK OR SUPPLEMENTARY MEMBERS.
- DIVISION 5 STEEL JOIST
- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND ERECTION OF STEEL JOISTS AND JOIST GIRDERS.
- A. STEEL JOIST INSTITUTE (SJI) SJI-K, STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES. B. SJI-LH/DLH, STANDARD SPECIFICATION FOR LONGSPAN STEEL JOISTS, LH-SERIES AND DEEP LONGSPAN STEEL JOISTS, DLH-SERIES.
- C. SJI-JG, STANDARD SPECIFICATION FOR JOIST GIRDERS. D. SJI-COPS, CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS.
- 2. ONLY STEEL JOISTS AND JOIST GIRDERS FROM A STEEL JOIST INSTITUTE APPROVED FABRICATOR WILL BE ACCEPTABLE.
- 3. PROVIDE WELDED HORIZONTAL BRIDGING AND CROSS BRIDGING AS REQUIRED PER SJI REQUIREMENTS.
- 4. REFER TO PLANS, DETAILS AND NOTES FOR ADDITIONAL SPECIAL JOIST REQUIREMENTS.
- 5. ALL CONCENTRATED LOADS DUE TO HANGERS, MECHANICAL EQUIPMENT, ETC. SHALL BE SUPPORTED ONLY AT JOIST PANEL POINTS. PROVIDE ADDITIONAL MEMBERS AS NECESSARY TO MEET THIS REQUIREMENT.
- 6. JOISTS SHALL BE FIELD WELDED TO ALL SUPPORTS WITH A 3/16" FILLET WELD 3" LONG ON EACH SIDE OF BEARING UNLESS NOTED OTHERWISE.
- 7. ALL STEEL ROOF JOISTS AND BRIDGING SHALL BE DESIGNED FOR A NET UPLIFT BASED ON DIAGRAM, SEE ROOF PLAN,
- DIVISION 5 COLD FORMED METAL FRAMING 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND ERECTION OF COLD FORMED METAL FRAMING.
- A. AMERICAN IRON AND STEEL INSTITUTE (AISI) AISI S200, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS. B. AISI S201, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING -
- PRODUCT DATA. C. AISI S202, CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL STRUCTURAL FRAMING.
- 2. COLD FORMED STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL SPECIFICATIONS: A. ASTM A446, Fy = 33 KSI FOR MATERIAL 0.0478 INCH (18 GAGE) OR THINNER.
- B. ASTM A446, Fy = 50 KSI FOR MATERIAL 0.0598 INCH (16 GAGE) OR THICKER.
- 3. ALL COLD FORMED STEEL SHALL HAVE A GALVANIZED COATING CONFORMING TO ASTM A653-G60.
- 4. ALL WELDING SHALL CONFORM TO AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL STRUCTURES AND AWS D19.0 WELDING ZINC COATED STEEL.
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES, DESIGN VALUES, MATERIALS, DIMENSIONS, CONNECTIONS AND CALCULATIONS WHICH HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER.
- 6. UNLESS SPECIFICALLY NOTED, ALL MATERIAL SHALL BE A MINIMUM 18 GAUGE (MINIMUM 16 GAUGE FOR STUDS SERVING AS BACKUP FOR BRICK VENEER) THICKNESS, AND SHALL MEET THE DEFLECTION REQUIREMENTS OF THE FINISH MATERIAL TO BE ATTACHED TO THE COLD FORMED FRAMING WORK. DEFLECTION OF COLD FORMED STUDS, UNDER WIND LOADS, SERVING AS BACKUP FOR BRICK VENEER SHALL NOT EXCEED SPAN/720.
- 7. ALL STUDS AND JOISTS SHALL BE INSTALLED AT SPACING INDICATED ON THE DRAWINGS, UNLESS NOTED, EACH SIDE OF THE OPENINGS SHALL BE FRAMED WITH DOUBLE STUDS.
- 8. ALL STUDS AND JOISTS SHALL HAVE A BRIDGING LINE INSTALLED AT A MAXIMUM DISTANCE OF 4'-0" AND 5'-0" RESPECTIVELY.
- 9. ALL JOISTS SHALL HAVE WEB STIFFENERS AT REACTION POINTS AND CONCENTRATED LOADS.
- 10. STRUCTURAL CONNECTIONS OF COLD FORMED METAL FRAMING MEMBERS SHALL BE MADE PER MANUFACTURER'S RECOMMENDATIONS, ADEQUATE TO CARRY THE IMPOSED LOADS, AND CONFORMING TO THE AISI AND AWS SPECIFICATIONS.
- 11. NON LOAD BEARING WALLS OR CURTAIN WALLS SHALL BE DESIGNED AND CONNECTED TO ALLOW FOR DEFLECTION OF THE BUILDING STRUCTURE.
- **DIVISION 31 FOUNDATIONS/BACKFILL**
- 1. CONTRACTOR SHALL REVIEW A COPY OF THE GEOTECHNICAL REPORT PREPARED BY G2 CONSULTING GROUP DATED 9/6/2023.
- 2. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF. FOUNDATIONS SHALL BEAR ON NATURAL UNDISTURBED SOILS OR ON ENGINEERED FILL.
- 3. THE OWNER WILL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO MONITOR THE FOUNDATION WORK AND DETERMINE THE QUALITY OF THE SOIL AT ALL FOOTING LOCATIONS. IF UNSUITABLE MATERIALS ARE ENCOUNTERED AT THE FOOTING LOCATIONS, THE UNSUITABLE SHALL BE REMOVED AND REPLACED OR THE FOOTINGS LOWERED AT THE DIRECTION OF THE ENGINEER.
- 4. THE CONTRACTOR SHALL BE AWARE OF AND VERIFY LOCATION OF ALL UNDERGROUND UTILITIES, TANKS, ETC. DUE CARE SHALL BE EXERCISED DURING EXCAVATION SUCH THAT EXISTING UTILITIES ARE NOT DAMAGED.
- 5. ALL EXCAVATED MATERIAL SHALL BE TRANSPORTED TO A DISPOSAL AREA DESIGNATED BY THE OWNER ALL EXCAVATIONS SHALL CONFORM TO MI-OSHA REQUIREMENTS. ANY PERCHED GROUNDWATER ENTERING THE EXCAVATION SHALL BE PUMPED PRIOR TO PLACING CONCRETE.
- 6. ALL BACKFILL MATERIALS SHALL CONFORM TO MDOT CLASS II MATERIAL. ALL BACKFILL SHALL BE PLACED IN 9" LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557 (MODIFIED PROCTOR), FIELD DENSITY TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D-2922 OR D-1556 WITH A MINIMUM OF 1 TEST PER 1500 SQ FEET OF AREA PER 9" LIFT (MINIMUM OF (3) TEST PER LIFT).









DATE:







 NOTES:
 100'-0" = 725.50. SEE CIVIL.
 B.O.F. = 96'-0" U.N.O.
 REFER TO S4.1 FOR FOOTING AND PIER SCHEDULE.
 REFER TO S6.1 FOR COLUMN SCHEDULE.
 PROVIDE (2) #5 X 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
 MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT 2 YET BEEN ISSUED. YET BEEN ISSUED. 7. PROVIDE CONTROL JOINTS AT A MAXIMUM SPACING OF 15 FT O.C. AND A MAXIMUM ASPECT RATION OF 2 TO 1. SUGGESTED CONTROL JOINT LOCATIONS WILL BE PROVIDED WITH THE ARCHITECTURAL BID PACKAGE.

CONSULTANT

DATE:





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ARCHITECTURE

TMP ARCHITECTURE INC

1191 WEST SQUARE LAKE ROAD







NOTES: 1. 100'-0" = 725.50. SEE CIVIL. 2. B.O.F. = 96'-0" U.N.O. 3. REFER TO \$4.1 FOR FOOTING AND PIER SCHEDULE. 4. REFER TO S6.1 FOR COLUMN SCHEDULE. 5. PROVIDE (2) #5 X 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
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7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND

9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT

OPENING DIMENSIONS WITH MECHANICAL.

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8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES.

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W14 25 KIPS W16 40 KIPS W18 50 KIPS W21 55 KIPS W24 65 KIPS NOTE: DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

LRFD SHEAR REACTIONS SIZE SIZE W8 15 KIPS W10 15 KIPS 25 KIPS W12

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Troy Sch Troy, Mie DRAWING Roof Fra	ADDENDUM NO. 2 CONSTRUCTION DOCUMENTS ISSUED FOR: D. BART B. KANNERS
Troy Sch Troy, Mie DRAWING Roof Fra	ADDENDUM NO. 2 CONSTRUCTION DOCUMENTS ISSUED FOR: B. KANNERS E. MANNOR
Troy Sch Troy, Mid DRAWING Roof Fra	ADDENDUM NO. 2 CONSTRUCTION DOCUMENTS ISSUED FOR: D. BART B. KANNERS E. MANNOR
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Troy Sch Troy, Mie DRAWING Roof Fra C C C C C C C C C C C C C C C C C C C	ADDENDUM NO. 2 CONSTRUCTION DOCUMENTS ISSUED FOR: D. BART B. KANNERS E. MANNOR NO. 2

ARCHITECTUR

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SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
W24	65 KIPS
<u>NOTE:</u> DESIGN FOR LOA	ALL SHEAR CONNECTIONS DS IN ABOVE TABLE U.N.C

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 3. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS. 5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL. 2 6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN, LOADS ARE IN LRFD. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL. 8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT

YET BEEN ISSUED.

A R C H I T E C T U

TMP ARCHITECTURE INC

1191 WEST SQUARE LAKE ROAD

HIGH ROOF FRAMING PLAN - ZONE 'A' SCALE: 1/8" = 1'-0"

7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND 8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT

LRFD	SHEAR REACTIONS
SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
W24	65 KIPS
NOTE:	

DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

HIGH ROOF FRAMING PLAN - ZONE 'B' SCALE: 1/8" = 1'-0"

RFD SHEAR REACTIONS				
SIZE	SIZE			
W8	15 KIPS			
W10	15 KIPS			
W12	25 KIPS			
W14	25 KIPS			
W16	40 KIPS			
W18	50 KIPS			
W21	55 KIPS			
W24	65 KIPS			
OTE:				

DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

30 _____ L4X4X1/4 AROUND _ PERIMETER, TYP U.N.O. S5.2 BP-4 BP-4

HIGH ROOF FRAMING PLAN - ZONE 'C'

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LRFD SHEAR REACTIONS SIZE W8 SIZE 15 KIPS W10 15 KIPS W12 25 KIPS W14 25 KIPS

65 KIPS DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

W16 40 KIPS W18 50 KIPS W21 55 KIPS W24 NOTE:

PROJECT TITLE **NEW SMITH** MIDDLE SCHOOL

WILLIAM A. KIBBE & ASSOCIATES, INC. ENGINEERS | ARCHITECTS | SURVEYORS

CONSULTANT

REGISTRATION SEAL

ARCHITECTUR TMP ARCHITECTURE INC 1191 WEST SQUARE LAKE ROAD BLOOMFIELD HILLS · MICHIGAN · 48302

PH · 248.338.4561 FX · 248.338.0223 EM · INFO@TMP-ARCHITECTURE.COM

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YET BEEN ISSUED.

'D'

LRFD SHEAR REACTIONS			
SIZE	SIZE		
W8	15 KIPS		
W10	15 KIPS		
W12	25 KIPS		
W14	25 KIPS		
W16	40 KIPS		
W18	50 KIPS		
W21	55 KIPS		
W24	65 KIPS		
NOTE:			

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ZONE A - NO BASE FLOOD ELEVATIONS DETERMINED.	
AREA TO BE DETERMINED OUTSIDE OF THE 0.2% ANNUAL C	HANCE FLOODPLAIN.
LEGAL DESCRIPTION: PARCEL ID 20-10-101-054	
Land in the City of Troy, Oakland County, Michigan, described as follows:	8-57-00 E 697 50 ET &
S 00-10-00 E 169.24 FT FROM NW SEC COR, TH S 89-40-00 E 624.96 FT 683.20 FT, TH N 89-08-00 W 901.78 FT, TH N 00-10-00 W 637.72 FT, TH S TH N 00-10-00 W 39.24 FT TO BEG 13.79 A	, TH S 00-10-00 E 89-02-00 E 275.00 FT,
PARCEL ID 20-10-151-022 Land in the City of Troy, Oakland County, Michigan, described as follows:	
T2N, R11E, SEC 10 SUPERVISOR'S PLAT NO 25 LOTS 5, 6 & 7, ALSO E ALSO LOT 10 EXC W 357.82 FT OF S 104.29 FT	900 FT OF LOTS 8 & 9,
BENCHMARKS: (GPS DERIVED - NAVD88)	
BM #300 ARROW ON A HYDRANT LOCATED AT THE SOUTHWEST CORNER O THE FRONT PARKING LOT.	DF
BM #301 ARROW ON A HYDRANT LOCATED ON THE SOUTHWEST CORNER (THE BACK PARKING LOT. ELEV 726.34	OF
GENERAL DEMOLITION NOTES:	
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON	THIS PROJECT:
1. ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO O BURN PITS SHALL BE ALLOWED.	NOTED IN THE THE CONTRACTOR IN-SITE BURY OR
2. ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL (ORDINANCES.	CODES AND
3. STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS COORDINATED WITH THE OWNER AND THE CONTRACTOR I CONSTRUCTION.	S TO BE PRIOR TO
4. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE O AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHE DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY B THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WIL PRIOR TO SUBMITTING A BID.	HE PLANS AS A E INTENT THAT CONTRACTOR ABOVE ERWISE, AND THAT IE LIMITED TO EXISTING L BE REQUIRED
5. REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL AC DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTING WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRET TREES, ETC.	CCORDING TO THE GS, FOUNDATION TE, ASPHALT,
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN U CONTROL, STREET SWEEPING AND HOURS OF OPERATION WITH THE LOCAL CODES.	IP, NOISE, DUST IN ACCORDANCE
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARF MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENC' AND IN ACCORDANCE WITH THE LATEST EDITION OF THE OF UNIFORM TRAFFIC CONTROL DEVICES.	RICADES, SIGNAGE, ES TO PROTECT THE Y REQUIREMENTS E STATE MANUAL
8. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UT TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OU PRIOR TO DEMOLITION.	TILITY COMPANIES T OF SERVICE
9. ALL BUILDING GAS LEADS, METERS AND ASSOCIATED EQU REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL A WITH THE APPROPRIATE UTILITY COMPANY.	UIPMENT SHALL BE ASSOCIATED WORK
10. REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. CO SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE F APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CA MAY ALSO BE LOCATED ON OVERHEAD LINES.)	Lines within the ordinate provider or the ble t.v. services
11. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AN OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS M FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRE OF JURISDICTION. THE CONTRACTOR SHALL REPLACE AN AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER	ND REPLACEMENT NECESSARY TO OR STOCKPILED ED BY THE AGENCY Y DAMAGED SIGNS R.
12. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ LOCATING CENTER, THE CITY ENGINEER AND/OR THE AU JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNIN CONSTRUCTION.	ONE CALL UTILITY THORITY HAVING IG OF
DEMOLITION LEGEND:	
ITEM TO BE REMOVED	\bowtie
CURB/FENCE REMOVAL	
CONCRETE PAVEMENT AND SIDEWALK REMOVAL	
AREA OR ITEMS TO BE REMOVED	
UTILITY REMOVAL	• *****************************
ASPHALT REMOVAL	
SAWCUT LINE	
SYMBOLS: EROSION CONTROL:	
(SP-2) SILT FENCE (SP-9) TEMPORARY STONE ACCESS DRI	VE
REFER TO O.C.W.R.C. SOIL EROSION AND SEDIMENTATION CON SHEET FOR ALL DEVICE DETAILS.	NTROL DETAILS
GENERAL SITE CONDITIONS:	
1. ACCORDING TO THE SOIL SURVEY INFORMATION SUPPLIED NRCS, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPE +10B MARLETTE SANDY LOAM 1 TO 6 PERCENT SLOPES) by the USDA ES:
•41B AQUENTS, SANDY, LOAMY, UNDULATING •ShbhaB SHEBEON SANDY LOAM, 0 TO 4 PERCENT SLOP •ShbuaB SHEBEON-URBAN LAND COMPLEX, 0 TO 4 PER 2. TOTAL DISTURBED AREA = ±10.9 ACRES	PES CENT SLOPES
3. N.P.D.E.S. NOTICE OF COVERAGE IS REQUIRED	
EROSION CONTROL QUANTITIES:	
SILT FENCE TEMPORARY CONSTRUCTION ACCESS DRIVE	3,875 LF 1 EA.

FLOODPLAIN:

CHANCE FLOOD

ANNUAL CHANCE FLOOD.

29, 2006

PER FLOOD INSURANCE RATE MAP NUMBER 26125C0532F, DATED SEPTEMBER

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL

THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE

AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. AREAS OF

SPECIAL FLOOD HAZARD INCLUDE ZONES A, AE, AH, AO, AR, A99, V AND VE. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1%

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

CAUTION!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

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02/08/24	ADDENDUM 2	
01/23/24	BIDS	
DATE:	ISSUED FOR:	
DRAWN	WL	
CHECKED	TD	
APPROVED	TD	

PROJECT TITLE **New Smith Middle** School **Bid Package No. 03A**

CONSULTANT

REGISTRATION SEAL

EM · INFO
 TMP-ARCHITECTURE.COM

TMP ARCHITECTURE INC

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