

CONSTRUCTION MANAGER'S PROJECT MANUAL **Dow Gardens New Welcome Center**

BID PACKAGE #3

January 13, 2025



CONSTRUCTION MANAGER SPENCE BROTHERS

203 S. Washington Avenue, Suite 360 Saginaw, MI 48607 (989) 752-0400



ARCHITECT WTA ARCHITECTS

100 S. Jefferson Avenue, Suite 601 Saginaw, Michigan 48607 (989) 752-8107

CONSTRUCTION MANAGER'S PROJECT MANUAL

PROJECT:	The Herbert H. and Grace A. Dow Foundation Dow Gardens Welcome Center Bid Package #3 – Civil and Remaining Building Trades
PROJECT ADDRESS:	Dow Gardens 1809 Eastman Ave Midland, MI 48640
OWNER:	The Herbert H. and Grace A. Dow Foundation 1018 W. Main St. Midland, MI 48640
ARCHITECT:	WTA Architects 100 S. Jefferson Ave, Suite 601 Saginaw, MI 48607 Contact: Jordan Johnston
CONSTRUCTION MANAGER:	Spence Brothers 203 S Washington Ave, Suite 360 Saginaw, Michigan 48607 Phone: (989) 752-0400 Contact: Jeremy Huntoon jeremyhuntoon@spencebrothers.com

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WTA Architects BP #3 Drawings, dated January 9, 2025 WTA Architects BP #3 Specification Sections, dated January 9, 2025

END OF SECTION 00 0110

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 00 1000 INVITATION TO BID

Notice is hereby given that

The Herbert H. and Grace A. Dow Foundation

Will be accepting Bids from Invited Trade Contractors only for Construction of

THE HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

00 2204	Bid Category	301	Excavation and Site Utilities
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According to drawings and specifications as prepared by WTA Architects and the Construction Manager's Project Manual, as prepared by Spence Brothers.

The project will consist of The Herbert H. and Grace A. Dow Foundation's New Dow Gardens Welcome Center, Bid Pack #3 – Civil and Remaining Building Trades. Construction will start in the Winter of 2024 and be completed in the Spring of 2026.

Proposals will be received no later than February 5, 2025 AT 2:00 PM EST.

Bid proposals shall be received from invited contractors only via Procore. All other contractors and suppliers shall submit their bids to invited contractors. Bid proposals will be opened privately. Fax and email bids are unacceptable. When submitting your proposal via Procore you MUST attached a scanned copy of the bid form provided by the Construction Manager.

No bids will be accepted at the office of the Owner, Construction Manager or the Architect. All bids received after the bid due time on the bid due date will not be accepted and will be returned to the Bidder. Bidder will be notified if their bid was received late.

The Construction Manager is utilizing Procore's project management software as the repository for all bid documents, construction documents, and related correspondence for this project. This includes, but is not limited

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Spence Brothers - Project Manual Section 00 1000 - Invitation for Bids Page 1 of 2 to, notices, drawings, specifications, project manuals, addenda, bid clarifications, etc. It is each bidder's responsibility to ensure they retrieve any and all bid documents issued for this project.

Bid documents are retrieved by clicking on the hyperlink in the email that transmits this Invitation to Bid. By clicking that hyperlink, a download will initiate for the bid documents published via that email.

If an invited bidder has any difficulty retrieving any bid document, notify the Construction Manager immediately.

All questions need to be submitted to the Construction Manager, Jeremy Huntoon at jeremyhuntoon@spencebrothers.com. All questions must be submitted <u>in writing no later than</u> 4:00 PM on January 28, 2025. No direct contact with the Owner, Architect, or consulting Engineers is permitted.

It is each bidder's responsibility to make sure they have received (any) addenda issued for this project. There will be a <u>**Pre-Bid Conference**</u> on January 23,2025. This will be held at the Spence Brothers Construction office trailer: 1809 Eastman Ave. Midland, MI 48640.

Substantial completion dates for the work in each Bid Category shall be as indicated in the Milestone Schedule in the Construction Manager's Project Manual.

All proposals submitted shall remain valid for a period of sixty (60) days after the bid date. The Owner, Architect, and Construction Manager reserve the right to accept and/or reject any or all bid proposals and to waive any and all informalities and/or irregularities in bid proposals submitted. This right shall be exercised at the sole discretion of The Herbert H. and Grace A. Dow Foundation. Spence Brothers will make awards as may appear to be in the best interest of The Herbert H. and Grace A. Dow Foundation.

A Bid Security by a qualified surety authorized to do business in the State where the Project is located and in the amount of five percent (5%) of the Base Bid shall accompany each proposal or proposal combination. The Bid Security may be in the form of a Bid Bond, Cashier's Check, or Money Order. Personal checks are NOT acceptable. Bids may not be withdrawn for a period of sixty (60) days after the bid date.

Bidders will be required to furnish the cost of Performance and Payment Bonds in the amount of 100% of their bid. The cost of the Bond shall be included on each proposal form separate from the base bid.

The Construction Manager will direct, supervise, coordinate, and manage the project. Overall administration of the Project will be the responsibility of the Construction Manager, Spence Brothers. The Construction Manager will award contracts for separate bid divisions or combinations of bid divisions. All bids shall be submitted on the bid proposal forms provided in the Construction Manager's Project Manual, completely filled in, and executed.

The project has been designed following the guidelines set forth by USGBC for LEED projects. All contractors will be expected to follow the requirements set forth by USGBC and as shown in the contract documents. However, the project will not be submitted for final certification by USGBC. Premiums for documentation costs shall not be included in the bids.

Prevailing wages will NOT be a requirement of this project.

END OF SECTION 00 1000

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 00 2000 INSTRUCTIONS TO BIDDERS

THE HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

1. Preparation of Proposals

The Herbert H. and Grace A. Dow Foundation (also referred to as the "Owner"), WTA Architects (also referred to as the "Architect"), and Spence Brothers (also referred to as the "Construction Manager") shall be referred as such throughout the Instructions to Bidders and CM Project Manual.

Spence Brothers' Procore project management site, is the official location for all bidding documents and related correspondence for this project. This includes, but is not limited to notices, drawings, specifications, project manuals, addenda, clarifications, etc.

It is each bidder's responsibility to make sure they have received (any) addenda issued for this project.

Bids on Proposal Forms identical to the forms included in the bidding documents shall be filled in completely including any applicable alternate prices and unit prices. Bid amounts must be in words as well as figures. Proposals that are not filled in completely may be rejected. Bid Proposal Form MUST be uploaded into Procore with your electronic bid submission.

Proposals may be rejected which do not include a bid amount, PLM bond cost, bid bond, noted addenda (if any), noted alternates (if any), percentages for changes in the work, or a signed proposal form. Proposals that contain qualifications and/or modifications to the base proposal may also be rejected. The Owner reserves the right to reject any or all bids in whole or in part and waive any informality herein.

Signatures must be in long hand and executed by the principal duly authorized to make contracts. The bidder's legal name must be fully stated.

If a contractor elects to bid more than one bid category, then a separate proposal form must be submitted for each bid category.

Bid proposals shall be received from invited contractors only via Procore. All other contractors and suppliers shall submit their bids to invited contractors. Bid proposals will be opened privately. Email and fax bids are unacceptable.

Bid proposals will be received from trade contractors submitting only complete bids against a bid category. All other subcontractors and suppliers shall submit their bids to the trade contractors. All bids received after the bid due time on the bid due date will not be accepted.

Proposals must be submitted as specified in the "Invitation for Bids". Submission time for each Bidder's proposal will be recorded based on time stamp of submission within Procore.

BIDS WILL BE PRIVATELY OPENED. The Owner complies with all federal and state laws and regulations including the requirement not to contract with sanctioned individuals or companies.

The successful selected Bidder, for each bid category, will be required to furnish a cost breakdown for their respective bid category. Each bid category will be required to furnish separate costs on the schedule of values, as part of your pay application, for each type of work as follows.

2. Discrepancies and Questions

All questions regarding discrepancies or ambiguities in or omissions from the contract documents shall be forwarded to Spence Brothers in writing at once, or in any case, prior to end of day on November 15th. Spence Brothers shall forward all questions to the Architect (except those regarding delineating scope of work between bid categories). After these are reviewed and where information sought is not clearly indicated or specified, a written addendum or clarification to all bidders of record shall be issued. The Owner, Architect, or Spence Brothers not shall be responsible for any oral instructions.

3. Examination of Site

It shall be understood that each Bidder has been given the opportunity to visit the site and knows the conditions under which the work will be done. Lack of such knowledge will not constitute a basis for any claims whatsoever for extra compensation or extension of time.

4. Work by Owner

All item on drawings marked "N.I.C," "By Owner," or otherwise designated to be furnished or accomplished by others are for purpose of location and information only and are not included in the Contract.

5. Proposal Price

Each bidder affirms that he has been given the opportunity to familiarize himself with all of the Contract Documents, and agrees that the cost of all Work specifically called for, or reasonably inferred, has been included in the proposal price.

6. Taxes

Each bidder shall include in his proposal, and agrees to pay all fees and taxes, including Sales and Use, which he may be required to pay in connection with the performance of the contract. Also, all contributions for unemployment compensation, health and welfare, old age benefits, or other purposes now or hereafter effective during the term of the contract, and the Owner and Construction Manager shall not be liable for any additional charges therefore.

7. Alternates

Alternates are indicated on the Proposal Form. Each bidder is required to review these Alternates and submit an ADD or DEDUCT cost for any Alternates affecting the work in the Bid Category they are bidding. If the Alternate does not apply, so indicate with Not Applicable (N/A) in the space provided.

8. Voluntary Alternates

Voluntary Alternates will not be considered during the contract award process. All bids shall be in compliance with the Bid Documents. In the event a bidder wishes to propose an alternative material or method, such alternate shall be identified on the Proposal Form as a Voluntary Alternate. Voluntary Alternates shall not be included in a base bid amount. The Owner reserves the right to accept or reject any Voluntary Alternate.

9. Bonds

Bid Bonds are required with the proposal. Bid Security by a qualified surety authorized to do business in the State where the Project is located and in the amount of five percent (5%) of the Base Bid shall accompany each proposal or proposal combination. The Bid Security may be in the form of a Bid Bond, Cashier's Check, or Money Order. Personal checks are NOT acceptable. Bids may not be withdrawn for a period of sixty (60) days after the bid date.

Performance and Payment Bonds may be required from Trade Contractors on this Contract. Bidders are required to furnish the cost of Performance and Payment Bonds in the amount of 100% of their bid in accordance with Section 00 6100 - Bonds of this Project Manual. Cost for said bonds is <u>not</u> to be included in the base bid, but shall be quoted as requested on the Proposal Form in Section 00 4000.

10. Prevailing Wages

Prevailing wages will NOT be a requirement of the Owner on this project

11. Coordination with All Trades

Drawings and specifications are issued as a complete bound set, including civil, architectural, structural, mechanical, and electrical work, to all bidders. Bidders or sub-bidders for each trade are responsible for informing themselves of work by other trades and of their own responsibility in coordination and interfacing involved.

12. Indemnification and General Liability Insurance

The successful trade contractor shall agree to indemnify and hold harmless the Owner, Architect, and Spence Brothers from and against any and all general liability claims whatsoever arising out of or occurring during and occasioned directly or indirectly by its negligence or fault. Prior to entering into a contract, the successful trade contractor shall provide evidence satisfactory to the Owner, Architect, and Spence Brothers of adequate general liability insurance coverage in this regard, naming the Owner, Architect, and Spence Brothers as additional insured. The Trade Contractor shall also provide evidence of Worker's Compensation Insurance in the amounts required by the State of Michigan.

13. Equal Employment Opportunity Clause

The Owner is an equal opportunity employers and non-discriminatory in their policies and practices.

In the performance of any contract, or purchase order resulting herefrom, the bidder, contractor, subcontractor, or vendor agrees and covenants not to discriminate against an employee or applicant for employment for any reason directly or indirectly related to employment, because of race, color, religion, national original, age, sex, handicap or disabled or Vietnam era veteran status.

The provisions of Section 202 of Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and 38 USC2012, the Vietnam Era Readjustment Assistance Act of 1974, as amended, are incorporated herein by specific reference.

The bidder, contractor, subcontractor, or vendor agrees to and is in compliance with other Federal, State, and local law, published rules, regulations, directives, and orders that govern equal opportunity in matters related to employment.

14. Minority Subcontractors and Suppliers

Applicants are urged to utilize the services of minority subcontractors and suppliers where possible in the pursuance of this project.

15. <u>Non-Collusion Clause</u>

By submitting and signing this proposal, the applicant declares that neither the firm nor agents of the firm's business or any other members of the proposed team have entered into any collusion or agreement concerning any aspect of the proposal.

16. Legal Structure and Authority

Each proposal shall include the legal name of the organization and a statement as to whether or not it is a sole proprietorship, a partnership, a corporation, or any other legal entity. A proposal by a corporation shall also give the state of incorporation and have a corporate seal affixed, identify the principal place of business and its registered office in the State of Michigan. Each proposal shall be signed by the person legally authorized to bind the contractor to a contract.

17. Compliance with Law

The applicant shall be required to comply with all applicable provisions of Federal, State, or Local law, both in its response hereto and in provision of services.

18. Proposal Held Open

No applicant shall be permitted to withdraw their proposal for a period of sixty (60) days after the time and date as set forth above. All proposals shall remain valid and binding for that period of time.

19. Reservation of Rights

- a) The Owner reserves the right to accept any proposal or proposals in whole or part, to negotiate further regarding any terms of the proposal with one or more applicants to achieve the best proposal as determined by the Owner at its sole discretion, and to reject any or all proposals, for any reason whatsoever, should it be deemed in the best interest to the Owner to do so.
- b) Negotiation, if undertaken by the Owner, is intended to result in a contract which is deemed by the Owner in its sole discretion to be in the Owners' best interest. Any such negotiation will use the selected proposal or proposals as a basis to reach a final agreement, if possible.
- c) The Owner reserves the right to include in the contract for services other terms and conditions not specifically set forth here.
- d) The Owner reserves the right to waive or disregard any informality, irregularity, or deficiency in any proposal.

20. Contract Agreement

The successful trade contractors will be assigned as subcontractors to the Construction Manager, who will direct, supervise, coordinate and manage the project.

21. Cancellation of Project

The Owner reserves the right to cancel the project and contract at any point. The contractor will be reimbursed for work performed up to cancellation based upon the amount of work completed.

22. Combined Bids

If a contractor chooses to submit a Combined Bid, they must still submit individual bids on separate bid forms for the respective bid categories they are including in their Combined Bid. The Combined Bid amount shall be included on all individual bid forms. Each individual bid must be complete without exclusions or qualifications.

23. Proof of Competency of Bidder

- a) A bidder or sub-bidder or supplier may be required to furnish evidence satisfactory to the Owner and Construction Manager that he has sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory and timely manner.
- b) Bidder to whom award is contemplated will be required to furnish the following information:
 - 1. Plan to man the project to meet the critical milestone schedule dates.
 - 2. Proposed Construction Schedule detailing their respective Bid Category work, indicating the given milestone dates.

- c) Bidder to whom award is contemplated may be required to furnish the following information:
 - 1. Financial Statement corporation/business.
 - 2. Performance record, including past and present projects, amount of contracts, present completion, owner, architect.
 - 3. Itemized list of equipment.
 - 4. List of owners and key personnel with their background and experience.
- d) Bidder to whom award is contemplate may be required to furnish the following information:
 - 1. OSHA 300 and 300A Log from the last three years.
 - 2. EMR from the last three years.
 - 3. List of any OSHA violations in the last three years.
 - 4. List of any fatalities in the last five years.

24. Award of Contract

It is the Owner's intent to award a contract to the lowest responsible and competent bidder provided the bid has been submitted in accordance with the requirements of the bidding documents and does not exceed the funds available for construction. The Owner reserves the right to award to the bidder which in his judgment has submitted the bid which is in the Owner's best interest.

25. Bid Qualifications

Bidders are to bid <u>complete</u> Bid Category only, without qualifications or exclusions. Bidders are to submit proposals for only bid category(s) for which they are qualified to bid.

26. Michigan Products

All prime bidders and their subcontract bidders and suppliers shall utilize Michigan made products whenever possible where price, quality and performance are equal to or better than non-Michigan products.

27. Warranty

All work shall be guaranteed for a period of one (1) year, unless more specifically stated in the contract documents, from the date of substantial completion of the entire work in this bid package as determined by the Architect, and all service within that period shall be rendered without charge to the Owner. This does not apply to any specified extended manufacturer's warranties.

END OF SECTION 00 2000

SECTION 00 2200 BID CATEGORY GENERAL NOTES

THE HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

The following is a description of the work for bid categories for this project. All work relative to the bid categories is identified on plans and specifications as prepared by the Architect. Each bid category work description identifies the scope of work to be performed by the bidder as designated by the Construction Manager.

All bidders are responsible for reviewing their bid category work description and the other bid category work descriptions and all contract documents, and should immediately advise the Construction Manager of any conflicts or ambiguities which may affect the bidding and/or execution of this contract work. If conflicts or ambiguities are not resolved prior to the bid due date, the more stringent shall apply. Each contractor will also be responsible for familiarizing themselves with all bid category work descriptions so they may coordinate their work accordingly. Each bidder will agree to coordinate their work with the work and requirements of any/all subsequent bid package documents.

These bid category work descriptions should in no way be construed as being all inclusive. It is issued as a guide to aid in the assignment of work.

If conflict regarding assignment of work exists between the Architect's drawings and specifications and the Construction Manager's bid category work descriptions, the bid category work descriptions will take precedence in work assignment. The Construction Manager's assignment of the Work precludes that of the Architect's drawings and/or specification. Bid Categories are the divisions of Work which the Project is divided for bidding and subsequently the construction. Bid Categories shall not be confused with the Architect's Technical Specification Divisions.

Bidders are required to bid an entire bid category. Bids will only be accepted for complete individual bid categories. Combined bids covering more than one bid category will not be accepted unless separate bid amounts are listed for each bid category included in the combined bid.

BID CATEGORIES AND DESCRIPTIONS

00 2204	Bid Category	301	Excavation and Site Utilities
00 2205	Bid Category	302	Asphalt Paving
00 2206	Bid Category	303	Concrete – Site
00 2207	Bid Category	304	Concrete – Slab On Grade
00 2208	Bid Category	305	Masonry
00 2209	Bid Category	306	General Trades
00 2210	Bid Category	307	Roofing
00 2211	Bid Category	308	Metal Panels
00 2212	Bid Category	309	Glass and Aluminum
00 2213	Bid Category	310	Drywall, Acoustical, and Framing
00 2214	Bid Category	311	Flooring – Hard Tile and Base
00 2215	Bid Category	312	Painting
00 2216	Bid Category	313	Kitchen Equipment
00 2217	Bid Category	314	Fire Protection
00 2218	Bid Category	315	Mechanical and Plumbing
00 2219	Bid Category	316	Electrical

GENERAL NOTES for BID CATEGORY WORK DESCRIPTIONS

The following are General Notes applicable to all bid categories.

- 1. The Herbert H. and Grace A. Dow Foundation (also referred to as the "Owner"), WTA Architects (also referred to as the "Architect"), and Spence Brothers (also referred to as the "Construction Manager"), shall be referred as such throughout the CM Project Manual.
- 2. The Bid Category Contractor (also referred to as "General Contractor" or "Contractor" or "Trade Contractor") shall cooperate and coordinate with other Bid Category Contractors for expedient completion of the work of this project.
- 3. The Bid Category Contractor shall cooperate and coordinate with Contractors directly hired by the Owner which are not included as another Bid Category Contractor listed above.
- 4. TESTING: The Bid Category Contractor shall cooperate and coordinate with testing agencies hired by the Owner or Construction Manager for testing of soil, materials, and other testing specified. Bid Category Contractor is responsible for all other testing required by the specifications and for retesting of corrected work after any failed initial tests.
- 5. LAYOUT: The Bid Category Contractor shall cooperate and coordinate with layout agencies hired by the Owner or Construction Manager. The Construction Manager will provide basic control lines and benchmarks. Engineering layout above and beyond the basic control lines and benchmarks shall be provided by the Contractor. Contractor shall be responsible to verify actual field dimensions against those furnished on construction drawings and advise Construction Manager of any discrepancies before proceeding. Each contractor is responsible for protection of reference points and replacement of such points that are lost or damaged during the execution of their work.
- 6. SAFETY: The scope of work for each Bid Category includes the following safety requirements and procedures.
 - a. The Contractor shall take all reasonable safety precautions with respect to their work, shall comply with all safety measures initiated by the Construction Manager, and with all applicable laws, ordinances, rules, regulations and orders of any public authority for the safety of persons or property and in accordance with the requirements of the Contract Documents. The contractor shall report immediately to the Construction Manager any unsafe condition or any injury to any of the Contractor's employees at the site.
 - b. The Contractor shall indemnify the Owner, Architect, and Construction Manager against loss by fines, penalties or corrective measures resulting from acts of commission or omission by the Contractor, its agents, employees or assigns, with respect to violation of safety requirements of this Contract.
 - c. All openings made by a trade contractor shall be covered by that trade per MIOSHA requirements.

- d. If handrail or other safety device must be removed by a trade contractor, it shall be replaced by that contractor as soon as possible.
- e. In addition to the above safety requirements, all contractors shall abide by "Spence Brothers Safety Program," which is enclosed in this Project Manual.
- f. In the event Contractor encounters on-site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) or other hazardous materials, which have not been rendered harmless, Contractor shall immediately stop work in the area affected and report the condition to Construction Manager in writing.
- g. Each Contractor shall be responsible to wear (PPE), per MIOSHA requirements, to safety conduct construction activities where lead-based paint is present. Buildings constructed prior to 1978 may contain lead-based paint materials. The Owner will make available a lead-based paint survey to all contractors performing work where existing painted surfaces may/will be disturbed during construction.
- h. Each Contractor shall be responsible to maintain on the jobsite Material Safety Data Sheets (MSDS) for any substance deemed hazardous to health per Michigan Department of Labor, Part A1, or other applicable laws.
- i. The current requirements, laws and ordinances prohibiting disposal of any contaminants and contaminated substances on site will be strictly enforced.
- 7. SUBMITTALS: The scope of work for each Bid Category includes the following submittal requirements and procedures.
 - a. "Contract Submittals" consist of signed contracts, Insurance certificates, Performance and Payment Bond (if required), Schedule of Values, Employee List, Subcontractor list, Supplier List, Hourly Rates, Safety Manual, and MSDS Sheets and shall be submitted to Spence Brothers within two (2) weeks of a Notice to Commence Work. <u>Bonds and insurance certificates shall be submitted to Spence Brothers prior to the Contractor's start of work.</u> Labor rates shall be submitted for all worker classifications, and include the base rate, all fringe benefits, insurances, small tools (any tool typically used by this bid category). Labor rates shall not include any overhead and profit. Rates shall be submitted for regular, overtime, and double time.
 - b. "Shop Drawings Submittals" generally consist of shop drawings, technical data, product information, product samples, and color selections and shall be submitted to Spence Brothers within two (2) weeks of a Notice to Commence Work
- 8. CLEAN UP: Clean up and removal of identifiable debris and rubbish from site. Piles of debris packing materials, etc., will not be allowed to remain. Clean up and removal of debris from site must be kept under control and shall be done on a daily basis. If clean up is not performed on a daily basis, the CM will notify, in writing, the contractor is to perform daily clean up, and document the failure to do so. In the event this action proves to be unsuccessful, the CM will make arrangements to hire clean up services and back charge each contractor accordingly for such clean up services.

- 9. DUMPSTERS: The Construction Manager will provide dumpsters for proper legal off-site disposal of debris. All demolition waste shall be sorted and disposed of on site. No demolition materials will become the property of the contractor. It must be sorted, placed in appropriate dumpster, and will be disposed of by the Construction Manager. The Owner reserves the right to salvage any materials removed from the site during the course of this Project.
- 10. STREET CLEANING: Contractor's will be responsible for cleaning of streets and walks of mud and debris caused by their own work or delivery materials for their work. Any mud tracked onto roadways will be cleaned at once by the Contractor that created the mud deposit.
- 11. ON-SITE STORAGE: Short term on-site storage shall be coordinated with the Construction Manager. Contractor may have to relocate stored material at their own expense to allow work of other Contractors to proceed.
- 12. DELIVERIES: All deliveries must be coordinated with the Construction Manager.
- 13. HOISTING: Hoisting, including cranes, lifts, lifting apparatuses, etc. to perform your work.
- 14. BARRICADES: Barricades and traffic maintenance as required
- 15. SNOW REMOVAL: Snow or ice removal as required to perform work in a safe and timely manner.
- 16. PROFANITY: Profane and/or abusive language will not be tolerated
- 17. PERMITS: Other than the general building permit, each Contractor shall obtain and pay for all other permits, assessments, fees, bonds, connection charges, inspection fees, and any other charges necessary to complete their contract. All work is to comply with the rules and regulations of governing bodies having jurisdiction. Work shall be performed by skilled trades' people having experience in performing the work.
- 18. EXAMINATION OF CONDITIONS: Contractors shall examine the conditions under which the work is to be installed and notify the Construction Manager in writing of any discrepancies or conditions detrimental to proper performance of the work. Contractors are not to proceed until the required corrections are accomplished. Each Contractor is responsible to review the site and be familiar with all existing conditions within and around the facility, including local conditions and requirements.
- 19. SUPERVISION: Each Contractor shall have a supervisor on site at all times when a crew is present on the site. Subcontractors are required to retain the same superintendent / foreman / project manager for the duration of the project unless a change in personnel has been approved in advance by the Construction Manager.
- 20. COORDINATION: Provide to all other Trade Contractors all information and other related items (drawings, diagrams, templates, embedded items, etc.) necessary for the proper coordination of the work. All Contractors are to coordinate their work with the work of other trades and the Owner's functions through the Construction Manager for proper function and sequence to avoid construction delays

- 21. CUTTING AND PATCHING: Where new work connects with existing, including work already completed on this project, do all necessary cutting and patching required to make a satisfactory connection with the work to be performed under these sections so as to leave the entire work in a finished and workmanlike condition. Furnish all labor and materials necessary to complete the work, whether or not shown or specified, unless this work is clearly shown to be part of another Bid Category.
- 22. DUST CONTROL: All Contractors will be responsible for proper control of dust generated by their operation and will be responsible for a daily area cleanup.
- 23. SCAFFOLDING: Each Contractor shall be responsible for providing all necessary scaffolding and planking needed to perform his work
- 24. TEMPORARY FENCE: Temporary fence around the building site and storage areas will be provided as determined by the Owner and Construction Manager. Gates will be installed for personnel and equipment access at locations determined by the Construction Manager. All temporary removal and reinstallation of any temporary fencing will be done by the Contractor requiring it. Site access and fencing will be per the attached site logistics plan. All traffic entering the site, placement of construction trailers, and placement of stored materials must be coordinated with the Construction Manager.
- 25. TEMPORARY UTILITIES: Temporary utilities including electricity, water, and gas, will be provided by others (or by trade contractors if in their Bid Category scope) at locations on the site determined by the Owner and Construction Manager. Contractors will provide their own cords, hoses, etc. from these main source locations.
- 26. TEMPORARY HEAT: Temporary heat inside the building will be provided by others as soon as the building can be enclosed. Fuel consumption costs for temporary heat will be paid by the Construction Manager.
- 27. WINTER PROTECTION: Winter protection and heat for work prior to building enclosure or for work on the exterior of the building will be provided and paid for by the trade requiring it.
- 28. TEMPORARY TOILETS: Temporary toilet facilities will be provided by the Construction Manager.
- 29. REPAIRS: Contractors must restore any damaged work or area that they were responsible for damaging to original or better condition with no detectable evidence that the area has been repaired. Repair of work shall be done by the original installer of said work. Contractors are responsible for any damage to walks, drives, landscaping, lawns and structures. Contractor will be responsible for repairs or be charged accordingly for replacement costs. Any Contractor who compounds a mistake by installing their work on another Contractor's faulty work will assume responsibility for repair and correction of said work.
- 30. REQUESTS FOR INFORMATION: If there is a discrepancy in the documents or information is not understood, bidders shall submit a request for information in writing to the construction manager as soon as possible. Bidder shall be responsible to confirm that the Construction Manager has received any RFI submitted, either during the pre-bid process or during construction.

- 31. WARRANTY: All work shall be guaranteed for a period of one (1) year, unless more specifically stated in the contract documents, from the date of substantial completion of the entire work in this bid package as determined by the Architect, and all service within that period shall be rendered without charge to the Owner. Any specific manufacturer's warranties longer than one year shall still apply.
- 32. THIRD TIER SUBCONTRACTORS: It is the responsibility of the bidder to confirm that third tier subcontractors are capable of performing the work assigned to them in a timely, high quality and safe manner. Information may be requested at the post-bid scope review meeting to substantiate these qualifications, based on successful completion of similar projects for their scope of work.
- 33. TIME & MATERIAL: Contractors who perform work on a Time and Material (T&M) basis are required to submit daily T&M sheets to the CM for approval and signature. The T&M sheet must contain a CM issued Change Event number. Quotes for T&M work must be submitted within thirty (30) days of performing the work. If a quote is not submitted to the CM within thirty (30) days, it will be at the CM's discretion as to whether or not to issue a change order.
- 34. WORK HOURS: Work hours are between the hours of **7:00 am and 4:00 pm** daily unless restricted by local ordinances. Contractor shall comply with any local ordinances if applicable. Each contractor shall submit documentation of the amount of work hours performed by their forces. This information shall be submitted along with monthly pay applications.
- 35. COMMISSIONING: All Contractors will be responsible for any start up and commissioning requirements related to their work.
- 36. AS-BUILT DRAWINGS: All Contractors are to maintain and keep up-to-date a set of as-built drawings applicable to their work to be incorporated into the Construction Manager's As-Built drawings at the end of the project.
- 37. CLOSEOUT: Three (3) hard copy of all closeout documents shall be submitted at the end of the project. Closeouts shall be organized in suitable sized three ring view binders. Color of binders shall be white. All material included in manual shall include divider tabs and a table of contents. An electronic copy of all submitted closeouts shall be submitted at time of submission also. The electronic copy shall be submitted on a CD and be organized in folders similar to the hard copy of the closeout manuals.
- 38. PROCORE AND INFORMATION ACCESS: Spence Brothers utilizes Procore as their Project Management software. This is used to manage all aspects of the project including RFIs, Submittals, Drawings, Specifications, and Subcontractor Invoicing. All subcontractors and suppliers are expected to access this software regularly. All contractors shall at a minimum have one (1) compatible **tablet** style device onsite for use by their foreman and crew to access the project documents. The mobile app and access to the software is provided by the Construction Manager at no additional charge to the subcontractor. The device shall be provided by the subcontractor.

END OF SECTION 00 2200

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

BID CATEGORY 301 EXCAVATION & SITE UTILITIES

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

02 4113.13Pavement Removal02 4119Selective demolition31 1000Site Clearing02 6100Non-Hazardous Contaminated Material Disposal31 1001Clearing and Removal of Miscellaneous Structures31 2000Earth Moving31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	02 3219	Exploratory Excavation
31 1000Site Clearing02 6100Non-Hazardous Contaminated Material Disposal31 1001Clearing and Removal of Miscellaneous Structures31 2000Earth Moving31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4616Underdrains	02 4113.13	Pavement Removal
02 6100Non-Hazardous Contaminated Material Disposal31 1001Clearing and Removal of Miscellaneous Structures31 2000Earth Moving31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4616Underdrains	02 4119	Selective demolition
31 1001Clearing and Removal of Miscellaneous Structures31 2000Earth Moving31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 1000	Site Clearing
31 2000Earth Moving31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	02 6100	Non-Hazardous Contaminated Material Disposal
31 2301Excavating, Filling, and Grading31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 1001	Clearing and Removal of Miscellaneous Structures
31 2319Dewatering31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 2000	Earth Moving
31 2500Soil Erosion and Sediment Control32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 2301	Excavating, Filling, and Grading
32 1116Granular Subbase32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 2319	Dewatering
32 1123Aggregate Base32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	31 2500	Soil Erosion and Sediment Control
32 9113Soil Preparation32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	32 1116	Granular Subbase
32 9200Turf Establishment32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	32 1123	Aggregate Base
32 9300Plants33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	32 9113	Soil Preparation
33 1100Water Main33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	32 9200	Turf Establishment
33 3100Sanitary Sewer33 4400Storm Sewers33 4616Underdrains	32 9300	Plants
33 4400Storm Sewers33 4616Underdrains	33 1100	Water Main
33 4616 Underdrains	33 3100	Sanitary Sewer
	33 4400	Storm Sewers
	33 4616	Underdrains
33 6113 Underground Hydronic Distribution Piping	33 6113	Underground Hydronic Distribution Piping

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
03 3000	Cast-in-Place Concrete (as it relates to this bid category)
32 1216	HMA Paving (as it relates to this bid category)

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2204 Bid Category Scopes Bid Category 301 - Page 1 of 4 Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Obtain and pay for all permits required for your work. This includes all permitting and bonding for the Michigan Department of Transportation and City of Midland.
- 2. Notify and correspond with Miss Dig before work commences and throughout the course of this project.
- 3. Engineering layout and grade certifications and all required layout for pavement boundaries, elevations, radius points, etc.
- 4. Barricades, bracing and pedestrian routing at open excavation areas.
- 5. Soil erosion permit will be obtained by and paid for by the Construction Manager. This Bid Category Contractor shall be responsible for installing and maintaining soil erosion control measures from the start of work until the work is complete. This bid category shall include all inspections required by permit until the site is restored and permit is closed out. The extent of this work is for work shown in Bid Package #3. SESC controls shown in BP #1 is by others. Contractor shall provide copies of all inspection reports to the Construction Manager weekly.
- 6. Protect trees and vegetation not indicated to be removed and where shown as outside the limits of construction from damage. Repair all damage. Include tree protection fencing.
- 7. Remove trees and complete brush removal including stumps.
- 8. Protect and shore existing utilities and structures, as required or shown.
- 9. Necessary on-site dewatering for excavations.
- 10. Clear, remove, and haul to legal dump off site all vegetation.
- 11. Site demolition including concrete, curbs, asphalt, fixtures, and site utilities as indicated. Include required saw cutting.
- 12. Capping and termination of existing utilities. Electrical will be made safe by project electrician.
- 13. Review soil borings, analysis, and recommendations as described in the Geotechnical Investigation Report; this bid category is responsible to provide all designated fill, and any assumed fill to be used from the project site is at the risk of the Contractor.
- 14. Review soil borings, analysis, and recommendations as described in the Geotechnical Investigation Report; this bid category is responsible to provide all undercutting as described in the Geotechnical Investigation Report, and/or indicated on the civil, architectural, or structural drawings/specifications sections.
- 15. Remove all topsoil to 5 feet outside of new walks and paving areas.
- 16. All import fill soils and backfilling/balancing as required.
- 17. Fill and engineered fill, as indicated, outside of the building footprint to obtain indicated elevations.
- 18. Proof roll subgrades and stabilize unsuitable areas.
- 19. All topsoil to replenish the project. All areas inside of the project site shall be restored. Existing topsoil shall be screened or new topsoil imported at the contractor's discretion. All topsoil shall be placed +/- 0.1' of final grade. Turf establishment by this bid category. This contractor is responsible to provide all additional topsoil required during fine grading by others.

FURNISH AND INSTALL (CONTINUED):

- 20. Sub-base and base for asphalt paving and curb and gutter, compaction and preparation for all placement of asphalt paving. This contractor responsible to grade +/- 0.1'. This contractor responsible to provide all additional base material required during fine grading by others.
- 21. Aggregate base course and sand base directly below sidewalks, pads and all other exterior concrete +/- 0.1'. This contractor responsible to provide all additional base material required during fine grading by others.
- 22. Domestic water systems:
 - a. Tap sleeves, valve boxes, hydrants, gate valves, boxes, pipe, fittings, valves, etc. as indicated for a complete & operational installation.
 - b. Install water line up to building ending at gate valve and box.
 - c. Excavation, backfill and dewatering.
 - d. Necessary tap, testing and inspection fees as required by governmental agencies.
 - e. Street, concrete, and pavement cutting, removal and patching (if required).
 - f. Pressure testing as required by documents.
- 23. Storm sewer system:
 - a. Catch basins, manholes, rims, covers, edge drains, under drains, culverts, filter fabric, rip-rap, outfalls, pipe, fittings, clean outs and other accessories as indicated to 5 feet outside the building for a complete & operational installation.
 - b. Complete retention/detention system.
 - c. Excavation, backfill, and dewatering.
 - d. Leads for roof drains to within 5' of building.
 - e. Street, concrete, and asphalt pavement cutting, removal and patching (if required).
- 24. Sanitary sewer system:
 - a. Catch basins, manholes, rims, covers and edge drains, pipe, fittings, clean outs and other accessories as indicated to 5 feet outside the building for a complete & operational installation.
 - b. Excavation, backfill, and dewatering.
 - c. Field verify invert elevation of sanitary main prior to beginning work.
 - d. Complete tap into existing sanitary main or structures.
 - e. Street, concrete and pavement cutting, removal and patching (if required).
 - f. Pressure testing of completed system.
- 25. Complete fire suppression service.
- 26. Install all thrust blocks as required for utility installation.
- 27. Excavate and install all under drains.
- 28. Exploratory digging utilizing "soft digging" methods shall be completed by this bid category to locate and verify existing utility locations.
- 29. Complete all curb cuts as required including all necessary permits.
- 30. All required shoring, trench boxes, sloping, and safety pre-cautions for excavations (including engineered plans as required).
- 31. Refer to the project phasing plan included in section 03 3001.

WORK BY OTHERS:

- 1. Benchmarks, base control lines, and elevations will be provided by the Construction Manager. Layout and elevations will be provided by trades requiring excavation. Excavator will layout his utility work in conjunction with the Construction Manager.
- 2. Compaction testing (except for re-testing of corrected work following failed initial tests).
- 3. Sanitary and storm sewer clean outs within 5' outside of the building.
- 4. Interior plumbing to 5' outside the building line except as noted above. Excavation and backfill for this work is also by others.
- 5. Interior building mechanical and electrical excavation and backfill, except for drain tile.
- 6. Fine grading of granular base under sidewalks.
- 7. Fine grading of granular base under asphalt.
- 8. Fine grading of topsoil.
- 9. Conduits for underground power and gas line work (if shown).
- 10. Conduits for phone, CATV, data underground line work (if shown).
- 11. Concrete work (except as noted above).
- 12. Asphalt paving and striping.
- 13. Excavation of bases for light poles and parking signs.
- 14. Excavating for site electrical including parking lot lights and primary service.
- 15. New site signage.
- 16. Irrigation sleeves under walks and islands.
- 17. Landscaping and tree plantings.
- 18. Fine grading of all topsoil for planting beds.
- 19. Seeding, except for bermed spoils.
- 20. Snowmelt system.
- 21. Foundation excavation and backfill.
- 22. Perimeter footing drain (tie-in to site system by this bid category).
- 23. Site demolition shown in BP #1.

BID CATEGORY 302 ASPHALT PAVING

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

32 1216	HMA Paving
32 1713	Parking Bumpers
32 1723	Pavement Markings
32 1726	Tacktile Warning Surfacing

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
03 3000	Cast-In-Place Concrete (as it relates to this bid category)
32 1123	Aggregate Base (as it relates to this bid category)
33 4400	Storm Sewers (as it relates to this bid category)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Temporary barricades as required.
- 2. All traffic control devices (arrow boards, signs, channeling devices, etc.) required to complete this scope of work to meet the requirements of authority having jurisdiction.
- 3. Fine grading of all granular fill under asphalt paving related to this bid category.
- 4. Asphalt paving, pavement markings, and striping.
- 5. All pavement markings and striping for each area included in the phase are to be completed at the end of each phase completion as well as at the end of the final phase 4 completion.
- 6. Back dressing of areas affected by the placement of asphalt pavement.
- 7. Barrier free signs, all new traffic signs, posts, and concrete, if required.
- 8. Cleaning of base coat prior to application of finish coat.
- 9. Final adjustment of all structures within the paved areas, prior to top coat being applied.
- 10. Light and heavy duty pavement.
- 11. Multiple mobilizations to meet phasing plan.

WORK BY OTHERS:

- 1. Asphalt testing.
- 2. Compaction testing.
- 3. Sidewalks and curb and gutter.

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2205 Bid Category Scopes Bid Category 302 - Page 2 of 2

BID CATEGORY 303 CONCRETE – SITE

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

03 3000	Cast-In-Place Concrete
32 1313	Concrete Paving
32 1373	Concrete Paving Joint Sealants

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
05 5000	Metal Fabrication (related to misc. steel items)
07 9200	Joint Sealants (as it relates to this bid category)
32 1123	Aggregate Base (as it relates to this bid category)
00 2204	Bid Category 301 Excavation and Site Utilities (as it relates to coordination)
00 2219	Bid Category 316 Mechanical and Plumbing (as it relates to coordination)
00 2220	Bid Category 317 Electrical (as it relates to coordination)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. No concrete is to be installed until acceptable density testing has been verified. Any concrete installed without density verification will become the sole responsibility of the Contractor and may be required to be replaced at the Contractor's expense.
- 2. Cold and hot weather protection.
- 3. Barricades, bracing, and pedestrian routing as required.
- 4. Dewatering as needed for work in this bid category.
- 5. Fine grade of granular fill under exterior slabs on grade, walks, pads, or aprons.
- 6. Removal of excess spoils generated by this bid category from site.
- 7. Exterior concrete including, but not limited to, sidewalks, drives, approaches, curbs, gutters, etc.

FURNISH AND INSTALL (Continued):

- 8. Concrete collars around storm structures.
- 9. Barrier free (ADA) tactile mats in walks and approaches.
- 10. Exterior supported entrance slab.
- 11. Reinforcing steel, dowels including caps as shown and/or specified.
- 12. Install all miscellaneous embedded items supplied by others (i.e. anchor bolts, inserts, bollards).
- 13. Curing, hardeners/sealers.
- 14. Saw cut control joints, construction joints, expansion joints, and bond breakers.
- 15. Pre-molded expansion joint fillers.
- 16. Caulking of joints in exterior concrete.
- 17. Exterior concrete house keeping pads, for mechanical, electrical and fire protection equipment, which <u>is clearly shown</u> on the drawings, will be by this bid category. Exterior concrete house keeping pads for mechanical, electrical and fire protection equipment, which <u>is not clearly shown</u> on the drawings, will be by mechanical, electrical and fire protection.
- 18. Install and concrete fill of steel bollards.
- 19. Coordinate with Bid Category 316 for snowmelt installation.
- 20. Dumpster and chiller enclosure SOG.

WORK BY OTHERS:

- 1. Concrete testing is by an independent testing agency. Notify testing agency well in advance of all pours. Supply casual labor to assist on-site testing.
- 2. Sleeves shall be supplied and installed by the Irrigation or Electrical contractors requiring installation. Coordinate layout with sleeve installer.
- 3. Concrete thrust blocks.
- 4. Rough grading.
- 5. Furnishing of steel bollards.
- 6. Light pole bases.

BID CATEGORY 304 CONCRETE – SLAB ON GRADE

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

03 3000	Cast-in-Place Concrete
03 3543	Concrete Floor Finishing

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 9200	Joint Sealants (as it relates to this bid category)
32 1116	Granular Subbase (as it relates to this bid category)
00 2217	BC 314 Fire Protection (as it relates to coordination with this bid category)
00 2218	BC 315 Mechanical and Plumbing (as it relates to coordination with this bid
	category)
00 2219	BC 316 Electrical (as it relates to coordination with this bid category)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Provide written acceptance of grade elevations to Construction Manager after Site Work contractor has established the building pad.
- 2. No concrete is to be installed until acceptable density testing has been verified. Any concrete installed without density verification will become the sole responsibility of the Contractor and may be required to be replaced at the Contractor's expense.
- 3. Fine grade of all granular fill under slabs on grade related to this bid category.

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FURNISH AND INSTALL (CONTINUED):

- 4. Slab on grade and thickened slabs.
- 5. All forming.
- 6. Reinforcing steel, mesh, and dowels including caps as shown and/or specified.
- 7. Install items provided by others, embedded in concrete work.
- 8. Rigid insulation beneath slab on grade.
- 9. Boxouts, ledges, and recesses as required.
- 10. Bulkheads as required.
- 11. Slabs must be boxed-out around steel columns and poured in later with an isolation joint.
- 12. Dewatering of box outs at column footing; after building slab has been placed and prior to steel erection.
- 13. Embedded items, including, but not limited to, angles and plates.
- 14. Vapor barrier.
- 15. Curing, hardeners, or sealers.
- 16. Saw cut control joints, construction joints, expansion joints, bond breakers.
- 17. Pre-molded expansion joint fillers.
- 18. Coordination with MEP trades for installation of underground work.
- 19. Interior concrete housekeeping pads, for mechanical, electrical and fire protection equipment, which <u>is clearly shown</u> on the drawings, will be by this bid category. Interior concrete housekeeping pads for mechanical, electrical and fire protection equipment, which <u>is not clearly shown</u> on the drawings, will be by mechanical, electrical and fire protection.
- 20. Coordination with mechanical contractor when pouring areas with in-floor heating.
- 21. All polishing and sealing (SC and PC-1).
- 22. All preparation for polishing and sealing.
- 23. Protection of adjacent surfaces and finished products when polishing and sealing.
- 24. Coordination with CM, A/E, and Owner teams with mockup.

WORK BY OTHERS:

- 1. Concrete testing is by an independent testing agency. Notify testing agency well in advance of all pours. Supply casual labor to assist on-site testing.
- 2. Excavation for thickened slabs and slab depressions.
- 3. Exterior (and interior and under-slab, if shown) perimeter footing drain tile, fabric sock and granular fill.
- 4. Site concrete.
- 5. Rigid insulation in contact with foundation walls.

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2207 Bid Category Scopes Bid Category 304 - Page 2 of 2

BID CATEGORY 305 <u>MASONRY</u>

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

04 000	Unit Masonry
04 4200	Limestone Masonry

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete	
Division 01	Complete	
04 5000	Metal Fabrications (related to	
07 6200	Sheet Metal Flashing and Trim (as it relates to this bid category)	
07 9200	Joint Sealants (as it relates to this bid category)	
Bid Category 3	306 Sections – Miscellaneous Steel (related structural & misc. steel)	
Bid Category 315 Sections – Fire Protection (related to penetrations)		
Bid Category 3	316 Sections – Mechanical (related to penetrations)	
Bid Category 2	317 Sections – Electrical (related to penetrations)	

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Winter protection and heat including temporary enclosures, temporary heat and temporary heating fuel as required per milestone schedule.
- 2. Coordinate the location and sizes of all masonry openings and penetrations with all contractors.
- 3. Scaffolding and hoisting required for the performance of this work.
- 4. Masonry work, including unit masonry, brick, mortar, ties, reinforcement, cleaning, etc.
- 5. Loose fill insulation.

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FURNISH AND INSTALL (CONTINUED):

- 6. Required and specified masonry accessories.
- 7. Install all embedded items furnished by others, including all loose lintels, bolts, grouted anchors, access doors and accessories embedded in masonry.
- 8. Masonry anchors.
- 9. Through-wall flashing and applied membrane flashings.
- 10. Caulking of exterior control joints.
- 11. Required masonry sealants and caulking for wall flashing, weep holes.
- 12. Infill at structural beam pockets, door and windows opening, etc.
- 13. Grout all jambs and headers of all hollow metal frames.
- 14. Fire safing insulation and sealant on top of or adjacent to masonry.
- 15. Waterproofing as required for masonry installation.
- 16. In the event that efflorescence appears after walls are in place, the Architect shall select samples of brick and mortar taken directly from the wall to be tested for chemical content. If efflorescence producing materials are found in the brick or mortar in amounts exceeding the limits called for by this specification and referenced in the ASTM standards, the contractor shall bear the cost of the testing and all remedial, additional or replacement work. If efflorescence producing materials in both the brick and the mortar do not exceed the limits as stated above, the cost of the testing and patching of the areas where samples were removed shall be borne by the Owner.
- 17. ST-1, ST-2, ST-3, and ST-4 stone.
- 18. Joint treatment of cement board joints behind interior stone tile.
- 19. Grout behind base course of masonry as shown.
- 20. All stone tile, CMU, and stone masonry.
- 21. Expansion joints as required by industry standard and product manufacturer.

WORK BY OTHERS:

- 1. Installation of hollow metal frames.
- 2. Joint sealants between aluminum or break metal and masonry.
- 3. Metal sills.

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BID CATEGORY 306 (Reference Only) <u>MISCELLANEOUS STEEL</u>

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

05 5000	Metal Fabrications
05 3100	Steel Decking
05 2100	Steel Joist Framing
05 1213	Architecturally Exposed Structural Steel Framing
05 1200	Structural Steel Framing
09 9770	Shop Applied Coatings

Additional Trade Specification Sections (include work related to this scope):

Division 00CompleteDivision 01Complete05 4000Cold Formed Metal FramingBid Category 205 Sections – Masonry (related to install of furnished items)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: FURNISH AND INSTALL (Unless Otherwise Noted):

1. Enclosure gate assembly including all steel items (tubing, corrugated panels, hinges, slide bolt, all anchors, cane bolt assembly, etc.). Panic and keyed dead bolt by Bid Category 307.

- 2. Furnish loose lintels, angles and bollards to be installed in others work.
- 3. Toilet partition support steel. Coordinate with BC 307.
- 4. Aircraft cable suspension systems (eye bolt, cable, tube steel, cable grippers). Furnish through bolt to BC 307 for plywood installation.

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Bid Package #3 <u>FURNISH AND INSTALL</u> (Continued):

- 5. All tube and angle steel included in aircraft cable suspension system.
- 6. Patient lift support steel assembly (threaded rod, Unistrut, etc.). Coordinate with lift supplier.
- 7. All galvanizing as shown.
- 8. Powder coating all exposed interior structural steel.

WORK BY OTHERS:

1. Structural steel shown in Bid Package #2.

BID CATEGORY 307 CARPENTRY & GENERAL TRADES

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

06 1053	Miscellaneous Rough Carpentry
06 4023	Interior Architectural Woodwork
08 1113	Hollow Metal Doors and Frames
08 1416	Flush Wood Doors
08 3100	Access Doors and Frames
08 7100	Door Hardware
09 7200	Wall Coverings
10 1400	Signage
10 1463	Electronic Message Signage
10 2014	Adult Changing Station
10 2113	Phenolic Toilet Compartments
10 2226	Operable Partitions
10 2600	Wall Protection
10 2800	Toilet, Bath, and Laundry Accessories
10 4011	Slatwall
10 4413	Fire Protection Cabinets
10 4416	Fire Extinguishers
11 7300	Patient Care Equipment
12 2413	Roller Window Shades

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2210 Bid Category Scopes Bid Category 307 - Page 1 of 4 06 1600 Sheathing (related to plywood sheathing)

07 9200 Joint Sealants (related to this bid category)

08 8300 Mirrors (related to this bid category)

Bid Category 304 Sections – Concrete (related embedded items)

Bid Category 315 Sections – Fire Protection (related openings and blocking & nailers)

Bid Category 316 Sections – Mechanical (related openings and blocking & nailers)

Bid Category 317 Sections – Electrical (related openings and blocking & nailers)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Coordinate the location and sizes of all openings and penetrations with all contractors.
- 2. Scaffolding and hoisting required for the performance of this work.
- 3. No gaps, cracks or voids will be permitted between any wood trims, wall protection, chair rails, corner guards, etc., in this bid category's work.
- 4. Install plywood or OSB wall and roof sheathing.
- 5. All concealed wood blocking, nailers, metal backing, and plywood backing, as required, in walls for wall mounted materials for work included in this bid category, work by other trades, and Owner Furnished Contractor Installed (OFCI) or Owner Furnished Owner Installed (OFOI) furnishings, fixtures, equipment, etc.
- 6. Telephone and electrical backboards.
- 7. Dimensional, non-dimensional, and finish wood members at roof fascias, soffits, soffit vents, roof hatches, louvers, vents, all types of doors and windows, etc.
- 8. Pressure treated wood nailers at perimeter metal roof deck.
- 9. Interior architectural woodwork, cabinets, countertops, backsplashes, hardware, accessories all related supports, fasteners, clips and sealants.
- 10. Plastic laminate cabinets, countertops, backsplashes, shelves, hardware, accessories all related supports, fasteners, clips and sealants.
- 11. Solid surface countertops and backsplashes, hardware, accessories, and all related supports, fasteners, clips and sealants.
- 12. Plastic laminate and metal planter shelves.
- 13. Plastic laminate display units with integrated lighting (power by others) and acrylic inserts.
- 14. Plastic laminate ceiling reveals.
- 15. Laminated beams.
- 16. Potted plant trough including drain. Coordinate with BC 316 for drain.
- 17. Slat wall and aluminum inserts.
- 18. Complete ticket desk including lighting mounted underneath countertop. Power and RWB-1 by others.
- 19. Provide a layout drawing for any required blocking or backing required to be placed in any framing for the anchorage of all casework.
- 20. Interior and exterior wood trims, fascias, mouldings, etc. with all required nailers, and sealants. All staining and sealing of wood trim furnished by this bid category shall be finished by this bid category.

- 21. Provide and install access control hardware. Low voltage wiring to be completed by owner.
 Power supply by BC 317.
 <u>FURNISH AND INSTALL</u> (CONTINUED):
- 22. Wood and hollow metal doors, frames (window and door), finish hardware, and electric hardware, except as otherwise noted. All related supports, fasteners, clips and sealants.
- 23. Fire extinguishers, fire extinguisher cabinets, cabinet hardware and all related supports, fasteners, clips and sealants.
- 24. Toilet accessories, grab bars, metal framed mirrors and all related supports, fasteners, clips and sealants.
- 25. Toilet partitions and all related bracing, fasteners, accessories, clips and sealants (steel support by BC 306).
- 26. Tops shall be pre-drilled to accept accessories, mounted fixtures and any cutouts for mechanical and electrical work.
- 27. Stainless steel wall protection and corner guards and all related supports, fasteners, clips and sealants.
- 28. Sliding window including all related frames, supports, fasteners, clips, glazing, hardware and sealants.
- 29. Louvers and all related louver sills, louver flashings, bird screens, blank-off panels, supports, fasteners, clips, and sealants will be by this bid category.
- 30. Operable partitions, track, support members including threaded rod, plates, nuts, washers, steel angles, and all related supports, fasteners, clips and sealants (support beam by BC 306).
- 31. Roller shades, and all related supports, fasteners, clips to provide a complete installation. This bid category responsible for all low voltage wiring and devices required for proper operation per documents.
- 32. Furnish all access doors as shown on drawings. Doors located on roof to be installed by Bid Category 308. Doors located in drywall to be installed by Bid Category 311.
- 33. Furnish and install expansion control devices.
- 34. Interior and exterior signage (including cast-metal on painted steel; both illuminated and nonilluminated).
- 35. Installation of owner furnished SEG banners, monitors and refrigerator.
- 36. Clothing hooks.
- 37. Panic hardware and keyed dead bolt at dumpster and chiller enclosure.
- 38. Benches.
- 39. Refer to detail 5/A9.10. This BC responsible for plywood and through bolt installation (through bolt furnished by BC 306).

WORK BY OTHERS:

- 1. Cant strips for roofing.
- 2. Unframed mirrors.
- 3. Final connections for plumbing, mechanical, and electrical connection by others (coordinate installation of plumbing & electrical during installation).
- 4. Door hardware for aluminum doors by Bid Category 310.
- 5. Final connection of 120v power for electric door hardware by Bid Category 317.

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- 6. Final connection of 120v power for window treatments by Bid Category 317.
- 7. Exterior gypsum sheathing and FRP Sheathing on roof. <u>WORK BY OTHERS</u>: (Continued)
- 8. Painting.
- 9. Installation of exterior expansion control assemblies.

BID CATEGORY 308 ROOFING PVC

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

07 5419 Polyvinyl-Chloride PVC Roofing

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 7100	Roof Specialties
07 7200	Roof Accessories
07 8413	Penetration Firestopping (related to penetrations)
07 9200	Joint Sealants (related to this bid category)
Bid Category	316 Sections – Mechanical (related to opening flashings) Bid
Category 317	Sections – Electrical (related to opening flashings)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

Membrane roofing system including insulation, closure strips, membrane flashings, counter flashings, termination bars, battens, mastic and all related supports, fasteners, clips and sealants. Tapered insulation to meet required slopes.
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- 2. Underlayment, metal drip edge, copings, flashings, pipe flashings and all related supports, fasteners, clips and sealants for all types of roof systems.
- 3. Vapor barrier (if shown) for all types of roof systems.
- 4. Cant strips and related blocking for the installation of the roofing system.
- 5. Roof cants where roofing meets vertical surfaces.
- 6. Ridge vents, metal drip edge, copings, flashings, pipe flashings and all related supports, fasteners, clips and sealants.
- 7. Roof hatches and curbs.
- 8. Walkway pads.
- 9. Sealing and closure at all roof penetrations, including seals, boots, steel clamps, sealants and flashings.
- 10. Insulation saddles for proper drainage.
- 11. Integral gutters where shown.
- 12. Supply and Install FRP Roof Sheathing for all areas of the roof. Both PVC and Standing seam areas.

WORK BY OTHERS:

- 1. Wood blocking and plywood at top of parapets.
- 2. Exterior insulation system.

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BID CATEGORY 309 METAL PANELS

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

Metal Plate Wall Panels 07 4213

Additional Trade Specification Sections (include work related to this scope): General Conditions and Supplementary General Conditions

Division 00	Complete
Division 01	Complete
07 6200	Sheet Metal Flashing and Trim
07 9200	Joint Sealants (related to this bid category)
09 2216	Non-Structural Metal Framing (related to this bid category)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Coordinate the location and sizes of all openings and penetrations with all contractors.
- 2. Field verification of dimensions.
- 3. Hoisting, unloading, and storage of materials and equipment.
- 4. Mock-ups of each system, as required, before work proceeds.
- 5. Non-insulated panel systems and all accessories for complete weather-tight system. Including but not limited to, fasteners, flashings, joint sealants, anchors, etc. (as it pertains to metal panel work).

- 6. Sealants associated with the metal panel systems, including sealants between metal panels and adjacent materials.
- 7. Final cleaning of all metal panel components when installation has been completed.

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- 8. Z-channel and furring behind metal panels.
- 9. Weathering steel plate and Corten metal panels.
- 10. All sheet metal flashing and trim behind metal panels.
- 11. All custom fabricated interior and exterior metal sill plates per sheet A3.21

WORK BY OTHERS:

- 1. Storefront systems.
- 2. Curtain wall systems.
- 3. Aluminum entrances, doors and frames.
- 4. Air/vapor barrier. 5. Soffits and facia.

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BID CATEGORY 310 GLASS & ALUMINUM

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

08 3400	Special Function Doors
08 4113	Aluminum-Framed Entrances and Storefronts
08 4413	Glazed Aluminum Curtain Walls
08 8000	Glazing
08 8300	Mirrors
08 8700	Window Film

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 6200	Sheet Metal Flashing and Trim
07 9200	Joint Sealants (related to this bid category)
08 1416	Flush Wood Doors
08 7100	Door Hardware (related to door hardware for aluminum doors)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Coordinate the location and sizes of all openings and penetrations with all contractors.
- 2. Field verification of dimensions.
- 3. Preparation for hardware for aluminum doors.

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- 4. Interior and exterior aluminum entrances, doors, sidelights, storefronts, curtain walls and aluminum windows and all related trims, closures, supports, fasteners, clips and sealants.
- 5. Furnish and installation of door hardware for glass and aluminum doors.
- 6. Interior and exterior glazing and safety glazing related to wood doors, hollow metal doors, hollow metal frames, aluminum entrances, doors, sidelights, storefronts, curtain walls, and aluminum windows.
- 7. Anchors and welding to the structure, fasteners, trim, shims and accessories including any embeds as required.
- 8. Aluminum trim, wrap, break metal accents, reveals, cladding and trim related to aluminum doors and windows.
- 9. Break metal accents, reveals, cladding and trim.
- 10. Break metal closure pieces at adjacent structural columns.
- 11. Insulation within the break metal enclosure.
- 12. Interior and exterior aluminum flashings w/ drip, backer rod, including perimeter sealants required for this work in the Bid Category.
- 13. Unframed mirrors.
- 14. Aluminum door and frame fire and smoke rated labels.
- 15. Final cleaning of all installed doors, frames, windows, and glass.
- 16. All glazing films.
- 17. Sliding glass door system.
- 18. Interior and exterior metal sill plates.
- 19. Sealing between aluminum and adjacent materials.

WORK BY OTHERS:

- 1. Wood blocking.
- 2. Metal framed mirrors.
- 3. Sliding window hardware and frames.

BID CATEGORY 311 DRYWALL, ACOUSTICAL AND INSULATION

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

05 4000	Cold Formed Metal Framing
07 2100	Thermax Wall System
07 2110	Thermax Insulation
07 2119	Foamed In Place Insulation
07 2713	Modified Bituminous Sheet Air Barriers
07 8100	Spray Applied Fire Protection
09 2216	Non-Structural Metal Framing
09 2900	Gypsum Board
09 5000	Acoustical Metal Panel Ceilings
09 5113	Acoustical Panel Ceilings
09 5426	Linear PVC Ceilings

Additional Trade Specification Sections (include work related to this scope):

Division 00 Division 01 06 1600 07 8413 07 9200	Complete Complete Sheathing (related to gypsum sheathing) Penetration Firestopping (related to penetrations) Joint Sealants (related to this bid category)	
	Penetration Firestopping (related to penetrations)	
07 9200	Joint Sealants (related to this bid category)	
Bid Category	315 Sections – Fire Protection (related openings, access doors)	
Bid Category	316 Sections – Mechanical (related openings, access doors) Bid	
Category 317 Sections – Electrical (related openings, access doors) Provide		
the labor, material and equipment to execute the work described in the above		
noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE		
FOLLOWING:		

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FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Light gauge metal framing at exterior walls and gypsum board sheathing.
- 2. Metal studs and other cold-formed framing including engineered plans.
- 3. Metal stud framing, fasteners, accessories and gypsum board/drywall work including soffits and bulkheads.
- 4. Miscellaneous metal furring at interior and exterior wall construction. Framing behind metal panels will be by Bid Category 309.
- 5. Regular, fire rated (Type X), ceiling type, moisture and mold resistant, Type C, foil-backed interior gypsum board.
- 6. High impact interior gypsum board.
- 7. Fire rated gypsum board/drywall tight to roof deck as indicated.
- 8. Fire safing insulation where at gypsum board/drywall tight to roof deck as indicated.
- 9. Air and/or vapor barriers as indicated.
- 10. Batt, blown, spray foam and rigid insulation for thermal insulating and sound proofing purposes for walls, ceilings and attics except for that specifically defined in Bid Category 304 for under slabs.
- 11. Thermax wall system in its' entirety.
- 12. Weather barrier.
- 13. Suspended ceilings, acoustic ceiling, acoustic metal ceiling, linear ceiling system, interior and exterior wood ceilings, complete with associated framing, supports, fasteners, anchorage and sealants.
- 14. Hard lid ceilings.
- 15. Recessed roller shade pockets as shown.
- 16. Reveals.
- 17. Soffit vents.
- 18. Expansion and control joints as required by design or product manufacturer.
- 19. Finished (tear away) edge treatment at any or all exposed gypsum board/drywall edges where other trade's pre-finished items are fully recessed or semi-recessed. Other trade items may not be furnished with trims to conceal exposed gypsum board/drywall edges. This bid category shall coordinate the installation of exposed gypsum board/drywall edges and other trade's pre-finished items prior to finishing of your work.
- 20. Install access panels furnished by each architectural, mechanical, fire protection, and electrical contractor in locations encased in this contractor's work.
- 21. Acoustical caulking and sealants for gypsum board/drywall. Coordination with mechanical, fire protection and electrical trades on layout of ceiling grid.
- 22. Coordination with mechanical, fire protection, and electrical trades on layout of ceiling grid.
- 23. Coordinate with other bid category's work for layout of penetrations through this bid category's work.
- 24. Interior window jamb reveal in gypsum board assemblies.
- 25. Sprayed on fireproofing material on structural steel framing members and metal deck. This includes bonding agent, substrate primers, adhesives and lath if required.
- 26. Exterior sheathing (plywood sheathing by BC 307).

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3

WORK BY OTHERS:

- 1. In wall blocking and backing.
- 2. Wall protection, corner guards, chair rails.
- 3. Roof felt, ice/water shield, roof membrane.
- 4. Perimeter foundation/under slab insulation.
- 5. Insulation as part of the roof system.
- 6. Firestopping mechanical, fire protection and electrical penetrations.
- 7. Joint treatment of cement board behind tile.
- 8. Temporary walls or doors.
- 9. Furring located behind metal panels.
- 10. Cementitious backer board by Bid category 312. Joint treatment and finishing of backer board to be completed by Bid Categories 305 and 312 for all areas located behind tile.

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BID CATEGORY 312 FLOORING – HARD TILE AND BASE

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

09 3013	Ceramic Tiling
09 6513	Resilient Base and Accessories

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 9200	Joint Sealants (related to this bid category)
09 2900	Gypsum Board (related to this bid category)

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Tiling.
- 2. Supply materials and labor to install Cementous board under all tile areas as designed.
- 3. All required base (including resilient).
- 4. Thresholds.
- 5. Moldings, edge strips, fillers, adhesives and transition strips from one new/existing flooring type to another new/existing flooring type.
- 6. Tile trims.
- 7. Grout, adhesives, sealants, bond breakers and other accessories for a complete installation.
- 8. Expansion and control joints as required by design or product manufacturer.

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- 9. Cleaning of floor prior to occupancy per specifications.
- Joint treatment for cement board at tile locations. Cement board installed by bid category 311. Finishing to be completed by this bid category at all tiled areas.
- 11. Caulking required for the work of this bid category.
- 12. Minor floor preparation work as specified. Clean and prepare floor including leveling and filling of voids prior to starting work, per specifications.
- 13. This bid category contractor must accept the sub floor prior to installation, if work commences before contractor approval; the contractor has assumed the approval of the sub floor.
- 14. Replacement and/or repair of defective and/or misaligned material installed by this bid category contractor.
- 15. Repair any adjacent material damaged in the execution of the work.
- 16. This bid category contractor must accept the sub floor prior to installation, if work commences before contractor approval; the contractor has assumed the approval of the sub floor.
- 17. Install floor protection after flooring installation.

WORK BY OTHERS:

- 1. Resinous flooring.
- 2. Concrete floor sealer.
- 3. Concrete polishing.
- 4. Stone Tile

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BID CATEGORY 313 <u>PAINTING</u>

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

09 6723	Resinous Flooring
09 9123	Interior Painting
09 9300	Staining and Transparent Finishing
09 9600	High Performance Coatings

Additional Trade Specification Sections (include work related to this scope):

Division 0	Complete	
Division 1	Complete	
09 7200	Wall Coverings	
07 9200	Joint Sealants (related to this bid category)	
09 9770	Shop Applied Coatings	
Bid Category 307 Sections – Carpentry & General Trades (related unfinished items)		
Bid Category 316 Sections – Mechanical (related unfinished items)		
Bid Category 317 Sections – Electrical (related unfinished items)		

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Painting, finishing, if not specifically excluded in this specification (both interior and exterior).
- 2. Painting all bulkheads and soffits.

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- 3. Painting (including high performance coatings) of exposed structural components such as beams, columns, posts, joists, decking and acoustical decking.
- 4. Painting miscellaneous steel such as ladders, roof hatches, stairs, railings and guardrails.
- 5. Mechanical/Electrical field painting of exposed base, covered pipes, ducts (including color coding), conduit, hangers, and prime surfaces of mechanical/electrical equipment.
- 6. Painting of all bollards.
- 7. Painting of doors and frames called out to receive paint finish.
- 8. Brick and block filler as required.
- 9. Painting/staining of all unfinished interior and exterior wood trims, panels, fascias, crown mouldings, mouldings, chair rails, ceiling accents, etc.
- 10. Painting of plywood for the electrical and telecommunications.
- 11. Painting of access doors and panels.
- 12. Vinyl wall coverings.
- 13. Resinous flooring and all preparation.
- 14. Caulking of interior control joints.
- 15. Caulking of interior, dissimilar, surfaces including but not limited to door and window frames, CMU, and drywall.
- 16. Surfaces to be painted or receive wall covering are to be inspected and accepted by this contractor prior to application of paint. Surface imperfections not repaired prior to painting or submitted to the construction manager in writing as existing defects prior to painting, will be repaired by the painting contractor at no additional cost.
- 17. This bid category is responsible for removing or protecting all covers plates, trim and other pre-finished surfaces necessary for the completion of this work scope. This Contractor is responsible for replacing anything removed upon completion of work.
- 18. Clean, dust and dirt off all surfaces that receive paint such as bar joists, deck, walls and ductwork, etc., prior to painting.
- 19. Structural components such as beams, columns, posts, joists and decking that have applied fire proofing material, shall not receive finish paint.
- 20. Painted surfaces shall receive prime coat and first finish coat after drywall finish, then final finish coat after all other trades work has been completed; refer to milestone schedule. Contractor option to apply prime coat, first finish coat, and final finish coat after drywall finish; contractor will not receive additional compensation to touch-up / repaint any damages surfaces after all other trades work has been completed.

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WORK BY OTHERS:

- 1. Finishing of prefinished wood products (wood wall panels systems, doors, casework, etc.)
- 2. Mechanical/electrical I.D.
- 3. Prime paint structural steel 4. Block and brick sealer as required.
- 5. Parking lot striping.
- 6. Concrete floor curing sealer (used as concrete curing) not indicated on room finish schedule.
- 7. Acrylic wall protection.

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BID CATEGORY 314 FOOD SERVICE EQUIPMENT

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

11 4000	Kitchen Equipment
11 4000.01	Itemized Kitchen Equipment

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 8410	Through-Penetration Firestopping Systems (related to penetrations)
07 9200	Joint Sealants (related to this bid category)
Bid Category 316 Sections – Mechanical (related fixtures & final connections)	
Bid Category 317 Sections – Electrical (related electrical items & final connections)	

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Field verify measurements before fabrication of equipment.
- 2. Food service system/equipment meeting all applicable codes.
- 3. Kitchen equipment and components to allow for final plumbing, mechanical, and electrical connection by others.
- 4. Kitchen hood, roof exhaust fan and intermediate ductwork duct.
- 5. Stainless steel at perimeter openings related to kitchen equipment.

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- 6. Stainless steel countertops, guards, splashes, etc. related to kitchen equipment.
- 7. Cutting or coring and patching required for this work unless shown on architectural drawings.
- 8. Sealing or firestopping as required for this bid category.
- 9. Coordination for your work with the mechanical and electrical contractors.
- 10. Provide prep for installation.
- 11. Protection of floor during installation.
- 12. Provide prep for installation.
- 13. Accessories such as locks, keys, hardware, bulbs, etc.
- 14. Clean, prep, and adjust all equipment immediately prior to Owner occupancy.
- 15. Provide Owner with training of all equipment.
- 16. Coordinate Health Department Inspection.
- 17. Contractor is responsible for final system approval by appropriate authorities.
- 18. Verify all power requirements and coordinate with other Bid Categories.
- 19. Refer to sheet A2.21 for Kitchen Equipment Schedule.
- 20. Prepare submittals, shop drawings, and layout drawings.

WORK BY OTHERS:

- 1. Mechanical and electrical final connections.
- 2. Plumbing.
- 3. HVAC equipment.
- 4. Electrical.
- 5. Non combustible concealed wood blocking, nailers and plywood backing.
- 6. Small appliances.

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BID CATEGORY 315 FIRE PROTECTION

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

21 1100 Fire-Suppression System

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete	
Division 01	Complete	
07 8412	Penetration Firestopping (related to penetrations)	
07 9200	Joint Sealants (related to this bid category)	
20 0500	Mechanical General Requirements	
20 0510	Basic Mechanical Materials and Methods	
20 0513	Motors	
20 0516	Pipe Flexible Connectors, Expansion Fittings and Loops	
20 0519	Meters and Gages	
20 0529	Hangers and Supports	
20 0533	Electric Heat Tracing	
20 0553	Mechanical Identification	
20 0700	Mechanical Insulation	
20 2923	Variable Frequency Controllers	
Bid Category 317 Sections – Electrical (related to work in this bid category)		

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2218 Bid Category Scopes Bid Category 315 - Page 1 of 4 Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Arrange for and pay all permit and inspection costs for this work.
- 2. Complete fire protection system as specified or shown meeting the most recent Governing Body Fire Alarm Code and in complete compliance with all current governing codes including design and engineering.
- 3. Submit shop drawings to State Fire Marshall for Plan Review (allowing sufficient time for changes that may be made and must be completed prior to beneficial occupancy).
- 4. Bid category Contractor shall provide peak and average flow rates which their bid is based upon to Construction Manager at time of Post-Bid interview.
- 5. Required layout and verify that no conflict occurs with other trades.
- 6. Piping, pumps, fittings, valves, switches, connections, gauges, trim, hangers, fasteners, sleeves, and alarms and other accessories for a complete installation.
- 7. Cabinet with necessary spare sprinkler heads.
- 8. Blocking required for fixture mounting.
- 9. Furnish access doors and panels as required for this work to be built into architectural trades work (installed by others).
- 10. Interior concrete house keeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Interior concrete house keeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 304.
- 11. Exterior concrete housekeeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Exterior concrete housekeeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 303.
- 12. Cutting and patching required for all work of this Bid Category, if not shown on architectural drawings.
- 13. Cut all roof/wall penetrations to perform plumbing and HVAC work. Cutting and protecting roof deck openings for plumbing and HVAC work. Coordinate with roofing and sheet metal contractors for roof penetrations and pipe boots, including layouts.
- 14. Maintain fire rating in all walls penetrated. Sealing or firestopping as required for this work.
- 15. Required pipe identification.
- 16. Testing of system.
- 17. Provide Owner with training of new equipment.

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WORK BY OTHERS:

- 1. Plumbing.
- 2. Fire extinguishers.
- 3. Installation of access panels in architectural trade work.
- 4. Site utilities.
- 5. Painting.
- 6. Electrical wiring.
- 7. Furnishing of water meter.

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BID CATEGORY 316 <u>MECHANICAL</u>

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

20 0500	Mechanical General Requirements
20 0510	Basic Mechanical Materials and Methods
20 0513	Motors
20 0516	Pipe Flexible Connectors, Expansion Fittings & Loops
20 0519	Meters and Gages
20 0529	Hangers and Supports
20 0533	Electric Heat Tracing
20 0553	Mechanical Identification
20 0700	Mechanical Insulation
20 2923	Variable Frequency Controllers
22 0523	General Duty Valves for Plumbing
22 1116	Domestic Water Piping
22 1119	Domestic Water Piping Specialties
22 1123	Domestic Water Circulation Pumps
22 1316	Sanitary Waste and Vent Piping
22 1319	Drainage Piping Specialties
22 1413	Storm Drainage Specialties
22 1429	Sump Pumps
22 3410	Condensing Fuel-Fired Domestic Water Heaters
22 4200	Plumbing Fixtures
22 4216	Commercial Lavatories
22 4700	Water Coolers
23 0500	Common Work Results for HVAC
23 0523	General-Duty Valves for HVAC
22 0502	

23 0593 Testing, Adjusting, and Balancing

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23 0933	Temperature Controls
23 1123	Fuel Gas Piping
23 2113	Hydronic Piping
23 2123	Hydronic Pumps
23 2513	Water Treatment for Closed-Loop Hydronic Systems
23 3113	Metal Ducts
23 3115	Fire Resistive Metal Ducts and Accessories
23 3116	Nonmetal Ducts
23 3300	Duct Accessories
23 3417	Fan Arrays
23 3423	Power Ventilators
23 3600	Air Terminal Units
23 3713	Diffusers, Registers, and Grilles
23 3723	Air Intake and Relief Hoods
23 5100	Breechings, Chimneys, and Stacks
23 5216	Condensing Boilers
23 6417	Centrifugal Water Chillers (Air-Cooled)
23 7413	Modular and Semi-Custom Central-Station Air-Handling Units
23 8216	Heating and Cooling Coils
23 8224	Vertical Unit Ventilators
23 8240	Centrifugal Fan Cabinet Unit Heaters (Hot Water)
23 8241	Propeller Fan Unit Heaters – Steam, Hot Water, Electric
23 8242	Centrifugal Fan Cabinet Unit Heaters (Steam)
23 8317	Snow Melting and Floor Heating

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
03 3300	Cast-In-Place Concrete (encasements, housekeeping pads)
07 8413	Penetration Firestopping (related to penetrations)
07 9200	Joint Sealants (related to this bid category)
Bid Category 314 Sections – Kitchen Equipment (related to final connections) Bid	
Category 317 Sections – Electrical (related to wiring & final connections)	

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Arrange for and pay all permit and inspection costs for this work.
- 2. Perform all connections between site utilities and building systems. Connection to be within 5 feet outside of the building. Coordinate with Site Contractor on utilities.
- 3. Underground plumbing work.

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- 4. Complete plumbing and plumbing fixtures for domestic hot and cold water systems including connection into domestic water lines. This includes valves, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 5. Complete plumbing and plumbing fixtures for sanitary waste and storm systems. This includes valves, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 6. Complete water heater system including piping, pumps, valves, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 7. Piping for gas line system for bid categories on this project. This includes valves, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 8. Furnish and install gas meter and pressure regulator. Include all fees from Consumer's Energy.
- 9. Where sanitary or storm sewer cleanouts for the building are indicated 5 feet outside of the building, it is the responsibility of this Bid Category to provide them.
- 10. Pipe, duct, and equipment insulation for plumbing and HVAC systems.
- 11. Pipe/equipment identification for plumbing and HVAC systems.
- 12. Final plumbing hook-ups to all plumbing related fixtures and equipment including kitchen equipment and casework.
- 13. Plumbing fixtures in cabinetry as required.
- 14. Complete plumbing controls.
- 15. Trap primers and/or seals.
- 16. Sealants and caulking for plumbing work as required.
- 17. Testing and balancing of plumbing and HVAC systems.
- 18. Complete HVAC system including units, piping, pumps, diffusers, grilles, louvers, filters, registers, motors, motor starters, disconnects, duct detectors, back draft dampers, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 19. Complete radiant heating system including piping, pumps, valves, hangers, supports, trim, fasteners, sleeves and other accessories for a complete installation.
- 20. It is the responsibility of this Bid Category for the HVAC equipment and piping shown on the exterior of the building that service building interior equipment.
- 21. Complete temperature control system design, programming and instrumentation devices for all HVAC equipment regardless if supplied with factory wired controls. All wiring, devices, raceways, rough ins, etc. shall be provided by this bid category. Any line voltage circuits required for control panels or devices that are not shown shall be provided by this bid category including all raceway, rough ins, wiring and breakers if not spares are not available.
- 22. Factory HVAC equipment with louvers or grilles which are supplied with or are an integral part of the HVAC equipment will be by this bid category.
- 23. Drain pans under plumbing and HVAC equipment and piping as required. This includes piping drain pans into sanitary sewer.
- 24. Firestopping and sealants for all penetrations of this work through fire-rated walls, floors, ceilings, etc. Maintain fire and/or smoke rating in all walls, floors, ceilings, etc. penetrated.

- 25. Furnish access doors and panels as required for this work to be built into architectural trades work (installed by others). Access doors built within the smoke/fire dampers and the ductwork shall be by this Bid Category.
- 26. Cutting and patching required for all work of this Bid Category, if not shown on architectural drawings.
- 27. Cut all roof and wall penetrations to perform plumbing and HVAC work. Cutting and protecting roof deck openings for plumbing and HVAC work. Coordinate with roofing for roof penetrations and pipe boots, including layouts.
- 28. Any unfinished surface mounted items (piping, covers, etc.), that are scheduled to receive paint, which have been installed after painting work is complete, will be the responsibility of this bid category to bear the cost of finish paint.
- 29. Excavation, compacted backfill, and dewatering required for this work. Compacted fill must be brought back up to elevation required for finish floor.
- 30. Interior concrete housekeeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Interior concrete house keeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 304.
- 31. Exterior concrete housekeeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Exterior concrete housekeeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 303.
- 32. Interior piping support rails.
- 33. Remove spoils from site.
- 34. Start up training for with Owner's Representative, Architect and Construction Manager for all mechanical equipment.
- 35. Final connections of Owner furnished equipment by this bid category.
- 36. Install concrete thrust blocks required for piping.
- 37. Furnish and install pipes sleeves for concrete floor penetrations prior to floor pours.
- 38. Connect footing and perimeter drain tile to storm water piping as shown.
- 39. Complete snowmelt system (coordinate with BC 303).
- 40. Furnish and install water line that serves the Café Terrace.
- 41. Final connections of kitchen equipment (coordinate with BC 314).
- 42. Coordinate with cutouts in others work.
- 43. Complete in-floor heating system (coordinate with BC 304).

WORK BY OTHERS:

- 1. Site utilities starting 5' outside building.
- 2. Blocking required for plumbing fixture mounting.
- 3. Painting.
- 4. Electrical work.
- 5. Fire suppression system.
- 6. Installation of access panels in architectural trade work.
- 7. Installation of perimeter and footing drain tile.

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BID CATEGORY 317 ELECTRICAL

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

26 0010	Electrical General Requirements
26 0519	Conductors and Cables
26 0523	Control-Voltage Electrical Power Cables
26 0526	Grounding and Bonding
26 0529	Hangers and Supports for Electrical Systems
26 0533	Raceways and Boxes
26 0536	Cable Trays
26 0553	Electrical Identification
26 5700	Luminaire Product Data
26 0573	Overcurrent Device Coordination Study/Arc Flash Hazard Analysis
26 0923	Lighting Control Devices
26 0943	Lighting Control Systems
26 2200	Dry Type Transformers (600V and Less)
26 2413	Switchboards
26 2416	Panelboards
26 2713	Electricity Metering
26 2726	Wiring Devices
26 2813	Fuses
26 2816	Enclosed Switches and Circuit Breakers
26 2913	Enclosed Controllers
26 4113	Lightning Protection
26 5119	LED Interior Lighting
26 5600	Exterior Lighting
27 0500	Telecommunications General Requirements
27 1 5 0 0	

27 1500 Communications Horizontal Cabling

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Division 00	Complete	
Division 01	Complete	
03 3300	Concrete (related to coordination)	
07 8413	Penetration Firestopping (related to penetrations)	
07 9200	Joint Sealants (related to this bid category)	
Bid Category 307 Sections – General Trades (related to final connections)		
Bid Category 315 Sections – Fire Protection (related to final connections)		
Bid Category 316 Sections – Mechanical (related to fixtures and final connections)		

Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Arrange for and pay all permit and inspection costs for this work.
- 2. Temporary electrical wiring and lighting requirements as required for all trades (power consumption charges and service to the site by Construction Manager). A minimum of 100 watts of temporary lighting per 250 SF of floor area. Include a minimum of two (2) temporary power skids with GFI receptacles per floor.
- 3. Complete electrical work as shown or specified (except as noted below) including wire, conduit, receptacles, switches, junction boxes, raceways, electrical panels, transfer switches, disconnects, disconnects for AHU's, fuses, other service equipment, light fixtures, lamps, lenses.
- 4. Complete electrical service including but not limited to pad-mount transformers, switches, meter cabinets, uninterruptable power supply, transfer switches, generator, cabling, etc.
- 5. Site electrical including all required excavation and backfill.
- 6. Concrete light pole bases will be by this bid category. Excavation, concrete, and all related reinforcing steel for light pole bases. Install all light poles including grounding and wiring.
- 7. Electrical identification of electrical equipment.
- 8. Final hook-up of all equipment for other disciplines of work.
- 9. Wire fixtures independent of ceiling grid. Comply with ASTM Standards.
- 10. Firestopping and sealants for all penetrations of this work through fire-rated walls, floors, ceilings, etc. Maintain fire and/or smoke rating in all walls, floors, ceilings, etc. penetrated.
- 11. Furnish access doors and panels as required for this work to be built into architectural trades work (installed by others).
- 12. Cutting and patching required for all work of this Bid Category, if not shown on architectural drawings.

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13. Cut all roof/wall penetrations to perform electrical work. Cutting and protecting roof deck openings for electrical work. Coordinate with roofing contractors for roof penetrations and boots, including layouts.

FURNISH AND INSTALL (CONTINUED):

- 14. Sealants and caulking for electrical work as required.
- 15. Excavation, compacted backfill and dewatering required for this work. Compacted fill must be brought back up to elevation required by drawings.
- 16. Coordinate with Miss Dig prior to excavation.
- 17. Interior concrete housekeeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Interior concrete housekeeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 304.
- 18. Exterior concrete housekeeping pads for equipment, by this bid category, which <u>are not</u> <u>clearly shown</u> on the drawings, will be by this bid category. Exterior concrete housekeeping pads, for equipment by this bid category, which <u>are clearly shown</u> on the drawings, will be by bid category 303.
- 19. No concrete is to be installed until verification of acceptable density testing. Any concrete installed without density verification will become the sole responsibility of the Contractor and may be required to be replaced at the Contractor's expense.
- 20. Fire alarm system design, layout and all required submittals, approvals and inspection.
- 21. Voice/data system raceway, conduit stubs, boxes, and power.
- 22. Access control system raceway, conduit stubs, boxes, and power.
- 23. Window covering raceway, conduit stubs, boxes, and power.
- 24. Electrified door hardware raceway, conduit stubs, boxes, and power.
- 25. Short circuit coordination.
- 26. Remove spoils on the site.
- 27. Power for irrigation system controllers and pump station (if required).
- 28. Final connections of Owner furnished equipment by this bid category.
- 29. Start up training for with Owner's Representative, Architect and Construction Manager for all equipment.
- 30. Testing and start-up of electrical work.
- 31. Furnish and install all voice and data cabling and equipment.
- 32. Cabling for WAP as shown.
- 33. New handholes for telecommunications as shown in the drawings.
- 34. Coordinate with other bid categories for hookup of equipment provided by other bid categories.

WORK BY OTHERS:

- 1. Temperature control wiring and accessories.
- 2. Plywood backboards for electrical equipment.
- 3. Installation of access doors in architectural trade work.

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BID CATEGORY 308 ROOFING PVC

HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

WORK SCOPE

The work of this Bid Category includes, but is not limited to the following work as shown on the drawings from WTA Architects, dated January 9, 2025 and specified in the following documents:

WTA Architects Specifications, dated January 9, 2025 Spence Brothers Project Manual, dated January 13, 2025

Basic Trade Specification Sections (include all work unless noted otherwise):

07 4113 Standing Seam Metal Roof Panels

Additional Trade Specification Sections (include work related to this scope):

Division 00	Complete
Division 01	Complete
07 6200	Sheet Metal Flashing and Trim
07 7100	Roof Specialties
07 7200	Roof Accessories
07 8413	Penetration Firestopping (related to penetrations)
07 9200	Joint Sealants (related to this bid category)
Bid Category 316 Sections – Mechanical (related to opening flashings) Bid	
Category 317 Sections – Electrical (related to opening flashings)	
Category 317 Sections – Electrical (related to opening flashings)	

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2211 Bid Category Scopes Bid Category 308 - Page 1 of 2 Provide the labor, material and equipment to execute the work described in the above noted documents, which INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

FURNISH AND INSTALL (Unless Otherwise Noted):

- 1. Membrane roofing system including insulation, closure strips, membrane flashings, counter flashings, termination bars, battens, mastic and all related supports, fasteners, clips and sealants. Tapered insulation to meet required slopes.
- 2. Copper standing seam metal roofing, all related metal drip edge, flashings, coping, ice guards and all related supports, fasteners, clips, cleats, seam covers, battens, closures, fillers, gaskets and sealants.
- 3. Underlayment, metal drip edge, copings, flashings, pipe flashings and all related supports, fasteners, clips and sealants for all types of roof systems.
- 4. Vapor barrier (if shown) for all types of roof systems.

FURNISH AND INSTALL (CONTINUED):

- 5. Cant strips and related blocking for the installation of the roofing system.
- 6. Roof cants where roofing meets vertical surfaces.
- 7. Ridge vents, metal drip edge, copings, flashings, pipe flashings and all related supports, fasteners, clips and sealants.
- 8. Roof hatches and curbs.
- 9. Sealing and closure at all roof penetrations, including seals, boots, steel clamps, sealants and flashings.
- 10. Insulation saddles for proper drainage.
- 11. Sheet metal fascias, copings, gravel stops, trims, closures, flashings, soffits and all related supports, fasteners, clips and sealants.
- 12. Integral gutters where shown.

WORK BY OTHERS:

- 1. Wood blocking and plywood at top of parapets.
- 2. Exterior insulation system.

Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Bid Package #3 Spence Brothers - Project Manual 00 2211 Bid Category Scopes Bid Category 308 - Page 2 of 2

SECTION 00 2300 MILESTONE SCHEDULE

THE HERBERT H. AND GRACE A. DOW FOUNDATION NEW DOW GARDENS WELCOME CENTER BID PACKAGE #3 CIVIL AND REMAINING BUILDING TRADES

The Trade Contractor shall coordinate construction scheduling and operations with the Construction Manager and other trade contractors so as to meet the milestone completion dates outlined in this section. The following list of activities is not intended to be a complete breakdown of the Trade Contractor's work; it is rather a list of project milestones which must be met by the trade contractor in order to insure timely project completion. Trade Contractors are to include all costs to meet these dates.

If a bidder feels any milestone dates appear impossible or unreasonable to meet, without including significant acceleration costs, notify Spence Brothers in writing prior to the bid date. If Spence Brothers, upon reviewing such notifications, determines that any change in the Milestone Schedule would be in the project's best interest, this schedule may be adjusted by addendum.

Because it is in the best interest of all parties to complete this project on schedule, Spence Brothers reserve the right to take the following action(s), if these milestone dates are in danger of not being met:

- 1. Trade Contractor(s) will be directed to increase crew size and/or equipment on site.
- 2. Trade Contractor(s) will be directed to add a second shift and/or work overtime.
- 3. If the above measures are not carried out satisfactorily by the Trade Contractor(s), or are not sufficient to get back on schedule, Spence Brothers can, upon three (3) days written notice, supplement the Trade Contractor(s) crews with additional personnel and equipment furnished by others, or take any other action necessary.

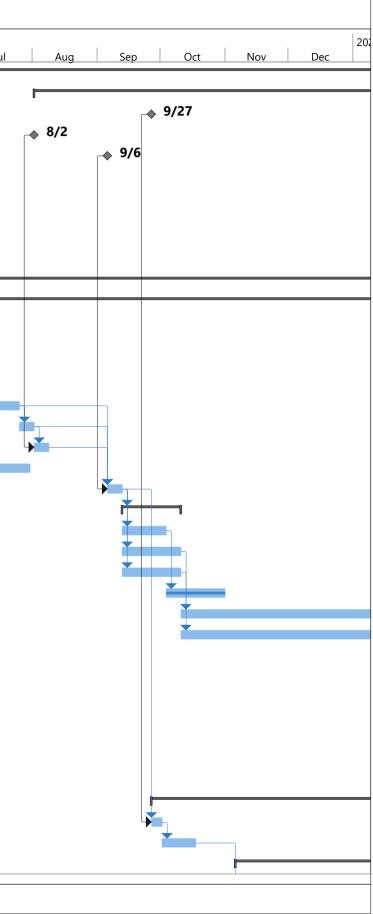
All costs associated with the above measures will be the responsibility of the Trade Contractor(s) involved, to the extent that the delay was not caused by others. If a Trade Contractor causes delay to others, that Trade Contractor will be responsible for any acceleration costs for other trades that are authorized by Spence Brothers, to get the project back on schedule.

If any delay causes Spence Brothers to extend any milestone completion dates (in lieu of, or in addition to, taking any of the above acceleration actions) such time extension will be the sole remedy for all trade contractors for any such delay, unless contractor has been authorized by Spence Brothers to take acceleration measures as noted above.

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

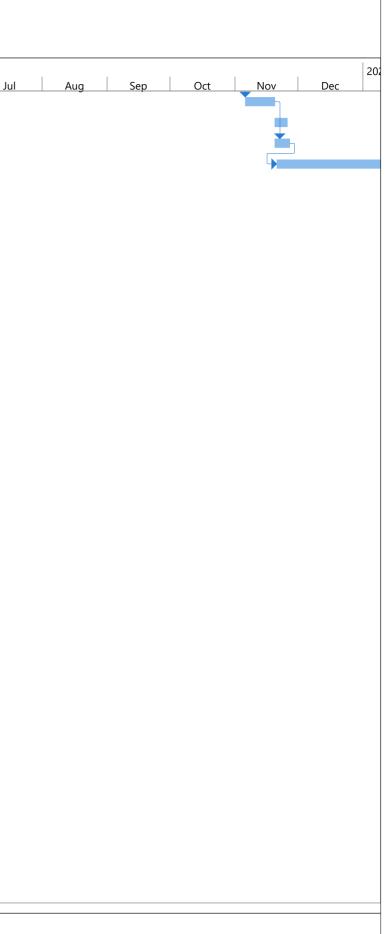
Dow Gardens Welcome Center Milestone Schedule 1/17/25

C	Task Name	Duration	Start	Finish	Predecessors	Feb		Mar			May		lun	
1	Dow Gardens Welcome Center	685 days	Mon 3/18/24	Fri 10/30/26		reb			A	Apr	May		Jun	
2	Project Milestones	586 days	Fri 8/2/24	Fri 10/30/26										
3	Mobilize to Site	0 days	Fri 9/27/24	Fri 9/27/24										
4	Finalize GMP & Recommend Subcontractors	0 days	Fri 8/2/24	Fri 8/2/24										
5	Award Subcontracts	0 days	Fri 9/6/24	Fri 9/6/24										
6	Foundations	0 days	Wed 2/26/25	Wed 2/26/25	44FF									
7	Steel	0 days	Mon 4/28/25	Mon 4/28/25	51FF									
8	Building Enclosed	0 days	Wed 1/21/26	Wed 1/21/26	53									
9	Turnover Bulding to Owner	0 days	Tue 4/21/26	Tue 4/21/26	79									
10	Project Completion	0 days	Fri 10/30/26	Fri 10/30/26	89									
11	Design & PreConstruction Phase	274 days	Mon 3/18/24	Thu 4/3/25				-						
12	Bid Package #1/2 - Foundations, Sitework, and Steel	244 days	Mon 3/18/24	Thu 2/20/25		-		-						
13	BP #1 Design Development	40 days	Mon 3/18/24	Fri 5/10/24										
14	BP #1 Budgeting	15 days	Mon 5/13/24	Fri 5/31/24	13						+			
15	BP #1 Construction Documents	27 days	Mon 5/13/24	Tue 6/18/24	13	-					+		-	_
16	BP #1 Develop Scopes & Front Ends	9 days	Wed 6/19/24	Mon 7/1/24	15									
17	BP #1 Bid Period	18 days	Tue 7/2/24	Thu 7/25/24	15,16	-								+
18	BP #1 Post-Bid Interviews	5 days	Fri 7/26/24	Thu 8/1/24	17	-								
19	BP #1 Recommendation & GMP Amendment	5 days	Fri 8/2/24	Thu 8/8/24	18,4SS									
20	BP #1 Permitting	30 days	Wed 6/19/24	Tue 7/30/24	15	-								
21	BP #1 Contract Award	5 days	Fri 9/6/24	Thu 9/12/24	17,18,19,5SS									
22	BP #1 Submittals	20 days	Fri 9/13/24	Thu 10/10/24	21									
23	Concrete Reinforcing Submittals	15 days	Fri 9/13/24	Thu 10/3/24	21									
24	Structural Steel Submittals	20 days	Fri 9/13/24	Thu 10/10/24	21									
25	Joist & Deck Submittals	20 days	Fri 9/13/24	Thu 10/10/24	21	-								
26	BP #1 Reinforcing Steel Procurement	20 days	Fri 10/4/24	Thu 10/31/24	23									
27	BP #1 Columns & Beams Procurement	90 days	Fri 10/11/24	Thu 2/13/25	24									
28	BP #1 Joist & Deck Procurement	95 days	Fri 10/11/24	Thu 2/20/25	25	-								
29	Bid Package #3 - Site Work & Remaining Trades	55 days	Fri 1/17/25	Thu 4/3/25										
30	Drawings Issued	0 days	Fri 1/17/25	Fri 1/17/25										
31	Bids Due	, 14 days	Fri 1/17/25	Wed 2/5/25	30	-								
32	Post Bid Interviews	5 days	Fri 2/7/25	Thu 2/13/25	31FS+1 day									
33	Establish GMP	5 days	Fri 2/14/25	Thu 2/20/25	32									
34	Issue Subcontracts	5 days	Fri 2/21/25	Thu 2/27/25	33									
35	Submittals	25 days	Fri 2/28/25	Thu 4/3/25	34									
36	Construction Phase	546 days	Fri 9/27/24	Fri 10/30/26		-								
37	Mobilize to Site	3 days	Fri 9/27/24	Tue 10/1/24	21FS+1 day,3SS									
38	Site Layout & Logistics	12 days	Wed 10/2/24	Thu 10/17/24	37									
39	BP #1 - Foundations	86 days	Wed 11/6/24	Wed 3/5/25		-								



Dow Gardens Welcome Center Milestone Schedule 1/17/25

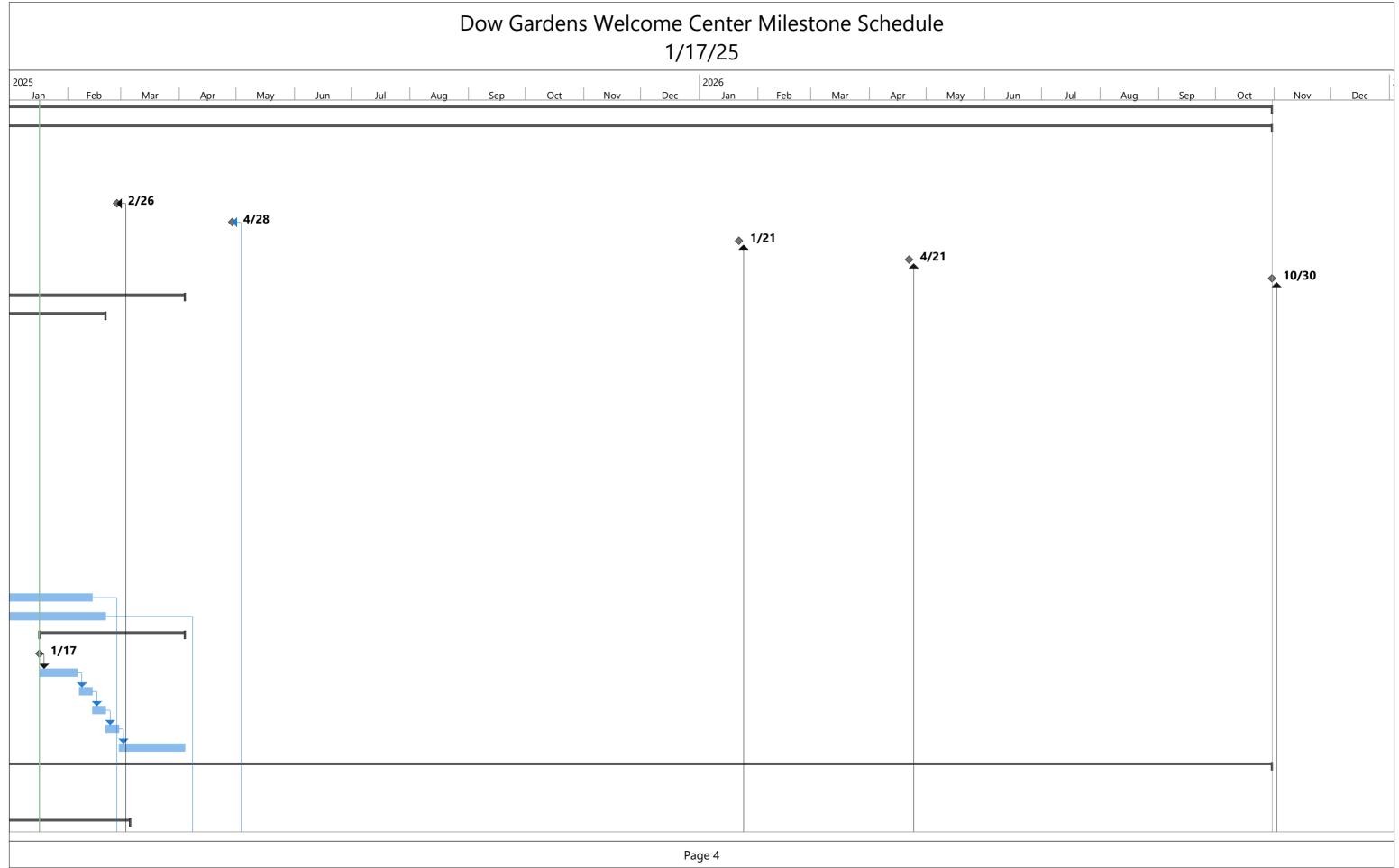
ID	Task Name	Duration	Start	Finish	Predecessors	Feb	Mar	Apr	May		Jun		Jul
40	Clear & Grub	10 days	Wed 11/6/24	Tue 11/19/24	38FS-7 days	100				/	Jun		
41	Partial Site Demolition	4 days	Wed 11/20/24	Mon 11/25/24									
42	Establish Building Pad	5 days	Wed 11/20/24	Tue 11/26/24	40								
43	Foundation Excavation	65 days	Thu 11/21/24	Wed 2/19/25	42FS-4 days								
44	Foundations	20 days	Thu 1/30/25	Wed 2/26/25									
45	Strip Footings	8 days	Thu 1/30/25	Mon 2/10/25	43FS-15 days								
46	Walls and Piers	17 days	Tue 2/4/25	Wed 2/26/25	45FS-5 days								
47	Site Demolition	10 days	Thu 2/20/25	Wed 3/5/25	43								
48	Backfill Foundations	10 days	Mon 2/17/25	Fri 2/28/25	44FS-8 days								
49	BP #2 - Structural Steel	43 days	Thu 2/27/25	Mon 4/28/25									
50	Erect Columns & Beams	28 days	Thu 2/27/25	Mon 4/7/25	27,46								
51	Erect Joist & Deck	15 days	Tue 4/8/25	Mon 4/28/25	50,28								
52	BP #3 - Remaining Building Trades	236 days	Tue 5/6/25	Tue 3/31/26									
53	Envelope	187 days	Tue 5/6/25	Wed 1/21/26		_							
54	Roofing	50 days	Tue 5/6/25	Mon 7/14/25		_							
55	Blocking	10 days	Tue 5/6/25	Mon 5/19/25	51FS+5 days	_							
56	Trims/Fascias	10 days	Tue 5/20/25	Mon 6/2/25	55	_							
57	Standing Seam	15 days	Tue 6/3/25	Mon 6/23/25	56								
58	Flat Roofs	15 days	Tue 6/24/25	Mon 7/14/25	57								
59	Exterior Framing	25 days	Thu 8/7/25	Wed 9/10/25	68	_							
60	Sheathing	20 days	Thu 9/11/25	Wed 10/8/25	59								
61	Exterior Doors	10 days	Thu 10/9/25	Wed 10/22/25	60	_							
62	Masonry	35 days	Thu 10/9/25	Wed 11/26/25	60	_							
63	Metal Panels	20 days	Thu 11/27/25	Wed 12/24/25	62								
64	Storefront	30 days	Thu 12/11/25	Wed 1/21/26	63FS-10 days	_							
65	Interior	226 days	Tue 5/20/25	Tue 3/31/26									
66	Underground MEP	25 days	Tue 5/20/25	Mon 6/23/25	55								
67	Fine Grade Building Pad	12 days	Tue 6/24/25	Wed 7/9/25	66	_							
68	Slab on Grade	20 days	Thu 7/10/25	Wed 8/6/25	67								
69	Polish Floor	15 days	Thu 8/7/25	Wed 8/27/25	68	_							
70	Framing	20 days	Thu 8/28/25	Wed 9/24/25	69	_							
71	Door Frames	8 days	Thu 9/25/25	Mon 10/6/25	70								
72	MEP Rough-In	20 days	Tue 10/7/25	Mon 11/3/25	71	_							
73	Drywall/Cement Board	25 days	Tue 11/4/25	Mon 12/8/25	72								
74	Paint	15 days	Tue 12/9/25	Mon 12/29/25	73	_							
75	Tile/Stone	25 days	Tue 12/30/25	Mon 2/2/26	74	-							
76	Architectural Finishes	25 days	Tue 2/3/26	Mon 3/9/26	75	1							
77	MEP Finishes	16 days	Tue 3/10/26	Tue 3/31/26	76	-							
78	Punchlist	15 days	Wed 4/1/26	Tue 4/21/26	77	-							

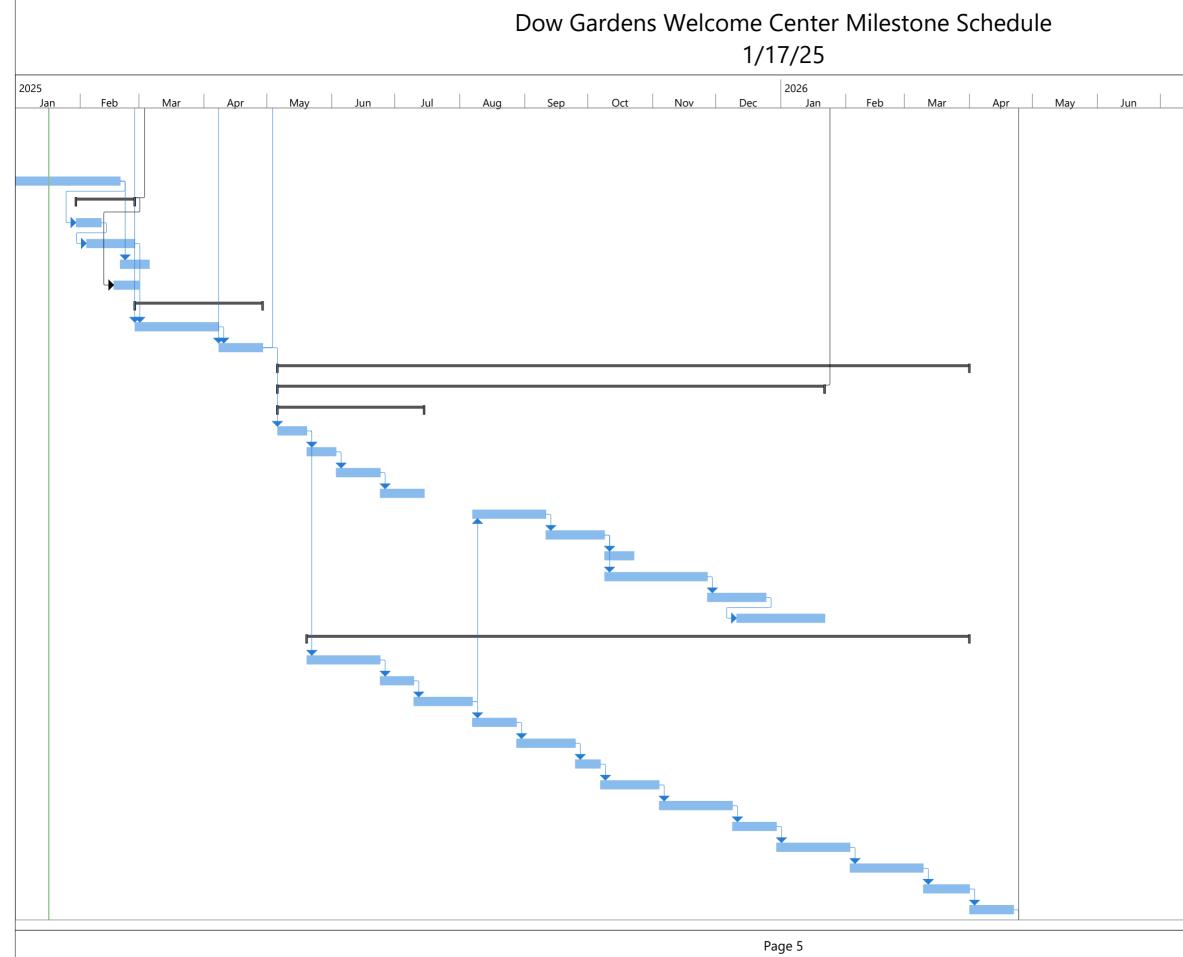


Dow Gardens Welcome Center Milestone Schedule 1/17/25

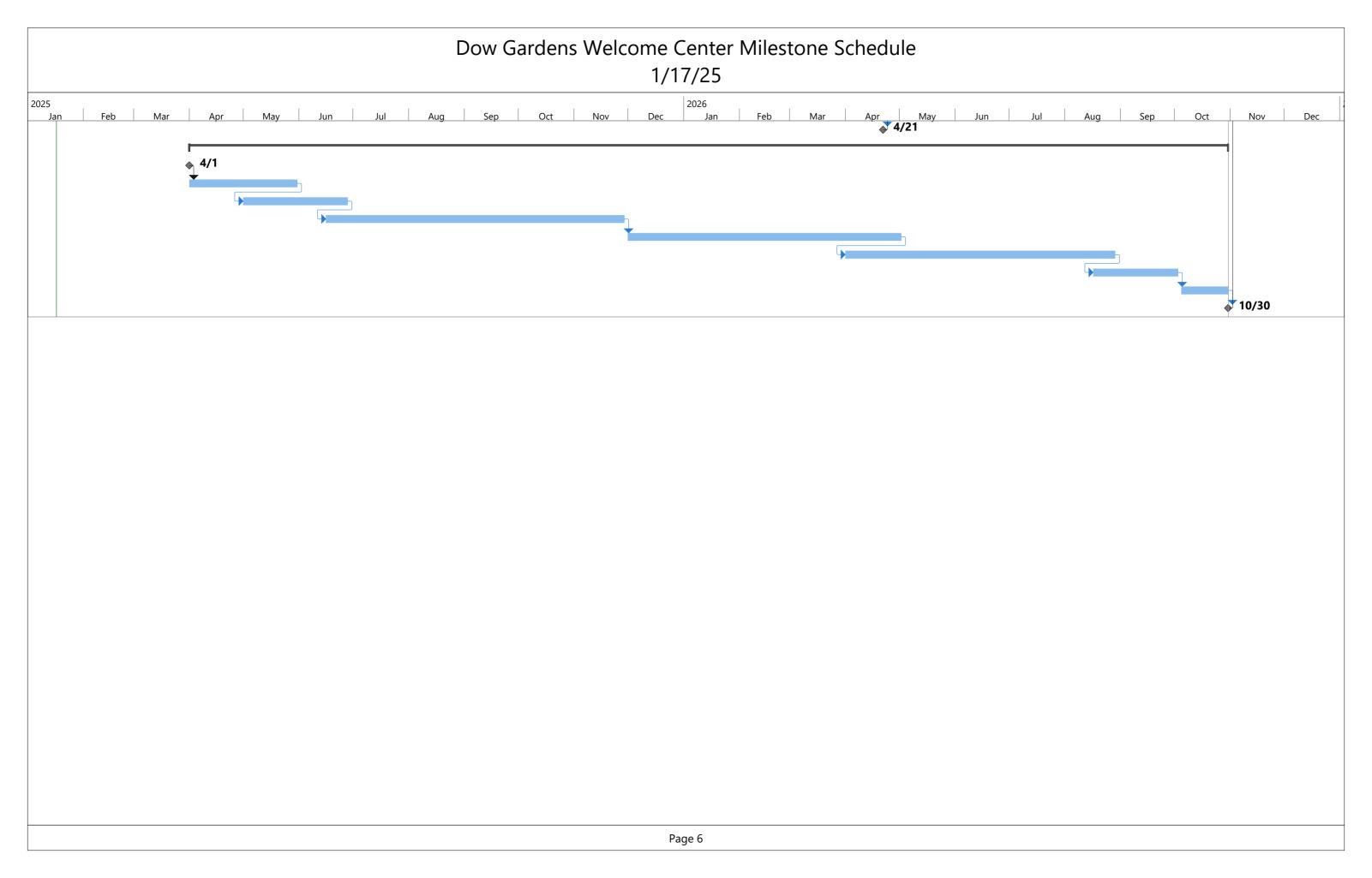
						1						
ID	Task Name	Duration	Start	Finish	Predecessors	Feb	Mar	Apr	May	I	Jun	Jul
79	Turnover to Owner	0 days	Tue 4/21/26	Tue 4/21/26	78	reb	IVIdI	Арг	IVIdy		Jun	Jui
80	BP #3 - Parking Lots/Site Work	414 days	Tue 4/1/25	Fri 10/30/26		-						
81	Spring 2025	0 days	Tue 4/1/25	Tue 4/1/25								
82	Phase 1A - Storm North & Library Lot	44 days	Tue 4/1/25	Fri 5/30/25	81							
83	Phase 1B - Storm South & Library Lot	42 days	Thu 5/1/25	Fri 6/27/25	82FS-22 days							
84	Phase 2A - South Main Lot	120 days	Mon 6/16/25	Fri 11/28/25	83FS-10 days							
85	Phase 2B - Inside of Construction Fencing	110 days	Mon 12/1/25	Fri 5/1/26	84							
86	Phase 3A - Demo Existing Building/Owner Moves	108 days	Wed 4/1/26	Fri 8/28/26	85FS-23 days							
87	Phase 3B - North Main Lot	35 days	Mon 8/17/26	Fri 10/2/26	86FS-10 days							
88	Phase 4 - Topcoat All Asphalt	20 days	Mon 10/5/26	Fri 10/30/26	87							
89	Project Completion	0 days	Fri 10/30/26	Fri 10/30/26	88							

						202
lul	Aug	Sep	Oct	Nov	Dec	





Jul	Aug	Sep	Oct	Nov	Dec



SECTION 00 3000 INFORMATION AVAILABLE TO BIDDERS

EXISTING REPORTS AND SURVEYS

1.1 SUBSURFACE INVESTIGATION REPORT

A. A copy of a geotechnical report with respect to the building site is included with this document:

- 1. Title: Soils Investigation
- 2. Date: May 1, 2024
- 3. Prepared by: McDowell & Associates
- B. This report identifies properties of below grade conditions and offers recommendations for the design of foundations, prepared primarily for the use of the Architect.
- C. The recommendations described shall not be construed as a requirement of this Contract, unless specifically referenced in the Contract Documents.
- D. This report, by its nature, cannot reveal all conditions that exist on the site. Should subsurface conditions be found to vary substantially from this report, changes in the design and construction of foundations will be made, with resulting credits or expenditures to the Contract Sum accruing to Owner.

1.2 PROJECT PHASING PLAN

A. A copy of the project phasing plan is included for reference.

END OF SECTION 00 3000

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 00 3143 PERMITS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Attention is directed to Bidding and Contract Requirements, and to Division 1, General Requirements, which are hereby made a part of this Section.

1.02 PERMITS AND FEES

- A. The Construction Manager will obtain and pay for the General Building Permit.
- B. Other than the General Building Permit, each Trade Contractor shall provide and pay for all other permits, assessments, governmental fees, bonds, connection charges, licenses and inspection fees and any other charges necessary for the proper execution and completion of the Trade Contractor's scope of work.
- C. Each Trade Contractor is to provide, pay for and coordinate all other permits; fees, inspections and city, county, state, federal and governing authority approvals required for the successful completion of the work contained within their respective bid category and deliver required certificates of inspection and approvals to Spence Brothers.
- D. This project is under the following jurisdictions:

Building Permit	City of Midland
Life Safety	City of Midland
Electrical / Mechanical	City of Midland
Soil Erosion Permit	City of Midland
Right of Way Permits	State of Michigan/City of Midland
Demolition Permits	City of Midland

END OF SECTION 00 3143

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Spence Brothers - Project Manual Section 00 3143 – Permits Page 2 of 2

SECTION 00 4000 PROPOSAL FORM

- **PROJECT**The Herbert H. and Grace A. Dow Foundation
New Dow Gardens Welcome Center
Bid Package #3 Civil and Remaining Building Trades
 - OWNER The Herbert H. and Grace A. Dow Foundation 1018 W. Main St. Midland, MI 48640

ARCHITECT WTA Architects 100 S. Jefferson Ave, Suite 601 Saginaw, MI 48607

CONSTRUCTION	Spence Brothers
MANAGER	203 S. Washington Ave., Suite 360
	Saginaw, MI 48607
	Phone: (989) 752-0400
	Fax: (989) 752-8769
	Contact: Jeremy Huntoon
	jeremyhuntoon@spencebrothers.com

BID PROPOSAL DUE DATE Prior to February 5, 2025 at 2:00 PM EST (local time)

PROPOSAL SUBMITTED BY:

(Contractor)

The Undersigned has visited the site and familiarized themselves with the local conditions affecting the cost of the work and the Contract Documents, including plans, the Architect's drawings, and Project Manual, the Construction Manager's Project Manual, and all the labor, materials, tools, expendable equipment and transportation services, etc., necessary to perform and complete in a workmanlike manner all work required under the Bid Category(s) quoted below for the aforementioned project, all in strict accordance with the Contract Documents, as prepared by the Architect and Construction Manager.

Prequalified bidders may bid only on the Bid Category(s) for which they are qualified to bid.

Contractor's Name

Bids on Proposal Forms identical to the forms included in the bidding documents shall be filled in completely, including any applicable alternate prices and unit prices. Bid amounts must be in words as well as figures. Proposals that are not filled in completely may be rejected.

Proposals may be rejected which do not include a bid amount, PLM bond costs, bid bond, noted addenda (if any), noted alternate (if any), percentages for changes in the work, or a signed proposal form.

Proposals that contain qualifications and/or modifications to the base proposal may be rejected.

Signatures must be in long hand and executed by the principal duly authorized to make contracts. The bidder's legal name must be fully stated.

If a contractor elects to bid more than one bid category, then a separate proposal form must be submitted for each bid category.

Bid Category No.:
Bid Category Name:
Base Bid for the Lump Sum of (\$)
Dollars
Add for the Cost of Performance and Payment Bonds (\$)
Total field labor hours included as part of the Lump Sum Proposal: Hours
COMBINED BASE BID (Individual Bids Must Still Be Submitted on Separate Bid Forms)
Bid Categories Being Combined,, and
Combined Base Bid for the Lump Sum of (\$)
Dollars
Add for the Combined Cost of Performance and Payment Bonds ADD (\$)

Contractor's Name _____

ALTERNATES

Refer to Section 01 2300 for Schedule of Alternates for a Complete Alternate Description

Alternate No. 1:

Alternate No. 1, Base Bid for the Lump Sum ofAdd / Deduct (\$)
	Dollars

Cost of Performance and Payment Bonds ------Add / Deduct (\$ _____)

Alternate No. 2:

Alternate No. 2, Base Bid for the Lump Sum ofAdd / Deduct (\$)
	Dollars

Cost of Performance and Payment Bonds ------Add / Deduct (\$ _____)

Alternate No. 3:

Alternate No. 3, Base Bid for the Lump Sum ofAdd / Deduct (\$ _)
	Dollars
Cost of Performance and Payment Bonds Add / Deduct (\$ _)

CHANGES IN THE WORK: For authorized changes in the work, involving additions to the work, the Undersigned agrees to perform, or to cause to be performed by the subcontractors, such authorized work at net cost to him plus the following percentages to be added to the cost to the Owner, which percentages shall include the contractor's cost for on-site supervision and all overhead and profit.

	<u>Additions</u>
Fee for work performed by your own forces:	%
(15% maximum for additions)	
Fee for work performed by subcontractors:	%
(5% maximum for additions)	
Fees for materials and equipment:	%
(15% maximum for additions)	

Contractor's Name

COMPLETION TIME: The Undersigned agrees to commence submittals and work operations immediately upon notice of award of contract and to substantially complete the work on or before the milestone dates as stipulated in the Milestone Schedule in the Project Manual.

TAXES:

All subcontractors and suppliers will be required to pay sales and use tax on any items purchased for this project and shall be included in the above bid(s).

ADDENDA

If any addenda covering changes to the Bidding Documents have been received during the bid period, the bidder shall fill in their numbers and dates. This acknowledges that the Bidder has received same, and has included any affect on the work involved in this proposal.

Dated	
Dated	
Dated	
Dated	

CLARIFICATION MEMO

If any clarification memos covering changes to the Bidding Documents have been received during the bid period, the bidder shall fill in their numbers and dates. This acknowledges that the Bidder has received same, and has included any affect on the work involved in this proposal.

 _ Dated
 _ Dated

ACCEPTANCE OF PROPOSAL:

The undersigned agrees to execute a contract for Work, covered by this proposal, provided that he or she is notified of its acceptance, within sixty (60) days after the scheduled closing time for receipt of bids.

VOLUNTARY ALTERNATE

Bid Category	Written Description of Voluntary Alternate				
For the amount of:	Add/Deduct	Dollars			
	ADD/DED	UCT\$			
VOLUNTARY ALTER	NATE				
Bid Category	Written Description of Volu	intary Alternate			
For the amount of:	Add/Deduct	Dollars			
	ADD/DED	UCT\$			
VOLUNTARY ALTER	NATE				
Bid Category	Written Description of Volu	intary Alternate			
For the amount of:	Add/Deduct	Dollars			
	ADD/DED	UCT\$			

Contractors Name _____

The Undersigned hereby declares that he/she has the legal status checked below:

- () Individual
- () Partnership having the following partner(s):

() Corporation incorporated under the state laws of ______.

This proposal is submitted in the name of and notice of acceptance should be mailed or delivered to:

FIRM NAME	
ADDRESS	CITY
STATE	ZIP CODE
BY	TITLE
(Signature)	
(Printed Name)	
DATE	TELEPHONE ()
	FAX ()
	E-MAIL
IN PRESENCE OF:	
	TITLE

If a corporation, affix Corporate Seal.

Submit two (2) additional copies along with this original form and retain one copy for your file.

END OF PROPOSAL FORM

SECTION 00 5000 AGREEMENT FORM

PART 1 – GENERAL

1.01 Related Documents

A. Attention is directed to Division 0, Bidding and Contract Requirements, and to Division 1, General Requirements, which are hereby made a part of this Section.

1.02 AGREEMENT FORM (Contract)

- A. The form that will be used for all contract agreements on the project shall be the Spence Brothers' Subcontract form.
 - 1. The above Agreement Form is included in this Section.
 - 2. Refer to Section 01 2900 Payment Procedures for payment processing.

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center



SUBCONTRACT

Contract Date: 1/1/2016

("Subcontractor")

Phone: Fax:

Attention:

RE: Sample Project Saginaw, Michigan Owner's Project No. 1234 Spence Project No. ##-####

Dear :

Subcontractor and Contractor agree that Subcontractor will provide Sample Contract ("Work") as described in this contract ("Subcontract").

- 1) <u>Contract Documents</u>. Subcontract means and only includes and incorporates by reference the following whether hard-copy or digital (also referred to as the "Contract Documents"):
 - a) this Subcontract;
 - b) Drawings and Specifications issued by ("Architect")
 - c) General, Supplemental, and/or other Conditions issued by the Architect
 - d) the agreement ("Prime Contract") between Contractor and ("Owner")
 - e) Addendum 1 dated ##/##/#####
 - f) Document A dated 8/3/15 ("Terms and Conditions")
 - g) Document B dated 6/23/16 ("Insurance Requirements")
 - h) Document C N/A
 - i) Exhibit A Application and Certificate for Payment
 - j) Exhibit B Contractor's Declaration
 - k) Exhibit C Sworn Statement
 - I) Exhibit D Workmanship Quality Compliance Agreement
 - m) Exhibit E Safety Guidelines for Subcontractors
 - n) Exhibit F Certified Payroll Form
 - o) Exhibit G N/A
 - p) Exhibit H N/A
- 2) **Scope.** Provide all labor, materials, tools, and equipment to furnish and install all Work per the Contract Documents including but not limited to:
 - a) the following Divisions and/or Specifications: Specifications
 - b) and the following: Inclusions
 - c) but exclude the following: Exclusions

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spencebrothers.com
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417 McCoskry Street Saginaw, Michigan 48601 ph (989) 752-0400 fx (989) 752-8769



- <u>Documents.</u> All change documents, submittals, and RFIs will be posted to an internet site. Subcontractor will monitor this site to ensure the full coordination of Subcontractor's Work and the work of others. Contractor will supply the details to access the site.
- 4) <u>Submittals.</u> Complete all submittals within the duration identified in the Notice to Proceed where that duration commences as of the date the Notice to Proceed was received by Subcontractor, and if a duration was not identified, within 2 weeks of the Subcontractor's receipt of the Notice to Proceed; email to for submission to the Architect for approval.
- 5) <u>Sales Tax.</u> Michigan Sales Tax is included in your Subcontract price. Please insert Subcontractor's Michigan Sales Tax License Number in the following space:
- 6) Markup on Changes. Subcontractor agrees that its markup for overhead and profit for increases in the Subcontract Price shall be 10% for work performed by its own forces and 5% for work performed by second tier or lower forces. The maximum cumulative total of all overhead and profit that may be added from all subtiers is 15.5%. If another provision of this Subcontract provides for a lesser percent or cumulative markup for overhead and profit, that provision governs as to the percent or cumulative markup for overhead and profit.
- 7) **Subcontract Price.** The "Subcontract Price" is zero dollars and zero cents (\$0.00) which was derived as follows:

#	DESCRIPTION	AMOUNT
1	Sample	\$ 0.00
	Grand Total:	\$ 0.00

- 8) <u>Applications for Payment.</u> Subcontractor shall submit a draft application for payment to Contractor on or prior to the 20th of the month. The draft application shall account for the progress of the Work through the end of the month or such other end date, which shall be determined solely by Contractor. Once the draft application for payment is negotiated to acceptance by the Contractor or the Owner, Subcontractor shall submit the negotiated application for payment to Contractor on or prior to the 25th of the month. The rate of retainage withheld from each progress payment to Subcontractor shall be ten percent (10.0%) ("Retainage").
- 9) Initial Documents. Prior to commencing the Work, Subcontractor must provide Contractor the following documents:
 - a) Executed Subcontract;
 - b) Approved Schedule of Values;
 - c) Insurance documentation;
 - d) Sworn Statement listing Subcontractor's subcontractors and suppliers including contract amounts for each; and
 - e) Site Specific Safety Plan.

Subcontractor's signature below creates a contract.



Sincerely,

SPENCE BROTHERS ("Contractor")

Acknowledged and a	accepted this	day of	, 20)

Signed:

By:

(typed or printed name) Title:

cc: Contract File

Project Director -

Project Manager -

Superintendent -

spencebrothers.com



Terms and Conditions

- 1. **Definitions.** For the purposes of this Document A, Document B, and the Subcontract:
 - 1.1. "Change Order" means a written document signed by Contractor and Subcontractor to change the scope, price, time for performance, or other terms of the Subcontract.
 - 1.2. "Claim" means any demand or request by Subcontractor for any extra payment including profit, extension of time, damages, or other relief in connection with the Subcontract.
 - 1.3. "Contractor" means the entity issuing this Subcontract, which is Spence Brothers, unless a different entity is identified as Contractor in the Subcontract. The term "Contractor" shall be used regardless of whether the actual role of the entity issuing this Subcontract is General Contractor or otherwise.
 - 1.4. The words "include," "including," and their variants shall be interpreted to mean including without limitation.
 - 1.5. "Owner" means the party with whom Contractor has entered into the Prime Contract with respect to the Project, even if such party does not own the Project.
 - 1.6. "Prime Contract" means the contract between Contractor and Owner with respect to the Project, including all changes or modifications thereto through the date of this Subcontract and all Contract Documents which are defined by the Prime Contract to be a part thereof. The Prime Contract is available from Contractor upon written request except that, if Contractor removes pricing or other portions from the copy provided, Subcontractor shall not be bound by the removed portions. Failure of Subcontractor to request the Prime Contract shall not excuse Subcontractor from compliance with obligations set forth in the Prime Contract.
 - 1.7. "Project" means the project identified in the Subcontract for construction, renovation, or other services.
 - 1.8. "Project Schedule" means the Project schedule information provided to Subcontractor, together with any updates, adjustments, or refinements to the Project Schedule of which Subcontractor receives written notice thereafter.
 - 1.9. "Subcontract" has the meaning stated in the Subcontract. Further, the Subcontract does not include Subcontractor's bid or proposal unless Contractor specifically agrees in writing to incorporate the bid or proposal.
 - 1.10. "Subcontractor" means the entity to which this Subcontract is issued, as defined in the Subcontract, including its Subordinate Parties.
 - 1.11. "Subordinate Party" or "Subordinate Parties" means all and any of Subcontractor's employees, workers, laborers, agents, consultants, suppliers, subcontractors, persons, or entities, at any tier, who perform, assist with, or otherwise are involved in any of the Work.
 - 1.12. Along with as stated elsewhere in the Contract Documents, the "Work" includes all work, obligations, and responsibilities performed or to be performed by Subcontractor under the Subcontract.

2. General Obligations.

- 2.1. Subcontractor and Contractor are mutually bound by the terms of the Contract Documents. Subcontractor assumes toward Contractor all the obligations, including administrative and procedural, which Contractor assumes toward Owner or others under the Prime Contract. Contractor shall have all the rights and remedies against Subcontractor which Owner or others have against Contractor under the Prime Contract. Subcontractor shall not have any rights against Contractor which Contractor does not have against Owner under the Prime Contract unless such rights are specifically set forth in the Subcontract.
- 2.2. Subcontractor has carefully examined and understands the Contract Documents, acknowledges the Contract Documents to be suitable for the Work and sufficient for the Contract Documents' purposes, and agrees to perform the Work and complete same in strict accordance therewith and to the entire satisfaction of Contractor, the Owner, and the Architect.
- 2.3. Subcontractor represents that Subcontractor has carefully examined, investigated, and understands the nature and site of the Work and the conditions and difficulties under which the Work is to be performed, and Subcontractor enters into this Subcontract on the basis of Subcontractor's own examination, investigation, and evaluation of all such matters and not in reliance upon any opinions or representations of others.
- 2.4. Subcontractor shall furnish all labor, materials, tools, equipment, supervision and services necessary to properly execute the Work. The Work shall be performed by Subcontractor in a good and workman like manner strictly in accordance with the Contract Documents. The Work includes all quantities, materials, accessories, anchorage, etc. called for by any of the Contract Documents regardless of quantities or clarifications listed on Subcontractor's quote.
- 2.5. The Subcontract Price includes all pension, welfare, vacation, annuity, payment, compensation, and any other benefit contributions payable in connection with the Work, and all taxes of every kind that have been or may be imposed, levied, or assessed by any governmental authority with respect to the Work including taxes for labor, materials, and equipment utilized in connection with the Work and all sales, consumer, use, personal property, and excise and payroll taxes. Upon request by Contractor, Subcontractor shall furnish satisfactory evidence of payment of such contributions and taxes.
- 2.6. Subcontractor shall furnish those temporary facilities and services required by Subcontractor for the performance of the Subcontract. Adequate storage areas, if available, shall be allocated by Contractor for all of Subcontractor materials and equipment during the course of the Subcontract.
- 2.7. Subcontractor shall obtain and pay for all necessary permits and licenses pertaining to the Work and shall comply with all federal, state, municipal and local laws, ordinances, codes, rules, regulations, standards, orders, notices and requirements.

- 2.8. Subcontractor shall be responsible for the layout and correctness of the Work.
- 2.9. Firestopping, fire resistive joint systems, or caulking adjacent to the Work or required to result in a complete installation are included.
- 2.10. Mock-ups are included.
- 2.11. Subcontractor shall meet the requirements for all submittals, O & M manuals, training, and commissioning.
- 2.12. Subcontractor shall provide specified manufacturer products. Substitutions are not permitted and are excluded.
- 2.13. If this is a prevailing wage project, Subcontractor shall supply the necessary documentation as required by the Prime Contract and/or applicable laws and regulations.
- 2.14. Strict Coordination with Contractor and the other trades is mandatory. Subcontractor shall coordinate and schedule the Work to ensure it is accomplished as an integrated whole with the work of Contractor and others. Any labor, materials, equipment, machinery, supervision, or services necessary to accomplish such integration shall be undertaken by Subcontractor as part of the Work and at no additional cost to Contractor, whether or not explicitly shown or described in a drawing or other Contract Document.
- 2.15. Subcontractor shall attend regular progress meetings as defined by Contractor.
- 2.16. Subcontractor promises and warrants that until Contractor's completion of the Project, Subcontractor shall not engage in any work stoppage, slowdown, or strike.
- 2.17. Subcontractor shall take all precautions necessary to properly protect the finish work of others.
- 2.18. Subcontractor expressly warrants that Subcontractor shall examine the work installed by others that affects the Work and that if any defects exist, Subcontractor shall immediately notify Contractor in writing and Subcontractor shall not proceed until such defects are corrected. If Subcontractor fails to give notice as required herein, Subcontractor shall have waived any claim with respect to such defects.

3. Schedule.

- 3.1. Time is of the essence for this Subcontract.
- 3.2. Subcontractor shall perform its Work in accordance with the Project Schedule and any subsequent changes to the Project Schedule.
- 3.3. Subcontract shall meet any milestone requirements specifically required of Subcontractor's Work.
- 3.4. Any change to the Project Schedule requested by the Subcontractor must be issued or approved in writing by the Contractor.
- 3.5. Subcontractor shall provide Contractor with any requested scheduling or productivity information for the Work.
- 3.6. Subcontractor shall continuously monitor the Project Schedule so as to be fully familiar with the timing, phasing, and sequence of the Work and of other work on the Project.
- 3.7. Subcontractor fully understands and accepts the minimum schedule requirements as defined in the Contract Documents.
- 3.8. Subcontractor fully understands and accepts the manpower requirements and commitments outlined in the Project Schedule and any other Contract Document.
- 3.9. Subcontractor shall provide the multiple shifts, overtime, and multiple mobilizations necessary to complete the Work per the Project Schedule and any other Contract Document.
- 3.10. Subcontractor shall coordinate all deliveries with Contractor's Superintendent with at least a twenty-four hour advance notice. Deliveries shall be per Contractor's requirements and/or Project Schedule.
- 3.11. Subcontractor is to perform the Work promptly upon notification that the job is ready for Subcontractor and in such a manner as not to delay the progress of the Project as a whole. If the Subcontract time is adjusted, such adjustments shall be Subcontractor's exclusive remedy and Subcontractor shall not be entitled to recover damages or any other form of relief from Contractor, the Owner, or the Architect as a result of such adjustments.

4. Safety.

- 4.1. Subcontractor shall execute the Work under this Subcontract in a prudent and safe manner; maintain a safe and secure workplace; ensure the safety of all persons and property of Subcontractor and others; comply with all safety requirements of the Owner, the Contract Documents, and the Contractor; and Subcontractor is obligated to comply with OSHA, MIOSHA, and observe the requirements of the Acts independent of any contractual relationship.
- 4.2. The Work shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority for the safety of persons or property and in accordance with the Contract Documents.
- 4.3. Subcontractor shall immediately report any unsafe condition to Contractor. Subcontractor is to immediately report to Contractor any injury to Subcontractor working on or in connection with the Project. If a handrail or other safety device must be removed in order for the Work to proceed, Subcontractor shall immediately replace the handrail or other safety device when the Work is completed or when leaving the area unattended.
- 4.4. Subcontractor is required to provide Contractor with a copy of Subcontractor's Corporate Safety Program and to provide documentation of attendance at weekly tool box meetings. Subcontractor shall also observe and comply with all laws and regulations relating to the shipment, possession, handling, labeling, packaging, storage, use, exposure, discharge, and disposal of any hazardous substance, including any laws and regulations relating to recordkeeping and publication, posting or communication of hazard information. Attached is a copy of Contractor's Safety Guidelines, which are intended to assist Subcontractor in complying with Contractor's safety procedures. This information in no way relieves Subcontractor from the total responsibility of the safety of Subcontractor's employees and Subcontractor's construction operations.
- 4.5. Subcontractor shall comply with the Job-Site Specific Safety Requirements incorporating Contractor's and Owner's reporting requirements including:
 - Site-Specific Safety Program including all emergency contact information;
 - DAILY Job Hazard Analysis or pre-task plan to be submitted by Subcontractor's on-site supervisor;
 - MSDS sheets pertaining to the Work;

- Drug Testing Documentation from an independent testing agency for each employee working on site per the Owner's requirements;
- One crew member must have the OSHA 30-hr. certification.

All of the above submissions are required to be submitted electronically with a hard copy maintained at Contractor's field office at all times. Failure to comply with any of the above requirements shall result in the removal of Subcontractor's workers from the site until all submissions are complete.

5. <u>Cleanup.</u> Subcontractor shall cleanup on a daily basis and/or as directed by Contractor and remove from the site all debris resulting from the Work. Piles of debris, packing materials etc., shall not be allowed to remain. Clean up and removal of debris generated from the Work must be kept under control and shall be done on a regular basis. Should Subcontractor fail to perform the cleanup, Contractor may make arrangements to hire clean up services and back charge Subcontractor for the services.

6. Guarantee and Corrections.

- 6.1. Subcontractor shall repair all damage to the Project or otherwise arising out of Subcontractor's performance.
- 6.2. Along with any guarantees or warranties relating to the Work under the Contract Documents or imposed by applicable law, Subcontractor guarantees to Owner and Contractor that the Work shall be free from defects; shall be performed to strictly conform to and meet the requirements of the Contract Documents as well as applicable code; and shall furnish any separate guarantee, warranty, or similar obligation for the Work or portions thereof as required under the Contract Documents.
- 6.3. Subcontractor's guarantee survives a termination of the Subcontract, can only extinguish due to limitation periods imposed by applicable law, and is in no way limited by any other provision of the Contract Documents.
- 6.4. Whether Subcontractor receives notice before the effective date of a Certificate of Substantial Completion or after, Subcontractor shall repair or correct Work that is defective or fails to conform to the Contract Documents and repair damages arising out of Subcontractor's defective or nonconforming Work. Subcontractor shall make such repairs or corrections to the Work where notice is issued prior to the expiration of the longer duration of either 1) a period of one year; or 2) any other period specified in the Contract Documents relating to the Work as a whole or in part ("Time Period"). A Time Period starts to run from the effective date of the Owner and/or Architect issued Certificate of Substantial Completion or any other date required by the Contract Documents, whichever is later in time.
- 6.5. If Subcontractor is sent a notice that the Work is defective or nonconforming prior to the expiration of a Time Period, Subcontractor shall return to the Project within 24 hours of the receipt of such notice and shall correct the defective or nonconforming Work as well as repair any damage arising out of Subcontractor's defective or nonconforming Work to the satisfaction of the Owner and without cost to the Owner.

7. Payment.

- 7.1. Subcontractor shall submit a draft progress payment request to Contractor within the timeframe stated in the Subcontract. Once the draft progress payment request is negotiated to acceptance by Contractor, Subcontractor shall submit the negotiated progress payment request to Contractor within the timeframe stated in the Subcontract. Subcontractor shall provide any supporting documentation with a progress payment request as Contractor or others may require.
- 7.2. Partial unconditional waivers from Subcontractor performing any portion of the Work (for values identified in Subcontractor's previous schedule of values), sworn statements, and Contractor's Declaration are required to be submitted with each progress payment request. Failure to submit proper waivers, sworn statements, and Contractor's Declaration shall result in Contractor withholding payment until such documents are received. The required schedule of values, waiver, and sworn statement forms are attached as Exhibit A and Exhibit B. Upon request by Contractor, Subcontractor shall provide delivery receipts for any and all materials incorporated into the Project with each pay request.
- 7.3. Payment for stored material shall be at the discretion of Contractor and Owner and subject to such documentation and insurance as each may require.
- 7.4. Contractor shall release Retainage to Subcontractor when the Work has been accepted and paid for by the Owner to Contractor, and Subcontractor has complied with all other conditions required for release of Retainage.
- 7.5. Notwithstanding anything contained herein to the contrary, Subcontractor hereby agrees that the Owner's payment to Contractor for the Work performed by Subcontractor is an express condition precedent to progress payments and final payment to Subcontractor by Contractor and/or Contractor's Surety (if any). Progress payments and final payment to Subcontractor shall be made promptly if and only after Contractor receives payment from the Owner for Subcontractor's work less Retainage and less any Backcharges, and Subcontractor has provided any and all documentation required herein for payment.
- 7.6. Subcontractor acknowledges that Subcontractor relies solely on the credit of the Owner, and not Contractor for payment for the Work, and Subcontractor has performed Subcontractor's own investigation of the ability of the Owner to pay for the Work and has not relied on any investigation by or representation of others.
- 7.7. If payment has been made by Contractor, Subcontractor shall promptly pay all of Subcontractor's labor, materials, and suppliers and shall not permit any liens be filed or asserted against the Project, bond claims be asserted against Contractor's surety, if any, or any other claims be filed or asserted against the Project, the Owner, Contractor, or Contractor's surety, if any, by anyone furnishing labor or materials for any portion of the Work with respect to the Project. Contractor, in its sole discretion, may pay any Subordinate Party performing any portion of the Work directly and deduct the amount of the payments from the Subcontract Price. Payment by Contractor to any Subordinate Party shall not relieve Subcontractor of any obligations under this Subcontract. Contractor, in its sole discretion, may make payment by checks payable jointly to Subcontractor and any Subordinate Party.
- 7.8. Final payment, consisting of the unpaid balance of the Subcontract Price, minus any Backcharges shall be paid by Contractor to Subcontractor within thirty (30) days after the last of the following to occur: (a) full completion, including punch list, of the Work by Subcontractor, (b) final acceptance of the Work by the Owner and Architect, (c) the furnishing of satisfactory evidence including but not limited to a full unconditional waiver that Subcontractor and all Subordinate Parties in connection with the Work have been paid in full and Subcontractor has neither filed, nor has the right to maintain a

construction lien against the Project, bond claim against Contractor's surety, if any, and claim against the Owner, Contractor, or Contractor's surety, (d) delivery of all guarantees, warranties, bonds, instruction manuals, as built drawings, project record documents, and other items required by the Contract Documents, (e) release of Retainage and payment by the Owner in respect to the Work, (f) receipt by Contractor of any required waivers, and (g) Contractor's receipt of final payment from the Owner covering the Work. Subcontractor's receipt of final payment waives and releases all claims by Subcontractor against Contractor and Owner arising out of the Subcontract except those expressly preserved by a written Contractor-Subcontractor agreement that is concurrent with final payment.

- 7.9. Notwithstanding anything contained herein to the contrary, Contractor shall have the right to withhold payment for defective or nonconforming work that has not been remedied; claims of Contractor, the Owner, or others against Subcontractor arising out of or in any way connected with the Work; any condition or requirements of the Subcontract that has not been met, e.g. Contractor's receipt of a current Certificate of Insurance and signed Subcontract; or any breach of this Subcontract. If any of the foregoing are not promptly corrected or remedied after notice, Contractor may rectify the same at Subcontractor's expense and deduct all cost and expenses incurred thereby from such withheld payments ("Backcharges").
- 7.10. Contractor has the right to audit Subcontractor's books and other records relating to payments, claims, pricing, and any performance relating to the Subcontract.
- 7.11. No payment shall be construed as an acceptance or admission by Contractor of the amount of work completed, its classification, quality, sufficiency, or the sum due Subcontractor or as an acceptance or release of Subcontractor from responsibility under the Subcontract.
- 8. <u>Insurance.</u> Subcontractor shall comply with the Insurance Requirements. Receipt of a non-conforming insurance certificate or endorsement by Contractor without objection, or failure to collect a certificate or an endorsement, does not constitute a waiver of the Insurance Requirements. Subcontractor's obligation to provide the insurance coverages set forth in the Insurance Requirements is a severable obligation from Subcontractor's indemnification obligations. Nothing in the Insurance Requirements limits Subcontractor's liability under the Contract Documents.
- 9 Indemnification. To the fullest extent permitted by law, Subcontractor shall defend, indemnify, and hold harmless the Owner, Contractor, Architect, Architect's consultants, and agents and employees of any of them (hereinafter individually referred to as an "Indemnified Party") from and against losses, claims, liabilities, injuries, expenses, demands, damages, lawsuits, causes of action, attorney fees and costs, recoveries, or judgments of every nature and description (hereinafter collectively referred to as an "Indemnity Claim") that the Indemnified Party may incur by reason of (i) the breach of the Subcontract or the Contract Documents by Subcontractor or Subordinate Party; (ii) any injury to or damage sustained by any person or property (including but not limited to, any Indemnified Party or more than one Indemnified Party) to the extent arising out of, or occurring in connection with (a) Subcontractor's and/or Subordinate Party's errors, omissions, intentional misconduct, or negligent acts, or (b) the performance or lack of performance by Subcontractor or Subordinate Party of its or their duties and obligations under or pursuant to the Subcontract or the Contract Documents; or (iii) the assertion of any claim or lien whatsoever against the Owner's property and/or bond and/or Contractor's bond by Subcontractor and/or Subordinate Party, except only claims or liens caused by Contractor's failure to pay funds to which Subcontractor is entitled under the Subcontract. This obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to any party or person. This indemnity obligation shall apply regardless of whether or not such Indemnity Claim is caused in part by an Indemnified Party. This indemnity obligation shall not be limited by any assertion or finding that the Indemnified Party is liable by reason of a non-delegable duty. This indemnity obligation shall not apply to any particular Indemnified Party to the extent such liability arises from the sole negligence of the Indemnified Party seeking indemnification. This indemnity shall include any fees, expenses, or sums spent in compromise of any Indemnity Claim included hereunder. The indemnification provisions contained in this Subcontract shall survive the completion or termination of this Subcontract. In Indemnity Claims against an Indemnified Party by an employee of Subcontractor, Subordinate Party, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, this indemnity shall not be limited by a limitation on the amount or type of damages, Insurance Requirements, compensation, or benefits payable by or for Subcontractor or Subordinate Party, under workers' compensation acts, disability benefit acts, or other employee benefit acts. If Subcontractor fails to honor its obligations to defend and indemnify any Indemnified Party as required herein, the Indemnified Party may defend itself with counsel of its choosing, but at Subcontractor's expense, without recovery from Contractor. The Indemnified Party may also under such circumstances settle any Indemnity Claim upon whatever terms as it in its reasonable judgment deems appropriate. Subcontractor shall be bound to any defense asserted by the Indemnified Party, any settlement reached, or any judgment or award entered.
- 10. Changes.
 - 10.1. The Contractor may modify the work by changes, additions, or deletions that affect the Subcontract Price and time for completion that may be adjusted accordingly ("Change(s)") by written Change Order executed by Contractor and Subcontractor. An increase or decrease in the Subcontract Price resulting from a Change in the Work shall be determined by one or more of the following methods (a) unit prices set forth in this Subcontract or subsequently agreed, if applicable (b) a mutually accepted itemized lump sum; or (c) mutually accepted time and material rates and prices ("T&M").
 - 10.2. If the Owner and/or Architect issues a Construction Change Directive (or equivalent document) ("CCD") or Contractor issues a written Notice to Proceed that involves Changes to Subcontractor's Work, Subcontractor shall proceed with the CCD or Notice to Proceed in accordance with this paragraph 10. In the event the Contractor and Subcontractor are unable to agree on the method of adjustment of the Subcontract Price, Subcontractor shall proceed with the CCD or Notice to Proceed prior to agreement on the adjustment and the method of adjustment and payment shall be resolved in accordance with the CCD in accordance with the CCD in accordance with the CCD in accordance with the Contract Documents.
 - 10.3. No Changes to the Work or other terms of the Subcontract are authorized unless approved in a Change Order or Notice to Proceed signed by an authorized representative of Contractor.

- 10.4. Only T&M tickets containing a PCE# issued by Contractor shall be valid. Subcontractor shall submit the T&M tickets including time sheets and material invoices/quotations to Contractor for review on a daily basis. If Contractor is prejudiced by Subcontractor's failure to timely submit the T&M tickets, Subcontractor shall waive Subcontractor's entitlement to payment for that time or materials. Contractor shall review the T&M tickets to verify that the work is not already part of the Subcontract. T&M tickets shall be signed by Contractor's project manager. By signing a T&M ticket, Contractor is only reviewing the time sheet for time spent and materials expended by Subcontractor. In no event shall Subcontractor construe the signature to be an approval for increase in the Subcontract Price or Subcontract time. All T&M tickets are subject to compliance with the Subcontract and the Contract Documents. Subcontractor shall submit T&M tickets containing Contractor's signature to apply for issuance of a Change Order.
- 10.5. In the event work is performed on a unit price and/or T&M basis, the Owner and Contractor shall have the right to audit Subcontractor's records and accounts. Any amounts paid to Subcontractor in advance of Contractor/Owner's audit shall be subject to compliance with the Contract Documents.
- 10.6. It shall be Contractor's discretion as to whether or not payment shall be made to Subcontractor for Changes based on the Contract Documents.
- 10.7. Contractor shall have authority to order minor changes in the Work not involving an adjustment in the Subcontract Price or an extension of time. Such minor Changes shall be effective by written order by Contractor and shall be binding on Subcontractor. Subcontractor shall carry out such written order promptly and in the manner directed by the written order.

11. Claims.

- 11.1. Subcontractor shall make all Claim(s) promptly to Contractor and in accordance with the Subcontract. A Claim which will affect or become part of a claim that the Prime Contract requires Contractor to make within a specified time period or in a specified manner shall be made in sufficient time to permit Contractor to comply with the requirements of the Prime Contract. Subcontractor shall provide written notice to the Contractor of the Claim not less than two working days before Contractor's claim must be made to the Owner. Failure of Subcontractor to timely submit a Claim shall bind Subcontractor to the same consequences as those to which Contractor is bound to the Owner.
- 11.2. All claims, disputes, and other matters in question arising out of or relating to this Subcontract or the breach thereof shall be decided by Arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then existing unless the parties mutually agree otherwise. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. Should Contractor enter into arbitration with the Owner or others regarding matters relating to the Subcontract, Subcontractor shall be bound by the result of the arbitration to the same degree as Contractor. To the extent permitted by the Contract Documents, Contractor shall have the right to consolidate the arbitration proceedings between Subcontractor and Contractor with arbitration between Contractor and the Owner to the extent it relates to the Subcontract. The prevailing party in any dispute arising out of or relating to this Subcontract or its breach that is resolved by arbitration or litigation (if applicable) shall be entitled to recover from the other party reasonable attorney fees, costs, and expenses incurred by the prevailing party in connection with such arbitration or litigation. The venue for any arbitration proceedings herein shall be in Washtenaw County, Michigan unless Contractor and Subcontractor agree on another mutually convenient location in writing. Any court action required to enforce the terms of this arbitration provision and/or any legal proceedings to enforce, enter judgment upon, vacate and/or modify the award shall be filed in Washtenaw County, Michigan and/or the United States Federal Court in the Eastern District of Michigan.
- 11.3. Pending final resolution of a Claim and/or dispute, Subcontractor shall proceed diligently with performance of the Subcontract and Contractor shall continue to make payments in accordance with the Contract Documents, to the extent the Owner continues to make payments to Contractor for the Work.

12. Default.

- 12.1. If Subcontractor should neglect to a) perform the work diligently and properly; or b) fail to perform any provision of this Subcontract, Contractor may give Subcontractor notice that Subcontractor is in default.
- 12.2. If Subcontractor fails to commence and satisfactorily continue correction of a default within one (1) calendar day after receipt of notice, Contractor may elect to a) terminate the Subcontractor by notice; and/or b) fix the deficiency itself. If Contractor elects to fix such deficiencies, it shall be without prejudice to any other remedy it may have.
- 12.3. Contractor may take possession of, use, or furnish materials, equipment, tools, or other items or employ such workers or others as it deems necessary to maintain the orderly progress of the Project.
- 12.4. Should Subcontractor cause a delay in the progress of the Project or delay the work of Contractor or others, Subcontractor shall indemnify, defend, and hold harmless Contractor from and against any and all costs, expenses, losses, and damages, including without limitation, liquidated and consequential damages, if any, sustained by Contractor, the Owner, the Architect, and/or others. In the event that the Work is delayed by causes beyond Subcontractor's control, Subcontractor shall be liable hereunder unless Subcontractor gives written notice of the alleged delay to Contractor within seven (7) days following the start of the alleged cause beyond Subcontractor's control, unless a shorter notice period is provided in the Contract Documents. Subcontractor shall not be entitled to recover costs, compensation, damages for delays of others unless Contractor has actually recovered these from Owner for Subcontractor's work, which Contractor is not under obligation to seek. Changes to the Project Schedule resulting from Subcontractor's failure to perform to an earlier version of the Project Schedule shall not excuse Subcontractor's indemnification obligation.
- 12.5. All costs incurred by Contractor in performing the Work as a result of Subcontractor's default including reasonable overhead, profit, and attorney fees, costs, and expenses shall be deducted from any monies due or to become due Subcontractor. Subcontractor shall be liable for payment of any amount by which such expense may exceed the unpaid balance of the Subcontract Price and shall pay Contractor within 14 days of a notice of same. At Subcontractor's request, Contractor shall provide a detailed accounting of the costs to finish the Work.

13. Termination.

- 13.1. In the event that Contractor elects to terminate Subcontractor for Subcontractor's default, that it fails to timely cure as required in the Subcontract, Subcontractor shall be liable to Contractor for the costs in performing and completing the Work which may exceed the unpaid Subcontract balance, including Contractor's reasonable overhead, profit, and attorney fees, costs, and expenses, and Contractor shall be entitled to withhold these costs and/or anticipated costs from any monies due or to become due Subcontractor. Contractor may also withhold any anticipated liquidated damages that may be assessed against Contractor as a result of the Subcontractor's default. At Subcontractor's request, Contractor shall provide a detailed accounting of the costs to finish the Work. In the event Contractor wrongfully terminates the Subcontract, the termination shall be deemed a termination for convenience.
- 13.2. Contractor shall have the right to terminate the Subcontract for convenience. In the event Contractor terminates the Subcontract for convenience, Contractor shall notify Subcontractor in writing, this Subcontract shall be terminated and Subcontractor shall immediately stop the Work, follow all of Contractor's instructions, and mitigate all costs. In the event the Contractor terminates the Subcontract for convenience, Subcontractor shall be entitled to all reasonable costs, including overhead and profit, on Subcontractor's costs, for undisputed Work performed and accepted as completed as of the date of termination together with the reasonable cost of demobilization, reduced by all amounts which Subcontract is or may be liable or responsible. Subcontractor waives any claim for loss of anticipated profits in the event the Subcontract is terminated for convenience. With respect to any claims for disputed Work at the time of termination for convenience, Subcontract may pursue the claim in accordance with the Subcontract and conditions precedent to payment.
- 13.3. Should the Owner terminate the Prime Contract or any part which includes the Work, Contractor shall notify Subcontractor in writing within five (5) calendar days of termination and, upon written notification, this Subcontract shall be terminated and Subcontractor shall immediately stop the Work, follow all of Contractor's instructions, and mitigate all costs. In the event of Owner's termination, Contractor's liability to Subcontractor shall be limited to the extent of Contractor's recovery on Subcontractor's behalf under the Prime Contract. It is understood that Payment by the Owner to Contractor shall be a condition precedent to payment to Subcontractor under this paragraph. Contractor agrees to cooperate with Subcontractor, at Subcontractor's expense, in the prosecution of any of Subcontractor's reasonable claims arising out of the Owner's termination and to permit Subcontractor to prosecute the claim, in the name of Contractor, for Subcontractor's use and benefit or assign the claim to Subcontractor.
- 13.4. In the event the Owner terminates Contractor for cause, through no fault of Subcontractor, Contractor's termination of the Subcontract shall be deemed a termination for convenience as provided for herein.
- 14. **Notice.** Notices shall be provided in writing through mail, courier, fax, e-mail, or hand delivery to an officer or management employee of the party being notified. Notices to Contractor shall be confirmed with a copy sent, return receipt, to the address listed for Contractor on the Subcontract. Either party may change its address by providing notice of the new address.
- 15. <u>Execution of Subcontract and Electronic Signatures.</u> The exchange of a Subcontract or Change Order containing handwritten signatures by facsimile transmission, by e-mail in "portable document format" (".pdf") form, or by any other electronic means intended to preserve the original graphic and pictorial appearance of a Subcontract or Change Order, or by the combination of such means, shall constitute the effective execution and delivery of the Subcontract or Change Order to Contractor and Subcontractor, may be used in lieu of the original Subcontract or Change Order for all purposes, and shall be as legally binding for all purposes as a Subcontract or Change Order containing original handwritten signatures.

16. Other Provisions.

- 16.1. The partial or complete invalidity of any one or more provisions of the Contract Documents shall not affect the validity or continuing force and effect of any other provision.
- 16.2. The various provisions of the Contract Documents are intended to complement each other and shall, where reasonably possible, be so interpreted. If Work is shown only on one document but not others, Subcontractor shall perform the Work as though fully described on all consistent with the Contract Documents and reasonably inferable from them. If there is an irreconcilable conflict between provisions of the Contract Documents, the provision granting greater rights or remedies to Contractor, or imposing the greater duty, standard, responsibility, or obligation on Subcontractor shall govern. Information identified in one Contract Document and not identified in another shall not be considered a conflict or inconsistency. In any case of omissions or errors in the Contract Documents, Subcontractor shall immediately submit the matter to Contractor for clarification by the Owner. Any headings are for convenience only. Singular terms shall include the plural and vice versa.
- 16.3. The Subcontract is for the exclusive benefit of Contractor and Subcontractor and not for the benefit of any third party.
- 16.4. Subcontractor agrees not to assign Subcontractor's interest in this Subcontract without the written consent of Contractor.
- 16.5. The Owner shall have the right to assignments of this Subcontract.
- 16.6. Contractor shall not be responsible for any loss or damage to the Work performed or to be performed, however caused, until after final acceptance thereof by Contractor and the Architect, nor shall Contractor be responsible for loss of or damage to materials, tools, equipment, appliances, or other property owned, rented, or used by the Subcontractor in the performance of the Work, however caused.
- 16.7. The Subcontract represents the entire and integrated agreement between Contractor and Subcontractor, and supersedes all prior negotiations, representations, or agreements, either written or oral. Any changes to the terms of the Subcontract must be made in writing and signed by Contractor and Subcontractor.
- 16.8. The failure of Contractor to insist, in any one or more instances, on the performance of any of the terms, covenants or conditions of the Contract Documents, or to exercise any of its rights, shall not be construed as a waiver or relinquishment of such term, covenant, condition or right with respect to further performance.
- 16.9. The Subcontract shall be construed in accordance with and governed by the laws of the State of Michigan without regard to any choice of law principles. The Michigan Uniform Arbitration Act shall apply to any actions to confirm, vacate and/or modify an arbitration award rendered pursuant to the Subcontract.

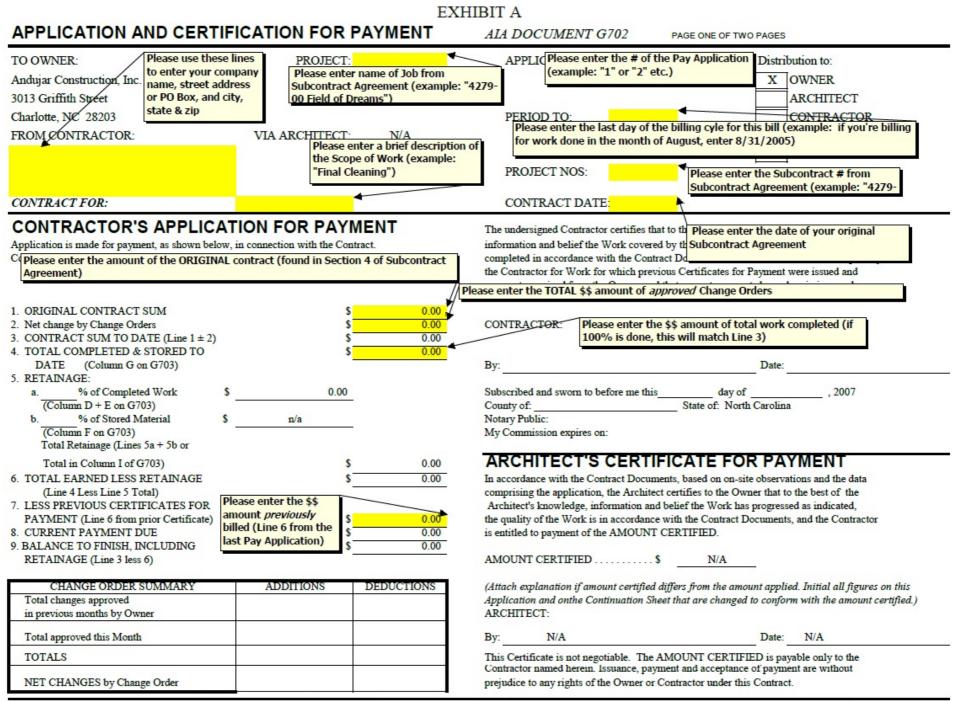


Insurance Requirements

Prior to starting and until final completion and acceptance of the Work, Subcontractor shall procure and maintain the insurance coverages specified in this Document B and elsewhere in the Contract Documents. Prior to starting the Work at the Project, Subcontractor shall cause to be furnished a certificate of insurance and endorsements where such documents evidence compliance. Subcontractor shall also cause to be furnished to Contractor a declaration page for each policy that evidences compliance; Subcontractor shall furnish all declaration pages as a condition precedent to Contractor releasing the first payment. The requirements noted here are minimum requirements that in no way restrict or reduce coverage. If higher limits or additional coverages are required by the Contract Documents, Subcontractor shall procure and maintain insurance that meets those higher limits or additional coverages. Should Subcontractor have an insurance policy with limits of liability or coverages greater than or in addition to those required by the Contract Documents, then those higher limits of liability and coverages in Subcontractor's policy shall apply:

- 1) "Insured Parties" means Contractor, its agents, servants, employees; OWNER, ARCHITECT and any other person or entity requiring insurance coverage by the Contract Documents.
- 2) <u>Workers Compensation and Employers' Liability Insurance</u>: Workers compensation covering applicable statutory limits in the location(s) where Subcontractor's work is performed and employers' liability insurance with limits of liability of \$1,000,000 per accident. If the Contract Documents involve work on or near navigable water, Supplier will also have policy endorsed to cover Longshore and Harbor Worker's Compensation Act.
- 3) <u>Commercial Automobile Liability Insurance</u>: Commercial automobile liability insurance covering all owned, leased, hired, and non-owned vehicles with a minimum combined single limit of \$1,000,000 per accident for bodily injury and property damage. The policy shall be endorsed to name the Insured Parties as additional insureds.
- 4) <u>Commercial General Liability Insurance and Umbrella/Excess Insurance:</u>
 - a) Commercial general liability insurance shall include premise and operations; products and completed operations; independent or subcontractors; contractual; and explosion, underground, and collapse coverage (XCU). Minimum policy limits and other requirements are:
 - i) \$1,000,000 Each Occurrence
 - ii) \$2,000,000 Products and Completed Operations Aggregate
 - iii) \$1,000,000 Personal and Advertising Injury
 - iv) \$2,000,000 General Aggregate per Project
 - v) The Insured Parties shall be named as additional insureds. The general liability aggregate limits of at least \$2,000,000 shall be applicable on a per project basis and shall be primary and non-contributory. The additional insured endorsement shall be as broad as ISO's (CG 20 10 11/85) or a combination of ISO's Scheduled Ongoing Operations (CG 20 10 10/01) and Scheduled Completed Operations (CG 20/37 10/01).
 - vi) Products and Completed Operations coverage, including an additional insured endorsement covering the Insured Parties, shall be maintained in effect for the longer of the period required by the Contract Documents or the last applicable statute of limitations or statute of repose for construction defects and products liability claims in the state where the Work is performed, after final acceptance of the Project by the Owner.
 - b) Commercial umbrella/excess liability insurance shall include coverage for bodily injury and property damage liability over Subcontractor's primary Employers' Liability, Commercial General Liability, and Commercial Automobile Liability Insurance with limits in the amount of \$ 1,000,000 for each occurrence and aggregate. All terms required under the Commercial General Liability, Commercial Automobile Liability, and Employers' Liability must be included in the umbrella/excess liability policy.
- 5) <u>Other Insurance</u>:
 - a) Pollution Liability Insurance: If Environmental Services are provided, Subcontractor shall maintain such insurance, and it must be on an occurrence basis. "Environmental Services" means any abatement, removal, remediation, transporting, or disposal of a hazardous material such as lead, asbestos, PCB, and similar, or any assessments or consulting relating to same. At the sole discretion of Contractor, pollution liability insurance shall also be required for Subcontractors performing services involving materials or areas where the risks of encountering any hazardous material are likely. Secure and maintain limits of liability for pollution liability insurance as follows:
 - i) \$5,000,000 Each Occurrence
 - ii) \$5,000,000 Aggregate
 - b) Professional Liability Insurance: If professional services are provided, Subcontractor shall procure and maintain in force such insurance with limits of liability and duration as follows:
 - i) \$2,000,000 Each Claim
 - ii) \$2,000,000 Aggregate
 - iii) during the Subcontract and for three years after final completion of the Project
- 6) <u>Waivers of Subrogation</u>: Both Subcontractor and its insurers shall waive subrogation rights against the Insured Parties for losses and damages incurred and/or paid under the insurance policies required in the Contract Documents or any other insurance applicable to Subcontractor. Proof of the waiver of subrogation for each insurance policy shall be by endorsement. Subcontractor shall include this waiver of subrogation in contracts with its Subordinate Parties.

Subcontractor shall notify Contractor prior to any modifications of insurance. A notice of cancellation shall be given to Contractor at least 30 days in advance of the cancellation date.



AIA DOCUMENT G702 · APPLICATION AND CERTIFICATION FOR PAYMENT · 1992 EDITION · AIA · @1992

Users may obtain validation of this document by requesting a completed AIA Document D401 - Certification of Document's Authenticity from the Licensee.

CONTINUATION SHEET

ALA DOCUMENT G703

PAGE 2 OF 2 PAGES

	cument G702, APPLICATION AND CER tor's signed certification is attached.	RTIFICATION FO	R PAYMENT, conta	ining		APPLICATIC APPLICATIC		0	
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Users may obtain validation of this document by requesting of the license a completed AIA Document D401 - Certification of Document's Authenticity



EXHIBIT B

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period ______, 20 to ______, 20 , performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled <u>Sample Contract</u>, for which I shall ask, demand, sue for, or claim compensation or extension of time from Spence Brothers and/or Owner, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There **is/is not** (Contractor please circle one **and** strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

_

Date

Company Name

By:

(Signature)

Its:

(Title of Officer)

Past due invoices, if any are listed below:

Exhibit C

SWORN STATEMENT

State of ______ } §

County of_____

____, being duly sworn, states the following:

is a contractor/subcontractor for <u>Sample Project</u> (Project

Name) located in <u>COUNTY</u> County, <u>Michigan</u> (the ("Project" and/or the "Property")

The following is a statement of each subcontractor, supplier and laborer, for whom payment of wages or fringe benefits and withholdings is due but unpaid, with whom the contractor/subcontractor has contracted/subcontracted for performance under the contract with the owner or lessee, and the amounts due to the persons as of the date of this statement are correctly and fully set forth opposite their names:

Name Address and Number of Subcontractor, Supplier or Laborer	Type of Improvement Furnished	Total Contract Price	Amount Already Paid	Amount Currently Owing	Balance to complete (optional)	Amount of Laborer Wages due but unpaid	Amount of Laborer Fringe Benefits and Withholdings Due But Unpaid
Totals							

(Some columns may not be applicable to all persons listed)

The subcontractor has not procured material from, or subcontracted with, any person other than those set forth and owes no money for the improvement other than the sums set forth.*

*Materials furnished by a contractor or a subcontractor out of his or her own inventory, and which has not been purchased specifically for the purpose of performing the contract, need not be listed.

I make this statement to certify to Spence Brothers, its surety (if any) and the Project owner under oath and penalty of perjury that the Property and Project is free from claims of construction liens or claims against Spence Brother's payment bond, or the possibility of construction liens or bond claims, except as specifically set forth in this statement and except for construction liens by laborers that may be provided under section 109 of the Construction Lien Act, 1980 PA 497, MCL 570.1109.

WARNING TO OWNER OR LESSEE: AN OWNER OR LESSEE OF THE PROPERTY MAY NOT RELY ON THIS SWORN STATEMENT TO AVOID THE CLAIM OF A SUBCONTRACTOR, SUPPLIER OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR A LABORER WHO MAY PROVIDE A NOTICE OF FURNISHING UNDER SECTION 109 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1109 TO THE DESIGNEE OR TO THE OWNER OR LESSEE IF THE DESIGNEE IS NOT NAMED OR HAS DIED.

IF THIS SWORN STATEMENT IS IN REGARD TO A RESIDENTIAL STRUCTURE, ON RECEIPT OF THIS SWORN STATEMENT, THE OWNER OR LESSEE, OR THE OWNER'S OR LESSEE'S DESIGNEE MUST GIVE NOTICE OF ITS RECEIPT, EITHER IN WRITING, OR BY TELEPHONE, OR PERSONALLY, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING UNDER SECTION 109 OR, IF A NOTICE OF FURNISHING IS EXCUSED UNDER SECTION 108 OR 108A, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER NAMED IN THE SWORN STATEMENT. IF A SUBCONTRACTOR, SUPPLIER WHO HAS PROVIDED A NOTICE OF FURNISHING OR WHO IS NAMED IN THE SWORN STATEMENT MAKES A REQUEST, THE OWNER, LESSEE, OR DESIGNEE WHALL PROVIDE THE REQUESTER A COPY OF THE SWORN STATEMENT WITHIN 10 BUSINESS DAYS AFTER RECEIVING THE REQUEST.

Deponent Printed Name

Deponent Signature

WARNING TO DEPONDENT: A PERSON WHO GIVES A FALSE SWORN STATEMENT WITH INTENT TO DEFRAUD IS SUBJECT TO CRIMINAL PENALTIES AS PROVIDED IN SECTION 110 OF THE CONSTRUCTION LIEN ACT, 1980 pa 497, mcl 570.1110.

Subscribed and sworn to before me this

(county)

day of _____, ____,

Notary Public,

(state)

County,

My Commission Expires:

*Materials furnished by a contractor or a subcontractor out of his or her own inventory, and which has not been purchased specifically for the purpose of performing the contract, need not be listed.



Exhibit D

WORKMANSHIP - QUALITY COMPLIANCE AGREEMENT

SUBCONTRACTOR / SUPPLIER

SPENCE BROTHERS requires a high quality of work from our employees and will accept nothing less from subcontractors and/or suppliers. Subcontractors and suppliers will always be expected to supply materials and workmanship that comply with job specifications. All materials will be inspected before by your company and/or Spence Brothers' supervision before installation. We do not and will not allow our subcontractors and suppliers to take advantage of our customers. Business will always be handled on a professional level. When a subcontractor or supplier sees something which deviates from specifications, he will be expected to bring that item to the attention of Spence Brothers' site supervisor so it can get the appropriate attention for the proper solution. Any changes from original contract will be approved in writing before the change is made, thus preventing confusion of this issue at billing time.

Quality of workmanship requires participation of everyone involved with the project. Spence Brothers believes that quality pays, and quality adherence will be a requirement of our subcontractors. When the final check list is reviewed with the customer, your supervisor will be required to attend this inspection of the site with the owner. Because we insured quality throughout the project, this inspection should be a rewarding experience. Any items not meeting specifications will require rework before this inspection takes place so that we will be showing the owner only the positives of the project.

A positive inspection means happy customers, and we believe happy customers will someday be return customers.

Please sign and <u>return one (1) copy</u> of this Agreement for our files.

SPENCE BROTHERS APPRECIATES YOUR GUARANTEE OF QUALITY!

Company

Signature

Sample Project Project Name

Date

Spence Project No.: ##-###



These guidelines are intended to provide a framework for those charged with the responsibility to enforce your company's Safety Policy. They are not intended to be all inclusive, but to suffice to assist your supervisory personnel in providing a work place free from recognizable hazards.

- 1. Keep your mind on your work at all times. No horseplay on the job. Injury or termination, or both, may be a result.
- 2. Personal protective equipment must be worn as prescribed for each job, such as: safety glasses for eye protection; hard hats at all times within the confines of the construction area; gloves when handling materials; and safety shoes are highly recommended for protection against foot injuries.
- 3. Keep your shirt on to prevent sunburn and to protect against acid burns, steam burns, weld splatter and cuts. Minimum clothing for the upper body is a t-shirt.
- 4. If any part of your body should come in contact with acid or caustic substance, rush to the nearest water available and flush over affected part. Secure medical aid immediately.
- 5. Watch where you are walking. Don't run.
- 6. The use of illegal drugs or alcohol or being under the influence of same on the project shall be cause for termination. If you take or are given strong prescription drugs that warn against driving or using machinery, let your supervisor know about them.
- 7. Do not distract the attention of fellow workers. To do so may cause injury.
- 8. Sanitation facilities have been provided for your use. Defacing or damaging these facilities is forbidden.
- 9. A good job is a clean job and a clean job is a safe one. So keep your working area free from rubbish and debris.
- 10. Do not use a compressor to blow dust or dirt from your clothes, hair, face or hands.
- 11. Never work aloft if you are afraid to do so, are subject to dizzy spells, or if you are apt to be nervous or sick.
- 12. Never move an injured person unless it is absolutely necessary. Further injury may result. Keep the injured as comfortable as possible and utilize jobsite first-aid facilities until a doctor arrives.
- 13. Know where firefighting equipment is located and learn how to use it.
- 14. Learn to lift correctly with the legs and not the back. If the load is too heavy, GET HELP. Twenty percent of all construction related injuries result from lifting materials.
- 15. Riding on loads, fenders, running boards, sideboards, and gates or with your legs dangling over the ends or sides of trucks will not be tolerated.
- 16. Do not use power tools and equipment until you have been properly instructed in safe work methods and become authorized to use them.
- 17. Be sure that all guards are in place. Do not remove, displace, damage or destroy any safety device or safeguard furnished or provided for use on the job, nor interfere with the use thereof.
- 18. Do not enter an area which has been roped off or barricaded.

- 19. If you must work around power shovels, cranes, trucks and dozers, make sure operators can always see you.
- 20. Never oil, lubricate or fuel equipment while it is running or in motion.
- 21. Rope off or barricade danger areas.
- 22. Keep away from the edge of embankments, trenches, cut-backs, holes and/or pits.
- 23. Trenches over 5 feet in depth must be shored or sloped as required. Keep out of trenches or cuts that have not been properly sloped or shored. Excavated or other material shall not be stored nearer than 3 feet from the edge of any excavation.
- 24. Use the "four-and-one" rule when using a ladder. One foot of base for every four feet of height.
- 25. Always secure the bottom of the ladder with cleats and/or safety feet. Lash off the top of the ladder to avoid shifting.
- 26. Ladders must extend three feet above a landing for proper use.
- 27. Defective ladders must be properly tagged and removed from service.
- 28. Keep ladder base free of debris, hoses, wires, material, etc.
- 29. Build scaffolds according to manufacturer's recommendations.
- 30. Scaffold planks must be cleated or secured to prevent them from sliding.
- 31. Use only extension cords of the three prong type. Check the electrical grounding system daily.
- 32. The use of a safety harness, with a lanyard when working from unprotected heights of 6' or greater, is mandatory.
- 33. Never throw anything "overboard". Someone passing below may be seriously injured.
- 34. Tar kettles must be kept at least 25 feet from buildings or structures and never on the roof.
- 35. Open fires are prohibited.
- 36. Know what emergency procedures have been established for your jobsite. (Location of emergency phone, first-aid kit, stretcher location, fire extinguishers locations, evacuation plan, etc.)
- 37. Notify your supervisor of unlabeled or suspect toxic substances immediately and avoid contact.

The information contained herein in no way relieves suppliers or subcontractors of their lawful or contractual responsibilities and obligations for safety. Suppliers and/or subcontractors should seek professional guidance (legal/safety) in developing their own safety rules and programs.

REMEMBER

Effective safety practices are not limited specifically to those in writing. The best safety programs are those which include common sense and good judgment.

THINK

Most accidents are caused by a lack thereof.

Exhibit F

U.S. Department of Labor

Wage and Hour Division

PAYROLL

U.S. Wage and Hour Division

Rev. Dec. 2008

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

						ADDF	ADDRESS							OMB No.: 1235-0008 Expires: 02/28/2018					
PAYROLL NO.	FOR WEEK ENDING	FOR WEEK ENDING						PRO	PROJECT AND LOCATION PRO							ROJECT OR CONTRACT NO.			
(1) (2)		(3)	ζSΤ.		(4) DAY AND DATE			(5)		(6)	(7)	(8) DEDUCTIONS					(9)		
NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	NO. OF WITHHOLDING EXEMPTIONS	WORK CLASSIFICATION	OT. OR	HOUF	RS WC	DRKED	EACH	1 DAY	TOTA HOUR	۱L S	RATE OF PAY	GROSS AMOUNT EARNED	FICA	WITH- HOLDING TAX			OTHER	TOTAL DEDUCTIONS	NET WAGES PAID FOR WEEK
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contrained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contractors performing work on Federally financed or assisted construction contracts to respond to the information collection contractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(Name of Signa	tory Party)	(Title)
lo hereby state:		
(1) That I pay or supervis	e the payment of the persons employ	red by
(.)		
	(Contractor or Subcontractor)	on the
		ng the payroll period commencing on the
(Building or W		
		day of,,
Il persons employed on said p een or will be made either dire	project have been paid the full weekly ectly or indirectly to or on behalf of sa	wages earned, that no rebates have id
		from the full
	(Contractor or Subcontractor)	
rom the full wages earned by a 3 (29 C.F.R. Subtitle A), issued	any person, other than permissible de	been made either directly or indirectly aductions as defined in Regulations, Part Copeland Act, as amended (48 Stat. 948, scribed below:
correct and complete; that the applicable wage rates contained	wage rates for laborers or mechanic	be submitted for the above period are s contained therein are not less than the ated into the contract; that the classifications the performed.
correct and complete; that the applicable wage rates containe set forth therein for each labor (3) That any apprentices e program registered with a State Fraining, United States Depart	wage rates for laborers or mechanic d in any wage determination incorpor er or mechanic conform with the work mployed in the above period are duly e apprenticeship agency recognized b	s contained therein are not less than the ated into the contract; that the classifications he performed. registered in a bona fide apprenticeship by the Bureau of Apprenticeship and ed agency exists in a State, are registered
correct and complete; that the applicable wage rates contained set forth therein for each labored (3) That any apprentices e program registered with a State Fraining, United States Depart with the Bureau of Apprentices (4) That:	wage rates for laborers or mechanic d in any wage determination incorpor er or mechanic conform with the work mployed in the above period are duly e apprenticeship agency recognized t ment of Labor, or if no such recognized hip and Training, United States Depa	s contained therein are not less than the rated into the contract; that the classifications he performed. registered in a bona fide apprenticeship by the Bureau of Apprenticeship and ed agency exists in a State, are registered rtment of Labor.
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(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION				
REMARKS:					
NAME AND TITLE	SIGNATURE				
L THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.					

SECTION 00 6100 BONDS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Attention is directed to Bidding and Contract Requirements, and to Division 1, General Requirements, which are hereby made a part of this Section.

PART 2 – BOND REQUIREMENTS

2.01 PERFORMANCE BONDS AND PAYMENT BONDS

- A. The Owner and Spence Brothers, at their discretion, may require the trade contractor to furnish a Performance Bond and a Payment Bond, with the amounts equal to the contract price, by a qualified surety. Premium cost for the bonds is to be quoted on the proposal form. All sureties providing bonds on this project must be listed in the Department of Treasury's Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" with the bond amount less than or equal to the underwriting limitation, and/or have an A.M. Best rating of B+ or better. Bonds shall be duly executed by the Trade Contractor, as principal, and by a surety that is licensed in the state in which the work is to be performed and is licensed by the State of Michigan Insurance Bureau.
- B. The trade contractor shall deliver the required bonds to Spence Brothers prior to execution of the contract. If the work is to be commenced prior thereto in response to a letter of intent, the bidder shall submit evidence to the Construction Manager that such bonds will be furnished prior to commencement of the Work.
- C. The obligee on the bond shall be "Spence Brothers".
- D. The proposed bonding company of the bidder must be acceptable to the Owner and Spence Brothers. If at any time, after acceptance of the trade contractor's bond, the surety fails to meet the criteria stated in Paragraph 2.01A above, the contractor must, as a precondition to continuing work and receive further payments, replace the bond with a bond from a surety that meets the stated criteria.

2.02 BID BONDS

A A Bid Security by a qualified surety authorized to do business in the State where the Project is located and in the amount of five percent (5%) of the Base Bid shall accompany each proposal or proposal combination. The Bid Security may be in the form of a Bid Bond, Cashier's Check, or Money Order. Personal checks are NOT acceptable. Bids may not be withdrawn for a period of sixty (60) days after the bid date.

END OF SECTION 00 6100

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Spence Brothers - Project Manual Section 00 6100 – Bonds Page 2 of 2

SECTION 00 6500 CERTIFICATE OF INSURANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Certificate of Insurance.
- B. Each Contractor shall provide, prior to beginning of Work, a certificate of insurance indicating that all required insurance coverage is in force. Refer to the Document B section of the "Agreement Form (Contract) Sample Contract" located in Section 00 5001 for information regarding required coverage.
- C. All stored material, regardless of it being stored-on-site or off-site, that is not yet incorporated into the Project shall become the property of the Owner, but if such material is stolen, destroyed, or damaged by casualty before being used, the Contractor will be required to replace it at his own expense.
- D. The property insurance purchased by the Owner shall be in the form and provide such coverage as selected by the Owner. If provided, this insurance is intended to cover materials, machinery, tools and equipment that have been affixed or permanently installed on the project. The Contractor shall bear the entire risk of loss with respect to such material, machinery, tools, and equipment that have not been affixed or permanently installed on the project.
- E. Use standard Insurance Certificate Form. The Accord Form 25 (2009/01) or 25-S (2009/01) are preferable forms. These forms should be obtained from your insurance agent.

F. Issue all certificates to: SPENCE BROTHERS 203 S. WASHINGTON AVE. SUITE 360 SAGINAW, MI 48607

- G. Certificates must show as 'additional insureds' as listed in Document B of the Agreement and as required by the Contract Documents.
- H. The policy limits as outlined in Document B shall be considered the minimum requirement. If higher limits are required per the Project Documents, coverage shall be provided to meet the higher limits as specified.

END OF SECTION 00 6500

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 00 7319 SAFETY REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Attention is directed to Bidding and Contract Requirements, and to Division 1, General Requirements, which are hereby made a part of this Section.

1.02 SUMMARY

- A. This Section describes the on-site project safety requirements including:
 - 1. Trade Contractor's Contract Requirements for Safety
 - 2. On-Site Safety and Loss Control Program Content
 - 3. Project Safety Guide
 - 4. Safety Related Forms

1.03 CONTRACTOR'S CONTRACT REQUIREMENTS FOR SAFETY

- A. Each Trade Contractor and Subcontractor is responsible for their own Safety Program in accordance with applicable provisions of the Occupational Safety and Health Act; and shall, in addition, adopt the Project Safety Program for work on this project. Every Trade Contractor and Subcontractor shall comply with all applicable local, state and federal Safety and Health Regulations. In addition, each Trade Contractor shall be responsible for payment of all fines and/or claims levied against the Owner, Architect, or Spence Brothers for deficiencies relating to conduct of the Trade Contractor's work.
- B. As a Trade Contractor and employer you are required by Federal and State Occupational Safety and Health Regulations, Standards, Codes, Rules, and Regulations in addition to Contract Rules and Regulations to provide protection for our customer's employees, the construction tradespeople and the public who could come into contact with your operations.
- C. The Spence Brothers' Safety Program contained in this section is included as part of the contract documents and shall be the minimum safety requirements by all Trade Contractors and Subcontractors working on the project. In addition, each Trade Contractor shall sign and return the Safety Agreement Form that is included in Spence Brothers' Safety Program.
- D. The information contained within the Spence Brothers' Safety Program in no way relieves Trade Contractors or Subcontractors or Suppliers of their lawful or contractual responsibilities and obligations for safety. Suppliers and/or Subcontractors should seek professional guidance (legal/safety) in developing their own safety rules and programs.
- E. Each Trade Contractor shall submit to Spence Brothers the information listed in Item 2.02.B.2 before starting any work on the project.
- F. The Trade Contractor understands and agrees not to use or incorporate hazardous materials in the work and will comply with the Owner's hazard communication program and obtain material data sheets (MSDS) as appropriate. Trade Contractor will provide, in a binder, their Material Safety Data Sheets (MSDS) for each hazardous material to the Central location provided by Spence Brothers and have a copy of same available for employees.

PART 2 - ON-SITE PROJECT SAFETY AND LOSS CONTROL PROGRAM CONTENT

2.02 INTRODUCTION

- A. Spence Brothers recognizes that it is important to our successful operation to prevent the occurrence of incidents that lead to occupational injuries or illnesses. We must all be committed to the performance of our duties in a safe manner, consistent with good construction practices.
- B. Accidents occur because of unsafe acts by people or unsafe conditions within the work area. The objective of this Safety and Loss Control Program is to eliminate and/or control these two basic accident causes.
- C. Each Trade Contractor and Subcontractor is responsible for the safety and loss control of employees and work areas under their control. Spence Brothers demands that OSHA regulations be observed and maintained as a minimum standard in all cases. Safety should never be sacrificed for production.
- D. Spence Brothers seeks your cooperation in providing a safe place to work for all employees. We believe that safety is a fundamental part of our jobs and a fundamental part of an efficient and profitable production. Prevention of accidents is positive thinking.

2.02 **RESPONSIBILITIES**

A. GENERAL RESPONSIBILITIES

1. All work shall be conducted in a safe and practical manner in conformance with the Michigan Occupational Safety and Health Act of 1974, OSHA Safety and Health Regulations.

B. CONTRACTORS

- 1. Each Trade Contractor and Subcontractor will be responsible for the safety and loss control of employees and area of work under their control.
- 2. Each Trade Contractor shall submit the following information to Spence Brothers for approval prior to commencement of the work:
 - a. An executed safety agreement
 - b. The Trade Contractor's written, specific Site Safety Program applying the contractors safety.
 - c. The Trade Contractor's written Hazard Communication Program.
 - d. The names of persons or entities proposed as first tier subcontractors.
 - f. Resumes of proposed field supervisor and site safety representative.
 - g. Trade Contractor's written substance abuse policy/program

3. The Trade Contractor will maintain and provide to Spence Brothers written records of the Following, if requested:

Document	Needed
Equipment Safety Inspection Report (for 8 ton and larger lift cranes)	Before Use of Equipment
Respirator Procedures	Before Start of this Work
Confined Space Procedures	Before Start of this Work
OSHA Injury Log (Form 300A)	Monthly
Accident Reports	Within 24 hours of occurrence
Tool Box Safety Meetings/Self-Inspections	Weekly

- 4. Each Trade Contractor may be requested to provide the Owner and/or Spence Brothers with monthly statistics concerning jobsite man-hours (by trade and those involving overtime), accident and severity information. This information will be submitted with the trade contractor's monthly payment application. Failure to provide this information may disallow payment.
- 5. Each Trade Contractor and Subcontractor shall conduct work in a safe and practical manner in conformance with the Michigan Occupational Safety and Health Act of 1974 and the OSHA Safety and Health Regulations.
- 6. Each Trade Contractor and Subcontractor shall observe all applicable federal, state and local laws and regulations pertaining to safety and health, pollution control, water supply, fire protection, sanitation facilities, waste disposal, and other related items.
- 7. Each Trade Contractor and Subcontractor shall cooperate fully with all other trade contractors in their respective safety and health programs.
- 8. The Trade Contractor or Subcontractor shall furnish all reasonable information concerning the safety of their operations on the project as may be required by Spence Brothers.
- 9. The Trade Contractor shall notify Spence Brothers *immediately* of all injuries requiring clinical attention, or property damage estimated in excess of \$1,000.00.
- 10. The Trade Contractor will assign an individual to act as **Safety Representative*** who will have the responsibility of resolving safety matters, and act as a liaison among the Trade Contractors, Spence Brothers and the Owner. This individual must be on site and have the authority necessary to immediately correct unsafe practices or hazardous conditions. This representative or an alternate is also required to attend periodic safety meetings as directed by Spence Brothers.

***The Safety Representative** must be a competent person, with a <u>minimum of 30 hours</u> <u>of MIOSHA training</u>, and who is capable of identifying existing and predictable hazards in surroundings that are unsanitary, hazardous or dangerous to employees, and has the authority to take prompt corrective measures to eliminate them.

11. All Trade Contractors will give full cooperation to the Owner's and Spence Brothers' representatives, who may periodically visit the project.

- 12. The Trade Contractors will inform Spence Brothers of any federal or state inspection prior to the site tour. Spence Brothers will receive copies of all federal and state inspection reports, citations, penalties, abatement dates, etc.
- 13. Trade Contractors or their employees or agents involved in unsafe acts or conditions may be directed to cease that activity until the condition is brought into compliance with the site safety procedures. These costs will be borne by the non-complying trade Contractor, and no costs will be charged to the Owner or Spence Brothers. In addition, if a Trade Contractor or Subcontractor refused to correct unsafe conditions, Spence Brothers may correct the situation by using other employees and back charging the Trade Contractor or Subcontractor for expenses incurred. Trade Contractors or their Subcontractors' noncomplying employees may be prohibited from working on the site at the sole discretion of Spence Brothers, without recourse.
- 14. Failure to comply with the contract safety requirements will be considered as noncompliance with the contract, and may result in remedial action including withholding of payment of any sums due the Trade Contractor.
- 15. Additional Contract Safety Requirements
 - a. All projects are hard hat jobs unless specifically designated as "not requiring hard hats" by the Director of Safety and Loss Control. All supervisors, employees and visitors shall be required to wear an approved hard hat while on the site of a hard hat job.
 - b. It will be the responsibility of each Trade Contractor and Subcontractor to ensure that all employees wear durable work boots. Under <u>no</u> conditions, shall tennis shoes or sandals be allowed. Other appropriate personal protective equipment shall be provided and worn as required.
 - c. Good housekeeping shall be observed at all times. Waste, debris and garbage shall be removed daily, or placed in appropriate waste containers. All materials, tools and equipment shall be stored in a safe and orderly fashion.
 - d. Each Trade Contractor or Subcontractor will supply the proper equipment, take the necessary precautions to maintain the equipment according to current regulations and specifications, and accept responsibility to ensure that the necessary safety equipment is supplied and used when required.
 - e. Each Trade Contractor and Subcontractor will be responsible for supplying, maintaining and inspecting all fire extinguishers in their office, storage and refueling areas. In the event a fire extinguisher is discharged or damaged, it shall be removed from service and replaced with a charged unit.
- 16. Hazardous Materials
 - a. Each Trade Contractor will be responsible for having all materials labeled as to their content. Material Safety Data Sheets are to be provided by the Trade Contractor in a binder to the central location(s), and must be available for all hazardous materials. The central location(s) will be defined by Spence Brothers at the beginning of the project. Hazardous materials must be stored and used in accordance with the Material Safety Data Sheets. All hazardous wastes are to be disposed in accordance with federal, state and local regulations.

- 17. Safety Orientation for Contractor Supervision
 - a. All Trade Contractors and Subcontractors shall have their site supervisor and/or safety representative at the preconstruction safety meeting to review and agree to the following:

Safety procedures at the project Safety orientation and meetings for all trades (schedule and methods to be used) Record keeping requirements for inspections, violations, and variances Employee complaint and discipline Accident report and emergency procedures Sanitation and water supply system Tagging and lockout system procedures

b. This meeting will be documented and signed by the representative of each company present.

C. TRADE CONTRACTOR PERSONNEL

- 1. All Trade Contractor personnel are to know the safety rules listed in the Safety Program. If a tradesperson does not understand the rules, he or she should ask his or her foreman or supervisor for help. Each tradesperson is responsible for following these rules without exception.
- 2. Tradespeople are to report any unsafe act or condition immediately to their foreman or supervisor. If the act or condition can be easily corrected, the tradesperson should make the correction.
- 3. Tradespeople should attend all required safety meetings.
- 4. Tradespeople should report <u>all</u> work related injuries and illnesses to their supervisor immediately.
- 5. Never sacrifice safety for production. Proper construction technique and good common sense will prevent most accidents.

D. SPENCE BROTHERS

- 1. Spence Brothers does not assume the safety nor does not assume the safety responsibilities of the Contractors as set forth under MIOSHA Regulations.
- 2. Each employer has a general duty to furnish each employee with a place of employment free from recognized hazards causing, or likely to cause death or serious physical harm.
- 3. Spence Brothers will act as a consultant to assist the Trade Contractors in meeting the minimum basic standards as set forth by MIOSHA and the Project Safety Program.
- 4. Safety Hazard Notifications shall be issued to the trade contractor when an unsafe act or condition is reported or observed. Spence Brothers will not supervise the abatement or associated reprimand of unsafe acts or conditions within a Trade Contractor's scope of work.
- 5. Coordination between Trade Contractors on safety related items or disputes will be at the discretion of Spence Brothers.

2.03 PROCEDURES

A. HAZARD ABATEMENT

1. The following sequence of actions should be taken in the event of unsafe acts or conditions on the job site. The order of action is suggested, but not necessary, if the situation requires immediate abatement to avoid an accident. Sound judgment must be exercised in dealing with potential problems as opposed to imminent dangers.

2. Unsafe Acts & Conditions

If unsafe acts or conditions are observed within a Trade Contractor's area of control, the Trade Contractor's supervisor in charge of the area is to be contacted. If corrective action is taken immediately, the matter will be noted in the Superintendent's Daily Report. If corrective action is not taken immediately by the supervisor in charge, the Trade Contractor's management will be issued a Safety Hazard Notification.

3. Safety Hazard Notification

If immediate action is not taken or a dispute over the hazard develops, a Safety Hazard Notification will be issued. This form will be specific in noting the acts or conditions that do not meet minimum standards for safety and health. The Trade Contractor should take immediate steps to correct the hazard(s). Corrective action taken by the Trade Contractor shall be noted on the Safety Hazard Notification Form, and the form returned to Spence Brothers to avoid remedial action.

4. <u>Remedial Action</u>

If corrective action is not taken, a letter or telegram is to be sent to the Trade Contractor's Chief Executive Officer requesting immediate attention. The letter or telegram will outline remedial action to be taken by Spence Brothers, if corrections are not made. Note that all costs will be charged to the Trade Contractor, and any action taken by Spence Brothers will not relieve the Trade Contractor of responsibility for safety.

B. ACCIDENT MANAGEMENT

1. First Aid Treatment

The Trade Contractor shall have standard emergency procedures to deal with the immediate removal and treatment, if necessary, of any employee who may be injured or become ill. The Trade Contractor shall keep on the job a first-aid kit supplied according to current regulations, and shall have a person trained in first aid.

2. Accident Reports

Personnel

If an employee of a Trade Contractor is injured and requires treatment at a clinic, the contractor shall provide Spence Brothers with a written report of the occurrence.

Severe Injuries or Accidents

The Trade Contractor shall notify Spence Brothers immediately of any severe injury or accident in which one or more persons may be hospitalized, or property damage is estimated in excess of \$1,000.00.

3. Loss Incident Reports

Any incident involving a Trade Contractor and/or the public property or vehicle of another must be reported within 24 hours.

C. PERSONNEL SAFETY ORIENTATION

1. Each Trade Contractor shall comply with OSHA Regulation 1926.21(2), which states that the employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment.

D. TOOL BOX SAFETY MEETING

- 1. The Trade Contractors shall hold weekly Tool Box safety meetings for all of their employees. All trades personnel are required to attend these weekly training sessions. These sessions must be documented on the Weekly Tool Box Talk forms and returned to Spence Brothers on a weekly basis. These are required, and monies will be withheld until they are on file. Alternate forms must be approved by Spence Brothers.
- 2. <u>Self Inspection</u>

To provide current and effective safety information, a self-inspection of the Trade Contractor's area of control should be performed prior to the Tool Box Talk meeting. The Trade Contractor's safety representative or supervisor should tour the area, noting safety problems or deficiencies on the Tool Box Talk form. Dates for action taken on the deficiencies must be set prior to submittal to Spence Brothers.

3. <u>Tool Box Meeting</u>

When utilizing the Tool Box Talk form, the Trade Contractor should note the meeting date, leader and topics discussed, in addition to signatures of all employees in attendance. Five minutes is the optimum time for the meeting. The tone of all safety discussions should be serious and purposeful.

END OF SECTION 00 7319

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

Project Safety Manual



PROJECT SAFETY MANUAL

Dow Gardens Welcome Center

Revised October 29, 2024

STATEMENT OF SAFETY PROGRAM

It is a fundamental value of Spence Brothers that safety will always be a primary consideration. It is our policy and a top priority to do all in our power to provide a safe workplace for all workers and to mandate the use of good safety practices. Adherence to established safety standards and procedures is required of everyone at all times on the Delta College K-wing Additions & Renovations project site.

Contractors working onsite are expected to perform work safely. There will be zero tolerance for life threatening activities. Workers putting themselves at risk by performing a life-threatening activity, (such as violations of fall protection) may be removed from the site.

There is no phase of the operation that has greater importance than accident prevention of human resources.

This project Safety Program has been developed in support of these concepts to serve as a reference in assisting all project trade contractors in satisfying their responsibility "to provide a safe, healthful workplace, free of recognized hazards."

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1. INTRODUCTION

This Project Safety Manual provides an administrative structure within Spence Brothers on the project site shall provide for the safety and health of their employees and other individuals affected by their activities and for the protection of property. This manual does not relieve subcontractors of any of their traditional or specific legal responsibilities with respect to occupational safety and health or the protection of property. Instead, this manual provides for coordination among the various subcontractors' individual programs, monitoring of subcontractors' conformance with their individual programs, and the requirements of this manual, initiation of corrective actions when nonconformance's are identified, and documentation of safety related programs, meetings, and incidents. This Project Safety Manual for the Delta College K-wing Additions & Renovations project has been developed to assist all Spence employees working at the project site in satisfying their responsibility to provide a safe and healthful workplace, free of recognized hazards.

All employees, subcontractors, trades people, and visitors are required to complete the Safety Orientation prior to performing work at the site. The Site-Specific orientation will be completed at the onsite office.

The following are some of the project specific safety details or issues that Spence employees need to make sure they're aware of and pay specific attention to. As issues present themselves and future bid packages are awarded, updated revisions to this document will be published in an ongoing effort to maintain the safest work environment possible for all workers and visitors to the project site.

- In recognizing the potential impact to the health and safety of the Coronavirus (COVID-19) to our workers the following protocol will be followed at our jobsites. Stay home if you are sick. Avoid contact with people who are showing symptoms (fever, cough, shortness of breath, chills, sore throat, repeated shaking from chills). Wash your hands with soap and water or use hand sanitizer. Face coverings are recommended for use when social distancing cannot be maintained or within a public building. Avoid touching your eyes, nose and mouth. Cover your cough and maintain a 6 ft. distance from others when possible. Notify your supervisor immediately if you begin not feeling well.
- Fall protection shall be worn and used, 100% of the time, by all persons when there is exposure to a fall greater than six (6) feet unless other provisions such as guardrails, safety nets, or fall restraints have been provided. This includes, but not limited to, steel erection (including connecting, bolting-up,

decking, welding or any other steel erection activity), precast erection, roofing activities and masonry work including overhand laying operations. Refer to Section 9, item I for more details.

- Individuals working on this project will maintain a high level of awareness when working in or around excavations. Be sure that the banks are stable and cut at the proper angle of repose. Most importantly, before entering the excavation know your pathways to safely exit out of it. All excavations shall have perimeter fencing maintained around edge of excavation.
- Hardhats, safety glasses with side shields, and High-visibility wear (while working) are required at all times while on the project.
- High visibility vests, shirts or hard hat mesh covers are required for this project when mobile equipment is present.
- Spence Brothers MANDATES the use of Certified Crane Operators (CCO's) on all cranes thereby ensuring that minimum operator qualifications and operating standards are met to protect the safety of all workers and the public. (Exception: Truck-mounted booms but must be qualified).
- The safety and security in and around the jobsite remain foremost in our efforts on this project. To help keep the site safe and secure fencing maybe installed by prime contractor around the perimeter to restrict entrance and egress to the site. No work is to be performed outside the fenced areas without prior coordination, barricading, pedestrian control and flagging measures addressed. All contractors are responsible for the security of their own people, tools, and materials.
- Spence Brothers will have periodic safety audits to ensure work activities are performed safely and to help communicate project specific safety between contractors through orientations, safety audits, and interventions. This will not relieve contractors from performing their own safety orientations, safety audits or enforcing their own company safety requirements.

2. IMPLEMENTATION RESPONSIBILITY

Each and every person working at the project site shall be responsible to be knowledgeable of the contents of this manual and comply with every requirement contained herein.

3. SUBCONTRACTOR SAFETY PROGRAMS

Each contractor should submit a copy of its written safety program and/or sitespecific safety plan (SSSP) which includes a statement addressing drug and alcohol abuse to the prime contractor for review prior to commencing work at the project site. Our program shall meet the requirements of the codes and regulations of OSHA, MIOSHA, local and other authorities having jurisdiction over the work to be performed and shall include disciplinary procedures and safety orientation training applicable to contractor personnel.

Each contractor safety program should include, as a minimum, the following requirements:

- A. An onsite qualified, competent person with 30-hr OSHA training certification. Documentation for current certification will be required.
- B. Conduct weekly safety (Toolbox) meetings.
- C. Complete JSA forms for all work performed on the site.
- D. Participate in bi-weekly foreman safety meetings. Frequency of meetings may change due to onsite conditions.
- E. Monitor jobsite safety issues daily.
- F. Review hearing and eye protection requirements with employees.
- G. Conduct tool and equipment inspections.
- H. Review all personal protective equipment with employees.
- I. Address fall protection measures.
- J. Address Right-To-Know regulations, including Safety Data Sheets (SDSs)
- 4. DISCIPLINARY POLICY

All employees entering onto this project are required to comply with all aspects of the project safety program requirements. Those that do not adhere to this program will be subject to this discipline policy. The project will utilize a three-step process for minor infractions; repeat or major offenses of the safety program are subject to immediate removal from the project.

- 1. <u>Verbal warning</u> The verbal warning <u>shall be considered given</u> at the signing of the contract. This warning is to be communicated by the subcontractor to all subcontractor personnel prior to entering this project.
- 2. <u>Written warning</u> The second warning will be a written warning, documented, with a copy sent to the employee's supervisor and corporate office.

- 3. <u>The third infraction</u> of the same unsafe condition will result in removal from the project.
- 4. Any foreman, superintendent, or general superintendent who forces or directs any employee to violate a safety procedure will be removed from the project immediately.
- 5. Any violation deemed threatening to life, limb, or major property damage will be grounds for immediate removal from the project. Failure to replace guardrails, hole-covers and other similar fall protection measures will be considered a major violation and offender(s) will be subject to immediate dismissal.
- 6. Employees having repeat safety infractions or an immediate danger to life and health condition will be required to provide Spence Brothers with documentation of retraining crew members and a review of SSSP will occur with Spence Brothers. Continued safety infractions occurring by same employee will result with employee being removed from project.

5. WEEKLY SAFETY MEETINGS

Spence Brothers will hold weekly construction coordination/safety meetings. At each meeting current safety topics, issues, concerns and problems will be discussed. Spence Brothers shall conduct weekly safety toolbox meetings with their crews. Every worker active on site shall attend. Spence Brothers shall furnish the following documentation to the prime contractor after each toolbox meeting: date, topic(s) discussed, name of attendees, and any safety concerns noted upon request.

6. SAFETY INSPECTIONS

Spence Brothers' superintendent/site safety manager will conduct informal inspections of conditions, practices and equipment on a daily basis. Formal, documented inspections will be performed by Spence Brothers' superintendent on a weekly basis.

Spence Brothers' corporate Safety Manager shall conduct unannounced visits to inspect the work in progress. The frequency of these visits is at least weekly and documented.

7. DRUG/SUBSTANCE ABUSE TESTING PROGRAM

A. Any employee injured at the project site and needing offsite medical attention will be tested for alcohol and drugs. If the injured party was hurt by

the action of another person who was not injured, this person must also submit to substance abuse testing. Additionally, any employee causing or contributing to a major incident not resulting in injury will be tested for alcohol and drugs. An employee who tests positive for illegal substances or alcohol will not be allowed to return to the project site. Any employee who refuses to submit to substance abuse testing will not be allowed to work at the project site.

B. It is the responsibility of the employer to make sure that the testing is performed at the time of the incident. It is also the responsibility of the employer to cover any costs incurred due to the testing. Results of the testing will be considered confidential. An employee that is tested late (not within 8 hours of the incident) will be considered as "not tested" and will not be allowed to return to work on the project site.

Notes:

- 1. Visitors and delivery personnel are not included.
- 2. The drug-screening test shall include testing for cannabinoids, depressants, dissociative anesthetics, hallucinogens, opiods and morphine derivatives, and stimulates.

8. HAZARDOUS MATERIAL CONTROL PROGRAM

Spence Brothers is responsible for the safe storage, use and disposal of any hazardous material required to perform their scope of work. Spence Brothers shall provide the prime contractor with a copy of their Hazardous Material Control Program before any of his material is delivered to the project site. Each program shall, at a minimum, include the following:

- A. Identification and classification of hazardous materials (i.e., labeling of containers)
- B. Safety and health precautions
- C. Training in safe storage, handling and use
- D. Transporting, labeling, packaging, documenting and disposal requirements
- E. Safety Data Sheets (SDSs) for all chemicals

Pursuant to Public Act 80 (1986), also known as the Michigan Right-To-Know Law, each subcontractor is to submit to Spence Brothers a complete list of hazardous chemicals that may be used at the project site along with a copy of a Safety Data Sheet (SDS) for each. Copies of any subsequent SDS attachments, additions, or corrections shall also be promptly submitted. Additionally, a list of the chemicals that are on site is to be submitted to Spence Brothers. Spence Brothers will maintain a master file of all jobsite SDSs in the on-site project office. This information will be made available to any employee upon request.

It is the responsibility of Spence Brothers to provide proper and adequate employee training as required under this Act.

Compliance with the storage, use and disposal requirements as outlined on labels and SDSs is mandatory for all users; full understanding of these requirements is expected of all users and suppliers of hazardous materials.

9. PERSONAL PROTECTIVE EQUIPMENT

Spence Brothers shall supply each of their workers with the proper safety equipment, take any necessary precautions to maintain the equipment according to current regulations and specifications and accept responsibility to assure that proper safety equipment is used when required. All workers shall be required to wear appropriate personal protective equipment and clothing where there is exposure to hazardous conditions and where needed to reduce hazards to the worker. The following list represents the minimum requirements:

A. Outer Garments

Suitable outwear is defined as clothing designed to protect from expected hazards. Outer garments should be well fitting. Short sleeve garments may be worn where no hazards to exposure exist. Tank tops or "muscle shirts" are not permitted. Full pants are to be worn. Neckties should not be worn when working around moving machinery. All employees are to avoid loose sleeves, frills or trims that could present hazards. Racist or profane slogans on outer garments are not permitted.

B. Gloves

Gloves are required to be worn at all times when performing work activities that require such protection and shall be the type of glove that provides the most protection against any hazards associated with that work activity.

C. Hardhats

Hardhats must be worn on site at all times. Acceptable hardhats must meet the requirements of ANSI Standard Z89.1 – Type 1 Class E.

- D. Eye and Face Protection
 - Safety glasses with side shields must be worn on site at all times. Acceptable safety glasses must meet the requirements of ANSI Standard Z87.1-1968. Refer to MIOSHA Part 6, R 408.40624 for further detail.

- 2. Mono goggles may be required during certain activities. These activities will be discussed on the daily Job Safety Analysis Form.
- 3. Employees shall be required to wear proper eye and face protection during operations where hazard or risk of injury exists from flying objects or particles, harmful contacts, exposures such as glare, liquids, electrical flash, or a combination of these hazards.
- 4. Face and eye protection equipment should be of the proper size to fit the employee and protect against the intrusion of foreign objects. Face and eye protection shall be kept clean and in good repair. Equipment with structural or optical defects shall not be used.
- 5. The use of face shields (ANSI Z87+) and safety glasses with side shields will be used during all grinding operations to provide eye and face protection.
- 6. Employees shall wear welding shields with filter lenses when engaged in welding, cutting, or burning operations or the employee shall wear safety glasses with side shields or goggles under the shield when the shield is raised and is exposed to flying objects. Hardhats must be worn in conjunction with any type of safety shield worn.
- 7. Tinted safety glasses/sunglasses will not be allowed indoors.
- E. Jewelry

Bracelets, necklaces, rings and earrings are not to be worn during operations where they present hazards to the wearer.

F. Foot protection

Work boots are to be worn at all times on the project. Special safety footwear for protection against exposure to electrical shock, chemicals, acids, caustics, and hot or molten materials may be required, and it is the responsibility of the employer to provide their employees with the appropriate "special footwear" if it is deemed necessary. If an employee is using a jackhammer toe guard is required.

G. Personal protective equipment

The use of personal protective gear, such as gloves, respirators, coveralls, safety glasses, ear protection, and the like will be required as conditions demand and shall be reviewed at the time of employee orientation or when assigning duties. Each contractor must address their PPE requirements in their SSSP that has been reviewed by Spence Brothers' safety department to ensure proper MIOSHA and site-specific PPE requirements are being met. PPE requirements will be assessed daily through JSAs and safety audits/inspections. The contractor is required to supply all required PPE to their employees.

H. Respirators

Any subcontractor responsible for performing work that requires respiratory protection shall have a written respiratory program in place. A copy of the program shall be submitted to Spence Brothers superintendent/site safety manager before commencement of any work activities that require the use of respirators. At a minimum, each respiratory protection program shall provide each employee with training relative to the need for use, fitting, fit testing, cleaning and storage of respirators. If "dust masks" are required and not voluntarily used, a respiratory protection program is required and shall be implemented.

I. Fall Protection

Policy: Fall protection shall be worn and used, 100% of the time, by all persons when there is exposure to a fall greater than six (6) feet unless other provisions such as guardrails, safety nets, or fall restraints have been provided. This includes, but is not limited to, steel erection (including connecting, bolt-up, decking, welding or any other steel erection activity), precast erection, roofing activities and masonry work including overhand laying operations.

Exceptions: The safe use of ladders up to twenty-four (24) feet in length. **Unacceptable means of compliance:** Safety monitors.

10. LOCKOUT/TAGOUT PROCEDURE

Whenever service, maintenance, or inspection is performed on machines, equipment, electrical circuits, or systems, it must be done with the machine, equipment, electrical circuit, or system stopped and isolated from all sources of energy or flow of medium. The energy isolation device(s) or isolation values for that machine, equipment, electrical circuits, or systems must be locked out and tagged out in accordance with a documented procedure. Employees involved in the energy control program must be given training. When subcontractor employees are performing work at the project site, they must coordinate with Spence Brothers and any other employer to ensure that no employees are endangered. When a group of employees are performing a service, maintenance, or inspection activity, each employee must be afforded protection equivalent to the utilization of individual lockout/tagout.

11. EMERGENCY TELEPHONE NUMBERS

Emergency telephone numbers for the ambulance, hospital, fire department, and police shall be posted in each jobsite office at each phone. Spence Brothers shall have the emergency contact phone numbers for all key project personnel (e.g. jobsite supervisors, project managers, foreman, etc.). Contact numbers shall include mobile, home and other phone numbers available and necessary to access key personnel in the event of a project emergency. The distribution of these numbers will be limited and considered confidential.

12. FIRST AID

Spence Brothers shall provide to the prime contractor upon request the name or names of each designated first-aid certified worker. Spence Brothers is required to have at least one (1) certified worker on site during periods of active work. Spence Brothers will have a first aid kit on site at the project office. Spence Brothers shall have as part of their first aid kits eye wash solution (i.e., saline solution bottles).

13. INJURY/ACCIDENT REPORTING AND INVESTIGATION

Any worker incurring an injury while working at the Delta College K-wing Addition & Renovation project site shall report the injury to his supervisor immediately. **All injuries shall be verbally reported to Spence Brothers the day of the incident/accident, followed up in writing on the proper forms, within twenty-four (24) hours.** Each incident/accident shall be documented using an accident investigation report on the Spence Brothers' form (refer to Attachment II). In the event of an accident, the following steps shall be taken:

- A. Make sure that the accident victim receives appropriate medical attention. This may involve calling paramedics, arranging transportation where supervisor or foreman takes accident victim to a hospital, or taking victim to a clinic depending on severity of injury.
- B. Notify Spence Brothers' superintendent immediately regardless of the seriousness of the incident or accident. This includes property damage.
- C. Perform a thorough investigation of all facts and circumstances surrounding the accident. This should include:
 - 1. Photographs of the accident site and any other pertinent areas or conditions, which document the circumstances existing at the time of the accident.
 - 2. Determine who, if anyone, witnessed the accident. Obtain names, addresses and phone numbers and get written statements from them as to what they saw and any other facts they may be aware of regarding the accident and its cause.
 - 3. Interview the accident victim to hear his/her explanation of how the accident occurred.
 - 4. <u>Fully complete an accident investigation report</u> and submit a copy to Spence Brothers' superintendent.

All accidents resulting in property damage and any theft incidents shall be reported immediately to the Spence Brothers' superintendent in order to allow for documentation of the extent of damage, reporting and/or determination of any required corrective action.

The owner may require a review of the contractor's safety program, summary of the incident, etc. to ensure that the accident or injury has been properly reviewed for root cause and to eliminate any reoccurrence.

14. HOUSEKEEPING

A clean workplace is a safe workplace. Each employee shall be responsible to adhere to the following housekeeping guidelines:

- A. Pick up and dispose of trash and debris on a daily basis.
- B. Work areas are to be kept clean, orderly and floors are to be swept daily.
- C. Leads, hoses, and extension cords shall be hung up with a nonconductive material, off all floors, stairways, and walkways.
- D. Trash such as drinking cups, cans, and scraps from lunch are not to be thrown down but disposed of properly in marked containers.
- E. Materials, equipment, concrete forms, pipes, etc. are to be orderly stacked so as not to obstruct walkways, doors, stairways, ladders, other points of access or egress, etc.
- F. Oil, grease, and other such liquid spills shall be cleaned up at the time of spill and are not to be left unattended.
- G. Participate in mandatory cleanup programs if the project requires it.

15. CRANES AND INSPECTIONS

Each crane used at the project site shall have a current annual crane inspection report, which documents that the crane has been inspected within the current year in accordance with established MIOSHA / OSHA standards.

**Annual inspection documentation is required for all tracked equipment. (i.e., dozers, excavators, etc.)

A critical lift checklist will be completed before any critical lift is performed. A critical lift is a lift made under the following conditions: a) a weight of the lift exceeds 75% of the load chart rating of the equipment being used; b) two (2) cranes are required for the lift; or c) crane traveling with load that poses a hazard or exceeds 50% of the crane's load chart under lifting condition. 16. VISITOR POLICY

All visitors of Spence Brothers to the project site must report to the Spence Brothers' office upon arrival. Visitors shall comply with the policies and procedures of this Project Safety Manual and any additional safety requirements from the prime

contractor or owner while on site. Visitors not sufficiently familiar with the jobsite shall be accompanied at all times by employees familiar with the project. Visitors must wear hardhats, safety glasses with side shields and high visibility vests/shirts at all times while on site. Other PPE are to be worn when the conditions warrant such protection. The contractor requesting approval of the visitor is responsible for issuing the proper PPE that may be required. Subcontractors are responsible to communicate, supply and enforce the minimum personal protective equipment requirements to all of their delivery personnel, vendors, etc. prior to coming onsite.

17. FIRE PREVENTION AND PROTECTION PROGRAM

- A. Fire Prevention
 - 1. Housekeeping

Proper housekeeping practices by all employees will help to establish and maintain free and unobstructed egress from the project site. The housekeeping of the project is to be maintained by all subcontractors performing work on the site. It is the employees' responsibility to report areas of the jobsite that present a likelihood of fire to the Spence Brothers' superintendent. Depending on the type of construction and the participation of the subcontractors in daily housekeeping efforts, a mandatory cleanup may be enforced that will be adhered to by all subcontractors.

- 2. Storage of Flammable and Combustible Liquids
 - a. General requirements
 - i. Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids.
 - Approved metal safety cans are to be used for handling and use of flammable liquids in quantities greater than one gallon.
 Flammable liquid materials may be used and handled in original shipping containers.
 - iii. For storage, use and handling of flammable liquids in quantities of one gallon or less, only the original container or approved metal safety cans may be used.
 - iv. Flammable or combustible liquids are not to be stored in areas used for exits, stairways or other high-traffic areas.
 - v. No storage of flammable or combustible materials is to occur on any roof.
 - b. Indoor storage
 - i. No flammable materials may be stored inside.
 - ii. Materials which will react with water and create a fire hazard, shall not be stored in the same room as flammable or combustible liquids.

- c. Outdoor storage
 - All storage areas are to be created to prevent the contamination of surrounding areas in the event of a spill.
 Proper consideration is to be given to the runoff of rainwater vs. the control of spilled or leaking materials.
 - ii. Containers less than 60 gallons in size are to be placed in areas not to exceed a total of 1,110 gallons. Containers are to be separated by a five-foot clearance and will not be nearer than 20 feet to a structure.
 - iii. Portable tanks will not be nearer than 20 feet from any structure.
- d. Gas and oxygen bottles
 - i. Full and/or partially used compressed gas cylinders must be attached to approved carts and turned off after each use.
 - ii. All compressed gas cylinders regardless of content amount (full, partially full or empty), shall be properly stored and secured in the area designated by Spence Brothers.
 - iii. Valve protecting caps shall always be in place when cylinders are not connected for use.
 - iv. When moving a cylinder, be sure to remove all gauges and caps prior to the move. Be sure to use a rack when lifting a cylinder to and from upper elevations. Never move a cylinder by rolling it or by dropping it down to lower elevations.
 - v. Oxygen cylinders must be stored 20 feet away from fuel cylinders or separated by a solid divider. Oil and grease must be kept away from oxygen cylinders.
 - vi. Compressed gas cylinders must be legibly marked with the chemical or trade name of the gas. Marking shall be by stenciling, stamping, or labeling and shall not be readily removable.
 - vii. Compressed gas cylinders shall be properly secured when used in man-lift baskets.
- e. Temporary Heat
 - i. Temporary heaters must be installed and serviced by authorized technicians only.
 - ii. Housekeeping in the area of the heater is extremely important and all subcontractors are responsible for ensuring that no materials are stored near the heater or in such a fashion that they may create a hazardous condition.

- iii. All temporary fuel burning heaters are to have functioning safety valves that will eliminate fuel flow in the event of flame outage.
- iv. If a heater is to operate for an extended period of time it must have a daily scheduled inspection to ensure that it is operating correctly, and that the area is clear of possible obstructions. After-hours inspections of heaters will be required if left unattended overnight.
- v. All subcontractors are responsible for notifying the Spence Brothers superintendent immediately in the event of a malfunctioning heater or potential for a hazardous condition.
- B. Fire Protection
 - 1. A means of egress shall be established and maintained. Each subcontractor is responsible for notifying Spence Brothers if the means of egress is not obvious or if it is obstructed.
 - 2. Emergency phone numbers shall be posted next to each phone in the jobsite trailer or office.
 - 3. Fire fighting equipment shall be provided by the subcontractor for the protection of their employees. In some cases, Spence Brothers may provide "common area" protection. Defective equipment shall be immediately replaced and brought to the attention of Spence Brothers superintendent.
- C. Employee Emergency Action Plan

Spence Brothers project superintendent shall be the person in command in the event of a fire or other emergency. It shall be his responsibility to oversee the employees who are evacuated. Fires and other emergencies shall be reported to the superintendent immediately. All employees are required to familiarize themselves with the designated contacts for emergencies. In the event of a fire or other emergency, employees shall evacuate the building through the nearest exit after determining it is safe to do so. Upon exit from the unsafe area, the employee should contact his superintendent. Each foreman or superintendent is responsible for a head count of their employees after evacuation.

18. CONFINED SPACE ENTRY

All individuals entering a confined space shall complete an entry permit. A written pre-planned rescue procedure shall be prepared for quick removal of employees from the confined space in case of an emergency. A safety attendant shall be stationed outside the entrance to the confined space to observe and communicate with the employee(s) at all times. The safety attendant must be trained and equipped to initiate the rescue procedures. The safety attendant must not enter the confined space until assistance has arrived. Inert gases shall not be permitted for use in any confined space.

19. SCAFFOLDS

All scaffolds erected shall be in compliance with MIOSHA Construction Safety Standard Part 12 – Scaffolds. The person erecting a scaffold must be trained and supervised by a "competent person". All scaffolds shall be medium duty at a minimum. After the erection is complete a competent person shall examine all scaffolds and document inspection on tags. Red tag indicates not safe for use, yellow tag indicates does not meet MIOSHA requirements and safeguards identified and used, green tag indicates scaffold is safe to use. Defects shall be corrected prior to use. Barricades must be erected around scaffold if there is danger of falling objects.

All personnel working from scaffold must be trained in proper use and hazards. Ladders or other makeshift devices shall not be used on the top of scaffold. Tools, materials, and debris shall not be allowed to accumulate in quantities that create a hazard. Where guardrails and/or mid rail protection is not required, fall protection must be used if 6 feet or greater fall hazard exists. Where guardrails are required but not practical, 100% tie-off shall be practiced.

Manually propelled mobile scaffolds shall always have their wheels locked or choked and vertical adjustments of their legs locked in place and shall not be altered or moved horizontally while occupied. All tools and equipment shall be removed before the scaffold is moved.

20. WELDING AND CUTTING

A <u>Hot Work Permit</u> is required for ALL welding and cutting operations that produce sparks. Protective clothing should minimally include fire-resistant gloves, leather boots, and outer barrier of 11 oz., 100% cotton duck clothing, leather or other flameresistant material. The area around and below shall be barricaded and protected from sparks or slag when welding or cutting above open floors. All combustibles must be kept 35 feet away from the welding/cutting task. A fire watch will need to be established if combustibles are guarded and the fire watch can perform no other duties. The work on which the operator welds shall be grounded by a grounded metal floor, platen, connection to a grounded building frame or by a direct ground to the machine. A wire used for grounding a work piece shall be capable of carrying the full welding current.

The welding circuit shall be kept as short and direct as possible. The work lead clamp (commonly referred to as a ground clamp) shall be connected to the work or as close as possible to the work. All power sources with grounds to the same work shall be the same polarity.

A welding current shall not be carried through the following:

- Lifting equipment used for carrying a load such as a chain, wire rope, hoist, crane or elevator.
- Machinery
- Flanged pipe joints
- Common building steel
- Electrical conduit containing an electrical conductor.

21. AERIAL WORK PLATFORMS

Operators shall have on their person a certificate which indicates they have been trained and authorized to operate the equipment, or the contractor shall provide a list of contractor personnel who are trained and authorized to operate the equipment. Fuel (flammable) gas cylinders shall not be allowed inside the work platform. Non-flammable gas cylinders such as Argon are acceptable. Wear a full-body harness and attach to platform at all times. Exception: A full-body harness and lanyard is not required in scissor lifts if lift is on a flat stable surface and guardrail is present.

22. EXCAVATING, TRENCHING AND SHORING

Excavation, earth penetration and working in an excavation shall be done in a manner to protect people, environment and property. This includes the proper management of excavations and the subsequent disposal or relocation of soil, groundwater and other materials resulting from these excavations. A qualified, competent person shall be identified by the contractor. The qualified, competent person must be a person who, by possession of a recognized degree or certification of professional standing, or who, by extensive knowledge, training, and experience, have successfully demonstrated the ability to solve or resolve problems related to the subject matter and work. An excavation checklist shall be completed.

Personnel digging the excavation/earth penetration shall stop work and inform Spence Brothers if any unknown obstruction/pipe or unexpected contamination is found. An initial call to 911 will be made first if there is a problem (e.g. broken line, phone line, conduit, gas line, or contact with a buried power line) and then communicate the incident to the property owner.

23. GENERAL JOBSITE SAFETY RULES

Violation of any of the following general safety rules is considered to be extremely serious and a detriment to the safety and welfare of all workers. Violation of these safety rules will cause for disciplinary action up to and including permanent removal from the project.

- A. Report all injuries to the field office. Get first aid promptly.
- B. Keep your mind on your work at all times. No horseplay on the job.
- C. Personal safety equipment must be worn as prescribed for each job, such as: safety glasses with side shields or a face shield (task dependent) at all times for eye protection when sawing or chipping concrete or masonry; hard hats at all times within the confines of the project site; gloves when handling materials that are harmful to the skin; safety shoes for protection against foot injuries – no tennis shoes, sneakers, or other light duty shoes. Life vests when around or adjacent to water.
- D. Keep your shirt on to prevent sunburn and to protect against acid burns, weld splatter and cuts. Minimum clothing for upper body is a "T" shirt. Legs to be protected by long pants no shorts allowed.
- E. If any part of the body should come in contact with an acid or caustic substance, rush to the nearest water available and flush over the affected part. Secure medical aid as soon as possible.
- F. Watch where you are walking. Don't run.
- G. The unauthorized use, sale, possession or distribution of alcohol, narcotics, drugs or controlled substances while working or working while under the influence of these substances is prohibited.
- H. Do not distract the attention of fellow workers to do so may cause an injury.
- I. Sanitation facilities are provided for your use. Use them.
- J. Good housekeeping is a must. Keep your work area free from rubbish and debris. Keep materials, tools, and equipment in a neat and orderly fashion.

- K. Do not use a compressor to blow dust or dirt from your clothes, hair, face, or hands.
- L. Use a respirator when working on operations where dust or fumes are present.
- M. In case of an injury to a fellow worker, go for help. Never move an injured person unless it is absolutely necessary further injury may result. Keep the injured as comfortable as possible and utilize jobsite first aid supplies until medics arrive.
- N. Know where fire fighting equipment is located and learn how to use it.
- O. Learn to lift correctly with the legs, not the back. Anytime it is necessary to lift an object above your waist you should evaluate the weight based on your capability and seek help. Using 50 pounds as a guideline is appropriate. Remember that pushing and pulling objects can create similar strains and sprains to the body. Pushing is preferred over pulling.
- P. Riding material hoists, crane-ball, and sideboards or with your legs dangling over the ends or sides of trucks is not permitted.
- Q. Do not use power tools and equipment until you have been promptly instructed in their use and operation. Be sure that all the guards are in place. Do not remove, displace, damage or destroy any safety device or safeguard furnished or provided for use on the job, nor interfere with the use thereof. All hand-held power tools must have "dead man controls" which means that the control cannot be locked or will not stay in the "on" position. A GFCI closest to the source must be used.
- R. Rope off or barricade danger areas. Do not enter an area, which has been roped off or barricaded, labeled "DANGER". Red danger tape or barricade shall have contact name and number legibly and securely posted on barricade of the individual placing the barricade. All barricades shall be promptly removed and taken down once no longer needed.
- S. If you must work around backhoes, cranes, trucks, and dozers, make sure operators are aware of your presence. All mobile equipment must have backup alarms.
- T. Never oil, lubricate or fuel equipment while it is running or in motion.
- U. Trenches 4 ft. in depth must have a ladder and over 5 ft. must be shored or sloped as required. Keep out of trenches or cuts that have not been properly

<u>sloped or shored.</u> Inspect trenches and banks daily. Backfill material must not be stored closer than two feet from the top of bank.

- V. Use the "four and one" rule when using a ladder one foot of base for every four feet of height. Always secure the bottom of the ladder with cleats and/or safety feet. Secure the top of ladder to avoid shifting. Ladders must extend three feet above a landing for proper use. Defective ladders must be properly tagged and removed from service.
- W. Erect scaffolds according to manufacturer's recommendations.
- X. Use only extension cords of the three-prong type and protected with a GFCI. All damaged cords shall be removed from use.
- Y. The use of fall protection with safety lines when working from unprotected high places is mandatory. Always keep your lines as tight as possible.
- Z. Open fires are prohibited.
- AA. All personnel operating a man lift or forklift must be certified.
- BB. Walkways and areas of heavy traffic shall have proper signage, this includes but is not limited to, areas where pedestrian and vehicular traffic are both present.
- CC. Floor perimeter and floor openings shall be properly guarded at all times. Perimeter cabling must be flagged. All covers for floor openings must be secured and marked, "Hole Cover Do Not Remove". A "hole" means a gap or void 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface. Note – this includes mechanical and electrical sleeves.
- DD. All fuels/oils shall be stored in secondary containment to ensure they are not spilled onto the ground during storage.
- EE. Passengers are required to use appropriate restraint when riding in open ended vehicles. Appropriate restraint is defined as seatbelt in behind the cab that has lap-type seatbelts. All body parts must be kept within the confines of the vehicle.
- FF. Cellular phone usage while driving on the site is prohibited. The operator needs to pull over to a safe location to make/receive calls.

- GG. Protection from noise exposure shall be provided by the contractor for their employees when sound levels on the job site are equal to or greater than 85dBA.
- HH. Contractors are responsible for their tools and equipment. Report any lost or stolen tools, material or equipment to Spence Brothers.
- II. Gambling for money is not permitted on this project site.
- JJ. Tools, material and equipment must not be dropped or thrown. Equipment must be tied off if there is a chance of falling to a lower level.
- KK. Contractor must not make inoperative any safety device.
- LL. Contractor personnel shall not ride any load, nor shall they ride the slings, hook or ball of the crane.
- MM. Proper disposal of all materials/waste must be discussed before starting work.
- NN. Any work that may generate a source of ignition to flammable or combustible materials such as welding, burning, or spark producing tools will require a "Hot Work Permit" before work may start. Permit shall be obtained and will review any hazards to crew members, reporting of unsafe conditions, fire extinguisher locations, proper housekeeping, and any fire watch activities.
- OO. Temporary wiring of electrical power and lighting wiring shall only be installed by a trained, licensed electrician.
- PP. Headsets, earphones, or ipod usage is prohibited on this project. Devices not specifically required for construction operations that are capable of generating audible noise such as radios, cassette or CD players, or similar equipment will not be permitted on site.
- QQ. Acts or threats of violence including intimidation, harassment, and/or coercion will not be tolerated on this project.
- RR. Bows, arrows, guns, ammunition or other weapons are not allowed on this project site.
- SS. Metal ladders are not allowed without prior approval. Portable ladders can be a maximum of 12 feet in height. Extension ladders shall not exceed 40 feet in height.

- TT. Material handling equipment shall be provided with rollover protective structures (ROPS) which meet MIOSHA Part 13 requirements.
- UU. All personnel operating powered industrial equipment must be trained on that equipment and have certification to allow them to operate that equipment. Operating permits shall be present and with operator of equipment at all times.
- VV. The use of solid or liquid salamanders will not be permitted without prior approval.
- WW. When using wire to do fine adjustments on pipe, you need a secondary means of assuring the pipe cannot fall if the wire breaks.
- XX. In the event the operator of the vehicle/equipment is unable to see when backing up, the operator must stop immediately and utilize a spotter to assist.
- YY. Smoking will not be permitted in buildings or at the construction site. Smoking will be permitted in vehicles only.
- ZZ. If asbestos is located on the work site, stop all work and notify the proper authorities. If abatement is required a licensed asbestos abatement contractor will be employed to perform the work. For personnel occupying, working and/or visiting areas, adjacent to the worksite, proper asbestos awareness training will be provided.
- AAA. If exposure to lead based materials is found or expected on the worksite Stop all work and notify the proper authorities. If abatement is required, proper procedures must and will be followed.

PROJECT SAFETY MANUAL

SUBCONTRACTOR AND TRADE CONTRACTOR ACKNOWLEDGEMENT

I hereby acknowledge receipt and comprehension of the policies and procedures set forth in this Manual and agree to comply with its directives.

In addition, I hereby agree to comply with any field or trade-related guidelines as they apply to the portion of work for which I have been contracted and will incorporate them into the ongoing safety effort. I also understand and agree to comply with any State and Federal OSHA and ANSI regulations standards, codes and rules as they apply to my portion of the work.

(Signed)

(Print Name)

(Title)

(Company Name)

(Date)

COMPLETE FORM AND RETURN TO SPENCE BROTHERS [TO BE FILED AT SPENCE BROTHERS' FIELD OFFICE]

DRUG SCREENING LIST

An employee injured at the project site and needing offsite medical attention will be tested for alcohol and drugs. If the injured party was hurt by the action of another person who was not injured, this person must also submit to substance abuse testing. An employee who tests positive for illegal substances or alcohol will not be allowed to return to the project site. Any employee who refuses to submit to substance abuse testing after an injury/accident which involves offsite medical attention will not be allowed to work at the project site.

Notes:

- 1. All staff/trades working at the project site shall be subject to the provisions of this program. Visitors and delivery personnel are not included.
- 2. Substance abuse testing shall include the drugs listed in 3 (below) and alcohol.
- 3. The drug-screening test shall include testing for amphetamines, barbiturates, benzodiazepines, and cannabinoids, cocaine, methaqualone, opiates, and phencyclidine. Refer to the following listing, common referred as a Panel 8 Drug screening:

DRUG GROUP	<u>COMMON</u> NAME	DRUG OR METABOLITE DETECTED
Amphetamines	Speed, Eve, Crystal	Amphetamines, Methamphetamines
Barbiturates	Secobarbital, Pentobarbital	Diverse
Benzodiazepine	Valium, Librium	Oxazepam
Cannabinoids	Marijuana, Pot Smoke, Weed, Mary Jane, Ganja	Delta-9-THC-9-COOH
Cocaine	Coke, Blow, Crack, Tool	Benzoylecgonine
Methadone	Methadone, Met	Methadone
Opiates	Morphine, Codeine, Heroin, Horse	Codeine, Morphine
Phencyclidine	PCP, Angel Dust, Acid, Ecstacy	РСР

IN CASE OF EMERGENCY CALL 911

EMERGENCY CONTACTS

EMERGENCY	<u>RESPONDER</u>	LOCATION	<u>PHONE</u>
FIRE			911
POLICE			911
AMBULANCE			911
HOSPITAL			2

NON-EMERGENCY

URGENT CARE

DIRECTIONS TO HOSPITAL:

DIRECTIONS TO CLINIC (NON-EMERGENCY):

NON-EMERGENCY CONTACTS

On-site Contact:

SECTION 01 1400 WORK RESTRICTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Limits: Confine constructions operations to scope of work areas and construction staging areas.
 - 2. Owner Occupancy: Allow for Owner occupancy of site and use by the public.
 - 3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- B. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
- C. Use of Construction Area: Spence Brothers will allocate and distribute areas for laydown and trailer setup, as they deem necessary. Trade Contractors must coordinate all material deliveries with Spence Brothers.

1.3 OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.
 - 1. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.

- 2. Before partial Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will provide, operate, and maintain mechanical and electrical systems serving occupied portions of building.
- 3. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 01 2200 UNIT PRICES

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

1.3 **DEFINITIONS**

A. Unit price is stated on the Bid Form as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual specification sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those sections.
- C. Owner reserves the right to reject contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to contractor.
- D. Other Unit Prices: Additional unit prices may be required after bids are submitted.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 SCHEDULE OF UNIT PRICES

No Unit Prices Required for Bid Package #3.

SECTION 01 2600 CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section "Unit Prices" for administrative requirements for using unit prices.
 - 2. Division 1 Section "Substitutions" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Spence Brothers from the Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.

- b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Spence Brothers and Trade Contractor (through Spence Brothers) may propose changes by submitting a request for a change to the Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Comply with requirements in Division 1 Section "Substitutions" if the proposed change requires substitution of one product or system for product or system specified.

1.5 ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, base each Change Order proposal on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the Purchase Order amount or Trade Contractor's handling, labor, installation, overhead, and profit. Submit claims within 21 days of receipt of the Change Order or Construction Change Directive authorizing work to proceed. Owner will reject claims submitted later than 21 days after such authorization.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has

changed from what could have been foreseen from information in the Contract Documents.

2. No change to Contractor's indirect expense is permitted for selection of higher or lower priced materials or systems of the same scope and nature as originally indicated.

1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Spence Brothers on AIA Document G701.

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 01 2900 PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of CM's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - 2. All Trade Contractor's shall submit their Schedule of Values to Spence Brothers, Spence Brothers will collaborate and submit to the Architect at the earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 - 3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Construction Manager/Constructor
 - c. Name of Architect.
 - d. Architect's project number.
 - e. Trade Contractor's name and address.
 - f. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value.
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
 - 4. Separate material and labor costs for each line item.
 - 5. If the project consists of phased construction, and/or the building is broken up in to several definable areas of construction as indicated on the architectural drawings, indicate separate line items for each. Separate site work building work etc.
 - 6. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not a direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The period covered by each Application for Payment starts on the first day of the month and ends on the last day of the month. Draft pay applications shall be submitted by the 20th of each month with the final signed copy submitted by the 25th of each month.
- C. Payment Application Forms: Use AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D. Application Preparation: When submitting to Spence Brothers, complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of the Trade Contractor. Spence Brothers will forward complete copies to the Architect or will return incomplete applications without action.
 - 1. Entries shall match data on the Schedule of Values and Spence Brothers' Construction Schedule. Use updated schedules if revisions were made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to Spence Brothers (to collaborate and submit to the architect) by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
 - 1. When an application shows completion of an item, submit final or full waivers.
 - 2. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 3. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

- 4. Submit documentation of the amount of work hours performed by their forces. This information shall be submitted along with monthly pay applications.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of Values.
 - 3. Trade Contractor's Construction Schedule
 - 4. Products list.
 - 5. Submittals Schedule (preliminary if not final).
 - 6. List of Trade Contractor's staff assignments.
 - 7. List of Trade Contractor's principal consultants.
 - 8. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 9. Initial progress report.
 - 10. Certificates of insurance and insurance policies.
 - 11. Performance and payment bonds (if required).
 - 12. Data needed to acquire Owner's insurance.
 - 13. Initial settlement survey and damage report if required.
 - 14. Indicate 2% of their contract amount, as a line item, on their schedule of values, as "Clean Up".
 - 15. Indicate 3% of contract amount, as a line item, on their schedule of values, as "Punch List".
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - 6. AIA Document G707, "Consent of Surety to Final Payment."
 - 7. Evidence that claims have been settled.

- 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
- 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 01 2977 SWORN STATEMENTS AND WAIVERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for sworn statement, partial and full waivers:

1.3 SWORN STATEMENT

- A. Sworn Statement shall be included with each Application for Payment.
- B. A sample Sworn Statement follows.
- C. Sworn Statement shall contain all necessary Project information, including:
 - 1. Date of Sworn Statement.
 - 2. County in which the deponent is at the time of the completion of the Sworn Statement.
 - 3. Deponent name.
 - 4. Contractor name on whose behalf the deponent is making statement.
 - 5. County in which the Project is situated.
 - 6. Project name and site location.
 - 7. Deponent signature and typewritten name.
 - 8. Notary name, signature, and commission expiration date.
 - 9. Project name and site location.
 - 10. Subcontractor/Supplier listings as submitted for approval at the beginning of the Project.
 - 11. Description of work to be completed by each subcontractor/supplier.
 - 12. Total contract amount for each subcontractor/supplier.
 - 13. Listings of amounts paid, amounts owing, retentions held, and balances to complete.

1.4 WAIVERS

- A. Applications for Payment must be accompanied by a Sworn Statement and applicable waivers. Partial and full waivers will be provided prior to release of contractor payment.
- B. A sample "partial" waiver follows.
- C. A sample "full" waiver follows.

1.5 APPLICATION AND CERTIFICATE FOR PAYMENT

A. No payment will be issued from the Construction Manager for any progress payment when the substantiating sworn statement and lien waiver(s) from the previous payment have not been received by the Construction Manager.

PART 2 - PRODUCTS

PART 3 - EXECUTION

Exhibit C

SWORN STATEMENT

State of		
County of	}§	
	, being duly sworn, states the following:	
	is a contractor/subcontractor for	located
in	_, (the "Project" and/or the "Property").	

The following is a statement of each subcontractor, supplier and laborer, for whom payment of wages or fringe benefits and withholdings is due but unpaid, with whom the contractor/subcontractor has contracted/subcontracted for performance under the contract with the owner or lessee, and the amounts due to the persons as of the date of this statement are correctly and fully set forth opposite their names:

Name Address and Number of Subcontractor, Supplier or Laborer	Type of Improvement Furnished	Total Contract Price	Amount Already Paid	Amount Currently Owing	Balance to Complete	Amount of Laborer Wages due but unpaid
Totals						

(Some columns may not be applicable to all persons listed)

I make this statement to certify to Spence Brothers, its surety (if any) and the Project owner under oath and penalty of perjury that the Property and Project is free from claims of construction liens or claims against Spence Brothers' payment bond, or the possibility of construction liens or bond claims, except as specifically set forth in this statement and except for construction liens by laborers that may be provided under section 109 of the Construction Lien Act, 1980 PA 497, MCL 570.1109.

WARNING TO OWNER OR LESSEE: AN OWNER OR LESSEE OF THE PROPERTY MAY NOT RELY ON THIS SWORN STATEMENT TO AVOID THE CLAIM OF A SUBCONTRACTOR, SUPPLIER OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR A LABORER WHO MAY PROVIDE A NOTICE OF FURNISHING UNDER SECTION 109 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1109 TO THE DESIGNEE OR TO THE OWNER OR LESSEE IF THE DESIGNEE IS NOT NAMED OR HAS DIED.

IF THIS SWORN STATEMENT IS IN REGARD TO A RESIDENTIAL STRUCTURE, ON RECEIPT OF THIS SWORN STATEMENT, THE OWNER OR LESSEE, OR THE OWNER'S OR LESSEE'S DESIGNEE MUST GIVE NOTICE OF ITS RECEIPT, EITHER IN WRITING, OR BY TELEPHONE, OR PERSONALLY, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING UNDER SECTION 109 OR, IF A NOTICE OF FURNISHING IS EXCUSED UNDER SECTION 108 OR 108A, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER NAMED IN THE SWORN STATEMENT. IF A SUBCONTRACTOR, SUPPLIER WHO HAS PROVIDED A NOTICE OF FURNISHING OR WHO IS NAMED IN THE SWORN STATEMENT MAKES A REQUEST, THE OWNER, LESSEE, OR DESIGNEE WHALL PROVIDE THE REQUESTER A COPY OF THE SWORN STATEMENT WITHIN 10 BUSINESS DAYS AFTER RECEIVING THE REQUEST.

Deponent Printed Name

Deponent Signature

WARNING TO DEPONDENT: A PERSON WHO GIVES A FALSE SWORN STATEMENT WITH INTENT TO DEFRAUD IS SUBJECT TO CRIMINAL PENALTIES AS PROVIDED IN SECTION 110 OF THE CONSTRUCTION LIEN ACT, 1980 pa 497, mcl 570.1110.

Subscribed and sworn to before me this

____day of ______,

Notary Public, County,

(county)

(state)

My Commission Expires:

PARTIAL UNCONDITIONAL WAIVER

Our contract with Spence Brothers to provide labor and materials for the _______Project (hereinafter the "Project" and/or the "Property") and hereby waive, release and discharge all our rights, claims, and causes of action however so characterized against Spence Brothers, its Surety (if any) and the Project Owner and any and all payment bonds for the Project (if any), and/or construction lien rights against the Property to the amount of \$______ for labor and materials provided through ______, 20___.

This waiver, together with all previous waivers, if any, does cover all amounts due to me for contract improvements provided through the date shown above.

We represent that our and/or any of our sub-tier subcontractors, laborers, labor unions, fringe funds and/or suppliers have been paid in full through the date shown above.

(Company)

Date: _____

(Signature)

Address:

Phone:

Subscribed and Sworn to before me this _____ day of _____, ____.

Notary Public: _____County, _____My Commission Expires: _____

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center Spence Brothers - Project Manual Section 01 2979 – Partial Waiver Sample Page 1 of 1

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

FULL UNCONDITIONAL WAIVER

Our contract with Spence Brothers to provide la	
	(hereinafter the "Project" and/or the
"Property") having been fully paid and satisfie	
of action however so characterized against Spen	
the Project Owner and any and all payment bonds	
construction lien rights against the Property a	re hereby waived, released, and
discharged. We represent that our and/or any o	f our sub-tier subcontractors,
laborers, labor unions, fringe funds and/or sup	pliers have been paid in full.
	[insert full name]
	-
Dated:	[insert address]
-	
E	Зу:
Outroughed and Outroughe he four methods	
Subscribed and Sworn to before me this d	ay or,
Notary Public:	
Notary Public: County,	
My Commission Expires:	

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 01 3113 COORDINATION OF PROJECT

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this section.

1.02 SUPERVISION

- A. Each Trade Contractor shall provide competent office management and field personnel as required for proper performance of the work. These personnel shall be experienced in the administration, coordination and supervision of the Trade Contractor's scope of work and how it relates to all other Trade Contractor's work. The Trade Contractor's supervision shall be acceptable to the project Team, and shall maintain order and discipline among the trades people at all times. They shall attend meetings as required and be authorized to act on and make decisions and commitments on behalf of the Trade Contractor.
- B. The Trade Contractor shall supervise and direct the work, using the Trade Contractor's best skill and attention. The Trade Contractor shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures and shall coordinate all portions of the work under the Trade Contractor's scope of work, subject to the overall coordination of Spence Brothers.
- C. The Trade Contractor has the responsibility to ensure that all product suppliers, subcontractors, etc. adhere to the Contract Documents, order material on time, taking into account the current market, delivery and manpower conditions and provide products on time. The Trade Contractor shall coordinate his work with that of all others on the Project, including deliveries, storage, installations and construction utilities. The Trade Contractor shall be responsible for the space requirements, locations and routing of his equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Trade Contractor shall notify Spence Brothers and meet with all others involved, before installation, to plan the most effective and efficient method of overall installation, access and performance.
- D. The Trade Contractor shall be responsible to the Owner and Spence Brothers for acts and omissions of the Trade Contractor's employees, subcontractors, and other persons performing portions of the work under a contract with the Trade Contractor, until the final acceptance of the Work by Spence Brothers and the Owner.

1.03 COORDINATION OF WORK/COOPERATION

A. Each Trade Contractor shall recognize the complex nature of the project, the sequential nature of contracts and the concurrent and ongoing operations of the Owner and other Trade Contractors with the work under this project. All Trade Contractors are required to review, discuss and coordinate their work with the work of other Trade Contractors as well as Spence Brothers with regard to sequence, timing, built-in work and equipment, layout, location, compatibility of materials and sizes and required clearances prior to beginning the work to

avoid construction delays which impact the Owner's occupancy of the facility. Since the work of changes in the scheduling, procedures, work or job conditions of a Trade Contractor may affect the scheduling procedures, work or job conditions of other Trade Contractors.

- B. Each Trade Contractor shall coordinate construction operations in various sections of the technical specifications to assure efficient and orderly installation of each part of the work that depend on each other for proper installation, connection, fit and operation.
 - 1. Schedule operation in the sequence required to obtain the best results where installation of one part of the work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with the owner's representative to assure maximum accessibility for required maintenance, service and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.
 - 4. Provide to all other trades all information (drawings, diagrams, templates, embedments, etc.) necessary for the coordination of the work.
- C. The completion of the building within the prescribed time is dependent upon the close and active cooperation and open discussions of all those involved, therefore, it is expressly understood and agreed that each Trade Contractor shall layout and install their work at such time and in such manner as not to delay or interfere with the carrying forward of the work of other Trade Contractors. Observation of the work by others shall not be interpreted as relieving a Trade Contractor from their responsibility for coordination, supervision, or scheduling and direction of the work.
- D. Trade Contractors are to report in a prompt manner any interferences, discrepancies or incompatibilities discovered to Spence Brothers, whose decision as to the party or parties at fault and as to the manner in which the matter may be resolved, shall be binding and conclusive on all parties. Spence Brothers may direct layout/location changes as required to make the entire work fit together. Minor changes of this nature will not be considered for increase in contract amount.
- E. Failure of a Trade Contractor to notify other Trade Contractors and Spence Brothers of a potential interference, incompatibility, or discrepancy and failure to coordinate their work with that of other Trade Contractors prior to installation and/or fabrication may be considered as sufficient cause to deny consideration for additional payment for what otherwise may be considered a change.
- F. Due to the nature of the Owner's existing areas, the sequence of work must be scheduled and coordinated with the Owner's ongoing operations to minimize disruptions and/or disturbances to the Owner's work and at all times shall remain as secondary to the Owner's work. Each segment of the work shall be coordinated with Spence Brothers prior to proceeding.
- G. All work is to comply with the rules and regulations of governing bodies having jurisdiction including federal, state and local codes. Work shall be performed by skilled tradesmen having experience in performing the work.

END OF SECTION 01 3113

SECTION 01 3119 PROJECT MANAGEMENT & MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for Project Meetings on the Project including, but not limited to, the following:
 - 1. Administrative and supervisory personnel.
 - 2. Project meetings.
- B. Each trade contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific trade contractor.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Construction Progress Documentation" for preparing and submitting the Trade Contractor's Construction Schedule.
 - 2. Division 1 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 1 Section "Coordination Drawings" for information regarding the coordination meetings required.
 - 4. Division 1 Section "Closeout Procedures" for coordinating Contract closeout.

1.3 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
 - 1. Include special personnel required for coordination of operations with other trade contractors.

1.4 PROJECT MEETINGS

- A. General: Spence Brothers will schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within 3 days of the meeting.
- B. Preconstruction Conference: Spence Brothers will schedule a preconstruction conference for all trade contractors before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. The conference will be at Project site or another convenient location. The meeting will review responsibilities and personnel assignments.
 - 1. Attendees: Authorized representatives of Owner, Architect, Spence Brothers, and their consultants; Trade Contractors and their superintendents; subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing.
 - d. Designation of responsible personnel.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for processing Applications for Payment.
 - g. Distribution of the Contract Documents.
 - h. Submittal procedures.
 - i. Preparation of Record Documents.
 - j. Use of the premises.
 - k. Responsibility for temporary facilities and controls.
 - 1. Parking availability.
 - m. Office, work, and storage areas.
 - n. Equipment deliveries and priorities.
 - o. First aid.
 - p. Safety Requirements
 - q. Coordination Issues with the Owner's operations
 - r. Security.
 - s. Progress cleaning.
 - t. Working hours.

- C. Preinstallation Conferences: Spence Brothers will conduct a preinstallation conference at the Project site before each construction activity that requires coordination with other construction, as deemed necessary by Spence Brothers, the Architect or the Owner.
 - 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Submittals.
 - g. Review of mockups.
 - h. Possible conflicts.
 - i. Compatibility problems.
 - j. Time schedules.
 - k. Weather limitations.
 - 1. Manufacturer's written recommendations.
 - m. Warranty requirements.
 - n. Compatibility of materials.
 - o. Acceptability of substrates.
 - p. Temporary facilities and controls.
 - q. Space and access limitations.
 - r. Regulations of authorities having jurisdiction.
 - s. Testing and inspecting requirements.
 - t. Required performance results.
 - u. Protection of construction and personnel.
 - 3. Spence Brothers will record significant conference discussions, agreements, and disagreements.
 - 4. Installation will not begin if the conference cannot be successfully concluded, unless direction is given by Spence Brothers. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Spence Brothers will conduct progress meetings at bi-weekly intervals or as determined necessary by Spence Brothers. Coordinate dates of meetings with preparation of payment requests.
 - 1. Attendees: In addition to representatives of Owner, Architect, and Spence Brothers, each trade contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

- 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Spence Brothers' Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to the Baseline Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
 - 14) Documentation of information for payment requests.
- 3. Reporting: Spence Brothers will distribute minutes of the meeting to each party present and to parties who should have been present.
 - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- E. Scheduling Meetings: Spence Brothers will conduct an initial scheduling meeting to collaborate the trade contractors' construction schedules into the Milestone schedule. Other scheduling meetings may be required to review, update, and revise the overall construction schedule throughout the remainder of the project.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3119

SECTION 01 3200 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Trade Contractor's Construction Schedule.
 - 2. Trade Contractor's Submittals Schedule.
 - 3. Daily Construction Reports
 - 4. Material Location Reports
 - 5. Field Condition Reports
 - 6. Special reports.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for submitting the Schedule of Values.
 - 2. Division 1 Section "Project Management and Meetings" for submitting and distributing meeting and conference minutes.
 - 3. Division 1 Section "Submittals" for submitting schedules and reports.
 - 4. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.

- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Trade Contractors, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- G. Major Area: A story of construction, a separate building, or a similar significant construction element.
- H. Milestone: A key or critical point in time for reference or measurement.
- I. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.

1.4 SUBMITTALS

- A. Trade Contractor's Construction Schedule: Submit one printed copy of initial schedule, large enough to show the entire bid category schedule. Also submit the following
 - 1. Submit an electronic copy of schedule, using Microsoft Project on labeled CDs to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.
- B. Special Reports: Submit two copies at time of unusual event.

1.5 QUALITY ASSURANCE

- A. Scheduling Meeting: Spence Brothers will conduct a meeting at the Project prior to work beginning. The meeting will review methods and procedures related to the Milestone Construction Schedule and each Trade Contractor's Construction Schedule, including, but not limited to, the following:
 - 1. Review software limitations and content and format for reports.
 - 2. Verify availability of qualified personnel needed to develop and update schedule.

- 3. Discuss constraints, including phasing, work stages, area separations, interim milestones, and partial Owner occupancy.
- 4. Review schedule for work of Owner's separate contracts.
- 5. Review time required for review of submittals and resubmittals.
- 6. Review requirements for tests and inspections by independent testing and inspecting agencies.
- 7. Review time required for completion and startup procedures.
- 8. Review and finalize list of construction activities to be included in schedule.
- 9. Review submittal requirements and procedures.
- 10. Review procedures for updating schedule.

1.6 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 TRADE CONTRACTOR'S SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

2.2 TRADE CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling." Trade Contractors Schedules must show how the trade contractor will complete their Bid Category as outlined in the Milestone Schedule.

- B. Activities: Treat each phase of work or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 14 days, unless specifically allowed by Spence Brothers.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittals" in schedule. Coordinate submittal review times in Trade Contractor's Construction Schedule with Trade Contractor's Submittals Schedule.
 - 4. Startup and Testing Time: Include not less than 7 days for startup and testing.
 - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for administrative procedures necessary for certification of Substantial Completion.
 - 6. Work Stages: Indicate important stages of construction for each major portion of the Bid Category, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - 1. Startup and placement into final use and operation.
 - 7. Milestones: Include the Milestone Schedule in the Trade Contractor's Construction Schedule.

2.3 TRADE CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Trade Contractor's Construction Schedule within 30 days of date established for the Notice of Award. Base schedule on the Milestone Construction Schedule and whatever updating and feedback was received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.4 REPORTS

- A. Spence Brothers will produce daily Construction Reports: Daily construction reports will record the following types of information concerning events at the Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. High and low temperatures and general weather conditions.
 - 5. Accidents.
 - 6. Meetings and significant decisions.
 - 7. Unusual events (refer to special reports).
 - 8. Stoppages, delays, shortages, and losses.
 - 9. Meter readings and similar recordings.
 - 10. Emergency procedures.
 - 11. Orders and requests of authorities having jurisdiction.
 - 12. Change Orders received and implemented.
 - 13. Construction Change Directives received.
 - 14. Services connected and disconnected.
 - 15. Equipment or system tests and startups.
 - 16. Partial Completions and occupancies.
 - 17. Substantial Completions authorized.
- B. Material Location Reports: Trade Contractors will produce and distribute to Spence Brothers, at monthly intervals, a comprehensive list of materials delivered to and stored at the Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Trade Contractors will immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report for Spence Brothers. The report will be submitted on a Request for Information (RFI). Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Spence Brothers within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Trade Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Spence Brothers in advance when these events are known or predictable.

PART 3 - EXECUTION

END OF SECTION 01 3200

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SECTION 01 3300 SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for submitting Applications for Payment.
 - 2. Division 1 Section "Coordination Drawings" for submitting Coordination Drawings.
 - 3. Division 1 Section "Quality Requirements" for submitting test and inspection reports and Delegated-Design Submittals and for erecting mockups.
 - 4. Division 1 Section "Closeout Procedures" for submitting warranties, Project Record Documents and operation and maintenance manuals.
 - 5. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Trade Contractor's for use in preparing submittals and shop drawings with a signed Release of Electronic Media Records form and an Architect's fee.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

- a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
 - 1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Spence Brothers when a submittal being processed must be delayed for coordination.
 - 2. Concurrent Review: Where concurrent review of submittals by Architect's consultants, Owner, or other parties is required, allow 14 days for initial review of each submittal.
 - a. Color and finish materials, selections, mechanical and electrical equipment.
 - 3. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 4. Allow 14 days for processing each resubmittal.
 - 5. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- E. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 4 by 5 inches on label or beside title block to record Spence Brothers' review and approval markings and action taken by Architect.
 - 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Bid Category No.
 - d. Name and address of Architect.
 - e. Name and address of Contractor.
 - f. Name and address of subcontractor.
 - g. Name and address of supplier.
 - h. Name of manufacturer.
 - i. Unique identifier, including revision number.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - 1. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.

- 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
- 2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. Transmittal: Contractor shall complete in its entirety the Spence Brothers transmittal form. All contractor required items must be completed prior to submission. The transmittal shall be the first page of the submittal. Only one specification should be included on each transmittal
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Number of Copies: Submit all action submittals electronically to Spence Brothers with the required transmittal.
 - 2. Contractor shall fill out the transmittal form included in this project manual. All information shall be filled out completely prior to submitting the submittal. Any submittal submitted with missing information will be returned without processing.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operating and maintenance manuals.
 - k. Compliance with recognized trade association standards.
 - 1. Compliance with recognized testing agency standards.

- m. Application of testing agency labels and seals.
- n. Notation of coordination requirements.
- C. Shop Drawings: Prepare project specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - 1. Notation of dimensions established by field measurement.
 - 2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
 - 4. Number of Copies: Submit all action submittals electronically to Spence Brothers with the required transmittal.
- D. Coordination Drawings: Comply with requirements in Division 1 Section "Coordination Drawings".
- E. Samples: Prepare physical units of materials or products, including the following:
 - 1. Comply with requirements in Division 1 Section "Quality Requirements" for mockups.
 - 2. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - 3. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

- 4. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of Sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
- 5. Additional Information: On an attached separate sheet, prepared on Trade Contractor's letterhead, provide the following:
 - a. Size limitations.
 - b. Compliance with recognized standards.
 - c. Availability.
 - d. Delivery time.
- 6. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
 - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
- 7. Number of Samples for Initial Selection: Submit three full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- 8. Number of Samples for Verification: Submit three sets of Samples. Mark up and retain one returned Sample set as a Project Record Sample.
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
- 9. Disposition: Maintain sets of approved Samples at Project site, available for qualitycontrol comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Trade Contractor.
- F. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - 1. Type of product. Include unique identifier for each product.

- 2. Number and name of room or space.
- 3. Location within room or space.
- G. Delegated Design Submittal: Comply with requirements in Division 1 Section "Quality Requirements."
- H. Trade Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for the development of the Trade Contractor's Construction Schedule.
- I. Trade Contractor's Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
- J. Application for Payment: Comply with requirements in Division 1 Section "Payment Procedures."
- K. Schedule of Values: Comply with requirements in Division 1 Section "Payment Procedures."
- L. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit all action submittals electronically to Spence Brothers with the required transmittal.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - 3. Test and Inspection Reports: Comply with requirements in Division 1 Section "Quality Requirements."
- B. Trade Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
- C. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- D. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.

- E. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- F. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- I. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- J. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- K. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- L. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- M. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- N. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures."
- O. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations.

Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

- P. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
 - 1. Preparation of substrates.
 - 2. Required substrate tolerances.
 - 3. Sequence of installation or erection.
 - 4. Required installation tolerances.
 - 5. Required adjustments.
 - 6. Recommendations for cleaning and protection.
- Q. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Name, address, and telephone number of factory-authorized service representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - 3. Statement that products at Project site comply with requirements.
 - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 6. Statement whether conditions, products, and installation will affect warranty.
 - 7. Other required items indicated in individual Specification Sections.
- R. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- S. Material Safety Data Sheets: Submit information directly to Spence Brothers. If submitted to Architect, Architect will not review this information but will return it with no action taken.

PART 3 - EXECUTION

3.1 SPENCE BROTHERS' REVIEW

- A. Spence Brothers will review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Spence Brothers' approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Spence Brothers' approval stamp and will return them without action.
- B. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken and return promptly. Architect will review finish and color selection submittals with Owner before final approval.
- C. Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. Final Unrestricted Release: When the Architect marks a submittal "No Exception Taken" the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
 - 2. Final-But-Restricted Release: When the Architect marks a submittal "Note Marks -Process or Comments Attached - Process," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
 - 3. Returned for Resubmittal: When the Architect marks a submittal "Note Marks Resubmit, Comments Attached Resubmit, or Rejected Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
- D. Informational Submittals: Architect will review each submittal and will not return it, or will reject and return it if it does not comply with requirements, will forward each submittal to appropriate party.
- E. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01 3300

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center



	Date	Name and	Project Number	Submittal Number	
SPENCE		Project:	Submitting Contractor:	Spence Brothers	Spence Brothers
BROTHERS					
"Building Trust Since 1893"	Specification Section			Architect	Architect
417 McCoskry Street Saginaw, MI 48601 Phone: (989) 752-0400 Fax (989) 752-8769				Contractor	Contractor

Manufacturer/ Supplier	Description	Quantity Submitted Rapidly Renewable (Percent)		Recycled Content (Percent)		Distance From Job (Miles)		Material Cost (No Labor or Markup)		A/E Review Action			
		Drawing	Catalog	Sample		Post- Consumer	Post- Industrial	Extracted	Fabricated	All Wood Materials	FSC Wood Materials	Material Cost	
Contractor Comments:				Architect / Engineer Comments:									
					Architect's Signature: Date:								
Certification: The undersigned certifies that the attached submittal has been reviewed and that it conforms with the drawings and specifications. The contractor also acknowledges			Review Action Codes: A – No Exception Noted AAN – Exceptions as Noted				5	Submitted via:					
								Email / Electronic					
that the LEED information (if applicable) is accurate as submitted. Approval of		RR – Revise and Resubmit NR – Not Required					UPS						
this submittal does not relieve the contractor of conformance to the contract documents.							USPS						
Contractor:											Our Delive	•	
Signature:											Your Picku	р	

SECTION 01 5000 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.
- B. Temporary utilities include, but are not limited to, the following:
 - 1. Sewers and drainage.
 - 2. Water service and distribution.
 - 3. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
 - 4. Heating and cooling facilities.
 - 5. Ventilation.
 - 6. Electric power service.
 - 7. Lighting.
 - 8. Telephone service.
- C. Support facilities include, but are not limited to, the following:
 - 1. Temporary roads and paving.
 - 2. Dewatering facilities and drains.
 - 3. Project identification and temporary signs.
 - 4. Waste disposal facilities.
 - 5. Field offices.
 - 6. Storage and fabrication sheds.
 - 7. Lifts and hoists.
 - 8. Temporary stairs.
 - 9. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
 - 1. Environmental protection.
 - 2. Stormwater control.
 - 3. Tree and plant protection.
 - 4. Pest control.
 - 5. Site enclosure fence.
 - 6. Security enclosure and lockup.
 - 7. Barricades, warning signs, and lights.
 - 8. Covered walkways.
 - 9. Temporary enclosures.
 - 10. Temporary partitions.

- 11. Fire protection.
- E. Related Sections include the following:
 - 1. Division 1 Section "Submittals" for procedures for submitting copies of implementation and termination schedule and utility reports.

1.3 DEFINITIONS

A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities are not chargeable to Owner or Architect and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
 - 1. Owner's security.
 - 2. Architect.
 - 3. Testing agencies.
 - 4. Personnel of authorities having jurisdiction.
- B. Water Service: Use water from the Owner's existing water system without metering and without payment of use charges for interior renovation work only.
- C. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges for interior renovation work only.

1.5 SUBMITTALS

- A. Temporary Utility Reports: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
- B. Implementation and Termination Schedule: Within 15 days of date established for submittal of Trade Contractor's Construction Schedule, submit a schedule indicating implementation and termination of each temporary utility.

1.6 QUALITY ASSURANCE

- A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.
 - 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
 - 2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.7 PROJECT CONDITIONS

- A. Temporary Utilities: At earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of permanent service.
 - 1. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
 - 1. Keep temporary services and facilities clean and neat.
 - 2. Relocate temporary services and facilities as required by progress of the Work.
 - 3. Replace grass and shrubs, and paving after removal of any temporary services.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect. Provide materials suitable for use intended.
- B. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.76-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.
- C. Paint: Comply with requirements in Division 9 Section "Painting."
- D. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.
- E. Water: Potable.

2.2 EQUIPMENT

- A. General: Provide equipment suitable for use intended.
- B. Field Offices: Prefabricated Mobile units with lockable entrances, operable windows, and serviceable finishes; heated and air conditioned; on foundations adequate for normal loading.
- C. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.
 - 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
- D. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

- E. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.
- F. Heating Equipment: Unless Owner authorizes use of permanent heating system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use for type of fuel being consumed.
- G. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.
- H. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125V ac, 20A rating, and lighting circuits may be nonmetallic sheathed cable, if permitted by the appropriate code official.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.
 - 1. Arrange with construction manager for time when service can be interrupted, if necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Before temporary utility is available, provide trucked-in services.
 - 3. Obtain easements to bring temporary utilities to Project site where Owner's easements cannot be used for that purpose.
- B. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds, and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off-site in a lawful manner.

- 1. Filter out excessive soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.
- 2. Connect temporary sewers to municipal system as directed by sewer department officials.
- 3. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. After heavy use, restore normal conditions promptly.
- 4. Provide temporary filter beds, settlement tanks, separators, and similar devices to purify effluent to levels acceptable to authorities having jurisdiction.
- C. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
 - 1. Provide rubber hoses as necessary to serve Project site.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Disposable Supplies: Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Maintain adequate supply. Provide covered waste containers for disposal of used material.
 - 2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy.
 - 3. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel who handle materials that require wash up. Dispose of drainage properly. Supply cleaning compounds appropriate for each type of material handled.
 - 4. Drinking-Water Facilities: Provide bottled-water, drinking-water units.
- E. Heating and Cooling: Construction Manager will provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment from that specified that will not have a harmful effect on completed installations or elements being installed.
 - 1. Maintain a minimum temperature of 50 deg F (10 deg C) in permanently enclosed portions of building for normal construction activities, and 65 deg F (18.3 deg C) for finishing activities and areas where finished Work has been installed.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment from that specified that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- G. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnecting means, automatic ground-fault interrupters, and main distribution switchgear.
 - 1. Install electric power service underground, unless overhead service must be used.
 - 2. Install power distribution wiring overhead and rise vertically where least exposed to damage.

- 3. Connect temporary service to Owner's existing power source, as directed by electric company officials.
- H. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- I. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
 - 1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
 - 2. Provide warning signs at power outlets other than 110 to 120 V.
 - 3. Provide metal conduit, tubing, or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
 - 4. Provide metal conduit enclosures or boxes for wiring devices.
 - 5. Provide 4-gang outlets, spaced so 100-foot (30-m) extension cord can reach each area for power hand tools and task lighting. Provide a separate 125-V ac, 20-A circuit for each outlet.
- J. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Provide one 100W incandescent lamp per 500 sq. ft. (45 sq. m), uniformly distributed, for general lighting, or equivalent illumination.
 - 3. Provide one 100W incandescent lamp every 50 feet (15 m) in traffic areas.
 - 4. Provide one 100W incandescent lamp per story in stairways and ladder runs, located to illuminate each landing and flight.
 - 5. Install exterior-yard site lighting that will provide adequate illumination for construction operations, traffic conditions, and signage visibility when the Work is being performed.
 - 6. Install lighting for Project identification sign.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
 - 2. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines. Comply with NFPA 241.
 - 3. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Traffic Controls: Provide temporary traffic controls at junction of work with public roads. Include warning signs for public traffic and "STOP" signs. Comply with requirements of authorities having jurisdiction.

- C. Dewatering Facilities and Drains: Comply with requirements in applicable Division 2 Sections for temporary drainage and dewatering facilities and operations not directly associated with construction activities included in individual Sections. Where feasible, use same facilities. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining property nor endanger permanent Work or temporary facilities.
 - 2. Before connection and operation of permanent drainage piping system, provide temporary drainage where roofing or similar waterproof deck construction is completed.
 - 3. Remove snow and ice as required to minimize accumulations.
- D. Project Identification and Temporary Signs: Prepare Project identification and other signs in sizes indicated. Install signs where indicated to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs.
 - 1. Engage an experienced sign painter to apply graphics for Project identification signs. Comply with details indicated.
 - 2. Prepare temporary signs to provide directional information to construction personnel and visitors.
 - 3. Construct signs of exterior-type Grade B-B high-density concrete form overlay plywood in sizes and thicknesses indicated. Support on posts or framing of preservative-treated wood or steel.
 - 4. Paint sign panel and applied graphics with exterior-grade alkyd gloss enamel over exterior primer.
- E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste. Comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.
 - 1. If required by authorities having jurisdiction, provide separate containers, clearly labeled, for each type of waste material to be deposited.
 - 2. Develop a waste management plan for Work performed on Project. Indicate types of waste materials Project will produce and estimate quantities of each type. Provide detailed information for on-site waste storage and separation of recyclable materials. Provide information on destination of each type of waste material and means to be used to dispose of all waste materials.
- F. Lifts and Hoists: Provide facilities for hoisting materials and personnel. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- G. Temporary Stairs: Until permanent stairs are available, Spence Brothers will provide temporary stairs where ladders are not adequate. Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of acceptance.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable

effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.

- B. Stormwater Control: Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of stormwater from heavy rains.
- C. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from construction damage. Protect tree root systems from damage, flooding, and erosion.
- D. Site Enclosure Fence: Before a construction operation begins, Spence Brothers will install chain-link enclosure fence with lockable entrance gates. Locate where indicated, or enclose entire Project site or portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering site except by entrance gates.
 - 1. Set fence posts in compacted mixture of gravel and earth.
 - 2. Provide gates in sizes and at locations necessary to accommodate delivery vehicles and other construction operations.
 - 3. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Provide Owner with one set of keys.
 - 4. Any damage to the site fence must be repaired immediately by the trade contractor causing such damage. Temporary removal of the fence must be reinstalled, prior to the end of the day.
- E. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- F. Barricades, Warning Signs, and Lights: Trade Contractors will comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.
 - 1. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch- (16-mm-) thick exterior plywood.
- G. Temporary Enclosures: Provide temporary enclosures (as directed in your Bid Category) for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- H. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures (as directed in your Bid Category) to limit dust and dirt migration and to separate areas from fumes and noise.
 - 1. Construct dustproof partitions of not less than nominal 4-inch (100-mm) studs, 5/8-inch (16-mm) gypsum wallboard with joints taped on occupied side, and 1/2-inch (13-mm) fire-retardant plywood on construction side.

- a. Construct a vestibule and airlock at each entrance to temporary enclosure with not less than 48 inches (1219 mm) between doors. Maintain water-dampened foot mats in vestibule.
- 2. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
- 3. Protect air-handling equipment.
- 4. Weatherstrip openings.
- I. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Provide fire extinguishers, installed on walls on mounting brackets, visible and accessible from space being served, with sign mounted above.
 - a. Field Offices: Class A stored-pressure water-type extinguishers.
 - b. Other Locations: Class ABC dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for exposures.
 - c. Locate fire extinguishers where convenient and effective for their intended purpose; provide not less than one extinguisher on each floor at or near each usable stairwell.
 - 2. Store combustible materials in containers in fire-safe locations.
 - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fireprotection facilities, stairways, and other access routes for firefighting. Prohibit smoking in hazardous fire-exposure areas.
 - 4. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
 - 5. Permanent Fire Protection: At earliest feasible date in each area of Project, complete installation of permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
 - 6. Develop and supervise an overall fire-prevention and first-aid fire-protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.

- D. Temporary Facility Changeover: Except for using permanent fire protections as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 - 3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1 Section "Closeout Procedures."

SECTION 01 6000 BIDDING SUBSTITUTIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.
- B. Bidding substitution form 01 6001.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for handling requests for substitutions made during the bidding phase and prior to the Contract.

1.3 DEFINITIONS

- A. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.
 - 1. Substitutions requested during the bidding period, and accepted by Addendum prior to award of the Contract, are included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.

1.4 SUBMITTALS

- A. Bidding substitution form 01 6001: The Architect will consider requests for substitution if requests are received within the time requirements listed in the instructions to bidders. Requests received after the date may be considered or rejected at the discretion of the Architect.
 - 1. Submit one (1) copies of each request for substitution for consideration. Submit requests in the form and according to procedures required in this section.
 - 2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
 - 3. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a Product Data, including Drawings and descriptions of products and fabrication and installation procedures.
 - b Samples, where applicable or requested.
 - c Cost information, including a proposal of the net change, if any.

- d Project name.
- e Date.
- f Bid Category No.
- g Name of manufacturer.
- i Unique identifier, including revision number.
- j Number and title of appropriate Specification Section.
- k Other necessary identification.
- 4. Architect's Action: The Architect will notify the Trade Contractor of acceptance or rejection of the substitution based on one of the conditions listed below.
 - a. Substitution approved Substitution approved as noted Make submittals in accordance with Spec. Section.
 - b. Substitution rejected Use specified materials.
 - c. Substitution request received too late Use specified materials

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

Material Substitution Request	
Project:	Substitution Request No.
То:	From:
	Date:
Attn:	A/E Project No. Contract For:
Specification Title:	Description:
Section: Page:	Article/Paragraph:
Proposed Substitution:	
Manufacturer:	
Trade Name: Installer:	Model No.:
Address:	Phone:
History:	
New Product 2 - 5 Years Old 5 - 10 Years Old More Than 10 Years Old Differences between proposed substitution and specified product:	
Potential Cost Savings to the Owner \$ Product Comparison Information Guide Complete Product Data Guide Product Submittal Sheet Product Sample Attached data includes product description, details, and performance/test data adequate for evaluation of the request. No changes to the contract documents are required if the proposed substitution is accepted.	
The undersigned certifies:	
Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product	
performance. Same warranty will be furnished for proposed substitution as for specified product.	
Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.	
Proposed substitution does not affect dimensions and Functional Performance Values.	
Payments will be made for changes to building design, including A/E design, detailing, and construction costs caused by substitution	
Submitted by:	
Signed by:	
Firm:	
Address:	
Telephone: Fax: E-m	ail:
Email:	
A/E's Review and Action	
Substitution approved - Substitution approved as noted - Make submittals in accordance with Spec. Section	
Substitution rejected - Use specified materials	
Substitution request received too late - Use specified materials	
Signed by:	Date:
Supporting data attached Drawings Product Data	Samples Tests
Reports Other	
Spence Brothers Page 1 of 1 Page	ges Bidding Substitution Form

SECTION 01 6005 SUBSTITUTIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for handling requests for substitutions made after award of the Contract.
- B. Related Section: The following section contains requirements that relate to this Section:
 - 1. Division 1 Section "Submittals" specifies requirements for submitting the Trade Contractor's Construction Schedule and the Trade Contractor's Submittal Schedule.

1.3 **DEFINITIONS**

- A. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.
- B. Substitutions: Changes in products, materials, equipment and methods of construction required by the Contract Documents proposed by the Trade Contractor after award of the Contract are considered to be requests for substitutions. The following are not considered to be requests for substitutions:
 - 1. Substitutions requested during the bidding period, and accepted by Addendum prior to award of the Contract, are included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.
 - 2. Revisions to the Contract Documents requested by the Owner or Architect.
 - 3. Specified options of products and construction methods included in the Contract Documents.
 - 4. The Trade Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

A. Substitution Request Submittal: The Architect will consider requests for substitution if received within 60 days after commencement of the Work. Requests received more than sixty (60) days after commencement of the Work may be considered or rejected at the discretion of the Architect.

- 1. Submit five (5) copies of each request for substitution for consideration. Submit requests in the form and according to procedures required for change-order proposals.
- 2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
- 3. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors that will be necessary to accommodate the proposed substitution.
 - b. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size durability, and visual effect.
 - c. Product Data, including Drawings and descriptions of products and fabrication and installation procedures.
 - d. Samples, where applicable or requested.
 - e. A statement indicating the substitution's effect on the Construction Manager/ Constructor Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - f. Cost information, including a proposal of the net change, if any in the Contract Sum.
 - g. The Trade Contractor's certification that the proposed substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.
 - h. The Trade Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
- 4. Architect's Action: If necessary, the Architect will request additional information or documentation for evaluation within one week of receipt of a request for substitution. The Architect will notify the Trade Contractor of acceptance or rejection of the substitution within 2 weeks of receipt of the request, or one week of receipt of additional information or documentation, whichever is later. Acceptance will be in the form of a change order.
 - a. Use the product specified if the Architect fails to respond with the above requirements.

PART 2 – PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Architect will receive and consider the Trade Contractor's request for substitution when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests without action except to record noncompliance with these requirements.
 - 1. Extensive revisions to the Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the Contract Documents.
 - 3. The request is timely, fully documented, and properly submitted.
 - 4. The specified product or method of construction cannot be provided within the Contract Time. The Architect will not consider the request if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 - 5. The request is directly related to an "or-equal" clause or similar language in the Contract Documents.
 - 6. The requested substitution offers the Owner a substantial advantage, in cost, time, energy conversation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner, and similar considerations.
 - 7. The specified product or method of construction cannot receive necessary approval by a governing authority and the requested substitution can be approved.
 - 8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials and where the Trade Contractor certifies that the substitution will overcome the incompatibility.
 - 9. The specified product or method of construction cannot be coordinated with other materials and where the Trade Contractor certifies that the proposed substitution can be coordinated.
 - 10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Trade Contractor certifies that the proposed substitution provides the required warranty.
 - 11. Where a proposed substitution involves more than one Trade Contractor, each Trade Contractor shall cooperate with the other Trade Contractors involved to coordinate the Work, provide uniformity and consistency, and assure compatibility of products.

B. The Trade Contractor's submittal and the Architect's acceptance of Shop Drawings, Product Data, or Samples for construction activities not complying with the Contract Documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

PART 3 – EXECUTION (Not Applicable)

SECTION 01 7000 EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. General installation of products.
 - 4. Coordination of Owner-installed products.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.
 - 8. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 1 Section "Project Management and Meetings" for procedures for coordinating field engineering with other construction activities.
 - 2. Division 1 Section "Submittals" for submitting surveys.
 - 3. Division 1 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
 - 4. Division 1 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 SUBMITTALS

A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and

verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

- 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Spence Brothers not less than seven days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Spence Brothers' written permission.

- C. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Spence Brothers. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify promptly.
- B. General: Spence Brothers will engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Spence Brothers will establish benchmarks and control points to allow trade contractors to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Spence Brothers.

3.4 FIELD ENGINEERING

- A. Identification: Spence Brothers will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Spence Brothers. Report lost or destroyed permanent benchmarks or control

points promptly. Report the need to relocate permanent benchmarks or control points to Spence Brothers before proceeding.

- 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of three permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: Spence Brothers may upon completion of the foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 7'-6" in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.
- 3.6 OWNER-INSTALLED PRODUCTS
 - A. Site Access: Provide access to Project site for Owner's construction forces.
 - B. Coordination: All Trade Contractors will coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Spence Brothers will inform the Owner of their preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 - 2. Preinstallation Conferences: Spence Brothers will include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.7 PROGRESS CLEANING

- A. General: Clean project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- K. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.

- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 01 7329 CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 1 Section "Selective Demolition" for demolition of selected portions of the building for alterations.
 - 2. Division 7 Section "Through-Penetration Firestop Systems" for patching fire-rated construction.
 - 3. Divisions 2 through 40 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to Existing Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.

- 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
- 7. Spence Brothers' Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
 - 1. As structural elements that require Architect's and Spence Brothers' approval of a cutting and patching proposal.
 - a. Foundation Construction
 - b. Bearing and Retaining Walls
 - c. Structural Concrete
 - d. Structural Steel Decking
 - e. Exterior Curtain Wall
- B. Operational Elements: Do not cut and patch <u>the following</u> operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 - 1. Primary operational systems and equipment.
 - 2. Air or smoke barriers.
 - 3. Fire-protection systems.
 - 4. Control systems.
 - 5. Communication systems.
 - 6. Conveying systems.
 - 7. Electrical wiring systems.
 - 8. Operating systems of special construction in Division 13 Sections.
- C. Miscellaneous Elements: Do not cut and patch the following elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
 - 1. Water, moisture, or vapor barriers.
 - 2. Membranes and flashings.
 - 3. Exterior curtain-wall construction.
 - 4. Equipment supports.
 - 5. Piping, ductwork, vessels, and equipment.
 - 6. Noise and vibration control elements and systems.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's

aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

- 1. If possible, retain original Installer or fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or fabricator, engage another recognized, experienced, and specialized firm.
 - a. Processed concrete finishes.
 - b. Stonework and stone masonry.
 - c. Ornamental metal.
 - d. Matched veneer woodwork.
 - e. Preformed metal panels.
 - f. Roofing.
 - g. Firestopping.
 - h. Window wall system.
 - i. Terrazzo.
 - j. Finished wood flooring.
 - k. Fluid-applied flooring.
 - 1. Aggregate wall coating.
 - m. Wall covering.
 - n. HVAC enclosures, cabinets, or covers.
- E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Before proceeding, meet at project site with parties involved with cutting and patching, including mechanical and electrical teams. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
 - 2. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

- 2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
- 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
- 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
- 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
- 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 - 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an evenplane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center

SECTION 01 7700 CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Project Record Documents.
 - 3. Operation and Maintenance manuals.
 - 4. Warranties.
 - 5. Instruction of Owner's personnel.
 - 6. Final cleaning.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
 - 2. Division 1 Section "Construction Progress Documentation" for submitting Final Completion construction photographs and negatives.
 - 3. Division 1 Section "Execution Requirements" for progress cleaning of Project site.
 - 4. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 5. Division 1 Section "Project Record Documents" for Record Drawing, Record Specifications, Record Product Data requirements.
 - 6. Divisions 2 through 40 Sections for specific closeout and special cleaning requirements for products of those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

- 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
- 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
- 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
- 8. Complete startup testing of systems.
- 9. Submit test/adjust/balance records.
- 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- 11. Advise Owner of changeover in heat and other utilities.
- 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- 13. Complete final cleaning requirements, including touchup painting.
- 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Spence Brothers of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Spence Brothers of items, either on Spence Brothers' list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
 - 1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
 - 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, will either proceed with inspection or notify Spence Brothers of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Spence Brothers of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Spence Brothers that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with the Basement first and proceeding up the floors.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.

1.6 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect, Spence Brothers, and Owners reference during normal working hours.
- B. Refer to Section 01 7839 Project Record Documents for Record Drawings, Record Specifications, Record Product Data requirements.

1.7 OPERATION AND MAINTENANCE MANUALS

- A. Trade Contractors will assemble three complete sets of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Electronic copies of print information shall be submitted also. Include the Commissioning requirements in the O & M Manuals. Include operation and maintenance data required in individual Specification Sections and as follows:
 - 1. Operation Data:
 - a. Emergency instructions and procedures.
 - b. System, subsystem, and equipment descriptions, including operating standards.
 - c. Operating procedures, including startup, shutdown, seasonal, and weekend operations.
 - d. Description of controls and sequence of operations.
 - e. Piping diagrams.
 - 2. Maintenance Data:
 - a. Manufacturer's information, including list of spare parts.
 - b. Name, address, and telephone number of Installer or supplier.
 - c. Maintenance procedures.
 - d. Maintenance and service schedules for preventive and routine maintenance.

- e. Maintenance record forms.
- f. Sources of spare parts and maintenance materials.
- g. Copies of maintenance service agreements.
- h. Copies of warranties and bonds.
- B. Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "OPERATION AND MAINTENANCE MANUAL," Project name, and subject matter of contents.

1.8 WARRANTIES

- A. Submittal Time: Trade Contractors will submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 30 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Spence Brothers.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 DEMONSTRATION AND TRAINING

- A. Instruction: Trade Contractors will instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Provide instructors experienced in operation and maintenance procedures.
 - 2. Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
 - 3. Schedule training with Owner with at least seven days' advance notice.
 - 4. Coordinate instructors, including providing notification of dates, times, length of instruction, and course content.
- B. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline. Include instruction for the following:
 - 1. System design and operational philosophy.
 - 2. Review of documentation.
 - 3. Operations.
 - 4. Adjustments.
 - 5. Troubleshooting.
 - 6. Maintenance.
 - 7. Repair.

3.2 FINAL CLEANING

- A. General: Spence Brothers will provide final cleaning (unless specified in your specifications or work scopes). Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.

- f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, and similar spaces.
- h. Sweep concrete floors broom clean in unoccupied spaces.
- i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
- j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- k. Remove labels that are not permanent.
- 1. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
- m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- n. Replace parts subject to unusual operating conditions.
- o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- q. Clean ducts, blowers, and coils if units were operated without filters during construction.
- r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
- s. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

SECTION 01 7836 WARRANTIES AND GUARANTIES

PART 1 - GENERAL

1.1 SUMMARY

This Section includes administrative and procedural requirements for warranties and guaranties from Manufacturers, Suppliers and Subcontractors.

1.2 RELATED DOCUMENTS

Related Sections include the following:

- 1. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.
- 2. Division 1 Section "Closeout Procedures" for submitting warranties, Project Record Documents and operation and maintenance manuals.
- 3. Section 00650 "Certificates of Insurance" for submitting:
 - a. Letter from Contractor's Insurance carrier that a Certificate of Insurance shall be sent to the Construction Manager at renewal time for a **one** (1) **year** period after substantial completion.

1.3 SUBMITTALS (CLOSE-OUT)

General: Prepare and submit warranties and guaranties:

- 1. The Contractor shall provide a written Guaranty for all labor, material, equipment and workmanship for a minimum period of **one** (1) **year** from the date of Substantial Completion of the project (or longer period of time if stipulated in the specifications) covering the work of their entire Bid Division(s).
- 2. The Contractor shall also provide a written Warranty covering all work of their entire Bid Division(s) for a minimum period of **one (1) year** from the date of final project completion (or longer period of time if stipulated in the specifications).
- 3. The Contractor shall further provide all supplier, manufacturer, subcontractor and other written guaranties and warranties covering the work of the entire Bid Division(s) as required by the project specifications (longer period of time if stipulated in the specifications).
- 4. The Contractor shall provide a quantity of three (3) original written Guaranties and Warranties.
- 5. The Contractor shall review all guaranties and warranties to assure of their compliance with all conditions of the contract.

- 6. The Contractor shall assemble all guaranties and warranties, fully executed by each respective contractor, supplier, manufacturer and subcontractor, in a three ring binder and submit to the construction manager within ten (10) days of the date of Substantial Completion of the project.
- 7. If the Owner elects to permit equipment and component parts of equipment into service during the progress of construction and has issues such permission in writing, all such guaranties and warranties must be submitted to the construction manager within ten (10) days after inspection and acceptance.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

SECTION 01 7839 PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 0 and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for general closeout procedures and maintenance manual requirements.
 - 2. Divisions 2 through 40 Sections for specific requirements for Project Record Documents of products in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Transfer all as-built conditions to the master set held by the Construction Manager.
- B. Record Specifications:
 - 1. Transfer all as-built conditions to the master set held by the Construction Manager.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings and transfer all notations to the master set held by the Construction Manager.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.

- a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
- b. Accurately record information in an understandable drawing technique.
- c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
- 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - 1. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
- 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
- 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
- 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
- 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
 - 1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 - 2. Consult with Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications and transfer all notations to the master set held by the Construction Manager.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of the manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 - 5. Note related Change Orders, Record Drawings, and Product Data where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Drawings, and Product Data where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project. Transfer all notations to Record Set held by Construction Manager.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from reference during normal working hours.

The Herbert H. and Grace A. Dow Foundation New Dow Gardens Welcome Center