



DANE COUNTY DEPARTMENT of PUBLIC WORKS, HIGHWAY and TRANSPORTATION

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Commissioner / Director
Gerald J. Mandli

NOVEMBER 14, 2013

ATTENTION ALL REQUEST FOR BID (RFB) HOLDERS

RFB NO. 313086 - ADDENDUM NO. 2

CONSTRUCTION OF ARCTIC ANIMAL EXHIBIT AND CONCESSIONS

BIDS DUE: THURSDAY, DECEMBER 12, 2013, 2:00 PM. DUE DATE AND TIME ARE NOT CHANGED BY THIS ADDENDUM.

This Addendum is issued to modify, explain or clarify the original Request for Bid (RFB) and is hereby made a part of the RFB. Please attach this Addendum to the RFB.

PLEASE MAKE THE FOLLOWING CHANGES:

ADD: DIVISION 01- GENERAL REQUIREMENTS

Place the following Sections into Volumn I of II (Division 00 through Division 14)

1. **ADD:** Section 01 00 00 – Basic Requirements
2. **ADD:** Section 01 40 00 – Quality Requirements
3. **ADD:** Section 01 50 00 – Temporary Facilities and Controls
4. **ADD:** Section 01 70 00 – Execution and Closeout Requirements
5. **ADD:** Section 01 74 19 - Recycling

If any additional information about this Addendum is needed, please call Eric Urtes, AIA at 608/266-4798, urtes.eric@countyofdane.com.

Sincerely,

J. Eric Urtes,
AIA, Project Manager

SECTION 01 00 00
BASIC REQUIREMENTS

PART 1 GENERAL

1.1 SECTION SUMMARY

- A. Section Includes:
1. Section Summary
 2. Summary of the Work
 3. Contractor Use of Premises
 4. Applications for Payment
 5. Alternates
 6. Coordination
 7. Cutting and Patching
 8. Conferences
 9. Progress Meetings
 10. Submittal Procedures
 11. Proposed Products List
 12. Shop Drawings
 13. Product Data
 14. Samples
 15. Manufacturers' Instructions
 16. Manufacturers' Certificates
 17. Quality Assurance / Quality Control of Installation
 18. References
 19. Erection Drawings
 20. Protection of Installed Work
 21. Parking
 22. Staging Areas
 23. Occupancy During Construction and Conduct of Work
 24. Protection
 25. Progress Cleaning
 26. Products
 27. Transportation, Handling, Storage and Protection
 28. Product Options
 29. Substitutions
 30. Starting Systems
 31. Demonstration and Instructions
 32. Contract Closeout Procedures
 33. Final Cleaning
 34. Adjusting
 35. Operation and Maintenance Data
 36. Spare Parts and Maintenance Materials

1.2 SUMMARY OF THE WORK

- A. Project Description: Perform the Work as specified and detailed in Construction Documents package. Contractor to provide construction services for the Henry Vilas Zoo to include construction of a new bear exhibit, seal exhibit and concessions building covering approximately 1.75 acres. The bear and seal buildings are slab on grade and are constructed of C.I.P. walls, pre-cast insulated walls, and pre-cast hollow core roof panels. The bear building is 2,690 s.f., the seal building is 3,000 s.f. The exhibits include C.I.P. concrete walls and C.I.P. concrete pools (50,000 gallons at seal and 42,000 at bear). Specialty work includes: animal cage work, artificial rock work, and LSS/filtration systems for pools. The concessions building is 4,900 s.f., slab-on-grade, conventional steel frame and pre-cast insulated panels. Construction is to begin by February 1, 2014 and be complete by April 1, 2015
- B. Permits: Prior to commencement of the Work, Contractor to secure any and all necessary permits for completion of the Work and facility occupancy.

1.3 CONTRACTOR USE OF PREMISES

- A. Limit use of premises to allow work by Contractors or Subcontractors and access by Owner.
- B. During the project demolition and construction of the new exhibits and concessions building the Henry Vilas Zoo will remain open to the public on a daily basis and for special events. As indicated on Drawing Sheet CS1.0 ACCESS AND STAGING PLAN a six foot (6'-0") pathway along the south side of the limits of construction shall be maintained as a public access corridor between the central section of the zoo and the Zoo Animal Health Center from April 1, 2014 to September 1, 2014.
- C. The Contractor shall have access to the site during all work hours from the Construction Staging Area located in the parking lot on the north-west intersection of Vilas Park Drive and S. Orchard Street. The Construction Staging Area includes dedicated spaces for employee & equipment parking, lay-off areas, and staging areas. Other available areas on the site will be coordinated with the Public Works Project Manager and Henry Vilas Zoo staff.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit three (3) copies of each application on AIA G702™ and G703™ forms or approved contractors invoice form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit updated construction schedule with each Application for Payment.
- D. Payment Period: Submit at intervals stipulated in the Agreement.

- E. Submit with transmittal letter on Architect/Engineer approved form. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix. Identify project, Contractor, Subcontractor, and supplier.

1.5 ALTERNATES, UNIT PRICES, INFORMATIONAL BIDS & ALLOWANCES

- A. Alternates quoted on Bid Form shall be reviewed and accepted or rejected at the Owner's option. In addition to Alternates (Add/Deduct) provide Unit Prices and Informational Bids as listed on the Bid Form. Allowances listed on the Bid Form shall be incorporated into the Base Bid.
- B. Coordinate related work and modify surrounding work as required.

1.6 COORDINATION

- A. Coordinate scheduling, submittals, and work of various sections of Construction Documents (including sections of Specifications) to assure efficient and orderly sequence of installation of interdependent construction elements. Provide an updated construction timetable at each project job progress meeting.
- B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings.

1.7 CUTTING AND PATCHING

- A. Employ a skilled and experienced installer to perform cutting and patching new work; restore work with new Products.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.
- C. Fit work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- D. Refinish surfaces to match adjacent finishes.

1.8 CONFERENCES

- A. Dane County Department of Public Works, Highway & Transportation will schedule a preconstruction conference after Award of Contract for all affected parties.
- B. When required in individual Specification section, convene a pre-installation conference at project site prior to commencing work of the section. The Public Works Division will make available conference rooms when required for larger gatherings upon request of the Contractor.

1.9 PROGRESS MEETINGS

- A. Contractor shall schedule and administer meetings throughout progress of the Work at minimum of one (1) per week.
- B. Contractor shall preside at meetings, record minutes, and distribute copies within two (2) days to those affected by decisions made.

1.10 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Construction Documents references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Construction Documents.
- C. Identify variations from Construction Documents and Product or system limitations that may be detrimental to successful performance of completing the Work.
- D. Revise and resubmit submittals as required; identify all changes made since previous submittal.

1.11 PROPOSED PRODUCTS LIST

- A. Within fifteen (15) days after date of Award of Contract, submit complete list of major Products proposed for use, with name of manufacturer, trade name, and model number of each Product.

1.12 SHOP DRAWINGS

- A. Submit number of copies that Contractor requires, plus four (4) copies that shall be retained by the Architect/Engineer and the Public Works Project Manager. Submit to Architect/Engineer FTP site for review for limited purpose of checking for conformance with information given and design concept expressed in the Construction Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Submit one PDF copy on FTP site and four (4) hard copies total to Architect/Engineer and the Public Works Project Manager. All shop drawings must be stamped by the Contractor, unless noted otherwise.
- D. After review, Contractor shall maintain copies required for Record Documents.

1.13 PRODUCT DATA

- A. Submit number of copies that Contractor requires, plus two (2) copies that shall be retained by Public Works Project Manager.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this Project.

1.14 SAMPLES

- A. Submit samples to the Architect/Engineer to illustrate functional and aesthetic characteristics of the Product.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Public Works Project Manager's selection. Submit samples per the requirements of the Specification Sections, Architect/Engineer will retain one sample.

1.15 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual Specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.16 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification sections, submit manufacturers' certificate to Public Works Project Manager for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Architect/Engineer.
- D. Submit Test Reports for Architect/Engineer's review for County.
- E. Manufacturer's Field Reports, where available, shall be submitted to the Architect/Engineer for the limited purpose of assessing conformance with information given and design concept expressed in the Construction Documents.
- F. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable and to initiate instructions when necessary.

- G. Submit qualifications of observer to Architect/Engineer fifteen (15) days in advance of required observations. Observer subject to approval of Architect/Engineer or County.
- H. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

1.17 QUALITY ASSURANCE / QUALITY CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. When manufacturer's instructions conflict with Construction Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.18 REFERENCES

- A. Conform to reference standard by date of issue current as of date for receiving bids.
- B. Should specified reference standard conflict with Construction Documents, request clarification from Public Works Project Manager before proceeding.

1.19 ERECTION DRAWINGS

- A. Submit Drawings for Architect/Engineer's benefit as representative of the County. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Construction Documents.
- B. Data indicating inappropriate or unacceptable Work may be subject to action by the Architect/Engineer and the County.

1.20 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual Specification sections.

1.21 PARKING

- A. Arrange for temporary parking areas to accommodate construction personnel. Parking shall be available at the Work site in the Construction Staging Area. If additional parking is required nearby on-street parking can be utilized (Contractor is required to meet the posted legal parking requirements of the City of Madison). Some additional parking may potentially be available at other areas around the Zoo which would need to be coordinated with the Zoo Director or Deputy Director.

1.22 STAGING AREAS

- A. Coordinate staging areas with Public Works Project Manager prior to starting the Work.
- B. On-site space for use as staging areas and storage of materials is limited and will be apportioned among the various Contractors as their needs dictate with due regard for storage requirements of each Contractor. Each Contractor shall be responsible for safety of equipment and materials that are stored on site. The primary staging area will be the parking lot on the east end of the site (located at the north-west corner of Vilas Park Drive and S. Orchard Street) described as Construction Staging Area on Drawing Sheet CS1.0 ACCESS AND STAGING PLAN.

1.23 OCCUPANCY DURING CONSTRUCTION AND CONDUCT OF WORK

- A. Areas of existing facility will be occupied during period when the Work is in progress. Work may be done during normal business hours (7:30 am to 5:30 pm), but confer with Owner, schedule work and store materials so as to interfere as little as possible with normal use of premises. Notify Owner when coring or similar noise making work is to be done and obtain Owner's written approval of schedule. If schedule is not convenient for Owner, reschedule and resubmit new times for Owner approval.
- B. Work shall be done and temporary facilities furnished so as not to interfere with access to any occupied area and so as to cause least possible interference with normal operation of facility or any essential service thereof.
- C. Contractor shall, at all times, provide approved, safe walkways and facility entrances for use by Owner, employees and public.
- D. Contractor shall provide adequate protection for all parts of facility, its contents and occupants wherever the Work under this Contract is to be performed.
- E. Each Contractor shall arrange with Owner to make necessary alterations, do new work, make connections to all utilities, etc., at such times as will not cause interruption of utility services to facility. Contractor doing this work shall protect, cap, cut off and / or replace and relocate existing pipes, electrical work and other active utilities encountered which may interfere with new construction work.
- F. New work in extension of existing work shall correspond in all respects with that to which it connects or similar existing work unless otherwise indicated or specified.

1. Existing work shall be cut, altered, removed or replaced as necessary for performance of Contract obligations.
2. Work remaining in place, damaged or defaced by reason of work done under this Contract shall be restored equal to its condition at time of Award of Contract.
3. If removal of work exposes discolored or unfinished surfaces or work out of alignment, such surfaces shall be refinished or materials replaced as necessary to make continuous work uniform and harmonious.

1.24 PROTECTION

- A. Refer to Section 01 70 00; EXECUTION AND CLOSEOUT REQUIREMENTS

1.25 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

1.26 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by Construction Documents.

1.27 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- A. Transport, handle, store and protect Products in accordance with manufacturer's instructions.

1.28 PRODUCT OPTIONS

- A. Where definite material is specified, it is not intention to discriminate against "equal" product made by another manufacturer. Intention is to set definite standard of material quality.
- B. Products and materials that are not specified, but have been approved for use by Public Works Project Manager shall be identified in addenda to all bidding contractors.
- C. Requests for material or product substitutions submitted shall be considered after the Bid Date. Dane County reserves right to approve or reject substitutions based on Specification requirements and intended use.

1.29 SUBSTITUTIONS

- A. Public Works Project Manager shall consider requests for Substitutions only within twenty (20) days after date of Public Works Construction Contract or as determined during the pre-construction meeting. Submissions shall be submitted to the Architect/Engineer for initial review.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Construction Documents.
- C. Submit three (3) copies of requests for Substitution for consideration. Limit each request to one (1) proposed Substitution.
- D. Substitutions shall not change contract price established at Bid Due Date.

1.30 STARTING SYSTEMS

- A. Provide written notification seven (7) days ahead and coordinate schedule with Architect/Engineer and Public Works Project Manager prior to start-up of each equipment item or system.
- B. Verify each piece of equipment or system has been checked to follow manufacturers guidelines prior to start-up and that it is ready for operation.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- D. Verify wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.
- F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and supervise placing equipment or system in operation.
- G. Submit written report to the Architect/Engineer and the Public Works Project Manager that equipment or system has been properly installed and is functioning correctly.

1.31 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products and Project equipment to County's personnel prior to date of Substantial Completion. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with County's personnel in detail to explain all aspects of operation and maintenance. Prepare and insert additional data in operations and maintenance manuals when need for data becomes apparent during instruction.
- D. Owner may choose to videotape demonstration session; demonstration and demonstrator shall be to level of satisfaction of Owner.

1.32 CONTRACT CLOSEOUT PROCEDURES

- A. Refer to Section 01 70 00; EXECUTION AND CLOSEOUT REQUIREMENTS

1.33 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior glass, surfaces exposed to view, remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum surfaces as necessary to remove debris.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- D. Clean filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.34 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.35 OPERATION AND MAINTENANCE MANUAL

- A. Provide operation and maintenance manual for all mechanical and electrical equipment and systems supplied and installed in the Work. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.

- C. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- D. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
- E. Originals of warranties and bonds

1.36 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.
- B. Deliver to the Work site and place in location as directed.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Tolerances.
- B. References.
- C. Labeling.
- D. Mock-up requirements.
- E. Testing and inspection services.
- F. Examination.
- G. Preparation.

1.2 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Construction Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.3 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Construction Documents, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Construction Documents, request clarification from Architect/Engineer before proceeding.

- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect/Engineer shall be altered from Construction Documents by mention or inference otherwise in reference documents.

1.4 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.

1.5 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this section and identified in respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be comparison standard for remaining Work.
- D. Where mock-up has been accepted by Architect/Engineer and the County and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so by Architect/Engineer or the Public Works Project Engineer..

1.6 TESTING AND INSPECTION SERVICES

- A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection of construction materials if additional testing and inspection services are warranted during demolition and construction.
- B. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Construction Documents.
- C. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by Architect/Engineer.
- D. Agency Responsibilities:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Architect/Engineer and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.

4. Ascertain compliance of materials and mixes with requirements of Construction Documents.
5. Promptly notify Architect/Engineer and Contractor of observed irregularities or non-conformance of Work or products.
6. Perform additional tests required by Architect/Engineer.
7. Attend preconstruction meetings and progress meetings.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 2. Temporary electricity
 - 3. Temporary lighting for construction purposes
 - 4. Temporary heating
 - 5. Temporary cooling
 - 6. Temporary ventilation
 - 7. Telephone service
 - 8. Facsimile service
 - 9. Temporary water service
 - 10. Temporary sanitary facilities

- B. Construction Facilities:
 - 11. Field offices and sheds
 - 12. Vehicular access
 - 13. Parking
 - 14. Progress cleaning and waste removal
 - 15. Project identification
 - 16. Traffic regulation
 - 17. Fire prevention facilities

- C. Temporary Controls:
 - 18. Barriers
 - 19. Enclosures and fencing
 - 20. Security
 - 21. Water control
 - 22. Dust control
 - 23. Erosion and sediment control
 - 24. Noise control
 - 25. Pollution control
 - 26. Mold and Moisture Control
 - 27. Removal of utilities, facilities, and controls

1.2 TEMPORARY ELECTRICITY

- A. Provide and pay for power service required from Madison Gas & Electric (MG&E) source as needed for construction operation. Utilize Owner's existing power service, but provide separate metering and reimburse County for cost of energy used.

- B. Provide temporary electric feeder from electrical service at location as directed by County. Do not disrupt County's use of service.
- C. Complement existing power service capacity and characteristics as required for construction operations.
- D. Provide power outlets, with branch wiring and distribution boxes located as required for construction operations in consultation with the Henry Vilas Zoo personnel . Provide flexible power cords as required for portable construction tools and equipment.
- E. Provide feeder switch at source distribution equipment. Provide separate Meter.
- F. Permanent convenience receptacles may not be utilized during construction without prior authorization by the County.
- G. Provide distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting as required for construction operations and site lighting around construction area.
- H. Comply with NECA, NEMA, and UL Standards and Regulations for temporary service. Install service to comply with NFPA 70.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting for construction operations to achieve minimum lighting level of 2 watt/square foot.
- B. Provide and maintain 1 watt/square foot lighting to exterior staging and storage areas after dark for security purposes.
- C. Provide and maintain 0.25 watt/square foot HID lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps for specified lighting levels.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may not be utilized during construction.

1.4 TEMPORARY HEATING

- A. Provide and pay for heating devices and heat as needed to maintain specified conditions for construction operations. Provide separate metering and reimburse County for cost of energy used.
- B. Prior to operation of permanent equipment for temporary heating purposes, verify installation is approved for operation and will not void warranty by the use, equipment is

lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts. Coordinate with Architect / Engineer and County prior to use of permanent equipment.

1.5 TEMPORARY COOLING

- A. Provide and pay for cooling devices and cooling as needed to maintain specified conditions for construction operations. Provide separate metering and reimburse County for cost of energy used.
- B. Prior to operation of permanent equipment for temporary cooling purposes, verify installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.

1.6 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

1.7 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to contractor field office at time of project mobilization.

1.8 FACSIMILE SERVICE

- A. Provide, maintain and pay for facsimile service and dedicated telephone line to contractor field office at time of project mobilization.

1.9 TEMPORARY WATER SERVICE

- A. County will pay cost of temporary water. Exercise measures to conserve energy. Utilize County's existing water system, extend and supplement with temporary devices as needed to maintain specified conditions for construction operations.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.
- C. Contractor is required to provide connections and extensions of services as required for construction operations; include temporary services and metering.

1.10 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required sanitary facilities and enclosures. Provide facilities at time of project mobilization.

1.11 FIELD OFFICES AND SHEDS

- A. Do not use existing facilities for field offices or for storage.
- B. Contractor and sub-contractors (where necessary) to provide Weather tight, with lighting, electrical outlets, and heat as needed for their own use during project.
- C. Provide space for Project meetings, with table and chairs to accommodate 6 persons. Larger project meetings can be accommodated at the Zoo Administration Building or other location designated by the County.
- D. Office for the Architect / Engineer will be provided by the County.
- E. Locate offices and sheds where determined by County at pre-construction meeting.
- F. When permanent facilities are enclosed with operable utilities, Contractor may elect to relocate offices and storage into building, with written agreement of County, and remove temporary buildings.
- G. Construction: Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors.
 - 1. Construction: Structurally sound, secure, weather tight enclosures for office and storage spaces. Maintain during progress of Work; remove when no longer needed
 - 2. Temperature Transmission Resistance of Floors, Walls, and Ceilings: Compatible with occupancy and storage requirements.
 - 3. Locate a minimum distance away of 30 feet from existing structures.
 - 4. Lighting for exterior lighting at entrance doors.
 - 5. Interior Materials in Storage Sheds: As required to provide specified conditions for storage of products.
- H. Environmental Control:
 - 1. Storage Spaces: Heating and ventilation as needed to maintain products in accordance with Construction Documents; lighting for maintenance and inspection of products.
- I. Storage Areas And Sheds: Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products by Architect / Engineer & Public Works Project Manager.
- J. Preparation: Fill and grade sites for temporary structures sloped for drainage away from buildings.
- K. Installation:

1. Install office spaces ready for occupancy within 20 days after date fixed in following Notice to Proceed.
 2. Parking: Hard surface lot parking will be available for the Contractor.
- L. Maintenance And Cleaning:
1. Periodic cleaning and maintenance for office and storage areas.
 2. Maintain approach walks free of mud, water, and snow.
- M. Removal: At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

1.12 VEHICULAR ACCESS

- A. Construct temporary access roads from public circulation roadways as necessary to serve construction area, of width and load bearing capacity to accommodate unimpeded traffic for construction purposes.
- B. Construct temporary culverts to span low areas and allow unimpeded drainage. Construct tracking pad where access roads meet public circulation roadways/areas & clean tracking pad periodically to keep mud off of them.
- C. Extend and relocate vehicular access as Work progress requires, provide detours as necessary for unimpeded traffic flow.
- D. Location as approved by the Public Works Project Manager.
- E. Provide unimpeded access for emergency vehicles. Maintain 20 foot wide driveways with turning space between and around combustible materials.
- F. Provide and maintain access to fire hydrants free of obstructions.
- G. Provide means of removing mud from vehicle wheels before entering city streets.
- H. Use existing on-site areas and roads for construction traffic, tracked vehicles not allowed on paved areas except for those being replaced with new paving. Damaged paving in the parking lot designated as the Construction Staging Area shall be repaired or replaced by the Contractor to the satisfaction of the County.

1.13 PARKING

- A. Paved surface parking areas are available to accommodate construction personnel.
- B. Locate as approved at per-construction meeting.
- C. Use of existing on-site streets and driveways used for construction traffic is permitted. Tracked vehicles not allowed on City streets or paved areas in the main area of the Zoo outside of the limits of construction.
- D. Permanent Pavements And Parking Facilities:

1. Permanent roads and parking areas may be used for construction traffic.
 2. Avoid traffic loading beyond paving design capacity.
- E. Maintenance:
1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
 2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- F. Removal, Repair:
1. Remove temporary materials and construction at Substantial Completion.
 2. Remove underground work and compacted materials to depth of 2 feet fill and grade site as specified.
 3. Repair existing facilities damaged by use, to original condition.
- G. Mud From Site Vehicles: Provide means of removing mud from vehicle wheels before entering streets.

1.14 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site periodically and dispose off-site.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.15 PROJECT IDENTIFICATION

- A. Project Identification Sign:
 1. One painted sign, 32 square feet area, bottom 6 feet above ground.
 2. Content:
 - a. County will provide list of agencies and sponsors to be designated.
County will provide graphic artwork image of facility.
 - b. Names and titles of Architect/Engineer and Consultants.
 - c. Name of Prime Contractor and major Subcontractors.
 3. Graphic Design, Colors, Style of Lettering: Designated by Architect/Engineer.
- B. Project Informational Signs:

1. Painted informational signs of same colors and lettering as Project Identification sign, or standard products; size lettering for legibility at 100 feet distance.
 2. Provide sign at each field office, storage shed, and directional signs to direct traffic into and within site. Relocate as Work progress requires.
 3. Provide municipal traffic agency directional traffic signs to and within site.
 4. No other signs are allowed without County permission except those required by law.
- C. Design sign and structure to withstand 60 miles/hour wind velocity.
- D. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.
- E. Show content, layout, lettering, and color.
- F. Sign Materials:
1. Structure and Framing: New and structurally adequate.
 2. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum $\frac{3}{4}$ inch thick, standard large sizes to minimize joints.
 3. Rough Hardware: Galvanized
 4. Paint and Primers: Exterior quality, two coats; sign background color as selected.
 5. Lettering: Exterior quality paint, contrasting colors.
- G. Installation:
1. Install project identification sign within 15 days after Notice to Proceed.
 2. Erect adjacent to main entrance to site.
 3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
 4. Install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports, and framing.
- H. Maintenance: Maintain signs and supports clean, repair deterioration and damage.
- I. Removal: Remove signs, framing, supports, and foundations at completion of Project and restore area.

1.16 TRAFFIC REGULATION

- A. Signs, Signals, And Devices:
1. Post Mounted and Wall Mounted Traffic Control and Informational Signs: As approved by authority having jurisdiction.
 2. Automatic Traffic Control Signals: As approved by local jurisdictions.
 3. Traffic Cones and Drums, Flares and Lights: As approved by authority having jurisdiction.
 4. Flagperson Equipment: As required by authority having jurisdiction.
- B. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

- C. Flares And Lights: Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- D. Haul Routes:
 1. Consult with authority having jurisdiction, establish public thoroughfares to be used for haul routes and site access.
 2. Confine construction traffic to designated haul routes.
 3. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
- E. Traffic Signs And Signals:
 1. Provide signs at approaches to site and on site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
 2. Provide, operate, and maintain traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
 3. Relocate as Work progresses, to maintain effective traffic control.
- F. Removal:
 1. Remove equipment and devices when no longer required..
 2. Repair damage caused by installation.
 3. Remove post settings to depth of 2 feet.

1.17 FIRE PREVENTION FACILITIES

- A. Prohibit smoking within buildings under construction and demolition. Designate area on site where smoking is permitted. Provide approved ashtrays in designated smoking areas.
- B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- C. Portable Fire Extinguishers: NFPA 10; 10 pound capacity, 4A-60B: C UL rating.
 1. Provide one fire extinguisher at each stair on each floor of buildings under construction.
 2. Provide minimum one fire extinguisher in every construction trailer and storage shed.
 3. Provide minimum one fire extinguisher on roof during roofing operations using heat producing equipment.

1.18 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by authorities having jurisdiction for public rights-of-way.

- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.19 ENCLOSURES AND FENCING

- A. Construction: Contractor's option either Commercial grade chain link fence or Plastic construction netting is acceptable. Provide chain link fence along the six foot wide public corridor (between April 1, 2014 & September 1, 2014) where indicated on Drawing Sheet CS1.0 ACCESS AND STAGING PLAN.
- B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.
- C. Exterior Enclosures:
 - 1. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.20 SECURITY

- A. Security Program:
 - 1. Protect Work and existing Henry Vilas Zoo premises & operations from theft, vandalism, and unauthorized entry.
 - 2. Initiate program in coordination with Henry Vilas Zoo's existing security at project mobilization.
 - 3. Maintain program throughout construction period until County acceptance precludes need for Contractor security
- B. Entry Control:
 - 1. Restrict entrance of persons and vehicles into Project site.
 - 2. Allow entrance only to authorized persons with proper identification.
 - 3. Maintain log of workers and visitors, make available to County on request.
- C. Personnel Identification:
 - 1. Provide identification badge to each person authorized to enter premises.
 - 2. Maintain list of accredited persons, submit copy to the Henry Vilas Zoo Director/Deputy Director &/or Public Works Project Manager on request.
 - 3. Require return of badges at expiration of their employment on the Work.
- D. Restrictions:
 - 1. Do not allow cameras on site or photographs taken except by written approval of County.
 - 2. Work only during the times set forth in the Construction Documents unless there is prior approval by the County.

1.21 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.22 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

1.23 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- B. Minimize surface area of bare soil exposed at one time.
- C. Provide temporary measures including berms, dikes, and drains, and other devices to prevent water flow.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- F. Show compliance with requirements of Dane County Erosion Control Permit. Provide informational submittal to show compliance. Provide barriers in and around excavations and sub-grade construction to prevent flooding by runoff of storm water from heavy rains.

1.24 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise from equipment and noise produced by construction operations.

1.25 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.26 MOLD AND MOISTURE CONTROL

- A. Contractor's Moisture Protection Plan: Avoid trapping water in furnished work. Document visible signs of mold that may appear during construction
- B. Exposed construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect materials from water damage and keep porous and organic materials from coming into prolonged contact with concrete.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
 - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 - 2. Keep interior spaces reasonably clean and protected from water damage.
 - 3. Discard or replace water-damaged and wet material.
 - 4. Discard, replace or clean stored or installed material that begins to grow mold.
 - 5. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
 - 1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 - 2. Remove materials that can not be completely restored to their manufactured moisture level within 48 hours.

1.27 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Final Application for Payment inspection.
- B. Remove underground installations to minimum depth of 2 foot. Grade site as indicated on Drawings.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- 1) Closeout Procedures
- 2) Protecting Installed Construction
- 3) Project Record and As-Built Documents
- 4) Product Warranties and Product Bonds
- 5) Maintenance Service

1.2 CLOSEOUT PROCEDURES

- B. Submit written certification that Construction Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Construction Documents and ready for Architect/Engineer's review.
- C. Provide submittals to County required by authorities having jurisdiction.
- D. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- E. County will occupy all of buildings and exhibit areas upon issuance of Occupancy Permit.

1.3 PROTECTING INSTALLED CONSTRUCTION

- B. Protect installed Work and provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

- G. Prohibit traffic from landscaped areas.
- H. Contractor shall protect from injury all trees, shrubs, hedges, walks and driveways and pay for any damage to same resulting from insufficient or improper protection.
- I. Guard Light: Contractor shall provide and maintain guard lights at all barricades, railings, obstructions in streets, roads or sidewalks and at all trenches adjacent to public walks or roads.

1.4 PROJECT RECORD AND AS-BUILT DOCUMENTS

- B. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- C. Ensure entries are complete and accurate, enabling future reference by County.
- D. Store record documents separate from documents used for construction.
- E. Record information concurrent with construction progress, not less than weekly.
- F. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- G. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish main floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
- H. Submit documents to Architect/Engineer with claim for final Application for Payment.
- I. Contractor-produced Drawings and Specifications shall remain property of Contractor whether Project for which they are made is executed or not. Contractor shall furnish Architect / Engineer with original marked up redlines of drawings and specifications that shall include all Addendums, Change Orders, Construction Bulletins, on-site changes, field corrections, etc. These are the project As-Built Drawings & Specifications. Provide

one set of Drawings and Specifications and one set of Record Drawings in AutoCAD format and entire specification in Word 2000 (or lower) format on CD.

- J. Architect / Engineer shall update the original Construction Documents to include all Addendums & any other changes including those provided by the Contractor in the As-Built Drawings & Specifications. These updates are the project Record Drawings & Specifications. All Record Drawings and Specifications shall be in AutoCAD format and Word 2000 (or lower) and provided by electronic file or CD to the County.
- K. Architect / Engineer shall furnish the Public Works Project Manager with Record Drawings as detailed in the Professional Services Agreement.

1.5 PRODUCT WARRANTIES AND PRODUCT BONDS

- B. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- C. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- D. Verify documents are in proper form, contain full information, and are notarized.
- E. Co-execute submittals when required.
- F. Include Table of Contents and assemble in three binder with durable plastic cover.
- G. Submit prior to final Application for Payment.
- H. Time Of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with County's permission, submit documents within tendays after acceptance.
 - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.6 MAINTENANCE SERVICE

- B. Furnish service and maintenance of components indicated in specification sections as required by warranty documents.
- C. Examine system components at frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by manufacturer of original component.
- E. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of County

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 74 19

RECYCLING

PART 1

PART 2 GENERAL

2.1 SUMMARY

- A. Section Includes:
 - 1. Waste Management Goals
 - 2. Waste Management Plan
 - 3. Reuse
 - 4. Recycling
 - 5. Materials Sorting and Storage On Site
 - 6. Lists of Recycling Facilities Processors and Haulers
 - 7. Waste Management Plan Form

- B. Related Sections:
 - 1. Section 01 00 00 - [Basic, General] Requirements
 - 2. Section 01 50 00 - Temporary Facilities and Controls
 - 3. Section 02 40 00 - Demolition & Structure Moving

2.2 WASTE MANAGEMENT GOALS

- A. Dane County requires that as many waste materials as possible produced as result of this project be salvaged, reused or recycled in order to minimize impact of construction waste on landfills and to minimize expenditure of energy and cost in fabricating new materials. Additional information may be found in The Dane County Green Building Policy, Resolution 299, 1999-2000.

- B. Contractor shall develop, with assistance of Public Works Project Manager and Architect / Engineer, Waste Management Plan (WMP) for this project. Outlined in RECYCLING section of this specification are examples of materials that can be recycled or reused as well as recommendations for waste sorting methods.

2.3 WASTE MANAGEMENT PLAN

- A. Contractor shall complete WMP and include cost of recycling / reuse in Bid. WMP will be submitted to Public Works Project Manager within fifteen (15) days of Notice to Proceed date. Copy of blank WMP form is in this Section. Submittal shall include cover letter and WMP form with:
 - 1. Information on:
 - a. Types of waste materials produced as result of work performed on site;
 - b. Estimated quantities of waste produced;
 - c. Identification of materials with potential to be recycled or reused;

- d. How materials will be recycled or reused;
- e. On-site storage and separation requirements (on site containers);
- f. Transportation methods; and
- g. Destinations.

2.4 REUSE

- A. Contractors and subcontractors are encouraged to reuse as many waste materials as possible. Salvage should be investigated for materials not reusable on site.

2.5 RECYCLING

- A. These materials can be recycled in Dane County area:
 - 1. Wood.
 - 2. Wood Pallets.
 - 3. Fluorescent Lamps.
 - 4. Foam Insulation & Packaging (extruded and expanded).
 - 5. PVC Plastic (pipe, siding, etc.).
 - 6. Asphalt & Concrete.
 - 7. Bricks & Masonry
 - 8. Corrugated Cardboard.
 - 9. Metal.
 - 10. Carpet Padding.
 - 11. Gypsum Drywall.
 - 12. Shingles.
 - 13. Barrels & Drums.
 - 14. Solvents.

2.6 MATERIALS SORTING AND STORAGE ON SITE

- A. Contractor shall provide separate containers for recyclable materials. Number of containers will be dependent upon project and site conditions.
- B. Contractor shall provide on-site locations for subcontractors supplied recycling containers to help facilitate recycling.

2.7 LISTS OF RECYCLING FACILITIES PROCESSORS AND HAULERS

- A. Web site www.countyofdane.com/pwht/recycle/categories.aspx lists current information for Dane County Recycling Markets. Contractors can also contact Dane County's Special Projects & Materials Manager at 608/266-4990, or local city, village, town recycling staff listed at site www.countyofdane.com/pwht/recycle/contacts.aspx. Statewide listings of recycling / reuse markets are available from UW Extension at www4.uwm.edu/shwec/wrmd/search.cfm.

2.8 WASTE MANAGEMENT PLAN FORM

A. Contractor Information:

Name: _____

Address: _____

Phone No.: _____ Recycling Coordinator: _____

MATERIAL	ESTIMATED QUANTITY	DISPOSAL METHOD (CHECK ONE)		RECYCLING / REUSE COMPANY OR DISPOSAL SITE
Salvaged & reused building materials	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Glass	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood Pallets	_____ units	_____ Recycled	_____ Reused	Name: _____
Fluorescent Lamps	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Foam Insulation	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Asphalt & Concrete	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Bricks & Masonry	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
PVC Plastic	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Corrugated Cardboard	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Metals	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Carpet Padding	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Gypsum / Drywall	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____

Shingles	_____ cu. yds. _____ tons	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Barrels & Drums	_____ units	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Solvents	_____ gallons	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____

PART 3 PRODUCTS

Not Used.

PART 4 EXECUTION

Not Used.

END OF SECTION