Proposed Sidewalk Replacement for: WARRENTON & NEW HAVEN BRANCHES SCENIC REGIONAL LIBRARY 251 Union Plaza Drive, Union, Missouri 63084

ABBREVIATIONS See MEP, Structural & Civil Drawings for additional abbreviations

Insu

10	Acoustical
	Acoustical
Adj	Adjustable
Alum	Alumínum
a	at
٨Þ	Access Panel
Þ	Drick
Bm	Beam
BS	Brick Shelf
Bim	Bottom
By Owner	Furnished and delivered by Owner.
	Installed by Contractor (Shown
	with solid lines)
CES	Carpet Edge Strip
	Corrier Guard
ChBd	Chalk Board
CJ	Control Joint
CMU CM	Concrete Block Masonry Unit
	Column
Conc., C	Concrete
Cont	Continuous
Conv	Convector
	Carpet
C^{-}, C^{-}	
CR	Coat Rack
	Channel
CL	Centerline
	Cold Water
CI	Ceramic tile
DAS	Dovetail Anchor Slot
DF	Drinking Fountain
	Dummu loint
	Daming oblite Daming oblite
	Dampproofing
DPH	Dual paper holder
DS	Downspout
	Dromall
ea.	
EC	Electrical Contractor
Elect.	Electric
FP	Electric Panel
<u> </u>	Edge Strip
E9	Euge strip
exp	expansion
Extr	Extruded
Ex Exist	Existing
	Eiro Alarm Danol
FCU	Fan Coll Unit
FD	Floor Drain
FDC	Fire Dept. Connection
FF	Fire Extinguisher
	Fine Extinguisher Coloinet
	Fire Extinguisher Cabinet
FHC	Fire Hose Cabinet
FHEC	Fire Hose & Extinguisher Cabinet
FHCS	Flat Head Countersunk
Ein	Finished
+l., +lr.	Floor
FRT	Fire Retardent Treated
Ga	Guade
Galy	Galvanized
Gaiv.	
GB	Grab Bar
GC	General Contractor
Gl	Glass
GT	Structural Glazed Tile
	nanaicapped
HVAC	Heating, Ventilating & Air Conditioning
HW	Hot Water
HCW	Hot & Cold Water
ЦM	
HΚ	Handrall

Insul	Insulation
Jt.	Joint
KO	Knock out panel
	Lavatory
	Liner Panel
Ma. I.	Marble Inreshold
mas	Masonry
MC	Mechanical Contractor
Met., M	Metal
MBM	Metal Building Manufacturer
mld	Molding
MO	Masonry Opening
MJR	Masonry Joint Reinforcing
MT	Metal Threshold
MES	Metal Edge Strip
NIC	Not In Contract. Installed 4
	furnished by Owner(shown dotted)
NR	Napkin Receptacle
N.T.S.	Not To Scale
<i>oc</i>	on center
opng	opening
opp	opposite
Pa, P	Paint
PC	Plumbing Contractor
PH	Paper Holder
PL, plas. lam.	Plastic Laminate
Ply	Plywood
PID	Paper Towel Dispenser
Pt. Fig.	Point Figure
PL	Plate
Pres.	Present
R	Rubber
RAG	Return Air Grille
RD	Root Drain
Recep.	
Ret.	Refrigerator Development
Reint.	Reinforcea, reinforcement Removable Multer
	Removable I willow
<u>S</u> A	Shelf and le
SAR	Supply Air Register
SD	Soap Dispenser
sh	shelves
S & P	Shelf & Pole
55	Stainless Steel
St	Steel
Susp	Suspended
sa.'	Square
Ta Bd.	Tackboard
ТВ	Towel Bar
TC	Top of concrete
TD	Towel Dispenser
Tel.	Telephone
T.O.M.	Top of Masonry
TP .	Tack Panel
tw⊨	Through Wall Flashing
Typ.	typical
UÑO	Unless Noted Otherwise
V	∨inyl
Vac	Vacuum
VAP	Visual Aid Panel
VCPB	Vinyl Coated Particle Board
VCT	Vinyl Composition Tile
VB	Vapor Barrier
w/	with
Wa	Wood
WDW, win	
	waterproofing
	weather Resistant Barrier
ww-	weided wire fabric

weather Resistant Barrier Welded Wire Fabric

NOTE:

DRAWING INDEX			SSUE Ate	Ē			
) pri Bid	ELIMINARY \bullet FOR CONSTRUCTION DDING / CODE \triangle REVISION	-25					
ARCI	HITECTURAL	1-23			•	•	•
AØ.1	COVER SHEET	•					
A1.1	WARRENTON WALK REPLACEMENT PLAN	•					
A1.2	NEW HAVEN WALK REPLACEMENT PLAN	•					
A2.1	SPECIFICATIONS	•					
A2.2	SPECIFICATIONS	•					

	directed the preparation of these documents or worked directly with another registered Architect that prepared or directed the preparation
	of these documents. Documents not exhibiting the seal shall not be assumed to be authorized by the Architect.
ŀ.	Changes to documents or other instructions written or otherwise not approved by the Architect will be the sole responsibility of the
	person(s) initiating the changes.

5. The architectural services contracted orally or in writing by the Owner determines, in part, the extent of the information shown in the documents. Lack of information about some aspect of the project is not necessarily the result of an error or omission on the part of the Architect.

INSTRUCTIONS TO READERS
 DO NOT SCALE THE DRAWINGS as a means of obtaining exact dimensions.
 These documents are <u>copyrighted</u> by the Architect. Architect reserves all rights to these documents which are not to be reproduced, copied, assigned to any third party or used on any project in whole or in part without the written permission of Horn Architects.
 The registered Architect's seal affixed to drawings, specifications, reports or other documents indicates that the Architect prepared or dispetite the transmission.

- 6. The Architect accepts no responsibility for the consequences of the use of these documents or any other written or oral instructions by persons inexperienced, unqualified or for any other reason unable to read, understand and comprehend them correctly.
- i. It is the Contractor's (installer, subcontractor, tradesman, material supplier, general contractor, etc.) responsibility to be familiar with any local, city, county, state or federal regulations, codes, ordinances, etc., that may apply to their work, materials, equipment or methods of construction.
- The Architect has not intended for these documents to describe each and every single component or method of construction needed to construct the project, but to develop documents -- that when used by competent tradesman and material suppliers -- will sufficiently describe explicitly or implicitly the appropriate materials and methods of assembly.
- The contents of these documents -- as well as any other written or oral communications issued by the Architect for this project -- are furnished to the party that contracted orally or in writing for the services on the condition that the Architect's total liability is limited now and forever to the party that contracted for the services, and to the fee paid for the services.
 The Architect shall not be held responsible for Contractor's construction means, methods, techniques, sequences, procedures, or safety
- The Architect shall not be held responsible for Contractor's failure to perform work in accordance with the Contract Documents. The Architect shall not be held responsible for contractor's failure to perform work in accordance with the Contract Documents. The Architect shall not be held responsible for acts or omissions of the Contractor or any subcontractor or their agents or employees or any
- other persons performing any of the work

_9	
	Column Line
Detail no.	Illall Section
Sheet where	Wall Section

SYMBOLS

<5>

∕᠇∖

<3>

Detail r

detailed

- Elevation no.

- Sheet where

Interior Elevation Indication elevation drawn

100 Indicates room number

Indicates new door and door number

Indicates existing door

I Indicates partition type numb'er

Indicates Keyed Demolition Note

Indicates Keyed Construction Note

Indicates Window Type

Indicates New Partition Indicates Existing Partition

Indicates Revision and Revision Number

** See Demolition, Plumbing, Mechanical and Electrical Drawings for additional symbols



CALL BEFORE YOU DIG

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION, INCLUDING ALL SHORING AND BRACING, AND ALL REQUIRED SAFETY PRECAUTIONS

MATERIAL INDICATIONS

BRICK CONCRETE CMU (concrete masonry units) EARTH FINISHED WOOD GLAZED TILE BLANKET INSULATION RIGID INSULATION METAL STUD PARTITION

WOOD BLOCKING OR FRAMING

 \ge









Warrenton Branch Location:

912 S. Hwy 47 Warrenton, Missouri, 63383

UARRENTON BRANCH LOCATION BCALE: NTS

New Haven Branch Location: 200 Douglas Street New Haven, Missouri, 63068

NEW HAVEN BRANCH LOCATION ADJ GCALE: NTG





- THE SITE IS TO BE LEFT FREE AND CLEAN OF
- ALL WASTE MATERIALS ARE TO BE REMOVED
- 3. NO SMOKING OR TOBACCO USE IS ALLOWED
- 4. CLOSURE OF THE BRANCH IS TO BE LIMITED, DIRECTOR. A MINIMUM OF 96 HOURS NOTICE
- SHALL BE PROVIDED WITH SAFE, CLEAN, AND
- FROM THE BUILDING ENTRANCES TO ALLOW PARKING FOR LIBRARY PATRONS, STAFF, AND
- 1. PARKING AND ACCESS FOR THE DISABLED
- TEMPORARY PROTECTIONS OF THE WORK, WORK AREA, AND ACCESS POINTS ARE THE
- 9. CONTRACTOR SHALL PROVIDE TRAFFIC AND PARKING CONTROL AS REQUIRED TO PROVIDE SAFE VEHICULAR INGRESS AND EGRESS FROM AROUND OBSTRUCTIONS SUCH AS EQUIPMENT

NUMBER A-2007026206 I-23-25 Architect Kenneth R. Scheer #A-2007026206 Architectural Corporation HS2 Architects, LLC / C.O.A. #2013042689				
ACCENTRACE Lafayette St. Washington, MO 63090 3. Lafayette St. Washington, MO 63090 5:39-0309 FAX 636-239-5619 Email: Info@hornarchitects.com www.hornarchitects.com				
Proposed Sidewalk Replacement for: WARRENTON BRANCH SCENIC REGIONAL LIBRARY 251 Union Plaza Drive, Union, Missouri 63084				
Architectural Site Plan REVISIONS				

	REVISION	IS
\sum		
\bigtriangleup		
\bigtriangleup		
PROJ	ECT NO.	
235	55	
ISSUE	DATE	
Jan.	. 23, 2Ø2	25
SHEET	NO.	
Å	1.1	

GENERAL REQUIREMENTS

PART 1 - SUMMARY OF WORK

- 1.1 WORK COVERED BY CONTRACT DOCUMENTS
- A. Work shall include the furnishing of all labor, material, equipment and tools for the construction of the work.
- B. Work shall be performed under a single contract as set forth in the bidding documents, contract forms, and specifications
- 1.2 CONSTRUCTION DRAWINGS AND COORDINATION
- A. Construction drawings not bearing the Architect's or Engineer's embossed seal or issued specifically "Not For Construction" are to be considered preliminary and incomplete: the Architect or Engineer assumes no responsibility or liability for the use of these drawings for construction which have not been properly issued to the Contractor.
- B. The Architect or Engineer has indicated the scope of work on the drawings. Based upon ideal project conditions; it is understood that some project conditions may arise that cause the Contractor to vary from those drawings. Any changes or modifications to the design or specifications of these documents without the notification and approval of the Architect/Engineer become the responsibility of the Contractor.
- C. It is the primary intent of the specifications herein to describe the pertinent items of the construction of this project and is in no way intend to be complete. Anything not specifically mentioned herein, or shown on the drawings, shall be included as though it were herein listed in order that the job will be complete in an acceptable "Move-In" condition. Workmanship shall be completed per acceptable industry standards of the various trades, including but not limited to level floors, straight and plumb walls, proper joining, alignment, installation and finishing of materials.
- D. Contractor to review these drawings to become familiar with the project scope, quality, specifications and general conditions identified in these drawings. Contractor to specifically verify all existing site conditions. When new work becomes intricate and closely adjoins existing conditions, field verify locations and conditions. Should any discrepancies occur, immediately report to the Architect/Engineer for clarification.
- E. Any work within the contract of others relating specifically to an existing building which is incomplete or defective in any manner should be reported to the Architect or Engineer prior to commencing work, so that the defective condition may be completed or resolved by others.
- F. All errors, omissions and inconsistencies are to be reported to the Architect or Engineer prior to proceeding with the work. Failure to do so will release the Architect/Engineer of all responsibility.
- G. General Contractor and Subcontractors shall maintain and provide documentation of current liability insurance and workman's compensation throughout work on the project.
- H. The Owner, or their appointed representative, shall schedule work of all vendors including trades and work covered under separate and assigned contracts. They shall direct arrangements for storage of materials. They shall coordinate and expedite the work of all trades so that progress of the project shall be kept on schedule.
- I. Each Contractor and Subcontractor shall coordinate their work with adjacent work, cooperate with one another and with other trades to facilitate general progress of work. Each trade shall afford other trades every reasonable opportunity for installation of their work or storage of their materials.
- Each Contractor shall examine: 1. The drawings and specifications for all classifications of work that comprise the complete
- 2. The anticipated project schedule including work by other Contractors and their Subcontractors which connect with or affect the work under this contract. Each Contractor shall accordingly make all necessary arrangements in his own work to properly correlate it with the work of all contracts that comprise the complete project.
- 1.3 SAFETY AND PROTECTION
- A. Contractor shall properly brace the building structure as necessary to maintain continuous stability until all bracing members are completely secured and the structural system is functioning as a designed unit, as needed.
- B. Architect or Engineer shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by Contractor, including job site conditions and safety.
- C. The Contractor will be solely and completely responsible for conditions of the job site includin safety of all persons, materials and equipment during performance of work. This requirement will apply continuously and not be limited to normal working hours. When on site, the Architect/Engineer is responsible for his or her own safety, but has no responsibility for the safety of other personnel or safety conditions at the site.
- D. It shall be understood that the Architect/Engineer and Owner's on-site observation of the work is not intended to include review of the adequacy of the Contractor's safety measures in or near the construction site.
- E. Compliance with all regulations pertaining to safety and health is the sole and complete responsibility of each Contractor.
- 1.4 MANUFACTURER'S DIRECTIONS
- A. Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as per Manufacturer's printed specifications and directions, unless specified to the contrary.
- B. Whenever trade or Manufacturer's associations have published recognized standards applying to the use of materials and installation methods, the latest issue of such standards and recommendations on the date of invitation to bid shall where applicable govern the use of such materials and their installation unless otherwise specified.
- 1.5 CUTTING AND PATCHING
- A. Existing warranties: Remove, replace, patch and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to avoid existing warranties
- B. Provide temporary support.
- C. Protect in-place construction.
- D. Protect adjacent occupied areas.
- E. Existing Utility Services and Mechanical/Electrical Systems: Minimize interruption to occupied areas.
- F. Cutting: In general, use hand or small power tools. Cut holes and slots neatly to minimum size required. Temporarily cover openings when not in use.
- G. Patching: Patch with durable seams that are as invisible as practicable.
- H. Finishes: Restore exposed finishes. Extend new finishes to perimeter of patched surface. Leave patched work indistinguishable from existing undisturbed work.
- 1.6 DELIVERY OF MATERIALS AND STORAGE
- A. Each Contractor shall be responsible for the unloading, checking and storage of all materials owned, assigned to, or used the Contractor or Subcontractors in connection with the work of the contract
- B. Each Contractor or Subcontractor shall be responsible for the proper care and protection of all equipment and material delivered to the site.
- C. Any material or equipment which may be affected by the weather shall be covered and protected from the weather while being transported to the site, while stored on the site, and while incorporated in the work until the building space containing such material or equipment is enclosed and secured.
- D. Damaged materials shall not be used in the work: damaged materials which are installed shall be replaced by the Contractor at no cost to the Owner.
- E. Should it become necessary at any time during the course of the work to move stored materials which are to be used in the work, or equipment which has been temporarily placed on the job, then the Contractor or Subcontractor responsible for such material or equipment shall move them or cause them to be moved to the newly assigned storage area without additional charge to the Owner.
- F. Each Contractor and Subcontractor shall be responsible for the care and the necessary precautions to prevent fire and to protect the storage space from damage. Contractor shall be held responsible for any repairs, patching or cleaning arising from the use of such storage space.
- 1.7 CARE OF WORK

A. Each Contractor shall adopt reasonable methods during the life of the contract to furnish continuous protection to the site and work, materials and equipment thereon to the end that loss or damage may be prevented. Contractor shall refuse entry to persons not having business on the site. Contractor shall be responsible for all damages to persons or property that occur as a result of their fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the damage to the work was cause by the Contractor or by Subcontractors or other employees of the Owner in the course of their employment.

contract.

1.8 CLEANING

A. As necessary and directed by the Owner, each Contractor shall remove from the remises all accumulation of dirt, debris, waste materials and rubbish caused by their employees.

- provided receptable adjacent to the building.

B. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. 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. Maintain existing exits unless otherwise indicated.

C. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.

2.2 CONTRACTOR'S USE OF SITE AND PREMISIS

C. Keep driveways and entrances clear, clean, and available at all times during construction. D. Contractor's parking shall only be in areas as designated by the Owner and shall be areas which

- E. Provide all required siltation and sediment controls indicated on the drawings or as required by the Authority Having Jurisdiction. F. Open fires are not permitted on the site.
- G. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations. H. Contractor may not store refuse in any of the interior common or exterior areas: Contractor shall

- Smoking and Controlled Substance Restrictions: Use of tobacco products, vaping, alcoholic
- or close lines to prevent debris from entering lines. Disposal of construction water in sewers or drains is prohibited

2.3 SECURITY

specifically identified.

3.1 DEFINITIONS

- B. Where the Owner's Representative is referenced it shall refer to the Owner or their employees operating withing specific duties entrusted to them.

- the contract documents. Terms such as "Shown," "Noted," "Scheduled," and "Specified" have same meaning.

- documents.

- K. Scope of Work:
- structure or installation
- in the specifications.

- 3.2 MINIMUM REOUIREMENTS

B. In any emergency affecting the safety of life or property including adjoining property, the Contractor without special instructions or authorization from the Owner is authorized to act at their discretion to prevent such threatened loss or injury and shall so act. Likewise, the Contractor shall so act if instructed to do so by the Owner. Any compensation claimed by the Contractor on account of such emergency work shall be determined by the Owner and as provided in the

B. Contractor to "broom sweep" clean daily the affected area of work at the end of their work shift. C. Contractor is permitted to remove debris from affected areas and dispose of refuse in Contractor

PART 2 - COORDINATION FOR ADDITIONAL REQUIREMENTS

2.1 COORDINATION WITH OCCUPANTS

Retain "Full Owner Occupancy" Paragraph below if Owner will occupy all or part of premises during construction. Revise to suit Project. See the Evaluations.

A. Full Owner Occupancy: Owner will occupy site and existing building(s) 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 day-to-day operations. Maintain existing exits unless otherwise indicated.

Retain "Owner Limited Occupancy of Completed Areas of Construction" Paragraph below if Owner might occupy completed portions of building before Substantial Completion. Revise to suit Project.

A. Use of Site: Contractor's use of site shall be unrestricted and have full use of site unless noted otherwise on the drawings and specifications.

B. Condition of existing grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout the construction period. Repair damage caused by construction operations.

do not restrict or prohibit vehicular traffic or deliveries to the building. See Owner if special parking requirements are necessary for deliveries.

provide trash receptacles and have such receptacles dumped and removed on daily basis; or requested in a reasonable manner by Owner.

All exit corridors must remain accessible during normal business operations

beverages, and other controlled substances on Owner's property is not permitted K. Maintain and protect existing utilities. Sewer lines and drains shall be kept clear throughout. Cap

L. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary

utility services according to requirements indicated:

1. NotifyOwner not less than 48 hours in advance of proposed utility interruptions. 2. Obtain Owner's permission before proceeding with utility interruptions.

A. All Contractors and Subcontractors working at the site shall be responsible for the protection and security of their own equipment and tools.

B. The Owner shall not be responsible for providing security during or after working hours unless

PART 3 - DEFINITIONS AND STANDARDS

A. General: Except as specifically defined otherwise, the following definitions supplement definitions of all contract conditions, and apply generally to the work.

C. Trade Contractors: Trade Contractors or Contractors are referenced in these specifications, it shall refer to the Contractor's or designated Subcontractor for performance of that work whether or not such Contractor has been defined by a trade section or drawing. The Owner, Architect, Engineer,

and/or Consultants shall in no way serve as arbitrators of the Contractor subcontracts. D. Indicated: Shown on Drawings by notes, graphics or schedules, or written into other portions of

E. "Directed," Requested," "Approved," "Accepted," Etc.: Items imply "By the Owner's

Representative," unless otherwise noted. F. Approved: In no case releases Contractor from responsibility to fulfill requirements of contract

G. Project Site: Space available to Contractor at location of project, either exclusively or to be shared with separate Contractors, for performance of the work.

H. Furnish: Supply and deliver to project site, ready for unloading, unpacking, assembly, installation, and similar subsequent requirements

Install: Operations at project site, including unloading, unpacking, assembly, erection, placing, anchoring, applying, cleaning, and similar requirements as indicated by the Owner.

Installer: Entity (firm or person) engaged to install work as a Contractor, Subcontractor or Sub-Subcontractor. Installers are required to be skilled experts in work they are engaged to install.

1. Intent of contract documents is for Contractor to provide complete, finished, functioning 2. The Contractor shall furnish all of the materials, labor, equipment, tools and supervision and

shall do everything necessary to complete the project as shown on the drawings and as described 3. Transportation, loading, unloading, storing, installation, testing, and making operable all parts of the project shall be a requirement of this contract.

L. See Drawings for additional definitions and abbreviations

A. Indicated requirements are for a specific minimal acceptable level of quality/quantity, as

recognized in the industry. Actual work must comply (within specified tolerances), or may exceed minimums within reasonable limits.

- B. Refer uncertainties to Owner's representative before proceeding.
- 3.3 INDUSTRY STANDARDS
- A. Applicable standards of construction industry have the same force and effect on performance of the work as if copied directly into contract documents or bound and published therewith. Standards referenced in contract documents or in governing regulations have precedence over non-referenced standards, insofar as different standards may contain over-lapping or conflicting
- B. Except where a particular date of edition of a standard is specifically referenced in these specifications, or in the drawings, it shall be understood that the latest edition of the standard current at the date of the bid opening shall apply. Manufacturer's specifications, recommendations, and instructions shall be those current at the time of the work.

PART 4 - MATERIAL AND EQUIPMENT

4.1 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage: deliver in undamaged condition in
- Manufacturer's unopened containers or packaging, dry. B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct and products are undamaged.
- 4.2 STORAGE AND PROTECTION

A. Store products in accordance with Manufacturer's instructions, with seals and labels intact and

PART 5 - STANDARDS, SUBSTITUTIONS AND PRODUCTS OPTIONS

5.1 GENERAL

- A. Materials, products, equipment or type of construction specified by using the name to establish a "standard" or "basis of design."
- B. If the words "or acceptable substitution" are used in specifying any item, the Contractor may submit to the Architect/Owner's representative for review any one of a like material that is considered to be substantially equal to material that is considered to be substantially equal to that named in the specification or drawings. The Architect/Owner's representative shall be the sole judge of the suitability and equality of items submitted. The Architect/Owner's representative reserves the right to reject substitutions.
- 1. All proposals shall be based upon the specified standards or approve substitutes.
- 2. Where proprietary products or types of construction are used in the specifications, the first name in any grouping is the one used in the design of the project. The use of a second, third or approved.
- 3. Whenever a "standard" is unobtainable, the Architect/Engineer/Owner shall be notified in writing. The Architect/Engineer/Owner will issue by addendum an approved substitute.
- 4. Any bidder desiring to use a material, product, equipment, or type of construction not named in these specifications shall submit such substitute to the Architect/Engineer for approval at least seven (7) days prior to the bid due date. In all cases, the Architect/Engineer's decision shall be final and binding on all concerned.
- 5. Substitute items submitted to the Architect/Engineer/Owner for approval must be accompanied by such supporting evidence that the Architect/Engineer may require (samples, drawings, specifications, test reports, etc.) giving full and complete information.
- 6. Contractor shall assume full responsibility for having accepted substitutions comply in all respects with applicable portions of contract documents, except where such requirements are specifically waived in writing. Contractor shall be responsible for coordinating all necessary changes with other Contractors and Subcontractors affected.

PART 6 - CONTRACT CLOSEOUT

6.1 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in general conditions of the contract for issuance of certificate of substantial completion.
- B. When Contractor considers work has reached final completion, submit for Architect/Engineer's inspection.
- C. In addition to submittals required by the conditions of the contract, provide submittals required by governing authorities.

6.2 FINAL CLEANING

- A. Individual Subcontractors shall clean those surfaces disturbed by their work.
- 1. Remove all chemicals, excess caulking compound from all aluminum and stainless steel trim and finish hardware, and leave same in a polished condition.
- 2. Remove all marks, stains and soiled spots from all finished surfaces, and other soiled spots from windows, doors and glass, leaving materials in polished condition.
- 3. Remove all other blemishes from the project and from the site.
- 4. Mop and dust clean all floors. 5. Remove waste and surplus materials, rubbish and construction facilities.
- B. Each Contractor and Subcontractor shall remove all dust, dirt, marks, stains, paint droppings and soiled spots from equipment and material installed by them in finished areas, including exposed items such as piping, ductwork, air outlets, hangers and supports trim, electrical equipment, lighting fixtures, unit ventilator's and similar items.
- C. Remove all company trademarks or product names or any markings that are not to remain on any materials, equipment, fixtures and other items permanently installed on the project.
- D. Use cleaning materials recommended by the Manufacturer of the material or equipment being
- E. Should any work or punch list work be done after the final cleaning, the affected areas shall be cleaned again so that upon completion of all work, the premises shall be left in a cleaned condition ready for occupancy by the owner.
- F. Each contractor shall also comply with special cleaning instructions called for in the technical specifications
- 6.3 PROTECTION OF INSTALLED CONSTRUCTION
- A. Provide final protection and maintain conditions that ensure Work is without damage.
- 6.4 GUARANTEES, WARRANTIES and BOND
- A. The Contractor shall submit to the Architect/Engineer before final acceptance two copies of all warranties, guarantees, and surety bonds. All such documents shall show the name and location of project and the name of the Owner.
- 6.5 FINAL ACCEPTANCE AND GUARANTEE
- A. Final acceptance of the work will occur when the work, after being submitted to the Owner, is determined by the Architect/Engineer to be in accordance with the specification and the contract. Final acceptance will be evidenced by a duly authorized representative of the Owner and Designer if there are items of work remaining to be completed, final acceptance will be subject to a detailed list of items of work remaining to be completed accompanied by a letter of completion, duly executed by the Contractor and the Owner.
- B. Contractor shall guarantee all work for a period of one year after the date of final acceptance, except where more stringent guarantees are specified, correcting any defective work promptly and without cost to the Owner.

END OF SECTION

SECTION 00 43 43 – WAGE LAW DETERMINATION

A. PART 1 - GENERAL

- 1.01 Summary: See attached Annual Wage Order #31 for Franklin County, Missouri
- 1.02 Summary: See attached Annual Wage Order #31 for Warren **County**, Missouri

END OF SECTION

1.01 BID FORM SUPPLEMENT

A. A completed bid bond form is required to be attached to the Bid Form.

1.02 BID BOND FORM

supplement.

PART 1 - GENERAL

SECTION 00 43 13 - BID SECURITY FORMS

A. AIA Document A310-2010 "Bid Bond" is the recommended form for a bid bond. A bid bond acceptable to Owner, or other bid security as described in the Instructions to Bidders, is required to be attached to the Bid Form as a

B. Copies of AIA standard forms may be obtained from The American Institute of Architects; https://www.aiacontracts.org/; email: docspurchases@aia.org; (800) 942-7732.

END OF DOCUMENT 00 43 13

SECTION 00 61 13 - PERFORMANCE AND PAYMENT BOND

1.01 RELATED DOCUMENTS

A. The Performance and Payment Bond forms, AIA Document 312 - 2010 Addition, is available for review at the office of the Architect for reference on this project.

B. The original document may be purchased by contacting:

- 1. AIA St. Louis Chapter Bookstore
- 911 Washington Avenue #100 St. Louis, MO 63101-1208
- Phone: 314-621-3484
- Or www.aiacontracts.org

1.02 BOND REOUIREMENTS:

A. The contractor shall furnish bonds covering faithful performance of the contract and payment of obligations arising thereunder. bonds may be obtained through the contractor's usual source and the cost thereof shall be included in the contract sum. the amount of each bond shall be equal to one hundred percent (100%) of the contract sum. bonds shall be executed on aia documents, a312 for payment bond and a312 for performance bond

1.03 DELIVERY OF BOND:

A. The contractor shall deliver the required bonds to the owner not later than seven (7) days following the date the agreement is entered into, or if the work is to be commenced prior thereto in response to a letter of intent, the contractor shall, prior to the commencement of the work, submit evidence satisfactory to the owner that such bonds will be furnished.

1.04 AUTHORIZATION:

A. The contractor shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

END OF SECTION 00 61 13

SECTION 00 62 76.13 SALES TAX FORM

PART 1 GENERAL

A. The Owner is exempt from paying sales and use tax and intends for bidders to exclude said tax from the contract amount as specified herein.

B. Owner's Instructions 1. The Owner shall furnish a copy of the entity's Missouri Tax Exemption

1.01 SCOPE

- Letter to the Contractor 2. The Owner shall furnish an Exemption Certificate authorizing purchases for construction. The form and content of such project exemption shall be approved by the Director of Revenue. The project exemption certificate shall include but not be limited to:
- a. The exempt entity's name, address, Missouri tax identification number and signature of authorized representative; b. The project location, description and unique identification number; c. The date the contract is entered into, which is the earliest date materials may be purchased for the project on a tax-exempt basis;
- d. The estimated project completion date; and e. The certificate expiration date. C. Contractor's Instructions:

1. The Contractor shall **EXCLUDE** all sales and use tax in his bid. 2. The Contractor shall furnish a copy of the Owner's Missouri Tax Exemption Letter to all subcontractors.

3. The Contractor shall furnish a copy of the exemption certificate to all subcontractors, and any contractor purchasing materials shall present the certificate to all material suppliers as authorization to purchase, on behalf of the exempt entity, all tangible personal property and materials to be incorporated or consumed in the construction of that project and no other on a tax-exempt basis. Such suppliers shall execute to the purchasing contractor invoices bearing the name of the exempt entity and the project identification number.

D. Nothing in this Specification relieves the Contractor of his responsibility to perform in accordance with the Contract Documents.

END OF SECTION

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUBMITTAL FORMATS

- A. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number
- 1. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal. 2. Provide a space approximately 6 by 8 inches on label or beside title
- block to record Contractor's review and approval markings and action taken by Architect. 3. Action Submittals: Submit electronic files of each submittal unless
- otherwise indicated. Architect will return copy. 4. Informational Submittals: Submit electronic files of each submittal
- unless otherwise indicated. Architect will not return copies. 5. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using AIA Document G810 transmittal form.
- 1.02 SUBMITTAL PROCEDURES
- A. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
- 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
- 2. Resubmittal Review: Allow 15 days for review of each resubmittal.
- 1.03 SUBMITTAL REQUIREMENTS
- A. 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 published data are unsuitable for use, submit as Shop
- Drawings, not as Product Data. 2. Mark each copy of each submittal to show which products and options are applicable.
- 3. Include the following information, as applicable:
- a. Manufacturer's catalog cuts.
- b. Standard color charts. Note: Digital color charts will not be accepted for color selections c. Statement of compliance with specified referenced standards.
- d. Testing by recognized testing agency.
- B. 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: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
- a. Identification of products. b. Schedules.
- c. Compliance with specified standards.
- d. Notation of coordination requirements.
- e. Notation of dimensions established by field measurement. f. Relationship and attachment to adjoining construction clearly
- C. Samples: Submit Physical Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
- 1.04 CONTRACTOR'S REVIEW
- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- 1.05 ARCHITECT'S REVIEW
- A. Action Submittals: Architect and Construction Manager will review each submittal, indicate corrections or revisions required, and return it.

END OF SECTION 01 33 00

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS PART 1 - GENERAL

1.01 SUMMARY

- A. Temporary utilities include, but are not limited to the following: Utility protection
- B. Support Facilities include, but are not limited to the following
- 1. Temporary roads and paving
- 2. Project identification and temporary signs
- 3. Waste disposal facilities 4. Construction aids, miscellaneous services, and facilities
- C. Security and protection facilities include, but is not limited to the following 1. Environmental protection
- 2. Stormwater control
- 3. Tree and plant protection
- 4. Site enclosure fence
- 5. Barricades, warning signs, and lights
- 6. Temporary enclosures
- 1.02 PROJECT CONDITIONS
- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to 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.
- PART 2 PRODUCTS

A. None

PART 3 - EXECUTION

- 3.01 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 by progress of the Work. B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- 3.02 TEMPORARY UTILITY INSTALLATION
- A. General: Install temporary service or connect to existing service in coordination with utility companies requirements.
- 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services. 2. Provide adequate capacity at each stage of construction.
- B. 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.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- 3.03 SUPPORT FACILITIES INSTALLATION
- A. Temporary Roads and Paved Areas: Maintain and improve, as required, existing temporary roads constructed by Owner. Paved areas should be adequate to support loads and to withstand exposure to traffic during construction period. Existing temporary road and paved areas are indicated on Drawings
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
- 1. Protect existing site improvements to remain including curbs, pavement, and utilities. 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- C. Parking: Provide temporary offsite parking areas for construction personnel.
- D. Storage and Staging: Use designated areas of Project site for storage and staging needs. E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction 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 properties or 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.
- 3.04 SECURITY AND PROTECTION FACILITIES INSTALLATION
- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air,
- waterway, and subsoil contamination or pollution or other undesirable effects. C. Temporary Erosion and Sedimentation Control: Comply with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Section 311000 "Site Clearing."
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- F. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- G. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.
- H. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
- 3.05 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. 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. C. Temporary Facility Changeover: Do not change over from using temporary security and protection
- facilities to permanent facilities until Substantial Completion. D. 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 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, damaged by construction traffic and use and as required by authorities having jurisdiction.
- 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 01 50 00

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY A. Section Includes:

- 1. Demolition and removal of selected site elements.
- 3. Removal of existing concrete and masonry where noted
- 4. All protections and temporary partitions necessary to protect the public, existing construction
- 5. Supports of protection of mechanical and electrical services and devices that are to remain.
- 7. Removal from the site and disposal of demolished materials.

1.2 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical. Owner assumes no responsibility for the actual condition of items or structures to be
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition
- D. Protections: Provide temporary barricades and other forms of protections as required to protect Owner's personnel and the public from injury, excessive noise, dust, or dirt due to selective demolition work. This shall include passage to and from the site. Remove protections at completion of the work
- E. Job Site Safety: Provide fire extinguishers, first aid kits, or other personal protective equipment as required to complete the demolition activities or as required by the governing authorities.
- F. Maintain all required exit access corridors during demolition operations.
- work.
- H. Storage or sale of removed items or materials on-site is not permitted. I. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
- J. Arrange selective demolition schedule so as not to interfere with Owner's operations. K. Schedule and coordinate all demolition work with the Owner. Provide the Owner at least 96 hours
- of notice prior to the commencement of work. L. Damages: Promptly repair damages caused to adjacent facilities, materials, or finishes by demolition work at no cost to the Owner.

PART 2 - PRODUCTS

- 2.1 PERFORMANCE REQUIREMENTS
- jurisdiction. B. Standards: Comply with ASSE A10.6 and NFPA 241.
- PART 3 EXECUTION

- 3.1 PREPARATION is performed.
- B. Utility Locates: Contractor is to have all utilities to the building located and marked prior to the start of demolition activities.
- 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect
- them against damage B. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- C. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
- D. Provide services for effective air and water pollution controls as required by local authorities having jurisdiction.
- E. Remove temporary barricades and protections where hazards no longer exist.

3.3 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows: 1. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before
- starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations. 2. Maintain fire watch during flame-cutting operations, maintain fire watch until the risk of fire has passed.
- 3. Dispose of demolished items and materials promptly. a systematic manner. Use such methods as required to complete work indicted on drawings in accordance with demolition schedule and governing regulations.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- Removed and Reinstalled Items:
- 2. Protect items from damage during transport and storage. 3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make
- item functional for use indicated.

during selective demolition.

- E. Disposal of Demolished Materials: Removal of rubbish and other materials from the site. Transport and legally dispose of materials off site. 1. Do not allow demolished materials to accumulate on-site. 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and
- 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- 3.4 CLEANING AND REPAIR

and leave interior areas broom clean.

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations

- 2. Removal of all items indicated on the drawings to be removed.
- to remain, adjoining property, and occupants thereon.
- 6. Removal of all protections installed under this section.

- G. Protect existing materials and finishes that are to remain from damage due to selective demolition
- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having
- A. Cover and protect equipment and fixtures to remain from soiling or damage when demolition work

- 1. Clean and repair items to functional condition adequate for intended reuse.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling
- B. Do not allow rubbish and debris from demolition operations to accumulate. Clean and sweep all building areas, roads, streets, drives, parking lots, sidewalks, adjoining properties and other areas affected by demolition operations on a daily basis.
- C. Upon completion of demolition work, remove tools and equipment from site. Remove protections
- D. Repair demolition performed in excess of that required. Return structures and surfaces to remain to condition existing prior to commencement of selective demolition work. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.
 - END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 -

1.1 PRODUCTS

- A. Concrete General: Comply with ASTM C94 "Specification for Ready-mixed Concrete", ACI 301 - "Specification for Structural Concrete", ACI 117 - "Standard Specifications for Tolerances for Concrete Construction and Materials", CRSI - "Manual of Standard Practice", ACI 318 - "Building Code Requirements for Structural Concrete".
- B. Materials: 1. Portland Cement: ASTM C150
- 2. Fly Ash: ASTM C618, Class C or F.
- 3. Slag Cement: ASTM C989/C989M, Grade 100 or 120.
- 4. Aggregate: ASTM C33, Uniformly graded, Normal weight.
- 5. Maximum water-cementitious materials ratio not to exceed 0.45.
- 6. Slump limit = 4 inches +/- 1 inch. 7. Deformed reinforcing bars - ASTM A615, GR. 60. All bar splices shall lap a
- minimum of 48 bar diameters U.N.O.
- 8. Welded wire fabric ASTM A185, supplied in flat sheets.
- 9. Portland cement ASTM C150 10. Air-entraining admixture - ASTM C260. Air content = 6.0 +/- 1.5 percent for exterior concrete exposed to freezing such as footings, exterior walls and exterior flatwork. Air content = 4.0 +/- 0.5 percent for interior concrete not exposed to freezing. Air
- content for flatwork to receive a smooth trowel finish shall not exceed 3.0 percent. 11. Chemical admixtures - ASTM C494 of type required for design mix. Do not use admixtures containing calcium chloride. 12. Vapor Barrier - Clear 10-mil polyethylene sheet below slabs on grade.
- C. Mixing: Ready mixed.
- 1.2 CONCRETE MIXTURES
- A. Compressive Strength (28 Days):
- 1. Footings and Grade Beams: 4000 psi
- 2. Foundation Walls: 4000 psi 3. Slabs-on-Ground: 4000 psi
- 1.3 INSTALLATION
- A. Place Concrete in a continuous operation and consolidate using mechanical vibrating
- equipment B. Formed Finishes: Surface Finish 1.0 (Not exposed to view) & Surface Finish 2.0
- (Exposed to view)
- C. Floor and Slab Finishes:
- 1. Steel Trowel Finish: Surfaces exposed to view or to be covered with flooring 2. Trowel and Fine-Broom Finish: Surfaces to be covered with ceramic or quarry tile to be installed by either thickset or thinset method.
- 3. Broom Finish: Exterior concrete 4. Slip-Resistive Finish: Concrete stair treads and ramps
- 1.4 FIELD QUALITY CONTROL A. Testing: By Owner-engaged agency.

END OF SECTION 033000

SECTION 323119 - DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

ALL LIBRARIES

- 1.1SUMMARYA.Section Includes:
- 1. Decorative aluminum fences
- 2. Swing gates. 1.2.1 PRODUCT WARRANTY
- A. All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of twenty (20) years from date of original purchase. Warranty shall cover any defects in
 - material finish, including cracking, peeling, chipping, blistering or corroding. B. Reimbursement for labor necessary to restore and replace components that have been found to be defective under the

PART 2 - PRODUCTS

- ALUMINUM
- A. Aluminum, General: Provide alloys and tempers with not less than the strength and durability properties of alloy and temper designated in paragraphs below for each aluminum form required.
- B. Extrusions: ASTM B 221 (ASTM B 221M), Alloy 6063-T5.
- C. Tubing: ASTM B 429, Alloy 6063-T6.
- D. Plate and Sheet: ASTM B 209 (ASTM B 209M), Alloy 6061-T6.
- E. Die and Hand Forgings: ASTM B 247 (ASTM B 247M), Alloy 6061-T6. F. Castings: ASTM B 26/B 26M, Alloy A356.0-T6.
- ASTM B221. The aluminum extrusions for posts and rails shall be Alloy and Temper Designation 6005-T5. The aluminum extrusions for pickets shall be Alloy and Temper Designation 6063-T6
- H. Pickets shall be 5/8" square by .050" thick. Horizontal rails shall be 1" by 1-1/8" Forerunner channel with .055" thick top & internal web wall, and .072" thick side walls and shall be punched to allow picket to pass through the top of the rail. The Forerunner rail shall be constructed with an internal web insert providing a raceway for the pickets to be retained with a 1/8" retaining rod. Fence posts and gate posts shall meet the minimum size requirements of listed latter in this specification.
- 2.2 MISCELLANEOUS MATERIALS
- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded. For aluminum, provide type and alloy as recommended by producer of metal to be welded and as required for strength and compatibility in fabricated items.
- B. Concrete: Normal-weight, air-entrained, ready-mix concrete complying with requirements in Section 033000 "Cast-in-Place Concrete" with a minimum 28-day compressive strength of 3000 psi (20 MPa), 3-inch (75-mm) slump, and 1-inch (25-mm) maximum aggregate size or dry, packaged, normal-weight concrete mix complying with ASTM C 387 mixed with potable water according to manufacturer's written instructions
- 2.3 GROUNDING MATERIALS
- A. Grounding Connectors and Grounding Rods: Comply with UL 467. 1. Connectors for Below-Grade Use: Exothermic-welded type.
- 2. Grounding Rods: Copper-clad steel. a. Size: 5/8 by 96 inches (16 by 2440 mm)
- 2.4 DECORATIVE ALUMINUM FENCES

A. Decorative Aluminum Fences: Fences made from aluminum extrusions

Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings, Echelon

	ormannerman	arannan	
vine	.		
• • • • • •	5.		

 Alumi-Guard, Inc. b. <u>Ameristar Fence Products</u>

and 0.055-inch- (1.40-mm-) thick top.

B. Posts: Square extruded tubes.

c. Elegant Aluminum Products, Inc

C. Post Caps: Aluminum castings that cover entire top of posts.

1. Terminate tops of pickets at top rail for flush top appearance.

F. Fasteners: Manufacturer's standard concealed fastening system.

2. Picket Spacing: 4 inches (101.6 mm) clear, maximum.

with resilient polymer washers.

2. Drill clips for fasteners before finishing.

A. Gate Configuration: Single leaf, as indicated.

B. Gate Frame Height: 48 inches (1218 mm), as indicated.

C. Gate Opening Width: 36 inches (914 mm), as indicated.

mm) with 0.125-inch (3.18-mm) wall thickness.

G. Infill: Comply with requirements for adjacent fence.

1. Function: 320 - Gate spring pivot hinge. Adjustable tension.

a. ASTM Test Method: D3359 - Method B.

a. ASTM Test Method: B117 & D1654.

color variance of more than 3 delta-E color units)

a. ASTM Test Method: D2794

L. Aluminum Finish: Powder coating.

2.6 ALUMINUM FINISHES

1. Adhesion:

2. Corrosion Resistance:

3. Impact Resistance:

Weathering Resistance

E. Frame Corner Construction: Assembled with corner fittings.

2.5 SWING GATES

d. Royal Aluminum and Steel, Inc.

5. Color and Gloss: Black 2.7 FABRICATION

- A. Pickets, rails and posts shall be pre-cut to specified lengths. ForeRunner rails shall be pre- punched to accept pickets. Grommets shall be inserted into the pre-punched holes in the rail and pickets shall be inserted through the grommets so that pre-drilled picket holes align with the internal upper raceway of the ForeRunner rail (Note: This can best be accomplished by using an alignment template). Retaining rods shall be inserted into each ForeRunner rail so that they pass through the pre-drilled holes in each picket, thus completing the panel assembly. Panels to be preassembled by manufacturer
- B. Swing gates shall be fabricated using Echelon Forerunner rail material, 1.25" sq. by 1025" gate ends, and 5/8" sq. by .050" pickets. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall be joined by welding.

PART 3 - EXECUTION

3.1 EXAMINATION

- terms of manufacturer's warranty shall be guaranteed for five (5) years from date of original purchase,

G. Aluminum material for fence framework (i.e., tubular pickets, rails, and posts) shall conform to the requirements of

- estic ornamental aluminum fencing system by Ameristar Fence Products, or comparable product by one of the

1. Line Posts: 2 by 2 inches (50 by 50 mm) with 0.062-inch (1.57-mm) wall thickness. 2. End and Corner Posts: 2 by 2 inches (50 by 50 mm) with 0.062-inch (1.57-mm) wall thickness.

3. Swing Gate Posts: 2 by 2 inches (50 by 50 mm) with 0.125-inch (3.18-mm) wall thickness.

- D. Rails: Extruded-aluminum channels, 1 by 1-1/8 inches (25 by 29 mm), with 0.072-inch- (1.80- mm-) thick sidewalls
- E. Pickets: Extruded-aluminum tubes, 5/8 inch (16 mm) square, with 0.050-inch (1.27-mm) wall thickness.

G. Fasteners: Manufacturer's standard tamperproof, corrosion-resistant, color-coated fasteners matching fence components

- H. Fabrication: Assemble fences into sections by fastening pickets to rails. 1. Fabricate sections with clips welded to rails for fastening to posts in field.
- I. Accessories: Aluminum castings shall be used for all post caps, scrolls, finials, and other miscellaneous hardware. Hinges and latches shall be fabricated from aluminum, stainless steel or composite materials.

D. Aluminum Frames and Bracing: Fabricate members from square extruded-aluminum tubes 2 by 2 inches (50 by 50

F. Additional Rails: Provide as indicated, complying with requirements for fence rails.

H. Picket Size, Configuration, and Spacing: Comply with requirements for adjacent fence

I. Hardware: Latches permitting operation from both sides of gate, hinges, and keepers for each gate.

- J. Spring Hinges: BHMA A156.17, Grade 1, suitable for exterior use.
- K. Latching: Positive latching that can be opened from either side of the gate.

A. The manufactured framework shall be subjected to the Ameristar thermal stratification coating process (high-temperature, inline, multi-stage, and multi-layer) including, as a minimum, a six- stage pretreatment/wash and an electrostatic spray application of a polyester finish. The topcoat shall be a "no-mar" TGIC polyester powder coat finish

with a minimum thickness of 2 mils (0.0508 mm). The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown below.

b. Performance Requirements: Adhesion (Retention of Coating) over 90% of test area (tape and knife test).

b. Performance Requirements: Corrosion Resistance over 1,000 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).

b. Performance Requirements: Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).

a. ASTM Test Method: D822, D2244, D523 (60 degree Method).

b. Performance Requirements: Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or

A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork. pavement work, construction layout, and other conditions affecting performance of the Work. B. Do not begin installation before final grading is completed unless otherwise permitted by Architect.

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

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152.5 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.
- 3.3 DECORATIVE FENCE INSTALLATION
- A. Install fences according to manufacturer's written instructions.
- B. Install fences by setting posts as indicated and fastening rails to posts. C. Post Excavation: Drill or hand-excavate holes for posts in firm, undisturbed soil. Excavate holes to a diameter of not

D. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil

less than 4 times post size and a depth of not less than 24 inches (600 mm) plus 3 inches (75 mm) for each foot (300 mm) or fraction of a foot (300 mm) that fence height exceeds 4 feet (1200 mm).

- 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices
- 2. Concrete Fill: Place concrete around posts and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter
- a. Concealed Concrete: Top 2 inches (50 mm) below grade as indicated on Drawings to allow covering with surface material. Slope top surface of concrete to drain water away from post. 3. Posts Set in Concrete: Extend post to within 6 inches (150 mm) of specified excavation depth, but not closer than 3 inches (75 mm) to bottom of concrete.

4. Space posts uniformly at 6 feet (1.83 m) o.c.

- E. Fence panels rails shall be inserted into punched posts and affixed with fasteners.
- 3.4 FENCE INSTALLATION MAINTENANCE
- A. When cutting/drilling rails or posts adhere to the following steps to seal the exposed surfaces; 1) Remove all metal shavings from cut area. 2) Apply custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1 & 2 will negate warranty. Ameristar spray cans or paint pens shall be used to finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures' warranty

3.5 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.6 GROUNDING AND BONDING

- A. Fence Grounding: Install at maximum intervals of 1500 feet (450 m) except as follows:
- 1. Fences within 100 Feet (30 m) of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet (225 m)
- a. Gates and Other Fence Openings: Ground fence on each side of opening. Bond metal gates to gate posts.
- B. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches (150 mm) below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location
- C. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.
- D. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
- E. Bonding to Lightning-Protection System: If fence terminates at lightning-protected building or structure, ground the grounding conductor, complying with NFPA 780.

3.7 FIELD QUALITY CONTROL

- A. Grounding-Resistance Testing: Engage a qualified testing agency to perform tests and inspections.
- 1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance not less than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural
- grounding resistance. Perform tests by two-point method according to IEEE 81. 2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.
- 3. Report: Prepare test reports certified by a testing agency of grounding resistance at each test location. Include observations of weather and other phenomena that may affect test results.

3.8 ADJUSTING

A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

posts.

A. The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from

END OF SECTION 323119

- B. Lubricate hardware and other moving parts
- 3.9 CLEANING

SHEET TITLE Specifications REVISIONS

C

PROJECT NO. 2355 SSUE DATE Jan. 23, 2025

H σ В

EOFMISO

KENNETH R.

NUMBER

A-2007026206

1-23-25

ACHITEC

111111

Architect

Architectural Corporation

S2 Architects LLC/COA #2013042

Kenneth R. Scheer #A-2007026206

SCHEER

LP ...

