DIVISION 32—EXTERIOR IMPROVEMENTS

FORMAT
1. Technical specifications content and numbering system shall be based on the 2004 version of CSI MasterFormat.

BASIS OF DESIGN
1. BGSU Design standards shall not replace fully developed, project and market specific technical specification. Associate shall utilize the Standards as a minimum standard to guide the design and execution. Exceptions to these standards are allowed provided they are approved by Design & Construction.
2. In instances where fewer than 3 manufacturers are indicated, the Associate shall insert “or approved substitute” in the products section of the technical specifications.
3. All submitted substitute products shall be brought to the attention of Design & Construction prior to approval.

RELATED SECTION
1. 03—Concrete

GENERAL PROVISIONS
1. In most cases, if the quantity of the pour merits it, concrete testing shall be conducted by a testing agency agreed to by the Project Manager.
   a. Do not use ground granulated blast-furnace slag as an additive or substitute aggregate.
      Associate shall include contractor testing responsibilities in the technical specifications.
   b. Contractor shall submit a written test schedule to the Associate for approval.
   c. Tests shall be for:
      i. base compaction
      ii. air content
      iii. slump
      iv. strength
   d. Test reports shall be supplied to Associate and Project Manager for review and approval.

32 12 16—HOT-MIX ASPHALT PAVING
1. BGSU has adopted the latest edition of State of Ohio, Department of Transportation, Construction and Material Specifications for all paving.

32 13 13—CONCRETE PAVEMENT
1. Associate shall place the following note conspicuously on the drawing showing concrete work:

   “Contractor has sole responsibility to protect newly
poured concrete from graffiti. Contractor shall coordinate pour times with the Project Manager or Associate, in order to optimize cure time before the new concrete is unattended, and state how they intend to eliminate the risk for graffiti or damage. Should graffiti or damage appear in the concrete within 24 hours after the pour, contractor shall replace the area affected at no cost to the University.”

a. Associate shall take extra measures by also noting in the specification, at the Pre-bid and Pre-construction meetings to ensure contractor understands his responsibility.

2. Pedestrian Walks
   a. Minimum Width: 6'-0"
   b. Minimum Concrete Thickness: 5½"
   c. Minimum Base Thickness: 4"
   d. Compressive Strength: 4,000 psi after 28 days
   e. Base Compaction: 95%
   f. Reinforcing: Synthetic fiber admixture

3. Service Drives
   a. Minimum Concrete Thickness: 8"
   b. Minimum Base Thickness: 6"
   c. Compressive Strength: 4,000 psi after 28 days
   d. Base Compaction: 99%
   e. Reinforcing: Synthetic fiber admixture & W4.0 x W4.0 wire mesh

4. Control and Expansion Joints
   a. Control Joints shall be equal to the width of the walk.
   b. The distance between control joints in either direction shall not exceed 8'-0".
   c. Expansion Joints shall be placed every fourth control.

5. Finish
   a. All walks and service drives shall have a medium broom finish with 2" wide “window pane” hand-tooled finish on edges, control & expansion joints.
   b. Under no circumstances shall joints be installed by saw cutting.

6. Curing and Sealing
   a. Apply non-staining, non-yellowing curing and sealing compound to all concrete walks. Use a two-step process where a film-forming curing compound is applied and then followed-up with a sealing compound after curing compound is removed; or a single-step curing and sealing application.

32 17 23—PAVEMENT MARKINGS
1. Vehicle space width shall be nominally 8'-0 x 20'-0”.
2. Parking space between stalls and rows striping shall be white.
3. No parking areas, fire lanes, and end of row lines shall be yellow.
4. Handicap spaces shall be blue.

32 31 19—DECORATIVE METAL FENCES AND GATES
1. Coordinate the need to install Post & Chain Fence with Design & Construction.
   a. Paint shall be one coat of primer and two coats of alkyd “BGSU Bronze.”
   b. Around curves, posts shall be placed to minimize abrupt angles.
   c. Fence shall be designed per the design below:

![Diagram of Decorative Metal Fence and Gate]

32 84 00—PLANTING IRRIGATION
1. General
a. Associate shall work with BGSU Grounds Department, at 419 372-7650, in order to identify potential conflicts of existing irrigation system during construction.
   i. In instances where the irrigation system needs to be redesigned in order to accommodate construction, Associate shall identify the scope of services and inform the project manager in writing if there will be an impact on the budget or scope.

b. Associate shall place the following note conspicuously on drawings where there will be work affecting existing irrigation systems:

   "Prior to working, contractor shall contact BGSU Grounds Department, at 419-372-7650, to have irrigation system controls, sprinkler heads and lines located. Contractor shall coordinate work with the Grounds Department to ensure irrigation system will not be damaged during construction."

2. Irrigation System Design

   a. Associate shall coordinate the design of the irrigation system with BGSU Grounds Department, 419-372-7650; and Century Equipment, 5959 Angola Rd., Toledo, OH 43615, 419-724-1585, incorporating equipment, material and construction standards developed by and available from Century Equipment.

3. Irrigation Installation

   a. The irrigation installer shall be Toro Sentinel Certified.

   b. Installer shall submit to BGSU documentation proving Sentinel Certification, showing certification number, date & location.

32 92 00—TURF AND GRASSES

1. Grass seed mix ratio by weight:

   60%-80% Turf-type Tall Fescue
   10%-20% Perennial Ryegrass
   10%-20% Kentucky Bluegrass

2. Obtain grass seed from Mid-Wood, Inc., Bowling Green, Ohio, 419-352-5231; Envirocare Lawn & Landscape, Perrysburg, Ohio, 419-874-6779, or other supplier approved by Project Manager.

3. Install minimum of 6" of topsoil having a minimum of 6 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant and turf growth.

4. Use only hydroseed. Do not use straw.

5. Ordinarily there is no need for shady seed mix. Use only after reviewing site
conditions with Project Manager
6. On projects where the landscaping is estimated to be $10,000 or more:
   a. Landscape architect shall develop full technical specification including
      establishing a seed mix using the above mix thresholds based on soil
      analysis and use characteristics, e.g., athletic fields, increased quantity
      of Kentucky Blue Grass, etc.
   b. Work shall be performed by an Ohio Certified Landscaper
7. Seeding shall occur from August 1 to October 15, and March 15 to May 31.

32 93 00—PLANTS
1. New trees shall have a minimum of 1½” trunk diameter.
2. In all projects, no more than 25% of all plants shall be of one species.

End of Section