DIVISION 11 – EQUIPMENT

11 1200 – PARKING CONTROL EQUIPMENT

A. Section Includes:
   1. Automatic barrier gates.
   2. Vehicle detectors.
   3. Traffic controllers.
   4. Entry terminal ticket dispensers.
   5. Exit terminals.
   6. Pay stations.
   7. Fee computers.
   8. Miscellaneous parking control equipment.
  10. Access control units.

B. Source Limitations: Obtain parking control equipment from single source from single manufacturer.

C. Surface-mounted bumpers; of type, size, and construction indicated; designed to absorb kinetic energy and minimize damage to loading dock structure.

11 1316 – LOADING DOCK SEALS AND SHELTERS

A. Section Includes:
   1. Foam-pad dock seals.
   2. Inflatable dock seals.
   3. Frame-type dock shelters.
   4. Inflatable dock shelters.
   5. Transparent-strip door curtains.

11 1319.13 – LOADING DOCK LEVELERS

11 3100 – RESIDENTIAL APPLIANCES

A. Appliances shall be Energy Star rated.

B. Include installation details, material descriptions, dimensions of individual components, and finishes for each appliance. Energy Star labeling

C. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

D. Product Schedule: For appliances. [Use same designations indicated on Drawings.]
E. Operation and Maintenance Data: For each residential appliance to include in operation and maintenance manuals.

F. Warranty

G. Obtain [residential appliances from single source] [and] [each type of residential appliance from single manufacturer].

11 4000 – FOODSERVICE EQUIPMENT

A. All equipment shall be Energy Star rated.

B. Owner shall furnish equipment for installation by Contractor.

C. Coordinate foodservice equipment layout and installation

1. Include layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
2. Indicate locations of foodservice equipment and connections to utilities.
3. Key equipment using same designations as indicated on Drawings.
4. Include plans and elevations; clearance requirements for equipment access and maintenance; details of equipment supports; and utility service characteristics.
5. Include details of seismic bracing for equipment.

D. Refer to Division 22 1006 Plumbing Specialties for information concerning food service establishments and the handling of FOG (Fats, Oils, and Grease).

11 4001 – CUSTOM FABRICATED FOODSERVICE EQUIPMENT

11 5213 – PROJECTION SCREENS

A. Section Includes:

1. Manually operated, front-projection screens.
2. Electrically operated, front-projection screens and controls.

B. Show layouts and types of front-projection screens. Include the following:

1. Drop lengths.
2. Location of seams in viewing surfaces.
3. Location of screen centerline relative to ends of screen case.
4. Anchorage details, including connection to supporting structure for suspended units.
5. Details of juncture of exposed surfaces with adjacent finishes.
6. Location of wiring connections for electrically operated units.
7. Wiring diagrams for electrically operated units.
8. Accessories.
C. Coordinate layout and installation of front-projection screens with adjacent construction, including ceiling suspension systems, light fixtures, HVAC equipment, [fire-suppression system,] and partitions.

11 5300 – LABORATORY EQUIPMENT

11 5313 – LABORATORY FUME HOODS

A. Section Includes:

1. Bench-top laboratory fume hoods.
2. Floor-mounted laboratory fume hoods.
3. Piping and wiring within fume hoods for service fittings, light fixtures, fan switches, and other electrical devices included with fume hoods.
4. Fume hood base cabinets.
5. Fume hood base stands.
6. Work tops within fume hoods.
7. Laboratory sinks and cup sinks in fume hoods.
8. Water, laboratory gas, and electrical service fittings in fume hoods.

B. Coordination

1. Coordinate layout and installation of framing and reinforcements for lateral support of fume hoods.
2. Coordinate installation of fume hoods with laboratory casework and other laboratory equipment.
3. Show compliance with specified performance requirements for as-manufactured containment and static pressure loss, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency.

C. Performance Requirements

1. Containment: Provide fume hoods that comply with ASHRAE 110.

D. Chemical-Resistant Finish

1. General: Prepare, treat, and finish welded assemblies after welding. Prepare, treat, and finish components that are to be assembled with mechanical fasteners before assembling. Prepare, treat, and finish concealed surfaces same as exposed surfaces.
2. Preparation: Clean steel surfaces, other than stainless steel, of mill scale, rust, oil, and other contaminants. After cleaning, apply a conversion coating suited to the organic coating to be applied over it.
3. Chemical-Resistant Finish: Immediately after cleaning and pretreating, apply fume hood manufacturer's standard two-coat, chemical-resistant, baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils (0.05 mm).

11 6623 – GYMNASIUM EQUIPMENT
A. For gymnasium equipment.

1. Include plans, elevations, sections, details, and attachments to other work.
2. Include details of field assembly for removable equipment, connections, installation, mountings, floor inserts, attachments to other work, and operational clearances.
3. Include transport and storage accessories for removable equipment.

11 6813 – PLAYGROUND EQUIPMENT

A. Include plans, elevations, sections, and attachment details.

B. Include fall heights and use zones for playground equipment, coordinated with the critical-height values of protective surfacing specified in Section 321816.13 "Playground Protective Surfacing."

C. Source Limitations: Obtain playground equipment from single source from single manufacturer.

D. Playground equipment and components shall have the IPEMA Certification Seal.

11 8227 – WASTE COMPACTORS

A. Include rated capacities, operating characteristics, furnished specialties and accessories, and finishes.

END OF DIVISION 11