SECTION 10 22 39

ALL GLASS CENTER PIVOT PARTITION

SECTION 10 22 43

SLIDING GLASS PARTITIONS

PART 1 GENERAL

1.01 SUMMARY

A. Section includes furnishing and installing a top-hung, hinged-panel, aluminum and glass door system that includes:

1. Aluminum rails
2. Top track
3. Center pivot, hinged panels
4. Paired panels
5. Single action door panel(s) attached to chain of center pivot panels
6. Single/double action end panel(s)
7. Folding/swinging hardware
8. Locking hardware
9. Sealing brushes
10. Glass and glazing
11. Suspended ceiling support profile
12. Accessories as required for a complete working installation

B. Related Documents and Sections: Contractor to examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following:

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section.
2. Section 06 10 00, Rough Carpentry: Wood framing R.O. and blocking.
3. Section 06 20 00, Finish Carpentry
4. Section 07 90 00, Joint Protection
5. Section 08 32 26, All Glass Single Track Sliding System: NanaWall HSW75
6. Section 08 32 26, All Glass Center Pivot System: NanaWall CSW75
7. Section 08 32 26, All Glass Folding System: NanaWall FSW75
8. Section 08 42 23, Glass Entrance Swing Doors
9. Section 09 22 16, Non-Structural Metal Framing: Metal framing R.O. and reinforcement
10. Section 10 22 00, All Glass Sliding Partition: NanaWall HSW75
11. Section 10 22 39, All Glass Folding Partition: NanaWall FSW75

1.02 REFERENCES

A. Reference Standards in accordance with Division 01 and current editions from the following:

1. AAMA. American Architectural Manufacturers Association; www.aamanet.org

a. AAMA 611, Voluntary Specification for Anodized Architectural Aluminum
b. AAMA 920-11, Specification for Operating Cycle Performance of Side-Hinged Door Systems
c. AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems
d. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels

2. ANSI. American National Standards Institute; www.ansi.org
   a. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings
3. ASTM. ASTM International; www.astm.org
   a. ASTM C1036, Standard Specification for Flat Glass
   b. ASTM C1048, Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
   c. ASTM D1003, Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics
   d. ASTM E330, Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
   e. ASTM E2068, Standard Test Method to Determine the Opening and Breakaway Forces of Sliding Windows and Doors
4. CPSC. Consumer Product Safety Commission; www.cpsc.gov
   a. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials.
5. DIN. "Deutsches Institut für Normung" (German Institute for Standardization); www.en-standard.eu/din-standards
   a. DIN EN 1191, Windows and doors - Resistance to repeated opening and closing - Test method; German version EN 1191:2000
   b. DIN EN ISO 12400, Windows and pedestrian doors - Mechanical durability - Requirements and classification
6. IBC. International Building Code; www.iccsafe.org
   a. IBC 2403.4, Differential deflection of two adjacent unsupported sliding glass panels

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate top-hung head track support with structural drawings. See Section 05 1200.
   2. Coordinate All Glass Center Pivot Partition system and framing R.O.
B. Pre-installation Meetings: See Section 01 30 00.

1.04 SUBMITTALS

A. For Contractor submittal procedures see Section 01 30 00.
B. Product Data: Submit manufacturer’s printed product literature for each All Glass Center Pivot Partition system to be incorporated into the Work. Show performance test results and details of construction relative to materials, dimensions of individual components, profiles, and colors.
C. Product Drawings: Indicate All Glass Center Pivot Partition system component sizes, dimensions and framing R.O., configuration, swing panels, direction of swing, stacking layout, typical head jamb, side jambs and sill details, type of glazing material, handle height and field measurements.
D. Installation, Operation and Maintenance Data: Submit Owner’s Manual from manufacturer. Identify with project name, location and completion date, and type and size of unit installed.

NOTE: Delete the following Article if LEED is not applicable; edit to meet project LEED requirements.

E. Sustainable Design Submittals (USGBC LEED®): Refer to Section 01 81 15, LEED Design Requirements.

1. **LEED 2009** (v3) Credits. Complete online LEED forms and submit other required materials as follows:
   a. Materials and Resources (MR) Credits:
      1). MR Credit 1.1 (MRc1.1): Building Reuse - Maintain Existing Walls, Floors and Roof
      2). MR Credit 1.2 (MRc1.2): Building Reuse - Maintain Interior Nonstructural Elements
      3). MR Credit 2 (MRc2): Construction Waste Management

NOTE: MR Credit 3 below can apply to reusing salvaged All Glass Center Pivot Partition.

      4). MR Credit 3: Materials Reuse - 5% (MRc3.1) or 10% (MRc3.2)
         a). Submit percentage of products made from plant materials with a less than 10-year harvest cycle against the total value of building materials on the projectIndoor Environmental Quality (EQ) Credits:
      1). IEQ Credit 2 (IEQc2): Increased Ventilation - Case 2 - Naturally Ventilated Spaces
      2). IEQ Credit 8.1 (IEQc8.1): Daylight & Views - Daylight 75% of Spaces
      3). IEQ Credit 8.2 (IEQc8.2): Daylight & Views - Views for 90% of Spaces
2. **LEED v4 for Interior Design and Construction** (ID&C) Credits. Complete online LEED forms and submit other required materials as follows:
   a. Materials and Resources (MR) Credits:

NOTE: MR Credit 1 below can apply to reusing salvaged All Glass Center Pivot Partition.

      1). MR Credit 1 (MRc1): Building Life-Cycle Impact Reduction; Option 3 - Building and Material Reuse
   b. Indoor Environmental Quality (EQ) Credits:
      1). EQ Credit 7 (EQc7): Daylight
      2). EQ Credit 8 (EQc8): Quality Views
      3). EQ Credit 9 (EQc9): Acoustic Performance
         a). Submit calculations or measurements for occupant spaces to meet sound transmission class ratings between adjacent spaces and reverberation time requirements within a room.

F. LEED Closeout Documentation:

NOTE: Edit below to meet project LEED requirements.

1. **LEED 2009** (v3). Submit completed LEED™ submittal Worksheet Templates for the following credits:
   a. MRc1.1, MRc1.2, MRc2, MRc3, MRc6, IEQc2, IEQc8.1, IEQc8.2
2. **LEED v4** (ID&C). Submit information and documentation to complete LEED™ Worksheet Templates for the following credits:
   a. MRc1, EQc7, EQc8, EQc9

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Manufacturer capable of providing complete, precision built, engineered, pre-fitted units with a minimum thirty (30) years' experience in the sale of All Glass Center Pivot door systems for large openings in the North American market.

1. Manufacturer to have ISO 9001: 2015 quality management system registration.
2. Manufacturer to have ISO 14001: 2015 environmental management system registration.

B. Installer Qualifications: Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least three (3) projects of similar scale and complexity successfully completed in the last three (3) years.

1. Installer to be trained and certified by manufacturer.

C. Single Source Responsibility: Furnish All Glass Center Pivot Partition system materials from one manufacturer for entire Project.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's instructions and recommendations, Section 01 60 00 requirements, and as follows:

1. Deliver materials to job site in sealed, unopened cartons or crates.

a. Upon receipt, inspect the shipment to ensure it is complete, in good condition and meets project requirements.

2. Store material under cover in a clean and dry location, protecting units against weather and defacement or damage from construction activities, especially to the edges of panels.

1.07 FIELD CONDITIONS

A. Field Measurements: Contractor to field verify dimensions of rough openings (R.O.) and floor bolt socket locations. Mark field measurements on product drawing submittal.

1.08 WARRANTY

A. Manufacturer Warranty: Provide All Glass Center Pivot Partition system manufacturer's standard limited warranty as per manufacturer's published warranty document in force at time of purchase, subject to change, against defects in materials and workmanship.

1. Warranty Period beginning with the earliest of 120 days from Date of Delivery or Date of Substantial Completion:

a. Rollers: Ten (10) years

b. All Other Components Except Screens: Ten (10) years

1). Exception: Five (5) years if NOT installed by manufacturer's specific system approved or certified trained installer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design Product by Manufacturer: **NanaWall CSW75** by **NANA WALL SYSTEMS, INC.** (www.nanawall.com)

NANA WALL SYSTEMS, INC.
100 Meadow Creek Drive, Corte Madera, CA 94925
Toll Free (800) 873-5673
Telephone: (415) 383-3148
Fax: (415) 383-0312
Email: info@nanawall.com

1. Substitution Procedures: See Section 01 20 00; submit completed and signed:

a. Document 00 43 25, Substitution Request Form (During Procurement), or

b. Document 00 63 25, Substitution Request Form (During Construction).

2.02 PERFORMANCE / DESIGN CRITERIA

A. Performance Criteria (Lab Tested):

NOTE: Forced entry testing results are only applicable for the test unit type of locking. See manufacturer's latest published data regarding performance.

1. Forced Entry (AAMA 1304, DIN EN 1191): Pass
2. Single Action Panels with Offset Hinge - Operation / Cycling Performance
   a. (DIN EN ISO 12400) 100,000 cycles
   b. (AAMA 920) 500,000 cycles
3. Project Wind Loads (ASCE 7): System designed to withstand 20 psf (958 Pa) core required positive and negative pressure as minimum loads normal to the plane of the wall as required by authorities having jurisdiction.

B. LEED Characteristics:
1. LEED 2009 (v3)
   a. MRc1.1: *NanaWall* exterior glass wall systems, not demolished in a renovation project, are reused in the same location.
   b. MRc1.2: *NanaWall* interior glass wall systems, not demolished in a renovation project, are reused in the same location.
   c. MRc2: *NanaWall* cardboard shipping crates are made of 60% recycled material and are 100% recyclable.
   d. MRc3: *NanaWall's* components easily disassemble and reassemble to "*Use* as *salvaged... or reused materials*."
   e. IEQc2: *NanaWall* systems provide natural ventilation in the open position, assisting in the 90% required natural ventilation of occupied spaces of ASHRAE 62.1.
   f. EQc8.1: *NanaWall* glass wall assembly borrowed light brings daylight deeper into the floor plate.
   g. EQc8.2: *NanaWall* glass wall assemblies provide direct outdoor lines of sight.
2. LEED v4 for Interior Design and Construction (ID&C)
   a. MRc1: *NanaWall* can be easily disassembled for salvage and reuse.
   b. EQc7: *NanaWall* glass wall assembly borrowed light brings daylight deeper into the floor plate.
   c. EQc8: *NanaWall* glass wall assemblies provide direct outdoor lines of sight.

C. Design Criteria:
1. Sizes and Configurations: As indicated by the drawings for selected number and size of panels and location of swing panels.
2. Unit Operation: Adjustable center pivot hardware with top tracks and sockets.
   a. [center pivot single action type.]
3. Panel Type:

NOTE: Panels hinged with fixed pivot point on end of the opening are available with a minimum of one non-sliding end **single action** panel and a maximum of 6 folding panels from either the right and/or the left side of the opening. For even larger widths, optional unlimited floating paired panels are offered in 2, 3 or 4 panel increments. Select all that apply.

   a. [Folding]
   b. [Paired]
   c. [Non-sliding end single/double action]
   d. [Single action panels hinged off folding panels]
4. Panel Configuration:
   a. [Straight]

b. [90º angle turn/ open corner]

c. [Window/ door combination]

5. Mounting Type: Top-hung

6. Sill Type: Floor sockets with No floor track or sill.

2.03 MATERIALS

A. All Glass Center Pivot Partition Description: All glass, top-hung, single track folding system with no vertical profiles. Manufacturer's standard top and bottom channel frame and panel profiles, with head track, floor sockets, side jambs, folding-swing panels with dimensions as shown on Drawings.

1. Panel Size (W x H): As indicated.

NOTE: Max. W x H folding panel width up to 3' 3" (1.00 m) and unit height up to 10' 6" (3.2 m).

Max. W x H single action panel hinged off a folding panel, panel width up to 3' 3" (1.00 m) and unit height up to 10' 6" (3.2 m).

Max. W x H non-sliding end single/double action panel width up to 3' 7" (1.1 m) by and unit height up to 10' 6" (3.2 m).

2. Provide aluminum head track, hinges/pivot points, and face and edge of top and bottom rails.

a. Finish - Anodized (AAMA 611):

1). [Clear]

2). [Dark bronze]

3). [Black]

4). [Brushed]

5). [Post assembly clear coated]

NOTE: Specify post assembly clear coat for greater corrosion resistance.

b. Finish - Powder Coat (AAMA 2604):

1). Color as chosen from manufacturer's powder coating finish chart from

a). [manufacturer's full RAL selection.]

b). [custom finish.]

2). Gloss - Finish:

a). [High Gloss]

b). [Matte]

3. Panels: Single lite.

4. Head Track Height x Depth: 3-1/16 inch x 2-3/4 inch (78 x 70 mm)

5. Suspended ceiling support profile

NOTE: Suspended ceiling support profile is optional. Edit to suit project requirements.

6. Top & Bottom Rail Depth: 1-7/16 inch (36 mm)

7. Top Rail Height:

a. 3-15/16 (100 mm)

8. Bottom Rail Height:

a. 3-15/16 inch (100 mm)

NOTE: Option a. above is standard with other options below. Edit to suit project requirements.

b. [ADA, chamfered, 4-3/4 inch (120 mm)]

c. [ADA, 10 inch (254 mm) kickplate]

9. Rail End Cap at Last Folding Panel: Smooth with bumpers on one panel end.
10. Rail End Cap in between Folding Panels: Consists of one or two part hinge assembly with bumper on one panel end.
11. Sill Type: Floor Sockets
12. Aluminum Extrusions: AlMgSi0.5 alloy, 6063-T5 (F-22 - European standard)
    a. Thickness: 0.078-inch (2.0 mm) nominal

NOTE: Select and edit glass type(s) to meet building code, wind-load design, acoustic and/or security, and other project requirements with other glass available from manufacturer such as low iron, white board, decorative, acrylic, wooden, and stainless-steel mesh.

For laminated glass, please check with NanaWall the availability of Vanceva White Collection and other color interlayers.

B. Glass and Glazing:
1. Safety Glazing: In compliance with ANSI Z97.1, CPSC 16CFR 1201, ASTM C1036 and ASTM C1048.
2. Manufacturer's standard [**tempered**] [**laminated**] single lite glass.
    a. Glass Thickness: 1/2 inch (12 mm)

NOTE: H-gasket is standard with the 1/2 inch (12 mm) glass to meet IBC 2403.4 requirements for 5 lb. and 50 lb. load testing.

3. Edges: Flat polished/ground butt for all straight panels and mitered/beveled at corner panels.
    a. Factory Glazing:
        1). Clamp installed for equal distribution of weight.
        2). Glass edge top rail clearance to be no more than 1/8-inch (3 mm) with a minimum 7/8-inch (22 mm) bite.
        3). Glass installed with bolts only NOT acceptable.

C. Carrier Hardware:
1. Panels: Provide unidirectional sliding panel carrier attached to the panel with a stainless-steel cast shoe and a stainless-steel ball bearing axle.
    a. Carriers to be with four (4) glass fiber reinforced polyamide wheels with memory effect, two (2) guiding rollers, and polyamide bumpers to avoid metal on metal contact for quiet and smooth operation.
    b. Metal-on-metal contact between top-track and carriers NOT acceptable.
2. Maximum carrying capacity of one carrier on a panel to be 330 lbs. (150 kg).
3. Adjustment: Provide system capable of specified amount of adjustments without removing panels from tracks.

D. Hinge Hardware:
1. Provide top and bottom rail with 2-part hinge with stainless steel hinge pin, two (2) concealed set screws for security, and equal distribution of weight carried by two (2) encapsulated axial grooved ball bearings.

E. Hardware for pairs of folding panels, provide:
1. Quick release floor bolt with spring loaded security feature.
2. [Floor bolt with mortise cylinder]

NOTE: Floor bolt with half mortise cylinder below is recommended when panel operation control is needed.

F. Hardware for Primary or Secondary Single Action Swing Panel Attached to Chain of Folding Panel(s):

1. Floor bolt with mortise cylinder.

NOTE: Option 1. above is standard with other options below. A combination of choices is possible. Edit to suit project requirements.

2. [Foot activated floor bolt.]
3. [Additional locking bolt with crank handle at the top rail for additional security.]

G. Hardware on Non-Sliding End Single/Double Action Panel(s):

1. Single action panel with pivot point.

NOTE: Option 1. above is standard with other options below. Edit to suit project requirements.

2. [Single action with bottom door closer.]
3. [Single action offset pivot hinged panel that can swing 180°.]
4. [Single action with manufacturer's standard overhead door closer in closest match (**aluminum**) (**stainless steel)** finish.]
5. [Double action with stainless steel finish bottom door closer.]

H. Handles on Primary Single Action Swing Panel Attached to Chain of Folding Panels, provide:

1. [Lever handles on both sides with latch in brushed stainless steel finish (no lock set) and matching strike plate on opposite panel (or secondary swing panel) to be located at handle height (single action panel, only).]
2. [Lever handles in brushed stainless steel finish with locking hardware (no lock set) and options selected from F2 (single action panel, only).]
3. [Preparation for lever handles furnished by Section 08 7100.]

NOTE: Provide template for holes and cut outs needed in glass).

4. [No handles but with pull knob in brushed stainless steel finish.]
5. [No handles but with rosette in brushed stainless steel finish.]
6. [No handles and no knob.]

NOTE: Supply drill pattern for NanaWall to drill holes in glass. Hardware supplied and installed by others.

7. [Panic Hardware - Access Door AD 100-F Panic Series by others]

I. Handles on Non-Sliding End Single/Double Action Panel(s):

1. Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 13-13/16 inch (350 mm) and locking located at bottom rail.

NOTE: Option 1. above is standard with other options below. Edit to suit project requirements.
Push/pull handles with black bumpers are on each end to minimize impact with glass.

2. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 19-11/16 inches (500 mm).]
3. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 29-17/32 inches (750 mm).]
4. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 39-3/8 inches (1000 mm).]
5. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 47-1/4 inches (1200 mm).]
6. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 59-1/16 inches (1500 mm).]

7. [Push/pull handles on both sides in brushed stainless-steel finish with two point fixing and length of 70-55/64 inches (1800 mm).]
8. [Pull handle with push plate set in brushed stainless steel finish with length of 13-13/16 inch (350 mm).]
9. [Ladder push/pull handles on both sides in brushed stainless steel finish with key-key locking at handle height.]
10. [Ladder push/pull handles on both sides in brushed stainless steel finish with key-thumb turn locking with handle height.]
11. [Lever handles on both sides with latch in brushed stainless steel finish (no lock set) and matching strike plate on opposite panel (or secondary swing panel) to be located at handle height (single action panel, only).]
12. [Lever handles in brushed stainless steel finish with locking hardware (no lock set) and options selected from F2 (single action panel, only).]
13. [Preparation for lever handles furnished by Section 08 7100.]

NOTE: Provide template for holes and cut outs needed in glass.

14. [No handles but with pull knob in brushed stainless steel finish.]
15. [No handles but with rosette in brushed stainless steel finish.]
16. [No handles and no knob.]
17. [No handles but with hole with polished glass edges.]

J. Panels with Push/Pull Handles, Knobs, Rosettes, or Panic Devices: Provide handle height centered at 41-3/8 inch (105 cm) from bottom of the panel or as indicated otherwise.

K. Mortise Cylinder: 1-1/8 inch mortise lockset, Yale cam clear anodized finish, as a temporary construction core.

NOTE: Edit to suit project requirements to be supplied by Contractor.

1. Final locking by others: key operation
   a. [Key operation from either side]
   b. [Key operation inside or outside only]
   c. [Key operation from outside with a thumb turn on the inside]
2. Final locking by others: format
   a. [Small Format Interchangeable Core (SFIC).]
   b. [Large Format Interchangeable Core (LFIC).]
   c. [Furnished by Section 08 71 00.]

L. Other Components:

1. Horizontal Seals: Provide adjustable sealing brush for outside of top rail.
2. Bumpers: Provide recessed polyamide bumpers on one end of sliding panel end caps, at the top and bottom.

NOTE: Bumpers prevent metal-to-metal or glass-to-glass contact.

3. Transparent Vertical Gaskets: Between folding panels, provide UV resistant edge mounted gaskets with a Light Transmission (LT) of 75 percent or higher per ASTM D1003.
   a. H-gaskets act as a permanent fastener and capture the edges to prevent differential deflection of two adjacent unsupported All Glass panels per IBC 2403.4.

2.04 FABRICATION

A. Extruded aluminum frame and rail profiles, folding hardware, locking hardware and handles, and glass used to fabricate a center pivot folding glass wall.

1. Each unit factory pre-assembled and shipped with all components and installation instructions.
2. Exposed work to be carefully matched to produce continuity of line and design with all joints.
3. No raw edges visible at joints.

2.05 ACCESSORIES

A. [**Sliding HSW75**] [**Folding FSW75**] systems with finish to match, as indicated. See Door Schedule.

B. [**Single**] [**Double**] doors as indicated. See Door Schedule.

C. Sidelights with finish to match, as indicated. See Door Schedule.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examination and Acceptance of Conditions per Section 01 70 00 and as follows:

1. Carefully examine rough openings with Installer present, for compliance with requirements affecting Work performance.
   a. Verify that field measurements, substrates, cleanliness, tolerances, level, plumb, square, with no unevenness, bowing, or bumps on floor, not only in the rough opening area but also in the single action panel swing areas, and other conditions are as required by the manufacturer, and ready to receive Work.
   b. Verify the structural integrity of the header for deflection with live and dead loads limited to the lesser of L/720 of the span or 1/4 inch (6 mm). Provide structural support for lateral loads, and eccentric load when the panels are stacked open.

NOTE: Structural support for lateral loads such as forced entry, etc. to be provided.

It's recommended that all building dead loads be applied to the header prior to installing the unit.

If so, and if a reasonable amount of time has been allowed for the effect of this dead load on the header, only then can the building live load be used to meet the above requirements of L/720 or 1/4 inch (6 mm).

If not, both dead and live loads need to be considered.

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

3.02 INSTALLATION

A. General: Install All Glass Center Pivot Partition system in accordance with the Drawings, approved submittals, manufacturers' recommendations, and installation instructions, and as follows:

1. Properly seal around opening perimeter.
2. Securely attach anchorage devices to rigidly fit top head track and stacking bay in place, level, straight, plumb, and square. Install frame in proper elevation, plane and location, and in proper alignment with other work
3. Install panels, handles, lockset, and other accessories in accordance with manufacturer’s recommendations and instructions.

3.03 FIELD QUALITY CONTROL

A. Field Tests and Inspections per Section 01 40 00 of the following:

1. Verify the All Glass Center Pivot Partition system operates and functions properly. Adjust hardware for proper operation.

B. Non-Conforming Work: Repair or replace non-conforming work as directed by the Architect; see General and Supplementary Conditions, and Division 01, General Requirements.

3.04 CLEANING AND PROTECTION

A. Keep units closed and protect All Glass Center Pivot Partition installation against damage from construction activities.

B. Remove protective coatings and use manufacturer recommended methods to clean exposed surfaces.

END OF SECTION