
PART 1 GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Luminous (Photoluminescent) egress path markings:
 - a. Exit signs.
 - b. Stair nosings demarcation strips.
 - c. Handrail, obstacle and landing demarcation markers.
 - d. Door handle, push bar and door frame markers.
 - e. Floor identification.
- B. Related Sections
 - 1. Division 1 Section "Sustainable Design Requirements".

1.3 REFERENCES

- A. National Fire Protection Association (NFPA) 101 – Life Safety Code.
- B. Underwriters Laboratories, Inc. (UL) 1994 – Standard for Luminous Egress Path Marking Systems, 410 – Standard for Slip Resistance for Floor Surface Materials.
- C. American Society for Testing & Materials (ASTM) E2072 – Standard Specification for Photoluminescent (Phosphorescent) Safety Systems and E2073 – Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings.

1.4 QUALITY ASSURANCE

- A. The work of this section shall be performed by a company which specializes in the photoluminescent egress path markings required for this Project, with a minimum of 5 years of documented successful experience and shall be performed by skilled workmen thoroughly experienced in the necessary crafts.
 - 1. Work shall be performed in compliance with Owner's insurance underwriters' requirements and UL approvals and testing for materials, assemblies and procedures.
- B. Manufacturer shall specialize in manufacturing the photoluminescent egress path markings specified in this section, with a minimum of 5 years of documented successful experience, and have the facilities capable of meeting all requirements of Contract Documents as a single-source responsibility and warranty.
- C. LEED Building Performance Requirements:
 - 1. Adhesives, sealants, paints or coatings used for work in this section for interior applications shall meet the requirements of Division 1, Section 01 81 13.16: "Volatile Organic Compound (VOC) Limits for Adhesives and Sealants", where applicable.
 - 2. Materials manufactured within a radius of 500 miles from the project site where all or a portion of the raw resources also originate within a radius of 500 miles shall be documented in accordance with the LEED Building Submittal Requirements of this Section.
- D. Provide directional and egress markings in accordance with Building Code/Fire Code.

1.5 ACTION SUBMITTALS

- A. Submit the following according to Conditions of the Construction Contract and Division 1 Specification Sections.
- B. Submittals for Review:
 - 1. Shop Drawings: Indicate sign locations, content, mounting heights, and attachments.
 - 2. Product Data: Include product description, materials, finishes, and performance characteristics.
 - 3. Samples:
 - a. Exit signs and door handle full size.

- b. Stair nosings, minimum 12 inches long.
 - c. Handrail, Obstacle, and Perimeter Demarcation Markers: Minimum 12 inches long.
 - d. Push Bar and Door Frame Markers: 12 inches long.
- C. Hazardous Materials Notification: In the event no product or material is available that does not contain asbestos, PCB or other hazardous materials as determined by the Owner, a "Material Safety Data Sheet" (MSDS) equivalent to OSHA Form 20 shall be submitted for that proposed product or material prior to installation.
- D. Asbestos and PCB Certification: After completion of installation, but prior to Substantial Completion, Contractor shall certify in writing that products and materials installed, and processes used, do not contain asbestos or polychlorinated biphenyls (PCB), using format in Article 3 of General Conditions.
- 1.6 DELIVERY, STORAGE, AND HANDLING**
- A. Comply with General Conditions and Division 1 Section "Product Requirements".
 - B. Store signs and markings in cool, dry location until installed.
- 1.7 WARRANTY**
- A. Comply with General Conditions and Division 1 Section "Product Requirements".
 - B. Provide manufacturer's limited warranty.
 - 1. Signs and markings installed in interior locations: 25 years.
 - 2. Signs and markings installed in exterior locations: 3 years.

PART 2 PRODUCTS

2.1 UNAUTHORIZED MATERIALS

- A. Materials and products required for work of this section shall not contain asbestos, polychlorinated biphenyls (PCB) or other hazardous materials identified by the Owner.

2.2 ACCEPTABLE MANUFACTURERS

- A. Products of the manufacturers specified in this section establish the minimum functional, aesthetic and quality standards required for work of this section.
- B. Contract Documents are based on products by EverGlow NA, Inc.
- C. Substitutions: Under provisions of Division 1.

2.3 MATERIALS

- A. Photoluminescent (Luminous) Egress Path Markings:
 - 1. Photoluminescent material absorbs and storing energy from ambient light – interior lighting and sunlight, does not require any external power supply.
 - 2. Non-toxic, non-radioactive.
 - 3. Free from vinyl and polyvinyl chloride compounds.
 - 4. Manufactured using low-VOC links and coatings. High solid epoxy coatings.
 - 5. High-visibility illumination.
 - 6. Tested and listed to UL1994.
 - 7. UL approved for use in interior locations with fluorescent lighting.
 - 8. Stair nosings and markers that can be used on stair nosings are listed to UL1994 and UL410.
 - 9. Tested to meet ASTM E2072 or E2073 luminance requirements.
 - 10. Source: EverGlow or equal.
- B. Frames and Mounting Brackets:
 - 1. Where framed and flag-mounted signs are scheduled, provide extruded aluminum frames with satin finish.
 - 2. Recycled Content:
 - a. Minimum 60 percent, with minimum 60 percent classified as post-consumer.

- C. Fasteners:
1. Mechanical fasteners and stand-offs for signs are stainless steel or chromed as required.
 2. Adhesive: Use additional construction adhesive as necessary.
- D. Refer to Schedule at end of Section for specific components.

PART 3 EXECUTION**3.1 PREPARATION**

- A. Clean substrate surfaces of dirt, oil, grease, and loose matter that could impair adhesion.

3.2 INSTALLATION

- A. Install markings in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Locate markings in accordance with Building Code and Fire Code.
- C. Install markings level, straight, and true to line.

3.3 SCHEDULE

LOCATION	MARKING TYPE	MODEL NO.	REMARKS
Steps, Landings and Door Frames	Marking Strip (Demarcation Lines)	15.US7655	Leading edge of each step, perimeter of landings, door frames, push bars on doors
Handrails	Guidance Tape	59.US7401	Top of handrails, entire length and returns
Obstacles	Obstacle Tape	59.US7416	Obstacles protruding into the egress path
Door Hardware	4 x 4 Inch Marker	15.US3010	Door handles on intermediate and final exit doors; use 59.US7401 on push bars
Walls in Corridors, Directional Changes within Exits	Directional Marker	15.IS3005 15.US3008 Various	Exit to the left. Exit to the right All directions available
Doors from Exit Enclosures	Exit Sign ISO (International Egress)	15.0029 15.0031 6 x 6 inches or larger	EXIT right EXIT left On final exit door(s) only
Walls, near the Door on each Floor Landing	Floor Identification Sign	Various, 18 x 12 inches or larger (Custom)	As required inside exit, each floor, each exit
Information Signs as required	No Roof Access No Re-Entry Re-Entry on []	Various (Custom)	As required inside exit, each floor, each exit

END OF SECTION