

3-Part Specification Railing Cable Systems

GENERAL NOTES TO SPECIFIER:

THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONALS IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE, AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING.

EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON MASTERFORMAT, 2004 EDITION).

THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING 01 25 13-PRODUCT SUBSTITUTION PROCEDURES, 01 33 00-SUBMITTAL PROCEDURES, 01 45 00-QUALITY CONTROL, 01 62 00-PRODUCT OPTIONS, 01 66 00-PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01 74 00-CLEANING AND WASTE MANAGEMENT, 01 77 00-CLOSEOUT PROCEDURES, AND 01 78 00-CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

THIS IS AN OPEN PROPRIETARY SPECIFICATION ALLOWING USERS THE OPTION OF APPROVING OTHER MANUFACTURERS THAT COMPLY WITH THE CRITERIA SPECIFIED HEREIN.

NOTES TO THE SPECIFIER ARE CONTAINED IN BOXES LIKE THIS ONE AND SHOULD BE DELETED FROM FINAL COPY.

OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITHIN BRACKETS, E.G. [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS.

ITEMS REQUIRING ADDITIONAL INFORMATION ARE UNDERLINED BLANK SPACES, E.G.

| OPTIONAL PARAGRAPHS REQUIRING SELECTION OF ONE OF THE OPTIONS ARE SEPARATED BY "OR" WITHIN A BOX E.G: |
|--|
| OR |

OPTIONAL PARAGRAPHS AND FEATURES THAT MAY BE SELECTED OR DELETED AS DESIRED ARE SHOWN IN BOLD FACE TYPE. CONVERT THE BOLD FACE TYPE TO REGULAR TYPE WHEN INCLUDING THESE PARAGRAPHS OR FEATURES; DELETE THEM IF NOT REQUIRED FOR THE PROJECT.

REVISE FOOTER TO SUIT PROJECT/OFFICE REQUIREMENTS.

ELECTRONIC VERSIONS OF THIS SPECIFICATION UTILIZE AUTOMATIC PARAGRAPH NUMBERING.

WHEN EDITING IS COMPLETE, DELETE ALL TEXT ON THIS PAGE, THEN REMOVE THE SECTION BREAK AT THE TOP OF THE NEXT PAGE TO REMOVE THIS PAGE FROM THE DOCUMENT.

SPECIFICATION BEGINS ON THE FOLLOWING PAGE.

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SECTION 05 52 20

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RAILING CABLE SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Stainless steel cable and fittings for railing infill.
- B. Related Sections:

INSERT SECTION NUMBER AND TITLE BELOW FOR BASIC RAILING POST AND/OR RAIL SYSTEM TO WHICH CABLES SPECIFIED HEREIN WILL BE ATTACHED. VERIFY THAT THE BASIC RAILING SECTION ALSO CONTAINS A REFERENCE TO THIS SECTION.

1. –

1.02 SUBMITTALS

- A. Reference Section 01 33 00–Submittal Procedures; submit following items:
 - 1. Product Data.

INFORMATION FOR CABLE SYSTEM SHOP DRAWINGS IS USUALLY SHOWN ON RAILING SHOP DRAWINGS. COORDINATE WITH OTHER SECTIONS AS APPROPRIATE TO ASSURE THAT SHOP DRAWINGS INCLUDE THE NECESSARY INFORMATION. SIMPLE PROJECTS MAY NOT REQUIRE SHOP DRAWINGS.

- 2. Shop Drawings: Indicate materials, sizes, fabrication, anchorage and installation details, and lengths for cable systems on shop drawings prepared by fabricator of cable supporting structure.
- 3. Samples: Minimum 12 inch (300 mm) length of cable and each fitting and accessory proposed for the Project. Submit items in specified finish.
- 4. Quality Assurance/Control Submittals:
 - a. Qualifications: Proof of manufacturer's qualifications.
 - b. Manufacturer's Installation Instructions.
- B. Closeout Submittals: Reference Section 01 78 00-Closeout Submittals; submit following items:
 - 1. Maintenance Instructions:
 - a. Manufacturer's recommendation for periodic checking and adjustment of cables to maintain uniform cable tension.
 - b. Manufacturer's recommendation for periodic cleaning to remove accumulated dirt, debris, and stains.

1.03 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer Qualifications: Minimum five years experience in producing cable assemblies of the type specified.
- 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Reference Section 01 66 00–Product Storage and Handling Requirements.
- B. Follow manufacturer's instructions.

1.05 WARRANTY

COMPLETE TEXT OF FOLLOWING WARRANTY IS AVAILABLE FROM FEENEY UPON REQUEST.

A. Special Warranty: Stainless steel cables and connectors – 10 year limited warranty against defects in materials and workmanship.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Feeney, Inc.

2603 Union St.

Oakland, CA 94607

Toll Free: (800) 888-2418
Tel: (510) 893-9473
Fax: (510) 893-9484

E-Mail: <u>sales@feeneyinc.com</u>
Website: <u>http://www.feeneyinc.com</u>

- B. Product: CableRail by Feeney cable assemblies and fittings.
- C. Substitutions: Reference Section 01 25 13-Product Substitution Procedures.

2.02 MATERIALS

- A. Cables: Type 316 stainless steel as specified below, polished finish, commercial, dry grade.
- B. Fittings:
 - 1. Swage Style: Type 316 stainless steel, vibratory/tumbled finish.
 - 2. Quick-Connect® Style: Type 316 stainless steel body, mill finish.

2.03 COMPONENTS

SELECT FOLLOWING PARAGRAPH A. "CableRail Standard Cable Assemblies" FOR STANDARD INSTALLATIONS WHERE TERMINAL POSTS HAVE AT LEAST A 3 INCH (75MM) CLEARANCE FROM WALLS OR OTHER OBJECTS AND CAN BE FULLY PENETRATED FOR ATTACHMENT OF CABLE FITTINGS. SELECT PARAGRAPH B. "CableRail Custom Cable Fittings and Assemblies" FOR CUSTOM INSTALLATIONS REQUIRING OTHER TYPES OR SIZES OF CABLE AND/OR CONNECTING HARDWARE DUE TO LOAD REQUIREMENTS, ORNAMENTAL DESIGN NEEDS, OR SPECIFIC/UNIQUE TERMINATION CONDITIONS.

- A. CableRail by Feeney, Standard Cable Assemblies: [1/8 inch (3.2 mm)] [3/16 inch (4.8 mm)] [1/4 inch (6.4 mm)] diameter by length as required, 1x19 construction, Type 316 stainless steel cable with a stainless steel threaded terminal factory attached to one end. Provide 2 [stainless steel] [nylon] flat washers, 1 stainless steel washer-nut, 2 [colored polyethylene] [stainless steel] end caps, and 1 stainless steel Quick-Connect®SS fitting with each assembly.
 - 1. Accessories: Stainless steel protector sleeves, rubber grommets, bushings, beveled washers and additional accessories as recommended by manufacturer for installation conditions
- B. CableRail by Feeney, Custom Cable Fittings and Assemblies:

CABLE SELECTION GUIDELINES:

SELECT CABLE BASED ON LOAD REQUIREMENTS, DECORATIVE APPEARANCE AND/OR FLEXIBILITY NEEDS.

CABLE DIAMETER IS SELECTED BASED ON THE LOAD LIMIT REQUIRED FOR THE INSTALLATION AS DETERMINED BY THE PROJECT ENGINEER. FEENEY CAN ASSIST WITH CABLE SIZING.

THE MORE WIRES AND STRANDS IN A CABLE, THE MORE FLEXIBLE AND LESS RESISTANT IT IS TO ABRASION. TYPICALLY, 1X19 CONSTRUCTION IS COMMON FOR STRAIGHT OR SLIGHTLY BENDING RUNS; 7X7 MAY BE USED FOR STRAIGHT RUNS OR FOR CONDITIONS REQUIRING FLEXIBILITY AND BENDING. 1X19 AND 7X7 IN 1/8, 3/16, AND 1/4 INCH DIAMETERS ARE USUALLY THE MOST COMMON FOR RAILING IN-FILL.

1X19 CONSTRUCTION HAS A TWISTED WIRE APPEARANCE WHERE AS 7X7 HAS A WOVEN, BRAIDED WIRE APPEARANCE.

TYPE 316 IS EXCELLENT FOR BOTH INTERIOR AND EXTERIOR CONDITIONS.

THE FOLLOWING CABLES ARE THE MOST COMMON IN USE. OTHER OPTIONS INCLUDING PVC AND NYLON COATED CABLES ARE AVAILABLE – CONTACT FEENEY FOR INFORMATION.

- 1. Cable: [1/8 inch (3.2 mm) diameter, 1x19 construction, Type 316 stainless steel.] [1/8 inch (3.2 mm) diameter, 7x7 construction, Type 316 stainless steel.] [3/16 inch (4.8 mm) diameter, 1x19 construction, Type 316 stainless steel.] [3/16 inch (4.8 mm) diameter, 7x7 construction, Type 316 stainless steel.] [1/4 inch (6.4 mm) diameter, 1x19 construction, Type 316, stainless steel.] [1/4 inch (6.4 mm) diameter, 7x7 construction, Type 316, stainless steel.]
 - a. Coating: [None] [Clear PVC] [Black PVC] [White PVC] [Custom color PVC as selected by Architect].

VERIFY THAT DRAWINGS IDENTIFY ALL HARDWARE ITEMS BY FEENEY MODEL NUMBER IF "as identified by manufacturer's model number on Drawings" IS SELECTED IN THE FOLLOWING PARAGRAPH.

2. Fittings:

- a. Swage Style: Type 316 stainless steel terminals, turnbuckles, adjusters, and fixed ends and other hardware [as identified by manufacturer's model number on Drawings] [as recommended by manufacturer for installation conditions].
- b. Quick-Connect® Style: Type 316 stainless steel Quick-Connect® terminals, turnbuckles, adjusters, and fixed ends and other hardware [as identified by manufacturer's model number on Drawings] [as recommended by manufacturer for installation conditions].

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine work to which cables will be anchored or will penetrate. Coordinate with responsible entity to perform corrective work as necessary.
 - 1. Verify post size and cable spacing are in accordance with manufacturer's recommendations.
- B. Take field measurements and compare installation conditions to shop drawings. Notify manufacturer if field measurements vary from shop drawings.

3.02 INSTALLATION

MANUFACTURER'S INSTALLATION INSTRUCTIONS COVER PROCEDURES FOR TYPICAL INSTALLATION CONDITIONS. INSERT ADDITIONAL REQUIREMENTS AS NECESSARY TO COVER SPECIAL OR UNUSUAL CONDITIONS.

A. Follow manufacturer's installation instructions.

B. Isolate dissimilar metals with grommets or bushings.

3.03 CLEANING

A. Reference Section 01 74 00-Cleaning and Waste Management.

INCLUDE FOLLOWING PARAGRAPH FOR EXTERIOR CABLES IN COASTAL AREAS.

B. Clean cables thoroughly using synthetic scotch type pads and hot soapy water (or denatured alcohol) to remove residual lubricants; rinse thoroughly with clear water and wipe dry.

END OF SECTION