

APPENDIX C

REGULATORY AGENCIES AND INDUSTRY STANDARDS

1.0 APPLICABLE GOVERNMENT CODES AND REGULATIONS

All improvements of the facilities within the jurisdiction of the PCJPB shall be in strict conformance with government codes, regulations, laws, and standards where applicable, including but not limited to the codes, regulations, laws, and ordinances stated in sections and subsections below.

1.1 Federal

1.1.1 Codes of Federal Regulations (CFR) – Title 49, Transportation:

- a. Part 37 Appendix A – Standard for Accessible Transportation Facilities, ADA Accessibility Guidelines for Buildings and Facilities
- b. Part 192 Transportation of Natural and Other Gas by Pipeline
- c. Part 195 Transportation of Hazardous Liquids by Pipeline
- d. Part 213 Track Safety Standards for Class 5 Track
- e. Part 214 Railroad Workplace Safety
- f. Part 234 Grade Crossing Signal System Safety
- g. Part 235 Instructions Governing Applications for Approval of a Discontinuance or Material Modification of a Signal System or Relief From the Requirements of Part 236
- h. Part 236 Rules, Standards, and Instructions Governing the Installation, Inspection, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances

1.1.2 Manual of Uniform Traffic Control Devices (MUTCD)

1.2 State

- a. California Department of Transportation (Caltrans)
 1. Caltrans Highway Design Manual
 2. Caltrans Standard Specifications
 3. Caltrans Standard Plans
 4. Bridge Design Specifications

1.2.1 California Public Utility Commission - CPUC General Orders:

- a. CPUC GO No. 26 Clearances
- b. CPUC GO No. 33 Interlocking Plants

- c. CPUC GO No. 36 Abolition of Services
- d. CPUC GO No. 72 At-Grade Crossings
- e. CPUC GO No. 75 Protection of Crossings
- f. CPUC GO No. 88 Rules for Altering Public Grade Crossings
- g. CPUC GO No. 95 Rules Governing Overhead Electric Line Construction
- h. CPUC GO No. 112 Utility Construction
- i. CPUC GO No. 118 Walkways Maintenance and Construction
- j. CPUC GO No. 128 Rules for Underground Electric Construction

1.2.2 State of California Codes and Code of Regulations (CCR)

- a. Title 5, Division 1, Part 1, Chapter 5.5, The Elder California Pipeline Safety Act of 1981.
- b. Title 8, Industrial Relations
 - 1. California Occupational Safety and Health Administration (Cal/OSHA)
- c. Title 24, Parts 1 to 10 and Part 12, California Building Standards Code (CBSC)
- d. California Disabled Accessibility Guidebook (CalDAG)

1.2.3 State Historic Preservation Office (SHPO)

2.0 APPLICABLE ORDINANCES AND DESIGN CRITERIA

2.1 Cities and Counties

- a. City and County of San Francisco
- b. San Mateo County
- c. Cities in the San Mateo County
- d. Santa Clara County
- e. Cities in the Santa Clara County

3.0 APPLICABLE GUIDELINES AND INDUSTRY STANDARDS

The design guidelines and criteria in this Criteria are based on the best industry practice. The following industry publications, standards, and design guidelines were used as references to develop this design criteria manual.

- a. American Association of State Highway and Transportation Officials (AASHTO)
- b. American Concrete Institute (ACI)
- c. American Institute of Steel Construction (AISC)
- d. American Iron and Steel Institute (AISI)
- e. American National Standards Institute (ANSI)

1. 455 Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers and Other Fiber Optic Components
2. 568-B Commercial Building Telecommunications Cabling Standard
3. 569-B Commercial Building Standard for Telecommunications Pathways and Spaces – October, 2004
4. 606-A Administration Standard for the Telecommunications Infrastructure of Commercial Buildings – May, 2002
5. J-STD-607-A Commercial Building Grounding and Bonding Requirements for Telecommunications – October, 2002
6. Z55.1 Gray Finishes for Industrial Apparatus and Equipment
- f. American Railway Engineering and Maintenance-of-Way Association (AREMA)
 1. AREMA Communications and Signals Manual and Recommended Practices
 - Part 1.5.10 Recommended Instructions for Painting and Protective Coatings
 2. AREMA Manual for Railway Engineering
 3. AREMA Portfolio of Trackwork Plans
- g. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE)
- h. American Society for Testing and Materials International (ASTM)
 1. A48 Standard Specification for Gray Iron Castings
 2. A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 3. B3 Specification for Soft or Annealed Copper Wire
- i. American Welding Society (AWS)
- j. Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities
- k. Building Industries Consulting Services International (BICSI) Telecommunications Distribution Methods Manual (TDMM) – Edition 10, 2003
- l. Crime Prevention Through Environmental Design (CPTED)
- m. Electronic Industry Alliance (EIA)
 1. 310-D Cabinets, Racks, Panels, and Associated Equipment
- n. Illuminating Engineering Society of North America (IESNA)
- o. International Building Code (IBC)
- p. Institute of Electrical and Electronics Engineers, Inc. (IEEE)
- q. Insulated Cable Engineers Association, Inc. (ICEA)
 1. S-84-608-2002 Filled Telecommunications Cable, Polyolefin, Insulated, Copper Conductor

- r. Motorola R56 grounding standard
- s. National Electric Code (NEC)
- t. National Electrical Safety Code (NESC)
- u. National Electrical Manufacturers Association (NEMA)
 - 1. WC5 Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
 - 2. WC7 Cross Linked Thermosetting Polyethylene Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
- v. National Fire Protection Association (NFPA)
 - 1. 70E Standard for Electrical Safety Requirements for Employee Work places
 - 2. 71 Central Station Signaling Systems
 - 3. 72 National Fire Alarm Code
 - 4. 75 Protection of Electronic Computer Data Processing Equipment
 - 5. 101 Life Safety Code
 - 6. 130 Standard for Fixed Guideway and Passenger Rail System
 - 7. 262 Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces
 - 8. 297 Guide on Principles and Practices for Communications Systems
 - 9. 780 Standard for the Installation of Lightning Protection Systems
- w. Rural Utilities Services (RUS)
 - 1. Specification for Filled Telephone Cable with Expanded Insulation (7 CFR 1755.890)
 - 2. Specification for Acceptance Tests and Measurements of Telecommunications Plant (7 CFR 1755, Bulletin 1753F-201)
- x. Safety Code For Mechanical Refrigeration (SCFMR)
- y. Southern California Public Works Handbook (Green Book)
- z. Telecommunications Industry Associates/ Electronic Industry Alliance (TIA/EIA)
 - 1. TSB67 Transmission Performance Specifications for Field Testing of Unshielded Twisted Pair Cabling Systems
 - 2. TSB72 Centralized Optical Cabling Guidelines
 - 3. TSB75 Additional Horizontal Cabling Practices for Open Offices
- aa. Underwriters Laboratories (UL)
 - 1. 1581 Reference Standard for Electrical Wire, Cable, and Flexible Cords” UL-969, Standard for Marking and Labeling Systems
 - 2. 444 Communication Cables



- 3. 1690 Data Processing Cable
- bb. Uniform Building Code (UBC)