

**APPENDIX A**

**RESPONSIBILITIES FOR CABLE TRAY DESIGN AND INSTALLATION**

## **APPENDIX A: RESPONSIBILITIES FOR CABLE TRAY DESIGN AND INSTALLATION**

Generally, trays serve cabling as follows:

Conventional facilities cabling—Fire Alarm (FA), lighting, power to HVAC equipment, receptacles, paging, phone, office and controls data drops, grounding, Conventional Facilities controls.

Global Controls cabling- Controls and office data network backbone, PPS, MPS, and TPS. Note that all TPS cabling will be run in conduit and require no trays.

Accelerator Division, Target Systems, Instrument Systems cabling—AC power and grounding to power panels and lugs on building walls for the FELK and to unit substations only for the ring buildings, DC supply from power supplies in racks to technical equipment, normal low level signal, extra low level signal, low level RF (RF controls).

### Task 1 (Site Utilities)

1. No cable trays are included in this package.

### Task 2A (CUB)

1. All cable trays in the CUB will be shown on the construction documents and will be provided by the General Construction Contractor (GC).

### Task 2B (CLO)

1. All cable trays in the CLO will be shown on the construction documents and will be provided by the General Construction Contractor (GC).

### Task 3 (Ring Systems)

1. In the tunnels the GC will install only trays for lighting, outlets, emergency lighting, power to CF loads, and CF controls and the FA/PPS/COM trays on the drawings. The AE will show these trays and designate space below these trays and any other trays shown as reserved for ASD. The GC will install a unistrut support system that will support the CF trays listed above and support arms for ASD trays. Note: The Ring tunnels include the RTBT tunnel area in the Target building up to the proton beam window.
2. Except where needed in communication rooms, no trays will be provided for Conventional Facilities cabling in the Ring Service Buildings (HEBT, RTBT, and Ring service buildings). This cabling will be run in conduit designed and installed by the GC.
3. Trays required for Accelerator Division cabling (including PPS where applicable) for the Ring Service Buildings will not be shown on the construction documents and will not be provided by the General Construction Contractor. Further, no hangers or other provisions for these trays will be shown on the construction documents or provided by the General Construction Contractor (GC). These trays will be designed and installed by SNS-ASD.
4. Areas of space will be reserved for trays required for Accelerator Division cabling for the Ring Service Buildings based on the space shown on the mid point of design documents.

### TASK 4 (FELK)

1. In the tunnels the GC will install only trays for lighting, outlets, emergency lighting, power to CF loads, and CF controls and the FA/PPS/COM trays on the drawings. The AE will show these trays and designate space below these trays and any other trays shown as reserved for ASD. The GC will install a unistrut support system that will support these trays and mounting arms for ASD trays and trays for CF power, lighting, etc and the FA/PPS/COM trays.
2. All cable trays in the Front End building except those not provided by LBNL as part of Front End technical systems equipment and eight branches off the main trays will be shown on the construction documents and installed by the General Construction Contractor (GC). These trays are the PWR-DP, PPS-FA-COM, S-NLL and S-ELL cable trays. The GC will supply supports and other accessories for only these trays.
3. Where Conventional Facilities and PPS cabling cannot use the trays installed on the Front End building by the GC, it will be run in conduit. (Note: Conduit for CF cabling will be designed by the AE and installed by the GC. Conduit for PPS will be designed and installed by SNS-ASD.)
4. The documents will require the GC to leave open space where trays furnished with the Front End System equipment are shown. These trays will be designed by LBNL and installed by SNS-ASD.
5. All cable trays in the Klystron building will be shown on the construction documents. The documents will require the General Construction Contractor (GC) to only install the PWR-DP, PWR-SWGR, PWR-SUPP, PPS-FA-COM, and S-NLL trays along the South wall of the klystron gallery and to the CF controls and PPS racks. The GC will supply supports and other accessories for only these trays.
6. Where Conventional Facilities and PPS cabling needed for the operation to 225 Mev cannot use the trays installed on the Klystron building South wall, it will be run in conduit. (Note: Conduit for CF cabling will be designed and installed by the GC. Conduit for PPS will be designed and installed by SNS-ASD.) All other PPS cabling will be run in tray provided by SNS-ASD.
7. The documents will require the GC to leave open space where the Accelerator Division and Global Controls cable trays are shown. These trays will be designed and installed by SNS-ASD.

#### TASK 5A (Target Systems)

1. All cable trays in the Target building will be shown on the construction documents and will be provided by the General Construction Contractor (GC).

#### TASK 6 (CHL/RF)

1. All cable trays in the CHL RF will be shown on the construction documents and will be provided by the General Construction Contractor (GC).