Inspection Check List for Electrical Conduit/Trunking/Tray/Ladder Installation

Project : _____ Contractor : _____

Inspection Refer No. : _____ Date : _____

Location/Plant Room/Unit No. : _____

S/n	Items	Complied		Remarks
		Yes	No	
1	**General Checks**			
1.1	Electrical conduit/trunking/tray/ladder installed is approval brand and make			
1.2	Size of electrical conduit/trunking/tray/ladder installed is complied with approval shop drawing and SS CP 5			
1.3	Routing and mounting height of electrical conduit/trunking/ /ladder installed is accordance with approval shop drawing and coordinated with other services installation			
1.4	Electrical conduit/trunking/tray/ladder installed is in correct alignment and constant level without snaking			
1.5	Metal covers for cable trunking and conduit junction boxes are installed			
1.6	No PVC conduit is installed fire protected area, air conditioning air path and above false ceiling where act as return air plenum			
2	**Cable tray**			
2.1	Cable tray is manufactured from perforated epoxy coated mild steel of min. 1.5mm thick for up to 300mm width cable tray and min. 2.0mm thick for the width exceed 300mm width tray			
2.2	Copper links of appropriate cross section is provided for each section joints to maintain earth continuity			
2.3	Cable trays completed with upturned flanges on both sides of 13mm deep for the tray width up to 300mmm and upturned flanges of 19mm for tray width more than 300mm and above			
2.4	Proprietary made standard fitting, long radius bends, risers, reducers tees, etc. is installed, site fabricated fitting is NOT acceptable			
2.5	Cable tray is supported with mild steel brackets/hangers at not more than 1.0 meter intervals and at 150mm from bends and intersections			
2.6	All brackets/hangers are hot dip galvanised and completed with proper height adjustment features			
2.7	Where two tiers cable tray installed, purpose made hanger/brackets is spaced the two trays at different heights of not less 300mm apart			

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S/n	Items	Complied		Remarks
		Yes	No	
2.8	All cut edges of galvanised cable tray is painted with a layer of primer and two coats of approved zinc rich paint			
2.9	Holes cut in cable trays for passage of cable is provided with grommets for protection of cables, bushed or lined is acceptable			
3	**Cable ladder**			
3.1	Cable ladder is heavy duty manufactured from epoxy coated mild steel of min. 2.0mm thickness			
3.2	Cable ladder have a min. 120mm high longitudinal side members and min. 50mm wide rungs with slots of 63mm x 12mm covering the whole length of rungs.			
3.3	Each cable ladder is in standard length of 3.0 meter and supplied c/w couplings sets consisting of fishplates, splinted bolts, nuts and locking washers			
3.4	Proprietary factory-made fitting such as elbows, risers, reducers, tees, etc. is installed, site fabricated fitting is NOT acceptable			
3.5	Cable ladders is supported from roof/sidewall by means of frame system similar to UNISTRUT			
3.6	Cable ladder is supported at not more than 1.0 meter intervals			
3.7	Min. size of 16mm sq. copper jumper is installed for each section joints			
4	**Cable trunking**			
4.1	Cable trunking is manufactured from epoxy coated mild sheet steel of min. 1.2mm thickness for sizes up to 100mm (W) x 75mm (D) and 1.6mm thickness for sizes above 100mm (W) x 75mm (D) and c/w standard bolted flanged outlets for jointing			
4.2	Proprietary factory-made fittings such as elbows, risers, reducers, tees, etc. is installed, site fabricated fitting is NOT acceptable			
4.3	A copper link is provided on BOTH sides of each trunking joints for earth continuity			
4.4	Each length of cable trunking is supported by brackets/hangers at intervals of 1.2 to 1.5 meters			
4.5	All trunking brackets/hangers are fabricated from galvanised mild steel angles			
4.6	Vertical runs of trunking within electrical riser duct which pass through floors is provided with fire resistant barriers inside and around the trunking of equal fire rating to the floor, this apply to trunking passing through fire rated wall			

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S/n	Items	Complied		Remarks
		Yes	No	
4.7	Lighting and power cables is NOT run in same trunking as the cables for extra low voltage circuits unless they are segregated effectively by means of a rigidly fixed metal barriers or screen			
4.8	Wiring of emergency lighting is run exclusively in separate trunking			
4.9	Number of cables installed in trunking such that a space factor of 45% is not exceeded as requirement of SS CP 5			
4.10	Holes cut in cable trays for passage of cable is provided with grommets for protection of cables, bushed or lined is acceptable			
5	**Cable conduit**			
5.1	Galvanised steel conduit is complied with BS 4568 with screwed and welded Class B and fitting is manufactured from steel or malleable cast iron			
5.2	UPVC conduit is installed concealed in walls, columns or floors provided the min. cover by finishes and concrete of 50mm			
5.3	For galvanised conduit, red lead paint is applied to all cut edges, galvanised surface damaged and exposed threads and connections			
5.4	All conduit is earthed at terminations			
5.5	Min. size of 20mm dia. conduit is installed			
5.6	Number of cables drawn in the conduit is NOT greater than appropriate number permitted in SS CP 5			
5.7	Separate conduit installed for low voltage circuits and extra low voltage circuits			
5.8	Separate conduit installed for essential and non-essential circuits			
5.9	Conduits is laid in fall so as to drain off condensed moisture			
5.10	Bending radius of conduit is not less than 2.5 times of outside diameter of the conduit, otherwise factory made bends may be alternative			
5.11	Socket and smooth bore male brass bush is used for galvanised conduit terminated at metal base, DB, adaptable box, motor starter, terminal box, etc.			
5.12	Exposed conduit is fixed effectively by means of heavy pattern full spacing saddles at intervals no exceeding 900mm and 150mm to 200mm on both sides of bends and junction box, standard drawing no. **SE(EI)-27** – "Typical electrical GI conduit pipe installation details" is referred			
5.13	Conduit boxes is provided after two bends and after not more than each 9.0 meters straight run			
5.14	Where conduit pass across expansion joints, conduit installed so as not to resist relative movement of the sections			

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S/n	Items	Complied		Remarks
		Yes	No	
5.15	Completed conduit and junction boxes are plugged effectively against the ingress of water and dirt particularly where concreting works involved			
5.16	Completed exposed conduit is painted with two coats of orange colour paint or any other colour as approval by the Architect			

Remarks / comments

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Conduct by : _____ Company : _____ Date : _____

Signature : _____

Inspect by : _____ Company : _____ Date : _____

Signature : _____

Witness by : _____ Company : _____ Date : _____

Signature : _____

Approve by : _____ Company : _____ Date : _____

Signature : _____