

NAME OF WORK:- UPGRADATION OF EXTERNAL FENCE & INSTALLATION OF SECURITY SYSTEM AT LIFESTYLE RESIDENCY PROJECT, SECTOR G-13, ISLAMABAD.

Schedule Items MRS 2nd BI-ANNUAL-2025 RAWALPINDI						
S.No	Description	Qty	Rate	Unit	Amount	Remarks
3/53	Clearing and Grubbing (by removing both surface vegetation and subsurface roots and debris etc.)	64100	4,880.80	1000 Sft.	312,859	
26/46 (Labour)	Providing and fixing hot dipped Galvanized Iron chain link mesh/fence of 2"x2" mesh made of wire of specified guage, with the help of 1"x1/8" GI patti, GI. clamps and screws, i/c the cost of 3 nos 8 SWG GI tie wires penetrated through mesh at top, middle and bottom, fixed on vertical posts of 2" diameter GI pipes (50 mm) 2.9mm thick (medium quality) erected @ 8ft C/C duly embeded in PCC (1:2:4) etc. complete in all respect as approved and directed by the Engineer Incharge. * Labour rate	8400	35.4	Sft	297,360	Repair of GI iron chain link mesh
26/46	Providing and fixing hot dipped Galvanized Iron chain link mesh/fence of 2"x2" mesh made of wire of specified guage, with the help of 1"x1/8" GI patti, GI. clamps and screws, i/c the cost of 3 nos 8 SWG GI tie wires penetrated through mesh at top, middle and bottom, fixed on vertical posts of 2" diameter GI pipes (50 mm) 2.9mm thick (medium quality) erected @ 8ft C/C duly embeded in PCC (1:2:4) etc. complete in all respect as approved and directed by the Engineer Incharge. (i) 8 SWG	6300	505.65	Sft	3,185,595	Installation of new GI iron chain link mesh
25/75	Providing and fixing anti climb high security galvanized razor cut wire fencing having double sharp four U-shaped pointed 0.5 mm thick (22mmx15 mm barbs) spaced @ 33 mm c/c cladded over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16"embeded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizontally with angle iron posts , binding wire, painting of posts, etc. complete in all respects as approved and directed by the Engineer incharge. (i) 24 " diameter	3030	658.2	Rft	1,994,346	Installation of Razor cut wire
23/19	Providing, laying, cutting, jointing, welding, testing and disinfecting G.I. pipeline in trenches,using G.I. pipes of B.S.S. 1387-1967 complete in all respects. f) 2" i/d (50 mm) 2.9mm thick	2980	760.15	Rft	2,265,247	Installation of GI pipes in horizontal at top and bottom of for Strengthening of Fence
3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m). b)	1956.00	17088.20	%0 cft	33,425	Security Room 18' x 12' and Washroom
6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) Ratio 1: 4: 8	250.42	35626.30	% cft	89,215	-do-
7/4	Pacca brick work in foundation and plinth in:- i) Cement, sand mortar:- Ratio 1:6	256.45	38406.20	% cft	98,493	-do-

6/37	Providing and laying damp proof course of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating :- (a) with one coat bitumen and one coat polythene sheet 500gauge 3" thick	68.25	16413.65	% Sft	11,202	-do-
7/5	Pacca brick work in ground floor:- i) cement, sand mortar:- Ratio 1:6	652.13	39434.90	% cft	257,165	-do-
6/6	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (3) (c) Type C (nominal mix 1: 2: 4)	565.69	757.75	cft	428,652	-do-
6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Deformed bars (Grade-40)	1429.07	29591.95	% Kg	422,889	-do-
10/3	Supplying and filling sand under floor; or plugging in wells.	79.92	4156.70	% cft	3,322	-do-
10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- (i) 3"(75 mm) thick	240.00	16636.20	% Sft	39,927	-do-
11/10	Cement plaster 1:5 upto 20' (6.00 mm) height:- b) ½" (13 mm) thick	2060.00	4731.15	% Sft	97,462	-do-
11/23+2 4	Priming coat of chalk under distemper. Distemping:- New Surface iii) three coats	910.00	1869.10	% Sft	17,009	-do-
13/33	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: a) new surface: i+ii) Two coats	1001.00	7789.70	% Sft	77,975	-do-
25/62	P/F Iron door comprising of specified leaves made of 1-1/4"x1-1/4"x3/16" MS angle iron for leaf frame, diagonal and horizontal braces duly welded with MS. sheet 18-SWG, including angle iron frame 2"x2"x3/8"(50x50x10 mm) i/c the cost of sliding bolt, tower bolt and painting 3-coats complete in all respect as approved and directed by the Engineer incharge	49.00	1135.95	Sft	55,662	-do-
25/41	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¼"x1/8" For fixed pannels, the composite rate will (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3mm), 5mm glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:- b) fixed with wire gauze, 22 SWG 12x12	32.00	1411.20	Sft	45,158	-do-

23/14	Providing, laying, cutting, jointing, testing and disinfecting PVC/ uPVC pipe line with working pressure pipe, in trenches, including specials (PS-3051=BS-3505), complete in all 'respects:- b) 4" i/d (100 mm)	20.00	530.95	Rft	10,619	-do-
23/14	Providing, laying, cutting, jointing, testing and disinfecting PVC/ uPVC pipe line with working pressure pipe, in trenches, including specials (PS-3051=BS-3505), complete in all 'respects:- a) 3" i/d (75 mm)	30.00	354.60	Rft	10,638	-do-
19/4+13 +35	Providing and fitting glazed earthen ware water closet Squatting type, including with 13.6 litres Flushing Tank and P-Trap:- White	1.00	13976.20	Each	13,976	-do-
19/7	Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc. i) white, with pedestal	1.00	12051.55	Each	12,052	-do-
19/20	Providing and fixing looking glass 55x40 cm (22"x16") size, and 5 mm thick, first quality.	1.00	1546.20	Each	1,546	-do-
19/30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	1.00	3854.00	Each	3,854	-do-
23/39	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified diameter made of Faisal/Sonex/Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge. ii) (3/4") dia	2.00	1488.00	Each	2,976	-do-
23/38	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified diameter made of Faisal/Sonex/Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge. iii) (1") dia	2.00	1908.00	Each	3,816	-do-
19/29	Providing and fixing chromium plated shower rose:- ii) 2x15 cm (¾"x6")	1.00	2728.00	Each	2,728	-do-
23/33	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex /Popular/ Beta/ BB.J) with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN 8077-8078 code I/c cost of solvent. specials, making jharries complete in all respect as approved and directed by Engineer Incharge. (Internal/External Diameters mentioned). b) PN-20 pipe ii) ¾" i/d (25 mm)	40.00	101.15	Rft	4,046	-do-
23/33	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex /Popular/ Beta/ BB.J) with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN 8077-8078 code I/c cost of solvent. specials, making jharries complete in all respect as approved and directed by Engineer Incharge. (Internal/External Diameters mentioned). b) PN-20 pipe iii) 1" i/d (32 mm)	70.00	161.30	Rft	11,291	-do-

19/27	Providing and fixing chromium plated bib cock:- i) 2 cm (¾")	2.00	1948.00	Each	3,896	-do-
19/28	Providing and fixing chromium plated stop cock, heavy:- i) 2 cm (¾")	2.00	2008.00	Each	4,016	-do-
21/05	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	2.00	21,254.55	Each	42,509	-do-
12/22	Providing and fixing room almirah consisting of 1" (25mm) thick solid flush shutter with deodar wood lipping ¾" (6 mm) thick all around (Approved Factory Manufactured) fixed in deodar wood frame 3"x1" (75mm x 25mm) including full hinges C.P. fittings with RCC (1:1½:3) shelves 1½" (40 mm) thick including 3 coats of painting.	126.00	1,280.65	Sft	161,362	-do-
Total Cost of Schedule Items Rs.					10,022,287	
Non Schedule Items (MRS)						
M.R	Providing and installation/fixing of Green shade net made from 100% virgin High-Density Polyethylene (HDPE) with UV stabilizers FR40 with shading ratio 70% to 75% complete in all respects as approved and directed by the Engineer incharge.	18180	35.10	Sft	638,118	Greenhouse net
Grand Total					638,118	

**NAME OF WORK:- UPGRADATION OF EXTERNAL FENCE & INSTALLATION OF SECURITY
SYSTEM AT LIFESTYLE RESIDENCY PROJECT, SECTOR G-13, ISLAMABAD.**

MEASUREMENT SHEET

S.No	DESCRIPTION	UNIT	NO	L	W	H	Qty.
1	Clearing and Grubbing						
	Along Railway Track	Sft	1	600.00	40.00		24000.00
	Along G-13 Markaz	Sft	1	470.00	40.00		18800.00
	Along Street 487	Sft	1	530.00	30.00		15900.00
	Along Street 116	Sft	1	450.00	12.00		5400.00
	Total						64100.00
	Total Qty	Sft					64100.00
2	Repair of Galvanized Iron chain link mesh/fence of 2"x2"						
	Along Railway Track	Sft	1	300.00		6.00	1800.00
	Along G-13 Markaz	Sft	1	450.00		6.00	2700.00
	Along Street 487	Sft	1	250.00		6.00	1500.00
	Along Street 116	Sft	1	400.00		6.00	2400.00
	Total						8400.00
	Total Qty	Sft					8400.00
3	Galvanized Iron chain link mesh/fence of 2"x2"						
	Along Railway Track	Sft	1	200.00		6.00	1200.00
	Along G-13 Markaz	Sft	1	300.00		6.00	1800.00
	Along Street 487	Sft	1	250.00		6.00	1500.00
	Along Street 116	Sft	1	300.00		6.00	1800.00
	Total						6300.00
	Total Qty	Sft					6300.00
4	Galvanized razor cut wire fencing						
	Along Railway Track	Rft	1	550.00			550.00
	Along G-13 Markaz	Rft	1	980.00			980.00
	Along Street 487	Rft	1	550.00			550.00
	Along Street 116	Rft	1	950.00			950.00
	Total						3030.00
	Total Qty	Rft					3030.00
5	G.I Pipe for Fence						
	Along Railway Track	Rft	1	550.00			550.00
	Along G-13 Markaz	Rft	1	980.00			980.00
	Along Street 487	Rft	1	550.00			550.00
	Along Street 116	Rft	1	900.00			900.00
	Total						2980.00
	Total Qty	Rft					2980.00
6	Green shade net						
	Along Railway Track	Sft	1	550.00		6.00	3300.00
	Along G-13 Markaz	Sft	1	980.00		6.00	5880.00
	Along Street 487	Sft	1	550.00		6.00	3300.00
	Along Street 116	Sft	1	950.00		6.00	5700.00
	Total						18180.00
	Total Qty	Sft					18180.00
7	Excavation						
	Security Room	Cft	1	76.00	2.00	3.00	456.00
	Poles	Cft	125	2.00	2.00	3.00	1500.00
	Total						1956.00
	Total Qty	Sft					1956.00

7	PCC 1:4:8						
	Security Room + Washroom	Cft	1	91.00	2.00	0.25	45.50
	Poles	Cft	125	2.00	2.00	0.25	125.00
	Total Qty	Cft					170.50
	Brick work in foundation						
	9" to 13.5" thick						
	under P.Beams 1-Step	Cft	1	91.00	1.13	0.58	59.95
	under P.Beams 2-Step	Cft	1	91.00	0.75	2.00	136.50
	Septic Tank	Cft	1	20.00	0.75	4.00	60.00
	Total	Cft					256.45
	Total Qty	Cft					256.45
	DPC						
	under P.Beams 1-Step	Cft	1	91.00	0.75		68.25
	Total	Cft					68.25
	Total Qty	Cft					68.25
	Brick work in Super Structure						
	9" to 13.5" thick						
	Walls	Cft	1	91.00	0.75	10.00	682.50
	D-1 Deductions	Cft	-1	3.50	0.75	7.00	-18.38
	W-1 Deductions	Cft	-1	4.00	0.75	4.00	-12.00
	Total	Cft					652.13
	Total Qty	Cft					652.13
	R.BEAM						
	Lintel						
	Through out on 9" wall	Cft	1	91.00	0.75	0.75	51.19
	Total	Cft					51.19
	Total Qty	Cft					51.19
	RCC Columns Fence Poles						
	Fence Poles	Cft	125	1.25	1.25	2.00	390.63
	Total	Cft					390.63
	Total Qty	Cft					390.63
	SLAB						
	Room	Cft	1	18.00	12.00	0.42	89.64
	Washroom	Cft	1	5.50	7.50	0.42	17.12
	Septic Tank	Cft	1	7.50	5.50	0.42	17.12
	Total	Cft					123.88
	Total Qty	Cft					123.88
	Steel Reinforcement						
	Lintel	Kgs.	1	51	4.00	204.75	
	SLAB	Kgs.	1	124	2.00	247.76	
	Fence Poles	Kgs.	1	391	2.50	976.56	
	Total	Kgs.					1429.07

MS Door and Windows						
Doors						
D-1	Sft	2	3.50		7.00	49.00
W-1	Sft	2	4.00		4.00	32.00
Total	Sft					81.00
Total Qty	Sft					81.00
Sand fill under floor Work						
Room	Cft	1	18.00	12.00	0.33	71.93
Washroom	Cft	1	4.00	6.00	0.33	7.99
Total	Cft					79.92
Total Qty	Cft					79.92
PCC (1 : 4 : 8) under flooring						
Room	Cft	1	18.00	12.00	0.33	71.93
Washroom	Cft	1	4.00	6.00	0.33	7.99
Total	Cft					79.92
Total Qty	Cft					79.92
PCC flooring						
Flooring	Cft	1	18.00	12.00		216.00
Flooring	Cft	1	6.00	4.00		24.00
Total	Cft					240.00
Total Qty	Cft					240.00
Plater work 1:5						
9" Walls	Sft	2	91.00		10.00	1820.00
Room Ceiling	Sft	1	18.00	12.00		216.00
9" Walls	Sft	1	6.00	4.00		24.00
Total	Sft					2060.00
Total Qty	Sft					2060.00
Distempering work on Internal Walls						
9" Walls	Sft	1	91.00		10.00	910.00
Total	Sft					910.00
Total Qty	Sft					910.00
Weathershield on External Walls						
Outer walls	Sft	1	91.00		11.00	1001.00
Total	Sft					1001.00
Total Qty	Sft					1001.00
4" dia PVC Pipe						
4 " dia	Rft	1	20.00			20.00
3 " dia	Rft	1	30.00			30.00
Total Qty	Rft					
Squatting Type W.C						
	Each	1				1.00
Total Qty	Each					1.00
Wash basin						
	Each	1				1.00
Total Qty	Each					1.00
Looking Mirror						
	Each	1				1.00
Total Qty	Each					1.00

Gun metal valve						
1"	Each	2				2.00
3/4"	Each	2				2.00
Mixer for Washbasin						
	Each	1				1.00
Total Qty	Each					1.00

shower rose						
	Each	1				1.00
Total Qty	Each					1.00
PPRC						
3/4" dia	Rft	1	40.00			40.00
1" dia	Rft	1	70.00			70.00
C.P Bib cock						
	Each	2				2.00
Total Qty	Each					2.00
C.P Stop cock						
	Each	2				2.00
Total Qty	Each					2.00
Gully Trap chamber						
	Each	2				2.00
Total Qty	Each					2.00
Almirah/Wardrobe						
	Each	2	7.00		9.00	126.00
Total Qty	Each					126.00

PROVIDING AND INSTALLATION OF CCTV CAMERAS, LIGHTING AND E-FENCING AT PERIPHERY OF LIFE STYLE RESIDENCY APARTMENTS, G13 ISLAMABAD

CCTV CAMERAS ESTIMATE

Non Schedule Items

Sr. No	Product Description	Quantity	Units	Unit Price	Total
NS-01	Providing and installation of PTZ Camera 4 Mega Pixel, with optical 25x and 16x digital Zoom, IR distance up to 150m with smart tracking of human/vehicle with perimeter protection, IP67 rating, POE Supported and colored night vision supported. Wall bracket/pole bracket included complete in all respect.	4	No's	118,022	472,088
NS-02	Providing and installation of IP Bullet Camera, Motorized zoom up to 4 megapixel, Night vision, Line crossing detection and region intrusion detection, IP67 rating, POE Supported, IR Range up to 60 m. Wall or pole mounted as per requirement. Wall bricked/pole bracket included complete in all respect.	9	No's	38,528	346,752
NS-03	Providing and installation of 16 channel 4k resolution and 10TB supported NVR with 15 days backup.	1	No's	55,820	55,820
NS-04	Providing and installation of Hard Drive Surveillance (4+4)TB, 128MB, CACHE, 15 days rec, 25fps	1	No's	80,074	80,074
NS-05	Providing and installation of NETWORK KEYBOARD, 4-AXIS JOYSTICK, SUPPORTS REALIZES DOME & PTZ CONTROL, NVR CONNECTION with complete USER ACCOUNT MANAGEMEN	1	No's	72,531	72,531
NS-06	Providing and installation of 8 port POE Networking switch	2	No's	16,247	32,494
NS-07	Providing and installation of 4 port POE Networking Switch	6	No's	13,345	80,070
NS-08	Providing and installation of 40" LED Android with 4K HDMI Cable and wall bracket 3840 resolution supported, 5m HDMI Cable	1	No's	85,296	85,296

NS-09	Providing and installation of CAT-6 23AWG UTP PVC Cable 4 pair	660	R/meter	121	79,860
NS-10	Providing and installation Powder coated PTZ Poles 12ft height, 4" Dia, 10SWG with baseplate 12mm thickness with J-Bolts/Rawal Bolts 01ft, complete in all respect	4	No's	38,528	154,112
NS-11	Providing and installation RJ45 connectors for CAT6 cable connections	100	No's	41	4,100
NS-12	Providing and installation Powder coated PTZ Poles 06ft height, 3" Dia, 14SWG with baseplate 10mm thickness with J-Bolts/Rawal Bolts 01ft, complete in all respect.	1	No's	8,530	8,530
NS-13	Providing and installation of single core 7/36 Copper full Gauge Electric wire for power supply.	1000	R/meter	300	300,000
NS-14	Providing and installation of well known brand UPS 3200 Watt pure sine wave	2	No's	110,250	220,500
NS-15	Providing and installation of a well known brand Dry Batteries (Compatible with UPS) 100 Amh with backup up to 6 hours	4	No's	90,520	362,080
NS-16	Providing and installation ODF 12 port loaded for optic fiber cable splicing	1	No's	8,530	8,530
NS-17	Providing and installation ODF 6 port loaded for optic fiber cable splicing	6	No's	4,874	29,244
NS-18	Providing and installation 12 core optic fiber cable	400	R/meter	116	46,400
NS-19	Providing and installation Media converter IGTP-2205AT Compact Industrial 2-Port 100/1000X SFP to 2-Port 10/100/1000T 802.3at	13	No's	5,048	65,624
NS-20	Optic Fiber splicing (Joints)	50	No's	708	35,400
NS-21	Providing and installation of distribution box with 4no. 8 amp Breakers for main power supply 220V	2	No's	3,192	6,384
NS-22	Providing of Table for system with 2 chairs and wooden Battery rack	1	Set	27,637	35,000
NS-23	Providing and installation of PVC Branded Pipe 3/4" (Camera to DB Box) with clamps, sockets, Tee, elbow etc.	1100	R/meter	116	127,600

NS-24	Providing complete services including Testing and commissioning, configuration of system including NVR, PTZ, Bullett Cameras, poles, Fire Cable, Electric Cable, LED, UPS, Batteries Pipes etc.		Job	451,000	451,000
Total (Non Schedule)					3159489
MARKET RATE SYSTEM (MRS) 1ST BI - ANNUAL 2026					
MRS Items					
S-1 MRS 3/21 1(a) iii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead 'upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1. a) By Manual iii) Hard soil or Soft murum	5000	cft	19	95,000
S-2 MRS 6/6 a(3)	Providing and laying Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects. 3) Type C (nominal mix 1: 2: 4)	250	cft	757	189,250
Total (MRS)					284,250.0


Sub Engineer (E/M)


Assistant Director (E/M)


Deputy Director E/M

PROVIDING AND INSTALLATION OF CCTV CAMERAS, LIGHTING AND E-FENCING AT PERIPHERY OF LIFE STYLE RESIDENCY APARTMENTS, G13 ISLAMABAD

Lighting System Estimate

MARKET RATE SYSTEM (MRS) 1ST BI - ANNUAL 2026

Sr.No	ITEMS	QTY		RATE	UNIT	AMOUNT
MRS ITEMS						
S-3 MRS 3/21 1(a) iii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead 'upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1. a) By Manual iii) Hard soil or Soft murum	2000	Cft	19	Cft	38000
S-4 MRS 6/6 a(3)	Providing and laying Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects. 3) Type C (nominal mix 1: 2: 4)	500	Cft	758	cft	379000
Total (MRS)						417000
NON-SHEDULED ITEMS						
LT Distribution Board						
NS-27	LT 230 V AC weather proof lighting control panel (LCP), shall be weather proof made from 16 SWG sheet steel. This shall be designed,fabricated and manufactured as a free standing floor type . The sheet metal work shall be cleaned down to bare shining metal degreased , derusted and painted with TWO base coats of antirust RED paint . The sheet metal work shall be finished in TWO coats of powder paint. The color and shade shall be as approved by the Engineer . The distribution board shall be complete with all internal wirings ,tags,identification labels, P,N and E copper busbars,accessories etc. The DB should be					
NS-27(a)	LCP shall comprise ; 01 No.63 Amps TP MCCB RC-10 kA 03 Nos. 2 Amps Protection Fuses. 01 No. Analog Voltmeter. 02 Nos. 220 VAC indication lights. 03 Nos. Electrolytic copper busbars with connection arrangement of outgiong cables. Nut and bolts,washers,bus bar insulations. 2 No. 32 Amps SP MCB RC-06 kA 01 No. Timer 01 No. 100 Amps Magnetic Contactor 01 No. Manual-Off-Auto Switch. 01 No. Photocell. i/c all interconnections complete in all aspectsas required as per satisfaction of engineer incharge.	1	Nos	110352.00	P.Jobs	110352.00
LT Cables						
NS-28	Providing/laying main sub main cable PVC insulated PVC sheathed Aluminum conductor 600 / 1000 volts of approved makes and quality NEWAGE / Pakistan Cable / Fast Cable in existing all type of pipe conduits making all electric connection as required as per satisfaction of engineer incharge.					
NS-28(a)	Twin Core, 10mm2, Aluminium	2500	Rft	99	P.Rft	247500
NS-28(b)	Single Core,35mm2, Aluminium	200	Rft	216	P.Rft	43200
Earthing						
NS-29	Providing and installation of GI Earth Rod 6ft long and 12 mm dia including earthing wire with clamps and connections as required and directed by Engineer Incharge.	1	Nos	4197	P.Jobs	4197
HDPE Pipes						
NS-30-A	Supply and fixing 50 mm dia HDPE pipe including fittings burried under ground or hanged on walls including all accessories as required complete in all respect & as approved by Engineer Incharge	200	Rft.	110	P.Rft	22000

NS-30-B	Supply and fixing 25 mm dia HDPE pipe including fittings buried under ground or hanged on walls including all accessories as required complete in all respect & as approved by Engineer Incharge	1300	Rft.	77	P.Rft	100100
	Light Fixtures					
NS-31	Providing, Installation, Testing & Commissioning of Flood Lights IP66, IK08, Neutral White /Cool White colour, 125 lm/watts efficiency, 0.95 or above power factor, 40,000-50,000 hours life cycle, Surge Protection, Philips/Sunlight/Fast, complete in all respect as approved by the Engineer Incharge.					
	100 Watt	20	Nos	25960.00	Each	519200
Total Rs. Non-Sch						1046549


Sub Engineer (E/M)


Deputy Director E/M


Assistant Director (E/M)

PROVIDING AND INSTALLATION OF CCTV CAMERAS, LIGHTING AND E-FENCING AT PERIPHERY OF LIFE STYLE RESIDENCY APARTMENTS, G13 ISLAMABAD

ELECTRIC FENCING ESTIMATE

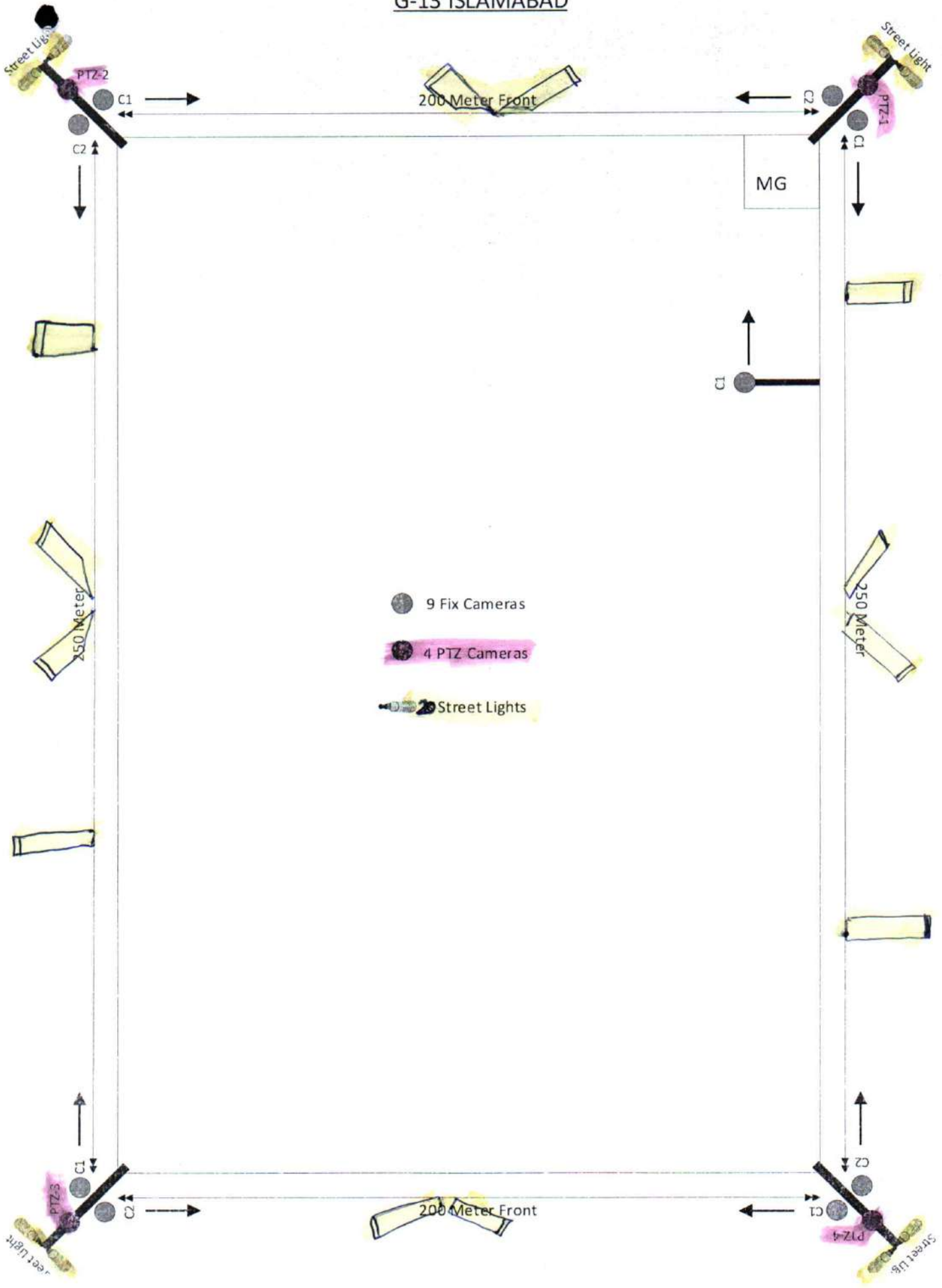
Sr. No	Product Description	Quantity	Units	Unit Price	Total
NS-25	Providing and Installation of E-Fencing on Boundary Wall Eastern Side (Along Railway Track)	1	No.	48,160.00	48,160.00
	Smart Energizer High Voltage Control Panel with upto 12000 DC Volts electric shocked, LCD Display with 02 years warranty, Built-in UPS with 12v5AH Dry Battery Backup, Wireless Remote :02, AMS DB Box for Energizers, Electric Pulse Circle, Alarm System on Site, Non-lethal Electric Shocked in Wires				
NS-26	Cabling, Wiring and Support System	600	Rft	1161	696,600.00
	Providing and Installation of Stands Rod 40 Inches 0.75x0.75" thickness Square Tube 18G				
	Lightening Earthling with HT Wire & Support Rod 33 Inches Round Shape SS Support				
	Hybrid Carbonated Anti Moisture Material Poles				
	1.2mm SS wire 8 wires with 04in distance 304 Grade				
	Jurassic Insulator AMS compression spring AMS				
	• Warning Boards AMS with Labor & Fitting Charges				
	Joints covered with hydro carbonated materials				
	Waterproof Enclosures for Protect IP65 Energizer				
	Warning Sign AMS Plates				
	Post cover with Black Cap materials				
	HT Selves tube shape Aluminum				
	Warning Boards for outer wall				
	Installation & Commissioning with internal networks				
	Remotely Access on Android/iPhone by app				
	Special Wire designed for Humidity Factor				
	Anchor Bolts with 3 inches bolts 01 1056 Unit Price 48,000 375				
	Pole to Pole Distance up to 10~12 Feet				
	12 No. 1.5 inches Screws				
	Nut & Bots for Support connections				
	RFID Technology for Devices power On/Off				
	Physical Button for Device on/Off				
	Light Plug for 18v 2 Ampere Power Supply				
	Weight up to 1.2KG without accessories, etc complete in all respect as approved and directed by Engineer incharge.				
	Total				744,760.00


Sub Engineer (E/M)


Assistantant Director (E/M)


Deputy Director (E/M)

G-13 ISLAMABAD

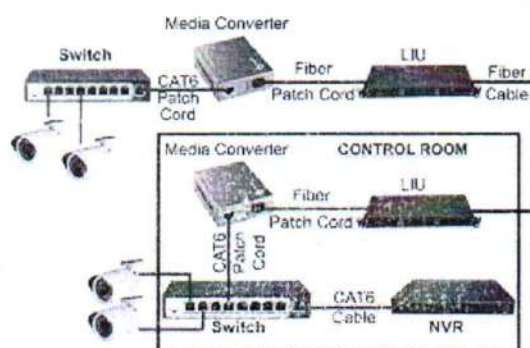


9 Fix Cameras

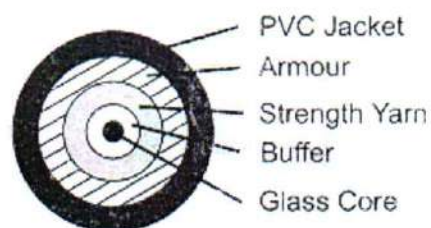
4 PTZ Cameras

2 Street Lights

Design Architecture Of IP CCTV System



Optical Fiber Cable (OFC)



Network Design, Concept of Bandwidth, Selection of Switches,
PoE Budget, Use of Optical Fiber Cable,
Architecture Design Examples

pollo
Prime Series

Ameg-C

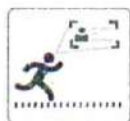


4MP 32X PTZ

PLC-9432-IR15/PM

www.pollo.net.au

info@pollo.net.au



Smart Tracking



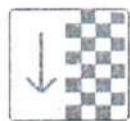
Starlight



True WDR



Auto Day/Night



3D DNR



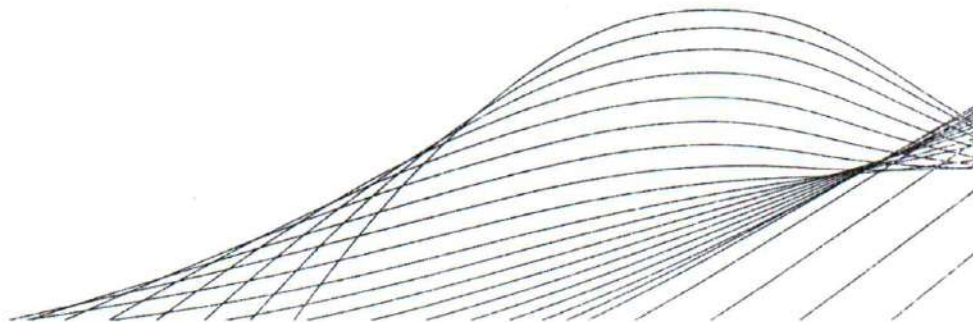
PoE



IP66



H.265

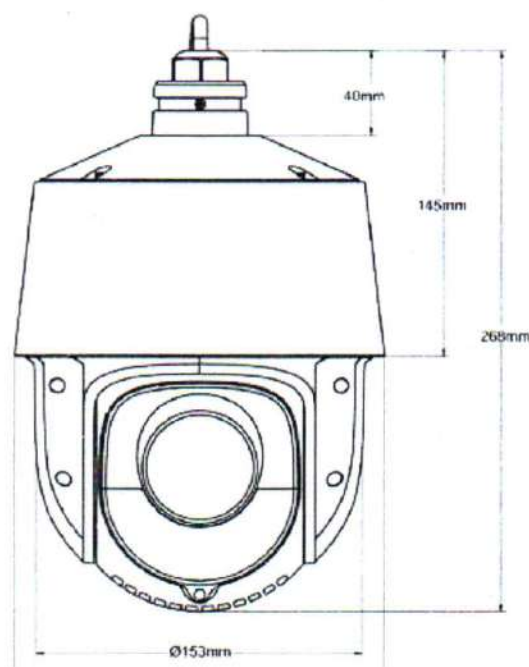


Key Features:

- ✦ 1/2.5" progressive scan CMOS
- ✦ Up to 2560×1440 resolution
- ✦ Mini illumination:
 - Colour: 0.01 lux @ (F1.65 AGC ON) B/W: 0.002 lux@ (F1.65 AGC ON) 0 Lux with IR
- ✦ 25x optical zoom, 16x digital zoom
- ✦ 120 dB WDR, 3D DNR, Smart IR
- ✦ Up to 150m IR distance
- ✦ Smart H.265/H.264 video compression
- ✦ 1.0 Tops Deep-learning Engine
- ✦ Smart tracking of human/vehicle
- ✦ Smart detection and perimeter protection
- ✦ IP67, -30°C~55°C, ADC12 + PC/GF
- ✦ PoE+ (802.3.at, class 3) and DC12V
- ✦ ONVIF, API and SDK



Dimensions:



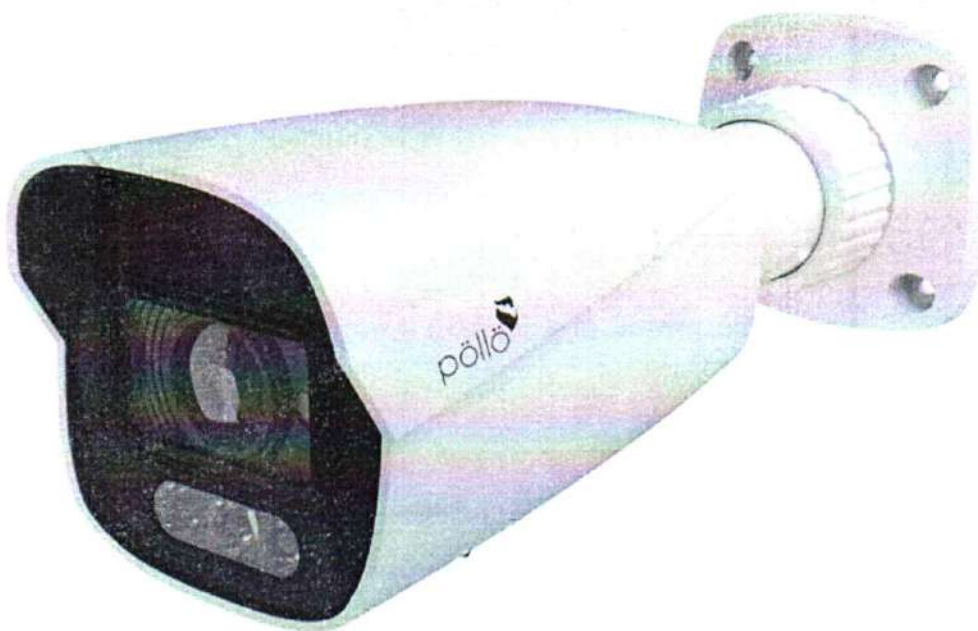
Specifications:

Model	PLC-9432-IR15/PM
Image sensor	1/2.5" progressive scan CMOS
Mini. Illumination	Color: 0.01Lux @ (F1.65, AGC ON) ; B/W: 0.002Lux @ (F1.65, AGC ON); 0Lux with IR
Image setting	Flip, Mirror, Saturation, Brightness, Contrast, Sharpness, AGC, and AWB adjusted by client software/browser
Shutter Speed	1/1 s – 1/10,000 s
White Balance	Auto/Manual/Indoor/Outdoor
Gain	Auto/Manual
Day & Night	IR Cut filter
Digital Zoom	16x
Privacy Mask	4 Programmable privacy masks
3D DNR	Auto/Manual
BLC	Yes
HLC	Yes
WDR	120 dB
Defog	Electronic
Regional Exposure	No
Picture overlay	Logo picture could be overlaid on video with 128x128pixels, 24bits BMP format
Focus length	f=4.7-150mm lens, 32x optical
Zoom Speed	Approx. 3.6s (optical zoom, wide-tele)
Field of View	Horizontal: 55° to 2.4° (wide-tele) Vertical: 33° to 1.4° (wide-tele) Diagonal: 61.5° to 2.8° (wide-tele)
Working distance	wide: 1.0m ~ INF; tele: 1.5m ~ INF
Aperture Range	F1.65 ~ F3.8 (wide-tele)
Pan Range	360° endless
Pan speed	Configurable, from 0.1~80°/s; Preset speed: 80°/s
Tilt Range	From -5° to 90°
Tilt Speed	Configurable, from 0.1~80°/s; Preset speed: 80°/s
Proportional Zoom	Yes
Preset	300
Cruise	8 cruises, up to 16 presets for each cruise
Track	4 tracks, record time over 3 minutes for each track
Power off memory	Support
Action mode	Preset/Cruise/Track/Auto Scan/Random Scan
3D Positioning	Support
PTZ Position Display	Support
Schedule Task	Preset/Cruise/Track/Random Scan/Boundary Scanning /Dome reboot
IR Distance	150m
Smart IR	Yes

Max Resolution	2560x1440
Main stream	2560x1440, 2048x1536, 1920x1080, 1280x960, 1280x720 (25/30fps)
Sub stream	25fps (704 × 576, 640 × 480, 352 × 288) 30fps (704 × 480, 640 × 480, 352 × 240)
Third Stream	25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)
SVC	Yes
Video compression	Smart H.265/H.264/MJPEG
Audio compression	G.711 A/U
Audio Enhancement	No
Protocols	HTTP, HTTPS, IPv4/IPv6, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, UDP, IGMP, ICMP, DHCP, PPPoE
Simultaneous live view	Up to 6 channels
User / Host	Up to 16 users, 3 levels: Administrator, Advanced User and Normal User
Security Measures	User authentication (ID and PW), Host authentication (MAC address); HTTPS encryption, IEEE802.1x port-based network access control; IP address filtering
Basic event	Motion detection, exception (network disconnected, IP address conflict, SD full, SD error),
Face recognizes	Default off, max 30 human faces per second.
Face compare	Default off
People Density	Not support by this version
Smart Detection	Intrusion detection, Line crossing detection, Region entrance detection, Region exiting detection, Object removal detection (object left/missing), Scene change detection, Video blur detection, Video color cast detection Support alarm triggering by human or vehicle, filtering flag/animal.
Smart Tracking	Manual Tracking, Auto Tracking (human or vehicle by software setting)
Alarm Linkage	Alarm actions, such as Preset, Cruise, Track, Memory Card Video Record, Trigger Recording, Notify Surveillance Center, Upload to FTP/Memory Card, Send Email
Network Interface	1 RJ45 10M/100M Adaptive Ethernet (Support PoE 802.3.at)
Storage	On-Body memory card slot, support microSD/SDHC/SDXC, up to 256G
API	ONVIF, support Pollo SDK and third-party management platform
Client	PVMS Plus and the third-party client
Web Browser	IE8-11, Chrome41.0-44, Firefox30.0-51, Safari8.0-11
Power	DC12V or PoE+ (802.3.at, class 3), (Max 22W, include IR on, Heater on, Fan working)
Working condition	-30°C ~ 55°C (-22°F ~ 131°F), 90%RH less (non-condensing), Cold start at - 20°C
Storage condition	-40°C ~ 65°C; ≤ 95% RH
Protection	IP67, 4000V Lightning Protection, Surge Protection and Voltage Transient Protection
Material	Aluminum Alloy; PC+GF10%
Dimensions	Φ 173mm × 247mm (6.8" Φ × 9.7")
Weight	Approx. 2.1 Kg (13.22 lb.)
Certification	IP67, ROHS, CE, FC



SMART AUTO-SWITCHING
**DUAL
LIGHT**
INFRARED/LED

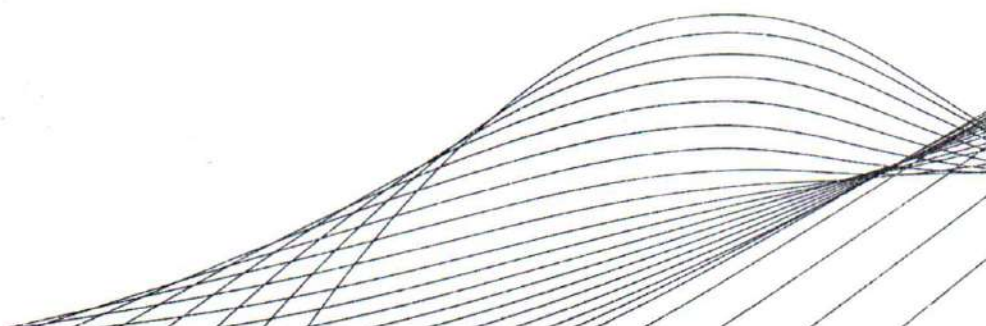
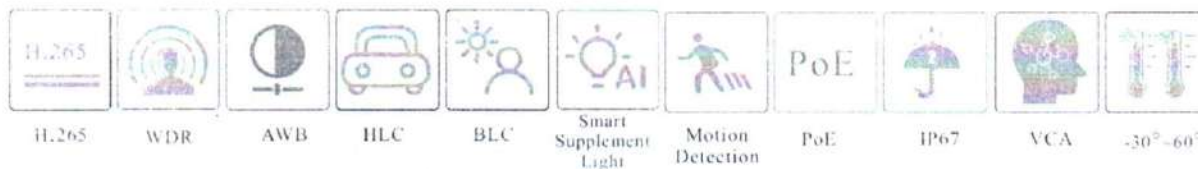


4MP DUAL LIGHT IP CAMERA

PLC-424M-MZ-DL6/PM

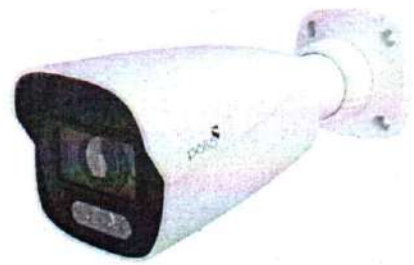
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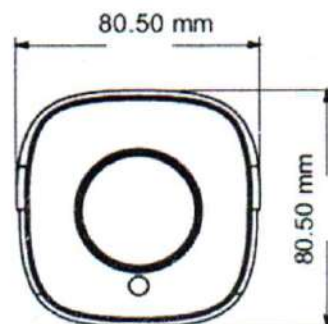
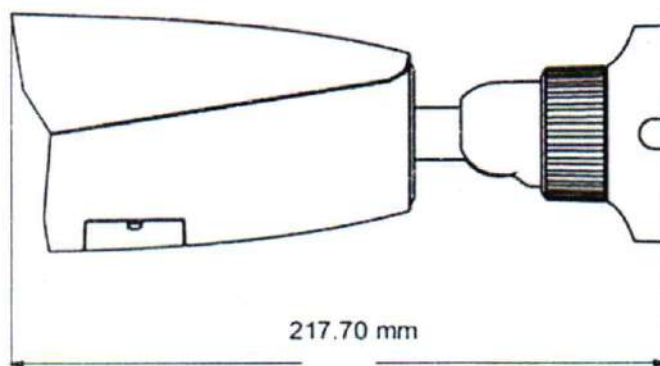


Key Features:

- ❖ H.265+ /H.265 /H.264+ /H.264/MJPEG coding
- ❖ Max. resolution: 4MP (2688 × 1520)
- ❖ Auto day/night switch
- ❖ 3D DNR, WDR, HLC, BLC, etc.
- ❖ ROI coding
- ❖ Support smart supplement light
- ❖ 40~60m white light view distance; 40~60m IR view distance
- ❖ DC12V/PoE power supply
- ❖ IP 67 ingress protection
- ❖ Support dual streams
- ❖ Support remote monitoring by smart phones& tablet PCs
- ❖ with iOS and Android OS
- ❖ Support line crossing detection & region intrusion detection
- ❖ Support SMD



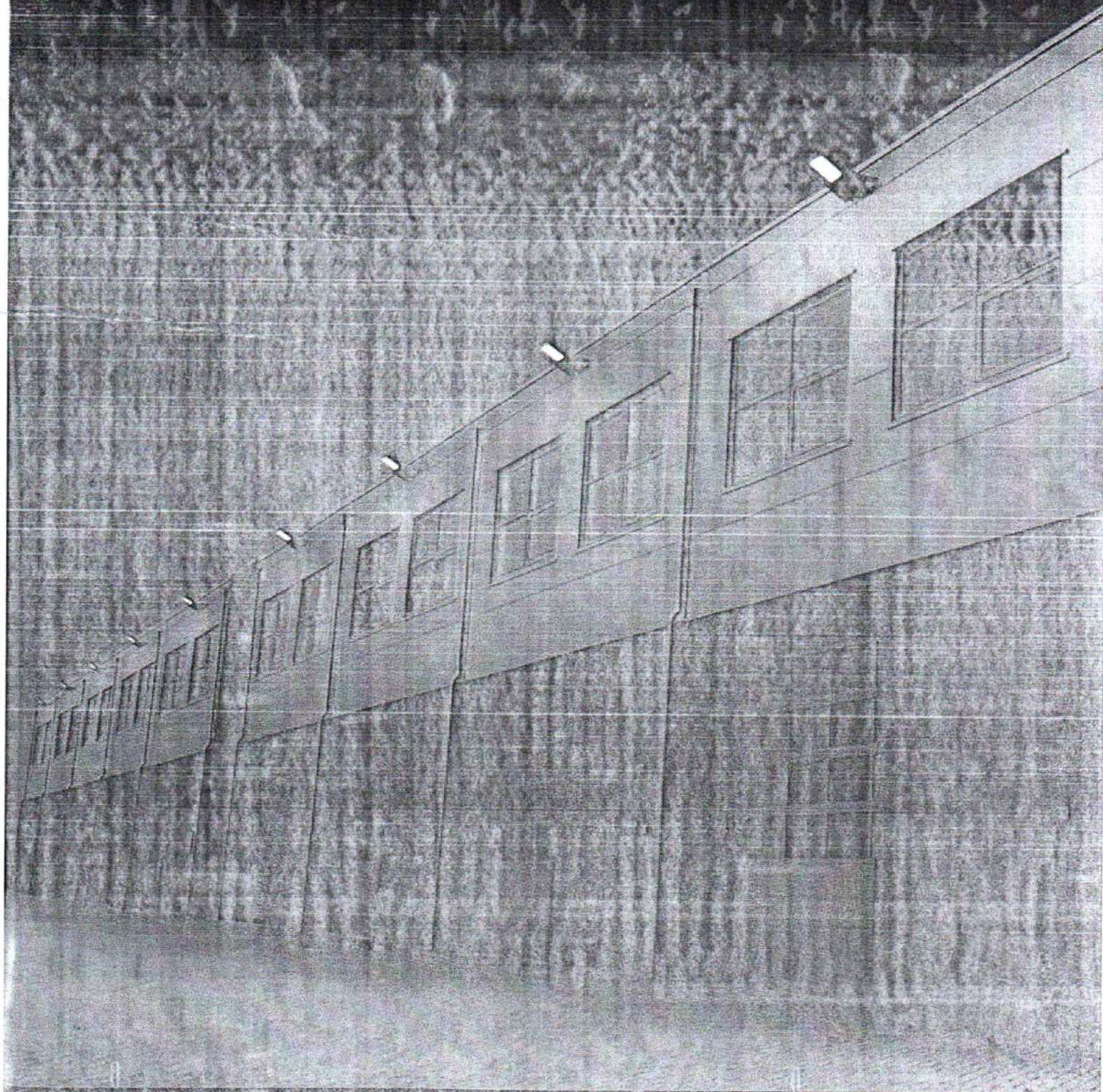
Dimensions:



Specifications:

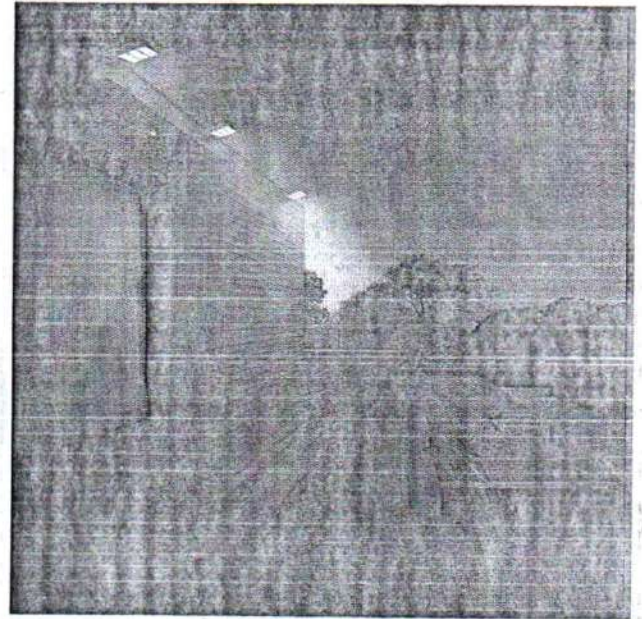
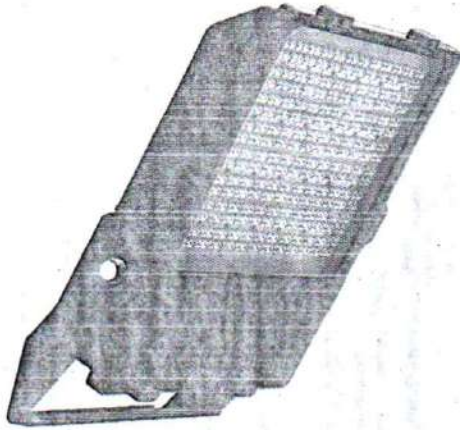
Model	PLC-424M-MZ-DL6/PM
Image Sensor	1 / 3 "CMOS
Image Size	2688×1520
Electronic Shutter	1 / 3s ~ 1 / 100000s
Iris Type	Fixed Iris
Min. Illumination	0.03 lux @F1.4, AGC ON; 0 lux (Illuminator on)
Lens	2.8~12mm@F1.4
Field of View	Horizontal: 92.5~34°; Vertical :54.5~18°; Diagonal:112~39°
Focus	Motorized
Lens Mount	Ø14
Day & Night	ICR
Wide Dynamic Range	Digital WDR
BLC	Yes
HLC	Yes
Digital NR	Yes
S/N Ratio	≥50dB
Angle Adjustment	Pan: 0°~360°; Tilt:0°~90°; Rotation: 0°~360°
Video Compression	Main stream: H.265+ / H.265 / H.264 + / H.264 Sub stream: H.265+ / H.265 / H.264 + / H.264 / MJPEG
H.265 Compression Standard	Main Profile@Leve4.1 High Tier
Resolution	4MP (2688 × 1520), 3MP (2304 × 1296), 1080P (1920 × 1080), 720P (1280 × 720), D1, VGA (640× 480), 480× 240, CIF
Main Stream	4MP/ 3MP/1080P/720P (60Hz: 1~30fps; 50Hz: 1~25fps)
Sub Stream	D1/VGA/480× 240/CIF (60Hz: 1~30fps; 50Hz: 1~25fps)
Bit Rate	64 Kbps ~ 3 Mbps
Bit Rate Type	VBR / CBR
Audio Compression	G711A/U
Image Settings	ROI, Saturation, Brightness, Hue, Contrast, Wide Dynamic, Sharpness, Image Mirror, Image Flip, NR, etc. adjustable through client software or web browser
ROI	Each ROI to be configured separately
Network	RJ45
Video Output	No
Audio	1CH built-in MIC
Remote Monitoring	Web browser /POLLO NVR/PVMS Plus /Mobile APP
Web Browser	IE 11 (plug-in required)/Chrome 89.0+/Edge 89.0+/Firefox 87.0+/Safari 14.0+
Online Connection	Support simultaneous monitoring for up to 3 users; Support multi-stream real time transmission
Network Protocol	UDP, IPv4, IPv6, DHCP, NTP, RTSP, 802.1x, HTTP
Interface Protocol	ONVIF
Storage	Network remote storage

Motion Detection	Support smart motion detection; filtering motion alarm triggered by other target types except humans.
Smart Event	(Human) region intrusion detection, (human) line crossing detection
General Function	Watermark, video mask, heartbeat
Security	Video encryption, firmware encryption, configuration encryption, illegal login lock, IP address filtering, 802.1x authentication, basic and digest authentication for HTTP
PoE	Yes, IEEE802.3af
Supplement Light Range	IR range: 40 ~ 60 m; white light range: 40 ~ 60 m
Ingress Protection	IP67
Power Supply	DC12V/PoE
Power Consumption	< 8.5W
Operating Environment	- 30 °C ~ 65 °C (-22 °F ~ 149 °F), Humidity: less than 95 % (non-condensing)
Storage Environment	- 30 °C ~ 60 °C (-22 °F ~ 140 °F), Humidity: less than 95 % (non-condensing)
Dimensions (mm)	217.7 × 80.5 × 80.3
Weight (net)	Approx. 0.608KG
Installation	Ceiling mounting; Wall mounting
Certificate	CE, FCC
Environmental Protection	Complies with Directive EU RoHS, WEEE(2012/19/EU) , directive 94/62/EC and REACH(EC1907/2006)



FLOOD LIGHTS

ENDURE FLOOD LIGHT



PRODUCT FEATURES

- Die-cast Aluminum, Tempered Glass & Polycarbonate Optical Lens
- 0-10v Dimmable (Optional), DALI (Optional), Motion Sensor (Optional)
- Bracket Mounting
- 125 lm/W



APPLICATION AREAS

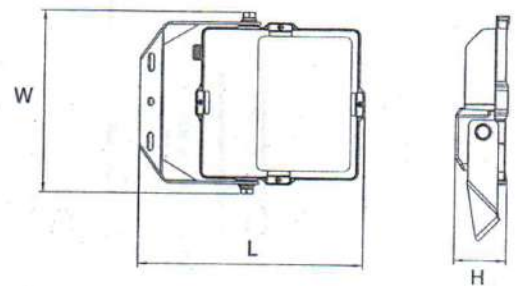
- For recreational sports / Stadium
- Exhibition Center / Parking Lots
- Shopping Mall / Accent Lighting

PRODUCT BENEFITS

- Light Uniformity and sight advantage
- Up to 80% savings in energy cost
- Bright, robust, and durable
- Low maintenance cost

CCT

3000K 4000K 5700K 6500K



Wattages	Total Lumens	Voltage Range	LxWxH (mm)
50W	6,250	220~240V	300x240x69
100W	12,500	220~240V	335x295x71
150W	18,750	220~240V	375x320x75
200W	25,000	220~240V	400x345x78
300W	37,500	220~240V	464x410x83