

JKR20601-0258-20

JKR IBS CATALOGUE 2020

ADDENDUM NO. 1

CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR,
BLOK G, IBU PEJABAT JKR MALAYSIA,
JALAN SULTAN SALAHUDDIN, KUALA LUMPUR



LIST OF DRAWING

NO. TITTLE		DRAWING NO.			
1. PRECAST PLAIN WALL					
1.1	GENERAL NOTES & TYPICAL CONNECTION (PRECAST PLAIN WALL)	JKR / CKAS / P-IBS / PEL 19 /	GN	/	01 (02)
1.2	PRECAST PLAIN WALL – TYPICAL CONNECTION	JKR / CKAS / P-IBS / PEL 19 /	GN	/	02 (02)
1.3	PRECAST PLAIN WALL – DETAILING	JKR / CKAS / P-IBS / PEL 19 /	PW	/	01 (02)
1.4	PRECAST PLAIN WALL – SCHEDULE	JKR / CKAS / P-IBS / PEL 19 /	PW	/	02 (02)
2. PRECAST IRREGULAR SHAPE COLUMN					
2.1	PRECAST PLUS SHAPE COLUMN	JKR / CKAS / P-IBS / PEL 19 /	CC		
2.2	PRECAST T SHAPE COLUMN	JKR / CKAS / P-IBS / PEL 19 /	CT		



PRECAST PLAIN WALL

PRECAST CONCRETE WALL GENERAL NOTES AND TYPICAL CONNECTIONS

THESE NOTES SHALL BE READ TOGETHER WITH THE LATEST VERSION GENERAL NOTES OF JKR IBS CATALOGUE

1. CONCRETE

1.1 All dimensions are in millimetres (mm) unless otherwise stated.

1.2 Maximum aggregate size shall be 20mm.

1.3 Unless otherwise stated, all concrete strength shall be class C32/40.

1.4 Unless otherwise stated, nominal concrete cover (Cnom) satisfying the requirements of fire resistance, environmental conditions and bond requirement of all wall thickness shall be provided as follows:

Exposure Condition XC3, Structural Class S4

Fire Resistance (min)	Wall Thickness (mm)	Nominal Cover, Cnom (mm)
REI 90	150	25
REI 120	175	25
	200	25

Exposure Condition XC4, Structural Class S4

Fire Resistance (min)	Wall Thickness (mm)	Nominal Cover, Cnom (mm)
REI 90	150	30
REI 120	175	30
	200	30

1.5 All placing and compacting shall be carried out as referred to Section D in latest revision of JKR Standard Specification For Building Works and Specification for Precast Concrete Works unless otherwise specified.

2. REINFORCEMENT

2.1 Unless otherwise stated, all steel reinforcement bars and welded steel fabric reinforcement with minimum steel fabric reinforcement mesh A252 (252mm²/m) shall comply with the requirements of MS 145 & MS 146 respectively.

2.2 'H' denotes high yield steel of yield strength = 500 N/mm²
Steel fabric reinforcement mesh - 'A' mesh = 500 N/mm²

2.3 Lap length of compression and tension (high yield) bars should be refer to MS EN 1992-1-1 Clause 8.7.

3. PRECAST WALL PANEL

3.1 MATERIALS

a. Concrete strength of precast wall panel shall be class C32/40.

b. Concrete filling at the junction between wall and slab shall be of concrete strength class C32/40.

3.2 INSTALLATION OF PRECAST WALL PANEL

Pitching of precast wall panel is by hoisting at the lifting hook provided at the top of wall panel. Precast wall panel shall be guided carefully by slotting the sleeves into the protruding bars from the transfer in-situ beam or lower wall panel.

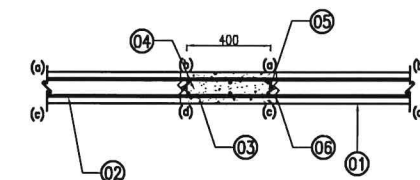
Wall panel shall be held vertically during construction by push-pull props rigidly secured to the precast wall panel and to a sufficiently strong stable kentledge e.g. concrete blocks, beams or slabs.

After the precast wall panels have been surveyed and aligned, the corrugated sleeve shall be grouted. Before the grout gain sufficient strength, the props shall not be disturbed or removed. For wall to wall connections, the wall/slab junction shall have to be fixed with slab's anchorage or continuity reinforcement bars prior to concreting the in-situ portion of wall at slab junction.

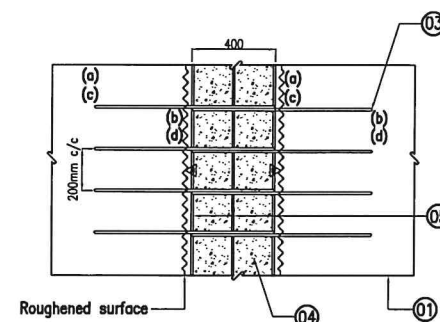
Vertical jointing between precast wall panels and transfer in-situ beam shall be grouted sleeve connections, that is, by the method pressure grouting the bars projecting from the lower precast wall panel or transfer in-situ beam into corrugated sleeves cast in the precast wall panel. Corrugated sleeve shall be manufactured from hot dipped galvanised zinc coated with minimum annulus 20mm on all sides of the bars.

4. TYPICAL CONNECTION FOR WALL PANEL

4.1 TYPICAL PLAN & ELEVATION VIEW DETAIL FOR HORIZONTAL CONNECTION



PLAN VIEW

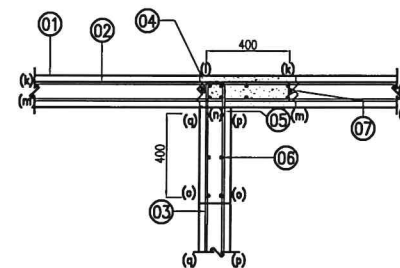


ELEVATION VIEW

LEGEND:

- ① - Precast Wall Panel
- ② - Precast Wall's Reinforcement Bar
- ③ - H10 Rebar Projected 400mm from Precast Wall
- ④ - Cast In-Situ Concrete Strength Class C32/40
- ⑤ - H10 vertical bars installed at site
- ⑥ - Roughened concrete surface

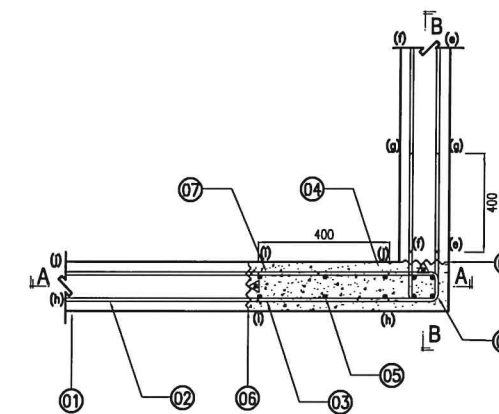
4.2 TYPICAL PLAN VIEW DETAIL FOR HORIZONTAL CONNECTION



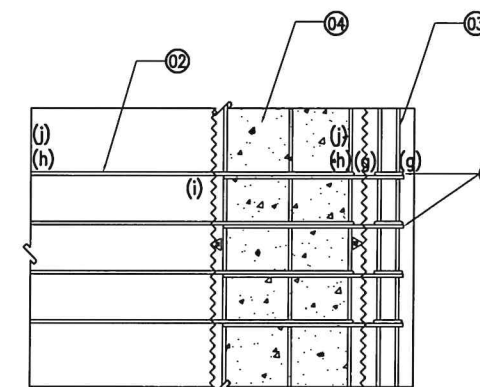
LEGEND:

- ① - Precast Wall Panel
- ② - Precast Wall's Reinforcement Bar
- ③ - H10 Rebar Projected From Precast Wall
- ④ - Cast In-Situ Concrete Strength Class C32/40
- ⑤ - H10 U-Bar
- ⑥ - H10 vertical bars installed at site
- ⑦ - Roughened concrete surface

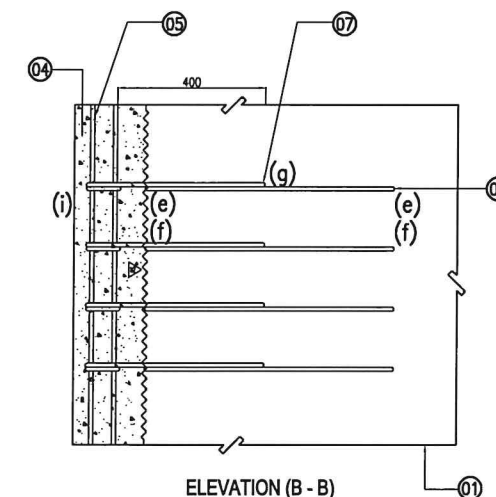
4.3 TYPICAL PLAN VIEW AND ELEVATION DETAIL FOR END CONNECTION



PLAN VIEW



ELEVATION (A - A)



ELEVATION (B - B)

LEGEND:

- ① - Precast Wall Panel
- ② - Precast Wall's Reinforcement Bar
- ③ - H10 Rebar Projected 400mm From Precast Wall
- ④ - Cast In-Situ Concrete Strength Class C32/40
- ⑤ - H10 vertical bars installed at site
- ⑥ - Roughened concrete surface
- ⑦ - H10 U-Bar



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, ISU PEKABAT JKR MALAYSIA
NO.6, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KAWAN:
Ir. Dr. LIM CHAR CHING

PENGARAH KHIDMAT REKABENTUK:

Ir. Hjh. ATIKAH BINTI ABUL MAMUD

JURUTERA AWAM PENGUASA KAWAN:

Ir. CHE MIMI SURYANI BINTI ISMAIL

JURUTERA AWAM KAWAN:

Ir. DURRAH MUNIERAHANIES BINTI AZIZAN

DESEMAK:

Ir. HANIZAH BINTI ARGADAN

DIREKABENTUK:

Ir. SHARIFAH RAFIZAH BINTI SYED HUSIN

HURUF

PETUNJUK

PINDAAN

TARIKH

TANDA

TANGAN

NAMA PROJEK:

LUKISAN PIAWAI

KOMPONEN STRUKTUR IBS

BAGI BANGUNAN

TAJUK LUKISAN:

GENERAL NOTES &

TYPICAL CONNECTION

(PRECAST PLAIN WALL)

DILUKIS: NURUL SYAFIKA BINTI NOR RIZAN

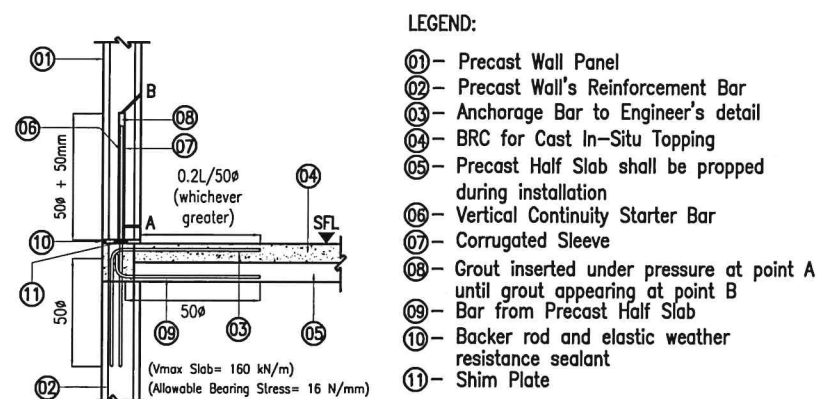
TARIKH: OGOS 2021

SKALA: HTS

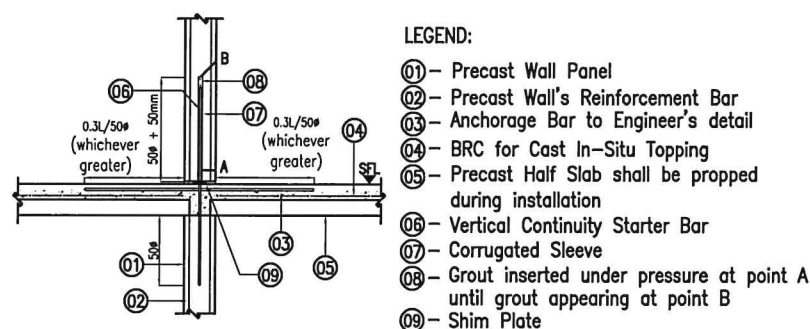
NO. LUKISAN:

JKR/CKAS/P-IBS/PEL 19/GN/01(02)

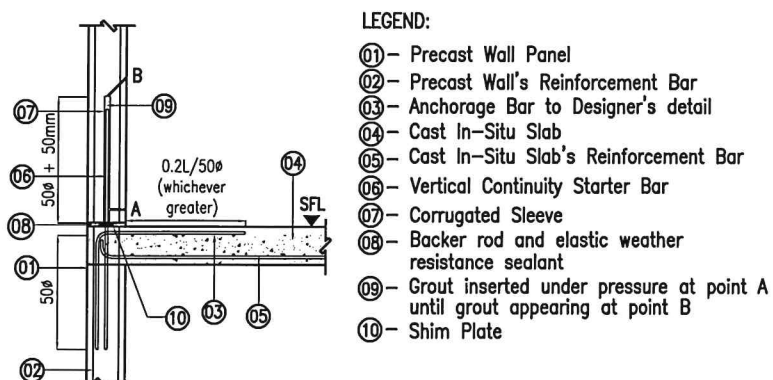
4.4 TYPICAL CONNECTION DETAIL FOR PRECAST WALL PANEL TO PRECAST HALF SLAB (PERIMETER WALL - END CONNECTION)



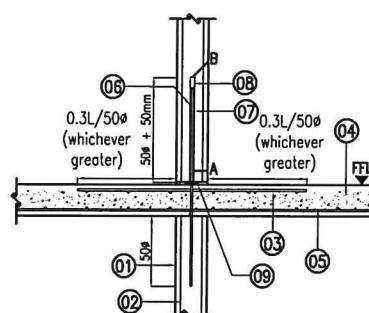
4.5 TYPICAL CONNECTION DETAIL FOR PRECAST WALL PANEL TO PRECAST HALF SLAB (INTERNAL WALL - INTERMEDIATE CONNECTION)



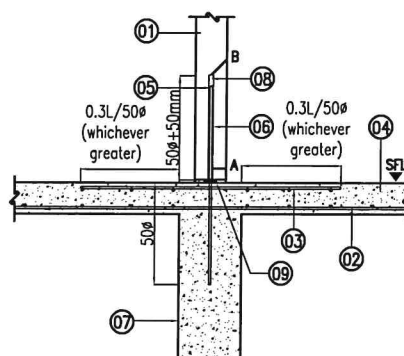
4.6 TYPICAL CONNECTION DETAIL FOR PRECAST WALL PANEL TO CAST IN-SITU SLAB (PERIMETER WALL - END CONNECTION)



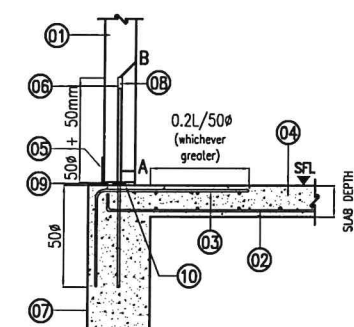
4.7 TYPICAL CONNECTION DETAIL FOR PRECAST WALL PANEL TO CAST IN-SITU SLAB (INTERNAL WALL - INTERMEDIATE CONNECTION)



4.8 TYPICAL CONNECTION DETAIL FOR TRANSFER CAST IN-SITU BEAM TO PRECAST WALL PANEL (INTERMEDIATE CONNECTION)



4.9 TYPICAL CONNECTION DETAIL FOR TRANSFER CAST IN-SITU BEAM TO PRECAST WALL PANEL (END CONNECTION)



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, IBU PEJABAT JKR MALAYSIA
NO.6, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KAWAN:

Ir. Dr. LIM CHAR CHING

PENGARAH KHIDMAT REKABENTUK:

Ir. Hjh. ATIKAH BINTI ABUL HAMID

JURUTERA AWAM PENGUSA KAWAN:

Ir. CHE MIMI SURYANI BINTI ISMAIL

JURUTERA AWAM KAWAN:

Ir. DURRAH MUNIRAHANIES BINTI AZIZAN

DESEMAK:

Ir. HANIZAH BINTI ARGADAN

DIREKABENTUK:

Ir. SHARIFAH RAFIZAH BINTI SYED HUSIN

HURUF PETUNJUK PINDAAN TARIKH TANDA TANGAN

NAMA PROJEK:

LUKISAN PIAWAI
KOMPONEN STRUKTUR IBS
BAGI BANGUNAN

TAJUK LUKISAN:

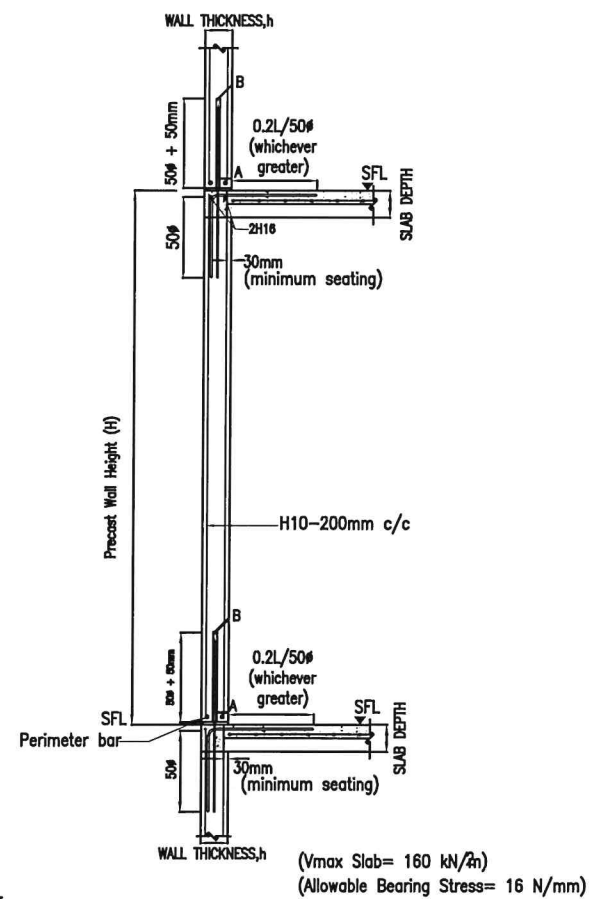
PRECAST PLAIN WALL
- TYPICAL CONNECTION

DILUKIS: NURUL SYAFIKA BINTI NOR RIZAN

TARIKH: OGOS 2021

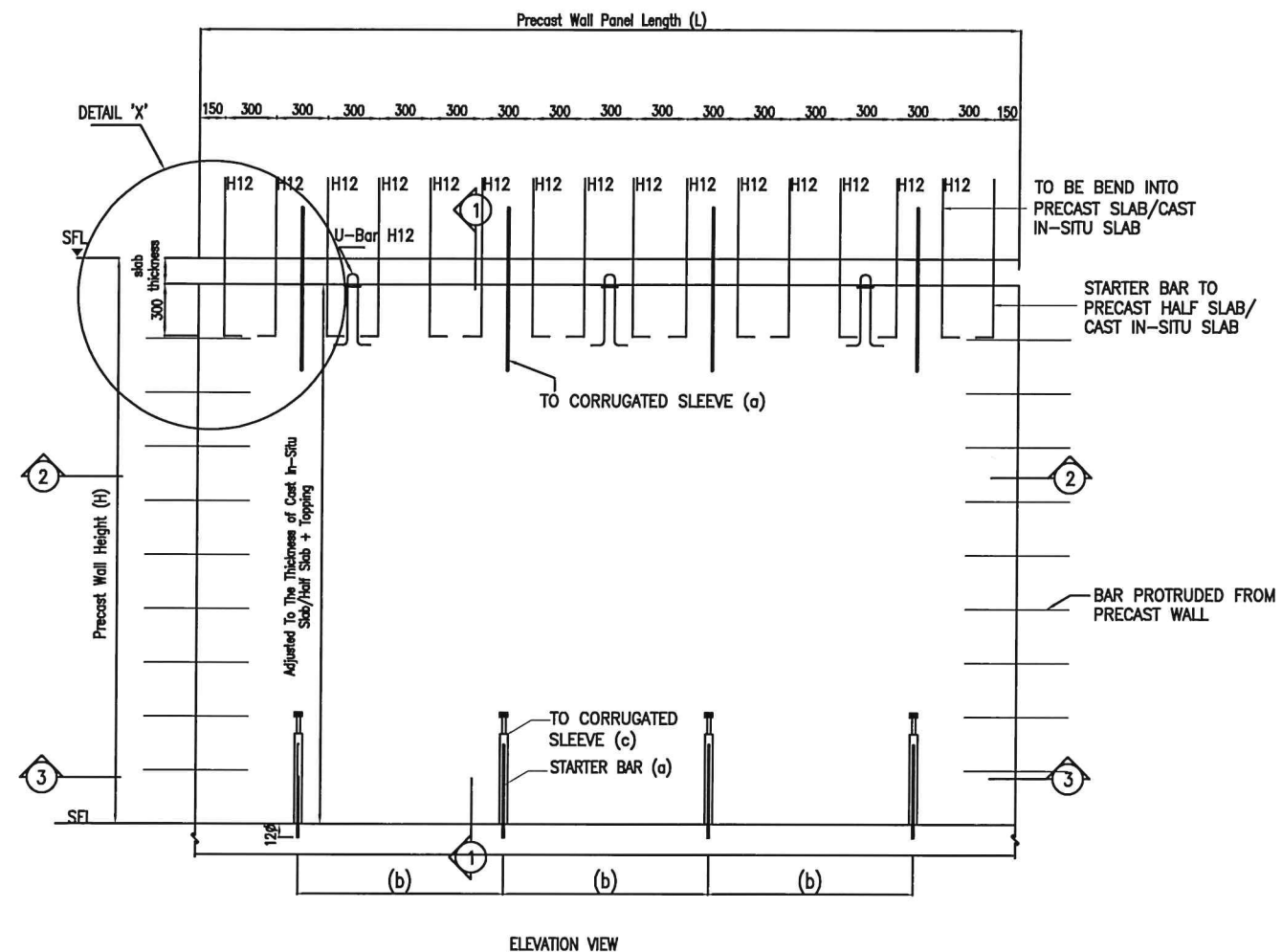
SKALA: NTS

NO. LUKISAN:
JKR/CKAS/P-IBS/PEL 19/GN/02(02)

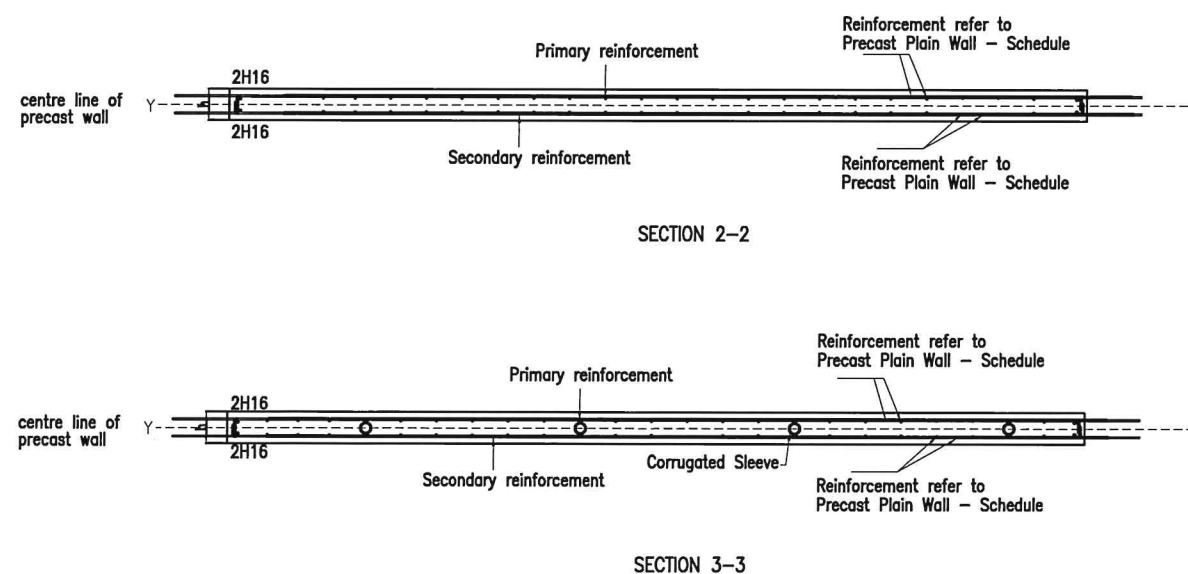


LEGEND:

ϕ – bar diameter
 SFL – Structural Floor Level
 – Roughened Concrete Surface



ELEVATION VIEW



SECTION 3-3



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, IBU PEJABAT JKR MALAYSIA
NO.6, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KANAN:

Mr. Dr. LIM CHAR CHING

PENGARAH KHIDMAT REKABENTUK :

Ir. Hj. ATIKAH BINTI ABDUL HAMID

JURUTERA AWAM PENGUASA KANAN :
 1. CHE NIMI SURYANI BINTI ISMAIL

JURUTERA AWAM KANAN :

JURUTERA ANCAM KANAN :
 Ir. DURRAH MUNIERAHANIES BINTI AZIZ

DISEMAK : 1 1/2

Dr. HANIZAH BINTI ARGADAN

DIREKABENTUK :

Ir. SHARIFAH RAFTZAH BINTI SYED HUSIN

HURUF	
-------	--

HURUF PETUNJUK	PINDAAN
-------------------	---------

--	--

[illegible][illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

NAMA PROJEK :	

NAMA PROJEK :

LUKISAN DIAWAJ

LUKISAN PLAWAI
KOMPONEN STRUKTUR

KOMPONEN STRUKTUR
BAGI BANGUNAN

BAGI BANGUNAN

TAJUK LUKISAN :

PRECAST PLAIN WALL -

DETAILING

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

DILUKIS : NURUL SYAFIKA BINTI NOR RIZ

TARIKH : 2022-06-24	SKALA : 1:1
---------------------	-------------

TARIKH : OGOS 2021	SKALA : 1
--------------------	-----------

NO. LUKSAN :

JKR/CKAS/P-IBS/PEL 19/PW/01(02)

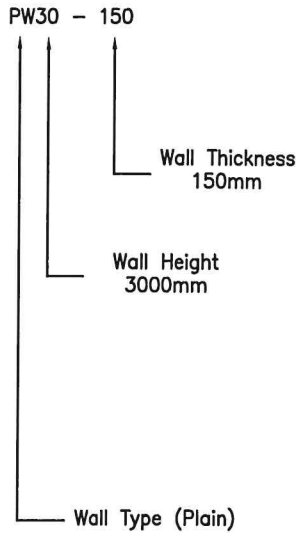
PRECAST PLAIN WALL - SCHEDULE

DESIGNATION	WALL HEIGHT (H) (mm)	WALL THK (h) (mm)	ULTIMATE AXIAL LOAD, N _{ED} (kN/m)	PRIMARY REINFORCEMENT	SECONDARY REINFORCEMENT	STARTER BAR		CORRUGATED SLEEVE OUTER DIAMETER (c) (mm)
						Diameter bar (a)	Bar spacing (b)	
PW30-150	3000	150	850	20H8 - 200 mm c/c	20H8 - 200 mm c/c	H20	1000	55
PW30-175		175	1318	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65
PW30-200		200	1680	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65
PW33-150	3300	150	815	20H8 - 200 mm c/c	20H8 - 200 mm c/c	H20	1000	55
PW33-175		175	1215	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65
PW33-200		200	1590	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65
PW35-150	3500	150	728	20H8 - 200 mm c/c	20H8 - 200 mm c/c	H20	1000	55
PW35-175		175	1140	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65
PW35-200		200	1524	20H10 - 200 mm c/c	20H10 - 200 mm c/c	H25	1200	65

ADDITIONAL NOTES :

- 1) ALL WALL SHALL BE DESIGNED TO TAKE AXIAL LOAD AND MINOR AXIS MOMENT DUE TO ECCENTRICITY (MAXIMUM ECCENTRICITY OF 20mm).
- 2) INDEPENDENT LATERAL STABILISING SUCH AS CAST IN SITU REINFORCED CONCRETE SHEAR WALL/LIFT CORE WALL/ STAIRS WALL/STEEL BRACED SHALL BE DESIGNED TO TAKE THE LATERAL FORCES (NOTIONAL/WIND/SEISMIC LOAD).
- 3) ALL PRECAST WALL MUST BE TIED Laterally BY SLAB.
- 4) SLAB SHALL BE DESIGNED FOR A UNIFORMLY DISTRIBUTED IMPOSED LOAD WITH MAXIMUM REACTION SLAB (AT EVERY LEVEL) OF 160 kN/m ACTING ON THE WALL GIVEN IN THE TABLE. THE SPAN SHALL NOT DIFFER BY MORE THAN 15% ON EITHER SIDE OF THE WALL.
- 5) CONCRETE STRENGTH OF PRECAST WALL PANEL SHALL BE MINIMUM CLASS C32/40.
- 6) ALL PRECAST WALL AND CONNECTIONS SHOP DRAWINGS SHALL BE PREPARED BY PRECASTER/CONTRACTOR AND CERTIFIED BY PEPC.
- 7) THE DESIGN OF THIS PRECAST WALL IS BASED ON SOLID WALL WITHOUT OPENING. PRECAST WALL WITH OPENING FOR WINDOW, DOOR BASED ON ARCHITECTURAL REQUIREMENT SHALL BE DESIGN SEPARATELY BY THE DESIGNER.
- 8) METHOD OF PROVIDING TEMPORARY SUPPORTS SUCH AS PROPS SHALL BE CERTIFIED BY PEPC AND APPROVED BY THE S.O.

DESIGNATION OF COMPONENTS



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, IBU PEJABAT JKR MALAYSIA
NO.8, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KAWAN:
Ir. Dr. LIM CHAR CHING
PENGARAH KHIDMAT REKABENTUK:
Ir. Hjh. ATIKAH BINTI ABDEL-MAGID
JURUTERA AWAM PENGUSAHA KAWAN:
Ir. CHE MIMI SURYANI BINTI ISMAIL
JURUTERA AWAM KAWAN:
Ir. DURRAH MUNIRAHANIES BINTI AZIZAH
DISEMAK:
Ir. HANIZAH BINTI ARGADAN
DIREKABENTUK:
Ir. SHARIFAH RAFIZAH BINTI SYED HUSIN
HURUF PETUNJUK: PINDAAN: TARIKH: TANDA TANGAN:

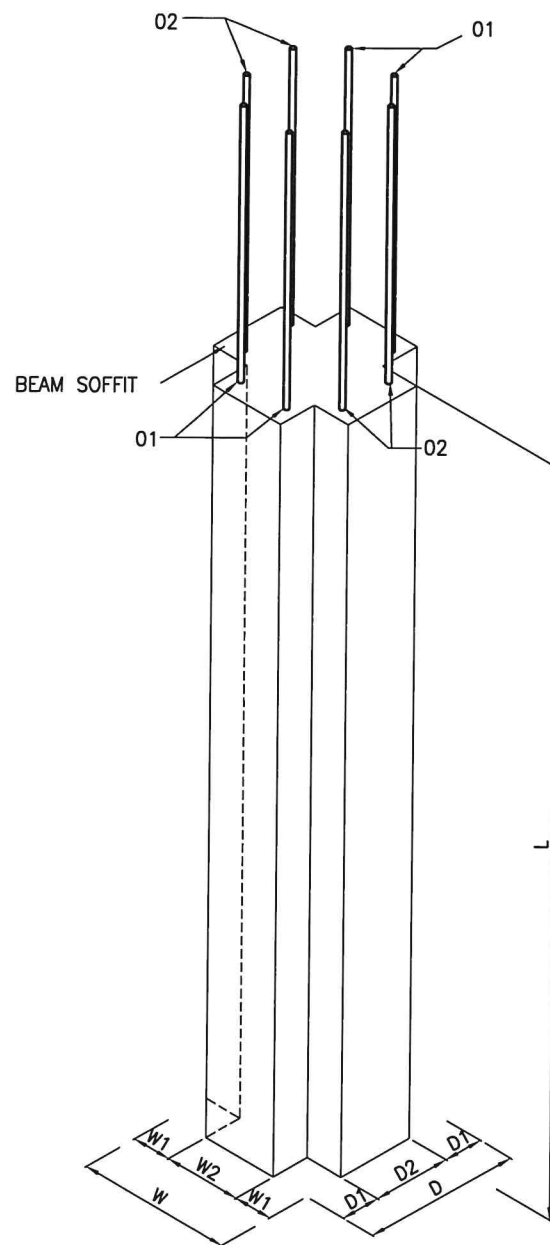
NAMA PROJEK:
LUKISAN PIAWAI
KOMPONEN STRUKTUR IBS
BAGI BANGUNAN

TAJUK LUKISAN:
PRECAST PLAIN WALL -
SCHEDULE

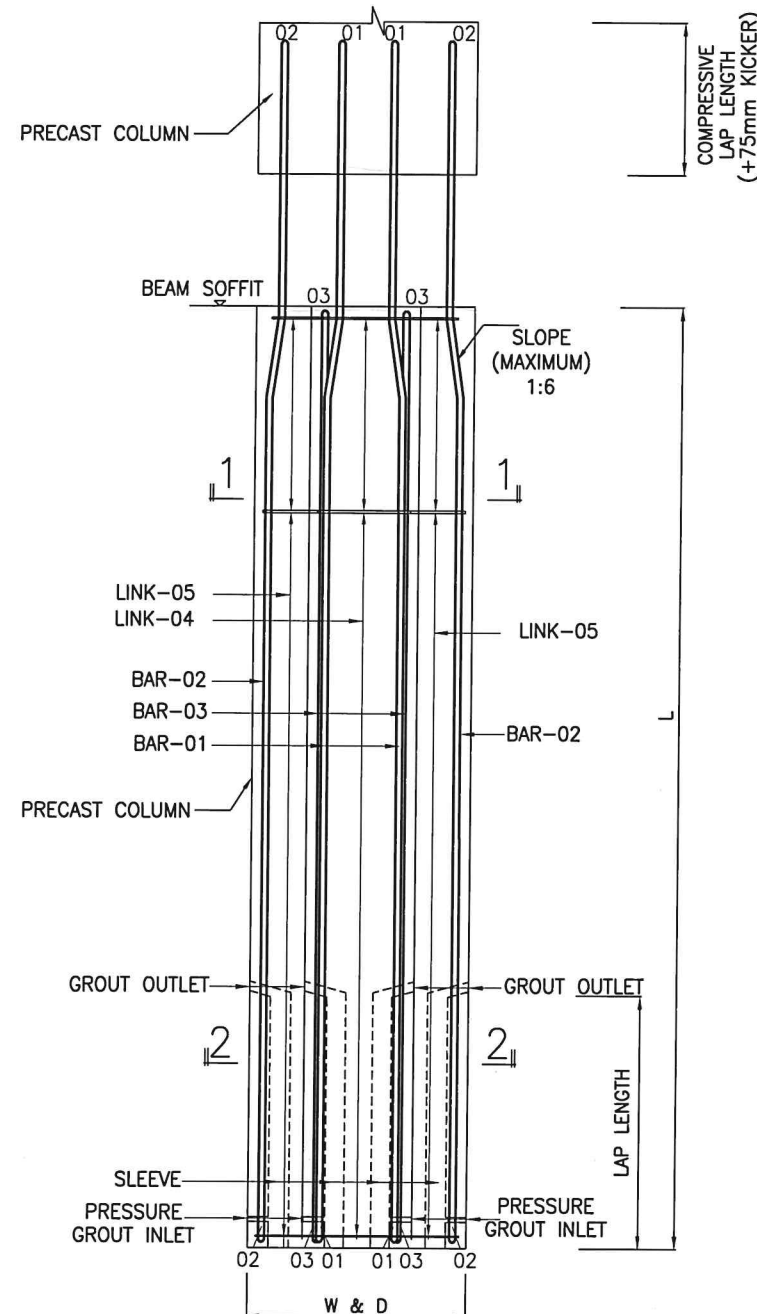
DILUKIS: MURUL SYAFKA BINTI NOR RIZAN
TARIKH: OGOS 2021 SKALA: N.T.S
NO. LUKISAN:
JKR/CKAS/P-IBS/PEL 19/PW/02(02)



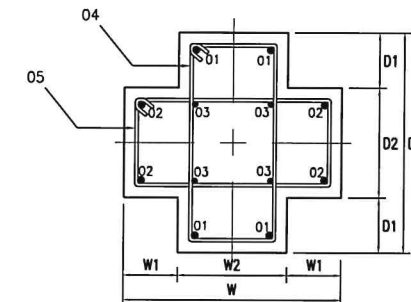
PRECAST IRREGULAR SHAPE COLUMN



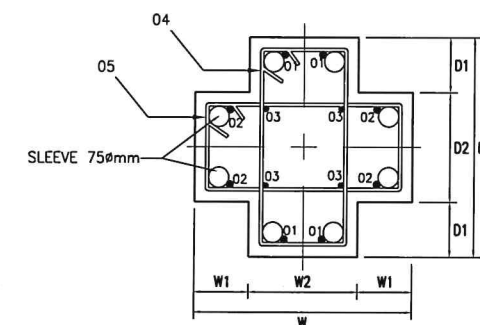
TYPICAL COLUMN PLUS
SINGLE TIER (3D VIEW)



TYPICAL COLUMN PLUS
(ELEVATION-SINGLE TIER)



SECTION 1-1



SECTION 2-2

PLUS SHAPE COLUMN OVERALL SIZE (W x D) (mm)	OVERALL WIDTH (mm)		OVERALL DEPTH (mm)		MAX AXIAL LOAD (KN)	MAX MOMENT (kNm)	REINFORCEMENT BAR SIZE (mm)			LINK REINFORCEMENT (mm)		DIA.(ϕ) SLEEVE (mm)	MAX COLUMN HEIGHT, L (m)
	W2	W1	D2	D1			01	02	03	04	05		
650x650	300	175	300	175	3000	175	H25	H25	H16	H10-200	H10-200	75	4
700x700	300	200	300	200	3200	190	H25	H25	H16	H10-200	H10-200	75	4
750x750	300	225	300	225	3600	205	H25	H25	H16	H10-200	H10-200	75	4
800x800	300	250	300	250	4000	265	H25	H25	H16	H10-200	H10-200	75	4
700x700	350	175	350	175	2900	190	H25	H25	H16	H10-200	H10-200	75	4
750x750	350	200	350	200	4000	200	H25	H25	H16	H10-200	H10-200	75	4
800x800	350	225	350	225	5500	205	H25	H25	H16	H10-200	H10-200	75	4
850x850	350	250	350	250	6000	210	H25	H25	H16	H10-200	H10-200	75	4

TABLE 1: IRREGULAR PLUS SHAPE COLUMN DETAILS

REINFORCEMENT BAR SIZE (mm)	LAP LENGTH (mm)
16	900
20	1100
25	1375

TABLE 2 : LAP SCHEDULE

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. PRECAST IRREGULAR COLUMN ARE DESIGN AS BRACE COLUMN WITH DESIGN PARAMETER CONCRETE GRADE, $f_{ck} = C32/40$, HIGH YIELD STRENGTH REINFORCEMENT, $f_y = 500N/mm^2$ AND CONCRETE COVER = 35mm FOR 1.5 hrs FIRE RATING.
3. FOR PRECAST BEAM ON COLUMN CONNECTION, DESIGNERS SHALL DETERMINE SUITABLE SIZE OF COLUMN
4. FOR CONNECTION DETAIL, PLEASE REFER TO DRAWING NO. JKR/CKAS/P/IBS/PEL19CN/BCDS 1(14) PRECAST BEAM ON COLUMN CONNECTION (DIRECT SEATING - BCDS). SHEAR TYPE SHALL VARIES FROM 1 TO 5 WITH CAPACITY DESIGN SHEAR RANGING FROM 0 TO 500kN.



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, IBU PEJABAT JKR MALAYSIA
NO.6, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KAWAN:

Ir. Dr. LIM CHAR CHING

PENGARAH KHIDMAT REKABENTUK :

Ir. Hjh. ATIKAH BINTI ABDUL HAMID

JURUTERA AWAM PENGUASA KAWAN :

Ir. ROSNITA BINTI ABDUL RANI

JURUTERA AWAM KAWAN :

Ir. DZULQ KHAIRI BIN DARUS

DISEMAK :

Ir. DZULQ KHAIRI BIN DARUS

DIREKABENTUK :

MOHD ASYRAF BIN MOHAMAD NAZRI

HURUF PETUNJUK	PINDAAN	TARIKH	TANDA TANGAN

NAMA PROJEK :

LUKISAN PIAWAI
KOMPONEN STRUKTUR IBS
BAGI BANGUNAN

TAJUK LUKISAN :

PRECAST PLUS SHAPE COLUMN

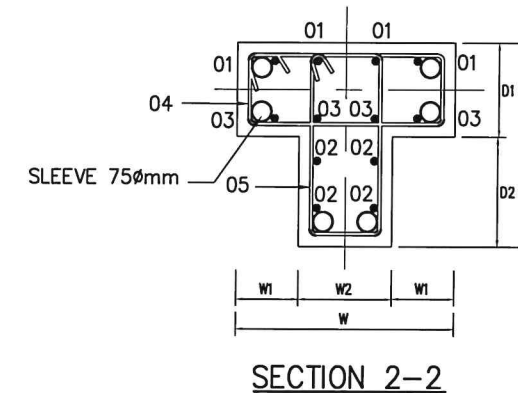
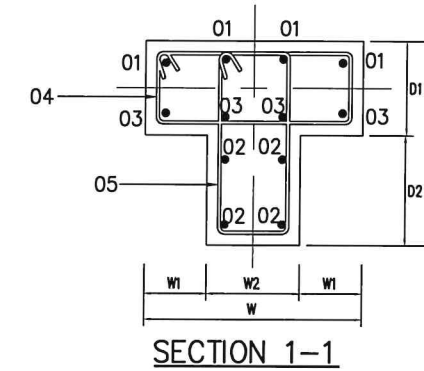
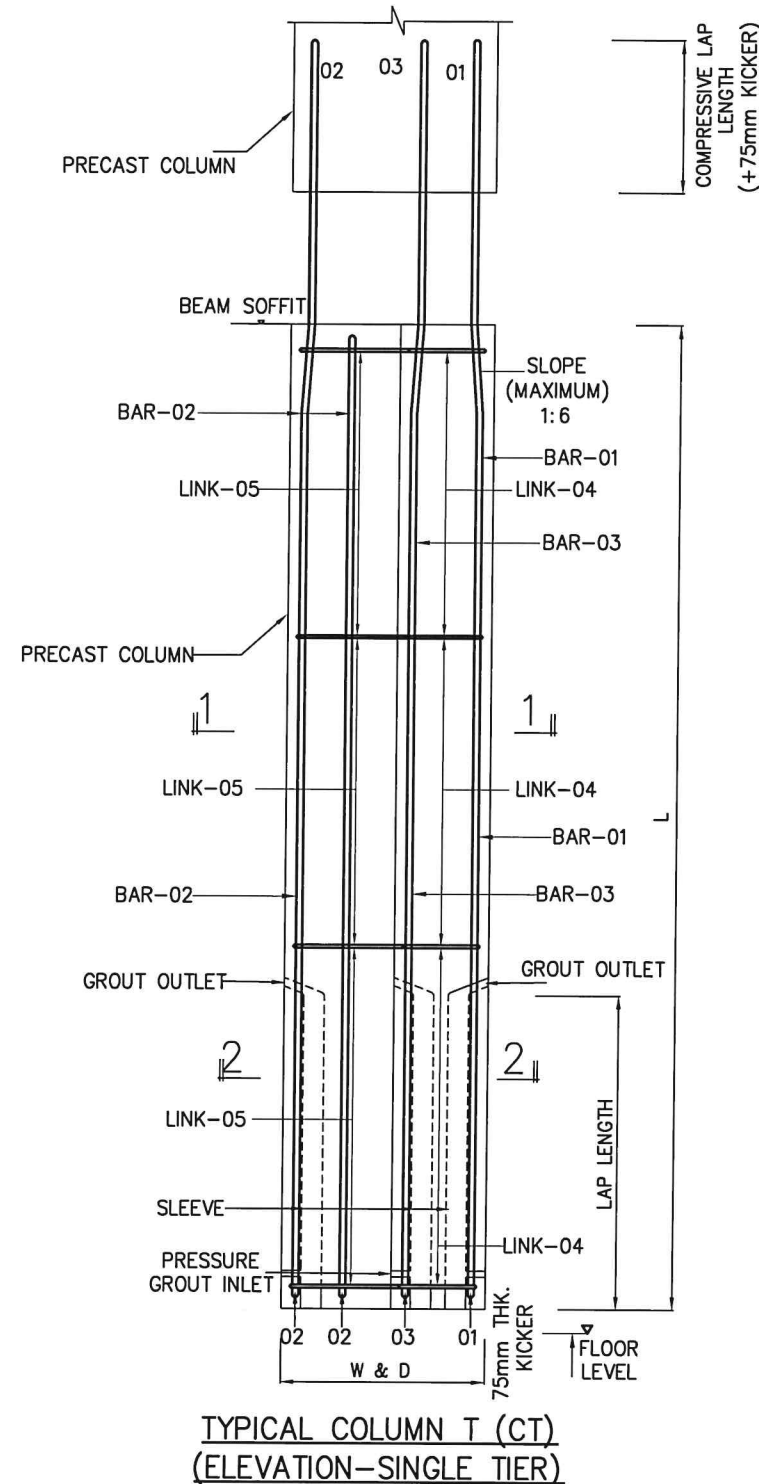
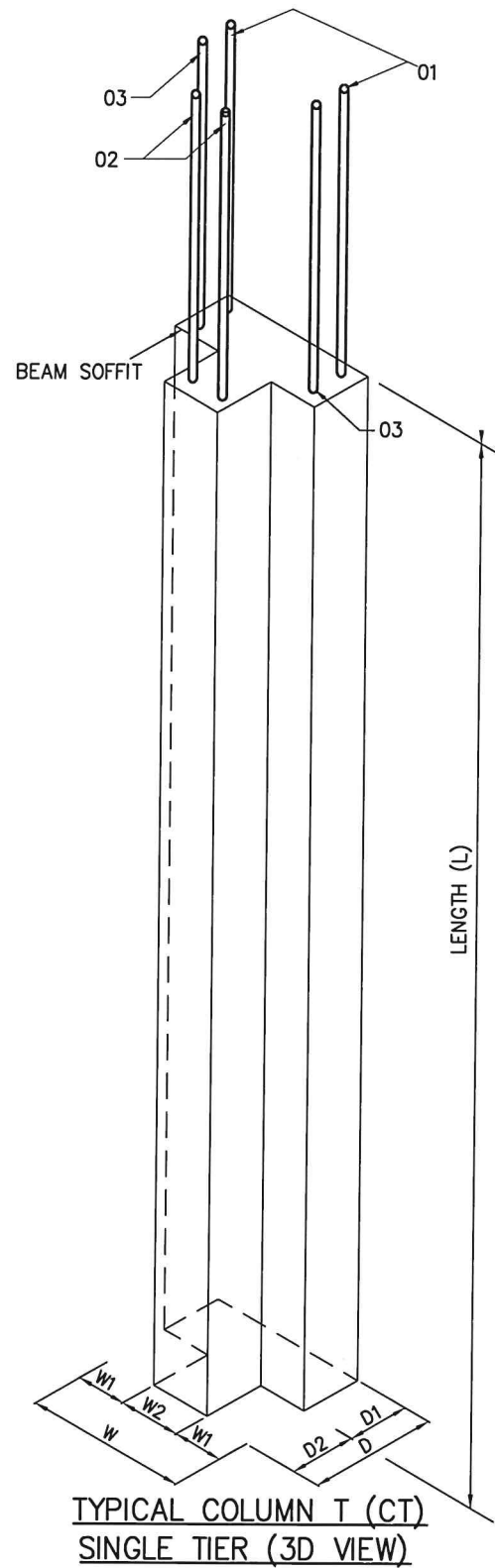
DILUKIS : MOHD ASYRAF BIN MOHAMAD NAZRI

TARIKH : OGOS 2021

SKALA : NTS

NO. LUKISAN :

JKR/CKAS/P-IBS/PEL 19/CC



T SHAPE COLUMN SIZE OVERALL SIZE (W x D) (mm)	OVERALL WIDTH (mm)		OVERALL DEPTH (mm)		MAX AXIAL LOAD (Nf) (kN)	MAX MOMENT (M) (kNm)	REINFORCEMENT BAR SIZE (mm)			LINK REINFORCEMENT. (mm)		DIAMETER (φ) SLEEVES (mm)	MAX. COLUMN HEIGHT (L,m)
	W1	W2	D1	D2			O1	O2	O3	O4	O5		
650x600	175	300	300	300	2800	150	2H20	2H20	2H20	H10-200	H10-200	75	4.0
700x700	200	300	300	400	2800	270	2H25	2H25	2H25	H10-200	H10-200	75	
750x600	225	300	300	300	2800	235	2H20	2H25	2H20	H10-200	H10-200	75	
750x650	200	350	350	300	3500	250	2H25	2H25	2H25	H10-200	H10-200	75	
800x650	225	350	350	300	3500	255	2H25	2H25	2H25	H10-200	H10-200	75	

TABLE 1: IRREGULAR T SHAPE COLUMN DETAILS

REINFORCEMENT BAR SIZE (mm)	LAP LENGTH (mm)
16	900
20	1100
25	1375

TABLE 2 : LAP SCHEDULE

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
 - PRECAST IRREGULAR COLUMN ARE DESIGN AS BRACE COLUMN WITH DESIGN PARAMETER CONCRETE GRADE, $f_{ck} = C32/40$, HIGH YIELD STRENGTH REINFORCEMENT, $f_y = 500N/mm^2$ AND CONCRETE COVER = 35mm FOR 1.5 hrs FIRE RATING.
 - FOR PRECAST BEAM ON COLUMN CONNECTION, DESIGNER'S SHALL DETERMINE SUITABLE SIZE OF COLUMN
 - FOR CONNECTION DETAIL, PLEASE REFER TO DRAWING NO. JKR/CKAS/P/BS/PEL19CN/BCDS 1(14) PRECAST BEAM ON COLUMN CONNECTION (DIRECT SEATING - BCDS). SHEAR TYPE SHALL VARIES FROM 1 TO 5 WITH CAPACITY DESIGN SHEAR RANGING FROM 0 TO 500KN.



JABATAN KERJA RAYA MALAYSIA
CAWANGAN KEJURUTERAAN AWAM DAN STRUKTUR
TINGKAT 4-10 & 17
BLOK G, BUI PEJABAT JKR MALAYSIA
NO.6, JALAN SULTAN SALAHUDDIN
50480 KUALA LUMPUR
(NO. TEL: 03-2618 9171 & NO. FAX: 03-2618 9155)

PENGARAH KANAN:
Ir. Dr. LIM CHAR CHING
PENGARAH KHIDMAT REKABENTUK:
Ir. Hjh. ATIKAH BINTI ABU HAMID
JURUTERA AWAM PENGUASA KANAN:
Ir. Dr. ZURADA BINTI ZAINI RIJAL
JURUTERA AWAM KANAN:
Ir. SHARIFAH MAZNAH BINTI SYED AHMAD ZAHRI
DISEMAK:
KHAIRUL HAFIZ BIN MUSTAFA
DIREKABENTUK:
MUHAMAD SYAHMI BIN AZHAR

HURUF PETUNJUK	PINDAAN	TARIKH	TANDA TANGAN

NAMA PROJEK:

LUKISAN PIAWAI
KOMPONEN STRUKTUR IBS
BAGI BANGUNAN

TAJUK LUKISAN:

PRECAST T SHAPE COLUMN

DILUKIS: MOHD ASTRAF BIN MOHAMAD NAZRI
TARIKH: OGOS 2021
SKALA: NTS
NO. LUKISAN:
JKR/CKAS/P-IBS/PEL 19/CT