# Appendix B BIM Object Presentation Summary

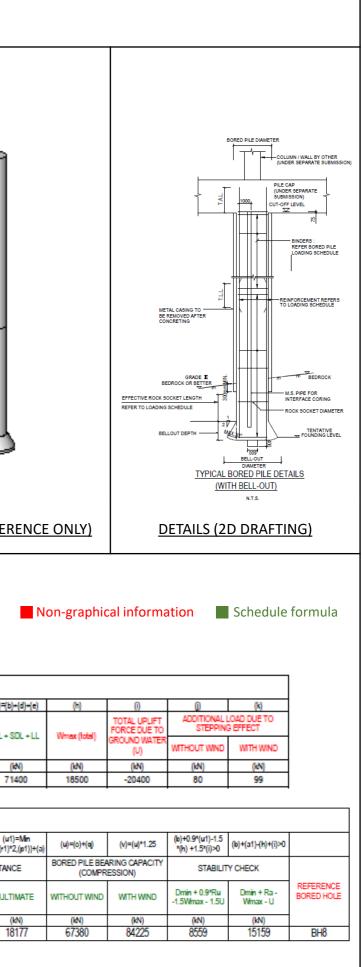
Table of Contents		
FOUNDATION		DRAINAGE
BORED PILE	2	DRAINAGE PIPE
SOCKET H-PILE	3	DRAIN
PILE CAP	4	SANITARY FITMENT
TIE BEAM	5	MANHOLE
SCREEN WALL	6	TEMINAL MANHOLE
SUPERSTURCTURE		SUMP PIT
SLAB	7	PETROL INTERCEPTOR
STRUCTURAL WALL	8	OPEN TRAPPED GULLY / SEAL TRA
BEAM	9	GREASE TRAP
STRUCTURAL COLUMN	10	FRESH AIR INLET
STAIRCASE	11	WIRE BALLON
WATER TANK	12	CURTAIN WALL
STEEL STRUCTURE	13	MULLION AND TRANSOM
DEMOLITION (INCLUDING HOARDING)		GLASS PANEL / LOUVRE
PROPPING	14	EMBED
DEBRIS CHUTE	15	
VIDEO CAMERA	16	
HOARDING, GANTRY AND CONCRETE FOOTING	17	
RAILING	18	
STREET FURNITURES	19	
EXCAVATION & LATERAL SUPPORT		
SHEET PILE	20	
STRUT, WALLING, TIE	21	
ROCK PROFILE	22	
SOIL PROFILE	23	
SITE FORMATION		
SOIL NAIL	24	
SLOPE DRAINAGE	25	
GROUND INVESTIGATION		
ROCK CORE SAMPLE	26	
MONITORING INSTRUMENTS	27	

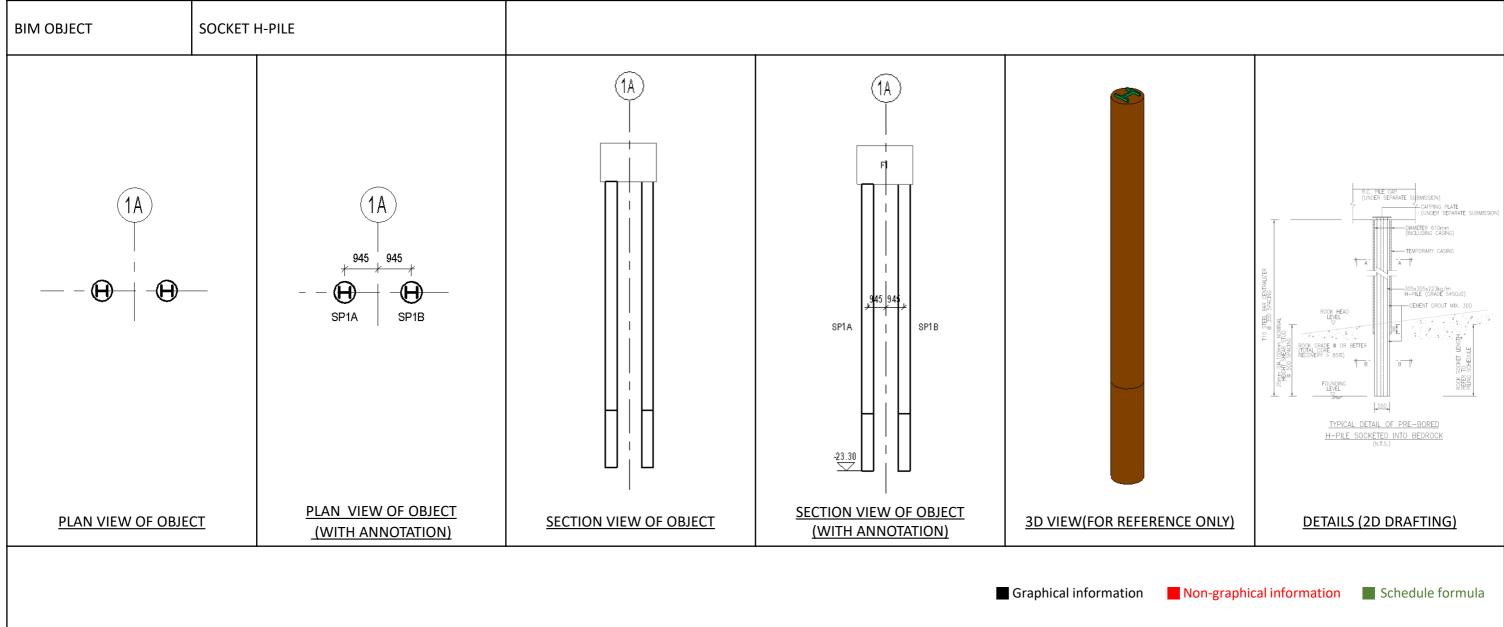
# APPED GULLY

BIM OBJE	ЕСТ	во	RED PILE															
				<u>BP1</u> DIA. = 30 B.O. = 4	000 mm								BP1 1500 1500 1 1500 1500	-28.90				
<u>PL</u>	AN VIEW OF (	<u>OBJECT</u>			VIEW OF			<u>SECTI</u>	ON VIEW	OF OBJEC	<u>T</u>			V OF OBJE OTATION)		<u>3D VIE</u>	W (FOR R	EFERE
						(X)	(AA)	(W)	(2)	BORED PILE LO	DADING SCHEDUL	E (1 OF 2)	(b)	(c)=(a)+(b)	(ď)	Graphical	information	on 📕
BORED PILE MARK	BORED PILE CAP THICKNESS (FOR REFERENCE ONLY)	BORED PILE DIAMETER	BORED PILE EFFECTIVE SHAFT DIAMETER	ROCK SOCKET DIAMETER	PILE BASE DIAMETER		I CUT-OFF LEVEL	TENTATIVE ROCKHEAD LEVEL	TENTATIVE FOUNDING LEVEL	TENTATIVE PILE LENGTH		SELF-WEIGHT OF BORED PILE (SUBMERGED) (SWP)	Dmin (totel)	Dmin + SWP	SDL(totel)	TOTAL DEAD LOAD (DL) = Dmin + SDL	LIVE LOAD (LL) (totel)	DL+SDL-
BP1	(m) 2.5	(m) 3.0	(m) 2.80	(m) 2.80	(m) 4.5	(m) 1.50	(mPD) -8.775	(mPD) -45.5	(mPD) -50.90	(m) 42.125	(m) 3.6	(kN) 3820	(kN) 43000	(kN) 46820	(kN) 14700	(kN) 57700	(KN) 13700	(kN) 71400
		~~~	2.00	2.00		1.44	0.110				~~~				141.00	01100	101.00	

										BORE	D PILE LOADING SC	CHEDULE (2 OF 2)						
	(f)	(f)+(h)	(f)+(a)+(j)	(f)+(h)+(a)+(k)	(l)=(b)+(i)	(m)=(b)-(h)+(i)	(n)=(b)-1.5*(h)+1.5 *(i)				(0)	(p)=(o)*1.25	(q)	(r)=(q)*1.25	(r1)	(p1)	(a1)=Min of((((r1),(p1)/3))+(a)	(u1)=Min of(((r1)*2,(p1))
		Max. Pil	LE LOAD			MIN. PILE LOAD					PILE BARING (COMPRE		ROCK FRICTION	(COMPRESSION)	ROCK FRICTION	ROCK/SOIL	UPLIFT RE	SISTANCE
BORED PILE MARK	DL + SDL + LL	DL+SDL+LL+ Wmax	DL + SDL + LL + Stepping Load	DL + SDL + LL + Wmax + Stepping Load	Dmin + SWP - U	Dmin + SWP - Winax - U	Dmin + SWP - 1.5Wmax - 1.5U	VERTIC	AL BARS	LINKS	WITHOUT WIND	WITH WIND	WITHOUT WIND	WITH WIND	(TENSION)	MASS (SUBMERGED)		ULTIMATE
	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	LAYER 1	LAYER 2	]	(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
BP1	64000	78700	66700	81400	24700	10000	-5100	44 T50	40 T50	T16 / 200 (1 rings)	55230	69038	12150	15188	8020	15477	7859	18177

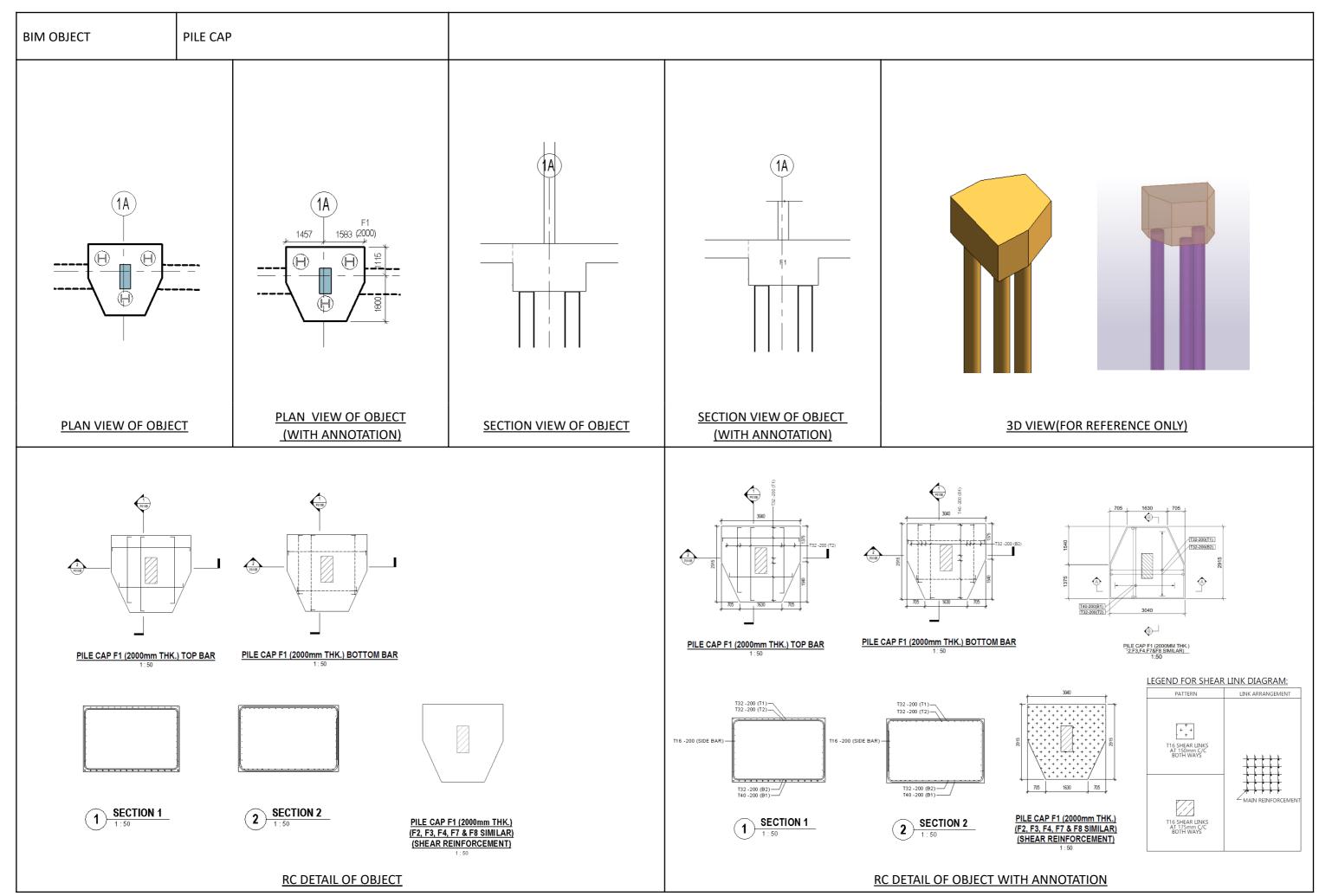
<u>SCHEDULE</u>

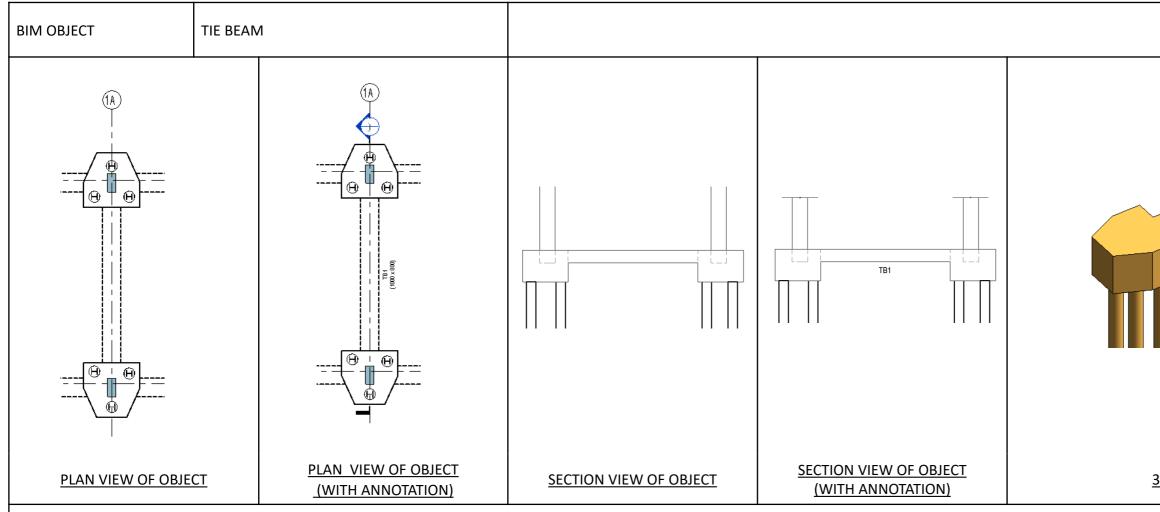




											SOCKET H-PI	LE LOADING SCH	EDULE (1 OF 2)											
		(A)	(A)		(AA)	(w)	(Z)	(AB)		(Y)	(P1)	(P2)	(P3) = (P1) + (P2)	(a)	(P4) = (P3) + (a)	(d)	(a)	(b) + (d)	(e)	(f) = (b) + (d) + (e)	(h)	(i)	0	(k) = (j) * 1.25
	PILE CAP THICKNESS (FOR	PIPE EFFECTIVE SHAFT	ROCK SOCKET	PILE CAP BASE	CUT-OFF LEVEL	TANTATIVE ROCKHEAD	TANTATIVE FOUNDING	TENTATIVE PILE	TENTATIVE PILE	EFFECTIVE ROCK SOCKET	ROCK MASS	SOIL MASS SURROUNDING	ROCK/SOIL MASS (SUBMERGED W/O	SELF-WEIGHT (SUBMERGED)	ROCK / SOIL MASS (SUBMERGED) W/	Min DEAD LOAD	SDL	TOTAL DEAD LOAD (DL) = Dmin	LIVELOAD (III)	DL+SDL+LL	Wmax PER PILE	UPLIFT FORCE PER PILE (AT	ADDITIONAL L STEPPING	
PILE MARK	REFERENCE ONLY)	DIAMETER	DIAMETER	LEVEL		LEVEL	LEVEL	LENGTH	RH	LENGTH	(SUBMEGED)	PILE (SUBMERGED)	PILE SELF-WEIGHT	(SWP)	PILE SELF WEIGHT	PER PILE (Dmin)	PER PILE	+ SÓL				CAP) (U)	WITHOUT WIND	WITH WIND
	(m)	(m)	(mPD)	(mPD)	(mPD)	(m)	(m)	(m)	(m)	(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
SP1A	2.0	0.61	0.61	-8.35	-8.275	-46.3	-53.3	45.025	38.025	7	200	5112	5312	230	5542	2197	1233	3430	1067	4497	333	-2500	441	551
SP1B	2.0	0.61	0.61	-8.35	-8.275	-46.3	-53.3	45.025	38.025	7	200	5112	5312	230	5542	2197	1233	3430	1067	4497	333	-2500	441	551
	•			•								-												I

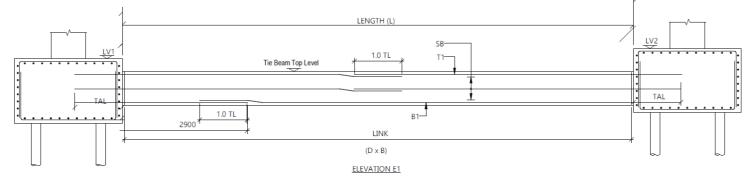
								SOCKET H-PIL	E LOADING SCHE	DULE (2 OF 2)							
		(f)	(f)+(h)	(f)+(a)+(j)	(f)+(h)+(a)+(k)	(l)=(b)+(a)+(i)	(m)=(b)-(h)+(i)	(n)=(b)-1.5*(h)+1.5 *(i)	(0)	(p)=(o)*1.25	(r1)	(p1) = (P3)	(a1)=Min of(((r1),(p1)/3))+(a)	(u1)=Min of((((r1)*2,(p1))+(a)	(b)+0.9*(u1)-1.5 *(h) +1.5*(i)>0	(b)+(a1)-(h)+(i)>0	
			Max. Pil	E LOAD			MIN. PILE LOAD		PILE BARING (COMPR			ROCK/SOIL	UPLIFT RE	SISTANCE	STABILIT	Y CHECK	
	PILE MARK	DL + SDL + LL	DL + SDL + LL + Wmax		DL + SDL + LL + Wmax + SWP + Stepping Load	Dmin + SWP - U	Dmin + SWP - Wmax - U	Dmin + SWP - 1.5Wmax - 1.5U	WITHOUT WIND	WITH WIND	ROCK FRICTION (TENSION)	MASS (SUBMERGED)	ALLOWABLE	ULTIMATE	Dmin + 0.9*Ru -1.5Wmax - 1.5U	Dmin + Ra - Wimax - U	REFERENCE BORED HOLE
		(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(m)	(kN)	(kN)	(kN)	Ra (kN)	Ru (kN)	(kN)	(kN)	
[	SP1A	4497	4830	5168	5611	-73	-407	-1823	6106	9159	3053	5312	2001	5542	2934	1364	BH1
Ī	SP1B	4497	4830	5168	5611	-73	-407	-1823	6106	9159	3053	5312	2001	5542	2934	1364	BH1



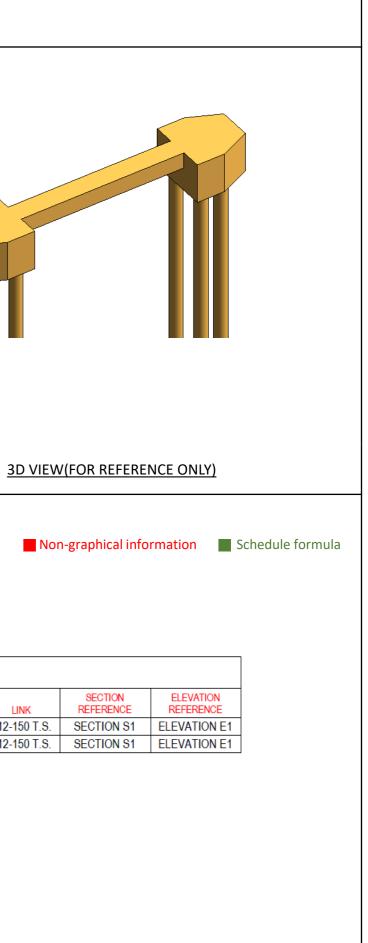


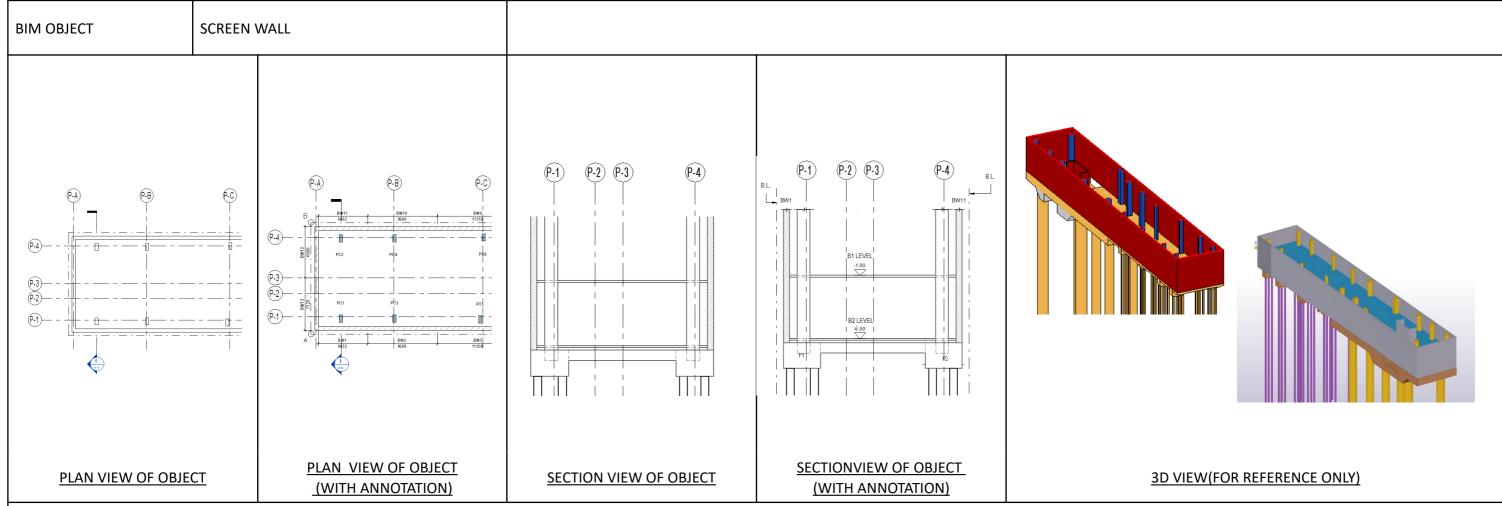
Graphical information

		TIE BEAM R.C. DETAILS SCHEDULE														
	TIE BEAM	BEAM SIZE	LENGTH	TIE BEAM TOP	PILE CAP	TOP LEVEL	PILE CAP	TOP LEVEL			STEEL BAR					
	MARK	(D x B)	(m)	LEVEL (mPD)	(P1)	(Lv1) (mPD)	(P2)	(Lv2) (mPD)	T1	T2	B1	B2	SB	LINK		
	TB1	1000 x 800	10.935	-6.35	F1	-6.35	F2	-6.35	10T40	6T40	10T40	6T40	5T12 E.F.	T12-150		
	TB2	1000 x 800	7.385	-6.35	F1	-6.35	F3	-6.35	10T40	6T40	10T40	6T40	5T12 E.F.	T12-150		
•		•				•		•		•	•	k	-			



<u>SCHEDULE</u>

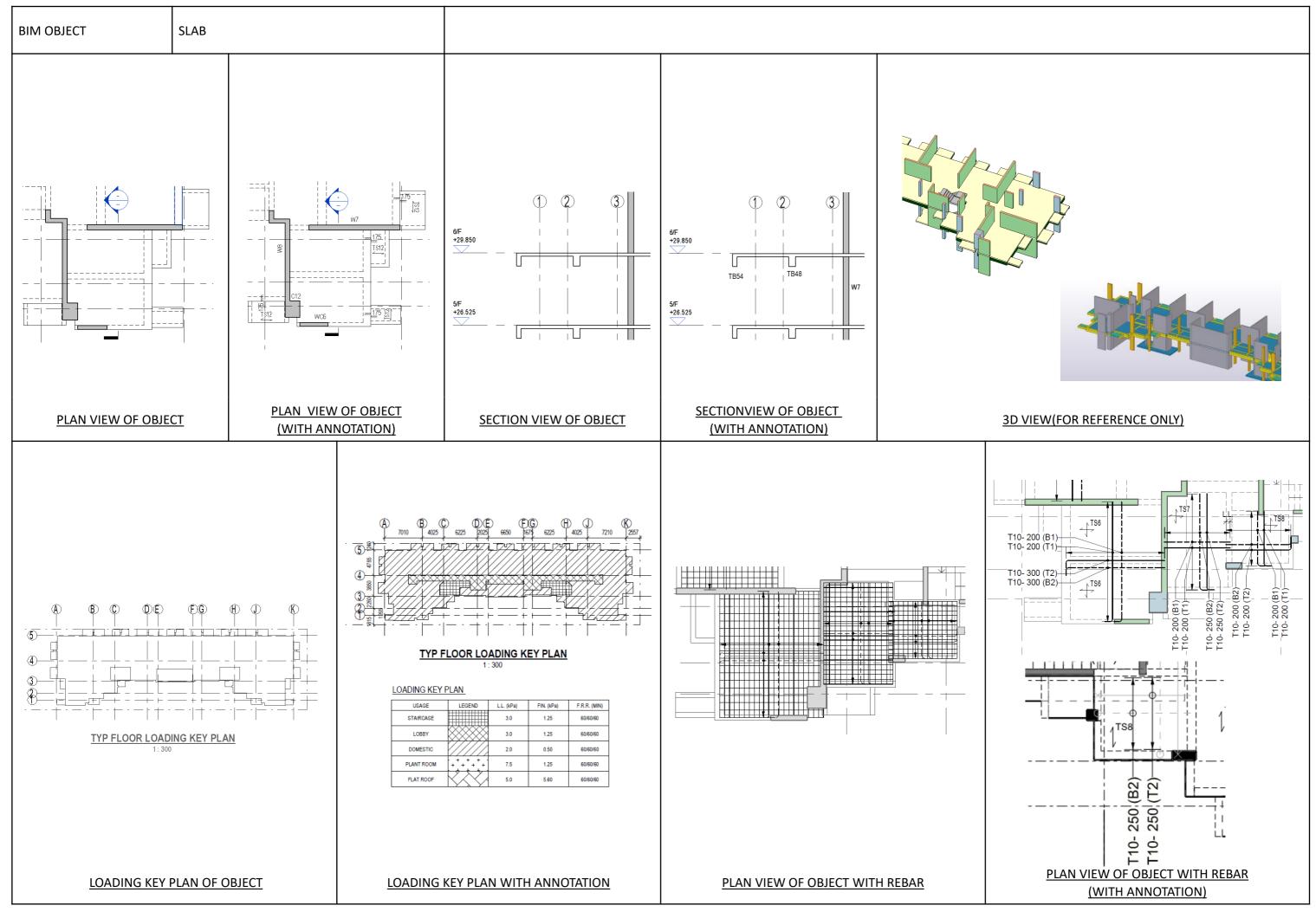


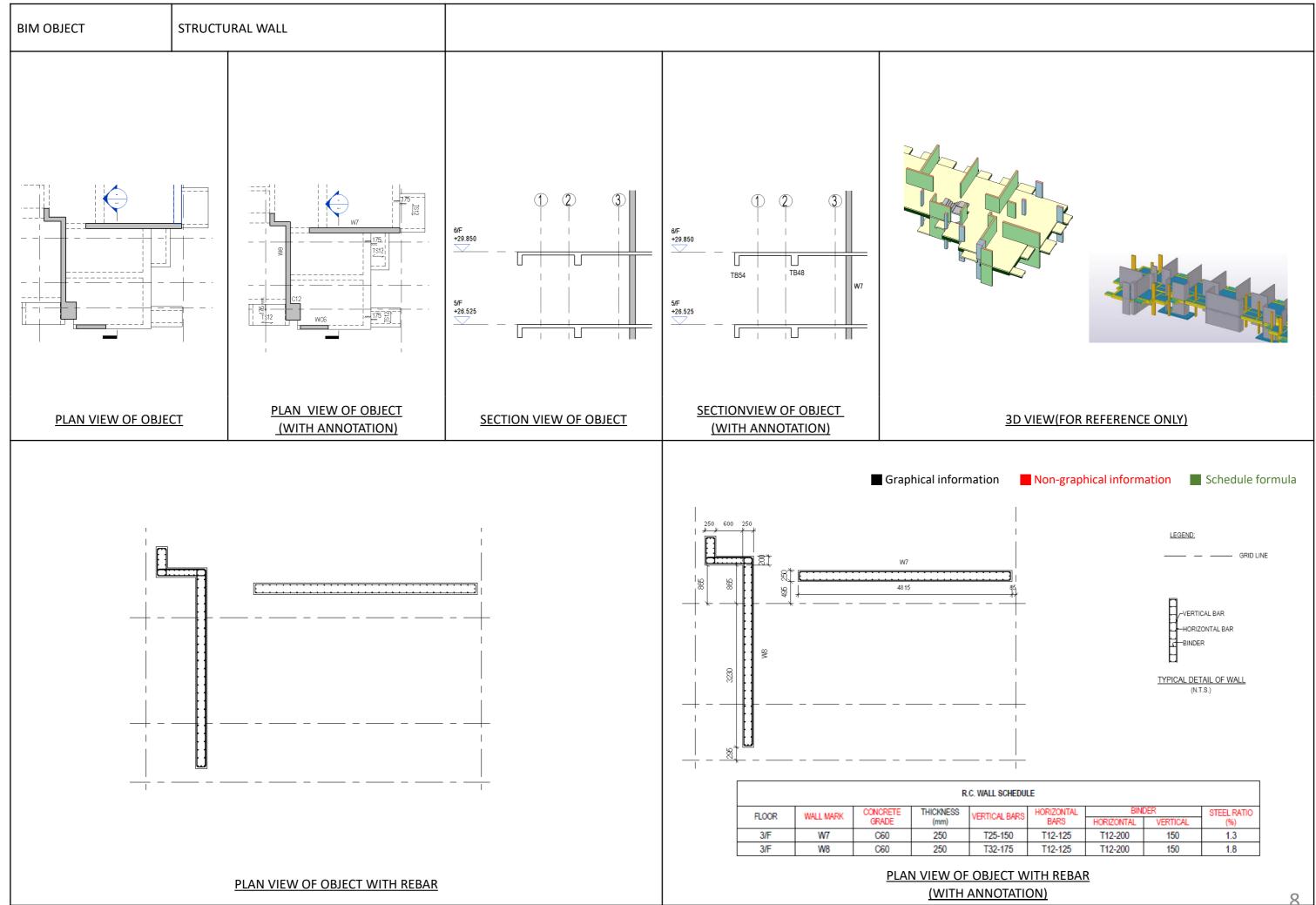


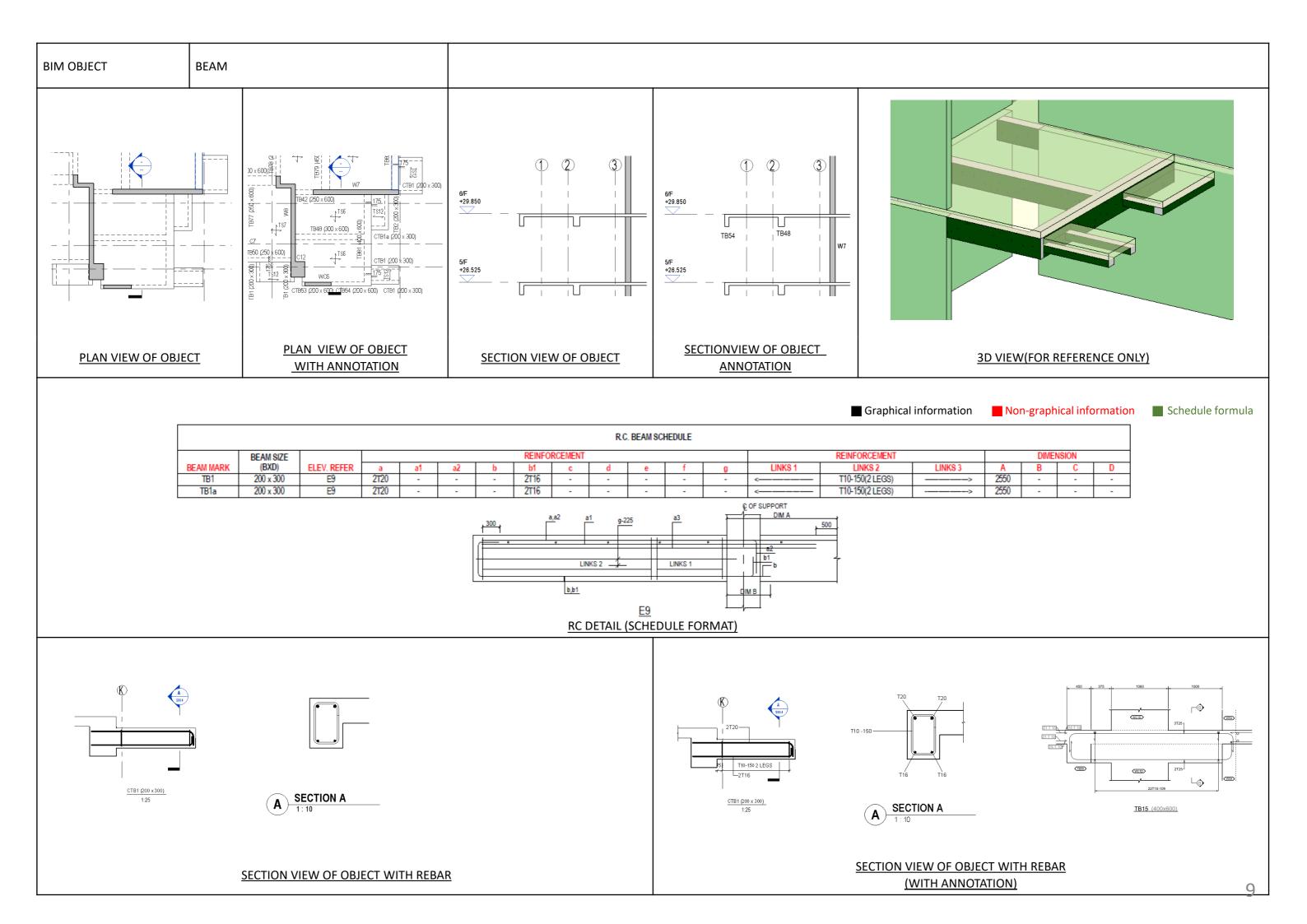
Graphical information

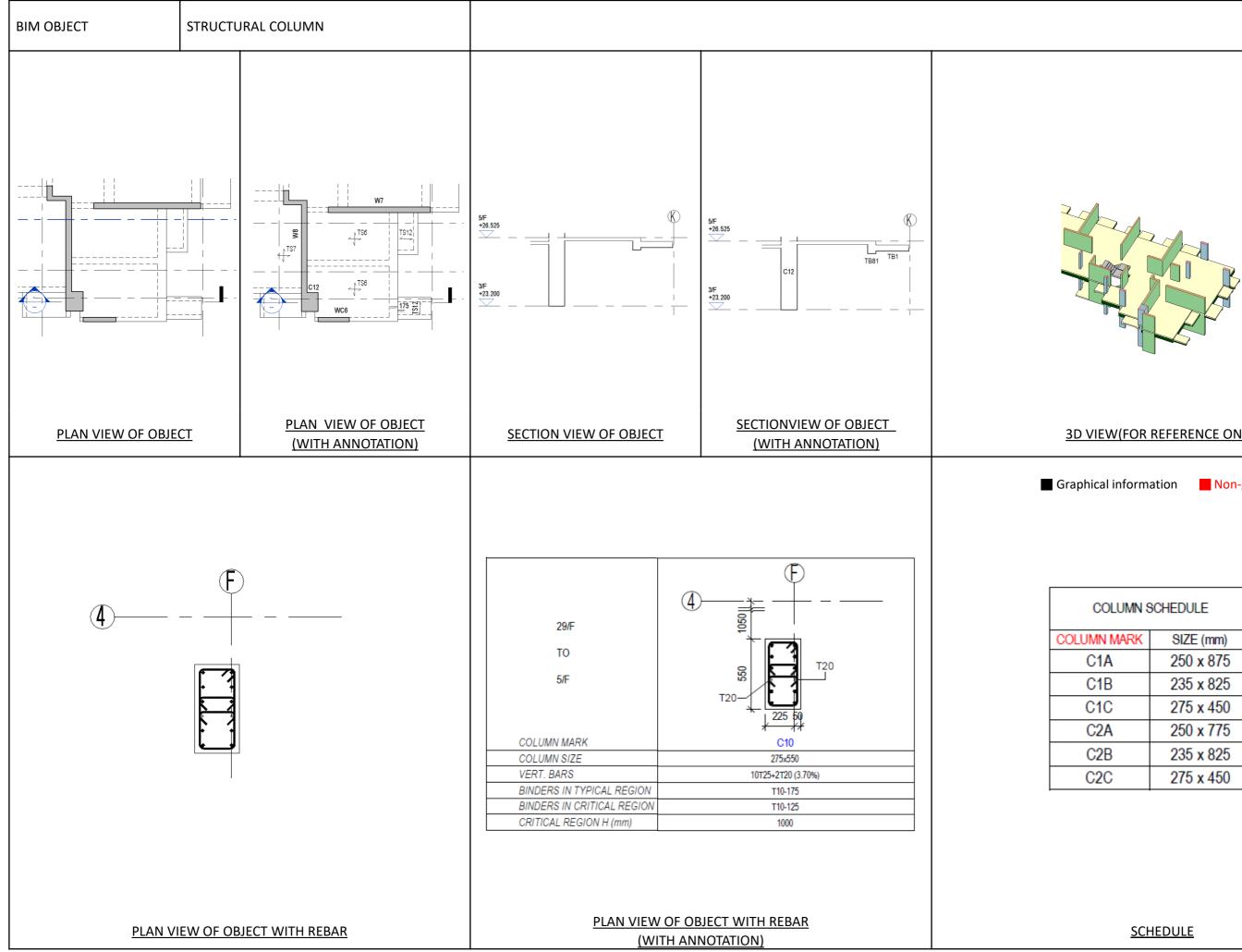
														WAL	LOADINGS	CHEDULE AB	OVE PILE CAP	(1 OF 2)														
]	WALL MARK	ANCLE			MIN DEAD I	LOAD (Dmin)					S	)L				D	EAD LOAD (D	L) = Dmin + Sl	DL				LNELC						DL-	•LL		
	WHILE MHOLE	ANGLE	P (kN)	Max (kNm)	My (kNm)	Vx (kN)	Vy (kN)	Mz (kNm)	P (kN)	Mx (kNm)	My (kNm)	Var (kN)	Vy (kN)	Mz (kNm)	P (kN)	Mx (kNm)	My (kNm)	Vx (kN)	Vy (kN)	Mz (kNm)	P (kN)	Max (kNm)	My (kNm)	Vx (kN)	Vy (kN)	Mz (kNm)	P (kN)	Max (kNm)	My (kNm)	Vx (kN)	Vy (kN)	Mz (kNm)
	BW1	0	2300	0	-900	200	200	0	700	0	-500	200	200	0	3000	0	-1400	400	400	0	400	0	-200	200	200	0	3400	0	-1600	600	600	0
]	BW2	0	3200	0	-600	200	200	0	1100	0	-300	200	200	0	4300	0	-900	400	400	0	700	0	-100	200	200	0	5000	0	-1000	600	600	0
	Grand total: 2		5500	0	-1500	400	400	0	1800	0	-800	400	400	0	7300	0	-2300	800	800	0	1100	0	-300	400	400	0	8400	0	-2600	1200	1200	0

# Non-graphical information Schedule formula



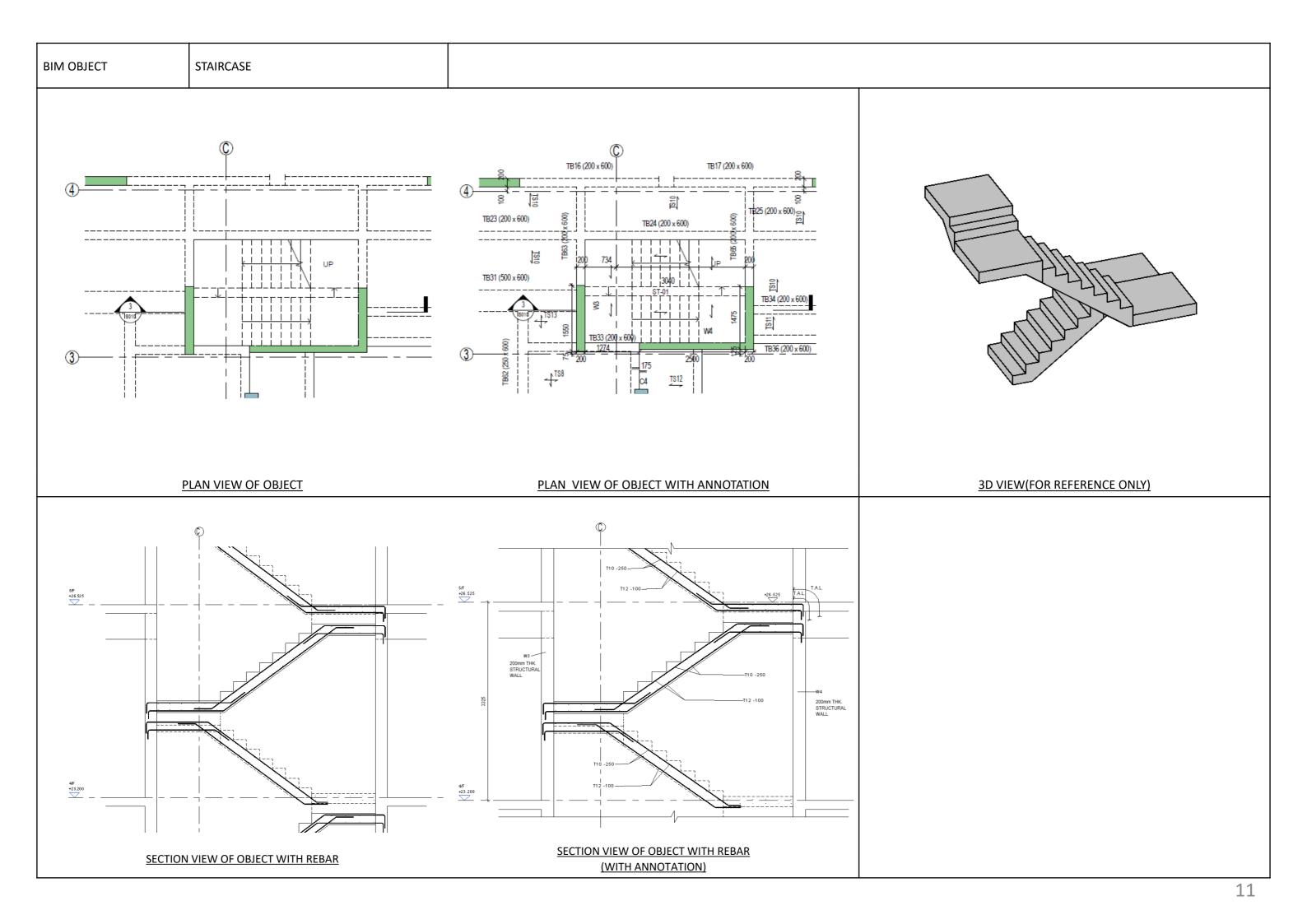


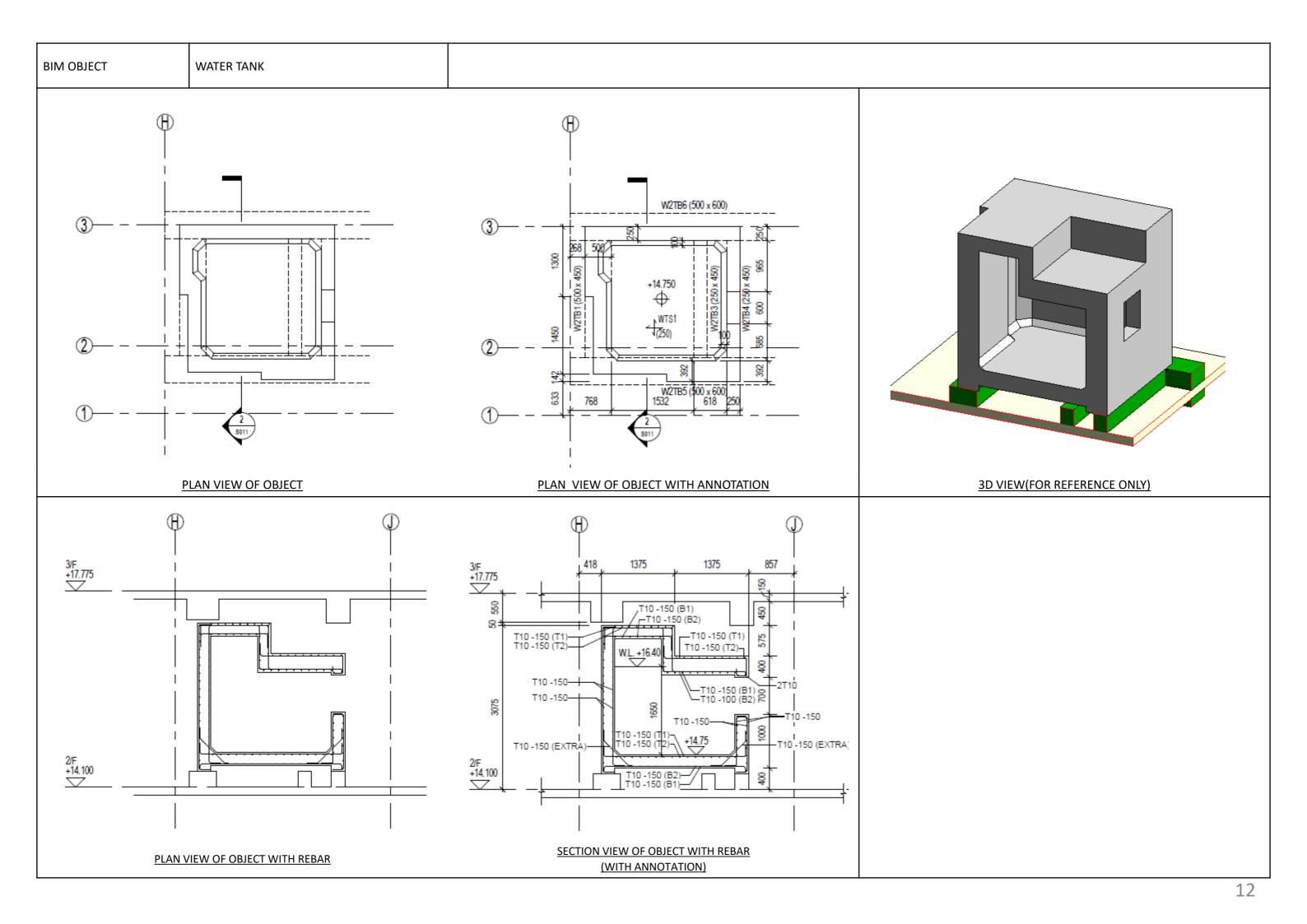


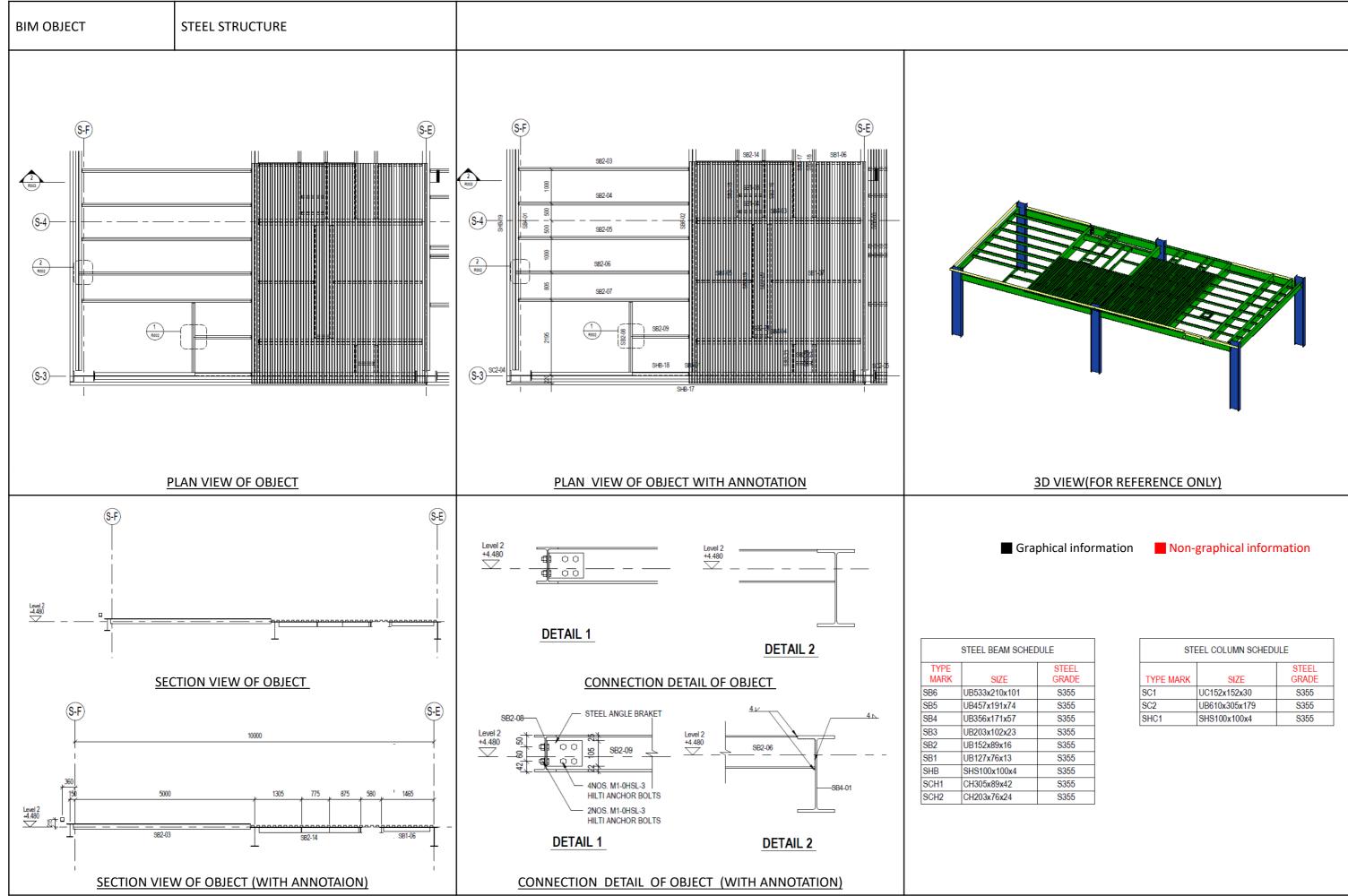


# Non-graphical information

COLUMN	SCHEDULE
LUMN MARK	SIZE (mm)
C1A	250 x 875
C1B	235 x 825
C1C	275 x 450
C2A	250 x 775
C2B	235 x 825
C2C	275 x 450

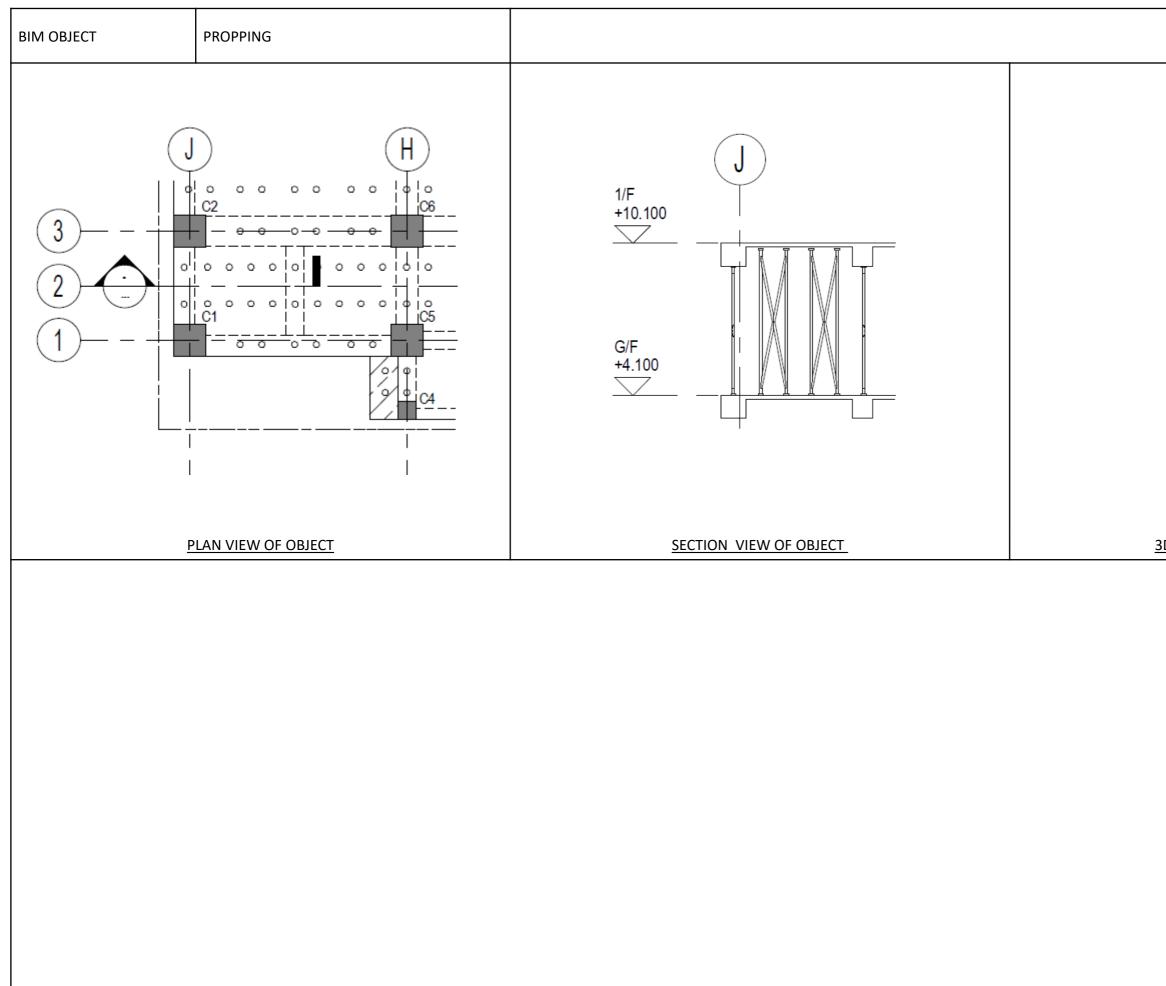


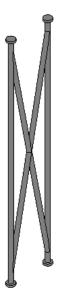


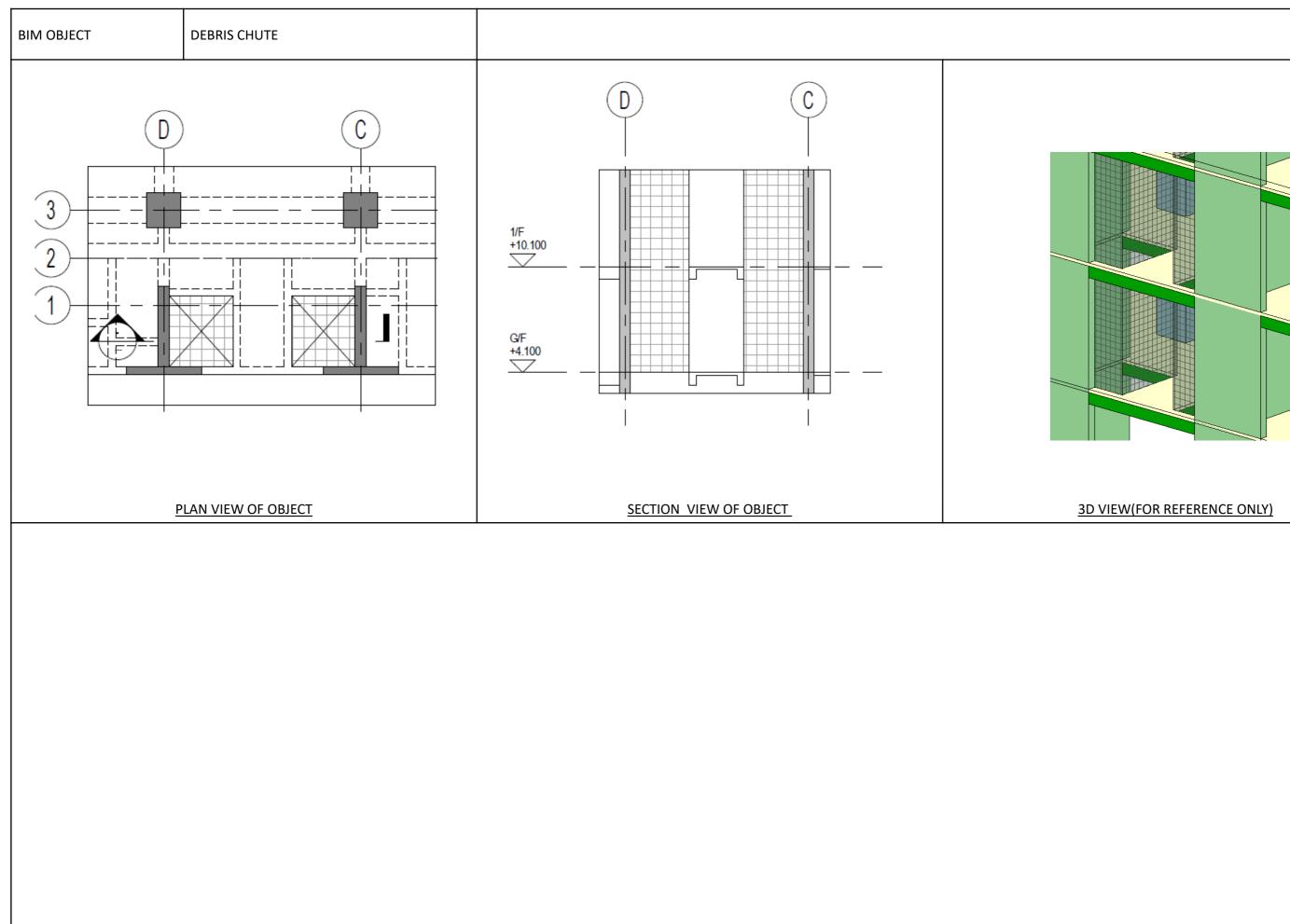


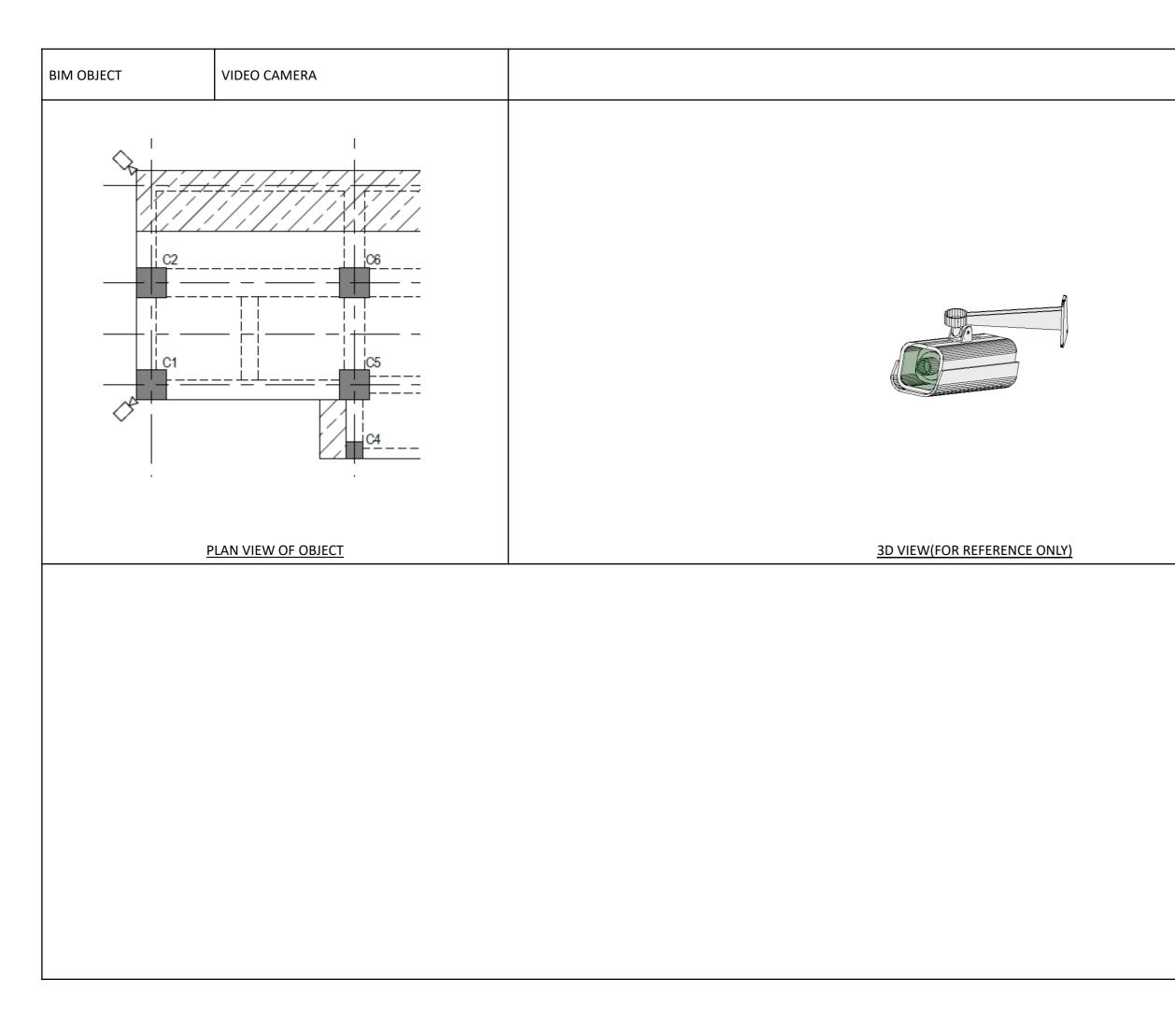
ILE
STEEL
GRADE
S355

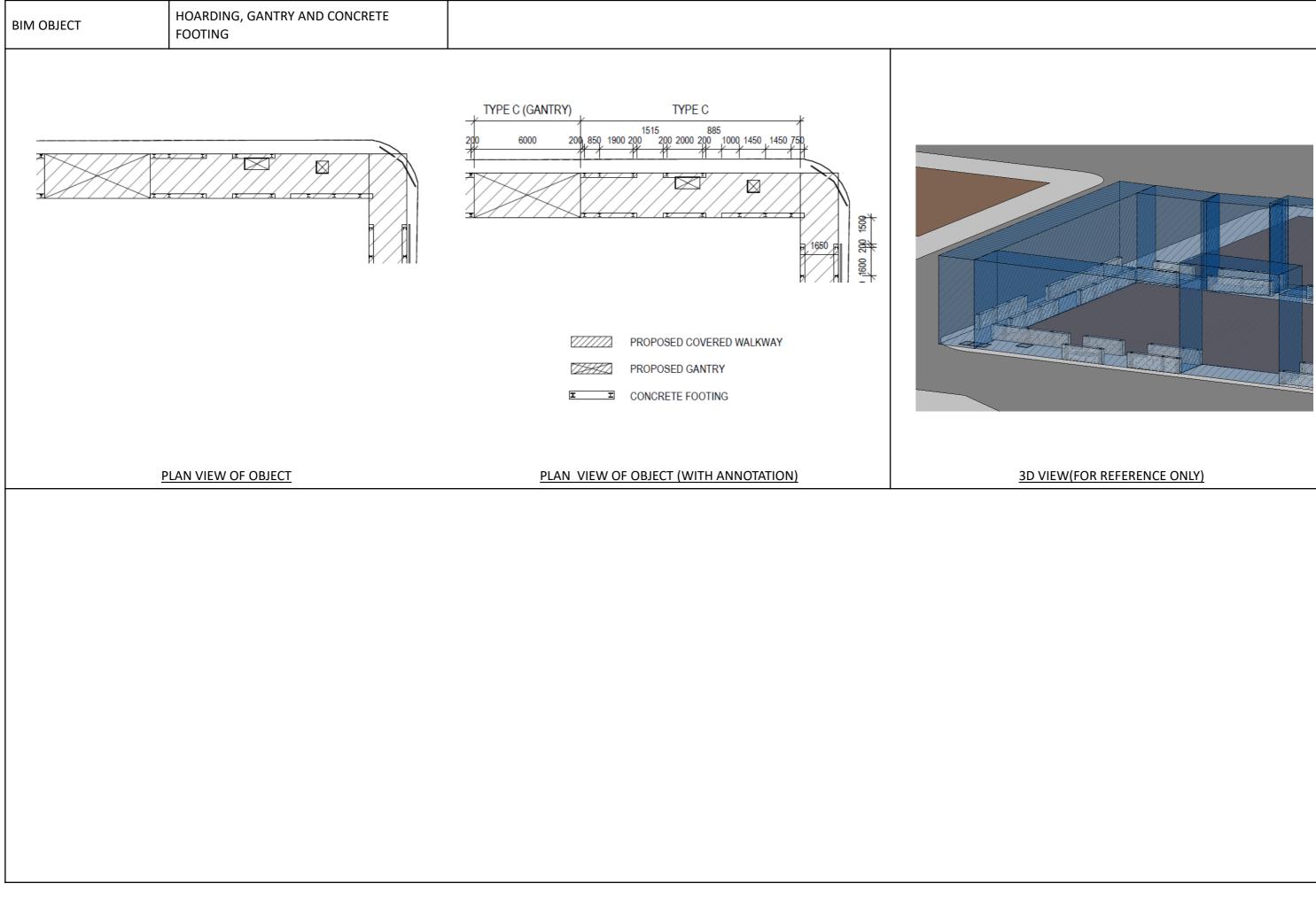
STE	EEL COLUMN SCHEDU	JLE										
TYPE MARK SIZE STEEL GRADE												
SC1 UC152x152x30 S355												
SC2	UB610x305x179	S355										
SHC1	SHS100x100x4	S355										

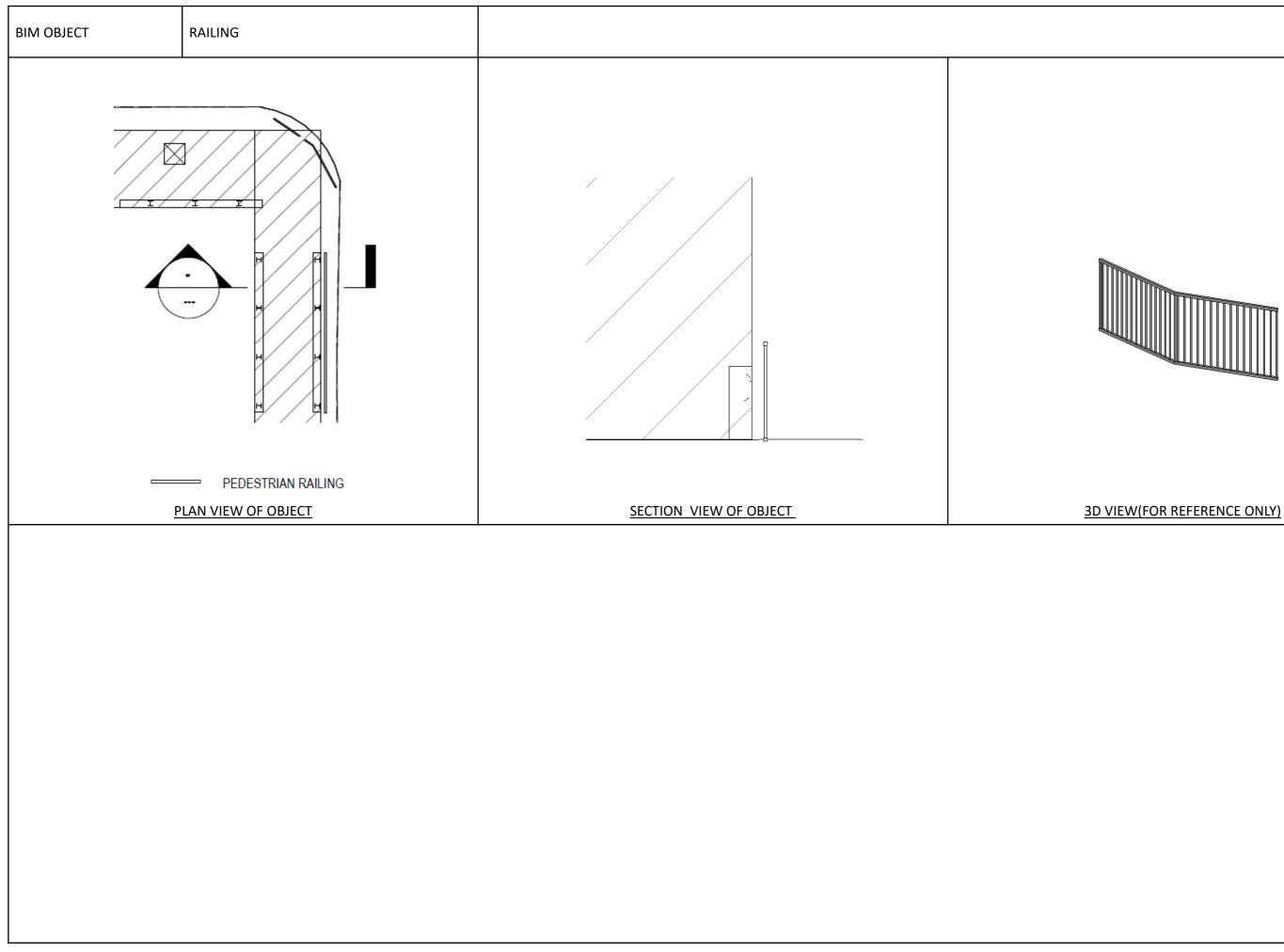


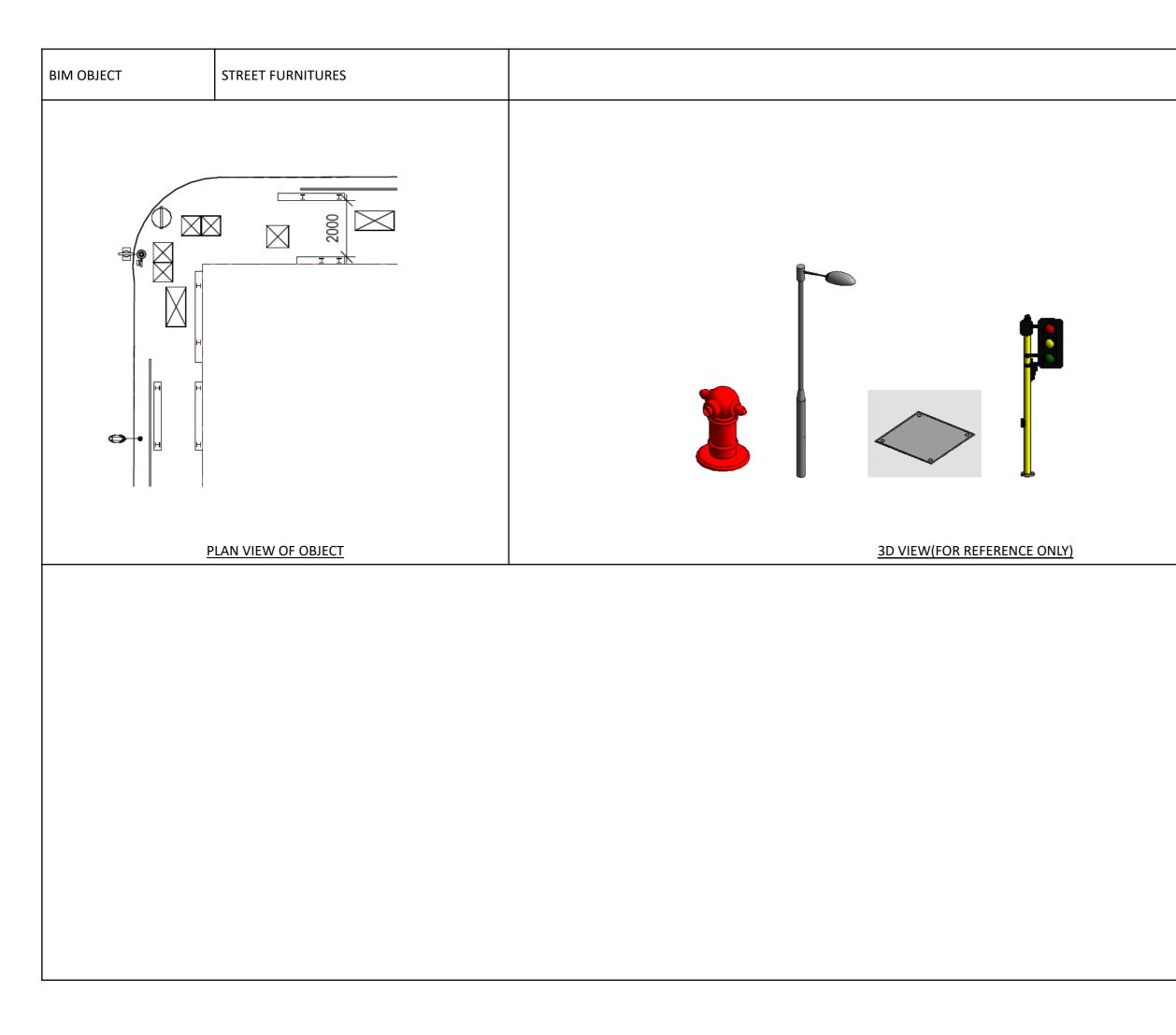


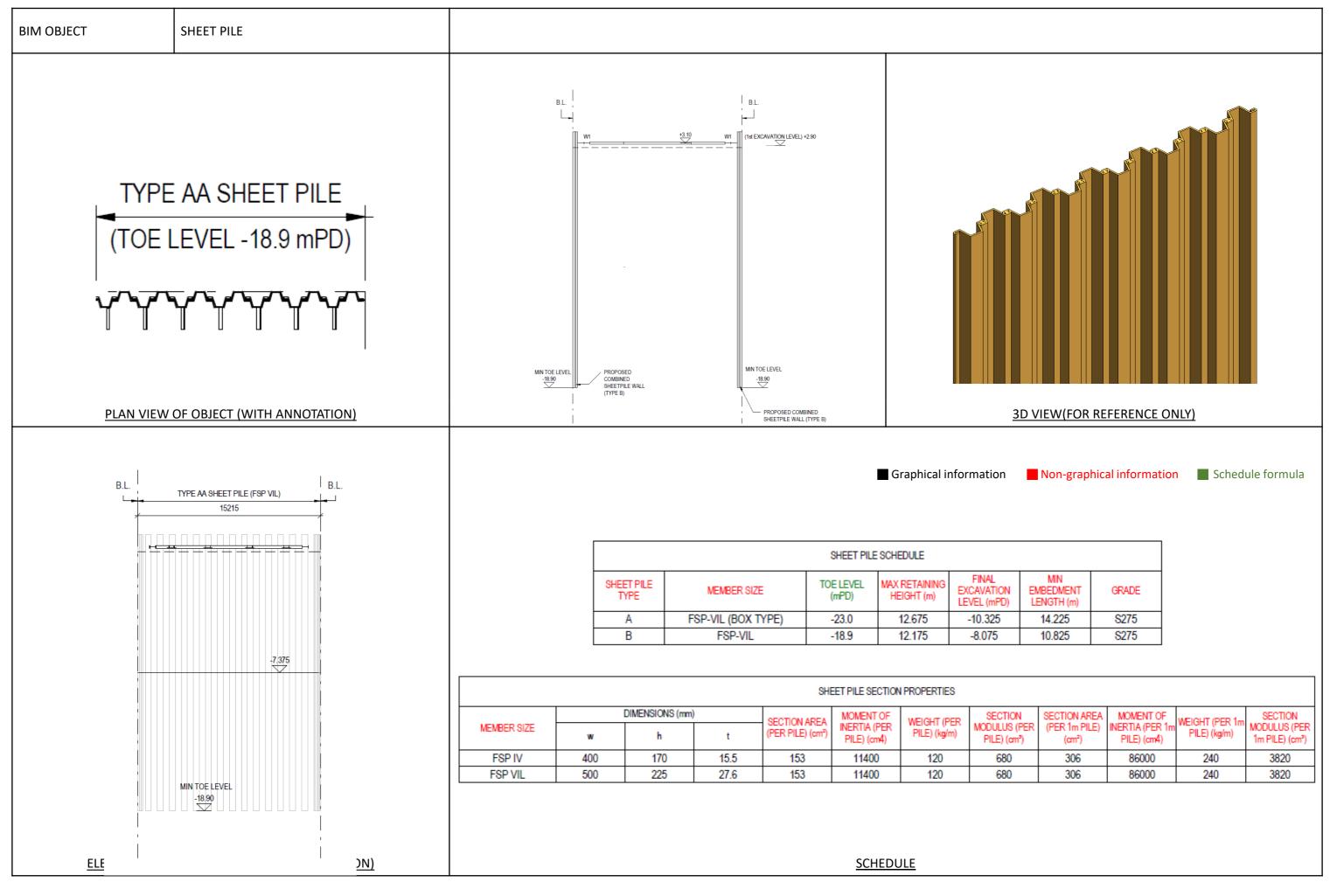


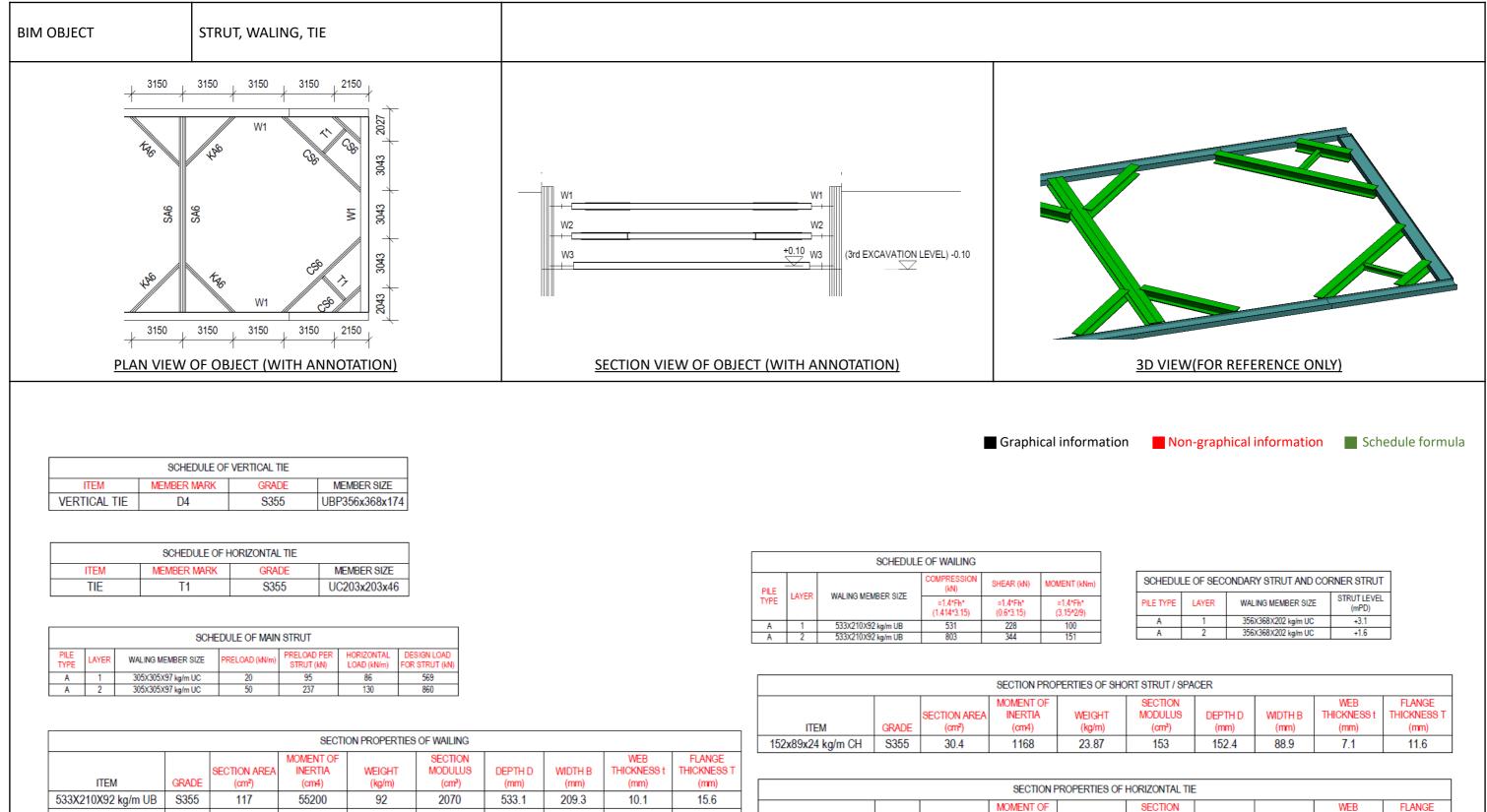












		SCHEDULE	e of Wailing			
PILE			COMPRESSION (kN)	SHEAR (kN)	MOMENT (kNm)	
TYPE	LAYER	WALING MEMBER SIZE	=1.4*Fh* (1.414*3.15)	=1.4*Fh* (0.6*3.15)	=1.4*Fh* (3.15^2/9)	
Α	1	533X210X92 kg/m UB	531	228	100	1
Α	2	533X210X92 kg/m UB	803	344	151	1

			SECTION PRO	PERTIES OF SHO	RTST
ITEM	GRADE	SECTION AREA	MOMENT OF INERTIA (cm4)	WEIGHT (kg/m)	SE( MOI
152x89x24 kg/m CH	S355	30.4	1168	23.87	Í

SECTION PROPERTIES OF HORIZONTAL TIE										
								FLANGE THICKNESS T (mm)		
203X203X46 kg/m UC	S355	58.7	4570	46	450	203.2	203.6	7.2	11.0	

SECTION PROPERTIES OF VERTICAL TIE										
								FLANGE THICKNESS T (mm)		
356X368X174 kg/m UBP	S355	221	51000	173.9	2820	361.4	378.5	20.3	20.4	

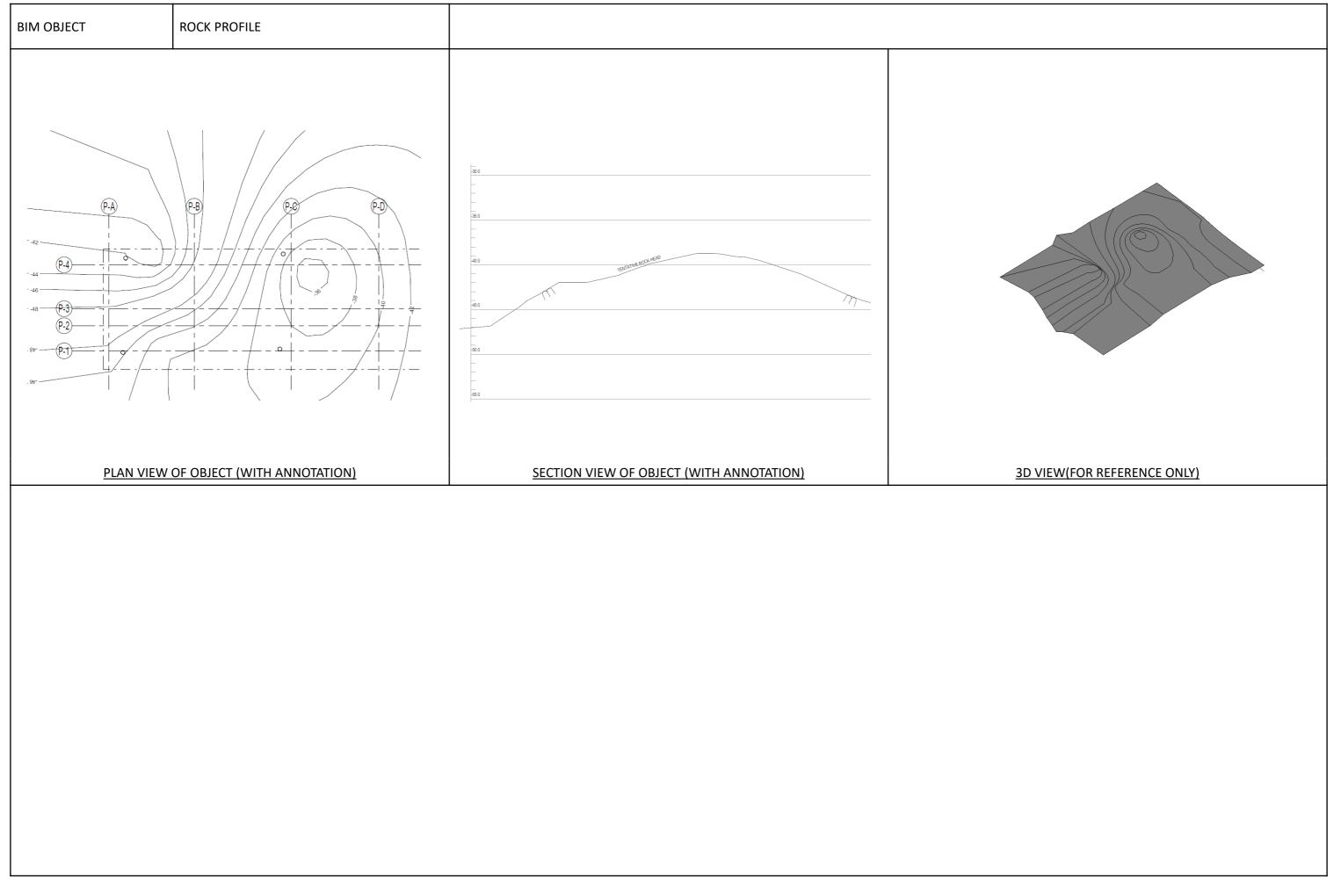
SCHEDULE OF VERTICAL TIE								
ITEM	GRADE	MEMBER SIZE						
VERTICAL TIE	D4	S355	UBP356x368x174					

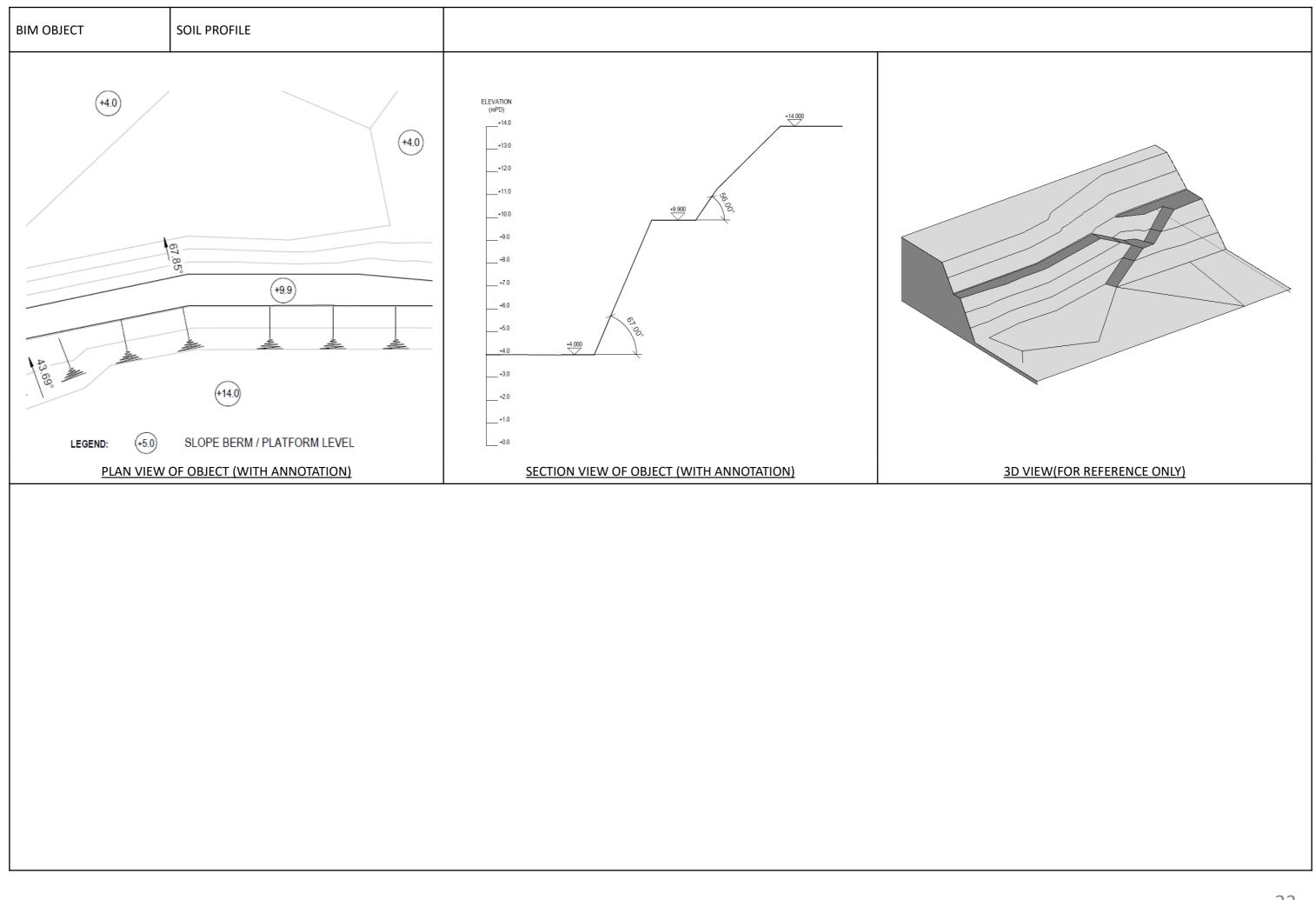
	SCHEDULE OF HORIZONTAL TIE								
Γ	ITEM MEMBER MARK GRADE MEMBER SIZE								
Γ	TIE	T1	S355	UC203x203x46					

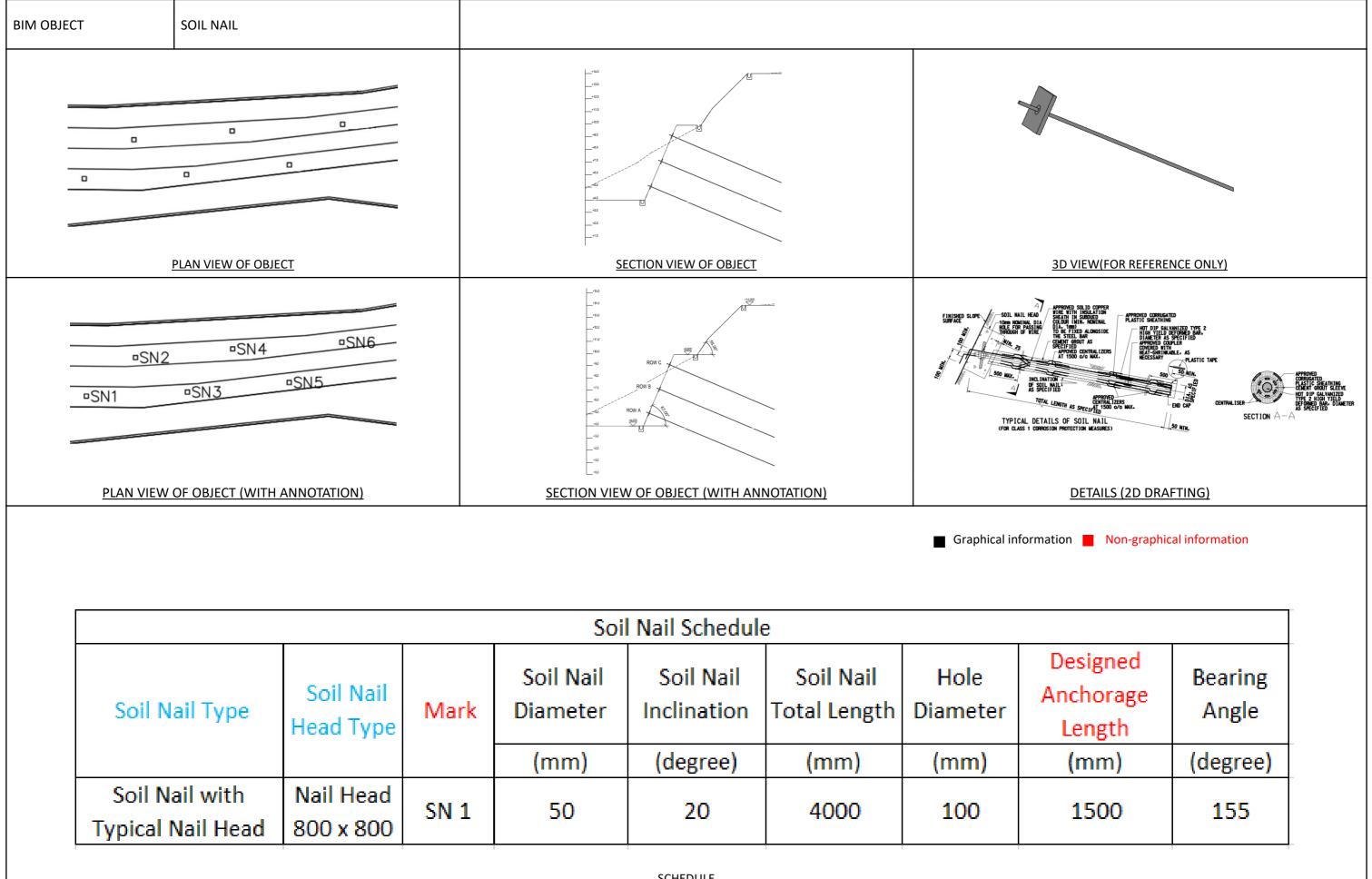
	SCHEDULE OF MAIN STRUT									
	PILE TYPE	LAYER	WALING MEMBER SIZE	PRELOAD (kN/m)	PRELOAD PER STRUT (kN)		DESIGN LOAD FOR STRUT (kN)			
Ī	Α	1	305X305X97 kg/m UC	20	95	86	569			
	Α	2	305X305X97 kg/m UC	50	237	130	860			

SECTION PROPERTIES OF WAILING									
SECTION AREA INERTIA WEIGHT MODULUS DEPTH D WIDTH B THICKNESS t THICKNE							FLANGE THICKNESS T (mm)		
533X210X92 kg/m UB	S355	117	55200	92	2070	533.1	209.3	10.1	15.6
610X305X179 kg/m UB	S355	228	153000	179	4930	620.2	307.1	14.1	23.6

	SECTION PROPERTIES OF STRUTS										
							FLANGE THICKNESS T (mm)				
305X305X97 kg/m UC	S355	123	22200	97	1450	307.9	305.3	9.9	15.4		
356X368X177 kg/m UC	S355	226	57100	177	3100	368.2	372.6	14.4	23.8		

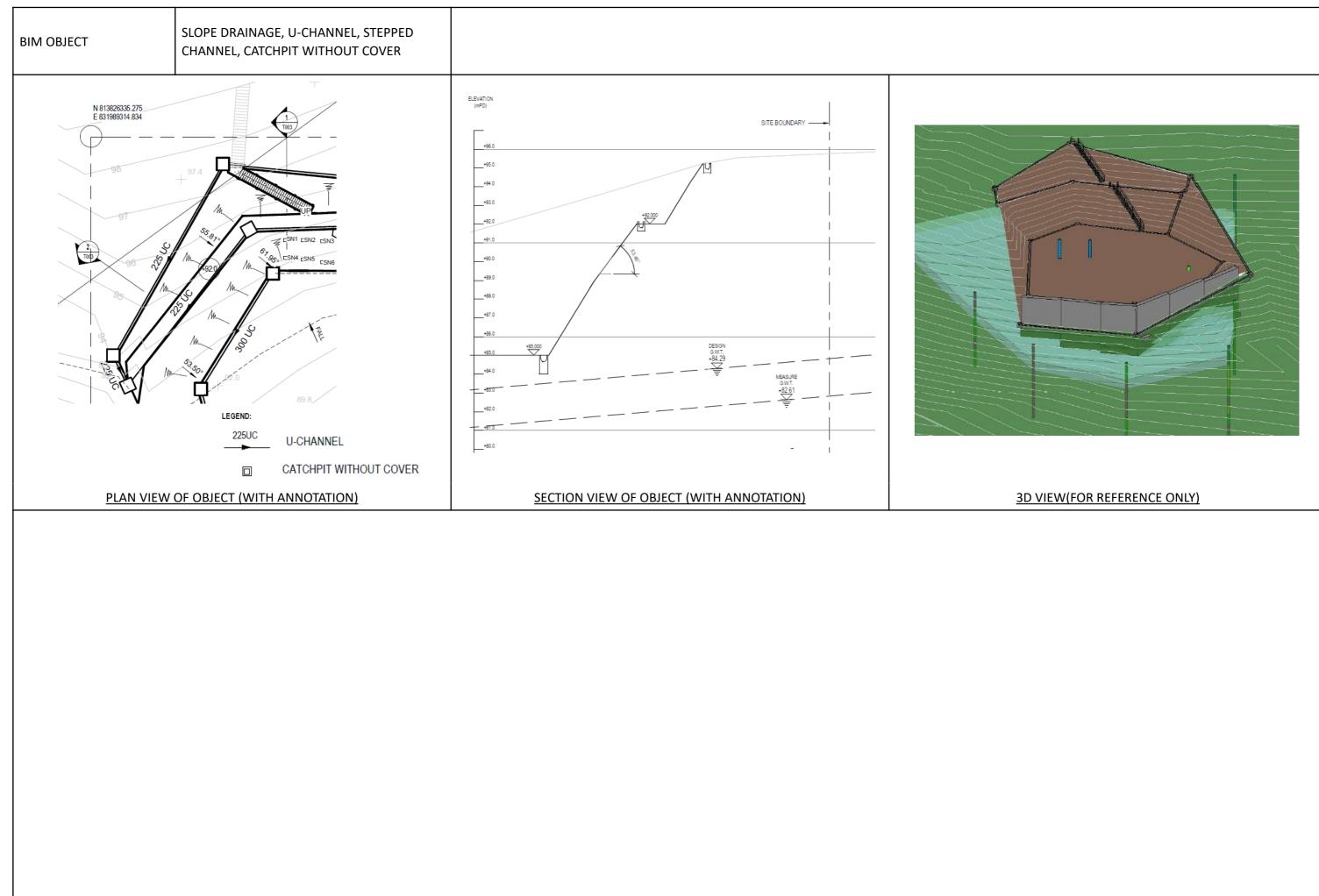




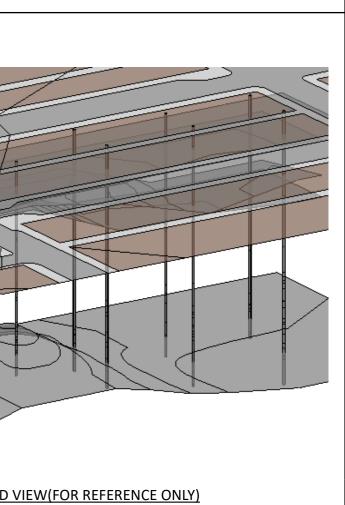


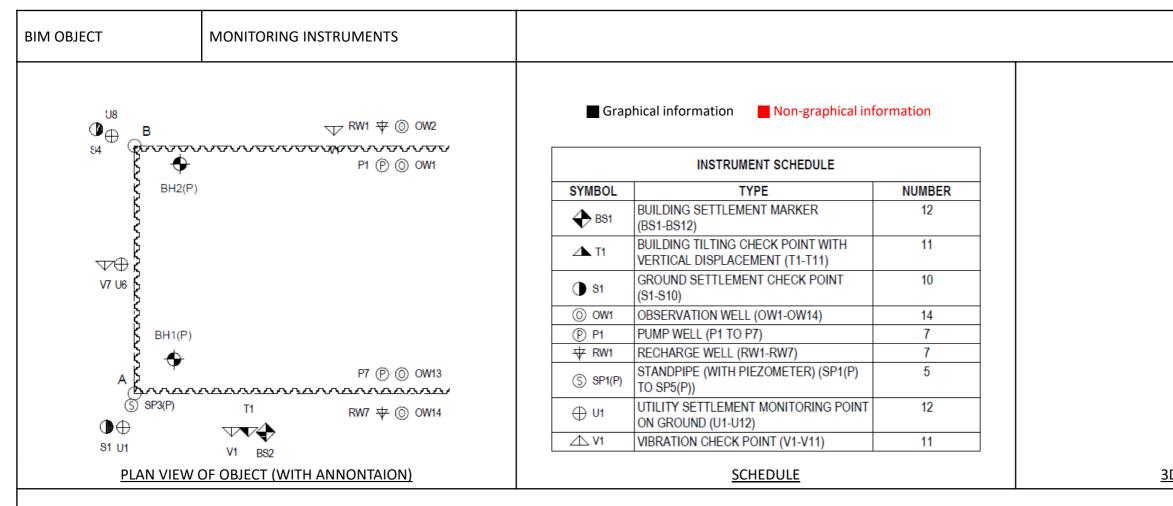
			Soi	l Nail Schedul	e		
Soil Nail Type	Soil Nail Head Type	Mark	Soil Nail Diameter	Soil Nail Inclination	Soil Nail Total Length	Hole Diameter	De An L
			(mm)	(degree)	(mm)	(mm)	1
Soil Nail with Typical Nail Head	Nail Head 800 x 800	SN 1	50	20	4000	100	

SCHEDULE

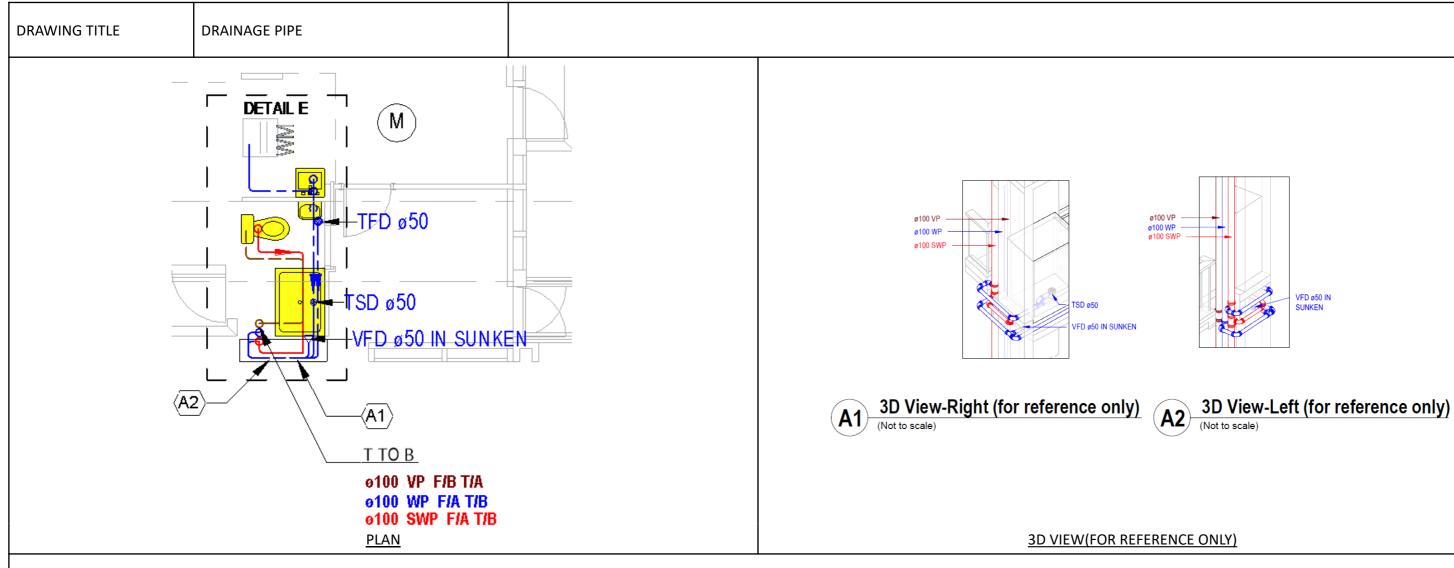


BIM OBJECT	ROCK CORE SAMPLE			
		BH1(P) (OFFSET 0.66 m)	BH3 (OFFSET 1.69 m)	
		N=11 · FILL N=13 ·	N=11 FILL	T
BH1	(P) <del>-</del>	N=9 · N=17 · MD	N=12 N=14 N=16 MD	
	ВНЗ	N=18 N=13 ALLU N=18	N=24 N=13 N=15	
		N=49 ·	N=53 N=41 N=60	
<u>Plan Vie</u>	EW OF OBJECT (WITH ANNONTAION)	SECTION VIEW OF OBJECT	(WITH ANNONTAION)	<u>3D</u>
1				

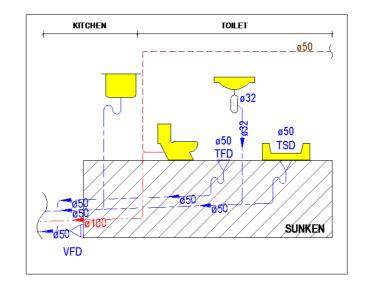






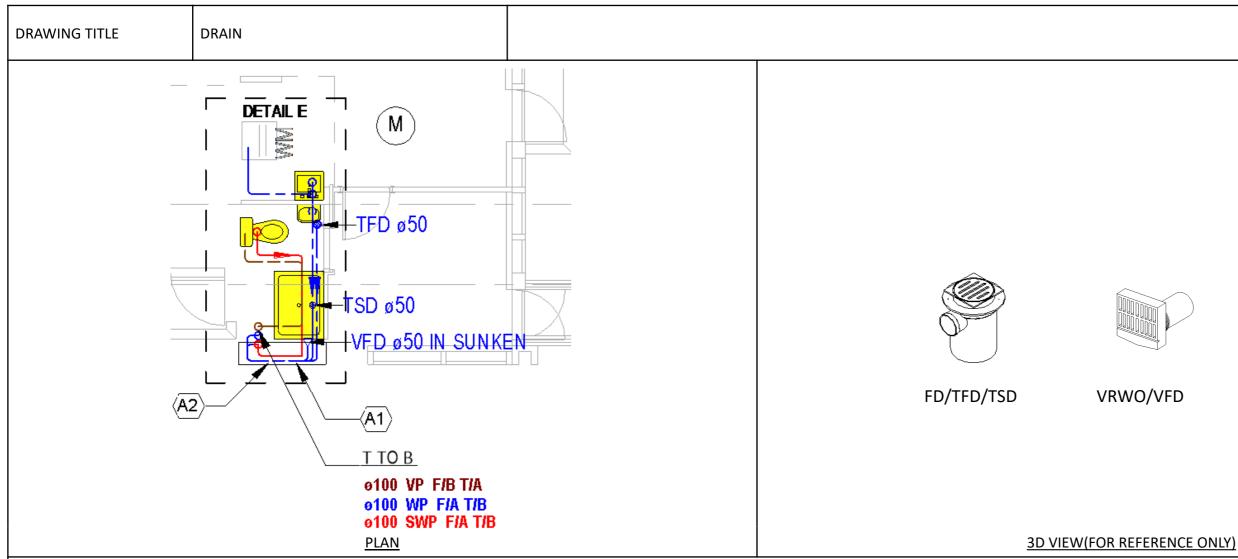


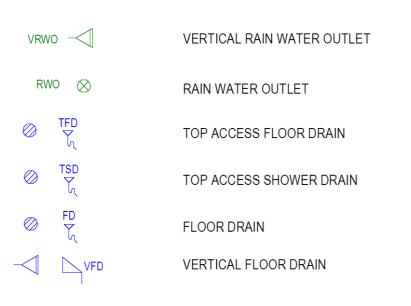
 DIRECTION OF FLOW
 WASTE PIPE
 SOIL & WASTE PIPE / SOIL PIPE
 RAIN WATER PIPE
 VENTILATING PIPE/ ANTI-SYPHONAGE PIPE
 A/C CONDENSATION DRAIN PIPE

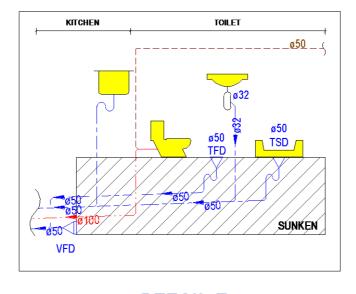


DETAIL E 1:100

SCHEMATIC DIAGRAM

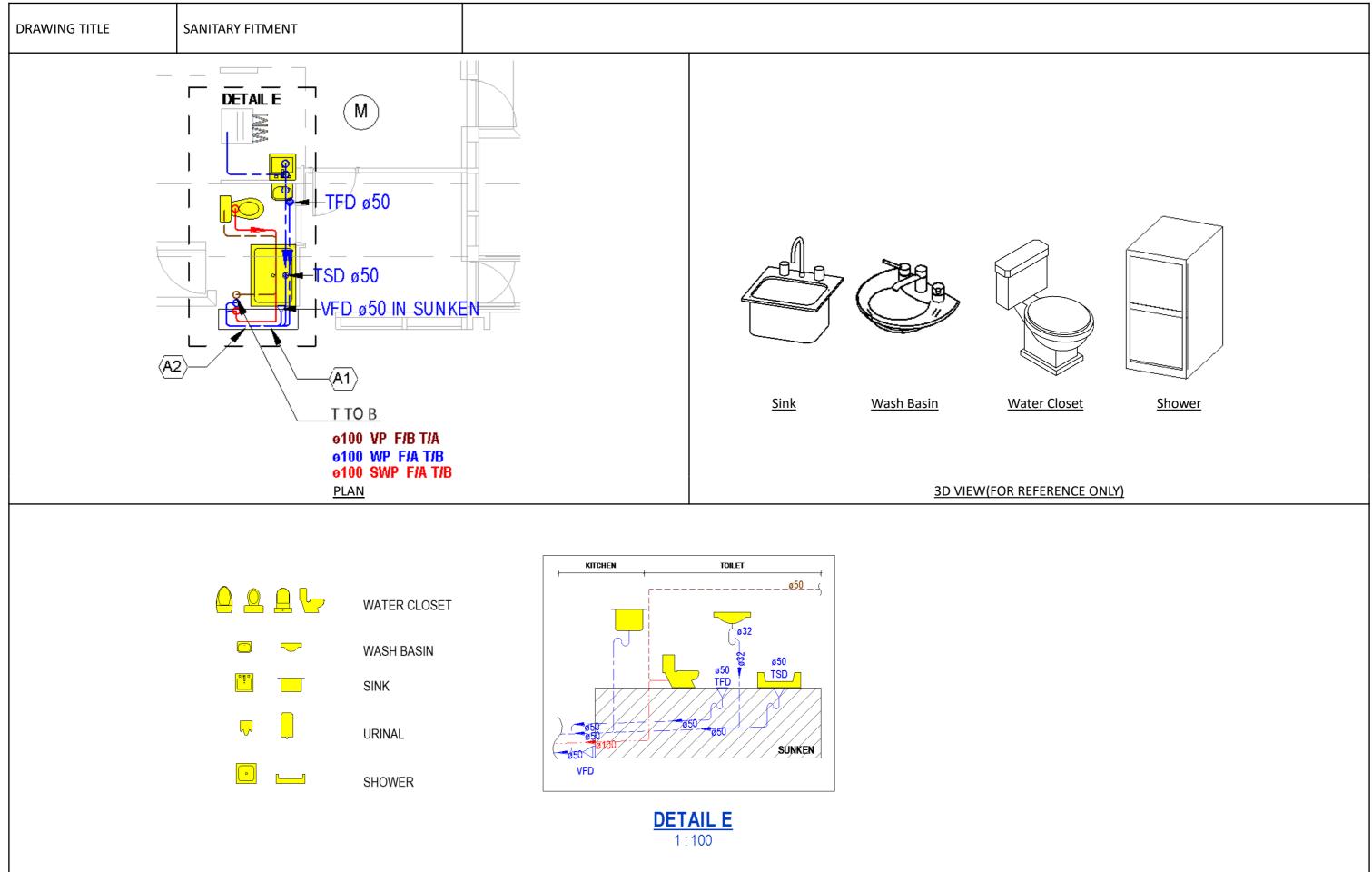


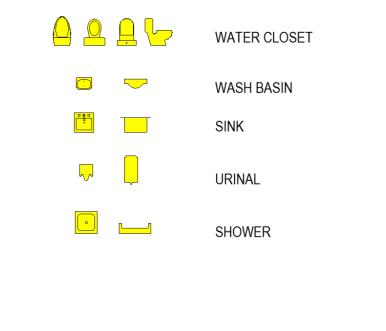


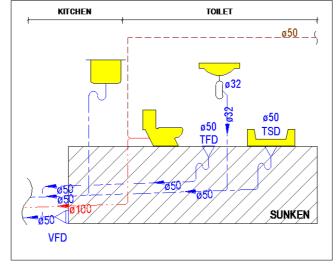


DETAIL E 1:100

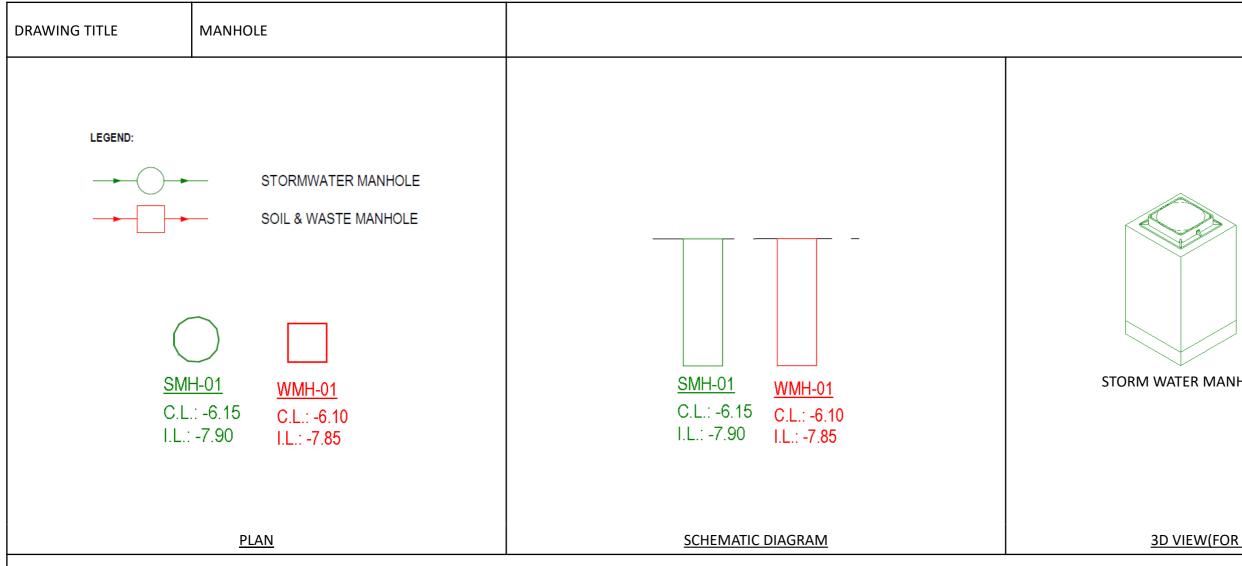
SCHEMATIC DIAGRAM







SCHEMATIC DIAGRAM

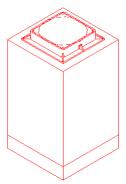


	STORM WATER MANHOLE SCHEDULE									
MANHOLE NO. DRAIN DIAMETER (mm) C.L. I.L. DEPTH (mm) TYPE										
SMH-01	150	-6.15	-7.9	1750	D1					
Grand total: 1				-						

Grand total: 1

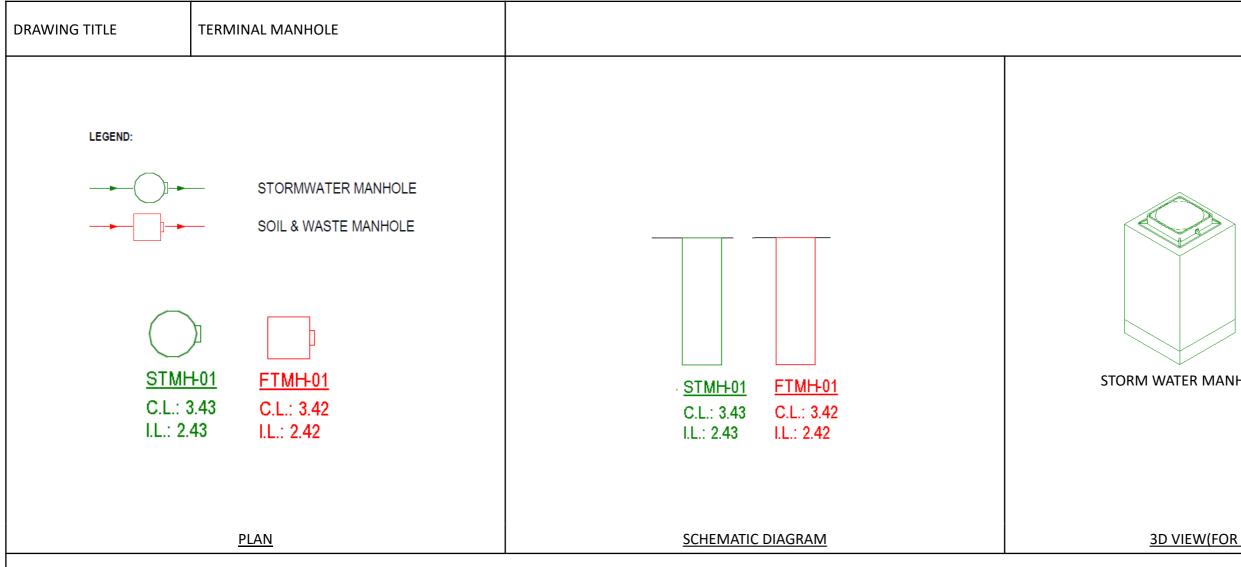
FOUL WATER MANHOLE SCHEDULE								
MANHOLE NO.	DRAIN DIAMETER (mm)	C.L.	I.L.	DEPTH (mm)	TYPE			
WMH-01	150	-6.1	-7.85	1750	D1			
Grand total: 1								

Grand total: 1



STORM WATER MANHOLE SOIL & WASTEMANHOLE

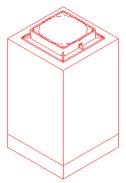




FOUL WATER TERMINAL MANHOLE SCHEDULE						
MANHOLE NO.	DRAIN DIAMETER (mm)	C.L.	I.L.	D.T.I.L.	DEPTH (mm)	TYPE
FTMH-01 225 +3.42 +2.42 +2.27 1150 T1_1						
Grand total: 1						

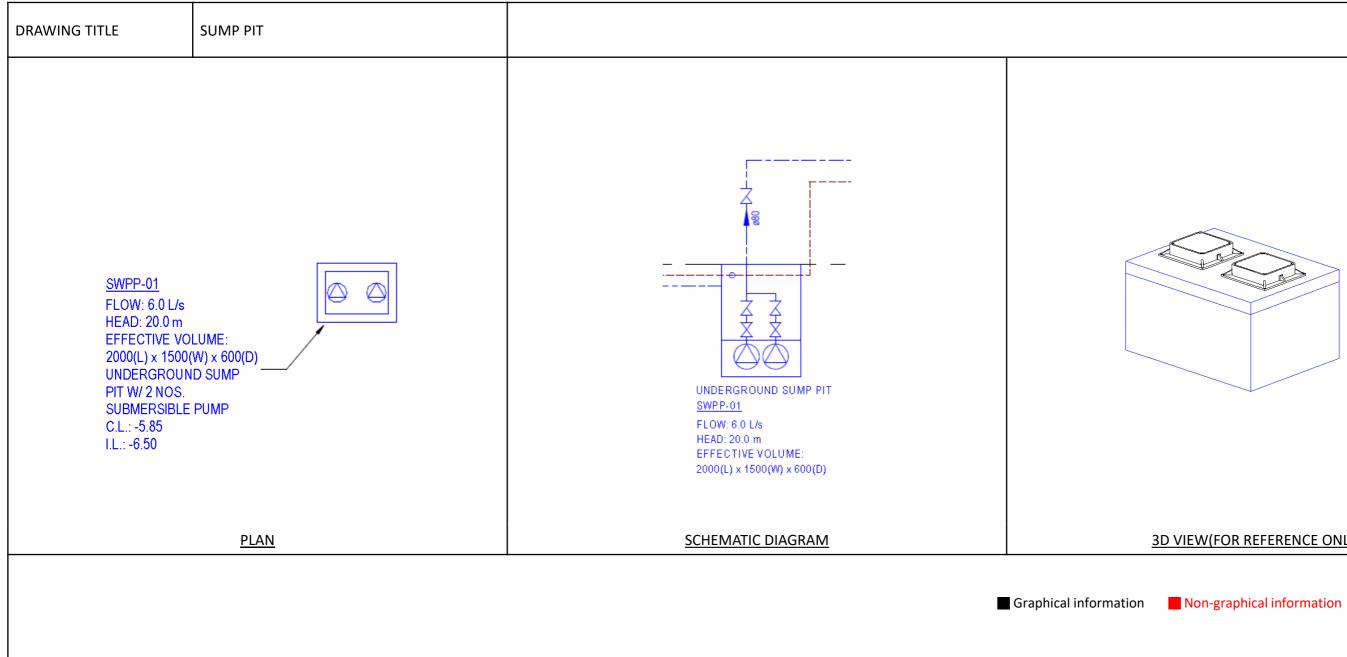
Grand total:

STORM WATER TERMINAL MANHOLE SCHEDULE						
MANHOLE NO.	DRAIN DIAMETER (mm)	C.L.	I.L.	D.T.I.L.	DEPTH (mm)	TYPE
STMH-01 225 +3.43 +2.43 +2.28 1150 T1_1						
Grand total: 1						

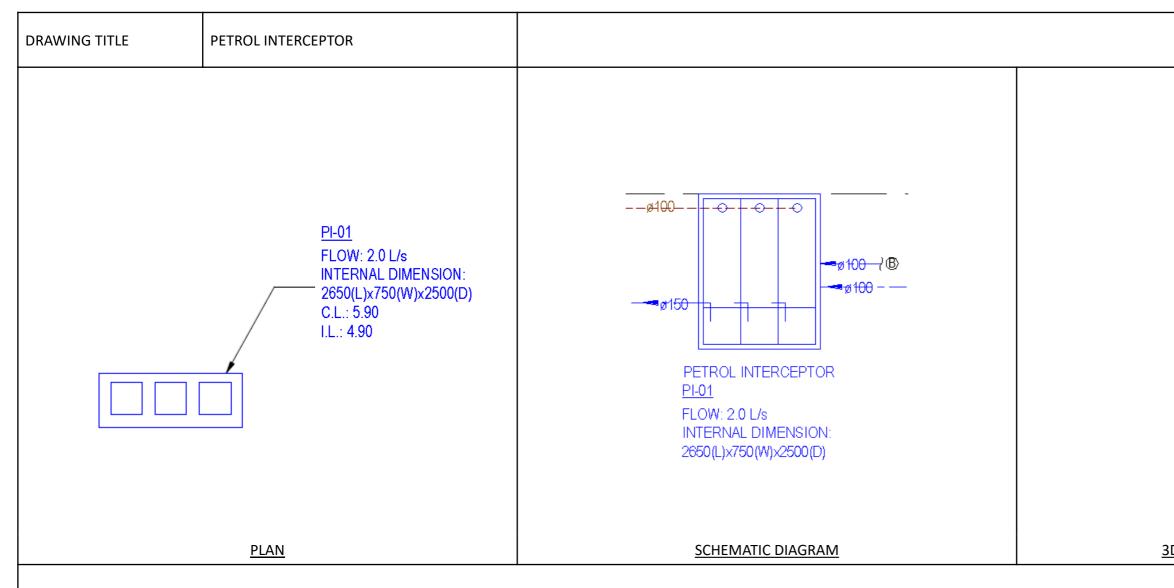


STORM WATER MANHOLE SOIL & WASTEMANHOLE

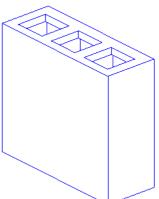




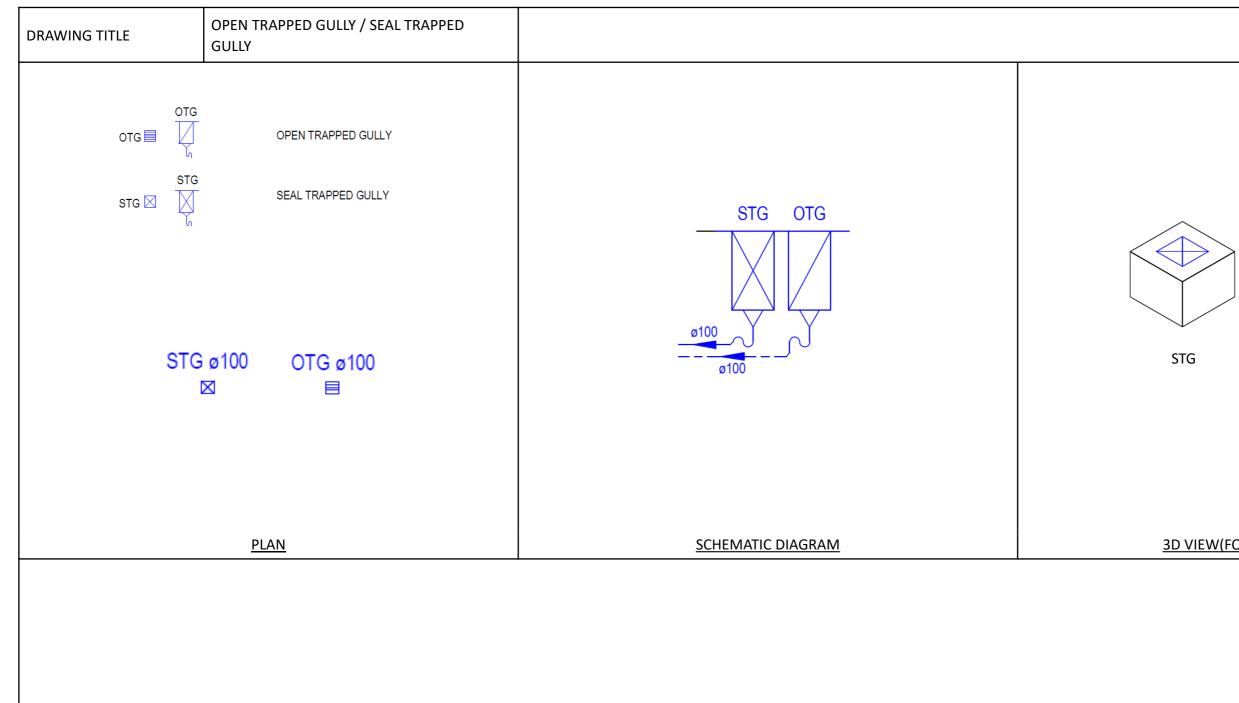
SUMP PIT SCHEDULE							
						PUMP DU	TY (EACH)
SUMP PIT NO.	SUMP PIT SIZE (LxWxD)	C.L.	I.L.	B.L.	PUMP NO.	FLOW (I/s)	HEAD (m)
SWPP-01	2000(L) x 1500(W) x 600(D)	-5.85	-6.5	-7.5	SSP01-01,02	6.0	20
Grand total: 1							

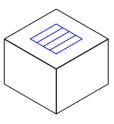


PETROL INTERCEPTOR SCHEDULE					
PETROL INTERCEPTOR NO.	C.L.	I.L.	B.L.	DEPTH (mm)	
PI-01	+5.9	+4.9	+3.4	2500	
Grand total: 1					

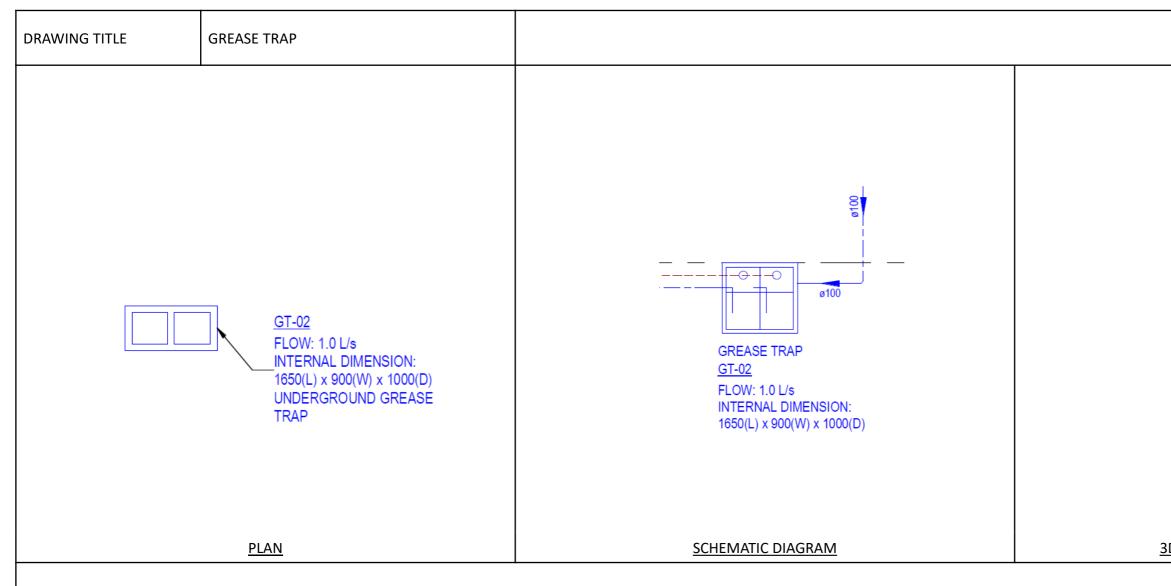


Graphical information Non-graphical information



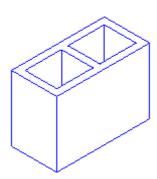


OTG



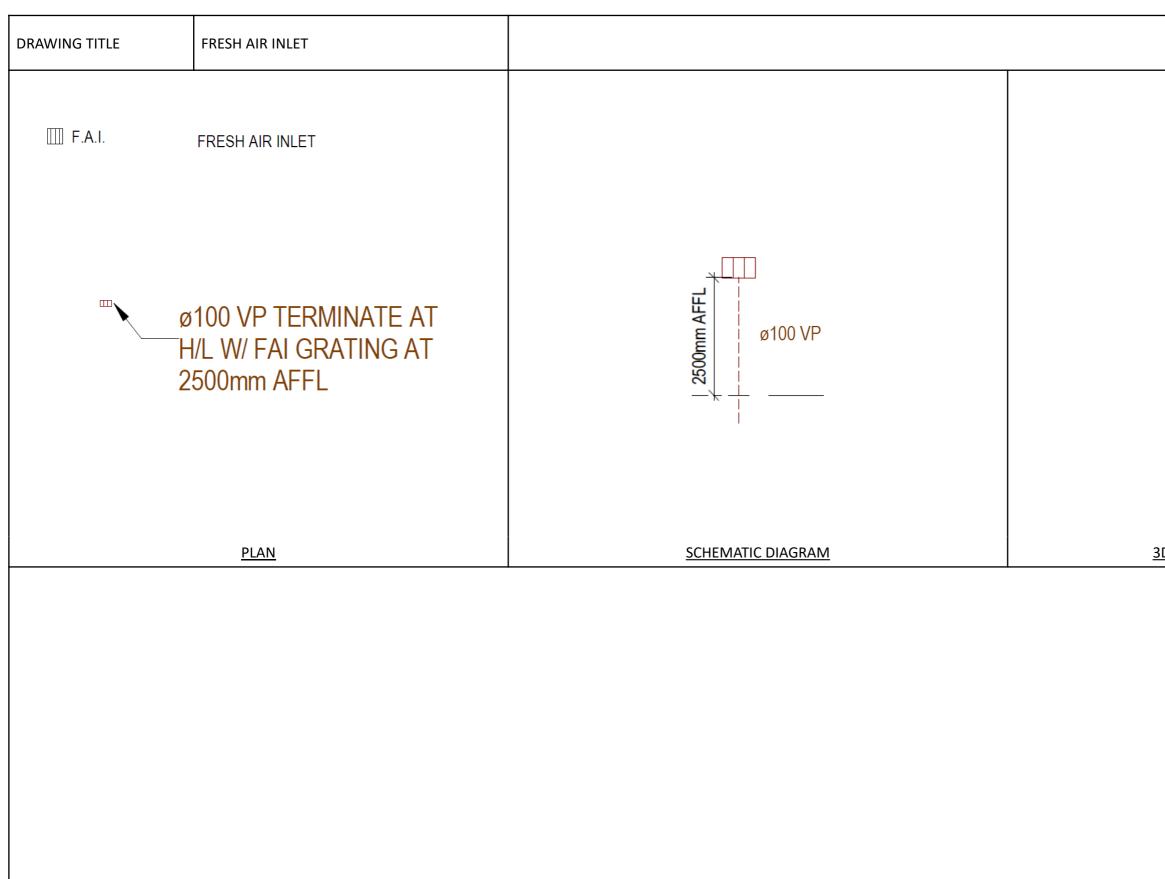
Graphical information

GREASE TRAP SCHEDULE					
GREASE TRAP NO.	C.L.	B.L.	DEPTH (mm)		
GT-02	-5.9	-6.9	1000		
Grand total: 1					

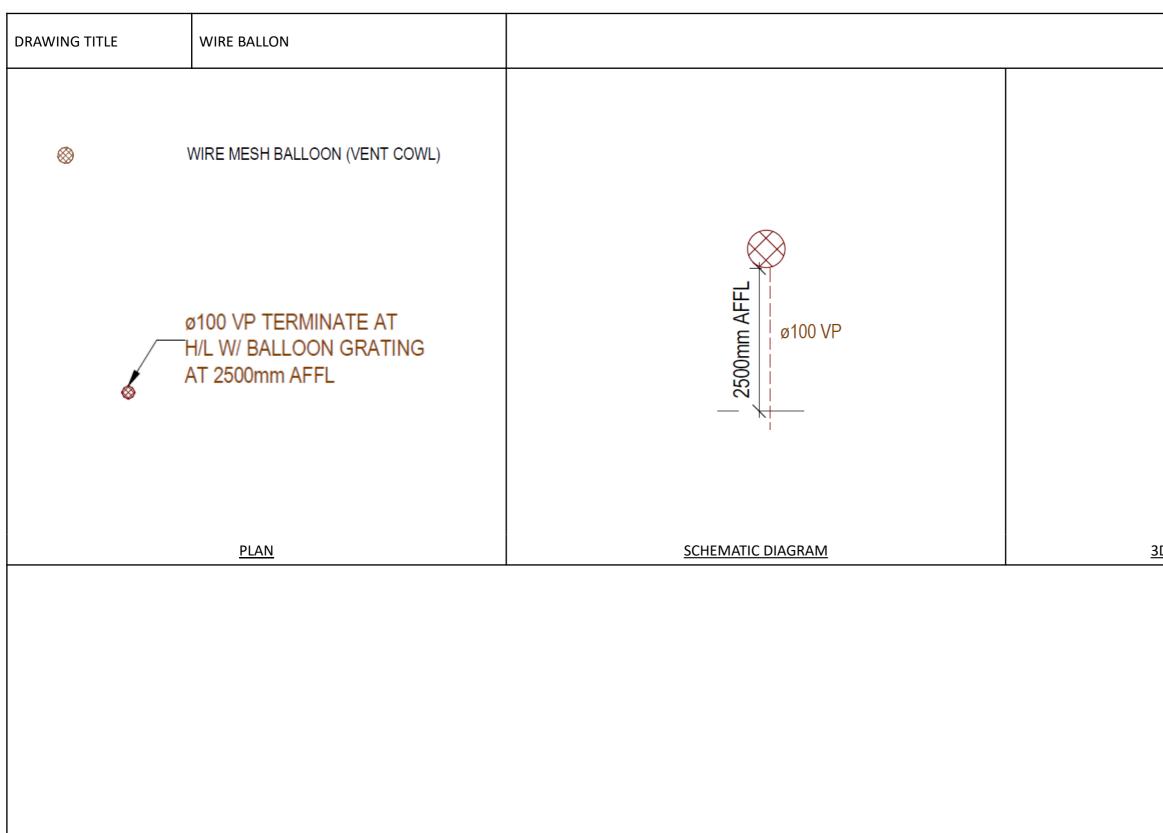


# 3D VIEW (FOR REFERENCE ONLY)

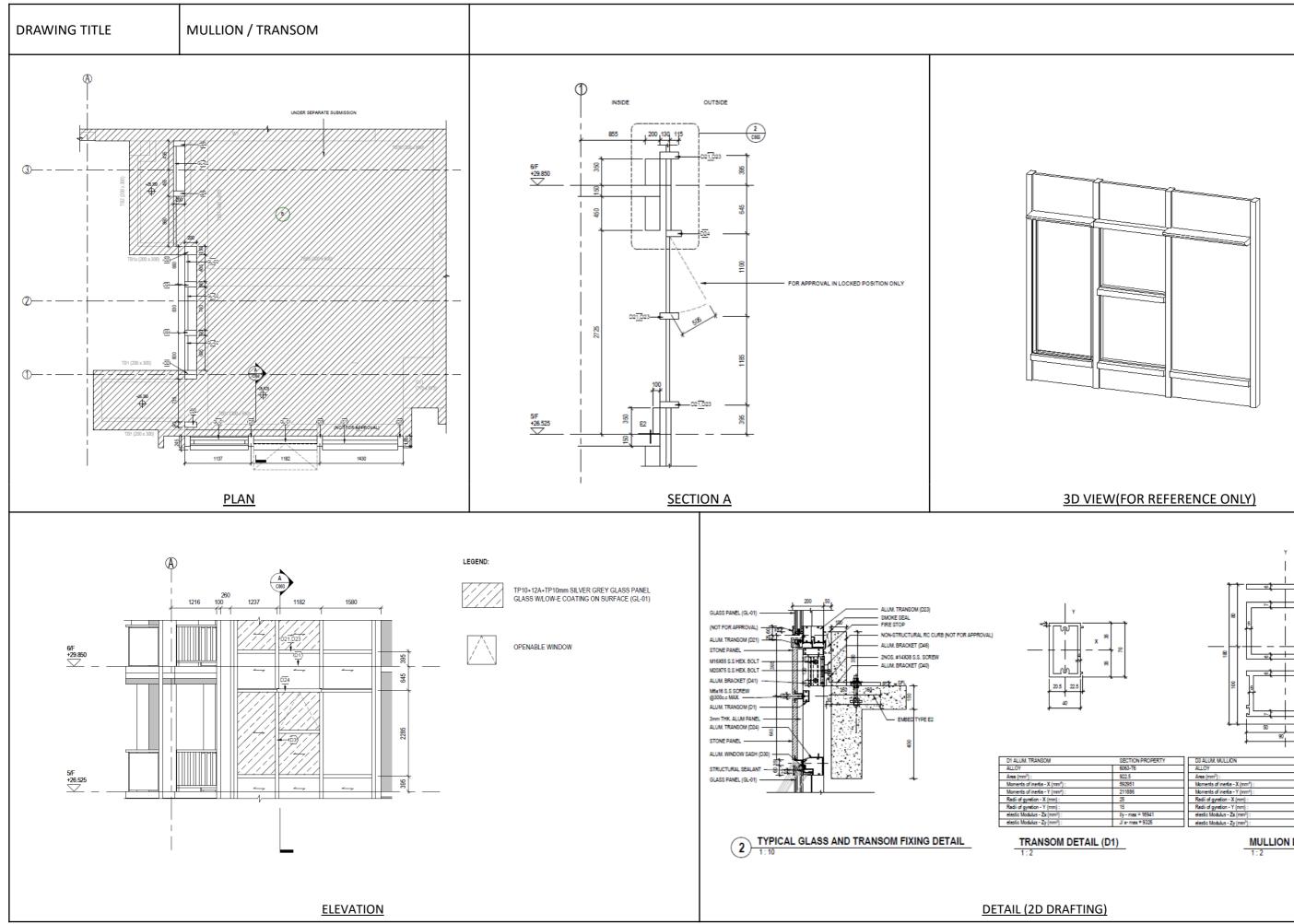
Non-graphical information



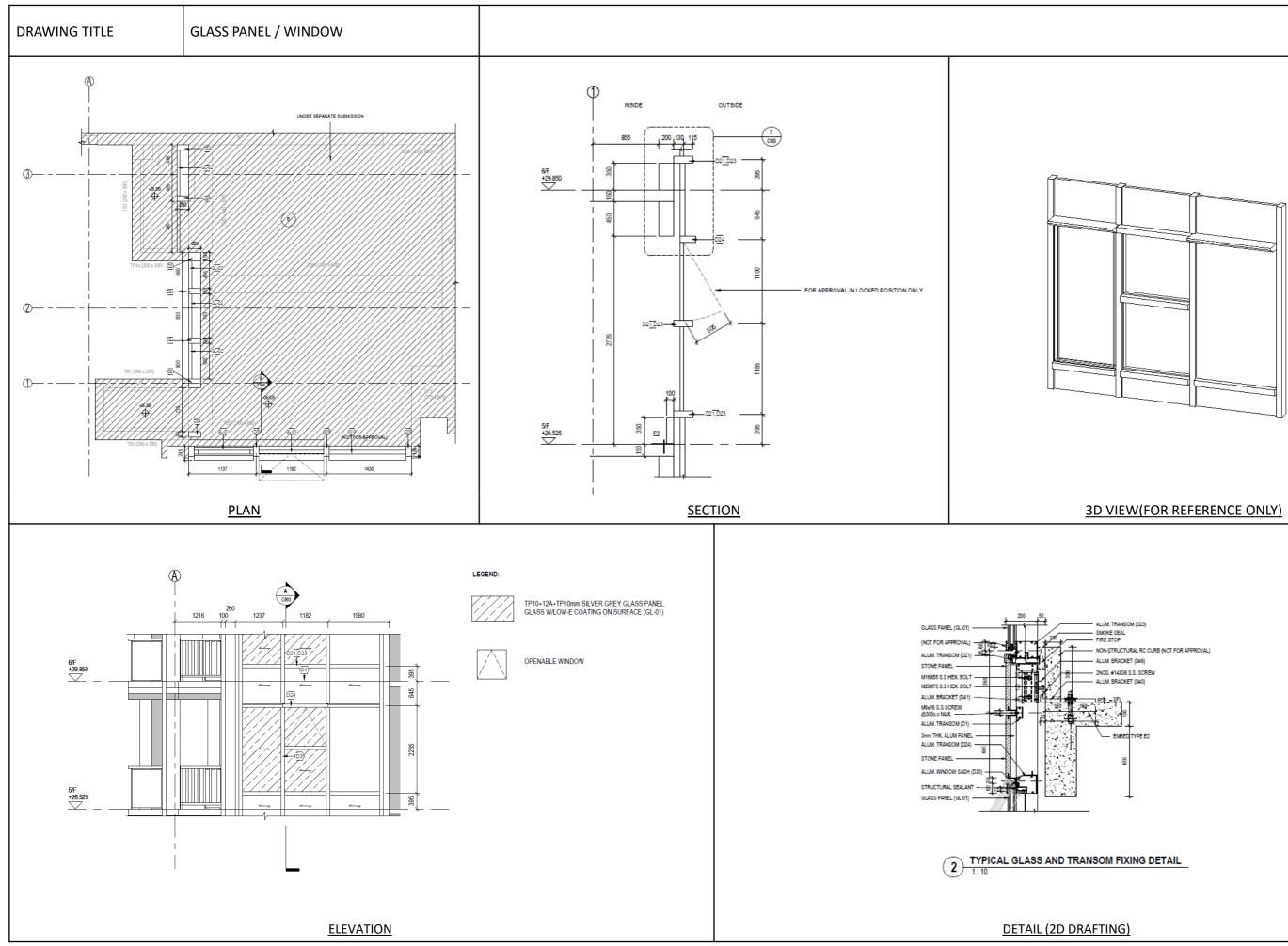


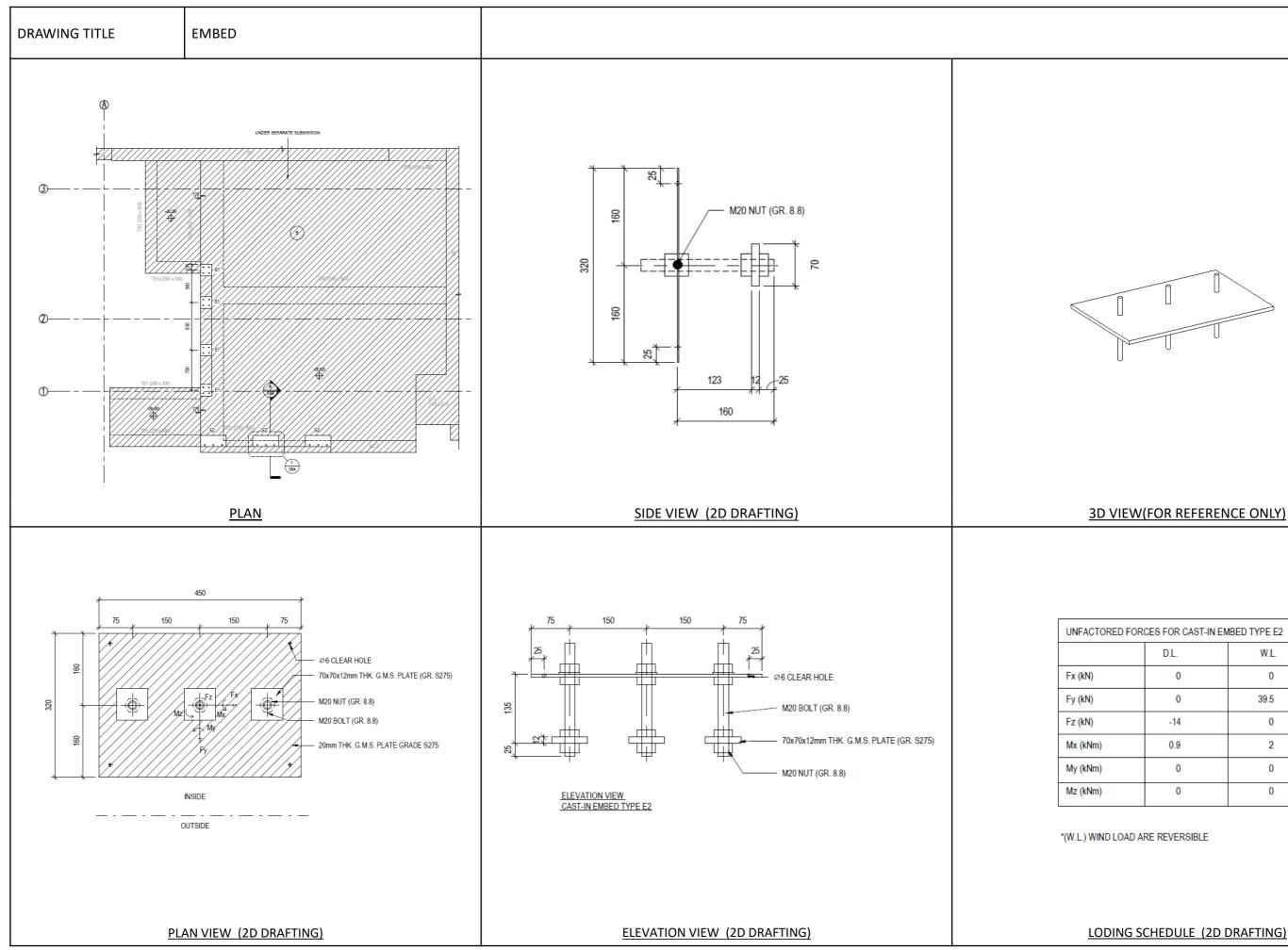






SECTION PROPERTY	D3 ALUM, MULLION	SECTION PROPERTY
6063-T6	ALLOY	6063-T6
922.5	Area (mm <sup>2</sup> ) :	2311.8
592951	Moments of inertia - X (mm <sup>4</sup> ):	4509546
211886	Moments of inertia - Y (mm <sup>4</sup> ):	629163
25	Radii of gyration - X (mm) :	44
15	Radii of gyration - Y (mm) :	16
l/y - max = 16941	elestic Modulus - Zx (mm <sup>3</sup> ) :	l/y - mex = 63137
J/ x- max = 9326	elastic Modulus - Zy (mm <sup>3</sup> ) :	J/ x- max = 25172
(D1)	MULLIC 1:2	ON DETAIL (D3)
N N		





ORED FORCES FOR CAST-IN EMBED TYPE E2					
	D.L.	W.L.			
	0	0			
	0	39.5			
	-14	0			
1)	0.9	2			
1)	0	0			
1)	0	0			