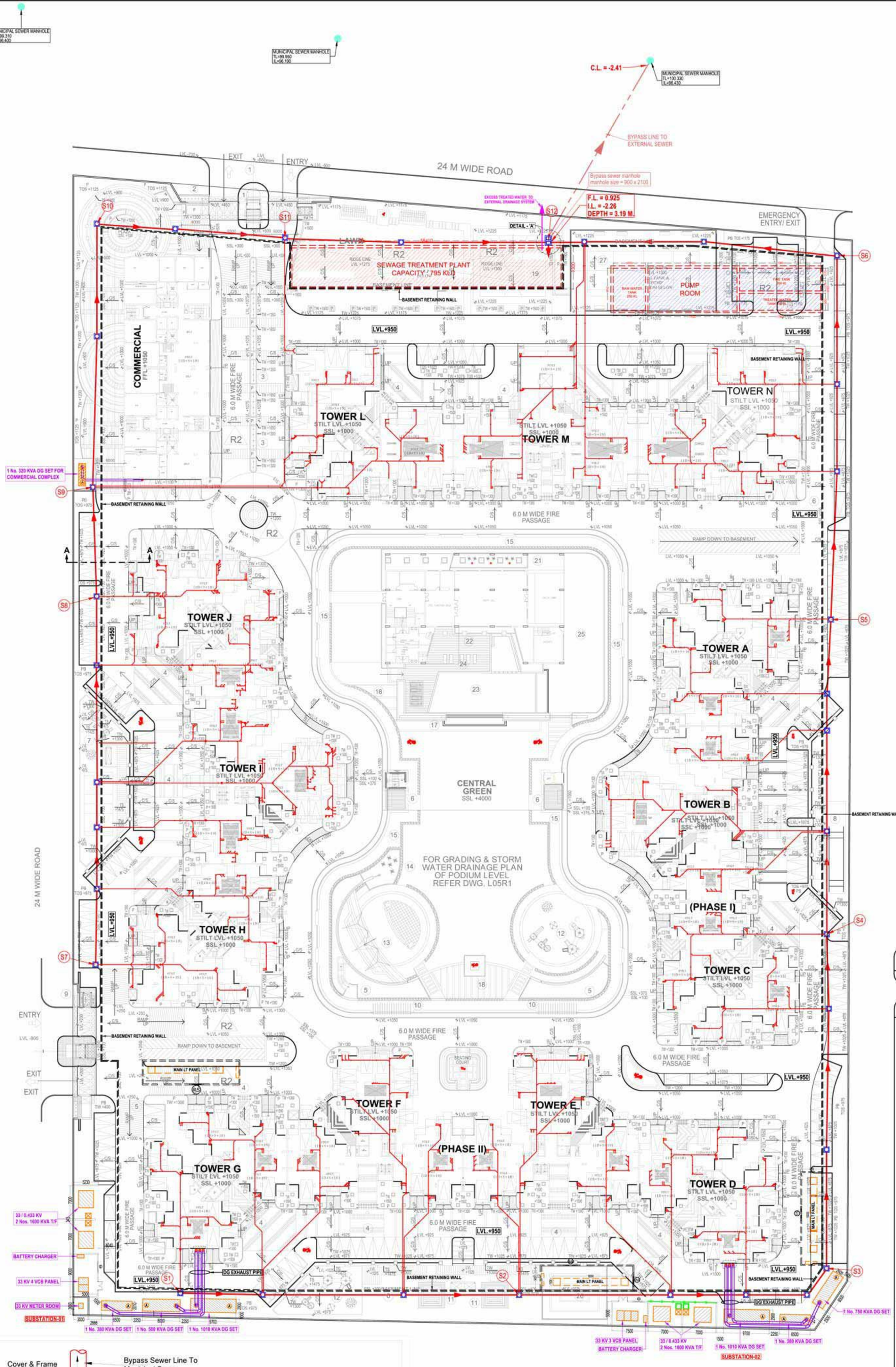

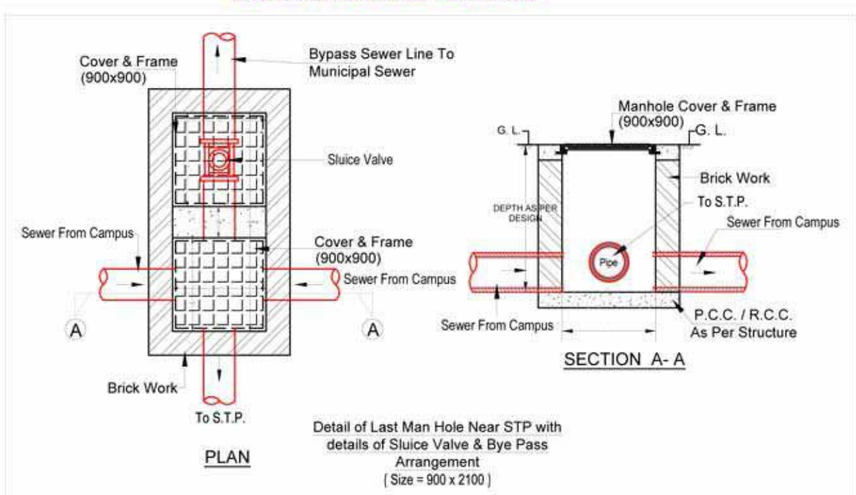

Rev. No.	Date	Revision
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NOTES : SEWERAGE SYSTEM

1. THE SIZE OF MANHOLE SHALL BE AS UNDER (INNER SIZES)
   a) UPTO 900 M.M. DEPTH — 600 X 600 M.M.
   b) 900 TO 1650 M.M. DEPTH — 900 M.M. DIA.
   c) 1650 TO 2250 M.M. DEPTH — 1200 M.M. DIA.
   d) ABOVE 2250 M.M. DEPTH — 1500 M.M. DIA.
2. THE LEVELS OF SEWER LINES HAS BEEN WORKED OUT ON THE BASIS OF CERTAIN GROUND LEVEL AND FOR CERTAIN PIPE LENGTHS BETWEEN TWO MANHOLES. THE INVERT LEVELS HAS TO BE STRICTLY FOLLOWED. HOWEVER, THE SLOPE OF LINE MAY BE SLIGHTLY CHANGED.
3. FOR ANY DESCRIPENCY / OMMISSION THE MATTER SHOULD REFER TO THE CONSULTANTS BEFORE EXECUTION.
4. MANHOLE SHALL BE PROVIDED AT FOLLOWING PLACES :-
   a) AT THE START OF EACH SEWER LINE.
   b) AT EVERY JUNCTION AND POSITION WHERE THERE IS CHANGE OF SIZE, GRADIENT AND ALIGNMENT.
   c) AT NOT MORE THAN 45 METER INTERVAL IN STRAIGHT LENGTH.
5. WHERE THE DIAMETER OF PIPE IS INCREASED THE CROWN OF THE PIPE SHALL BE FIXED AT THE SAME LEVEL AND NECESSARY SLOPE SHALL BE GIVEN IN THE INVERT OF THE MANHOLE CHAMBER.
6. THE STRUCTURAL DESIGN OF MANHOLES / PIPE BEDDING HAS TO BE DONE FOR LOCAL FIELD CONDITIONS SUCH AS FILLED UP SOIL / BLACK COTTON SOIL / HIGH SUB SOIL CONDITIONS.
7. THIS DRAWING SHALL BE READ ALONG WITH THE GROUND FLOOR PLAN OF RESPECTIVE BUILDING FOR EXACT LOCATION OF APPURTENANCES / MAN HOLES ETC.
8. SEWER LINE UNDER THE ROAD SHALL BE ENCASED WITH 150 TH, PCC 1:2:4 ALLROUND.
9. MANHOLE COVER SHOULD BE FINISHED WITH FINISHED FORMATION LEVEL AS PER LANDSCAPE DRAWING.
10. THIS DRAWING SHALL BE COORDINATED WITH OTHER DRAWING I.E. ARCHITECTURE, STRUCTURAL, ELECTRICAL, LANDSCAPE & OTHER RELEVANT DRAWING.
11. MATERIAL OF PIPE :- RCC (NP 3) PIPE
12. **IN THE AREAS SUBJECT TO SUBSIDENCE OR FILLED UP SOIL (DUE TO EXCES EXCAVATION AT SITE FOR CONSTRUCTION OF BASEMENTS) THE SEWER LINES & MANHOLE SHOULD BE LAID ON SUITABLE SUPPORT OR CONCRETE CRADLE SUPPORTED ON PILES OR SUITABLE FOUNDATION AS PER STRUCTURAL DESIGN.**
13. **IN CASE WHERE SEWERS ARE LAID IN HIGH SUBSOIL CONDITIONS MANHOLES SHOULD BE CONSTRUCTED IN R.C.C. GARDE M-25.**
14. THE WIDTH OF TRENCH FOR SEWER AND DRAINAGE SHOULD BE D+ 400MM. (D= O.D. OF PIPE).
15. SHORING / TIMBERING SHOULD BE ADEQUATE TO PREVENT CAVING-IN OF THE TRENCH WALLS OF SUBSIDENCE OF AREAS ADJACENT TO THE TRENCH. AN ENGINEER-IN-CHARGE IN CONSULTATION WITH A STRUCTURAL ENGINEER SHOULD PROVIDE ADEQUATE ARRANGEMENT TO PREVENT CAVING-IN.

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	M.H.	MANHOLE
2.		SEWER LINE
3.	====	BASEMENT RETAINING WALL
4.	F.L.	FORMATION LEVEL
5.	I.L.	INVERT LEVEL
6.	C.L.	CONNECTION LEVEL

DETAILS OF SEWER LINES

Manhole No. From	Manhole No. To	Length (m)	Dia. (mm)	Slope 1 in	MH Top Level (Upper End) (m)	Invert Level (Upper End) (m)	Depth (m)	MH Top Level (Lower End) (m)	Invert Level (Lower End) (m)	Depth (m)
S1	S2	72	250	250	0.925	-1.00	1.93	0.925	-1.29	2.21
S2	S3	68	250	300	0.925	-1.29	2.21	0.925	-1.51	2.44
S3	S4	72	250	350	0.925	-1.51	2.44	0.925	-1.72	2.65
S4	S5	68	250	350	0.925	-1.72	2.65	0.925	-1.91	2.84
S5	S6	78	250	400	0.925	-1.91	2.84	0.925	-2.11	3.03
S6	S12	62	250	400	0.925	-2.11	3.03	0.925	-2.26	3.19
57	S8	80	250	250	0.925	-1.20	2.13	0.925	-1.52	2.45
S8	S9	25	250	300	0.925	-1.52	2.45	0.925	-1.60	2.53
S9	S10	56	250	300	0.925	-1.60	2.53	0.925	-1.79	2.72
S10	S11	40	250	300	0.925	-1.79	2.72	0.925	-1.92	2.85
S11	S12	56	250	300	0.925	-1.92	2.85	0.925	-2.11	3.04
S12	STP	45	300	300	0.925	-2.26	3.19	0.925	-2.41	3.34

project
PROPOSED ARIHANT ARDEN AT
PLOT NO.-GH-O7,SECTOR- 01,GREATER NOIDA.

title
LAYOUT PLAN

subtitle
EXTERNAL SEWERAGE SYSTEM

drawing released for
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- ■ CONSTRUCTION

drg. no. ARDEN / ES / P - 02
scale 1 : 450
date December 2014
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