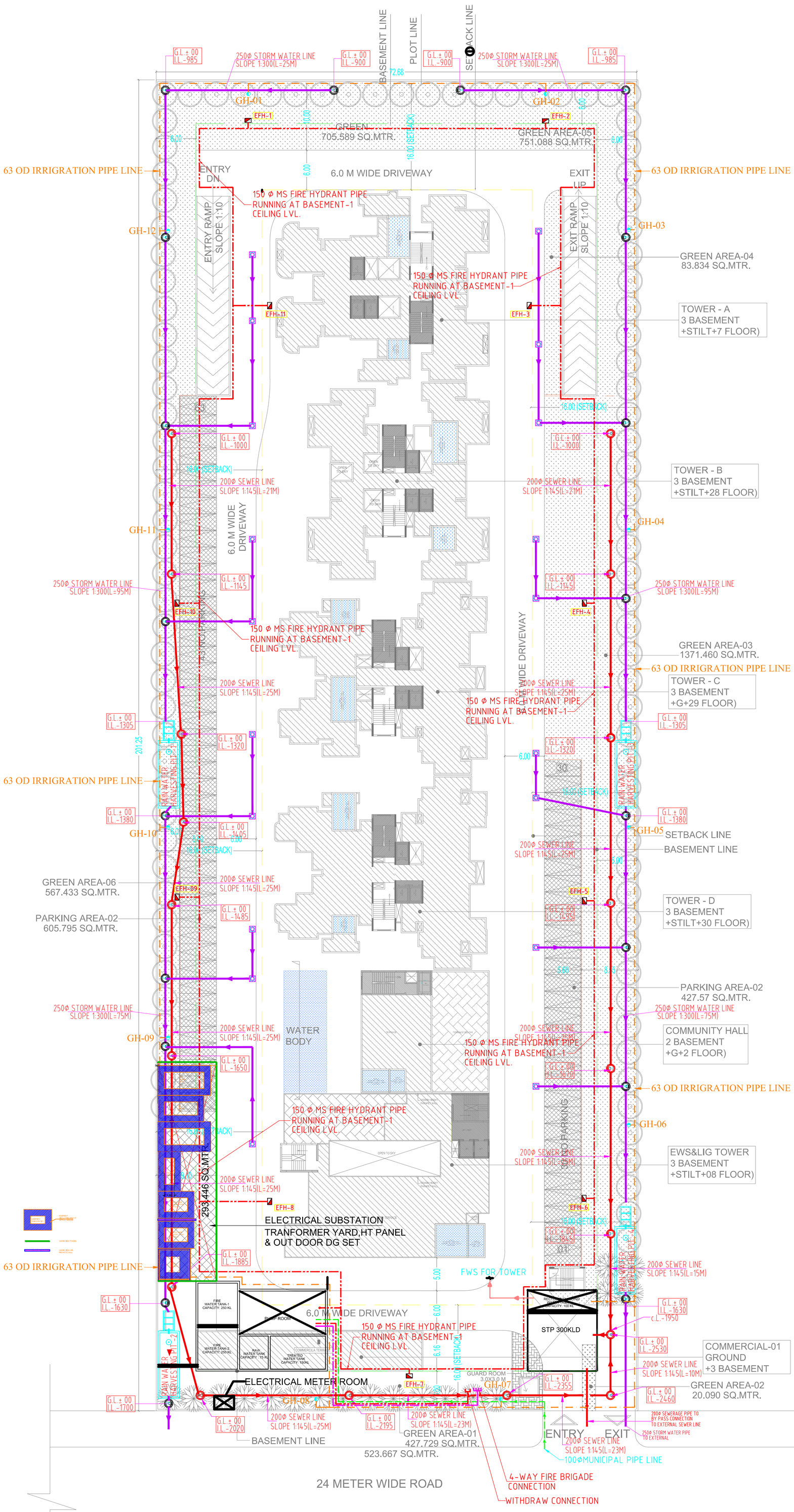


## RAINWATER HARVESTING CALCULATIONS

PLOT AREA (A) = 14670 SQM

Average runoff coefficient (C ) = 0.7

Design rainfall intensity = 90 m/hr
(5 year storm interval over 25 year period)

Storm intensity for 15 minutes
Retention (I) = 90x15/60= 22.5 mm

Expected runoff Q = CxIxA
= 0.7x(22.5/1000)x14670
= 231 cubic meters

Proposed no. of Rainwater
Harvesting pits = 4 (Four)

Water retention capacity of
Each RWH pit = 231/4= 57.7 cum, SAY 58 cum

### Design details of Typical RWH Pit of 58 cum capacity

Assumed water depth in RWH pit = 3 m
Required plan area = 58/3= 19.33 sqm
Assumed clear width of RWH pit = 2.7 m
Length of RWH pit = 19.33/2.7= 7.16 m

Hence, size of Typical RWH pit of 58 cum water retention capacity = 7.16x2.7x3 m
Each RWH pit shall be provided with a sedimentation trap and 160 mm dia recharge pipe upto a depth of 25 m (terminated approx.. 5 m above the local water table).

| | |
|---|---|
| M.H | MAN HOLE SIZE=900Ømm DEPTH=910 T0 1670mm |
| M.H | MAN HOLE SIZE=1220Ømm DEPTH=1680 T0 2290mm |
| M.H | MAN HOLE SIZE=1520Ømm DEPTH=2300 T0 4500mm |

LEGEND:- STORM WATER

| | |
|---|---|
| | 400Ø STORM WATER PIPE LINE |
| | 200Ø STORM WATER PIPE LINE |
| | 150Ø STORM WATER PIPE LINE |

| | |
|---|---|
| G.L. | GROUND LEVEL |
| I.L. | INVERT LEVEL |
| C.L. | CONNECTION LEVEL |
| D.C. | DE-SILTING / OIL GREASE CHAMBER |
| RWHP | RAIN WATER HARVESTING PIT DETAIL |
| CB | CATCH BASIN (450x450mm) |
| 250Ø | R.C.C.PIPE |

LEGEND:- SEWER

| PIPE | DIA OF MANHOLE |
|---|---|
| | 300Ø SEWER PIPE LINE |
| | 250Ø SEWER PIPE LINE |
| | 200 Ø SEWER PIPE LINE |

| | |
|---|---|
| G.L. | GROUND LEVEL |
| I.L. | INVERT LEVEL |
| C.L. | CONNECTION LEVEL |

**WATER SUPPLY LEGEND**

| S.NO. | DESCRIPTION | LEGEND |
|---|---|---|
| 1. | GARDEN IRRIGATION LINE | |
| 2. | EXTERNAL FIRE HYDRANT LINE | |
| 5. | MUNICIPAL WATER SUPPLY LINE | |
| 8. | GARDEN HYDRANT | GH |
| 9. | EXTERNAL FIRE HYDRANT | EFH |

# SITE PLAN
# EXTERNAL SEWERAGE AND STORM WATER DRAINAGE PLAN

DRAWING NO. : PL-SP05-601


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