

This structural drawing illustrates the reinforcement details for a shaft wall, divided into three main sections: Top, Middle, and Bottom. The drawing includes various reinforcement bars, stirrups, and concrete walls, all detailed with specific material and dimension information.

Reinforcement Details

- Mark No. 011:** Main Reinforcing Bars Y16mmØ Bar, SC#95 (A = 2800; L = 3000) @ 200mm c/c
- Mark No. 010:** Secondary Reinforcing Bars Y16mmØ Bar, SC#35 (A = 3800; L = 4000) @ 200mm c/c
- Mark No. 012:** Adion Reinforcing Bars Y16mmØ Bar, SC#49 (A = B = 1800; D + E = 50; L = 2200) @ 200mm c/c
- Mark No. 007:** 3 x Hoisting Hooks Y32mmØ Bar, SC#53 (A = 300; B = D = 200; C = 150; L = 1050) Hot-dip Galvanised
- 10xMark No. 009:** Main Reinforcing Bars in Shaft Walls SC#85 (A= 950, B = 1450 C = 135; L = 3850) Y16mmØ Bars @ 250mm c/c
- 80xMark No. 006:** Main Reinforcing Bars in Shaft Walls SC#39 (A= 4170, B = 100; L = 4500) Y16mmØ Bars @ 250mm c/c
- 10xMark No. 009:** Main Reinforcing Bars in Shaft Walls SC#85 (A= 950, B = 1450 C = 135; L = 3850) Y16mmØ Bars @ 250mm c/c
- 80xMark No. 005:** Main Reinforcing Bars in Shaft Walls SC#41 (A= 4000, B = 300, D = 45; L = 5800) Y16mmØ Bars @ 250mm c/c
- 10xMark No. 008:** Main Reinforcing Bars in Shaft Walls SC#85 (A= 950, B = 950, C = 135; L = 2900) Y16mmØ Bars @ 250mm c/c
- 80xMark No. 004:** Main Reinforcing Bars in Shaft Walls SC#41 (A= 3500, B = 300, D = 45; L = 4800) Y16mmØ Bars @ 250mm c/c

Dimensions and Levels

Section	Height (m)	Width (m)	Level
Top Section	200	1170	FFL'2' As shown on Drawing No. NIRE261-01 SFL = 1 369.50m
Middle Section	4200	1170	FFL'2' As shown on Drawing No. NIRE261-01 SFL = 1 369.50m
Bottom Section	2100	1170	FFL'1' As shown on Drawing No. NIRE261-01 SFL = 1 365.25m

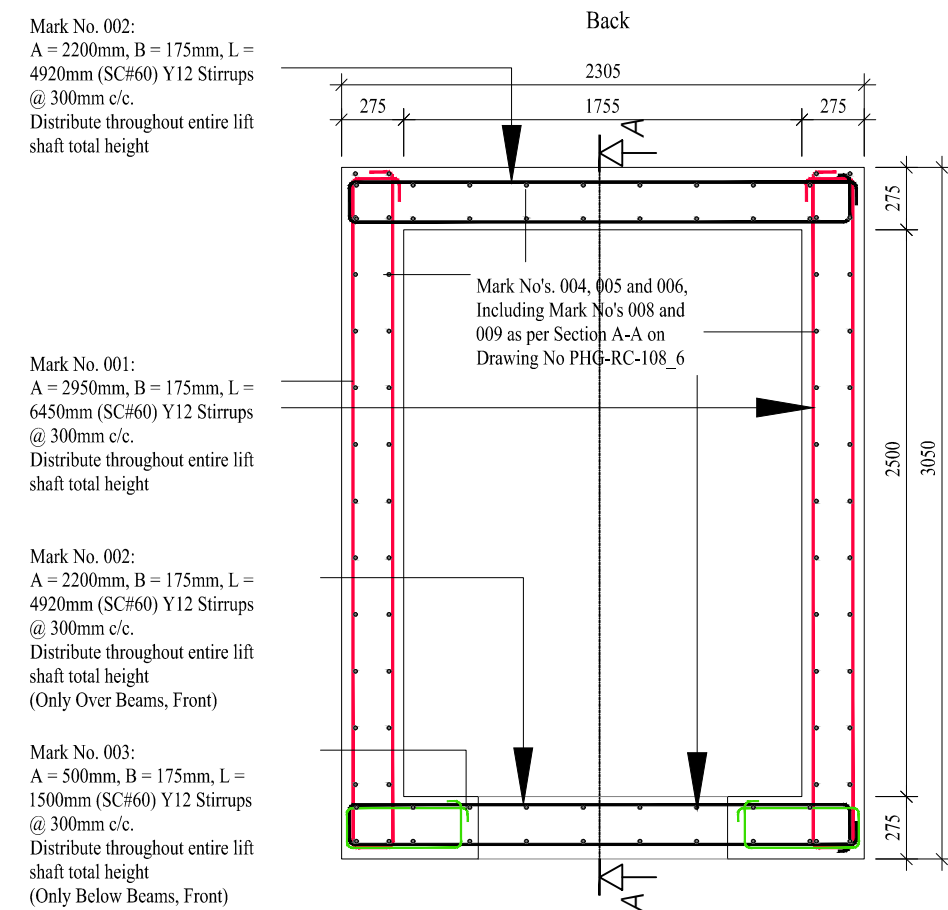
Notes

- 5mm x 600mm Deep RC Beam with 3xY16 reinforcing (Top and Bottom) #35 Including 11No.Y10 Stirrups (SC # 60) @200c/c
- 275mm x 600mm Deep RC Beam with 3xY16 Reinforcing (Top and Bottom, SC #35) Including 11No.Y10 Stirrups (SC # 60) @200c/c
- 275mm Reinforced Concrete Wall
- Round Opening 2100mm x 1170mm
- FFL'2' As shown on Drawing No. NIRE261-01 SFL = 1 369.50m
- FFL'1' As shown on Drawing No. NIRE261-01 SFL = 1 365.25m

Front View of Lift Shaft
(Showing Rough Openings as defined on Drawing No. NIRE261-01)
Scale = 1:25

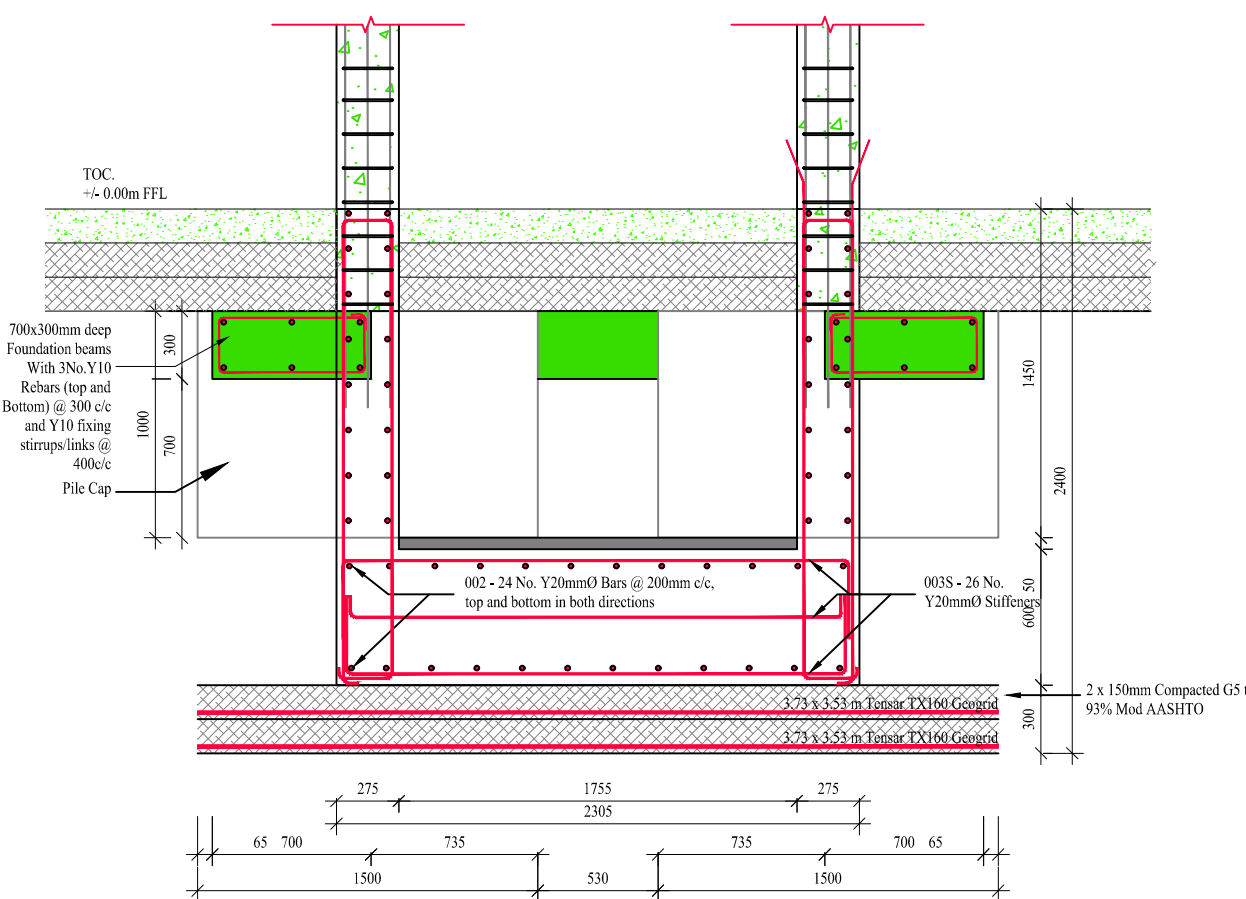
Elevations of Lift Shaft Showing Reinforcing
Layouts
(Back View)
Scale = 1:25

Elevations of Lift Shaft Showing Reinforcing
Layouts
(Back View)
Scale = 1:25



Lift Shaft Plan View Showing Reinforcing
Layouts
Scale = 1:25

Member	Reinforcement			Standard headings							Fixing details - SANS 82 & reference	
	Max Dia	No. Off	Total Length	Code	A	B	C*	D	Rev			
Elevated shaft pit (1.5m deep)	001	Y16	1	110	5 000	460	3 020	220				
	001S	Y12	1	18	6 600	460	2 850	200				
	002S	Y12	1	18	5 200	460	2 200	200				
	002	Y20	1	24	3 550	435	2 850					
	003S	Y20	1	45	2 900	435	2 200					
	003	Y16	1	120	2 000	435	2 000					



Memeber	No. Of	Bars Per Memb	Dia.	Length	Total No.	Mark No.	SC	Bending				
								A	B	C	D	E/R
Lift Shaft	1	41	Y12	6 450	82	001	60	2 950	175			
		55	Y12	4920	55	002	60	2 200	175			
		12	Y12	1500	18	003	60	500	175			
		12	Y12	1500	18	003S	60	440	175			
		80	Y16	4 800	80	004	41	3 500	300		45	
		80	Y16	5 800	80	005	41	4 000	300		45	
		80	Y16	5 800	80	006	41	4 000	300		45	
		3	Y32	1 050	3	007	53	300	200	150	200	
		10	Y16	2 900	10	008	85	950	950	135		
		10	Y16	3 850	20	009	85	950	1 450	135		
		11	Y16	4 000	11	010	35	3 800				
		11	Y16	3 000	11	011	35	2 800				
		11	Y16	2 200	11	012	49	200	200		50	50
		Beams on Lift Shaft's Rough Openings	3	6	Y16	2 500	18	013	35	2 200		
11	Y10			1 600	33	014	60	540	215			

- FIGURED DIMENSIONS ONLY TO BE USED.
- COORDINATES BASED ON WGS84
- LEVELS BASED ON MSL DATUM
- DISCREPANCIES, ERRORS AND OMISSIONS TO BE REPORTED TO ENGINEER IMMEDIATELY THEY BECOME EVIDENT.
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Roof Line	
Section cut	
Proposed Walls	
Concrete Work	
Fittings on Proposed uPVC Water Pipeline (Class 16)	
Fittings on Proposed Sewer Line	
Overland Stormwater Drainage	

1. Excavations for foundations and all reinforcing must be approved by the engineer before any concrete is cast.
2. All bases are symmetrical about the center lines unless otherwise shown.
3. Specifications:

Reinforced concrete work	SABS 1200g
Structural steel work	SABS 1200h
Paintwork on steel	SABS 1200h
4. Concrete work: all brickwork are load bearing and must be completed before commencing with the construction of the concrete slab
5. Minimum concrete cover:

Bases	75mm
Columns	40mm
Beams	25mm
Slabs	12mm or dia
6. Concrete: all ready mixed concrete will only be approved if a mix design and cement grading by SABS is submitted to the engineer.
7. Test cubes minimum must be tested by an independent soil
8. All imported cement approved by the SABS must be approved by the engineer on the basis of:

All cement must be bought in one batch and treated to SABS 1200g.

A mix design must be submitted.

sets of test cubes must be submitted with age of testing as follows:

	3 cubes @ 7 days
	3 cubes @ 14 days
	3 cubes @ 21 days
	3 cubes @ 28 days
9. Concrete cube strength at 28 days:

Blinding	15 MPa
Reinforced Foundations	40 MPa
Columns	30 MPa
Beams	30 MPa
Slabs and Staircases	30 MPa

Rev	Date	Issued for	Approved
		Preliminary	
		Information	
00	26/11/2017	Tender Contract	
		Measurement	
		Construction	
		Approval	

Client:  **THE INNOVATION HUB**
Innovation Catalyst for Gwinnett City Region

A subsidiary of the Gwinnett Growth and Development Agency

 **BIO PARK**
@Gwinnett

 **GWINNETT**
COUNTY

 **DEPARTMENT OF ECONOMIC DEVELOPMENT**

Discipline	Signature	Pr Number	Date
Architecture			
Civil/Structural			

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Project Title:
Construcion of BioPark Phase 1C
Extension to Phase with a Second Floor and Lift

Drawing Title: Lift Shaft Details and Reinforcing PHG-STR-101	Designed by: Koketo Moyaba; Civil & Structural Engineer
Date November 2017	Drawn by: Koketo Moyaba; Civil & Structural Engineer
Scale 1:100	Checked by: TS Wanakwanyi, PrEng



Scale on reduced Drawing



100mm on Original Drawing