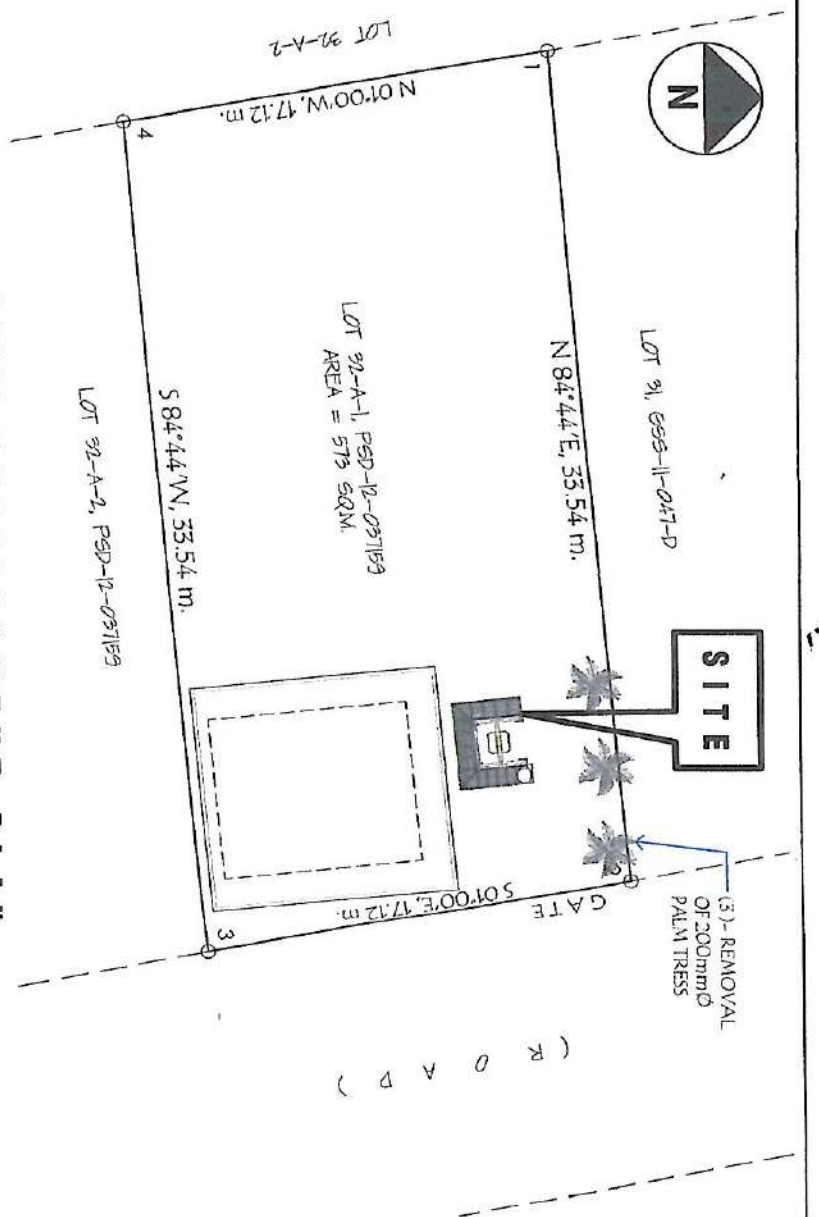
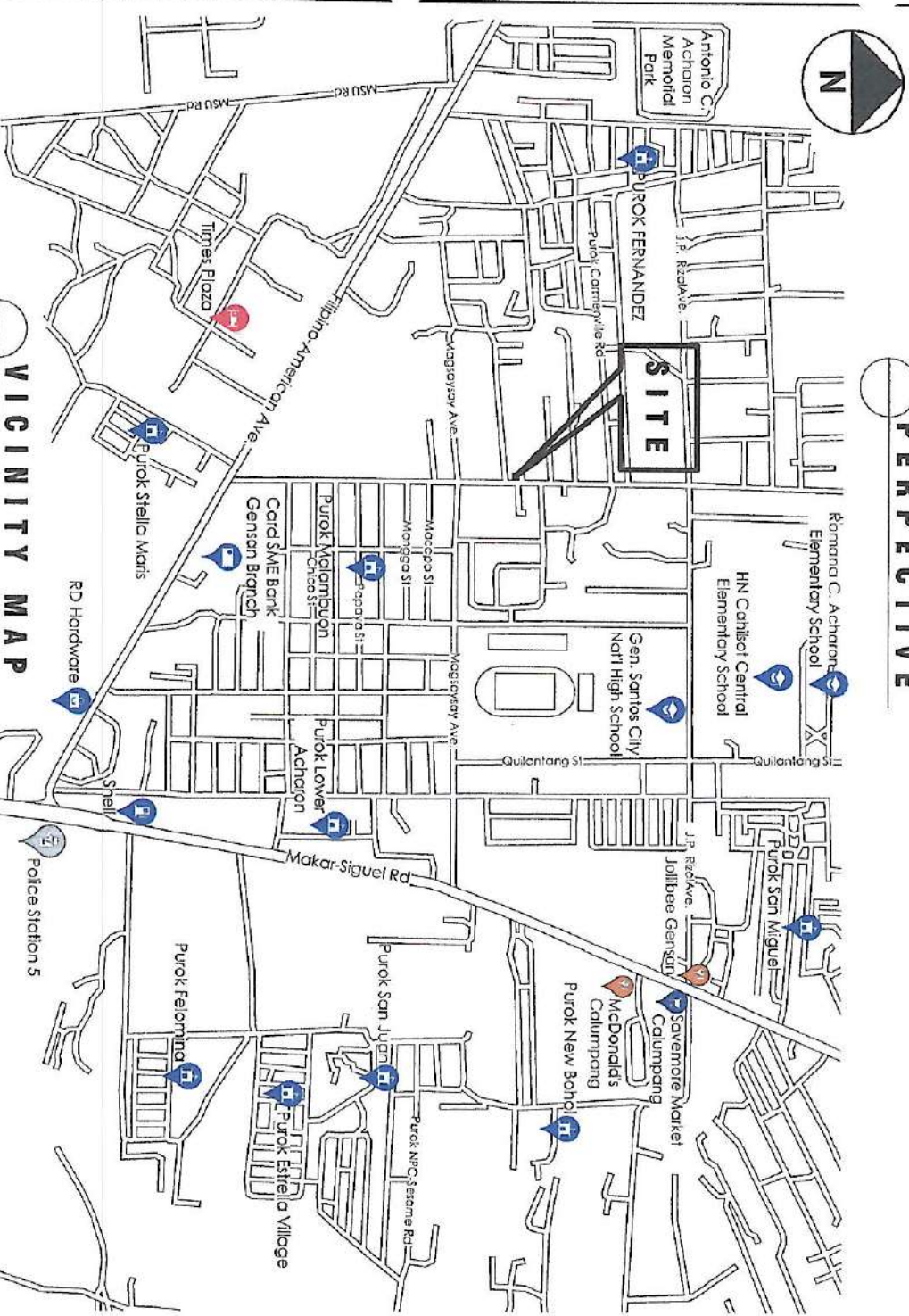




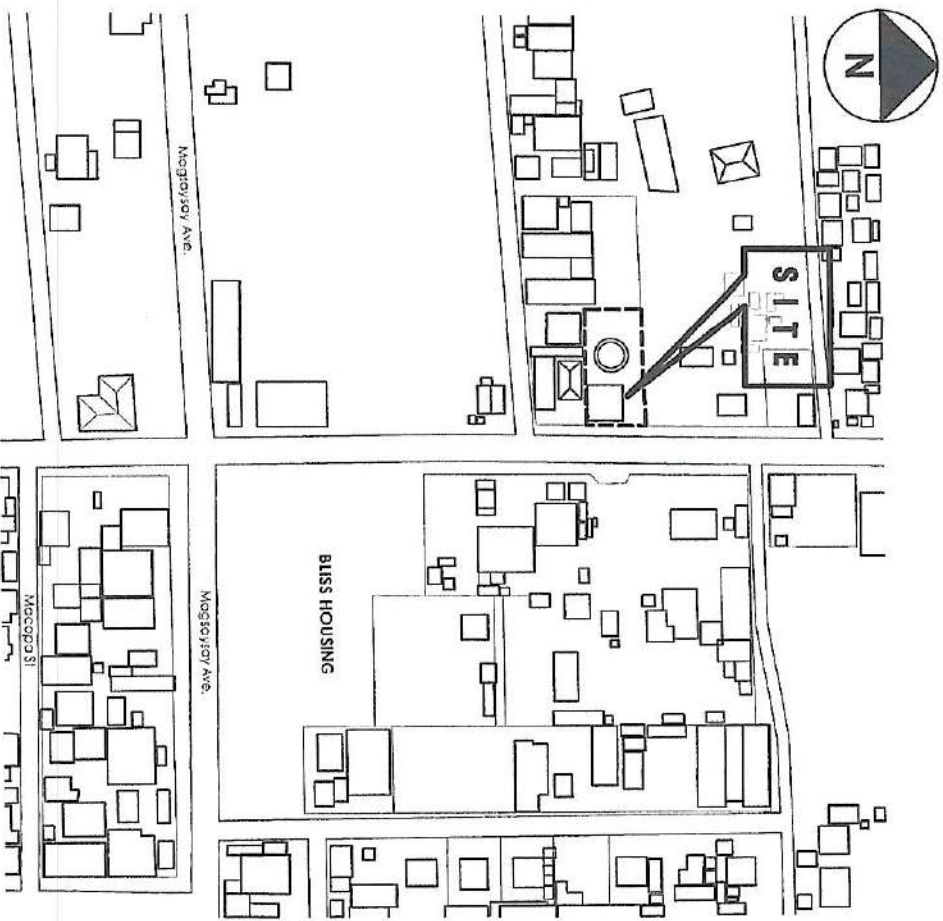
**PERSPECTIVE**



**SITE DEVELOPMENT PLAN**  
SCALE: 1:300 M



**VICINITY MAP**  
SCALE: NOT TO SCALE



**LOCATION PLAN**  
SCALE: 1:600 M

REPUBLIC OF THE PHILIPPINES  
CITY OF GENERAL SANTOS  
OFFICE OF THE CITY ENGINEER  
  
OFFICE OF THE BUILDING OFFICIAL

MECHANICAL	SHEET NO.
ELECTRICAL	1
STRUCTURAL	5
ARCHITECTURAL	
LINE AND GRADE	
LAND USE & ZONING	
SANITARY	
AS SHOWN	

**GENERAL SANTOS CITY WATER DISTRICT**  
E. FERNANDEZ STREET, BRGY. LAGDA, GEN. SANTOS CITY  
ENGINEERING & CONSTRUCTION DEPARTMENT  
PLANNING AND DESIGN DIVISION  
TEL. NO. : (053) 582 - 3224

**DANILO M. SORIANO, JR.**  
CIVIL ENGINEER  
REG. NO. 0137595  
TIN. NO. 291 991 997  
DATE: 01/03/2024

**PROJECT AND LOCATION**  
PROPOSED CONSTRUCTION OF  
LIFTING STRUCTURE FRAME

CHECKED & REVIEWED:  
ENGR. MARIA CELIA N. DANDAN  
CID, PPD

RECOMMEND APPROVA:  
ENGR. ROGELIO A. BEBANA, JR.  
ARM OPERATIONS & TECHNICAL SERVICES

FRANCISCO R. ALONSO, JR., CPA, CSEE  
PLANS GENERAL MANAGER

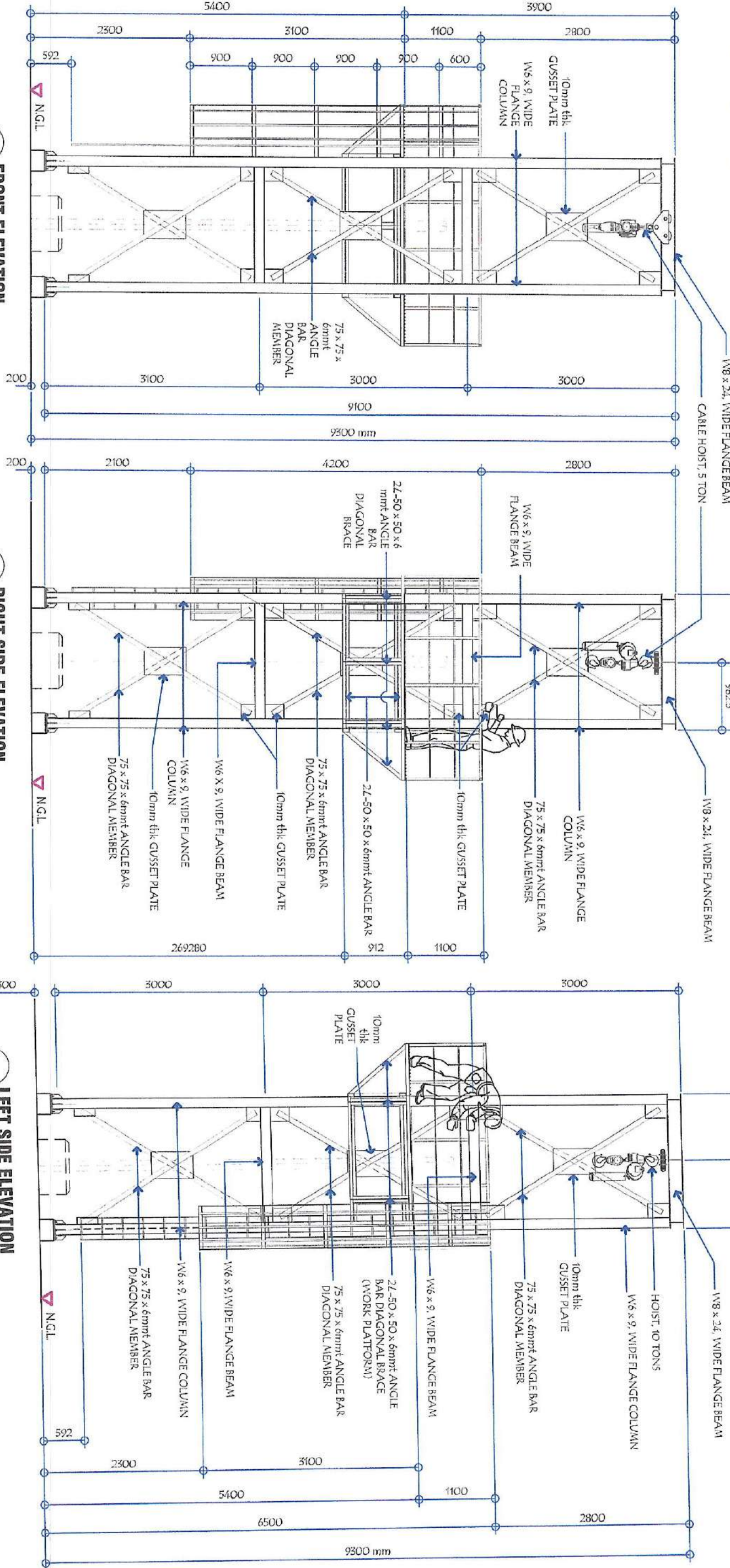
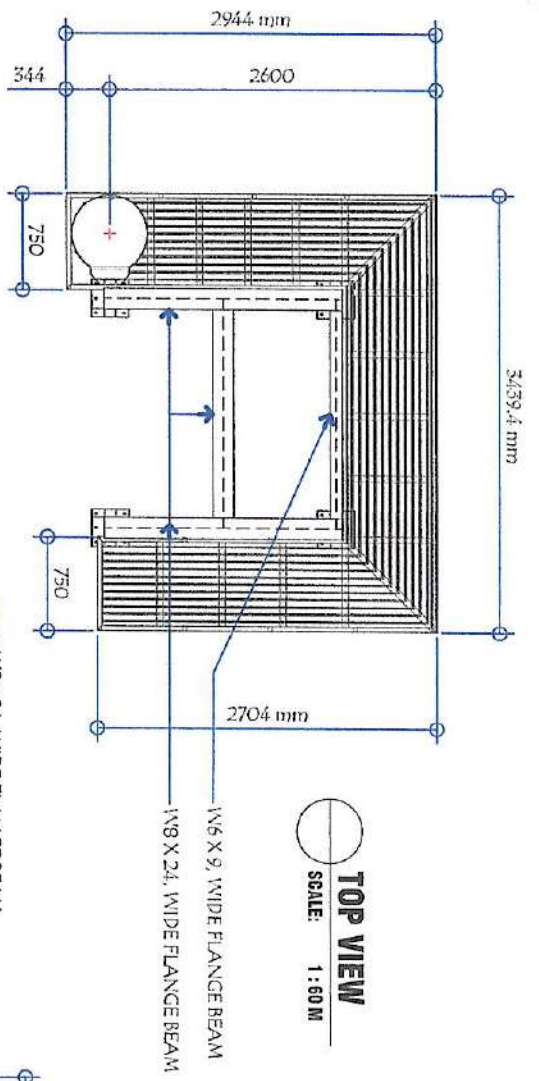
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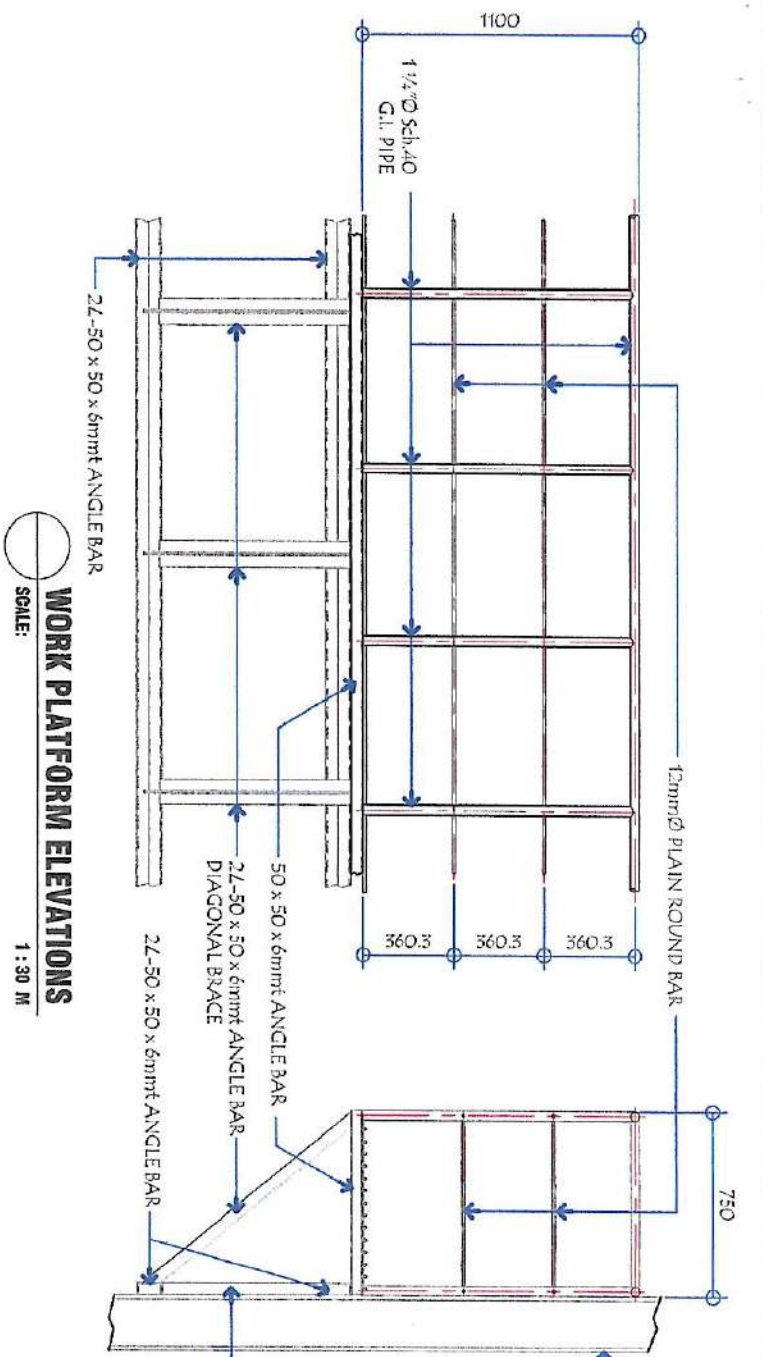
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REV. NO.

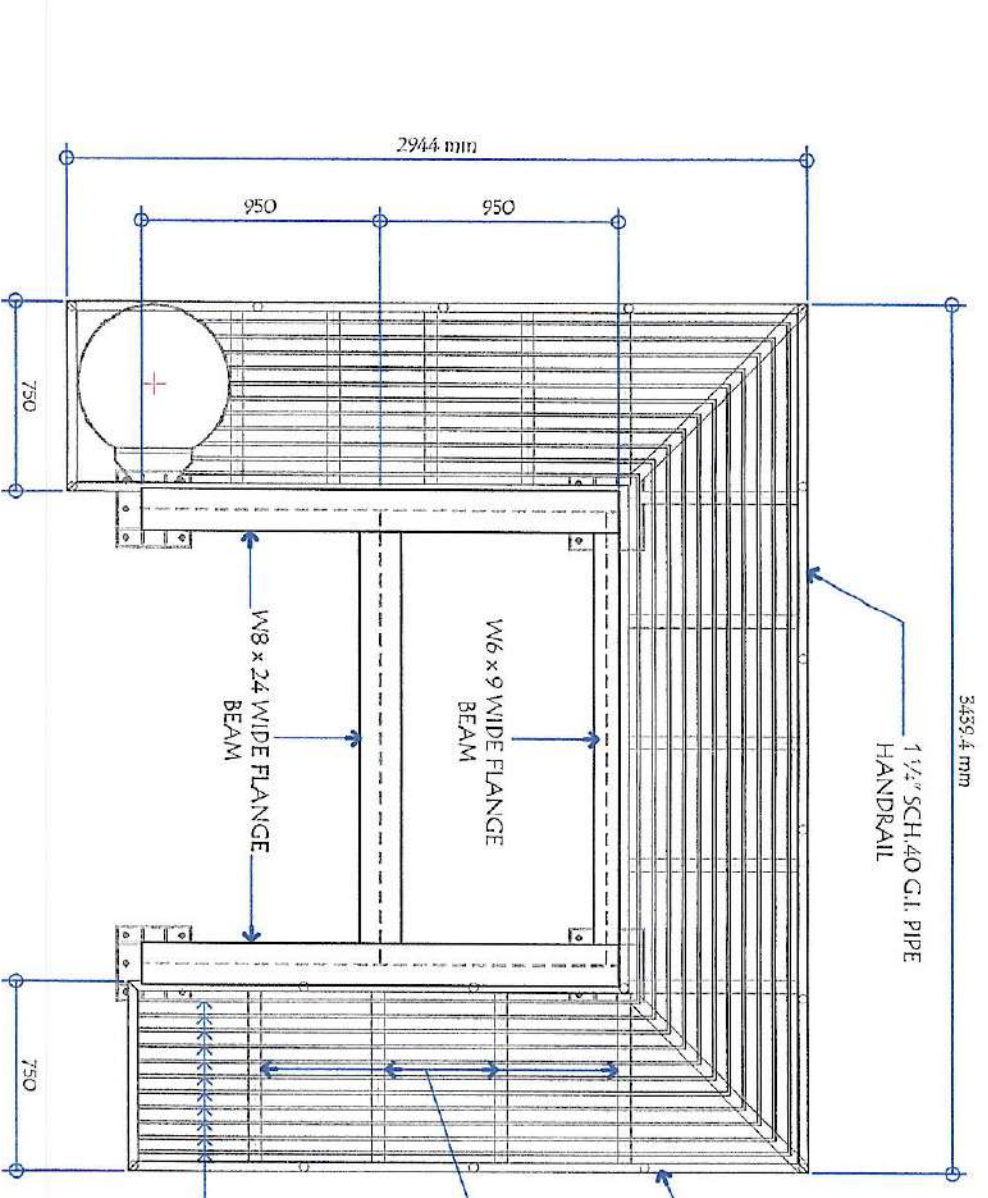
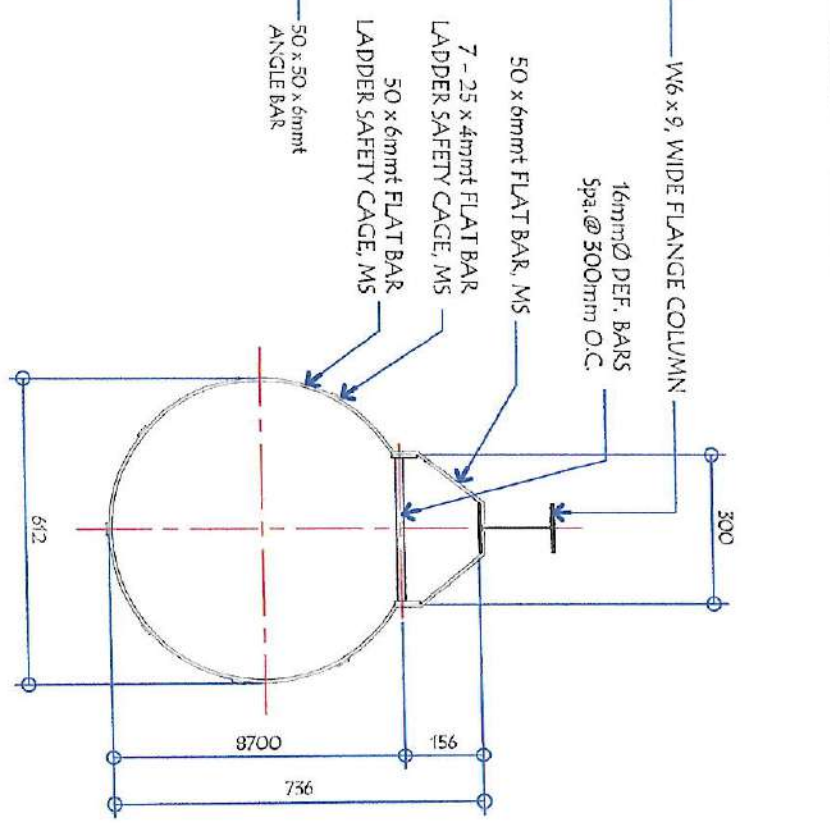
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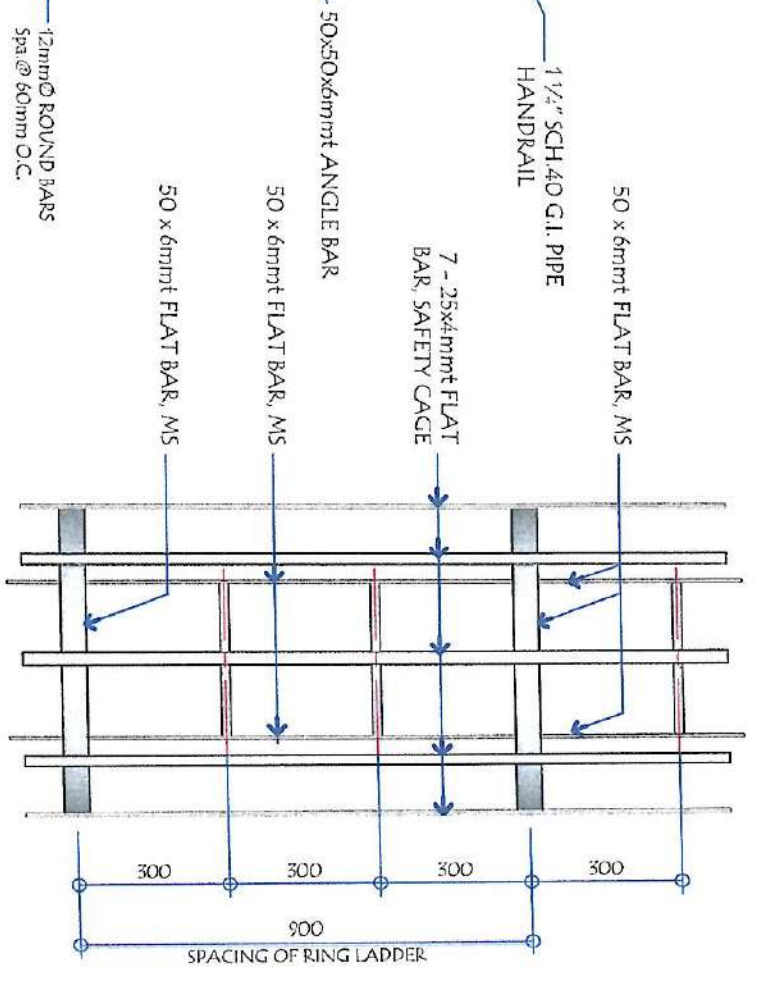




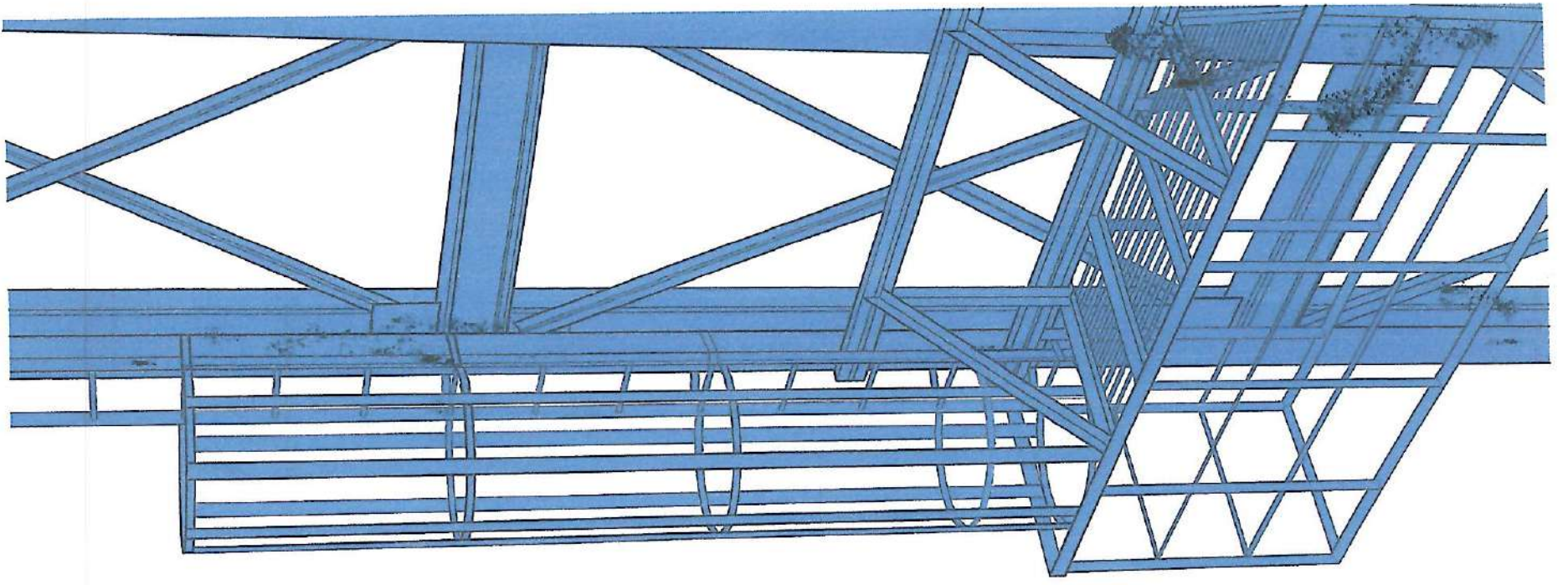
**WORK PLATFORM ELEVATIONS**  
SCALE: 1:30 M



**PLAN OF WORK PLATFORM**  
SCALE: 1:30 M



**DETAIL OF RING LADDER**  
SCALE: 1:15 M



# CONSTRUCTION NOTES

## A. GENERAL NOTES

1. IN THE INTERPRETATION OF THESE DRAWINGS INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER FOR THE EXACT SIZE, NUMBER AND LOCATIONS OF ALL CONCRETE PILES AND OTHER STRUCTURE AND ALSO DIMENSIONS.
3. ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI-318-85 BUILDING CODE AND ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS (LATEST EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENTS.
4. ALL WORKS BUT NOT LIMITED TO STRUCTURAL MASONRY, STEEL AND OTHER WHICH ARE NOT INDICATED, DETAILED, DESIGNATED OR INADVERTENTLY OMITTED BUT ARE NECESSARY TO BE COORDINATED TO COMPLETE THE WORKS IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS, IT IS UNDERSTOOD THAT THE CONTRACTOR SHALL PROVIDE AND INCLUDE AS IF DEEMED NECESSARY FOR THE COMPLETION OF THE PROJECT.

## B. NOTES ON CONCRETE MIX AND PLACING

1. UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS, THE MINIMUM 28 DAYS CYLINDER COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE AS FOLLOWS:
  - 1.1. FOUNDATION 21.00 MPa (3000 psi)
  - 1.2. RETAINING WALLS 21.00 MPa (3000 psi)
  - 1.3. PEDESTAL, COLUMNS, RC WALLS 21.00 MPa (3000 psi)
  - 1.4. FLOOR SLABS, BEAMS & GIRDER 21.00 MPa (3000 psi)
  - 1.5. PARAPET WALLS AND OTHER STRUCTURAL ELEMENTS 21.00 MPa (3000 psi)
  - 1.6. LEAN CONCRETE 10.00 MPa (1500 psi)
2. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, REHANDLING OR FLOWING, PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEEL BARROWS, NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEEL BARROWS OR BUCKETS, IN WHICH CASE THEY SHALL NOT EXCEED SIX THOUSAND (6000mm) IN AGGREGATES LENGTH.
3. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITINGS BY THE STRUCTURAL ENGINEER AND ONLY FOR USUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.

## C. NOTES ON REINFORCING STEEL BARS

1. ALL REINFORCING STEEL BARS SHALL BE NEW BILLET, HOT ROLLED, WELDABLE DEFORMED BARS CONFORMING TO THE SPECIFICATIONS OF PNS 49: 1986 (ASTM 615)
2. THE SUPPLEMENTARY REQUIREMENTS OF WELDABLE DEFORMED REINFORCING BARS SHALL BE AS FOLLOWS:
  - 2.1. THE MAXIMUM YIELD STRENGTH OF WELDABLE BARS = 540 MPa (FOR GRADE 4).
  - 2.2. THE TENSILE STRENGTH SHALL NOT BE LESS THAN 1.25 TIMES THE ACTUAL YIELD STRENGTH.
3. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITINGS BY THE STRUCTURAL ENGINEER AND ONLY FOR USUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.
4. ALL REINFORCING BARS SHALL BE CLEANED THOROUGHLY OF ALL LOOSE RUST, SOIL OR OTHER MATERIAL IMMEDIATELY PRIOR TO PLACING CONCRETE.
5. THE REQUIRED LENGTH OF LAP FOR TENSION SPLICES IS BASED ON THE DEVELOPMENT LENGTH, LD, SHOWN IN THE TABLE 2 AND 3 FOR RC BEAMS AND GIRDER, RESPECTIVELY AND ON THE FOLLOWING CLASSIFICATIONS:
 

TENSION SPLICES CLASSIFICATION			SPLICE LENGTH	
CLASS A			1.0 LD	
CLASS B			1.3 LD	

## D. NOTES ON FOUNDATION

1. FOOTING ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1200 PSF (67.5 Kpa) AT A MINIMUM DEPTH OF 2.0 METERS FROM THE NATURAL GRADE LINE, CONTRACTOR SHALL REPORT IN WRITING TO THE STRUCTURAL ENGINEER ON THE ACTUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE DEPOSITING CONCRETE.
2. NO FOOTING SHALL REST ON FILL FOOTINGS FOR CHB WALLS AND OTHER MINOR STRUCTURES SHALL BE EMBEDDED AT LEAST 750 mm FROM THE NATURAL GRADE LEVEL.
3. PROVIDE TEMPORARY REMOVAL OF WATER FROM ANY SOURCE DURING CONSTRUCTION DEWATERING SHALL BE CAREFULLY AND PROPERLY PERFORMED TO AVOID DISTURBING THE FOUNDATIONS AND SLAB BEARING SURFACES.

7. THE REQUIRED LENGTH OF LAP FOR COMPRESSION SPLICES SHALL BE AS SHOWN IN TABLE 4.

NOTE: FOR BUNDLE BARS (3 BUNDLE) MULTIPLY ABOVE TABLE BY 1.3

BAR SIZE (mm)	f <sub>c</sub> = 20 MPa (4000 psi)		f <sub>c</sub> = 24.5 MPa (3500 psi)		f <sub>c</sub> = 21 MPa (3000 psi)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
16 Ø	350	350	350	350	350	275
20 Ø	550	550	550	550	540	425
25 Ø	1010	1010	910	910	800	650
28 Ø	1270	1270	1140	1140	1030	835
32 Ø	1650	1650	1480	1480	1350	1250
36 Ø	2570	2570	2300	2300	2200	2200

## E. NOTES ON SLAB-ON-GRADE

1. THE SOIL SUBGRADE AND FILL LAYERS BELOW ALL SLABS ON GRADE, PAVING AND PIT SLAB SHALL BE MECHANICALLY COMPACTED TO A MINIMUM 95 PERCENT OF THE MODIFIED PROCTOR DENSITY, PER ASTM D1557.
2. ALL SLABS-ON-GRADE SHALL BE PROVIDED WITH A MINIMUM OF 100mm THK. COMPACTED CLEAN COARSE SAND BED.
3. UNLESS OTHERWISE NOTED, ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm BARS AT 250mm O.C. EACHWAYS AT THE CENTER OF SLAB.
4. PLACE CONCRETE FOR ALL SLABS-ON-GRADE IN CHECKERBOARD FASHION BETWEEN CONSTRUCTION JOINTS IN AREAS OF PLACEMENT, CONSTRUCTION JOINTS SHALL NOT BE FARTHER APART THAN 8.00 METERS IN ANY DIRECTION. ALL SLABS-ON-GRADE SHALL BE SAW CUT ON EACH GRID LINE AND MID BAY LINE (IN BOTH DIRECTION) WITHIN 24 HOURS AFTER CASTING.

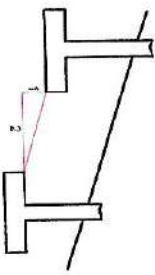



FIGURE 2. DETAIL OF LIMITING SLOPE OF ADJACENT FOOTINGS

4. CONTRACTOR SHALL DESIGN, INSTALL AND MONITOR EXCAVATIONS RETENTION SYSTEMS, AS REQUIRED FOR PROTECTION OF ADJACENT PROPERTIES AND PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO MINIMIZE SETTLEMENT AND PREVENT DAMAGE TO ADJACENT EXISTING OR NEW CONSTRUCTION.
5. PREPARE CONDITIONS OF CONCRETE SUPPLY AND PLACEMENT OF THE COMPLETE FOUNDATION FOR THE FULL THICKNESS AS A CONTINUOUS MONOLITHIC CASTING.
6. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL GROUND FLOOR SLABS HAVE BEEN PLACED AND THE CONCRETE HAS ATTAINED THE REQUIRED STRENGTH.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ELEVATOR DETAILS. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND OTHER TRADES FOR SUBSOIL DRAINAGE SYSTEM, MACHINERY, ANCHORS AND OTHER EMBEDDED ITEMS, DEPRESSIONS, FINISHES, DOWELS FOR MASONRY WALLS, CURBS, ETC.
8. SEE TYPICAL DETAIL OF LIMITING SLOPE OF ADJACENT FOOTING AT DIFFERENT ELEVATION. (REFER TO FIGURE 2)



**GENERAL SANTOS CITY WATER DISTRICT**  
E. FERNANDEZ STREET, BRGY. LABAO, GEN. SANTOS CITY  
ENGINEERING & CONSTRUCTION DEPARTMENT  
PLANNING AND DESIGN DIVISION  
TEL. NO.: (083) 592-3924

REG. NO. 080796      REG. NO. 291-941-977      DATE: 07/03/2024

FIG. NO. 10000100A

PROJECT AND LOCATION: **PROPOSED CONSTRUCTION OF LIFTING STRUCTURE FRAME**

CHECKED & REVIEWED: *[Signature]*      RECOMMEND APPROVAL: *[Signature]*

ENGR. MARIA CELIA N. DAVIDAN      ENGR. RAFAEL A. BESANA, JR.

QC, PPO      RCPT OPERATIONS & TECHNICAL SERVICES

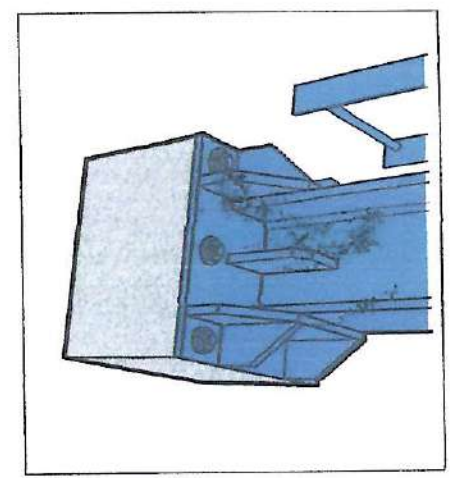
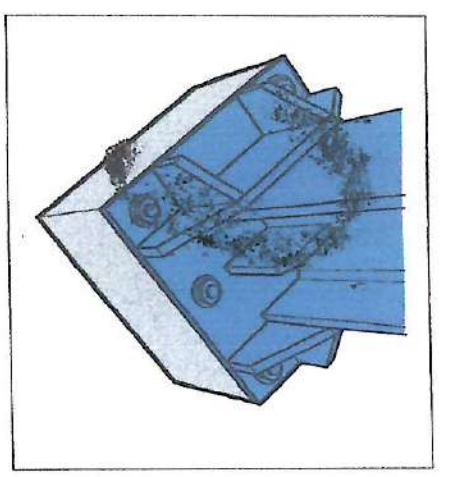
APPROVED: *[Signature]*

FRANCISCO A. ALONSO, JR., CPA, CSEE  
ACTING GENERAL MANAGER

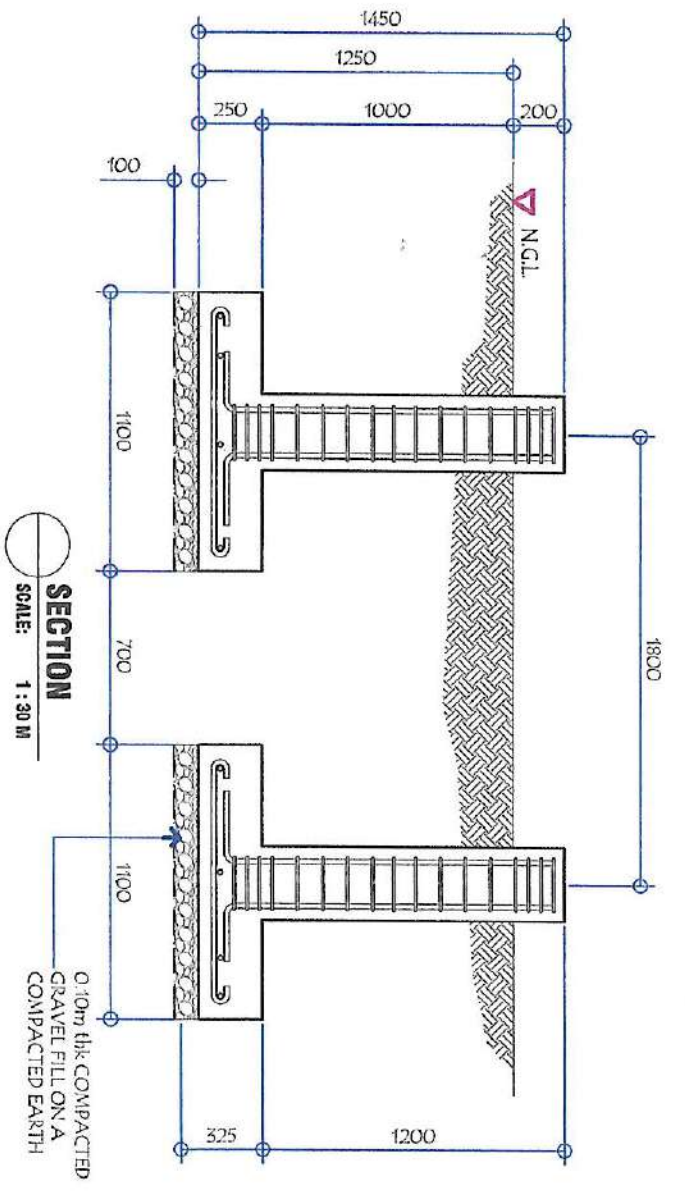
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DRAWN BY: *[Signature]*      REV. NO.      DATE: 05/16/2024

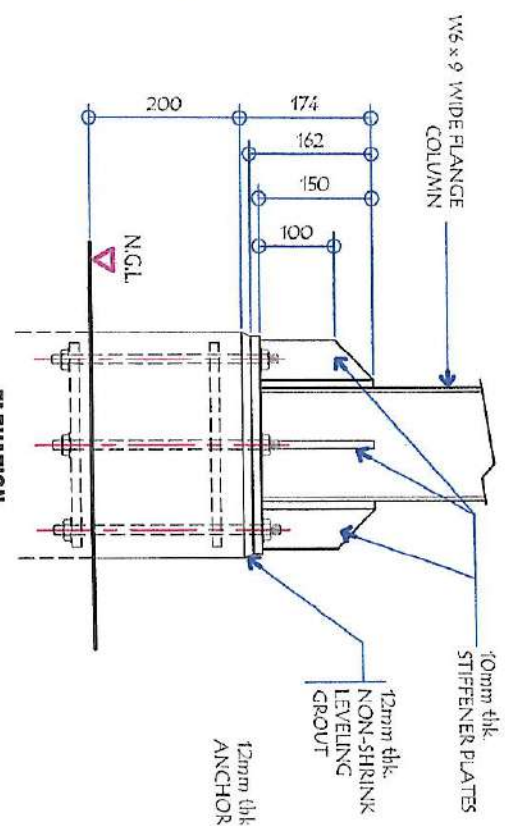
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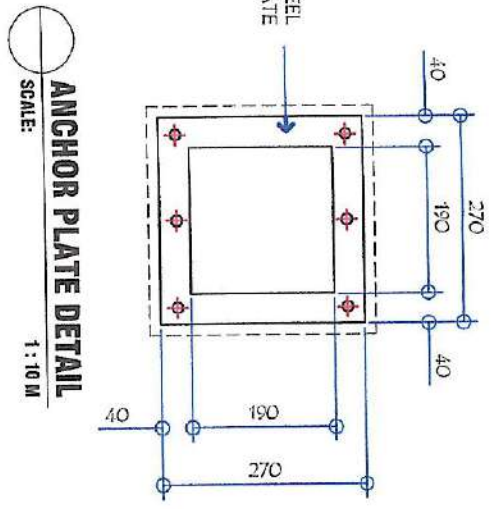
**PERSPECTIVE (BASE PLATE)**



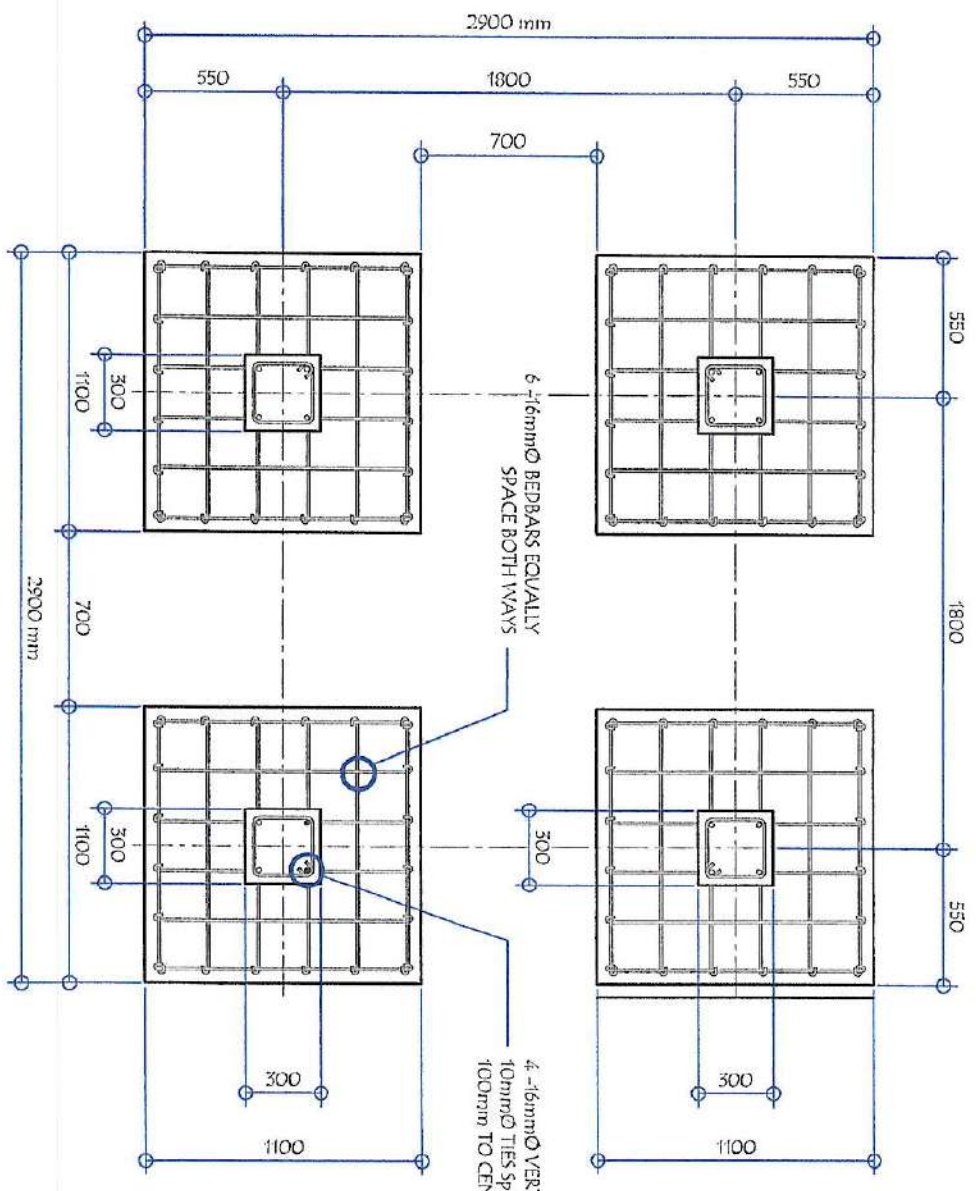
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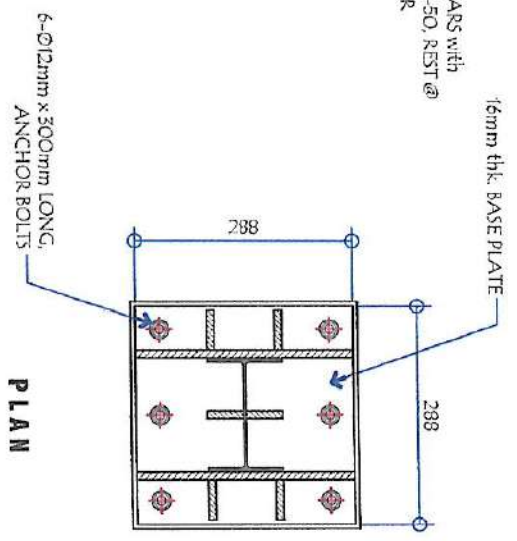
**ELEVATION**



**ANCHOR PLATE DETAIL**  
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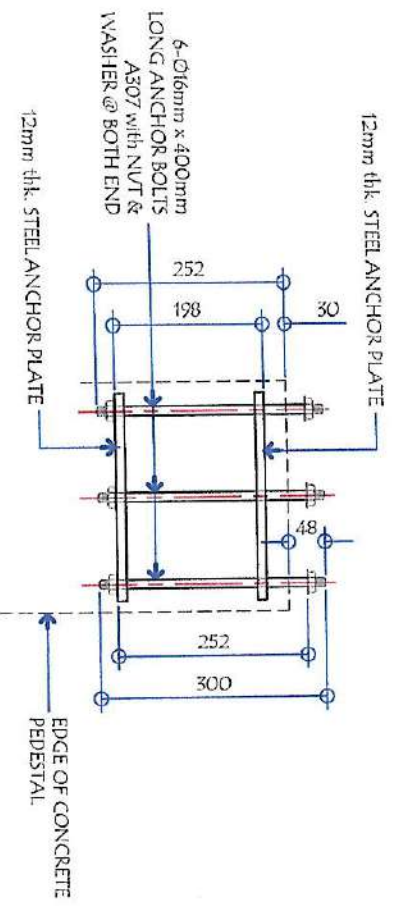


**FOUNDATION PLAN**  
SCALE: 1:30 M



**PLAN**

**COLUMN BASE PLATE DETAIL**  
SCALE: 1:10 M



**ANCHOR BOLT DETAIL**  
SCALE: 1:10 M

<p><b>GENERAL SANTOS CITY WATER DISTRICT</b> E. FERNANDES STREET, BRGY. LALAO, GEN. SANTOS CITY ENGINEERING &amp; CONSTRUCTION DEPARTMENT PLANNING AND DESIGN DIVISION TEL. NO.: (083) 552-3824</p>		<p><b>DANILO HORLADOR, JR.</b> CIVIL ENGINEER REG. NO.: 010795 TIN. NO.: 791, 241, 977 DATE: 01/05/2024</p>		<p><b>PROJECT AND LOCATION</b> PROPOSED CONSTRUCTION OF LIFTING STRUCTURE FRAME</p>		<p><b>CHECKED &amp; REVIEWED:</b> ENGR. MARIA CELIA N. DANDAN OIC, PPD</p>		<p><b>RECOMMEND APPROVAL:</b> ENGR. ROGELIO A. BEBANA, JR. ACTING GENERAL MANAGER</p>		<p><b>APPROVED:</b> FRANCISCO R. LALAO, JR. CPA, CEE ACTING GENERAL MANAGER</p>		<p><b>SHEET CONTENTS</b> AS SHOWN</p>		<p><b>SHEET NO.</b> 5</p>	
<p>PR. NO.: 10000001</p>		<p>DATE: 01/05/2024</p>		<p>LOT 32-A-1, BISS. EXT., 95 NO. 8, BRGY. CALUYAPANG, GSC</p>		<p>ENGR. MARIA CELIA N. DANDAN OIC, PPD</p>		<p>ENGR. ROGELIO A. BEBANA, JR. ACTING GENERAL MANAGER</p>		<p>FRANCISCO R. LALAO, JR. CPA, CEE ACTING GENERAL MANAGER</p>		<p>AS SHOWN</p>		<p>5</p>	