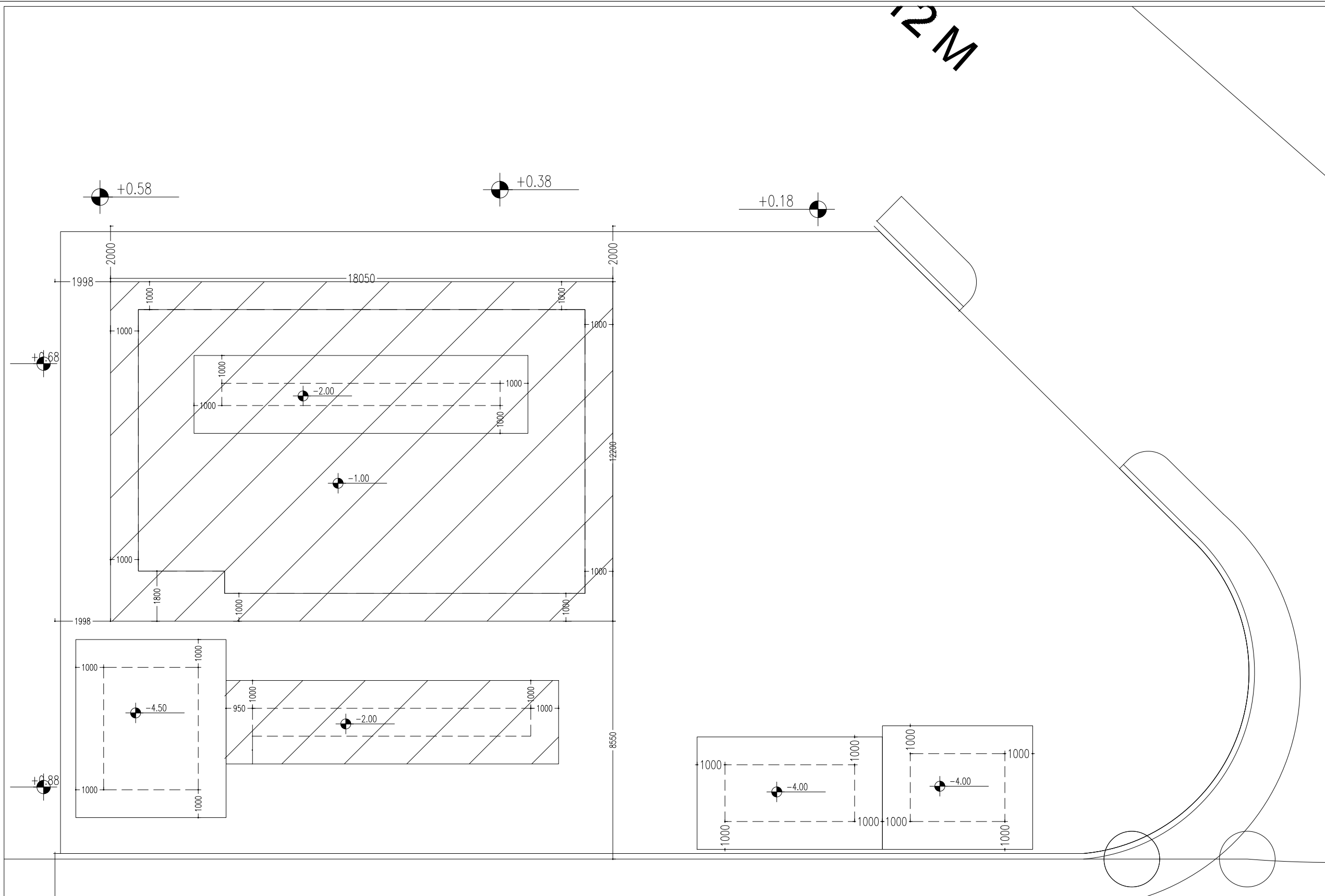




NOTES:



STREET 16 M

4149.07

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

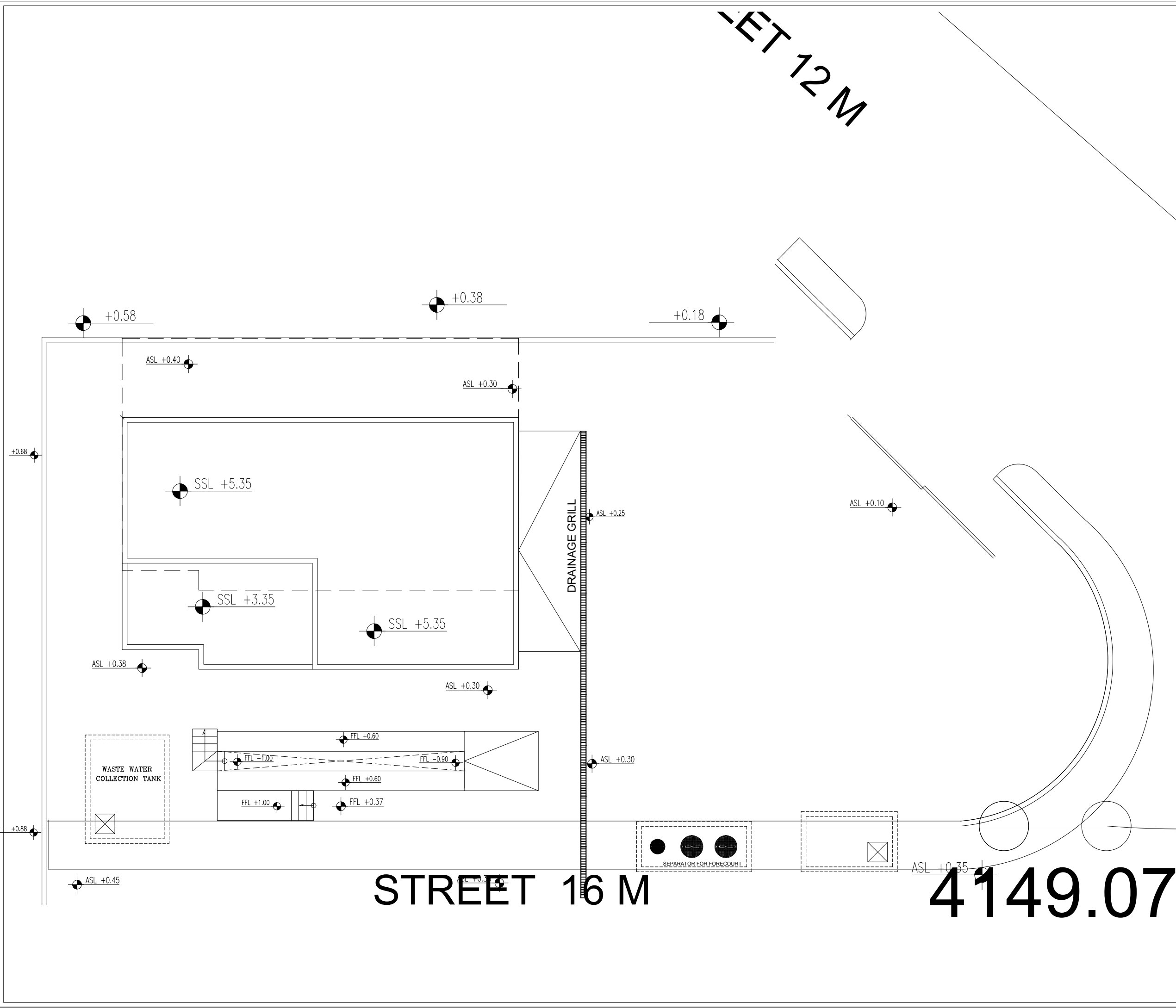
CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
EXCAVATION PLAN

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1:1000
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-00	PROJECT NO.	-

STREET 12 M



NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.

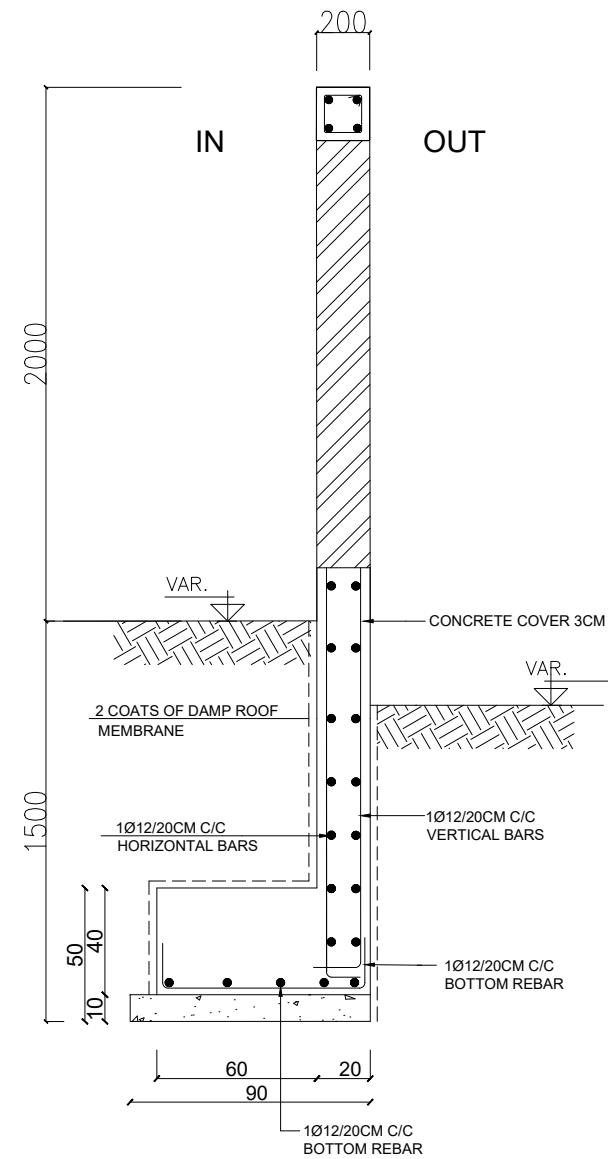


DRAWING TITLE :
SITE PLAN

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-01	PROJECT NO.	-

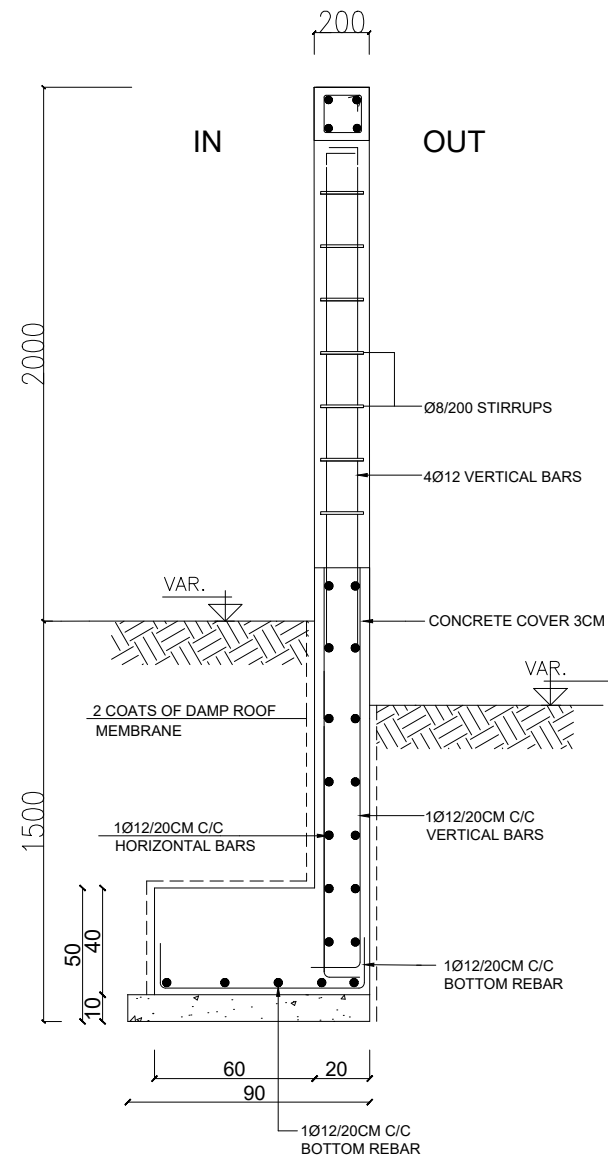
STREET 16 M

4149.07



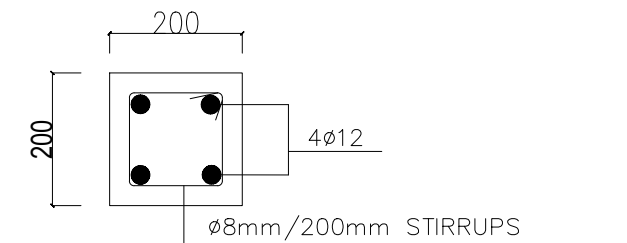
SECTION (1.1) IN CMU

SCALE 1.20

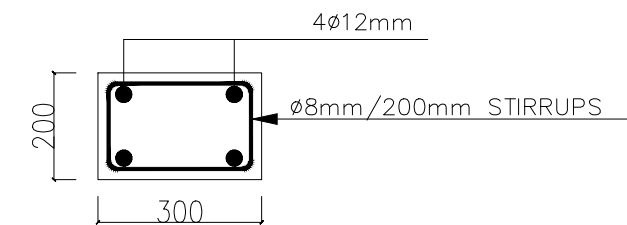


SECTION (2.2)- IN COLUMN

SCALE 1.20



BONDING BEAM



SECTION IN COLUMN

NOTES:
CMU : CONCRETE MASONRY UNIT

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
SECTIONS & DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-03	PROJECT NO.	-

CODE OF PRACTICE

Design, detailing and workmanship shall be according to the JORDANIAN CODE for Structural Use of Concrete.

DIMENSIONS

All Dimensions are in metres unless noted.

DRAWINGS

- 1- Structural drawings shall be read in conjunction with Architectural, Mechanical and Electrical drawings.
- 2- Sleeves and openings smaller than 200X200 mm are not shown on the Structural drawings. For required openings refer to Architectural, Mechanical and Electrical drawings.
- 3- Contractor shall prepare working drawings and bar bending schedules for reinforcement in a format agreed with the engineer.
- 4- Drawings are not necessarily to scale.
- 5- Chamfers for fair faced concrete are not shown on Structural Drawings. Reference should be made to Architectural details for such purpose.

REINFORCEMENT

- 1- All reinforcing bars of a diameter larger than 8 millimetres shall be deformed high strength steel bars of Characteristic Strength equal to:
 $f_y=420$ MPa.
- 2- Bars of 6 and 8 millimetres diameter shall be of mild steel of Characteristic Strength equal to:
 $f_y=280$ MPa.
- 3- Reinforcement shall comply with BS4449 , BS4461 or BS4483
- 4- Reinforcement shall be placed as shown on the drawings and in the lengths specified.
- 5- Where bar length is not specified, longest practicable bar length shall be employed with staggered lap splices. Lap length shall be 50 times bar diameter.
- 6- Bar crank shall not exceed 1:12.

COVER

Clear concrete cover to reinforcement shall be:
70 mm for concrete elements (footing,neckcolumns tie beams,ground beams)
30 mm for internal concrete elements (columns,beams,slab)

REINFORCED CONCRETE

The following type of reinforced concrete shall be employed:

C40 - Grade 40 [For all structural elements]
Characteristic Strength as defined by a 150 mm cube at age of 28 days shall be: 30MPa

C20 - Grade 20 [FOR SLAB ON GRADE]
Characteristic Strength as defined by a 150 mm cube at age of 28 days shall be: 20MPa

PLAIN CONCRETE

The following type of plain concrete shall be employed:

C20 - Grade 20 concrete of characteristic cube strength equal to 20MPa, minimum cement content of 150 kilograms per cubic metre, and a maximum water:cement ratio of 0.70 to be used for blinding concrete under foundations.

AGGREGATES

Maximum aggregate size shall be 20 mm.

FOUNDATIONS

The foundations of the building has been designed to take **FOUR SLAB** only.

Bearing capacity of the soil at the foundation level is assumed 2.20 kg/cm^2 .

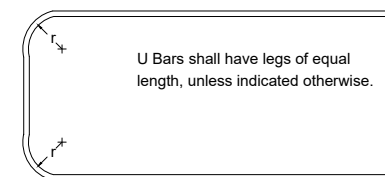
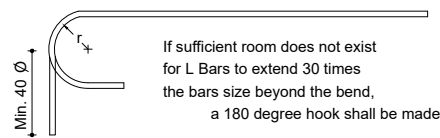
Minimum footings depth should be 1.50 m below natural ground level.

Soil lab technicians should be informed after finishing the excavations to confirm what has been stated in the soil test report.

-FOR ANY SOIL PARAMETERS REFER TO ENGINEERING LABOURATARY

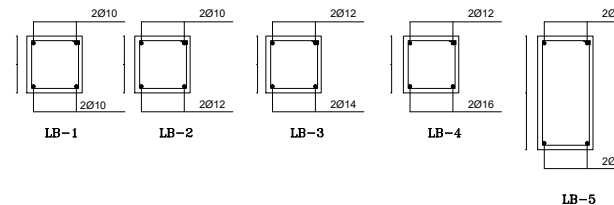
RADII OF BENDING

Minimum Radius of Bend for L Bars and U Bars shall be as follows. For other bars, minimum radius of bend shall equal to 2 times bar size for Mild Steel and 3 times bar size for High-yield Steel.



BAR DIAMETER (mm)	MINIMUM r (mm)
8	37
10	48
12	60
14	72
16	85
18	98
20	112
22	127
25	150
32	210

SECTIONS OF LINTEL BEAMS



SPAN (L) (mm)	NUMBER OF BLOCKS ABOVE LINTEL BEAM				
	2BLOCKS OR LESS	2 TO 4	5 TO 6	7 TO 8	9 TO 10
1200 OR LESS	LB-1	LB-1	LB-1	LB-1	LB-1
1201 - 1800	LB-1	LB-1	LB-1	LB-1	LB-2
1801 - 2400	LB-1	LB-1	LB-2	LB-2	LB-2
1401 - 3000	LB-1	LB-2	LB-4	LB-5	LB-5
3001 - 3600	LB-2	LB-4	LB-5	LB-5	LB-5

NOTE :

1. LINTEL BEAMS WIDTH ARE 10,15 OR 20 cm, ACCORDING TO THE WALL THICKNESS.
2. ALL STIRRUPS FOR LINTEL BEAMS IS $\varnothing 8 @ 20\text{cm}$.
3. BOTTOM AND TOP BARS SHALL BE CONTINUOUS.

MARKS

- C.F COMBINED FOOTING
- F FOOTING NUMBER
- G.B GROUND BEAMS
- \varnothing BAR DIAMETER
- B BEAM NUMBER
- S.W. SHEAR WALL
- BOT BOTTOM BARS
- S STRUCTURE
- cm CENTIMETER
- DIA DIAMETER
- EXP EXPANSION JOINT
- R.S RIBBED SLAB
- MID MIDDLE BARS
- S.S. SOLID SLAB
- m METER
- MAX MAXIMUM
- MIN MINIMUM
- mm MILLIMETER
- TYP TYPICAL
- T&B TOP AND BOTTOM
- C.R CROSS RIB
- D.R DOUBLE RIB
- C.J CONSTRUCTION JOINT
- C/C CENTER TO CENTER
- DB DROP BEAM
- FFL FINISH FLOOR LEVEL
- C1 COLUMN NUMBER
- T.O.C TOP OF CONCRETE
- L.O.F LEVEL OF FOUNDATION

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:

AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:

CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:

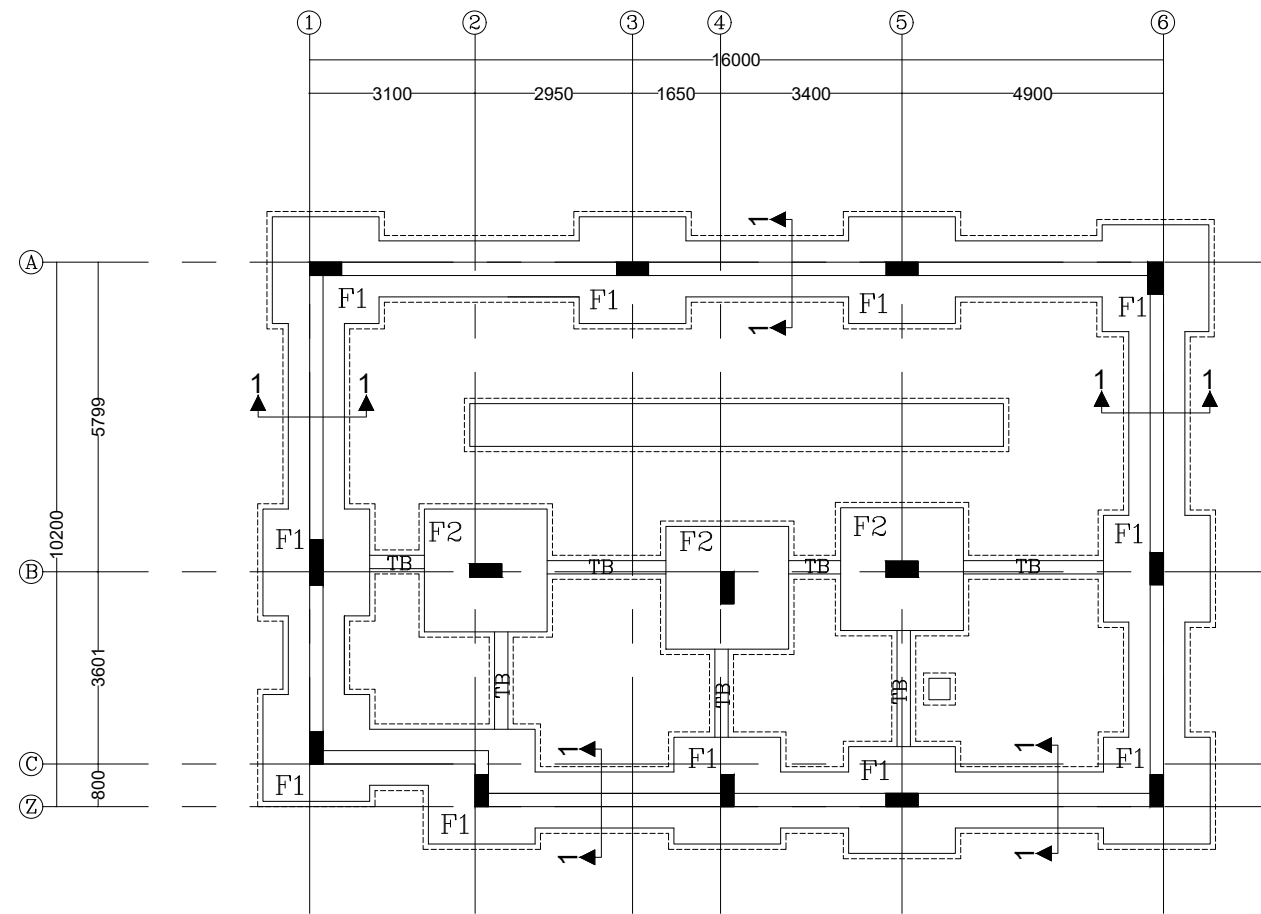
AMTAR ENGINEERING CO.



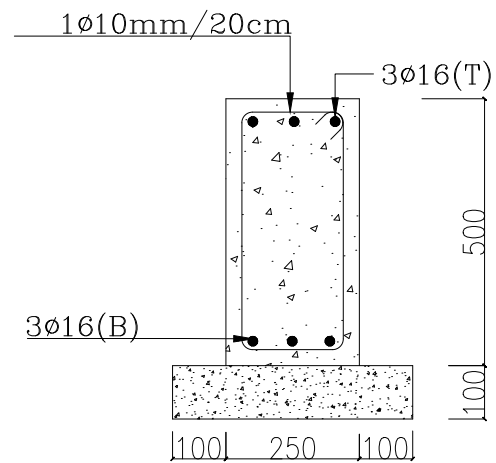
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GENERAL INFORMATION

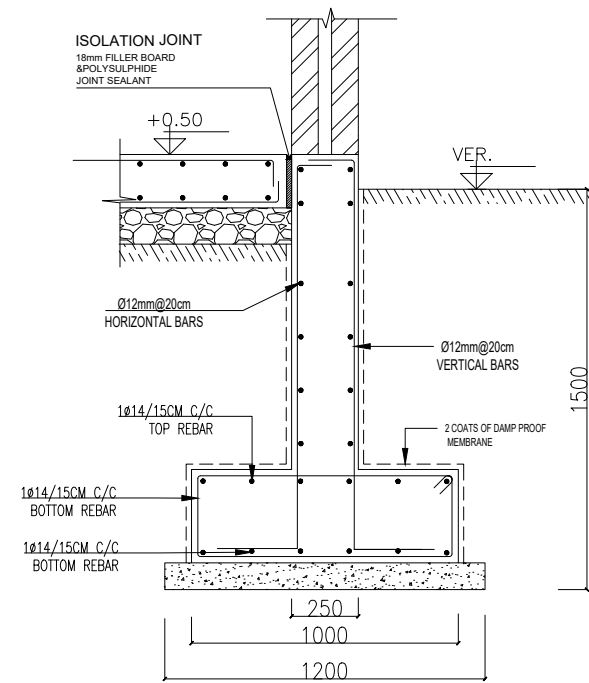
DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-00	PROJECT NO.	-



FOOTING PLAN
SCALE 1.100



SECTION IN TIE BEAM(TB)
DIA (50*25)cm
SCALE 1.20



SECTION 1.1
SCALE 1.20

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

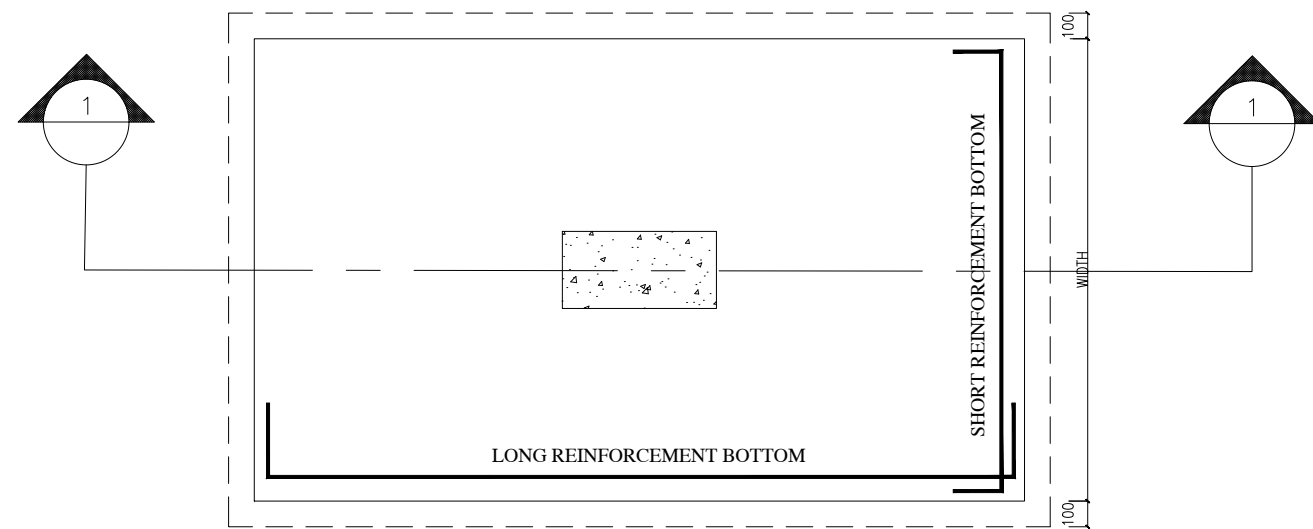
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
FOOTING PLAN

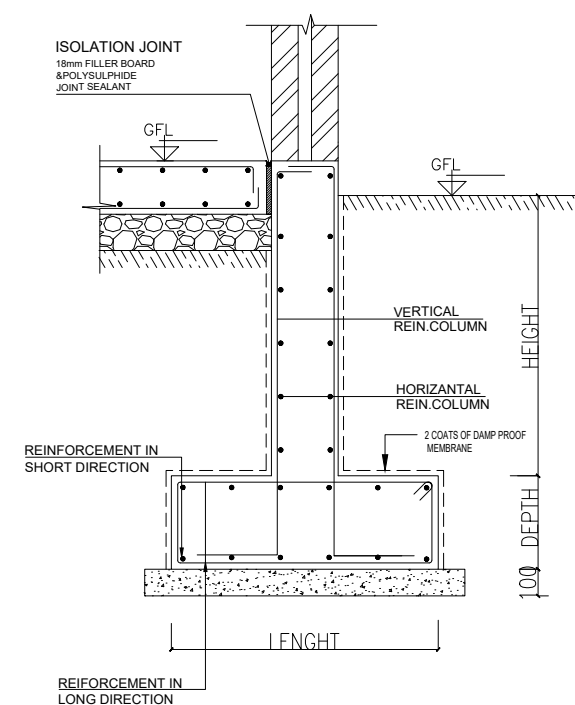
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PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-04	PROJECT NO.	-



TYPICAL SECTION IN ISOLATED FOOTING

SCALE

1.20



SECTION 1.1

SCALE

1.20

ISOLATED FOOTING SCHEULE

FOOTING NUM.	PLAIN DIM.			REINFORCED CONCRETE			BOTTOM REINFORCEMENT		TOP REINFORCEMENT	
	LENGTH	WIDTH	DEPTH	LENGTH	WIDTH	DEPTH	LONG DIRECTION	SHORT DIRECTION	LONG DIRECTION	SHORT DIRECTION
F1	220	220	10	200	200	50	∅14mm/20cm	∅14mm/20cm	2∅14mm	2∅14mm
F2	250	250	10	230	230	50	∅14mm/20cm	∅14mm/20cm	2∅14mm	2∅14mm

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

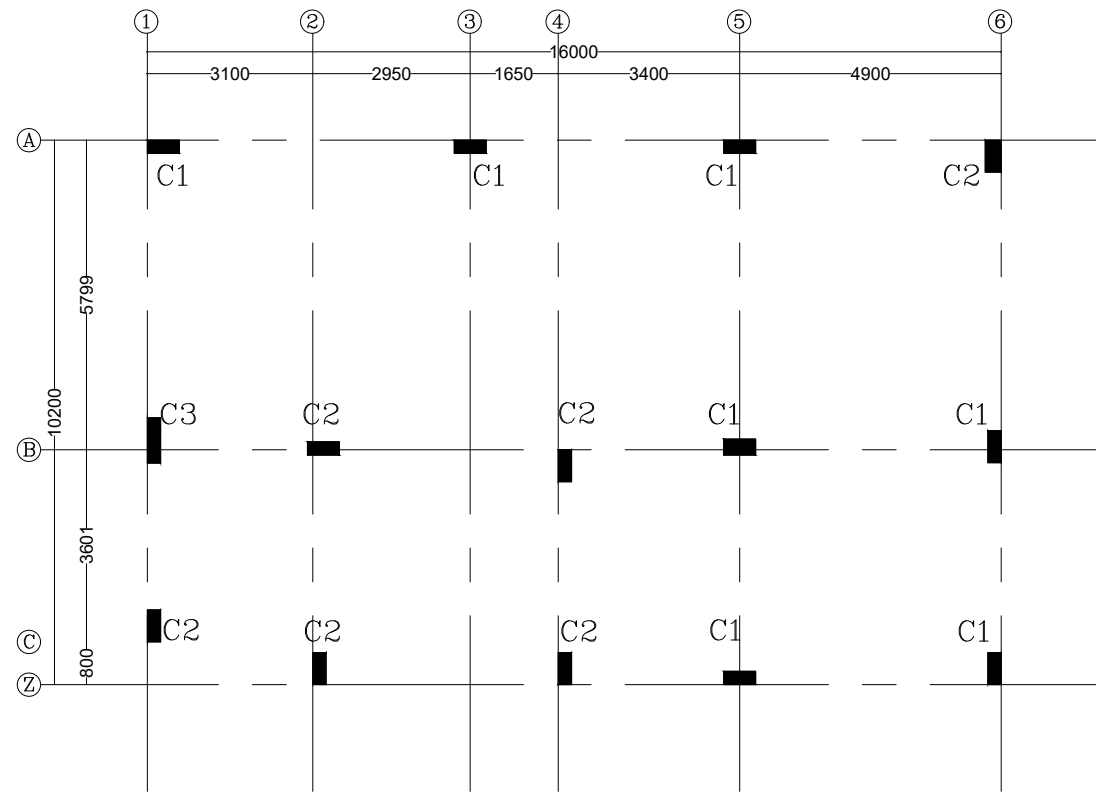
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
FOOTING DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-05	PROJECT NO.	-



COLUMN AXIS

SCALE 1:100

	COLUMN NO.		
GROUND FLOOR	COLUMN C1	COLUMN C2	COLUMN C3
	<p>Bars 8Ø16mm stirrups 2Ø10mm@10cm(sup) stirrups 2Ø10mm@20cm(mid) Scale 1:20</p>	<p>Bars 12Ø16mm stirrups 2Ø10mm@10cm(sup) stirrups 2Ø10mm@20cm(mid) Scale 1:20</p>	<p>Bars 12Ø16mm stirrups 2Ø10mm@10cm(sup) stirrups 2Ø10mm@20cm(mid) Scale 1:20</p>

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

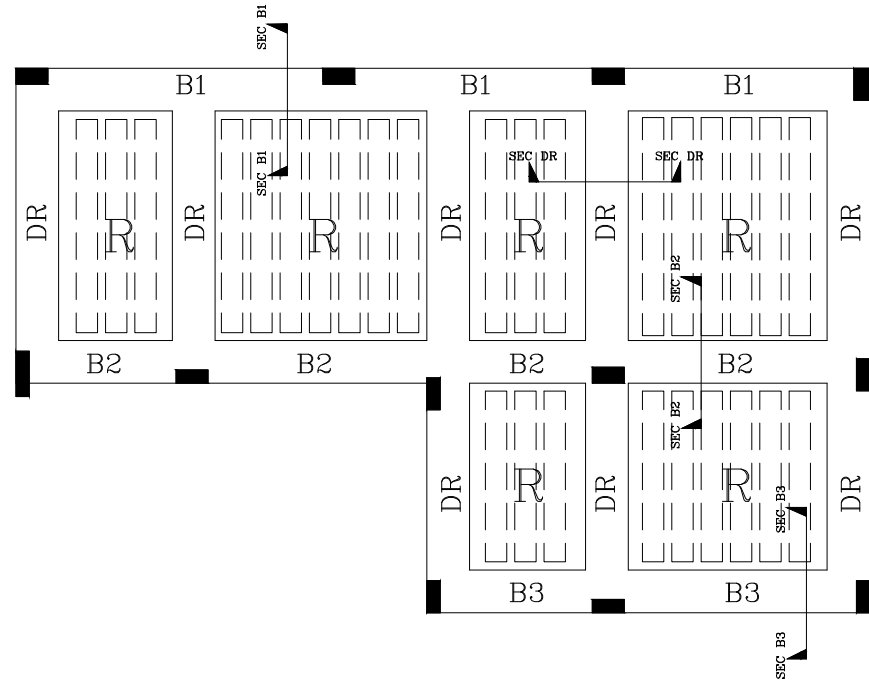
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CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.

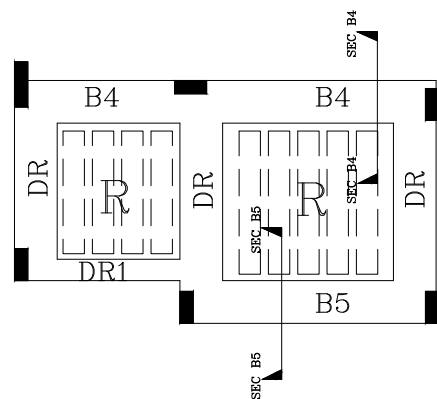


DRAWING TITLE :
COLUMN AXIS & DETAILS

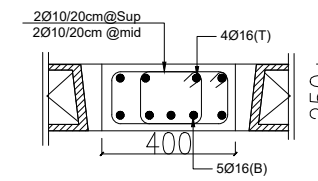
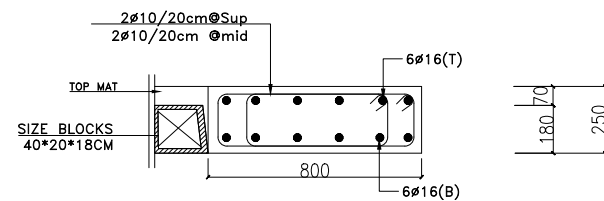
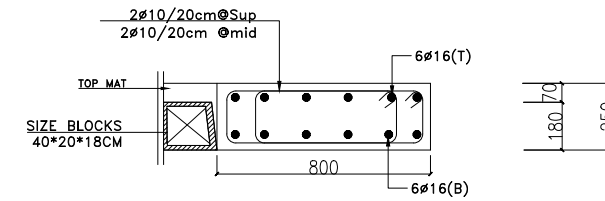
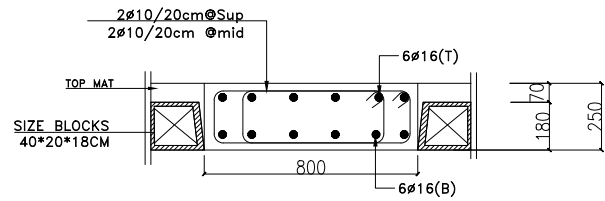
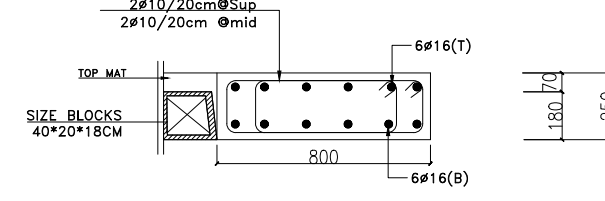
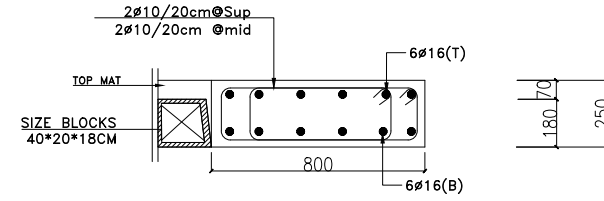
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PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-06	PROJECT NO.	-



GROUND SLAB HIGH LEVEL
SCALE 1.100



GROUND SLAB LOW LEVEL
SCALE 1.100



NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

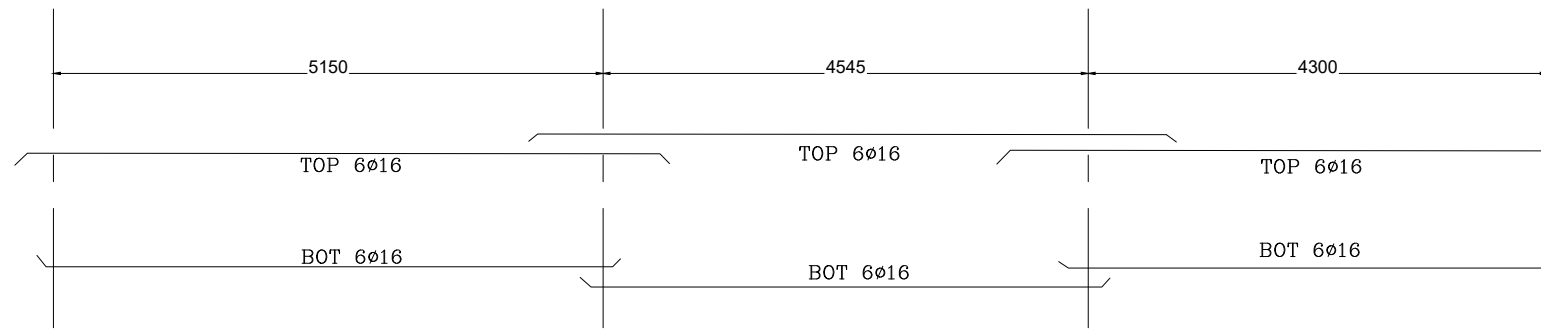
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



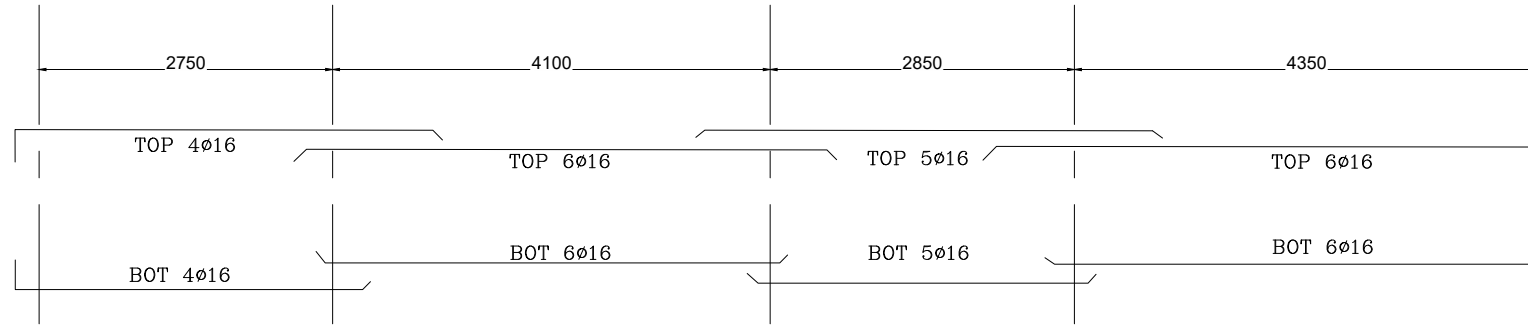
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SLABS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-07	PROJECT NO.	-



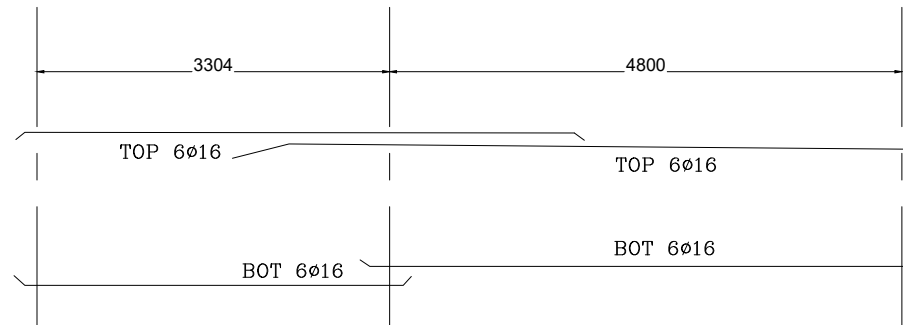
BEAM (B1)

SCALE 1.100



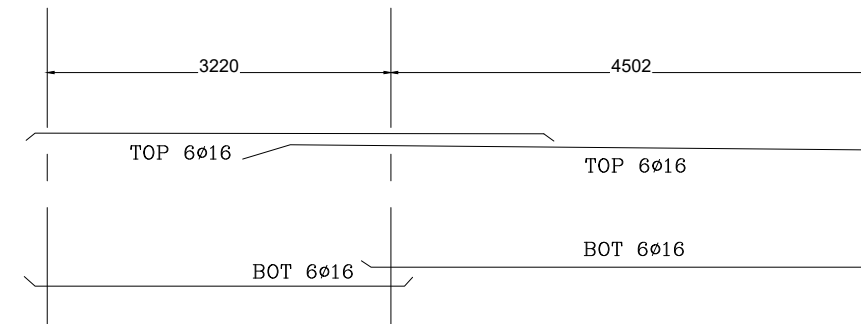
BEAM (B2)

SCALE 1.100



BEAM (B3)

SCALE



BEAM (B4)

SCALE

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:

AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:

CARS & TRUCKS WASH&MAINTENANCE STATION

CONSULTANT:

AMTAR ENGINEERING CO.



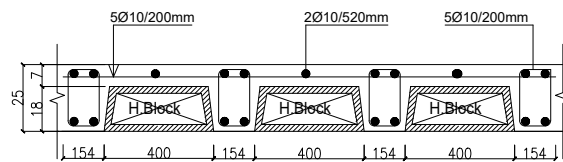
DRAWING TITLE :

1.200

S-08

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.		PROJECT NO.	-

RIBBED SLABS



TYPICAL SECTION THROUGH SLAB

SCALE

1.20

Type	CONC.SEC.		BOTTOM BARS	TOP BARS	SPACING (CM)	TOP SLAB (CM)	STIRRUPS	REMARKS
	B (cm)	H (cm)						
R	15	25	2Ø14	2Ø14	55	7	Ø8@20cm	

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

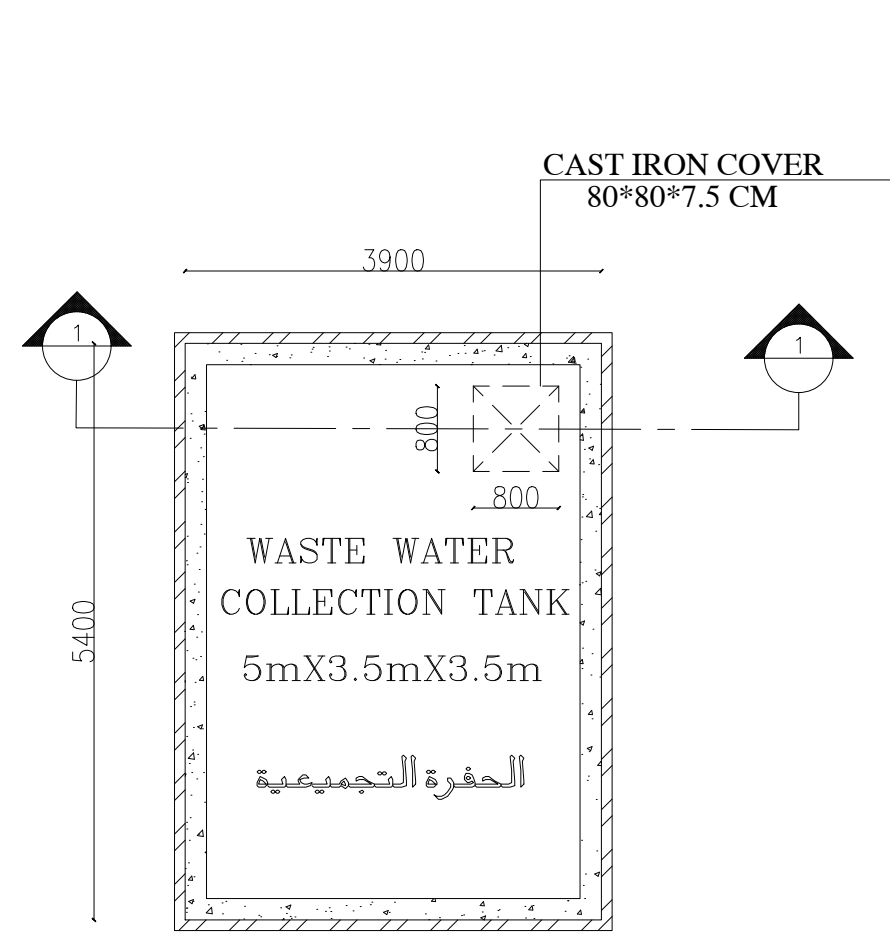
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.

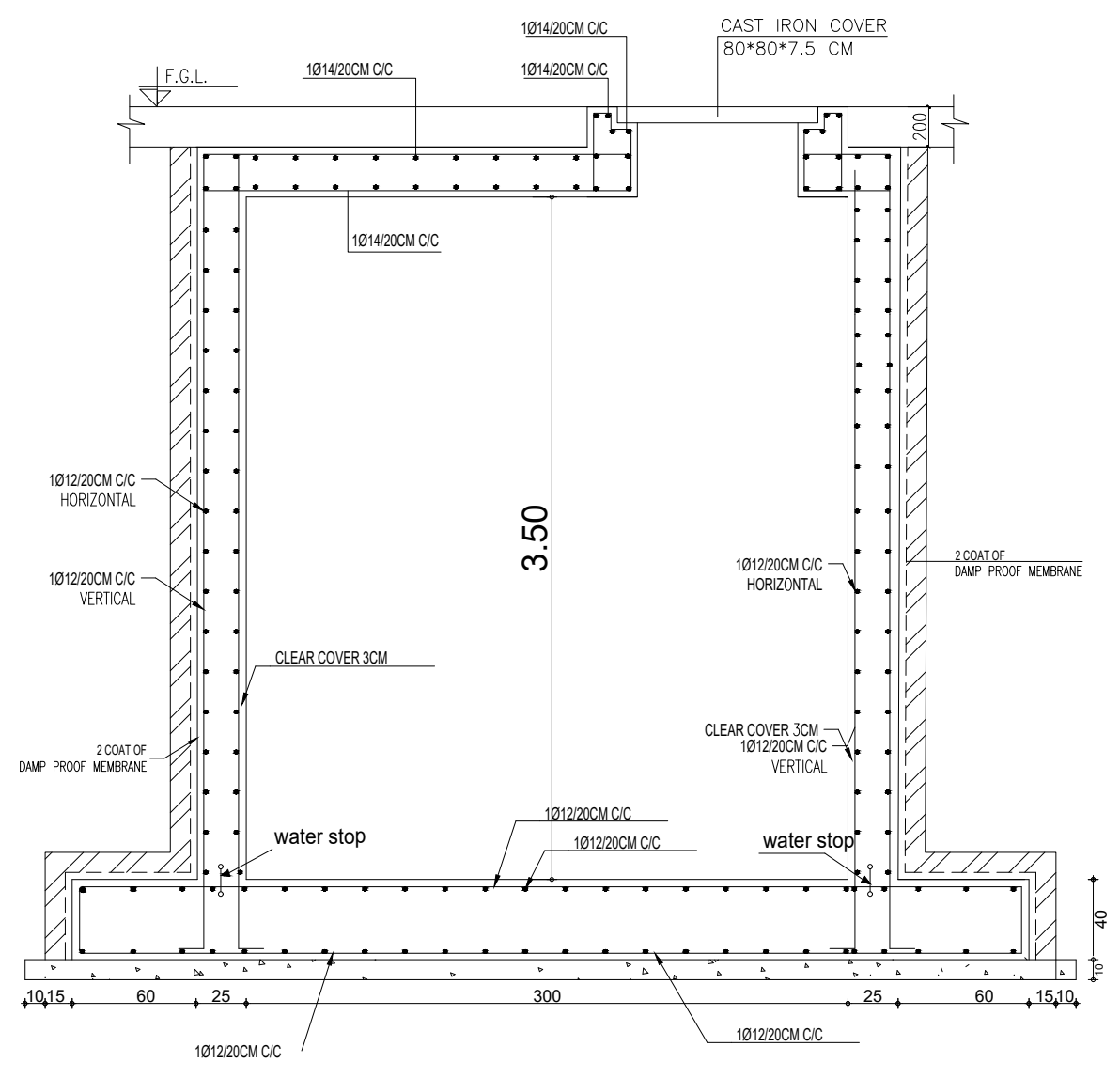


DRAWING TITLE :
WASTE WATER
COLLECTION TANK

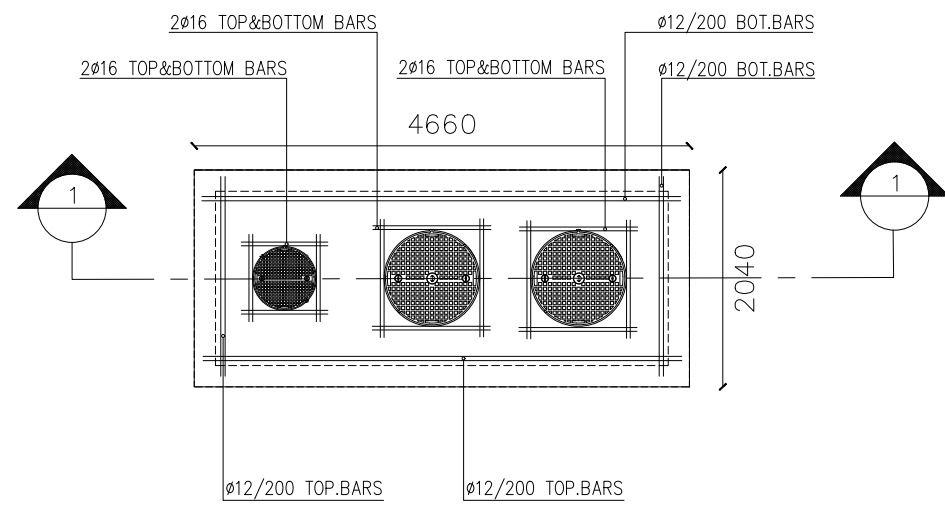
DESIGNED BY	ENG.AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-09	PROJECT NO.	-



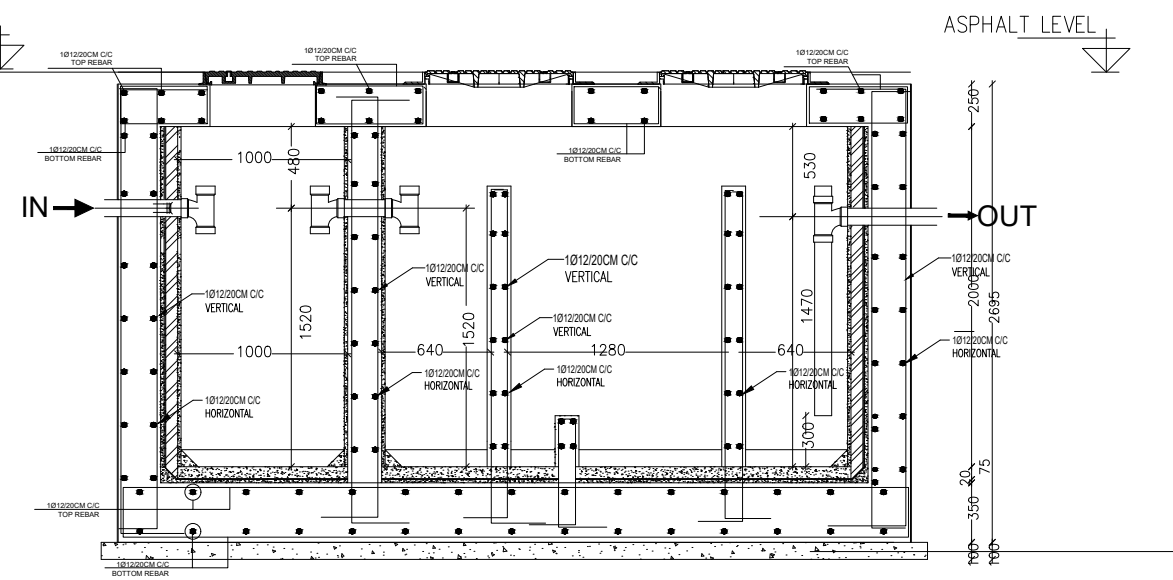
**WASTE WATER
COLLECTION TANK PLAN**
SCALE 1.50



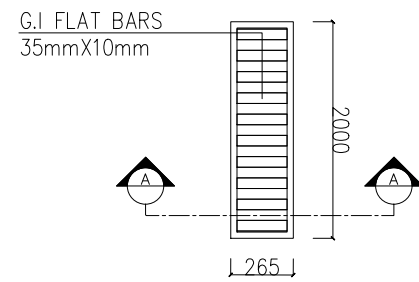
SECTION 1.1
SCALE 1.25



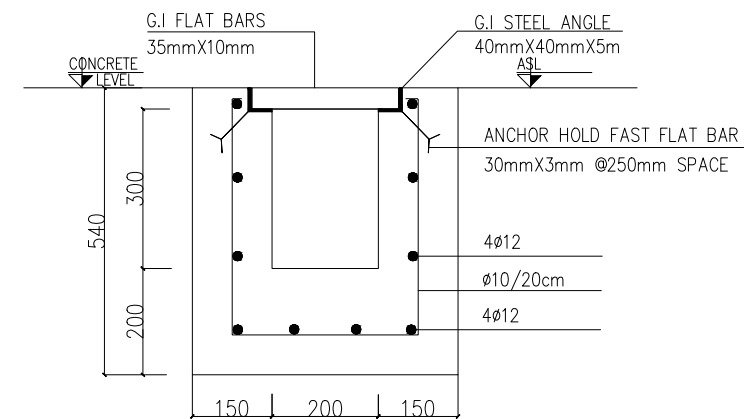
SEPERATOR PLAN
SCALE 1.50



SECTION (1.1)
SCALE 1.20



TRENCH PLAN
SCALE 1.50



**SECTION A-A
DRAIN TRENCH**
SCALE 1.10

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

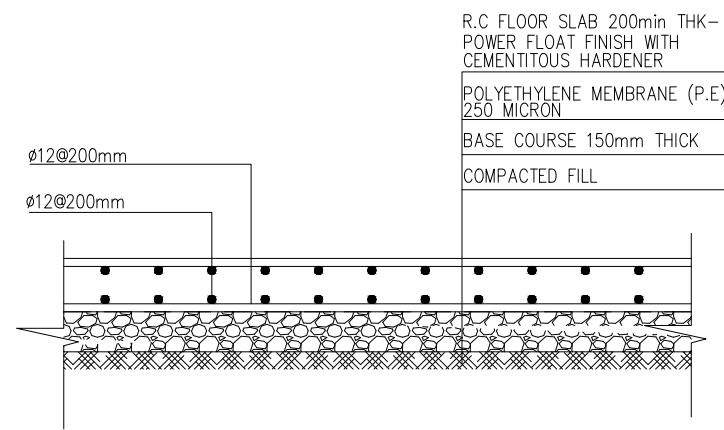
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



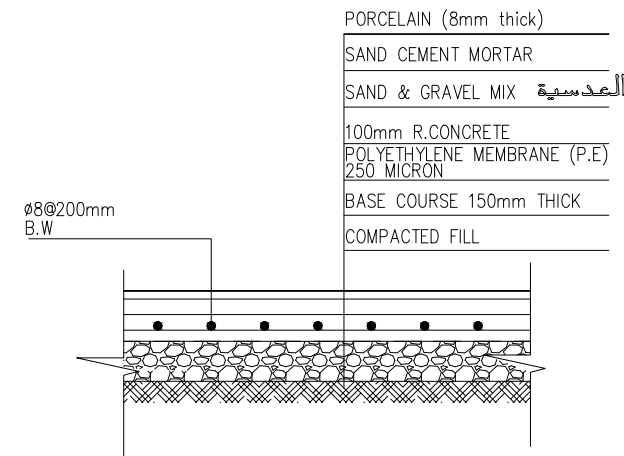
DRAWING TITLE :
SEPERATOR DETAILS

DESIGNED BY	ENG.AHMAD.AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-10	PROJECT NO.	-



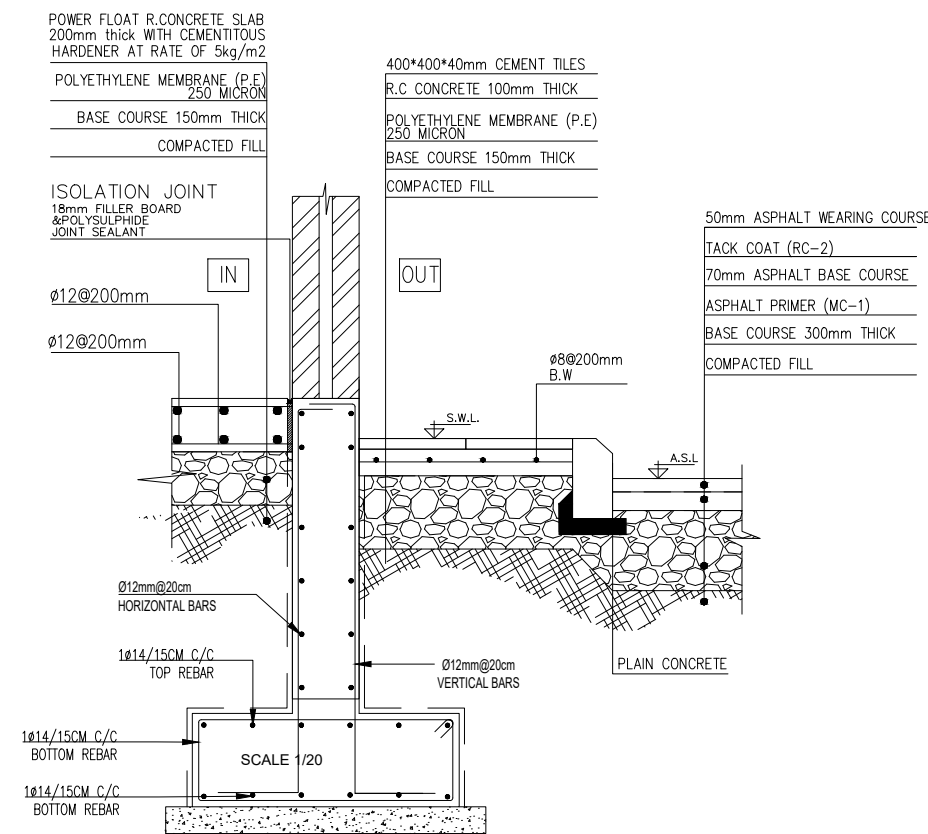
DETAIL OF SLAB ON GRADE(SOG)

SCALE 1/20



DETAIL OF PORCELAIN

SCALE 1/20



DETAIL OF SIDE WALK

SCALE 1/20

NOTES:

3			
2			
1			
REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:

AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:

CARS & TRUCKS WASH&MAINTENANCE STATION

CONSULTANT:

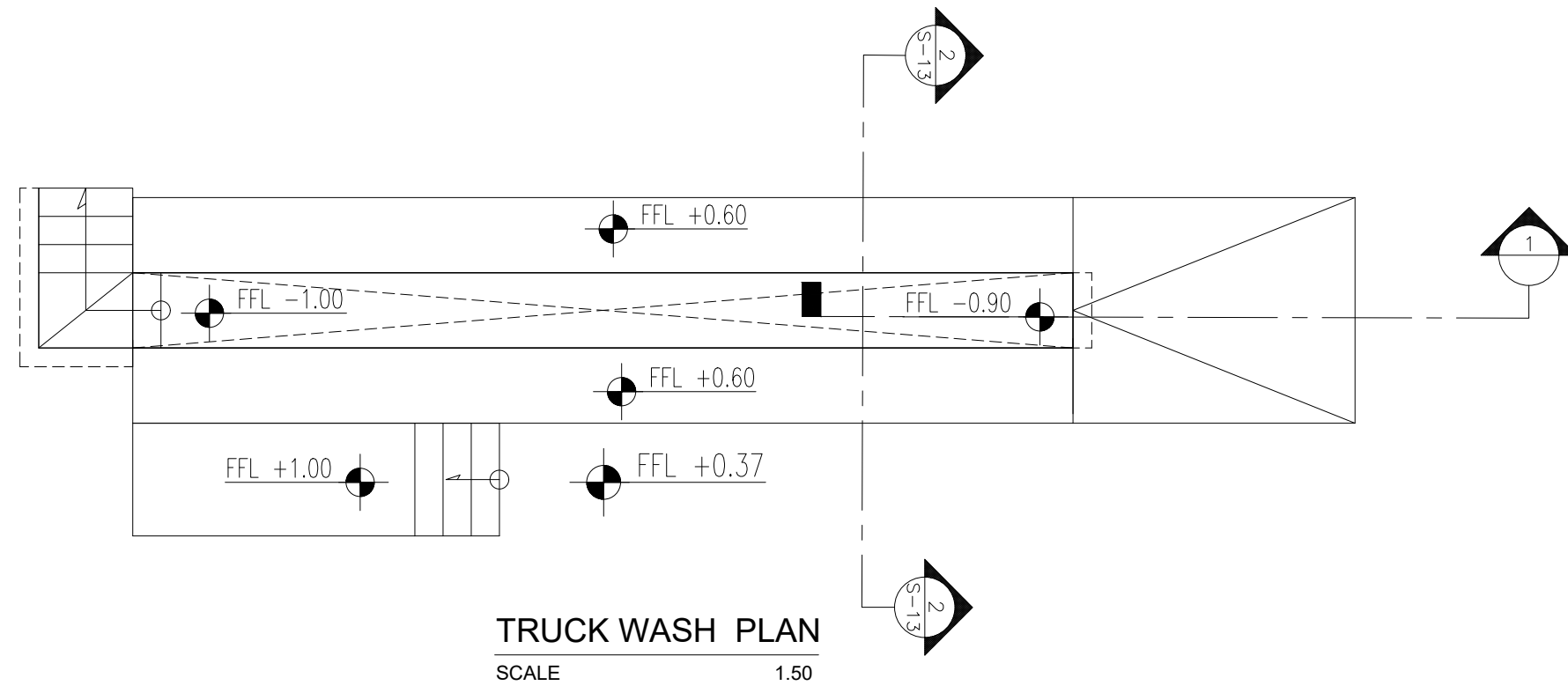
AMTAR ENGINEERING CO.



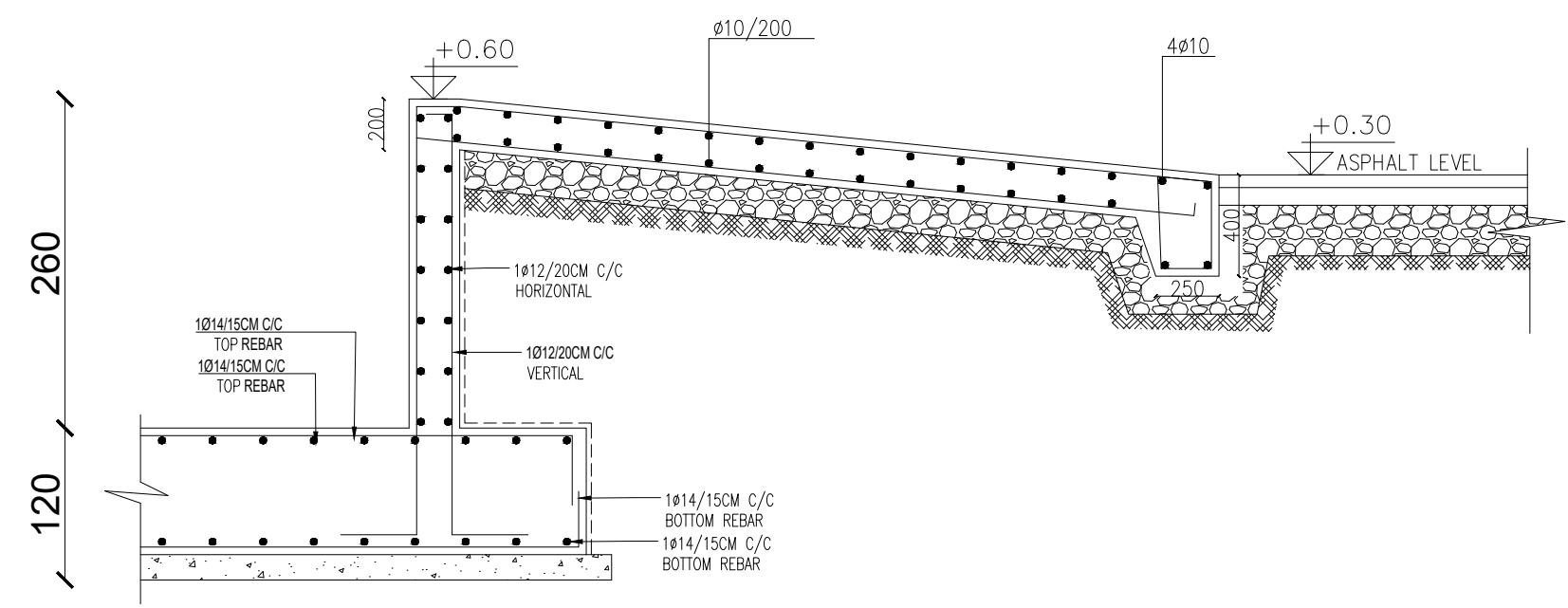
DRAWING TITLE :

STRUCTURAL DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-11	PROJECT NO.	-



TRUCK WASH PLAN
SCALE 1.50



SECTION 1.1
SCALE 1/20

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

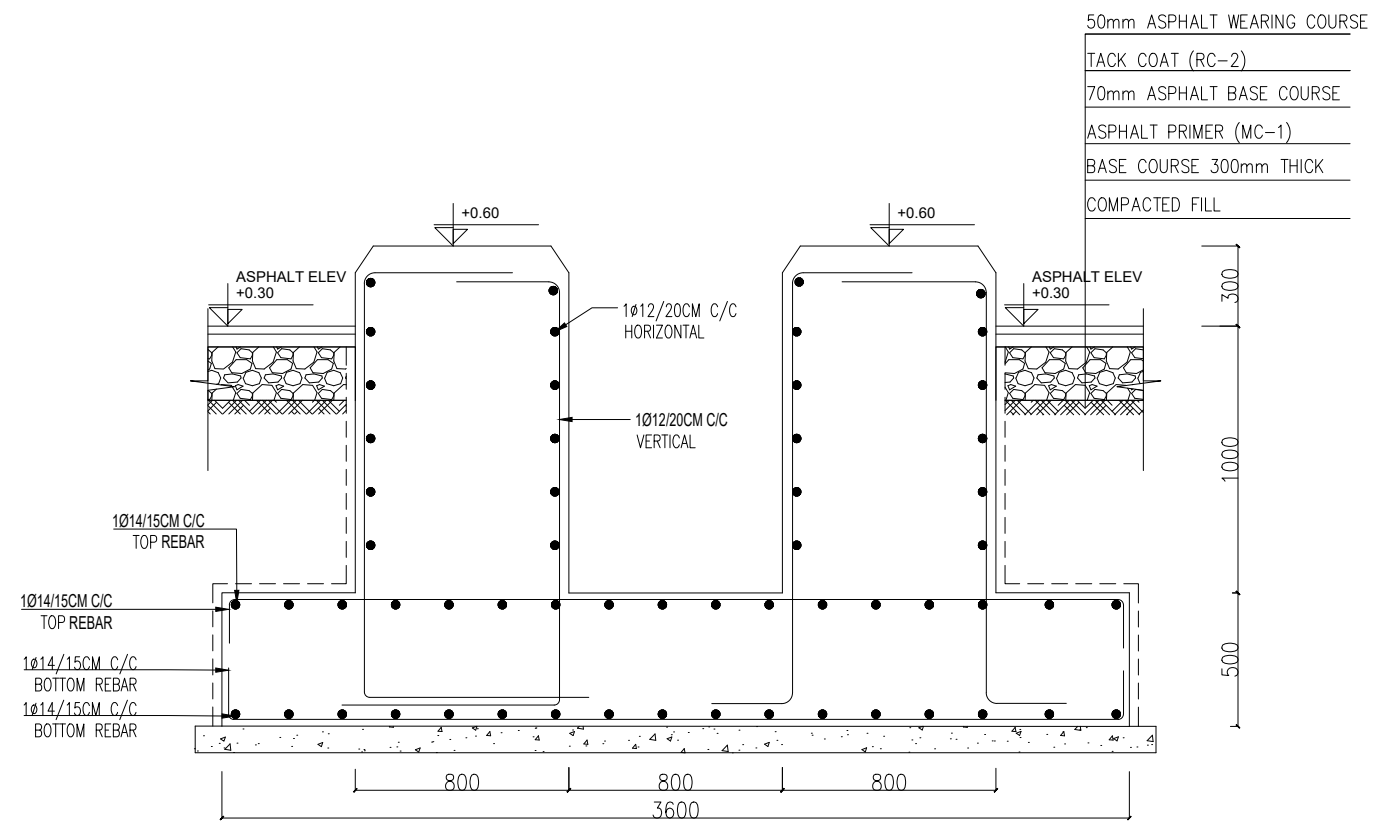
PROJECT NAME:
CARS & TRUCKS WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
STRUCTURAL DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-12	PROJECT NO.	-



SECTION (2.2)

SCALE 1.20

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

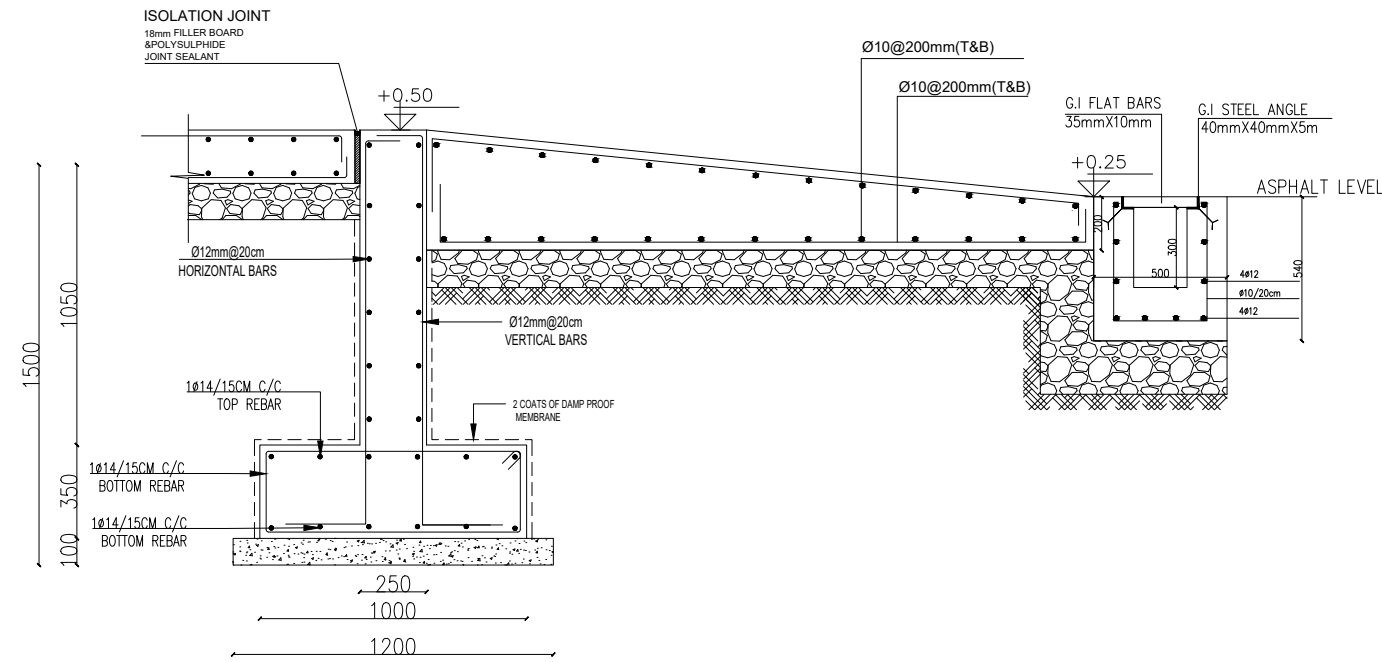
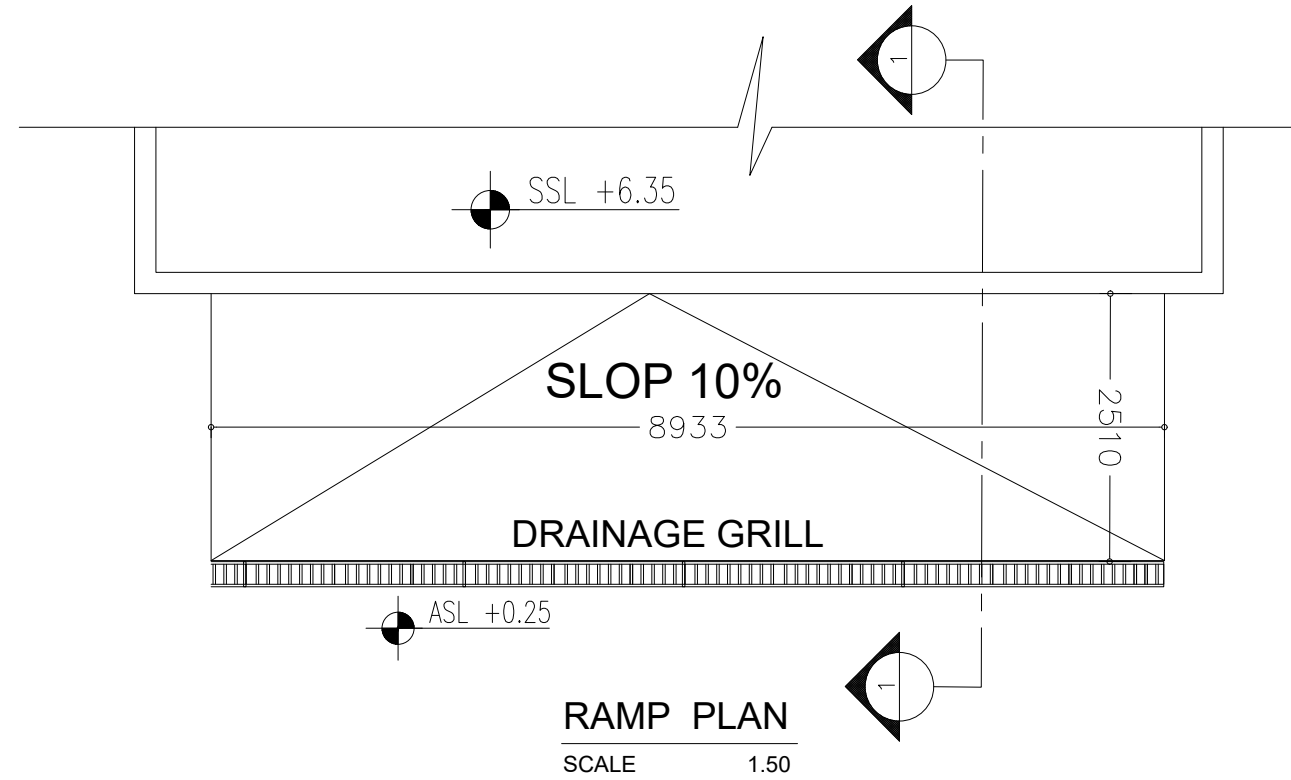
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
STRUCTURAL DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-13	PROJECT NO.	-



SECTION 1.1
SCALE 1/20

NOTE :
THE RAMP INTERIOR FLOOR SLAB SHOULD BE POURED MONOLITHIC

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

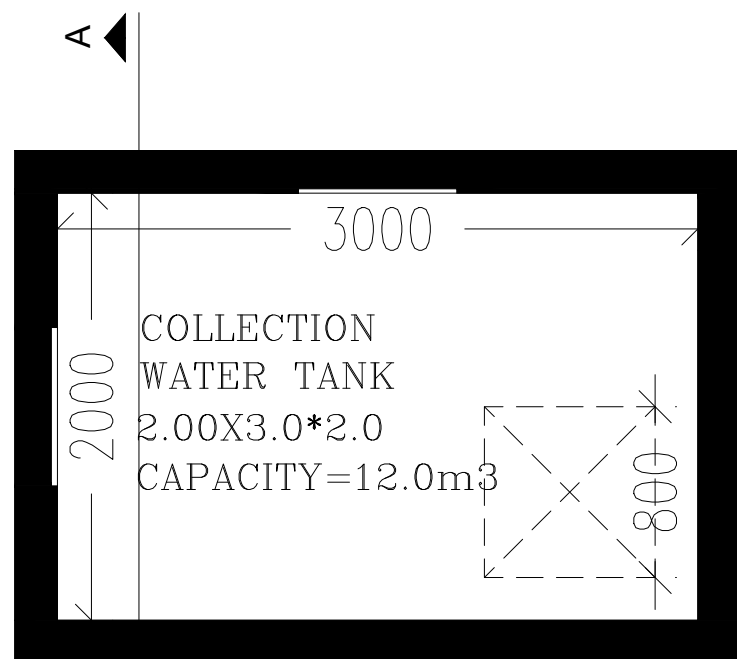
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.

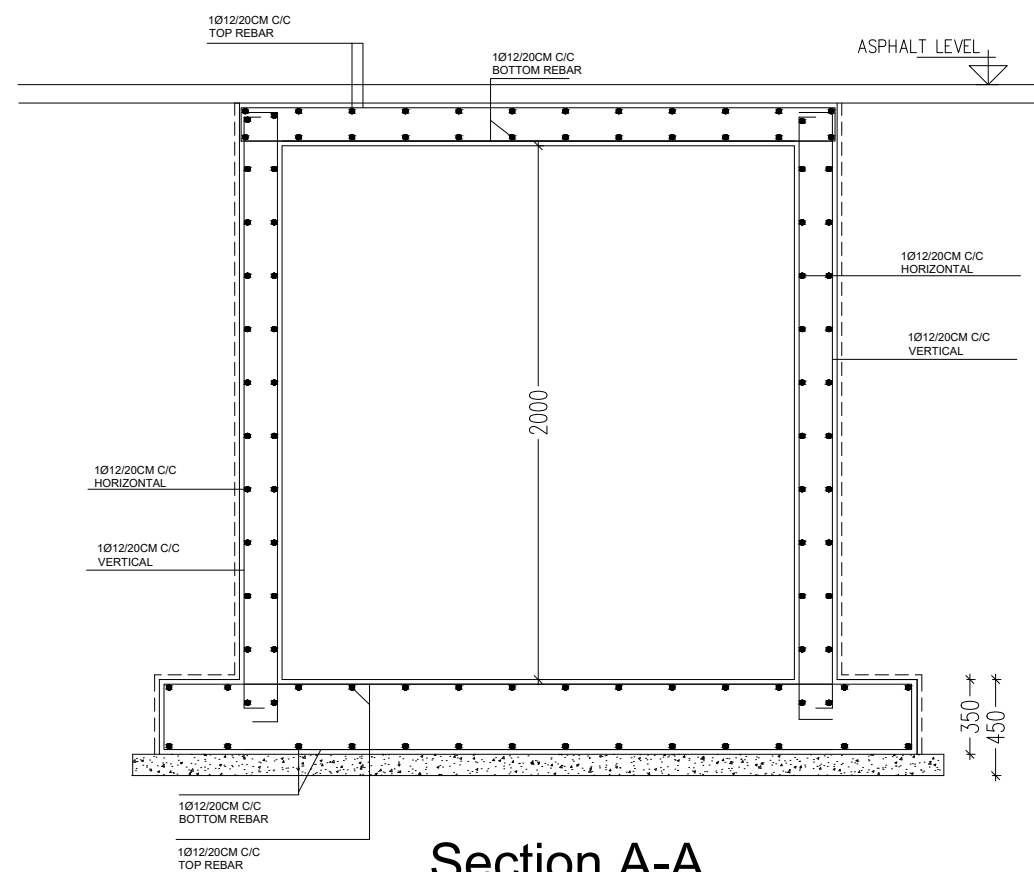


DRAWING TITLE :
STRUCTURAL DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-14	PROJECT NO.	-



Plan
Scale 1:25



Section A-A
Scale 1:25

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

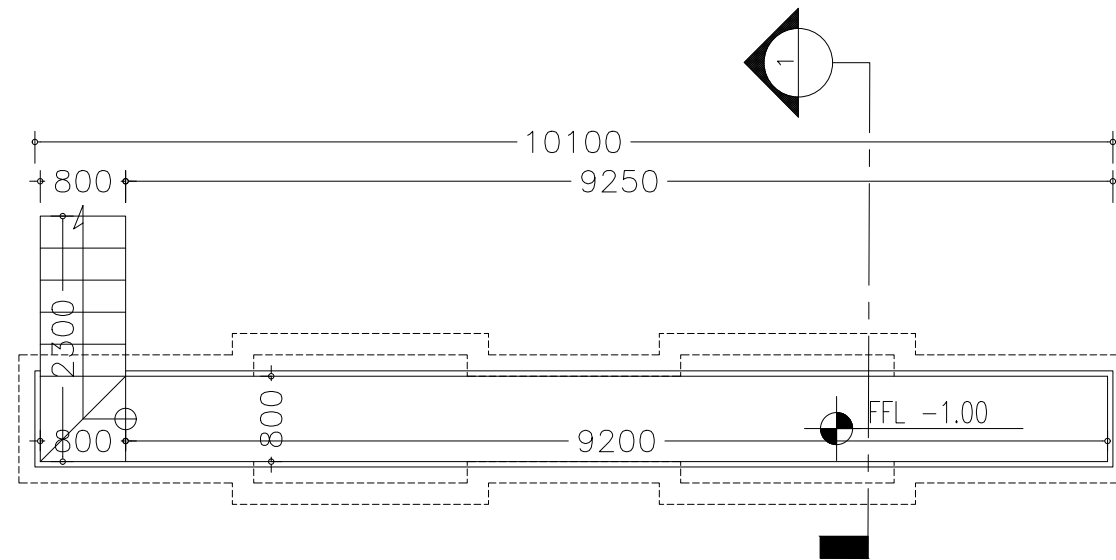
PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



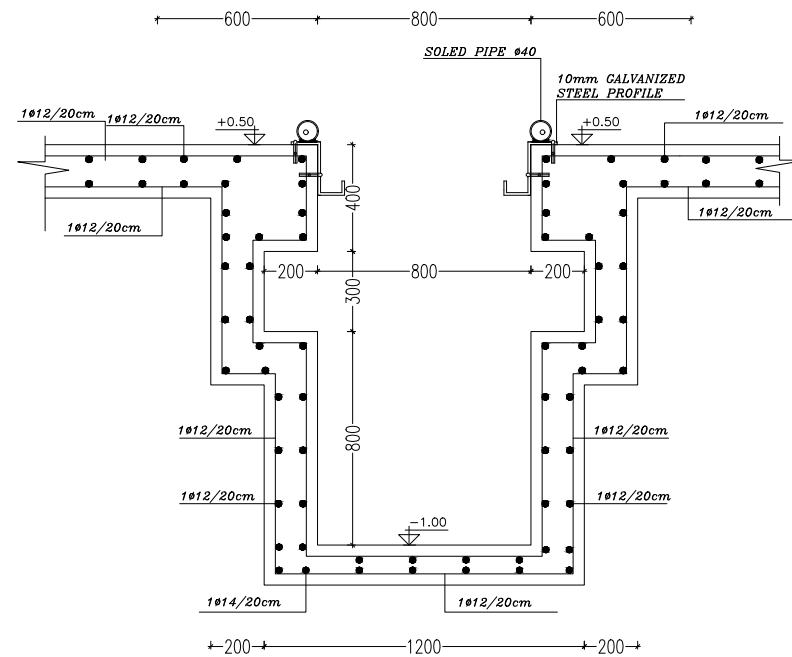
DRAWING TITLE :
STRUCTURAL DETAILS

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-14	PROJECT NO.	-



**TRUCK & CAR REPAIR ,OIL CHANGE
& WHEEL DIFFUSER PLAN**

SCALE 1.50



SECTION 1.1

SCALE 1/20

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:

AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:

CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:

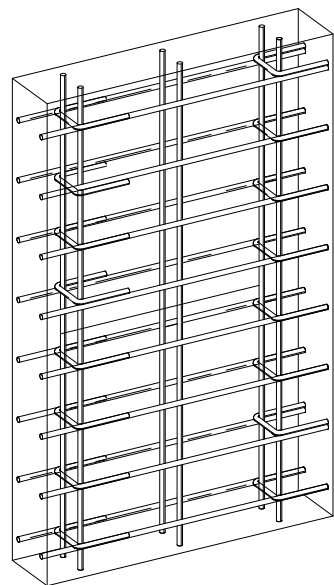
AMTAR ENGINEERING CO.



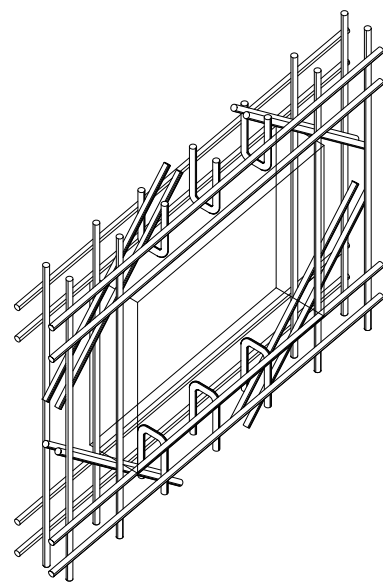
DRAWING TITLE :

STRUCTURAL DETAILS

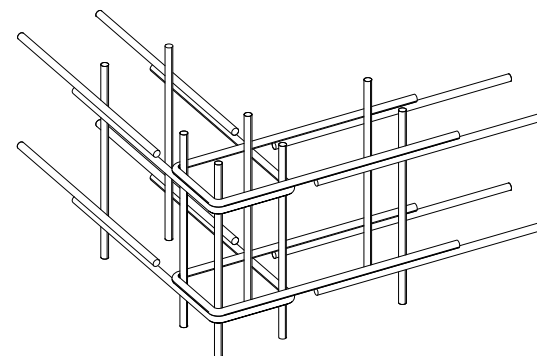
DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-15	PROJECT NO.	-



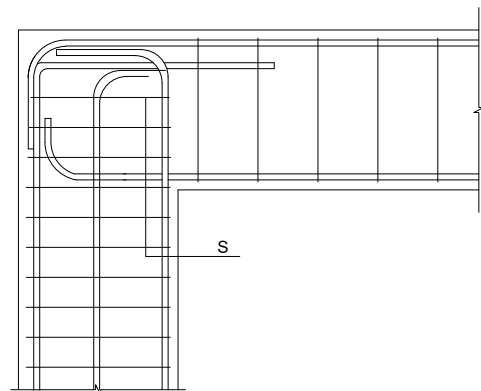
FOR ALL WALLS
Use Ø10 CLIPS staggered at 20cm intervals.



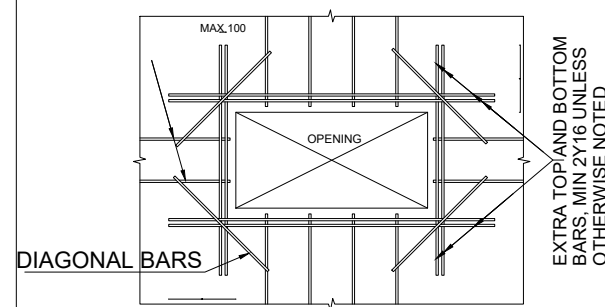
For all wall openings use Ø16
and fix diagonal Ø16mm/15cm bars in
both faces, at each corner.



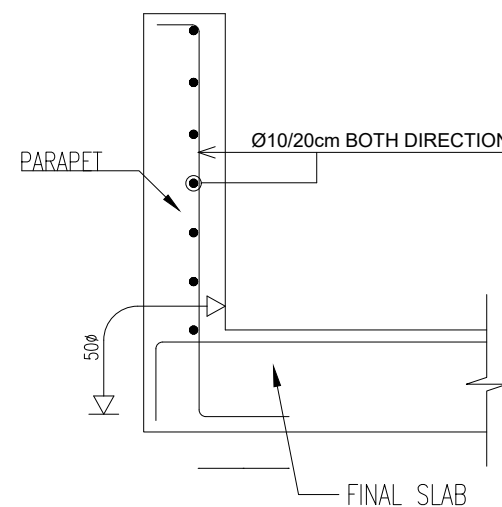
For all walls and wall beams
Use U Bars for ends and corners



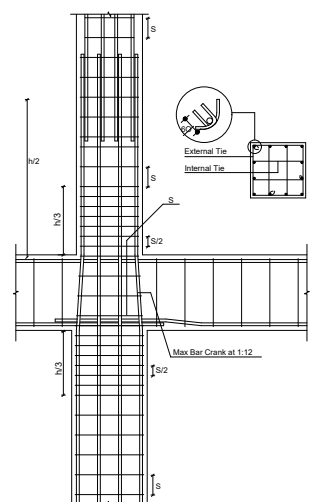
Typical Reinforcement Detail
Exterior Beam:Column
(End columns) .



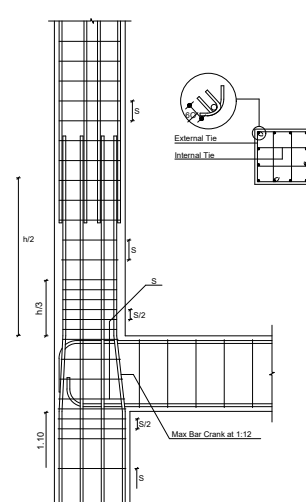
RECTANGULAR OPENING



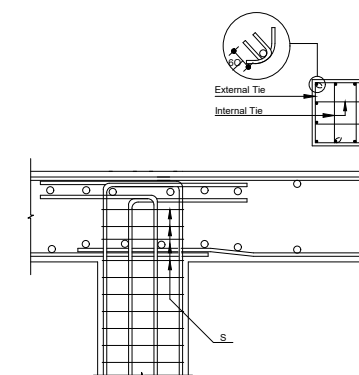
PARAPET ABOVE SLAB



Typical Reinforcement Detail
(Minimize Columns From Middle) .



Typical Reinforcement Detail
(Minimize Columns From Edge) .



Typical Reinforcement Detail
(End columns) .

NOTES:

REV. No	DATE	DESCRIPTION	CHECKED

CLIENT:
AL-HASHEMIAH MUNICIPALITY

PROJECT NAME:
CARS & TRUCKS
WASH&MAINTENANCE STATION

CONSULTANT:
AMTAR ENGINEERING CO.



DRAWING TITLE :
GENERAL SECTION

DESIGNED BY	ENG AHMAD AZZAM	DATE	2023
PRODUCED BY	ENG.SARA MAROUF	SCALE	1.200
CHECKED BY	ENG.HAZEM ALRBADY	REV.	
DRAWING NO.	S-16	PROJECT NO.	-