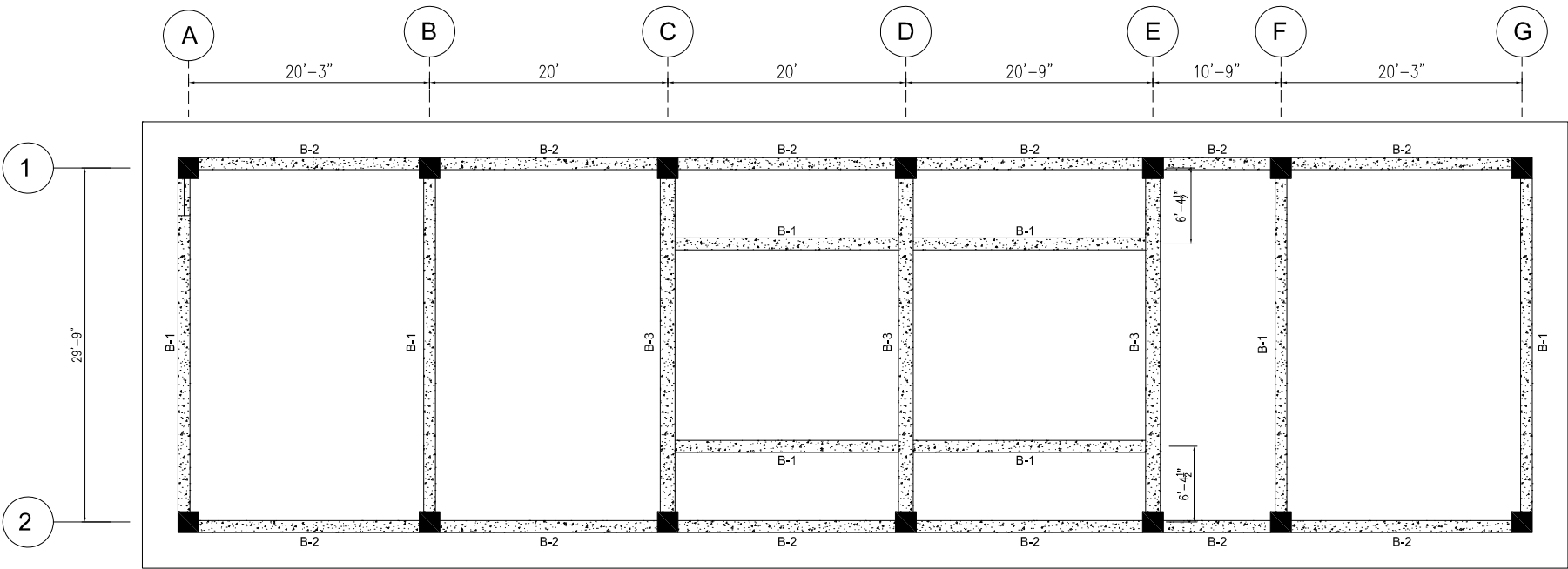
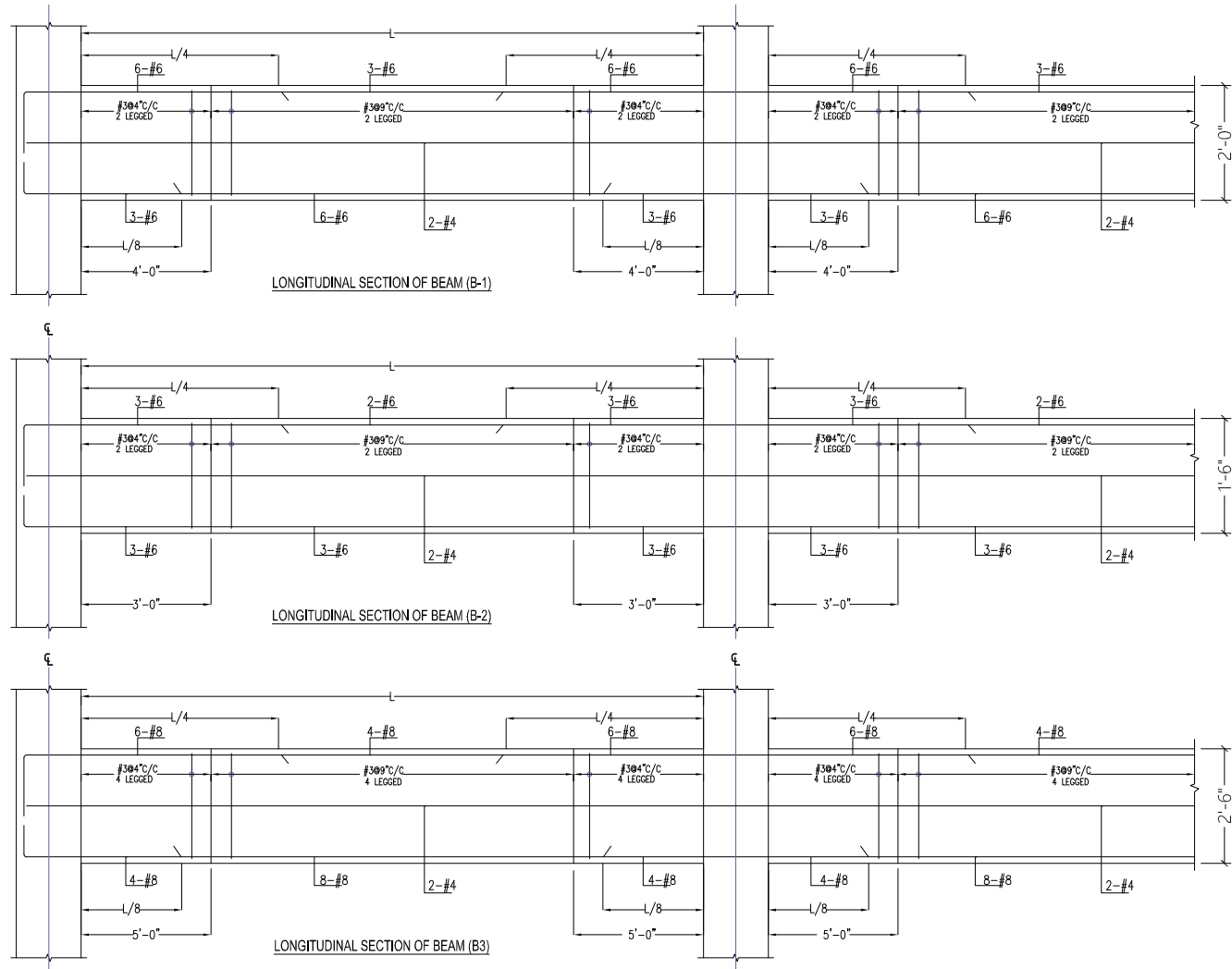
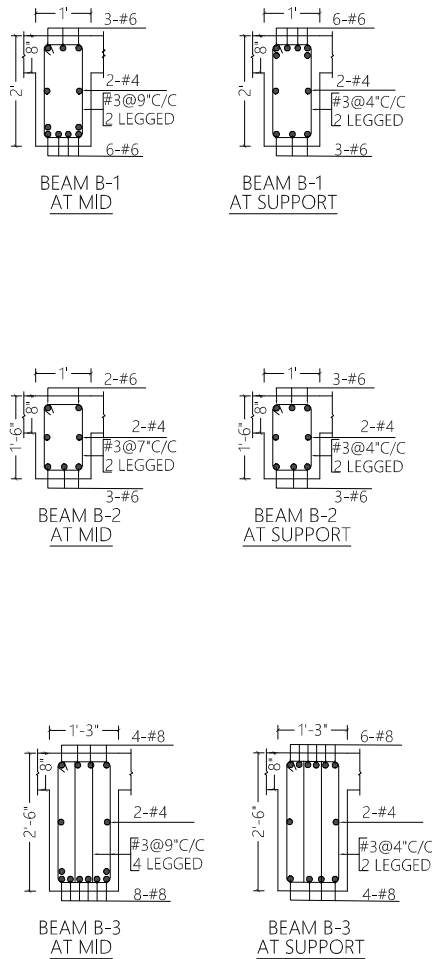




GROUND FLOOR BEAMS LAYOUT PLAN



ISSUE FOR TENDER

NOTE:
-THE BARS WILL CONTINUE IN CONTINUOUS BEAMS AS PER REQUIREMENT OF STEEL OR CUT AT DEVELOPMENT LENGTH
-FIRST RING IS PLACED AT 2" FROM THE FACE OF THE SUPPORT
-CLEAR COVER OF 1.5" IS PROVIDED. AT INTERSECTIONS, STEEL OF BEAMS IN SHORTER DIRECTION IS REDUCED TO PASS THROUGH INTERSECTION
-PROVIDE 4" STIRRUPS UPTO A DISTANCE EQUAL TO TWICE THE MEMBER'S DEPTH ON BOTH SIDES OF BEAM TO BEAM INTERSECTION
-BEAM'S POSITIONS MAY BE ADJUSTED AS PER ARCHITECTURAL REQUIREMENT WITHOUT CHANGING BEAM COLUMN FRAME
-THE BARS WILL BEND IN COLUMNS IF THE BEAM IS DISCONTINUED

NOTES:

This drawing is confidential and is the exclusive property of AAA (Pvt)Ltd.and is loaned subject to the condition that it is not to be reproduced or used to furnish for the making of drawing or prints except as sanctioned in writing by AAA (Pvt)Ltd.

Detailed Architectural Design Drawings

CLIENT NAME

MAIN CONSULTANT



JV MEMBERS

STRUCTURAL CONSULTANT



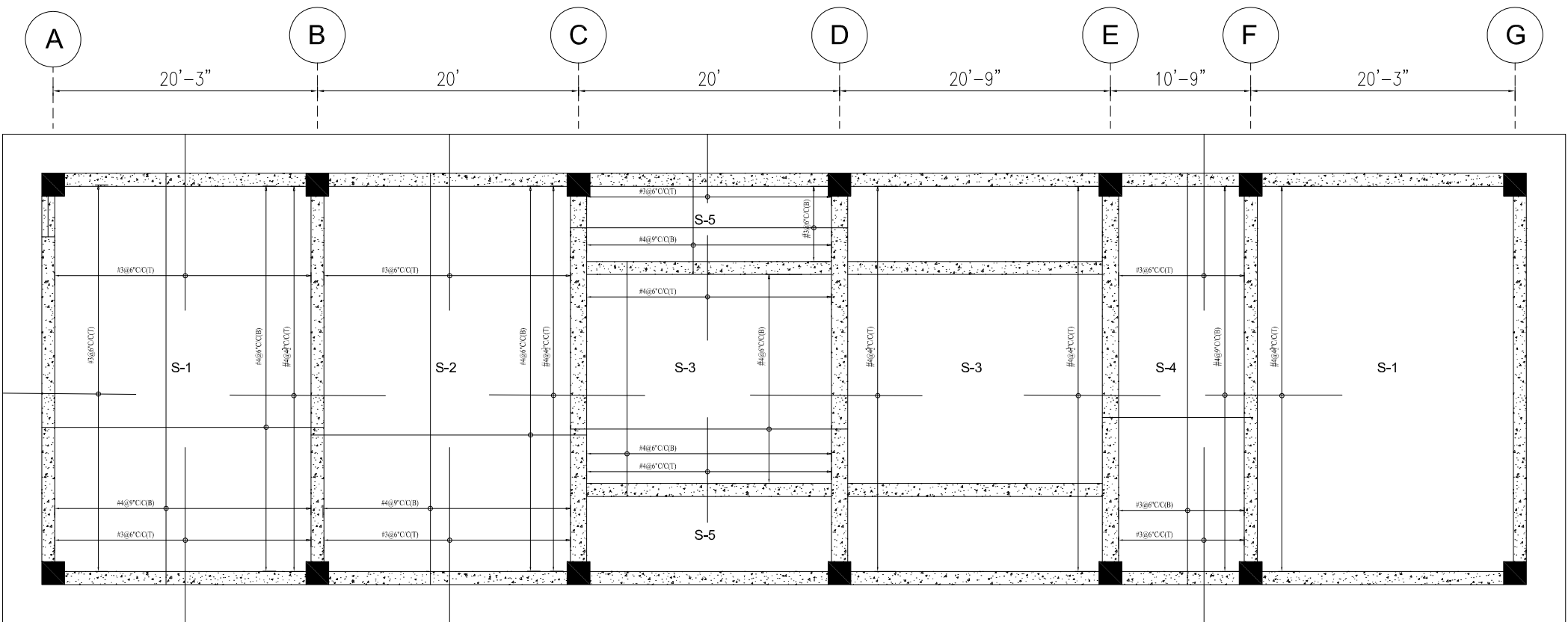
MEP CONSULTANT

Project Name

Consultancy Services for the Preparation of Detailed Design, Procurement Support and Construction Supervision of New Air Traffic Control Tower (ATCT), Fire Station and Allied Facilities at Skardu International Airport

Sheet Name
GF BEAMS DETAIL

Date	November, 2025
Scale	NTS
Drawn by	Abdullah
Checked by	Engr M. Aamir
Approved by	Engr. Dr M- Rizwan
Drawing No.	S-06U



GROUND FLOOR SLAB REINFORCEMENT PLAN
THICKNESS 8"

- NOTE:
- PROVIDE #3 @ 10" C/C DISTRIBUTION STEEL WITH TOP (NEGATIVE) REINFORCEMENT OF ALL SLABS
 - PROVIDE 3#6 BARS WITH BOTTOM REINFORCEMENT UNDER THE WALLS IF CONSTRUCTED DIRECTLY ON SLAB
 - ALT BOTTOM STEEL IS CURTAILED AT L/8 AND TOP STEEL IS CUT AT L/3 OF THE SPAN
 - CONSIDER CONTINUOUS AND DIS-CONTINUOUS EDGES WHILE LAYING TOP STEEL BARS
 - FOR DIS-CONTINUOUS EDGE, BEND THE END OF BARS WITHIN SLAB THICKNESS
 - FOR POSITIVE REINFORCEMENT, PLACE BARS ALONG LONGER SPAN ON TOP OF BARS PLACED ALONG SHORTER SPAN
 - BEAMS POSITIONS MAY BE ADJUSTED AS PER ARCHITECTURAL REQUIREMENT WITHOUT CHANGING BEAM COLUMN FRAME
 - BOTTOM BARS ARE REPRESENTED BY (B) AND TOP BARS BY (T)

ISSUE FOR TENDER

NOTES: This drawing is confidential and is the exclusive property of AAA (Pvt)Ltd.and is loaned subject to the condition that it is not to be reproduced or used to furnish for the making of drawing or prints except as sanctioned in writing by AAA (Pvt)Ltd.	
Detailed Architectural Design Drawings	
CLIENT NAME	
MAIN CONSULTANT	
 Anwar Ali Architects (Pvt.) Ltd. Consulting Architects,Engineers Planners & Management Consultants 06 HBFC BLOCK A FAISAL TOWN LAHORE	
JV MEMBERS	
STRUCTURAL CONSULTANT	
 AR ENGINEERS Architects, Structural, Earthquake Engineering, Geo Technical, Public Health, Highway, Electrical Design Solution. Office # 4, 2nd Floor,Sultana Arcade Firdous Market, Gulberg-II, Lahore. Ph: 042-35831906 03008813921, E-mail: arengineers786@gmail.com	
MEP CONSULTANT	
Project Name	
Consultancy Services for the Preparation of Detailed Design, Procurement Support and Construction Supervision of New Air Traffic Control Tower (ATCT), Fire Station and Allied Facilities at Skardu International Airport	
Sheet Name	
GROUND FLOOR SLAB DETAIL	
Date	November, 2025
Scale	NTS
Drawn by	Abdullah
Checked by	Engr M. Aamir
Approved by	Engr. Dr M- Rizwan
Drawing No.	S-07 U

SKARDU AIRPORT ROADS

LIST OF DRAWINGS

S.NO	TITLE OF DRG	SHEET NO.
1	ATC ROADS PLAN	R-01
2	GENERAL NOTES	R-02,03
3	PLAN	R-04
4	ROADS COORDINATES	R-05
5	TYPICAL CROSS SECTION	R-06,07
6	PLAN & PROFILE	R-08,09 &10
7	PAVEMENT MARKING	R-11,12
8	PAA RUNWAY TO PAF RUNWAY PLAN & PROFILE	R-13
9	SECTION	R-14 to 30
10	ATCT PLATFORM GRADING	R-31 to 36



- NOTES:
- 1-ALL DIMENSIONS ARE IN METERS
 - 2-COORDINATE SYSTEM IS WGS84
 - 3-PAVEMENT HEIGHT IS 0.95m

REV. NO.	MODIFICATIONS	DATE	DRAWN
CLIENT:			
CONSULTANT:			
PROJECT :			
Consultancy Services for the Preparation of Detailed Design, Procurement Support and Construction Supervision of New Air Traffic Control Tower (ATCT), Fire Station and Allied Facilities at Skardu International Airport			
STATUS :			
ISSUED FOR INFORMATION			
DRAWING TITLE :			
ATC ROADS PLAN			
JOB No. :		SCALE :	
DSGN	NAME	DATE	SIZEA0
DRWN			
CHKD			
APPD			
DRAWING NO.			REV:
RELEASED FOR			
☒ INFORMATION	☐ TENDER	☐ APPROVAL	☐ CONSTRUCTION
☐ AS BUILT			

General Notes:

- 1. Design is based on Overseas Road Note 31 using following parameters:-
 - a. Aggregate Base Course CBR 80% (min)
 - b. Granular Subbase Course CBR 30% (min)
 - c. Subgrade CBR 5%
- 2. Subgrade to be compacted as per NHA Schedule as applicable.
- 3. Field Executives to ensure that top 1.0 ft of the subgrade, both in cut and fill shall be compacted at 95% of Modified AASHTO Density.
- 4. Material and quality requirements of Aggregate Base Course should be as per NHA Schedule as applicable.
- 5. Material and quality requirements of Subbase Course should be as per NHA Schedule as applicable.
- 6. Prime coat to be provided on Aggregate Base Course layer as per relevant item of NHA Schedule.
- 7. Asphaltic Wearing Course (AWC) shall be based on Job Mixed Formula (JMF).
- 8. Minor adjustment in levels/profile can be made by field executives as per site requirement, if deemed necessary.

General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

0 10 20 30 40 50
HORIZONTAL 1:1000
0 1 2 3 4 5
VERTICAL 1:100

CLIENT:


پاکستان ایئرپورٹ اتھارٹی

CONSULTANTS


Amar Associates (Pvt) Ltd.
CONSULTANTS

leiti-werk

PROJECT:

CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIRTRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

General Notes

DRAWN BY: ENGR. UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA	SCALE:
FILE PATH: D:\NA	DATE: 10/02/2020
DRAWING NO: R-02	SHEET: 01

A. MOBILIZATION, SURVEY & SITE SETUP

- A1** Mobilize within 14 days of NTP. Submit Mobilization Plan, Org-chart, Programme of Works (Primavera/MS-Project), HSE Plan, QA/QC Plan, Traffic Management Plan, Performance Bond and Insurances for Engineer's approval prior to commencement of any physical works.
- A2** Establish site office with adjacent Engineer's office, labour camp, fuel point, first-aid post, fire-fighting facility, standby DG set, and material storage yard with proper drainage and fencing.
- A3. SURVEY TEAM:** minimum one (1) Licensed Land Surveyor + 2 assistants, equipped with calibrated Total Station (accuracy 1"), Auto Level (≤ 0.5 mm/km), prism set and accessories. Calibration certificates (≤ 6 months) to be submitted to the Engineer.
- A4** Verify all BMs and control points jointly with the Engineer (ref. Drg. 0-01). Set out centerline, edges, ROW and toe lines; install reference pegs and offset pillars at 20 m intervals and at every PI / PC / PT. Maintain BM register and daily survey log.
- A5** Establish on-site QC laboratory equipped for: sieve analysis, Atterberg limits, MDD/OMC (Modified AASHTO), FDT (Sand-Cone & Nuclear gauge), CBR, LAA, soundness, flakiness, Marshall, extraction, bitumen penetration / softening point / ductility, and core density.

B. PLANT, MACHINERY & EQUIPMENT (per NHA General Specifications)

- B1 ASPHALT BATCH MIX PLANT:** fully automatic, minimum production capacity 100 TPH; with 4 cold-feed bins, rotary dryer, vibrating hot screen, hot bins, mineral-filler silo, bitumen storage tank ≥ 30 ton with thermostatic heating (max 175 °C), bitumen-aggregate weigh hoppers, and bag-house dust collection. Plant calibration certificate (third-party, Engineer-approved) to be submitted before trial mix.
- B2 PLANT LOCATION:** Engineer-approved site, EPA / NOC obtained, located so that maximum haul distance to the laying point does NOT exceed 40 km (to maintain mix temperature ≥ 140 °C at paver). Plant area to be away from residential zones, with paved access road, separate stockpile bays for each aggregate fraction, drainage and fencing.
- B3 PAVING TRAIN:** Self-propelled crawler-track Asphalt Paver with hydraulic extendable vibrating-tamping screed (working width 2.5–6.0 m), electronic grade & slope sensors with averaging ski/beam (≥ 9 m) for runway-side / main road. Material Transfer Vehicle (MTV) recommended to avoid segregation and temperature drop.
- B4 ROLLERS (NHA Spec):** Earthworks/GSB/ABC — Vibratory smooth-drum roller ≥ 10 ton. AWC — Steel Tandem roller 8–10 ton (breakdown rolling) + Pneumatic-tyre roller 15–25 ton @ 0.55–0.85 MPa tyre pressure (intermediate rolling) + Steel Tandem 8–10 ton (final/finish rolling). All rollers shall have valid calibration & weight certificates.
- B5 SUPPORT FLEET:** Motor grader ≥ 125 HP, water bowzers $\geq 6,000$ L (one per active section), bitumen distributor with calibrated spray bar (for prime/tack coat), tipper trucks with insulated body and tarpaulin cover for hot mix, front-end loaders, mechanical brooms. All machinery shall be in sound working order with road-worthiness certificates.

C. EARTHWORKS & SUBGRADE

- C1** Clear, grub and strip topsoil minimum 150 mm; stockpile separately for landscaping reuse. Dispose unsuitable material at Engineer-approved spoil area only.
- C2** Execute cut/fill to formation levels per Section, Plan & Profile drawings. Side slopes 1V:1.5H (fill) and 1V:1H (cut) unless directed otherwise. Embankment in layers ≤ 200 mm loose, compacted to 95% Modified AASHTO MDD.
- C3 SUBGRADE:** CBR $\geq 5\%$. Top 1.0 ft (300 mm) in both cut and fill compacted to 95% Modified AASHTO MDD. FDT (Sand-Cone / Nuclear) at every 500 m² per layer. Proof-roll finished subgrade in presence of Engineer; rectify any soft / pumping spots before placing GSB.

D. PAVEMENT — MATERIAL, COMPACTION & TEMPERATURE (NHA Spec)

- D1 GRANULAR SUBBASE (GSB):** CBR $\geq 30\%$, gradation & PI per NHA Schedule. Layer thickness ≤ 200 mm loose, compacted to 100% Modified AASHTO MDD. Surface tolerance ± 15 mm.
- D2 AGGREGATE BASE COURSE (ABC):** CBR $\geq 80\%$, crushed material, LAA $\leq 30\%$, soundness $\leq 12\%$, flakiness $\leq 25\%$, PI ≤ 6 . Layer ≤ 150 mm loose, compacted to 100% Modified AASHTO MDD. Surface tolerance ± 10 mm under 3 m straightedge.
- D3 PRIME COAT:** Cutback bitumen MC-30 / MC-70 @ 0.8–1.2 L/m² over dry, broomed and shaped ABC. Application temperature 50–70 °C. Allow 24–48 hr curing; protect from traffic until fully absorbed.
- D4 TACK COAT:** RC-70 / emulsion (SS-1h) @ 0.25–0.40 L/m² between bituminous layers and against vertical faces of joints, kerbs and structures.
- D5 ASPHALTIC WEARING COURSE (AWC):** bitumen 60/70 pen (ARL/NRL/Attock approved) @ 4.0–5.5% by weight, aggregate per NHA Schedule. Submit JOB MIX FORMULA (JMF) + Trial Section (50 m $\times$ full width) for Engineer's written approval before regular paving.
- D6 TEMPERATURE LIMITS (NHA — strictly enforced):**
- Bitumen heating in tank: max 165 °C (never exceed 175 °C).
 - Aggregate heating in dryer: 150–170 °C.
 - Mixing temperature at plant: 150–165 °C.
 - Discharge temperature at paver: ≥ 140 °C (reject if < 135 °C).
 - Initial / breakdown rolling: ≥ 130 °C.
 - Intermediate rolling: 100–130 °C. Final rolling: ≥ 80 °C.
 - Ambient air temperature for laying: ≥ 10 °C and rising. NO paving in rain, snow, or on damp / frozen surface.
- D7 AWC COMPACTION & MARSHALL:** $\geq 96\%$ of JMF density. Marshall — Stability ≥ 1000 kg, Flow 2–4 mm, Air Voids 3–5%, VMA & VFA per NHA. Joints to be hot, vertical, painted with tack coat; longitudinal joints offset between successive layers ≥ 150 mm.

E. QUALITY CONTROL, TESTING & SUBMITTALS

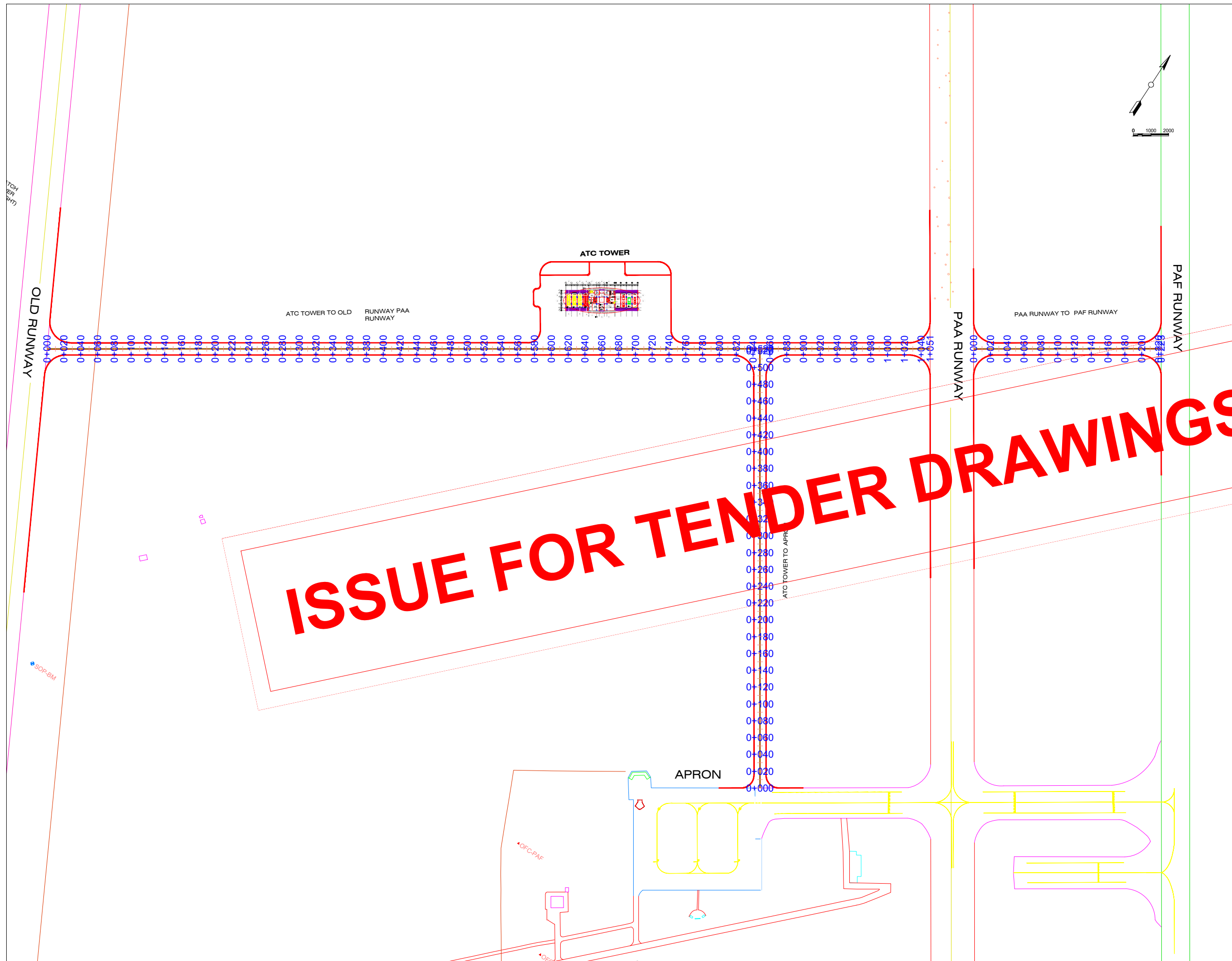
- E1** Source approval mandatory before delivery — aggregates (LAA, soundness, flakiness, gradation), bitumen (penetration, softening point, ductility, flash point), filler, and water. No material shall be incorporated without Engineer's written approval.
- E2** Daily field tests: FDT, MDD/OMC, layer gradation. AWC — extraction, gradation, Marshall on plant samples; pavement cores at 1 per 500 m² for thickness & density.
- E3** Survey check on every layer (subgrade, GSB, ABC, AWC) — line, level, thickness, crossfall (typically 2.0% normal crown). Tolerances per NHA Specs. Submit Weekly QC Report and full as-built drawings on completion.

F. HSE & GENERAL

- F1** Mandatory PPE: helmet, hi-vis vest, safety boots, gloves, ear protection (near plant). Traffic management with TCP, signage, flagmen and lighting during night works. Dust suppression by water bowsing twice daily; cover stockpiles in windy conditions; spill kits at fuel point and bitumen tank.
- F2** All levels and dimensions are in METER unless noted otherwise. Minor field adjustments in levels/profile may be made by the Engineer's representative if site conditions warrant — any such deviation requires written approval before execution. Drawings to be read in conjunction with Specifications, BoQ and Conditions of Contract.

ISSUE FOR TENDER DRAWINGS

CONTRACTOR: M/s _____	CLIENT: PAKISTAN AIRPORTS AUTHORITY	PROJECT: CONSTRUCTION OF ATCT, FIRE STATION & ALLIED FACILITIES — SKARDU INTL. AIRPORT	DRAWING TITLE: GENERAL NOTES — CONTRACTOR MOBILIZATION & WORKS (ROADS)	DRAWN: ENGR. U. MANZOOR CHECKED: ENGR. MURTAZA SCALE: N.T.S. 29/04/2026 R-03	Project Director PAA Check: _____
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General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

CLIENT:

CONSULTANTS

PROJECT:
CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIR TRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT.

DRAWING TITLE:
PLAN

DRAWN BY: ENGR. UZAIR MANZOOR	SCALE:
CHECKED BY: ENGR. MURTAZA	DATE: 28/12/2025
FILE PATH: D:\NA	SHEET: 01
DRAWING NO: B-04	

Alignment Name: ATC TOWER TO APRON			
Station Range: Start: 0+000.00, End: 0+521.97			
Station Increment: 20.00			
Station	Northing	Easting	Tangential Direction
0+000.00	3,909,931.1585m	549,195.5965m	N33° 16' 51"W
0+020.00	3,909,947.8783m	549,184.6217m	N33° 16' 51"W
0+040.00	3,909,964.5982m	549,173.6468m	N33° 16' 51"W
0+060.00	3,909,981.3180m	549,162.6720m	N33° 16' 51"W
0+080.00	3,909,998.0379m	549,151.6972m	N33° 16' 51"W
0+100.00	3,910,014.7577m	549,140.7224m	N33° 16' 51"W
0+120.00	3,910,031.4776m	549,129.7475m	N33° 16' 51"W
0+140.00	3,910,048.1974m	549,118.7727m	N33° 16' 51"W
0+160.00	3,910,064.9173m	549,107.7979m	N33° 16' 51"W
0+180.00	3,910,081.6371m	549,096.8231m	N33° 16' 51"W
0+200.00	3,910,098.3569m	549,085.8482m	N33° 16' 51"W
0+220.00	3,910,115.0768m	549,074.8734m	N33° 16' 51"W
0+240.00	3,910,131.7966m	549,063.8986m	N33° 16' 51"W
0+260.00	3,910,148.5165m	549,052.9238m	N33° 16' 51"W
0+280.00	3,910,165.2363m	549,041.9489m	N33° 16' 51"W
0+300.00	3,910,181.9562m	549,030.9741m	N33° 16' 51"W
0+320.00	3,910,198.6760m	549,019.9993m	N33° 16' 51"W
0+340.00	3,910,215.3959m	549,009.0245m	N33° 16' 51"W
0+360.00	3,910,232.1157m	548,998.0496m	N33° 16' 51"W
0+380.00	3,910,248.8356m	548,987.0748m	N33° 16' 51"W
0+400.00	3,910,265.5554m	548,976.1000m	N33° 16' 51"W
0+420.00	3,910,282.2752m	548,965.1252m	N33° 16' 51"W
0+440.00	3,910,298.9951m	548,954.1503m	N33° 16' 51"W
0+460.00	3,910,315.7149m	548,943.1755m	N33° 16' 51"W
0+480.00	3,910,332.4348m	548,932.2007m	N33° 16' 51"W
0+500.00	3,910,349.1546m	548,921.2259m	N33° 16' 51"W
0+520.00	3,910,365.8745m	548,910.2510m	N33° 16' 51"W
0+521.97	3,910,367.5192m	548,909.1714m	N33° 16' 51"W

Alignment Name: ATC TOWER TO OLD RUNWAY PAA RUNWAY			
Station Range: Start: 0+000.00, End: 1+050.60			
Station Increment: 20.00			
Station	Northing	Easting	Tangential Direction
0+000.00	3,909,902.0723m	548,200.0759m	N56° 43' 09"E
0+020.00	3,909,913.0471m	548,216.7957m	N56° 43' 09"E
0+040.00	3,909,924.0220m	548,233.5156m	N56° 43' 09"E
0+060.00	3,909,934.9968m	548,250.2354m	N56° 43' 09"E
0+080.00	3,909,945.9716m	548,266.9553m	N56° 43' 09"E
0+100.00	3,909,956.9465m	548,283.6751m	N56° 43' 09"E
0+120.00	3,909,967.9213m	548,300.3949m	N56° 43' 09"E
0+140.00	3,909,978.8961m	548,317.1148m	N56° 43' 09"E
0+160.00	3,909,989.8709m	548,333.8346m	N56° 43' 09"E
0+180.00	3,910,000.8458m	548,350.5545m	N56° 43' 09"E
0+200.00	3,910,011.8206m	548,367.2743m	N56° 43' 09"E
0+220.00	3,910,022.7954m	548,383.9942m	N56° 43' 09"E
0+240.00	3,910,033.7702m	548,400.7140m	N56° 43' 09"E
0+260.00	3,910,044.7451m	548,417.4339m	N56° 43' 09"E
0+280.00	3,910,055.7199m	548,434.1537m	N56° 43' 09"E
0+300.00	3,910,066.6947m	548,450.8735m	N56° 43' 09"E
0+320.00	3,910,077.6695m	548,467.5934m	N56° 43' 09"E
0+340.00	3,910,088.6444m	548,484.3132m	N56° 43' 09"E
0+360.00	3,910,099.6192m	548,501.0331m	N56° 43' 09"E
0+380.00	3,910,110.5940m	548,517.7529m	N56° 43' 09"E
0+400.00	3,910,121.5688m	548,534.4728m	N56° 43' 09"E
0+420.00	3,910,132.5437m	548,551.1926m	N56° 43' 09"E
0+440.00	3,910,143.5185m	548,567.9125m	N56° 43' 09"E
0+460.00	3,910,154.4933m	548,584.6323m	N56° 43' 09"E
0+480.00	3,910,165.4681m	548,601.3522m	N56° 43' 09"E
0+500.00	3,910,176.4430m	548,618.0720m	N56° 43' 09"E
0+520.00	3,910,187.4178m	548,634.7918m	N56° 43' 09"E

Alignment Name: ATC TOWER TO OLD RUNWAY PAA RUNWAY			
Station Range: Start: 0+000.00, End: 1+050.60			
Station Increment: 20.00			
Station	Northing	Easting	Tangential Direction
0+540.00	3,910,198.3926m	548,651.5117m	N56° 43' 09"E
0+560.00	3,910,209.3674m	548,668.2315m	N56° 43' 09"E
0+580.00	3,910,220.3423m	548,684.9514m	N56° 43' 09"E
0+600.00	3,910,231.3171m	548,701.6712m	N56° 43' 09"E
0+620.00	3,910,242.2919m	548,718.3911m	N56° 43' 09"E
0+640.00	3,910,253.2667m	548,735.1109m	N56° 43' 09"E
0+660.00	3,910,264.2416m	548,751.8308m	N56° 43' 09"E
0+680.00	3,910,275.2164m	548,768.5506m	N56° 43' 09"E
0+700.00	3,910,286.1912m	548,785.2704m	N56° 43' 09"E
0+720.00	3,910,297.1660m	548,801.9903m	N56° 43' 09"E
0+740.00	3,910,308.1409m	548,818.7101m	N56° 43' 09"E
0+760.00	3,910,319.1157m	548,835.4300m	N56° 43' 09"E
0+780.00	3,910,330.0905m	548,852.1498m	N56° 43' 09"E
0+800.00	3,910,341.0653m	548,868.8697m	N56° 43' 09"E
0+820.00	3,910,352.0402m	548,885.5895m	N56° 43' 09"E
0+840.00	3,910,363.0150m	548,902.3094m	N56° 43' 09"E
0+860.00	3,910,373.9898m	548,919.0292m	N56° 43' 09"E
0+880.00	3,910,384.9646m	548,935.7490m	N56° 43' 09"E
0+900.00	3,910,395.9395m	548,952.4689m	N56° 43' 09"E
0+920.00	3,910,406.9143m	548,969.1887m	N56° 43' 09"E
0+940.00	3,910,417.8891m	548,985.9086m	N56° 43' 09"E
0+960.00	3,910,428.8640m	549,002.6284m	N56° 43' 09"E
0+980.00	3,910,439.8388m	549,019.3483m	N56° 43' 09"E
1+000.00	3,910,450.8136m	549,036.0681m	N56° 43' 09"E
1+020.00	3,910,461.7884m	549,052.7880m	N56° 43' 09"E
1+040.00	3,910,472.7633m	549,069.5078m	N56° 43' 09"E
1+050.60	3,910,478.5773m	549,078.3653m	N56° 43' 09"E

Alignment Name: PAA RUNWAY TO PAF RUNWAY			
Station Range: Start: 0+000.00, End: 0+223.10			
Station Increment: 20.00			
Station	Northing	Easting	Tangential Direction
0+000.00	3,910,507.0050m	549,121.6741m	N56° 43' 09"E
0+020.00	3,910,517.9798m	549,138.3940m	N56° 43' 09"E
0+040.00	3,910,528.9546m	549,155.1138m	N56° 43' 09"E
0+060.00	3,910,539.9294m	549,171.8337m	N56° 43' 09"E
0+080.00	3,910,550.9043m	549,188.5535m	N56° 43' 09"E
0+100.00	3,910,561.8791m	549,205.2733m	N56° 43' 09"E
0+120.00	3,910,572.8539m	549,221.9932m	N56° 43' 09"E
0+140.00	3,910,583.8288m	549,238.7130m	N56° 43' 09"E
0+160.00	3,910,594.8036m	549,255.4329m	N56° 43' 09"E
0+180.00	3,910,605.7784m	549,272.1527m	N56° 43' 09"E
0+200.00	3,910,616.7532m	549,288.8726m	N56° 43' 09"E
0+220.00	3,910,627.7281m	549,305.5924m	N56° 43' 09"E
0+223.10	3,910,629.4275m	549,308.1815m	N56° 43' 09"E

General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

CLIENT:



CONSULTANTS



PROJECT:

CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIR TRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

Roads Coordinates

DRAWN BY: ENGR. UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA

FILE PATH: D:\NA

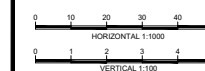
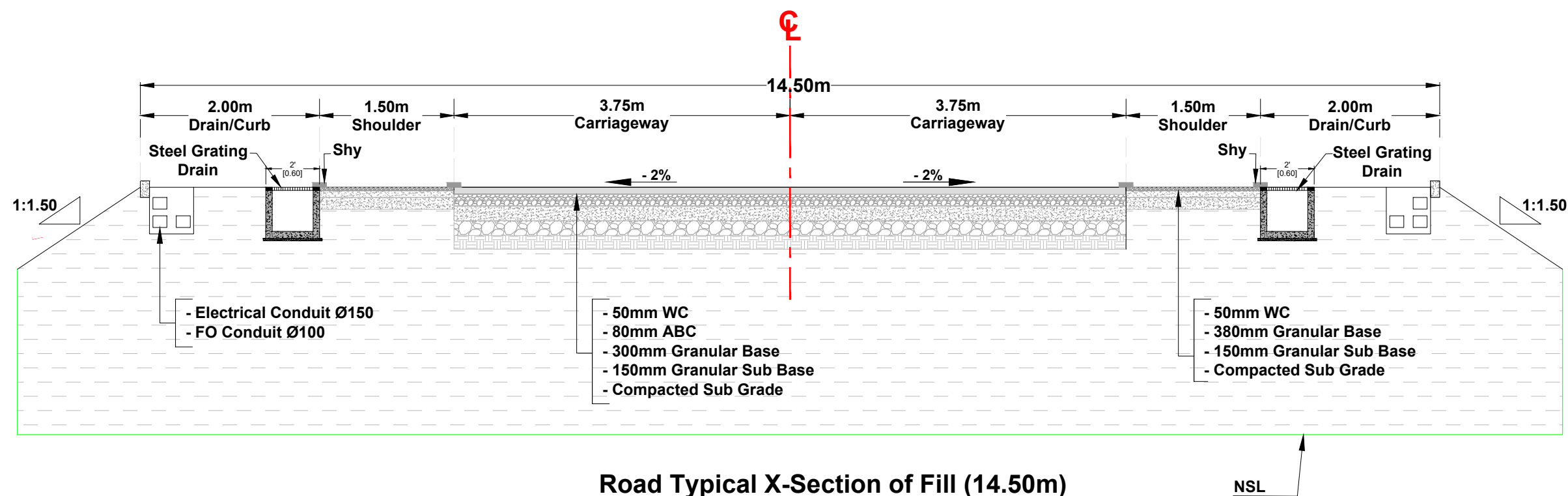
DRAWING NO: R-05

SCALE:

DATE: 28/12/2025

SHEET: 01

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm



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PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIRTRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

TYPICAL CROSS SECTION

DRAWN BY: ENGR. UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA

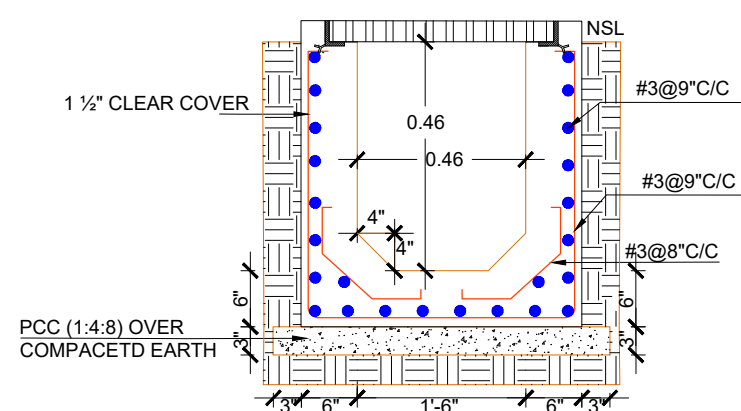
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DRAWING NO: R-06

SCALE:

DATE: 10/02/2020

SHEET: 01



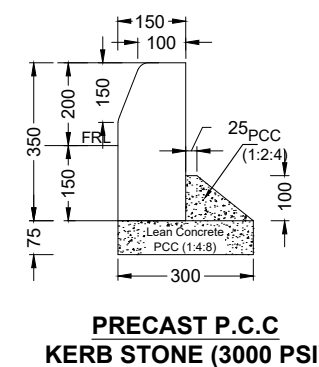
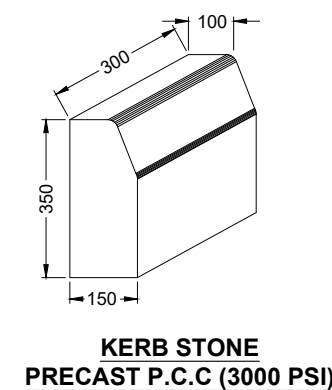
6.35x 6.35x0.63 ANGLE

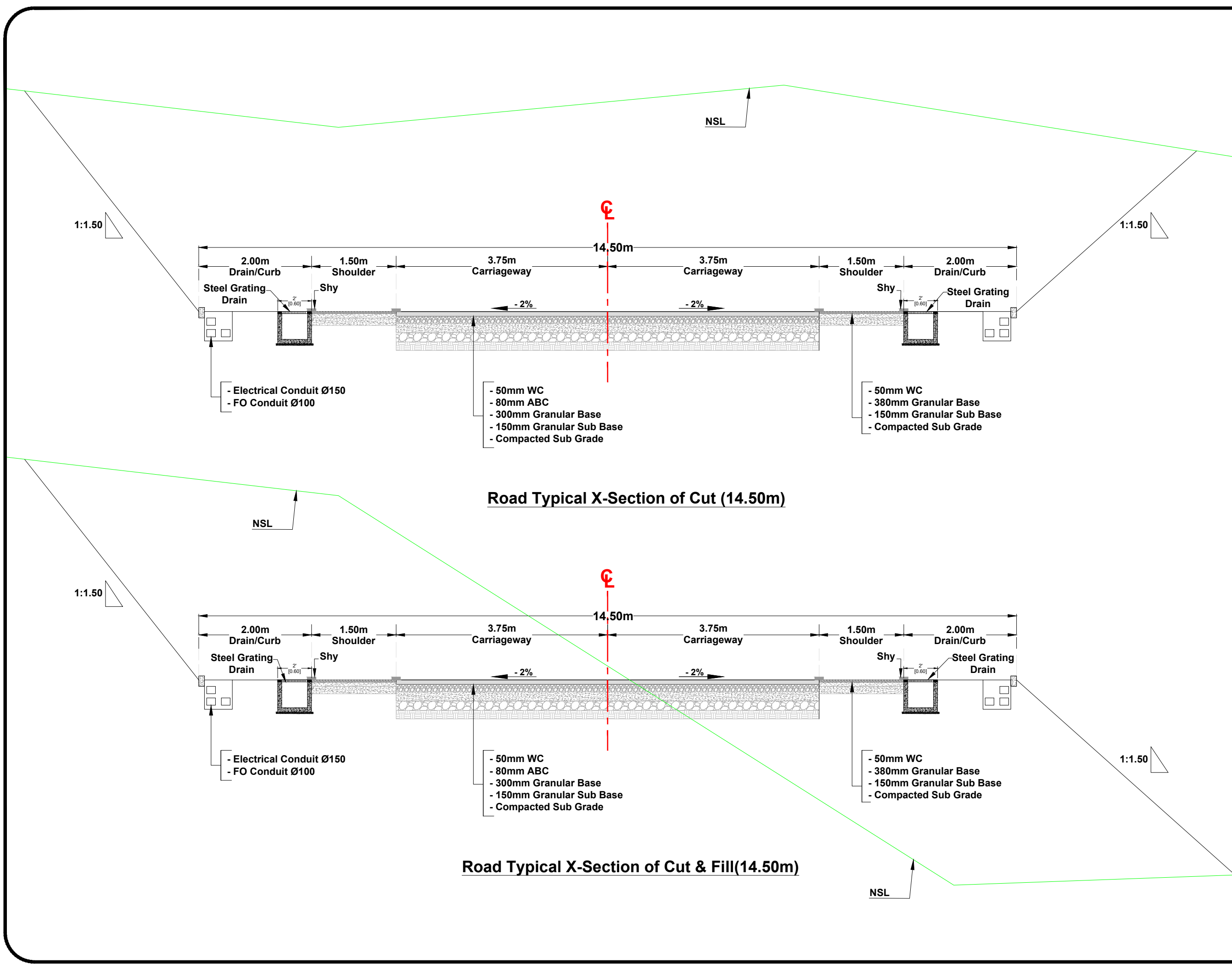
2.54 x 2.54 x 0.31
CRAMP WELDED TO
ANGLE IRON FRAME

5.08x 5.08x0.63 ANGLE

PCC (1:2:4)

DETAIL 'A'





General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

0 10 20 30 40 50
HORIZONTAL 1:1000
0 1 2 3 4 5
VERTICAL 1:100

CLIENT:


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PROJECT:
CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
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OF NEW AIRTRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

TYPICAL CROSS SECTION

DRAWN BY: ENGR. UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA

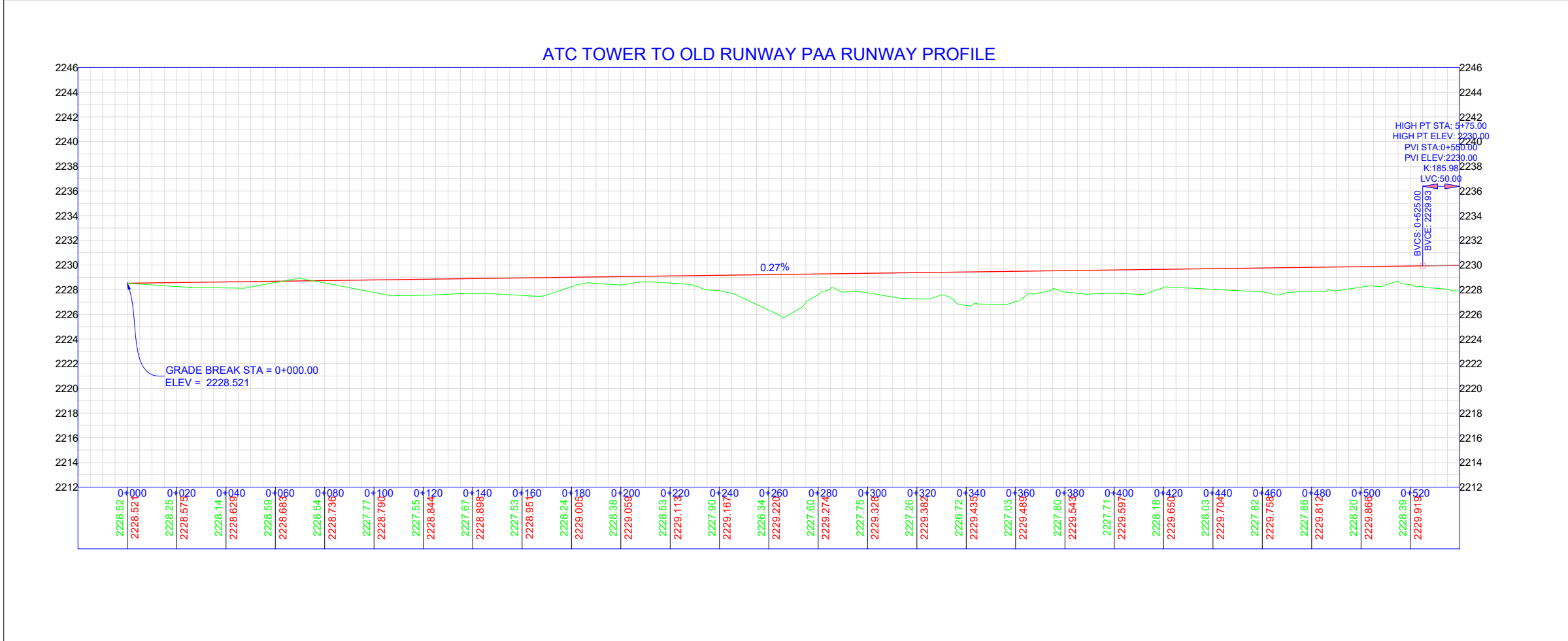
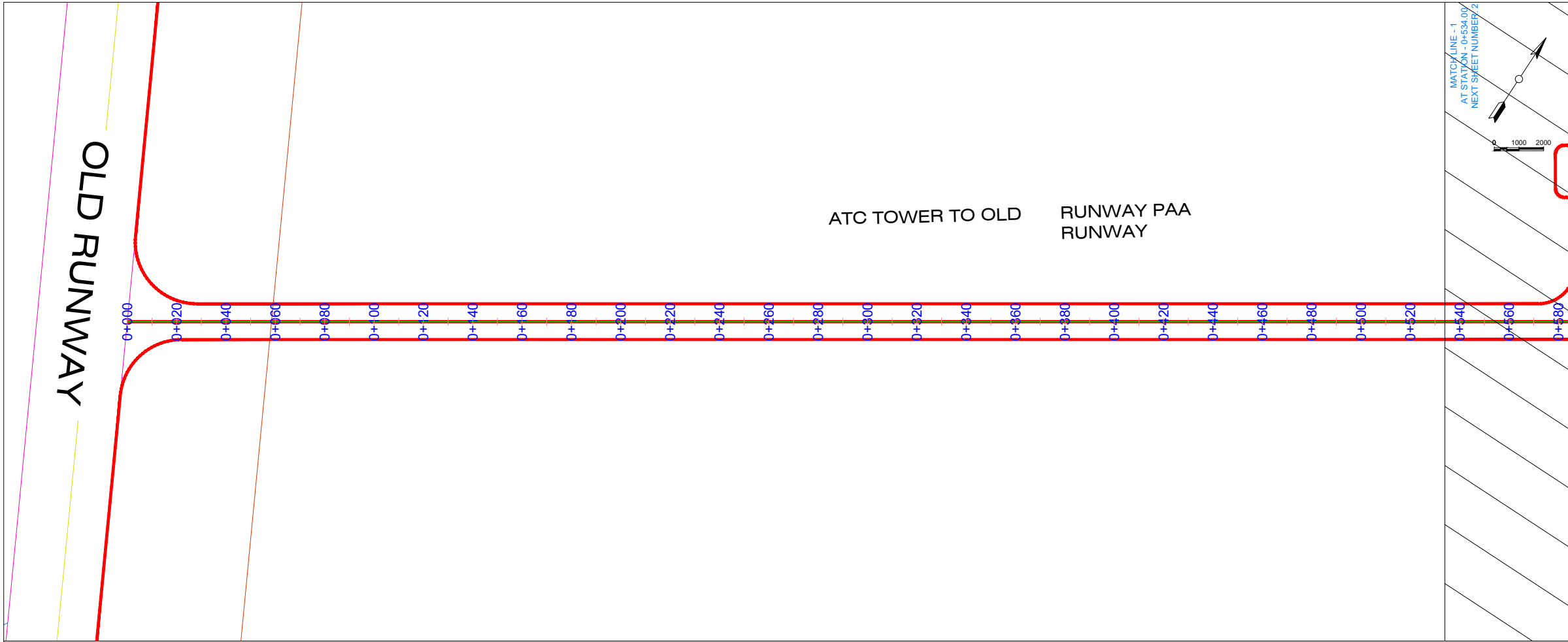
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DRAWING NO: R-07

SCALE:

DATE: 10/02/2020

SHEET: 02



General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

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PROJECT:

CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIR TRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO OLD RUNWAY PAA
RUNWAY PLAN & PROFILE

DRAWN BY: ENGR. UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA

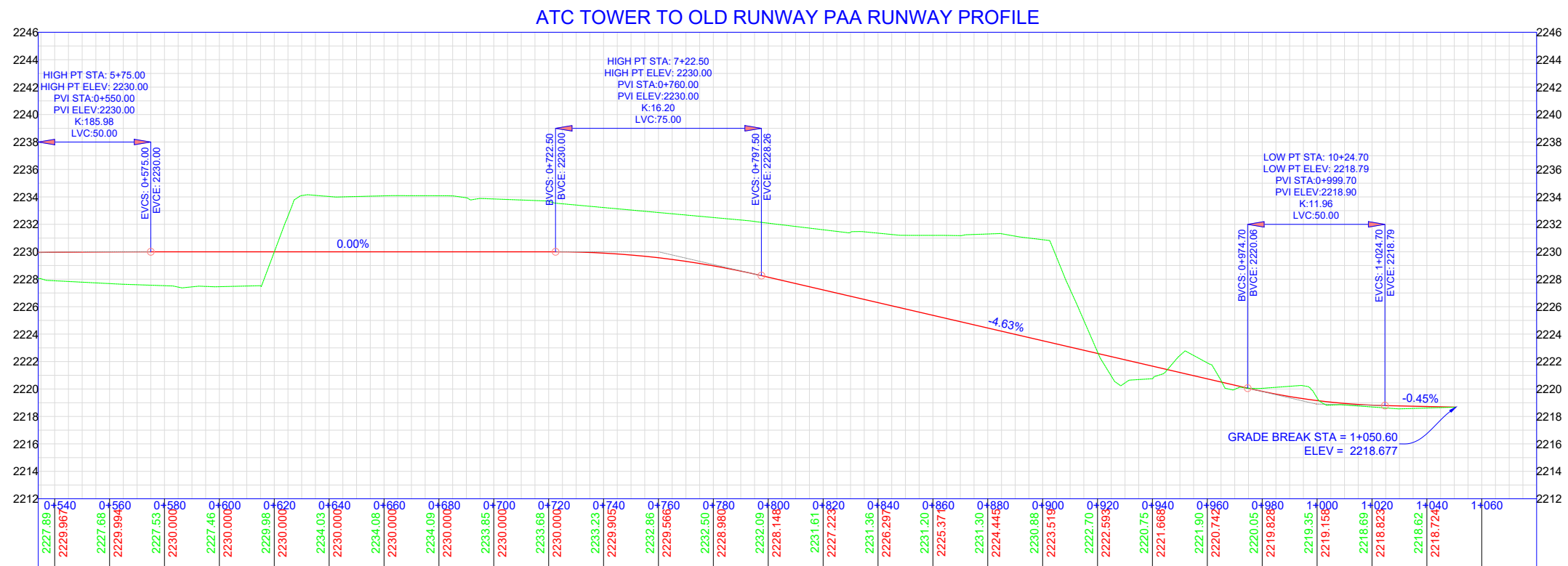
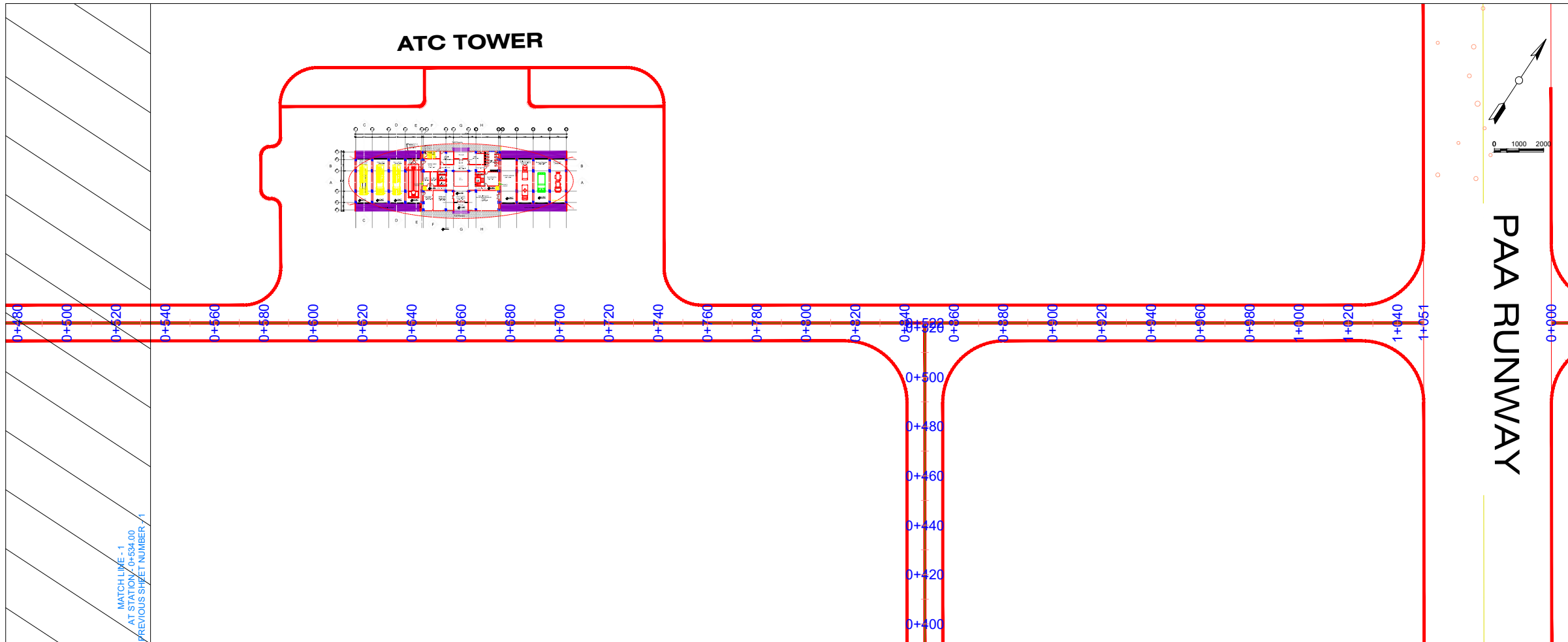
FILE PATH: D:\NA

DRAWING NO: R-08

SCALE:

DATE: 28/12/2025

SHEET: 01



General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
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CONTOURS INTERVAL @
300mm

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PROJECT:

CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIRTRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO OLD RUNWAY PAA
RUNWAY PLAN & PROFILE

DRAWN BY: ENGR. UZAIR MANDOR

CHECKED BY: ENGR. MURTAZA

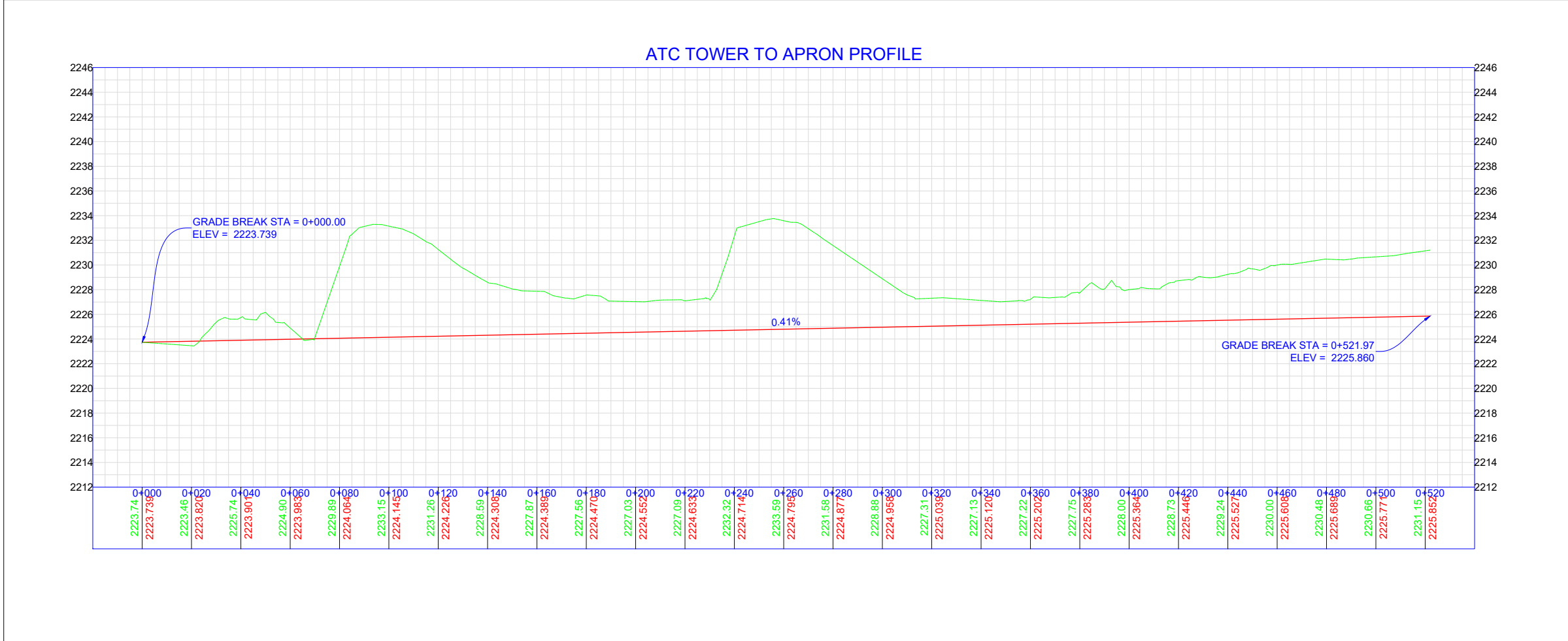
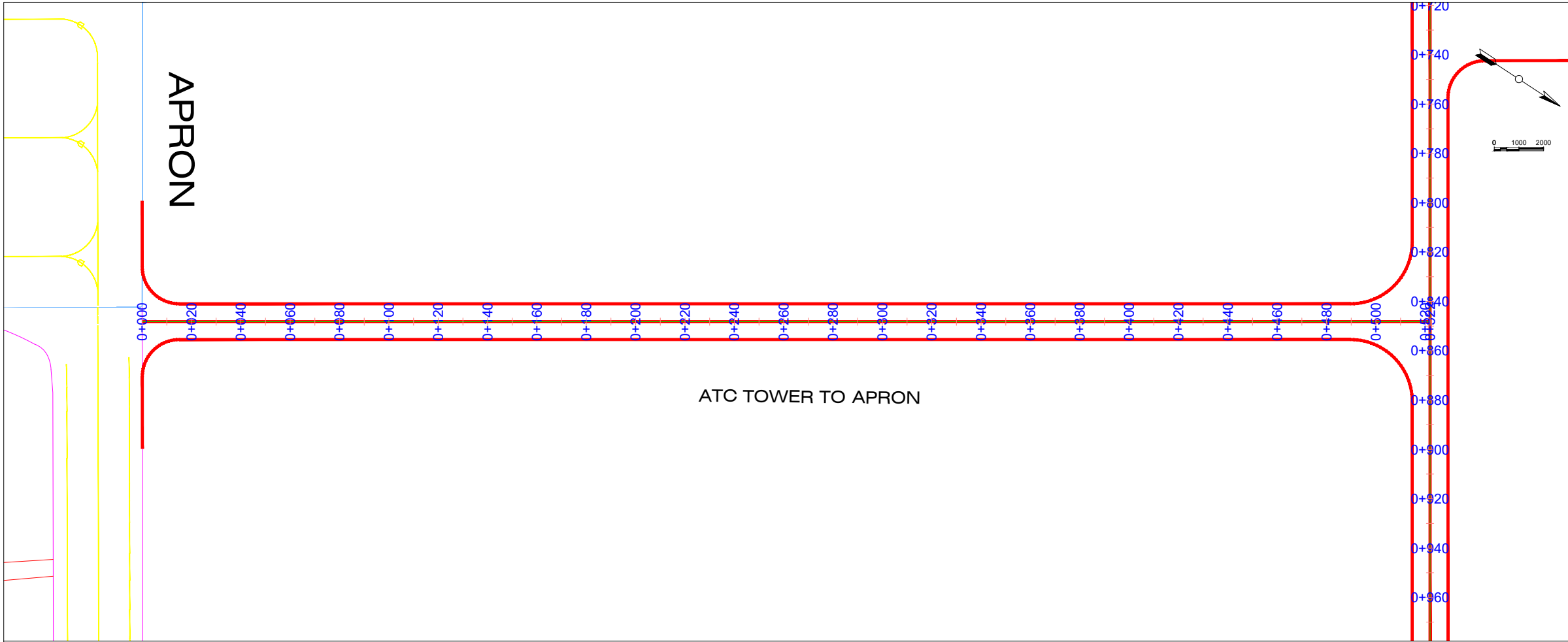
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DRAWING NO: R-09

SCALE:

DATE: 28/12/2023

SHEET: 02



General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

CLIENT:



CONSULTANTS



PROJECT:
CONSULTANCY SERVICES FOR THE
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIR TRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO APRON PLAN & PROFILE

DRAWN BY: ENGR. MUHAMMAD MANZOR

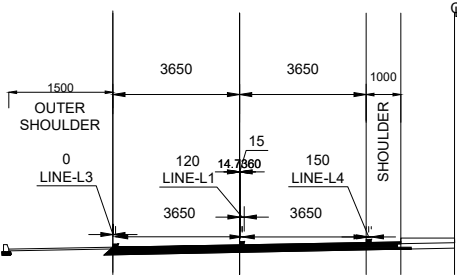
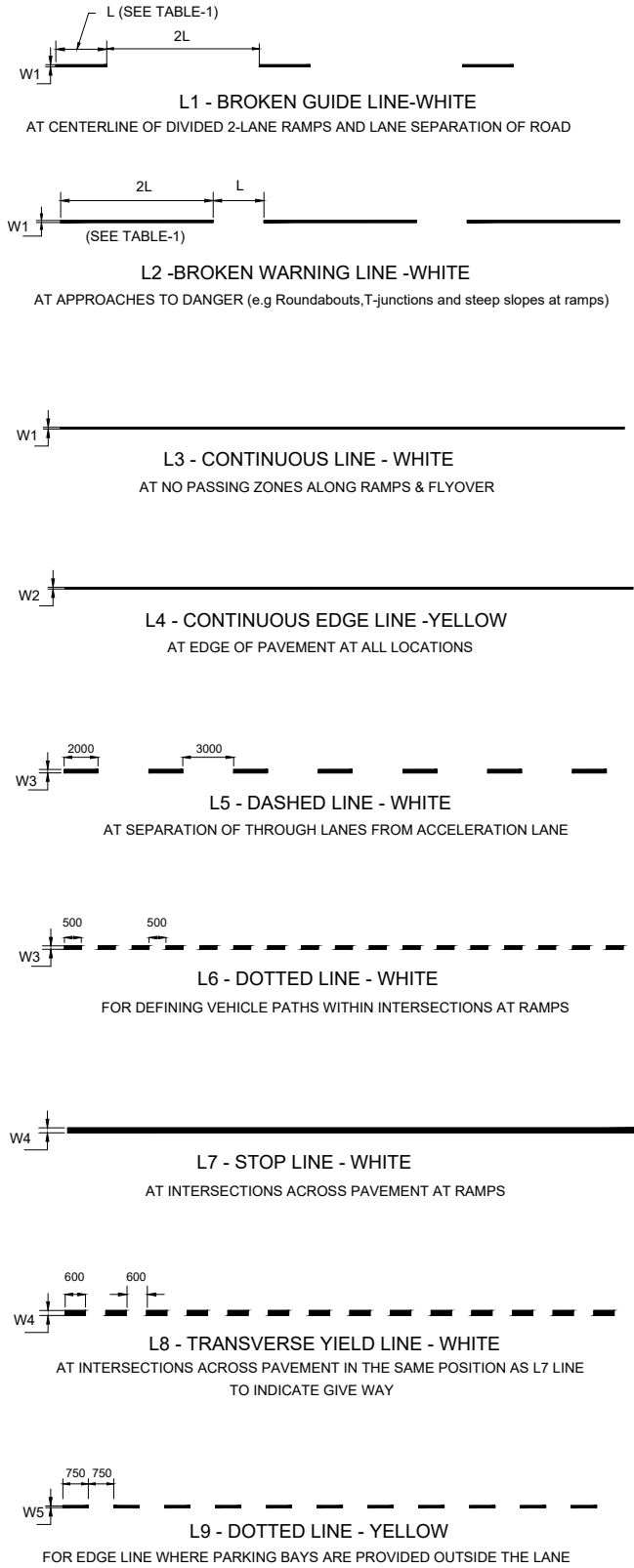
CHECKED BY: ENGR. MURTAZA SCALE:

FILE PATH: D:\NA DATE: 28/12/2023

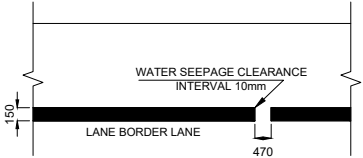
DRAWING NO: R-10 SHEET: 03

PAVEMENT MARKING LINES

FOR DIMENSIONS L & W1 TO W5, SEE TABLE-1

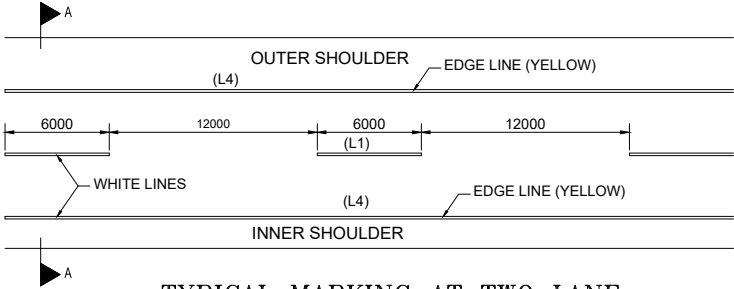


SECTION A-A



DETAIL - A

TYPICAL MARKING AT ROAD



TYPICAL MARKING AT TWO LANE

RAMP (AT APPROACHES TO HAZARDS)

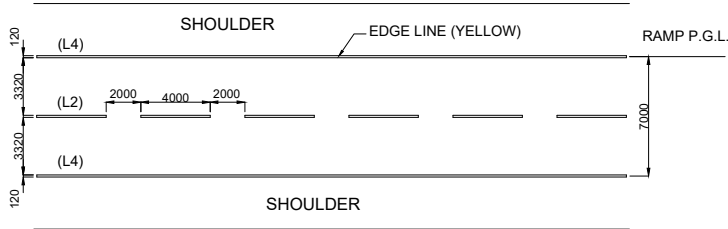


TABLE - 1

ROADWAY TYPE	L (mm)	W1	W2	W3	W4	W5
ROAD	6000	120	150	450	-	-

NOTE :-

1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

General Notes

ALL LEVELS AND DIMENSIONS ARE IN METER UNLESS INDICATED OTHERWISE. CONTOURS INTERVAL @ 300mm

CLIENT:



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PROJECT:

CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED DESIGN,PROCUREMENT SUPPORT AND CONSTRUCTION SUPERVISION OF NEW AIRTRAFFIC CONTROL TOWER (ATCT), FIRE STATION AND ALLIED FACILITIES ATSKARDU INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

Pavement Marking

DRAWN BY: ENGR.UZAIR MANZOOR

CHECKED BY: ENGR. MURTAZA

FILE PATH: D:\NA

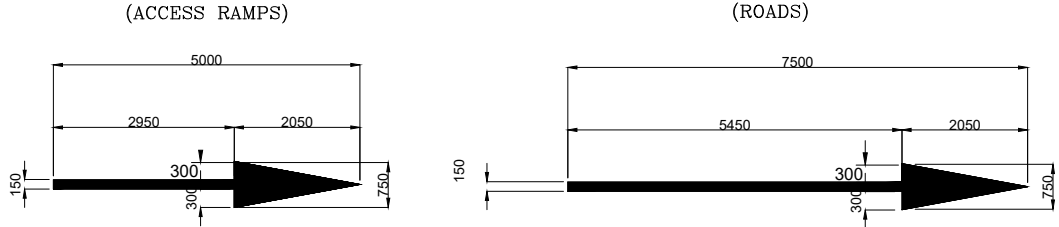
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SCALE:

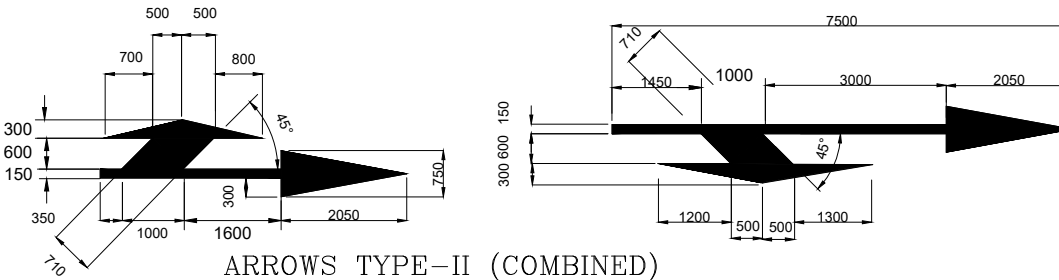
DATE: 28/12/2025

SHEET: 01

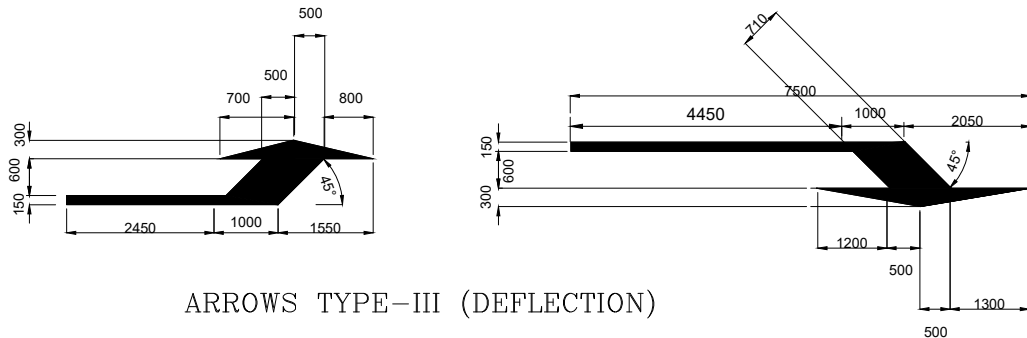
LANE SELECTION ARROWS – WHITE



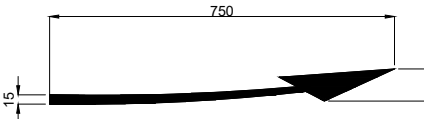
ARROWS TYPE-I (STRAIGHT



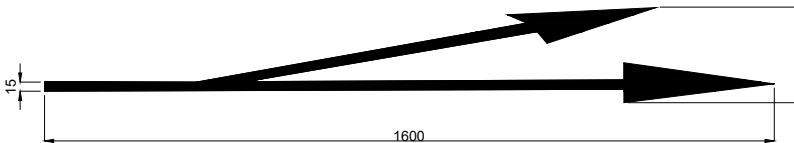
ARROWS TYPE-II (COMBINED



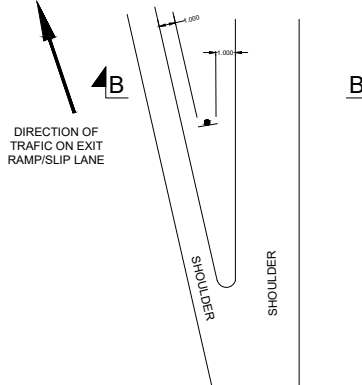
ARROWS TYPE-III (DEFLECTION



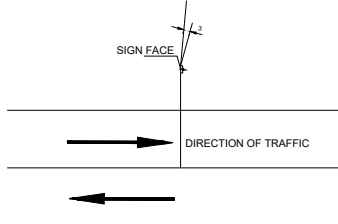
ORIENTATION ARROW



ORIENTATION ARROW



PLACING OF SIGN AT NOSE



ORIENTATION OF SIGN IN PLAN
RELATED TO DIRECTION OF TRAFFIC

General Notes

ALL LEVELS AND DIMENSIONS
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INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

CLIENT:



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PROJECT:

CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED DESIGN, PROCUREMENT SUPPORT AND CONSTRUCTION SUPERVISION OF NEW AIRTRAFFIC CONTROL TOWER (ATCT), FIRE STATION AND ALLIED FACILITIES AT SKARDU INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:

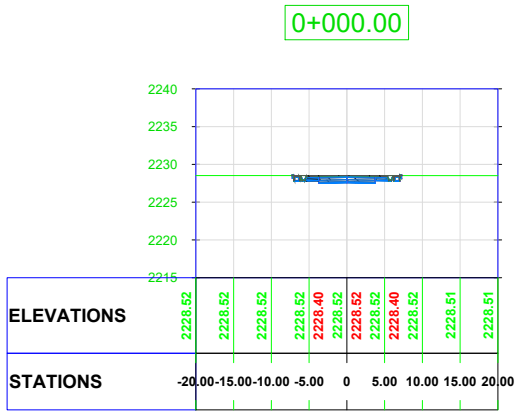
Pavement Marking

DRAWN BY: ENGR.UZAIR MANZOOR

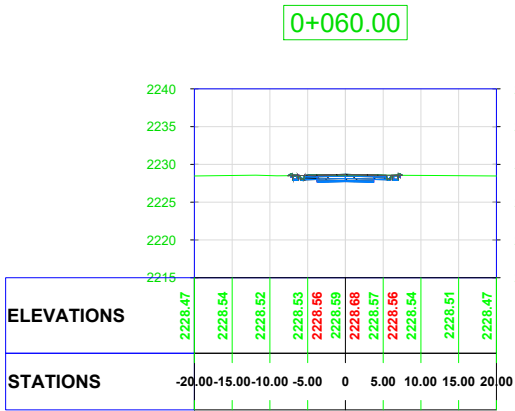
CHECKED BY: ENGR. MURTAZA	SCALE:
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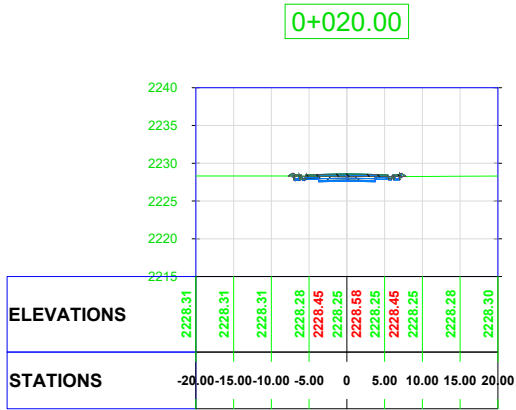
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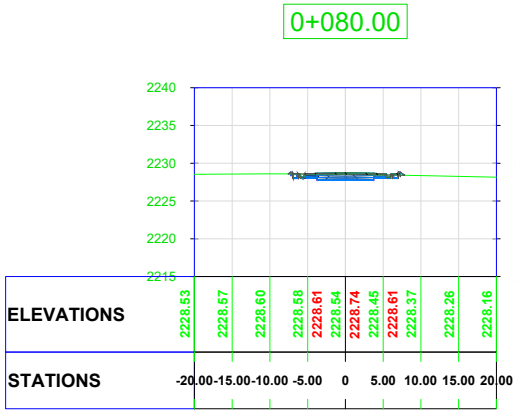
Total Volume at Station 0+000.00	
Cut Area	1.70
Fill Area	0.04
Cut Vol	0.00
Fill Vol	0.00
Cum Cut Vol	0.00
Cum Fill Vol	0.00
Net Vol	0.00



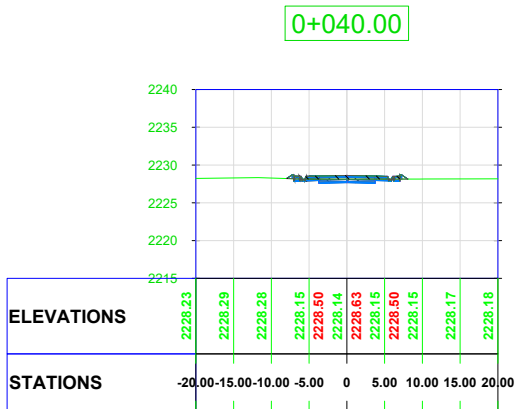
Total Volume at Station 0+060.00	
Cut Area	0.65
Fill Area	0.82
Cut Vol	8.08
Fill Vol	67.07
Cum Cut Vol	34.23
Cum Fill Vol	196.30
Net Vol	-162.07



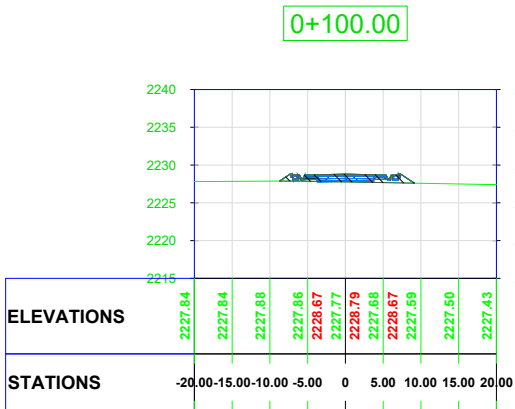
Total Volume at Station 0+020.00	
Cut Area	0.38
Fill Area	3.50
Cut Vol	20.75
Fill Vol	35.37
Cum Cut Vol	20.75
Cum Fill Vol	35.37
Net Vol	-14.61



Total Volume at Station 0+080.00	
Cut Area	0.50
Fill Area	2.06
Cut Vol	11.49
Fill Vol	28.80
Cum Cut Vol	45.72
Cum Fill Vol	225.10
Net Vol	-179.38



Total Volume at Station 0+040.00	
Cut Area	0.16
Fill Area	5.89
Cut Vol	5.40
Fill Vol	93.86
Cum Cut Vol	26.15
Cum Fill Vol	129.23
Net Vol	-103.08



Total Volume at Station 0+100.00	
Cut Area	0.00
Fill Area	14.97
Cut Vol	5.02
Fill Vol	170.26
Cum Cut Vol	50.74
Cum Fill Vol	395.36
Net Vol	-344.62

General Notes

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CONTOURS INTERVAL @
300mm

CLIENT:



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TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO OLD RUNWAY PAA
RUNWAY SECTION

DRAWN BY: ENGR. MUHAMMAD MANZOOR

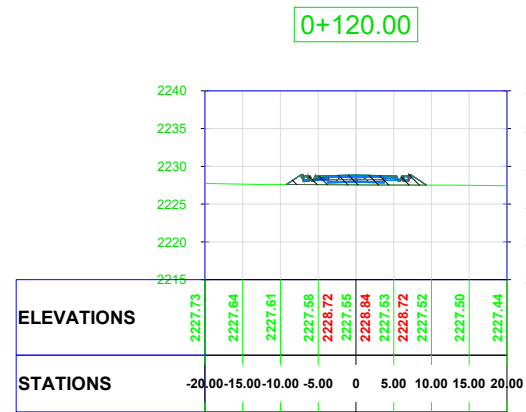
CHECKED BY: ENGR. MURTAZA

FILE PATH: D:\NA

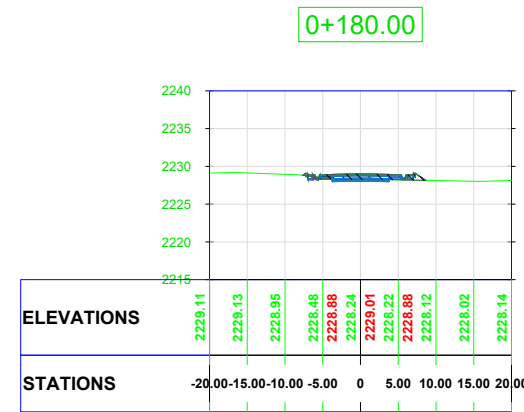
DRAWING NO: R-14

DATE: 28/12/2025

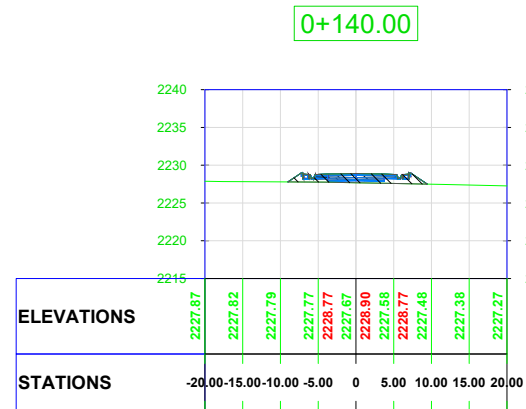
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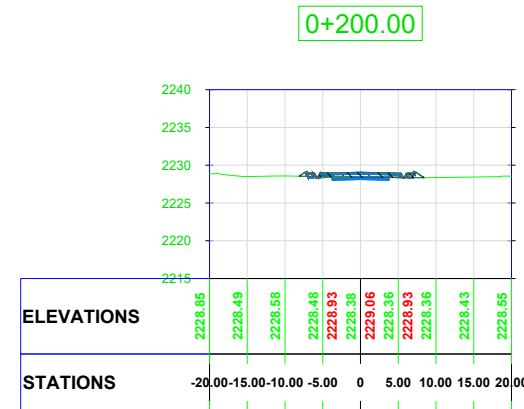
Total Volume at Station 0+120.00	
Cut Area	0.00
Fill Area	19.81
Cut Vol	0.00
Fill Vol	347.77
Cum Cut Vol	50.74
Cum Fill Vol	743.13
Net Vol	-692.39



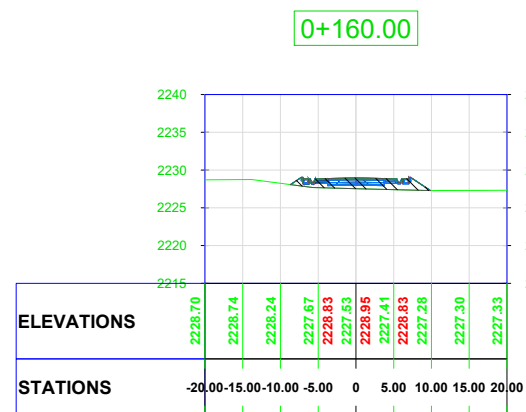
Total Volume at Station 0+180.00	
Cut Area	0.12
Fill Area	9.24
Cut Vol	1.18
Fill Vol	309.82
Cum Cut Vol	51.92
Cum Fill Vol	1842.80
Net Vol	-1790.88



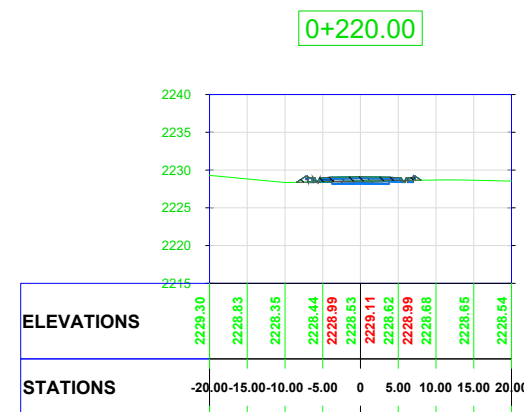
Total Volume at Station 0+140.00	
Cut Area	0.00
Fill Area	18.71
Cut Vol	0.00
Fill Vol	385.25
Cum Cut Vol	50.74
Cum Fill Vol	1128.39
Net Vol	-1077.65



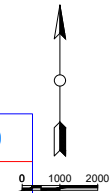
Total Volume at Station 0+200.00	
Cut Area	0.04
Fill Area	8.56
Cut Vol	1.56
Fill Vol	177.95
Cum Cut Vol	53.48
Cum Fill Vol	2020.75
Net Vol	-1967.27



Total Volume at Station 0+160.00	
Cut Area	0.00
Fill Area	21.75
Cut Vol	0.00
Fill Vol	404.60
Cum Cut Vol	50.74
Cum Fill Vol	1532.99
Net Vol	-1482.25



Total Volume at Station 0+220.00	
Cut Area	0.08
Fill Area	7.55
Cut Vol	1.21
Fill Vol	161.09
Cum Cut Vol	54.69
Cum Fill Vol	2181.84
Net Vol	-2127.15



General Notes
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CONTOURS INTERVAL @
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PROJECT:
CONSULTANCY SERVICES FOR THE
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TOWER (ATCT), FIRE STATION AND
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INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO OLD RUNWAY PAA
RUNWAY SECTION

DRAWN BY: ENGR. MUHAMMAD MANZOR

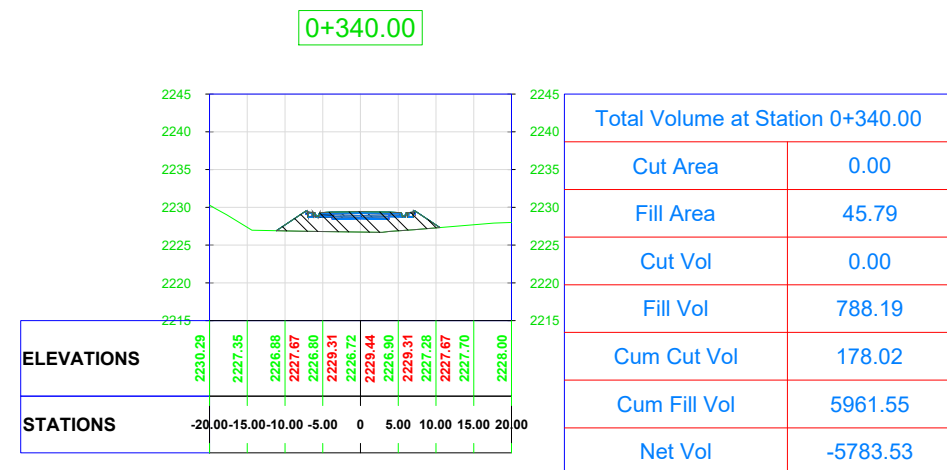
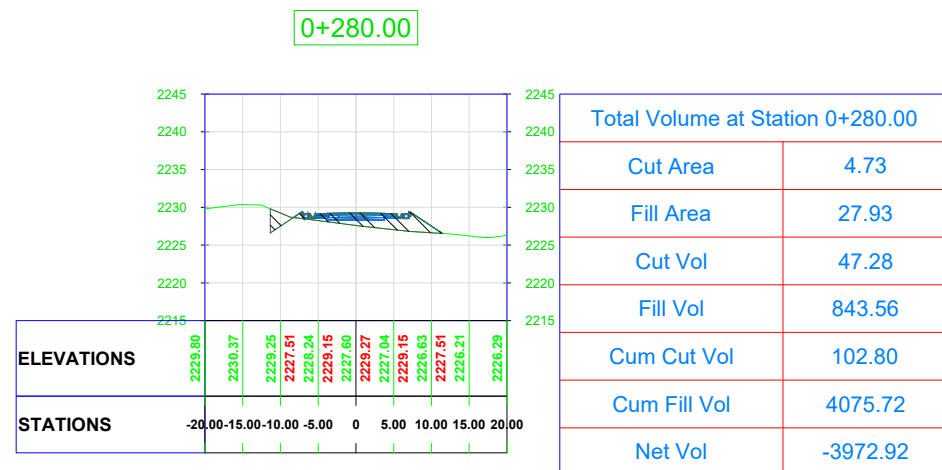
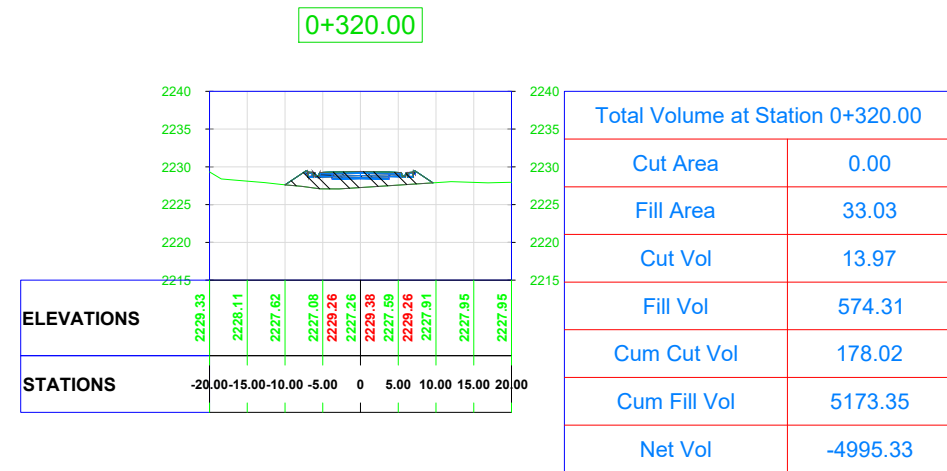
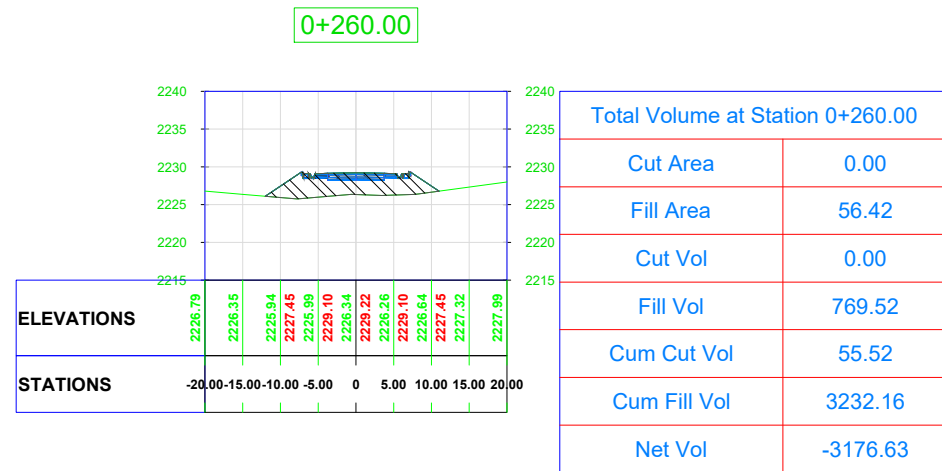
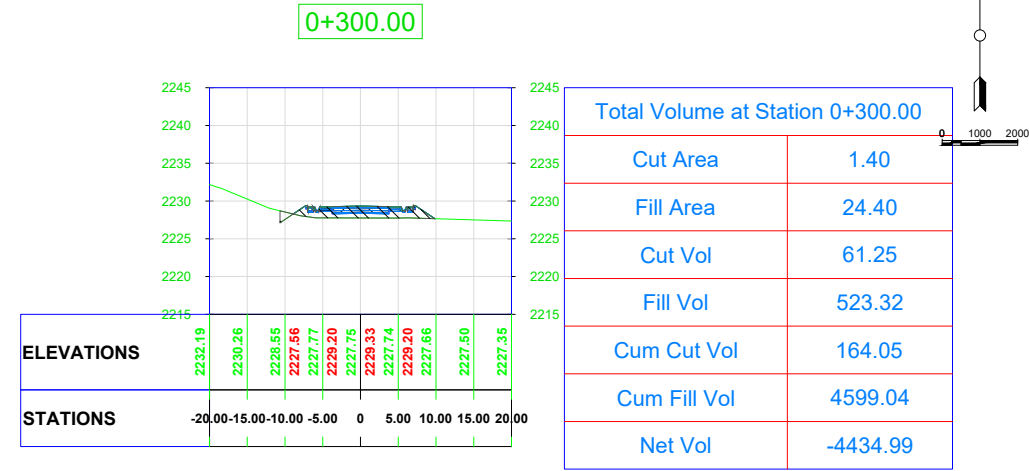
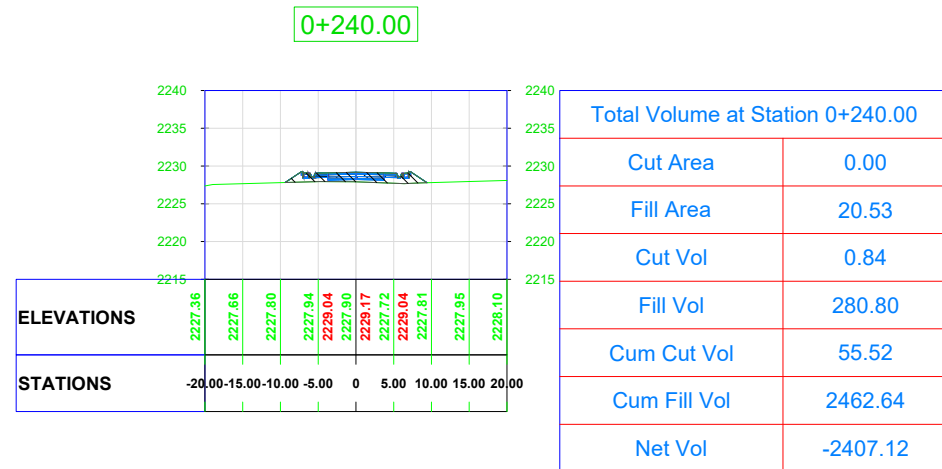
CHECKED BY: ENGR. MURTAZA

FILE PATH: D:\NA

DATE: 28/12/2023

DRAWING NO: R-15

SHEET: 02



General Notes

ALL LEVELS AND DIMENSIONS
ARE IN METER UNLESS
INDICATED OTHERWISE.
CONTOURS INTERVAL @
300mm

CLIENT:



CONSULTANTS



PROJECT:
CONSULTANCY SERVICE FOR
PREPARATION OF DETAILED
DESIGN, PROCUREMENT SUPPORT
AND CONSTRUCTION SUPERVISION
OF NEW AIR TRAFFIC CONTROL
TOWER (ATCT), FIRE STATION AND
ALLIED FACILITIES AT SKARDU
INTERNATIONAL AIRPORT, SKARDU

DRAWING TITLE:
ATC TOWER TO OLD RUNWAY PAA
RUNWAY SECTION

DRAWN BY: ENGR. MUHAMMAD MANZOOR

CHECKED BY: ENGR. MURTAZA

FILE PATH: D:\NA

DATE: 28/12/2025

DRAWING NO: R-16

SHEET: 03