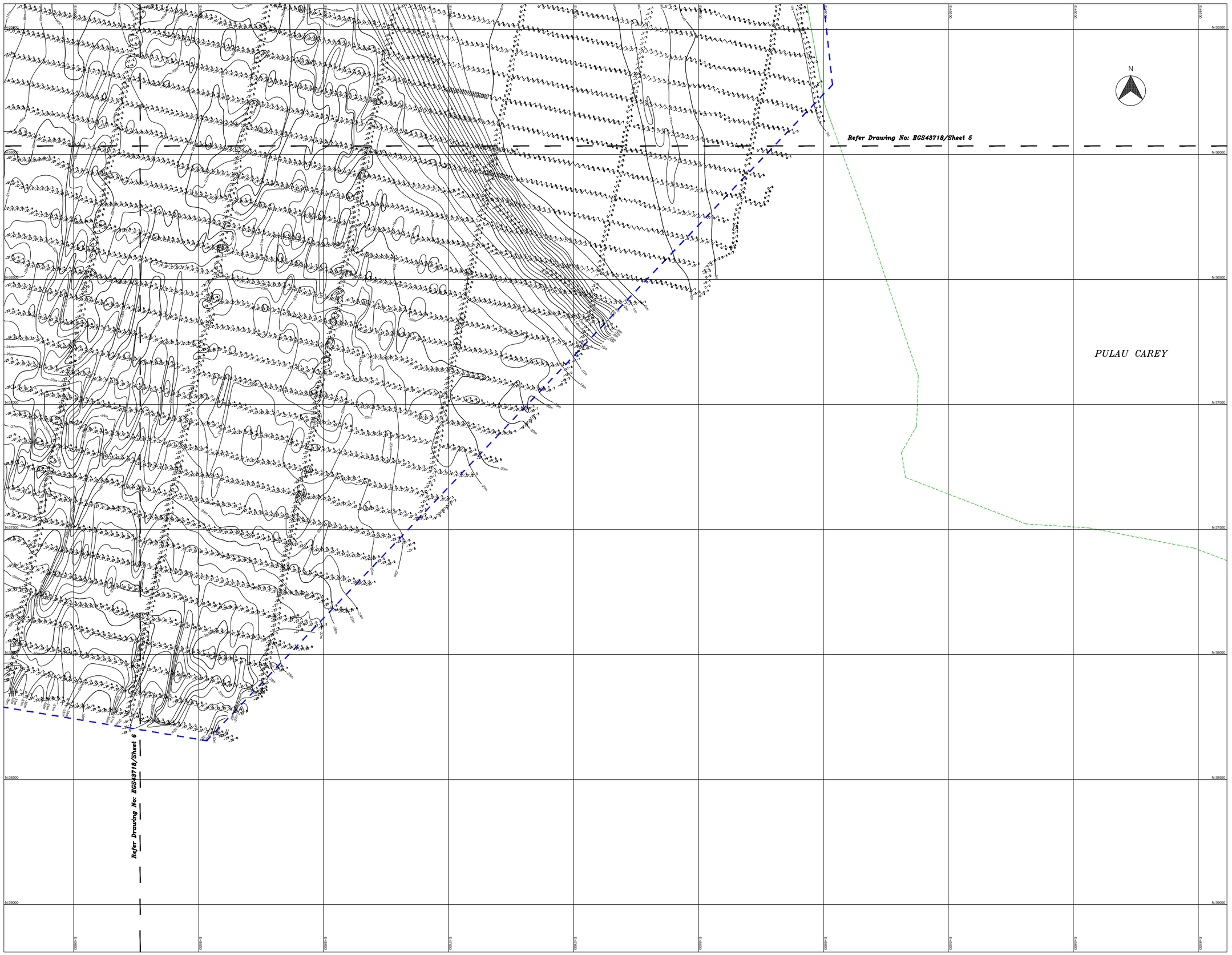
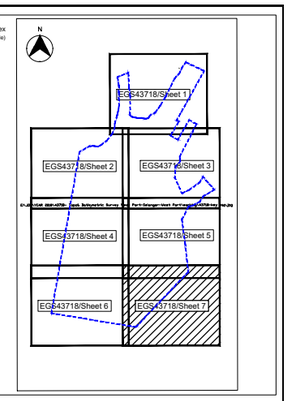


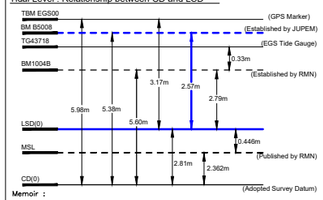
Key Map / Sheet Index
(Not To Scale)



Legend :

-15·2 -18·9 -21·3 :Denotes elevations below datum
0·8 2·2 7·3 :Denotes elevations above datum
: Contour at 1 meter intervals
: Survey Limits
: Shore line digitized from CHART MAL 5300
: Surveyed shore line
: Traverse line
158331 : Lot boundaries with lot numbers
: Mangrove
: Manhole
: Gate
: Chain Link Fence
: High Water Mark
: Slope
: Building
fd :Property boundary marker found
c :Buoy / Beacon

Tidal Level : Relationship between CD and LSD



Memoir :

1. Survey Date
   i. Bathymetric Survey 06-22/06/2018
   ii. Topographic Survey 01-23/06/2018
2. Survey Datum & Grid
   i. Bathymetric Survey : WGS 84 Universal Transverse Mercator, Zone 47 N
   ii. Topographic Survey : Selangor State Cassini
3. Drawing Grid : Selangor State Cassini Grid
4. Equipment used

Hydrographic Survey

Knudsen 320M (200kHz) Echosounder,Valeport 740 water level recorder,
C-Nav GcGPS system (Globally corrected GPS) c/w C-View Navigation Operating software package
Licence Survey Boat Reg. No. BPK997P and shallow draft fiberglass dinghy

Topographic Survey

Topcon G5 (Capable of tracking GPS, GLONASS, BeiDou, Galileo, QZSS constellations) Total Station Topcon ES 105 , GPS South Galaxy G1(Innovative structure design Tilt centering and electronic bubble NFC function Advanced datalink module Full constellation support) and Compass Level.

5. All measurements are in metres

Horizontal control

1) The horizontal position of the survey vessel was located by GcGPS (Globally corrected GPS) C-Nav navigation System, surveyed on WGS 84 UTM Zone 47 N coordinates ; were later transformed to Selangor State Cassini Grid for final plotting
2) Horizontal control based on GPS Static Observation. Reduce to Selangor State Cassini (Old) grid projection.

Vertical control

All elevations were reduced to Chart Datum which was 5.60m below BM 1004B; located on the left side of the main entrance at Anglers Resort Jetty, Pulau Indah, Klang, Selangor established by RMN

Revision no.	Date	Drawn by	Interpreted by	Checked by	Remarks
	31/7/ 2018	Khairani		Mohamad	Final

Project :

WESTPORTS DEVELOPMENT PROPOSED EXPANSION OF CONTAINER TERMINAL CT10-CT19 AND ITS ASSOCIATED WORKS AT WESTPORTS, PULAU INDAH SELANGOR DARUL EHSAN

Drawing Title :

TOPOGRAPHIC AND BATHYMETRIC SURVEY

Drawing Number : EGS43718/Sheet 7

Scale : 1: 5000

100" 50" 0 100" 200" 300" 400" 500"

Client :

P.O Box 266, Pulau Indah,
42009 Port Klang, Selangor Darul Ehsan,Malaysia.

Consultant :

HSS INTEGRATED SDN. BHD (73262-T)
B1 (1-4) Block B, Plaza Dwitasik,
No.21, Jalan 5/106,
Bandar Sri Permaisuri,
56000 Kuala Lumpur, Malaysia
Tel: (+603) 91730355
Fax: (+603) 91730939

Surveyors :

Surveyed by :

EGS (MALAYSIA) SDN BHD
312B, Melawati Square
Lorong Kedah off Jalan Negara
Taman Melawati 53100 Kuala Lumpur
Tel: (+603) 41089010
Fax: (+603) 41089013

Certified by :

Gs. Sr. KHAIRUL SALEH BIN Hj JAMALUDIN
MAALS, MRISM, MIORSM, MNGS , MSc LAD (UTM), MSc ReSGIS (UPM), BSc SMSc (UEL) CUUDM, FIG/IHO/ICA Cat A / Cat B. Licensed Land Surveyor Act 458/1958 Accredited Hydrographic Surveyor