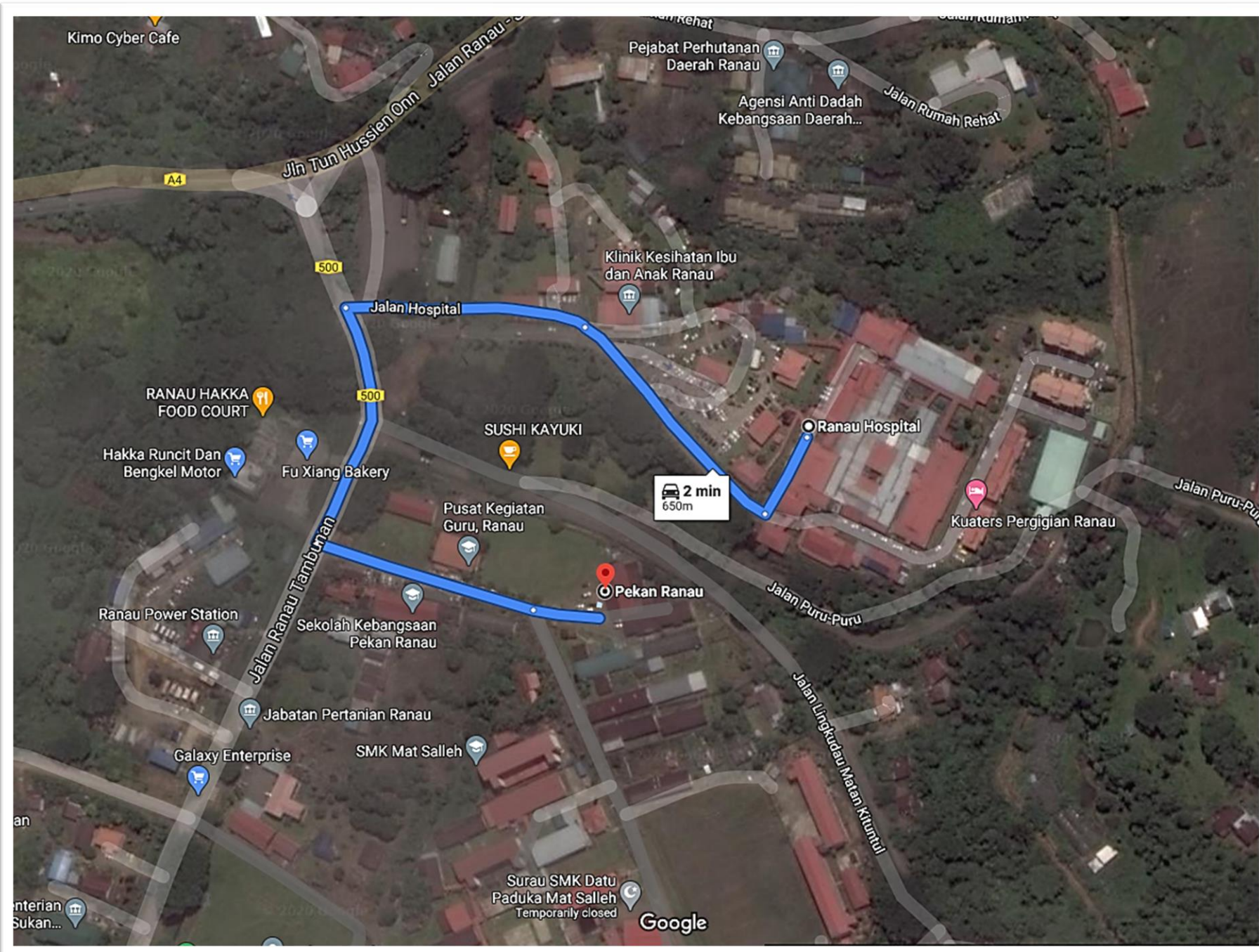




**PROPOSED 1000 PE ADVANCED
SEWERAGE TREATMENT
PLANT FOR HOSPITAL RANAU**



District : Ranau

Location of the site is located at Ranau District. The distance between Ranau Town to the site location is estimated to be 650m as shown in the picture.

Description of Project

- Jabatan Kerja Raya Sabah has been given responsibility by Kementerian Kesihatan Malaysia to upgrade the sewerage system for Hospital Ranau which is being overloaded and the septic tanks for 16G quarters are recommended to be connected to the sewage treatment. The capacity for the existing sewage treatment plant is 100PE and to be upgraded to 1,000PE and the final effluent will be in compliance with the Department of Environment effluent standard thus protecting the environment (i.e water sources), ensuring better public health and safety.

- The works will be implemented vide: -
 - • Intermediate treatment facilities, sewage pump house, sewage treatment plant, building works, laboratory equipment, security fence (anti-climb & anti cut) and related works.

Scope of Work

The work under this Contract comprise of the supply of all materials, labour, plant and everything else necessary for the execution and completion of the following:-

- i) All the Mechanical and Electrical works and equipment for Intermediate Treatment Facility, Sewage Pump House and Sewage Treatment Plant

- ii) Laboratory equipment

- iii) Security fence (anti-climb & anti-cut)

- iv) External Works

PROPOSED NEW ADVANCED SEWAGE TREATMENT PLANT FOR HOSPITAL RANAU (COMBINED MUNICIPAL & HOSPITAL WASTE)

Figure shows Layout of Current Existing STP at Ranau Hospital

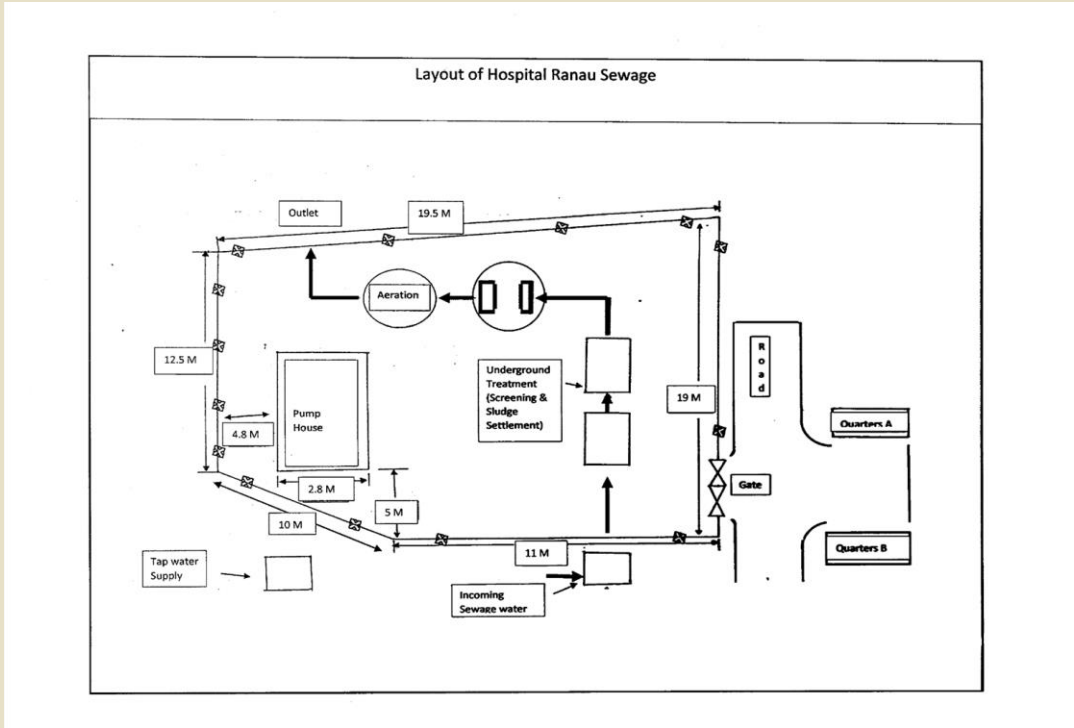
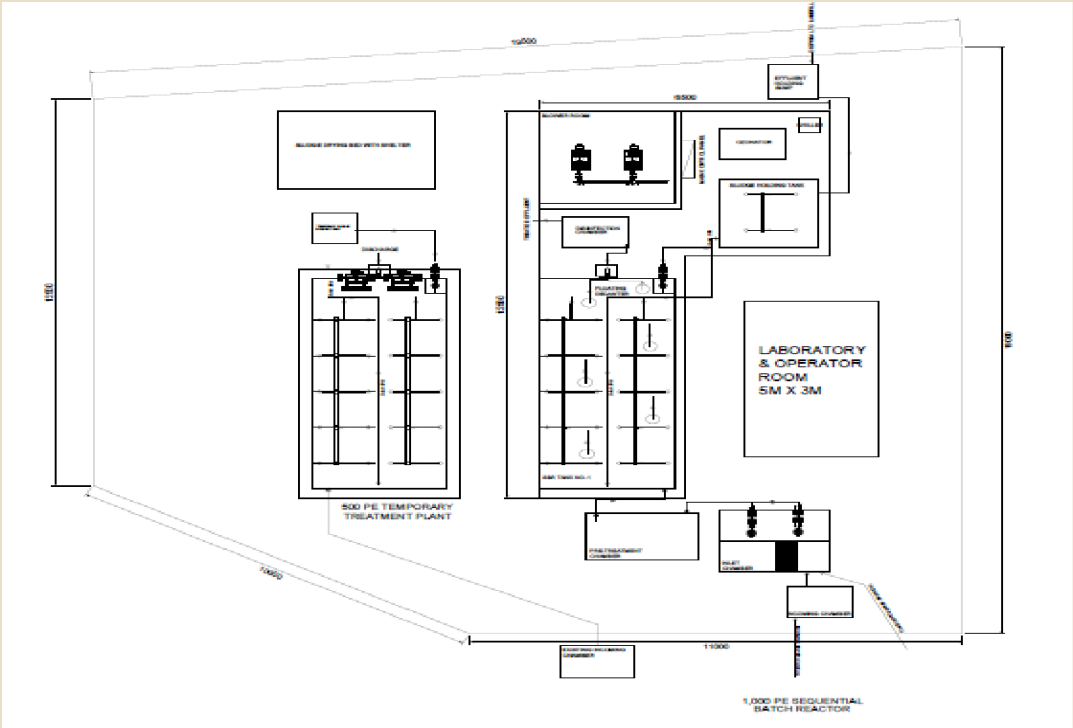


Figure shows Proposed layout of New Advanced STP (within same land area)



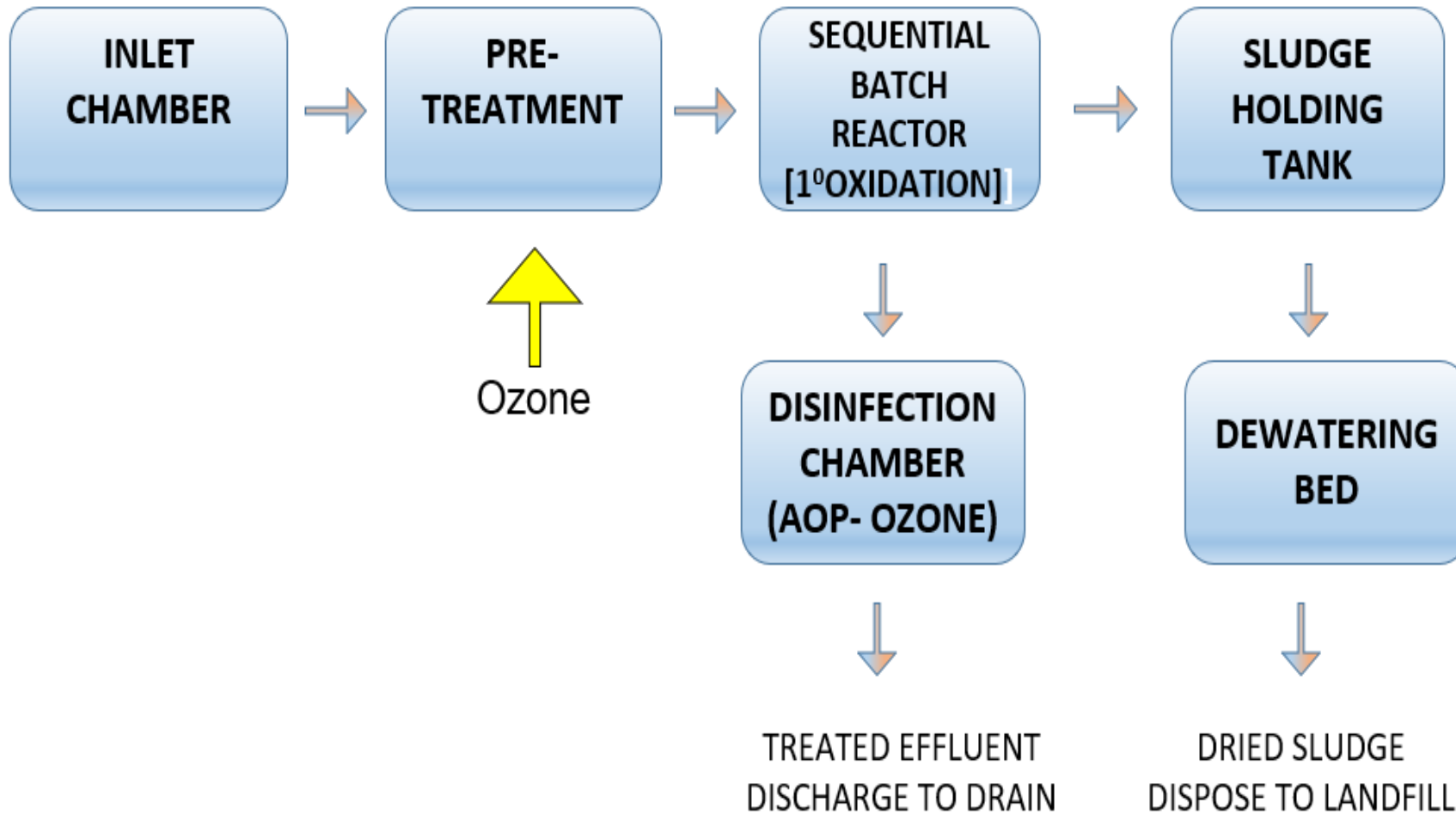


FIGURE SHOWS
PROCESS FLOW
CHART FOR NEW
ADVANCED
SEWAGE
TREATMENT
PLANT

PROPOSED SEWAGE TREATMENT PLANT SYSTEM: SEQUENTIAL BATCH REACTOR SYSTEM WITH AOP

I) Inlet Chamber

- Proposal:

- a) To use existing inlet chamber with necessary up gradings such as pumps & ETC.
- b) New inlet chamber

II) Pre-Treatment Chamber

- Proposal:

- a) To combine with existing inlet chamber with necessary upgrading add more mechanised equipment & ETC.
- b) New pre-treatment chamber

III) Sequential Batch Reactor (SBR)

- Proposal:

- a) New process tanks to be added

PROPOSED SEWAGE TREATMENT PLANT SYSTEM: SEQUENTIAL BATCH REACTOR SYSTEM WITH AOP

IV) Sludge Holding Tank

◦ Proposal:

a) New process tank to be added

V) Sludge Dewatering

◦ Proposal:

a) New drying sandbed with shelter to be added

VI) Disinfection-Ozonation Chamber

◦ Proposal:

a) New fully covered process tank to be added.

Conclusion: Demolish existing Plant and construct a temporary STP and a new advance STP (with ozonation) within same compound

Site Pictures

