

ABSTRAK

PERANCANGAN GEDUNG ARSIP DAN KANTOR PENGADILAN NEGERI PALEMBANG KELAS 1A

Salsabila Armalia Syahputri, Nabila

Program Studi D-III, Jurusan Teknik Sipil, Politeknik Negeri Sriwijaya

Gedung Kantor dan Arsip Pengadilan Negeri Palembang Kelas 1A direncanakan ulang untuk meningkatkan mutu pelayanan, mengikuti standar terbaru Mahkamah Agung, dan mengantisipasi risiko banjir melalui kenaikan elevasi lantai dasar 50 cm. Laporan Akhir ini merencanakan struktur atas (rangka atap, pelat lantai, tangga, balok, dan kolom) serta struktur bawah (sloof dan pondasi) berdasarkan SNI 1727:2020, SNI 2847:2019, dan SNI 1729:2020, dilengkapi gambar kerja, RKS, RAB, dan time schedule, dengan analisis gaya dalam portal menggunakan program ETABS. Hasil perencanaan menunjukkan bangunan 4 lantai dengan rangka atap baja bentang 10,50 m (*gording Lip Channel* 100.50.20.2,3, kuda-kuda 2L.40.40.4), pelat lantai dan dak tebal 125 mm, balok induk 250×450 mm dan 350×650 mm, balok anak 200×300 mm, kolom 400×400 mm, sloof 250×400 mm, serta pondasi bored pile berdiameter 40 cm sedalam 10 m dengan pile cap $1000 \times 1000 \times 500$ mm. Seluruh elemen struktur telah memenuhi syarat kekuatan dan keamanan sesuai SNI yang berlaku.

Kata kunci: gedung arsip dan kantor, struktur beton bertulang, rangka atap baja, SNI, rencana anggaran biaya

ABSTRACT

Design of the Archive Building and Palembang District Court Class 1A Office

Salsabila Armalia Syahputri, Nabila

Program Studi D-III, Jurusan Teknik Sipil, Politeknik Negeri Sriwijaya

The Archive Building and Class 1A Palembang District Court Office is redesigned to improve service quality, comply with the Supreme Court's latest standards, and increase flood resilience by raising the ground floor elevation by 50 cm. This Final Report plans the upper structure (roof truss, floor slabs, stairs, beams, and columns) and the substructure (tie beams and foundation) based on SNI 1727:2020, SNI 2847:2019, and SNI 1729:2020, complete with working drawings, technical specifications (RKS), a budget plan (RAB), and a time schedule, with frame internal forces analyzed using ETABS. The design results show a 4-storey building with a 10.50 m steel roof truss (100.50.20.2,3 Lip Channel purlins, 2L.40.40.4 truss members), 125 mm thick floor and roof slabs, main beams of 250×450 mm and 350×650 mm, secondary beams of 200×300 mm, 400×400 mm columns, 250×400 mm tie beams, and 40 cm diameter, 10 m deep bored pile foundations with $1000 \times 1000 \times 500$ mm pile caps. All structural elements satisfy the strength and safety requirements of the applicable SNI standards.

Keywords: archive and office building, reinforced concrete structure, steel roof truss, SNI, budget plan