
ABSTRAK

Judul : Evaluasi Pekerjaan Instalasi Fasad Curtain Wall Unitized System pada Bangunan Twist Building dengan Metode Operasi Konstruksi Berulang (CYCLONE) (Studi kasus : Proyek Avian Tower Surabaya), Nama : Jimmy Adriyatno, Nim : 41116120013, Dosen Pembimbing : Retna Kristiana, ST, MT, 2018.

Proyek avian tower Surabaya merupakan bangunan pertama di Indonesia yang desain unik dan sulit yaitu gedung office yang desain bangunannya twist atau melintir karena denah bangunannya berbentuk oval dan setiap lantainya memiliki sudut perputaran sebanyak tiga derajat dari as bangunan. Oleh karena itu sangat sulit dalam perencanaan dan pelaksanaan fasadnya. Banyak kontraktor spesialis fasad yang tidak mampu mengerjakan pekerjaan ini. Selain kesulitan dari segi sistem fasadnya pada proses pengadaan material hingga instalasi di lapangan juga banyak kendala yang menyebabkan schedule pekerjaan terlambat. Schedule pelaksanaan pekerjaan fasad pada proyek avian tower Surabaya seharusnya dimulai bulan agustus 2016 hingga selesai bulan 11 juni 2017 namun terlambat hingga bulan desember 2017.

Penelitian ini dilaksanakan untuk mengetahui dan mengevaluasi pelaksanaan pada pekerjaan fasad di proyek avian tower Surabaya yaitu sebagai percontohan analisis metode pelaksanaan pada pekerjaan fasad yang di aplikasikan pada proyek bangunan *twist building* Sehingga meminimalisir pengeluaran biaya diluar anggaran serta membuat metode pelaksanaan yang sesuai dengan proyek tersebut atau pekerjaan fasad di proyek bangunan yang lainnya.

Metode yang digunakan dalam penelitian ini adalah metode konstruksi berulang (*cyclone*) untuk membandingkan metode pelaksanaan pekerjaan instalasi fasad *curtain wall unitized system* konvensional dengan metode pelaksanaan pekerjaan fasad *curtain wall unitized system* untuk bangunan *twist building*. Sebagian besar data pada penelitian ini diperoleh dari perusahaan kontraktor spesialis fasad yaitu PT. Polareka Fasadindo selaku pemenang tender untuk pekerjaan fasad pada proyek avian tower Surabaya.

Pada pekerjaan instalasi fasad *curtain wall unitized system* konvensional dapat diselesaikan dengan waktu 190 hari sedangkan pada metode *twist building* dapat diselesaikan dengan waktu 213 hari terdapat perbedaan 23 hari kerja. Sedangkan dari segi biaya pada pekerjaan instalasi fasad *curtain wall unitized system* konvensional membutuhkan biaya yaitu sebesar Rp. 1.465.714.150 sedangkan pada metode *twist building* membutuhkan biaya yaitu sebesar Rp. 1.648.557.194 terdapat selisih biaya sebesar Rp.182.843.044

Kata Kunci : *Twist building*, metode pelaksanaan, *curtain wall unitized system*, fasad.

ABSTRACT

Title: Job Evaluation Installation of Curtain Wall Unitized System Facade on Twist Building with Cyclical Construction Operation Method (Case Study: Avian Tower Surabaya Project), Name: Jimmy Adriyatno, Nim: 41116120013, Supervisor: Retna Kristiana, ST, MT , 2018.

The project of avian tower Surabaya is the first building in Indonesia which is unique and tough design that is office building which its design is twisted because the floor plan is oval shaped and every floor has rotation angle as much as three degree from as building. Therefore it is very difficult in the planning and implementation of the facade. Many facade specialist contractors are unable to do this job. In addition to difficulties in terms of system facade in the process of procurement of materials to the installation in the field are also many obstacles that cause work schedule late. Schedule implementation of facade work on Surabaya avian tower project should begin in August 2016 until the end of June 11, 2017 but late until December 2017.

This research was conducted to find out and evaluate the implementation of facade work in avian tower project Surabaya as a pilot analysis of the implementation method on the facade work which is applied in the building twist building project So as to minimize the expenditure of expenditure outside budget and also make the implementation method according to the project or job facades in other building projects.

The method used in this research is the method of recurrent construction (cyclone) to compare the method of implementation of conventional curtain wall unitized system facade installation work with the implementation method of facade work of curtain wall unitized system for building twist building. Most of the data in this study were obtained from a faculty specialist contractor company, PT. Polareka Fasadindo as the winning bidder for facade work on avian tower project.

On the installation work facade conventional curtain wall unitized system can be completed with time of 190 days while in twist building method can be completed with time 213 days there is difference 23 working days. While in terms of cost on the installation work facade curtain wall unitized conventional system requires a cost of Rp. 1.465.714.150 while the twist building method requires a cost of Rp. 1,648,557,194 there is a cost difference of Rp.182.843.044

Keywords: *Twist building, implementation method, curtain wall unitized system, facade.*