



**We make you sure to provide the solution by
the time & way of customer's need.**

T-PCS of C5PLAN-G makes sure to provide the solution by timely fashion and the way of customer's need.
We thoroughly analyze and review the construction plan using accumulated big data platform based on the abundant practical experience and expertise accumulated through various projects. Providing the best solution to our customers will greatly contribute to the success of the project.



06085 / 2F, Cheongwoo Bldg. 645, Yeongdong-daero, Gangnam-gu, Seoul, Korea
T. 02.518.3512 F. 02.518.3551 E. c5plan@c5plan.com

www.c5plan.com



The **PACEMAKER** by Your Side

Every moment from bidding to construction completion,
C5PLAN-G will be your reliable partner in everywhere.



Greetings

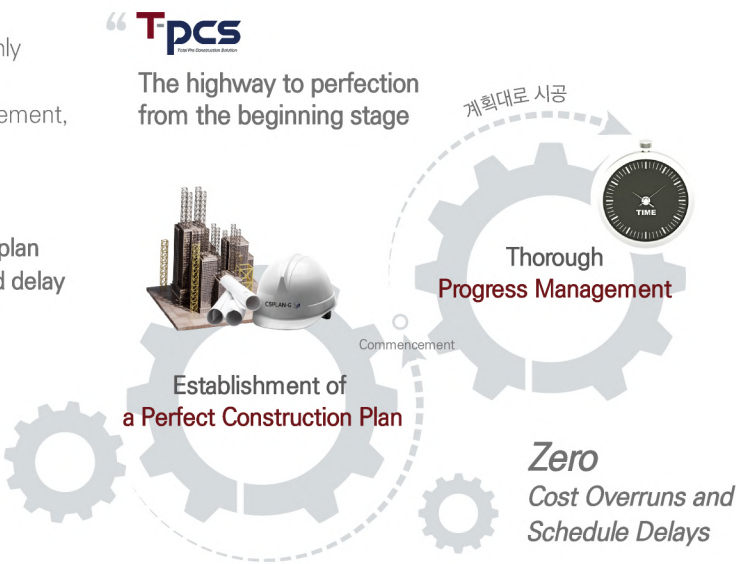
T-PCS optimized for fast-changing construction trends

C5PLAN-G presents solutions optimized for rapidly changing construction trends
Due to social changes such as strengthening safety regulations, lack of construction technical manpower, application of 52 hours a week, and climate change, **construction sites are rapidly increasing in cost and construction period.**

To overcome the current situation, various construction projects are applying various safe and rapid construction methods to respond to the changing construction environment, such as OSC construction method, system construction method, modular application, etc.

To this end, the construction execution plan is thoroughly simulated and established at the **pre-con stage**, and during construction, through thorough progress management, we are striving to **prevent unnecessary increases** in construction period and construction cost, construction cost and misconstruction
C5PLAN-G will establish a complete pre-construction plan through T-PCS and implement zero construction period delay and increase construction cost through thorough on-site process progress management.

Sehyeon Lim, Chief Executive Officer



Corporate History

2005	2014	2020	2024
2005 Establishment of C5PLAN	2014 Execution of first construction BIM	2020 Execution of PM for high-difficulty comprehensive bidding(Applying Synchro 4D Pro)	2023 Nuclear power plant project with BIM & 4D simulation
2007 Establishment of C5PLAN-G Co. Ltd	2015 Launching construction consulting system	2021 Construction execution planning in initial stage	Patent of automatic generation system of geological modeling
2008 Execution of the first BIM project	Construction execution plan with BIM	BIM modeling automation(Builderhub, add-on civil solution)	2024 Rebar & steel shop team Certification of ISO 9001
2010 Execution of the first private sector project as a PM	Construction consulting for general hospital project	Oversea BIM modeling team(Vietnam)	Quality management systems Certification of ISO 14001
Execution of the first public sector proposal project	2017 Execution of PM for LH(CM for Fee)	2022 Real-time Q'ty calculation solution for zoning plan	environmental management system Launching T-PCS
Execution of the first digital construction execution planning project	Launching 4D simulation	4D Progress control management project, Overseas(Vietnam)	
2011 Execution of the first oversea proposal project	Launching Corporate Research Institute		
	2019 Launching smart construction		
Execution of approximately 20 projects annually with construction companies ranked in the top 50 in Korea	Securing expertise in the utilization of BIM for construction execution plan & planning	For rapid & accurate plan Automation system	For One-stop solution T-PCS Launching

Organization



Competence & Partners

Skilled & Qualified Pre-con Specialist



ACE Automatic design Calculation Earthquake Earthwork

Certification of patent for automatic generation system of geological modeling

Company-affiliated research institute

Venture business certification

Certification of ISO 9001 Quality management systems

Certification of ISO 14001 environmental management system

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계룡건설	KOOJE 국제건설	금호건설	남양건설(주)	대경건설(주)	대우건설	동부건설	동양건설산업
두산건설	DL Construction	DL E&C	롯데건설	삼성물산	SAMSUNG E&A	서해종합건설	서원건설
SUNGJEE	신세계건설	신한종합건설(주)	쌍용건설	대한항공	S&I Corp.	SGC E&C	SK 에코플랜트
우미건설	임성건설(주)	일신건설	JEIL 제일건설	중흥그룹	GS E&C	KCC KCC건설	코오롱글로벌
POSCO 포스코아연빌	Hanbek 한베건설	HJ 중공업	한화건설	현대건설	현대엔지니어링	HS 화성	Gansam
NOW Architects	DONGWOO Architects & Consultants	D&B	dA architecture group	dmp	법건축	SAMOO	EGA GROUP
토목공학	HAEAHN	heerim					

※ The company name is in spalling order.

Performance in various fields



1 Ewha Women's University 2nd Affiliated Hospital & College of Medicine

2 Gimpo Data Center

3 Jayang1 Urban Reorganization(Complex)

4 Yeouido-dong 27-2 office Bldg.

5 White book of LCT project

6 Paradise city unit 1

7 WOODLANDS HEALTH CAMPUS

8 ATV New Factory Construction

9 Terminal 2 Expansion for Incheon Airport

10 Sinhanul Unit 3,4 Nuclear power plant



Every moment from bidding to construction completion Providing optimal solution in entire construction process

By incorporating construction BIM throughout entire construction process, we support the successful execution of projects by providing customized solutions to customers.

We also provide optimal solutions to improve productivity, reduce costs, and enhance safety.



Solution Design BIM / Construction BIM

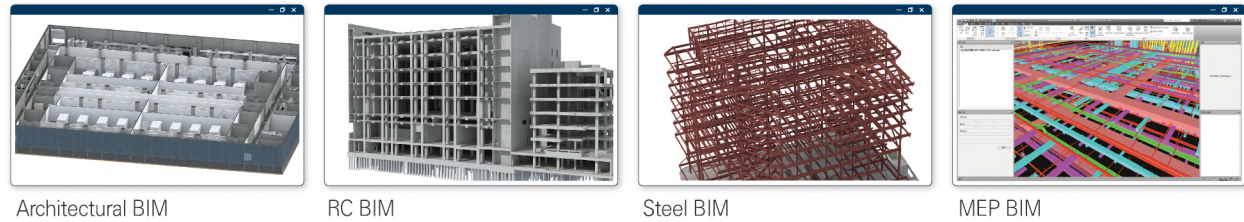
The path to success in design and construction BIM is leaded from automation solutions.

We have developed our own BIM solution to establish a complete construction process plan. Through this, we are building an automated system for quick and accurate data generation and applying parametric techniques using algorithms to respond quickly to frequent planning changes.

BIM modeling

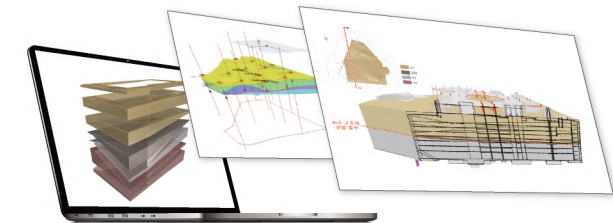
BIM modeling by discipline

BIM modeling rapidly for reviewing of construction execution plan



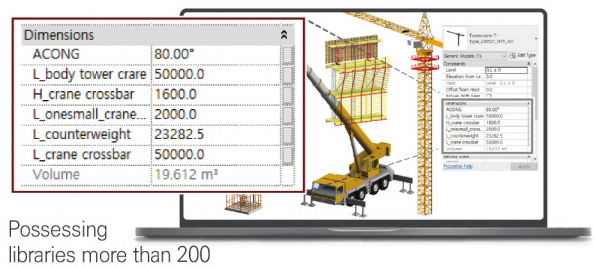
Excavation / Civil modeling

Automatic generation of geological /stratigraphy, pile, and sheathing modeling based on geological survey reports



Equipment & temporary BIM modeling

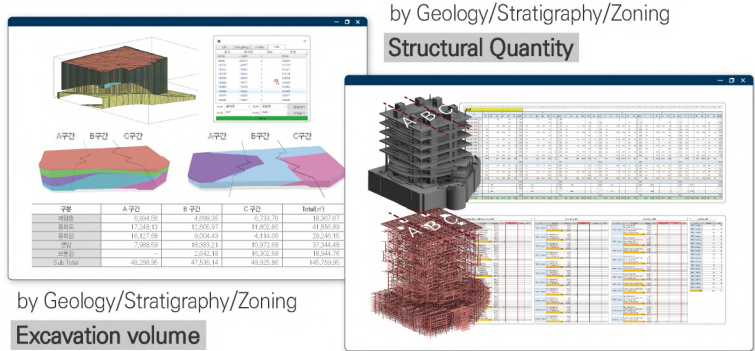
Construction simulation reflecting actual size from catalog



Rapid quantity take-off [Automation system]

Real-time quantity take-off by construction zoning

Efficient construction execution plan and planning that reflect quick and accurate quantity take-off and productivity.



Real-time quantity verification asper zoning change

Quantity verification based on algorithm



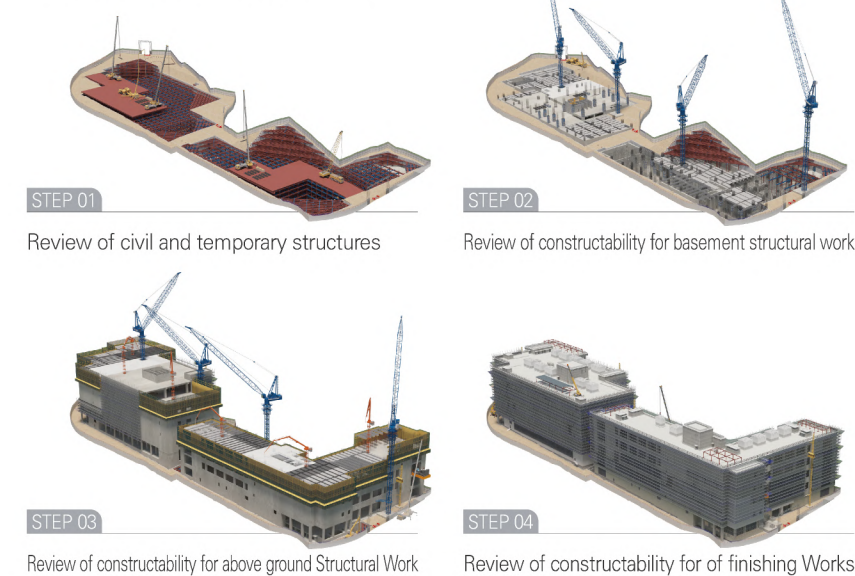
Representative performance of construction BIM

- KyungDong Navien Seotan plant
- Neom the LINE Rafts and Cores Substructure Works in Saudi Arabia
- Goyang Samsung IT Platform Center
- Sudirman APT & Office_BIM in Indonesia
- Spring Light City in Vietnam
- Dahiyat Alfursan New City Project in Saudi Arabia
- TDB HQ OFFICE
- KLCC Lot91 Project in Malaysia
- Asan 7-1 stage wastewater treatment facility
- Daegu Baseball Stadium T/K BIM (Civil engineering)

Visualization and detail review of construction execution plan

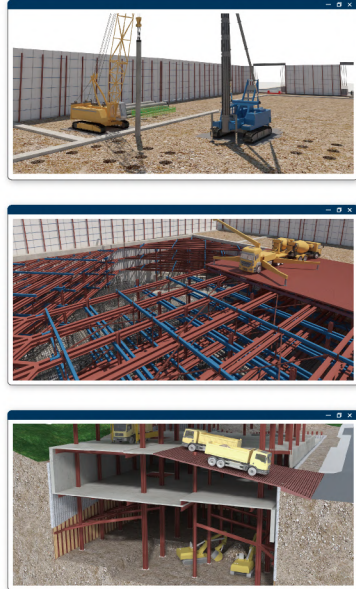
Review of overall/detail construction sequence

Review of construction issues by timeline



Detail BIM review for critical area

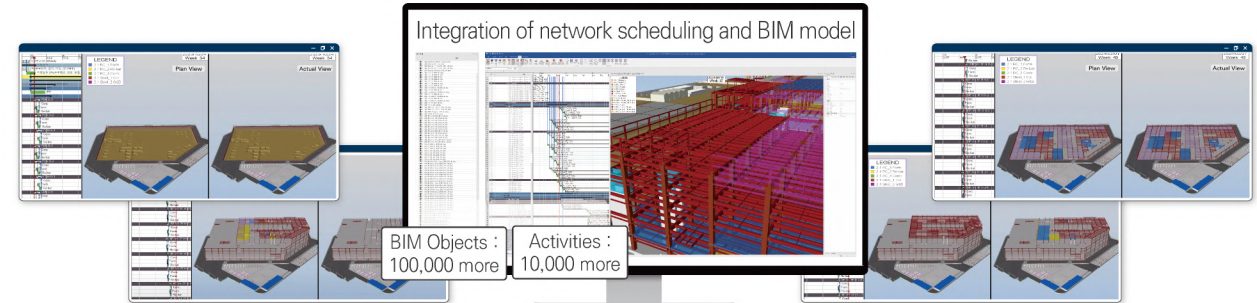
Improved project understanding through BIM



4D Simulation & Progress control management based on daily

4D Simulation

Visualization of construction execution plan & daily progress control management



Solution Bid proposal

Be awarded a contract! It will be realized with C5PLAN-G

Our company streamlines processes such as strategic development, BIM modeling, planning and construction management through our in-house organization. Furthermore, by rich experience and skilled construction professionals, we enhance our engineering to establish systematic construction plans. Based on distinctive strategic development with a storyline, we create competitive bid proposals with secured advantages.

**Representative
performance of
bid proposals**

- Sinhanul Unit 3,4 Nuclear power plant
- Youngdong-daero underground complex unit 1
- CapitaLand Korea No.8 Data Center
- SK Nexilis copper foil plant in Poland
- Jamsil sports-MICE Complex
- Cheongla hana dream-town, Group HQ
- Yeouido-dong 27-2 office Bldg.(Private school pension)
- Terminal 2 Expansion for Incheon Airport
- Legoland Korea Theme park
- Jayang1 Urban Reorganization Project(Complex)
- Woodlands general hospital
- Bank of Korea's integrated annex bldg.

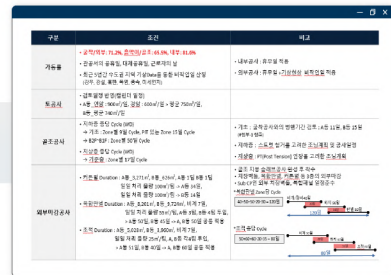
Planning & construction management with field experience

Site analysis

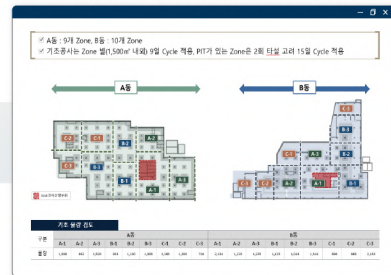
Analysis for efficient and reasonable temp. work


Planning basis

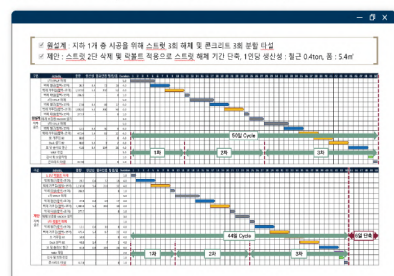
Construction period calculation basis


Zoning plan asper discipline

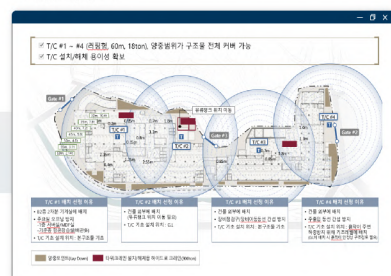
Construction execution plan with data base (Zoning plan, Construction sequence, etc.)


Construction cycle

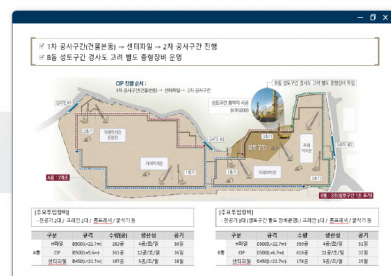
Realistic productivity (Provided by GC or C5PLAN-G)


Tower crane allocation plan

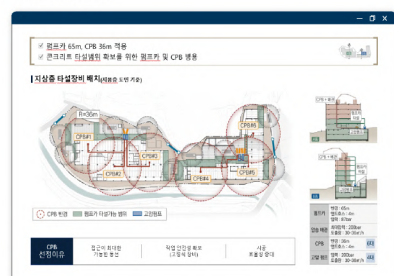
Reflecting analysis of Lifting load & Rigging plan


Sheathing & excavation plan

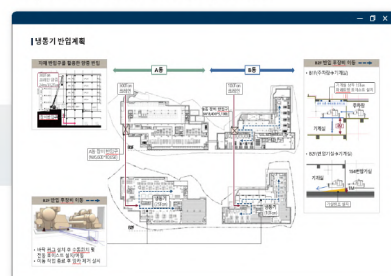
Excavation plan considering q'ty and characteristics of soil & sheathing method


Concrete pouring plan

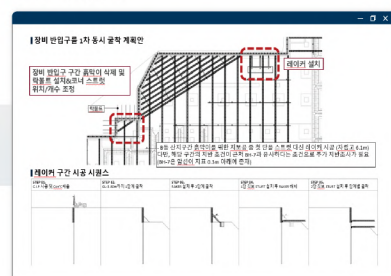
Review of supply chain & daily Q'ty of concrete


Logistic plan

Optimized temporary road plan asper construction sequence


Proposal of alternative

Construction method considering project & site condition



Competitive bid proposals with distinctive strategic development with a storyline

Analysis for technical data & competitors

Strategy with bid trend & RFP


Identified concept/creative storyline

Easily understandable proposal & highly readable presentation



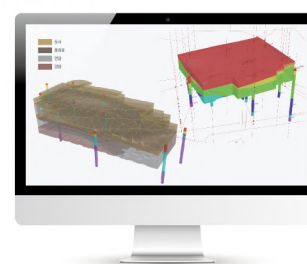
Detailed review for RFP

BIM modeling data for quick & detail planning

Q'ty calculation for quick & detail construction execution plan

Reliability with Q'ty calculation

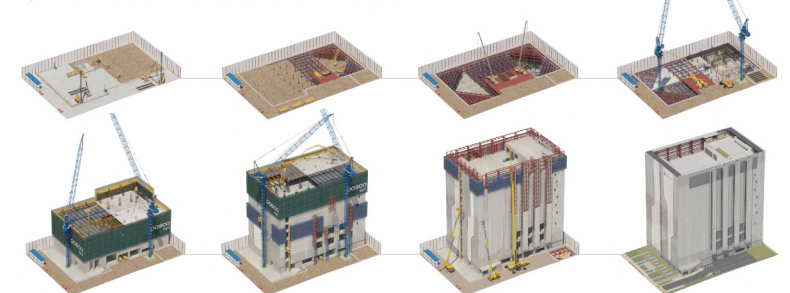
Civil Q'ty calculation



RC/Steel Q'ty calculation


Sequence review for construction execution plan

Sequential simulation with construction schedule


Construction method detail review

Risk registration with sequential review



Solution **Pre-con Solution**

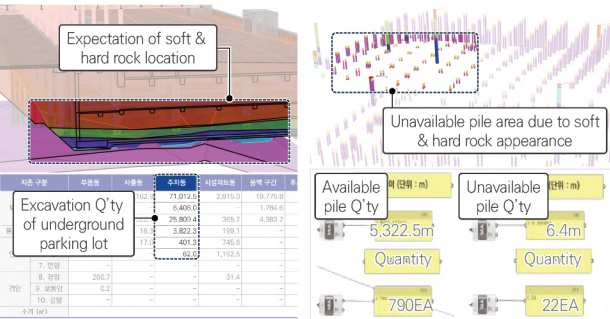
No time to hesitate. Pre-construction is Golden time for Successful project.

Based on the quantity, planning & construction execution plan are established to ensure the reliability. Any necessary modifications identified through 4D simulation reviews are immediately updated using BIM. The revised quantity is recalculated according to the updated plan, and corresponding construction and process plans are reestablished. By repeating this process, the optimal construction and process plans are derived.

Design Optimization

Consistency of design doc.

Design Error, Omit, Interference and Constructability review

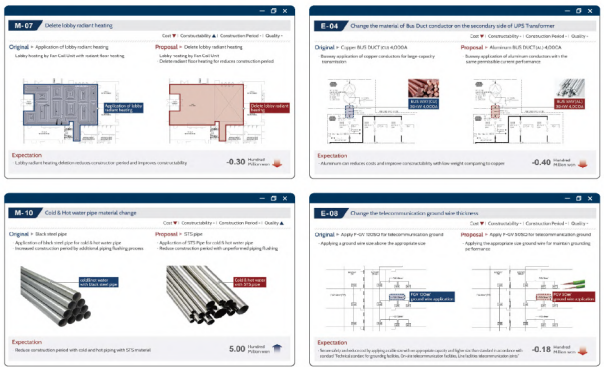


Geometric modeling & analysis

Identifying unnecessary Pile (Cost Reduction)

Value Engineering

Construction Efficiency & Quality control

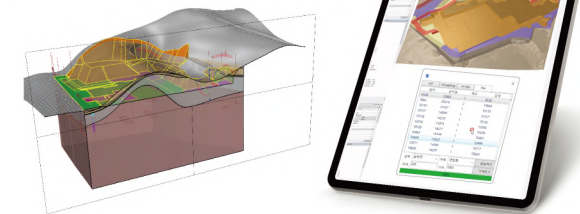


Q'ty calculation with quick & detail and immediate reflection of revised plan

Q'ty calculation based on BIM

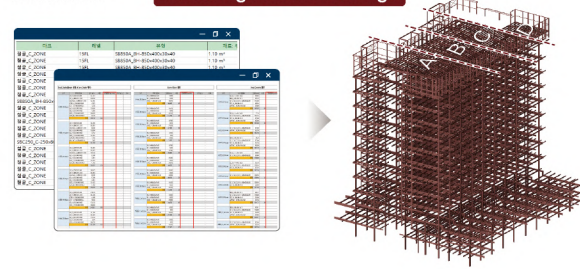
Quick Q'ty calculation based on Needs

Civil Q'ty calculation **Within 1~2 days after delivering revised drawings**



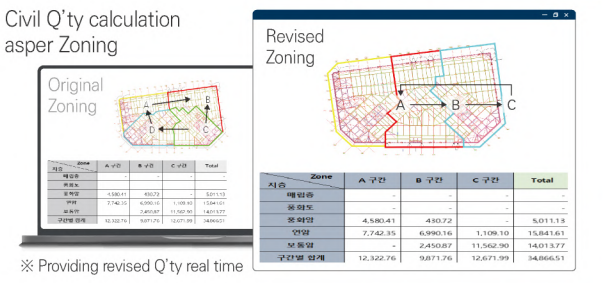
Structural Q'ty calculation

Within 5~10 days after delivering revised drawings

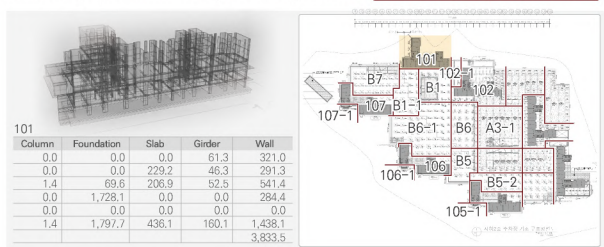


Immediate reflection of revised Zoning

Automation solution of Q'ty calculation **Real time implementation**



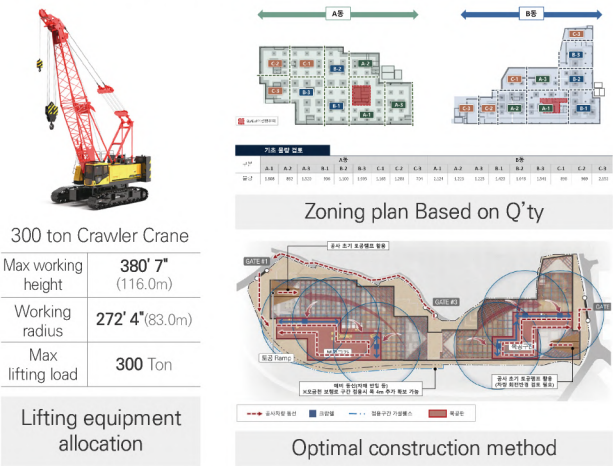
Revised Q'ty calculation asper Zoning revision **Real time implementation**



Construction execution plan & Sequence review

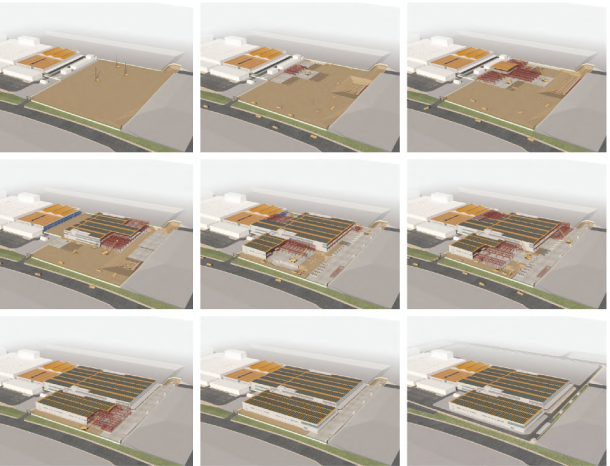
Sequential construction execution plan

Construction execution plan with efficiency



Sequence review for construction execution plan

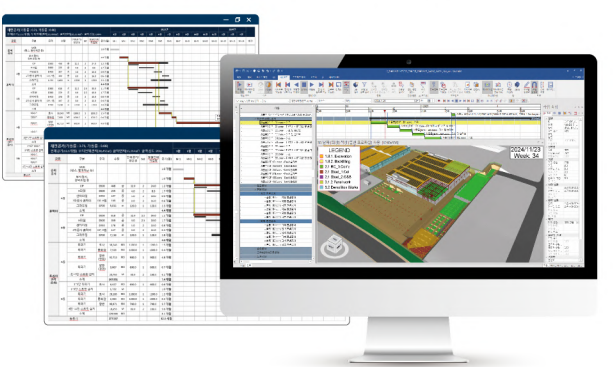
Sequence review for construction execution plan with efficiency



Planning & 4D simulation

Detail planning

Strategy for Productivity & Efficiency maximization



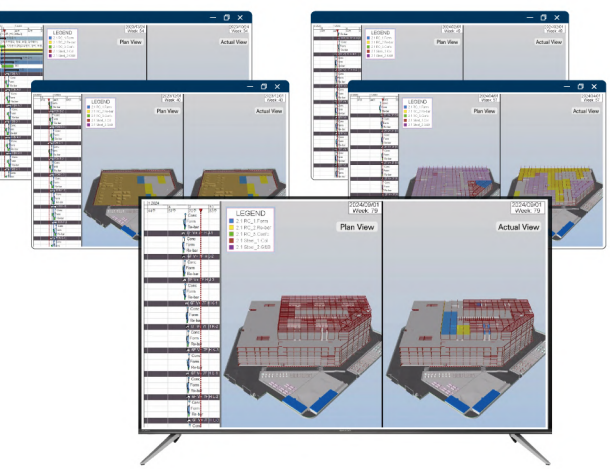
Productivity review with similar case study

Detail construction period study with network scheduling

Optimal construction period calculation with resource leveling

4D simulation

Daily plan with network scheduling



Solution *Planning/Progress management*

Advanced project management method is required for the thorough Construction execution plan as planned.

Lead engineers leading the project are deployed to quickly respond to rapidly changing situations through on-site conditions and work leading, and set a clear target process rate to achieve a plan process.
It also manages resources efficiently to maintain quality and achieve the best results while adhering to project schedules and budgets.

Representative performance of planning & progress management solution

- ICN11 Gimpo data center
- Donghwa pharm HQ Bldg.
- Innovative city complex development Pre-con in Munhyeon, Busan
- New station area A-3BL APT.in Gunsan(CM for Fee)
- Chungju hoam A-1BL APT. Unit 4(CM for Fee)
- Handoc genexine Pre-con consulting
- Daegu Bank DGB Innovative center
- Siheung-eungye S4B APT(CM at Risk)
- Uijeongbu gosan S3B APT(CM at Risk)

Network Scheduling

Detail network scheduling reflecting actual productivity
Network schedule and monthly update management

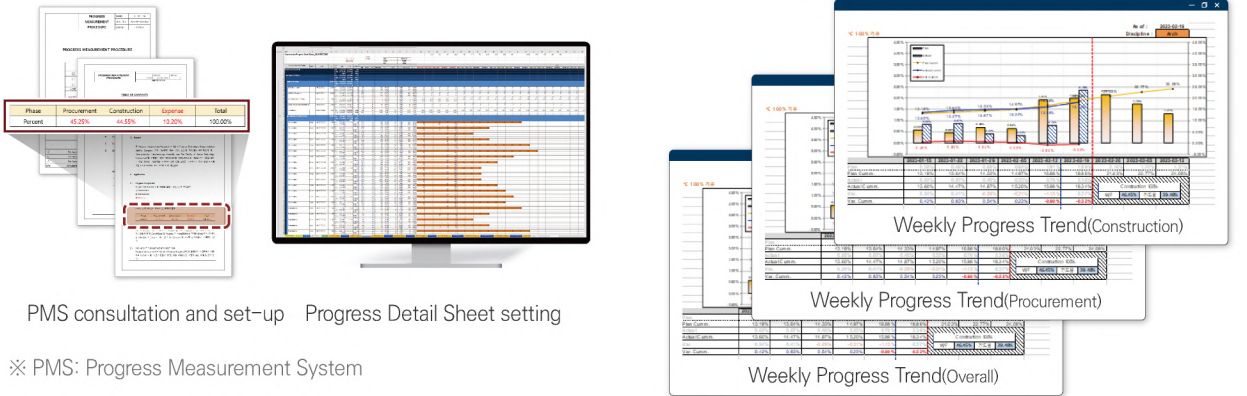
Scheduling of critical activity using network Diagram
Detail scheduling and update



Monitoring and trend analysis of progress

Scheduling (based on PMS) and provision of procedure
Standardization of progress management for Consistent Quality Control

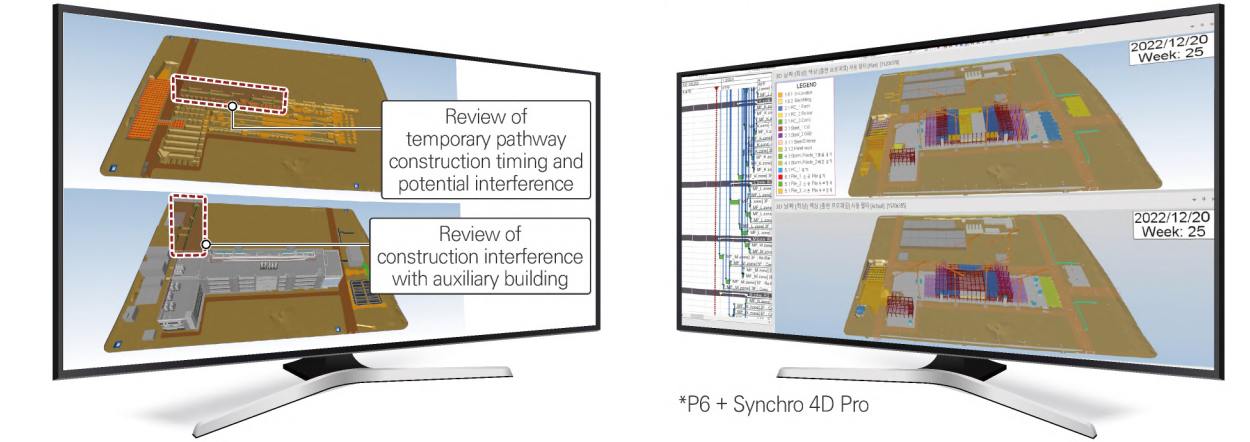
Trend Analysis of progress ratio and pre-notification of Issues
Reviewing weekly plan achievement and trend analysis



Utilization of daily 4D simulation related to the network schedule

Visualization for communication between disciplines
Enhancing understanding of project members through 3D visualization of network schedule

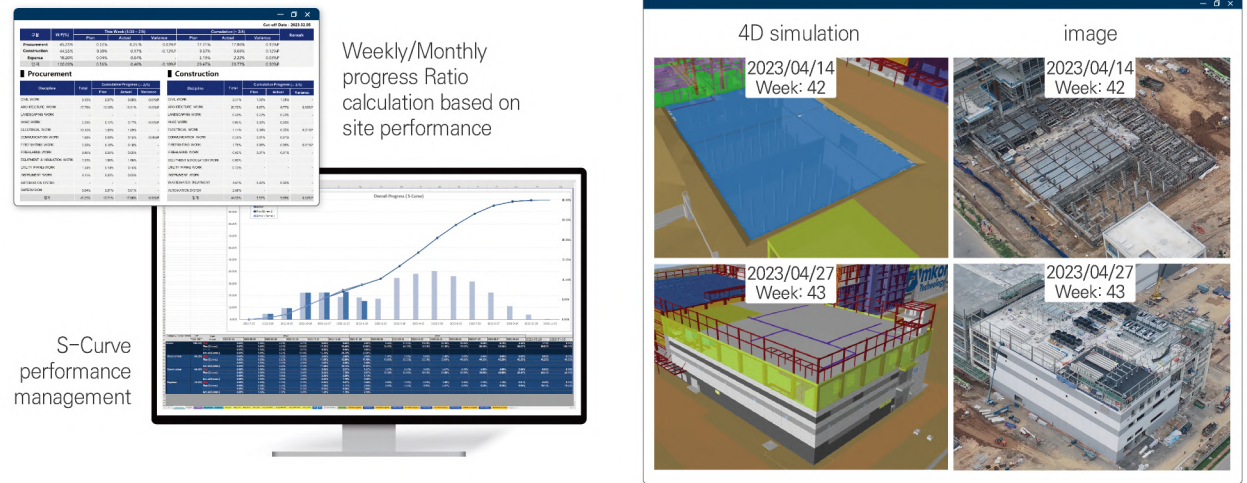
Prevention of construction interference through review of construction sequence
Elimination of construction risks in advance through daily visual review of schedule



Comparison of plan vs actual

Progress ratio performance management
Weekly cumulative progress management by discipline and analysis of delay activities

Comparison of progress analysis for pla(4D)n vs actual(Drone)
Progress Management with 4D simulation and drone images



Solution *Rebar & Steel Shop dwg.*

Integrated shop drawings with steel, rebar, and PC A perfect structure comes from integration.

Our rebar & steel shop dwg. Competitiveness is based on accuracy, speed, and professionalism. By creating accurate drawings, you can minimize field construction reworks, reduce material loss, and prevent poor construction through precise construction. Quick drawing creation can shorten the construction period and reduce costs. In addition, we provide perfect Shop dwg. with professional drawing capabilities, facilitate on-site management of materials, and standardize rebar placement.

Construction execution plan with BIM

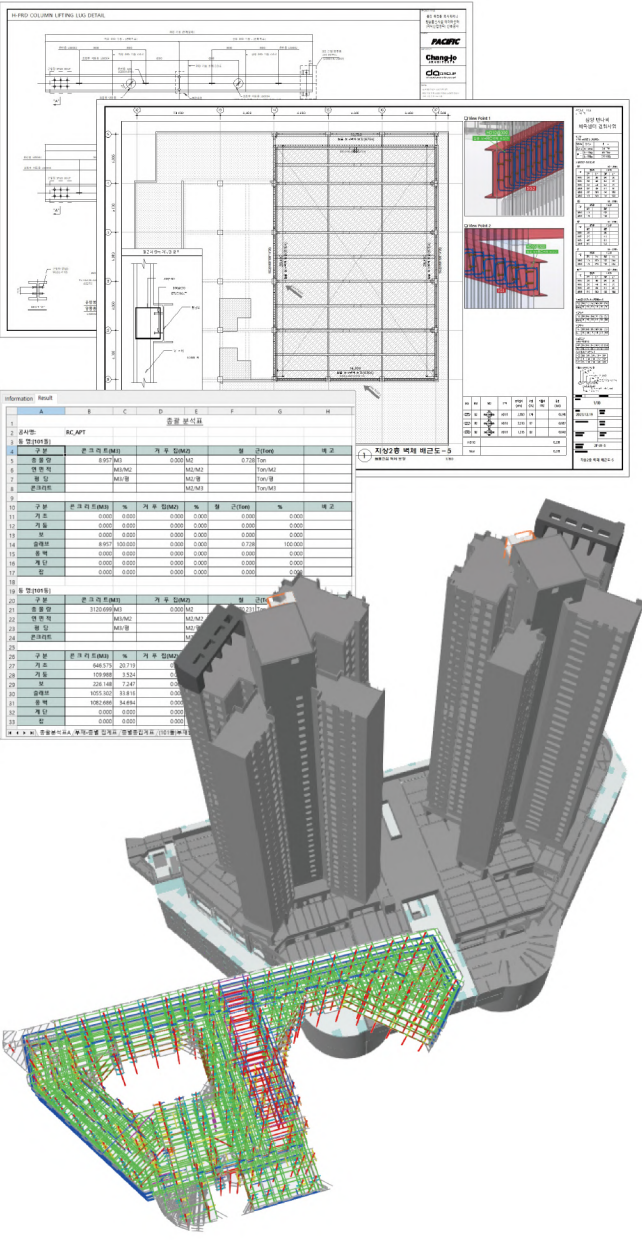
- ✓ Q'ty of structure(Steel, Rebar, Concrete, Form)
- ✓ Design review with consistency (Error, Omit, Interference)
- ✓ Structural safety, Constructability, Value Engineering
- ✓ OSC(OFF-SITE CONSTRUCTION)

Construction management with BIM

- ✓ Setting Project standard, Construction joint zone
- ✓ Detail dwg. from BIM / BBS in complicate part
- ✓ Interference with structure & MEP
- ✓ Q'ty summary as monthly basis(be used monthly progress claim)

Big data platform with BIM

- ✓ Structural rebar & steel Q'ty summary reports
- ✓ Temporary rebar & steel Q'ty summary reports
- ✓ Q'ty comparison report(Plan VS Actual)
- ✓ Data base for structural Q'ty



Representative performance of Rebar Shop dwg.

- Jeju dream tower(China Arch.)
- Gangneung Lotte Castle Signature(Lotte E&C)
- Amore pacific HQ(Hyundai E&C)
- Malaysia IB TOWER(Daewoo E&C)
- Malaysia MATRADE (Daewoo E&C)
- Bangladesh Dhaka Airport(Samsung C&T)
- Gasan-dong AP Tower
- Sincheon-dong, Dongdaegu Residential-commercial complex
- Sinbanpo unit 13 housing reconstruction
- Cheongdam Samik APThousing reconstruction
- Chungmuro Namsan APT
- Gasan-dong Knowledge Industry Center

