

HOME

CREATIONS & DEVELOPMENT

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ENGINEERING SERVICE PROVIDER OF CHOICE



ENGINEERING SERVICES

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We Produce

- ✓ Studies
- ✓ Engineering Calculation Sheets
- ✓ Architectural Designs
- ✓ Equipment Selection
- ✓ Shop Drawings
- ✓ Coordination Drawings
- ✓ As-built Drawings

Project Types

- ✓ Residential
- ✓ Public Infrastructure
- ✓ Urban Development
- ✓ Power Projects
- ✓ Custom Projects

Methods

Design sciences used to research and implement up-to-date execution techniques and technologies.

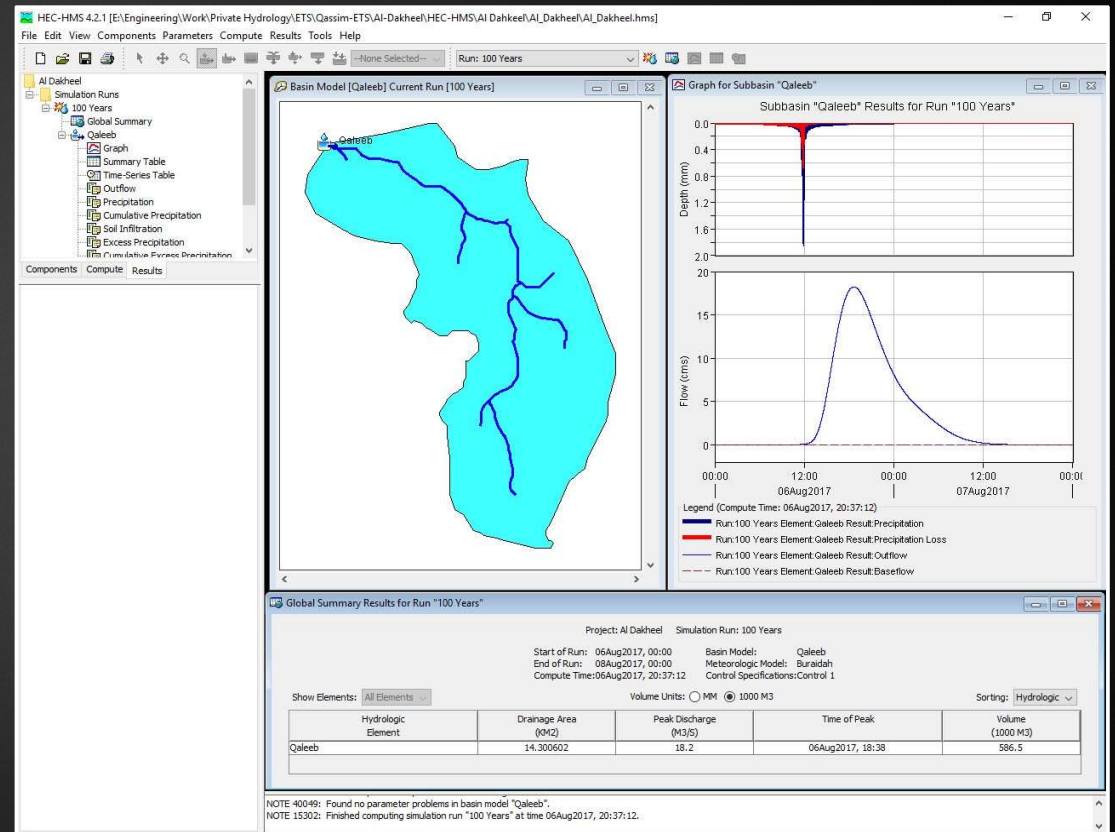


ENGINEERING SERVICES



Methodology

- ▶ Topographic Study & Survey Works
- ▶ Geological Study & Land Use Maps
- ▶ Metrological Study & Rainfall Data Analysis
- ▶ Morphological Study
- ▶ Hydrological Modeling



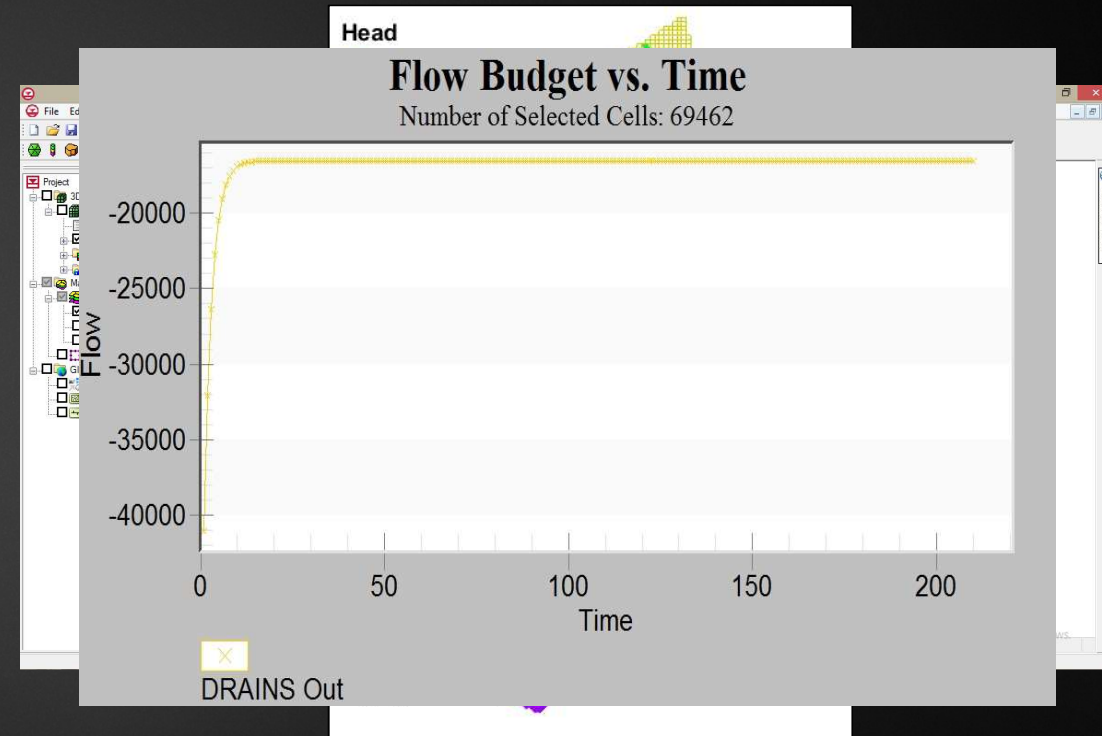
HYDROLOGIC STUDIES

- ▶ Alternative Solutions
- ▶ Models
- ▶ Recommendations

ID	Label	Volume (Total Runoff) (m ³)	Flow (Total Out) (m ³ /s)	Notes
50: Fahd Al-Tw	50 Fahd Al-Twegry	4,067.1	0.94	100 Years
50: Fahd Al-Tw	50 Fahd Al-Twegry	2,614.1	0.72	25 Years
50: Fahd Al-Tw	50 Fahd Al-Twegry	1,668.8	0.56	10 Years

Methodology

- ▶ Identify & analyze topography
- ▶ Identify & analyze project area geology
- ▶ Produce conceptual model
- ▶ Produce groundwater numerical model
- ▶ Adjust calibration
- ▶ Represent groundwater movement resulting from implementation conditions.



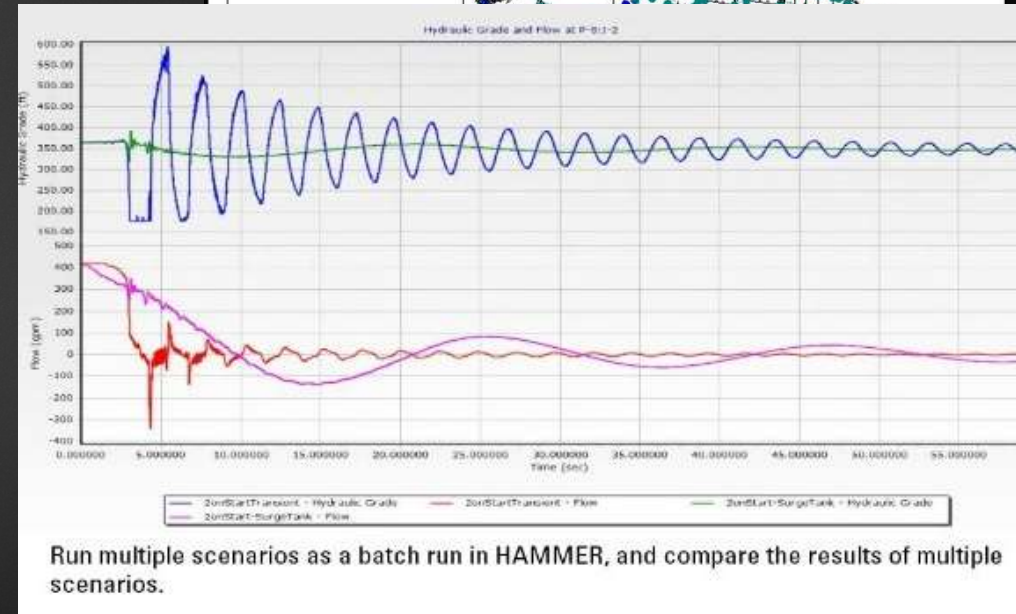
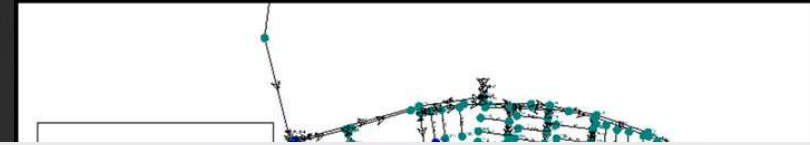
Results

- ▶ Engineering solutions design



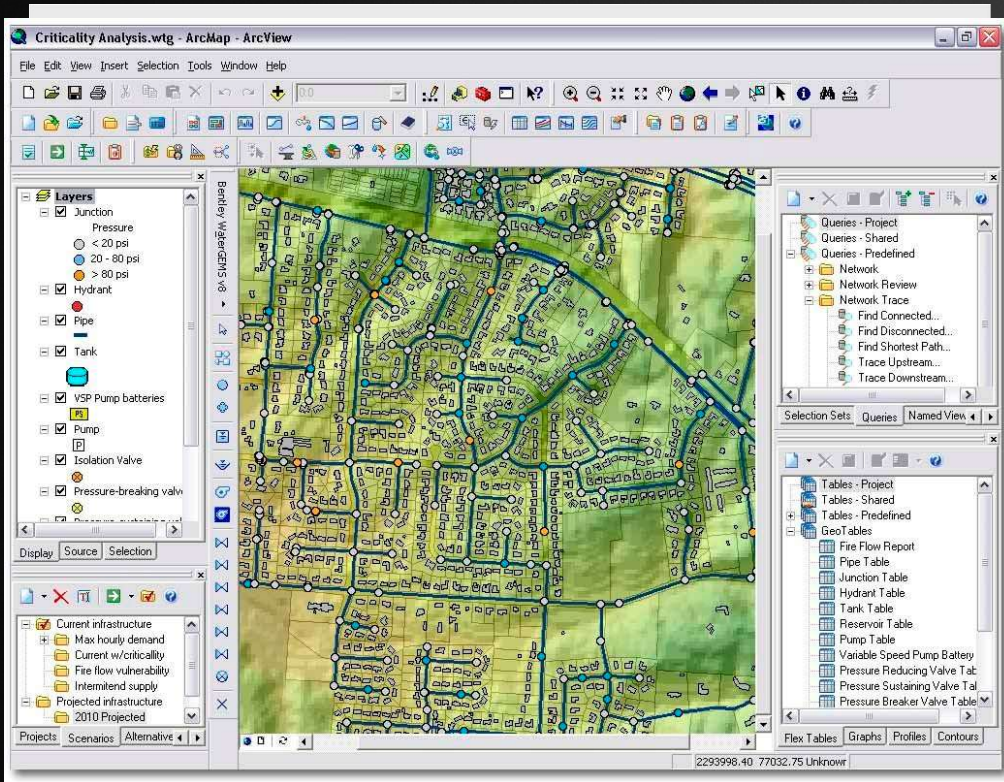
Pressurized water systems:

- ▶ Determine daily water consumption
- ▶ Specify design techniques
- ▶ Design network according to approved codes
- ▶ Produce calculation sheets & drawings



Pressurized Irrigation Systems:

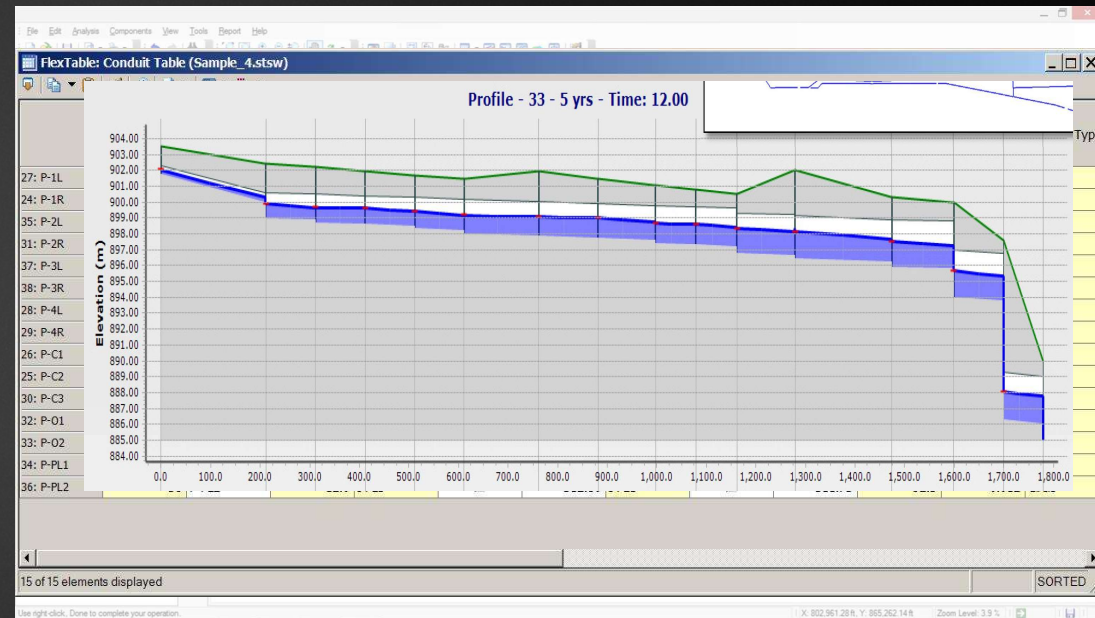
- ▶ Estimate Design Water Requirement
- ▶ Determine Design Technique Of Network
- ▶ Design Network With Approved Codes
- ▶ Produce Calculation Sheets & Drawings



UNPRESSURIZED NETWORK DESIGN

Unpressurized Sewage:

- ▶ Determine Daily Water Consumption
- ▶ Determine The Outlet Of The Network
- ▶ Design Network With Approved Codes
- ▶ Produce Calculation Sheets & Drawings

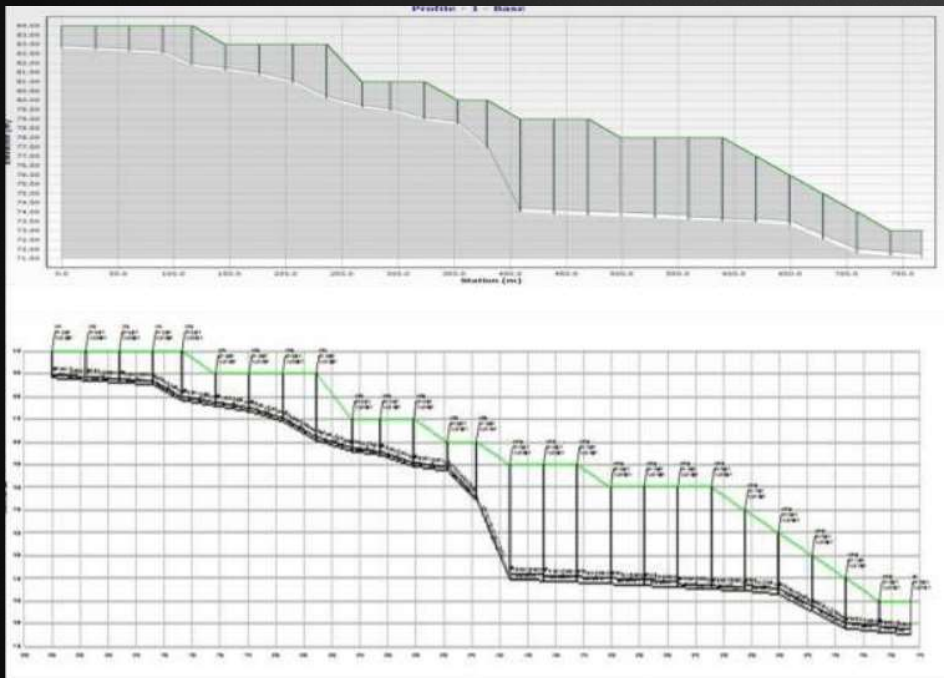


Unpressurized Network Design

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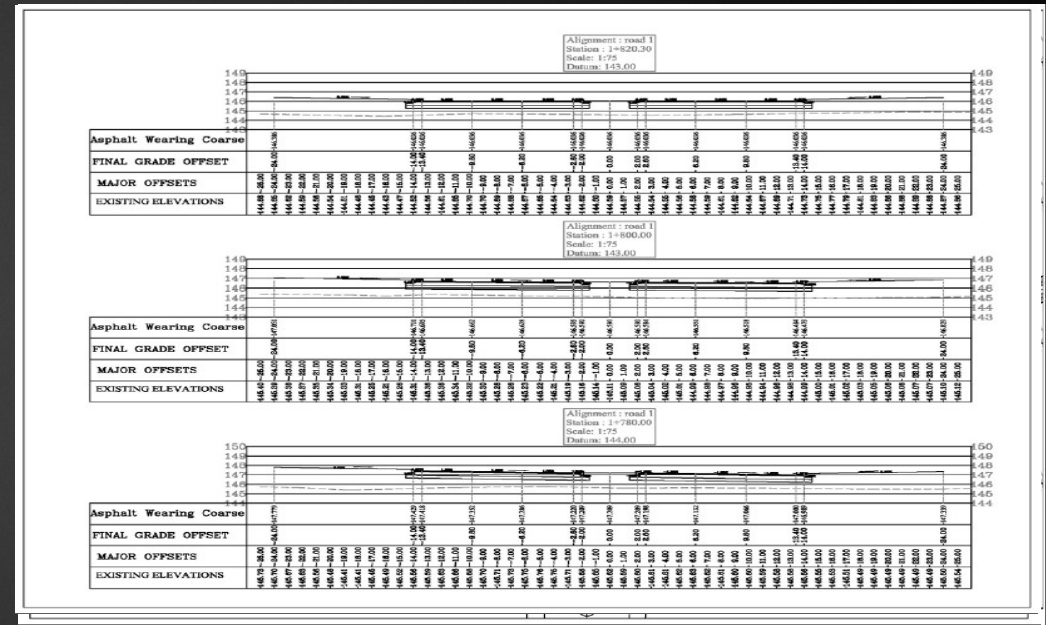
Unpressurized Storm Drainage Systems:

- ▶ Calculate Expected Rainfall Depths For Design Return Period
- ▶ Determine Placement Of Network Outlet
- ▶ Design Network With Approved Codes
- ▶ Produce Calculation Sheets & Drawings



HIGHWAY & FREEWAY DESIGN

- ▶ Identify Paths
- ▶ Finalize Geometric Designs
- ▶ Produce Shop Drawings
- ▶ Produce Spot Elevation And Cross Section Details
- ▶ Produce Cut & Fill Quantities & Plans



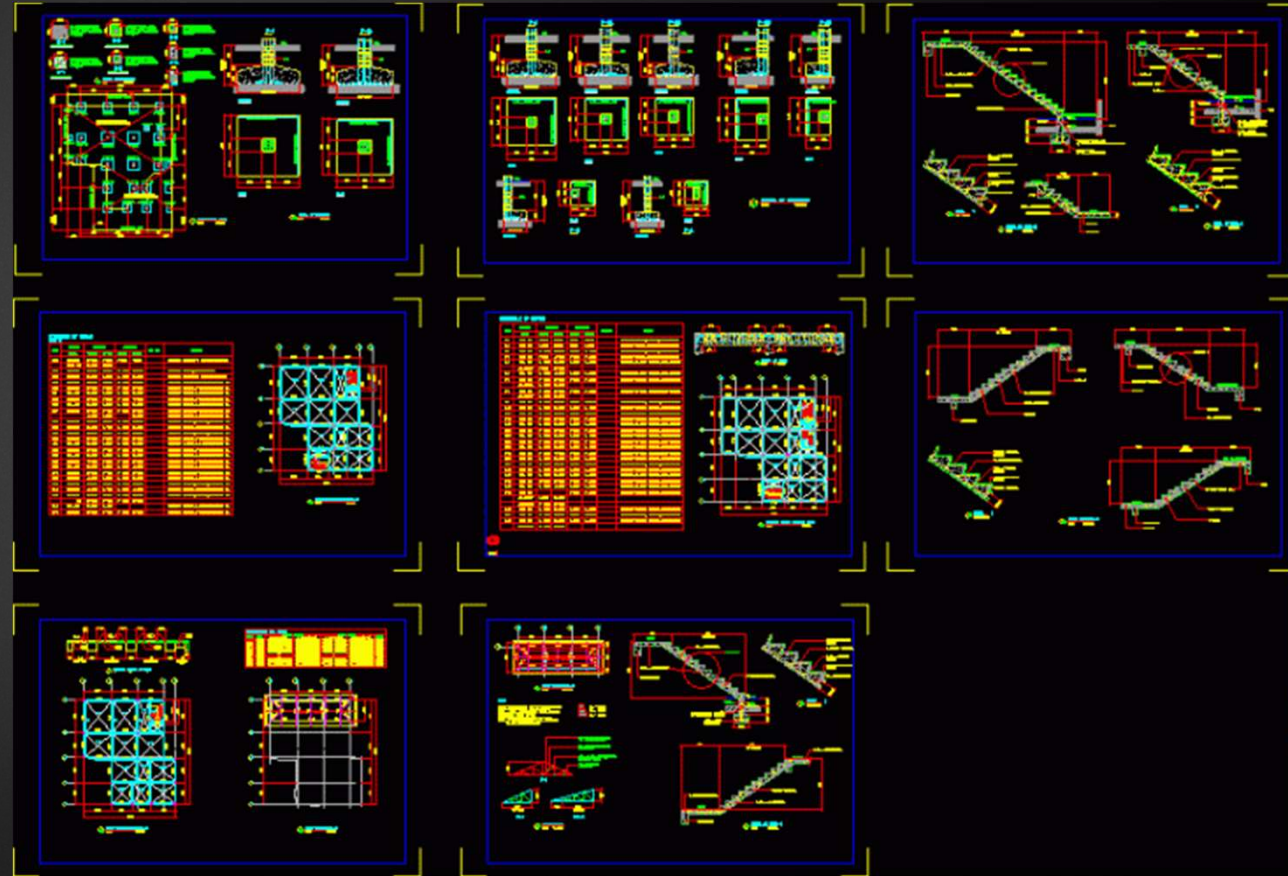
EXTERIOR & LANDSCAPE DESIGN



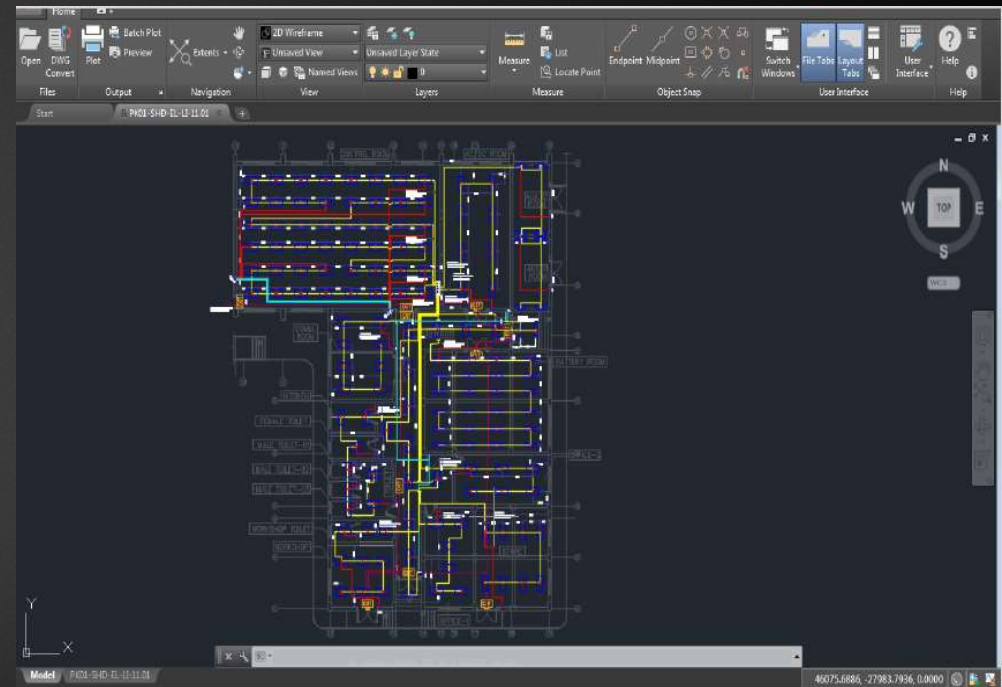
INTERIOR DESIGN



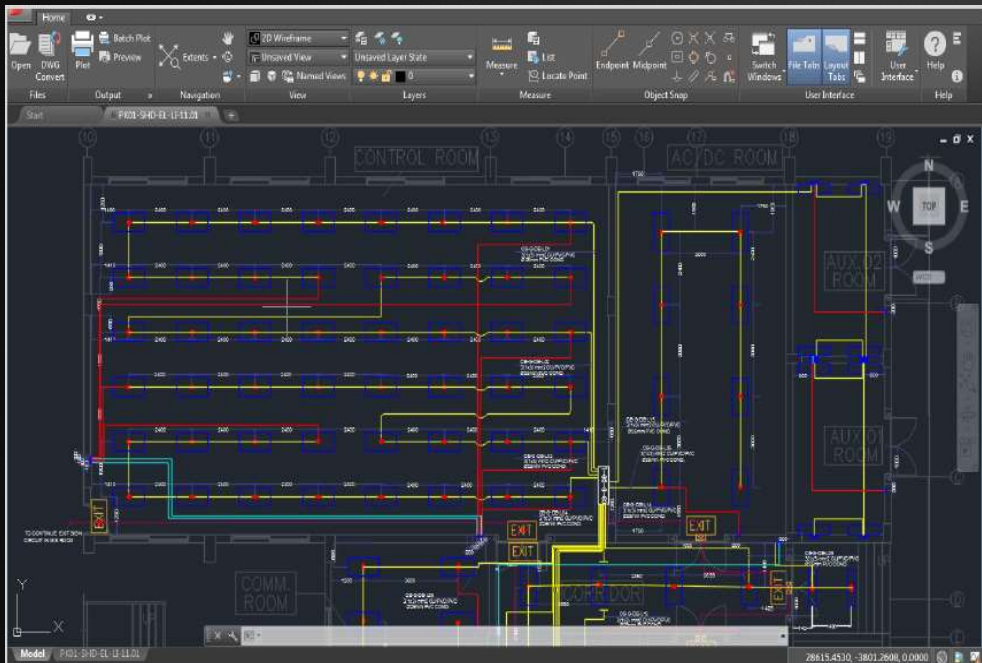
- ▶ Conceptual Design
- ▶ Calculate Internal Forces
- ▶ Iterative Design
- ▶ Foundation Design
- ▶ Drafting



- ▶ Electrical MV & LV Networks & Distribution Systems, Switchgears, RMUs, Cabling, Schematic Drawings & SLDs
- ▶ Selectivity & Discrimination Studies
- ▶ Transformers & Cable Sizing
- ▶ Short Circuit & Voltage Drop Calculations



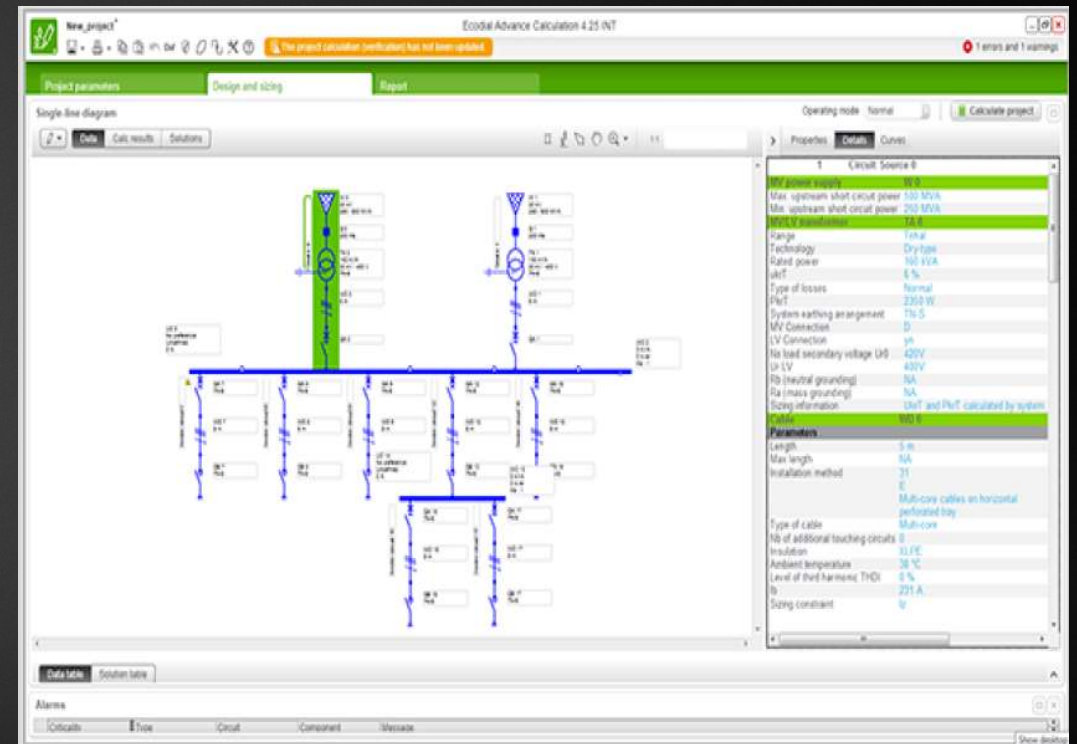
ELECTRICAL DESIGN



- ▶ Raceway Designs
- ▶ Lighting System Designs & Calculations
- ▶ Power System Designs & Calculations
- ▶ Panel Board Scheduling

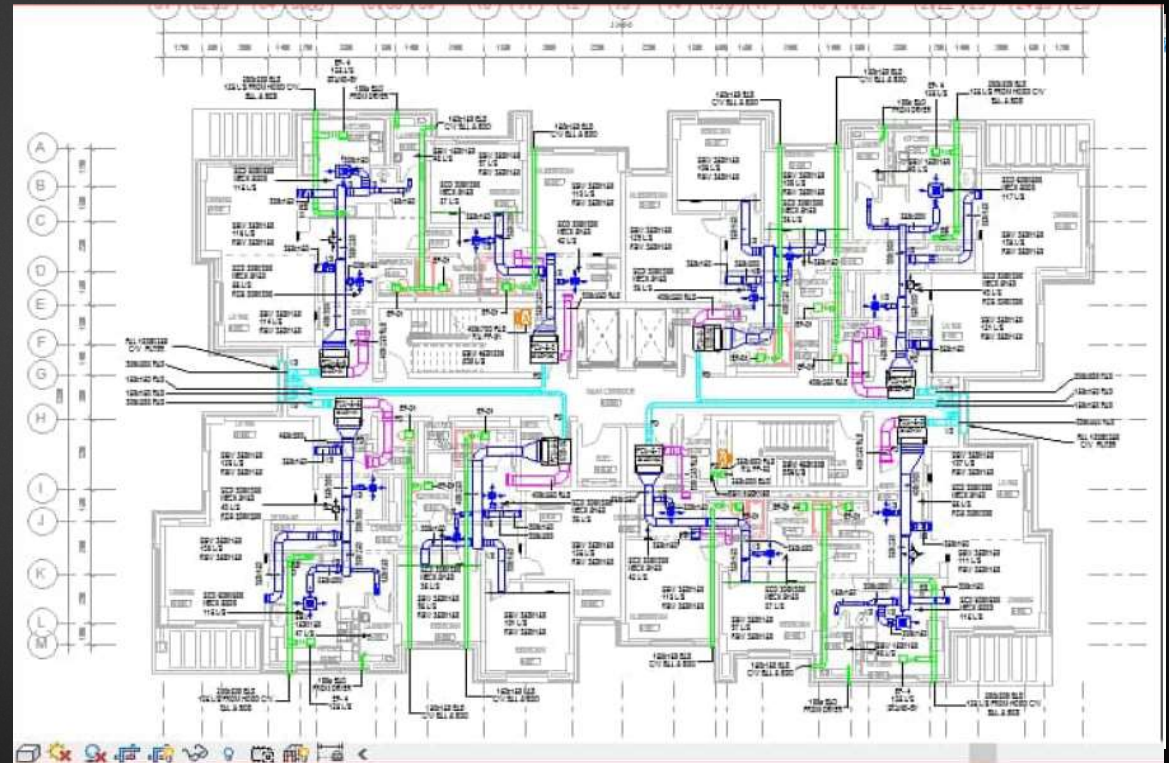
ELECTRICAL DESIGN

- ▶ Shop Drawings & Installation Detailing
- ▶ Earthing & Lightning System Designs
- ▶ Emergency System Designs



We provide designs & shop drawings:

- ▶ Fire fighting systems.
- ▶ Water supply systems.
- ▶ Drainage systems.
- ▶ HVAC systems.





TIME IS MONEY \$\$\$

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Let **HOME | C&D**
get started
improving your
business **NOW**, so
you see results
TODAY!

HOME | C&D, Engineering Service Provider of Choice