PARAMETRIC ENGINEERING AND CONSTRUCTION

Civil & Structural Engineering | Architectural Design | BIM | Design & Build

COMPANY PROFILE

Engineering Your Vision into Reality.

A trusted multidisciplinary engineering consultancy specializing in Civil & Structural Engineering, Architectural Design, Building Information Modeling (BIM), and Design & Build services. We deliver innovative, code-compliant, and sustainable solutions for residential, commercial, industrial, institutional, and infrastructure projects.

www.parametricec.com





PARAMETRIC E&C

Table of Content

01 About Us

02 Mission / Vision

03 Our Team

06 Our Core Services

07 Portfolio

25 Contact

PARAMETRIC E&C

ABOUT US

PARAMETRIC ENGINEERING AND CONSTRUCTION (PEC) is a technology-driven multidisciplinary engineering consultancy and Design & Build company specializing in Civil & Structural Engineering, Architectural Design, Building Information Modeling (BIM), Structural Assessment, Reality Capture, Project Management, and Construction.

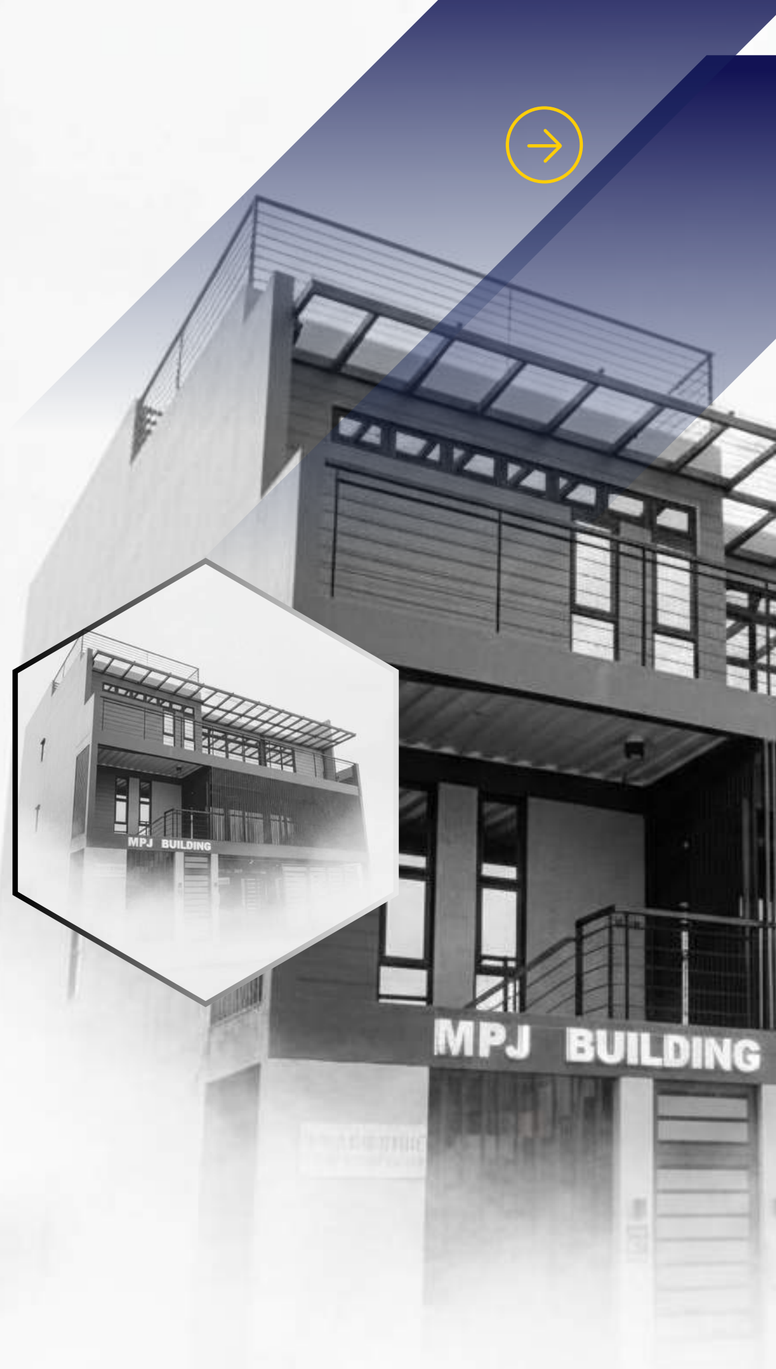
We provide integrated solutions for residential, commercial, industrial, institutional, and infrastructure projects, supporting every stage of the project lifecycle—from planning and engineering design to construction and asset management.

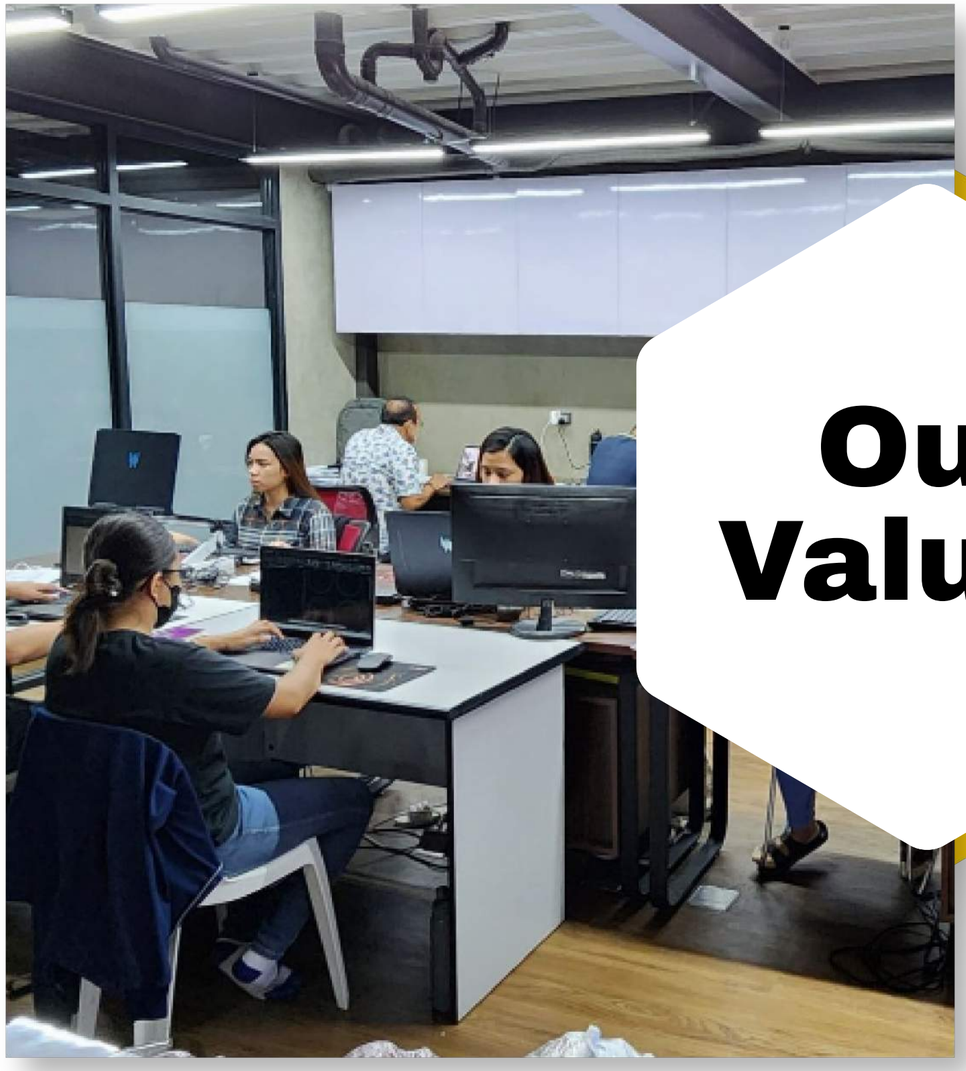
Our expertise includes structural analysis and design, BIM, seismic assessment, structural retrofitting, forensic engineering, building inspection and structural certification, LiDAR scanning, Scan-to-BIM, as-built and as-found documentation, project management, quantity surveying, engineering consultancy, and turnkey Design & Build services.

By combining advanced engineering practices with digital technologies and BIM workflows, we deliver safe, innovative, cost-effective, and code-compliant solutions that enhance project quality, minimize risks, and maximize long-term value.

With over three decades of engineering and construction experience, PEC is committed to delivering projects with the highest standards of technical excellence, integrity, innovation, and client satisfaction.

Engineering Your Vision into Reality.





Our Values

Mission

To deliver innovative, safe, and cost-effective engineering and construction solutions through excellence in Design & Build, Structural Engineering, BIM, and Construction Management. We are committed to quality, integrity, professionalism, and exceeding client expectations while creating lasting value for every project.

Vision

To be one of the Philippine's leading engineering and construction firms, recognized for excellence in Design & Build, Structural Engineering, Seismic Assessment and Retrofitting, BIM, and sustainable infrastructure, delivering world-class solutions that build stronger communities and shape a resilient future.

OUR TEAM



ENGR. MICHAEL A. PADRE JUAN

RCE, MCE, REB, ASEAN/ACPE Engr., M. ASEP, F. PICE
Specialist in Structural Engineering and Project Management

CEO/General Manager

Engr. Michael is a Registered Civil Engineer, Registered Real Estate Broker, ASEAN Engineer, and ASEAN Chartered Professional Engineer, PICE Recognized Specialist in Structural Engineering and Project Management and Construction Engineering with over 36 years of experience in structural engineering, construction, project management, and infrastructure development in the Philippines and Brunei.

He completed his Master's Degree in Structural Analysis and Calculation from Structuralia–UCAM, Spain, and pursued graduate studies at Pamantasan ng Lungsod ng Maynila and the Polytechnic University of the Philippines.

His expertise includes structural design, seismic assessment and retrofitting, BIM, design-build construction, and engineering consultancy.

He is a recipient of the 2023 NEUST College of Engineering Alumni Achievement Award for Private Practice of Profession – Engineering Management and a former President of the PICE International Chapter in Brunei.



04

ENGR. ALBERTO C. CAPARROS

RCE, ASEAN ENGR., F. ASEP, M. PICE

Business Development Manager

Engr. Albert is a Registered Civil Engineer, ASEAN Engineer, and PICE Specialist in Structural Engineering with over 50 years of experience in structural engineering and construction in the Philippines and overseas. He earned his Civil Engineering and Environmental & Sanitary Engineering degrees from Mapúa Institute of Technology and pursued graduate studies in Structural Engineering at Pamantasan ng Lungsod ng Maynila (PLM).

A Life Member of PICE and Fellow of ASEP, he has completed the structural design of numerous high-rise buildings and major developments through R.S. Caparros & Associates and A.C. Caparros Consulting Engineer. He currently serves as Partner and Senior Structural Engineer at Parametric Engineering and Construction, providing innovative, safe, and code-compliant structural engineering solutions.

KEY PEOPLE



Engr. Michael A. Padre Juan
(CEO/Gen. Manager)
CIVIL/STRUCTURAL ENGR./ASEAN ENGR./ASEAN CHARTERED PROFESSIONAL ENGR., REGISTERED REAL ESTATE BROKER, F.PICE, M. ASEP



Mia M. Padre Juan
Office Manager



Engr. Alberto C. Caparros
Business Development Manager
CIVIL/STRUCTURAL ENGINEER, F. ASEP, ASEAN ENGINEER



Monalisa A. Padre Juan
HR



Rochelle Mae L. De Ocampo
Admin / Accounts



Engr. Leandro P. Perez Jr.
Operations Manager
REGISTERED CIVIL ENGINEER

CONSTRUCTION TEAM



Dexter Ruben C. Visitacion
Project Manager



Engr. John Mark Dave H. Bugahod
Project Engineer



Juliah S. Yuzon
Safety Officer 2

QUANTITY SURVEYOR/ QUALITY CONTROL



Engr. Mariah April R. Guina
Quantity Surveyor/ Cost Estimator
REGISTERED CIVIL ENGINEER

BIM SPECIALISTS



Charles Kim V. Toragos
BIM Modeler/Draftsman
BGT Mech. Drafting Technology

ARCHITECTURAL DESIGN TEAM



Ar. Faicer June B. Varona
Architectural/BIM Modeler
DESIGN ARCHITECT



Irish Francine Arvesu
BIM Modeler
B.S. ARCHITECTURE

CIVIL / STRUCTURAL DESIGN



Engr. Rame Laurenz S. Salapare
Junior Civil/Structural Designer
REGISTERED CIVIL ENGINEER



Engr. Aaron S. Baris
Junior Civil/Structural Designer
REGISTERED CIVIL ENGINEER

SUB CONSULTANTS



Engr. Neilson S. Pariñas
Structural Consultant
CIVIL/STRUCTURAL ENGINEER, F.ASEP, ASEAN ENGINEER



Engr. Marlon A. Climaco
Geodetic Engineer
CONSULTANT



Engr. Loida Pariñas
Sanitary and Environmental Consultant
CONSULTANT



Engr. Cris Mojardin
Water Specialist Consultant
CONSULTANT

Our Core Services

PARAMETRIC E&C



PLANNING, DESIGN & BIM

- Master Planning
- Architectural Planning & Design
- Building Information Modeling (BIM)
- CAD Drafting & 3D Visualization
- Construction Documentation



CIVIL & STRUCTURAL ENGINEERING

- Civil Engineering Design
- Structural Analysis & Design
- Integrated Multidisciplinary Engineering Coordination
- Site Development & Infrastructure Design
- Value Engineering
- Independent Structural Design Peer Review



STRUCTURAL ASSESSMENT & SPECIALIZED ENGINEERING

- Rapid Visual Screening (FEMA P-154)
- Structural Assessment & Seismic Evaluation (ASCE 41)
- Structural Retrofitting Design
- Building Inspection & Structural Certification
- Forensic Engineering & Failure Investigation
- Structural Health Assessment



PROJECT MANAGEMENT & CONSULTANCY

- Project & Construction Management
- Quantity Surveying & Cost Estimation
- Contract Administration
- Procurement Management
- Engineering Consultancy
- Owner's Engineer Services



DESIGN & BUILD

- Turnkey Design & Build
- Residential Construction
- Commercial & Industrial Construction
- Construction Supervision
- Quality Assurance & Quality Control (QA/QC)
- Construction Management

FEATURED PROJECTS

08 BUILDING INFORMATION MODELING (BIM)

12 DESIGN PROJECTS

19 STRUCTURAL ASSESSMENT / EVALUATION

56 CONSTRUCTION WORKS

08

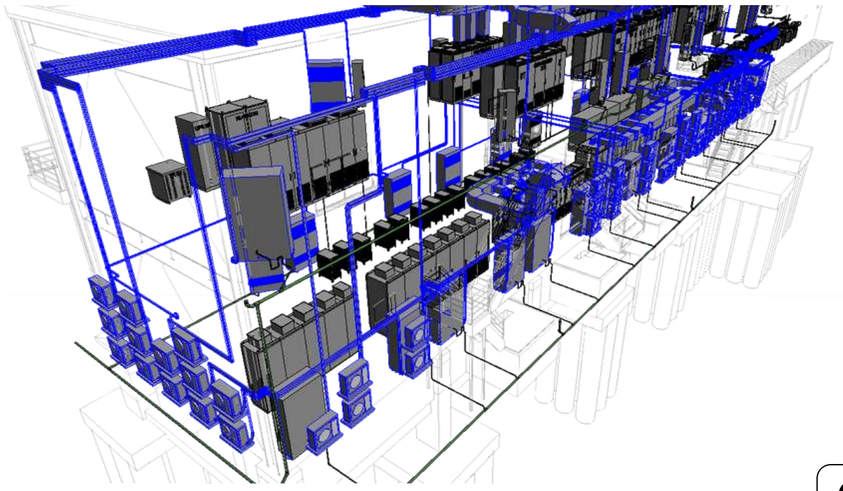
Completed Industrial Building Structural Design Services

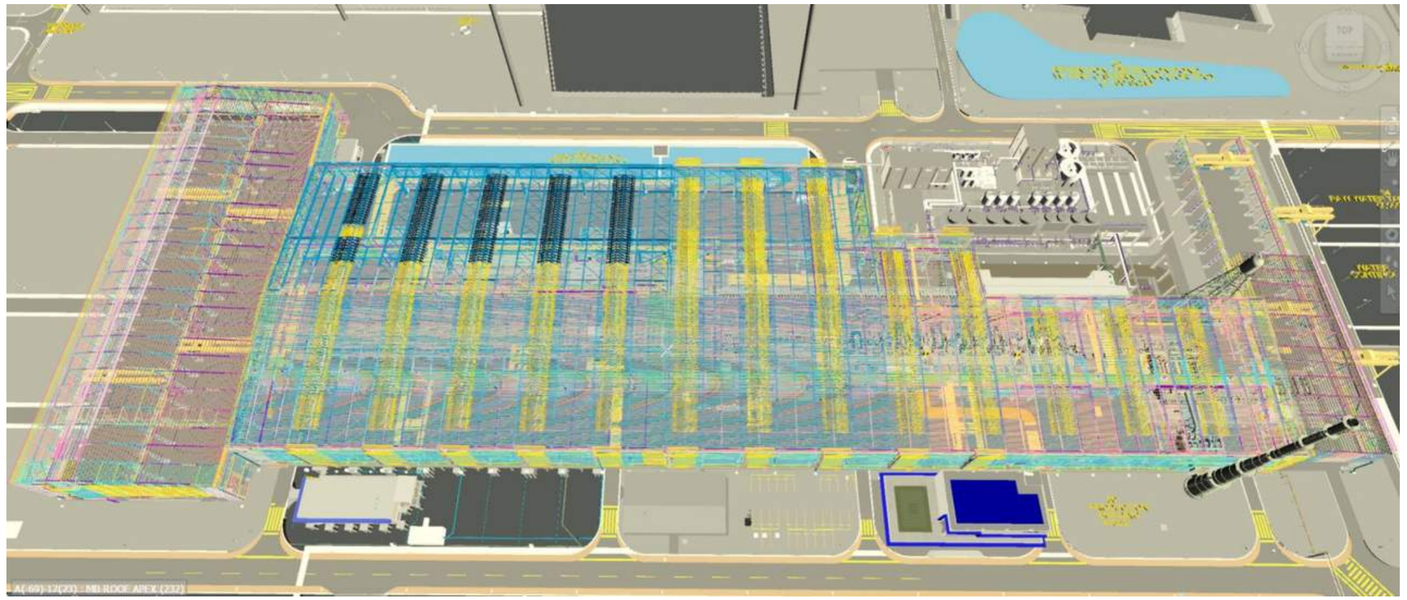
Client: SLWI/PPI
Location: Lemery, Batangas City
Scope: MPFS & 3D Modeling

Rolling Mill

Completed the Engineering Design and 3D Modelling of Mechanical, Plumbing and Fire Protection System of the main building, auxiliary building, and outside facilities of a 7.3-hecare Rolling Mill in Lemery, Batangas. It is one of PEC's notable industrial projects as it involved advanced BIM workflows, MPFS system routing, and minimized design conflicts prior to implementation.



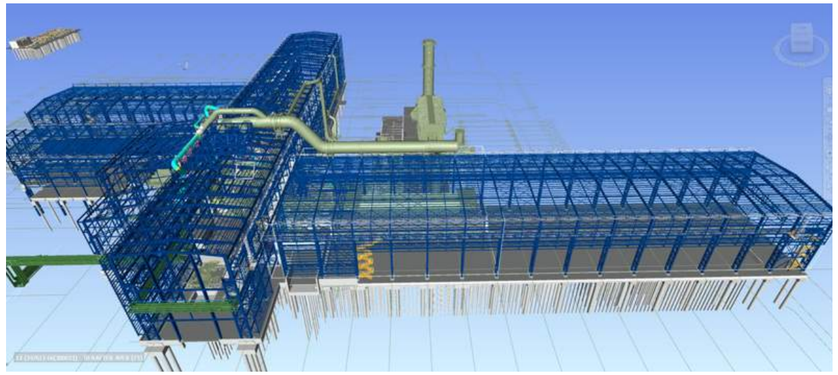


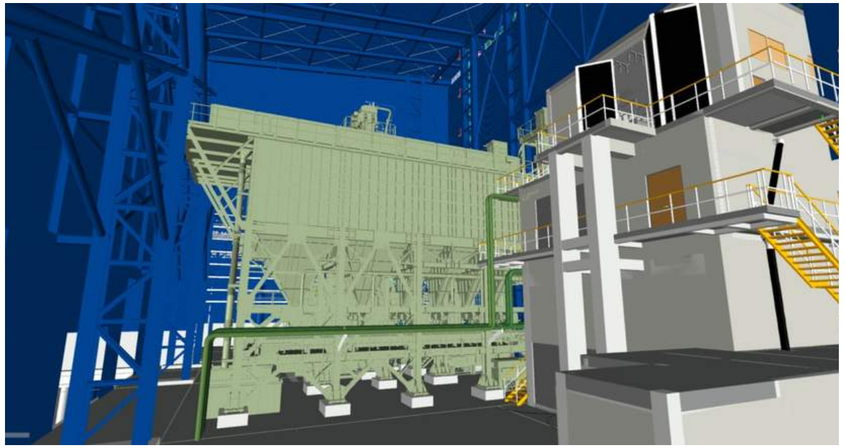


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On Going Industrial Building Design and BIM Services

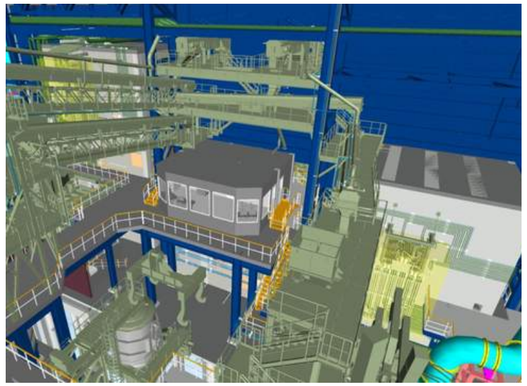
Client: PPI/SLWI
Location: Lemery, Batangas City
Scope: MPFS & 3D Modeling





Meltshop

PEC is currently undertaking the Civil-Structural, Architectural, and MPF Conceptual and Detailed Engineering Design, including 3D BIM Modeling, for a 500,000 MTPY Medium Section Meltshop in Lemery, Batangas.
The project involves advanced structural analysis and complex foundation design, addressing potential soil liquefaction risks through appropriate ground improvement and optimized deep foundation systems for safe and economical solutions.
Through BIM-driven multidisciplinary coordination, Architectural, Structural, and MEPF systems are integrated to improve constructability, clash detection, and design efficiency.





This project highlights PEC’s expertise in delivering advanced, integrated, and cost-effective engineering solutions for complex industrial facilities.

10

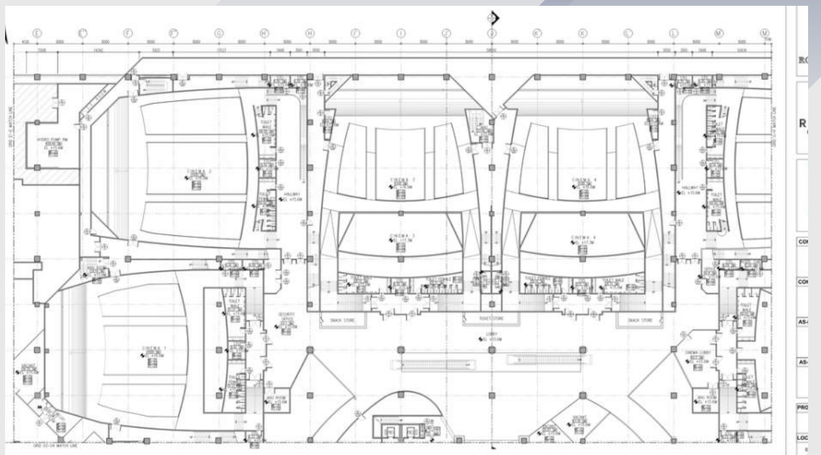
Completed Commercial Building Structural Design Services

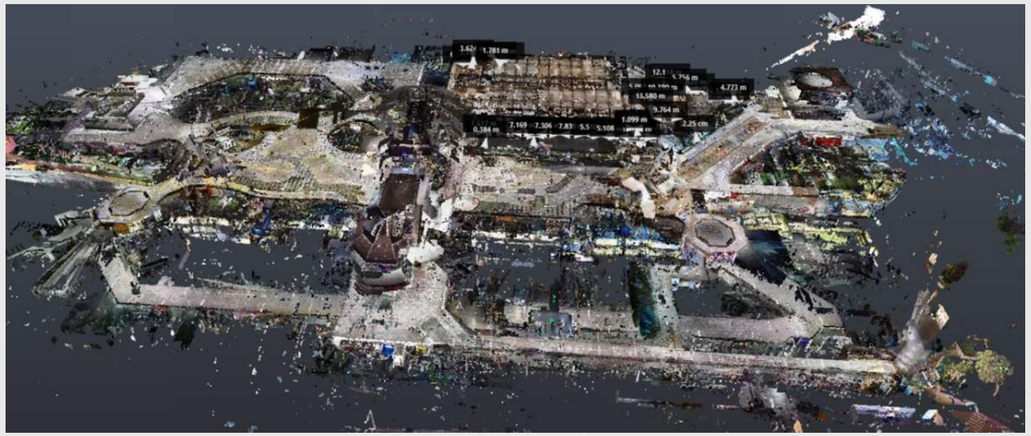
Client: NDA
Location: Ortigas Avenue, Quezon City
Scope: Architectural and MPFS As-built, 3D Scanning to BIM

7-Storey Mall As-built

The As-built Project of this 7-storey Shopping Mall in Ortigas, Quezon City is one of PEC's flagship projects, evincing the firm's expertise in delivering large-scale, multidisciplinary as-built documentation. Spanning approximately 216,000 square meters, it covered Architectural, Mechanical, Plumbing and Sanitary, Fire Protection, and Auxiliary systems.









The project employed 3D LiDAR scanning technology integrated with 360-degree video documentation to accurately capture existing conditions. Processed point cloud data was then transformed into coordinated Building Information Modeling (BIM) and 2D CAD as-built drawings through rigorous verification and engineering review.

08 BUILDING INFORMATION MODELING (BIM)

12 DESIGN PROJECTS

19 STRUCTURAL ASSESSMENT / EVALUATION

56 CONSTRUCTION WORKS

FEATURED PROJECTS

Completed Industrial Project Structural Design Services

Client: South Negros Biopower, Inc.
Location: La Carlota City, Negros Occidental
Scope: Structural Design & BIM Modeling

3-Biomass Power Plant Projects (2015-2018)

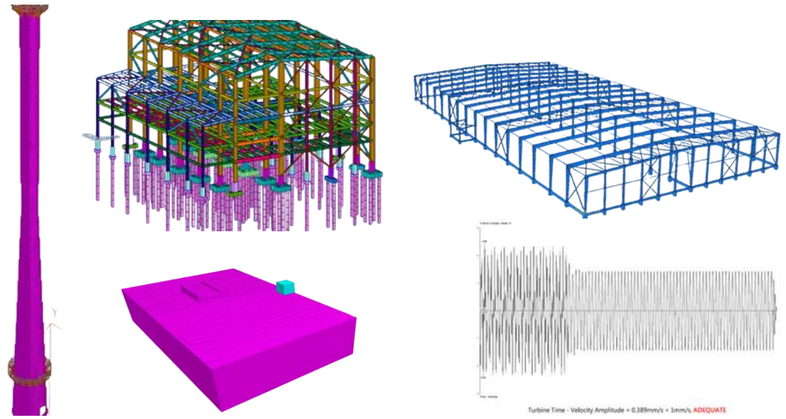
Completed the civil and structural engineering design of three biomass power plants in Negros Occidental, involving more than 50 steel and reinforced concrete structures, including administration buildings, warehouses, machine foundations, conveyors, 60-meter stacks, piling systems, drainage, and roadworks. The projects included advanced dynamic and vibration analysis for industrial facilities.

Following the successful completion of the San Carlos Biomass Power Plant, PEC was continuously commissioned for the North Negros and South Negros Biomass Power Plants, all delivered on schedule while meeting and exceeding client expectations.









Completed Commercial Building Structural Design Services

Client: NDA
Location: Ortigas Avenue, Quezon City
Scope: Structural Design & BIM Modeling

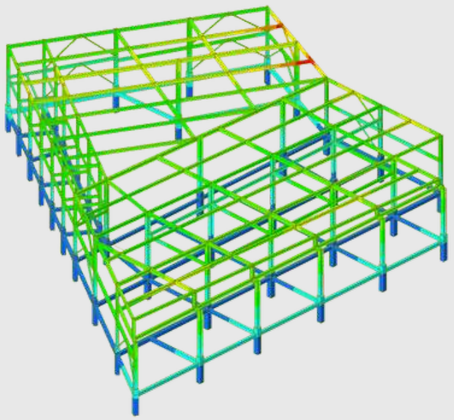
Car Showroom (2015-2018)

PEC completed the structural design of various automotive dealership and service facilities in Talisay and Lucena, with floor areas of approx. 2,200 square meters and 3,000 square meters, respectively. These featured contemporary steel-framed showrooms with an open layouts, expansive glazed façades, and integrated sales, service, and parts facilities, supported by comprehensive structural modelling, analysis, design, and construction documentation.

The projects utilized advanced structural analysis through MIDAS Gen to optimize long-span steel framing, structural efficiency, and constructability while supporting the architectural vision and operational requirements of each facility.









14

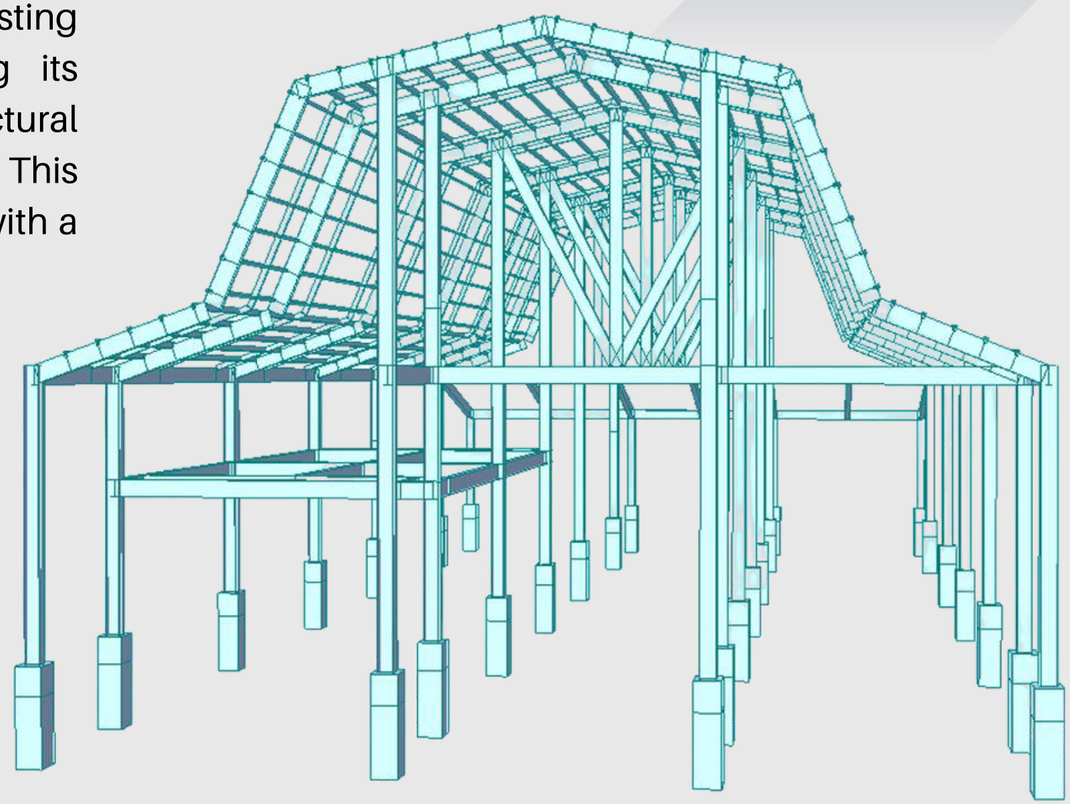
Completed Commercial Building Structural Design Services

Client: Hillbarn Tagaytay, Inc.
Location: Tagaytay City, Cavite
Scope: Structural Design and Modeling

Single-Storey Restaurant with Mezzanine

PEC provided the structural retrofitting design for a single-storey commercial restaurant with a mezzanine in Tagaytay City, Cavite, reinforcing the existing structure to meet current engineering standards while supporting its continued operational use. The project involved a comprehensive structural assessment that was made possible with the utilization of Midas Gen. This specifically entailed structural modelling, analysis and design, provided with a corresponding calculation report.





Completed Industrial Building Structural Design Services

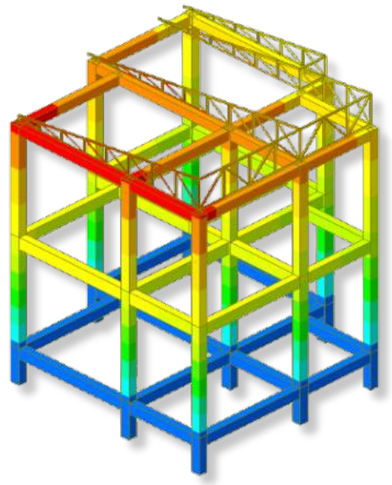
Client: NDA
Location: Camarines Sur
Scope: Structural Design and Project Management



Electric Cooperative Office Buildings

Completed the structural design and project management of three (3) field offices in Libmanan, Ragay, and Pasacao, Camarines Sur, together with the rehabilitation of an existing warehouse in Libmanan. PEC successfully delivered the project in accordance with the prescribed specifications, quality standards, and implementation schedule.





Completed Civil Works Design Services

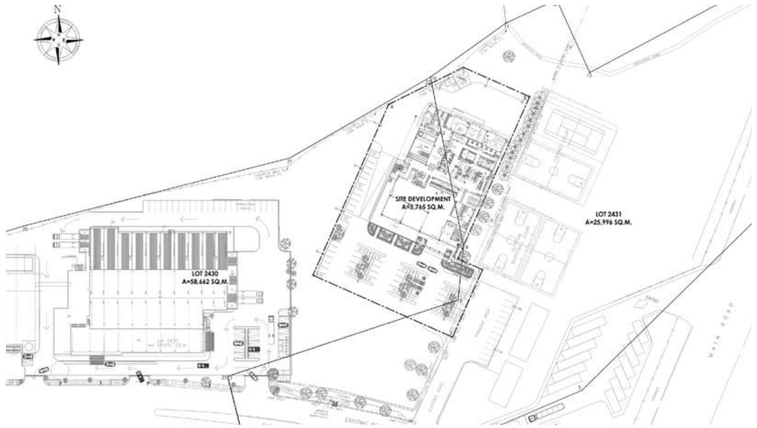
Client: United Laboratories, Inc.
Location: Mamplasan, Laguna
Scope: Structural Design



ULPC Commissary Building

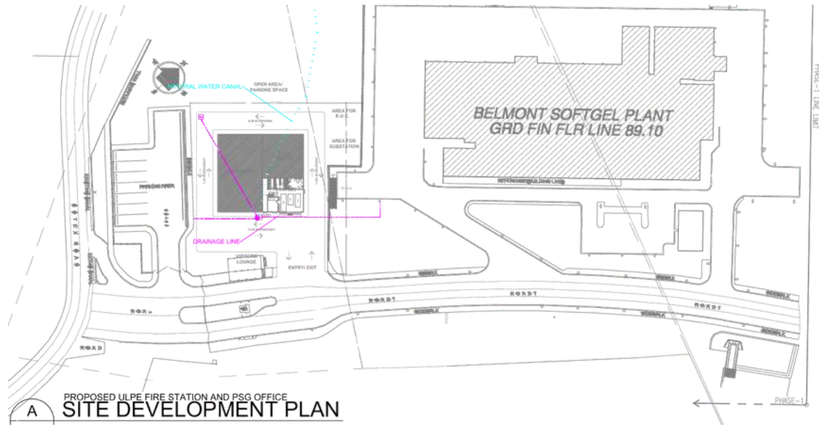
PEC successfully delivered the site development design for two major industrial developments in Laguna and Pampanga. The scope of work included the preparation of comprehensive plans for roads, drainage systems, pavements, curbs and gutters, sidewalks, retaining wall improvements, landscape development, and site exterior lighting, complemented by detailed specifications and design calculations.

The projects followed an integrated methodology that included topographic survey data, geotechnical reports, and evaluation of existing site conditions. This led to a coordinated and code-compliant site development solution for both projects.





UNILAB Pharma Estate

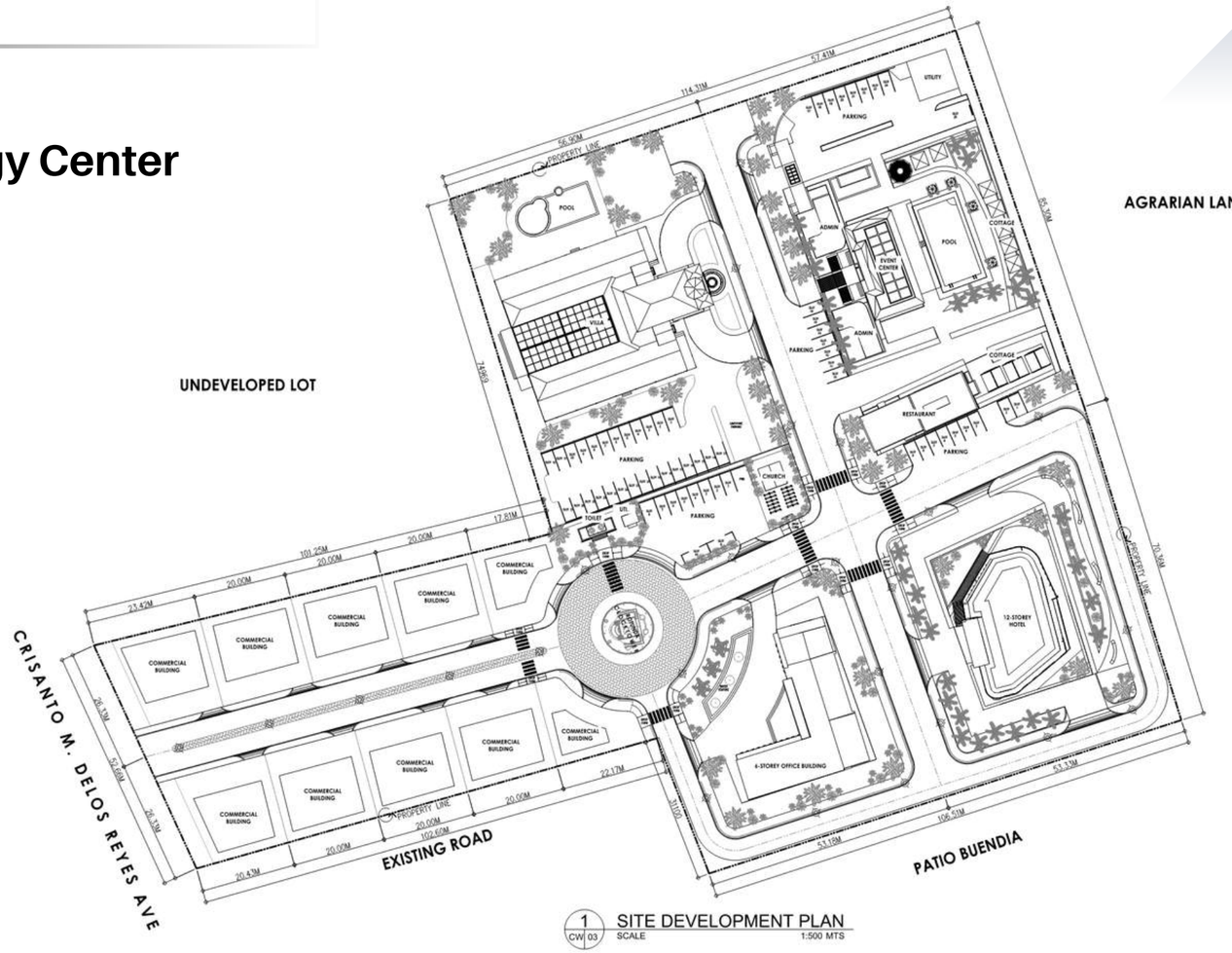


Completed Civil Works Design Services

Client: NDA
Location: Amadeo, Cavite
Scope: Site Development Design, Civil Works

Macrologic Technology Center

This 2.26-hectare site development project in Amadeo, Cavite involved the design and construction of a major road network and rotunda to establish safe, efficient, and sustainable site access. It entailed earthworks, roadworks, drainage systems, and electrical utilities, forming the essential civil infrastructure for the overall development.



Executed through a systematic methodology of detailed site development planning, construction supervision, and phased implementation, the project ensured compliance with engineering standards, quality requirements, and project specifications. Successfully delivered from planning through construction, it reflects PEC's commitment to technical excellence, efficient execution, and quality workmanship from project inception to completion.

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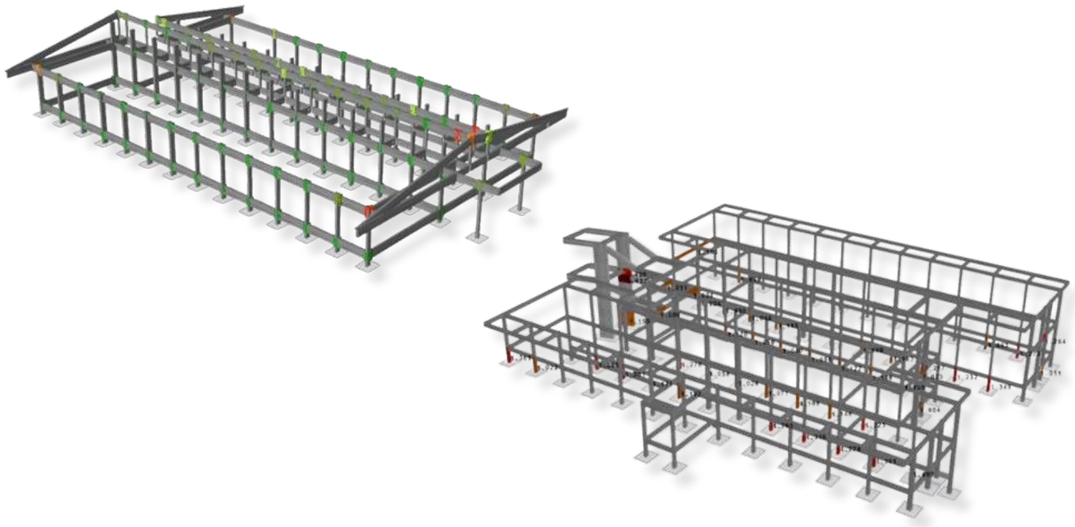
Completed Institutional Structural Assessment Services

Client: Department of Energy
Location: Taguig City, Metro Manila
Scope: 3-Tier Structural Evaluation, Material Properties Investigation, Structural As-built and Retrofitting Drawings

Institutional Office Main Building

Conducted a comprehensive Structural Integrity Assessment of three existing institutional buildings ranging from one to four storeys with basements, encompassing approximately 1,400 to 4,000 square meters each. The project utilized Rapid Visual Screening (RVS) and a systematic three-tier building assessment process to evaluate structural integrity, identify deficiencies, and establish the basis for rehabilitation and strengthening measures.







Completed Commerical Construction Project

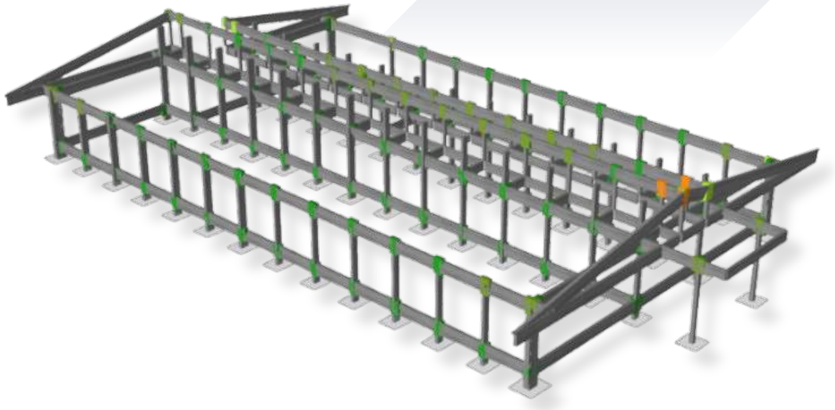
Client: NDA
Location: Oroquieta, Misamis Occidental
Scope: Master Planning, Design and Build Construction

Single-Storey Residential Building

Conducted a Structural Integrity Assessment of an 800-sqm. single-storey residential building in Oroquieta, Misamis Occidental, featuring a reinforced concrete framing system with double-angle bars making up its roof trusses. The assessment followed a three-tier evaluation methodology using MIDAS Gen and SeismoBuild.







The assessment also included the identification of structural deficiencies, analytical evaluation of the existing structural system, and the development of retrofit recommendations to improve the building's seismic performance and structural reliability.

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Completed Commerical Construction Project

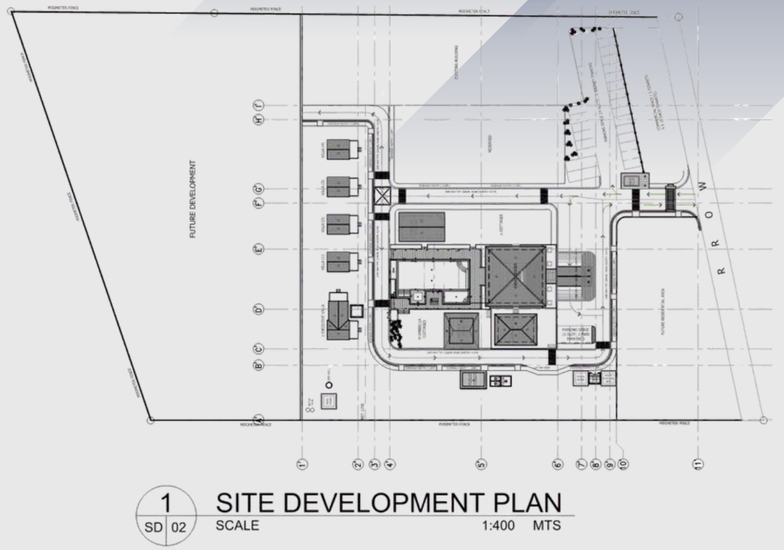
Client: NDA
Location: Gen. Tinio, Nueva Ecija
Scope: Master Planning, Design and Build Construction

N. Ecija Farm Resort

This Farm Resort in General Tinio, Nueva Ecija is a 2-hectare development that features a comprehensive master plan and civil works design, including site development and the construction of resort structures to establish a functional and cohesive destination.







Executed through an integrated design-and-build approach, the project reflects PEC's commitment to excellence by maintaining quality, coordination, and technical precision from project inception through construction and successful completion.

Completed Residential Construction Project

Client: NDA
Location: Sta. Rosa, Laguna
Scope: Structural Design, Construction

Two-storey Residence

This two-storey residence located in Sta. Rosa, Laguna is a standout residential project that reflects PEC's commitment to quality craftsmanship, precision, and modern design. The home balances contemporary aesthetics with functionality to create a welcoming and timeless living environment.







This residence was constructed with much attention to detail, evident from a refined exterior façade to its well-planned interior spaces, premium finishes, and seamless integration of structural and architectural elements. The project exemplifies the company's dedication to building homes that combine durability, elegance, and lasting value for its clients.

OUR CLIENTS

PÖYRY

BioPower
San Carlos BioPower Inc.

AC Energy
An Ayala Company

KM TARUC
BUILDERS CORP.

CASURECO I
Camarines Sur 1 Electric Cooperative, Inc.

W.V. Coscolluela & Associates
Architecture • Interiors • Planning

DSWD
Department of Social Welfare and Development

Bureau Veritas
Shaping a World of Trust

STEELASIA

MACRO LOGIC
The best breed of Ecosystems

PH Pertama ISTC

Department of Energy Philippines

DOST-ITDI

Quezon City Sports Club, Inc.
44th Anniversary

JX Metals Philippines, Inc.

VAREX IMAGING

UNILAB

Solid Sun Builders



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