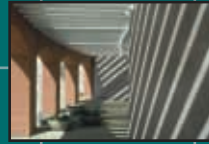
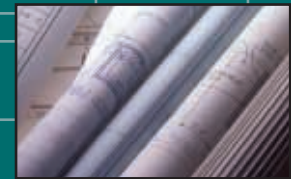


EXCELLENCE IS
IN THE DETAIL

Prothious
ENGINEERING SERVICES



CMU & MASONRY



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our CMU Services

We provide several CMU services, including:

- ◆ CMU walls detailed on Plans & Sections with stock bars
- ◆ Verticals with stock length of 4'0" + Lap, or Grout Lift + Lap length
- ◆ Horizontals detailed as 20'0" stock
- ◆ CMU walls detailed in elevation with exact length of bars

Our services follow CRSI industry standards. We also use RebarCAD, Soule and Bar Lists in ASA or MS Excel formats.

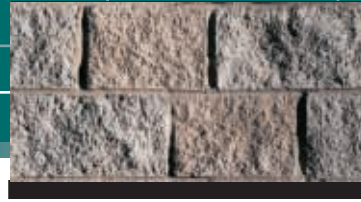
Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Commercial & Industrial Projects
- ◆ CMC Estimation
- ◆ High-Rise and Low-Rise Buildings
- ◆ Water Treatment Plants
- ◆ Addition & Renovation Projects



CMU & MASONRY



Our Delivery Standards

We have a large CMU detailing team with over 20 detailers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate drawings, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to detailing quickly and accurately, we deliver projects on-time, every time.

Our Project Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our References

Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



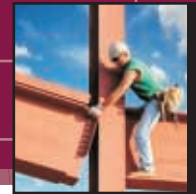
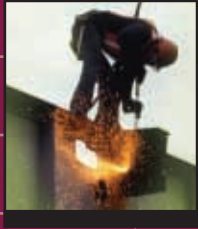
1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com

EXCELLENCE IS
IN THE DETAIL

Prothious
ENGINEERING SERVICES



CONNECTION DESIGN



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our Connection Design Services

For engineering firms, steel detailing companies, contractors and structural steel fabricators, we provide several connection design services, including:

- ◆ Connection drawings
- ◆ Designs per LRDF, ASD, BS and SI standards
- ◆ Detailed calculations and complete text
- ◆ Output provided in PDF, MS Word or MS Excel, with supporting calculations, tables and sketches

Our services follow AISC industry standards.

Our Project Experience

With several years of connection design experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Beam-column connections
- ◆ Beam-beam connections
- ◆ Moment connections
- ◆ Heavy diagonal brace connections



CONNECTION

DESIGN

Our **Delivery** Standards

We have a large connection design team composed of engineers with a B.S. or M.S. in structural design. These trained professionals work six days a week, two shifts a day. By consistently delivering high quality, accurate estimations, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to providing connection design services quickly and accurately, we deliver projects on-time, every time.

Our **Project** Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

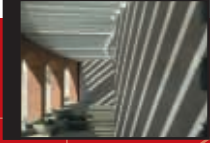
We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our **References**

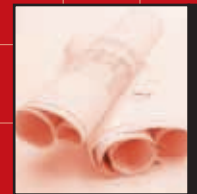
Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com



ESTIMATION



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our Estimation Services

We provide estimation services for Rebar quantities and tonnage, including accessories, in a wide range of categories, including:

- ◆ Concrete
- ◆ Total volume of concrete required
- ◆ Foundation, grade beams, Span Crete concrete, topping slab, slabs, walls, columns, beams, deck slabs and other elements.
- ◆ Concrete volume also categorized by strength (KSI or PSI)
- ◆ CMU
- ◆ Units of CMU block required
- ◆ Volume of grout required for CMU walls
- ◆ Reinforcement
- ◆ Weight of reinforcement required per structure, including CMU
- ◆ Breakdown of reinforcement per diameter, stock length, straight bar, heavy bent, light bent, spiral and other elements
- ◆ Door & Window Schedule
- ◆ Quantity of doors & windows required

- ◆ Specifications, total numbers and total area
- ◆ Door & window schedule drawing
- ◆ Interior Wooden Walls
- ◆ Total area of walls required
- ◆ Interior wooden partition walls

Estimations are supported with a job routing number to identify reinforcements (contract drawing number, reference section number, location, SAC codes, structure type, etc.).

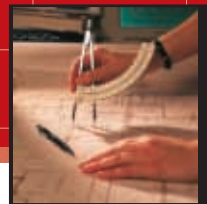
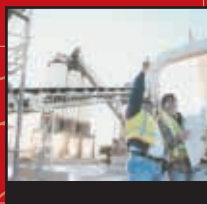
Our services use RebarCAD and Soule, and the entire estimate is presented in MS Excel, customized per our client's requirements. Supporting drawings include CAD drawings and estimates.

Our estimation services can be used to stay ahead of project schedules, manage costs and procure project loans.

Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Residential Houses
- ◆ Commercial Structures
- ◆ Condominiums
- ◆ Schools & Colleges
- ◆ Airports
- ◆ High-Rise Buildings
- ◆ Addition & Renovation Projects



ESTIMATION

Our Delivery Standards

We have a large estimation services team with managers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate estimations, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to providing estimation services quickly and accurately, we deliver projects on-time, every time.

Our Project Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our References

Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003

Tel: 310-890-7284 Fax: 775-796-3404

E mail: sales@prothious.com

INDUSTRIAL DUCT DETAILING



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our Industrial Duct Detailing Services

We provide several industrial duct detailing services, including:

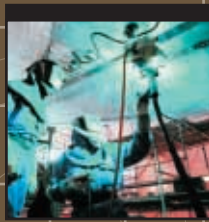
- ◆ Detailing of ducts to truckable sizes
- ◆ Shop drawings
- ◆ Erection drawings
- ◆ CNC files

Our services follow AISC industry standards and we also use SDS2 and Xsteel 3D modeling software as our detailing platforms.

Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Power generation facilities
- ◆ Process steel plants
- ◆ Steel mills
- ◆ Heavy industrial applications



INDUSTRIAL

DUCT DETAILING

Our **Delivery** Standards

We have a large industrial duct detailing team with over 25 detailers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate drawings, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to detailing quickly and accurately, we deliver projects on-time, every time.

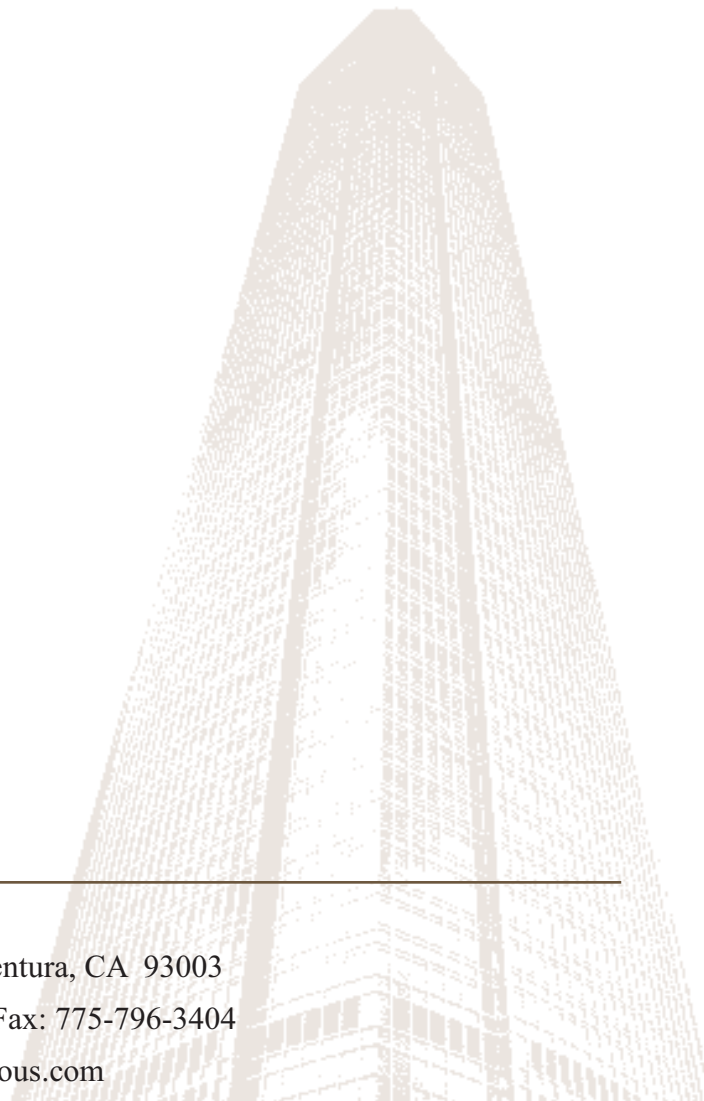
Our **Project** Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our **References**

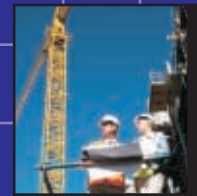
Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com



POST-TENSION DETAILING



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our Post-Tension Detailing Services

We provide several services for PT fabricators and contractors, including:

- ◆ Material estimation for bidding purposes
- ◆ Field placement drawings
- ◆ Felt calculations for stress losses using Adapt Software
- ◆ Tendon and chair Bills of Material
- ◆ Bills of Material in MS Excel formats via our own customized software
- ◆ Drawings in AutoCAD and PDF formats

Our services follow PTI industry standards and we also use customized software in VisualBasic and AutoLISP.

Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Parking Garages
- ◆ High-Rise and Mid-Rise Buildings
- ◆ Commercial Projects
- ◆ Slabs
- ◆ Beams and Girders



POST-TENSION

DETAILING

Our **Delivery** Standards

We have a large PT detailing team with over 20 detailers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate drawings, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to detailing quickly and accurately, we deliver projects on-time, every time.

Our **Project** Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our **References**

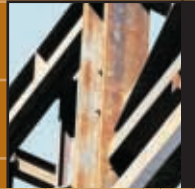
Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com



PRE-ENGINEERED BUILDINGS



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our PEB Detailing Services

We provide several services for PT fabricators and contractors, including:

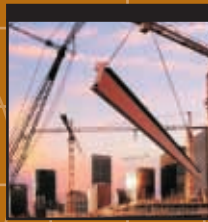
- ◆ Material estimation for bidding purposes
- ◆ Erection drawings
- ◆ Bills of Materials
- ◆ Shop Drawings in AutoCAD and PDF formats

Our services follow AISC-MB and MBMA industry standards and we also use customized software in AutoCAD as well as MBS.

Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including:

- ◆ Warehouses
- ◆ Churches
- ◆ Manufacturing
- ◆ Offices
- ◆ Commercial and Retail Projects



PRE-ENGINEERED BUILDINGS

Our Delivery Standards

We have a large PEB detailing team with over 20 detailers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate drawings, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to detailing quickly and accurately, we deliver projects on-time, every time.

Our Project Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

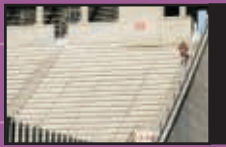
Our References

Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com

PRECAST PRESTRESSED DETAILING



Our Company

Prothious Engineering Services is one of the largest and most successful detailing companies in the world. Founded in 2002 as a subsidiary of JSL, a leading global electrical transmission tower E.P.C. (engineering, procurement and construction) company, Prothious has built an outstanding reputation for quality and reliability across the globe.

We have over 400 engineers and detailers, one of the most experienced and well-respected teams in the industry and an annual detailing capacity of over 200,000 tons.

Our Precast/Prestressed Detailing Services

We provide several services for Precast/Prestressed fabricators and contractors, including:

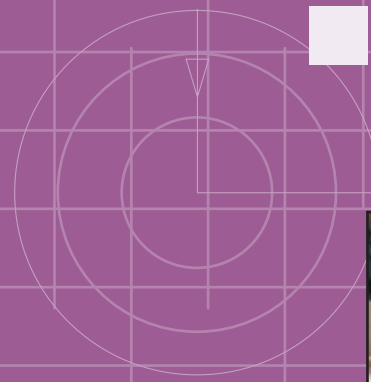
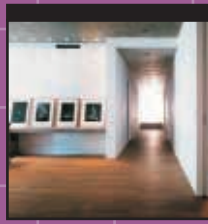
- ◆ Material estimation for bidding purposes
- ◆ Shop Drawings
- ◆ Bills of Materials
- ◆ Drawings in AutoCAD and PDF formats

Our services follow PCI industry standards and we also use customized software in AutoCAD.

Our Project Experience

With several years of detailing experience and a vast range of knowledge, we have successfully helped clients with numerous projects, including Parking Structures, Transportation Bridges, Commercial Buildings (Retail, Office, Schools) and Industrial Manufacturing, Warehouse and Distribution Centers. We can also detail projects with the following precast/ prestressed members:

- ◆ Architectural Precast
- ◆ GFRC
- ◆ Piles
- ◆ I-Beams, Girders
- ◆ Structural Wall Panels
- ◆ Rail Road Ties
- ◆ Single and Double Tees
- ◆ Stadium Seats
- ◆ Segmental Bridge Units
- ◆ Architectural Trim Units
- ◆ Sound Walls
- ◆ Box Beams
- ◆ Beams, Columns, Joists
- ◆ Poles
- ◆ Hollow Core Slabs
- ◆ Cell Modules
- ◆ Box Culvers



PRECAST

PRESTRESSED DETAILING

Our Delivery Standards

We have a large precast/prestressed detailing team with over 25 detailers and checkers that work six days a week, two shifts a day. By consistently delivering high quality, accurate drawings, we easily address the full scope of any project. Additionally, our capacity and skills allow us to meet tight deadlines without difficulty and turn around large projects quickly.

Because Prothious is committed to detailing quickly and accurately, we deliver projects on-time, every time.

Our Project Management

Proficient project management is one of our unique strengths. We have project managers that work with each client to ensure that projects run smoothly. These managers are available in-person to track the progress of the work, manage workflow, interact directly with your team, handle RFI's and manage deadlines efficiently and professionally.

We also can help with sequencing, conduct shop visits or attend project kickoff meetings for large or complex projects.

Our References

Upon your request, we would be more than delighted to provide you with full references. In the meantime, please review the quotes that our clients have given to us. They illustrate the uncompromising quality, timeliness, flexibility and integrity that we relentlessly provide.



1839 Knoll Drive, Ventura, CA 93003
Tel: 310-890-7284 Fax: 775-796-3404
E mail: sales@prothious.com