STL

SECURE YOUR FUTURE

PRE-ENGINEERED BUILDING

SECURE
YOUR
FUTURE

SYLVAN TECHNOLOGIES LTD.

An ISO 9001 : 2015 Certified Company

Company Profile

Name of the Company : **Sylvan Technologies Ltd.**

Address : PRAN Center, 105 Middle Badda, Dhaka-1212, Bangladesh
Telephone: +88-02-9881792, +88-02-8835546
Fax: +88-02-9849753
Customer Care: 09613737777
E-mail: info.stl@prangroup.com
Web: www.sylvantechltd.com

Factory : Habiganj Industrial Park (HIP)
Olipur, Shayestaganj, Habiganj, Bangladesh

Floor Area : 1,10,000 Sft; Open Area- 1,50,000 Sft

Production Capacity : 12000 MT/Year

Number of Employees : 620

Field of Activation : Design, Shop Detail, Fabrication and Installation of Pre-Engineered Steel Building with Accessories

Chairman and CEO : Ahsan Khan Chowdhury

Quality Assurance Accreditation : **ISO 1901: 2015 Certified**

01) Production Floors

Floor Area - 1,10,000 sft

02) Machinery and Equipment Facilities

	NAME	QUANTITY(PCS)
1	Cut to length line	1
2	Slitting line	1
3	Shear cutting machine	1
4	CNC flame cutting machine	1
5	Shot blasting machine	1
6	Auto H beam assemble and welding line	1
7	H-Beam assembly machine	1
8	Gantry welding machine	2
9	Gantry welding machine (Cantilever Type)	1
10	H-Beam straightening machine	1
11	CNC plate drilling machine	1
12	Iron worker	2
13	C&Z purlin machine	1
14	Z purlin machine	1
15	Decking sheet profile machine	1
16	Sheet profile machine	2
17	Crimping machine	1
18	CNC folding machine	1
19	Mini sheet slitting machine	1
20	40T gantry crane	1
21	10T gantry crane	1
22	10T overhead crane	10
23	5T overhead crane	2
24	MIG welding machine	35
25	Bench drill machine	2
26	Magnetic drill machine	8
27	ARC welding machine	25
28	Level machine	2
29	Total station	1
30	UT machine	2

03) Erection Facilities

10 MT Mobile Crane-01
25 MT Mobile Crane-01
50 MT Mobile Crane-01
5 MT Truck Mounted Crane-02

04) Average Raw Material Stock Maintained 5000MT

05) Projects Completed Above 100

06) Manpower

Production:

(i) Engineers	25
(ii) Officers	15
(iii) Workers	375
Erection:	150
Total:	565

Introduction

Sylvan Technologies Ltd. a sister concern of PRAN-RFL Group, was established in 2014 and headquartered in Dhaka, Bangladesh. It is a multi-disciplinary engineering firm serving the industrial needs worldwide. Sylvan Technologies Ltd. excels in the fields of engineering, technical services and innovation.

The strength of our company is based upon a great, wide-ranging, trained staff having proficiency in producing advanced and complex work products in a timely mode. Since our beginning, we have been devoted to provide cutting-edge solutions in the area of Pre-Engineered Building (PEB) Systems, Ducting System, Transformer, Switchgear and Substation. This has included working in partnership with the public and private sectors on installations for commercial and industrial premises.

Sylvan is committed to serve its customers and find the right solutions to meet their needs. We boast world class competencies and international operation procedures and management standards from our inception.

Objective

To be the most eco-friendly and trusted global provider of industrial solutions

Providing quality products at reasonable price.

To increase our company's global standing by infusing creativity with technology and developing new path, braking products of global standards.

To be compliant with the customer's needs and satisfaction and empowering our client.

Our Values

• We place our customers at the core of what we do.

• We value, challenge and reward our people.

• We drive marvelous and sustainable economic performance.

• Encouraging overall development of our employees by integrating their safety, health and happiness to make them more efficient and effective by providing continued training.

• Achieving growth along with our customers, staff, supplier and all other business associates by truly confirming to our motto of benefits unlimited and make it beneficial for everyone.

Factory

Factory of **Sylvan Technologies Ltd. (STL)** is one of the bigest steel structure manufacturing facilities in Bangladesh. Factory of Sylvan Technologies Ltd. located at Olipur, Shayestaganj at Habiganj district (Habiganj Industrial Park). STL production lines uses most modern and sophisticated machinery. Production lines consist of cutting and fitting, fabrication, welding, grinding, shot blusting, painting, cold forming and fiber shop. Engineers, Welders and other technical staff are well trained and certified professionals in their respective professions. Our Quality Control Department is adequately equipped. We keep enough raw materials in our stock to provide smooth production and delivery. High capacity gantry crane and modern bridge scale helps the proper loading and unloading as well as precise weighing of the incoming and outgoing materials.

PEB Factory of STL

Reasons to Choose Us

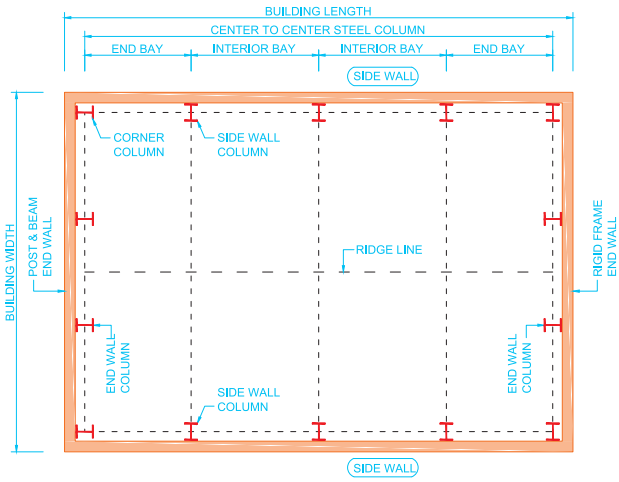
Basic Building Parameters

Building Width:

Building width is the distance measured from outer point of eave strut of one sidewall to the outer point of the eave strut of the other sidewall.

Building Length:

Building length is the distance measured from outer point of the flanges associated in the end wall columns to the outer point of flanges in the opposite end wall columns. The summation of end bays and interior bays within the building is actually creates the length of a building.



TYPICAL BUILDING PLAN

Building Height:

Building height, technically known as eave height, is the distance measured from the bottom of the base plate of the main frame column to the top outer point of the eave strut. When columns are elevated from finished floor, eave height is the distance measured from finished floor to top of the eave strut.

End Bay Length:

End bay length is the distance measured from outside of the outer flange of end wall columns to the center line of the first interior frame column.

Interior Bay Length:

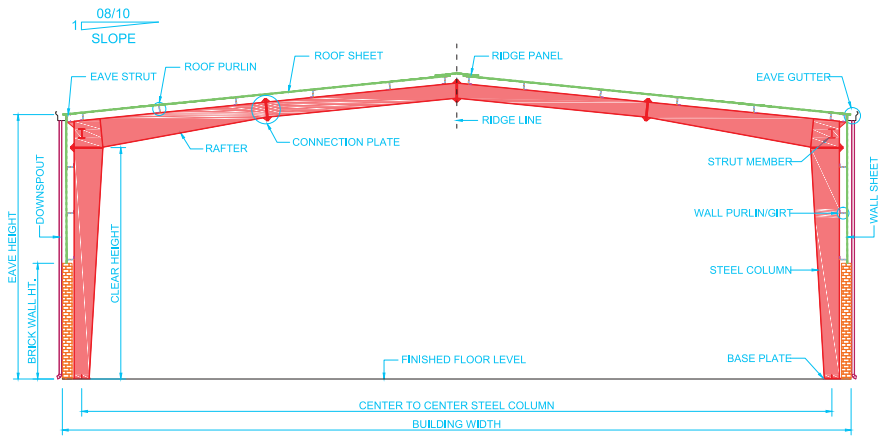
Interior bay length is the distance measured from the center line of two nearest interior columns of the building's main frame.

The most common bay lengths are usually 6 meter, 7.5 meter and 9 meter. Any bay length up to 15 meter is possible.

Roof Slope (x/10):

Roof Slope is actually the angle originated from the inclined roof surface with respect to the horizontal surface.

Variation of roof slope is possible up to a practical limit but the most common roof slopes are usually 05/10 and 1/5.



TYPICAL FRAME SECTION

Design Code

The buildings are designed in accordance with the following codes:

Bangladesh National Building Code (BNBC)

American Institute of Steel Construction, Inc. (AISC)
Steel Construction Manual: 13th Edition 2005
1 East Wacker Drive, Suite 3100, Chicago, Illinois
60601-1802, USA

Metal Building Manufacturers Associatoin (MBMA)
2006 Metal Building Systems Manual (MBSM)
1300 Summer Ave., Cleveland, Ohio 44115-2851, USA

ASCE-7 Minimum Design Loads for Buildings and other structures Latest Edition: 2005

American Society of Civil Engineers (ASCE)
1801 Alexander Bell Drive, Reston, Virginia 20191-4400, U.S.A
Phone: +(1-800) 548-2723
Website: www.asce.org

Structural analysis, design and detailing is done by the aid of following software:

- STAAD. Pro V8i
- ETBS Nonlinear V 9.5.0
- Tekla Structures 17.0
- Auto CAD 2018

International Building Code "IBC-2009".
4051 West Flossmoor Road, Country Club Hills, Illinois
60478-5795, USA

Cold formed members are designed in accordance with:

2002 Edition of Cold Formed Steel Design Manual, American

Iron and Steel Institute (AISI)
1000 16th Street, NW, Washington, DC 20036, USA

Welding is applied in accordance with:
American welding society (AWS)
Edition 2010.
AWS D1.1/D1.1M:2010
AW AMERICAN NATIONAL STANDARD.
550 NW Lejeune Road, Miami, FL 33126.

General Terms in Pre-Engineered Structures

• Anchor Bolts: Bolts used to anchor structural members to a concrete floor, foundation or other masonry support. Term generally refers to bolts that secure columns and jambs to the concrete slabs.

• Base Plate: A shop-welded, pre-punched plate on that portion of a structural column that rests on the concrete foundation and is secured by anchor bolts.

• Bay (End): The distance between the center line of the first interior frame and the outside of the end wall structure.

• Bay (Interior): The space between frame center lines in the lengthwise direction of the building.

• Brace Rods: Rods used on roof and sidewalls of some buildings to transfer wind, seismic and lateral crane forces to the foundation.

• Built-Up Section: A structural member, usually an "I" or "H" shape, made from individual web and flange flat plates by welding together.

• "C" Section: A member cold formed from steel coil in the shape of a "C", used primarily in bearing frame end walls and framed openings.

• Canopy: Any overhanging or projecting structure with its extreme end unsupported.

• Clear Span: The distance or clear and unobstructed opening between two supports of a beam; When used with a rigid frame, this is generally less than the nominal building width.

• Column: A primary structural member used in a vertical position to transfer loads from roof beams, trusses or rafters to the foundation.

General Terms in Pre-Engineered Structures

• Corner Column: A "C" channel or "I" section located at the corner of a bearing frame end wall, or a primary frame column at a main end frame.

• Design Code (Design Standard): The building code used in a particular area to govern building design.

• Eave Canopy: A roof extention beyond the sidewall of a building.

• Eave Fascia: Trim used to close off the top of sidewall panels in lieu of eave gutter or eave trim.

• Eave Height: The vertical dimension from finished floor to top of eave strut.

• Eave Strut: A structural member at the eave to support roof and wall panels; also transmits forces due to wind on end wall from roof bracing to wall bracing.

• Erection: The assembling of pre-engineered components to form a complete structure.

• Erection Drawing: Drawings showing the roof framing plan, wall framing plan, end wall framing, cross section and other parts of the building.

• Frame: Primary structural members, made up of columns and rafters, which suport the secondary framing of girts and purlins.

• Gable: The triangular portion of the end wall of a building, directly under the sloping roof and above the eave line.

• Girder: A main horizontal or near horizontal structural member that supports vertical loads.

• Girt: A secondary horizontal structural member attached to sidewall or endwall columns to which wall covering is attached and supported horizontally; usually a cold-formed "Z" shape.

General Terms in Pre-Engineered Structures

• Gutter: A light gauge channel member installed at the eave, valley or parapet for the purpose of carrying water from the roof to the drains or downspouts.

• Insulation: Any material used in building construction for the reduction of thermal transfer, or for reduction of fire hazard in some cases .

• Louver: An opening provided with fixed or adjustable blades to allow airflow.

• Mezzanine: A second floor above the ground floor. An intermediate level between floor and ceiling, occupying a portion of the floor space.

• Panel: Ribbed configuration metal sheets used for roof and wall covering.

• Purlin: A secondary, cold-formed horizontal structural member located in the roof to support sheeting that is itself supported by the rafters. Purlins in some buildings overlap at frames to form a continuous design.

• Rafter: A fabricated roof-framing member that supports the roof secondary framing members.

• Ridge Vent: Circular or continuous vent placed at the ridge to produce air movement throgh the building.

• Sag Rod or Angle: Tie rods or angles located between the webs of girts or purlins to provide lateral web stability and to limit the deflection of the girt or purlin in the direction of the weak axis. Also known as a purlin brace.

• Self-Drilling Screw: A fastener that drills and taps its own hole. Used as a fastener for attaching panels to purlins and girts.

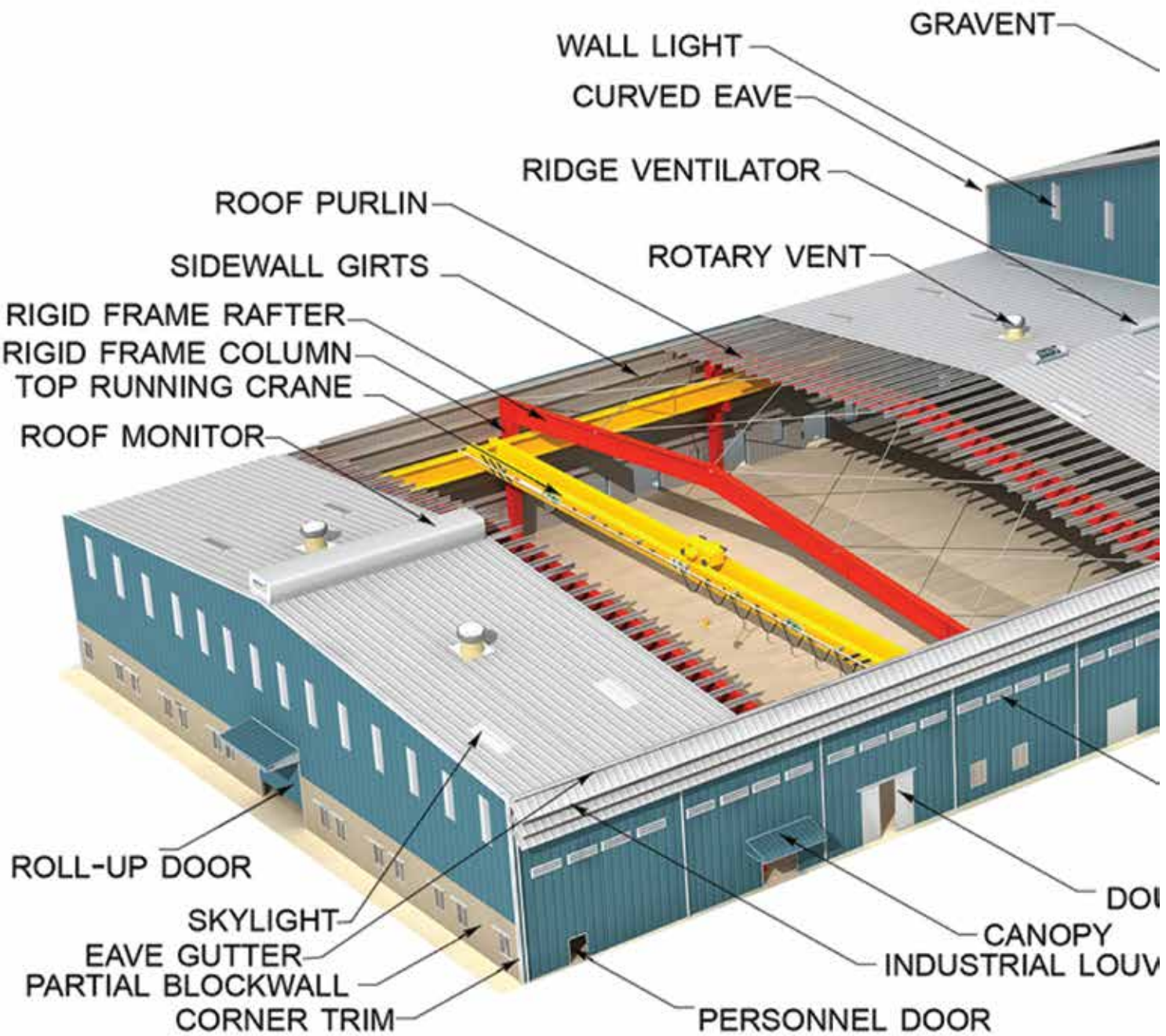
• Self-Tapping Screw: A fastener that taps its own threads in a pre-drilled hole. Used for attaching panels to purlins and girts, for switching panel sidelaps, and for trim and flashing.

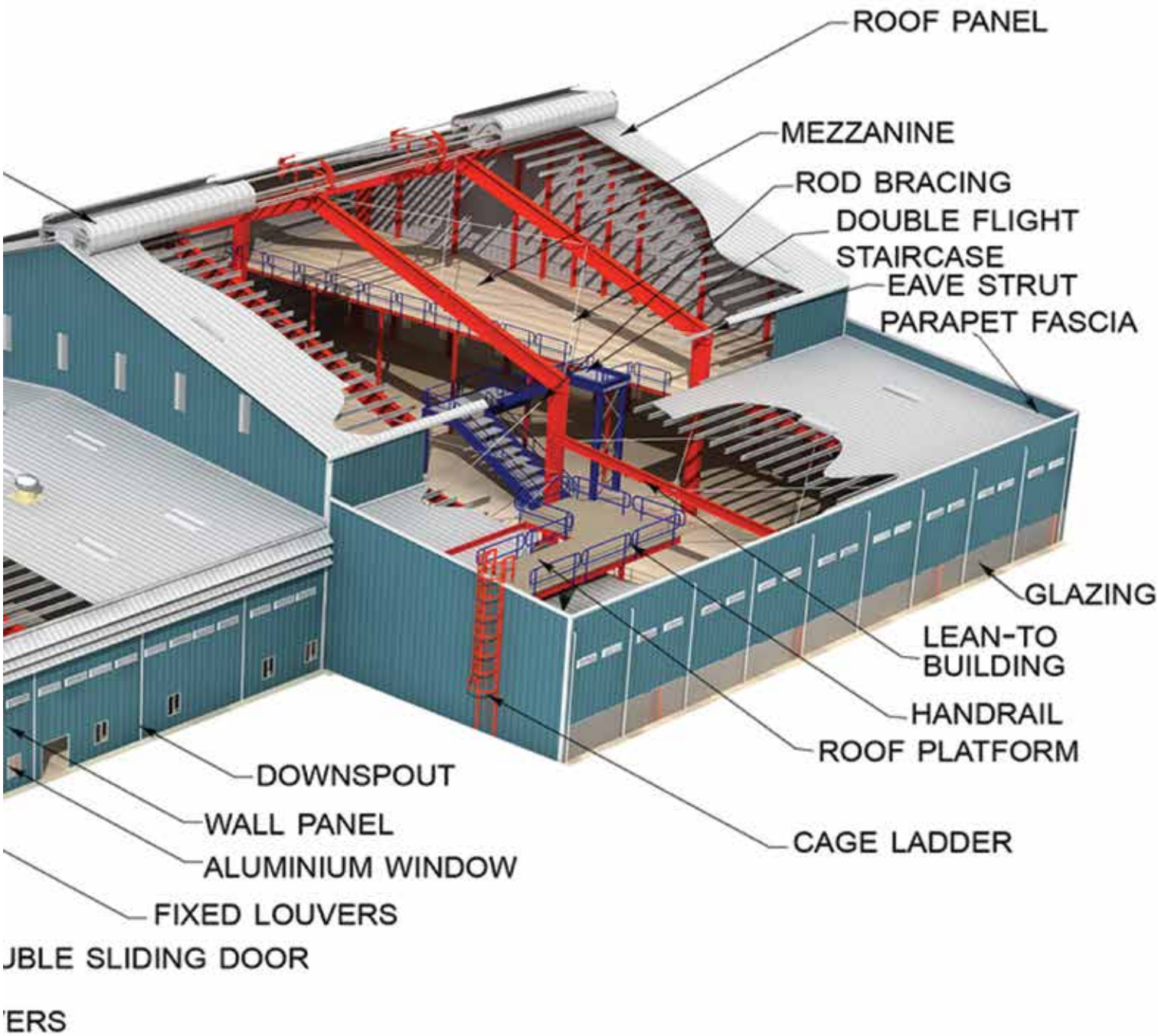
• Skylight: A roof accessory to admit light, normally mounted on a curbed framed opening.

• Trim: Light gauge metal used in the finish of a building, especially around openings and at intersection of surfaces. Often referred to as flashing.

• Turn Key Construction Service: Construction service that includes all phases of construction in a single contract.

• "Z" Section: A girt or purlin; a member cold-formed from steel coil in the shape of a block "Z" with stiffener lips.


GRAVENT
WALL LIGHT
CURVED EAVE
RIDGE VENTILATOR
ROOF PURLIN
ROTARY VENT
SIDEWALL GIRTS
RIGID FRAME RAFTER
RIGID FRAME COLUMN
TOP RUNNING CRANE
ROOF MONITOR
ROLL-UP DOOR
SKYLIGHT
EAVE GUTTER
PARTIAL BLOCKWALL
CORNER TRIM
CANOPY
INDUSTRIAL LOUV
PERSONNEL DOOR


ROOF PANEL
MEZZANINE
ROD BRACING
DOUBLE FLIGHT
STAIRCASE
EAVE STRUT
PARAPET FASCIA
GLAZING
LEAN-TO
BUILDING
HANDRAIL
ROOF PLATFORM
CAGE LADDER
DOWNSPOUT
WALL PANEL
ALUMINIUM WINDOW
FIXED LOUVERS
JBLE SLIDING DOOR
'ERS

Typical Frame Section (Primary Member)

Frame Section

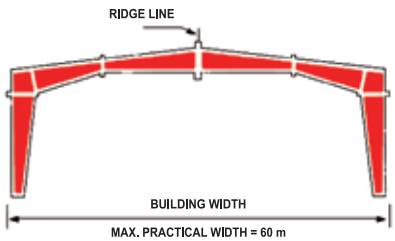
STL offers a complete line of metal building framing systems for commercial, industrial, community and other applications. Steel building framing system design needs to consider the width, size, shape and layout. Our designed framing systems are shown for PEB structure:

Clear Span

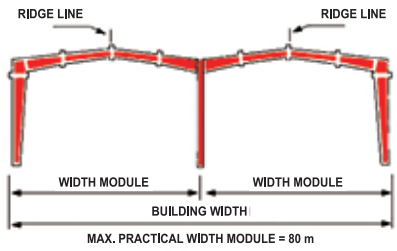
Clear span is the frame system of choice when maximum interior space is desired. That means building without interior columns. Applications of this type of framing system are often found in manufacturing plants, warehouses, arenas and retail stores. The tapered column rigid frame is a practical design solution that offers almost unlimited flexibility. The straight column design provides maximum space and economical interior finishing.

Multi-gable-Span

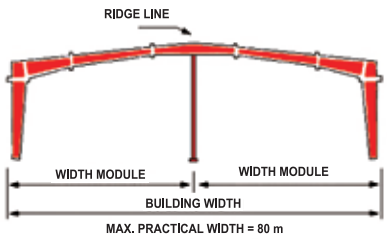
Multi-span systems are a good choice when an economical yet versatile plan is desired. Multiple rows of interior columns are well suited to manufacturing and warehouse environments. The number of interior columns and their placement is optional.



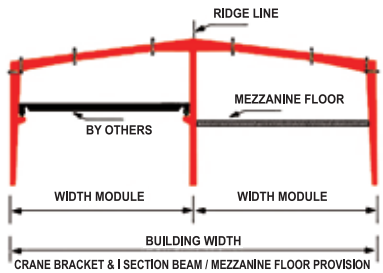
Tapered Column Clear Span (TCCS)

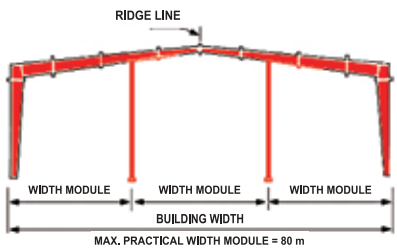


Multi Gable (MG)

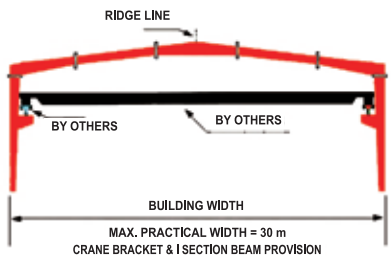


Multi Span "1" (MS-1)





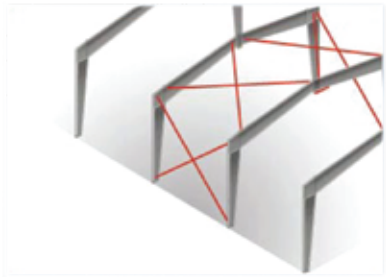
Multi Span "2" (MS-2)



Typical Frame Section (Secondary Member)

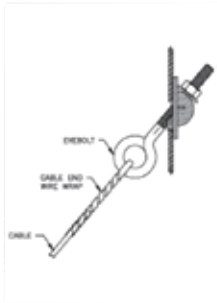
Bracing Systems

Bracing transfers seismic and wind loads from endwalls and sidewalls to the foundation.



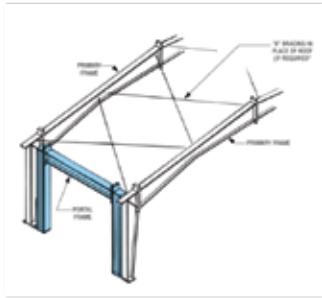
Rod

Rod bracing (also called X-bracing) is a tension-only bracing system. It may be located in the roof and walls of a building between frame members, transferring longitudinal forces to the foundation.



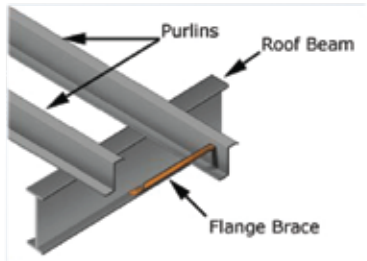
Cable

Cable bracing (like rod bracing) is a tension-only X-bracing system. It is one of the most efficient ways to transfer longitudinal loads to the foundation in smaller low-rise buildings. However, it has application limitations due to capacity constraints for buildings with mezzanines, cranes, or in high seismic areas.



Portal

When bracing must occur in locations where doors or other accessories would interfere with rod-bracing, a portal frame may be used. A portal frame is comprised of two columns and a rafter made of built-up material and is attached to the web of the sidewall columns.

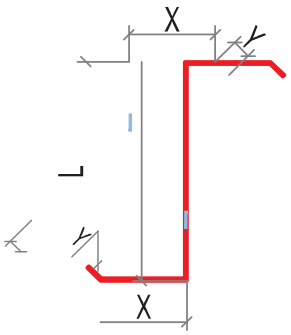


Flange

Flange braces are the structural members that attach purlins, girts, and eave struts to primary structural members (columns or rafters). They are used to prevent the main frame from twisting or buckling laterally under the load. Flange braces are an essential structural part and must be installed properly at all locations.

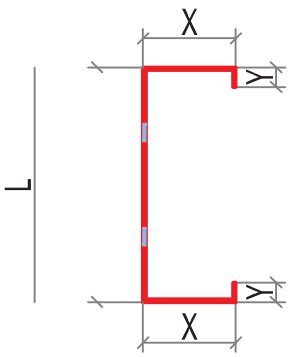
Flange braces can also be very useful as an erection aid to align the purlins and eave struts for easier and lower cost roof installation. Purlin bracing is an angle that connects the bottom flange of adjoining purlins to prevent purlin roll.

PURLIN



"Z" PURLIN

TYPE	L	X	Y
"Z"	150	60	15
	180	70	20
	200	70	20
	250	70	20

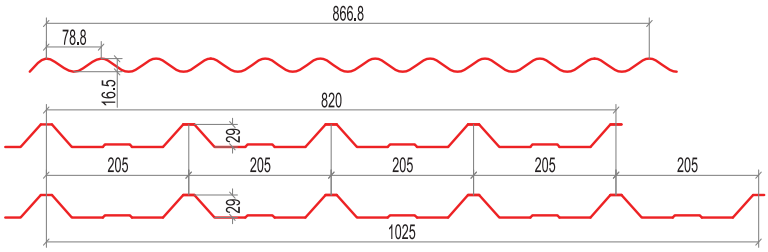


"C" PURLIN

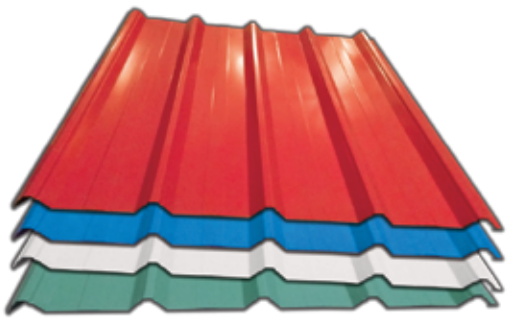
TYPE	L	X	Y
"C"	150	60	15
	180	70	20
	200	70	20
	250	70	20

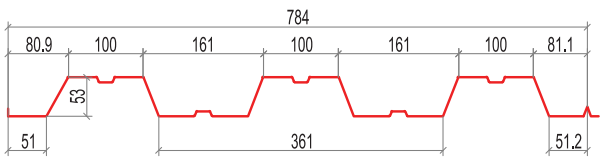
PROFILE SHEET

STL's wide range of color choices for sheet color permits the client to select from a wide variety of choices in terms of his/her preferred building coloring.

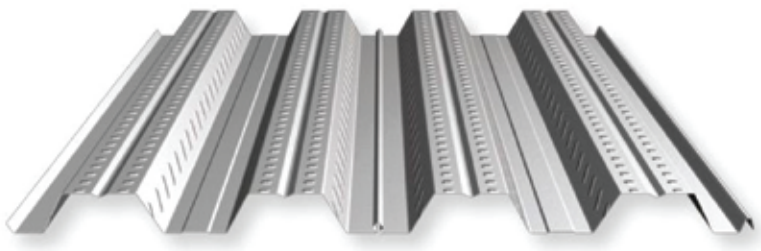


SHEETING PROFILE

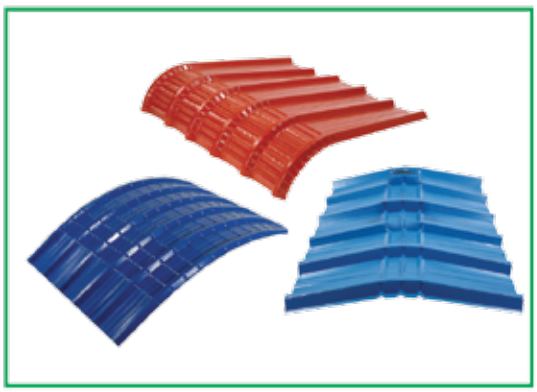




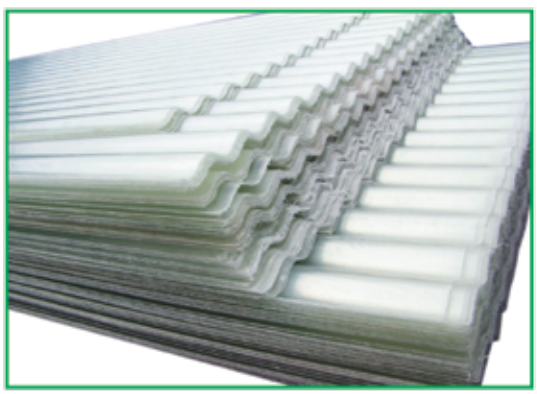
DECKING PROFILE



Curve Sheet



Transparent Sheet



Building Accessories

Window

Sliding Door

Skylight

Roll-up Door

Louver

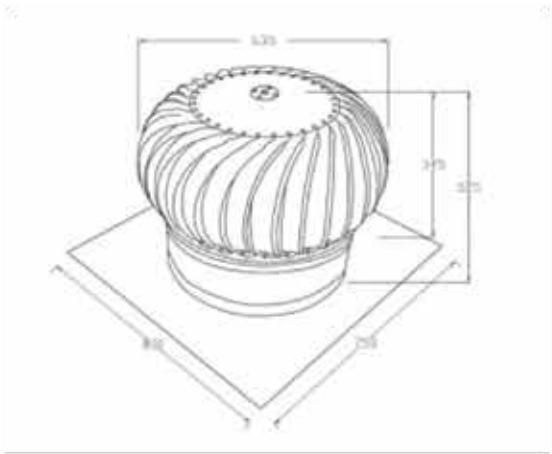
Wall-light

Building Accessories

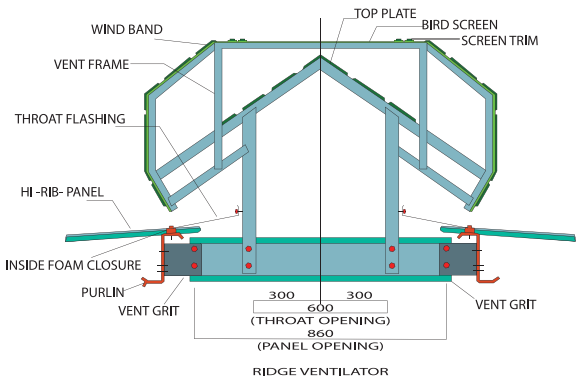
Personnel Door

Roof Monitor

Rotary Ventilator

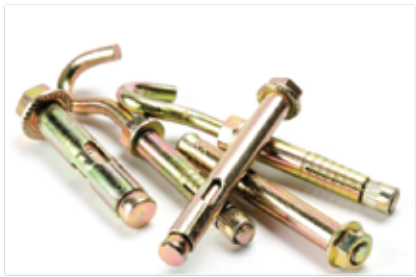


Gravity Ridge Ventilator



Sundry Items

Screw



Expansion Bolt

Nut-Bolt

Anchor Bolt

Hillside Washer

Anchor Bolt

Clints

SL	Project Name	Client	Project Location	Building Area (sft)
1	Equipment Shed	Habiganj Agro Limited	Habiganj Industrial Park	7500
2	Furniture Mill Shed	Banga Building Materials Ltd.	Habiganj Industrial Park	9,000
3	Super Enamel Shed	Bizli Cables Ltd.	Habiganj Industrial Park	2,900
4	Blow Molding Shed	Banga Building Materials Ltd.	Habiganj Industrial Park	3,300
5	RFL-2	RFL Electronics Ltd.	Danga Industrial Park	84,000
6	RFL-6	Banga Building Materials Ltd.	Danga Industrial Park	20,000
7	Substation Shed	Chorka Textile Ltd.	Danga Industrial Park	3,100
8	Chorka Textile	Chorka Textile Ltd.	Danga Industrial Park	12,300
9	DPL Warehouse	Durable Plastic Ltd.	Nobiganj, Habiganj.	66,000
10	RPL Warehouse	RFL Plastic Ltd.	Nobiganj, Habiganj.	84,000
11	DPL Warehouse	Durable Plastic Ltd.	Bogra	47,000
12	Co-Generation Shed	Banga Millers Ltd	Fulbari, Dinajpur	6,800
13	Tekerhat Dipot	PRAN Distribution	Tekerhat, Madaripur	20,000
14	Tank Building	Sylvan Technologies Ltd.	Olipur, Shayestaganj, Habiganj	27,800
15	Raw Material Shed	All Plast Bangladesh Limited	RFL Industrial Park, Kaliganj	30,000
16	Packmat Building	PACKMAT	Habiganj Industrial Park	40,000
17	Central Warehouse	Agricultural Marketing Company Ltd.	Ghorashal, Narshingdi	62360
18	Mango Pulping Shed	PRAN Agro Ltd.	Barendra Industrial Park	64000
19	Mango Ripening Shed	PRAN Agro Ltd.	Barendra Industrial Park	50000
20	DPL Export Warehouse Shed	Durable Plastic Ltd.	Kaliganj, Gazipur	63500
21	RMIL Fabrication Shed	Banga Building Materials Ltd.	Murapara, Rupganj, Narayanganj	76000
22	Plastic Molding Shed	PRAN Agro Ltd.	Eakdala, Natore	42000
23	Mustard Oil Shad	Natore Agro Ltd.	Eakdala, Natore	42000

Clints

SL	Project Name	Client	Project Location	Building Area (sft)
24	RMIL WAREHOUSE	Banga Building Materials Ltd.	Murapara, Rupganj, Narayanganj	59000
25	PAR-BOILING & PACKAGING SHED	Banga Millers Ltd	Fulbari, Dinajpur	109662
26	RFL Depot	RFL Distribution	Patira, Dhaka	40323
27	Carton Shed	Chorka Textile Ltd.	Danga Industrial Park	39586
28	Birganj Depot	PRAN Distribution	Birganj, Dinajpur	40970
29	PEB Production Shed	Sylvan Technologies Ltd.	Habiganj Industrial Park	110000
30	Boiler Shed	PRAN Agro Ltd.	Barendra Industrial Park	15500
31	Boiler Shed	PRAN Agro Ltd.	Eakdala, Natore	15500
32	RPL Export Production Shed	RFL Plastic Ltd.	Baghdi, Narshingdi	50000
33	Market Return Shed	PRAN Distribution	Kaliganj Export Processing Zone	29000
34	Wheat Bagging Plant	Bashundhara Food & Beverage Industries Ltd.	Pangaon, Konda, Keraniganj, Dhaka	8000
35	Scrap Shed	Habiganj Agro Limited	Habiganj Industrial Park	28000
36	Sugar Plant	PRAN	RFL Industrial Park, Kaliganj.	14000
37	SBCL Warehouse	Sun Basic Chemicals Ltd.	Habiganj Industrial Park	18000
38	Dewandi Depot	PRAN Distribution	Dewandi, Shayestaganj, Habiganj	30000

Running Projects

39	Spice Plant	Bashundhara Multi Food Product Ltd.	Pangaon, Konda, Keraniganj, Dhaka	30500
40	Roti Building Stair	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, Keraniganj, Dhaka	
41	Lube Oil and Dop Shed Building	Banga Building Materials Ltd	Cumilla	43684
42	Chanachur Building	Agricultural Marketing Company Ltd.	Ghorashal, Narshingdi	22500
43	Ripening & Finished Goods Shed	PRAN Agro Ltd.	Barendra Industrial Park	50000

Sylvan Technologies Ltd (Own Plant)

Area: 110,000 sft *Location:* Habiganj

RFL-9

Area: 72,000 sft *Location:* Kaliganj, Gazipur

Dewandi Depot

Area: 30,000 sft *Location:* Habiganj

Connecting Bridge

Equipment Shed

Area: 7,500 sft *Location:* Habiganj

Equipment Shed

Area: 12,500 sft *Location:* Habiganj

Tank Production Shed

Area: 35,000 sft *Location:* Habiganj

Carton Shad

Area: 40,000 sft *Location:* Danga, NarsHingdi

BBL Production Factory

Area 30,000 sft *Location:* Habiganj

Connceting Shed

Area: 20,000 sft *Location:* Habiganj

Conveyor Shed

Size: 150 meter *Location:* Habiganj

Scrap Shed

Area: 28,000 sft *Location:* Habiganj

SBCL

Area: 18,000 sft *Location:* Habiganj

RPL Export Production Shed

Area: 50,000 sft *Location:* Narshingdi

Wheat Bagging Plant of Bashundhara

Area: 8,000 sft *Location:* Dhaka

Market Return Shed

Area: 29,000 sft *Location:* KEZ, Kaliganj, Gazipur

Sugar Refinary Plant

Area: 14,000 sft *Location:* Kaliganj, Gazipur

DPL Export Warehouse Shed

Area: 70,000 sft *Location:* Bagharpara

RFL Warehouse

Area: 40,000 sft *Location:* Patira, Dhaka

Pictures of Machinery and Equipment

Cantilever Gantry Welding Machine

C-Z Purlin Machine

CNC Flame Cutting Machine

Shot Blasting

CTL Line

H Beam Assemble with Auto Welding Line

Shear Cutting Machine

Deck Roll/Forming Machine

Slittng Line

Sheet Profile Machine

Overhead Crane 40 MT

Iron Worker

CERTIFICATE OF REGISTRATION

TNV United Kingdom

This is to Certify that the Occupational Health & Safety Management System of

Sylvan Technologies Limited

Olipur, Shahajibazar, Shayestaganj, Habigonj, Bangladesh

has been assessed and registered by TNV as conforming to the requirements of:

ISO 45001:2018

For the following Scope

"Design, Manufacture, Installation, Testing & Commissioning of Single Phase and Three Phase Distribution and Power Transformer, Low Voltage and Medium Voltage Switchgear and Instrument Transformers (CT & PT), Design, Fabrication & Erection of All Type Steel Structure and Supplying of All Type Building Accessories"

Certificate Number :	1904170940301
Issue Date:	17th Apr. 2019
Valid Until:	17th Apr. 2022
1st Surveillance on or before	17th Mar. 2020
2nd Surveillance on or before	17th Mar. 2021

CERTIFIED ISO 45001 CERTIFIED

AB-CAB ACCREDITED

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Director
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Mail: info@tnv.uk.com
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Pre engineered buildings are factory-built buildings of steel that are shipped to site and bolted together. This style of construction is ideally suited to industrial buildings and warehouses. It is cheap, very fast to erect and can also be dismantled and moved to another site.

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Since 1981

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