

Scope of Works for Assembling and Installation of Steel Building for GSB Power Station

A. Introduction

- As part of Guyana Shore Base Inc.'s (GYSBI's) continuous expansion program we seek to construct a new power station for our Shore base. We therefore seek a suitably qualified Contractor to execute the erection and assembly of a prefabricated steel building for this new facility.

B. Requirements

- The Contractor shall establish storage area including designated incoming materials and finished materials areas, and a prefabrication area.
- The Contractor shall receive, inspect, and store all materials and notify Company immediately in writing of any damages, shortages, or overages.
- The Contractor shall furnish to the Client a Level 3 Schedule for the assembling of the structure.
- The Contractor shall provide an Organisation Chart detailing all personnel and where applicable valid certification for all Operators.
- The Contractor should provide a list of Certified Lifting and MEWP Equipment for the Project, tools, and personnel necessary for the safe transporting, handling, assembling, and erecting of the building in keeping with GYSBI's QHSSE Policy.
- The Contractor shall provide notification of inspection to Company for all testing, inspection and examination including performed per project specification; generally, administer QA/QC activities.

C. Technical Specifications

INSTALLATION

- All structures shall be assembled and installed in accordance with the instruction of the manufacturer, as shown on the Drawings and as specified herein. A qualified fabricator shall perform all cutting, welding, and joining as required.
- The structure shall be properly set out and levelled with the assistance of a qualified surveyor.
- Care shall be taken in loading, transporting, and offloading to prevent damage to the materials. No material shall be thrown, dropped, or dragged. All materials shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to materials shall be repaired as directed by the Engineer. If any defective material is discovered after it has been installed, it shall be removed and replaced in a satisfactory manner by the contractor, at his own expense.
- Care shall be taken during transportation of the materials such that it will not be dent, kinked or otherwise damaged.
- Mechanical connections from the structure to the base and within the structure shall be accordance to standards and specifications set out.
- All surfaces, connections points, and fasteners shall be thoroughly cleaned before installation, shall be kept clean until they are used in the work and when completed, shall conform to elevations, levels and dimensions required.

CLEANING

- At the conclusion of the work, thoroughly clean all components of the structure to remove all dirt, dust or any other material which may have been accumulated during construction. Debris cleaned from the structure shall be removed from the job site. The entire site should also be cleared and cleaned of all unwanted materials owned by the contractor.

TESTING

- All bolts should be torqued according to specifications.

D. Deliverables

- At minimum, the Contractor is to furnish the company with the following but not limited to:
 - Assemble and installation of all necessary components to complete the building as per drawings.
 - Provide the Client with as-built drawings as per completed works

E. Construction Constraints

- SIMOPS
- Confined workspace
- Working near fuel lines, water lines, fire foam lines and high voltage electrical lines and generator.
- Working near access road which facilitates heavy duty trucks, trailers, and other machineries

F. Useful Information



Fig 1: Site overview of project location



Fig 2: Project area



Fig 3: Northwestern view of proposed building

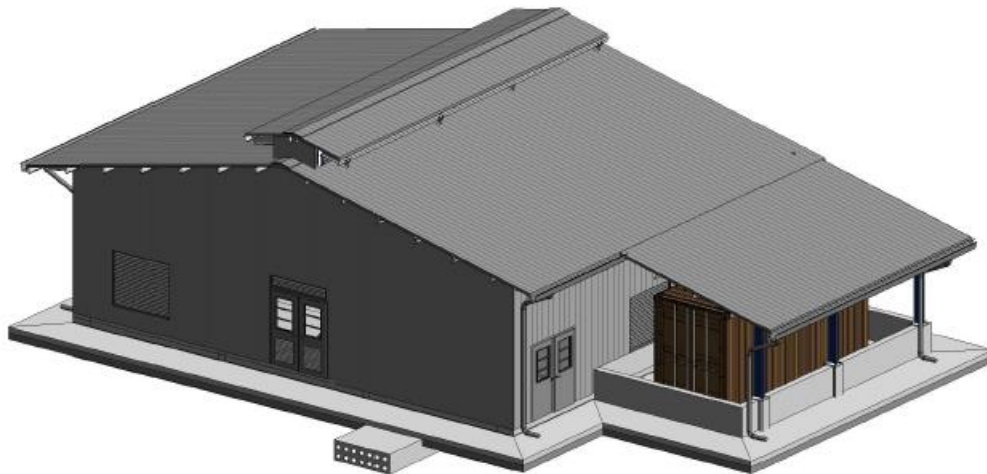


Fig 4: Northeastern view of proposed building

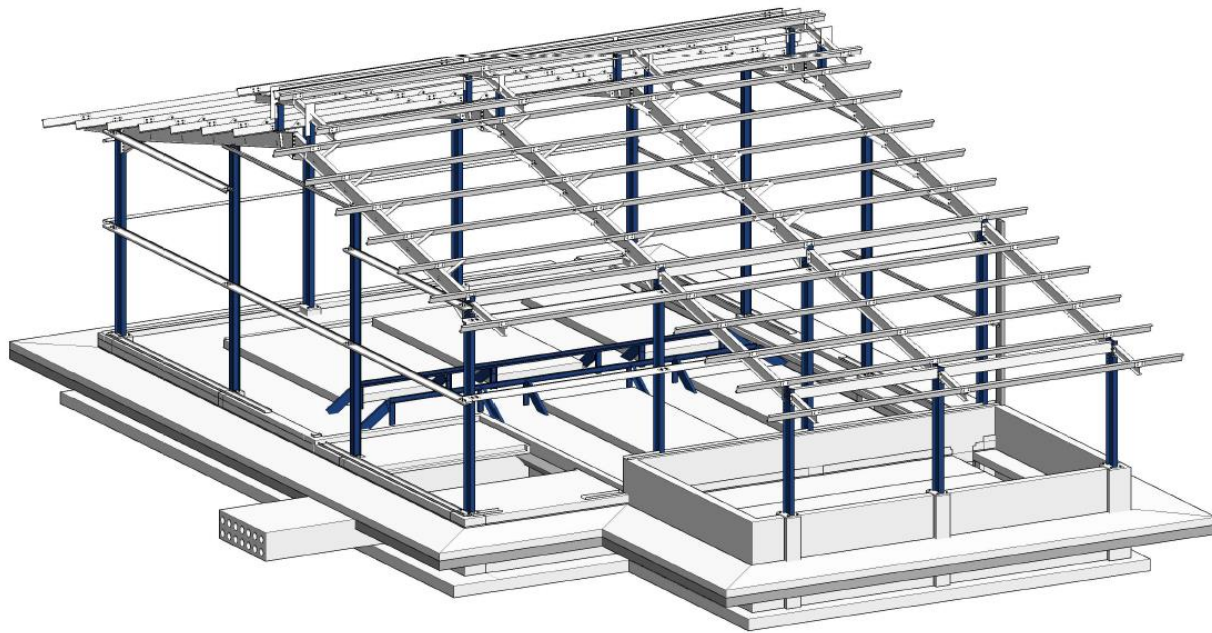
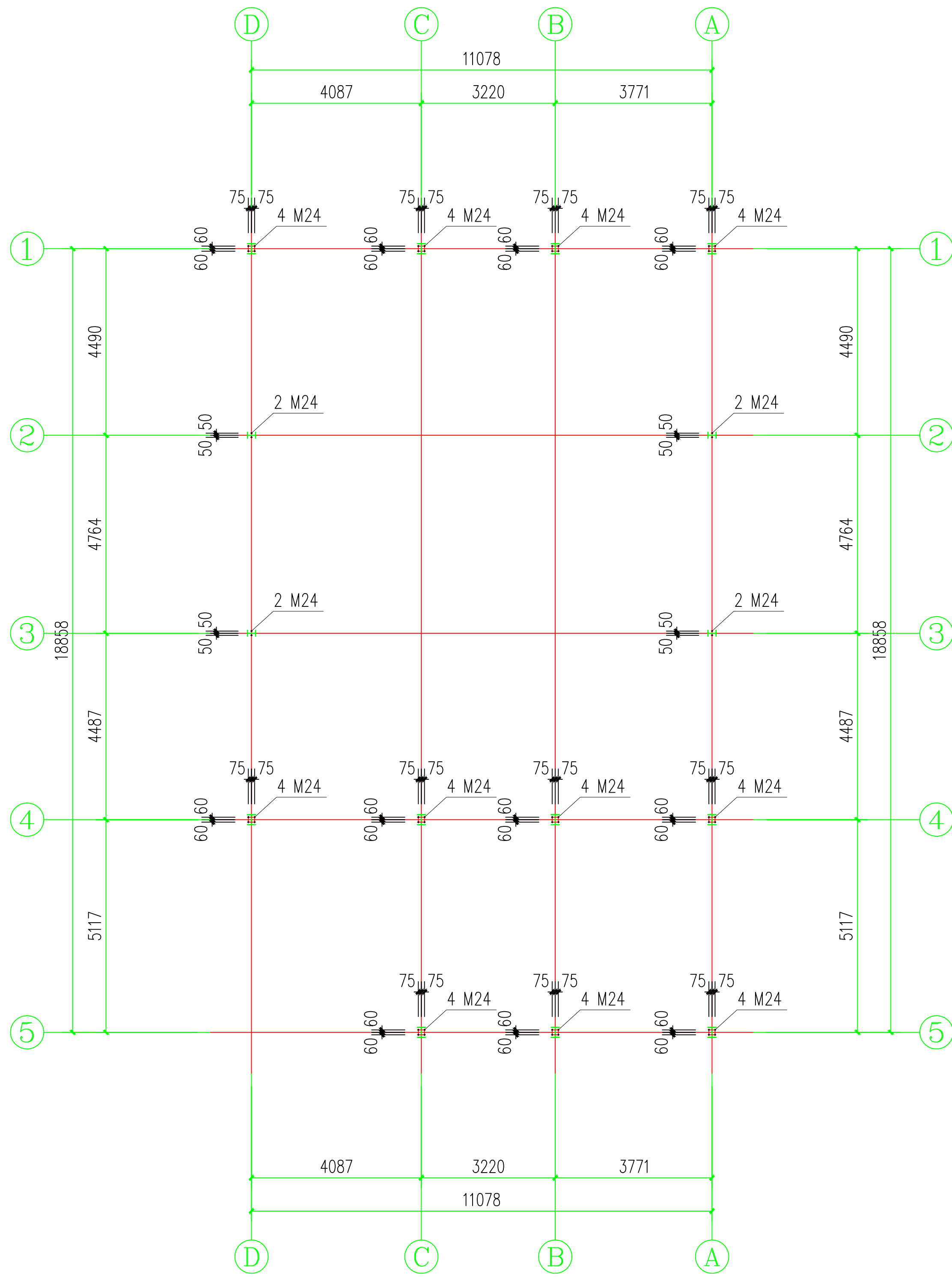
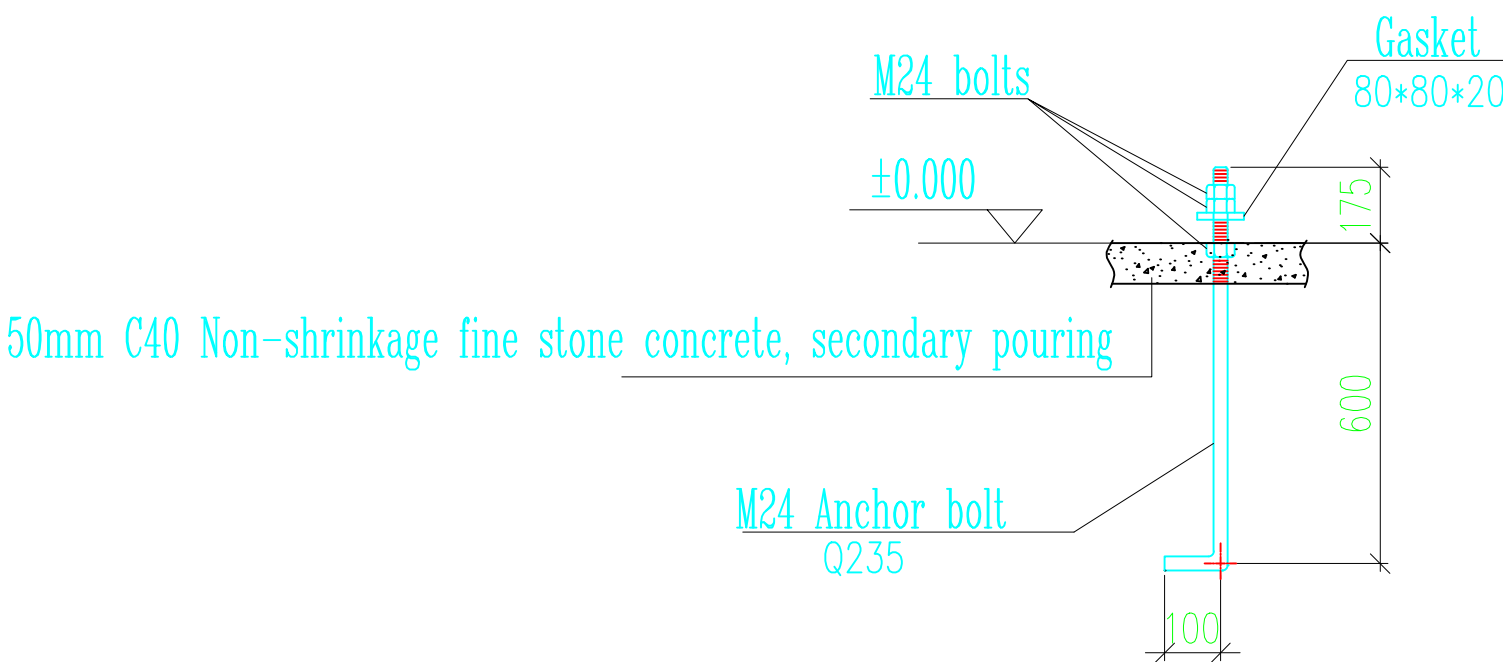


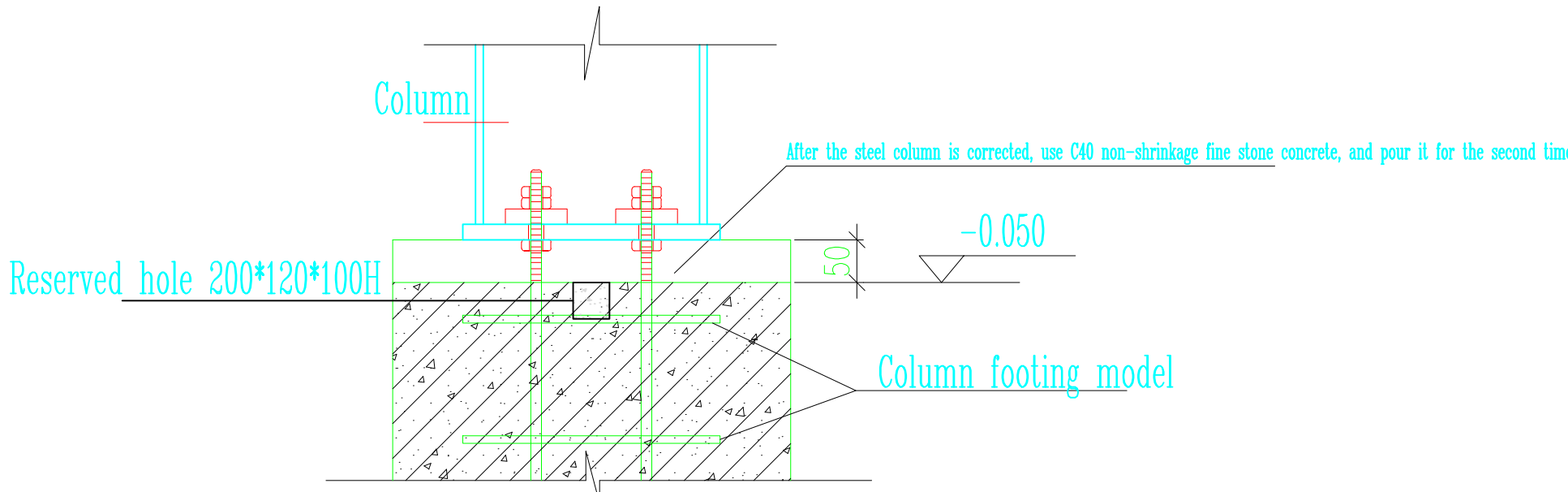
Fig 5: 3D model of proposed steel frame



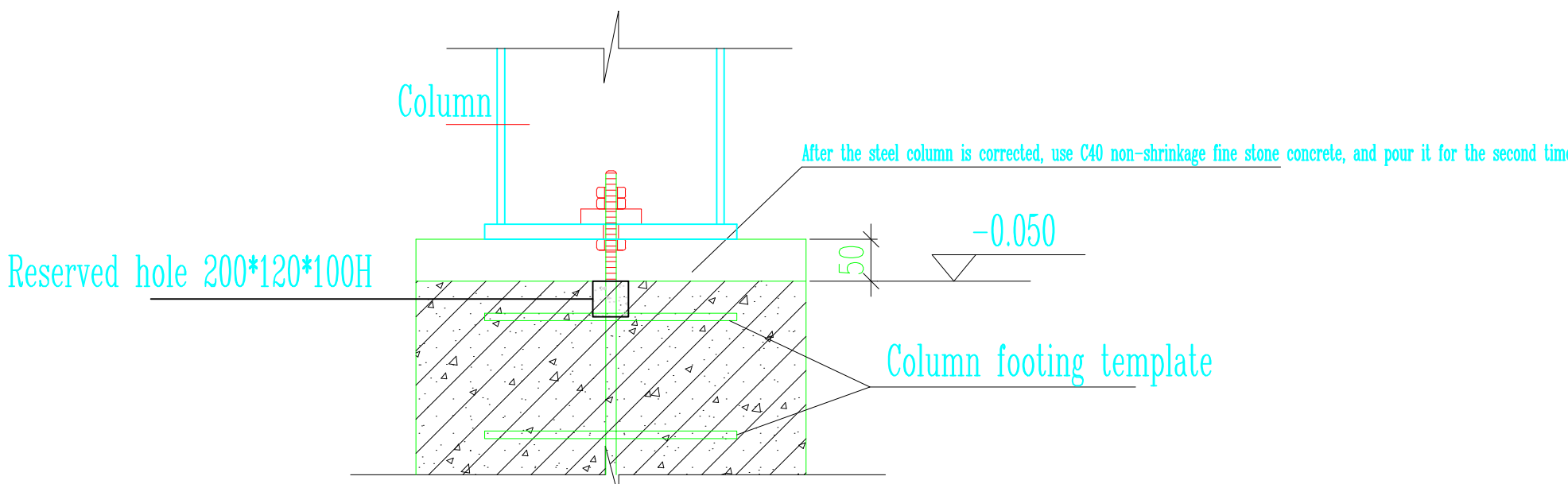
Anchor bolt Plan 1:100



M24 Anchor bolt detail



Column footing detail 1



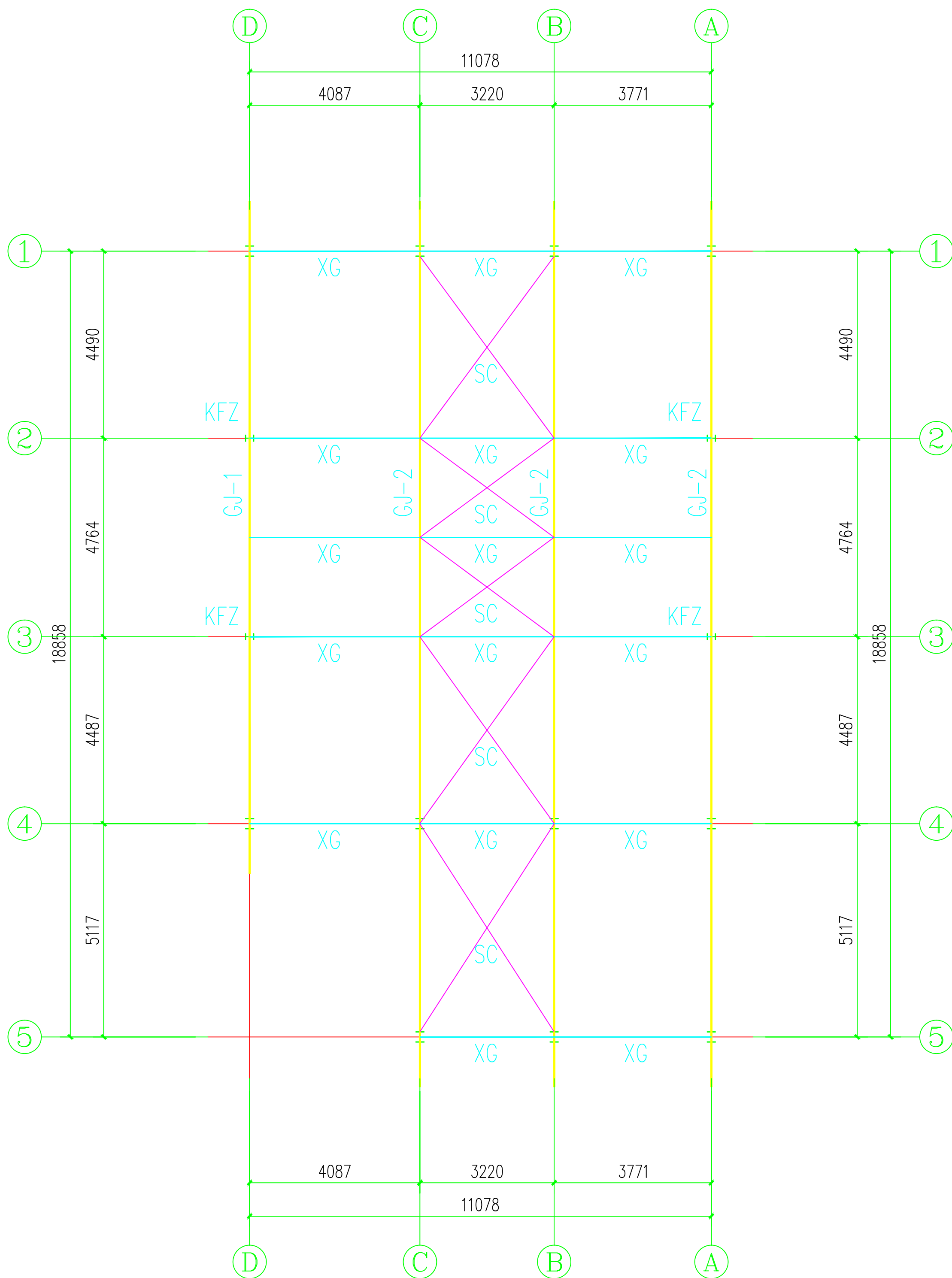
Column footing detail 2

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COMPANY STAMP

LICENSE STAMP

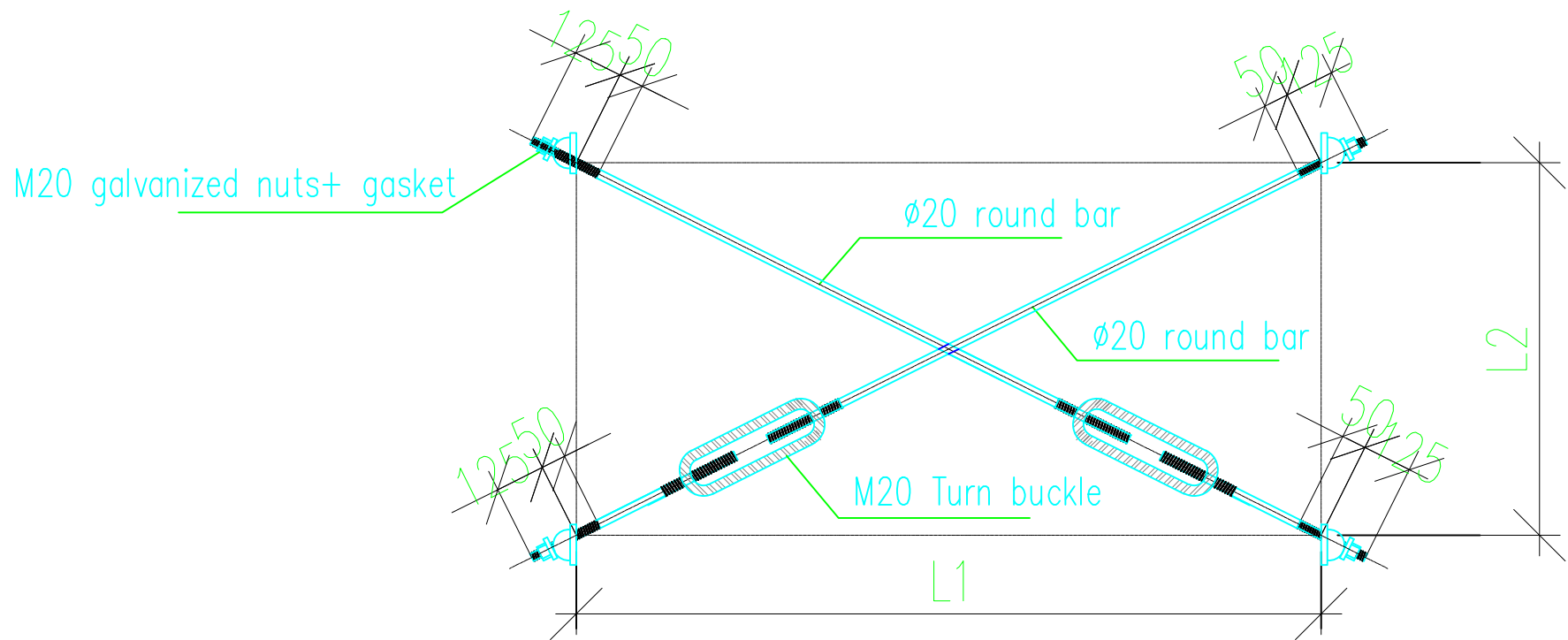
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PROJECT	Generator House		
DRAWING TITLE	Anchor bolt Plan		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB-220615-01	DRAWING NO.	01



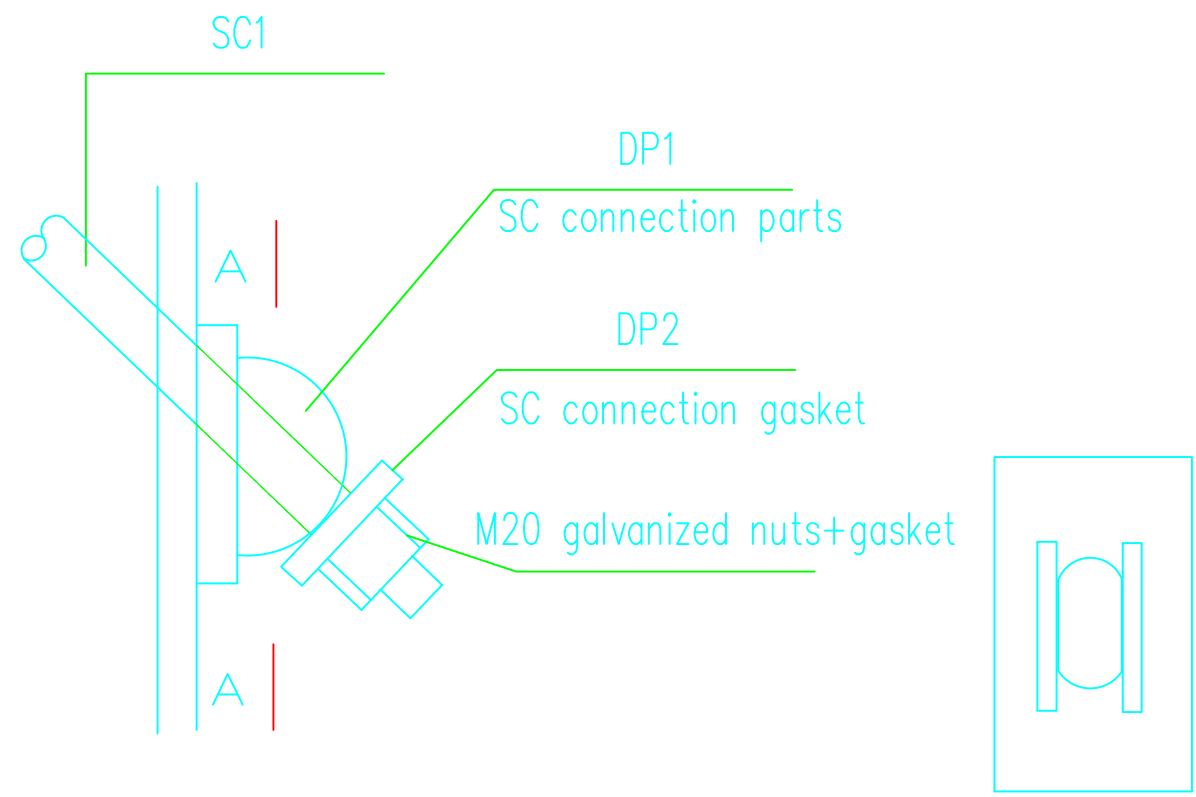
Structural Plan 1:100

Note:

1. The rust removal grade of GJ-1 and KFZ* reaches Sa2.5, and the material is Q355-B; two coats of red oxide primer are used. Two-made medium gray alkyl topcoat, the total film thickness is not less than 125um;
2. The horizontal bracing < SC*> is made of round stee lØ20 , galvanized,the material is Q235-B:
3. The tie bar <XG*> is made of round pipe Ø76*2.5, the material is Q235-B, and the rust removal grade reaches Sa2.5. Two coats of red oxide primer and two coats of medium gray alkyl topcoat are used, and the total paint film thickness is not less than 125um.

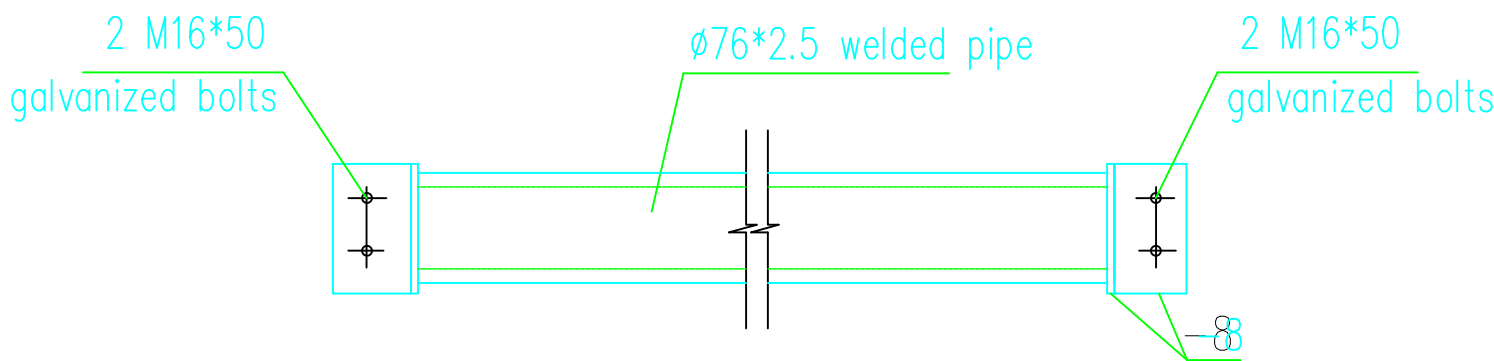


Horizontal bracing

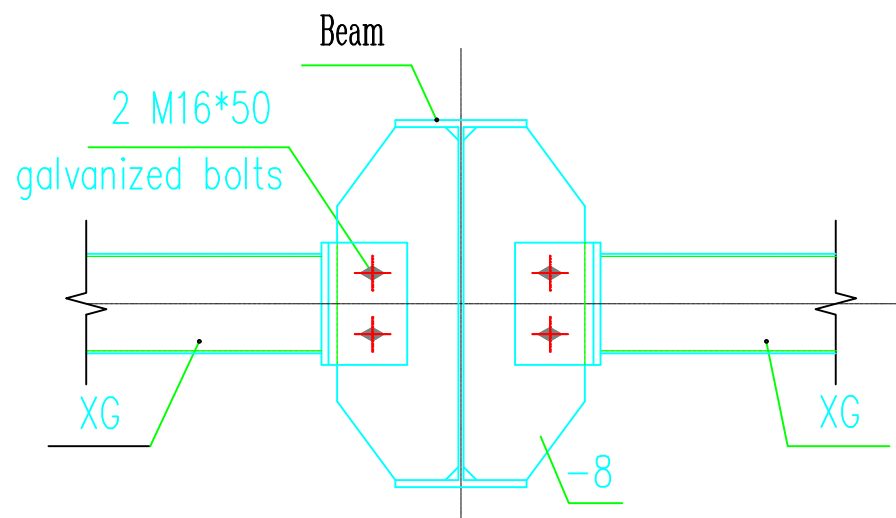


Connection node of horizontal bracing & beam

A-A



XG Details
(Tie bar)



Connection node of Tie bar & beam

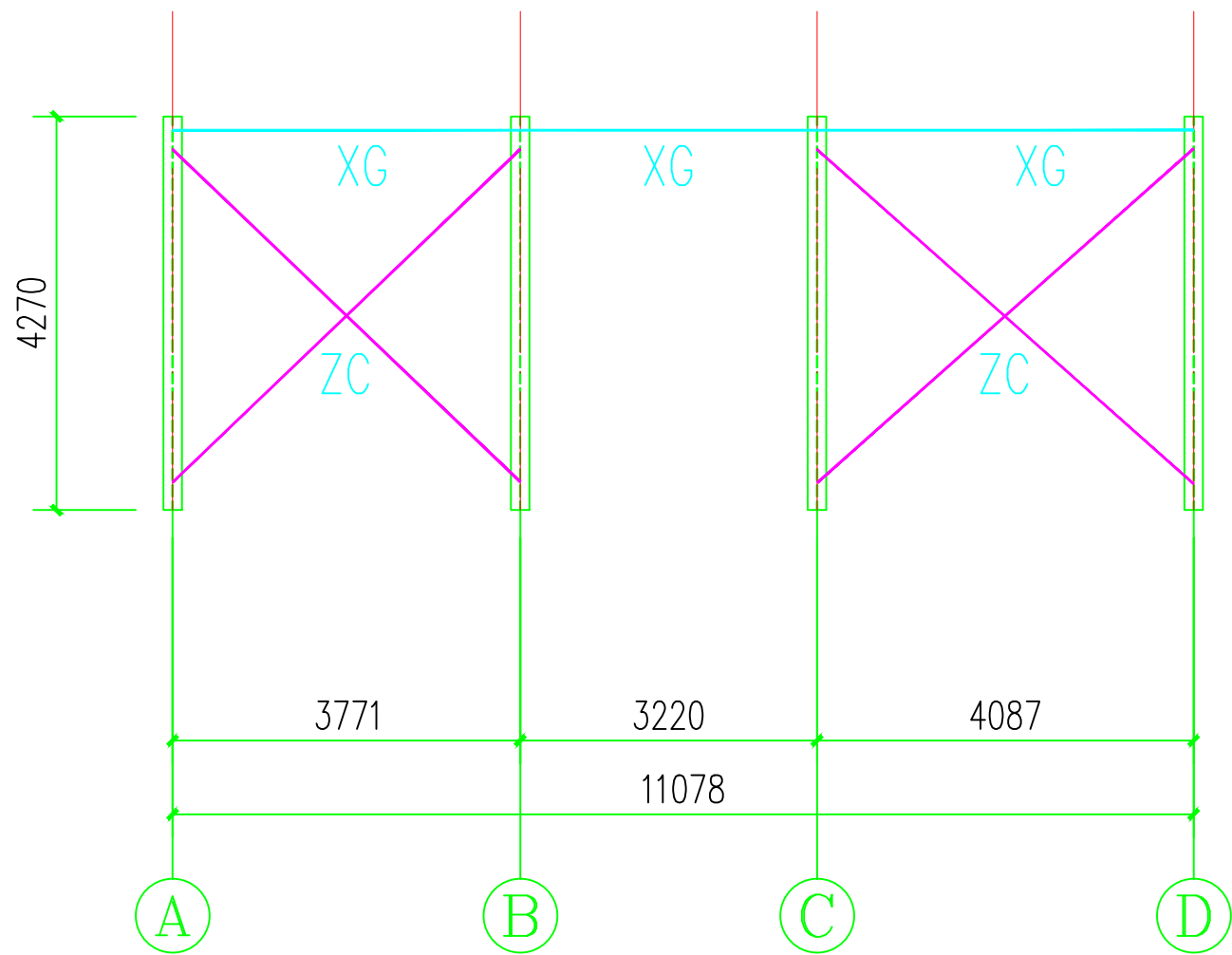
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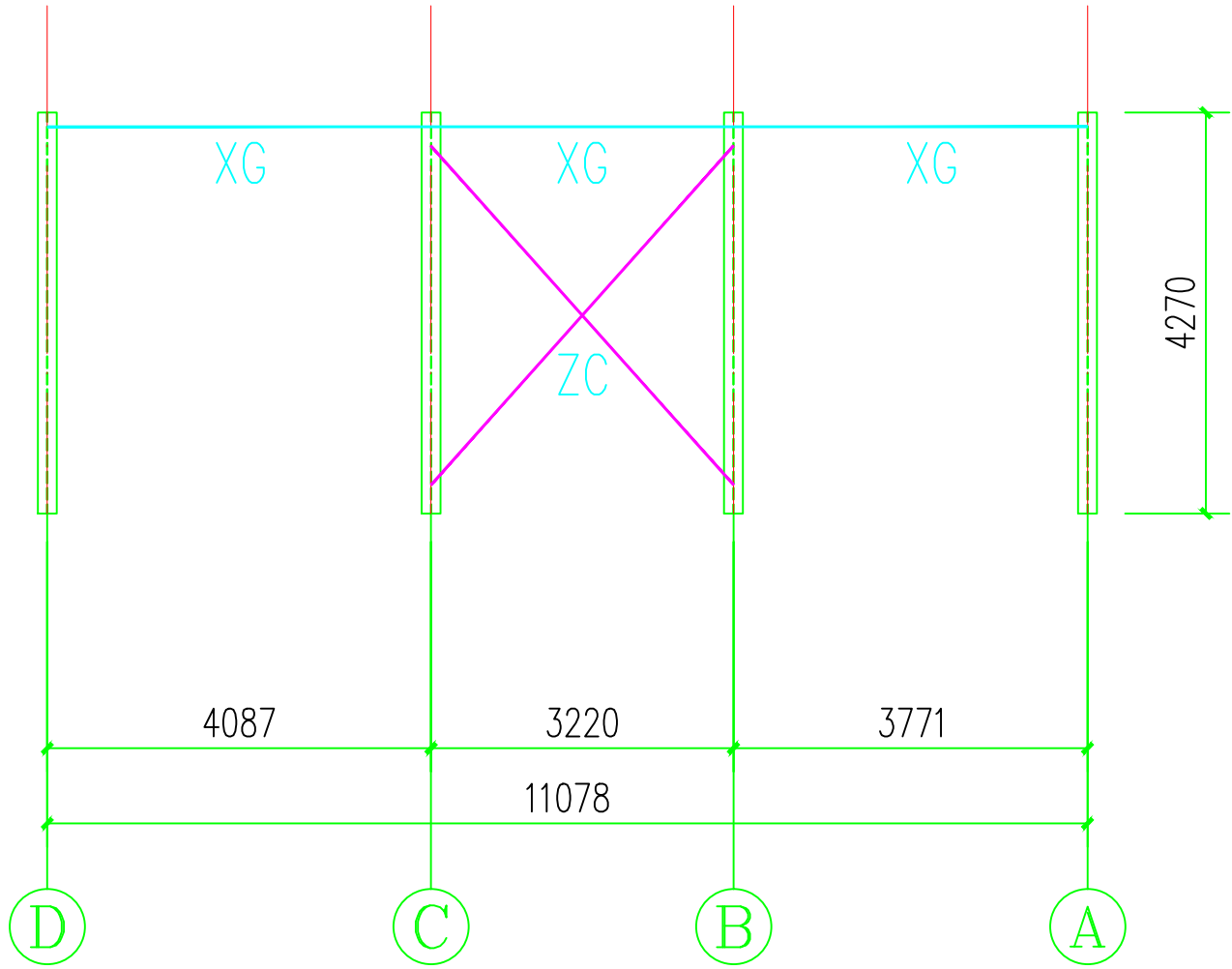
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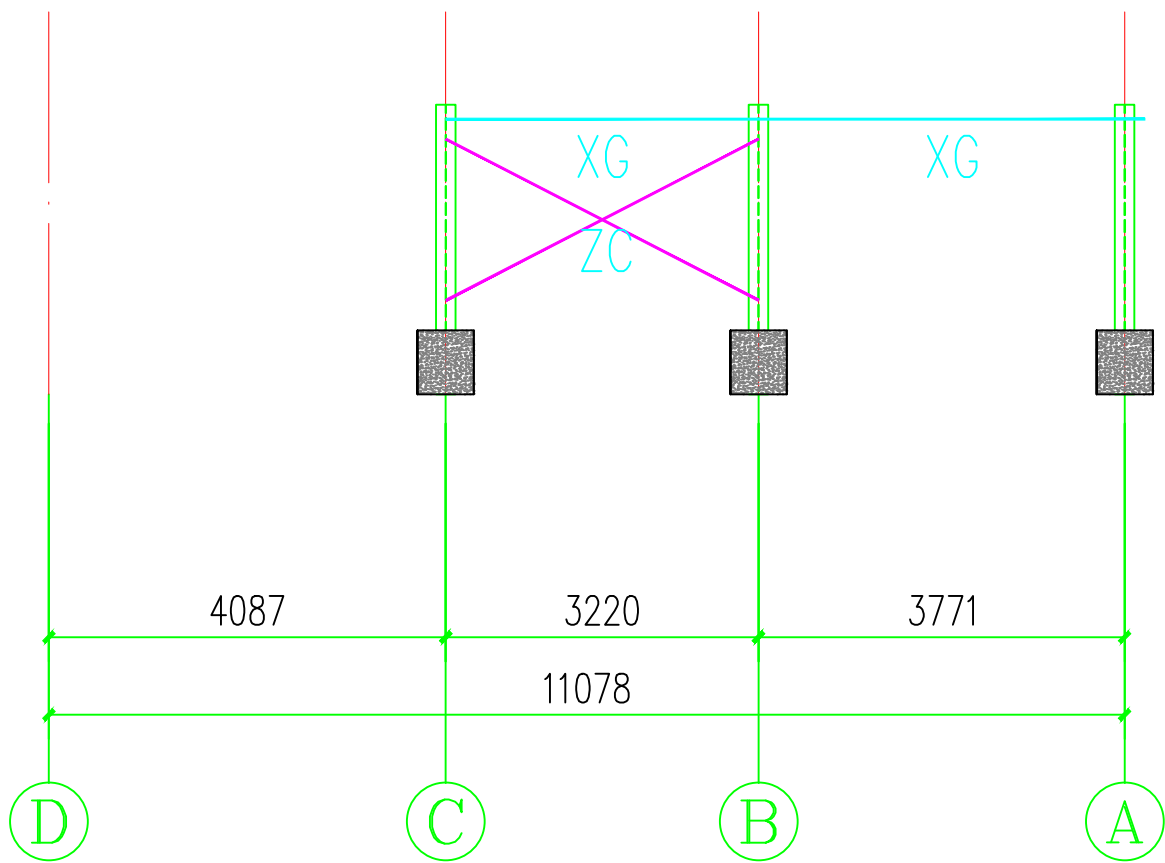
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PROJECT	Generator House		
DRAWING TITLE	Structural Plan		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB1-220615-01	DRAWING NO.	02



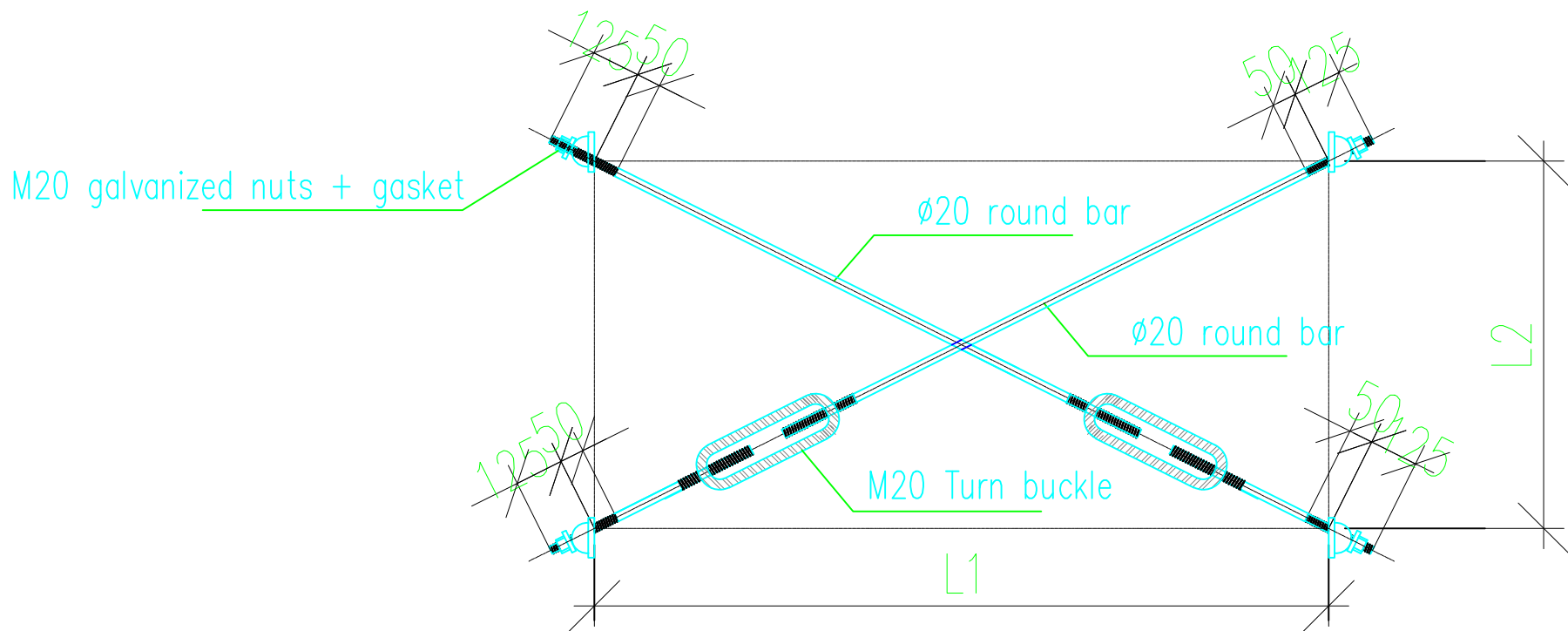
1 elevation Plan 1:100



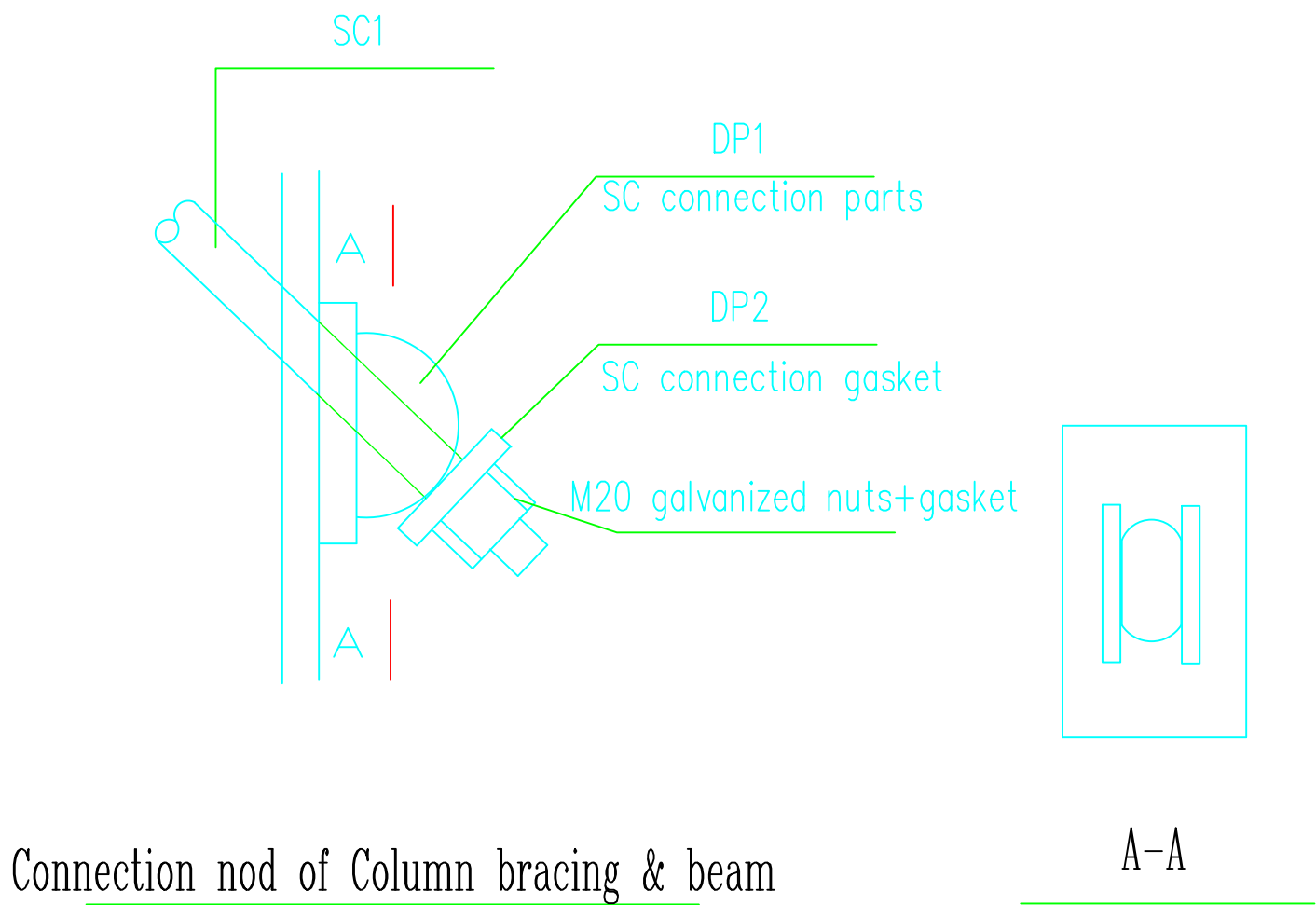
4 elevation Plan 1:100



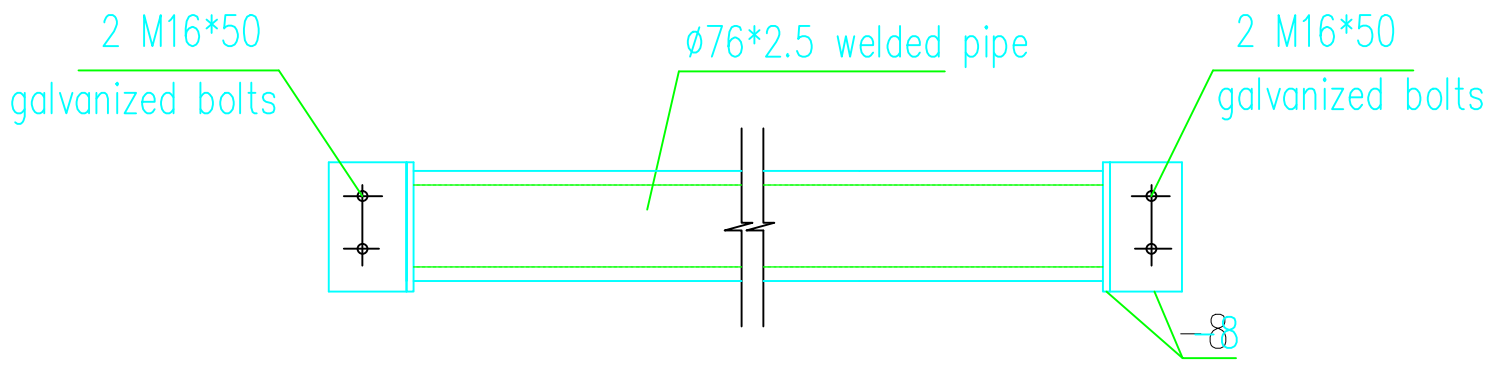
5 elevation Plan 1:100



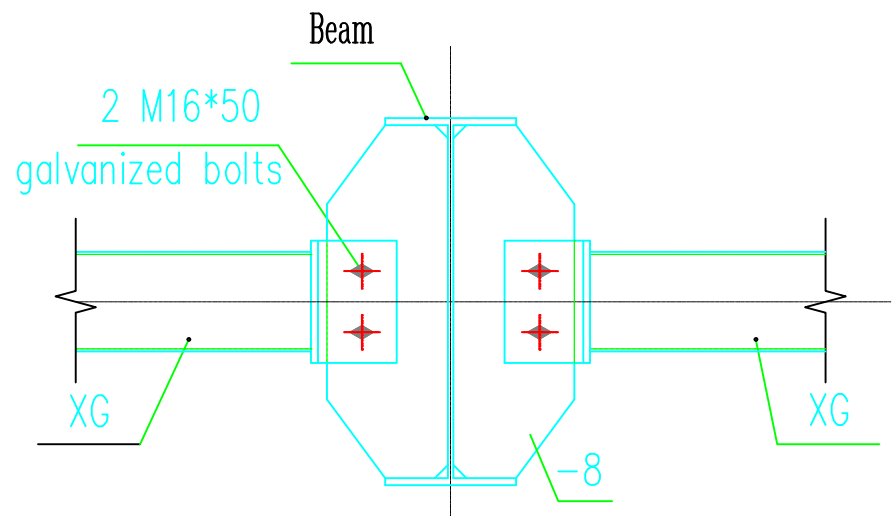
Column bracing Sample



Connection nod of Column bracing & beam



XG Details
(Tie bar)



Connection nod of Tie bar & beam

Note:

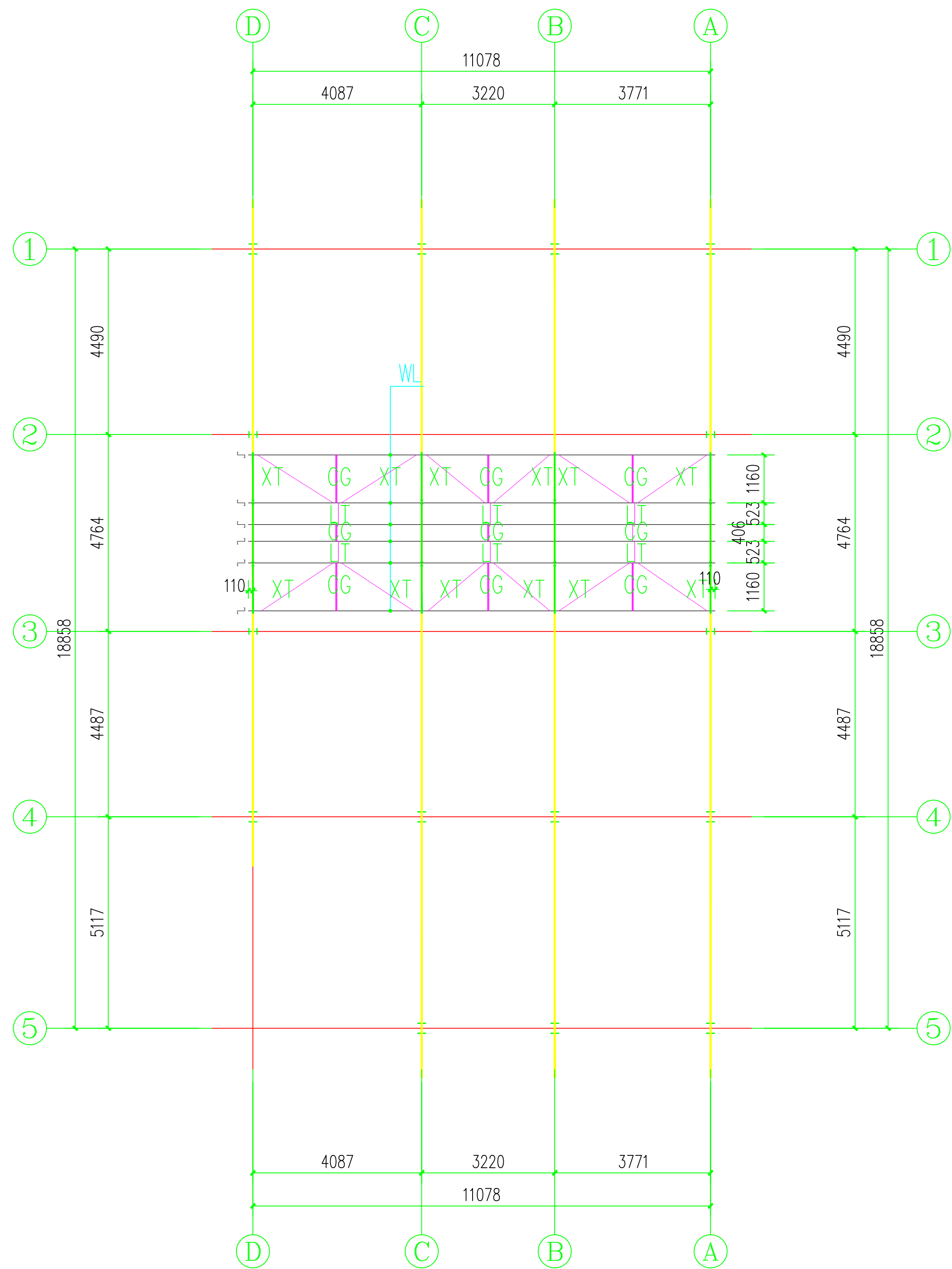
1. Material is Q235-B;
2. The horizontal bracing <ZC*> is made of round steel $\varnothing 20$, galvanized;
3. The tie bar <XG*> is made of round pipe $\varnothing 76*2.5$, and the rust removal grade reaches Sa2.5. Two coats of red oxide primer and two coats of medium gray alkyd topcoat are used, and the total paint film thickness is not less than 125um.

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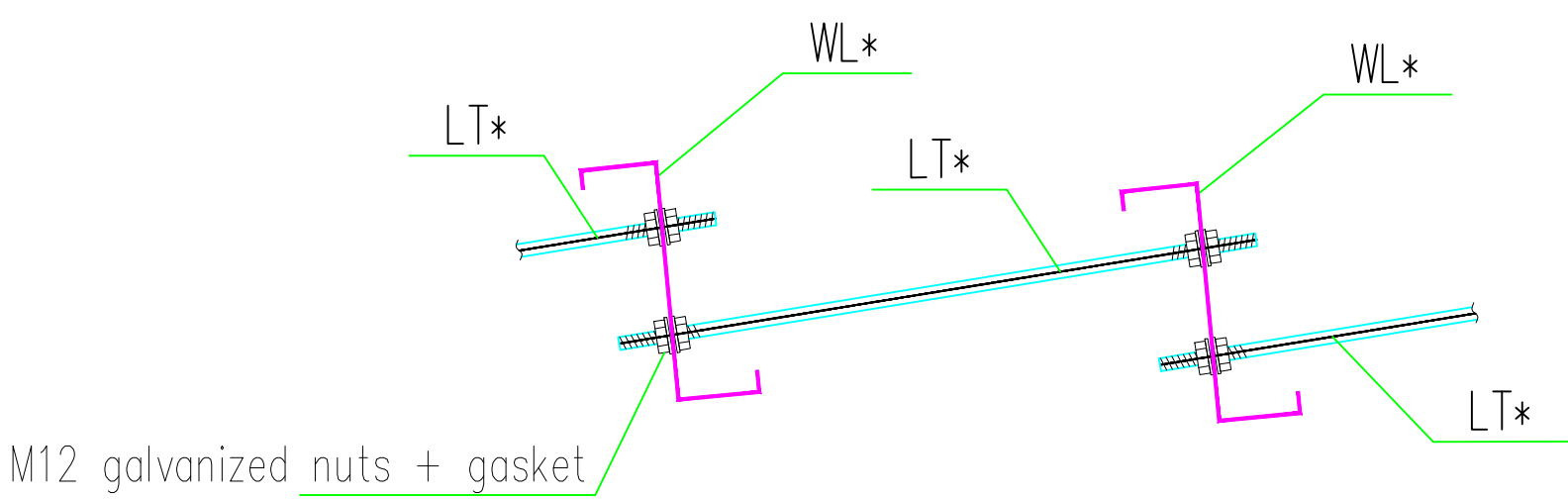
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PROJECT	Generator House		
DRAWING TITLE	Elevation structural Plan		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB1-220615-01	DRAWING NO.	03



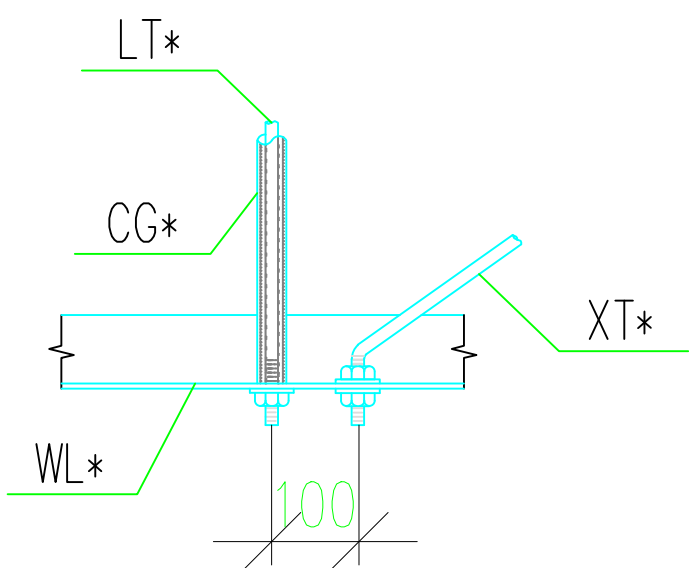
Structural Plan 1 1:100

Note:

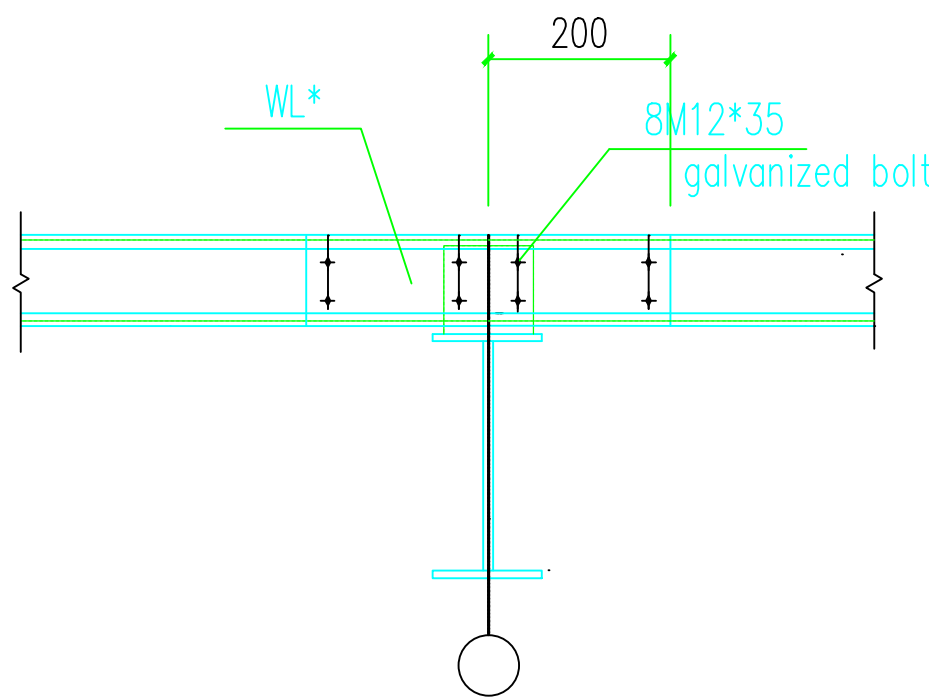
1. Material is Q235-B;
2. Roof purlin <WL*> uses C-type cold-formed steel purlin, the purlin specification is Z180*70*20*2.0;
3. batter brace (LT*), tilted batter brace (XT*) are $\phi 12$ round bar, case tube (CG*) is $\phi 32 \times 2.5$, they are galvanized.



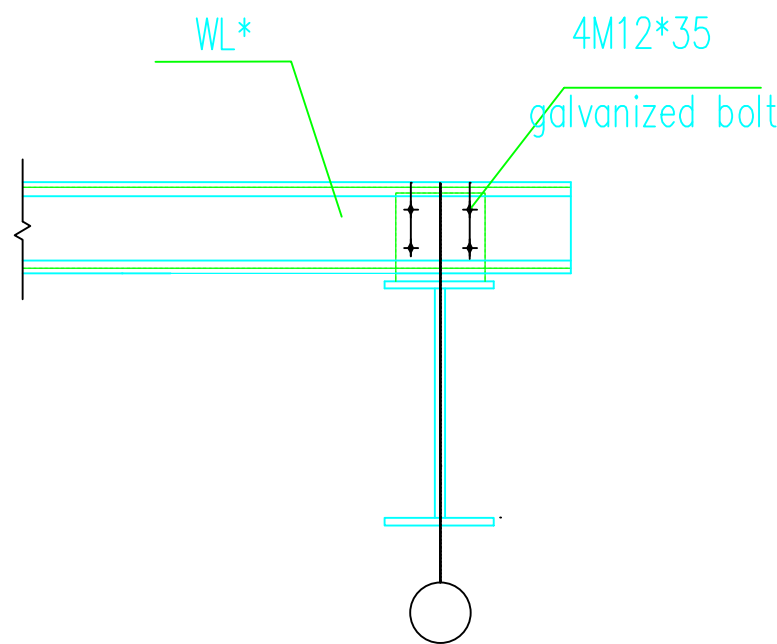
roof purlin(WL*) and batter brace (LT*) connection node



batter brace (LT*) with casing tube (CG*) node



Connection nod of middle span WL*



Connection nod of Side span WL*

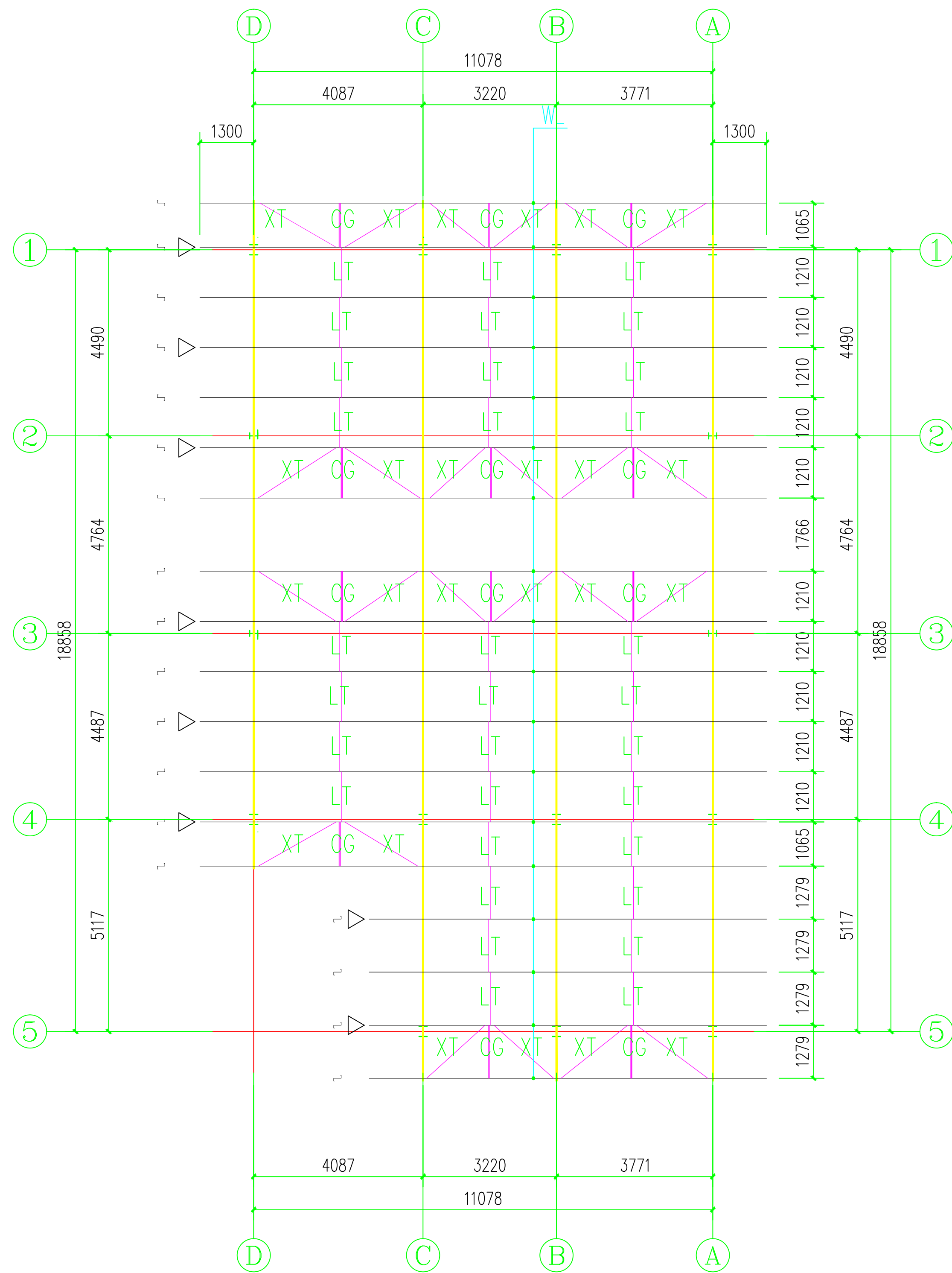
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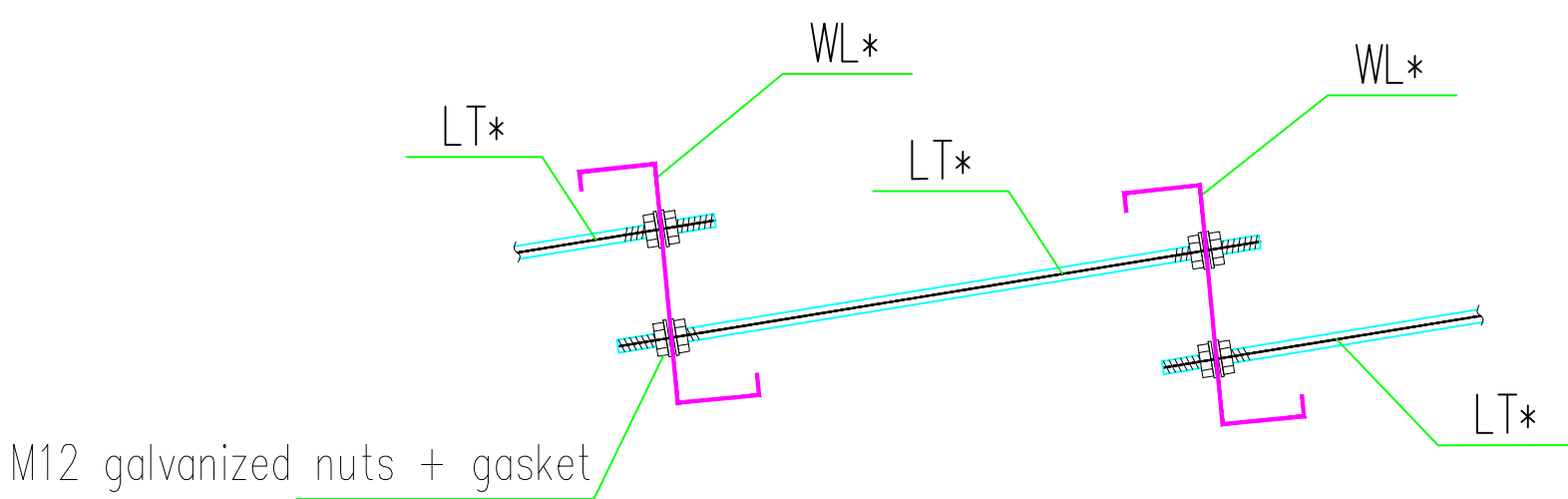
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PROJECT	Generator House		
DRAWING TITLE	Structural Plan 1		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB1-220615-01	DRAWING NO.	04



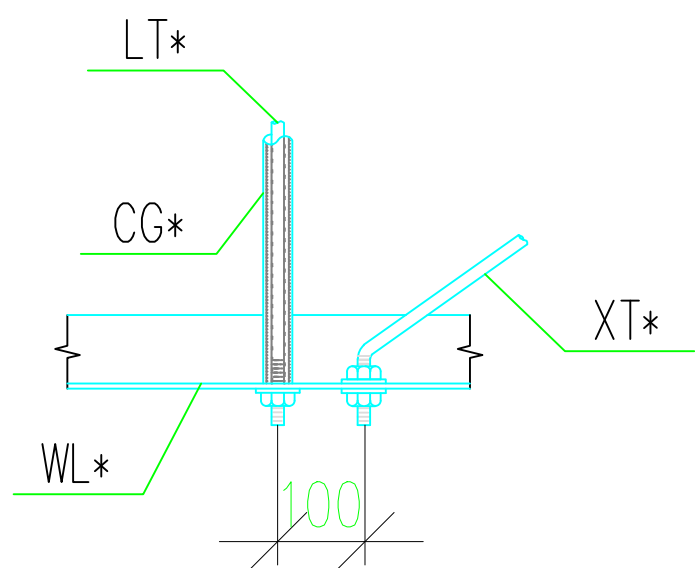
Structural Plan 2 1:100

Note:

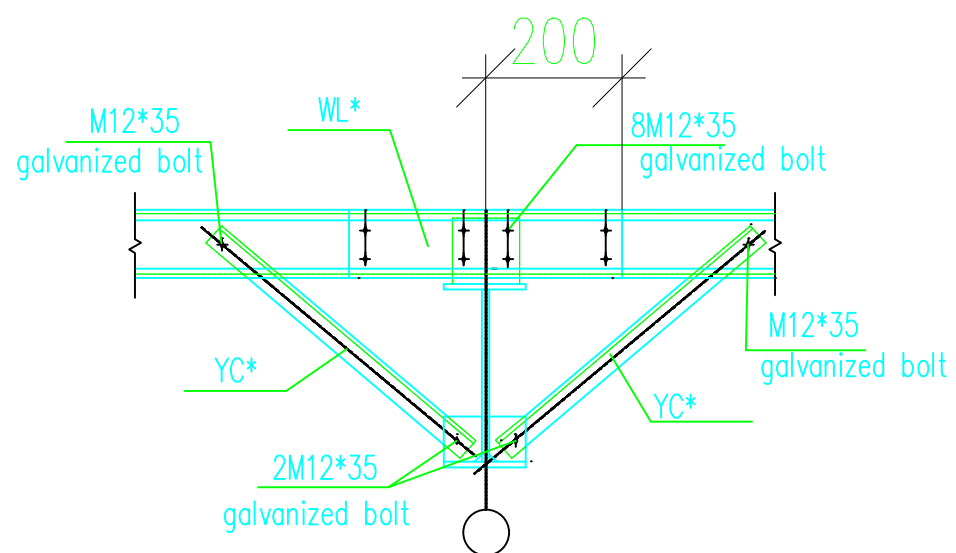
1. Material is Q235-B;
2. Roof purlin <WL*> uses C-type cold-formed steel purlin, the purlin specification is Z180*70*20*2.0.
3. batter brace (LT*), tilted batter brace (XT*) are $\phi 12$ round bar, case tube (CG*) is $\phi 32 \times 2.5$, they are galvanized.
4. $\triangleright$ Indicates that this purlin should equip a angle brace (YC*), angle brace (YC*) is L50x4 angle steel , painted.



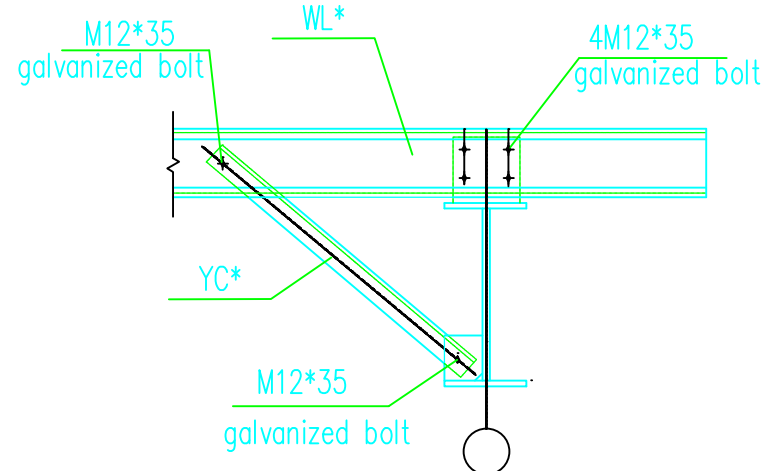
roof purlin(WL*) and batter brace (LT*)
connection node



batter brace (LT*) with casing
tube (CG*) node



Connection nod of middle span WL*,YC*



Connection nod of Side span WL*,YC1

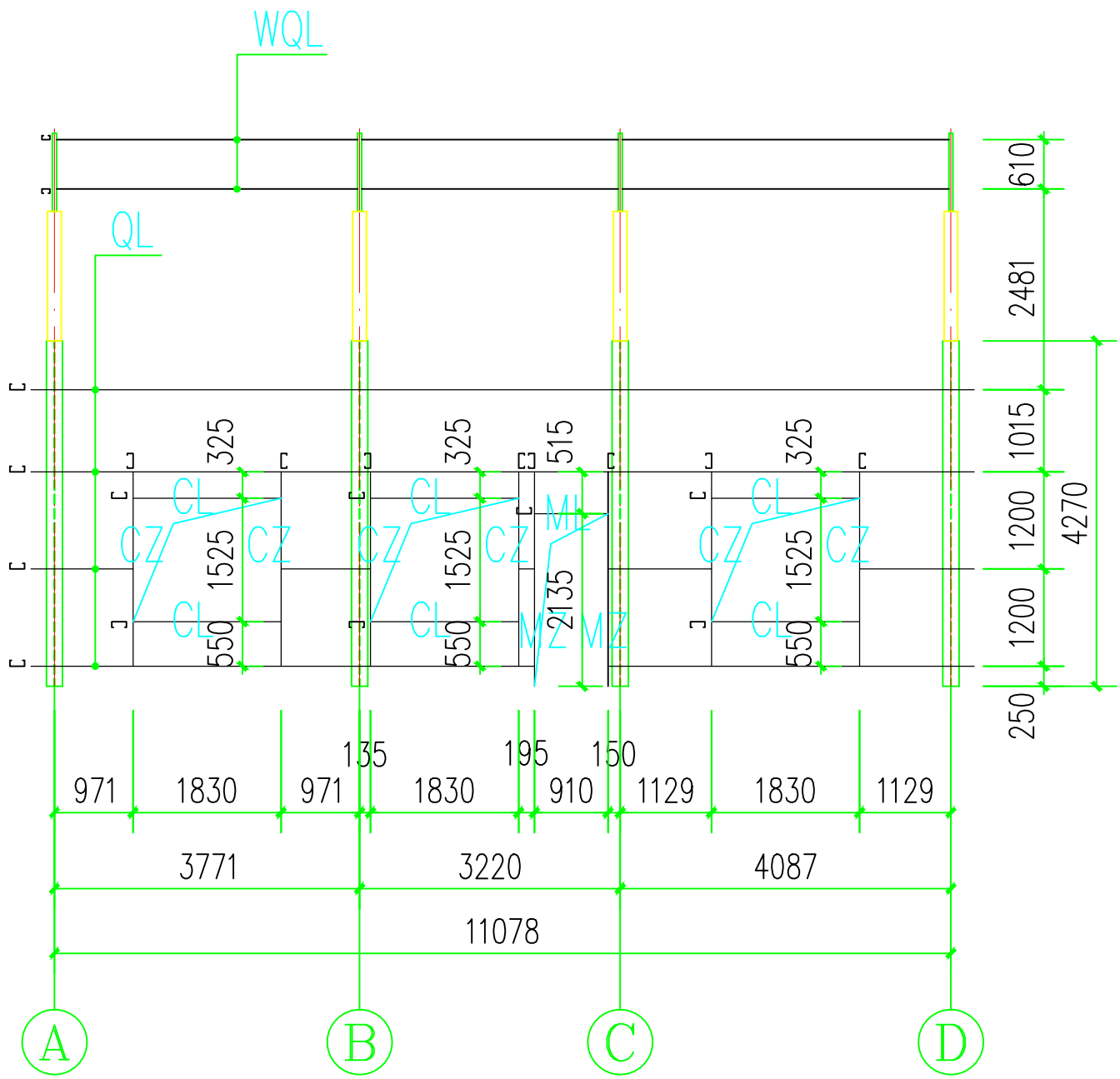
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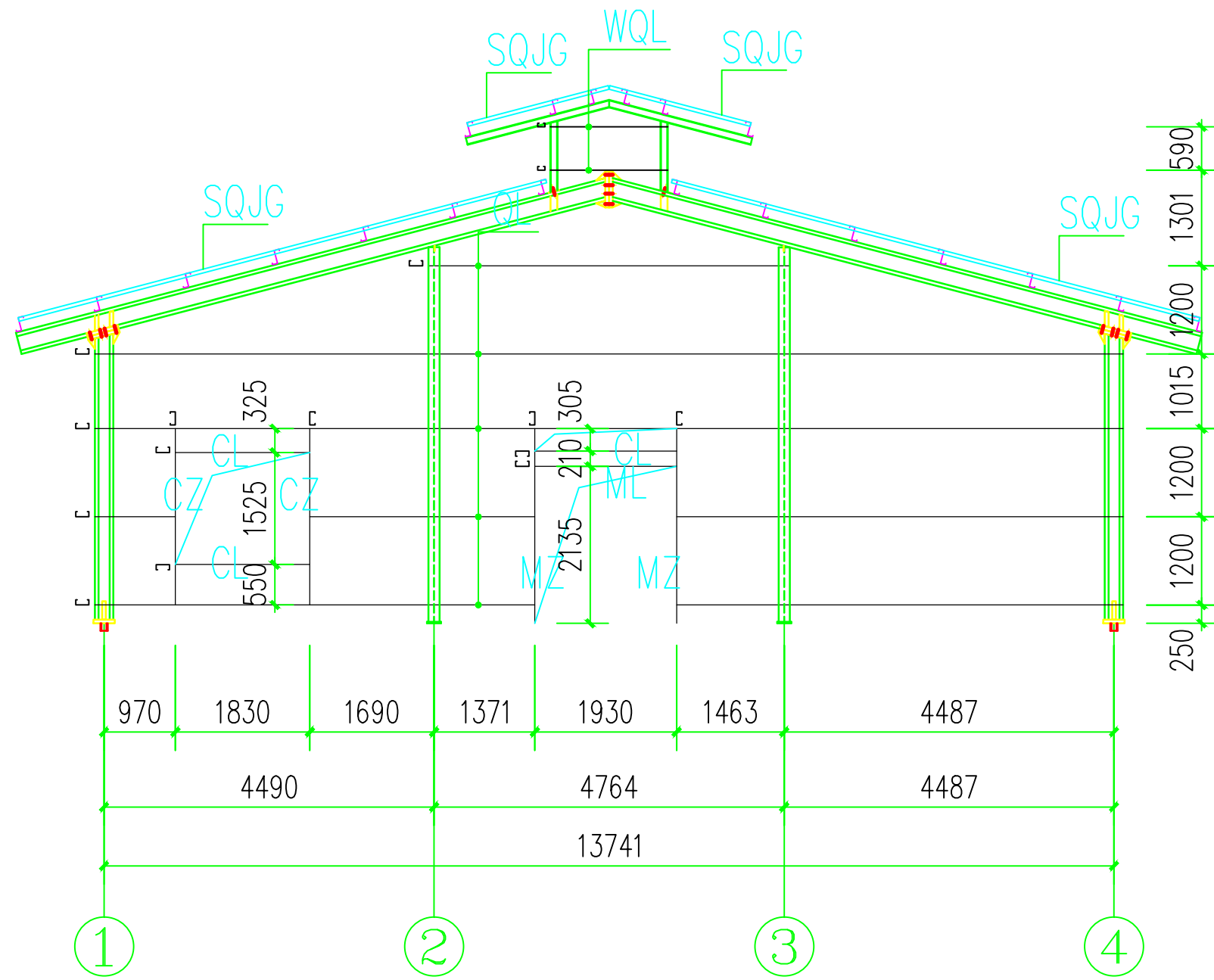
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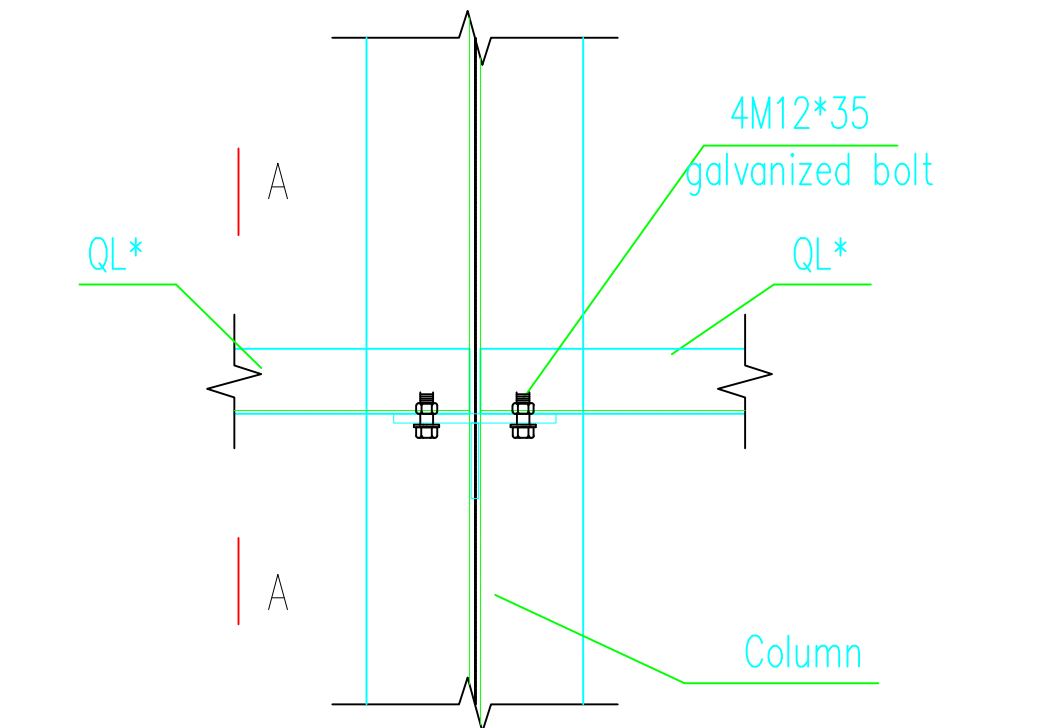
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PROJECT	Generator House		
DRAWING TITLE	Structural Plan 2		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB-220615-01	DRAWING NO.	05



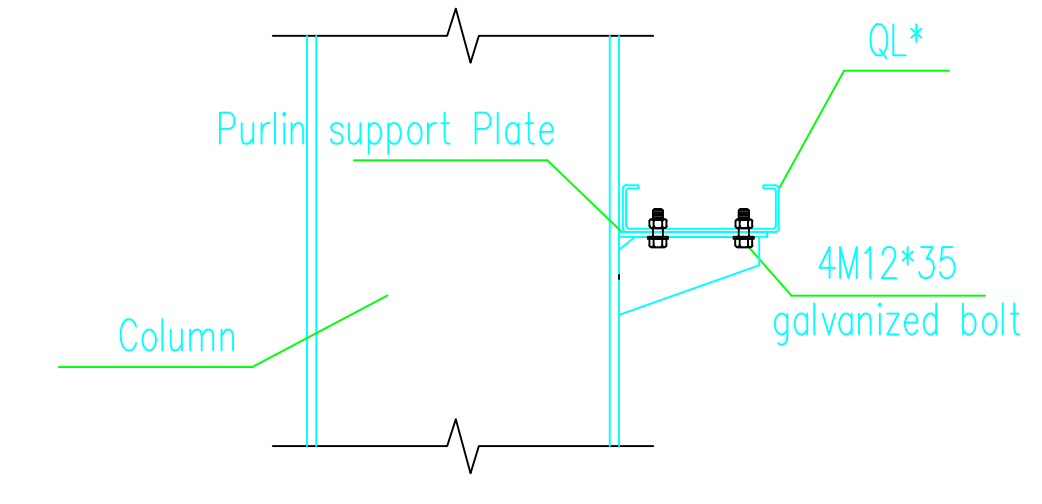
1 Wall purlin Plan 1:100



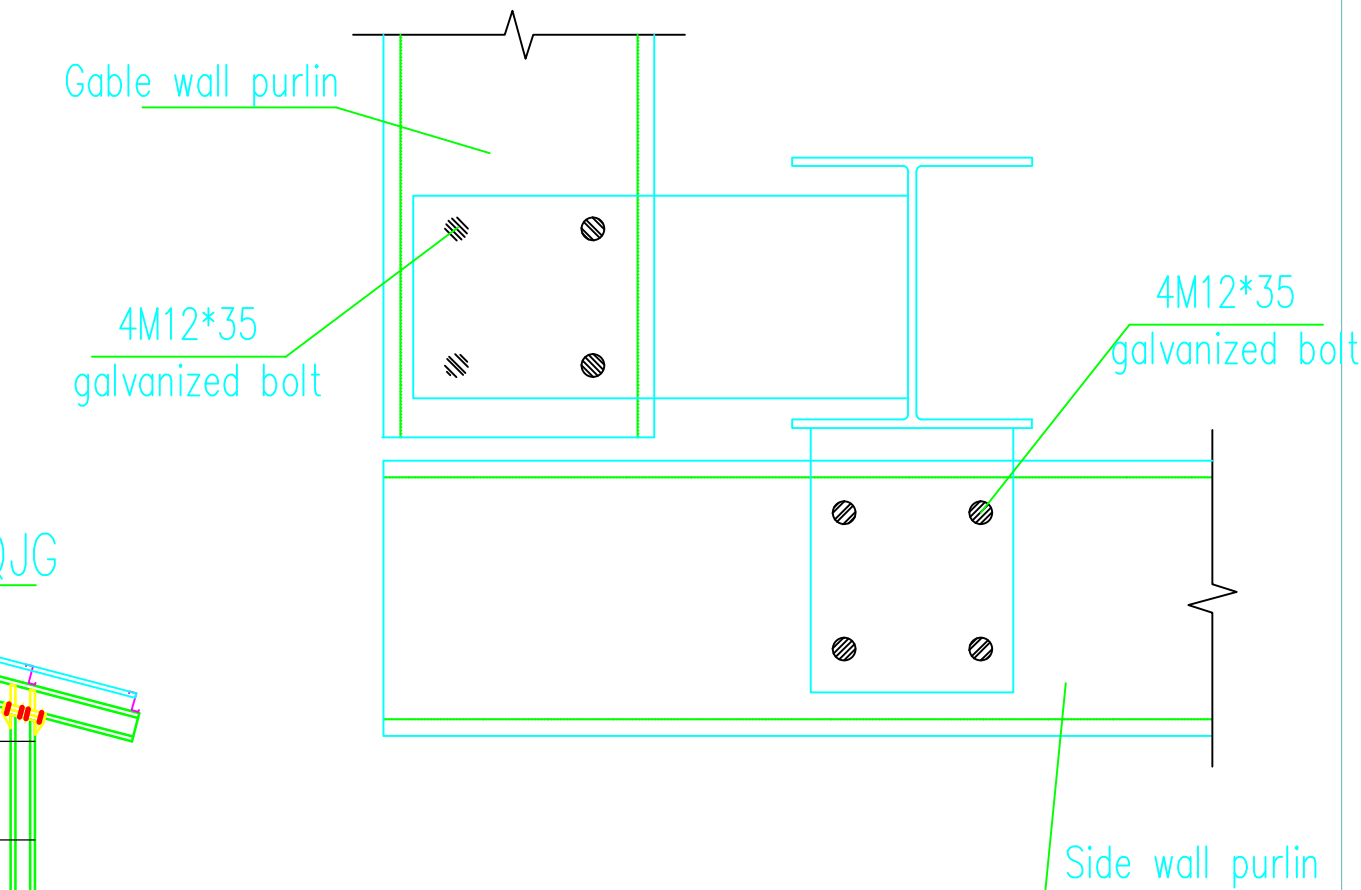
D Wall purlin Plan 1:100



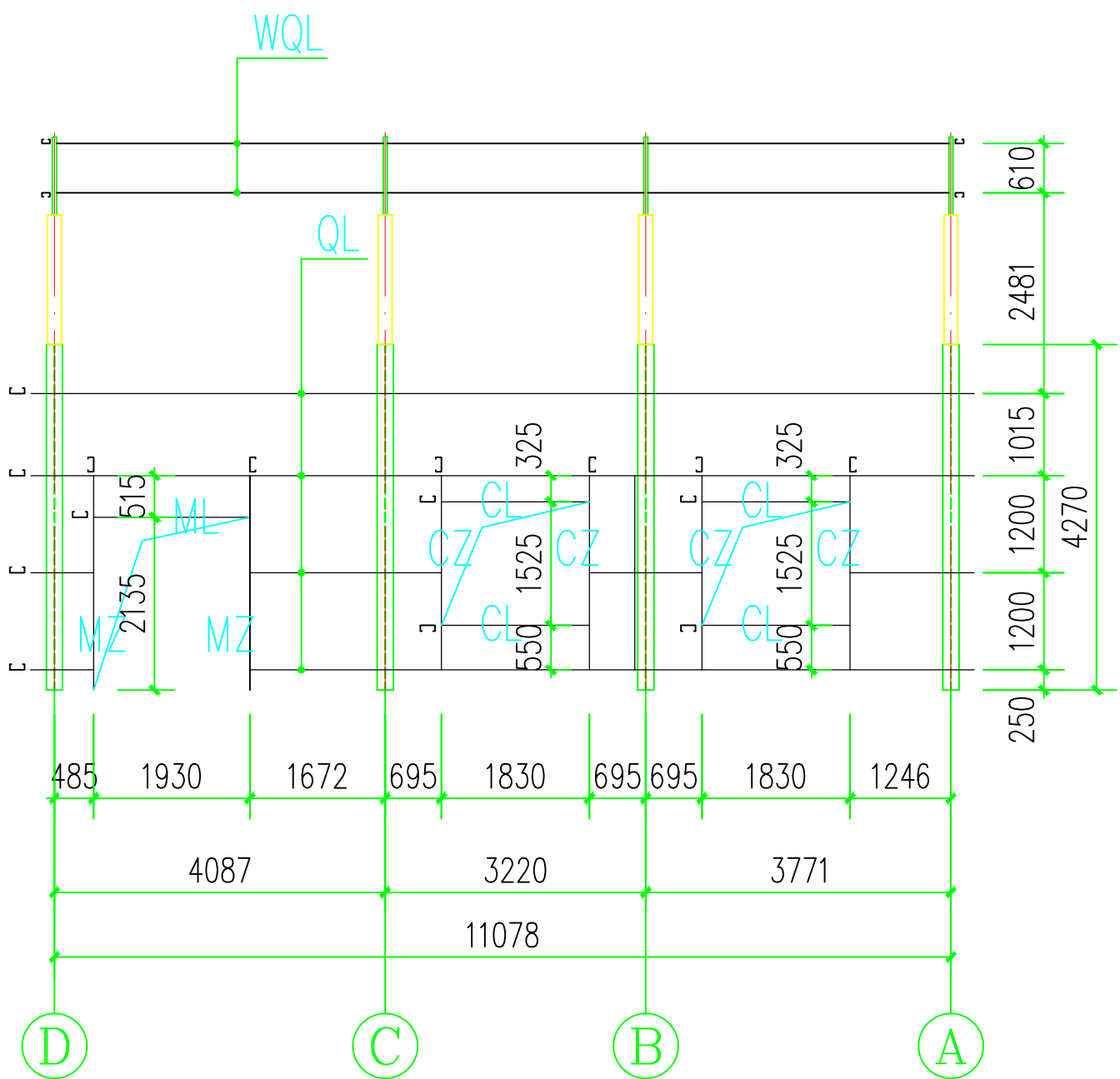
Connection nod of Wall purlin & Column



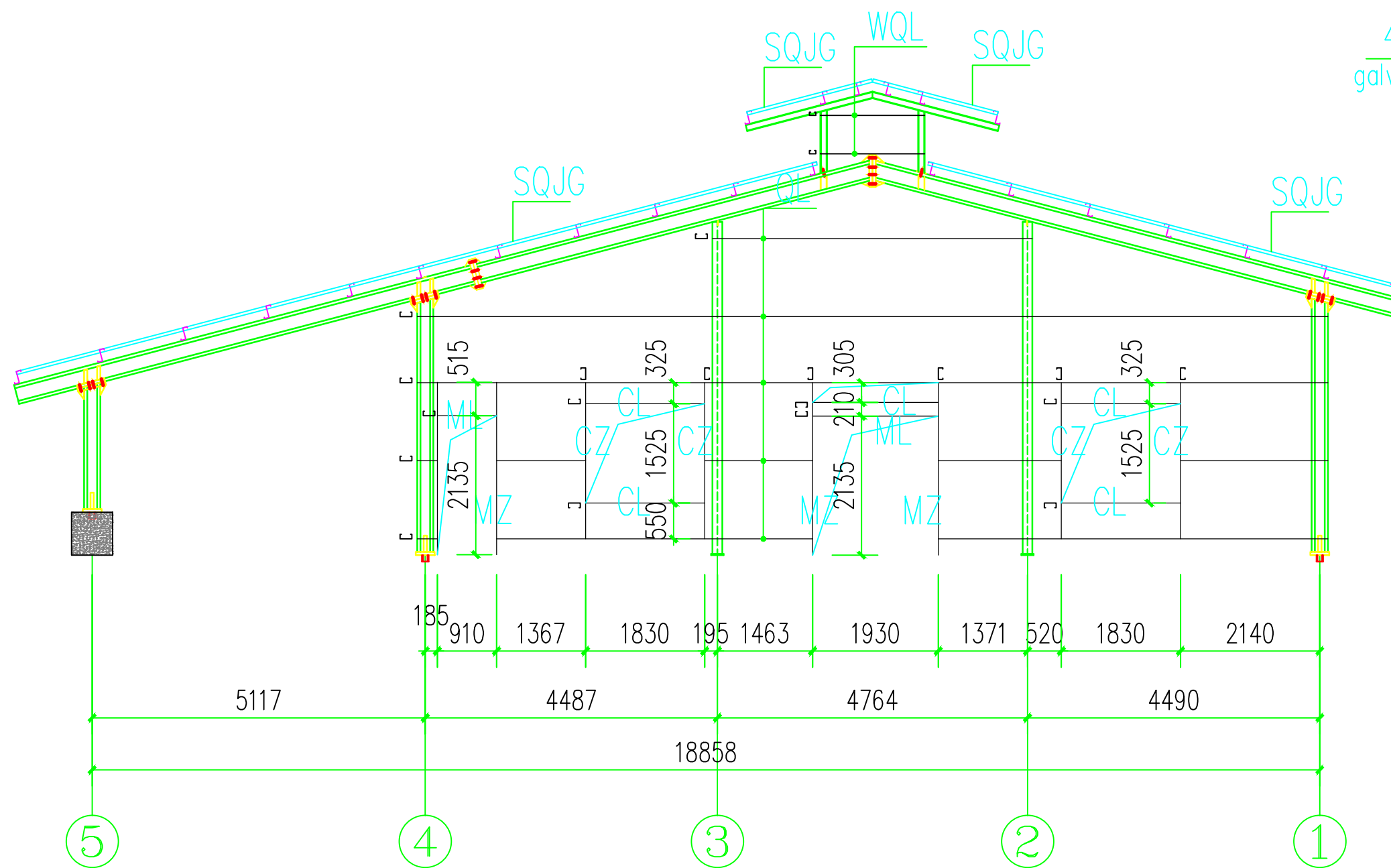
A-A



Connection nod of Corner purlin & Column



4 Wall purlin Plan 1:100



A Wall purlin Plan 1:100

- Note:
1. Material is Q235-B;
 2. wall purlin <QL> uses C-type cold-formed steel purlin, the purlin specification is C180X70X20X2.0, ML, MZ, CL, CZ are single C channel, size is same with QL.
wall purlin <WQL> uses C-type cold-formed steel purlin, the purlin specification is C100X50X20X2.0.
 3. Gable angle steel (SQJG) are L50X4 angle steel, the rust removal grade of the corner braces reaches Sa2.5 level, Two coats of red oxide primer and two coats of medium gray alkyl topcoat are used, and the total paint film thickness is not less than 125um.

LIDA GROUP
Weifang Henglida Steel Structure Co., Ltd.
Add: 5th Floor, Building A, Darron Center,
NO.180, Haier Road, Qingdao City, 266000, China.
TEL: 86-532-88969882 FAX: 86-532-88965571
WEB SITE: www.lidagroup.com

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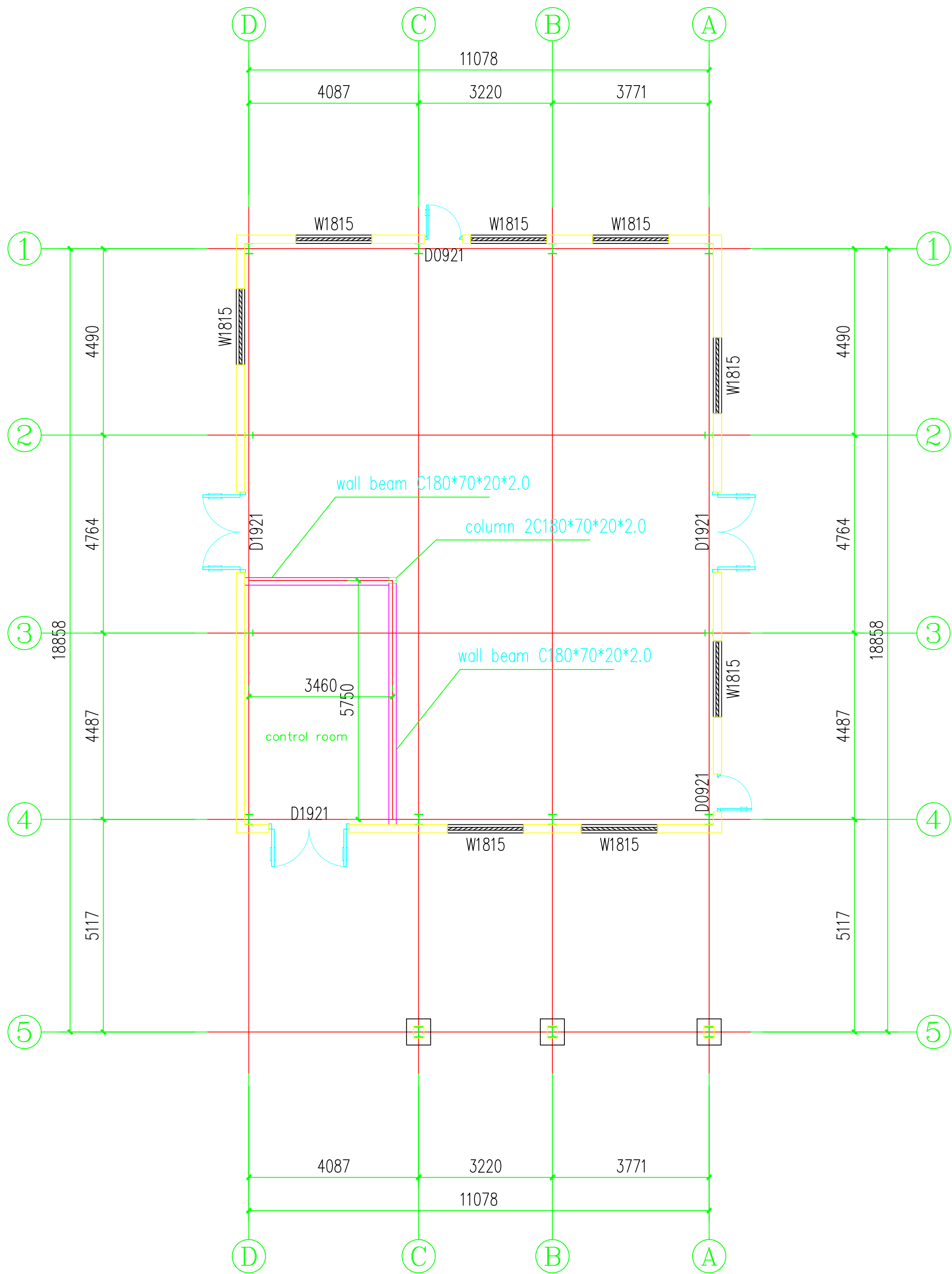
CLIENT			
PROJECT	Generator House		
DRAWING TITLE	Wall purlin Plan		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.1
DESIGN NO.	HWB-220615-01	DRAWING NO.	06

Remarks:

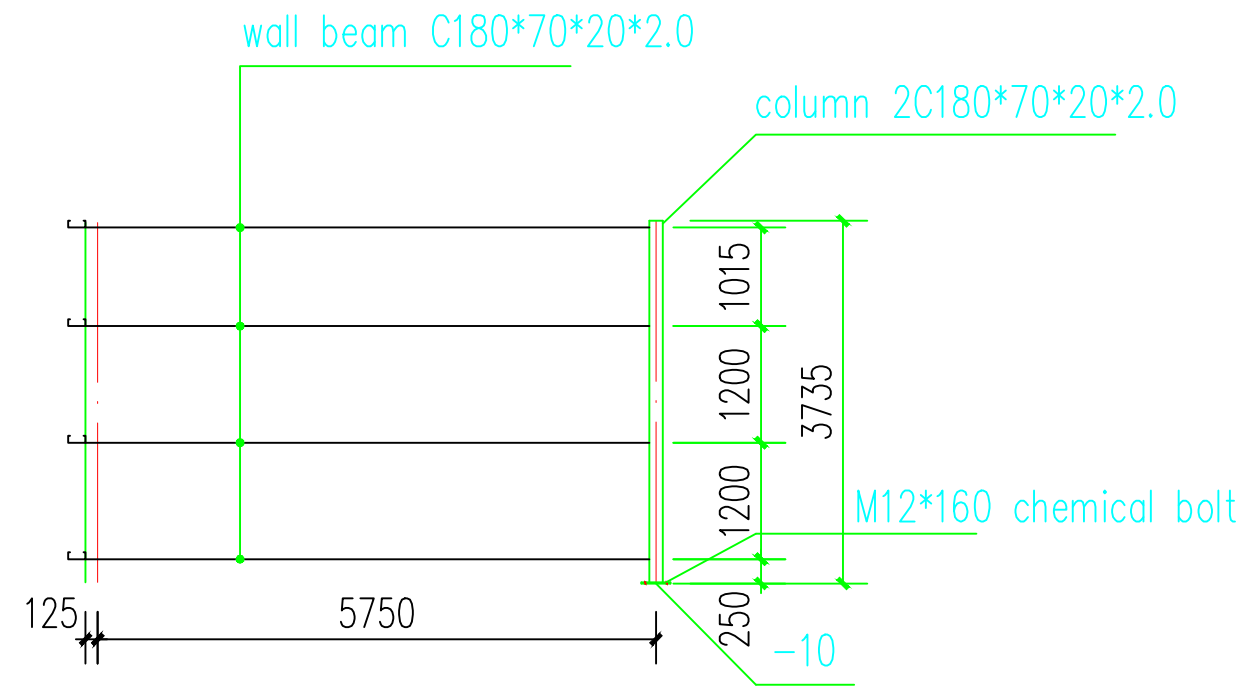
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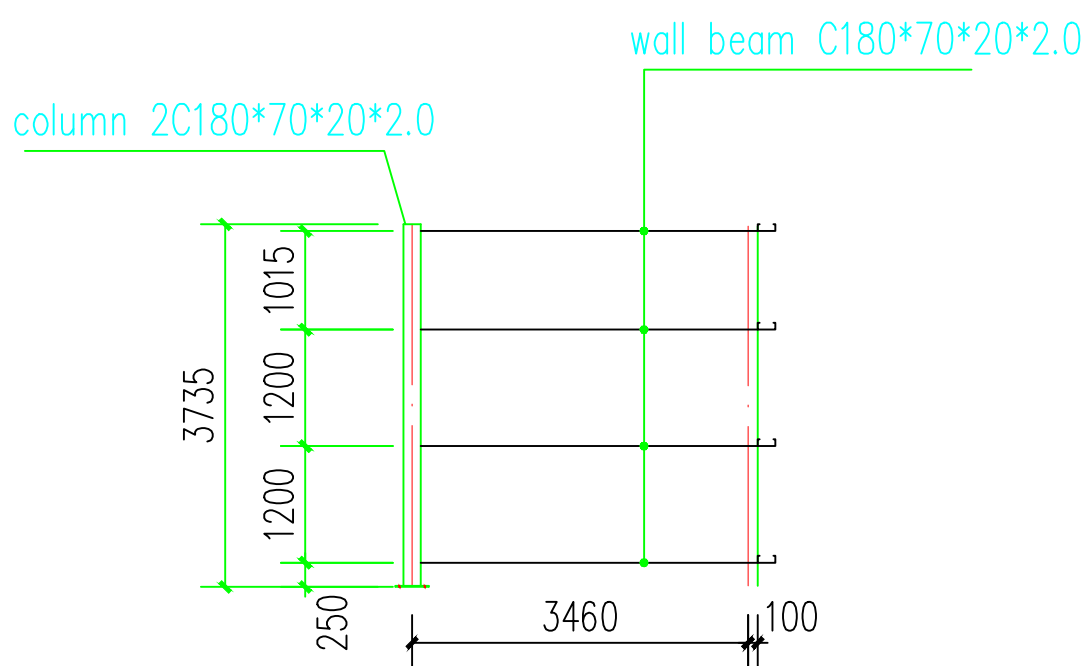
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control room structural plan
1:100



control room structural elevation 1
1:100

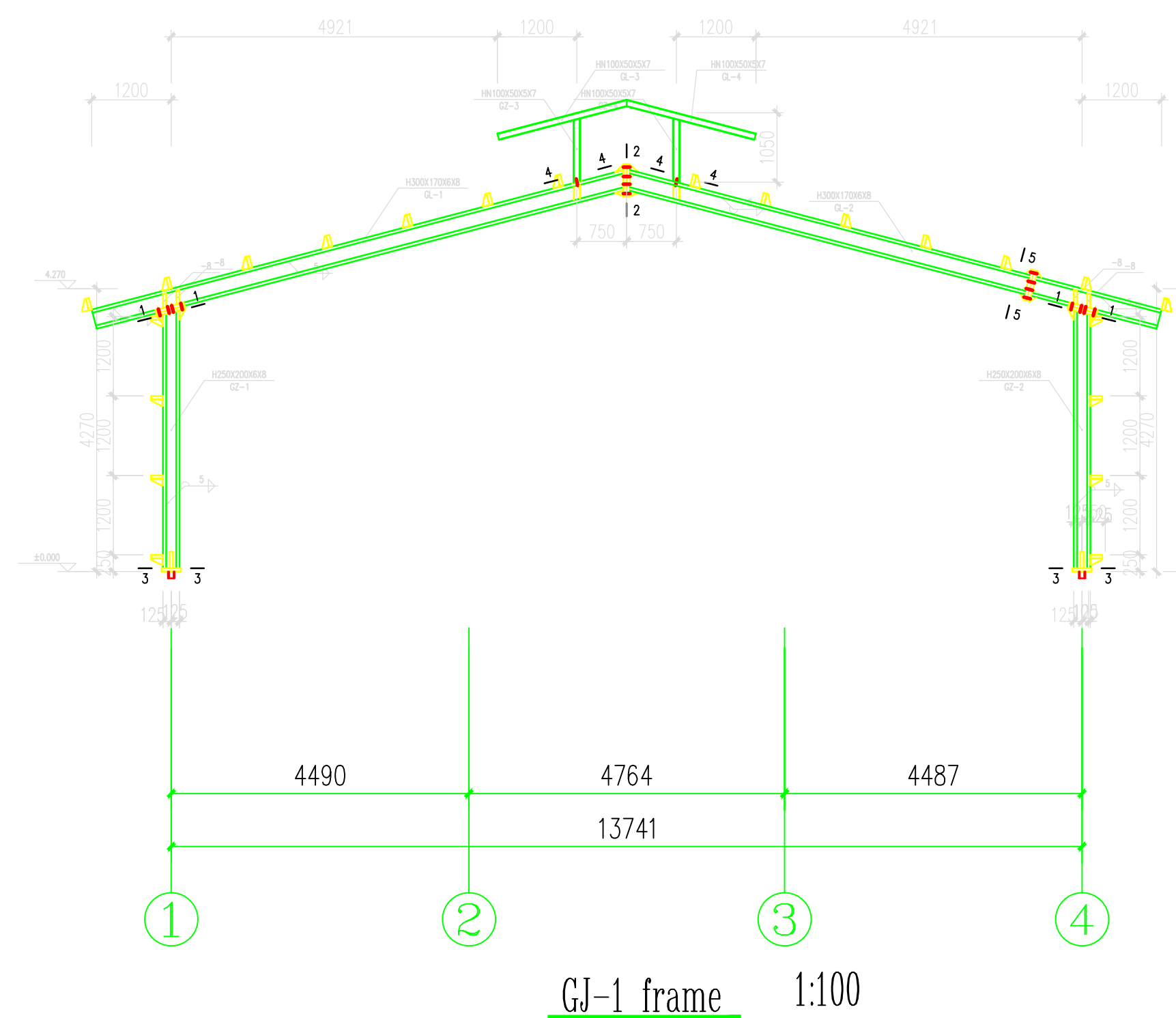


control room structural elevation 2
1:100

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CLIENT			
PROJECT	Generator House		
DRAWING TITLE	control room partition		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWBI-220615-01	DRAWING NO.	07



Legend

- ◆ High strength bolt
- ◆ erection bolt
- ◆ Permanent bolt
- bolt hole

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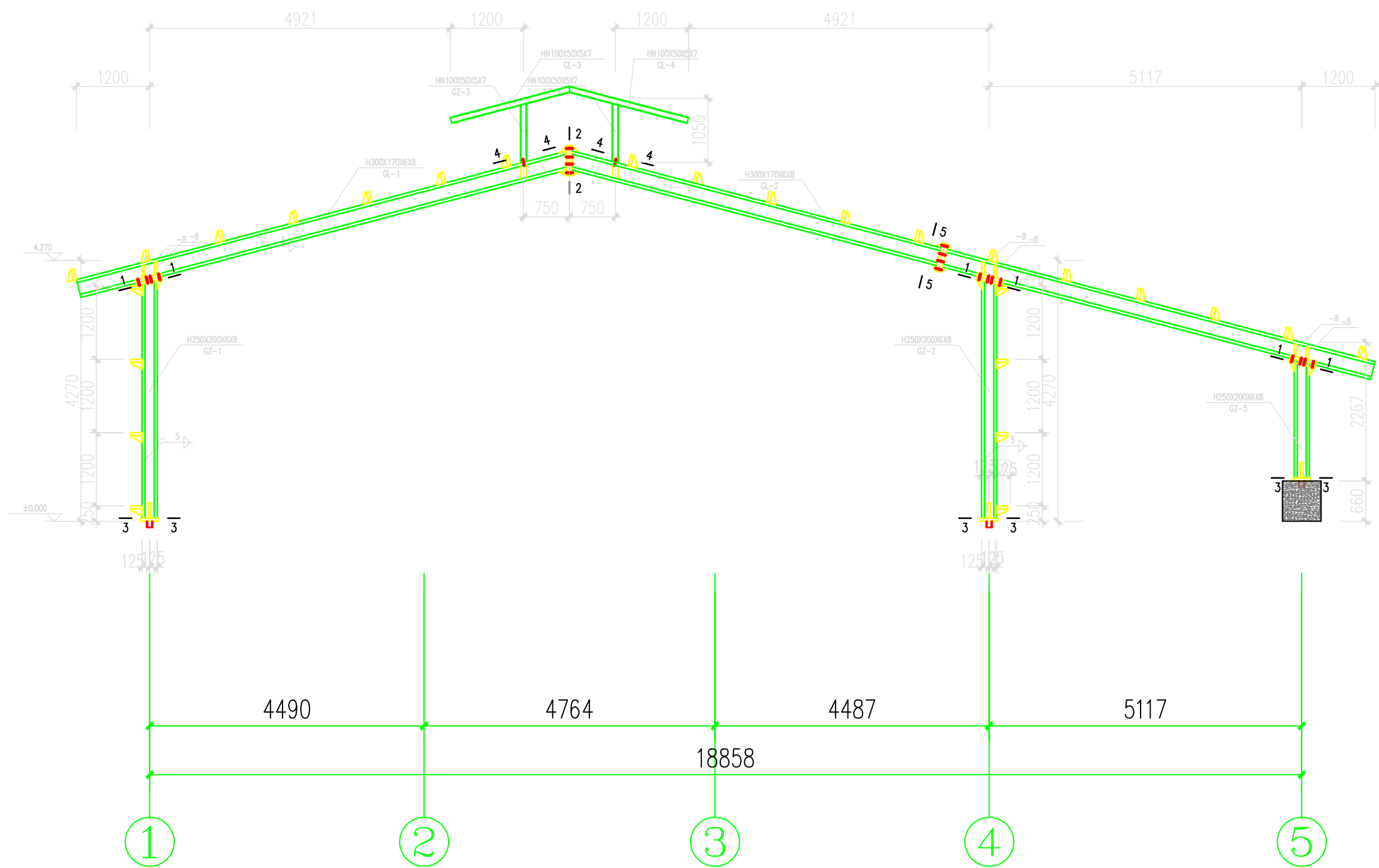
CLIENT			
PROJECT	Generator House		
DRAWING TITLE	GJ-1 frame		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB-220615-01	DRAWING NO.	08

Remarks:

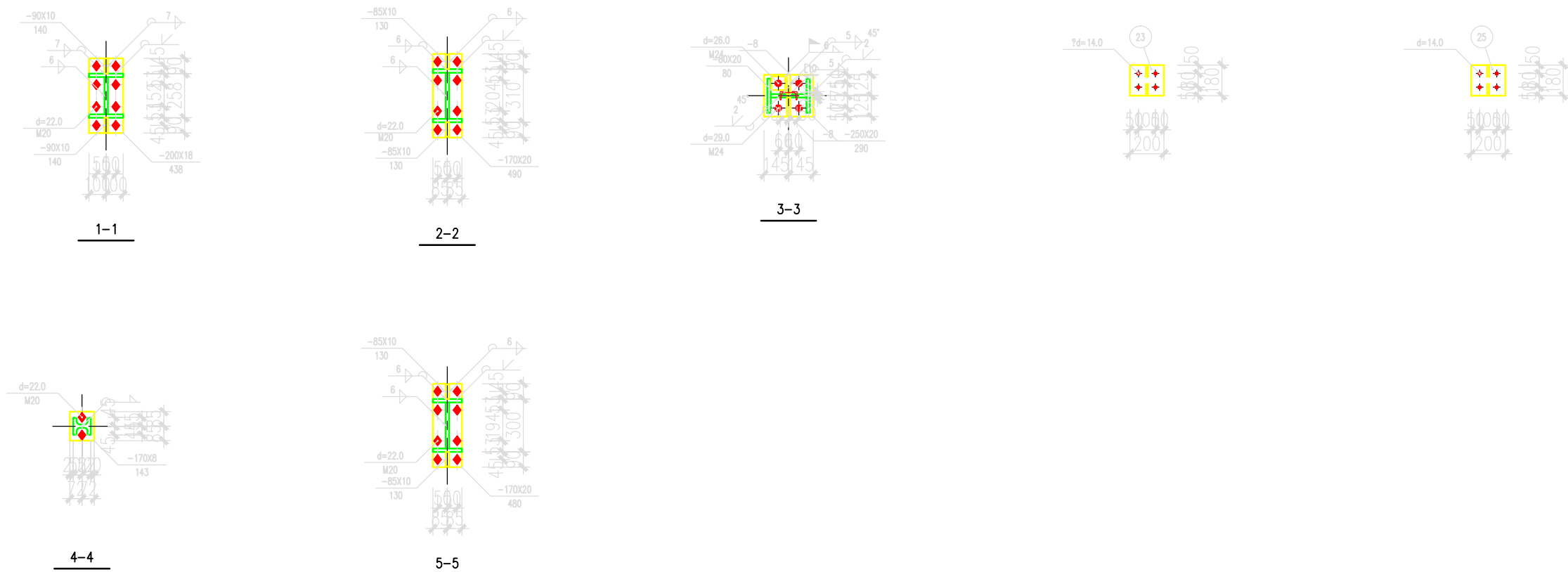
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GJ-2 frame 1:100



Component List						
no.	component no.	spec.	L (mm)	qty.	steel grade	
GJ-1	GJ-1	H250X250X8	4270	1	Q355B	
	GJ-2	H250X250X8	4270	1	Q355B	
	GJ-3	HV100X50X5	1000	1	Q355B	
	GJ-4	HV100X50X5	1000	1	Q355B	
	GJ-5	H250X250X8	2287	1	Q355B	
	GL-1	H300X170X8	8344	1	Q355B	
	GL-2	H300X170X8	13034	1	Q355B	
	GL-3	HV100X50X5	2015	1	Q355B	
	GL-4	HV100X50X5	2015	1	Q355B	

Legend

- ◆ High strength bolt
- ◆ erection bolt
- ◆ Permanent bolt
- bolt hole

COMPANY STAMP

LICENSE STAMP

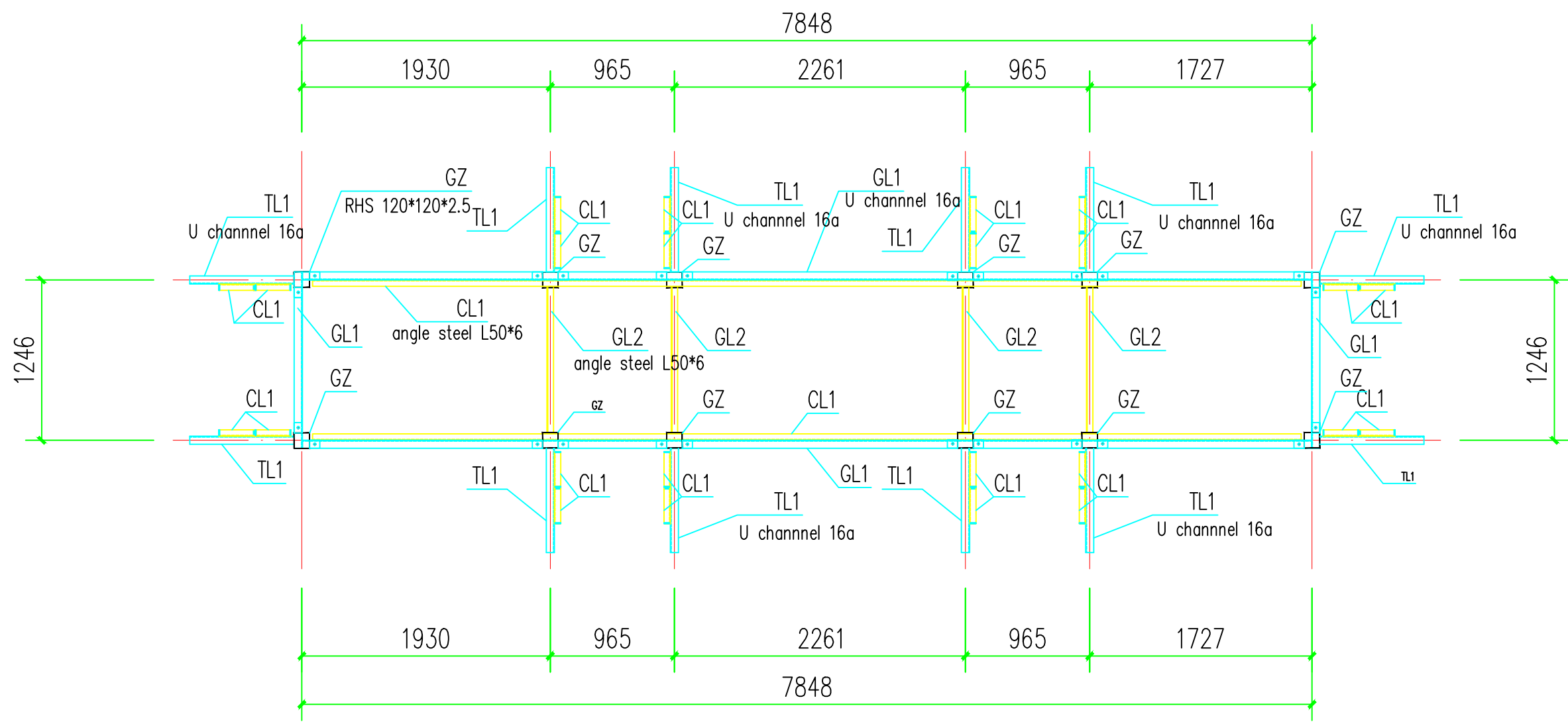
CLIENT			
PROJECT	Generator House		
DRAWING TITLE	GJ-2 frame		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWB1-220615-01	DRAWING NO.	09



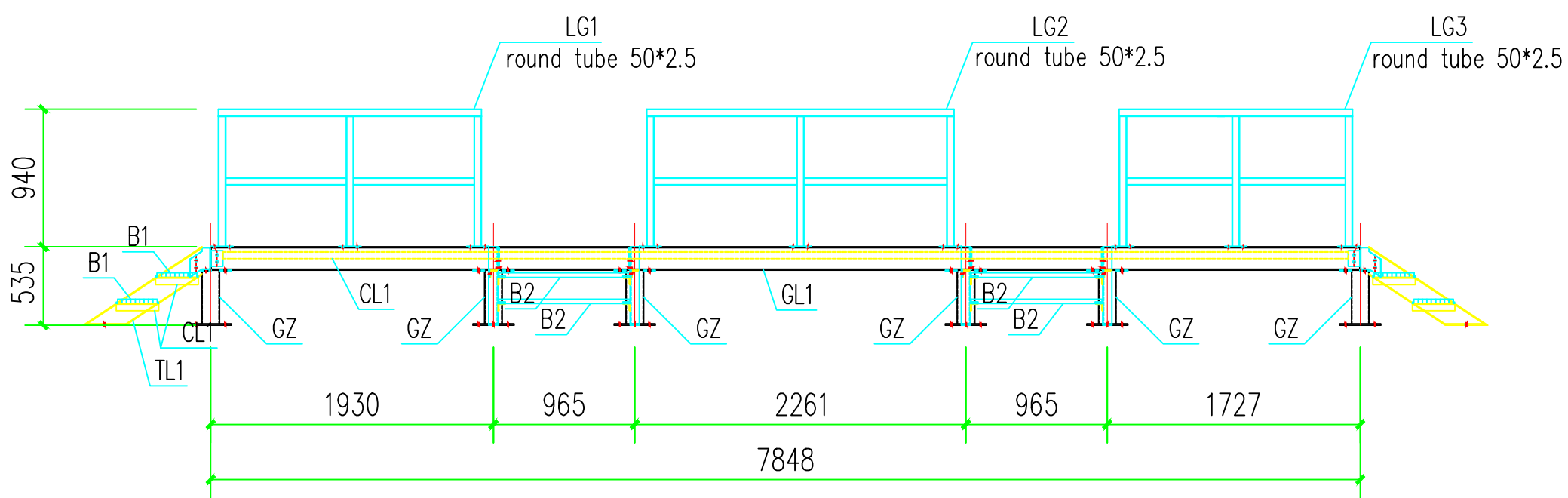
LICENSE STAMP

CLIENT			
PROJECT	Generator House		
DRAWING TITLE	KFZ-1		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWJ-220615-01	DRAWING NO.	10

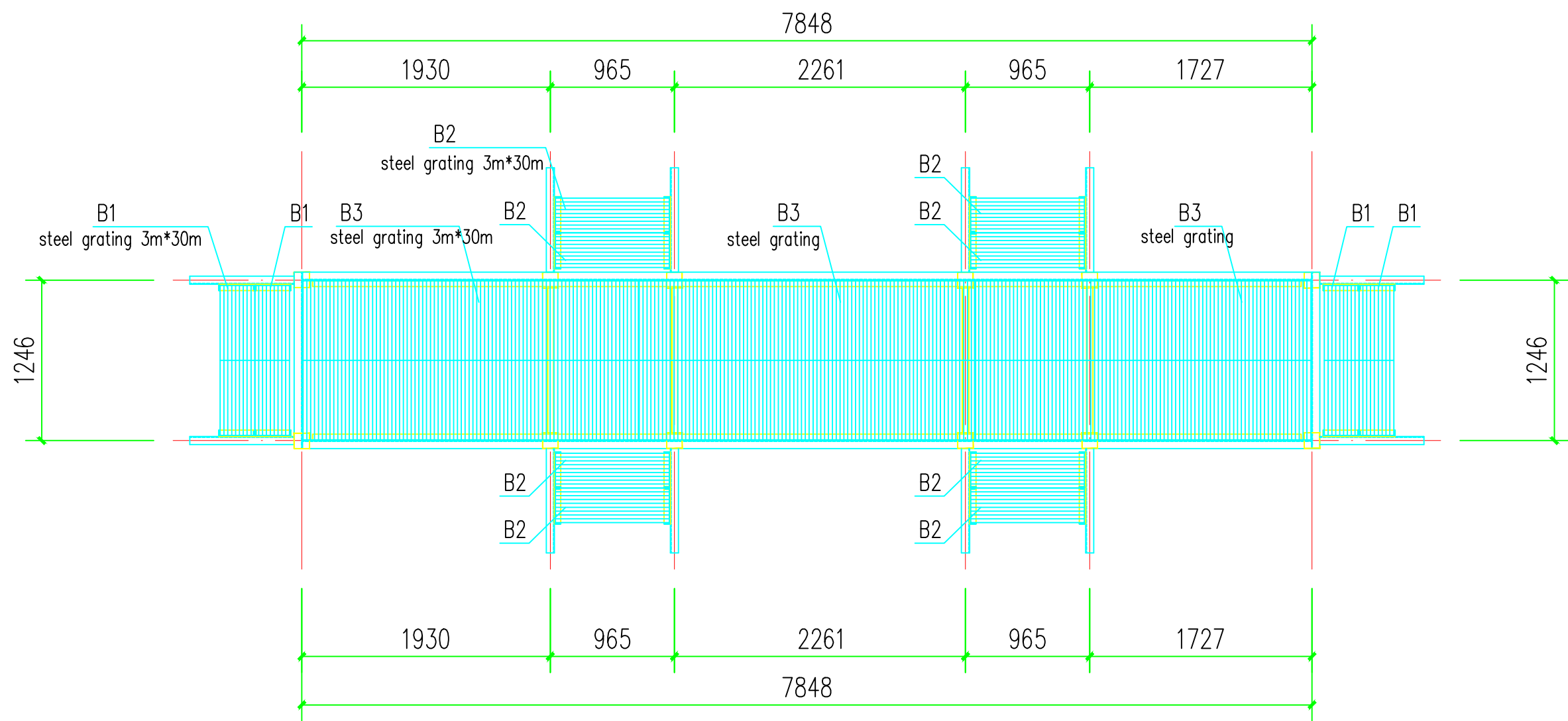
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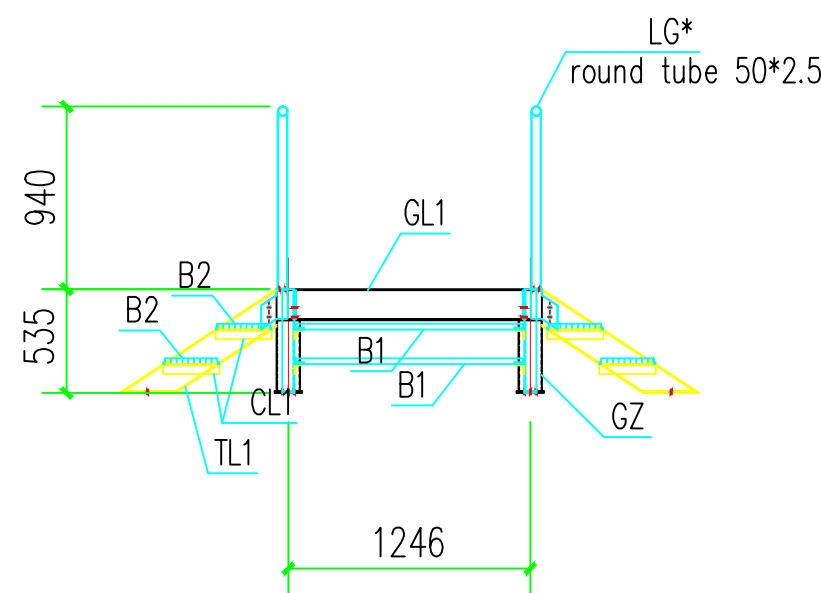
catwalk plan structural
1:50



catwalk elevation structural 1
1:50



steel grating plan
1:50



catwalk elevation structural 2
1:50

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CLIENT			
PROJECT	Generator House		
DRAWING TITLE	catwalk structural		
PROJECT MANAGER	Martin	DESIGN NO.	DESIGN
MANAGER	Joe	SPECIALTY	BUILDING
DESIGN	HYH	DATE	2022.06.15
DESIGN NO.	HWBI-220615-01	DRAWING NO.	11