

# **ORGANIZATION OF METHOD STATEMENT**

# CHAPTER I

# 2.1. BASIS FOR PREPARATION OF METHOD STATEMENT

- Pursuant to Construction Law No.50/2014/QH13 issued on 18th of June 2014;

- Pursuant to Decree No.46/2015/ND-CP issued by the Government on 12<sup>th</sup> of May 2015 on quality management and maintenance of construction works;

- TCVN 4055 2012: Organization of construction
- TCVN 5637 1991: Quality management of construction and installation works.
- TCVN 5308 1991: Technical regulations on safety in construction
- TCVN 5279 1990: Fire safety General requirements.
- TCVN 9383 2012: Fire resistance testing Main doors and fireproof doors
- TCVN 7452 2004: Windows and main doors Testing method

- TCVN 9366-2012: Main doors and windows - Based on the characteristics of the work and resources of the construction unit.

# CHAPTER II

# 2. ORGANIZATION OF THE MANAGEMENT AND WORKS CONSTRUCTION

a. Common goals

The management of works construction shall:

- Ensure quality of works.
- Ensure the progress of construction.
- Ensure occupational health and safety and environment sanitation.
- Ensure the effectiveness.
- b. System of the Management and Operation





# **ORGANIZATION CHART OF CONSTRUCTION PROJECT**



c. Functions and Responsibilities of the Officers of the Site Steering Committee

Full name	Title	Main duties	Content
Pham Tien Nghia	Genreral Director of the Company	<ul> <li>Overall responsibility</li> <li>Be responsible for all aspects of quality, progress, occupational safety and health of the project.</li> </ul>	<ul> <li>To manage construction activities according to plan.</li> <li>Manage all resources for construction works.</li> </ul>
	Site manager	- Be responsible for all construction activities at the site before the company	<ul> <li>To directly manage all construction activities at the site.</li> <li>To manage, coordinate human resources, equipment, materials in the field.</li> <li>To check the details of construction and safety methods of the staff who is responsible for the work.</li> </ul>





Occupational Safety Officer	- In charge of occupational safety and health and fire prevention and control related activities during the construction process.	<ul> <li>To train occupational safety and health and fire prevention for workers to work at the site.</li> <li>To check and supervise the implementation of occupational safety and health and fire prevention at the construction site.</li> </ul>
 Person in charge of Designing	- In charge of designing the construction drawings.	<ul> <li>To control the production process complied with the designed drawings</li> <li>To ensure quality for production process and construction techniques.</li> </ul>
 Person in charge of documents	- In charge of the work of advance payment, payment and settlement.	- To ensure for payment and settlement schedule.
 Leader of installation team	- In charge of the installation and completion	<ul> <li>To organize the construction and installation in accordance with the approved design drawings.</li> <li>To ensure the quality of the installed products on the site.</li> </ul>

#### 2.3. MODEL OF CONSTRUCTION ORGANIZATION

- To be organized according to the model of the Steering Committee. The general manager is the person in charge.

- At the site, the Site Manager and Technical staffs are the people in charge of the profession. The project management board is entitled to directly manage and arrange the workforce to carry out the tasks of the plan.

- The Site Manager shall be the person who directly manages and performs the function of authority within the scope of the assignment together with the coordination with the professional departments of the company to complete the common goals.





# 2.3.1. THE MANAGEMENT AT THE COMPANY HEAD OFFICE

- The company's General Director shall be in charge of directing, inspecting and controlling the execution of construction works and relevant economic contracts, and regulate construction among sections of the company if necessary.

- In order to ensure the good performance of production and business tasks, the company's directorate concentrates on the construction and improvement of equipment.

- The functional departments of the company are responsible for inspecting the entire construction process to assist the General Director in coordinating all production activities related to equipment, supplies, and capital sources.

- The information, reporting and coordination elements should be taken seriously.

## 2.3.2 . THE MANAGEMENT AT THE SITE

## \* THE RESPONSIBILITIES OF SITE MANAGER

- To ensure the progress, quality of construction, labor safety and environmental sanitation.

- To solve the request by the investor during construction.

- In order to utilize the staff to maximize the professional ability and enthusiasm of the staff in their assigned work.

- To organize the site in a scientific way from the entrance, clothes and site sanitation.

- To work directly with the project management board to solve all pre-construction procedures such as economic contracts, electricity and water supply, communication, security and order in the field not to loss of equipment, materials and other hindrances such as hoist, electricity, etc.

- To decide all the solutions due to actual construction in the organization.

- To adjust the work contents in the work items and the time of commencement of construction items to suit the reality, still ensuring the overall construction tempo.

- To coordinate the construction team to work well to avoid duplication of work.

- Finally, to ensure safety during construction.

# 2.3.3 QUALITY MANAGEMENT DEPARTMENT

This department conducts quality control and inspection of input materials according to the construction phase of the items in accordance with the technical requirements. In case of any breach of quality in the field, the department has the right to petition to the commander to take measures to deal with and adjust in a timely manner.

# 2.3.4. THE MANAGEMENT OF CONSTRUCTION TEACHNIQUES AND WORKS LABOR SAFETY

- The Site Manager and technical staffs are in charge of studying the design drawings and preparing the detailed method statement and the measures on occupational safety and health.





- Based on the overall progress, the detailed construction progress will be made monthly, weekly and daily, which includes the preparation of materials, manpower, machinery and equipment, manufactured products and requirements on workman's level, hand tools, test equipment, especially materials must meet the quality requirements in accordance with design standards and quality assurance and the progress of the works.

- This department is responsible for regularly inspecting the construction process in the field. Check the connection between the door and the wall, etc.

- To manage construction records and take over the works. Each stage according to the progress must be tested for quality to pass the construction step.

- Inspection and supervision to ensure labor safety in all construction process on a regular basis.

# **2.3.5. DIRECT CONSTRUCTION TEAMS**

\* Installation team:

This team consists of 8 people who install the product in accordance with the process, quality assurance and labor safety.

\* Completion team:

This team consists of 8 people who are responsible for construction work such as wall sticking, glass cleaning, stamp removal, marking on products, garbage collection, waste materials in the construction area to ensure products cleaned before handover and labor safety.

# 2.4. PREPARATION OF CONDITIONS AND PLAN FOR CONSTRUCTION:

# 2.4.1. GENRAL REQUIREMENTS

- It is required the construction unit must have the main measures to enhance the quality management of construction and labor safety in construction and environmental sanitation:

- Gradually implement and deploy to each technical department and teams to install and finalize contents of the documents issued by the Government, the Ministry of Construction and the company concerned on the work quality management construction, safety in construction, fire and explosion prevention and environmental sanitation.

- In addition to construction methods, measures to ensure safety in construction and environmental sanitation as well as progress of construction works, construction units must closely coordinate with the PMU on the implementation of measures work time, work schedule.

- The construction unit shall disseminate the quality of construction works (depending on the construction work) to technical staff and laborers before commencing the construction work.

- The construction unit is responsible for the quality management, preparation of the acceptance document and the place of certification in the construction completion dossier according to Decree No.46/2015/ND-CP dated May 12th, 2015 on quality management and maintenance of construction works.





## **2.4.2. COMMON PREPARATION**

- Before the commencement of construction, the preparatory works should be well prepared, including measures on organization, coordination of construction, preparation work inside and outside the site, including:

- Studing the design documents, construction site.

- Using the machine to locate and locate the perpendicular installation and accurately determine the position of the installation of the door in accordance with the position specified on the construction drawing.

# 2.4.3. PREPARATION OF THE PLAN

- The plan of the construction shall be arranged on the basis of the plan of the works according to the actual survey and requirements of the construction chains and the requirements on labor safety and environmental sanitation.

# 2.4.4. MATERIALS USED FOR WORKS

- All materials used for the works will be certified by Galaxy Contractor to comply with the technical regulations in the technical design documents.

# CHAPTER III

# THE DETAILED METHOD STATEMENT

# **3.1. PRODUCTION PROCESS**

 $\succ$  As Galaxy doors have been completely manufactured at the factory at the size approved by the Investor, all the products are transported to the site have been completed and when brought to work, they require only the erection and completion.

➤ Number of factory workers: 40 workers

▶ Number of technicians and QC staff: 03 persons

 $\succ$  To ensure technical requirements to avoid major defects in the production process there is always a staff to check the stages. If the there is any product or the finished product does not meet the technical standards of the Company, it will be eliminated.





# **3.1.1. PROCESS OF PRODUCTION**



















# **3.1.2. EQUIPMENT FOR PRODUCTION**

No.	Machinery	Quantity	Capacity	Functions	Manufaturing country
1	KANSAI SUS22X4100 Shearing Machines	1	CS: 90KW. 20rpm/min	Cut steel, Inox	Japan
2	CNC Blanking Machine, AMADA PEGA- 357	2	Blanking force: 30T, Blanking frequency: 350 S.P.M	Programming irregular holes, deformed door	Japan
3	CNC press brake machine, AMADA FBD3006	2	Capacity 22KW, Pressing force: 300T	Program shaping the details	Japan
4	MÍG Welding machine, 500TC	10	Capacity 32KVA	Welding the details	Korea
5	TÍG Welding machine, TIG- 315P	5	Capacity 9KVA	Welding the details	China
6	Transporting vehicle	03	3.681 kg and 15.100kg	Transporting goods	

## **3.1.3. APPLIED STANDARD**

- According to the drawing design approved by the investor.
- Accessories: According to the manufacturer's standard.
- TCVN 5279 1990: Fire safety General requirements.
- TCVN 9383 2012: Fire resistance testing Main doors and fireproof doors
  - TCVN 7452 2004: Windows and main doors Testing method
- TCVN 9366-2012: Main doors and windows





# **3.2. INSTALLATION PROCESS**

#### **3.2.1. Diagram of installation process**



## **3.2.2. EQUIPMENT FOR CONSTRUCTION**

NO.	MACHINE NAME	QUANTITY	NOTE
1	Welding machine	04 piece	





NO.	MACHINE NAME	QUANTITY	NOTE
2	Drilling machine	04 piece	
3	Screw-wrench Drilling machine	04 piece	
4	Grinder	04 piece	
5	Metric meters	08 piece	
6	Glue Gun	05 piece	
7	Pincer	08 piece	

# **3.3. INSTALLATION PROCESS**

# 3.3.1. INSTALLATION PROCESS OF STEEL DOORS

1. Locate the door, transport the door to the erection site



2. Remove the nylon and set the door to the erection site







3. Check the plan and the size and confirm the completion of the installation





- If the wall size is smaller than the door size or larger than the door size of more than 15 mm, it is necessary to notify the processing company

- If the waiting wall size from 5-15mm, move the installation step.
- 1. Use a drilling machine to drill holes Ø12 on the wall corresponding to the holes on the door







1. Pairing the door to the wall, aligned to cos, wall surface and then, open and closing M10x80



2. Checking door by opening and closing and checking hinged slot



Check the number and type of accessories according to the design
 Fitting accessories



- 5. Check and complete all doors and accessories
- 6. Hand over the door to the customer





# **3.4. CONSTRUCTION PROGRESS**

We schedule progress based on the following:

- Average productivity of the Unit.
- The actual construction site
- Capability of supplying materials and equipment for construction by the Unit

# **3.5. COMPLETION**

**3.5.1. External glue pouring works**: The outer pouring of silicone plays an important role in the waterproofing of the outside, the connection between the wall and the aluminum door frame and improve the quality as well as appearance. for doorway.

- When glueing out, the finishing worker standing on the door using a glue pump guns 4 around the adjacent sections between the wall and the door frame.

## **3.5.2. Inner glue pouring works:**

Silicone sealant is a waterproofing agent that helps to bond walls with door frames and improves the appearance and quality of exterior doors.

# 3.6. ACCEPTANCE TEST OF INPUT MATERIALS AND INSTALLATION

3.6.1. Acceptance test of materials and equipment before putting into use

Investors and purchasers of products shall have to organize the inspection and approval of sources of products before they are used or installed in construction works.

## a. Process of Acceptance

- Step 1:

- The contractor performs the internal check-in, with verification of the contractor's QC

- Step 2:

- The contractor sends the request for acceptance to Supervising Consultant for confirmation of the PMU

- Step 3:
- Inspection of materials, equipment and manufactured products at the site.
- Check the files, documents.

- Assess the suitability of materials, equipment and manufactured products with the requirements of the design.

- Step 4:
- If satisfactory, finish the acceptance process

- If failing to meet the requirements, the contractor shall have to revise and re-apply from step 1.

- The parties mutually sign the minutes





#### b. Participants shall take part in the take-over test

Project management, supervision consultants, main contractors and subcontractors

#### c. Conditions are required for acceptance

- Have a certificate of inspection of the general fire protection equipment for the door of the building;

- Having a standard conformity certificate;

- Having ex-factory certificates, ex-warehousing bills and delivery of goods, CO and CQ of supplies and accessories

#### d. Contents and order of acceptance

- On-site inspection of objects subject to take-over test;

- Check the attached documents;

- To compare the inspection results (if any) with the approved design documents and the requirements of other relevant technical standards and norms.

- On the basis of assessing the quality of the acceptance test, it concludes:

+ In the first case: acceptance of pre-acceptance test of materials, equipment and pre-fabricated products for use in works;

Specify name and number of objects not accepted acceptance;

+ The second case: Not accepting acceptance of materials, equipment, manufactured products available for use in the works. The acceptance council shall make the minutes (in the construction diary) on the following contents:

Specify name and number of objects not accepted acceptance;

The time the contractor must take the objects not accepting the acceptance of the site.

#### e. Acceptance time:

At least 12 hours after receiving the request form of the contractor;

#### 3.6.2. Process of acceptance of construction work

#### a. Acceptance procedure

#### Step 1:

The contractor performs the internal check-in, with verification of the contractor's QC

#### Step 2:

The contractor sends the request for acceptance to TVGS for confirmation of the PMU

#### Step 3:

- Check the construction work done at the site.
- Check the files, documents.
- Assess the suitability of the construction work with the requirements of the design.





# Step 4:

- If satisfactory, finish the acceptance process
- If failing to meet the requirements, the contractor shall have to revise and re-apply from step 1.
- The parties sign the minutes.

# **b.** Participants shall take part in the take-over test

Project management, supervision consultants, main contractors and subcontractors

# c. Conditions are required for acceptance

a / Objects of the pre-acceptance test already completed;

b / Having all the dossiers and documents:

- Minutes of acceptance of materials, equipment and pre-made products before use;

- Construction logs and other written documents established during the construction process are related to the acceptance objects.

Note: The geometric dimensions of the TVGS must be directly measured, checked against the approved design documents.

c / Having an internal acceptance record and a written request of the construction contractor.

# e. Contents and order of acceptance

- On-site inspection of tested objects: Construction work in the field;

- During the pre-acceptance test, additional inspection work may be required in the following cases:

- Checking the compatibility between volumes and quality of completed jobs with the data inscribed in the minutes and documents submitted for takeover test.

- Checking the correctness of the conclusions written in the minutes on acceptance of materials, equipment and pre-made products before use, and the results of tests related to the quality of tested objects due to Construction contractors provide and supply.

- On the basis of the quality assessment, the acceptance test concludes:

+ The first case: Accepting acceptance of objects already examined and making records

+ The second case: Not accepting the acceptance when the construction subjects have not completed, the construction is wrong or there are many places wrong with the design has been approved, or can not meet the requirements of quality assessment criteria public Process and requirements of other relevant technical standards. The acceptance council shall make the minutes (in the construction diary) on the following contents:

\* Things to do;

\* Errors or damage need to be corrected;

\* Time to revise, revise: The contractor has a clear commitment on the redo time.

\* After the object has been accepted acceptance must immediately carry out the construction work next. If stopped, depending on the nature of the work and the time of stopping, the investor





or the construction supervision unit of the investor may consider and decide on the acceptance of the object.

#### f. Time to take over

Immediately after the bidder submits the request, the parties should immediately take the test, at least 12 hours after receiving the request.

# **3.7. CRITERIA USED IN COMPLETION**

- TCVN 5674: 1992 Finishing work in construction. Construction and acceptance.

#### **3.7.1.** Completed, handed over:

Finishing each item, each part and the whole of the work, the Contractor shall proceed to compile the dossier for completion of works as a basis for the technical testing work in each stage of construction. Construction completion dossiers shall reflect the actual construction status and be kept in the dossiers on the project handover.

The contractor shall clear up all equipment used for the construction of the works, the total cleaning of the items, and organize the pre-acceptance test before the hand-over and hand-over.

#### **3.7.2. Product warranty:**

Contractors shall have to provide warranty for the works strictly according to current regulations and at the same time have the responsibility to guide the use strictly according to the prescribed processes and regulations.

The Contractor shall send to the Employer 2 telephone numbers of the Commander and Head of the Warranty Team so that the Owner can promptly inform the Contractor of any incidents.





# CHAPTER IV MEASURES TO ENHANCE QUALITY

# 4.1. MEASUREMENTS FOR QUALITY MANAGEMENT OF WORKS

Quality of the finished products is measured by:

- According to the drawing design approved by the owner;
- Accessories: According to the manufacturer's standard;
- TCVN 5279 1990: Fire safety General requirements.
- TCVN 9383 2012: Fire resistance testing Main doors and fireproof doors
- TCVN 7452 2004: Windows and main doors Testing method
  - TCVN 9366-2012: Main doors and windows

Before starting construction, we set up the construction diary to record the progress, the daily construction situation, the construction status of each type of work, the starting time and details of the whole process. perform. Recording of the construction work must be done for all structural components that briefly describe the work stoppage of the construction machine for jobs that do not allow the construction phase, deviations from the construction drawings, clearly stating the reasons, accompanied by corrective measures, signed by the responsible person.

- The diary book is numbered and stamped by the contractor

- Checking and acceptance of works: Acceptance of components and work items according to Decree No. 46/2015/ND-CP, the contractor shall carry out the internal acceptance test and then invite the inspectors to conduct the subsequent work.

- The materials used for the construction of works shall be made according to the requirements of the design dossiers.

- The method of organizing the construction and the technical requirements are mainly presented in the design of construction measures and explanations of construction methods.

- In addition to the above factors, human factors are the most important factors that are:

+ Teams of highly qualified, experienced, well-disciplined workers are recruited.

+ The executive apparatus, good management organization, technical staffs with professional experience

+ Equipment for construction works: Good.

+ Good control of input materials: suppliers of materials, materials for the works are suppliers have worked long with the company, high reputation. All materials are certified to meet quality requirements, export invoices, laboratory results and satisfy Vietnamese standards.

+ Control the process of construction, acceptance test according to TCVN, the quality inspection work is conducted regularly, thoughtful in accordance with the process and standards and norms of Vietnam.





# 4.2. MEASURES TO CHECK QUALITY OF MATERIALS

#### **4.3.1** Process of quality inspection between the investor and the contractor



# 4.3.2 Criteria for evaluating product quality

- a) Products are evaluated according to Vietnam standards:
- TCVN 5279 1990: Fire safety General requirements.
- TCVN 9383 2012: Fire resistance testing Main doors and fireproof doors
- TCVN 7452 2004: Windows and main doors Testing method
  - TCVN 9366-2012: Main doors and windows
- b) Evaluation according to the naked eye:
  - Evaluation of tightness.
  - Evaluate the glue pouring of all openings on the frame connecting to the wall.
  - Evaluation of the catching points
  - Assessment of connection point between frame and gasket, etc.

# 4.4. REPAIR OF LOSSES AND WORK WARRANTY

- Our quality control team will regularly monitor the process of construction work, prepare the minutes of acceptance for each part. Repair defects during construction. We ensure the construction works with the highest quality design.

# CHAPTER V

LABOR SAFETY AND HYGIENE - FIRE AND EXPLOSION PREVENTION AND ENVIRONMENTAL SANITATION





# 5.1. Site Regulations

- All employees are strictly required to follow the working regulations of the site, regulations on occupational safety and health.

- It shall not allow to use the telephone without the permission of the site manager.

- It shall not allow tobring materials out of the site, if not ordered to deliver materials of the site manager.

- It shall not allow to drink alcohol, beer, drugs before going to work and during office hours.
- It shall not allow friends, family members to enter to the field.
- It requires to present at the site during working hours.
- All workers on site are trained in occupational safety and health.

- The staff at the site is fully equipped with labor protection. Executors issue access cards for all workers and workers involved in the construction.

- All persons working on the site must leave their vehicles at the prescribed places.
- While working, do not go to unassigned areas.

- Everyone must be responsible for maintaining hygiene, ensuring environmental hygiene both inside and outside the construction site.

# 5.2. WORK SAFETY AND LABOR SAFETY

The construction crews shall arrange full-time officials to inspect all activities on occupational safety and health at the construction site.

## a. For employees:

- All workers are trained in occupational safety and hygiene when working on the job site, are checked and certified for full health check to work.

- The work is implemented detailed safety measures, workers receive jobs are popular measures to ensure the safety of themselves and those around.

- Workers are equipped with adequate personal protective equipment.

## b. For Equipment and Machine

- Construction machines and equipment with strict requirements on labor safety and hygiene shall be safely inspected according to the new regulations. In the process of using the equipment, the machine is maintained, maintained and tested regularly.

- Specialized equipment and machines (concrete drills, screw drills, ...) are technically trained and experienced technicians.

#### c. Measures on occupational safety and health at the scene

- As the works is constructed in the urban area, it is important to focus on what is going on in the wilderness area. It requires to reduce the amount of sunlight, and odors that will affect the environment.





- All the items are in the order and the cover is in the basket.

- All materials produced during the processing process will be assembled for one transfer.

All construction methods, safety measures when implementing labor safety is only transferred to the site acceptance and inspection during the construction process.

# **5.3. WORK OF FIRE PREVENTION**

- It is required to have fire prevention regulations which should be disseminated to all employees working on the site.

- It is not allowed to transport or store flammable and explosive substances in the construction site.

- Not allowed to cook within the works.

- Arrangements of fire extinguishers, fire hydrant storage tanks, dry sandbeds are protected around the site. In place for fire extinguishers, it requires to have adequate instructions to prevent them from occurring.

- When there is fire and explosion occurring in the construction site, the security section must together with its officials and employees present at the site using on-spot fire-fighting means for fire fighting.

- Coordinate with fire fighting units in the area to minimize the possible consequences of fire and explosion.

# **CONCLUSTION**

The above METHOD STATEMENTs shall be applied by the construction unit for the purpose of ensuring the quality of the works, meeting the set schedule, assuring occupational health and hygiene throughout process of construction works.

By the capacity of the unit, we are committed to:

- Execute the works in accordance with the design drawings.
- Ensure to complete the work on the estimated progress.
- Absolutely ensure the safety and environmental sanitation.

