



BOARD OF ADJUSTMENTS AGENDA

Tuesday, September 21, 2021 at 6:00 PM

Richwood City Hall, 1800 Brazosport Blvd. N.

BE IT KNOWN THAT a City of Richwood Board of Adjustments will meet Tuesday, September 21, 2021, beginning at 6:00 PM at Richwood City Hall, located at 1800 Brazosport Blvd. N., Richwood, Texas 77521 with the following agenda:

I. CALL TO ORDER

II. INVOCATION

III. PLEDGES OF ALLEGIANCE

IV. ROLL CALL OF COUNCIL MEMBERS

V. PUBLIC COMMENTS

VI. CONSENT AGENDA

[A.](#) Approval of minutes from called meeting held, September 13, 2021

VII. DISCUSSION AND ACTION ITEMS

[A.](#) Discussion and action regarding variance to allow a performance-based design alternative for the fiberglass building at the North Water Plant site without a fire suppression system to comply with Chapter 50, Sections 5001.3.3.1 through 5001.3.3.18 of the International Fire Code.

VIII. ADJOURNMENT

The City Council may go into Executive Session on any item listed on the Agenda in accordance with Section 551.071 of the Government Code (attorney-client privilege).

This facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact the City Secretary's Office at (979) 265-2082 or FAX (979) 265-7345 for further information.

I, Kirsten Garcia, to hereby certify that I did, on 9/17/2021 at 5:00 p.m. post this notice of meeting on the bulletin board at 1800 N. Brazosport Blvd., Richwood TX, in compliance with the Texas Open Meetings Law.

Kirsten Garcia, City Secretary
City of Richwood

MINUTES**RICHWOOD BOARD OF ADJUSTMENTS****Monday, September 13, 2021 at 6:00 PM**

BE IT KNOWN THAT a City of Richwood Board of Adjustments will meet Monday, September 13, 2021, beginning at 6:00 PM at Richwood City Hall, located at 1800 Brazosport Blvd. N., Richwood, Texas 77521 with the following agenda:

I. CALL TO ORDER

The meeting was called to order at 6:01 p.m.

II. INVOCATION

Patricia Ditto, Finance Director, led the invocation.

III. PLEDGES OF ALLEGIANCE

Mayor Boykin led the pledges.

IV. ROLL CALL OF COUNCIL MEMBERS

Steve Boykin, Mayor:	Present
Mike Johnson, Position 1:	Present
Melissa Strawn, Position 2:	Present
Matthew Yarborough, Position 3:	Present
Rory Escalante, Position 4:	Present
Mark Brown II, Position 5:	Present

Others present: Eric Foerster, City Manager; Kirsten Garcia, City Secretary; Patricia Ditto, Finance Director; Clif Custer; Public Works Director; Stephen Mayer, Police Chief; Matthew Allen, City Attorney.

V. PUBLIC COMMENTS

There was no public comment.

VI. CONSENT AGENDA

A. Approval of minutes from meeting held August 9, 2021.

Motion to approve consent agenda.

Motion made by Mark Brown II, Seconded by Matthew Yarborough.

Voting Yea: Mike Johnson, Melissa Strawn, Matthew Yarborough, Rory Escalante, Mark Brown II

VII. DISCUSSION AND ACTION ITEMS

A. Public hearing and action regarding variance request to allow a church to operate within C2 / Commercial zoned district.

Mr Medrano here to speak on behalf of the church.

Mr. Clark spoke in opposition of the request. Stated that putting a church there would have an adverse affect on his property value.

Discussion held on how a church would adversely affect the surrounding property owners.

Discussion held on reason for moving the Church to a nearby lot.

Motion to deny the variance request.

Motion made by Mark Brown II, Seconded by Matthew Yarborough.

Voting Yea: Matthew Yarborough, Mark Brown II

Voting Nay: Mike Johnson,Melissa Strawn, Rory Escalante

Motion did not carry.

Motion to approve conditional use to allow a church to operate within C2 / Commercial zoned district.

Motion made by Rory Escalante, Seconded by Melissa Strawn.

Voting Yea: Melissa Strawn, Rory Escalante

Voting Nay: Mike Johnson, Matthew Yarborough, Mark Brown II

Motion did not carry.

VIII. ADJOURNMENT

Being there no further business, the meeting was adjourned at 6:16 p.m.

These minutes were read and approved on this 21st day of September 2021.

Mayor

ATTEST:

City Secretary

MEMORANDUM

To: Richwood City Council

From: Clif Custer

Date: 08/05/2021

Subject: Variance to International Fire Code Requirements Chapter 50, Sections 5001.3.3.1 through 5001.3.3.18

Chapter 50 of the International Fire Code (IFC) pertains to the use and installation of fire suppression systems within structures that house hazardous chemicals. Chlorine onsite used to disinfect the water is categorized as a hazardous material. The North Water Plant is designed to separate chlorine from the non-hazardous components by putting it in a 6' x 6' fiberglass building. This fiberglass structure will be equipped with all necessary implements for detecting and containing chlorine gas releases.

Chapter 50 of the IFC states, *“Where approved by the Fire Code Official, buildings and facilities where hazardous materials are stored, used or handled, shall be permitted to comply with this section as an alternative to compliance with the other requirements set forth in this chapter and Chapters 51 through 67.”*

Between Fire Marshal Chris Motley, Strand Associates and myself, there is a combined opinion that a fire suppression system to serve a 6'x 6' fiberglass chlorine room is excessive. I am requesting a motion from Council to approve a performance-based design alternative for the fiberglass building at the North Water Plant site without a fire suppression system to comply with Chapter 50, Sections 5001.3.3.1 through 5001.3.3.18 of the International Fire Code.

Chapter 50 International Fire Code Requirements

Where safeguards, systems, documentation, written plans or procedures, audits, process hazards analysis, mitigation measures, engineering controls, or construction features are required by Sections 5001.3.3.1 through 5001.3.3.18, the details of the design alternative shall be subject to approval by the fire code official. The details of actions granting the use of the design alternatives shall be recorded and entered in the files of the jurisdiction.

5001.3.3.1 Properties of hazardous materials.

The physical- and health-hazard properties of hazardous materials on site shall be known and shall be made readily available to employees, neighbors, and the fire code official.

The City will have on file a safety data sheet (SDS) for the hazardous material stored in the fiberglass building. The City will be able to readily provide this SDS to anyone that inquires. The building will be provided with signage indicating the storage of chlorine gas as well as applicable NFPA placarding.

5001.3.3.2 Reliability of equipment and operations.

Equipment and operations involving hazardous materials shall be designed, installed, and maintained to ensure that they reliably operate as intended.

The hazardous material is stored and operated in a separate building from any pumps, electrical equipment, or other chemicals that are affected by this hazardous chemical. The design and operation of the chlorine system utilizes a vacuum regulator that minimizes the number of connections and pipes where chlorine gas is carried under pressure. The vacuum regulator attaches directly to the chlorine gas cylinder. This design reduces the number of pressurized joints and the likelihood for a gas leak that would permit the entire contents of the cylinder from releasing. Chlorine gas is injected within the structure into a carrier water line for transport to the injection location.

5001.3.3.3 Prevention of unintentional reaction or release.

Safeguards shall be provided to minimize the risk of an unintentional reaction or release that could endanger people or property.

If the hazardous material is unintentionally released within the building, a gas leak detector within the building with an exterior alarm panel on the building will notify the City. The storage and use of the chlorine gas is within the fiberglass structure and is intended to contain a leak. Chlorine gas (both pressurized or under vacuum) during normal operation should never leave building. There is also an emergency shutoff valve directly connected to the chlorine cylinder operating valve that will close the cylinder valve automatically when the chlorine gas leak detector senses a leak or if an emergency shutoff switch is pressed. The emergency valve is provided with battery back-up to allow valve closure in the event of a power failure.

5001.3.3.4 Spill mitigation.

Spill containment systems or means to render a spill harmless to people or property shall be provided where a spill is determined to be a plausible event and where such an event would endanger people or property.

The hazardous material will leak as a gas rather than a liquid spill. The building is intended to contain any leaked chlorine gas. The leak detector will notify the City of the release.

5001.3.3.5 Ignition hazards.

Safeguards shall be provided to minimize the risk of exposing combustible hazardous materials to unintended sources of ignition.

The hazardous material is stored within 150-lb cylinders and in a separate building away from other materials or equipment that could unintentionally ignite the hazardous material. Only items necessary for operation and maintenance of the chlorine feed system will be located in the chlorine building.

5001.3.3.6 Protection of hazardous materials.

Safeguards shall be provided to minimize the risk of exposing hazardous materials to a fire or physical damage whereby such exposure could endanger or lead to the endangerment of people or property.

Cylinders are located within a structure to reduce potential of physical damage. Cylinders are restrained when in use and in storage.

5001.3.3.7 Exposure hazards.

Safeguards shall be provided to minimize the risk of and limit damage from a fire or explosion involving explosive hazardous materials whereby such fire or explosion could endanger or lead to the endangerment of people or property.

Chlorine gas is not an explosive hazardous material.

5001.3.3.8 Detection of gas or vapor release.

Where a release of hazardous materials gas or vapor would cause immediate harm to persons or property, means of mitigating the dangerous effects of a release shall be provided.

The fiberglass building housing the hazardous material has a gas leak detector with an audible alarm and strobe light to alert those on site of the danger. The leak detector also closes the emergency shutoff valve to minimize the potential extent of the leak. There is an exterior chlorine room ventilation system control that turns off the continuous ventilation in the event of a detected chlorine gas leak or manually initiated emergency alarm.

5001.3.3.9 Reliable power source.

Where a power supply is relied upon to prevent or control an emergency condition that could endanger people or property, the power supply shall be from a reliable source.

The emergency shut off valve uses a UPS to close without the need for exterior power. The power for the fiberglass building where the hazardous material is stored is connected to CenterPoint Energy supply. There is also an emergency generator on the site if power is unavailable from the CenterPoint Energy line.

5001.3.3.10 Ventilation.

Where ventilation is necessary to limit the risk of creating an emergency condition resulting from normal or abnormal operations, means of ventilation shall be provided.

A ventilation fan is incorporated into the design of the fiberglass building storing the hazardous material. This is intended to remove low levels of gas that may release during normal operation. This ventilation system is intended to shut off in the event of a leak to contain the gas within the structure and allow for the leak gas to be neutralized.

5001.3.3.11 Process hazard analyses.

Process hazard analyses shall be conducted to ensure reasonably the protection of people and property from dangerous conditions involving hazardous materials.

The city would be responsible to conduct this analyses.

5001.3.3.12 Pre-startup safety review.

Written documentation of pre-startup safety review procedures shall be developed and enforced to ensure that operations are initiated in a safe manner. The process of developing and updating such procedures shall involve the participation of affected employees.

The Contractor will provide an Operation and Maintenance Manual detailing the standard safety requirements of the treatment equipment and associated safety equipment. Any further safety procedures would be created by the City and enforcement would be the City's responsibility.

5001.3.3.13 Operating and emergency procedures.

Written documentation of operating procedures and procedures for emergency shut down shall be developed and enforced to ensure that operations are conducted in a safe manner. The process of developing and updating such procedures shall involve the participation of affected employees.

The Contractor will provide an Operation and Maintenance Manual detailing the standard safety requirements of the treatment equipment and associated safety equipment. The City will develop written operating procedures for routine operating and maintenance performed on the equipment. Emergency shutdown of the system should occur automatically, with no operator intervention required, except for possibly pushing the emergency stop button. The City will need to develop an emergency response plan for addressing conditions after the emergency shut down has occurred.

5001.3.3.14 Management of change.

A written plan for management of change shall be developed and enforced. The process of developing and updating the plan shall involve the participation of affected employees.

Development and enforcement of a Management of Change Plan are the City's responsibility.

5001.3.3.15 Emergency plan.

A written emergency plan shall be developed to ensure that proper actions are taken in the event of an emergency, and the plan shall be followed if an emergency condition occurs. The process of developing and updating the plan shall involve the participation of affected employees.

The City will create and maintain an emergency response plan for addressing gas chlorine leaks.

5001.3.3.16 Accident procedures.

Written procedures for investigation and documentation of accidents shall be developed, and accidents shall be investigated and documented in accordance with these procedures.

Written procedures for any investigation and documentation of accidents will be developed by the City.

5001.3.3.17 Consequence analysis.

Where an accidental release of hazardous materials could endanger people or property, either on or off-site, an analysis of the expected consequences of a plausible release shall be performed and utilized in the analysis and selection of active and passive hazard mitigation controls.

The intent of the design is to comply with the requirements of the building code except for providing a sprinkler system. To address the potential hazard of fire, we removed the chemical from the existing structure. The typical code required safety features, such as leak detection and alarming, emergency shutoff, and ventilation were maintained.

5001.3.3.18 Safety audits.

Safety audits shall be conducted on a periodic basis to verify compliance with the requirements of this section.

City will develop a periodic schedule for safety audits to verify compliance and maintain any necessary documentation.

