



PLANNING AND ZONING Cerro Gordo County Courthouse

220 N Washington Ave
Mason City, IA 50401-3254
cgcounty.org/planning

(641) 421-3075
(641) 421-3110
plz@cgcounty.org

SPECIAL EXCEPTION STAFF REPORT

SUMMARY OF REQUEST

Case No.: 23-2

Hearing Date: January 31, 2022

Staff Contact: John Robbins, Planning and Zoning Administrator

Applicant

Craig Backhaus
P.O. Box 90
Thornton, IA 50479

Owner

North Iowa Cooperative Elevator
P.O. Box 90
Thornton, IA 50479

Property Address: 7487 125th Street

Brief Legal Description: Parcel in the NE¼ of the SW¼, Section 19, Pleasant Valley Township

Zoning: M-2 Heavy Industrial

Special Use Requested: 20.2(R) Anhydrous ammonia storage and pumping facility

Special Use Area: 3-4 acres

Parcel Area: 27.58 acres

Special Use Description

The North Iowa Cooperative (NIC) proposes to locate an anhydrous ammonia pumping and storage facility on the southeast portion of the subject property with up to three, 30,000-gallon storage tanks. NIC operates a new commercial grain storage facility onsite. The proposed special use is the beginning of the second phase of plans to further develop and use the site. The proposed special use is a special permitted use in the M-2 Heavy Industrial District under Section 20.2(R) of the Zoning Ordinance.

FINDINGS OF FACT

1. The North Iowa Cooperative Elevator is the owner of the subject property, located in the NE¼ of the SW¼, Section 19, Pleasant Valley Township.
2. Craig Backhaus is making the subject application on behalf of the owner.
3. The property is zoned M-2 Heavy Industrial.
4. The North Iowa Cooperative Elevator is requesting a Special Use Permit for a proposed anhydrous ammonia pumping and storage facility.
5. An anhydrous ammonia pumping and storage facility is a special permitted use in the M-2 District, subject to the requirements and conditions as granted by the Board of Adjustment.
6. The application was filed on December 20, 2022 with the Planning and Zoning Office.

STAFF COMMENTS

County Engineer: Brandon Billings, the County Engineer expects nominal impact to county roads and traffic numbers. No driveway accesses will change, and the employees shift will not cause excessive traffic. Mr. Billings reiterated that no truck traffic will be permitted to park or wait in line on the public road, which is also a requirement of the Conditional Zoning Agreement referenced in the staff report.

County Conservation: Josh Brandt, the County Conservation Director, states that the proposed special use will not have any more impact to Ingebretson Park than the current commercial grain storage facility.

CG Public Health: Dan Ries, Senior Environmental Health Specialist, consulted with the Iowa DNR with the main concern being distance from the well onsite. The anhydrous ammonia storage tanks are required to be a minimum of 100 feet from the well. An aerial photo with the well location marked as a blue dot is included in your packet, which is several hundred feet from the proposed location of the storage tanks.

The County Auditor's Office, the City of Thornton, and Iowa Department of Agriculture and Land Stewardship have been afforded the opportunity to make comment and provided a packet regarding the request. Any comments received will be shared with the Board at the public hearing.

BACKGROUND INFORMATION

Purpose of Special Use Request

North Iowa Cooperative Elevator (NIC) recently constructed and operates a commercial grain storage facility on the subject property, which is 27.58 acres in size, immediately east of the incorporated city limits of Thornton (See Figure 1). NIC proposes to locate an anhydrous ammonia pumping and storage facility on the southeast portion of the subject property (See Figure 2). The requested additional onsite facilities include up to three, 30,000 gallon anhydrous ammonia storage tanks with about 250-275 tons worth of storage capacity over time. The first tank will be relocated from NIC's Swaledale facility, and the other two will be purchased over time as their budget allows.

The property was rezoned from A-1 Agricultural to M-2 Heavy Industrial in September 2020. As part of the rezoning, NIC entered into a Conditional Zoning Agreement with the county. Condition 3 of the agreement states:

3. The Cooperative, successors and assigns, and any future owner of the real estate described above shall apply for and have issued a Zoning Permit prior to any change of use or construction of any structure. The following shall apply:
 - A. Any proposed change of use or structure shall be consistent with the site plan submitted by the Cooperative with the Change of Zone Application. A Zoning Permit Application shall be filed with the Planning and Zoning Office. Any use inconsistent with said site plan shall require approval from the Cerro Gordo County Board of Adjustment. Upon application, the Zoning Administrator shall make a determination whether Board of Adjustment approval is required.

- B. For any use permitted in the M-2 Heavy Industrial District as regulated by the Cerro Gordo County Zoning Ordinance, the Cooperative, successors and assigns, and any future owner of the real estate described above shall receive approval and/or a Special Use Permit granted, as applicable, by the Cerro Gordo County Board of Adjustment.

The proposed special use is the second phase of plans to further develop and use the site. The proposed special use is a special permitted use in the M-2 Heavy Industrial District under Section 20.2(R) of the Zoning Ordinance and was included on the above-mentioned site plan.

Existing Land Use and Zoning Classification of Property

The property is zoned M-2 Heavy Industrial. NIC operates a commercial grain storage facility onsite (See Figure 1). The remainder of the property not being used for the grain operation is currently in agricultural production.

Land Use and Zoning Classification of Surrounding Property

The property sits immediately to the east of the incorporated city limits of Thornton. Ingebretson Park and campgrounds is located just west of the overall parcel, over 1000' from the proposed storage location (See Figure 3). A couple industrial properties are located across 125th Street to the northwest. One is just inside city limits while the other is just outside of town, zoned M-1 Light Industrial.

The remainder of adjacent property is farmed in the A-1 District. The sewage treatment lagoons for Thornton are approximately 500' from the property line to the southeast.

The closest residences to the proposed special use are more than 1,500' (to the west inside town and to the south on 120th Street).

GENERAL FINDINGS

Harmony and Accord with General Principles and Proposals of the Zoning Ordinance

The Zoning Ordinance is intended to promote public health, safety, morals, comfort, and general welfare. With the storage of anhydrous ammonia, public safety is the biggest concern. The proposed location meets or exceeds setbacks required by the Zoning Ordinance. In addition, the ordinance is intended to conserve property values and encourage the most appropriate use of land. Given its proposed location, the use should not have a detrimental effect on property values. NIC installed vegetative screening trees along the west side property line, adjacent to the campgrounds, to soften the visual impact of the commercial use, which should further mitigate potential impacts. Further visual buffering will be installed along the east side property line and along 125th Street this coming spring.

The ordinance also makes it a goal to secure and provide social and economic advantages resulting from orderly development. The proposed use is consistent with surrounding development and existing nearby industrial uses. The final goal of the Zoning Ordinance is to facilitate adequate but economical provisions for public improvements. No public improvements should be necessary as a result of the additional bulk anhydrous ammonia storage tanks being placed at this location. NIC opted to install private well and wastewater facilities onsite instead of extending public facilities from the city when the site was developed.

Compatibility of Use with the Appearance and Essential Character of Area

The proposed special use is an expansion of existing commercial/industrial uses onsite and in the neighborhood. There are existing industrial properties to the northwest. The proposed uses are compatible with these existing facilities and is a natural extension of what's already occurring on the property.

Impact on Existing and Futures Uses, Vicinity, and Community as a Whole

The property could accommodate future expansion of NIC's operations. The proposed special use is an expansion of NIC's operations already occurring onsite and an extension of neighboring industrial uses. The storage tanks will be a little over 1000' from any residence or public use area (See Figure 3). The proposed uses should not have an impact on the community as a whole.

Adequacy of Public Services

(i.e., highways, streets, police, fire protection, drainage structure, refuse disposal, water and sewage facilities, or schools)

125th Street (County Road B-65) is hard-surfaced and carries approximately 600 daily vehicles on average, according to the Iowa DOT's 2021 traffic maps. The road appears to be adequate for the use intended. The County Engineer does not expect a significant increase in traffic from the transfer of a few employees. No new driveways are proposed, but the County Engineer expressed that no truck traffic will be permitted to park on the public road, which is a condition of the Conditional Zoning Agreement that is applicable to the property.

Law enforcement protection is provided by the Cerro Gordo County Sheriff's Department. The site is served by the Thornton Fire Department. Anhydrous ammonia is a hazardous material. The Mason City Fire Department houses the region's hazardous materials response unit, so in the event of an emergency, the MCFD may be called for response.

The site is not located within a flood hazard area. Drainage District No.'s 31/1/86 touch the westerly part of the subject parcel and is otherwise adjacent to the south side of it. However, the proposed special use is outside of the Drainage District boundary. The County Auditor's Office has been afforded the opportunity to make comment and provided a packet regarding the request. Any comments received will be share with the Board at the public hearing.

Refuse disposal is the responsibility of the property owners. The facility will be served by an onsite well, which is several hundred feet away from the proposed special use. Onsite wastewater treatment is already in place to accommodate employees. The proposed use will not have an impact on schools.

Public Cost for Additional Public Facilities and Services

The proposed special use should not result in a need for additional public facilities and services.

Potential Detriments to Persons, Property, or General Welfare

(i.e., excessive traffic, noise, smoke, glare, or odors)

125th Street (County Road B-65) is hard-surfaced and carries approximately 600 daily vehicles on average, according to the Iowa DOT's 2021 traffic maps. The road appears to be adequate for the use intended. The County Engineer does not expect a significant increase in traffic from the transfer of a few employees. No new driveways are proposed, but the County Engineer expressed that no truck traffic will be permitted to park on the public road, which is a condition of the Conditional Zoning Agreement. The Conditional Zoning Agreement in place requires that NIC participate in the cost of any road improvements, such as turning lanes or warning signs for turning truck traffic, as deemed necessary by the County Engineer. As a result, potential impacts from the proposed special use are not expected to be significant.

There should not be any additional noise, glare, smoke, fumes, or dust as a result of the new tanks. Anhydrous ammonia is a hazard if inhaled. Current methods of loading and unloading seek to limit releases of anhydrous ammonia into the air.

Compatibility and Consistency with the Intent and Purpose of the Zoning Ordinance

The Zoning Ordinance states that, "The M-2 Heavy Industrial District is one of heavy uses designed to serve the needs of Cerro Gordo County for industrial activity generally offensive if located near commercial and residential uses." The bulk storage of anhydrous ammonia would be inappropriate in residential and commercial areas due to the harmful effects a leak would have. According to the National Safety Council, common injuries are severe burns to eyes, skin, and the respiratory tract. Because of the potentially serious injuries that can be caused by the storage of chemicals and fertilizers such as anhydrous ammonia are more appropriate in agricultural or industrial districts, away from dense development. Ingebretson Park and campground is the closest public use area to the proposed special use, but is over 1,000' away, which will mitigate, if not eliminate, any potential hazard to the public. The County Conservation Department does not expect the proposed special use to have any greater impact to the park as the existing commercial grain storage facility.

Compatibility with County Comprehensive Plan

The Comprehensive Plan Update encourages industrial development in unincorporated areas of the county to be limited to uses that demonstrate a reliance on inputs from agricultural operations or provide market outputs for agricultural production or that have unique infrastructure needs that can only be met in certain locations. The storage of anhydrous ammonia and blending and storage are directly related to nearby agricultural operations. Policy 6.1.2 encourages industrial development to be permitted in unincorporated areas that for safety reasons must be located far away from developed areas. The storage of bulk fertilizers such as anhydrous ammonia can be dangerous. Such facilities are more appropriate in unincorporated areas than in densely developed areas.

Policy 6.1.3 states that permitted industries should locate where other industries are located, in areas with adequate transportation infrastructure, and in areas that are adequately buffered from residential and agricultural areas. The site is located on a paved road that already accommodates the type of truck traffic already involved with the proposed special use. There is over 1,000' of separation from the nearest public use area, Ingebretson Park and campgrounds. NIC installed trees along the west property line, which will further buffer the park from any potential impacts.

Finally, Policy 6.1.6 encourages that permitted industrial development be required to contribute to any necessary rural improvements needed to support the development. No additional rural improvements should be necessary to support the additional bulk storage tank on the property. However, the Conditional Zoning Agreement put in place at the time of the rezoning to M-2 Heavy Industrial requires that NIC participate in the cost of any improvements to 125th Street (County Road B-65) deemed necessary by the County Engineer.

COMPLIANCE WITH ADDITIONAL ARTICLE 20 REQUIREMENTS

Staff comments are in bold below. Additional requirements for the special use requested are as follows:

20.2 SPECIAL USES

- R. Anhydrous ammonia pumping and storage facilities in any A-1, A-2 or M-2 District providing the following site requirements can be met: Anhydrous ammonia containers shall be located outside of buildings other than those especially constructed for this purpose. Permanent storage shall be located outside of densely populated areas and subject to the approval of the authority having jurisdiction. The container shall not be less than: fifty (50) feet from the line of adjoining property which may be built upon (except that the distance can be reduced to not less than ten [10] feet from a main line railroad); one hundred (100) feet from an open source of drinking water or a dwelling unit; and one thousand (1,000) feet from any school, hospital, or other place of public assembly. The requirements of Article 18.12 (B) and (C) shall be adhered to.

The property is zoned M-2 heavy industrial. The proposed 30,000 gallon bulk storage tanks will be located outside of buildings. The placement of the tanks will be subject to the jurisdiction of the Iowa Department of Agriculture and Land Stewardship. The proposed bulk storage tanks are outside of the incorporated city limits of Thornton and located over 1,000' from any place of public assembly or dwelling, including Ingebretson Park and campgrounds. The proposed tanks will be over 100' from all property lines and will be several hundred feet away from the onsite well.

18.12 APPLICATION

B. Site Plan

The site plan should be drawn at a scale of not less than 1" = 100' and twelve (12) copies of the site plan shall be submitted with the permit application. The site plan shall include but not be limited to the type of structure proposed, number and size of dwelling units, floor area of office or industrial building, buffers, landscaping, parking area, walls, density, floor area ratio, sewer and water proposed, anticipated expansion and other information deemed necessary to illustrate compliance with the requirements of this Ordinance. In addition, the map will show dimensions of open-space, public dedications, and the horizontal and vertical dimensions of all proposed buildings and structures. **The site plan scale is less than above, but is clearly marked. Since the site plan was filed on 8½"x11" paper, additional copies did not need to be filed. The site plan depicts the proposed location of the anhydrous ammonia storage tanks.**

C. Statement

An explanatory statement of the general purpose of the project shall accompany the application. The statement shall supplement the site plan with narrative information. The adoption of the text of the statement specifying the particular non-residential uses shall constitute a limitation to those specific uses. **The narrative statement filed with the application should be adopted by reference if the Special Use Permit is approved.**

ZONING DISTRICT REQUIREMENTS

Requirements of the zoning district for which the proposed special use is to be located are as follows:

17.2 DISTRICT RESTRICTIONS

- A. No use is permitted which will emit any offensive odor, dust, noxious gas, noise, vibration, smoke, heat, glare, refuse matter or water-carried waste beyond the boundaries of the lot on which such uses are conducted. **The proposed bulk tanks should not create any of these offensive conditions.**
- B. No Zoning Permits shall be issued for any use in conflict with any resolution of Cerro Gordo County or law of the State of Iowa regulating nuisances. **The issuance of permits for the bulk storage tanks should not be in conflict with any law regulating nuisances. Furthermore, the proposed uses should not create a nuisance of any kind.**
- C. No Zoning Permit shall be issued for any dwellings, schools, hospitals, clinics, and other institutions for human care. **No such facilities are proposed on the property.**

17.6 REQUIRED CONDITIONS

- A. The best practical means known for the disposal of refuse matter or water-carried waste, the abatement of obnoxious or offensive odor, dust, smoke, gas, noise or similar nuisance shall be employed. **The storage tanks should not produce any offensive odors, dust, smoke, gas, or other nuisances associated with it.**

- B. All principal buildings and accessory buildings or structures, including loading and unloading facilities, shall be located at least two hundred (200) feet from any R-District Boundary line, and not less than one hundred (100) feet from any other district boundary line except an M-1 District Boundary line. **The proposed bulk storage tanks will exceed these requirements.**

17.7 HEIGHT REGULATIONS

No building hereafter erected or structurally altered shall exceed three and one-half (3½) stories or fifty (50) feet. **The proposed 30,000 gallon storage tanks will be about 15 feet in height.**

17.8 LOT REQUIREMENTS

There is no minimum required lot area or width, except that when a lot is not served by a public sanitary system, the open and undeveloped yard area shall be not less than the area required to provide suitable sanitary treatment facilities which shall be developed in accordance with the related rules and regulations of the County Department of Health. **The parcel is 27.58 acres in size. The proposed special use will not have an impact on sanitary treatment facilities.**

17.9 YARD REQUIREMENTS

Each lot shall have the front, side, and rear yards not less than the depths or widths following:

- A. Front yard depth, fifty (50) feet. **The location of the special use exceeds this requirement.**
 B. Side yard widths, ten (10) feet; except that any lot bordering a district having more restrictive side yard requirements will provide a side yard the same as the more restrictive adjoining district. **The location of the special use exceeds this requirement.**
 C. Rear yard depth, thirty (30) feet. **The location of the special use exceeds this requirement.**

STATUTORY REQUIREMENTS

Additional requirements under Iowa Code pertain to the Special Use applied for:

The storage and handling of anhydrous ammonia is regulated by the Iowa Department of Agriculture and Land Stewardship pursuant to Iowa Code Chapter 200. Section 200.4 requires that any person who manufactures, mixes, blends, mixes to customer's orders, offers for sale, sells, or distributes any fertilizer or soil conditioner in Iowa obtain a license from the secretary of agriculture. Section 200.22 prohibits any local government from adopting regulations relating to the use, sale, distribution, storage, transportation, disposal, formulation, labeling, registration, or manufacture of a fertilizer or a soil conditioner.

Chapter 200 is implemented through Iowa Administrative Code (IAC) Section 21—43.6(200). This section has adopted the American National Standard Safety Requirements for the Storage and Handling of Anhydrous Ammonia by reference. This standard is commonly referred to as ANSI K61.1 (approved March 17, 1989). The Administrative Code makes several exceptions to the ANSI standard which are listed in IAC Section 21—43.6(200).

One of the criteria that the Iowa Department of Agriculture and Land Stewardship reviews for is whether a local government has held a public hearing on the proposed placement of a bulk anhydrous storage facility. The Board of Adjustment's hearing should satisfy this requirement.

STAFF ANALYSIS AND RECOMMENDED ACTION

NIC's request to place up to three, 30,000 gallon anhydrous tank at this location is supported by the Comprehensive Plan. The proposed location meets or exceeds the requirements of the current zoning ordinance as well as state standards imposed by the Iowa Department of Agriculture and Land Stewardship.

The proposed special use is the beginning of the second phase of developing NIC's new location and will involve the relocation of the relocation of several employees. As a result, no significant increase in traffic on 125th Street (County Road B-65) is expected of the special use. If deemed necessary by the County Engineer, the Conditional Zoning Agreement contingent with the rezoning of the property to M-2 Heavy Industrial stipulates that NIC is responsible toward contributing toward the cost of any necessary road improvements resulting from traffic caused by the use of the property.

The County Conservation Director does not expect the storage of anhydrous ammonia at the proposed location to have any more impact to Ingebretson Park and campground than the existing commercial grain storage already occurring onsite. NIC established a new vegetative buffer along the property line that will further mitigate its commercial operations further as the trees mature.

I recommend approval with the conditions suggested below.

RECOMMENDED CONDITIONS TO BE MET IF POSITIVE VOTE BY BOARD OF ADJUSTMENT

Note: In granting a Special Use Permit, the Board of Adjustment may attach conditions which it finds are necessary to carry out the purpose of the Zoning Ordinance, in conformance with what is provided in Article 20 of the Zoning Ordinance, and where reasonable and necessary may increase the required lot or yard, control the location and number of vehicular access points to the property, limit the number of signs, limit coverage or height of buildings because of obstruction to view and reduction of light and air to adjacent property, and require screening and landscaping to reduce noise and glare and maintain the property in character in keeping with the surrounding area. Special uses shall ordinarily comply with the standards of the district concerned for principal uses which are permitted therein, except as modified by the Board of Adjustment in granting a Special Use Permit.

1. This Special Use Permit may be reviewed at any time in the future upon the request of the applicants or a majority of the Board of Adjustment members.
2. The provisions and/or regulations as stated shall be minimum requirements and wherever the requirements of any other lawfully adopted rules, regulations, or ordinances are at a variance, the most restrictive shall govern.

3. It is contemplated that from time to time during the operation of an anhydrous ammonia storage and pumping facility that conditions may arise which are not covered by the terms of this permit and which cannot be anticipated. In the event such conditions do arise, the Board of Adjustment of Cerro Gordo County, Iowa, may impose additional regulations to meet any new conditions. In addition, if said facility should, at any time, be operated in any manner which violates the rules and regulations of any federal or state regulatory agency, then the Board of Adjustment may impose such other conditions so as to ensure compliance with such rules and regulations.
4. This permit will be subject to revocation for operator's failure to comply with the provisions as herein set forth or such other provisions as may, from time to time, be imposed by the Board of Adjustment of Cerro Gordo County, Iowa, under the terms of this permit.
5. County representatives shall have the right to enter the premises at any time upon notification to the permit holder for the purposes of enforcing the provisions of this Special Use Permit.
6. Any other necessary permits or licenses required by federal, state, and local agencies shall be obtained by the applicant and current copies placed on file with the county Planning and Zoning Office.
7. This Special Use Permit is granted to North Iowa Cooperative Elevator and its successors and assigns and is transferable upon approval by the Board of Adjustment.
8. The site plan and operator's statement filed with the Planning and Zoning Office is hereby adopted as presented and the applicant shall adhere to said site plan. The Board of Adjustment shall have the right to review any proposed change in or expansion of the special use.
9. All construction shall strictly comply with the site plan submitted with the application. A Zoning Permit Application shall be completed and a Zoning Permit issued prior to any new construction on the site related to the special use.
10. All anhydrous ammonia storage and pumping facilities shall not be allowed within:
 - a. One hundred (100) feet from an adjoining property line; and,
 - b. One hundred (100) feet from an open source of drinking water or a dwelling unit; and,
 - c. One thousand (1,000) feet from any school, hospital, or other place of public assembly.
11. The applicants shall apply for and obtain a Zoning Permit prior to any placement of any bulk anhydrous ammonia storage tank.
12. Site lighting shall be directed into the interior of the parcel.
13. Hours of operation shall be between 6:00 a.m. and 8:00 p.m. on weekdays and 7:00 a.m. to 5:00 p.m. on weekends. Temporary extension of these hours is permissible for a period not to exceed 3 consecutive weeks in a rolling 6-month period by approval of the Zoning Administrator.
14. All onsite operations shall be consistent with the conditions as required under the Conditional Zoning Agreement applicable to the property as recorded on September 23, 2020 with the Cerro Gordo County Recorder's Office as Document No. 2020-6547.

BOARD DECISION

The Board of Adjustment may consider the following alternatives:

Alternatives

1. Grant the requested Special Use Permit Application subject to any condition as deemed necessary by the Board (The Board reserves the right to remove, amend, or add additional conditions from those recommended as deemed necessary).
2. Deny the requested Special Use Permit Application.

The following motions are provided for the Board's consideration:

Provided motion of **approval**:

To adopt the staff report as the Board's findings and to grant the application, subject to the conditions recommended by staff and as modified by the Board of Adjustment, for the placement of an agricultural-commercial neighborhood business, and further, that the grant of the application be made effective immediately and on the condition that **[NAME OF APPLICANT]** shall perform all operations under the application under the specific direction of the Cerro Gordo County Zoning Administrator, consistent with the proposed conditions and recommendations approved by the Board of Adjustment, until such time as a formal resolution is drafted and adopted by the Board of Adjustment, not to exceed 60 days.

Provided motion of **denial**:

To adopt the staff report as the Board's findings and to deny the application for the reasons stated in the staff report as well as for the following reasons: **[STATE ADDITIONAL REASONS FOR DENIAL, IF ANY]**. Said reasons for denial shall be stated in the official transcript and minutes of the Board of Adjustment, and shall be made in writing to the applicant in letter form by the Board's secretary.

EXHIBITS

- Exhibit 1: Figures
- Exhibit 2: Special Use Permit Application
- Exhibit 3: Operator's statement
- Exhibit 4: Site plan and diagrams
- Exhibit 5: Supplemental information
- Exhibit 6: Well location aerial
- Exhibit 7: Aerial photo of site

Figure 1

Looking at the completed commercial grain storage facility



January 9, 2023, J. Robbins

Figure 2

Looking at the proposed location of the anhydrous ammonia storage tanks



January 9, 2023, J. Robbins

Figure 3

Looking at Ingebretson Park and campground located immediately to the west of the NIC property



January 9, 2023, J. Robbins

SPECIAL USE PERMIT

APPLICATION

Date Filed 12/20/22

Date Set for Hearing 1/31/23

Case Number: 23-2

Applicant Name: Craig Backhaus

Phone: 641-529-2933

E-Mail: backhausc@nicoop.com

Mailing Address: 105 S. 1st St Box 90 Thornton, IA 50479

Property Owner Name: North Iowa Cooperative

Phone: 641-998-2711

E-Mail: backhausc@nicoop.com

Property Owner Address: 105 S. 1st St Box 90 Thornton, IA 50479

Property Description (Not to be used on legal documents): Parcel # "A" Township Pleasant Valley 19#

Property Address: 7487 125th St Thornton, IA 50479 Zoning: M-2 Industrial

Brief Legal Description: "Parcel A" totalling 27.58 acres located in the Northeast Quarter of the Fractional Southwest Quarter of Section 19, Township 94 North, Range 21 West of the 5th P.M. Cerro Gordo County, Iowa, as depicted in the Plat of Survey.

Type of Special Use Requested: Anhydrous Ammonia Pumping Storage Facilities

Special Use Description: Please provide a general description of the proposed special use.

Construct an Anhydrous Ammonia pumping and storage station along the East side of this property while maintaining proper setbacks from property line and a minimum of 1000' radius of public assemble points. See the attached plans indicating layout and proper set backs as noted. We request to install up to 3 (30,000 gallon aprox) Anhydrous Ammonia storage tanks, two load out stations, and parking for Anhydrous Ammonia rolling stock wagons.

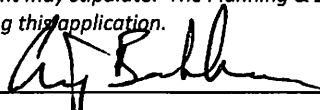
North Iowa Cooperative believes we have met the code requirements set forth by the Cerro Gordo County Board of Adjustment under Article 20 section 1-7.

***Attach all required items listed in the application checklist, including written operator's statements, site plan, filing fee, and all other materials required to be submitted with this application**

I am the Owner Contract Purchaser Other (Explain) _____

_____ of the property affected.

I, the applicant, being duly sworn, depose and say that I am the owner or that I am authorized and empowered to make the accompanying application; and that the information provided is true and correct, and actual construction, as applicable, and operation of the proposed special use will proceed in accordance with the purposes herein stated on the application and all submitted materials. I further agree to any conditions and/or requirements the Board of Adjustment may stipulate. The Planning & Zoning staff and Board of Adjustment members are also given permission to enter the above property in reviewing this application.

Applicant Signature 

Date 12/16/2022



December 19, 2022

Operating Statement

Special Use Permit

Cerro Gordo County Board of Adjustment,

North Iowa Cooperative is seeking to install an Anhydrous Ammonia pumping and storage facility at our Thornton East site which is zoned M1 Industrial. We hope to move our current pumping and storage location in Swaledale, Iowa to the Thornton East site and shutter operations in Swaledale. This action will allow North Iowa Cooperative to operate outside of city of Swaledale and centralize our Anhydrous Ammonia operations with our other daily operating facilities in Thornton.

North Iowa Cooperative has a long history of providing goods and services to the greater Cerro Gordo County area farmers, part of which is providing commercial fertilizer to their crops. Anhydrous Ammonia is an important source of nitrogen which is vital to production of crops and is most commonly used in corn production in this area. Anhydrous Ammonia is a critical form of nitrogen for Cerro Gordo County farmers. Anhydrous Ammonia is used during the spring crop growing season and in the late fall after harvest.

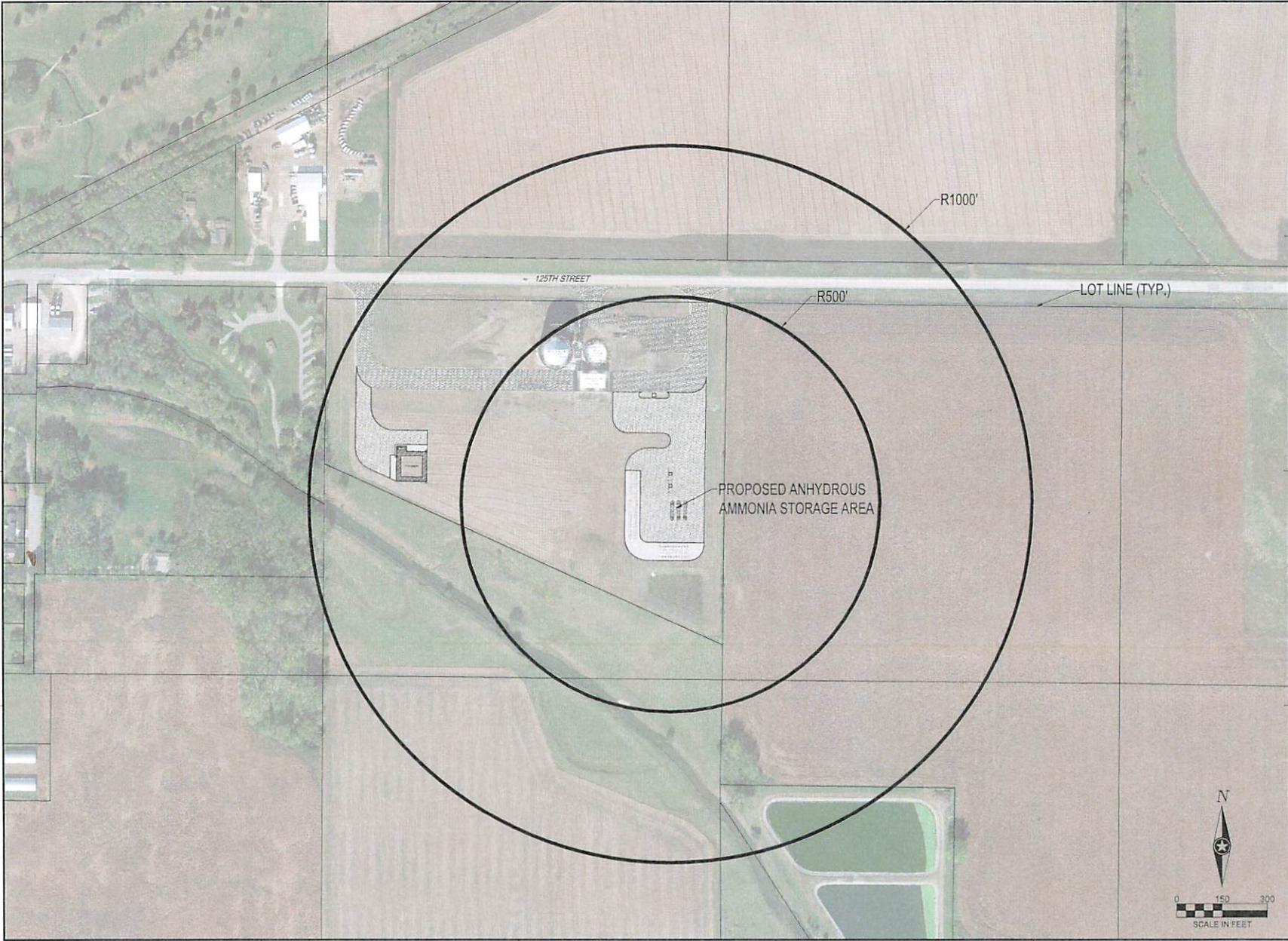
As per the request listed in Zoning Ordinances section 24.4 (A)(2)(b) ((1)-(7)) North Iowa Cooperative believes we can and will meet the requirements listed here and also the required regulations set form by the Iowa Department of Agriculture (IDALS). This site which is already Zoned M-1 Industrial is and will be harmonious to the requirements of this zoning level. The attached drawings showing the proposed Anhydrous Ammonia storage tanks being erected more than 50' away from the East fence line and being more than 1000' away from any public gathering points which is twice the minimum distance required by IDALS. There are no railroad tracks adjacent to this property and is more than 100' away from any open-source water supplies. All rolling stock equipment and storage tanks will be stored in in open air as required by the Zoning Ordnances

Also included, are plumbing plans provided by Dale's Petroleum erecting the storage and plumbing in accordance with IDALS requirements and to control and contain the Anhydrous Ammonia in a safe manner.

We do not foresee any additional costs to the county or general public to install this facility. Several of the Thornton volunteer firemen are employed with North Iowa Cooperative and regularly we welcome the volunteer local firemen to train and tour our facilities. In addition, the local traffic should not be impaired as we have provided good access drives and parking on site for vehicles coming site.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amy Bohlman'.



NOTE:
THE CLARITY OF THESE PLANS DEPENDS
UPON COLOR COPIES. IF THIS TEXT DOES
NOT APPEAR IN COLOR, THIS IS NOT AN
ORIGINAL PLAN SET AND MAY RESULT IN
MISINTERPRETATION.

THIS DOCUMENT IS THE PROPERTY OF I & S GROUP
INC. AND MAY NOT BE USED, COPIED OR DUPLICATED
WITHOUT PRIOR WRITTEN COMMENT.

PROJECT
**NORTH IOWA
COOPERATIVE
NEW GRAIN
STORAGE FACILITY
PHASE 2**

THORNTON IOWA

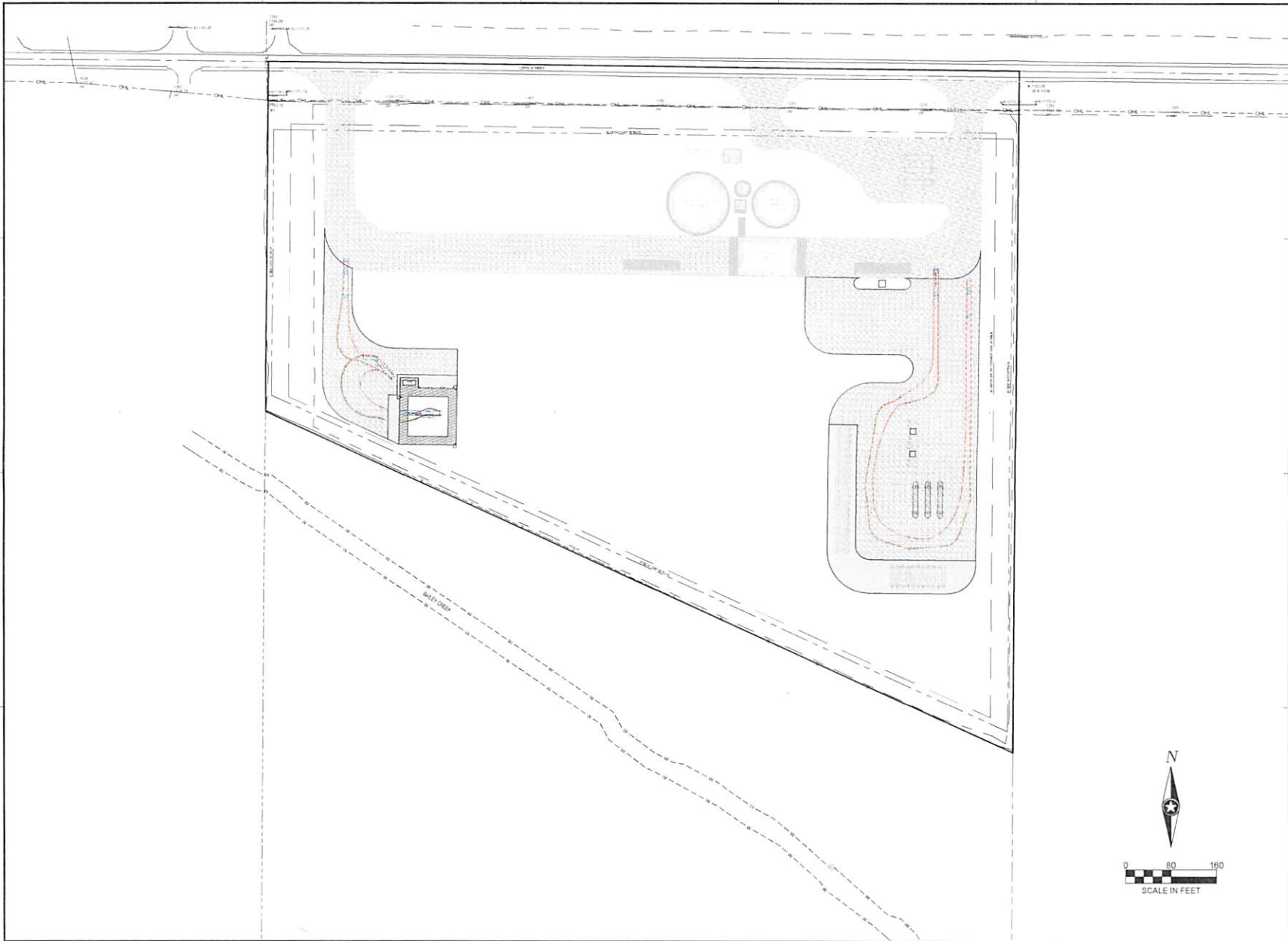
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 22-04428
 FILE NAME 2428 CO PERMIT PHASE 2
 DRAWN BY AJH
 DESIGNED BY AJH
 REVIEWED BY
 ORIGINAL ISSUE DATE
 CLIENT PROJECT NO.

TITLE
**ANHYDROUS
AMMONIA
STORAGE PERMIT
EXHIBIT (PHASE 2)**

SHEET
C1-30





NOTE:
 THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

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PROJECT
**NORTH IOWA
 COOPERATIVE
 NEW GRAIN
 STORAGE FACILITY
 PHASE 2**

THORNTON IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	22-24428
FILE NAME	2423 C3-SITE PHASE2
DRAWN BY	AJH
DESIGNED BY	AJH
REVIEWED BY	
ORIGINAL ISSUE DATE	
CLIENT PROJECT NO.	

TITLE
**OVERALL TRUCK
 TURNING
 MOVEMENTS
 (PHASE 2)**

SHEET
C3-21

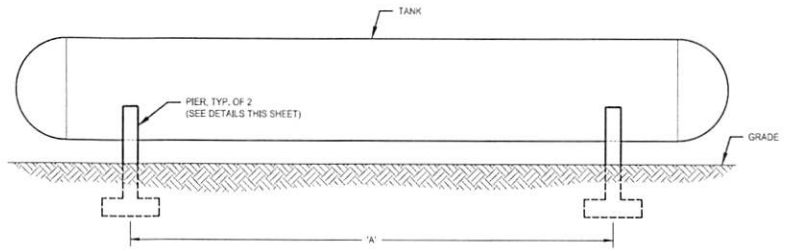
GENERAL NOTES:

- FOOTINGS SHALL BE CARRIED TO FIRM BEARING BELOW FROSTLINE NOT LESS THAN THE DEPTHS INDICATED ON THIS DRAWING AND BEAR ON UNDISTURBED SOIL OR COMPACTED BACKFILL.
- MINIMUM DEPTH REQUIRED BY LOCAL BUILDING CODES SHALL CONTROL IF GREATER THAN MINIMUM DEPTHS SHOWN.
- FOUNDATION DESIGN IS BASED ON SOIL BEARING PRESSURE OF 2,000 LBS. PER SQ. FOOT.
- REINFORCEMENT BARS SHALL BE INTERMEDIATE GRADE, TIE BARS WITH WIRE AT ALL INTERSECTIONS.
- FORMS SHALL CONFORM TO SHAPE, LINES, AND DIMENSIONS SHOWN ON THIS DRAWING AND SHALL BE SUBSTANTIAL AND SUFFICIENTLY TIGHT TO PREVENT LEAKAGE OF MORTAR.
- PORTLAND CEMENT AND FINE AND COURSE AGGREGATES SHALL COMPLY WITH MOST RECENT ASTM SPECIFICATIONS.
- MIXING WATER SHALL BE CLEAR AND FREE FROM ACIDS, ALKALIS, OIL AND ORGANIC MATTER.
- CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. IN 28 DAYS. SAMPLES SHALL TEST 15% GREATER. CONCRETE SHALL CONTAIN 6 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
- ALL SALIENT CORNERS ABOVE GRADE TO HAVE 1" CHAMFER.
- LOCATION OF FOUNDATION TO BE IN ACCORDANCE WITH LOCAL AND STATE CODES.
- ALL DIMENSIONS ON THIS DRAWING ARE MINIMUM AND SUGGESTED ONLY DUE TO VARYING SOIL CONDITIONS, ETC. SMALLER FOOTING MAY BE POSSIBLE WITH SOIL ANALYSIS. PIER SPACING IS BASED ON ACCOMMODATING FOUR OPENINGS SPACED ON 1'-0" CENTERS FROM HEAD SEAM.
- AFTER REMOVING FORMS, BACKFILL TO GRADE LEVEL.
- DALES PETROLEUM SERVICE, INC. ASSUMES NO RESPONSIBILITY FOR SOIL CONDITIONS. THIS DRAWING IS ISSUED AS A RECOMMENDATION ONLY.

PIER DIMENSIONS				
TANK CAPACITY	'A'	'B'	'C'	'D'
30,000	46'	5'	12'	4'

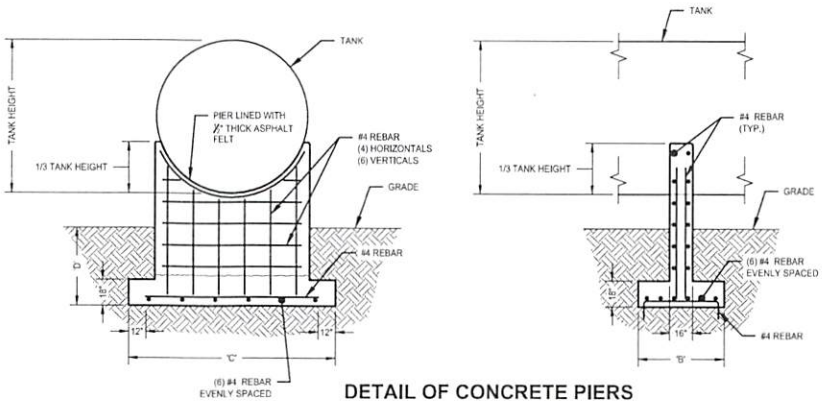


FOOTING DEPTH BELOW GRADE DIMENSION 'D'



LOCATION OF CONCRETE PIERS

NOT TO SCALE



DETAIL OF CONCRETE PIERS

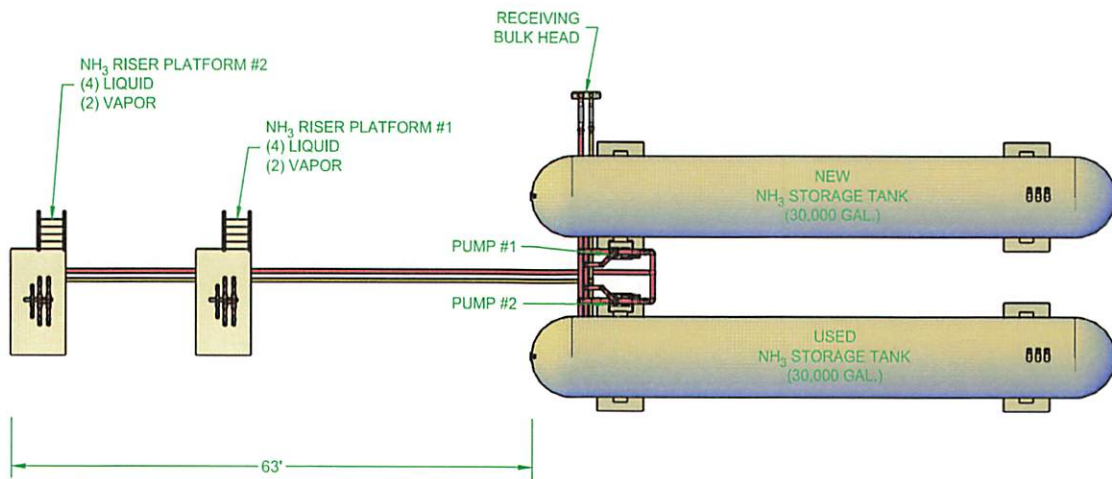
NOT TO SCALE

TANK INFORMATION	
CAPACITY:	30,000 GAL.
NORMAL DIMENSIONS	
OUTSIDE DIAMETER:	109"
OVERALL LENGTH:	66'



PRINT NAME: PIER DETAILS - NH₃ TANK
DALE'S PETROLEUM SERVICE INC.
 Fort Dodge, IA 50501

DATE: 12/14/2022 | NORTH IOWA COOP - THORNTON, IA | REVISION: 0



PRINT NAME: A1 - PLANT ASSEMBLY PLAN VIEW

DALE'S PETROLEUM SERVICE INC.
Fort Dodge, IA 50501

DATE: 12/14/2022	NORTH IOWA COOP - THORNTON, IA	REVISION: 1
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(3) DUAL PORT RELIEFS
(TYP.)

USED NH₃ STORAGE TANK
(30,000 GAL.)

NEW NH₃ STORAGE TANK
(30,000 GAL.)

PUMPS #1 & #2

NH₃ RISER PLATFORM #1
(4) LIQUID
(2) VAPOR

RECEIVING
BULK HEAD

NH₃ RISER PLATFORM #2
(4) LIQUID
(2) VAPOR



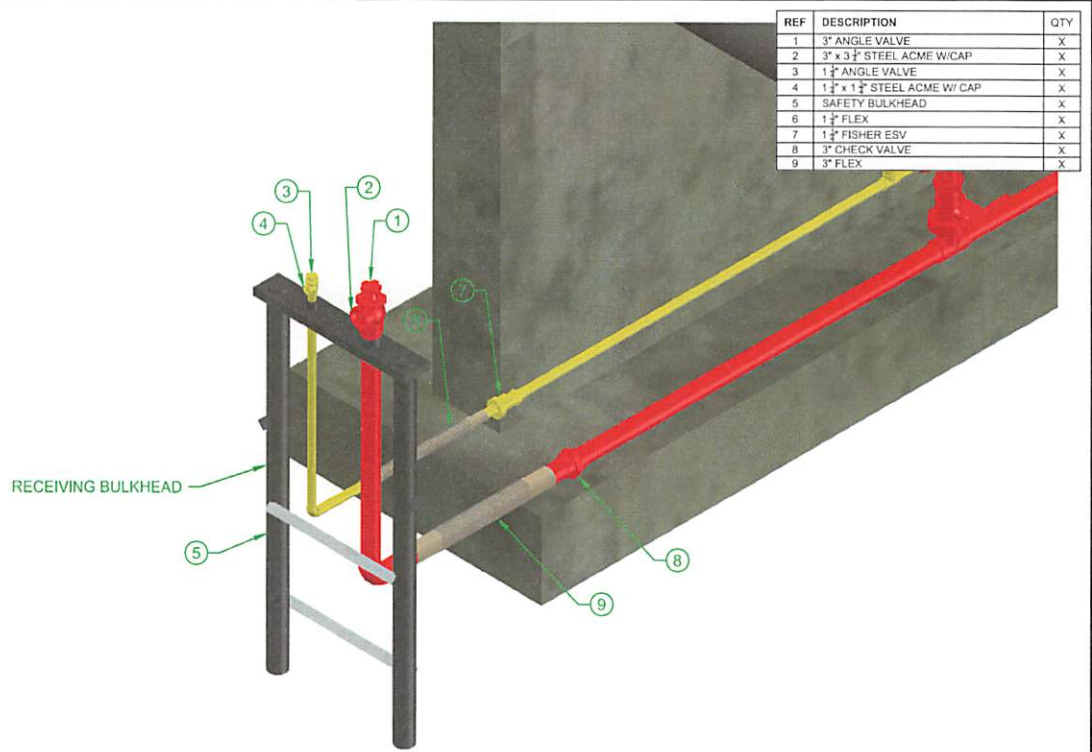
PRINT NAME: A2 - PLANT ASSEMBLY ISOMETRIC

DALE'S PETROLEUM SERVICE INC.
Fort Dodge, IA 50501

DATE: 12/14/2022

NORTH IOWA COOP - THORNTON, IA

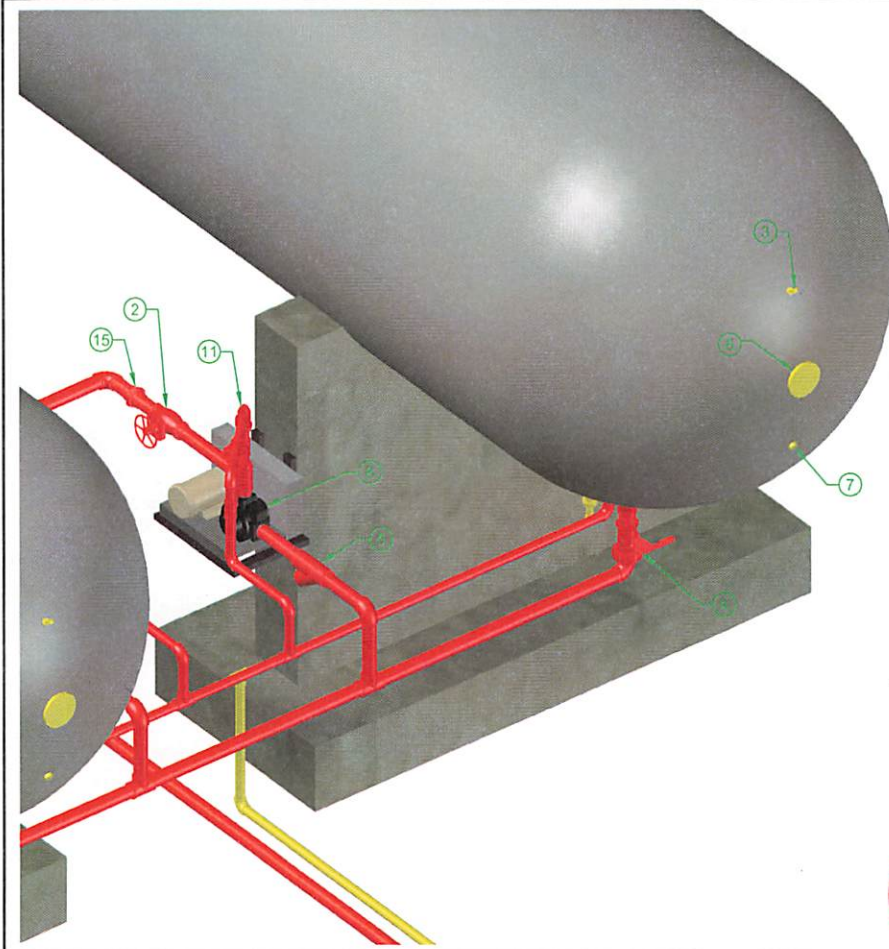
REVISION: 1



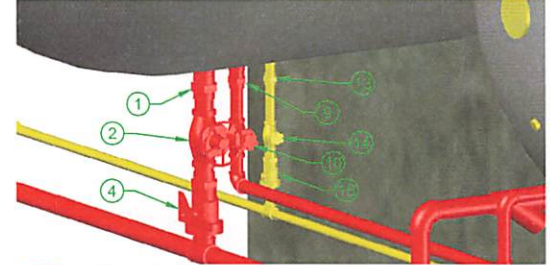
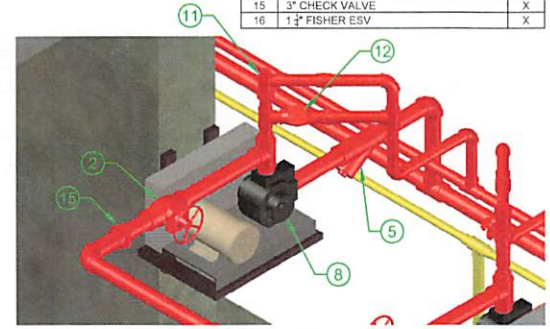
REF	DESCRIPTION	QTY
1	3" ANGLE VALVE	X
2	3" x 3 1/2" STEEL ACME W/CAP	X
3	1 1/2" ANGLE VALVE	X
4	1 1/2" x 1 1/2" STEEL ACME W/ CAP	X
5	SAFETY BULKHEAD	X
6	1 1/2" FLEX	X
7	1 1/2" FISHER ESV	X
8	3" CHECK VALVE	X
9	3" FLEX	X



PRINT NAME: A3 - BULK HEAD DETAIL
DALE'S PETROLEUM SERVICE INC.
 Fort Dodge, IA 50501
 DATE: 12/14/2022 NORTH IOWA COOP - THORNTON, IA REVISION: 0

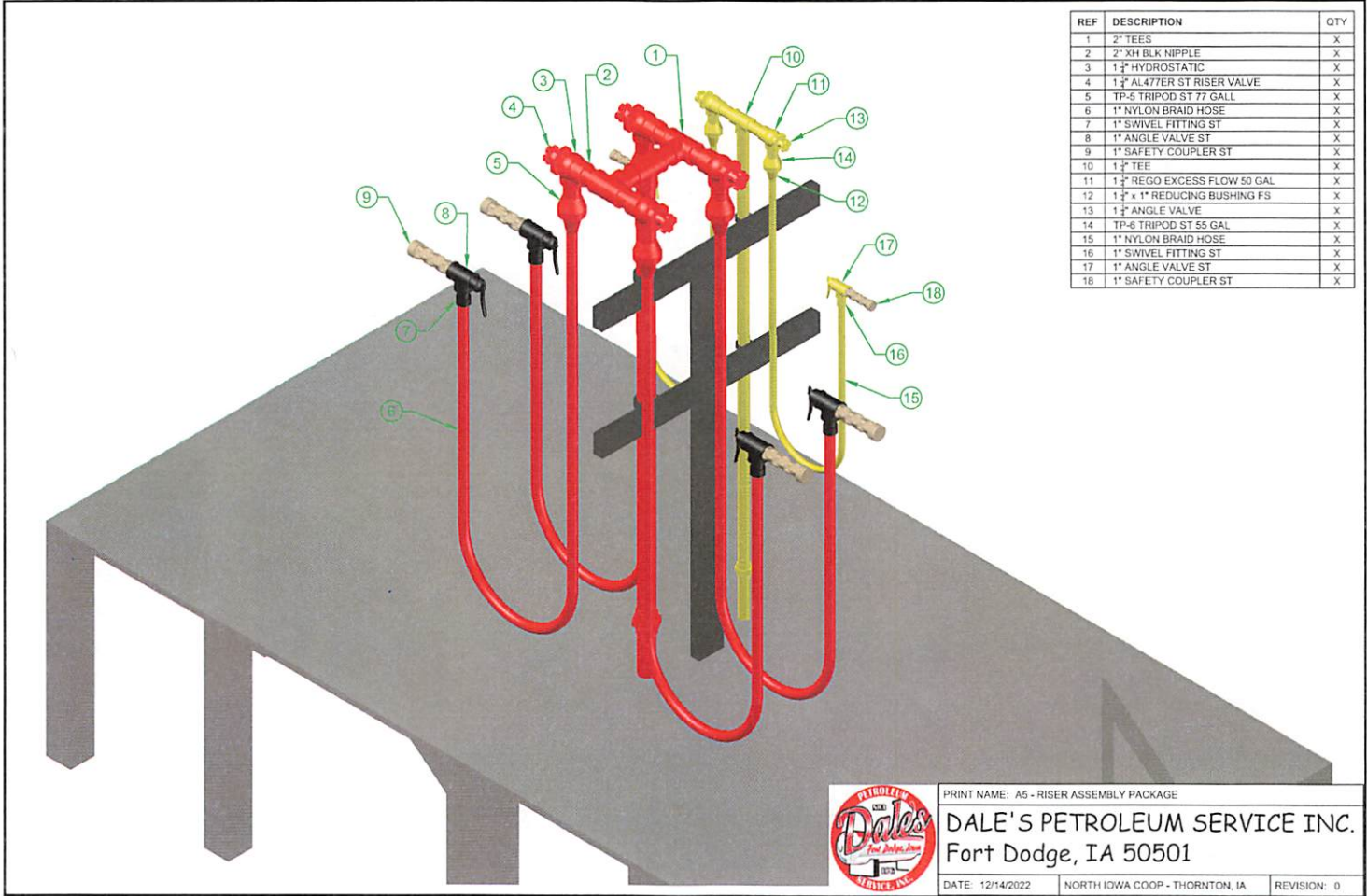


REF	DESCRIPTION	QTY
1	3" ST EXCESS FLOW (255 GPM)	X
2	3" ST GLOBE VALVE	X
3	0-400 PRESSURE GAUGE	X
4	3" FISHER ESV	X
5	3" STRAINER	X
6	PERCENT GAUGE	X
7	THERMOMETER	X
8	3" 1021 CORKEN PUMP	X
9	2" REGO BACKCHECK	X
10	2" ST GLOBE VALVE	X
11	2" BYPASS VALVE	X
12	2" ST GLOBE VALVE	X
13	1 1/4" REGO EXCESS VALVE	X
14	1 1/4" ST GLOBE VALVE	X
15	3" CHECK VALVE	X
16	1 1/4" FISHER ESV	X



PRINT NAME: A4 - PUMP ASSEMBLY AND BYPASS
DALE'S PETROLEUM SERVICE INC.
 Fort Dodge, IA 50501

DATE: 12/14/2022 NORTH IOWA COOP - THORNTON, IA REVISION: 0



REF	DESCRIPTION	QTY
1	2" TEES	X
2	2" XH BLK NIPPLE	X
3	1" HYDROSTATIC	X
4	1" AL477ER ST RISER VALVE	X
5	TP-5 TRIPOD ST 77 GALL	X
6	1" NYLON BRAID HOSE	X
7	1" SWIVEL FITTING ST	X
8	1" ANGLE VALVE ST	X
9	1" SAFETY COUPLER ST	X
10	1 1/2" TEE	X
11	1 1/2" REGO EXCESS FLOW 50 GAL	X
12	1 1/2" x 1" REDUCING BUSHING FS	X
13	1 1/2" ANGLE VALVE	X
14	TP-6 TRIPOD ST 55 GAL	X
15	1" NYLON BRAID HOSE	X
16	1" SWIVEL FITTING ST	X
17	1" ANGLE VALVE ST	X
18	1" SAFETY COUPLER ST	X



PRINT NAME: A5 - RISER ASSEMBLY PACKAGE
DALE'S PETROLEUM SERVICE INC.
 Fort Dodge, IA 50501
 DATE: 12/14/2022 NORTH IOWA COOP - THORNTON, IA REVISION: 0

Application for Approval of Anhydrous Ammonia Storage Installation

1. Name & address of firm proposing installation:

2. Location of installation:

 (Name)

 (Address) (City) (State) (Zip)

 (911 address)

 (County) (City) (State) (Zip)

3. Capacity of tank(s), (water gallons): _____ Site existing storage total: _____

4. Are tank(s) constructed in accordance with ASME Codes and State of Iowa Regulations? YES NO
5. Will this installation meet all distances required by the State of Iowa and local jurisdiction? YES NO
6. Is an accurate and to scale plot plan complete to a distance of 500 feet from the proposed installation noting property lines and neighboring places of public assembly enclosed with this application? YES NO
7. Are foundations, (piers), of an approved type, (1/3 of circumference)? YES NO
(Submit blueprint for proposed foundations including the size and location of reinforcing rod to be used)
8. Are all piping, pump, and control devices of an approved type? YES NO
(Submit plumbing diagram showing location of all bulkheads & control and safety devices)
9. Are locking devices furnished for all primary valves? YES NO
10. Will all necessary safety equipment, required by the State of Iowa, be available on the site? YES NO
11. Is the site subject to city jurisdiction or county jurisdiction? City County
(Sites subject to city jurisdiction must receive city council approval after public notification that site approval is being considered. Sites subject to county jurisdiction must receive board of supervisor approval after public notification that site approval is being considered.)
12. Are the public notice of meeting agenda and minutes of meeting with favorable vote attached to this application? (If a zoning group exist for the county, the groups recommendation must be discussed by county board.) YES NO
13. Will personnel performing installation be properly trained in such functions? List below YES NO

Name	Address

14. Do you understand that approval must be granted from the Iowa Department of Agriculture and Land Stewardship before any construction shall commence on the proposed site? YES NO
(A copy of this application will be returned with signatures granting approval.)
15. Do you understand that affidavits of construction, in compliance with the submitted plans, must be completed prior to putting installation into service? YES NO
16. Do you understand that, if the applicant receives approval from the Iowa Department of Agriculture and Land Stewardship to install anhydrous ammonia storage and does not begin such installation within 6 months of approval date, said approval becomes null and void? YES NO
17. Do you understand that the proposed site must be licensed before application can be submitted? YES NO

License Number of site _____ **Note: Misinformation may result in rescinding approval**

I, the undersigned, hereby state that the information contained in the above application for an anhydrous ammonia storage installation is true and correct to the best of my knowledge.

By: _____
 (Name of firm, same as #1 above)

 (Firm official) (Title)

State of Iowa,
 County of _____
 Subscribed and sworn to before me this _____ day of _____
 _____ A.D.
 My commission expires: _____

 (Notary Public)

IDALS Inspector:	
_____ (Signature)	_____ (Approval Date)
Fertilizer Administrator:	
_____ (Signature)	_____ (Approval Date)

(Completed and Notarized application goes back to the IDALS Inspector for initial approval and submission.)

Supplemental Information

1. How many gallons of storage are you proposing for the three storage tanks and potential future facilities? And could you please provide a general summary of the equipment and facilities involved with proposed special use.
 - Our hope is to install up to 3 30,000 gal bulk storage tanks on the site. The first one will be the tank currently installed at our Swaledale location and then we hope to purchase two additional tanks as the tank market allows us to do so.
 - We will install two load stands North of the storage tanks
 - We would have approximately 20 rolling stock wagons on site throughout the year that are used to transport Anhydrous Ammonia to the fields from the pumping station. These wagons between 1000 -2900 gal depending on the style of the wagon. Most of our wagons are set up as 2000, or 2900 gallon configurations. This would allow us to hold around 250-275 ton of Anhydrous Ammonia on site. This is similar to the volume at our other locations and what others in the industry would have on site for storage.
2. How many employees will be involved with the facility, particular that are existing versus new to this property? What is expected truck and other traffic (vehicles per day) you expect to be travelling to the facility?
 - Currently the Swaledale location is “seasonally” manned. In season the we shift employees from the Thornton location to Swaledale to operate the plant which may use up to 4-5 people daily to operate the site and deliver product.
 - We will not see personal change but rather we will be able to centralize and better utilize our current employees at the Thornton site and have all of our services on the same site. The Thornton location employees 16-18 employees throughout the year.
 - Traffic flow to the proposed Anhydrous Ammonia site will be seasonal to the late fall and spring. The traffic load will be around 20-30 vehicles per day in the peek to much of the year being near zero. There is other traffic coming and going the site from the current grain elevator as well.
3. Is there any expected water use resulting from the facility? What is the expected level of waste or refuse disposal involved with the proposed facility?
 - All the water needed will come from our on site well. Anhydrous Ammonia does not require the use of water other than that to fill personal safety dunk tanks (250 gal), nurse wagon water jackets which hold 5 gal each. And general use of a garden hose for replenishing safety water tanks.
 - We don't foresee any refuse, disposal, or discharge of water from the Anhydrous Ammonia site.
4. Please summarize and address any expected noise, fumes, smoke, glare, or odors that may results from the use.
 - Noise levels should be minimal to two 10hp electric pumps running, yard truck traffic and people talking with each other.
 - Fumes, odors, and smoke should be near zero unless there is a release from a safety “popoff” valve on a storage tank. All of our equipment is build and maintained at required Iowa Department of Agriculture required levels with regular employee training and equipment inspections.
 - The storage tanks are painted white and will be oriented N/S and away from the public roads and meeting point glare and public risks should be very low to none.

Robbins, John

From: Daniel Ries <dries@cghealth.com>
Sent: Wednesday, December 21, 2022 2:29 PM
To: Robbins, John; Berg, Carl
Cc: Mark Mathre; J.D Sliger; Jodi Willemssen
Subject: RE: 7487 125th St - North Iowa Cooperative

John,

Here is the GPS location (blue bubble), it is a little hard to put things in relationship as it was undeveloped or under developed when we were there...



ASH ST

CH B65 125TH ST

Ingebretson
Park

THORNTON

19

