



PLANNING AND ZONING Cerro Gordo County Courthouse

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(641) 421-3075
(641) 421-3110
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SPECIAL EXCEPTION STAFF REPORT

SUMMARY OF REQUEST

Case No.: 23-7

Hearing Date: April 25, 2023

Staff Contact: John Robbins, Planning and Zoning Administrator

Applicant:

Jon Wells – New Cooperative, Inc.
2626 1st Avenue S
Fort Dodge, IA 50501

Owner

New Cooperative, Inc.
16771 Balsam Avenue
Ventura, IA 50482

Property Address: 16771 Balsam Avenue

Brief Legal Description: S 623' of the W 700' of the NW¼ of the NW¼, Section 17, Clear Lake Township

Zoning: A-1 Agricultural

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

Special Use Area: ~5,000 square feet

Parcel Area: 10 acres

Special Use Description

New Cooperative, Inc. currently operates a large agricultural services business onsite, which was recently purchased from Pro-Ag Solutions late last year—a Special Use Permit is also held by New Cooperative that they inherited from the purchase of the business and facilities. The Cooperative is proposing to locate two 45,000 anhydrous ammonia storage tanks and associated facilities. They also plan to install a 3 million gallon, welded steel 32% liquid fertilizer tank, which is separate from the proposed special use.

FINDINGS OF FACT

1. New Cooperative, Inc is the owner of the subject property.
2. Jon Wells is making the request on behalf of the owner.
3. The property is zoned A-1 Agricultural.
4. New Cooperative, Inc. 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 A-1 District, subject to the requirements and conditions as granted by the Board of Adjustment.
6. The application was filed on March 10, 2023 with the Planning and Zoning Office.

BACKGROUND INFORMATION

Purpose of Special Use Request

New Cooperative, Inc. (the Cooperative) currently operates a large agricultural services business onsite, which was recently purchased from Pro-Ag Solutions late last year—a Special Use Permit is also held by New Cooperative that it inherited from the purchase of the business and facilities (See Figure 1). The Cooperative is proposing to locate two 45,000 anhydrous ammonia storage tanks and associated facilities as a part of the special use (See Figure 2). The proposed special use is a special permitted use in the A-1 District with approval from the county Board of Adjustment.

Existing Land Use and Zoning Classification of Property

The Cooperative operates an agricultural services business as granted by Special Use Permit in 2022 to Pro-Ag Solutions, which was recently purchased by the Cooperative. The property is zoned A-1 Agricultural.

Land Use and Zoning Classification of Surrounding Property

The property surrounded by fields in agricultural production, except there is a field used for horse grazing to the south, and are all zoned A-1 Agricultural. Five Star Cooperative runs a commercial grain storage facility about ¼-mile to the north, zoned M-1 Light Industrial. Additionally, Pro-Ag Solution's former location is about ¼-mile to the south and is also zoned M-1 Light Industrial.

The nearest residence is located approximately 1,100' to the northwest located at 1951 260th Street (See Figure 3). There is significant existing vegetation that provides sufficient screening for the residence on the acreage along the south and east property lines.

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 provided setbacks for the storage of anhydrous ammonia is more than 1,000' from the nearest residence, which provides much more than the required 100' separation distance from a dwelling as required in the ordinance.

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 development that has been occurring along the Balsam Avenue corridor north of Ventura. 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 tank being placed at this location.

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 serves the agricultural community similar to other nearby uses along the Balsam Avenue corridor north of Ventura. There are existing commercial and industrial properties to the north and south about ¼-mile each way. The proposed special 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 proposed special use is an expansion of the Cooperative's operations already occurring onsite and an extension of nearby uses onsite and along the Balsam Avenue corridor. The anhydrous ammonia storage tanks will be about 1,100' from the nearest residence (See Figures 1 & 2). The proposed special use should not have a significant 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)

Balsam Avenue (County Road B-65) is hard-surfaced and carries approximately 1,270 daily vehicles on average, according to the Iowa DOT's 2021 traffic maps. The Cooperative noted that the proposed special use would equate to about 80 truck loads into the facility annually. The road appears to be adequate for the use intended. A new driveway may be needed to the north of the existing building. The County Engineer noted a driveway permit will be required for any new driveway.

Law enforcement protection is provided by the Cerro Gordo County Sheriff's Department. The site is served by the Ventura 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 special flood hazard area. The property is located within Drainage District 16. The County Auditor's Office has noted that an easement within a public drainage district must be applied for and received for the facilities.

Refuse disposal is the responsibility of the property owners. The property is served by an existing well located just northwest of the existing building and a new septic system on the west side of the building, over 600' from the proposed special use. CG Public Health notes that the proposed special use should not impact these facilities. An annual water test is recommended for the well.

The proposed special use will not have an impact on schools.

Public Cost for Additional Public Facilities and Services

The proposed special uses 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)

Balsam Avenue (County Road B-65) is hard-surfaced and carries approximately 1,270 daily vehicles on average, according to the Iowa DOT's 2021 traffic maps. The Cooperative noted that the proposed special use would equate to about 80 truck loads into the facility annually. The road appears to be adequate for the use intended. A new driveway may be needed to the north of the existing building. The County Engineer noted a driveway permit will be required for any new driveway.

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. The required 1,000' setback from place of public assembly are designed to mitigate, if not eliminate, any safety hazards. The proposed anhydrous ammonia storage tanks are about 1,100' from the nearest residence to the northwest.

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

The purpose of the A-1 District is generally intended for agricultural uses or those that are designed to continue the use of such land for agricultural purposes. The proposed special uses are an expansion and continuation of an existing agricultural services business. While this is not specifically an agricultural use, the business serves the agricultural community and is in line with the goals of the ordinance in that regard.

Compatibility with County Comprehensive Plan

About 10 acres of land was taken out of production when the original facilities were constructed. No additional farmland is being taken out of production as a result of the proposed special use. The 2004 Comprehensive Plan update generally indicates non-farm uses should serve the agricultural community, which the proposed special use does. Additionally, the proposed special use should be located outside of an urban area or dense development, which is generally supported by the plan where appropriate. Additionally, the property is located on a paved road and in the urban fringe area of Ventura, which is appropriate for a commercial-type use. The plan generally appears to support the proposed special use as a result.

COMPLIANCE WITH ADDITIONAL ARTICLE 20 REQUIREMENTS

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

- 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 A-1 Agricultural. The two proposed 45,000 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 Ventura and located over 1,000' from any place of public assembly or dwelling. The proposed location for the storage tanks are about 600' from the onsite well.

ZONING DISTRICT REQUIREMENTS

Staff comments are in bold below. Requirements of the zoning district for which the proposed special use is to be located are as follows:

The property is zoned A-1 Agricultural.

- Minimum parcel size is 10 acres. **The parcel on which the special use is proposed is 10 acres in size.**
- 7.5 Height Regulations. No building hereafter erected or structurally altered shall exceed two and one-half (2 1/2) stories or thirty-five (35) feet. **No buildings are being proposed as a part of the special use.**
- 7.6 Yard Requirements. Each lot shall have front, side and rear yards not less than the depths or widths following:
 - A. Front yard depth, fifty (50) feet.
 - B. Each side yard width, twenty-five (25) feet.
 - C. Rear yard depth, thirty (30) feet.

All setback requirements will be met.

STATUTORY REQUIREMENTS

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.

DEPARTMENT COMMENTS

County Engineer: The Cooperative noted that the proposed special use would equate to about 80 truck loads into the facility annually. The road appears to be adequate for the use intended. A new driveway may be needed to the north of the existing building. The County Engineer noted a driveway permit will be required for any new driveway.

County Auditor: The property is located within Drainage District 16. The County Auditor's Office has noted that an easement within a public drainage district must be applied for and received for the facilities.

CG Public Health: The property is served by an existing well located just northwest of the existing building and a new septic system on the west side of the building, over 600' from the proposed special use. CG Public Health notes that the proposed special use should not impact these facilities. An annual water test is recommended for the well.

Clear Lake Sanitary District: The location is located just inside the Environmental Resources Overlay District, which is roughly the watershed of Clear Lake, but the specific location is not generally considered environmentally sensitive. The Clear Lake Sanitary District has been provided the opportunity to make comment. Any comments received will be shared with the Board at the hearing.

City of Ventura: Being located about ½-mile north of the city limits of Ventura, the city has been provided the opportunity to make comment. Any comments received will be shared with the Board at the hearing.

STAFF ANALYSIS AND RECOMMENDED ACTION

The Cooperative's request to place two, 45,000 gallon anhydrous ammonia storage tanks 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 an expansion of the existing agricultural services business and is in line with the character of similar business along the Balsam Avenue corridor. The expected traffic is about 80 truck loads annually, and the property is located on a paved road, which generally is appropriate for the type of traffic the proposed special use may generate. As a result, the Board would be justified to approve the request subject to the recommended conditions 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 New Cooperative, Inc. and any successors and assigns or future owners of the property. Any change of use of the property shall require a Zoning Permit to verify compliance with the county Zoning Ordinance.
8. The site plan and operator's statement 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. Fifty (50) 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.

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: Supplemental answers to application
- Exhibit 4: Site plans
- Exhibit 5: Equipment diagrams
- Exhibit 6: Aerial photo of site

Figure 1

Looking at the existing facilities in which the Cooperative currently operates



April 5, 2023, J. Robbins

Figure 2

Looking at the general location proposed for the anhydrous ammonia storage tanks



April 5, 2023, J. Robbins

Figure 3

Looking toward the nearest residence located at 1951 260th Street to the northwest of the Cooperative's property



April 5, 2023, J. Robbins

SPECIAL USE PERMIT

APPLICATION

Date Filed 3/10/23

Date Set for Hearing 4/25/23

Case Number: 23-7

Applicant Name: Jon Wells - NEW Cooperative Phone: 515-571-3392 E-Mail: jwells@newcoop.com

Mailing Address: 2626 1st Avenue South, Fort Dodge IA 50501

Property Owner Name: NEW Cooperative Phone: 515-571-3392 E-Mail: jwells@newcoop.com

Property Owner Address: 16771 Balsam Avenue, Ventura Iowa 50482

Property Description (Not to be used on legal documents): Parcel # 051710001300 Township 17/96/22

Property Address: 16771 Balsam Avenue, Ventura Iowa 50482 Zoning: Commercial

Brief Legal Description: The S 623' W 700' NW NW 17-96-22

Type of Special Use Requested: Anhydrous Ammonia Bulk Plant

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

NEW Cooperative proposes to install 2-45,000 gallon NH3 tanks and fill stations for use as a Lowl Agricultural Fertilizer. This installation will minimally affect traffic in the spring and fall seasons during NH3 application with hours of operations of 7am-5pm with weekend operations as needed. The design and construction will be completed in accordance with Iowa Department of Agriculture requirements, i.e. ANSI standards. This install will be constructed as so to not disturb any existing or future uses of the area and is consistent with the intent and purposes of the zoning district.

*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 [x] Other (Explain) Safety & Risk Mgmt of NEW Cooperative, Inc. 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 [Signature]

Date 3/2/23

Robbins, John

From: Jon Wells <jwells@newcoop.com>
Sent: Wednesday, March 29, 2023 11:11 AM
To: Robbins, John
Cc: Jeff Marsh
Subject: RE: Special Use Permit Application
Attachments: Ventura NH3 Well distances & driveway.pptx

External Email WARNING: DO NOT open attachments or click links from unknown senders or unexpected emails. Questions? Call 3-HELP.

Hi John,

Please see below my responses in red. If you need any further clarification don't hesitate to reach out.

Thanks in advance,

Jon Wells | Safety & Risk Manager
Direct: 515-955-9039 / Cell: 515-571-3392
[Fort Dodge, Iowa 50501](#)



From: Robbins, John <jrobbins@cgcounty.org>
Sent: Friday, March 10, 2023 3:07 PM
To: Jon Wells <jwells@newcoop.com>
Subject: Special Use Permit Application

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi Jon,

I received the Special Use Permit Application for the requested anhydrous ammonia storage facilities in the mail today. I have some questions and could use more detail. Some of these may be addressed in the narrative provided on the application, as I borrowed these a bit from a previous questionnaire I used.

1. How many gallons of storage are you proposing for the two storage tanks and potential future facilities? And could you please provide a general summary of the equipment and facilities involved with proposed special use. If there are any general details not already addressed in your provided narrative of the anticipated operations, that would also be helpful. **We are proposing to install 2-45,000-gallon NH3 storage tanks with fill stations.**

2. There is a label on the site plan: "3 million uan 127'x32'. What is this structure and its purpose? Is it specifically related to the anhydrous storage bulk plant? **We are also constructing a 3-million-gallon welded steel 32% liquid fertilizer tank. It is un-related to the installation of the Anhydrous storage bulk plant.**
3. 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, especially in contrast to existing operations? Do you anticipate any need for new driveways or will you be utilizing the existing one? **See attached drawing, I would expect we would put another driveway in on the north side of the property directly west of the scale. We expect to move 2,000 tons of Anhydrous through this facility during the fall application season. Typically starts around October 15th (depending on ground temperature), and last until Thanksgiving (weather dependent) 2,000 tons equates to 80 semi loads brought into the facility and 300-3,000-gallon nurse tanks that would be filled and taken back out to the farm for application. I don't expect a growth in employee numbers due to this project, but potentially could hire 2 part time employees during the busy season.**
4. 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? **We will have 2–150-gallon emergency water tanks directly associated with the Anhydrous Ammonia plant. No waste or refuse disposal.**
5. Please summarize and address any expected noise, fumes, smoke, glare, or odors that may results from the use. **There are no expected offsite noise, fumes, smoke, glare, or odors resulting from this use.**
6. Please identify the location of existing well and wastewater facilities and distances from the proposed storage location. **See attached drawing. Well is approximately 600' from proposed Anhydrous Ammonia Plant.**

I appreciate your attention to these questions. We will assign you a case number and you will be scheduled for our next available meeting: April 25th at 4 p.m. at the courthouse. You will received notice in the mail as well a couple weeks prior to the meeting. Please make sure someone will be able to attend to represent the case. If you could please provide you answers to the above questions within the next couple of weeks, that would be appreciated. Please let me know if you have any questions.

Thank you,

John Robbins

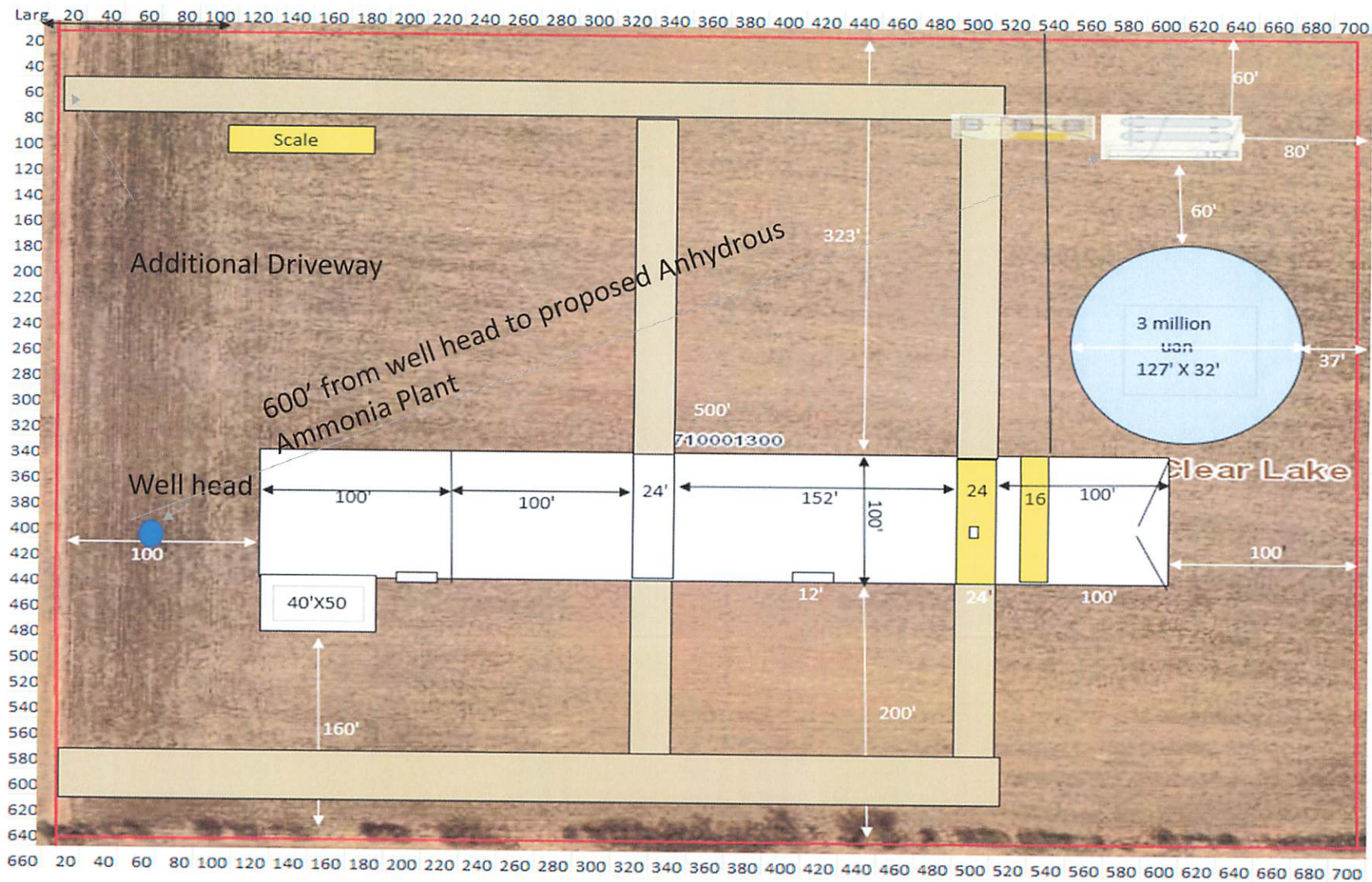
Planning and Zoning Administrator

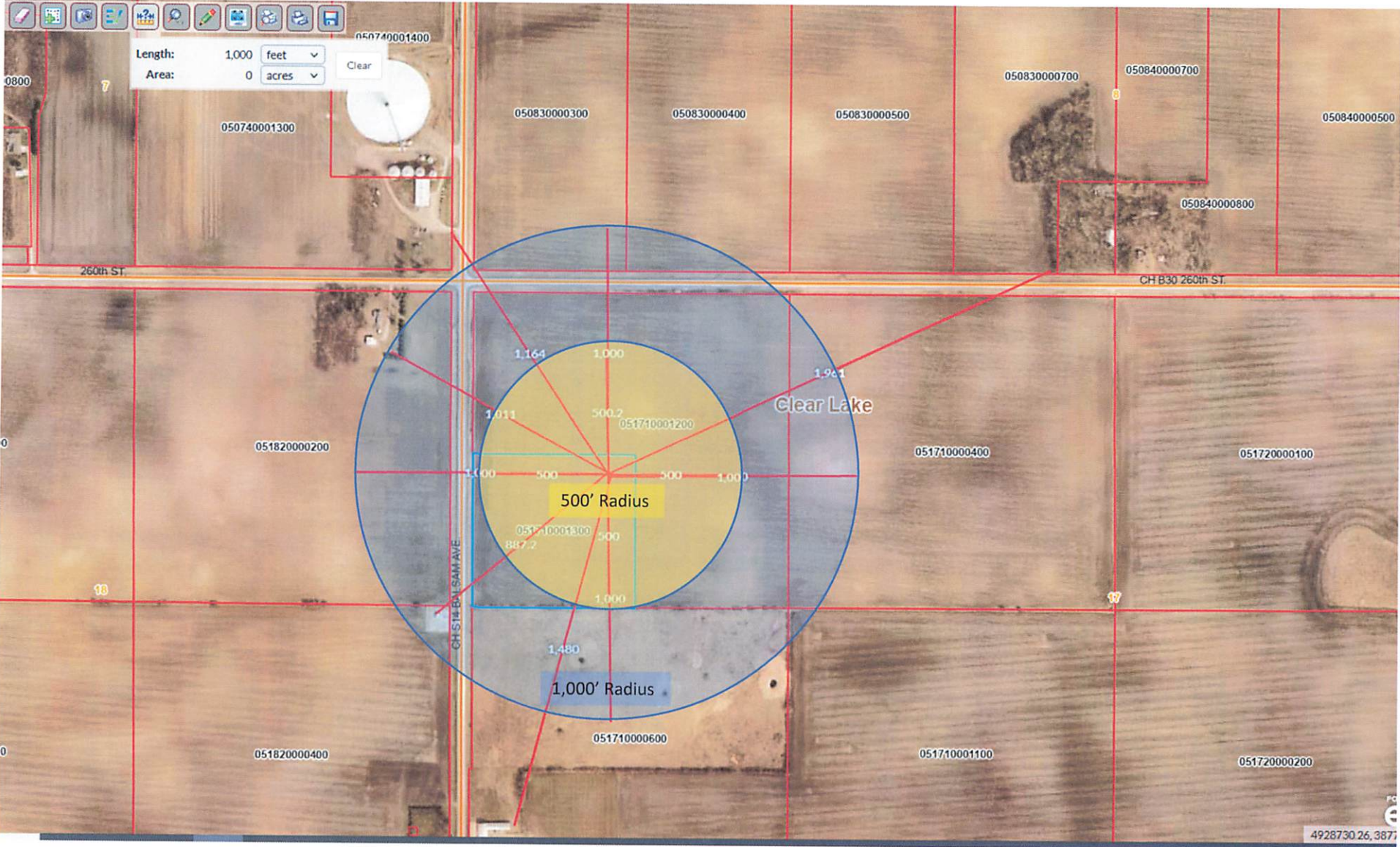
Cerro Gordo County

jrobbins@cgcounty.org

Office: 641-421-3075

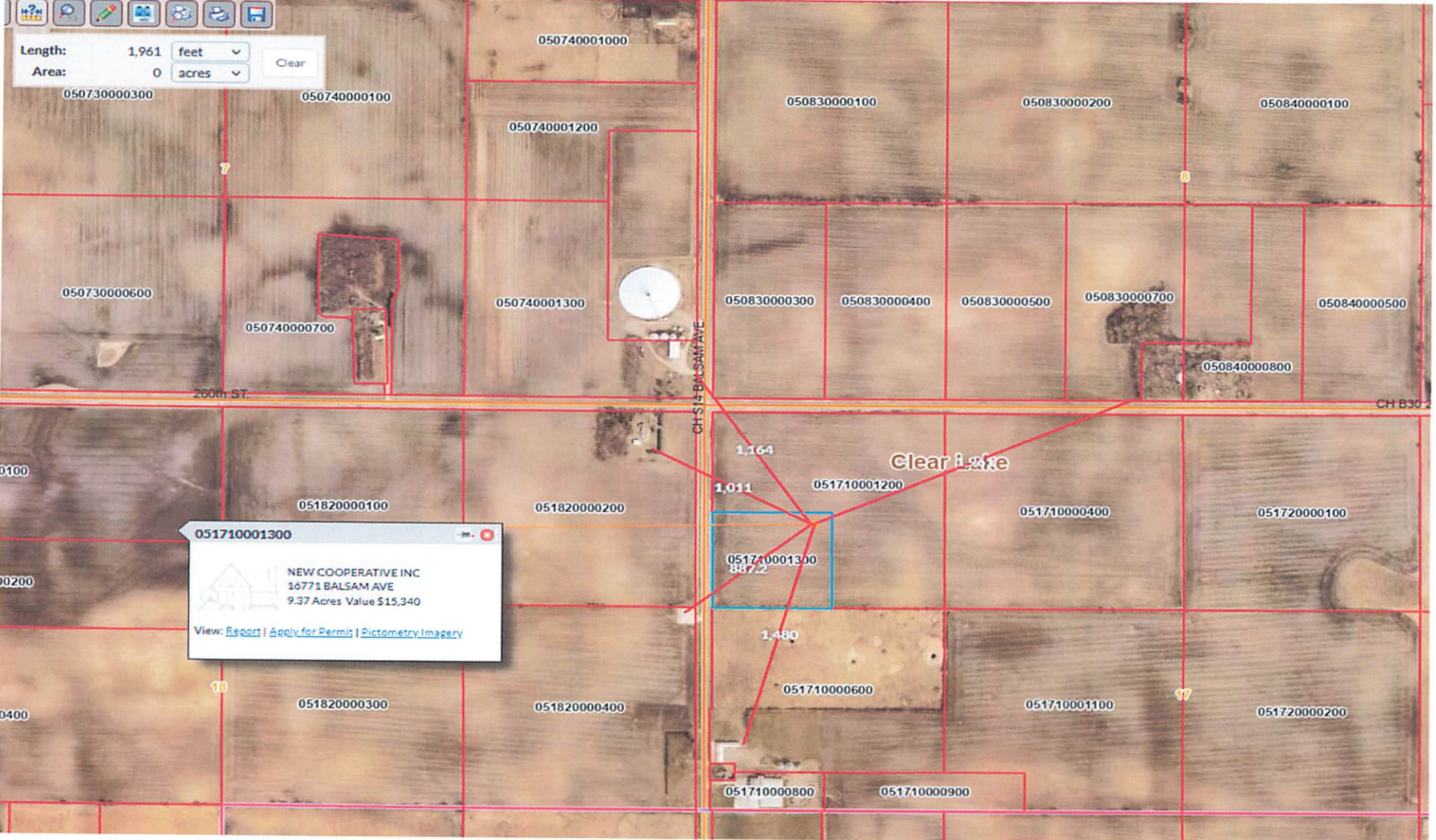
Direct: 641-421-3110







Length: 1,961 feet
Area: 0 acres



051710001300

 NEW COOPERATIVE INC
16771 BALSAM AVE
9.37 Acres Value \$15,340

View: [Report](#) | [Apply for Permit](#) | [Pictometry Imagery](#)

051710001300
887.2

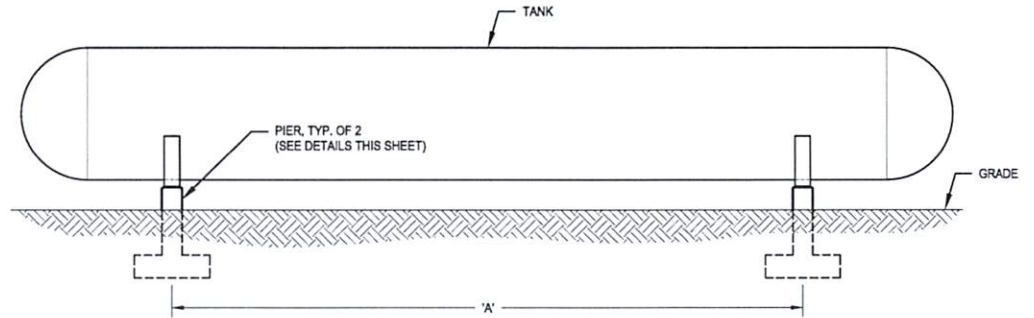
GENERAL NOTES:

- 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 4,000 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 3,000 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'	'E'
45,000	46'	6'	14'	4'	11'

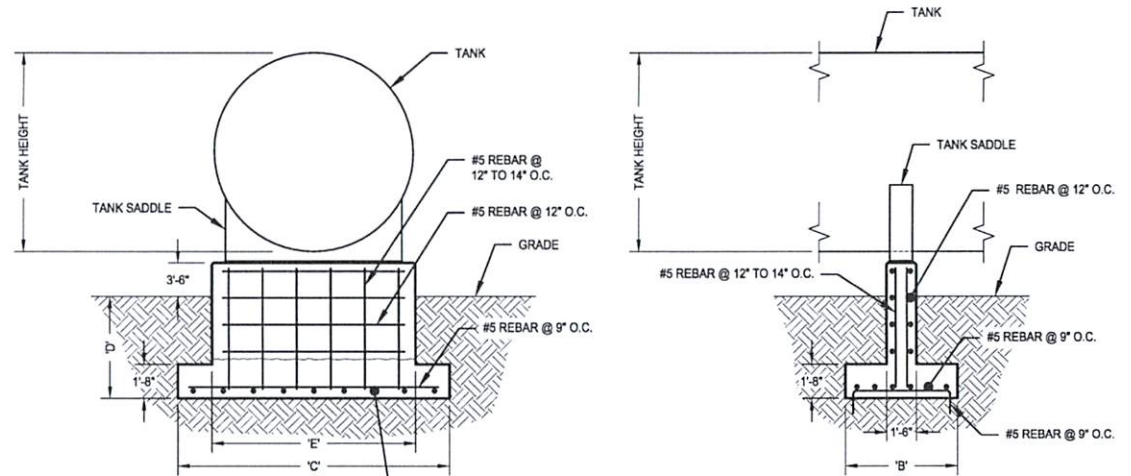


FOOTING DEPTH BELOW GRADE DIMENSION 'D'



LOCATION OF CONCRETE PIERS

NOT TO SCALE



DETAIL OF CONCRETE PIERS

NOT TO SCALE

TANK INFORMATION

CAPACITY: 45,000 GAL.
 NORMAL DIMENSIONS
 OUTSIDE DIAMETER: 132"
 OVERALL LENGTH: 69'



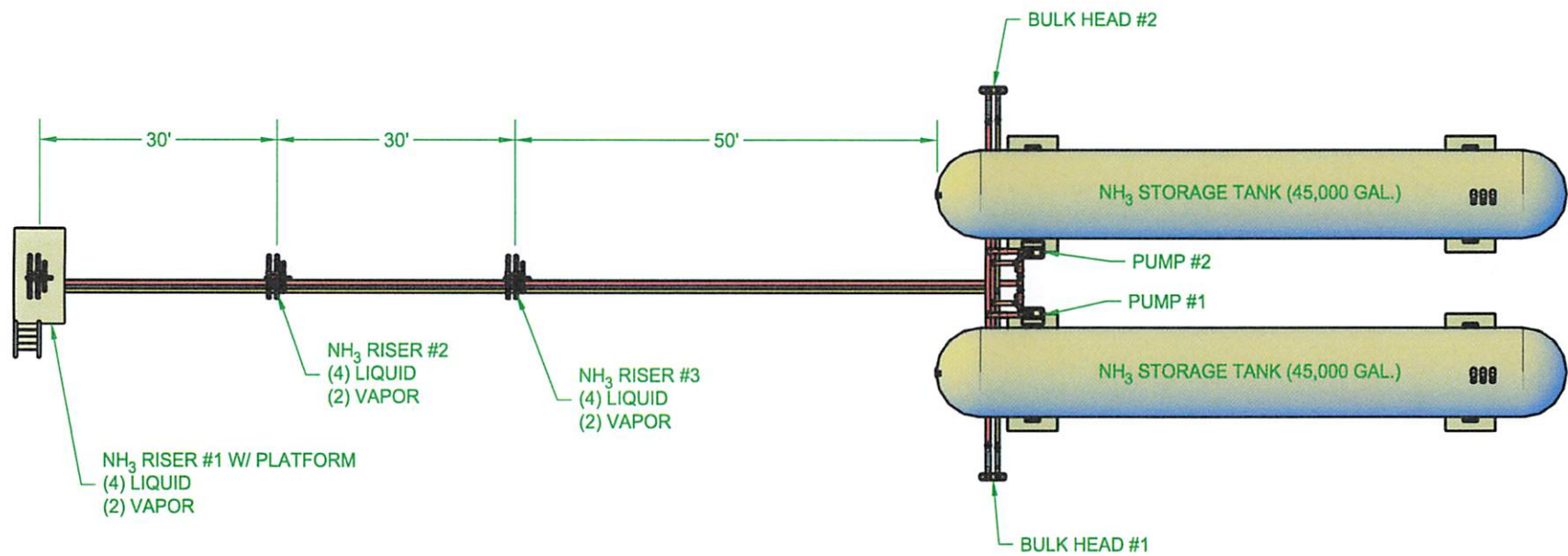
PRINT NAME: PIER DETAILS - NH TANK

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

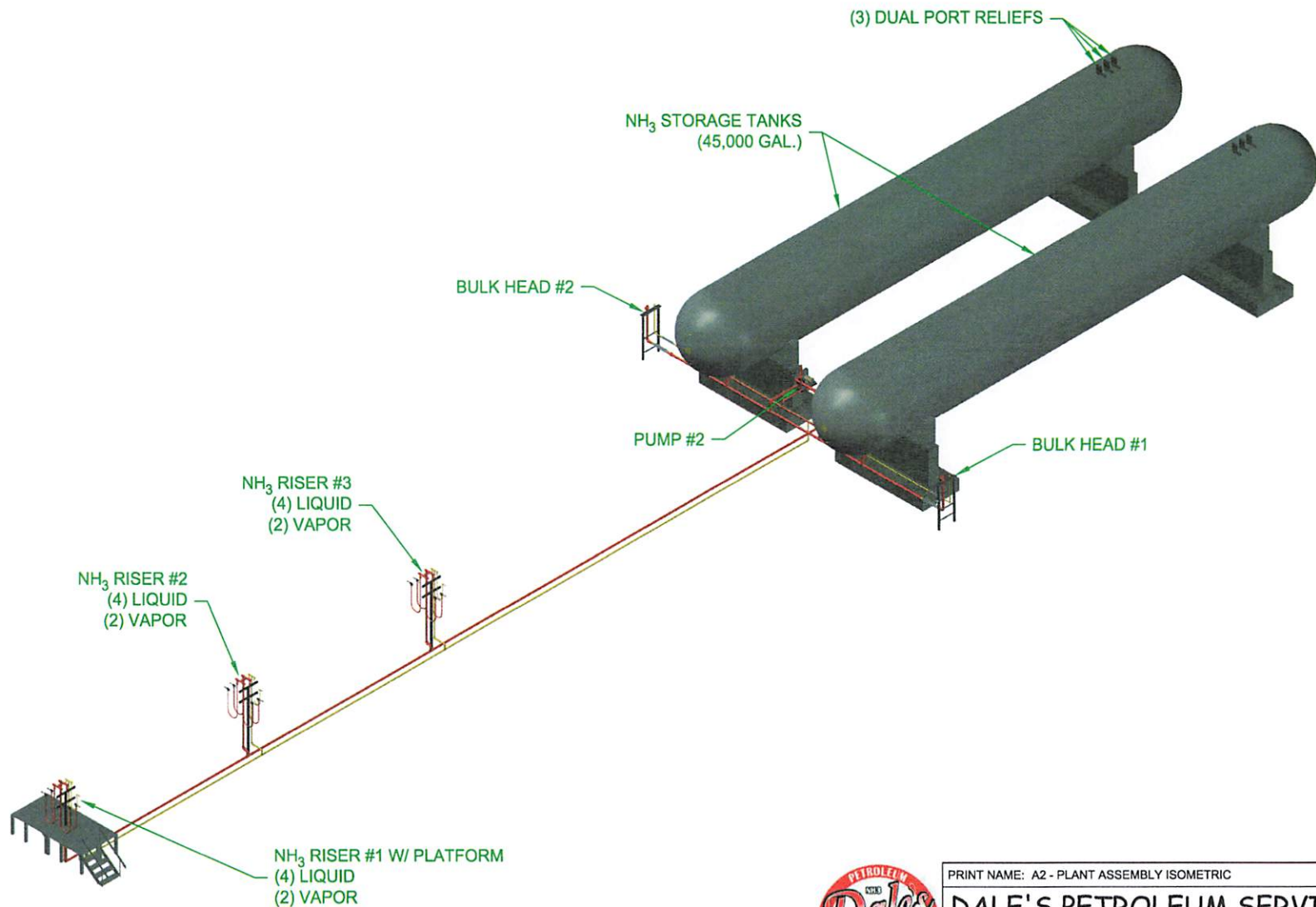
DATE: 2/28/2022

NEW COOP - VENTURA, IA

REVISION: 0

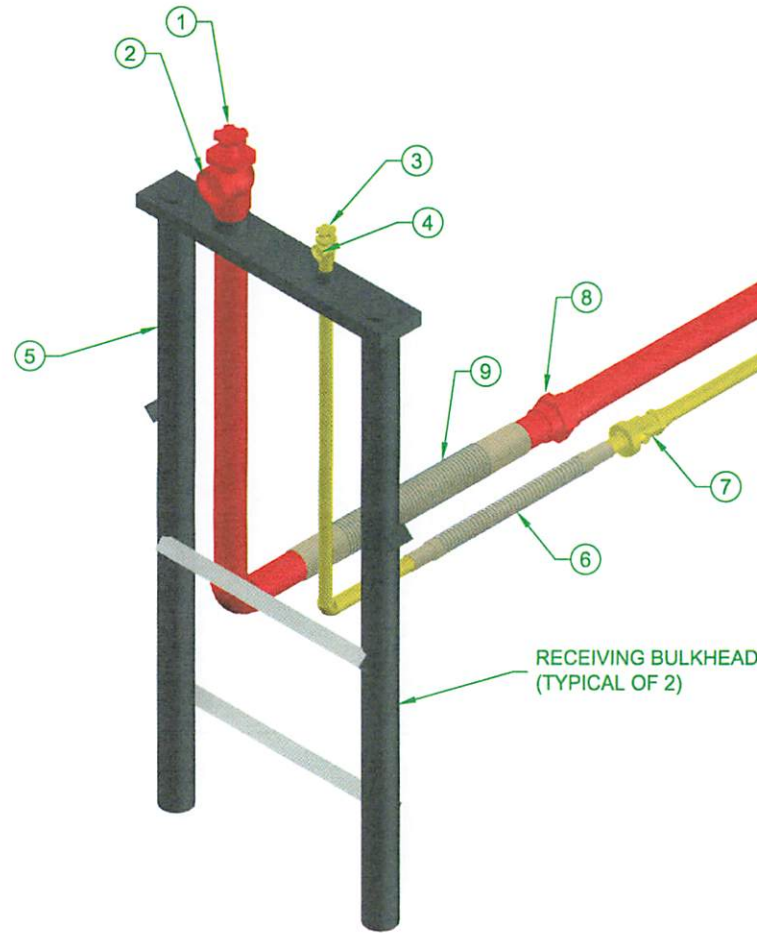


PRINT NAME: A1 - PLANT ASSEMBLY PLAN VIEW		
DALE'S PETROLEUM SERVICE INC.		
Fort Dodge, IA 50501		
DATE: 2/28/2022	NEW COOP - VENTURA, IA	REVISION: 0



PRINT NAME: A2 - PLANT ASSEMBLY ISOMETRIC		
DALE'S PETROLEUM SERVICE INC.		
Fort Dodge, IA 50501		
DATE: 2/28/2022	NEW COOP - VENTURA, IA	REVISION: 0

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



RECEIVING BULKHEAD
(TYPICAL OF 2)



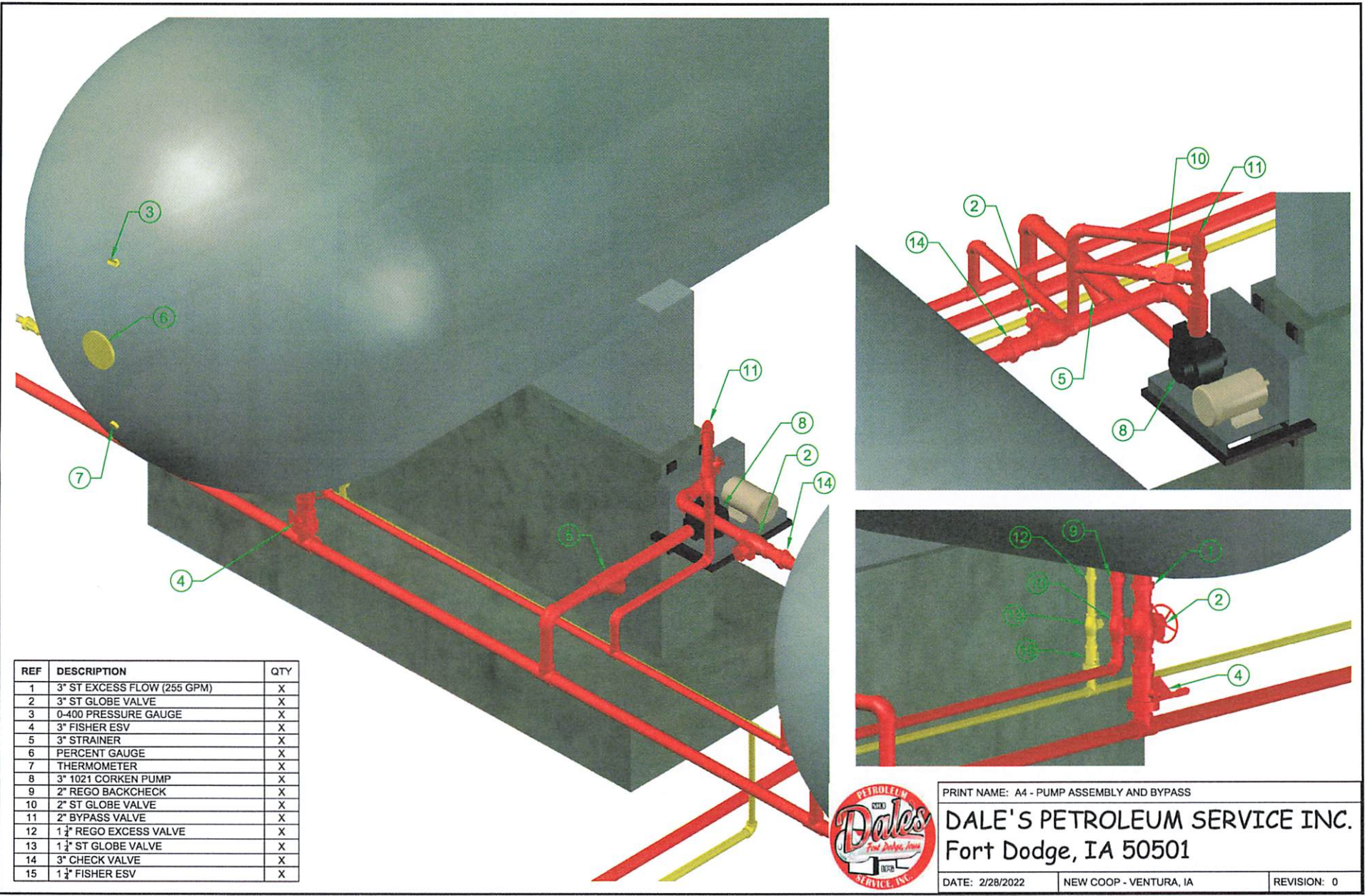
PRINT NAME: A3 - BULK HEAD DETAIL

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

DATE: 2/28/2022

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REVISION: 0



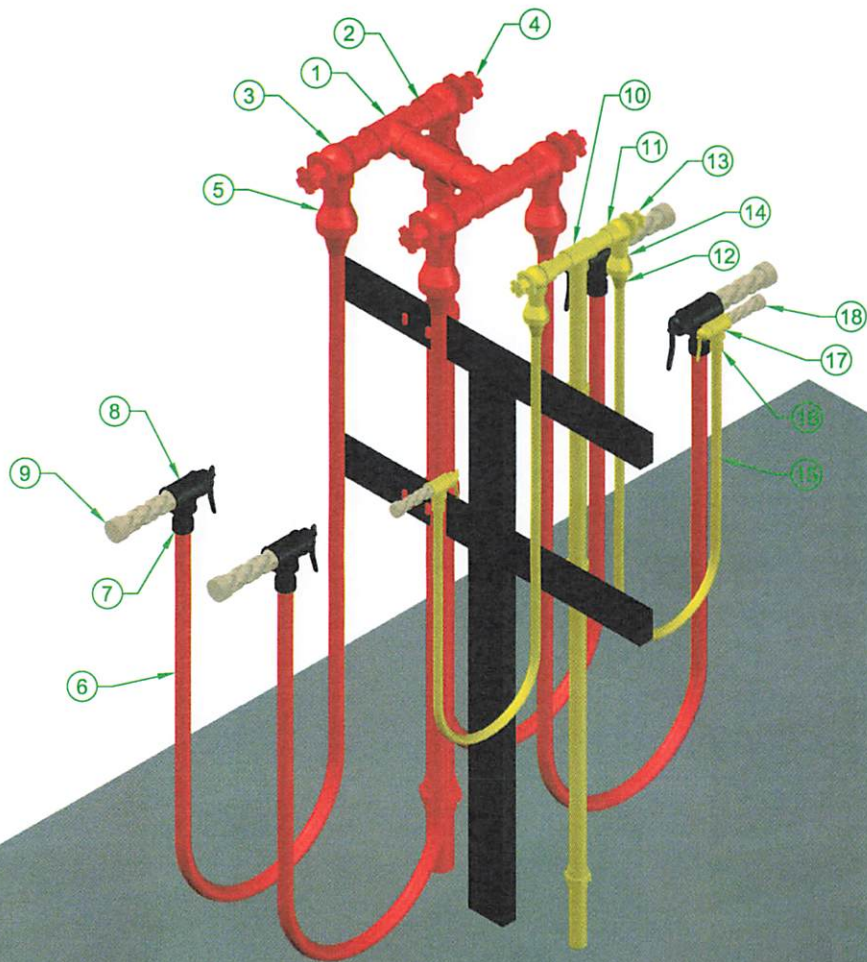
REF	DESCRIPTION	QTY
1	3" ST EXCESS FLOW (255 GPM)	X
2	3" ST GLOBE VALVE	X
3	0-400 PRESSURE GAUGE	X
4	3" FISHER ESV	X
5	3" STRAINER	X
6	PERCENT GAUGE	X
7	THERMOMETER	X
8	3" 1021 CORKEN PUMP	X
9	2" REGO BACKCHECK	X
10	2" ST GLOBE VALVE	X
11	2" BYPASS VALVE	X
12	1 1/2" REGO EXCESS VALVE	X
13	1 1/2" ST GLOBE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



PRINT NAME: A4 - PUMP ASSEMBLY AND BYPASS

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REF	DESCRIPTION	QTY
1	2" TEES	X
2	2" XH BLK NIPPLE	X
3	1/2" HYDROSTATIC	X
4	1 1/2" 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 ST	X
14	TP-6 TRIPOD ST 55 GAL	X
15	1" NYLON BRAID HOSE	X
16	1" SWIVEL FITTING	X
17	1" ANGLE VALVE ST	X
18	1" SAFETY COUPLER ST	X



PRINT NAME: A5 - RISER ASSEMBLY PACKAGE

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CH S14 BALSAM AVE

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