

Date Oct 13 Hour 8:46

To 217

M Al -

Of 3:30-4:00

Overleaf



**BINKELMAN CORPORATION**

7414 PONDEROSA ROAD  
PERRYSBURG, OHIO 43551

*NFPA*  
*231 & 231C*  
*storage above 12'*  
*RACK storage*  
*over 12'*

419-666-2465 • FAX 419-666-4673  
800-862-4673

# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Steve Kloos - Cloverleaf Cold Storage

**Fax No.** (419) 599-0245

**From** Adam C. Hoff, P.E. - City Engineer *ACH*

**Date** 10/13/98

**Subject** Building Addition Plan Review

**Pages** 4, including this one

The following is the letter I prepared regarding the fire protection and backflow prevention. Jeff, Allan and I will be there at 3:30 PM tomorrow to discuss these issues. Allan also invited a representative from the State Fire Marshall's office to attend our meeting.

If you have any questions, please call me at 592-4010. Thank you.

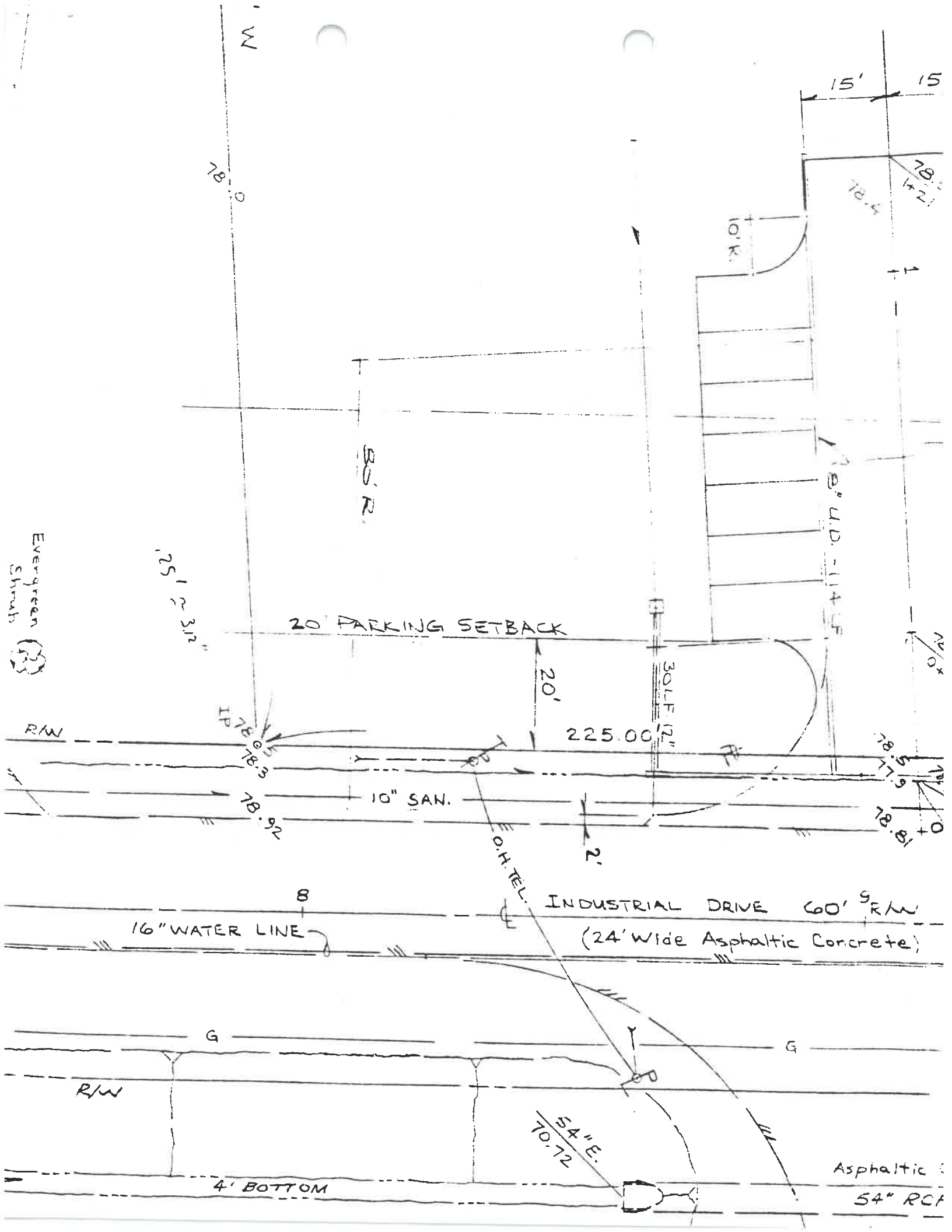
*11/65  
Independence*

255 W. Riverview Ave.

Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax



November 30, 1998

Ms. Debbie Ko  
Division of Drinking Water  
Ohio EPA Northwest District Office

Bowling Green, Ohio 43402

Jeff - 11/30  
Please review &  
comment.  
ACH

Dear Ms. Ko:

Enclosed please find one (1) copy of a letter I received regarding the backflow prevention at Cloverleaf Cold Storage. Cloverleaf Cold Storage is a warehouse facility which includes freezer and dry storage units. The site is served by an eight (8) inch private water main with domestic, production and fire services along the route. A siamese connection for additional fire protection is also attached to this private water main with a single check valve for backflow prevention within the existing valve vault. A review of the facility has shown that the highest potential source of contamination on the site is the "production area" in which the company will be utilizing water to thaw meats for further processing.

Based upon the degree of hazard within the production area, we have determined that a reduced pressure principle (RP) backflow preventer will be required. We have further determined that, at a minimum, a dual detector check valve assembly must be provided for the existing siamese connection. The question posed to the City by the owners of Cloverleaf Cold Storage is that, if an RP device is provided at the production area, could a dual detector check valve assembly be provided at the valve vault in lieu of an RP? Essentially, the cost of providing an eight (8) inch RP backflow preventer within an aboveground, heated enclosure is cost prohibitive. Whereas, a dual detector check valve assembly and a four (4) inch RP backflow preventer would cost much less.

Please review this issue and advise us of your recommendation. If you have any questions or require additional information, please call me.

Yours truly,  
ACH

*Jon Purness*

Enclosure

c: Jon, Jeff, Brent

Roger

12-16-98

Attached is a Fact Sheet about Pretreatment Programs, however it was not very descriptive, so I have included part of the pretreatment regs, OAC 3743-36. I have also included a sheet on Indirect Discharge Permits. (IDP) Of particular interest in OAC are sections 3745-36-03, which states who needs an IDP, section 3745-36-02 (R) which defines a Significant Industrial User (SIU), and section 3745-36-06, which describes who is eligible for Permit By Rule.

From what you described (contact rinse water, 200gpm) it sounds like they might need an IDP. By the way, a grease trap outside the building requires a PTI. Have the company give me a call & I'd be happy to discuss things with them.

Thanks!

Lynette

Post-it® Fax Note	7671	Date	2/16/98	# of pages	7
To	Roger Noblit	From	Lynette Hablitzel		
Co/Dept	C-7 of Napoleon	Co.	OEPA		
Phone #		Phone #			
Fax #	419-592-4595	Fax #			

## Fact Sheet

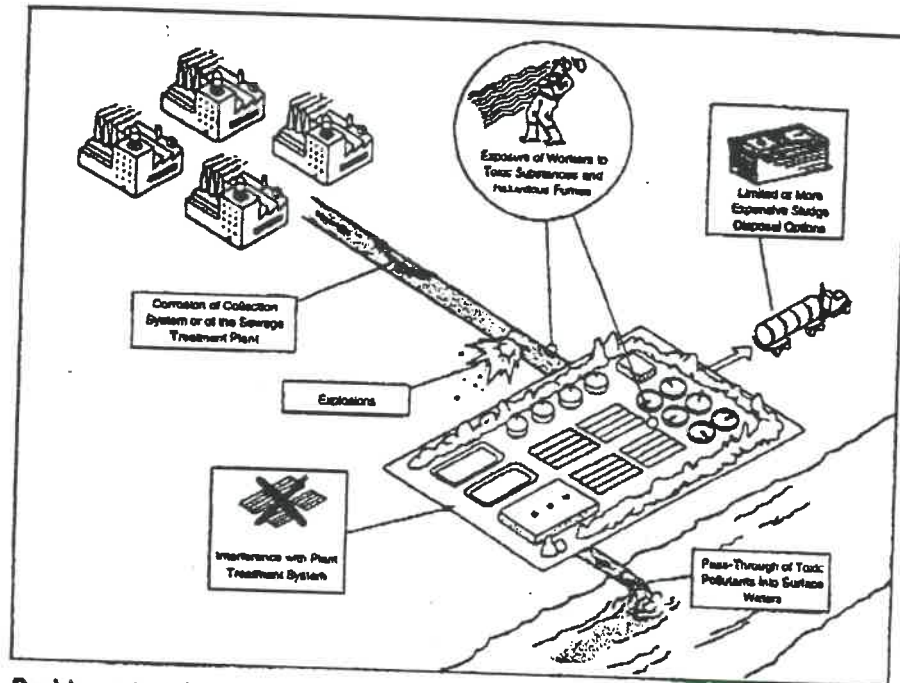
March 1996

## The Pretreatment Program

Beneath the streets of every city and many smaller communities, a system of sewers and pumps conveys wastewater away from homes, factories, offices and stores. This disposed water, which may contain a variety of domestic, commercial and industrial wastes, flows through the sewers to a wastewater treatment plant. There, pollutants are removed and the cleansed water is discharged into an adjacent water body. The residues of the treatment process (sludges) are either used productively as a soil conditioner or disposed as a solid waste.

Industrial plants are only one of many sources of wastewater discharged into municipal sewers. But the wastewater discharged by industry often is contaminated by a variety of toxic or otherwise harmful substances not common to other sources—the by-products of industrial processes such as cyanide from electroplating shops and lead from the manufacture of batteries.

Because sewage collection and treatment systems usually are not designed to treat them, industrial wastes can damage sewers and interfere with the opera-



**Problems that May Occur When Industrial Wastewaters are Discharged into Sewage Treatment Systems.** All these problems can be controlled through pretreatment.

tion of treatment plants; pass through systems untreated, resulting in contamination of nearby water bodies; increase the cost and environmental risks of sludge treatment and disposal; and expose workers to chemical hazards.

The undesirable effects resulting from the discharge of industrial wastewater into municipal sewers can be prevented. Industrial plants, using proven pollution control technologies, can remove pollutants from their

wastewaters before discharging them into the municipal sewage treatment system. This practice is known as "pretreatment."

The National Pretreatment Program, a cooperative effort of federal, state and local officials, is implementing this practice nationwide to ensure that industrial development vital to the economic well being of a community will be compatible with a healthy environment.

## National Standards

The Clean Water Act of 1972 called for U.S. EPA to develop national pretreatment standards. These are uniform national requirements which restrict the level of certain pollutants in the sewage from industries. All publicly owned sewage treatment works (POTWs) must enforce the federal standards, which consist of two sets of rules: "categorical pretreatment

## The Pretreatment Program

standards" and "prohibited discharge standards."

**Categorical standards** are organized by type of industry, and different requirements are mandated for each specific industrial category. For example, there is a categorical standard for the iron and steel industry which limits the ammonia, cyanide and other specific pollutants that may be in the waste water discharged by any firm in that industry.

**Prohibited discharge standards** prohibit any discharge to sewer systems of certain types of wastes from all sources. For example, the release of any wastewater with a pH lower than 5.0 is prohibited, since such wastes may corrode the sewer system.

### Local Programs

Regulations require large POTWs—those designed to accommodate flows of more than five million gallons per day—and smaller POTWs with significant industrial discharges to establish local pretreatment programs. The local programs must enforce all national and state pretreatment standards, and also may enforce additional, more stringent local limits.

In implementing a local pretreatment program, a POTW must:

- locate all industrial users and identify the pollutants they discharge;
- notify industrial users of applicable standards and requirements related to pretreatment;
- analyze self-monitoring reports and other notices submitted by its industrial users;
- sample and analyze the discharge from industrial users and conduct surveillance and inspection activities;
- investigate instances of noncompliance with pretreatment standards and requirements;
- provide annual public notification of industrial users which have significantly violated applicable pretreatment standards and requirements;
- develop and enforce local limits to control the discharge of pollutants by its industrial users into its treatment plant; and
- effectively enforce all pretreatment standards and requirements.

Implementation of the pretreatment program is handled at the local level for several reasons. First, POTW officials are familiar with their industrial users. They usually know the location, waste water flow and pollutant loadings of the industries they serve. In addition, they already may have mechanisms in place to regulate their industrial clients, such as permits or contracts. Secondly, POTWs are in the best position to understand and correct problems within their own treatment systems. Finally, local officials are better able to respond to emergencies, such as unexpected discharges of pollutants that result in the untreated discharge of waste.

### The State's Role

In 1983, U.S. EPA gave Ohio EPA authority to implement the pretreatment program in Ohio. Ohio EPA approves, monitors and regulates the performance of approximately 98 approved local pretreatment programs in the state. In communities without approved pretreatment programs, Ohio EPA maintains responsibility for the control of industrial users.

In addition, Ohio EPA regulates wastewater discharged by POTWs through a permitting system. Each POTW (as well as any industry that discharges directly to surface water) has an NPDES permit, which stands for National Pollutant Discharge Elimination System. The permit limits the amount of pollutants the POTW may discharge. A sewage treatment plant may have trouble meeting its permit conditions if the concentration of toxics flowing into the plant is too high. Without a pretreatment program, the POTW may violate its permit, resulting in fines or orders to upgrade.

Ohio EPA is recognized nationally as a leader in the pretreatment program. As a result of working together with the Agency, several Ohio cities have received pretreatment excellence awards.

For more information about Ohio EPA's Pretreatment Program, call the Division of Surface Water at (614) 644-2001.

## OHIO EPA PRETREATMENT PROGRAM: INDIRECT DISCHARGE PERMIT

### Who Must Apply

Any industrial user that discharges process wastewater into a publicly owned treatment works (POTW) without an Ohio EPA approved pretreatment program. Applications are required to be filed at least 180 days prior to commencing the discharge of process wastewater to a POTW. Facilities not classified as significant industrial users are eligible for a permit-by-rule.

### Authority

Federal Water Pollution Control Act of 1972 and subsequent amendments  
Ohio Revised Code 6111  
Ohio Administrative Code 3745-36

### Term

Indirect discharge permits are effective for a fixed term not to exceed five (5) years.

### Fee

Application fee of \$100.00.  
Permit fee based on design discharge flow of the facility. Permit fee ranges from 0 to \$750.  
Permit fee does not apply to industrial users eligible for permit-by-rule.

### Typical Requirements of a Indirect Discharge Permit

1. Effluent limitations and monitoring requirements.
2. Procedures for reporting non-compliance, resampling, slug loading notification, recordkeeping, disposal of residuals.
3. Compliance schedules for treatment system installation and upgrades.

### Application Process

1. Contact Ohio EPA Central Office Division of Surface Water Pretreatment Unit at (614) 644-2001 for a permit application.
2. Facility submits a complete application with application fee at least 180 days prior to beginning discharge to a POTW.
3. Ohio EPA drafts permit and sends permit to public notice for a 30-day comment period.
4. After 30 day comment period, Ohio EPA responds to comments and may hold a meeting with interested parties.
5. Final permit is prepared and issued by Ohio EPA after consideration of comments.

### Timeframes for Review of Permit Applications

1. Ohio EPA will review the application for completeness within 30 days of receipt. For incomplete applications, Ohio EPA prepares a letter outlining the application deficiencies and requirements for additional information.
2. Processing complete applications including preparing the draft permit will be completed within 90 days. This includes a 30 day Ohio EPA District Office review of the draft permit.
3. The draft permit is sent to public notice for a 30 day comment period.
4. Ohio EPA responds to comments and issues permit.
5. Ohio EPA's performance standard is to issue permits within 180 days of receiving a complete application.



## 3745-36 PERMIT PROGRAM REGULATING DISCHARGE OF NONDOMESTIC WASTEWATER INTO A POTW

- 3745-36-01 Purpose.
- 3745-36-02 Definitions.
- 3745-36-03 Permit required.
- 3745-36-04 Permit applications.
- 3745-36-05 Authorization to discharge by a POTW.
- 3745-36-06 Permit-by-rule.
- 3745-36-07 Criteria for issuing permits.
- 3745-36-08 Modification of permit.
- 3745-36-09 Applicability of rules of procedure.
- 3745-36-10 Transfer of permits.
- 3745-36-11 Revocation of permits.

### 3745-36-01 Purpose.

(A) The purpose of Chapter 3745-36 of the Administrative Code is to establish, as a part of the Ohio pretreatment program under Chapter 6111.032 of the Revised Code, a permit program regulating the discharge of nondomestic wastewater into a POTW to assure compliance with Ohio pretreatment standards under Chapter 3745-3 of the Administrative Code.

(B) In accordance with section 6111.032 of the Revised Code, nothing in this chapter is intended to supersede the primacy of the POTW in the regulation of its collection system and treatment works. All local laws, regulations, and ordinances shall apply as long as these requirements are as stringent as or more stringent than any set forth in the state pretreatment rules under Chapter 3745-3 of the Administrative Code.  
(Effective April 7, 1988)

### 3745-36-02 Definitions.

As used in Chapter 3745-36 of the Administrative Code:

- (A) "Act" means the Federal Water Pollution Control Act Amendments of 1972, 82 Stat. 886, as amended, 33 U.S.C. 1251 et seq., as amended by the Clean Water Act of 1977, 91 Stat. 1556, 33 U.S.C. 1251 et seq., and the Water Quality Act of 1987, 101 Stat. 7, 33 U.S.C. 1251 et seq.
- (B) "Applicant" means any person who files for an Ohio indirect discharge permit.
- (C) "Application" means the Ohio environmental protection agency form used to apply for an Ohio indirect discharge permit.
- (D) "Approved pretreatment program" means

a program administered by a POTW that meets the criteria established in 40 CFR Part 403 and section 6111.032 of the Revised Code and which has been approved by the director in accordance with 40 CFR Part 403 and section 6111.03 of the Revised Code.

(E) "Categorical pretreatment standard" means any standard, including national categorical pretreatment standards and Ohio categorical pretreatment standards, specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by new or existing industrial users in specific industrial categories.

(F) "Director" means the director of the Ohio environmental protection agency.

(G) "Indirect discharge" means the introduction of pollutants into a POTW from any nondomestic source, including but not limited to those regulated under section 307(b), (c), or (d) of the act.

(H) "Industrial user" or "user" means a source of indirect discharge.

(I) "Interference" means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes, use, or disposal; and
- (2) Therefore, is a cause of a violation of any

requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder: section 405 of the act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, and the Toxic Substances Control Act.

(J) "Ohio EPA" means the Ohio environmental protection agency.

(K) "Pass through" means a discharge which exits the POTW into waters of the state in quanti-

lies or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(L) "Person" means the federal government or any agency thereof, the state government or any agency thereof, any political subdivision or any agency thereof, or any public or private corporation, individual, partnership, or other entity.

(M) "Pollutant" means sewage, industrial waste, or other waste as defined by divisions (B) to (D) of section 6111.01 of the Revised Code.

(N) "POTW" or "publicly owned treatment works" means a treatment works which is owned or operated by a public authority. This definition includes any devices or systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the public authority which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(O) "Pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical, or biological treatment processes, process changes, or by other means, except as prohibited by paragraph (F) of rule 3745-3-09 of the Administrative Code.

(P) "Pretreatment requirements" means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard, imposed on an industrial user or POTW.

(Q) "Pretreatment standard" means a discharge limit related to pretreatment that is imposed on an industrial user by Chapter 3745-3 of the Administrative Code or by local ordinance or contract, including categorical pretreatment standards, prohibited discharge limits established pursuant to rule 3745-3-04 of the Administrative Code, and any enforceable schedule designed to achieve compliance with such limit.

(R) "Significant industrial user" means, except as provided in paragraph (R)(3) of this rule:

(1) All industrial users subject to categorical pretreatment standards; and

(2) Any other user that discharges twenty-five an average of thousand gallons per day or more of process wastewater to the POTW (process wastewater excludes sanitary, noncontact cooling and boiler blowdown wastewaters); contributes a process wastestream which makes up five per cent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or is designated as such by the director on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

(3) Upon finding that an industrial user meeting the criteria in paragraph (R)(2) of this rule has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the director may at any time, on his own initiative or in response to a petition received from an industrial user or POTW, determine that such industrial user is not a significant industrial user.

(Effective April 7, 1988; April 15, 1991)

**3745-36-03 Permit required.**

(A) Any industrial user, as defined in rule 3745-36-02 of the Administrative Code, is required to apply for and obtain an indirect discharge permit in accordance with the requirements of this chapter, except as provided in rule 3745-36-06 of the Administrative Code.

(B) The requirement to obtain an indirect discharge permit shall not apply to any industrial user that is under the regulatory jurisdiction of a POTW that has an approved pretreatment program in accordance with the provisions of Chapter 3745-3 of the Administrative Code, except in the context of an enforcement action.

(C) Where a POTW's pretreatment program approval has been withdrawn or revoked, all industrial users of the POTW shall be required to apply for an indirect discharge permit no later than ninety days from the date of pretreatment program approval withdrawal or revocation.

(Effective April 7, 1988)

**3745-36-04 Permit applications.**

(A) Applications for indirect discharge permits or Ohio EPA facility numbers shall be on forms prepared by and obtained from Ohio EPA and shall contain such information as the Ohio EPA deems necessary.

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1463

Discharge of Nondomestic Wastewater

3745-36-07

(B) Any person proposing to commence the discharge of pollutants to a POTW and required to obtain a permit as a significant industrial user shall file an application for an indirect discharge permit at least one hundred eighty days prior to commencement of the discharge. Any person discharging pollutants to a POTW as a significant industrial user as of April 7, 1988 shall file an indirect discharge permit application on or before July 1, 1988.

(C) Any application that on its face fails to provide the Ohio EPA with requested information needed for ascertaining compliance with applicable provisions of this chapter may be considered defective. The Ohio EPA may either request additional information or return the application to the applicant without further processing. An explanation of the deficiency shall accompany the application returned.

(D) An application submitted to the director pursuant to this chapter shall be signed as follows:

- (1) In the case of a corporation, by a responsible corporate officer. For the purpose of this paragraph, a "responsible corporate officer" means:
  - (a) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operation facilities employing more than two hundred fifty person or having gross annual sales or expenditures exceeding twenty-five million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) In the case of a partnership, by a general partner.

(3) In the case of a sole proprietorship, by the proprietor.

(Effective April 7, 1988; February 28, 1990)

**3745-36-05 Authorization to discharge by a POTW.**

An industrial user of a POTW shall be issued an indirect discharge permit only upon the written authorization of the POTW. The applicant shall obtain written authorization from the POTW and submit said authorization with the indirect discharge permit application.

(Effective April 7, 1988)

**3745-36-06 Permit-by-rule.**

Notwithstanding any other provision of Chapter 3745-36 of the Administrative Code, an industrial user shall be deemed to have an indirect discharge permit-by-rule if the industrial user meets the following conditions:

(A) The industrial user is not a significant industrial user as defined in rule 3745-36-02 of the Administrative Code; and

(B) The industrial user complies with all requirements in Chapter 3745-3 of the Administrative Code.

(C) The industrial user obtains an Ohio EPA facility number as provided for in paragraph (A) of rule 3745-36-04 of the Administrative Code. This condition shall not apply to any industrial user under the regulatory jurisdiction of a POTW that has an approved pretreatment program pursuant to Chapter 3745-3 of the Administrative Code.  
(Effective April 7, 1988)

**3745-36-07 Criteria for issuing permits.**

(A) Criteria for issuing indirect discharge permits.

(1) If, on the basis of all information available to the Ohio EPA, the director determines that:

(a) The discharge levels comply with state pretreatment requirements pursuant to Chapter 3745-3 of the Administrative Code; and

(b) Adequate monitoring to obtain required pollutant discharge information is provided for; and

(c) If required by the Ohio EPA, performance tests, conducted at the applicant's expense after the application was filed and in accordance with methods prescribed by the Ohio EPA, demonstrate that the discharge is in compliance with the authorized discharge levels:

The director may issue an indirect discharge permit for the discharge.

(2) The director shall deny an application for a permit or a renewal thereof if:

(a) The director has reason to believe that any of the following will be discharged:

(i) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than one hundred forty degrees F or sixty degrees C using the test methods specified in 40 CFR 261.21;

(ii) Pollutants which will cause corrosive struc-



W.A. Klinger, Inc.  
CONSTRUCTOR

2015 East Seventh Street • P.O. Box 8800 • Sioux City, Iowa 51102  
Tel: 712-277-3900 • Fax: 712-277-5300

August 6, 1998

Bob Connelly  
Wood County Building Inspection  
One Court House Square  
Bowling Green OH 43402

RE: CLOVERLEAF COLD STORAGE - FREEZER ADDITION  
NAPOLEON, OHIO

Dear Bob:

In response to the memo from your department dated July 9, 1998, please find enclosed the following items:

1. Letter from Egger Steel, dated 7/29/98, stating the structural engineer has certified that his design meets Ohio Basic Building Code.
2. Sheet A1 Floor Plan for Office Area. Sheets 4.2, 4.6, and S.3 showing partition wall detail in sections for office, engine and maintenance rooms, as requested.
3. In regards to details and permits for plumbing, heating and electrical installations, we are in the process of finalizing these details with the Owner. Please note that the Owner has just recently lined up clients for this facility which determines the final layout for the mechanical and electrical systems. We have a preliminary under-floor waste piping layout on Sheet 1.1 enclosed for your review. We will forward the final design and layout to you as soon as possible before installation begins.

Thank you for your patience and efforts on this matter.

If you have any questions, please give me a call.

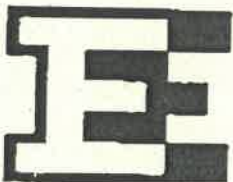
Sincerely,

W. A. KLINGER, INC.

Stephen P. Koza  
Vice President

SPK:js  
Enclosures (3)

cc: Dan Kaplan; Cloverleaf Cold Storage, Sioux City, IA. (No enclosures)  
Adam Hoff; City Engineer, City of Napoleon (One Enclosure)  
Steve Kloos; Plant Manager, Napoleon (No enclosures)



### Egger Steel Company

909 South Seventh Avenue  
P.O. Box E  
Sioux Falls, SD 57101  
Telephone 605-336-2490  
Fax 605-336-6816

DATE: 7-29-98

TO: V. A. KLINGER

ATTN: STEVE KOZA

FAX NUMBER: \_\_\_\_\_

FROM: RUSS KOST

Number of pages (including cover sheet): 2

Please call 605-357-2216 if all these pages are not received.

COMMENTS: RE: FREEZER ADDITION  
NAPOLEON, OH

STEVE, HERE IS THE LETTER THE STATE OF  
OHIO WAS ASKING FOR. AS YOU KNOW  
CHRIS IS NO LONGER WITH EGGER  
STEEL BUT IS STILL WORKING WITH US  
ON THIS PROJECT. CHRIS'S REGISTRATION  
# IS E-62712. IF YOU HAVE ANY QUESTIONS  
PLEASE CALL.



Member Steel Service Center Institute



**ARC Fabricators, LLC**

3500 Teem Dr. • PO Box 85437  
Sioux Falls, SD 57118  
Ph: (605) 338-1321 • Fax (605) 338-1266

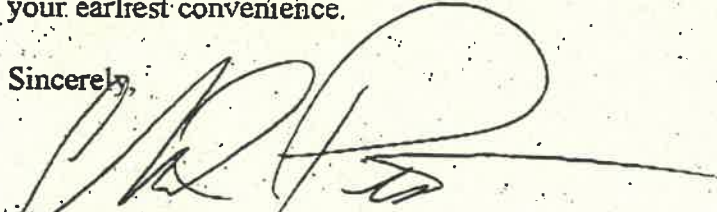
July 23, 1998

Mr. Russ Kost  
Egger Steel Company  
PO Box E  
Sioux Falls, SD 57101

Dear Mr. Kost,

I am writing in regard to the Cloverleaf Cold Storage addition in Napoleon, OH. As the structural engineer of record for the steel framing of this structure, I would like to report that this structure was designed for a roof snow load of 20 pounds per square foot, plus drift as it occurs, a wind speed of 80 miles per hour with a site exposure factor "C," and for seismic zone 1. Should you have any questions regarding this, or any other issue, please feel free to contact me at your earliest convenience.

Sincerely,



Christopher Pierson, PE, MBA  
General Manager

# E-62712

Ohio Environmental Protection Agency

Permit to Install/Plan Approval Application

FOR AGENCY USE ONLY

Date Received: Application Number: Basin Code:
Check Date: Check Number: Check Amount: \$0.00

1. Project Name:

2. Applicant:

Name: Roger L. Noblit
Mailing Address: 527 Welsted Street
City: Napoleon State: OH Zip: 43545-
Contact Name: Roger L. Noblit Title:
Phone: (419) 592 - 8811 Fax: ( ) -

3. Application/Plans Prepared by:

Name:
Mailing Address:
City: State: Zip: -
Contact Name: Title:
Phone: ( ) - Fax: ( ) -

4. Billing Address (if different from Applicant):

Name: Roger L. Noblit
Mailing Address: P. O. Box 151
City: Napoleon State: OH Zip: 43545-
Contact Name: Roger L. Noblit Title:
Phone: (419) 592 - 8811 Fax: ( ) -

5. Owner (if different from Applicant):

Name:
Mailing Address:
City: State: Zip: -
Contact Name: Title:
Phone: ( ) - Fax: ( ) -

6. Project Location:

Street Address or Location Description:
County: Township/Municipality:
Latitude: Longitude: Method of Determination:

**7. Brief Project Description:**

Will five acres or more be disturbed during construction on this project?  Yes  No

**8. A. Is this application part of a combined permit to install application? (e.g. Air+Water)**  Yes  No

**9. Compliance Status**

A. Does this facility have an NPDES permit?  Yes  No

If yes, permit numbers: \_\_\_\_\_

B. Is this application filed in compliance with findings and orders, a consent decree, and/or NPDES permit schedule?

Yes Effective date of the document containing the schedule: \_\_\_\_\_  
 No

10. Have pollution prevention concepts been considered for this project?  Yes  No

If yes, please describe:

**11. Estimated Project Schedule:**

Beginning construction date: \_\_\_\_\_

Ending construction date: \_\_\_\_\_

Beginning operation date: \_\_\_\_\_

**12. Project Cost:**

Installation/Construction Cost:

(Mark one):  Actual  Bid  Estimate

Annual Operation/Maintenance Cost (if applicable - this project only):

Are Water Pollution Control Loan Funds going to be used for this project?  Yes  No

If no, Funding Source: \_\_\_\_\_

**13. Attachments.** The following are include in this application package (indicate how many copies of each are provided):

- \_\_\_\_\_ Detail Plans
- \_\_\_\_\_ Engineering Report
- \_\_\_\_\_ Engineering Specifications
- \_\_\_\_\_ Management Plan
- \_\_\_\_\_ Hydrogeologic Site Investigation Repx
- \_\_\_\_\_ Other



- Sewer and Pump Construction B1
- On-Site Sanitary Waste Disposal B2
- Wastewater Treatment Plant Less Than 1000,000 GPD B3
- Wastewater Treatment Plant Greater Than or Equal to 100,000 GPD and all Pond Systems B4
- Industrial Direct Discharger Facility B5
- Industrial Indirect Discharger Facility B6
- Underground Storage Tank Remediation B7
- Livestock Waste B8
- Land Application or Sludge Management Plan B9

**15. Fee Calculations:**

Permit to Install (maximum total fee \$15,100)

a. Application fee:	\$100.00
b. Plan review fee:	\$100.00
c. Plan review fee (installation/construction cost x 0.0065):	
d. Total Fee (a + b + c):	

Land Application\*/Livestock Plan Approval

a. Application fee:	\$100.00
b. Plan review fee:	\$100.00
c. Total fee (a + b):	\$200.00

\* No separate fee is needed for land application of treated wastewater if the management plan is submitted as part of the PTI application for system installation.

**16. Signature of the Applicant:** (see Ohio Administrative Code 3745-31-04)

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that all the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are substantial penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.*

Typed name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

Ohio Environmental Protection Agency  
**Indirect Discharge Permit Application Form**

1. Applying for:

2. Wastewater source is:

3. Company name:

4. Contact name/title: Roger L. Noblit

5. Mailing address: 527 Welsted Street

City: Napoleon State: OH Zip: 43545-

6. Billing address: P. O. Box 151

City: Napoleon State: OH Zip: 43545-

Contact name/title: Roger L. Noblit

7. Facility name: City of Napoleon Water Treatment Plant

8. Facility address: 527 Welsted Street

City: Napoleon State: OH Zip: 43545-

County:

Latitude: 0 ' " Longitude: 0 ' "

9. Facility contact name/title:

Phone: ( ) -

10. POTW receiving wastewater discharge:

11. Describe products made or services performed and raw materials used:

12. Number of production days per week: Shifts/day: Hours/shift:

13. Number of employees per shift: First:

Second:

Third:

14. Description of wastewater treatment system:

15. Description of Discharge Location is found on the following pages.

16. Outfall/Manufacturing Processes are found on the following pages.

17. Dilution Water Sources are found on the following pages.

18. Are residuals/sludges generated?  Yes  No

Ohio Environmental Protection Agency  
**Indirect Discharge Permit Application Form**

Source of Sludge/ Residual	Hazardous Waste	Hauler	Disposal Method	Frequency	Amount
-------------------------------	--------------------	--------	-----------------	-----------	--------

19. Is this facility regulated by any other environmental permits?     Yes     No

If yes, list the permits:

Check the boxes next to the items included with this application. Please note that some items must be mailed separately and cannot be sent directly with the application.

- POTW authorization to discharge
- Sampling results
- Site plan
- Process/flow schematic diagram
- Production Rates

20. If this is a new permit or modification, was a Permit - To - Install submitted?

Yes     No

21. If this is a modification request, describe the modification in detail.

**I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name (typed or printed)

\_\_\_\_\_  
Title



## Permit-to-Install Application

A permit to install (PTI) from the Director of the Ohio EPA is required for new or modified sources of pollution to water of the State of Ohio. The Division of Surface Water has recently revised its permit-to-install (PTI) application form (EPA 4309). This PTI application form was developed to update the previous outdated form in conjunction with development of DSW's new computerized information management system (SWIMS). Via [SWIMware](#), these applications will now be able to be submitted electronically.

**As of January 1, 1998, all applications must be submitted using the new forms. Applications submitted on previous versions of the form will be returned.**

The application form and instructions are in PDF format and require the Adobe Acrobat™ reader. The reader can be downloaded at no cost from [Adobe](#).

Form	Size	Description
<a href="#">Instructions</a>	34K	Instructions for using the new PTI application form
<a href="#">Form A</a>	24K	Permit to Install/Plan Approval Application
<a href="#">Form B1</a>	122K	Sanitary Sewer and Pump Station Construction
<a href="#">Form B2</a>	24K	On-Site Sanitary Wastewater Disposal
<a href="#">Form B3</a>	67K	Wastewater Treatment Plants Less Than 100,000 GPD
<a href="#">Form B4</a>	20K	WWTPs Greater Than or Equal to 100,000 GPD and All Pond Systems
<a href="#">Form B4-1</a>	10K	WWTP Pumping Stations
<a href="#">Form B4-2</a>	13K	Preliminary Treatment
<a href="#">Form B4-3</a>	11K	Biological Treatment
<a href="#">Form B4-4</a>	10K	Settling
<a href="#">Form B4-5</a>	9K	Filtration
<a href="#">Form B4-6</a>	9K	Disinfection
<a href="#">Form B4-7</a>	19K	Sludge Treatment and Disposal
<a href="#">Form B4-8</a>	13K	Ponds
<a href="#">Form B5</a>	19K	Industrial Direct Discharge Facility
<a href="#">Form B6</a>	19K	Industrial Indirect Discharger Facility
<a href="#">Form B7</a>	27K	Underground Storage Tank Remediation
<a href="#">Form B8</a>	19K	Livestock Waste
<a href="#">Form B9</a>	21K	Land Application or Sludge Management Plan

[\[DSW Home Page\]](#) [\[For More Info\]](#) [\[OEPA Home Page\]](#)

Information believed accurate but not guaranteed.  
The State of Ohio disclaims liability for any errors or omissions.

Last Updated: Tuesday, 26-May-98 08:25:00 EDT  
URL: <http://chagrin.epa.state.oh.us/programs/pti/pti.html>

# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393



February 19, 1999

Mayor  
Donald M. Stange

Mr. Steve Kloos  
Farmer's Produce/Cloverleaf Cold Storage  
1165 Independence Drive  
Napoleon, Ohio 43545

Re: City of Napoleon  
Cloverleaf Cold Storage Addition

Members of Council  
Michael J. DeWit, President  
Terri A. Williams  
James Hershberger  
Travis B. Sheaffer  
Char Weber  
David F. Miller, Jr.  
Glenn A. Miller

Dear Mr. Kloos:

Based upon our inspections of the Farmer's Produce/Cloverleaf Cold Storage facilities there are no non-potable water connections (cross connections) within the system. All sanitary services are connected directly to the City's sanitary collection system and all potable water supplies are properly isolated by means of backflow prevention devices.

City Manager  
Dr. Jon A. Bisher

If you have any questions or require additional information, please call me at (419) 592-4010.

Finance Director  
Gregory J. Heath

Yours truly,

Adam C. Hoff, P.E.  
City Engineer

Law Director  
David M. Grahn

City Engineer  
Adam C. Hoff, P.E.

ACH:rd

cc: Dr. Jon A Bisher, City Manager  
Mr. Jeff Marihugh, Operations Supt.  
Mr. Roger Noblit, Supt. Water & Wastewater

C:\lotus\work\wordpro\CITYENGINEER\LETTERS\CLOVERLEAF2/19/99, 11:51 AM

Records Retention ENG-018 Permanent



# City of NAPOLEON, OHIO

255 RIVERVIEW AVENUE - P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
PHONE (419) 599-1235 • FAX (419) 599-8393

January 7, 1999

Mr. Steve Kloos  
Cloverleaf Cold Storage Co.  
P.O. Box 271  
Napoleon, Ohio 43534

**Mayor**  
Donald M. Stange

Dear Steve:

**Members of Council**  
Michael J. DeWit, President  
Terri A. Williams  
James Hershberger  
Travis B. Sheaffer  
Char Weber  
David F. Miller, Jr.  
Robert G. Heft

We have reviewed the City of Napoleon's Rules for Water and Wastewater Service concerning grease traps and after contacting the Ohio EPA Northwest District Office, we will require the following for your new facility:

**City Manager**  
Dr. Jon A. Bisher

At this time we will not require the installation of a grease trap. However, if grease levels from your new operation exceed estimates or become a problem within the collection system, the City will review the situation and may at that time require the installation of a grease trap to resolve the problem.

**Finance Director**  
Gregory J. Heath

We will however require that a sampling manhole or other suitable sampling structure be installed between your sewer tap and the sanitary lateral. The structure needs to be constructed in accordance with plans approved by the City of Napoleon's Engineering Department.

**Law Director**  
David M. Grahm

If you have any questions or need further information, regarding this matter, please feel free to contact me.

**City Engineer**  
Adam C. Hoff, P.E.

Sincerely,

Jon A. Bisher  
City Manager

JAB:rd  
cc: Adam C. Hoff, P.E.; City Engineer  
Roger L. Noblit, Supt. Water & Wastewater  
Jeff Marihugh, Operations Supt.

C:\lotus\work\wordpro\City Manager\LETTERS\CLOVERLEAFKloos1/7/99, 3:47PM

Records Retention CM-5 1 Year

## Proposed Cloverleaf Facility - Napoleon, Ohio

### Wastewater Sources

Wastewater Source	Flow	COD ( max. BOD )	TSS	O&G
Production Wastewater	30 gpm max. 5 gpm avg.	200 mg/L	210 mg/L	10 mg/L
Non-contact Tempering ( 80 tubs )	0 gpm min. 160 gpm max.	30 mg/L	< 1 mg/L	< 5 mg/L
Contact Tempering ( 80 tubs )	0 gpm min. 160 gpm max.	340 mg/L	250 mg/L	30 mg/L
Cooling tower blowdown	5 gpm avg.	< 10 mg/L	10 mg/L	< 5 mg/L
Sanitary wastewater	0.5 gpm avg.	250 mg/L	300 mg/L	50 mg/L

\* Tempering may be either contact or non-contact or a mixture of each.

### Estimated Wastewater Quantity and Quality

#### Wastewater Quantity

Maximum ( peak flow rate )	200 gpm
Maximum Day Average	65 gpm ( 94,000 gpd )

#### Wastewater Quality

COD ( max. BOD )	Maximum Day Average	300 mg/L ( 236 lbs/day )
TSS	Maximum Day Average	230 mg/L ( 179 lbs/day )
O&G	Maximum Day Average	28 mg/L ( 22 lbs/day )



# Mechanical Systems, Inc.

\*\*\* serving all your mechanical contracting needs \*\*\*

CITY OF NAPOLÉON

DEC 14 1998

RECEIVED

## Fax Cover

To: <u>Adrian Hoff</u>	Fr: <u>Mark Jacobs</u>
Co: <u>City of Napoleon</u>	
Ph: _____	Ph: <u>(419) 875-5753</u>
Fx: <u>599-8393</u>	Fx: <u>(419) 875-5392</u>

No of Pages: \_\_\_\_\_

Re: \_\_\_\_\_

### Message:

PLEASE FIND DETAIL OF TRAP REMOVAL  
 CONTRACTOR TO BE USED ON PROJECT  
 IF YOU HAVE ANY QUESTIONS PLEASE  
 FEEL FREE TO CALL.

- Thanks -  
 - Mark -

7905 Yawberg Rd.  
 Whitehouse, OH 43571  
 Phone: (419) 875-5753  
 Fax: (419) 875-5392

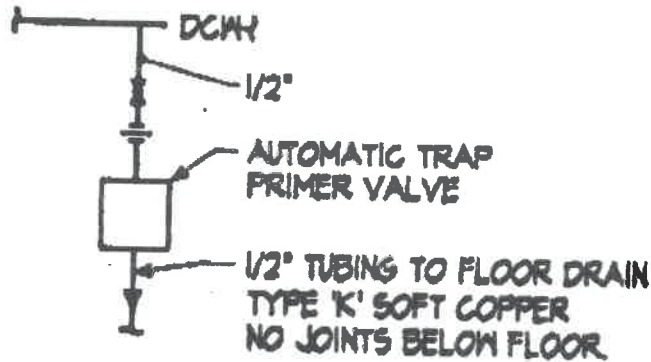
\* commercial \* Industrial \* maintenance services \*



Fr: K&B MECHANICAL

To: WA KLINGBE  
STEVE KOZA

For: Closet of Cold Storage  
Napoleon, Dh.



TYPICAL

SIMPLEX TRAP PRIMER DETAIL

NO SCALE

4  
PI.1

1.) D-D-C @ Vault & RP @ Production line

2.) O-D-C @ Vault & RP @ Prod. line - connect to 16" @ Independence

3.) RP on private line

→ Check ⇒ w/ Jeff → min. bldg. requirement

⇒ w/ Brent → additional permit

⇒ Mike Heise ⇒ metering for center section of dry side

⇒ why separate?

⇒ can it be aggregated w/ main meter

→ look @ entrance to Chief on Scott Street ] #

# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Daniel Kaplan - Cloverleaf Cold Storage  
**Fax No.** (712) 279-0915  
**From** Adam C. Hoff, P.E. - City Engineer *ACH*  
**Date** 12/8/98  
**Subject** Backflow Prevention  
**Pages** 1, including this one

In response to your correspondence dated November 25, 1998, I have reviewed your request with Operations Superintendent Jeff Marihugh. As I indicated in my letter dated November 4, 1998, the Ohio EPA looks at backflow prevention from a policy known as containment. Simply stated, the highest degree of hazard from a facility must be "contained" on-site to protect the public water supply. The Health Department and Plumbing Code address backflow prevention from the perspective of isolation. In other words, sources of contamination must be "isolated" from the water system on-site. As a result of the two (2) philosophies, the EPA may allow a decrease in the level of backflow containment required, provided proper isolation is provided at the individual sources of contamination. The definition of "proper isolation" is not just limited to the specific devices, but also the up-to-date maintenance and operation records for each device.

On this basis, provided the proper devices were installed at each potential source of contamination and proper maintenance and operation logs maintained, a dual detector check valve assembly at the valve vault could be approved, in lieu of an RPZ device. However, on Tuesday, December 1st, Jeff performed a cursory walk through of your existing and new facilities. Based upon this preliminary survey, Jeff found that the air gap for the make-up water at the cooling tower had been modified such that it no longer operates as a backflow device. Also, per my facsimile to Mr. Steve Koza, dated November 3, 1998, we have requested additional information pertaining to the trap primers proposed for the new addition. As of the date of this facsimile, we have not received that information. (Trap primers require an air gap.) Finally, the proposed equipment in the new engine room for make-up water for the cooling towers will need to be inspected for compliance.

Therefore, until such time as the air gap at the cooling towers is brought back to spec. and detailed information is provided regarding the proposed trap primers, we are not inclined to review your proposal to reduce the backflow requirements at the valve vault from an RPZ to a dual detector check valve with the Ohio EPA. If you have any questions or require additional information, please call me at 592-4010. Thank you.

255 W. Riverview Ave.  
Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax

c: Jon Bisher, Jeff Marihugh  
Steve Kloos - 599-0245



Corporate Office  
2800 Cloverleaf Court  
Sioux City, IA 51111-1159  
Telephone (712) 279-8000  
Fax (712) 279-0915

November 25, 1998

Adam C. Hoff, P.E.  
City Engineer  
City of Napoleon, Ohio  
255 West Riverview Ave.  
Napoleon, OH 43545-0151

*Org Side ⇒ Dual Det. Checks*  
*Cold Side ⇒ Fire - Dual Det. Check*  
*Dom. → RP*  
*Mk-Up Water → Air Gap*  
*Trap Primer -*

Dear Adam:

We are aware that our new production facility should have an RPZ anti-backflow device. All of our other water connections are suitably protected by a double check-valve device. Rather than install one large RPZ in an above ground, heated space where our private road and water main connect to the city road and main, I would like to install a double check-valve device in an underground vault at that location. The processing room would have a separate RPZ device downstream of our main connection. (See attached sketch.)

The advantages are threefold for us. First, we avoid the cost of building and heating an above-ground enclosure. Second, the enclosure, while not unsightly, would nonetheless be unattractive. Third, the enclosure above ground might impair drivers visibility at the intersection of our road with Independence Avenue.

I understand that the installation I am suggesting is not typical, but it should prove functionally adequate to reach the ends desired by state and federal law. Placing the RPZ as I indicate will also protect our other water supplies at the site, which an installation at the road intersection will not do.

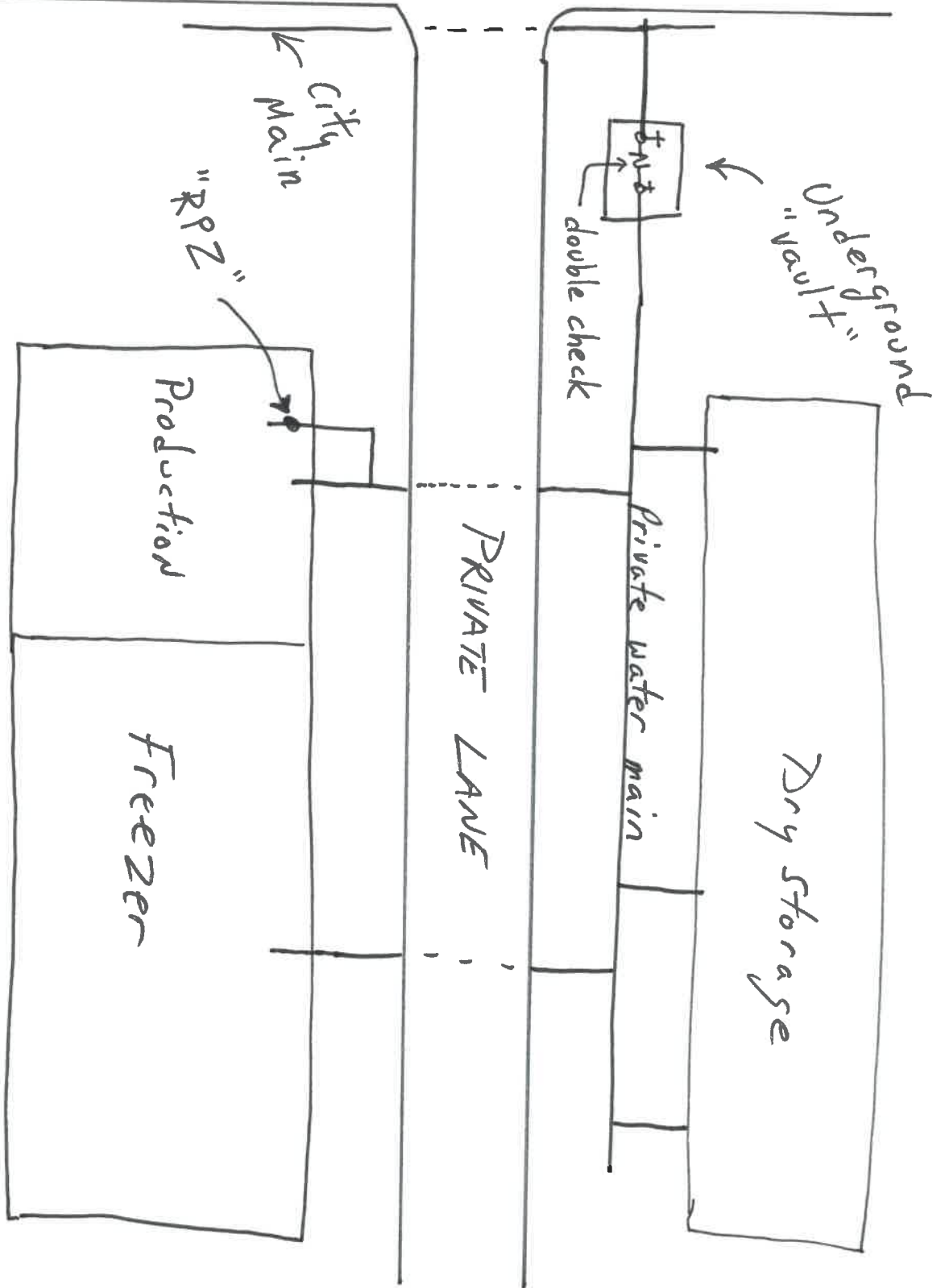
Please give this proposal some thought and review it with environmental regulators as you see fit. Thanks again for your time and help yesterday.

Yours,

Daniel F. Kaplan

DFK:sm

# INDEPENDENCE





# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

November 4, 1998

**Mayor**  
Donald M. Stange

Mr. Steve Kloos  
Cloverleaf Cold Storage  
1165 Independence Drive  
Napoleon, Ohio 43545

**Members of Council**  
Michael J. DeWit, President  
Robert G. Heft  
James Hershberger  
David F. Miller  
Travis B. Sheaffer  
Char Weber  
Terri A. Williams

**City Manager**  
Jon A. Bisher

**Finance Director**  
Gregory J. Heath

**Law Director**  
David M. Grahn

**City Engineer**  
Adam C. Hoff, P.E.

Re: City of Napoleon  
Cloverleaf Cold Storage  
Freezer and Office Addition  
Plan Review

Dear Steve:

This letter is in response to your correspondence of October 29, 1998. You are correct in your assertion that the entire cold and dry storage facility may be isolated from the City of Napoleon water distribution system by one (1) backflow prevention device. You are also correct in your assertion that the entire facility may be connected to one (1) siamese connection for supplemental fire suppression. However, in order to accomplish both tasks, the existing water main would be required to be private. Also, as stated in prior correspondence, the City of Napoleon backflow program would have eventually reached the Cloverleaf Cold Storage facilities and, after completion of the required survey, you would have had ninety (90) days to comply in whole.

The Ohio EPA, through Section 6109 of the Ohio Revised Code and Section 3745-95 of the Ohio Administrative Code, pursues the protection of public water distribution systems through a policy of containment. This policy essentially means that the supplier of water, the City, has the primary responsibility to provide potable water up to the point of delivery. The supplier also has the responsibility of protecting the public water distribution system from hazards originating on the water user's premises. The water user, or consumer, as well as the Ohio Department of Commerce, have responsibilities which begin at the point of delivery and include the protection of the public and internal water systems from contamination originating on the premises. This means that the public water supplier has jurisdiction up to and including the service connection, while the Ohio Department of Commerce, through the Ohio Plumbing Code, has jurisdiction within the facility.

As a result, in order for a single backflow prevention device to be installed to provide proper protection for the entire facility, the device must be sufficient to meet the highest degree of hazard for the entire facility. Based upon the information provided, the highest degree of hazard will occur with the pressure washing of the meats within the proposed cold storage facility. Therefore, an eight (8) inch reduced pressure principle backflow (RP) device will be required. An RP device cannot be installed within a below-grade vault and must be contained within a heated, above-grade structure.

Therefore, to eliminate your concerns regarding the proposed upgrade to the existing fire suppression systems within the existing dry storage units and also eliminate the need to provide individual backflow devices on each connection to the existing eight (8) inch water main, the following must occur:

1. An eight (8) inch RP backflow prevention device shall be installed on the existing water main, ahead of the existing siamese connection. The unit shall be located within an above-grade, heated structure.
2. An agreement shall be drafted by the City of Napoleon whereby the existing eight (8) inch water main and all appurtenances thereto shall be considered private in perpetuity. Cloverleaf Cold Storage and its successors shall be responsible for the operation and maintenance of the water main. Any leaks, breaks or failures on the main shall be the sole responsibility of the owner. Any contamination of the main due to a backflow occurrence, supplemental fire connection, etc., shall be also be the responsibility of the owner.
3. The existing metering arrangement shall remain. Each meter will be read separately by the City and the total consumption (commodity charge) will be combined into one (1) aggregate billing. Individual meter (capacity) charges will, however, be applied.
4. All of the above items shall be met within two (2) years after the new cold storage facility is placed into operation.

If you have any questions or require additional information, please call me at (419) 592-4010.

Yours truly,



Jon A. Bisher  
City Manager



Adam C. Hoff, P.E.  
City Engineer

JAB/ACH:rd

cc: Mr. Tom Bergstedt, Acting Fire Chief  
Mr. Brent Damman, Bldg/Zoning Administrator  
Mr. Jeff Marihugh, Operations Supt.

C:\notus\work\wordpro\CITYENGINEER\LETTERS\CLOVERLEAF11/4/98, 4:33PM

Records Retention ENG-018 Permanent

# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Steve Koza - W.A. Klinger  
**Fax No.** (712) 277-5300  
**From** Adam C. Hoff, P.E. - City Engineer *ACH*  
**Date** 11/3/98  
**Subject** Cloverleaf Cold Storage Plan Review  
**Pages** 2, including this one

We have reviewed the plumbing information submitted and have developed the following comments:

1. Additional information is required pertaining to any proposed refrigeration units and/or boiler systems. The plumbing isometrics for these units must also be reviewed by the City.
2. It appears that the trench drain to be provided for the northernmost truck dock is connected to the sanitary sewer. Clean water connections to the City of Napoleon sanitary sewer system are strictly prohibited. This proposed connection shall be rerouted to a proper storm water outlet.
3. The water meter piping diagram is not drawn to scale and shows the backflow preventer above the meter. This installation is acceptable. However, the backflow assembly shall not be located any higher than 4'-0" above the floor for accessibility.
4. A trap primer is proposed. We will need to see detailed drawings for the "Automatic Trap Primer Valve" shown on sheet P-1. If an approved backflow prevention device is not incorporated within this assembly, an air gap will be required after the proposed four (4) inch potable water meter in lieu of the reduced pressure assembly (See attached). A trap primer constitutes a direct cross connection between the sanitary sewer system and the potable water supply and, therefore, must be treated as a substantially greater hazard than the originally proposed installation.

Please note that these items must be addressed and are **not** negotiable. A prompt response is requested. We should also point out that, had this information been provided to us earlier, we could have addressed these issues at that time.

If you have any questions or require additional information, please call me at 592-4010. Thank you.

c: Jeff Marihugh  
Steve Kloos - 599-0245

*4,000 Pump  
box*

255 W. Riverview Ave.

Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax



# BACKFLOW PREVENTION DEVICES

## PROTECTION AGAINST HAZARDS

---

The following guide is a general recommendation for internal isolation protection.

**NOTE:**

- AG..... Air Gap
- AVB..... Atmospheric Vacuum Breaker
- DCA.... Double Check Assembly
- PVB..... Pressure Vacuum Breaker
- RPA..... Reduced Pressure Assembly

\*..... AVBs and PVBs may be used to isolate health hazards under certain conditions; that is, backsiphonage situations only.

\*\*..... Where a greater hazard exists (because of toxicity or other potential health impact), additional area protection with RPAs is required.

---

<u>DESCRIPTION OF CROSS-CONNECTION</u>	<u>ASSEMBLY</u>
Aspirator	AVB or PVB
Bedpan Washers	AVB or PVB
Autoclaves	RPA
Specimen Tanks	AVB or PVB
Sterilizers	RPA
Cuspidors	AVB or PVB
Lab Bench Equipment	AVB or PVB
Sewage Pump	AG
Connection to Plating Tanks	AG
Connection to Salt Water	RPA
Cooling System	
Tank Vats or Other Vessels	RPA, AG
Containing Toxic Substances	
Dye Vats or Machines	AG
Cooling Towers with Chemical	AG
Additives	
Trap Primer	AG



1165 Independence Drive  
Napoleon, OH 43545  
Telephone: (419) 599-5015  
Fax: (419) 592-5183

October 29, 1998

City of Napoleon  
255 West Riverview Avenue  
P.O. Box 151  
Napoleon, OH 43545

Attention: Adam Hoff

Dear Adam:

In response to your letter dated October 21, 1998, we have the following comments and concerns.

We are in agreement with the City's proposal that the new freezer/production room addition will have a discrete siamese connection for its sprinkler system. But we do not agree that the existing dry storage facility needs to be upgraded. Sprinklers in that building were installed in accordance with approved plans, and we are not familiar with any provision of the applicable codes that requires Cloverleaf to upgrade an existing facility that is not the subject of remodeling. Furthermore, even if upgrades could be required, the City has not shown that the current installation is in violation of code merely because the existing siamese connection serves more than one building. In fact, your letter of October 21, 1998 makes the same point saying "[t]he fire code does not specifically state that two(2) structures owned by a single company cannot be provided with fire protection from one(1) siamese connection." Therefore, Cloverleaf will not agree to modify the existing fire protection system in the dry warehouse.

Regarding backflow prevention, there is no question but that appropriate backflow preventers must be installed. Given the food production character of the addition, an RPZ may be the appropriate device. Once again, however, I disagree with what you believe will ultimately be required. Our independent research on this issue suggests that there is no EPA requirement that would prevent our entire facility from being isolated from the City main by one backflow device at the "vault". Therefore, our intention will be to install one RPZ on the food processing water main, and to install another device at the vault.

*Dedicated to Service*



Page 2  
October 29, 1998


That device will conform the strictest requirement applicable to all other connections within our site.

As to installation of a master meter, I do not think that is in the best interest of either the City or Cloverleaf. Water use can be measured quite adequately with the meters presently installed and to be installed on the addition. Doing so allows measurement to be made with buying and maintaining an expensive 8" meter. Furthermore, installation of a meter at the vault will mean that fire sprinkler water will also have to go through the meter, and because of the pressure drop inherent in the meter, there is a significant loss of fire suppression capability. It has been my experience that running the fire protection system through a water meter is an atypical installation and surely inconsistent with your concerns expressed elsewhere for maximum fire protection.

We appreciate your help and we are committed to bring these differences to a close. It is our intent to conform to what is required by code. Thanks for enabling us to do so.

Sincerely,

CLOVERLEAF COLD STORAGE CO.



Steve Kloos  
Plant Manager

KL/lb

cc: Mr. Jon Bisher, City Manager  
Mr. Jeff Marihugh, Operations Superintendent  
Mr. Allan Woo, Fire Chief  
Mr. Brent Damman, Bldg/Zoning Inspector  
Mr. Daniel Kaplan, President Cloverleaf Cold Storage





FROM: Steve

TIME/DATE SENT: 2:40 pm 10/30/98

SENT TO: ADAM HOFF

FIRM: CITY OF NAPOLEON

CITY AND STATE: \_\_\_\_\_

TELEFAX NUMBER: 599-8392

NUMBER OF PAGES: 3 INCLUDING COVER

COMMENTS: \_\_\_\_\_

ADAM,  
PLEASE REVIEW &  
GIVE ME A CALL WHEN  
YOU GET A CHANCE.

Thanks!

Steve

OVERNITE

W.A. KLINGER, INC.  
CONSTRUCTOR  
2015 E. SEVENTH ST.  
P.O. BOX 8800  
SIOUX CITY, IOWA 51102

PHONE (712) 277-3900  
FAX (712) 277-5300

10/28/98

TO: CITY OF NAPOLEON UTILITIES  
255 W. RIVERVIEW AVE  
NAPOLEON OH 43545

ATTN: ADAM HOFF

RE: CLOVERLEAF -  
PLUMBING

JOB # \_\_\_\_\_

Gentlemen:

We are enclosing 1 prints of:

Sheet #	<u>P-1, P-2</u>	From:	<u>JDRM ENGR</u>	RE:	<u>PLUMBING PLANS</u>
Sheet #	_____	From:	_____	RE:	_____
Sheet #	_____	From:	_____	RE:	_____
Sheet #	_____	From:	_____	RE:	_____

These prints are:

1.  For \_\_\_\_\_ approval. Please return \_\_\_\_\_ corrected prints.
2.  For revision and return to us. Please return \_\_\_\_\_ corrected prints.
3.  Approved as noted. Please return \_\_\_\_\_ corrected prints for job and office use.
4.  For file and distribution.
5.  For job use.

Remarks: ADAM -  
SORRY FOR THE DELAY



W.A. KLINGER, INC.

By: Steve Kozak

BUILD TO ENDURE

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Debbie Ko - Ohio EPA  
**Fax No.** (419) 373-3125  
**From** Adam C. Hoff, P.E. - City Engineer *ACH*  
**Date** 10/26/98  
**Subject** Cloverleaf Cold Storage Water System  
**Pages** 2, including this one

Per our telephone conversation, the following is a sketch of the Cloverleaf Cold Storage facility on Independence Drive. The existing water system for the facility was constructed in 1974 as an 8" private fire/potable water service to "Bldg. No. 1" with provisions for expansion. Since that time, four (4) additional structures have been constructed, the 8" water main extended and a new addition is proposed. The existing valve vault includes a 4" siamese connection and a single check valve.

In our review of the plans for the proposed addition, we allowed the construction of a new 8" fire line off of the existing water main with a 4" potable water connection from that new fire line. We further required that the owner provide a dual detector check valve on the new fire line and a reduced pressure backflow prevention device (RP) on the 4" potable water supply. Finally, we also put the owner on notice that they will need to upgrade their entire facility to meet current fire and backflow prevention codes.

The final item is where the concerns were raised. Because the facility has five (5) other buildings, each with their own fire and potable water connections, upgrading the existing buildings will be a very costly venture. In order to reduce the anticipated costs, it was suggested that the piping within the valve vault be modified such that the backflow requirement for the entire site would be provided at one (1) point versus upgrading all of the connections.

My basic question is this, if a sufficient backflow device is provided within the valve vault for the entire site, would it be acceptable for a private fire line to serve as the potable water supply also? Please review this issue and let me know your recommendations.

If you have any questions, please call me at 592-4010. Thank you.

255 W. Riverview Ave.

Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax

INDEPENDENCE DRIVE

Ex. 16" W.M.

Ex. Valve

Ex. Valve Vault

2" Domestic W.M.

8" W.M.

4" Potable

8" Fire

Ex. Bldg. No. 2

Ex. Bldg. No. 1

Prop. Addition

Ex. Bldg. No. 4

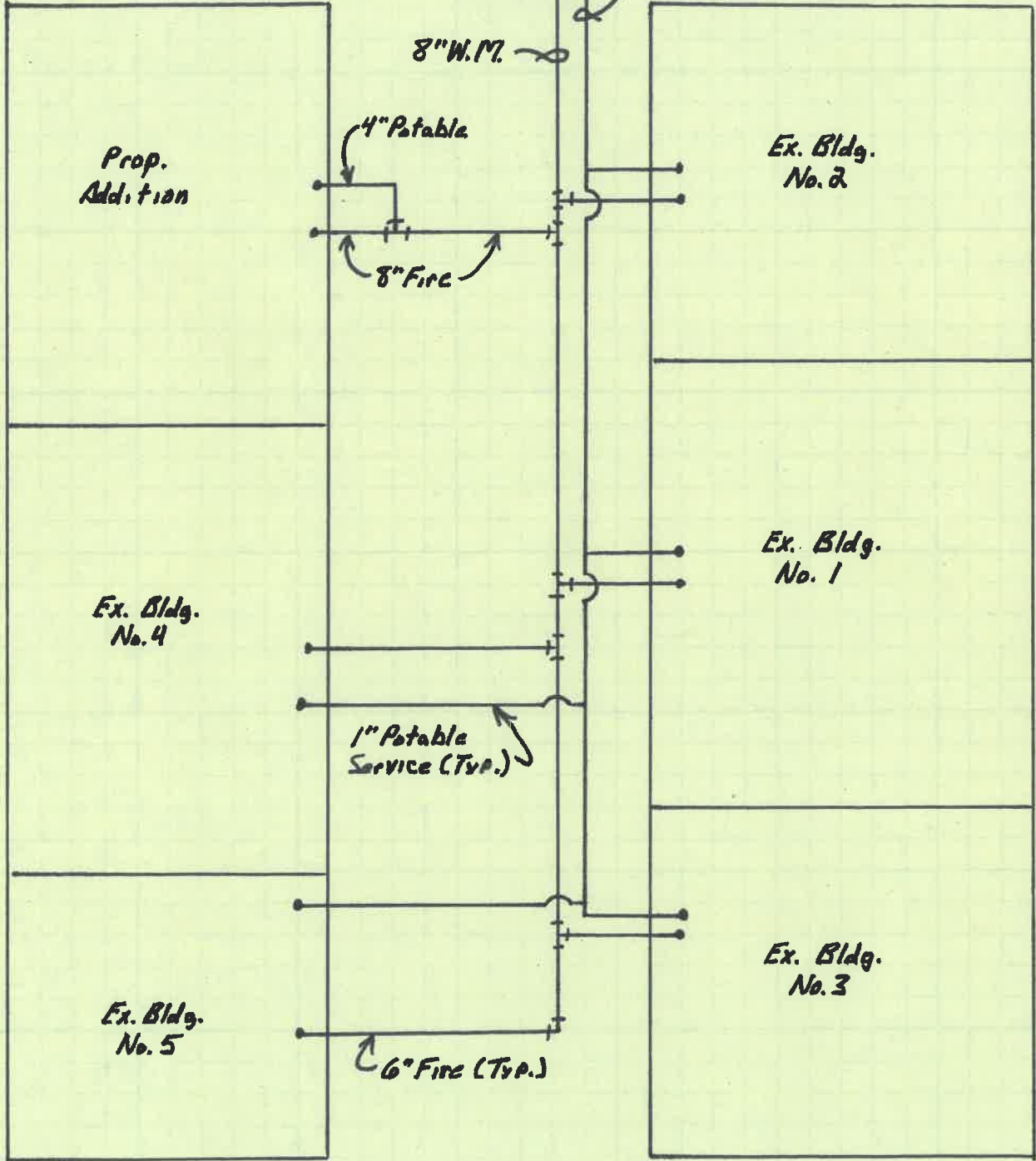
1" Potable Service (Typ.)

Ex. Bldg. No. 3

Ex. Bldg. No. 5

6" Fire (Typ.)

22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS



# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Steve Kloos - Cloverleaf Cold Storage  
**Fax No.** (419) 599-0245  
**From** Adam C. Hoff, P.E. - City Engineer *ACH*  
**Date** 10/26/98  
**Subject** Freezer and Office Addition Plan Review  
**Pages** 1, including this one

We are still in need of final plumbing isometrics and electrical information for the proposed facility. Please provide us with this information ASAP. We have made several prior requests for this same information. Final issuance of the zoning permit will not be granted until this information is provided and approved.

If you have any questions, please call me at 592-4010. Thank you.

255 W. Riverview Ave.  
Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax





# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

October 21, 1998

Mayor  
Donald M. Stange

Mr. Steve Kloos  
Cloverleaf Cold Storage  
1165 Industrial Drive  
Napoleon, Ohio 43545

Members of Council  
Michael J. DeWit, President  
Robert G. Heft  
James Hershberger  
David F. Miller  
Travis B. Sheaffer  
Char Weber  
Terri A. Williams

City Manager  
Jon A. Bisher

Finance Director  
Gregory J. Heath

Law Director  
David M. Grahn

City Engineer  
Adam C. Hoff, P.E.

Re: City of Napoleon  
Cloverleaf Cold Storage  
Freezer and Office Addition  
Plan Review

Dear Mr. Kloos:

Per our meeting of October 14, 1998, Fire Chief Allan Woo has contacted the respective agencies as requested. Based upon his conversations, it is acceptable at this time to install a siamese connection for the proposed addition with appropriate backflow prevention and without modifying the existing fire suppression systems for the existing structures. However, at a minimum, the fire suppression systems for the "dry storage" units will need to be upgraded in the near future.

In regards to backflow prevention, Operations Superintendent Jeff Marihugh has further reviewed the requirements and the devices that will be required for both the fire suppression and potable water systems for the proposed facility. The fire suppression system will not require the installation of a reduced pressure (RP) backflow device. A dual detector check valve assembly will suffice. The potable water system, however, will require an RP device. These devices will be required to be installed at this time inside the proposed addition. Additional backflow prevention devices on the existing facilities will not be required at this time, but will also need to be addressed in the near future.

I will continue to investigate the possibility of installing a single backflow prevention device at the existing valve vault. I will be reviewing the situation with City Manager Jon Bisher and Law Director David Grahn. I will also be contacting representatives of the Ohio EPA regarding this issue. At this time, I do not believe that placing a single backflow prevention device at the valve vault and maintaining the water main as a public main will be acceptable to either the City or the EPA. I will, however, fully investigate this option.

Therefore, on behalf of the City of Napoleon, I hereby approve the proposed building addition and recommend the issuance of a Zoning Permit with the following conditions:

1. The fire riser for the new cold storage facility shall be connected to one (1) new siamese connection to be placed in a location as reviewed and approved by the Fire Chief. The fire suppression systems for the existing dry storage facility shall also be upgraded to meet current standards within two (2) years after the new cold storage facility is placed into operation or no later than January 1, 2001, whichever comes first. Such an upgrade shall include the installation of one (1) siamese connection and approved backflow prevention device that will serve all of the sprinkler systems. The fire suppression systems within the existing cold storage facilities will not be required to connect to a single siamese connection.
2. A dual detector check valve assembly shall be installed and maintained for the fire suppression system within the new cold storage facility. An RP backflow prevention device shall also be installed and maintained for the potable water system within the new cold storage facility. Approved backflow prevention devices for the fire suppression and potable water connections for the existing dry and cold storage facilities shall also be provided within two (2) years after the new cold storage facility is placed into operation or in compliance with the City of Napoleon Backflow Prevention Policy, whichever comes first.
3. The new eight (8) inch fire line may be tapped to the existing eight (8) inch water main and the proposed four (4) inch potable water service may be connected from that new fire line. The proposed four (4) inch connection may be no less than nine (9) feet from the face of the building. Mechanical joint restraint shall be provided in lieu of the thrust blocks shown on the plans.
4. The City will continue to maintain the existing hydrants located on your site. However, until such time as a resolution may be reached regarding the location of a backflow prevention device at the valve vault, the existing eight (8) inch water main shall be regarded as private. Any repair and/or maintenance of the water main itself shall be the responsibility of Cloverleaf Cold Storage or its successors.

It is important to note that this is neither just a fire protection nor just a backflow prevention issue. But, because the existing facility is served by one (1) single fire/potable water line, it is a combination of the two (2). The fire code does not specifically state that two (2) structures owned by a single company cannot be provided with fire protection from one (1) siamese connection connected to a fire line. However, this same fire line, by EPA regulations, cannot also serve as a source of potable water without sufficient backflow protection. Therefore, in order to meet the requirements of both sets of codes and standards, either the existing eight (8) inch water main must:

- a. Be modified such that appropriate backflow prevention is provided and a master meter installed at the valve vault. The existing main would then become a dedicated private fire line; or
- b. Be modified such that the existing siamese connection and check valve are removed and the existing dry storage facility fire suppression systems updated as noted above. The existing main would then become a public water main.

We should reiterate that, although the required issuance of a zoning permit and plan review processes have brought this issue to the forefront, the City's backflow prevention enforcement would have eventually reached this facility. In other words, we are not singling out the Cloverleaf Cold Storage facility. By statute, all commercial and industrial installations connected to the City of Napoleon water distribution system will eventually be forced to meet the backflow prevention requirements. In this instance, the fire suppression and backflow prevention issues overlap.

Mr. Steve Kloos  
Page 3  
October 21, 1998

If you have any questions or require additional information, please call me at (419) 592-4010.

Yours truly,



Adam C. Hoff, P.E.  
City Engineer

ACH:rd

cc: Mr. Jon A. Bisher, City Manager  
Mr. Jeff Marihugh, Operations Supt.  
Mr. Al Woo, Fire Chief  
Mr. Brent Damman, Bldg/Zoning Inspector

C:\lotus\work\word\pro\CITYENGINEER\LETTERS\CLOVERLEAF10/21/98, 10:11AM

Records Retention ENG-018 Permanent

# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Steve Kloos - Cloverleaf Cold Storage  
**Fax No.** (419) 599-0245  
**From** Adam C. Hoff, P.E. - City Engineer *ACH*  
**Date** 10/21/98  
**Subject** Freezer and Office Addition Plan Review  
**Pages** 4, including this one

The following is my revised letter from Monday. If you have any questions, please call me at 592-4010. Thank you.

255 W. Riverview Ave.  
Napoleon, Ohio 43545

(419) 592-4010 Phone  
(419) 599-8393 Fax



# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

October 19, 1998

Mr. Steve Kloos  
Cloverleaf Cold Storage  
1165 Industrial Drive  
Napoleon, Ohio 43545

Mayor  
Donald M. Stange

Members of Council  
Michael J. DeWit, President  
Robert G. Heft  
James Hershberger  
David F. Miller  
Travis B. Sheaffer  
Char Weber  
Terri A. Williams

City Manager  
Jon A. Bisher

Finance Director  
Gregory J. Heath

Law Director  
David M. Grahm

City Engineer  
Adam C. Hoff, P.E.

Re: City of Napoleon  
Cloverleaf Cold Storage  
Freezer and Office Addition  
Plan Review

Dear Mr. Kloos:

Based upon Staff review of the plans submitted for the referenced project, we have several concerns and comments which must be addressed as part of the additions. The existing eight (8) inch water main feeding the facility from Independence Drive (formerly Industrial E/W) was installed in 1974 when the first warehouse facility was constructed. As part of the installation of the original main, a valve vault, including a siamese connection to boost the fire suppression system, was also constructed. A copy of the drawing of this valve vault is enclosed.

When originally constructed, this scenario was acceptable because there was one (1) siamese connection serving one (1) building. Since that time, however, the water main has been extended and tapped in several locations and serves two (2) separate structures. This installation does not meet current codes with respect to fire protection. Section 916.2 of the 1998 Ohio Building Code states, "Fire department connections shall be arranged in such a manner that the attachment to any one water sprinkler connection will serve all sprinklers, and that the connection to any one standpipe connection will serve all standpipes within the building." A copy of this section of the code is enclosed.

As the system currently stands and is proposed to be constructed, Section 916.2 cannot be met. Should a fire occur at your facility with the current arrangements and the existing water main burst, the entire facility would be

without fire suppression. Furthermore, any potable water connections after the siamese connection would be contaminated with non-potable water. It should be noted that, when a water main is initially installed, it is tested to 150 pounds per square inch (psi). A fire pumper truck can supply water to the system at pressures in excess of 250 psi. Also, if water valves are closed too rapidly a phenomenon known as water hammer can occur resulting in even higher instantaneous pressures. In either case, the threat of the existing eight (8) inch water main bursting becomes very real and, once that main goes down, the entire facility is without fire protection.

An additional concern to the City is the issue of backflow prevention. The Ohio EPA mandates that all fire suppression systems and potable water connections incorporate some form of backflow prevention. Varying levels of contamination potential require varying devices. In this case, the existing siamese connection at the valve vault was installed behind a single check valve which may have met the code at the time of installation. However, such an installation does not meet today's standards and must be addressed.

In order to address the above concerns, we have developed the following comments and recommendations:

1. All of the fire risers in the cold storage facility, new and existing, shall be connected to one (1) new siamese connection. This siamese connection shall be placed in a location as reviewed and approved by the Fire Chief. The fire suppression system for the existing dry storage facility shall also be upgraded to meet current standards within one (1) year after the new cold storage facility is placed into operation.
2. Approved backflow prevention devices shall be provided and maintained for all fire suppression and potable water connections on the cold storage facility. Any "dry" fire suppression system where an air compressor is connected shall be provided with a reduced pressure (RP) backflow preventer. All potable water connections shall also be provided with RP assemblies. The potable water connections for the dry storage facility shall also be upgraded within one (1) year after the new cold storage facility is placed into operation. Each fire and potable water connection at the dry storage facility will be evaluated on an individual basis for backflow prevention.
3. A new six (6) inch fire line may be tapped to the existing eight (8) inch main and the proposed four (4) inch potable water service may be connected from that new fire line. Such a tap shall be no less than twenty (20) feet from the face of the building.
4. A fifteen (15) foot wide permanent easement centered over the existing eight (8) inch water main shall be granted to the City, the existing siamese connection at the valve vault shall be removed and the existing water main shall be formally accepted by the City as a public water main.

Mr. Steve Kloos  
Page 3  
October 19, 1998

If you have any questions or require additional information, please call me at (419) 592-4010.

Yours truly,



Adam C. Hoff, P.E.  
City Engineer

ACH:rd

cc: Mr. Jon A. Bisher, City Manager  
Mr. Jeff Marihugh, Operations Supt.  
Mr. Al Woo, Fire Chief  
Mr. Brent Damman, Bldg/Zoning Administrator

Z:\achletters10/19/98, 3:44PM



# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

## *Fax Transmission*

To: Steve Kloos

Mayor  
Donald M. Stange

Fax Number: 599-0245

Members of Council  
Michael J. DeWit, President  
Robert G. Heft  
James Hershberger  
David F. Miller  
Travis B. Sheaffer  
Char Weber  
Terri A. Williams

Number Of Pages, Including Cover Page: 4

From: Adam C. Hoff, P.E.; City Engineer

Date: Oct. 19, 1998 Time: 4:12 p.m.

Operator: Roxanne

City Manager  
Jon A. Bisher

Comments:

Hard copy will be sent out today.

Finance Director  
Gregory J. Heath

Law Director  
David M. Grahn

City Engineer  
Adam C. Hoff, P.E.

*Please call (419) 592-4010 if you have any trouble receiving this Transmission or you did not receive the number of pages shown above.*



**City of Napoleon  
Engineering Dept**

City of Napoleon  
255 West Riverview Avenue  
P.O. Box 151  
Napoleon, Ohio 43545

Phone: (419) 592-4010  
FAX: (419) 599-839

---

# *Facsimile*

To: Allan Woo  
Jeff Marihugh  
Steve Kloos/599-0245  
From: Adam C. Hoff, P.E.; City Engineer *ACH*  
Date: Thursday, October 15, 1998 @ 2:47PM  
Re: Cloverleaf Cold Storage  
Pages: 3, including this

Please review the attached and comment ASAP. Thank you.



Mr. Steve Kloos

Page 1

October 13, 1998

# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

October 13, 1998

*Please review &  
comment.  
ACH*

Mr. Steve Kloos  
Cloverleaf Cold Storage  
1165 Industrial Drive  
Napoleon, Ohio 43545

**Mayor**  
Donald M. Stange

**Members of Council**  
Michael J. DeWit, President  
Robert G. Heft  
James Hershberger  
David F. Miller  
Travis B. Sheaffer  
Char Weber  
Terri A. Williams

**City Manager**  
Jon A. Bisher

**Finance Director**  
Gregory J. Heath

**Law Director**  
David M. Grahn

**City Engineer**  
Adam C. Hoff, P.E.

Re: City of Napoleon  
Cloverleaf Cold Storage  
Freezer and Office Addition  
Plan Review

Dear Mr. Kloos:

Based upon Staff review of the plans submitted for the referenced project, we have several concerns and comments which must be addressed as part of the additions. The existing eight (8) inch water main feeding the facility from Independence Drive (formerly Industrial E/W) was installed in 1974 when the first warehouse facility was constructed. As part of the installation of the original main, a valve vault, including a siamese connection to boost the fire suppression system, was also constructed. A copy of the drawing of this valve vault is enclosed.

When originally constructed, this scenario was acceptable because there was one (1) siamese connection serving one (1) building. Since that time, however, the water main has been extended and tapped in several locations and serves two (2) separate structures. This installation does not meet current codes with respect to fire protection. Section 916.2 of the 1998 Ohio Building Code states, "Fire department connections shall be arranged in such a manner that the attachment to any one water sprinkler connection will serve all sprinklers, and that the connection to any one standpipe connection will serve all standpipes within the building." A copy of this section of the code is enclosed.

As the system currently stands and is proposed to be constructed, Section 916.2 cannot be met. Should a fire occur at your facility with the current arrangements and the existing water main burst, the entire facility would be without fire suppression. Furthermore, any potable water connections after

the siamese connection would be contaminated with non-potable water. It should be noted that, when a water main is initially installed, it is tested to 150 pounds per square inch (psi). A fire pumper truck can supply water to the system at pressures in excess of 250 psi. Also, if water valves are closed too rapidly a phenomenon known as water hammer can occur resulting in even higher instantaneous pressures. In either case, the threat of the existing eight (8) inch water main bursting becomes very real and, once that main goes down, the entire facility is without fire protection.

An additional concern to the City is the issue of backflow prevention. The Ohio EPA mandates that all fire suppression systems and potable water connections incorporate some form of backflow prevention. Varying levels of contamination potential require varying devices. In this case, the existing siamese connection at the valve vault was installed behind a single check valve which may have met the code at the time of installation. However, such an installation does not meet today's standards and must be addressed.

In order to address the above concerns, we have developed the following comments and recommendations:

1. All of the fire risers in the cold storage facility, new and existing, shall be connected to one (1) new siamese connection. This siamese connection shall be placed in a location as reviewed and approved by the Fire Chief. The fire suppression system for the existing dry storage facility shall also be upgraded to meet current standards within one (1) year after the new cold storage facility is placed into operation.
2. Approved backflow prevention devices shall be provided and maintained for all fire suppression and potable water connections on the cold storage facility. Any "dry" fire suppression system where an air compressor is connected shall be provided with a reduced pressure (RP) backflow preventer. All potable water connections shall be provided with dual detector check valve assemblies. The potable water connections for the dry storage facility shall also be upgraded within one (1) year after the new cold storage facility is placed into operation.
3. A new six (6) inch fire line may be tapped to the existing eight (8) inch main and the proposed four (4) inch potable water service may be connected from that new fire line.
4. A fifteen (15) foot wide permanent easement centered over the existing eight (8) inch water main shall be granted to the City, the existing siamese connection at the valve vault shall be removed and the existing water main shall be formally accepted by the City as a public water main.

Mr. Steve Kloos  
Page 3  
October 13, 1998

If you have any questions or require additional information, please call me at (419) 592-4010.

Yours truly,

Adam C. Hoff, P.E.  
City Engineer

ACH:rd

Enclosure

cc: Mr. Jon A. Bisher, City Manager  
Mr. Jeff Marihugh, Operations Supt.  
Mr. Al Woo, Fire Chief  
Mr. Brent Damman, Bldg/Zoning Administrator

C:\lotus\work\wordpro\CITYENGINEER\LETTERS10\13.98, 3:31PM

Records Retention ENG-018 Permanent



# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE, P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
(419) 592-4010  
FAX (419) 599-8393

October 13, 1998

Mr. Steve Kloos  
Cloverleaf Cold Storage  
1165 Industrial Drive  
Napoleon, Ohio 43545

Mayor  
Donald M. Stange

Members of Council  
Michael J. DeWit, President  
Robert G. Heft  
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Adam C. Hoff, P.E.

Re: City of Napoleon  
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Freezer and Office Addition  
Plan Review

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As the system currently stands and is proposed to be constructed, Section 916.2 cannot be met. Should a fire occur at your facility with the current arrangements and the existing water main burst, the entire facility would be

Tuesday, October 13, 1998

without fire suppression. Furthermore, any potable water connections after the siamese connection would be contaminated with non-potable water. It should be noted that, when a water main is initially installed, it is tested to 150 pounds per square inch (psi). A fire pumper truck can supply water to the system at pressures in excess of 250 psi. Also, if water valves are closed too rapidly a phenomenon known as water hammer can occur resulting in even higher instantaneous pressures. In either case, the threat of the existing eight (8) inch water main bursting becomes very real and, once that main goes down, the entire facility is without fire protection.

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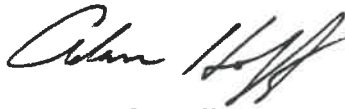
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4. A fifteen (15) foot wide permanent easement centered over the existing eight (8) inch water main shall be granted to the City, the existing siamese connection at the valve vault shall be removed and the existing water main shall be formally accepted by the City as a public water main.

Mr. Steve Kloos  
Page 3  
Tuesday, October 13, 1998

If you have any questions or require additional information, please call me at (419) 592-4010.

Yours truly,



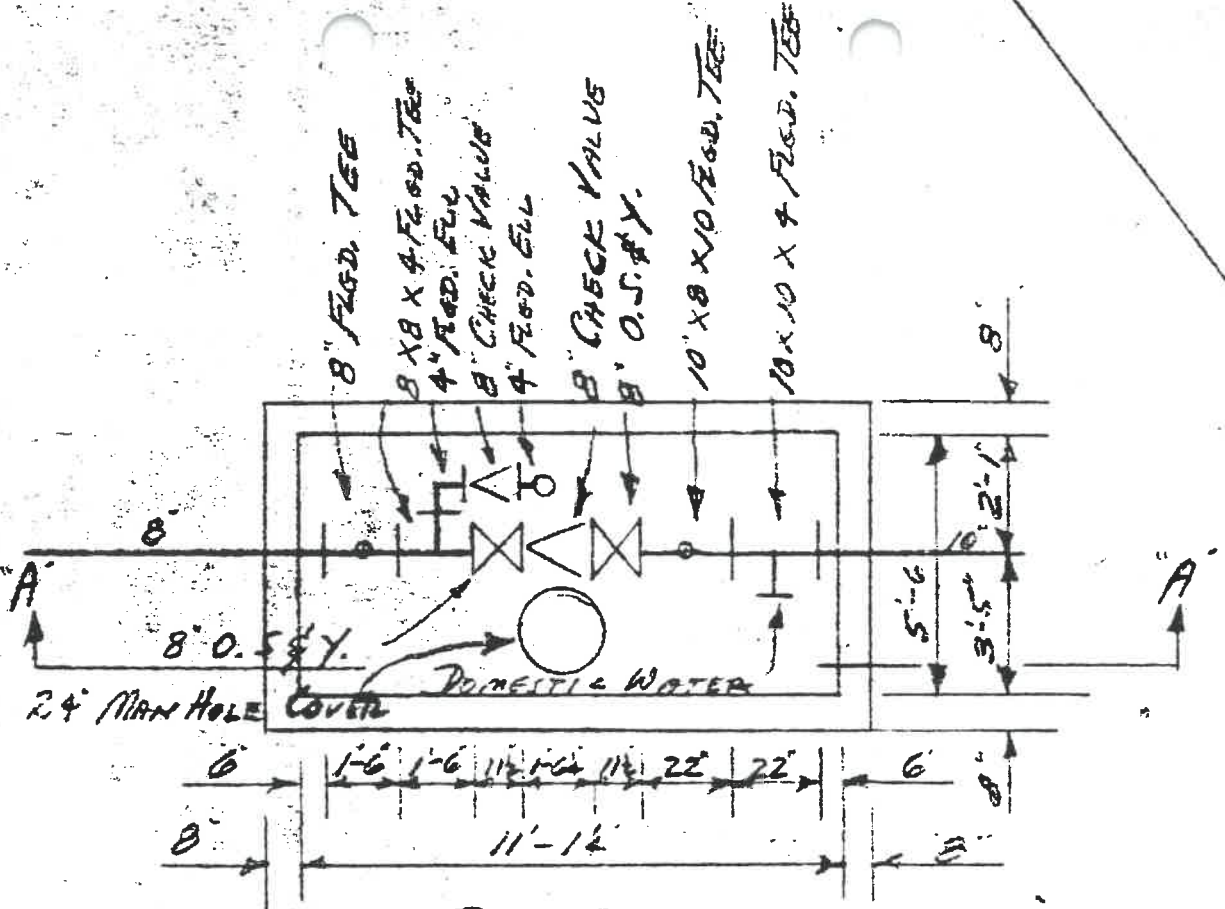
Adam C. Hoff, P.E.  
City Engineer

ACH:rd

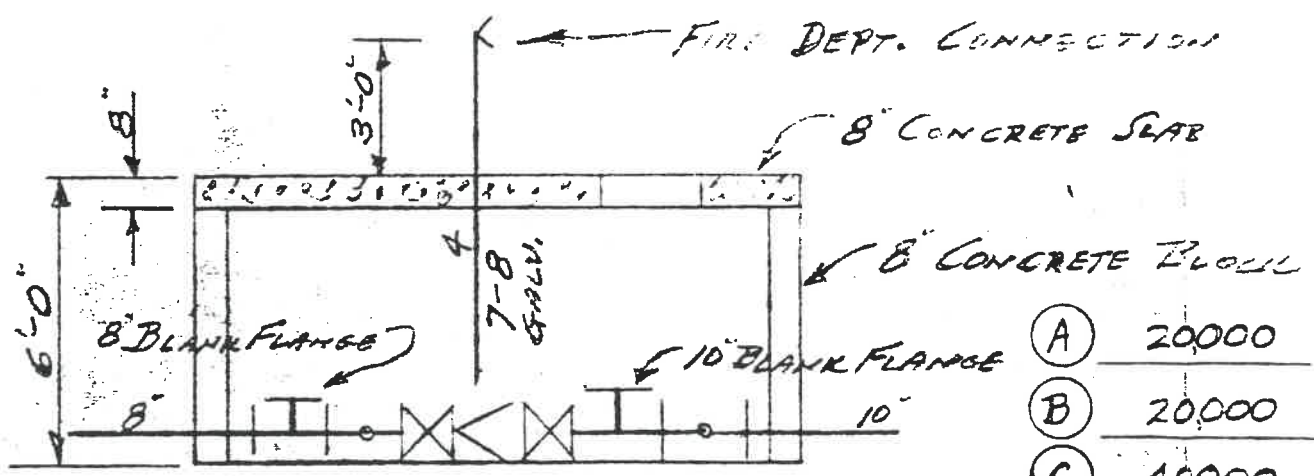
Enclosure

cc: Mr. Jon A. Bisher, City Manager  
Mr. Jeff Marihugh, Operations Supt.  
Mr. Al Woo, Fire Chief  
Mr. Brent Damman, Bldg/Zoning Administrator

Z:\achletters10/13/98, 4:53PM



PIT DETAIL  
SCALE 1/4" = 1'-0"



SECTION "A" - "A"

(A)	20000
(B)	20000
(C)	40000
(D)	20000
(E)	48000
(F)	48000
(G)	48000
(H)	48000

later Dept  
key 1-74  
do. (x5)



2. *Standpipe* hose connections for systems required by Section 915.2.2 shall be permitted to be located only at *exits* such that all portions of the building floor area are not more than 200 feet (60960 mm) from a hose connection or 400 feet (122 m) from the nearest point of fire department vehicle access.

**915.7.1 Location:** At each floor level, and not more than 5 feet (1524 mm) above the floor, there shall be connected to each *standpipe* a 2<sup>1</sup>/<sub>2</sub>-inch hose connection with valves and threads compatible with the connections used by the local fire department.

**915.7.2 Roof hydrants:** Where *standpipes* are installed in buildings more than six stories or 75 feet (22860 mm) in height, at least one riser shall extend through the roof and terminate in a two-way, 2<sup>1</sup>/<sub>2</sub>-inch hose connection. The main control valve on a roof hydrant or manifolded hose connection shall be located in an area that is not subject to freezing, is as close to the roof access as practical and is plainly identified (see Section 916.8).

**915.7.3 Pressure-regulating devices:** Where residual pressures at any *standpipe* hose outlet exceed 100 psi (690 kPa), approved pressure-regulating devices shall be installed at the outlets to limit the pressure to 100 psi (690 kPa). Such devices shall regulate pressure under flow and no-flow conditions and shall not be capable of being adjusted to pressures higher than 100 psi (690 kPa) unless approved. The pressure on the inlet side of the pressure-regulating device shall not exceed the rated working pressure of the device.

**Exception:** Pressure-reducing devices are not required where fire hoses are not provided and pressures (static or residual) do not exceed 175 psi (1207 kPa).

**915.7.4 Protection of risers:** Risers and laterals of *standpipe systems* of the types complying with Section 915.3, item 2 or 3, and not located within a fire-resistance rated *exit* enclosure shall be enclosed by construction having a minimum fire-resistance rating equal to that required for *shaft* enclosures in the building.

**Exception:** Buildings equipped throughout with an *automatic sprinkler system* in accordance with Sections 906.2.1 or 906.2.2.

**915.8 Test gauges:** An approved water pressure gauge shall be attached to each discharge pipe from fire pump and public supply, at the pressure tank, at the air pump that supplies pressure to the tank and the top of each *standpipe* riser for inspection and test purposes. Shutoff valves, with provisions for bleeding pressure from the gauge, shall be installed between the gauge and the top of the riser. Access to the gauges shall be provided and the gauges shall be located in spaces not subject to freezing.

**Exception:** Where more than one *standpipe* riser is interconnected at the top, a single gauge properly located is permitted to be substituted for the gauge at the top of each *standpipe* riser.

**915.9 Materials:** All *standpipes* shall be constructed of approved materials. All pipe, fittings and valves shall be of an extra-heavy pattern where the normal working pressure will exceed 175 psi (1207 kPa).

**915.10 Unheated areas:** Portions of the *standpipe system* which contain water shall be protected from freezing.

**915.11 Signs:** Where control valves are located in a separate room or building, a sign shall be provided on the entrance door. The lettering of such sign shall conform to Section 901.6 and shall be at least 4 inches (102 mm) in height and shall read "Standpipe Control Valves."

**915.12 Acceptance tests:** All *standpipe systems* shall be tested in accordance with Sections 915.12.1 through 915.12.4.

**915.12.1 Underground connections:** Underground mains and lead-in connections shall be flushed and tested in accordance with NFPA 14 and 24 listed in Chapter 35.

**915.12.2 Hydrostatic test:** All systems shall be tested hydrostatically for 2 hours at not less than 200 psi (1379 kPa) or at 50 psi (345 kPa) in excess of the maximum static pressure, whichever is greater. The hydrostatic pressure shall be measured at the low elevation point of the individual system or zone being tested. The inside *standpipe* piping shall not show any leakage.

**915.12.3 Flow test:** All systems shall have a flow test conducted at the hydraulically most-remote outlet to determine compliance with the single-riser criteria of Section 915.4.

**915.12.4 Dry devices:** A working test of valves, quick-opening devices and air maintenance devices installed in systems complying with Sections 915.3, item 2 or 3, shall be made before acceptance. These systems shall deliver water at the most remote hose outlet in not more than 60 seconds.

## SECTION 916.0 FIRE DEPARTMENT CONNECTIONS

**916.1 Required:** All required water fire-extinguishing and *standpipe systems* shall be provided with a fire department connection in accordance with the applicable standards. *Standpipes* in buildings under construction or demolition shall conform to Section 3305.3.

### Exceptions

1. *Limited area sprinkler systems* supplied from the domestic water system.
2. Where the local fire department approves a single connection for large diameter hose of at least 4 inches (102 mm).
3. An *automatic sprinkler system* with less than 20 *sprinklers*.

**916.2 Connections:** Fire department connections shall be arranged in such a manner that the attachment to any one water *sprinkler* connection will serve all *sprinklers*, and the attachment to any one *standpipe* connection will serve all *standpipes* within the building.

**916.3 Location:** Fire department connections shall be located and shall be visible on a street front or in a location approved by the fire department. Such connections shall be located so that immediate access is provided to the fire department. Fire department connections shall not be obstructed by fences, bushes, trees, walls or any other similar object.

**916.4 Height:** Fire department connections shall not be less than 18 inches (457 mm) and not more than 42 inches (1067 mm) in

elevation, measured from the ground level to the centerline of the inlets.

**916.5 Projection:** Where the fire department connection will otherwise project beyond the property line or into the *public way*, a flush-type fire department connection shall be provided.

**916.6 Hose thread:** Hose thread in the fire department connection shall be uniform with that used by the local fire department.

**916.7 Fittings:** Fire department inlet connections shall be fitted with check valves, ball drip valves and plugs with chains or frangible caps.

**916.8 Signs:** A metal sign with raised letters at least 1 inch (25 mm) in height shall be mounted on all fire department connections serving *sprinklers* or *standpipes*. Such signs shall read "Automatic Sprinklers" or "Standpipe," or both, as applicable.

### SECTION 917.0 YARD HYDRANTS

**917.1 Fire hydrants:** Fire hydrants installed on private property shall be located and installed as directed by the fire department. Hydrants shall conform to the standards of the administrative authority of the jurisdiction and the fire department. Hydrants shall not be installed on a water main less than 6 inches (152 mm) in diameter.

### SECTION 918.0 (4101:2-9-18) FIRE ALARM SYSTEMS

**918.1 General:** Fire alarm systems shall be of an approved type and shall be installed in accordance with the provisions of this code and NFPA 72 listed in Chapter 35.

**918.2 Construction documents:** Where a fire alarm system is required by this code, the *construction documents* shall show the location and number of all alarm-initiating devices and alarm-notification appliances, and shall provide a description of all equipment to be used, proposed zoning, a list of auxiliary control functions (i.e., elevator capture), location of the control panel(s) and annunciator(s), and a complete sequence of operation for the system.

**918.3 Approval:** All devices, combinations of devices, appliances and equipment shall be approved for the fire alarm purpose for which such equipment is used.

**918.4 Where required:** A fire alarm system shall be installed and maintained in full operating condition in the locations described in Sections 918.4.1 through 918.4.6.

**918.4.1 Use Group A-4 or E:** A fire alarm system shall be installed and maintained in all occupancies in Use Group A-4 or E. A fire alarm system shall not be required for sanctuary and nave areas of churches and similar religious buildings.

**918.4.2 Use Group B:** A fire alarm system shall be installed and maintained in all occupancies in Use Group B where such buildings have occupied floors which are two or more stories above the lowest *level of exit discharge* or which have floors two or more stories below the highest *level of exit discharge*.

**918.4.3 Use Group H:** A fire alarm system shall be installed and maintained in all occupancies in Use Groups H-2, H-3 and H-4.

**918.4.4 Use Group I:** A fire alarm system shall be installed and maintained in all occupancies in Use Group I.

**918.4.5 Use Group R-1:** A fire alarm system shall be installed and maintained in all occupancies in Use Group R-1.

**918.4.6 Use Group R-2:** A fire alarm system shall be installed and maintained in all occupancies in Use Group R-2 where any *dwelling unit* is located three or more stories above the lowest *level of exit discharge* or more than one story below the highest *level of exit discharge* of *exits* serving the *dwelling unit*.

**918.5 Location:** Manual fire alarm boxes shall be located not more than 5 feet (1524 mm) from the entrance to each *exit*.

**Exception:** Manual fire alarm boxes are not required in an occupancy in Use Group B where the highest occupied floor is 75 feet (22860 mm) or less above the lowest level of fire department vehicle access and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 906.0.

**918.5.1 Manual fire alarm boxes:** The height of the manual fire alarm boxes shall be a minimum of 42 inches (1067 mm) and a maximum of 54 inches (1372 mm) measured vertically, from the floor level to the activating handle or lever of the box. Manual fire alarm boxes shall be red in color. In all occupancies in Use Group I-3, the manual fire alarm boxes shall be permitted to be locked in areas where staff is present whenever such areas are occupied and keys are readily available to unlock the boxes, or the boxes shall be located in a manned staff location which has direct supervision of the sleeping area.

**918.6 Power supply:** The primary and secondary power supply for the fire alarm system shall be provided in accordance with NFPA 72 listed in Chapter 35.

**918.7 Wiring:** All wiring shall conform to the requirements of NFPA 72 listed in Chapter 35. Wireless systems utilizing radio-frequency transmitting devices shall comply with the special requirements for supervision of low-power wireless systems in NFPA 72 listed in Chapter 35.

**918.7.1 Activation:** The alarm-notification appliances shall be automatically activated by all of the following where provided:

1. Smoke detectors, other than single- and multiple-station smoke detectors, as required by Section 920.0;
2. *Sprinkler* water-flow devices;
3. Manual fire alarm boxes; and
4. Other approved types of automatic fire detection devices or *suppression systems*.

**Exception:** Smoke detectors in an occupancy in Use Group I-3 are permitted to actuate an audible alarm-notification appliance at a constantly attended location and are not required to activate a general alarm.

**918.7.2 Presignal system:** Presignal systems shall not be installed unless approved by the code official and by the fire department. Where a presignal system is installed, 24-hour personnel supervision shall be provided at a location approved

**CITY OF NAPOLEON  
FIRE DEPARTMENT**

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## *Memorandum*

*To: Adam Hoff, City Engineer  
From: Chief A. Woo  
cc: J. Bisher, City Manager  
Date: August 10, 1998  
Subject: Water lines and sprinkler connections for  
Cloverleaf Cold Storage*

Adam,

As I cannot make the meeting on Tuesday regarding the waterlines at Cloverleaf, following are some of my concerns. As it is a bit difficult to explain the need and function of fire department sprinkler connections, I've copied a small description from the NFPA Handbook and included it with this memo.

The 2 structures (Cloverleaf and Napoleon Warehouse) are covered by separate systems which share a common fire department connection, located in front of Napoleon Warehouse. Fire department connections serve as a means to increase pressure in the suppression system should a large number of sprinkler heads fuse. The pump pressures normally utilized through these connections range from 100-150 psi. The connection is actually on the waterline to the complex, and this is what we would pressurize. As it stands, should we pressurize the system and break the main, we would effectively eliminate the fire protection systems for both buildings with no means of backing up the system. A second factor which complicates the situation is that the systems are of different designs. The Cloverleaf system is a dry system while the system at Napoleon Warehouse is kept wet. My biggest concern with the current situation is that we have no means of backing up the system should the water line break. This would knock out the main system feed as well as our ability to pump into the system as an auxiliary.

As I researched this with other fire inspectors, State Fire Marshal's office and a sprinkler designer, it was brought out that the current connections are non-compliant and the existing sprinkler system may barely meet the requirements. Any additional building will require the system be brought up to meet current code.

The Ohio Fire Code requires that all sprinkler systems have a connection which will supply all sprinklers within the structure. As written, the addition to Cloverleaf will need to be tied to the existing system. There is the possibility that we could keep it separate, but I hesitate in doing so unless other criteria such as monitoring and signage are met.

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Adam, there are a number of hypothetical solutions we can formulate, the bottom line however is that Cloverleaf must get a sprinkler design contractor to design the addition. The new system must be designed to meet current codes using NFPA 231 (storage) and current Ohio Building Code. Most people I talked to believe that the system as it exists now, does not meet code because it was most likely calculated using pipe schedules.

I know this is brief, but if there are questions, let me know. Also, all suppression plans must be forwarded to Wood County prior to approval.

Federal regulations approved in 1986 require states to inspect closely all water supplies intended for public consumption. States and municipal governments have taken several steps to protect the potable water supply. Double check valves and reduced pressure zone (RPZ) backflow prevention devices may be required any time the sprinkler system will be supplied by a potable water source.

These devices may protect the public water supply from potential contamination, but designers must be aware of their cost and maintenance, and their negative impact on the available water supply and pressures to the sprinkler system. NFPA 24, *Private Fire Service Mains and Appurtenances*, provides guidance for the installation of these devices.

### Gravity Tanks

Gravity tanks of adequate capacity and elevation make a good primary supply and may be acceptable as a single source. Details of the construction, heating, and maintenance of gravity tanks are given in NFPA 22, *Water Tanks for Private Fire Protection*. In determining tank size and location, consideration should be given to the number of sprinklers expected to operate, the duration of operation, the arrangement of underground supply piping, and the location of hose standpipes, hydrants, and fire department connections.

### Pressure Tanks

With the advent of hydraulically designed sprinkler systems, the use of gravity tanks for fire protection has declined. The use of fire pumps combined with suction tanks has increased. These tanks are typically constructed of steel, concrete, or fiberglass. NFPA 22, *Water Tanks for Private Fire Protection*, should be consulted for details.

### Fire Pumps

A fire pump with a reliable source of power and a reliable water supply is a desirable piece of equipment. Fire pumps are used to a great extent because of the hydraulic advantages of having a water supply available at high pressure. With ample water, a fire pump can maintain a high pressure over a long period of time and may be a necessary part of some installations requiring greater pressure than would be available otherwise. For details of power sources, pump construction, installation, and methods of control and operation, consult NFPA 20, *Installation of Centrifugal Fire Pumps*.

Automatic control of fire pumps is usually needed where a high water demand may occur immediately, as in a deluge system. Automatic fire pumps must have a suction under a positive pressure to avoid the delays and uncertainties of priming.

Most fire pumps are powered by electric motors or diesel engines. Where a reliable source of power is available at all times, an electrically driven installation may be the most desirable. Where the power supply is questionable, a diesel-driven fire pump would be preferred. In some critical installations, such as hospitals, a diesel-driven emergency power generator may be used to supply secondary power to the electric motor. The use of a diesel-driven pump in a critical installation would eliminate the need for a good portion of the output of the emergency generator.

The automatic control of electrically driven centrifugal pumps must be arranged to prevent frequent, repeated starting of the motor, either by initiating continuous running until stopped manually or by using a timing device that stops the motor automatically only after a predetermined period of operation.

### Pressure Tanks

Pressure tanks have several possible uses in automatic sprinkler protection. An important limitation is the small volume of water that can be stored in such tanks.

In situations where an adequate volume of water can be supplied by a public or private source but where the pressure is not sufficient to serve a sprinkler system directly, the pressure tank gives a good starting pressure for the first sprinklers that operate. In tall buildings where the public water pressure is too low for effective water distribution from the highest sprinklers, pressure tanks may be used to supply such sprinklers during the time required for a public fire department to begin supplying water through fire department connections.

Each proposed use of pressure tanks calls for special consideration and analysis of water capacity, location, and arrangement of the connection to the sprinkler system. Each installation must usually have specific approval. Details on the construction, installation, and maintenance of pressure tanks are given in NFPA 22, *Water Tanks for Private Fire Protection*.

### Fire Department Connections

Under fire conditions that cause a considerable number of sprinklers to operate, public water or tank supplies may not provide water at sufficient pressure for effective sprinkler discharge and distribution. In addition, the pressure in many public water supplies to sprinkler systems may be reduced materially by hose streams from hydrants. In such cases, a connection through which the public fire department can pump water into the sprinkler system provides an important secondary supply. Fire department connections are therefore a standard part of sprinkler systems.

Fire department connections must be readily accessible and properly marked. Each connection must be fitted with a check valve, but not with a gate valve, so that the connection will not be shut off inadvertently. There should be a proper drain, as well as a drip device between the check valve and the outside hose coupling. Figures 5-11A and 5-11B show the main features of a fire department connection. Other details of installation and pipe size are given in NFPA 13, *Installation of Sprinkler Systems*.

Where a wet-pipe sprinkler system has a single riser, the fire department connection should be attached to the system side of the controlling valve. For a dry-pipe system, the connection should be between the dry-pipe controlling valve and the valve. This makes it possible to pump water into the system even if the valve is closed. If there are two or more sprinkler system risers, each with its own separate connection to a public main, each system must have its own fire department connection. If more than one riser is connected to a yard system, the fire department connection should feed into the yard system on the supply side of all riser shutoff valves, and there must be a check valve in all other water supply connections into the yard system to prevent backflow and loss of water supplied through the fire department connection. If one riser is shut off, the fire department connection can still supply all other risers.

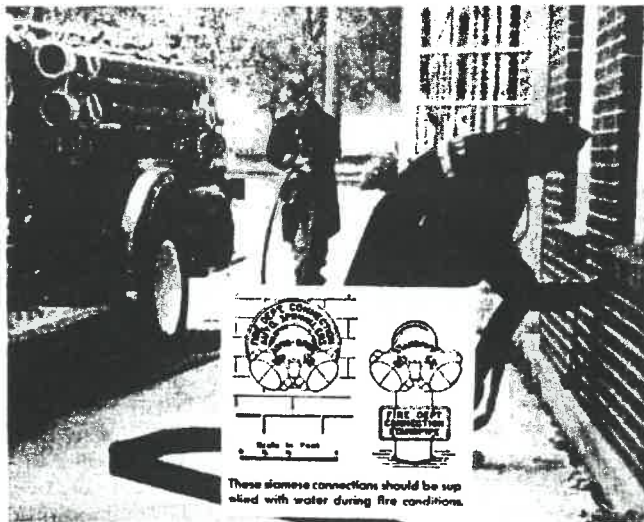


FIG. 5-11A. Fire fighters attaching hose lines to a fire department (siamese) connection supplying a sprinkler system. The inset shows typical siamese connections for sprinkler systems and standpipes. A check valve allows the use of a single hose line.

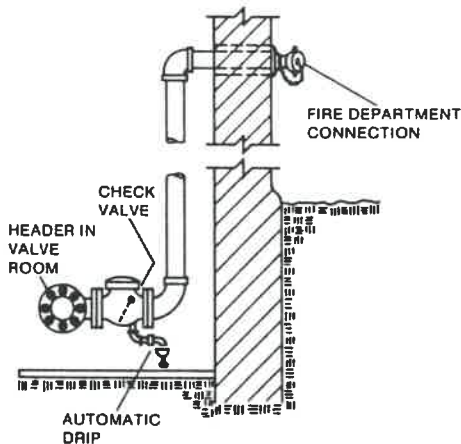


FIG. 5-11B. Typical fire department connection.

If two or more sprinkler system risers are fed by one sprinkler connection, one fire department connection can supply both risers.

In an emergency, a fire department can pump water from public hydrants or other sources of water into a sprinkler system through hose connected to a yard hydrant or other hose connection using a double female hose coupling, if other supply connections have a check valve or a gate valve that can be closed.

### INFLUENCE OF VARIOUS FACTORS ON WATER SUPPLY NEED

Determining the water supply requirement for most sprinkler systems is not always easy because of the many variables involved. If a water source that can supply all the sprinklers is available, there is no problem, but such a water supply is seldom practical except in the case of small

systems. The water supply requirement for any sprinkler system is directly related to the number of sprinklers expected to operate, which is determined by the hazard classification and the anticipated use of outside and inside hose stream demands. This, in turn, depends on so many other variables and uncertain factors that no exact mathematical solution is possible.

Records kept by NFPA before 1970 show that in fewer sprinklers opened in 93 percent of all fires in sprinklered buildings, Experience shows that, with an adequate water supply, the percentage of unsatisfactory sprinkler performance is extremely small. Thus, water supply is a significant concern, particularly with large sprinkler systems and with systems protecting greater-than-ordinary hazards.

Establishing the water supply requirement for any particular sprinkler system requires good engineering judgment based on all the factors relating to sprinkler control. Where the cooling effect from the water discharged by sprinklers is greater than the heat liberated by the fire, sprinklers can gain control. When the reverse occurs, when a water supply is overtaxed or system design is inadequate, the sprinklers cannot control the fire and the sprinkler system may fail. Where all conditions are favorable, the fire should be controlled by the operation of only a small number of sprinklers. Because conditions vary in different classes of occupancy, areas, and types of buildings, the number of sprinklers expected to operate to control a fire may range up to the total number in the area, and the water supply should be provided accordingly.

The primary factors affecting the number of sprinklers that might open in a fire, and which therefore must be considered in determining the water supply requirements, include the following.

### Hazard of Occupancy (Including Flash Fire Hazard and Potential Rate of Heat Release)

This is the most important factor and one requiring experienced judgment to evaluate. Where the flash fire hazard is present, it is usually necessary to provide enough water to operate of all the sprinklers in any individual fire area.

### Initial Water Pressure

At a pressure of 15 psi (103 kPa), a standard 1/2-in. (13 mm) sprinkler will discharge 22 gpm (83 L/min), or an average of approximately 0.17 gal per sq ft per min [6.8 (L/min m<sup>2</sup>) over an area of 130 sq ft (12 m<sup>2</sup>). At 30 psi (207 kPa) the discharge is 31 gpm (125 L/min), and at 50 psi (345 kPa), 40 gpm (155 L/min). At higher pressures, the discharge is correspondingly greater. With a greater discharge there is a better chance of fire control from a small number of sprinklers and less need for large volumes of water to supply a large number of sprinklers.

### Obstructions to Distribution of Water from Sprinklers

With obstructions, such as high-piled stocks, pallets, racks, and shelving, there is less likelihood that fire will be controlled in its initial stages, and a greater chance that a large number of sprinklers needing large water supplies will open.

High Ceilings and drafts will carry smoke and fire over a fire, reducing the fire's place of origin. Such conditions are drafts, such as where wind enters a fire.

Unprotected Vertical Pipe vs Drip. Because of the demands, more sprinkler systems are designed on the assumption that more of a fire originates at high combustion and to be considered larger pipes.

Design area. This delay.

of Undivided. Large undivided areas, more sprinklers, and, consequently, a small area.

Concealed. Concealed pipes, girders, and other structural members may be necessary for more sprinklers, such as treatment.

of C. fire in an automatic sprinkler system that the system.

The pressure and collection of water in general forms require subject to protected areas is applied that it is to ensure that the hose is

2. *Standpipe* hose connections for systems required by Section 915.2.2 shall be permitted to be located only at *exits* such that all portions of the building floor area are not more than 200 feet (60960 mm) from a hose connection or 400 feet (122 m) from the nearest point of fire department vehicle access.

**915.7.1 Location:** At each floor level, and not more than 5 feet (1524 mm) above the floor, there shall be connected to each *standpipe* a 2½-inch hose connection with valves and threads compatible with the connections used by the local fire department.

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**915.12.4 Dry devices:** A working test of valves, quick-opening devices and air maintenance devices installed in systems complying with Sections 915.3, item 2 or 3, shall be made before acceptance. These systems shall deliver water at the most remote hose outlet in not more than 60 seconds.

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**916.4 Height:** Fire department connections shall not be less than 18 inches (457 mm) and not more than 42 inches (1067 mm) in

# Cloverleaf Cold Storage

9/30/98

- 1.) Need Siamese Connection on wall of building
- 2.) Proposed BF is not sufficient - must be RPZ if <sup>air</sup> compressor is ~~to~~ utilized
- 3.) NFPA-13 does not apply - should be NFPA-231 + 231C for storage area with stacked over 12'
- 4.) Need rated fire wall between new + old or ensure that the siamese connection will serve both sections → steel face / styrofoam panel  
→ garage door @ docks

## 5.) Two Options for domestic

A.) Connect to 6" fire line, install new siamese connections for each ~~existing~~ riser on the existing buildings or tie all risers together, and eliminate ex. siamese @ pit w/ proper ~~BF~~ B.F. for all connections, grant City permanent easement

B.) 4" domestic to Independence, upgrade ex. siamese conn., install master meter + BF prevention, existing main becomes private and is maintained as such

10/13/98

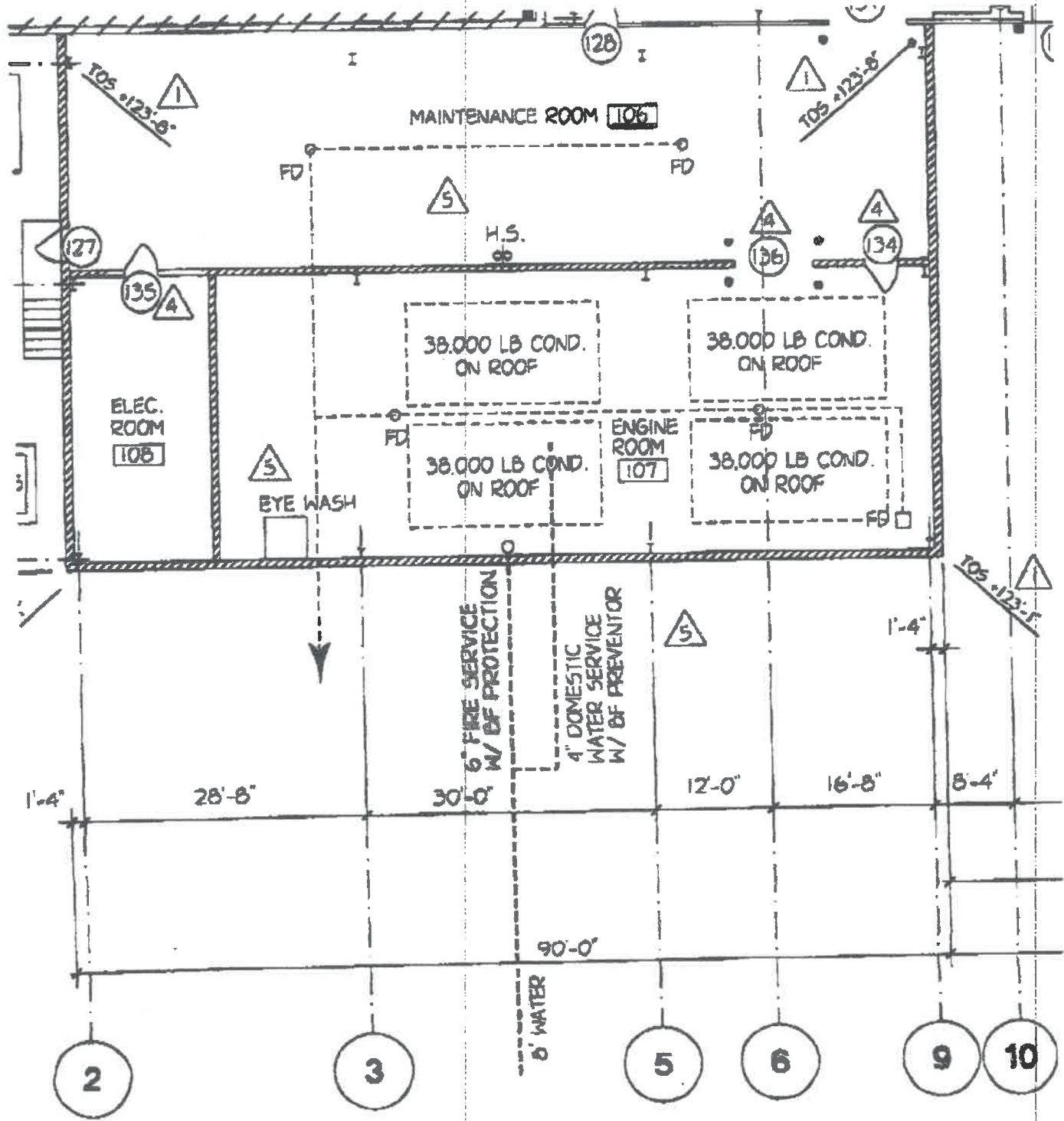
6.) Ohio building code 916.2 requires one (1) siamese connection for entire building

7.)

Deep freeze area - yes

Steve Kloos  
Fax - 599-0245  
5015





CLOVERLEAF  
COLD  
STORAGE

P.01/02  
1165 Independence Drive  
Napoleon, OH 43545  
Telephone: (419) 599-5015  
Fax: (419) 592-5183

FROM:

STEVE

TIME/DATE SENT:

4:20pm 9/22/98

SENT TO:

ADAM HOFF

FIRM:

CITY OF NAPOLEON

CITY AND STATE:

TELEFAX NUMBER:

599-8393

NUMBER OF PAGES:

2

INCLUDING COVER

COMMENTS:

Hi Adam,

TAKE A LOOK AT THIS

AND SEE IF YOU THINK

THIS WILL WORK.

Thanks!

Steve



W.A. Klinger, Inc.  
CONSTRUCTOR

2015 East Seventh Street • P.O. Box 8800 • Sioux City, Iowa 51102  
Tel: 712-277-3900 • Fax: 712-277-5300

July 8, 1998

Mr Adam Hoff  
City Engineer  
City of Napoleon  
255 West Riverview  
Napoleon OH 43545

RE: CLOVERLEAF COLD STORAGE FREEZER ADDITION  
NAPOLEON, OHIO  
"North Parking Lot"

Dear Mr. Hoff:

Per our conversations on July 7, 1998, please find enclosed a drawing of the proposed lot for Cloverleaf Cold Storage.

We will be stripping top soil, rough grading and installing a 10" thick aggregate parking lot. We will grade the new lot so that approximately two-thirds of the lot will drain to existing catch basins, and one-third will drain north to a grassy area. Before winter hits, we intend to install two storm lines extending from the existing catch basins to the north edge of the new parking lot. When the future north lot is added, two new catch basins will be installed and connected to this 12" storm line. Also, before winter, 4" thick asphalt paving will be installed over the rock parking lot.

If you have any questions, please feel free to give me a call.

Sincerely,

W. A. KLINGER, INC.

Stephen P. Koza  
Vice President

SPK:js

cc: Mr. Steve Kloss; Cloverleaf

OVERNITE

W.A. KLINGER, INC.  
CONSTRUCTOR  
2015 E. SEVENTH ST.  
P.O. BOX 8800  
SIOUX CITY, IOWA 51102

PHONE (712) 277-3900  
FAX (712) 277-5300

7/8/98

TO: CITY OF NAPOLEON  
255 W. RIVERVIEW AVE  
NAPOLEON, OHIO 43545

ATTN: MR ADAM HOFF

RE: CLOVERLEAF  
PARKING LOT

JOB # \_\_\_\_\_

Gentlemen:

We are enclosing 1 prints of:

Sheet # C2 From: WAK RE: P.LOT

Sheet # 1 From: " RE: SCOPE LETTER

Sheet # \_\_\_\_\_ From: \_\_\_\_\_ RE: \_\_\_\_\_

Sheet # \_\_\_\_\_ From: \_\_\_\_\_ RE: \_\_\_\_\_

These prints are:

1.  For \_\_\_\_\_ approval. Please return \_\_\_\_\_ corrected prints.
2.  For revision and return to us. Please return \_\_\_\_\_ corrected prints.
3.  Approved as noted \_\_\_\_\_. Please return \_\_\_\_\_ corrected prints for job and office use.
4.  For file and distribution.
5.  For job use.

Remarks:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

thanks  
W.A. KLINGER, INC.

By: Stuckey



BUILD TO ENDURE

# City of Napoleon

**Fax Cover** This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

**To** Steve Koza - W.A. Klinger, Inc.

**Fax No.** (712) 277-5300

**From** Adam C. Hoff, P.E. - City Engineer *ACH*

**Date** 7/7/98

**Subject** Cloverleaf Cold Storage Freezer Addition - Parking Lot

**Pages** 1, including this one

Per our telephone conversation of today, you may proceed with preliminary grading and placement of stone for the proposed parking area north of Independence Drive while the equipment and personnel are on site provided a site plan showing the proposed improvements is delivered to my office **prior to commencing with the work**. Please note that, pursuant to the City of Napoleon Code of Ordinances, the areas to be utilized as employee parking must be paved, while the areas for truck parking may remain as stone. A final plan, including runoff calculations and storm water facilities, will need to be provided ASAP.

We fully understand and appreciate your efforts to expedite your project and conserve resources. However, we feel that it is equally important to recognize and enforce the rules of the City of Napoleon, for your protection as well as ours. Information pertaining to water usage and fire protection still need to be provided as well as electrical consumption prior to the issuance of a final zoning permit for your facility. A zoning permit will also be required for the additional parking.

We appreciate your immediate response to this request. If you have any questions or require additional information, please call me at (419) 592-4010. Thank you.

c: Jon A. Bisher - City Manager  
Brent Damman - Zoning Administrator  
Steve Kloos - Cloverleaf Cold Storage (Fax - 592-5183)

255 W. Riverview Ave.  
Napoleon, Ohio 43545

(419) 592-4010 Phone

(419) 599-8393 Fax

# Memorandum

*To: Brent N. Damman - Zoning Administrator*  
*From: Adam C. Hoff, P.E. - City Engineer* **ACH**  
*cc: Mike Heiss, Jeff Marihugh, Rex Moll*  
*Date: June 3, 1998*  
*Subject: Cloverleaf Cold Storage Plan Review*

The preliminary plans and storm water calculations submitted for the Cloverleaf Cold Storage facility located on Independence Drive has been reviewed by City staff. Based upon this review, the following comments have been developed:

## Electric:

1. A complete detail of the electrical requirements must be provided to the City for proper sizing of any new electrical service and components. As of this date, projected usages have not been provided and, therefore, no equipment may be ordered. As this equipment can often have a substantial lead time for delivery, we cannot be responsible for any delays caused by the delivery of the required equipment.

## Storm Sewers:

1. The drainage calculations indicate that surcharging will occur within the collection system. The parking facilities will be utilized a detention basin. A letter from Mr. Stephen Koza of W.A. Klinger, Inc. to this effect is attached.

## Sanitary Sewers:

1. The existing sanitary service will be utilized.

## Water Mains:

1. A memorandum from Operations Superintendent Jeff Marihugh is attached. As with the electrical, details are needed as to the projected water consumption and fire protection isometrics. Until these are received, the

required equipment cannot be ordered and this equipment also can have a substantial lead time for delivery.

**Pavements:**

1. Should the owner opt to improve the parking lot north of Independence Drive, a site plan will be required.

The general layout and plan for the Cloverleaf building addition is acceptable and is approved. However, as stated above electrical and water details are still required.

If you have any questions, please see me.



W.A. Klinger, Inc.  
CONSTRUCTOR

2015 East Seventh Street • P.O. Box 8800 • Sioux City, Iowa 51102  
Tel: 712-277-3900 • Fax: 712-277-5300

May 29, 1998

Mr Adam Hoff  
City Engineer  
City of Napoleon  
255 West Riverview  
Napoleon OH 43545

RE: CLOVERLEAF COLD STORAGE FREEZER ADDITION  
NAPOLEON, OHIO  
"Storm Drainage"

Dear Mr. Hoff:

I have reviewed the results of the storm water run-off analysis with the Owner regarding the above referenced project, and he understands that there is a high potential for on-site ponding/flooding at the catch basins. This is acceptable to the Owner as the addition is a dock high building.

If you have any questions, please feel free to give me a call.

Sincerely,

W. A. KLINGER, INC.

Stephen P. Koza  
Vice President

SPK:js

cc: Mr. Dan Kaplan; Cloverleaf Cold Storage  
Attachments Page 1, 2 and 3



# *Memo*

To: Adam Hoff, P.E., City Engineer  
From: Jeffrey C. Marihugh, Operations Superintendent  
Date: June 2, 1998  
Re: Cloverleaf Cold Storage

*J.C.M.*

I have reviewed the plans on the above referenced project and found no relevant information for this department's use. If this project is to be on a fast track, I will need the following blue prints to complete my review in a timely fashion:

1. A complete set of plumbing isometrics
2. A completed water survey
3. A complete set of fire protection isometrics

Should you wish to discuss this matter further, please contact my office as soon as possible.



**MA...-DRAIN**

HAVILAND DRAINAGE PRODUCTS CO.

Land Drainage Products

Main St., Box 97 Haviland, Ohio 45851

Phone 419 622-6951 or 419 622-4611

FAX 419 622-6911

Steve Koza 712 277-3900

## STORM WATER RUNOFF ANALYSIS

Proposed Freezer Addition  
Cloverleaf Cold Storage Company  
Napoleon, Ohio

May 1998

Existing site conditions consist of a grass area with an asphalt parking lot. Elevation difference across the site is approximately 3 feet from near the east property line to the middle of the existing warehouse.

A drainage ditch on the west and north side of the property discharge the site runoff in an easterly direction.

**Existing Conditions:**

The site is generally divided into two drainage subareas with half the site flowing west to a ditch and half flowing north to a ditch.

Flow @ west ditch:

$$Q_5 = CIA$$

$$C = 0.55$$

$$T_c = \text{less than 20 min.}$$

$$I_{5 \text{ yr.}} = 3.15 \text{ in./hr.}$$

$$A = 2.09 \text{ ac.}$$

$$Q_5 = (0.55)(3.15 \text{ in./hr.})(2.09 \text{ ac.})$$

$$Q_5 = 3.62 \text{ cfs}$$

Flow @ north ditch:

$$Q_5 = CIA$$

$$C = 0.55$$

$$T_c = \text{less than 20 min.}$$

$$I_{5 \text{ yr.}} = 3.15 \text{ in./hr.}$$

$$A = 2.09 \text{ ac.}$$

$$Q_5 = 3.62 \text{ cfs}$$

Total existing runoff from site:

$$Q_{\text{total}} = 7.2 \text{ cfs}$$

*\* Q<sub>EX.</sub>*

Capacity of existing 12" CMP (northwest):  $Q_{max} = 0.4$  cfs (see attachment)

Capacity of existing 48" CMP (northwest):  $Q_{max} = 23.3$  cfs (see attachment)

Capacity of existing 54" CMP (northeast):  $Q_{max} = 47.6$  cfs (see attachment)

**Developed Conditions:**

Drainage Areas: (see attached drawing)

Subarea No. 1 -

120 x 180'	=	0.50 ac.
265' x 135'	=	0.82 ac.
100' x 170 x 1/2	=	0.20 ac.
35 x 170"	=	<u>0.14</u> ac.
		1.66 ac.

Subarea No. 2 -

165 x 225'	=	0.85 ac.
170' x 100 x 1/2	=	<u>0.20</u> ac.
		1.05 ac.

Subarea No. 3 -

385' x 90	=	0.80 ac.
-----------	---	----------

Subarea No. 4 -

380' x 120'	=	1.05 ac.
45' x 265'	=	<u>0.27</u> ac.
		1.32 ac.

Time of Concentration ( $T_c$ ) -

Estimate roof to gutter 10 min.

Travel time, 730' to outlet @ NE corner of site  
assume  $v = 1.5$  fps.

$$T_c = \frac{730' \text{ sec. min}}{1.5 \text{ ft} \quad 60} = 8.1 \text{ min.}$$

$$T_c = 10 \text{ min} + 8.1 \text{ min} = 18.1 \text{ min.}$$

Will use:  $T_c = \underline{20 \text{ min.}}$

Total runoff from site:

$$Q_5 = CIA$$

$$A = 4.83 \text{ ac.}$$

$$I_5 = 3.15 \text{ in./hr.}$$

$$C = 0.90$$

$$Q_5 = 13.7 \text{ cfs} \quad * \quad Q_{PROP(5)}$$

$$Q_{10} = CIA$$

$$A = 4.83 \text{ ac.}$$

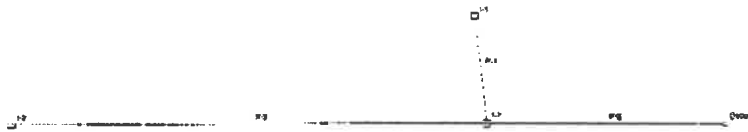
$$I_5 = 3.74 \text{ in./hr.}$$

$$C = 0.90$$

$$Q_{10} = 16.3 \text{ cfs} \quad Q_{PROP(10)}$$

The attached calculations indicate that for a 5-year storm event the existing site runoff is approximately 7.2 cfs. It is estimated 3.6 cfs discharge through the storm sewer on the east side of the property along the asphalt street. The remaining 3.6 cfs follow to the ditches which border the property on the north and west.

It is intended that subareas no. 3 and 4 (the building and dock area) will surface flow and discharge through this existing storm sewer system. The runoff for a 5-year storm event under developed conditions is approximately 7.9 cfs. It is believed this runoff will surcharge the storm sewer and result in on-site flooding at the catch basins.



Pipe Report - *EXISTING*

Pipe	Up Node	Dn Node	Inlet A (acres)	C	Inlet CA (acres)	Tot CA (acres)	I (in/hr)	Q (cfs)	Length (ft)	S (ft/ft)	Size	Roughness	Cap (cfs)	Up Invert (ft)	Dn Invert (ft)	Up Gr Elev (ft)	Dn Gr Elev (ft)	Up Cover (ft)	Dn Cover (ft)	Up HGL (ft)	Dn HGL (ft)	Description
P-3	I-3	I-2	0.50	0.55	0.28	0.28	3.15	0.87	290.00	0.08069	12 inch	0.013	3.57	74.75	72.41	77.70	76.64	1.91	3.19	75.14	73.68	
P-1	I-1	I-2	1.01	0.55	0.56	0.56	3.15	1.76	65.00	0.24482	12 inch	0.013	6.21	74.00	72.41	77.02	76.64	1.98	3.19	74.56	73.68	
P-2	I-2	Outlet	0.57	0.55	0.31	1.14	3.15	3.63	146.00	0.05763	12 inch	0.013	3.01	72.41	71.57	76.64	76.50	3.19	6.88	73.88	72.38	

Node Report - Existing

Node	Inlet A (acres)	C	Inlet CA (acres)	Ext CA (acres)	Tot CA (acres)	TC (min)	Ext TC (min)	Up Flow Time (min)	Sys Flow Time (min)	I (in/hr)	Tot CIA (cfs)	Add. Q (cfs)	CO Flow (cfs)	Known Flow (cfs)	Tot Up Added (cfs)	Q (cfs)	Gr Elev (ft)	Rim (ft)	HGL In (ft)	HGL Out (ft)	Inlet Q (cfs)	Inlet Description
I-3	0.50	0.55	0.28	0.00	0.28	0.00	0.00	0.00	0.00	3.15	0.87	0.00	0.00	0.00	0.00	0.87	77.70	77.70	75.14	675.14	3.15	0.87
I-1	1.01	0.55	0.56	0.00	0.56	0.00	0.00	0.00	0.00	3.15	1.76	0.00	0.00	0.00	0.00	1.76	77.02	77.02	74.58	674.56	3.15	1.76
I-2	0.57	0.55	0.31	0.00	1.14	0.00	0.00	2.38	2.38	3.15	3.63	0.00	0.00	0.00	0.00	3.63	76.64	76.64	73.68	673.68	3.15	1.00
Outlet	N/A	N/A	N/A	N/A	1.14	N/A	0.00	2.90	2.90	3.15	3.63	N/A	N/A	N/A	0.00	N/A	79.50	79.50	72.38	672.38	N/A	N/A

Project Engineer: DGR & ASSOC.  
StormCAD v1.5 [156]  
Page 1 of 1

DeWild Grant Reckert & Associates  
37 Brookside Road Waterbury, CT 06708 USA (203) 756-1666

Project Title: NAPOLEAN, OHIO  
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Pipe Report - Existing

Pipe	Up Node	Dn Node	Inlet A (acres)	C	Inlet CA (acres)	Tot CA (acres)	I (in/hr)	Q (cfs)	Length (ft)	S (ft/ft)	Size	Roughness	Cap (cfs)	Up Invent (ft)	Dn Invent (ft)	Up Gr Elev (ft)	Dn Gr Elev (ft)	Up Cover (ft)	Dn Cover (ft)	Up HGL (ft)	Dn HGL (ft)	Description
P-3	I-3	I-2	0.50	0.55	0.28	0.28	3.74	1.04	290.00	0.0069	12 in	0.013	3.57	74.75	72.41	77.70	76.64	1.91	3.19	75.17	74.25	
P-1	I-1	I-2	1.01	0.55	0.56	0.56	3.74	2.08	65.00	0.24482	12 in	0.013	6.21	74.00	72.41	77.02	76.64	1.98	3.19	74.81	74.25	
P-2	I-2	Outlet	0.57	0.55	0.31	1.14	3.74	4.31	148.00	0.05753	12 in	0.013	3.01	72.41	71.57	76.64	76.50	3.19	6.89	74.25	72.44	

Project Title: NAPOLEAN, OHIO  
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© Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06706 USA (203) 755-1666  
 DeWild Grant Reckert & Associates

Project Engineer: DGR & ASSOC.  
 StormCAD v1.5 [158]  
 Page 1 of 1

Pipe Report - *DEVELOPED*

Pipe	Up Node	Dn Node	Inlet A (acres)	C	Inlet CA (acres)	Tot CA (acres)	f (in/hr)	Q (cfs)	Length (ft)	S (ft/ft)	Size	Roughness	Cap (cfs)	Up Invert (ft)	Dn Invert (ft)	Up Gr Elev (ft)	Dn Gr Elev (ft)	Up Cover (ft)	Dn Cover (ft)	Up HGL (ft)	Dn HGL (ft)	Description
P-3	I-3	I-2	0.50	0.55	0.28	0.28	3.15	0.87	290.00	0.013	12 inch	0.013	3.57	74.75	72.41	77.70	76.64	1.91	3.19	78.56	76.64	
P-1	I-1	I-2	2.12	0.90	1.91	1.91	3.15	6.06	65.00	0.013	12 inch	0.013	6.21	74.00	72.41	77.02	76.64	1.98	3.19	79.93	76.64	
P-2	I-2	Outlet	0.57	0.55	0.31	2.50	3.15	7.93	146.00	0.013	12 inch	0.013	3.01	72.41	71.57	76.64	79.50	3.19	6.89	78.42	72.59	

Project Engineer: DGR & ASSOC.  
StormCAD v1.5 [158]  
Page 1 of 1

DeWild Grant Reckert & Associates  
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1686

Project Title: NAPOLEAN, OHIO  
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**Node Report - DEMOLITION**

Node	Inlet A (acres)	C	Inlet CA (acres)	Ext CA (acres)	Tot CA (acres)	TC (min)	TC (min)	Ext TC (min)	Up Flow Time (min)	Sys Flow Time (min)	I (in/hr)	Tot C/A (cfs)	Add. Q (cfs)	CO (cfs)	Known Flow (cfs)	Tot Up Added (cfs)	Q (cfs)	Gr Elev (ft)	Rim (ft)	HGL Int (ft)	HGL Out (ft)	I (in/hr)	Inlet Q (cfs)	Inlet Description
t-3	0.50	0.55	0.28	0.00	0.28	0.00	0.00	0.00	0.00	0.00	3.15	5 0.87	0.00	0.00	0.00	0.00	0.87	77.70	77.70	78.56	678.56	3.15	0.87	
t-1	2.12	0.90	1.91	0.00	1.91	5.00	0.00	0.00	0.00	5.00	3.15	6.06	0.00	0.00	0.00	0.00	6.06	77.02	77.02	79.93	679.93	3.15	6.06	
t-2	0.57	0.55	0.31	0.00	0.31	0.00	0.00	0.00	0.00	5.15	3.15	7.93	0.00	0.00	0.00	0.00	7.93	76.64	76.64	78.42	678.42	3.15	1.00	
Outlet	N/A	N/A	N/A	N/A	2.50	N/A	0.00	0.00	5.41	5.41	3.15	7.93	N/A	N/A	N/A	0.00	N/A	79.50	79.50	72.59	672.59	N/A	N/A	

Project Title: NAPOLEAN, OHIO  
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DeWild Grant Reckert & Associates  
 Project Engineer: DGR & ASSOC.  
 StormCAD v1.5 [156]  
 Page 1 of 1

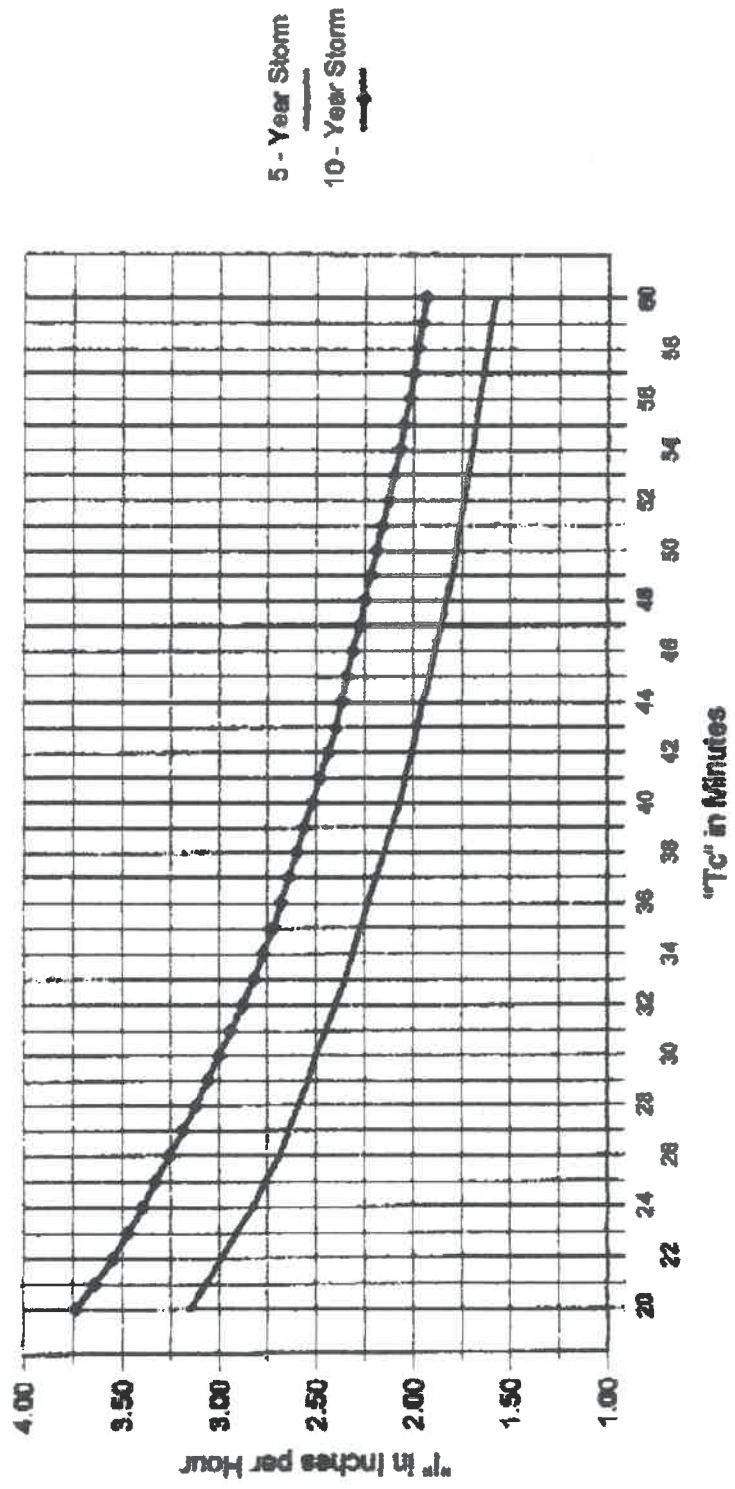
Pipe Report - *DEVALUED*

Pipe	Up Node	Dn Node	Inlet A (acres)	C	Inlet CA (acres)	Tot CA (acres)	I (in/hr)	Q (cfs)	Length (ft)	S (ft/ft)	Size	Roughness	Cap (cfs)	Up Invert (ft)	Dn Invert (ft)	Up Gr Elev (ft)	Dn Gr Elev (ft)	Up Cover (ft)	Dn Cover (ft)	Up HGL (ft)	Dn HGL (ft)	Description
P-3	I-3	I-2	0.50	0.55	0.28	0.28	3.74	1.04	290.00	0.00869	12 inch	0.013	3.57	74.75	72.41	77.70	76.84	1.91	3.19	81.00	76.84	
P-1	I-1	I-2	2.12	0.90	1.91	1.91	3.74	7.19	65.00	0.24462	12 inch	0.013	6.21	74.00	72.41	77.02	76.84	1.98	3.19	82.93	76.84	
P-2	I-2	Outlet	0.57	0.55	0.31	2.50	3.74	9.41	146.00	0.05753	12 inch	0.013	3.01	72.41	71.57	76.64	76.50	3.19	6.89	80.80	72.60	



City of Napoleon, Ohio Rainfall Intensity - Frequency (24 Hr. Rainfall)		
Time of Concentration (Tc)	5 Year Storm Intensity (Inches/hour)	10 Year Storm Intensity (Inches/hour)
20	3.15	3.74
21	3.07	3.64
22	2.99	3.55
23	2.91	3.47
24	2.83	3.40
25	2.75	3.33
26	2.69	3.26
27	2.64	3.19
28	2.59	3.12
29	2.64	3.08
30	2.50	3.00
31	2.45	2.94
32	2.40	2.88
33	2.35	2.82
34	2.31	2.77
35	2.27	2.72
36	2.23	2.68
37	2.19	2.64
38	2.16	2.60
39	2.11	2.56
40	2.07	2.52
41	2.04	2.48
42	2.01	2.44
43	1.98	2.40
44	1.95	2.37
45	1.92	2.34
46	1.89	2.31
47	1.86	2.28
48	1.83	2.25
49	1.80	2.22
50	1.78	2.19
51	1.76	2.16
52	1.74	2.13
53	1.72	2.10
54	1.70	2.07
55	1.68	2.05
56	1.66	2.02
57	1.64	2.00
58	1.62	1.98
59	1.60	1.96
60	1.58	1.94

City of Napoleon, Ohio  
Rainfall Intensity - Frequency



4. Runoff Coefficients (C)

The runoff coefficient to be used for residential areas (excluding apartments) shall be 0.35. All other areas shall be based on a weighted coefficient of runoff using the following ranges:

<u>TYPE OF GROUND COVER</u>	<u>COEFFICIENT OF RUNOFF</u>
Concrete or Asphalt Pavement	0.85 - 0.95
Roof Area	0.90 -
Gravel Roadways	0.4 - 0.6
For Impervious Soils	0.3 - 0.55 -
For Pervious Soils	0.15 - 0.25
Agricultural Ground	0.15 - 0.25

5. Sizing of Sewers

Storm sewers will be designed to flow just full for the 5 year - intensity - duration - frequency curve. The hydraulic grade line will be checked by using the 10-year intensity - duration - frequency curve.

6. Drainage Plan

An overall drainage area layout plan showing the limits of the area contributing to each drainage pick-up point, shall be submitted with the detailed construction plans. The drainage design within the development shall be adequate to handle the entire contributing watershed area, along with its existing, proposed or probable future development, and not just the area being submitted for approval.

If the development is to be done in phases, the overall drainage plan will be submitted with the first set of detailed construction drawings.

7. Pipe Selection and Design

Storm sewers and culverts shall be designed to conform to the requirements of the latest O.D.O.T. "Construction and Materials Specifications" and the City of Napoleon's "Standard Specifications for Water Main, Sanitary Sewer and Storm Sewer Construction". Pipe under paved surfaces shall be O.D.O.T. Item 603, Type "B" Conduit with Class "A" or "B" bedding. Pipe outside of paved areas shall be O.D.O.T. Item 603, Type "C" Conduit with Class "A" or "B" bedding. The minimum allowable cover for Class "C" pipe is eighteen (18") inches. The minimum cover for pipe under pavement is nine (9") inches measured from the top outside crown of the pipe to the finished subgrade.

The minimum size of pipe under pavement will be twelve (12") inches and the minimum grade for crossovers between catch basins will be 1.0%.

8. Backfill Material

All areas under paved surfaces and five (5') ft. either side of paved surfaces shall be backfilled with granular material meeting the requirements of O.D.O.T. Item 310.02 and mechanically tamped in six (6") inch layers.

All other areas may be backfilled with finely divided earth free of rocks and sod mechanically tamped in six (6") inch layers.



9. Catch Basins and Gutter Flows

The maximum allowable width of the sheet gutter flow from the face of the curb shall be eight (8') ft.

Catch basins are to be constructed as per the "Standard Construction Drawings". Alternate construction or castings must be approved by the City Engineering Department.

10. Storm Sewer Service Connections

a. All storm sewers within the public right-of-way either dedicated or to be dedicated, shall be designed to include a 6" tee or a 6" wye and 6" crossover connection, extended to the right-of-way line for each building lot in a development.

b. In areas where street drainage would be provided by gutter flow only, the storm sewer shall be extended beyond its upper terminus with a sewer of sufficient size to handle the equivalent of 1.25 gpm from each house served. The minimum size of the extension shall be eight (8") inches laid at 0.34% grade.

A six (6") inch tee or a 6" wye and a 6" crossover connection will be provided for each lot or building served by the extension.

c. The location and the elevation of the service connection at the right-of-way line shall be shown on the detailed plans.

11. Manholes

Manholes shall be provided at intervals not to exceed four hundred (400') feet at all abrupt changes in direction or grade, and at the terminus of the sewer.

12. Storm Sewer Outlet

The proposed outlet for the storm drainage system must be approved at the time of the preliminary plan. If a proper outlet is not available to handle all of the runoff from a watershed, a method of retaining storm water should be provided. Calculations for sizing a retention pond or basin should be submitted with the preliminary plan.

C. Sanitary Sewers

1. General

In general the sanitary sewers shall meet the requirements of the Ohio Environmental Protection Agency and the City of Napoleon's "Standard Specifications for Water Main, Sanitary Sewer and Storm Sewer Construction" and the Sewer Use Ordinance No. 1245.

2. Sewer Extensions

If a development can be reasonably served by the extension of an existing sewer, the developer will provide sanitary sewer laterals and service connections to serve every lot or building in the development. Service connections for each lot shall be extended to the right-of-way line and properly plugged.

Circular Channel Analysis & Design  
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name:

Comment:

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	1.00 ft
Slope.....	0.0004 ft/ft
Manning's n.....	0.024
Discharge.....	0.39 cfs

Computed Results:

Full Flow Capacity.....	0.39 cfs
Full Flow Depth.....	1.00 ft
Velocity.....	0.49 fps
Flow Area.....	0.79 sf
Critical Depth....	0.26 ft
Percent Full.....	100.00 %
Full Capacity.....	0.39 cfs
QMAX @.94D.....	0.42 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design  
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name:

Comment: CLOVERLEAF COLD STORAGE CO., NAPOLEAN, OHIO

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	4.00 ft
Slope.....	0.0009 ft/ft
Manning's n.....	0.024
Discharge.....	23.34 cfs

Computed Results:

Full Flow Capacity.....	23.34 cfs
Full Flow Depth.....	4.00 ft
Velocity.....	1.86 fps
Flow Area.....	12.57 sf
Critical Depth....	1.43 ft
Percent Full.....	100.00 %
Full Capacity.....	23.34 cfs
QMAX @.94D.....	25.11 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design  
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name:

Comment: NAPOLEAN, OHIO

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	4.50 ft
Slope.....	0.0020 ft/ft
Manning's n.....	0.024
Discharge.....	47.64 cfs

Computed Results:

Full Flow Capacity.....	47.64 cfs
Full Flow Depth.....	4.50 ft
Velocity.....	3.00 fps
Flow Area.....	15.90 sf
Critical Depth....	2.00 ft
Percent Full.....	100.00 %
Full Capacity.....	47.64 cfs
QMAX @.94D.....	51.24 cfs
Froude Number.....	FULL







**DeWild Grant Reckert and Associates Company**  
Consulting Engineers

1108 Pierce Street, Suite D  
Sioux City, Iowa 51105  
(712) 255-7594

FAX TRANSMITTAL

5/21/98

Date

TO: BRENT DAMMAN  
CITY OF NAPOLEON

FAX NO. 419-599-8393

FROM: JIM BLACK

DEWILD GRANT RECKERT AND ASSOC. CO.  
1108 Pierce Street, Suite D  
Sioux City, Iowa 51105  
Voice 712-255-7594  
FAX 712-255-4531

RE: CLOVERLEAF COLD STORAGE - RUNOFF CALCULATIONS  
NAPOLEON, OHIO

DGR Project No. 248029

Total pages transmitted including this page 21

If you did not receive all of the number of pages indicated above, or if the copy you receive is unsatisfactory, please call us at 712-255-7594.

COMMENTS: ATTACHED ARE THE SEPM WATER RUNOFF CALCULATIONS  
FOR THE ABOVE REFERENCED PROJECT.

THIS INFORMATION IS SUBMITTED AT THE REQUEST OF  
MR. STEVE KOZA, W.A. KUNGER,



1165 Industrial Drive  
P.O. Box 271  
Napoleon, OH 43545  
Telephone (419) 599-5015  
Fax (419) 592-5183

Thursday, April 16, 1998

Jon Bisher  
City of Napoleon, Ohio  
255 West Riverview Avenue  
P.O.Box 151  
Napoleon, Ohio 43545-0151

Dear Jon:

Good Morning, Jon. I just had to take a minute this morning, to let you know how much I appreciated your help as well as your staff's help, yesterday. I asked for help at 8:30am per a phone conversation with you that I was able to connect directly to you without playing phone tag or waiting for a return call. In less than 1 hour, Brent Damman was on site to inspect and offer his help pertaining to a possible parking lot expansion. Then, no later than the middle of the afternoon, Brent was back on site with copies of a blueprint and of 2 letters from back in 1992 which helped to direct us in what we needed to do next to move along.

During our initial phone call, yesterday, I also expressed concern over a conversation I had the night before with Bill Feiges, Vice-president of our company. There seemed to be a possible problem with the proposed expansion of our facility and the sewage discharge limits given to me by Roger Noblit. I called Roger, again, did not have to wait or play phone tag, and discussed with him the concerns we had. We decided it would be best for him to call our consultant in Iowa, who is working with our operation in Sioux City. Roger called and reviewed the estimates of sewage discharge with Larry Shelton, then called me back, all before noon, yesterday! As you can see from the attached letter, Roger also did what I asked him to do in putting a short letter together confirming his conversation with our consultant, and faxed that to me, all before his day was over. Please note the time of his fax was 5:11pm.

It is for reasons like this that Napoleon and the area will progress, making this a better place to live and work. It is for reasons such as stated that existing businesses will expand and new businesses will come to town. Quick responses, such as what I experienced yesterday, certainly show the level of professionalism and the quality of direction we now have in the City of Napoleon.

Thank you Jon, for your help and congratulations on your new position as City Manager.

Sincerely,

  
Steve Kloos, Plant Manger  
Cloverleaf Cold Storage

Attachments:

cc: Bill Feiges, Cloverleaf Cold Storage

*Dedicated to Service*





# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE · P.O. BOX 151

NAPOLEON, OHIO 43545-0151

PHONE (419) 599-1235

FAX (419) 599-8393

April 15, 1998

Steve Kloos  
Cloverleaf Cold Storage Co.  
P.O. Box 271  
Napoleon, Ohio 43545

Dear Steve:

After reviewing the wastewater quantity and quality estimates for your proposed new facility with Mr. Shelton of Utilities Management Corporate, I have resolved my concerns. Therefore, I believe that we should be able to handle any additional loads from the facility without any detrimental impact to our wastewater treatment operation. If you need any further information or have any other questions, please feel free to contact me at 592-8811.

Sincerely,

Roger L. Noblit  
Director of Water & Wastewater Plts.

Attachments

cc: Adam Hoff, City Engineer



# City of NAPOLEON, OHIO

255 RIVERVIEW AVENUE - (419) 592-4010  
NAPOLEON, OHIO 43545-0151

March 11, 1992

Mayor  
Steven Lankenau

Mr. Eugene C. Gerken, P.E., P.S.  
E.C. Gerken & Associates  
555 East Riverview Avenue  
Napoleon, Ohio 43545

Re: Napoleon Warehouse, Inc.  
Proposed Parking Lot

Members of Council  
Terri A. Williams, President  
John E. Church  
Michael J. DeWit  
Dennis L. Filgor  
Robert G. Heft  
James Hershberger

City Manager  
Terry Dunn

Finance Director  
Rupert W. Schweinhagen

Law Director  
Michael J. Wesche

Prosecuting Attorney  
Thomas L. Bischoff

Dear Mr. Gerken:

Per our review and telephone conversation with your office, we have the following comments:

- (1) The access drive area off of the existing paved street shall be a minimum of six (6) inch concrete or asphalt equivalent (as shown), but the slope away from the street shall be at a minimum slope of one-half (1/2) inch per foot to the right-of-way.
- (2) Our approval of the drainage as shown does not address future development run-off. Therefore, if the site is fully developed in the future, storm run-off (retention/deletion) might be required based on hydraulic calculations.

We would appreciate a submittal of a revised plan prior to starting construction and please contact Sonny Helberg twenty-four (24) hours prior to start up.

If you have any questions, please call.

Respectfully,

Marc S. Gerken, P.E.  
City Engineer

MSG:rw

# E.C. GERKEN & ASSOCIATES

CONSULTING ENGINEERS & SURVEYORS

555 E. Riverview, P. O. Box 507  
Napoleon, Ohio 43545

419/592-5522      419/592-3446

March 5, 1992

Marc Gerken, P.E., City Engineer  
Napoleon Municipal Building  
255 W. Riverview Ave.  
Napoleon, OH 43545

Re: Napoleon Warehouse

Dear Marc,

Enclosed is a preliminary plot plan for a parking area North of Industrial Drive across from the Napoleon Warehouse for your review, comment, suggestions and/or approval.

The drive approach will be 6" P.C.C. or equivalent.

Please advise of any questions or if additional information is needed.

Sincerely yours,



Eugene C. Gerken, P.E., P.S.

enclosure

ECG/db

cc: Norb Bauman wo/encl



# City of NAPOLEON, OHIO

255 WEST RIVERVIEW AVENUE • P.O. BOX 151  
NAPOLEON, OHIO 43545-0151  
PHONE (419) 599-1235  
FAX (419) 599-8393

April 3, 1998

Steve Kloos  
Cloverleaf Cold Storage Company  
Post Office Box 271  
Napoleon, Ohio 43545

Dear Steve:

After reviewing the fax from your corporate office concerning estimated wastewater quantity and quality from your proposed new facility, I have several concerns. The items that concern me are the estimated BOD, TSS and the Oil & Grease levels. As you can see from the attached sheet, the concentrations from Grease and BOD would be well over acceptable levels and TSS could also be a problem. I realize that at this point these are only estimates, but it appears that some type of pretreatment may be needed.

If you need any further information or have any other questions, please feel free to contact me at 592-8811.

Sincerely,

Roger L. Noblit  
Director of Water & Wastewater Plants

Attachments

cc: Adam Hoff, P.E.; City Engineer

## COMMERCIAL & INDUSTRIAL DISCHARGE

No Commercial or Industrial Wastes of a deleterious nature shall be discharged into the City's Sanitary Sewer System, that prior to mixing with sanitary sewage will not meet the following concentration limits:

1. Have a pH greater than 9.0 or less than 6.5.
2. Contain Cyanide greater than 0.02 ppm.
3. Contain more than 1.00 ppm of Hexavalent Chromium.
4. Contain more than 0.50 ppm of Trivalent Chromium.
5. Contain more than 5.00 ppm of Nickel as Ni.
6. Contain more than 2.00 ppm of Zinc as Zn.
7. Contain more than 50 ppm of Chloroform extractable substances.
8. Contain more than 0.50 ppm of Copper as Cu.
9. Contain more than 0.01 ppm of Cadmium as Cd.
10. Contain more than 0.3 ppb of Mercury as Hg.
11. Contain more than 0.02 ppm of Lead as Pb.
12. Contain more than 7.0 ppm of Phosphorus as PO<sub>4</sub>.
13. Contain more than 10.0 ppm of Oil & Grease.
14. Contain more than 250 mg/l of suspended Solids.
15. Contain more than 200 mg/l of CBOD<sub>5</sub> by weight.

Revised 7/29/94