

# **PLANNING & ZONING**

Lower Level Council Chambers Monday, June 10, 2024 6:30 PM

# **AGENDA**

#### **ROLL CALL**

#### **AGENDA ITEMS**

- 1. Approve Minutes of the May 13, 2024 Planning & Zoning Meeting.
- Approve Plat of Survey of Parcel 2024-38 in Part of Lot 2 in Sunset Heights No. 2 in the City of Dyersville and Delaware County, Iowa. Parcel 2024-39 in Lot 12 in Block 1 of Sunset Heights No. 1 in the City of Dyersville, Delaware County, Iowa. Except Parcel G; and Part of Lot 2 in Sunset Heights No. 2 in the City of Dyersville, Delaware County, Iowa. Plat submitted by Mark & Georgia Brown.
- 3. Approve Final Plat of Reittinger Farm Subdivision Plat 3, Dubuque County, Iowa. Lot 1 and Lot 2 of Reittinger Farm Subdivision Plat 2, Dubuque County, Iowa. Plat submitted by Daniel & Lori Reittinger.
- 4. Approve Final Plat of K & K Addition Plat 2, City of Dyersville, Iowa. Lot 2 of Westridge Estates 9th Addition, City of Dyersville, Delaware County, Iowa. Plat submitted by Jeanine Koch / K & K Building & Supply.
- 5. Approve Final Plat of K & K Addition Plat 3, City of Dyersville, Delaware County, Iowa. Lot 4 of Westridge Estates 9th Addition, City of Dyersville, Delaware County, Iowa. Plat submitted by Jeanine Koch / K & K Building & Supply.
- 6. Approve Final Plat Lake View Estates in the City of Dyersville, Delaware County, Iowa. Plat submitted by Bill Hermsen / Hermsen Construction.

#### **ADJOURNMENT**



# **PLANNING & ZONING**

Lower Level Council Chambers Monday, May 13, 2024 6:30 PM

# **MINUTES**

#### **ROLL CALL**

PRESENT: Ryan Cahill, Chairperson Roger Gibbs, Vice-Chairperson Tim Nefzger, Joe Petsche,

Bec Willenborg (arrived at 6:48 pm)

**ABSENT: Matt Tauke** 

#### **AGENDA ITEMS**

1. Approve Minutes of the April 8, 2024, Meeting.

There were no comments or questions.

Motion to approve the Minutes of the April 8, 2024, Meeting made by Tim Nefzger, Seconded by Joe Petsche.

Voting Yea: Ryan Cahill, Roger Gibbs, Tim Nefzger, Joe Petsche.

Motion Carried.

2. Approve Final Plat of Bockenstedt Estates Plat 4, Dubuque County, Iowa. Lot 1 and Lot 2 of Bockenstedt Estates Plat 3, Dubuque County, Iowa.

Dave Schneider with Schneider Land Surveying was present and stated this final plat is going to city because it is within the 2-mile jurisdiction. Schneider said he worked with Reckers to do lot line adjustments to divide the property for the father and son. Craig Recker has the cattle facility and needed that separated out.

City Administrator Mick Michel stated he had no issues with the final plat.

There were no further comments or questions.

Motion to Approve Final Plat of Bockenstedt Estates Plat 4, Dubuque County, Iowa. Lot 1 and Lot 2 of Bockenstedt Estates Plat 3, Dubuque County, Iowa, made by Ryan Cahill, Seconded by Tim Nefzger.

Voting Yea: Ryan Cahill, Roger Gibbs, Tim Nefzger, Joe Petsche.

Voting Nay:

Motion Carried.

3. Approve Plat of Survey This is Iowa Ballpark, City of Dyersville, Dubuque County, Iowa. Lot 2 of Hewitt Creek Subdivision and the Northeast Quarter of the Northeast Quarter of Section 27, Township 89 North, Range 2 West of the 5th P.M., all in the City of Dyersville, Dubuque County, Iowa.

City Administrator Mick Michel spoke regarding the plat of survey. Michel stated the plat of survey is carving out 19.761 acres from Lot 1. Lot 2 is where the major league ballpark will be constructed. Both parties have agreed to the land separation. There are 2 access and utility easements into the ballpark field. The plat is laid out to the design specifics in the agreement. Michel stated the plat of survey just needs an affirmative motion.

Commission Member Nefzger had questions regarding the access easement to the south. Michel stated that easement leads to the entrance that is on the old Ameskamp property. Michel also stated the access and utility easements are 66' if they would ever need be made into streets.

Dennis Schmidt, 29426 Dyersville East Road, asked if the easements were just for utility work and if there were any zoning changes. Michel advised the easements were private entrances for the ballpark and there would be no zoning changes.

There were no further comments or questions.

Motion to Approve Plat of Survey This is Iowa Ballpark, City of Dyersville, Dubuque County, Iowa. Lot 2 of Hewitt Creek Subdivision and the Northeast Quarter of the Northeast Quarter of Section 27, Township 89 North, Range 2 West of the 5th P.M., all in the City of Dyersville, Dubuque County, Iowa, made by Tim Nefzger, Seconded by Ryan Cahill. Voting Yea: Ryan Cahill, Roger Gibbs, Tim Nefzger, Joe Petsche. Motion Carried.

4. Approve Preliminary Plat Lake View Estates. As Comprised of Parcel 2016-02, a Part of the SW 1/4, of Section 36, T89N, R3W, of the 5th P.M., in the City of Dyersville, Delaware County, Iowa.

Recording Secretary, Lori Panton, told the committee that a revised Preliminary Plat, Final Plat and a letter from Drake Law Firm had been submitted and were set out before them.

Tom Larson with Buesing and Associates was present and represented Bill Hermsen who could not attend the meeting. Larson stated Hermsen wants to do a subdivision next to Tegeler Pond. The plat includes 2 streets, water, and sewer infrastructure. The water will create a loop into the existing main.

Chairman Gibbs asked if anyone was present to speak regarding the Drake Law Firm letter with concerns from K & K Building. City Administrator Mick Michel said he read the letter and the concern addressed in the letter is regarding diverting the storm water and the drainage ditch. Larson stated the natural drainage in that area is not to the ditch but into the pond. The commission had questions regarding the diversion and where he was talking about. Larson approached the commission along with Michel. Larson provided details from the preliminary plat as to where water on certain areas of the plat were running too. Larson said there are two areas for the water to run; one is to the ditch and the other is the pond. Michel advised the developer will need to do pre and post testing regarding the water run-off. The reports will need to be provided to and evaluated by the city. If there are foreseen issues regarding water run-off, the developer may need to make changes or add features to prevent extra run-off. The aim is to have neutral run-off with the subdivision.

Chairman Gibbs asked if infrastructure and storm water concerns fell under the commission's duties. Michel stated that would fall under the city responsibility, but the commission needs to make sure the development and its components fall within the guidelines of the comp plan. Michel stated there is also the development agreement that needs to be followed. Gibbs said maybe before moving forward these issues should be resolved.

(At this time Bec Willenborg joined the meeting – 6:48 pm.)

Dave Buchheit, representing FarmTek/C&G Partnership, asked if the development would affect the underground tile lines that run in the FarmTek/C&G property. Larson said Hermsen knew

about the tile and was going to speak with Buchheit regarding this. Larson thought Hermsen was going to connect onto the 10" tile and run it between Lots 8 & 9. Buchheit said Hermsen had not talked to him about it. Michel stated the city does not get involved with tile lines.

Jeanine Koch, with K & K Building, stated her attorney (who could not attend) would like a copy of the Comp Plan that pertained to this area. Michel asked Koch to have her attorney reach out to him and he would get that to him. He also thought it was on our website. Koch stated she was not opposed to the subdivision; she is just concerned about the water and drainage.

Michel stated he is agreement with Chairman Gibbs about working through the issues before approving the Final Plat. Michel is OK with approving the preliminary plat because it satisfies the requirements set out in the city code. Michel said the lots and streets meet code standards. The street layout works with a previous concept that K & K Building supplied in the past. The city is aware of the open drainage ditch and is aware of the conveyance issues along 332<sup>nd</sup> Street. Michel said he did work with the developer to limit driveway access onto 332<sup>nd</sup> Street. Michel stated the water tie in will improve our existing system and the sewer conveyance is better than a lift station. Michel said he reviewed the possible K & K Building and FarmTek developments and this subdivision fits with those. Michel said he recommends approving the preliminary plat but tabling the final plat.

There were no further comments or questions.

Motion to Approve Preliminary Plat Lake View Estates. As Comprised of Parcel 2016-02, a Part of the SW 1/4, of Section 36, T89N, R3W, of the 5th P.M., in the City of Dyersville, Delaware County, Iowa, made by Ryan Cahill, Seconded by Bec Willenborg. Voting Yea: Ryan Cahill, Roger Gibbs, Tim Nefzger, Joe Petsche, Bec Willenborg. Motion Carried.

5. Approve Final Plat Lake View Estates in the City of Dyersville, Delaware County, Iowa. There were no further comments or questions.

City Administrator Mick Michel requested the item be tabled until concerns regarding storm water can be addressed.

There were no further comments or questions.

Motion to Table Final Plat Lake View Estates in the City of Dyersville, Delaware County, Iowa, made by Joe Petsche, Seconded by Tim Nefzger.

Voting Yea: Ryan Cahill, Roger Gibbs, Tim Nefzger, Joe Petsche, Bec Willenborg.

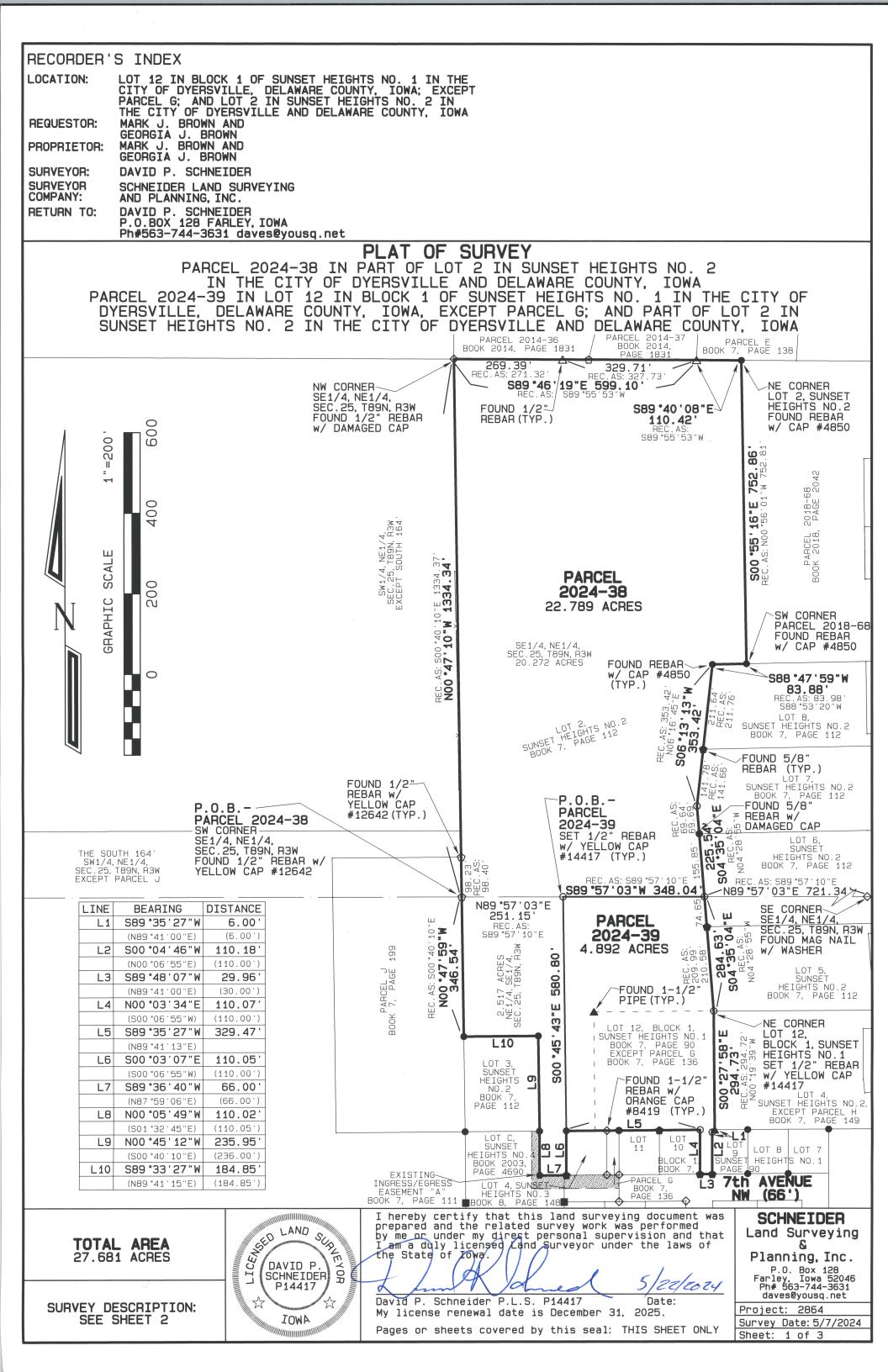
Motion Carried.

#### **ADJOURNMENT**

Meeting adjourned at 7:00 pm on motion made by Ryan Cahill, Seconded by Tim Nefzger.

Lori A. Panton, Recording Secretary

Loui a Panton



# **Survey Description- Parcel 2024-38:**

Part of Lot 2 in Sunset Heights No. 2 in the City of Dyersville and Delaware County, Iowa, more particularly described as follows: Beginning at the southwest corner of the Southeast Quarter of the Northeast Quarter of Section 25, Township 89 North, Range 3 West of the 5<sup>th</sup> P.M., Delaware County, Iowa; thence N00°47'10"W, 1334.34 feet to the northwest corner of the Southeast Quarter of the Northeast Quarter of said Section 25 and the northwest corner of Lot 2 in said Sunset Heights No. 2; thence S89°46'19"E, 599.10 feet along the north line of said Lot 2; thence S89°40'08"E, 110.42 feet to the northeast corner of said Lot 2; thence S00°55'16"E, 752.86 feet along the east line of said Lot 2 to the north line of Lot 8 in Sunset Heights No. 2 in the City of Dyersville and Delaware County, Iowa; thence S88°47'59"W, 83.88 feet to the northwest corner of said Lot 8; thence S06°13'13"W, 353.42 feet along the east line of Lot 2 and the west line of Lots 8 and 7 in said Sunset Heights No. 2; thence S04°35'04"E, 225.54 feet along the east line of Lot 2 and the west line of Lots 7 and 6 in said Sunset Heights No. 2 to the south line of the Southeast Quarter of the Northeast Quarter of said Section 25; thence S89°57'03"W, 348.04 feet along said south line; thence S00°45'43"E, 580.80 feet to the northwest corner of Lot 4 in said Sunset Heights No. 3 in the City of Dyersville, Delaware County, Iowa,; thence S00°03'07"E, 110.05 feet to the southwest corner of said Lot 4; thence \$89°36'40"W, 66.00 feet to the southwesterly corner of said Lot 2; thence N00°05'49"W, 110.02 feet to the southeast corner of Lot 3 in said Sunset Heights No. 2; thence N00°45'12"W, 235.95 feet to the northeast corner of said Lot 3; thence S89°33'27"W, 184.85 feet to the northwest corner of said Lot 3; thence N00°47'59"W, 346.54 feet along the west line of said Lot 2 to the point of beginning, containing 22.789 acres.

# **Survey Description- Parcel 2024-39:**

Lot 12 in Block 1 of Sunset Heights No. 1 in the City of Dyersville, Delaware County, Iowa, except Parcel G as illustrated on a Plat of Survey filed May 19, 1995 in Book 7, Page 136 in the office of the Recorder of Delaware County, lowa; and part of Lot 2 in Sunset Heights No. 2 in the City of Dyersville and Delaware County, Iowa, more particularly described as follows: Commencing at the southwest corner of the Southeast Quarter of the Northeast Quarter of Section 25, Township 89 North, Range 3 West of the 5th P.M., Delaware County, Iowa; thence N89°57'03"E, 251.15 feet along the south line of the Southeast Quarter of the Northeast Quarter of said Section 25 to the point of beginning; thence continuing N89°57'03"E, 348.04 feet to the west line of Lot 6 in Sunset Heights No. 2; thence S04°35'04"E, 284.63 feet to the northeast corner of Lot 12 in Block 1 of said Sunset Heights No. 1; thence S00°27'58"E, 294.73 feet to the southwest corner of Lot 4 in said Sunset Heights No. 2; thence S89°35'27"W, 6.00 feet to the northwest corner of Lot 9 in Block 1 of said Sunset Heights No. 1; thence S00°04'46"W, 110.18 feet to the southwest corner of Lot 9 in Block 1 of said Sunset Heights No. 1; thence S89°48'07"W, 29.96 feet to the southeast corner of Lot 10 in Block 1 of said Sunset Heights No. 1; thence N00°03'34"E, 110.07 feet to the northeast corner of Lot 10 in Block 1 of said Sunset Heights No. 1; thence S89°35'27"W, 329.47 feet to the northwest corner of Lot 4 in said Sunset Heights No. 3 in the City of Dyersville, Delaware County, Iowa; thence N00°45'43"W, 580.80 feet to the point of beginning, containing 4.892 acres.

I hereby certify that this land survey document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of Iowa.

David P. Schneider P.L.S. P14417

Date:

My license renewal date is December 31, 2025.

Pages or sheets covered by this seal: Surveyor's Certificate Only

Schneider Land Surveying & Planning, Inc.

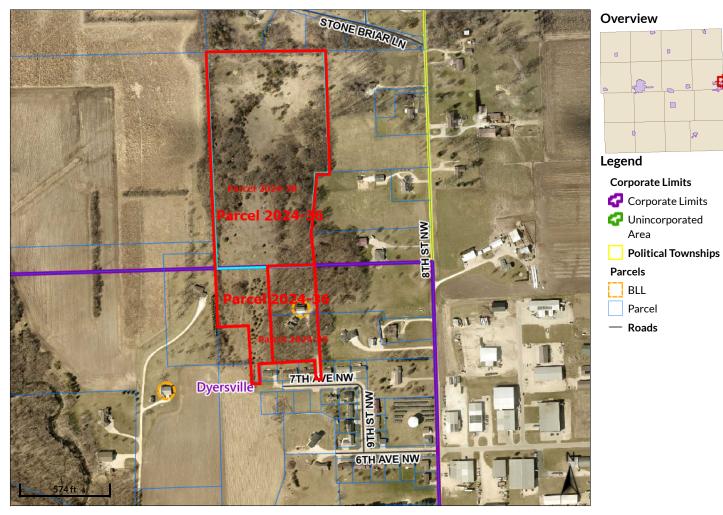
P.O. Box 128 Farley, Iowa 52046

Job No. 2864

Phone: 563-744-3631 Email: daves@yousq.net

Date: 5/7/2024





180250001500 Alternate ID n/a Parcel ID Owner Address Brown, Mark J & Georgia J 25-89-3 Class 1004 7th Ave NW Sec/Twp/Rng 20.18 Property Address 7TH AVE NW Acreage Dyersville, IA 52040-**DYERSVILLE** 

District **BREMEN WESTERN DUBUQUE** 

**Brief Tax Description** PT LOT 2 SUNSET HTS.

NO. 2

(Note: Not to be used on legal documents)

Disclaimer: All critical information should be independently verified. If you have questions about this site please contact either the Delaware County Auditor's Office at 563 927-4701 or the Delaware County Assessor's Office at 563 927-2526

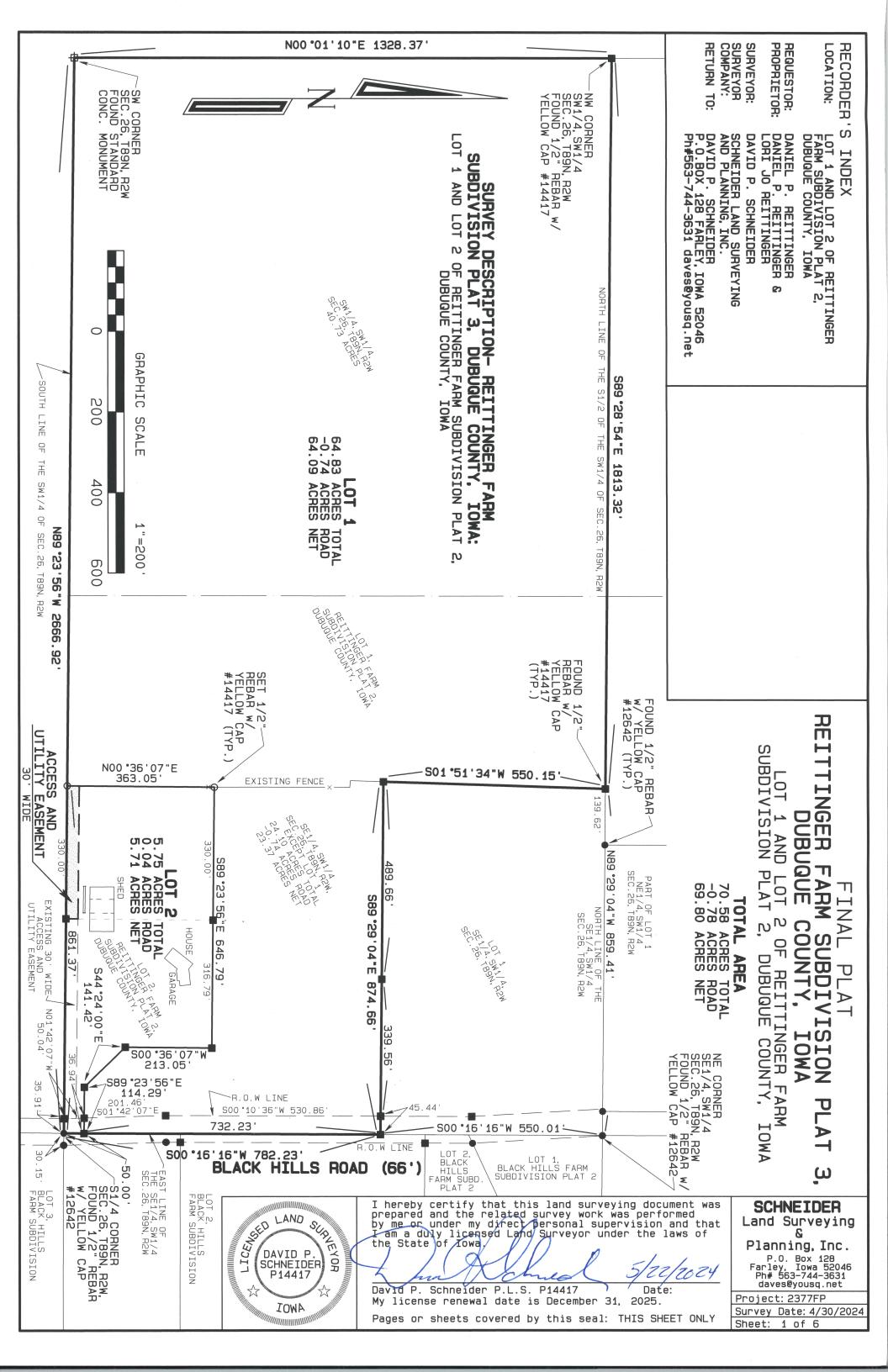
Date created: 5/29/2024 Last Data Uploaded: 5/29/2024 4:46:45 AM

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# DUBUQUE COUNTY – IOWA APPLICATION FOR PLATTING

1225 SEIPPEL ROAD, DUBUQUE, IA 52002

Attach a Sketch Plat with application, showing existing structures, accesses and new lot lines)  Owner Name: Daniel * Loki Rei Hangel Phone: 563-590-4129
Legal Description: Lot I and Lot 2 of Reithinger Farm Subdivision Plat 2, Dubuque County, John
Parcel #(s): 0726300008 # Acres 2.96 # Acres 669 acres # Acres
Zoning District: Total Acres:
Current Use of Property:
Existing Buildings & Structures: House, garage + Shed fattle building
Reason for Survey & Proposed Use of Each Lot: To sell approximately 100 acres of cultivated land + pasture to family lot 2- to betain ownership of house + shed / cattle shed Lot 1- Cultivated land + pasture
Note the Access for Each Lot:  Lot 2 = access to Black Hills Road  Lot 1 = has easement across lot 2 to Black Hills Road
For Office Use Only
Is Ag Exemption Form Required? No Yes Is property within 2 miles of a City? No Yes  Name of City
Is there access to each lot?
Acquisition Plat Simple PlatSubdivision: MajorMinor
List current addresses:

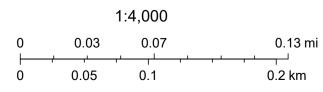


# ArcGIS Web Map



5/29/2024, 3:51:11 PM

☐ Tax Parcels



Esri., Inc., Dubuque County, Iowa

#### RECORDER'S INDEX

LOCATION:

LOT 2 OF WESTRIDGE ESTATES 9th ADDITION, CITY OF DYERSVILLE, DELAWARE COUNTY, IOWA

REQUESTOR:

JEANINE KOCH

PROPRIETORS: K & K BUILDING & SUPPLY, INC.

SURVEYOR:

DAVID P. SCHNEIDER

**SURVEYOR** COMPANY:

SCHNEIDER LAND SURVEYING AND PLANNING, INC.

**RETURN TO:** 

DAVID P. SCHNEIDER P.O.BOX 128 FARLEY, IOWA Ph#563-744-3631 daves@yousq.net

#### PLAT FINAL K & K ADDITION PLAT 2, CITY OF DYERSVILLE. DELAWARE COUNTY, IOWA 2 OF WESTRIDGE ESTATES 9th ADDITION, CITY OF DYERSVILLE,

DELAWARE COUNTY, IOWA TOTAL AREA Ē 0.299 ACRES EASEMENT FOUND MAG NAIL (TYP.) 589°13'24"W 130.09' 11110N 2936) FOUND 1/2' LOT 2 TION S K ADDITION BOOK 2022, PAGE 3244) REBAR W 91 YELLOW CAP IC 2nd ADDI 114, PAGE 2 53 #14417 \*51.44"W ш JBLIC LOT B,
WESTRIDGE ESTATES
11th ADDITION
(BOOK 2018, PAGE 1678 NW CORNER, LOT 2, WESTRIDGE ESTATES 9th ADDITION
FOUND 5/8" REBAR
ORANGE CAP #15487 LOT NE CORNER. N89 \*57 '42"E 130.08' LOT 2, WESTRIDGE ESTATES 9th ADDITION PUBLIC UTILITY EASEMENT FOUND MAG NAIL ADD1 91 99 . **90**. 0 LOT ω 49 =30 5 000 0.152 ACRES EASEMENT SET 1/2"
REBAR W/
YELLOW CAP □ 99 . TATES SET MAG S: S02 '24 '42"| NAIL LOT 2: TATES

WESTRIDGE ESTATES

WESTRIDGE ESTATES

WESTRIDGE ESTATES

WESTRIDGE 2395)

(BOOK 2013, PAGE 2395) EST, #14417 S89 \*11 '20 "W 130.07 ' 42 **"**.24 IDGE 201 60 44" WESTRI (BOOK NOO E PUBLIC **51**. 25 LOT 2 SCAL 0.147 ACRES 50 T0\_ SW CORNER 30 GRAPHIC LOT 2. WESTRIDGE ESTATES 9th ADDITION FOUND 5/8" REBAR LOT 1: TATES

WESTRIDGE ESTATES

WESTRIDGE ESTATES

WESTRIDGE ESTATES

(BOOK 2013, PAGE 2395) N89 \*59 '13 "W 130.10 ' SE CORNER LOT 2, WE ESTATES REC. AS: N88 °23 '22 "E 130.01 ' WESTRIDGE 9th ADDITION FOUND 5/8" RE w/ ORANGE CAR #15487 0 REBAR ORANGE CAP SURVEY DESCRIPTION: LOT 2 OF WESTRIDGE ESTATES 9th ADDITION IN THE CITY OF DYERSVILLE, DELAWARE COUNTY, IOWA, ACCORDING TO THE PLAT RECORDED IN BOOK 2013, PAGE 2395



I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed land Surveyor under the laws of the State of Towa.

P.L.S. P14417 Date: David P. Schneider My license renewal date is December 31,

Pages or sheets covered by this seal: THIS SHEET ONLY

SCHNEIDER Land Surveying

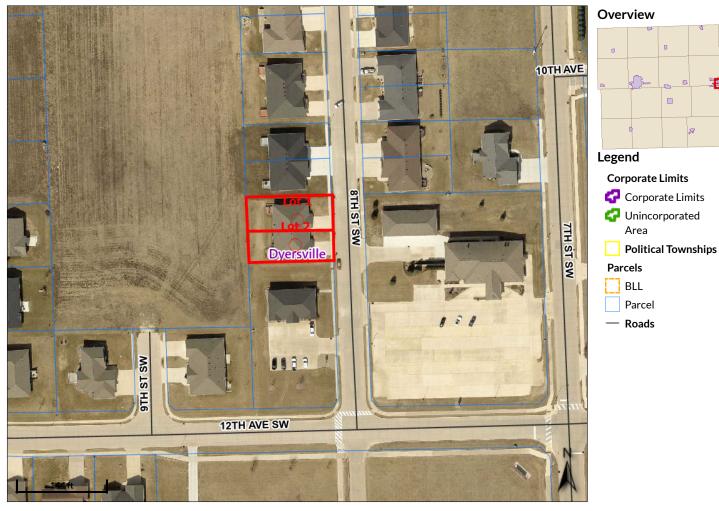
8 Planning, Inc. P.O. Box 128 Farley, Iowa 52046 Ph# 563-744-3631

Farley, ... 563 daves@yousq.net

Project: 2734A

Survey Date: 5/7 Sheet: 1 of 4





Parcel ID 180250001500 25-89-3 Sec/Twp/Rng Property Address 7TH AVE NW **DYERSVILLE** 

Alternate ID n/a Class 20.18 Acreage

Owner Address Brown, Mark J & Georgia J 1004 7th Ave NW Dyersville, IA 52040-

District **BREMEN WESTERN DUBUQUE Brief Tax Description** PT LOT 2 SUNSET HTS.

NO. 2

(Note: Not to be used on legal documents)

Disclaimer: All critical information should be independently verified. If you have questions about this site please contact either the Delaware County Auditor's Office at 563 927-4701 or the Delaware County Assessor's Office at 563 927-2526

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Sheet:

1 of 4

#### RECORDER'S INDEX

**LOCATION:** 

LOT 4 OF WESTRIDGE ESTATES 9th ADDITION, CITY OF DYERSVILLE, DELAWARE COUNTY, IOWA

**REQUESTOR:** JEANINE KOCH

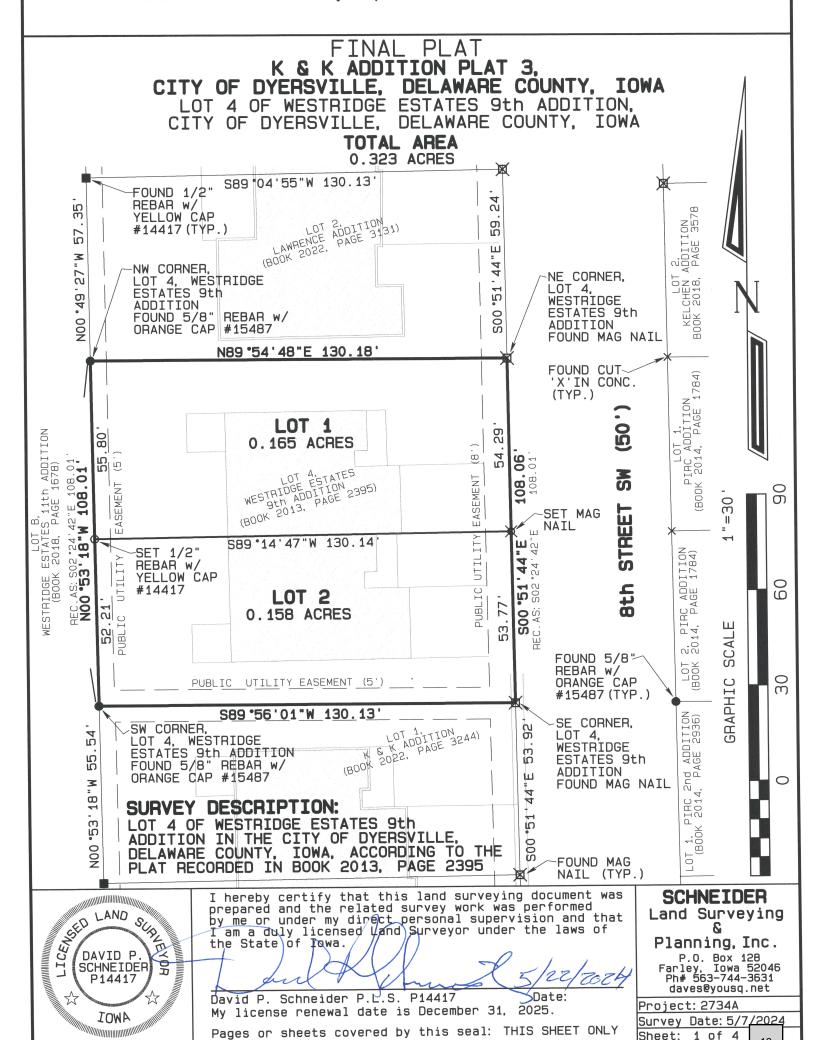
PROPRIETORS: K & K BUILDING & SUPPLY, INC.

SURVEYOR: DAVID P. SCHNEIDER

**SURVEYOR** SCHNEIDER LAND SURVEYING

**COMPANY:** AND PLANNING, INC. **RETURN TO:** 

DAVID P. SCHNEIDER P.O.BOX 128 FARLEY, IOWA Ph#563-744-3631 daves@yousq.net







Overview



Legend

#### **Corporate Limits**

Corporate Limits

Unincorporated Area

**Political Townships** 

### **Parcels**

BLL

Parcel

Roads

Parcel ID 180250001500 25-89-3 Sec/Twp/Rng Property Address 7TH AVE NW **DYERSVILLE** 

Alternate ID n/a Class 20.18 Acreage

Owner Address Brown, Mark J & Georgia J 1004 7th Ave NW Dyersville, IA 52040-

District **BREMEN WESTERN DUBUQUE** 

**Brief Tax Description** PT LOT 2 SUNSET HTS.

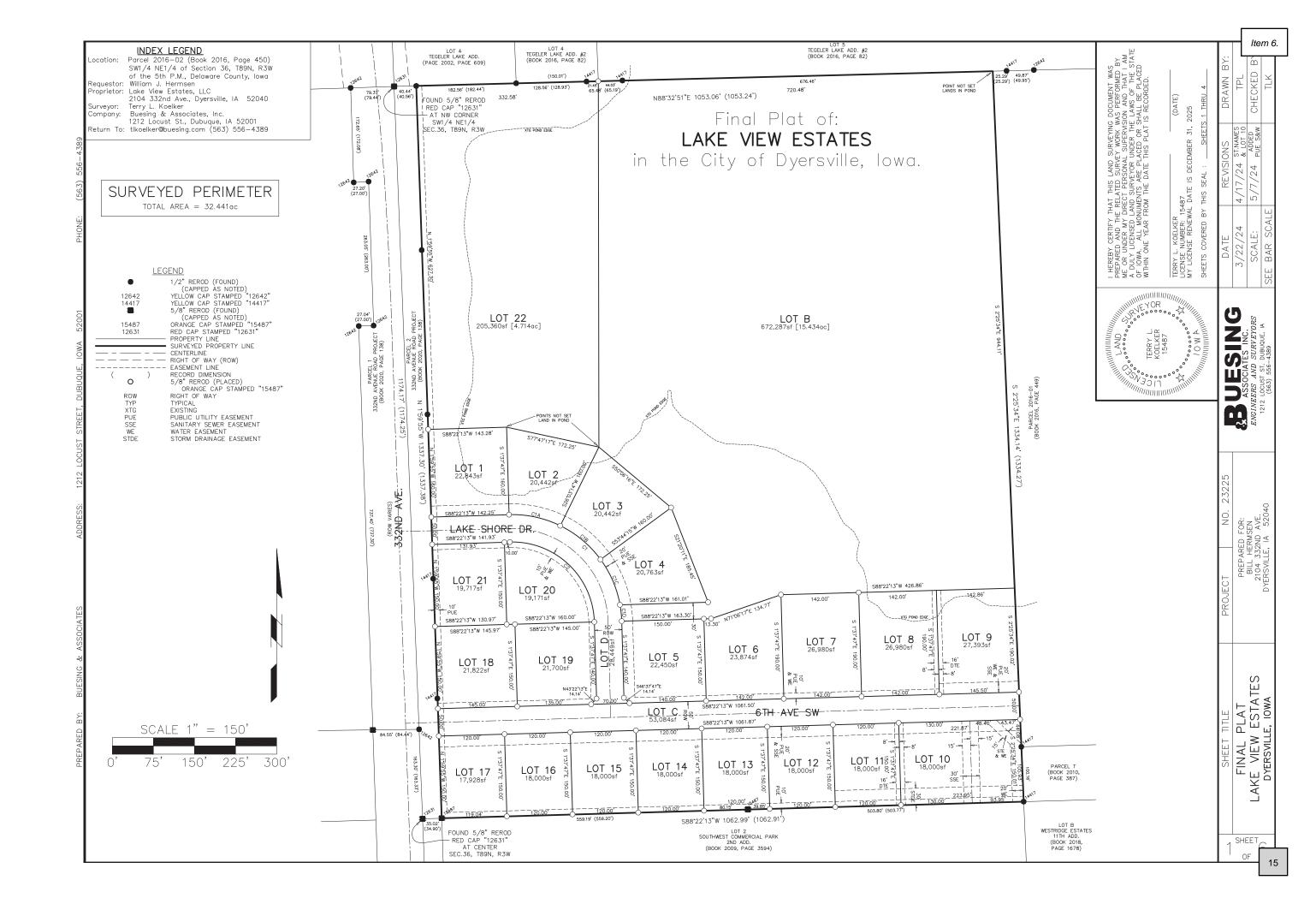
NO. 2

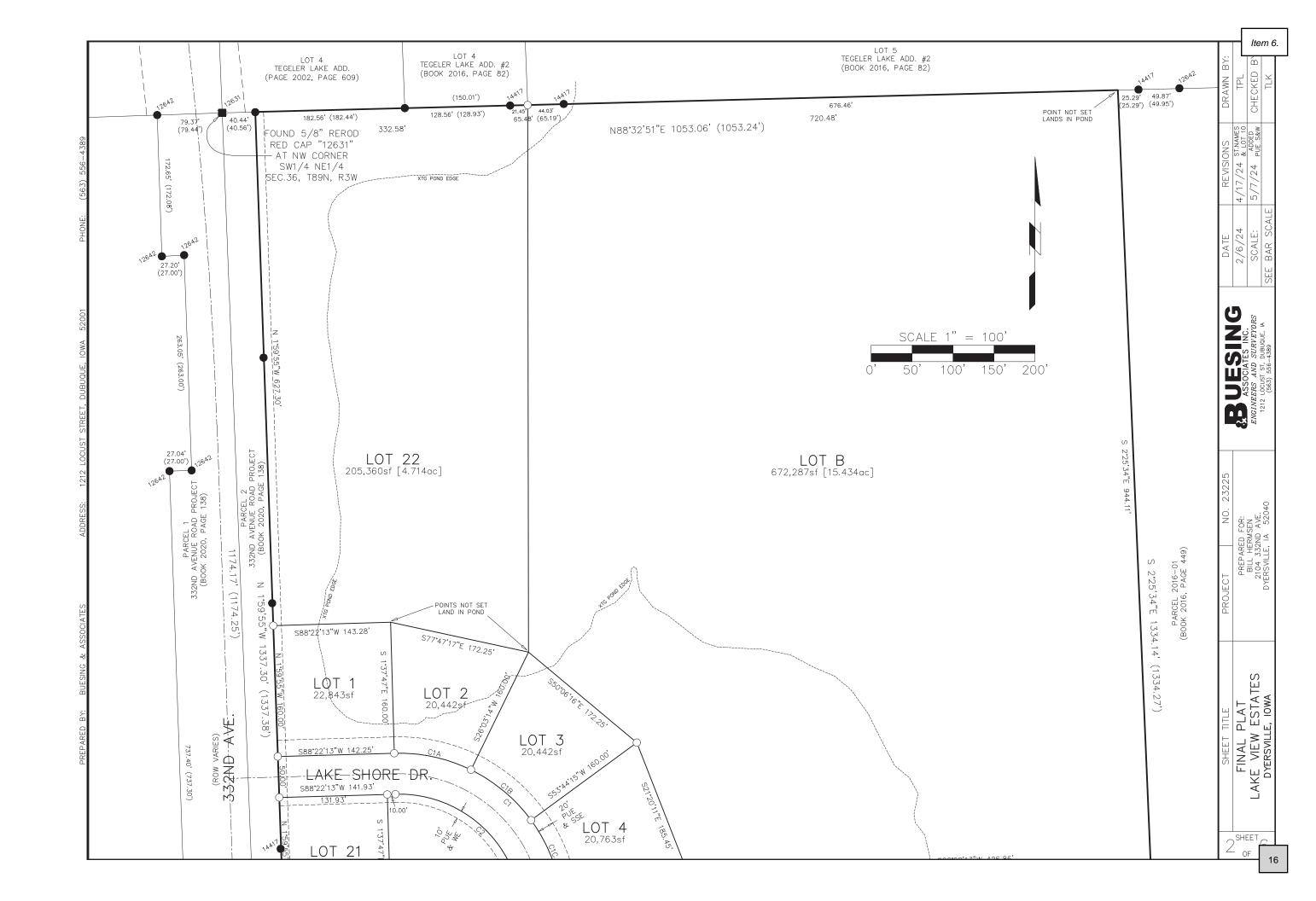
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Date created: 5/29/2024 Last Data Uploaded: 5/29/2024 4:46:45 AM

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Sheet 4 of 6

#### **Surveyor's Certificate**

I, Terry L. Koelker, a Duly Licensed Land Surveyor in the State of Iowa, do hereby certify that the following real estate was surveyed and platted by me or under my direct personal supervision, To Wit:

Parcel 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5<sup>th</sup> P.M., City of Dyersville, Delaware County, Iowa.

This survey was performed for the purpose of subdividing and platting said real estate henceforth to be known as **LAKE VIEW ESTATES** in the City of Dyersville, Iowa. The Total area of **LAKE VIEW ESTATES** is 32.441 acres. All Lot areas are more or less, and all Lots are subject to easements, reservations, restrictions, and rights-of-way of record and not of record, the plat of which is attached hereto and made a part of this certificate. All monuments are placed, or shall be placed, within one year from the date this plat is recorded.

I hereby certify that this land surveying document was prepared, and the related survey work was performed, by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of lowa.

Date

License Renewal Date: 12/31/25

Terry L. Koelker

Licensed Land Surveyor License No. 15487

Owner's	Consent	
Dyersville, Iowa	, 202	
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the and in accordance with the desires of the undersigned ov dedicate Lot A, Lot C (), and Lot D (easements shown, to the public.	wners and proprietors of said real estate. We hereby	
	<b>20110 VION 2010100</b> , <b>22</b> 0	
	William J. Hermsen	
State of Iowa )		
County of Delaware ) ss:		
On this day of, AD 2024, before me the undersigned, A Notary Public in and for the State of Iowa, personally appeared William J. Hermsen, to me personally known, who, being duly sworn, did say that said William J. Hermsen, is an Agent for C & JK Properties, LLC, that no seal has been procured by said LLC, that said instrument was signed on behalf of said LLC, by said Agent, and that said Agent acknowledge the execution of said instrument to be the voluntary act and deed of said LLC, by it, voluntarily executed.		
Witness my hand and Notarial Seal on the date above wi	ritten.	
	Notary Public in and for the State of Iowa	
	•	

Item 6.

### Sheet 5 of 6

# **MORTGAGE CONSENT**

Dyersville, Iowa, 20	024
, as mortgage holders, do hereby consent to the foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, Iowa.	
Bank:	
Name:	
State of Iowa )	
)	
County of Delaware ) ss:	
On thisday of, 2024, before me the undersigned, a Notary Public in and for the S of IA, personally appeared, to me personally known, who being by me sworn, did say that he is of the corporation executing the within and foregoing instrument to which is attached, that the seal affixed thereto is the seal on behalf of the corporation authority of its signed and sealed on behalf of the corporation; that said instrument was signed and sealed of behalf of the corporation by authority of its Board of Directors; and that such officers acknowledged the executed.	e duly d n by on
Notary Public in and for the State of IA	
<u>Attorney's Certificate</u> Dyersville, Iowa	, 2024
TO WHOM IT MAY CONCERN: This will certify that I have examined the abstract of title covering Parcel 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5 <sup>th</sup> P.M., City of Dyersville, Delaware County, Iowa, covering the period from government entry to certified on that d and find that said abstract shows	ate by
and merchantable title to said real estate in free and	clear
and merchantable title to said real estate in free and of all liens and encumbrances and shows taxes paid including taxes for the year	
Attaura de La constitución de la	
Attorney-at-Law	
Delaware, lowa	, 2024
I, the undersigned, Treasurer of Delaware County, Iowa, do hereby certify that all taxes levied against Parce 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5 <sup>th</sup> P.M., City of Dyersville, Delaware C Iowa, have been paid and said real estate is free from taxes as of this date.	
Treasurer of Delaware County, Iowa	
City Planning and Zoning Commission	
Dyersville, Iowa	, 2024
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, Iowa, is hereby approved by the of Dyersville Planning and Zoning Commission and approval of said plat by the City Council of the City of Dyersville, Iowa, is hereby recommended.	e City
Chairperson, City of Dyersville Planning and Zoning Comm	nission

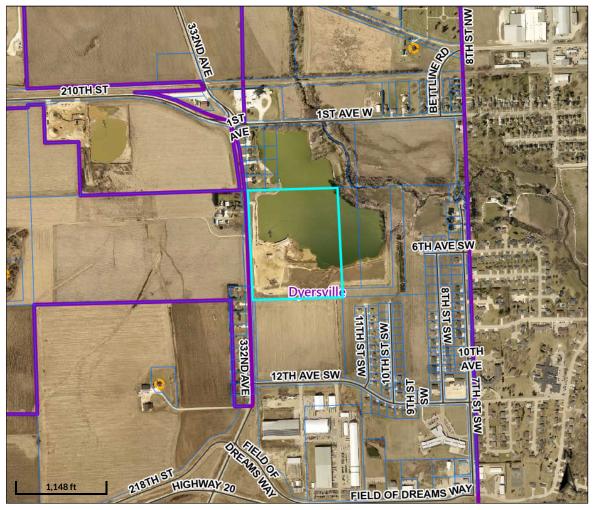
Item 6.

# Sheet 6 of 6

# City of Dyersville, Iowa

Dyersville, Iowa	, 2024	
of: LAKE VIEW ESTATES in the City of Dyersville, Iowa	ville, Iowa, do hereby certify that the foregoing Final Plat , and the dedication of Lot A, Lot C (), oses, and all easements shown, to the public, as appears, 2024 as resolution # in e City Council of the City of Dyersville, Iowa approves	
	Mayor of the City of Dyersville, IA	
	Clerk of the City of Dyersville, IA	
County Auditor's Certificate		
Delaware, Iowa	, 2024	
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the office of the Delaware County Auditor this c		
	Delaware County Auditor	





#### Overview



#### Legend

#### **Corporate Limits**

Corporate Limits

Unincorporated Area

**Political Townships** 

#### **Parcels**

BLL

Owner Address Lake View Estates LLC

2104 332nd Ave

Dyersville, IA 52040

Parcel

- Roads

Parcel ID 530000100500 Sec/Twp/Rng 36-89-3

Property Address 2124 332ND AVE UNIT 2126

**DYERSVILLE** 

DYERSVILLE COPR. TIF 2 District **Brief Tax Description** PARCEL 2016-02 PT

(Note: Not to be used on legal documents)

Disclaimer: All critical information should be independently verified. If you have questions about this site please contact either the Delaware County Auditor's Office at 563 927-4701 or the Delaware County Assessor's Office at 563 927-2526

Alternate ID n/a

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Class

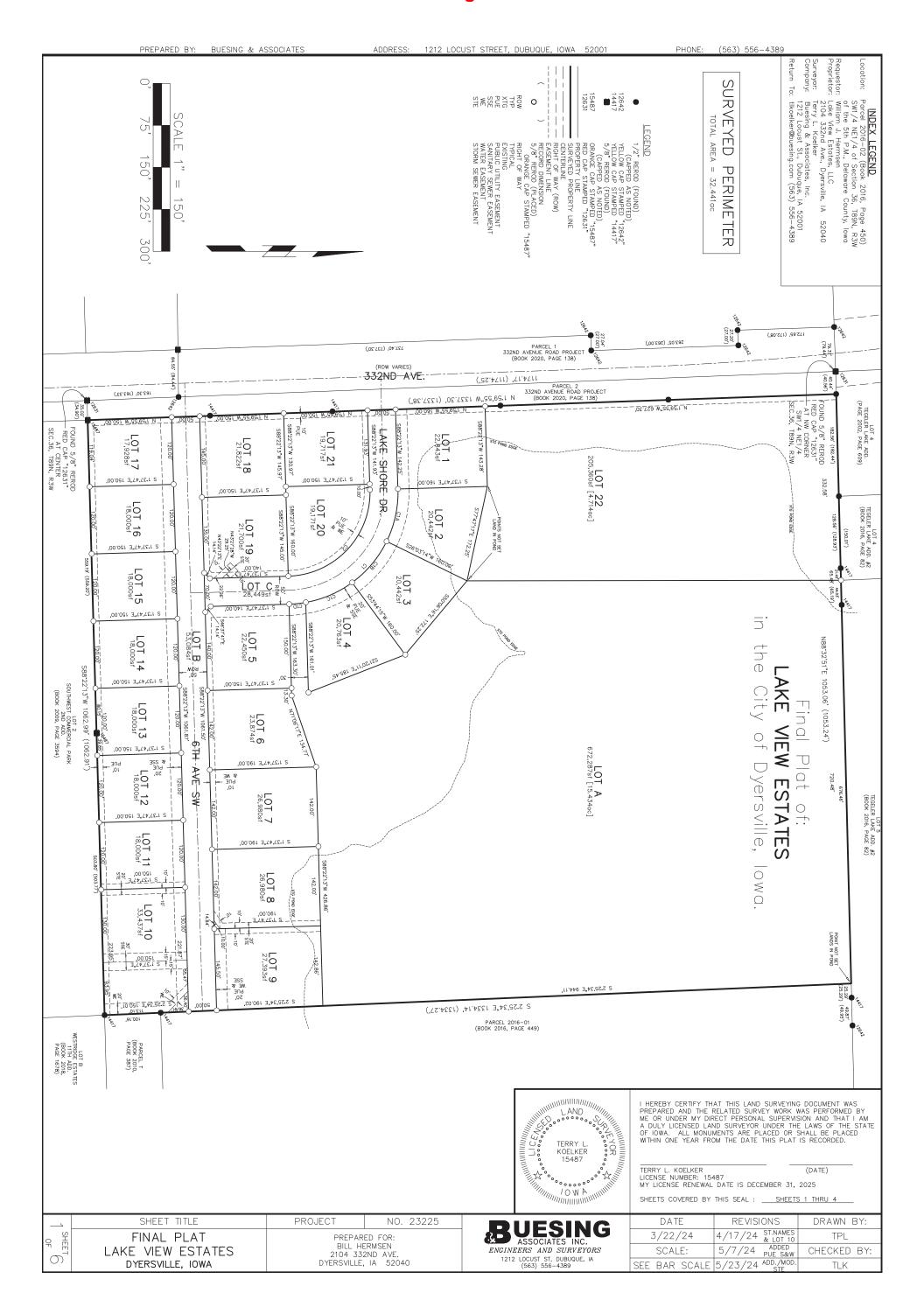
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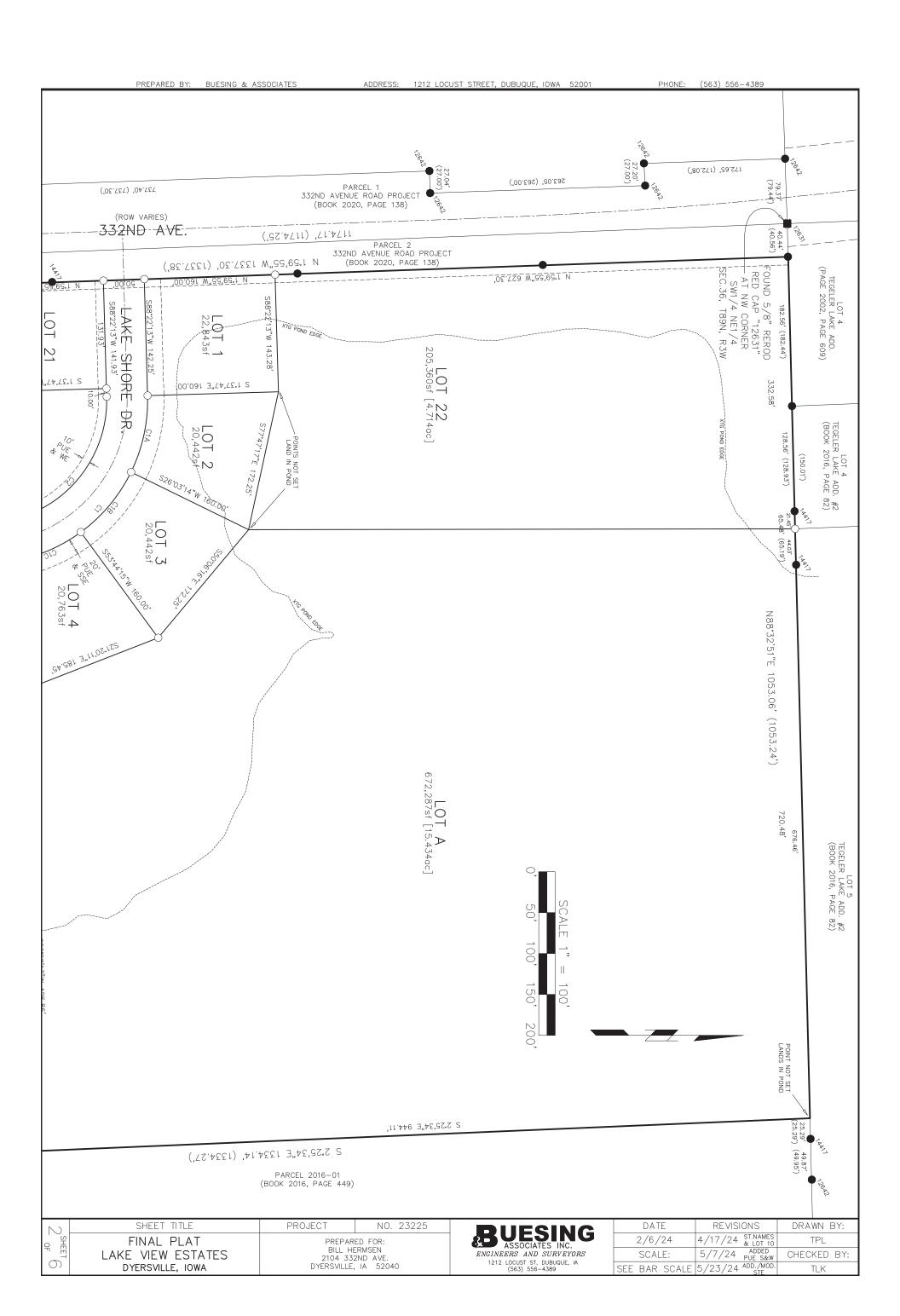
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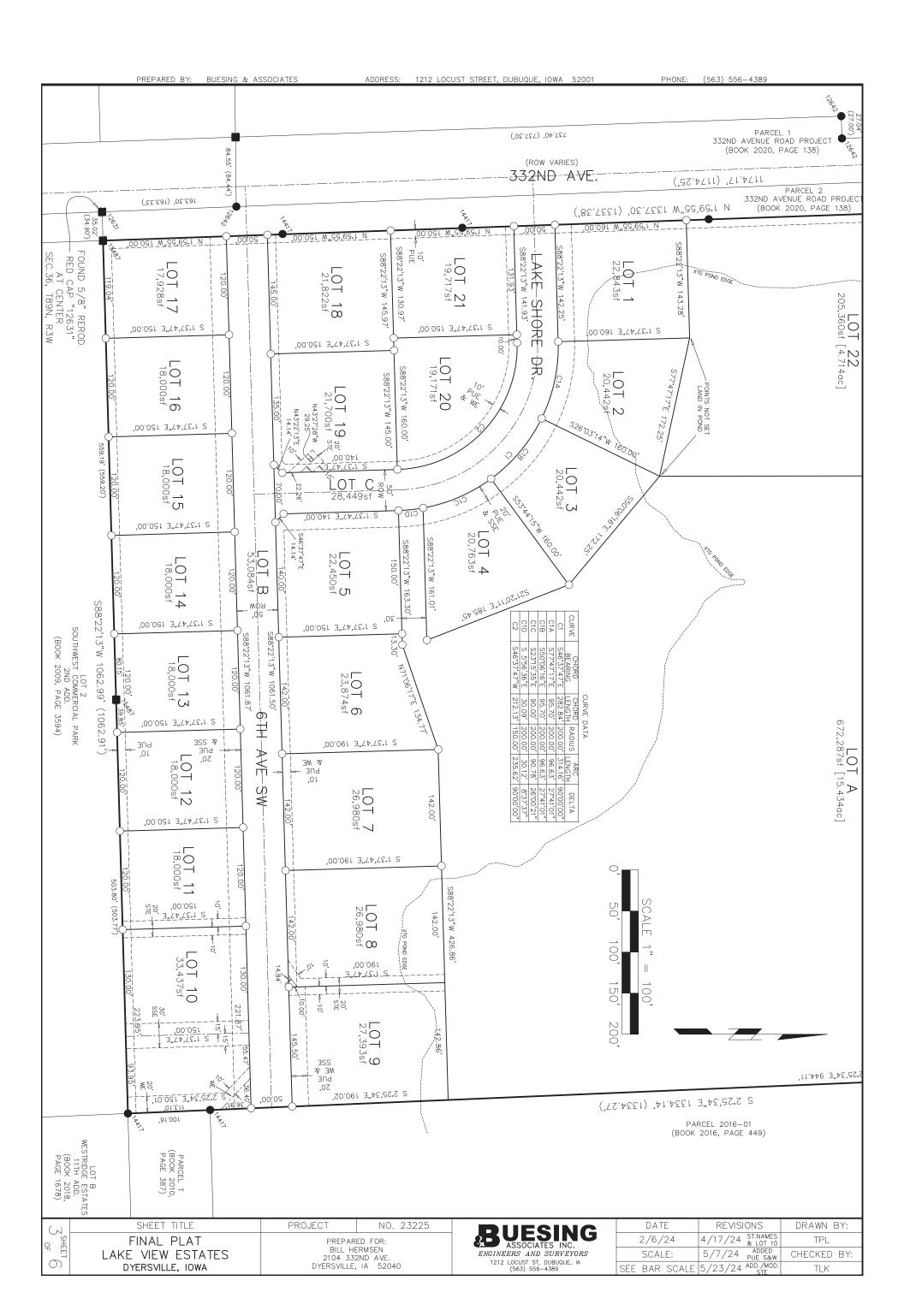
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Developed by Schneider

### **Revised Plat - Handed out at the meeting.**







Sheet 4 of 6

#### **Surveyor's Certificate**

I, Terry L. Koelker, a Duly Licensed Land Surveyor in the State of Iowa, do hereby certify that the following real estate was surveyed and platted by me or under my direct personal supervision, To Wit:

Parcel 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5<sup>th</sup> P.M., City of Dyersville, Delaware County, Iowa.

This survey was performed for the purpose of subdividing and platting said real estate henceforth to be known as **LAKE VIEW ESTATES** in the City of Dyersville, Iowa. The Total area of **LAKE VIEW ESTATES** is 32.441 acres. All Lot areas are more or less, and all Lots are subject to easements, reservations, restrictions, and rights-of-way of record and not of record, the plat of which is attached hereto and made a part of this certificate. All monuments are placed, or shall be placed, within one year from the date this plat is recorded.

I hereby certify that this land surveying document was prepared, and the related survey work was performed, by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of lowa.

BY:

Terry L. Koelker	Date	
Licensed Land Surveyor License No. 15487	License Renewal Date: 12/31/25	
Ownow	s Consent	
Owner	<u>s consent</u>	
Dyersville, Iowa	, 2024	
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, Iowa, is made with the free consent and in accordance with the desires of the undersigned owners and proprietors of said real estate. We hereby dedicate Lot B (6 <sup>th</sup> Ave. SW), and Lot C (Lake Shore Dr.), for street and utility purposes, and all easements shown, to the public. <b>Lake View Estates, LLC</b>		
	William J. Hermsen	
State of Iowa )		
) County of Delaware ) ss:		
•		
On this day of, AD 2024, before me the undersigned, A Notary Public in and for the State of Iowa, personally appeared William J. Hermsen, to me personally known, who, being duly sworn, did say that said William J. Hermsen, is an Agent for C & JK Properties, LLC, that no seal has been procured by said LLC, that said instrument was signed on behalf of said LLC, by said Agent, and that said Agent acknowledge the execution of said instrument to be the voluntary act and deed of said LLC, by it, voluntarily executed.		
Witness my hand and Notarial Seal on the date above written.		
	Notary Public in and for the State of Iowa	

### Sheet 5 of 6

# **MORTGAGE CONSENT**

Dyersville, Iowa, 20	024
, as mortgage holders, do hereby consent to the foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, Iowa.	
Bank:	
Name:	
State of Iowa )	
)	
County of Delaware ) ss:	
On thisday of, 2024, before me the undersigned, a Notary Public in and for the S of IA, personally appeared, to me personally known, who being by me sworn, did say that he is of the corporation executing the within and foregoing instrument to which is attached, that the seal affixed thereto is the seal on behalf of the corporation authority of its signed and sealed on behalf of the corporation; that said instrument was signed and sealed of behalf of the corporation by authority of its Board of Directors; and that such officers acknowledged the executed.	e duly d n by on
Notary Public in and for the State of IA	
<u>Attorney's Certificate</u> Dyersville, Iowa	, 2024
TO WHOM IT MAY CONCERN: This will certify that I have examined the abstract of title covering Parcel 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5 <sup>th</sup> P.M., City of Dyersville, Delaware County, Iowa, covering the period from government entry to certified on that d and find that said abstract shows	ate by
and merchantable title to said real estate in free and	clear
and merchantable title to said real estate in free and of all liens and encumbrances and shows taxes paid including taxes for the year	
Attaura de La constitución de la	
Attorney-at-Law	
Delaware, lowa	, 2024
I, the undersigned, Treasurer of Delaware County, Iowa, do hereby certify that all taxes levied against Parce 2016-02, part of the SW1/4 NE1/4 of Section 36, T89N, R3W, of the 5 <sup>th</sup> P.M., City of Dyersville, Delaware C Iowa, have been paid and said real estate is free from taxes as of this date.	
Treasurer of Delaware County, Iowa	
City Planning and Zoning Commission	
Dyersville, Iowa	, 2024
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, Iowa, is hereby approved by the of Dyersville Planning and Zoning Commission and approval of said plat by the City Council of the City of Dyersville, Iowa, is hereby recommended.	e City
Chairperson, City of Dyersville Planning and Zoning Comm	nission

Item 6.

Sheet 6 of 6

# City of Dyersville, Iowa

Dyersville, Iowa	, 2024		
of: <b>LAKE VIEW ESTATES</b> in the City of Dyersville, low (Lake Shore Dr.), for street and utility purposes, and all	sville, Iowa, do hereby certify that the foregoing Final Plat a, and the dedication of Lot B (6 <sup>th</sup> Ave. SW), and Lot C easements shown, to the public, as appears heretofore,, 2024 as resolution # in the office of ncil of the City of Dyersville, Iowa approves said plat.		
	Mayor of the City of Dyersville, IA		
	Clerk of the City of Dyersville, IA		
County Auditor's Certificate			
Delaware, Iowa	, 2024		
The foregoing Final Plat of: <b>LAKE VIEW ESTATES</b> in to office of the Delaware County Auditor this	he City of Dyersville, Iowa, was entered of record in the day of, 2024.		
	Delaware County Auditor		

 From:
 Tom Larsen

 To:
 Lori Panton

 Cc:
 Mick Michel

**Subject:** RE: Lake View Estates

**Date:** Monday, June 3, 2024 9:29:40 AM

Attachments: <u>image002.png</u>

\*\* This Message originated from outside [External Email] Be Very Aware Links and Attachments.\*\*

Hi Lori,

The original changes were:

- The revision of the 16' drain tile easement between Lots 8 & 9 and 10 & 11 to a 20' storm sewer easement.
- The removal of the storm drainage easement at the back of Lots 10 & 11.
- The removal of the storm sewer easement in the northeast corner of Lot 10.
- The addition of the storm sewer easement at the southeast corner of Lot 19.

In making those changes though, I realized that although the original "Lot A" at the southeast, near Lot 10, had been combined with Lot 10, the Lot 10 area was incorrect, so I corrected it.

I then realized that I didn't renumber the "lettered lots" when Lot A was combined with Lot 10, so I renumbered them. Lot B (the remainder lot) is now Lot A, Lot C ( $6^{th}$  Ave. SW) is now Lot B, and Lot D (Lake Shore Dr.) is now Lot C.

Please let me know if you have any questions.

**Thanks** 

Tom

Thomas P. Larsen Senior Project Manager Buesing & Associates, Inc. (563) 556-4389

From: Lori Panton panton@cityofdyersville.com>

**Sent:** Monday, June 3, 2024 8:53 AM **To:** Tom Larsen < tplarsen@buesing.com>

**Cc:** Mick Michel <mmichel@cityofdyersville.com>

**Subject:** RE: Lake View Estates

Hi Tom,

What has changed on the final plat? I already sent out the agenda packets before receiving this.

#### Thanks.

Lori Panton
Deputy Clerk
City of Dyersville
563-875-7724



From: Tom Larsen < tplarsen@buesing.com > Sent: Thursday, May 30, 2024 8:29 AM

To: Mick Michel < mmichel@cityofdyersville.com >; John Wandsnider

<jwandsnider@cityofdyersville.com>

Cc: Bill Hermsen (bjhermsenbj@hotmail.com) <br/>bjhermsenbj@hotmail.com>; Todd Horsfield

(<a href="mailto:thorsfield@tgexcavating.com">thorsfield@tgexcavating.com</a>>; Ben Kramer (<a href="mailto:bkramer@tgexcavating.com">bkramer@tgexcavating.com</a>>; Lori Panton

<lpanton@cityofdyersville.com>
Subject: FW: Lake View Estates

\*\* This Message originated from outside [External Email] Be Very Aware Links and Attachments.\*\*

Good Morning Mick and John,

Please see the email below and the attached.

Please let me know what you think.

Thanks

Tom

Thomas P. Larsen Senior Project Manager Buesing & Associates, Inc. (563) 556-4389

From: Tom Larsen

**Sent:** Friday, May 24, 2024 5:03 PM

**To:** Bill Hermsen (bjhermsenbj@hotmail.com) <bjhermsenbj@hotmail.com> **Cc:** Todd Horsfield (thorsfield@tgexcavating.com) <thorsfield@tgexcavating.com>

**Subject:** Lake View Estates

Hey Bill,

Sorry this has taken so long, I've been really busy lately.

I've attached a revised Final Plat, a revised set of Improvement Plans, a revised set of Storm Calc's, and a set of Runoff Calc's (Mick's Pre and Post), for your review and approval.

Please see specifically sheet D.02, D.03, & D.06, where the storm sewer has changed. Originally it went from CB#3 to CB#1 and out to the "big ditch". Now there is a new CB#13 that will combine the storm sewer from CB#3, CB#1, and the FES to the south that collects the FarmTek field (along with the back half of the homes and yards on the south side). The calculations for the 100 year storm event show a 30" is needed to collect the FarmTek field (along with the back half of the homes and yards on the south side), a 36" is needed under the road and a 42" is needed to outlet to the pond (because it flattens out to try and reduce the velocity). I started with a manhole on the south side of the road but changed to a CB because of the different pipe angles and slopes coming in, there was too much interference.

Todd, Please note that I've added a note to A.01 for the catch basins to have a 2.5' short wall, to make them like the City of Dubuque's 101-B, so they will accept 24" pipes on the short wall side. Are you going to use pre-cast or cast in place CB's? Do you think that 36" will work with that double wide CB at that angle?

Please let me know what you think, and if you are OK with everything, can you forward to Mick? Or just let me know, and I can send it to him.

**Thanks** 

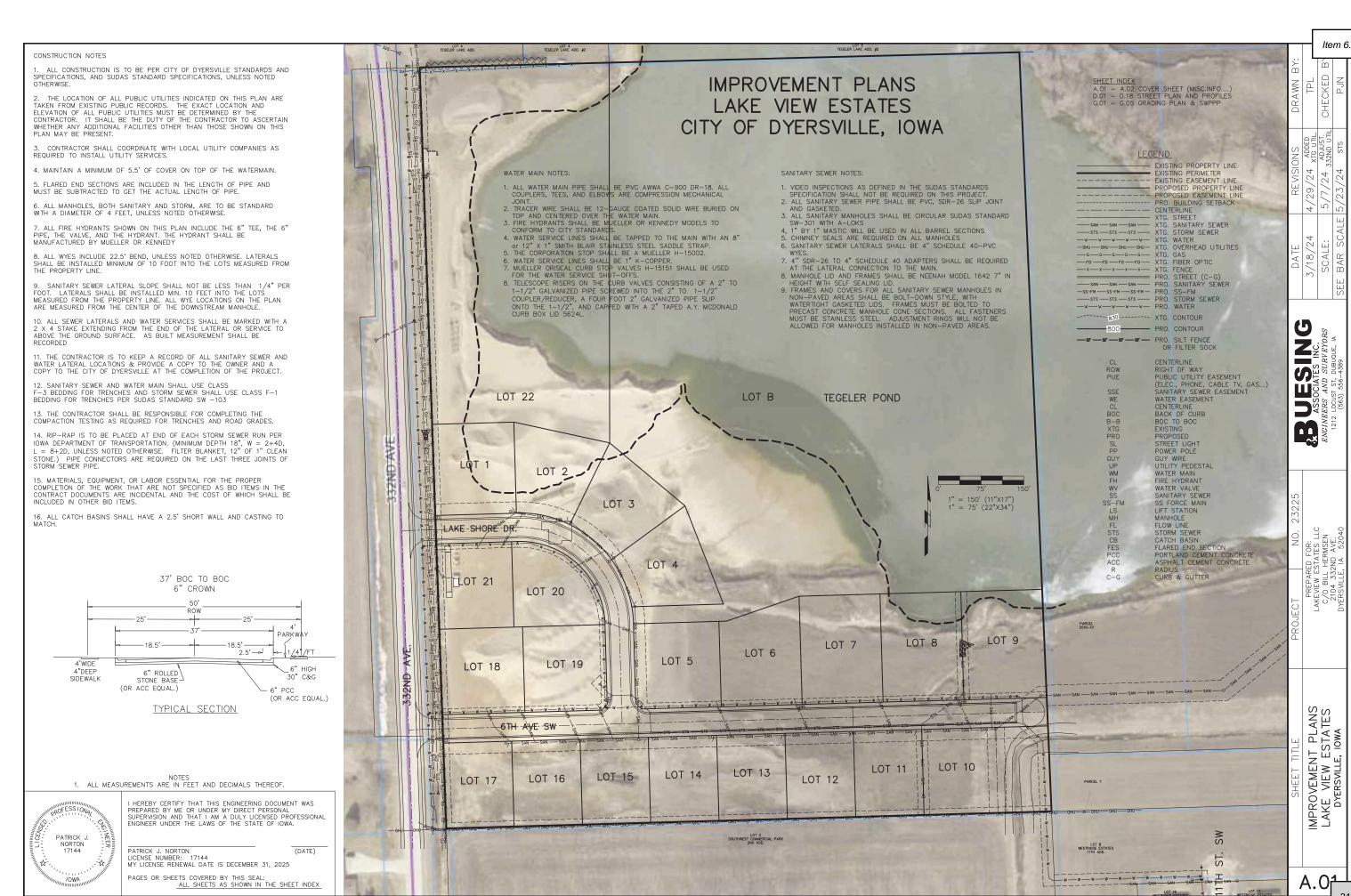
Tom

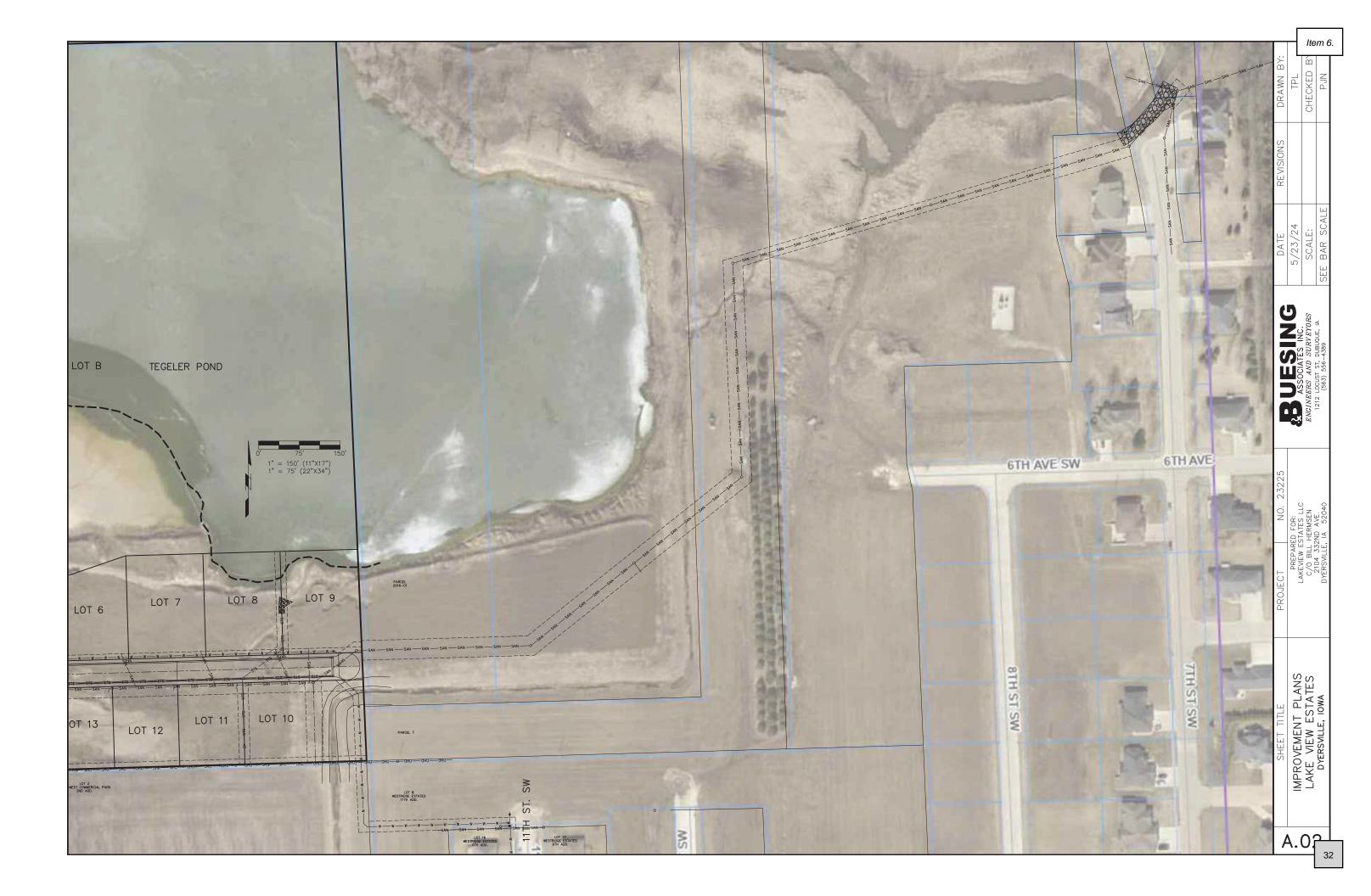
# Thomas P. Larsen

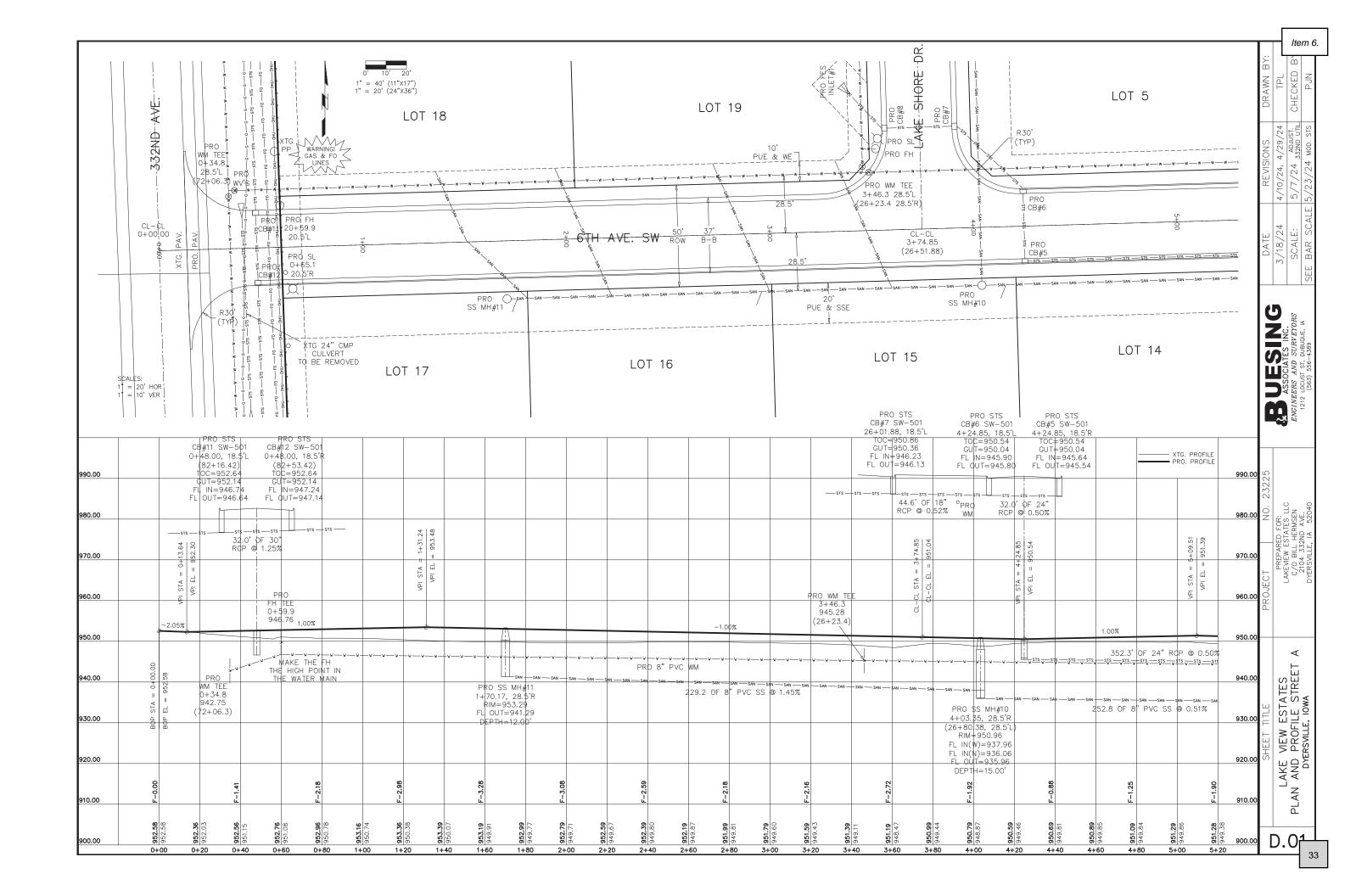
Senior Project Manager 1212 Locust Street | Dubuque, IA 52001 Phone: 563.556.4389 tplarsen@buesing.com

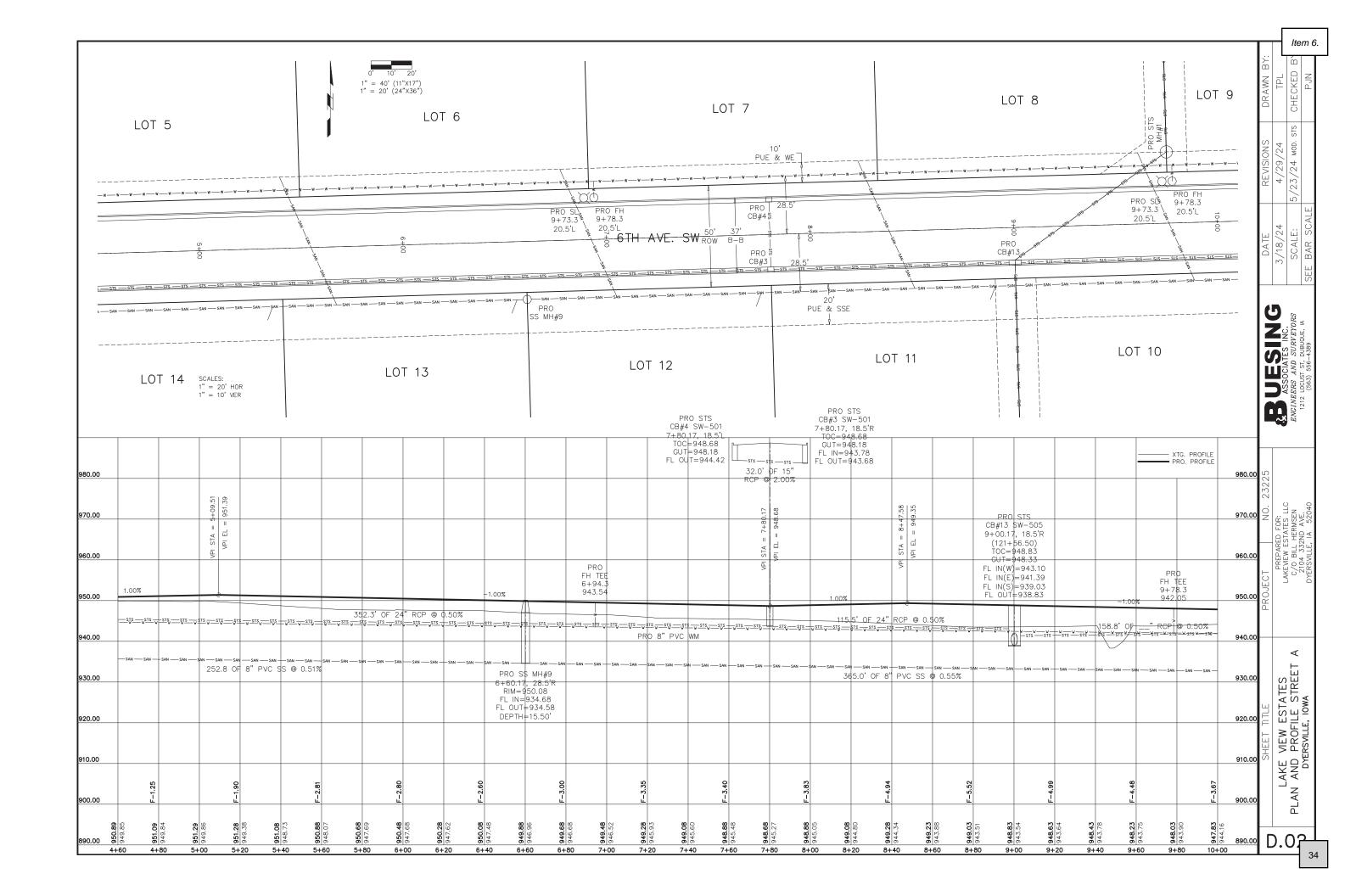
www.buesing.com

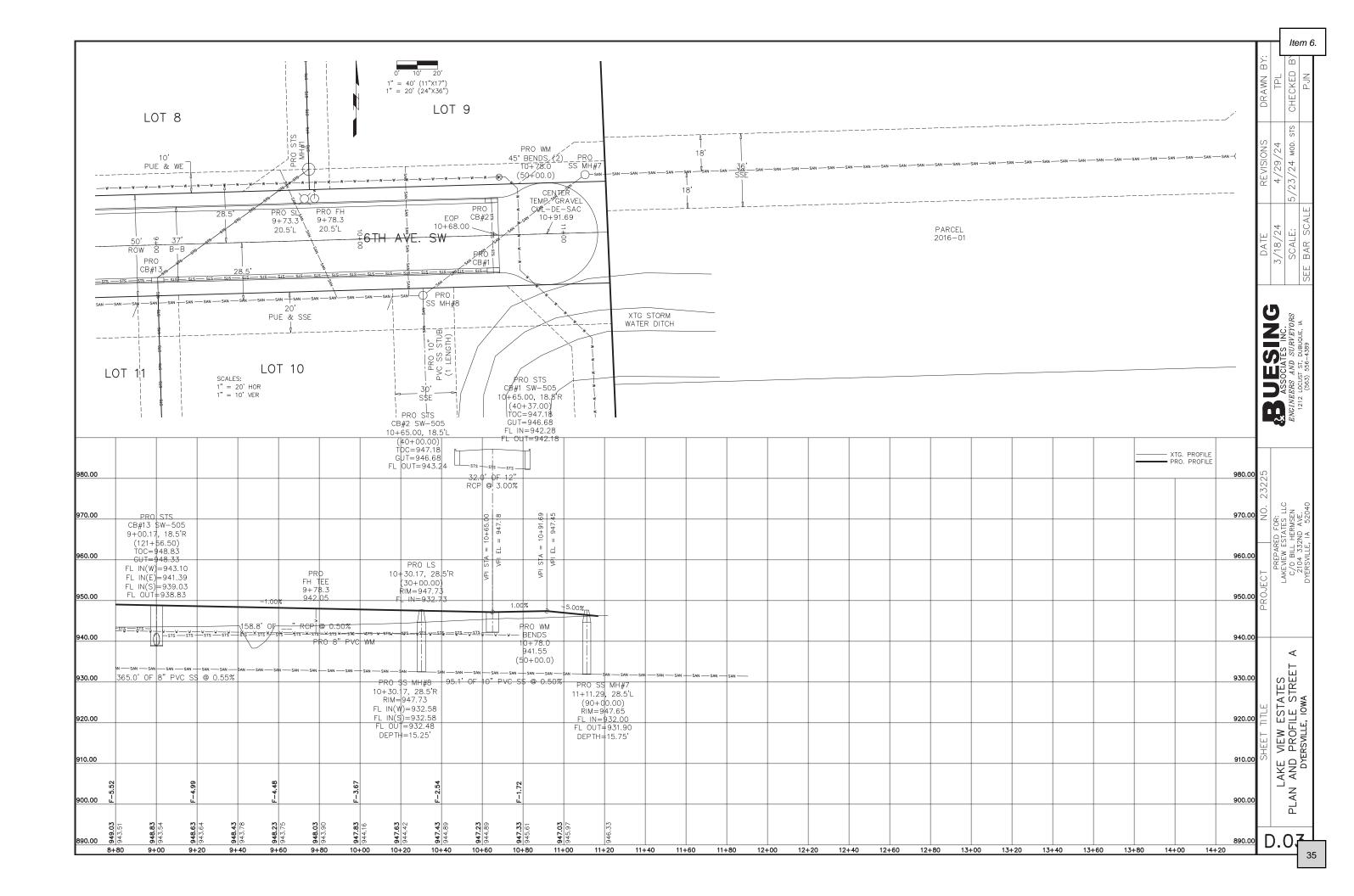


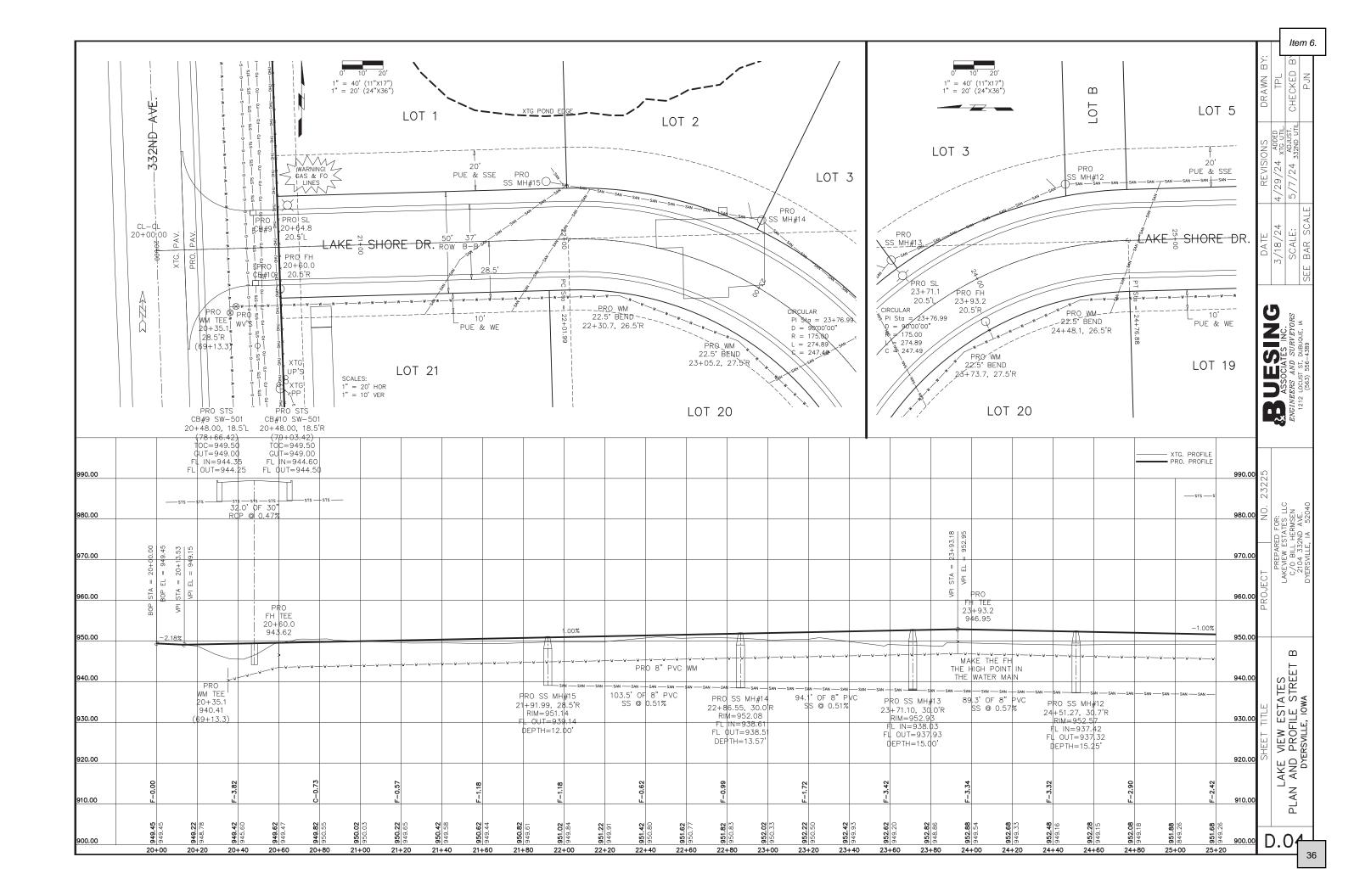


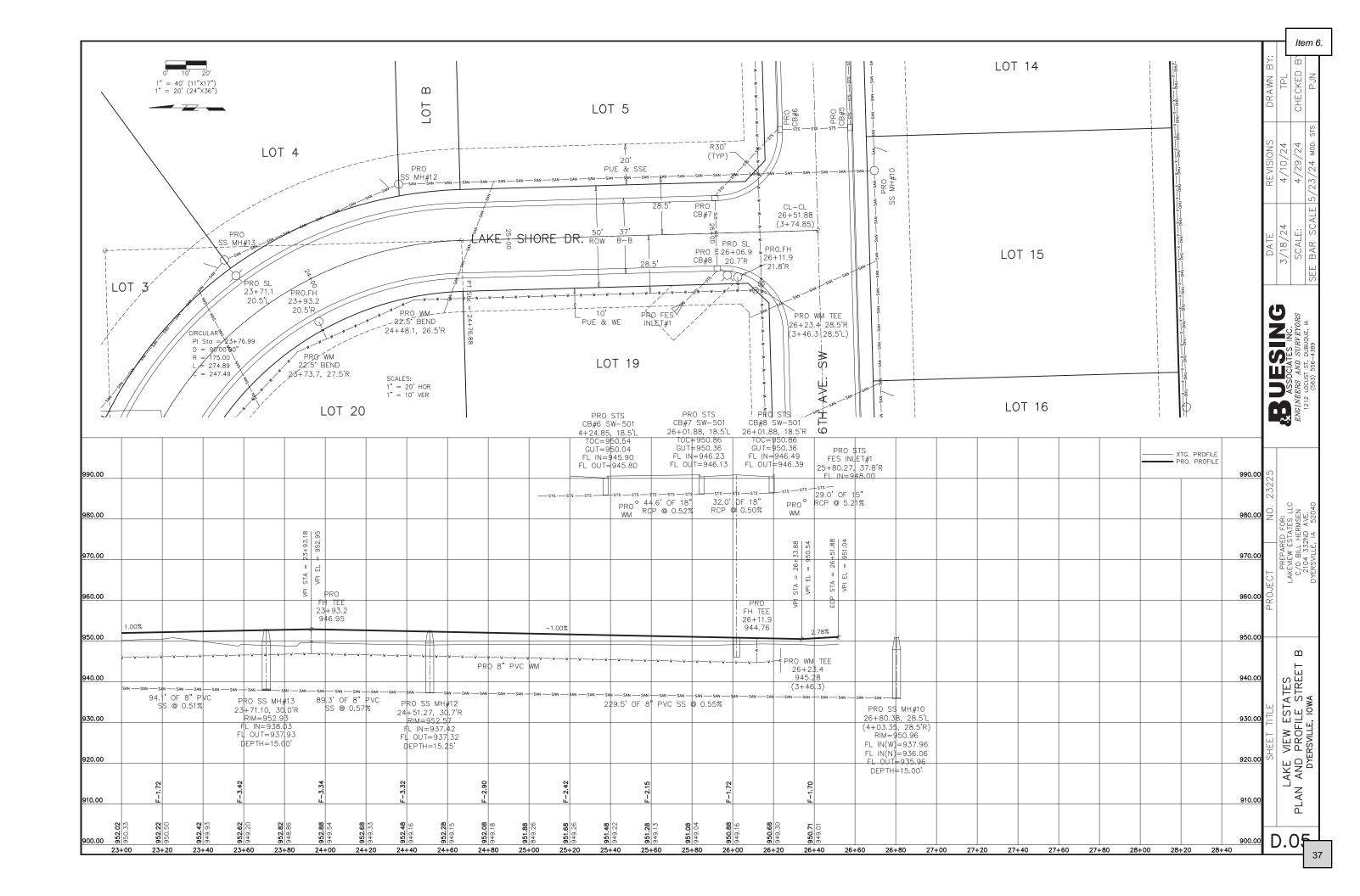


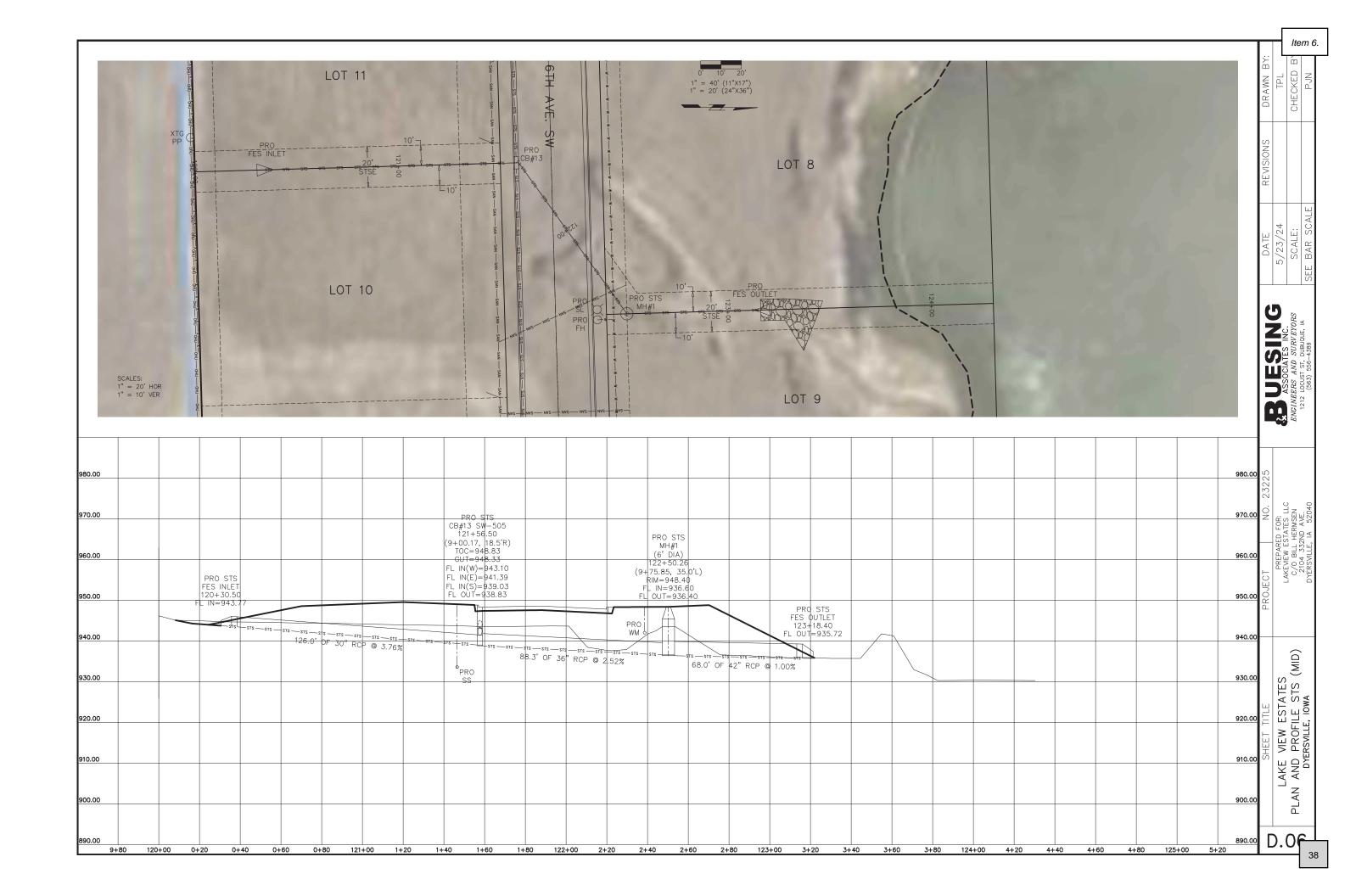


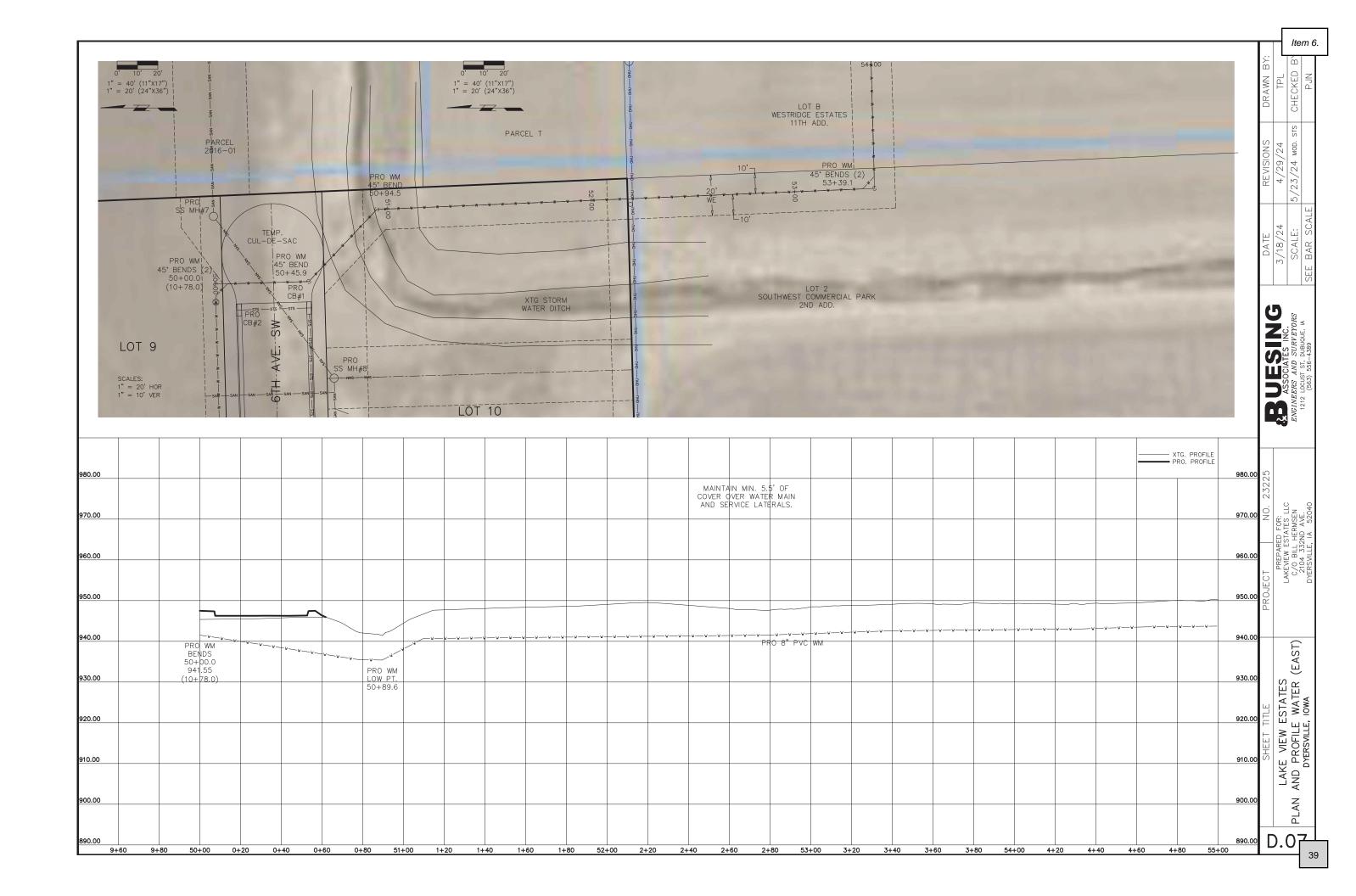


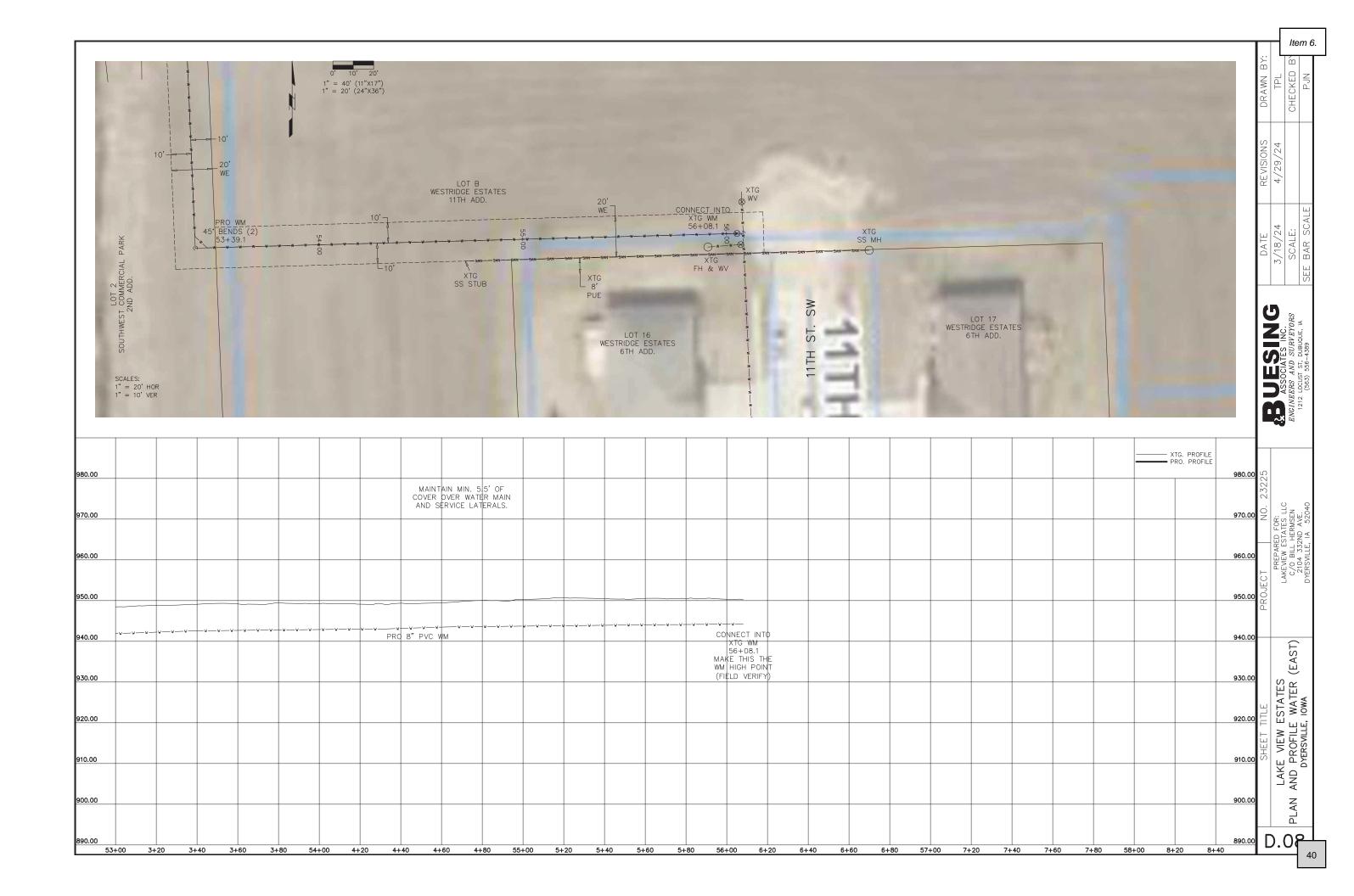


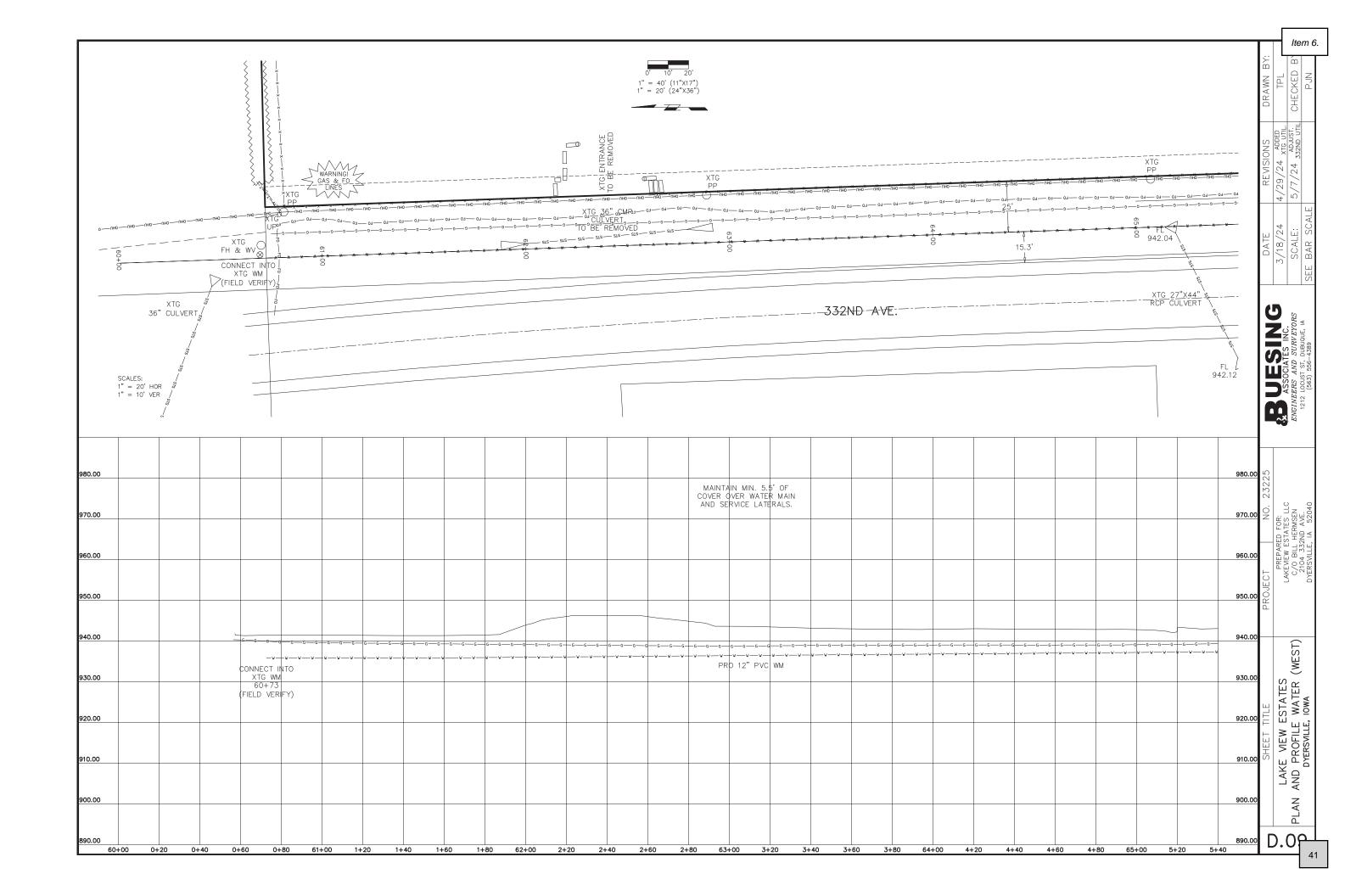


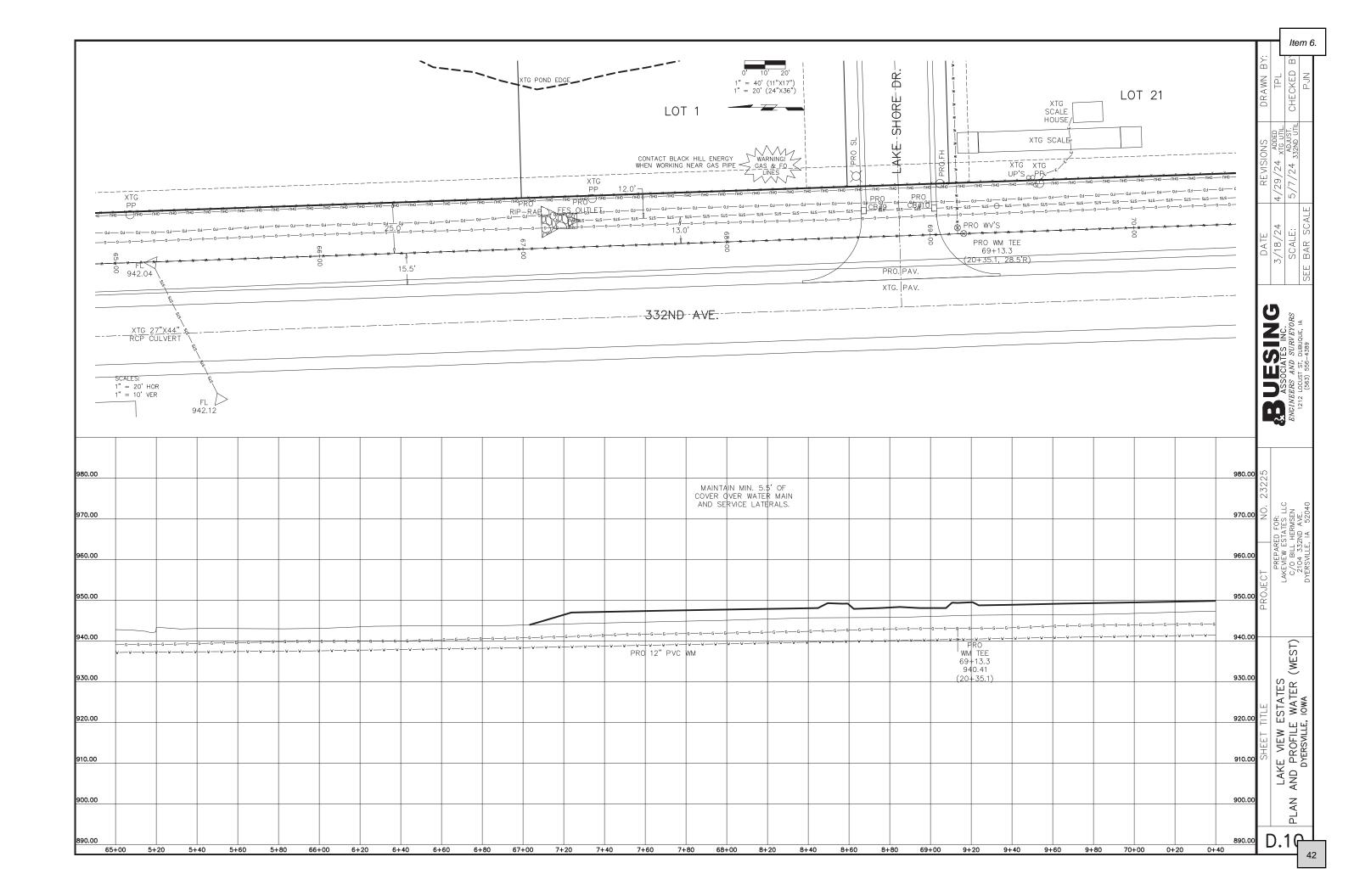


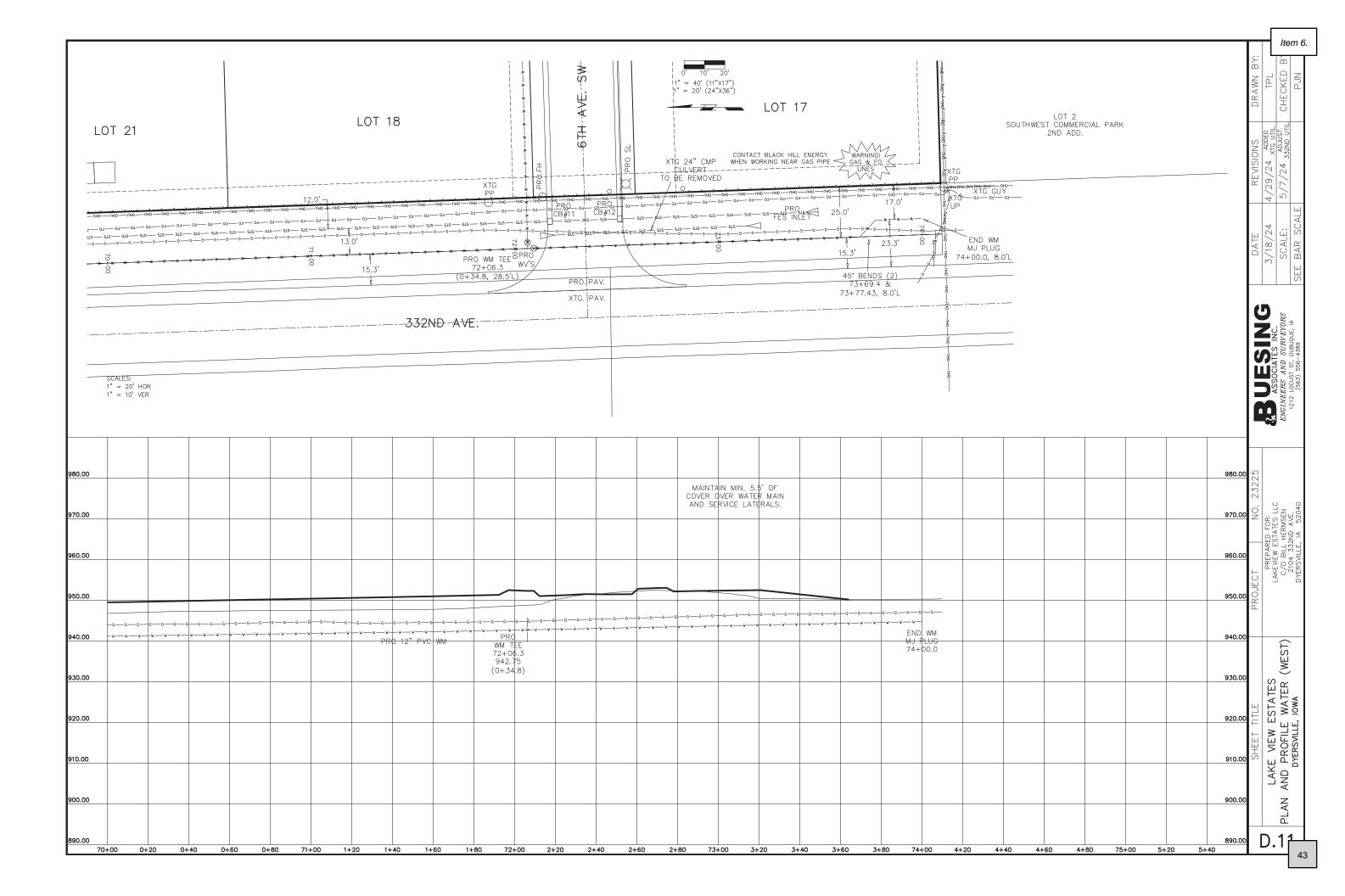


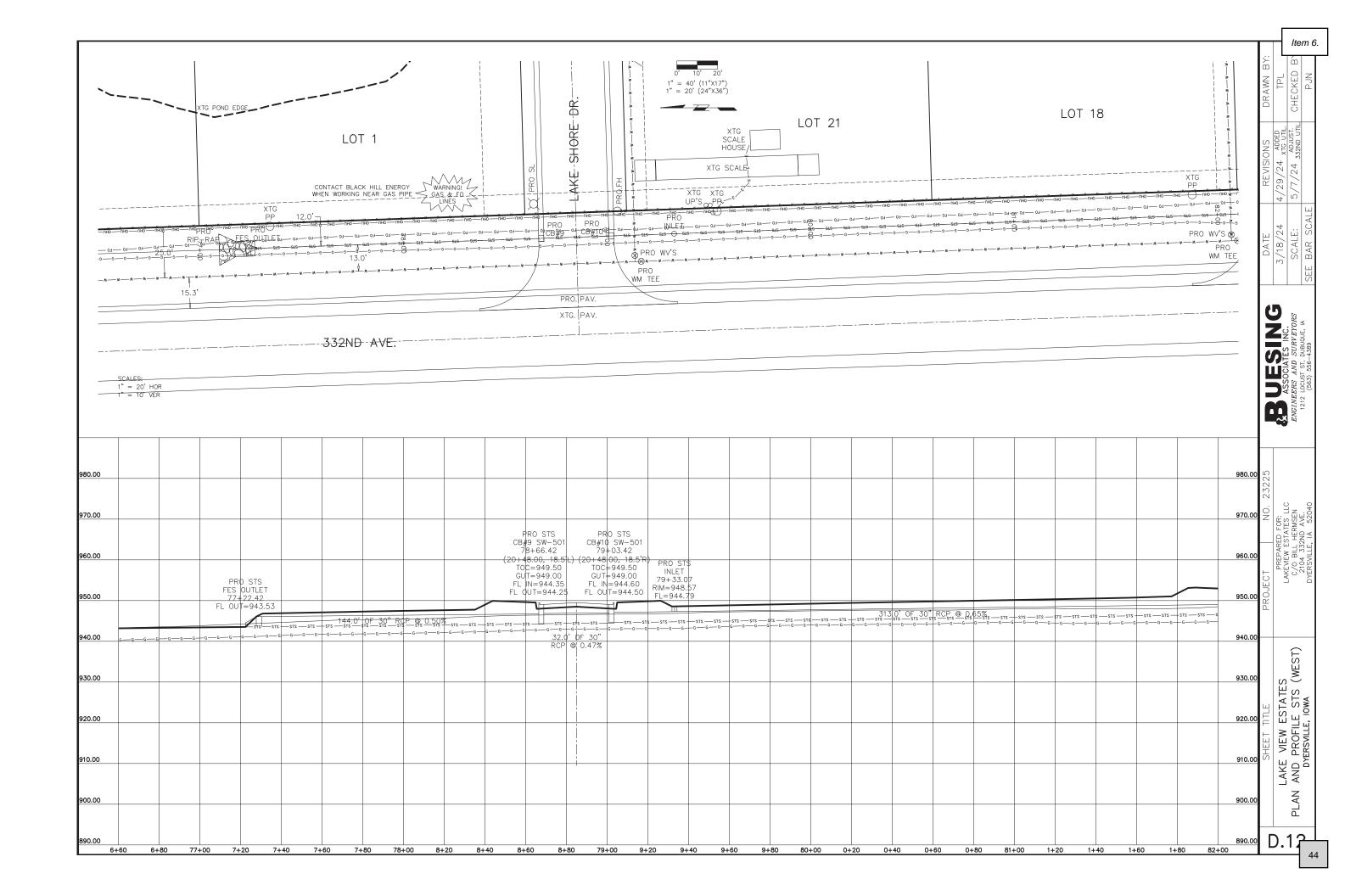


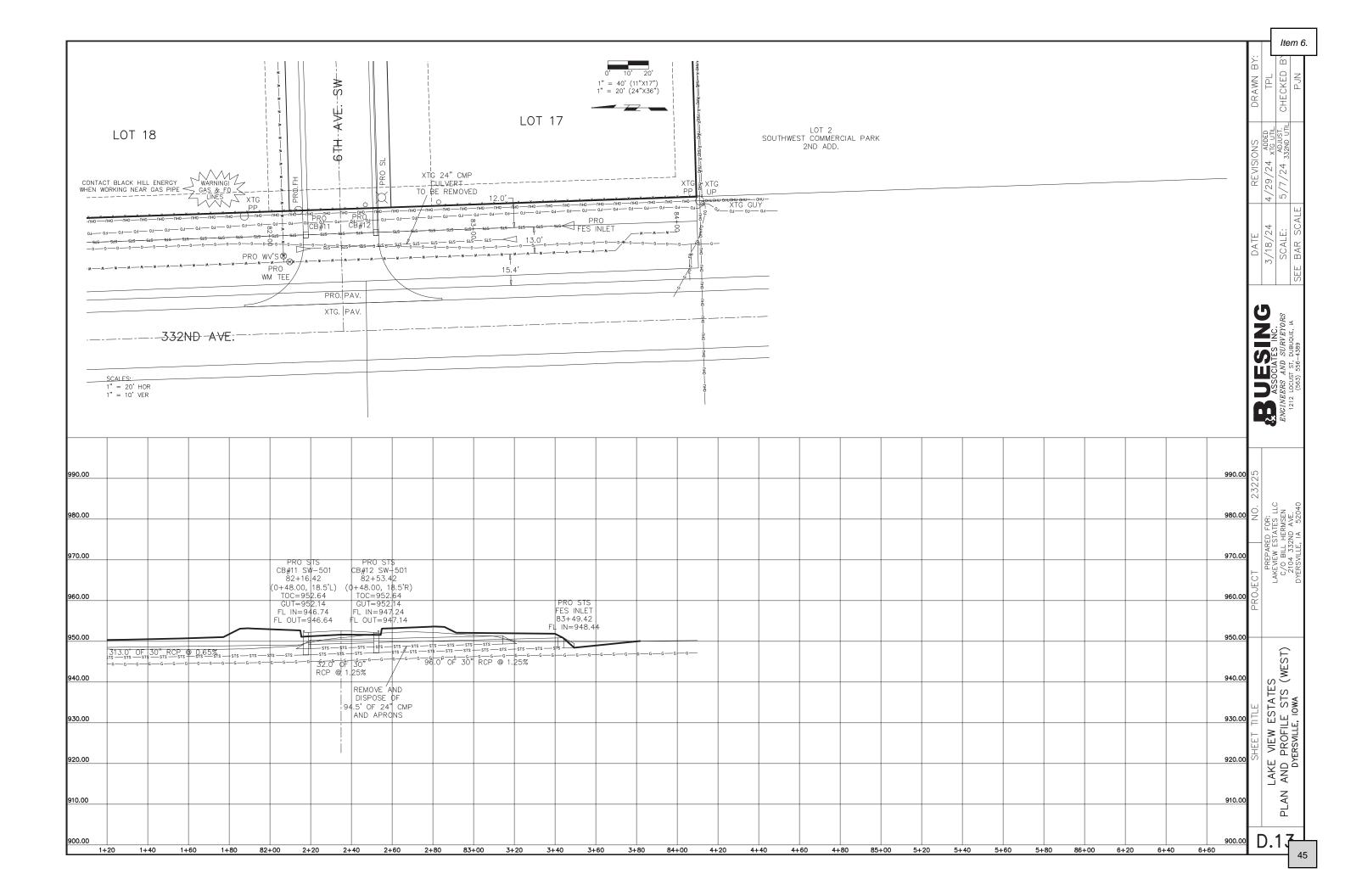


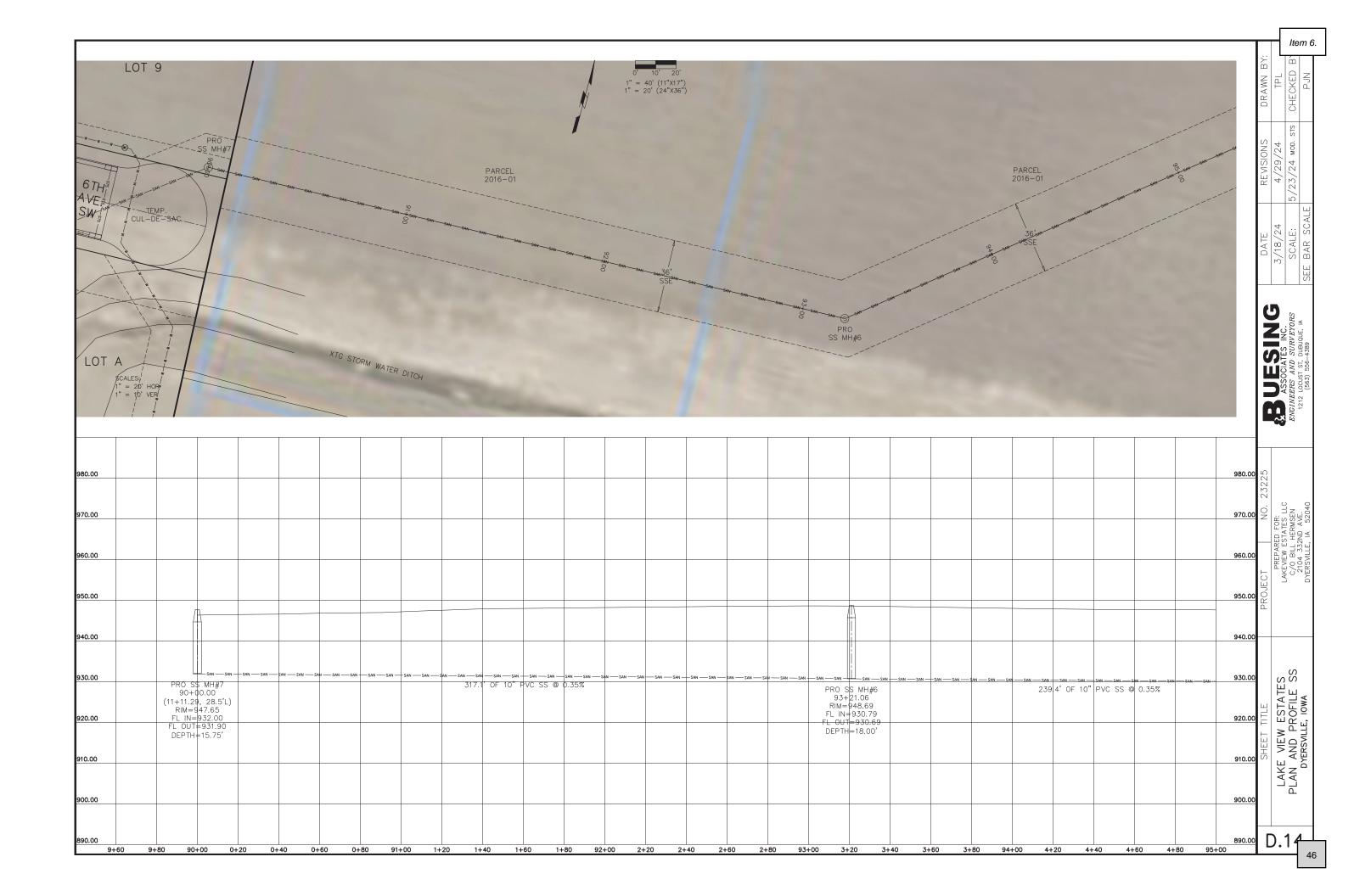


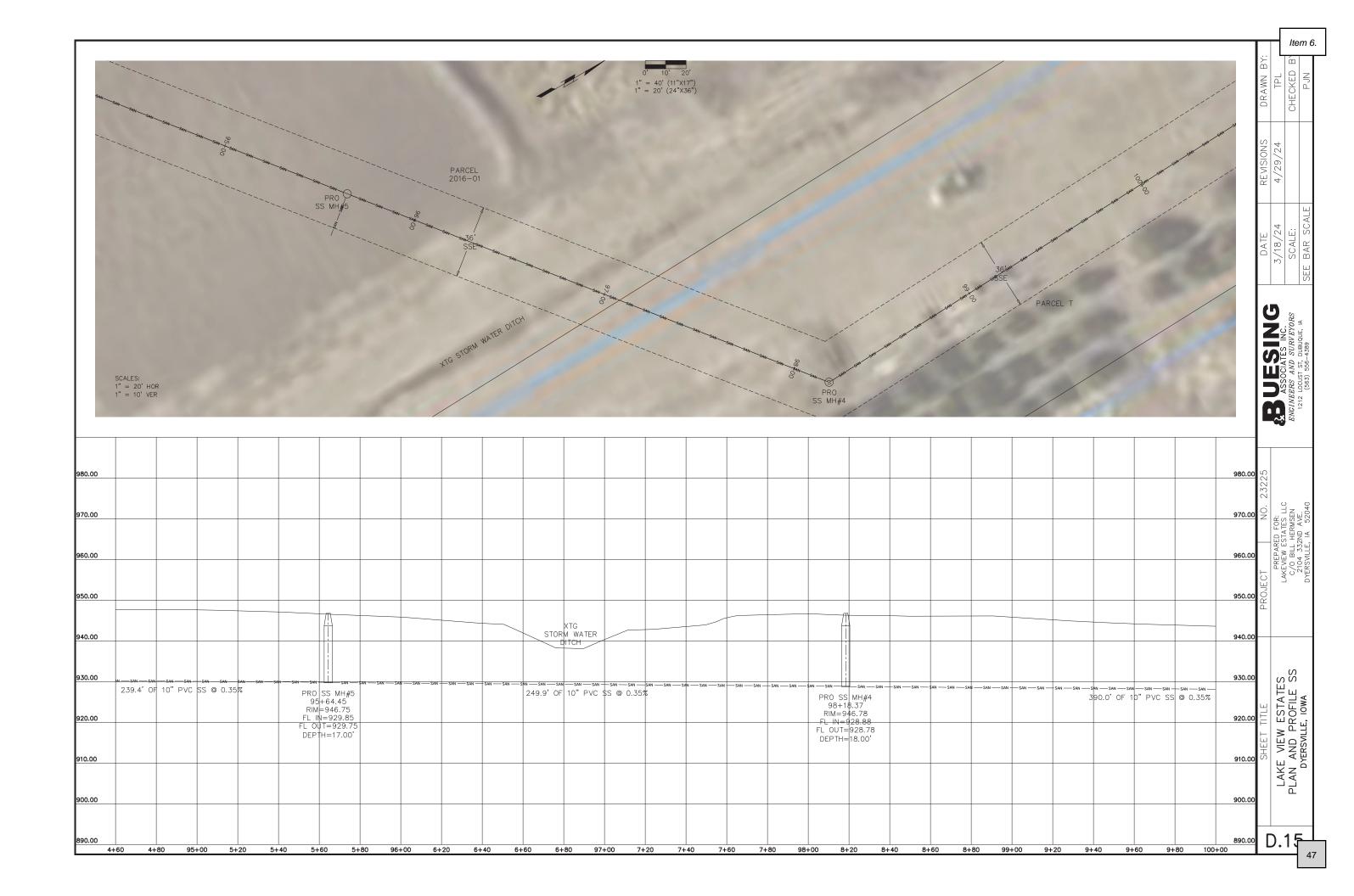


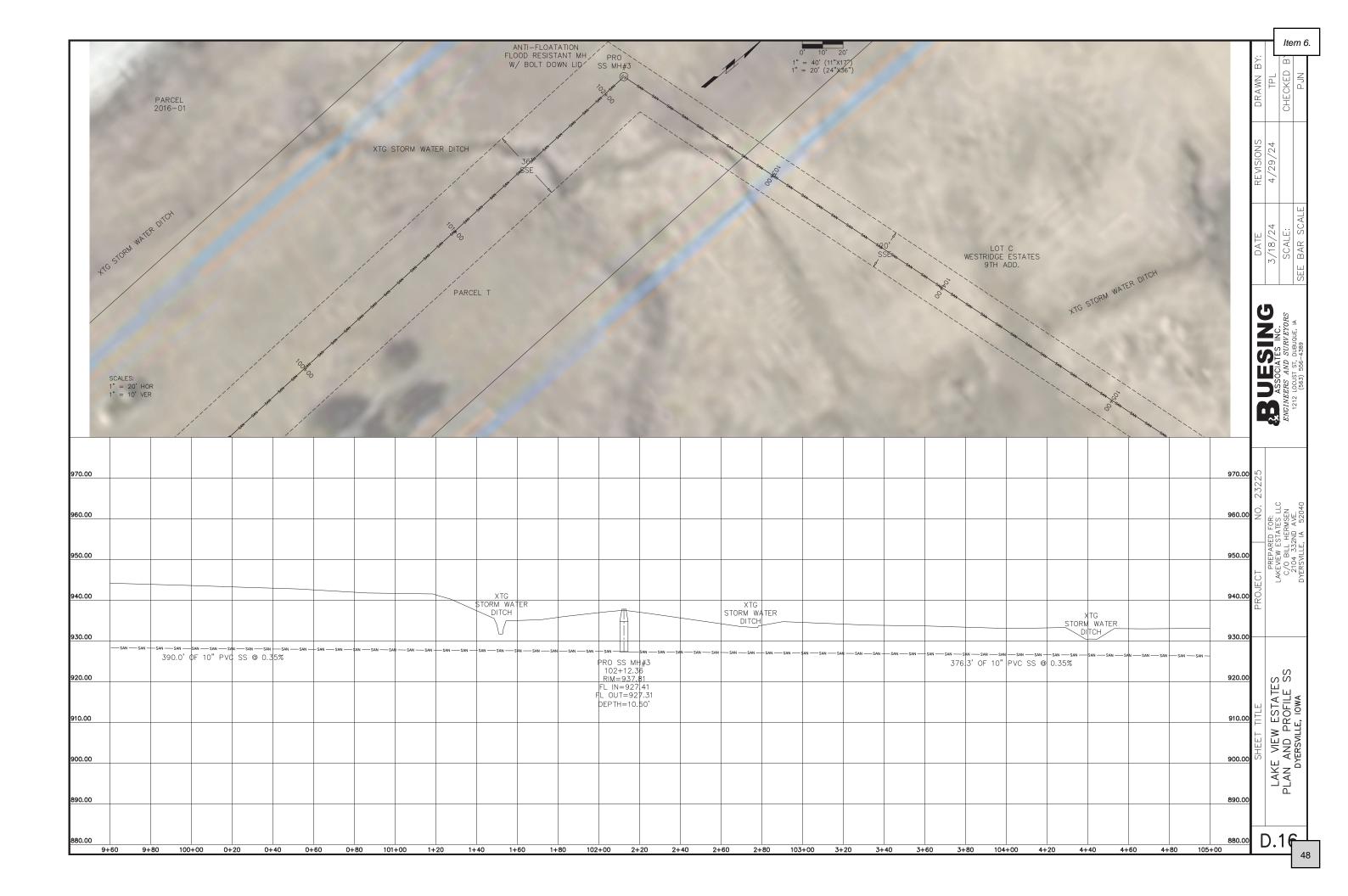


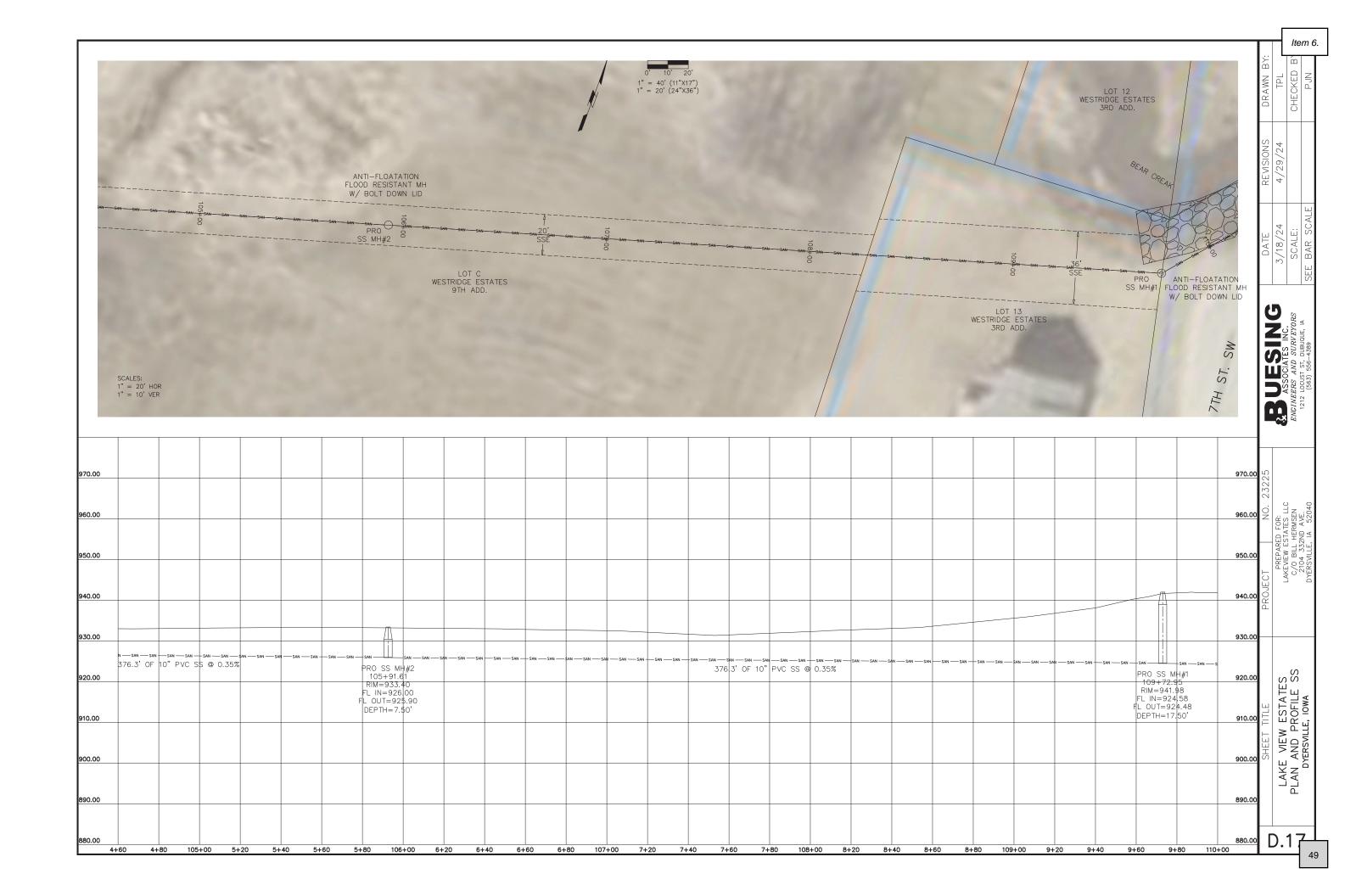


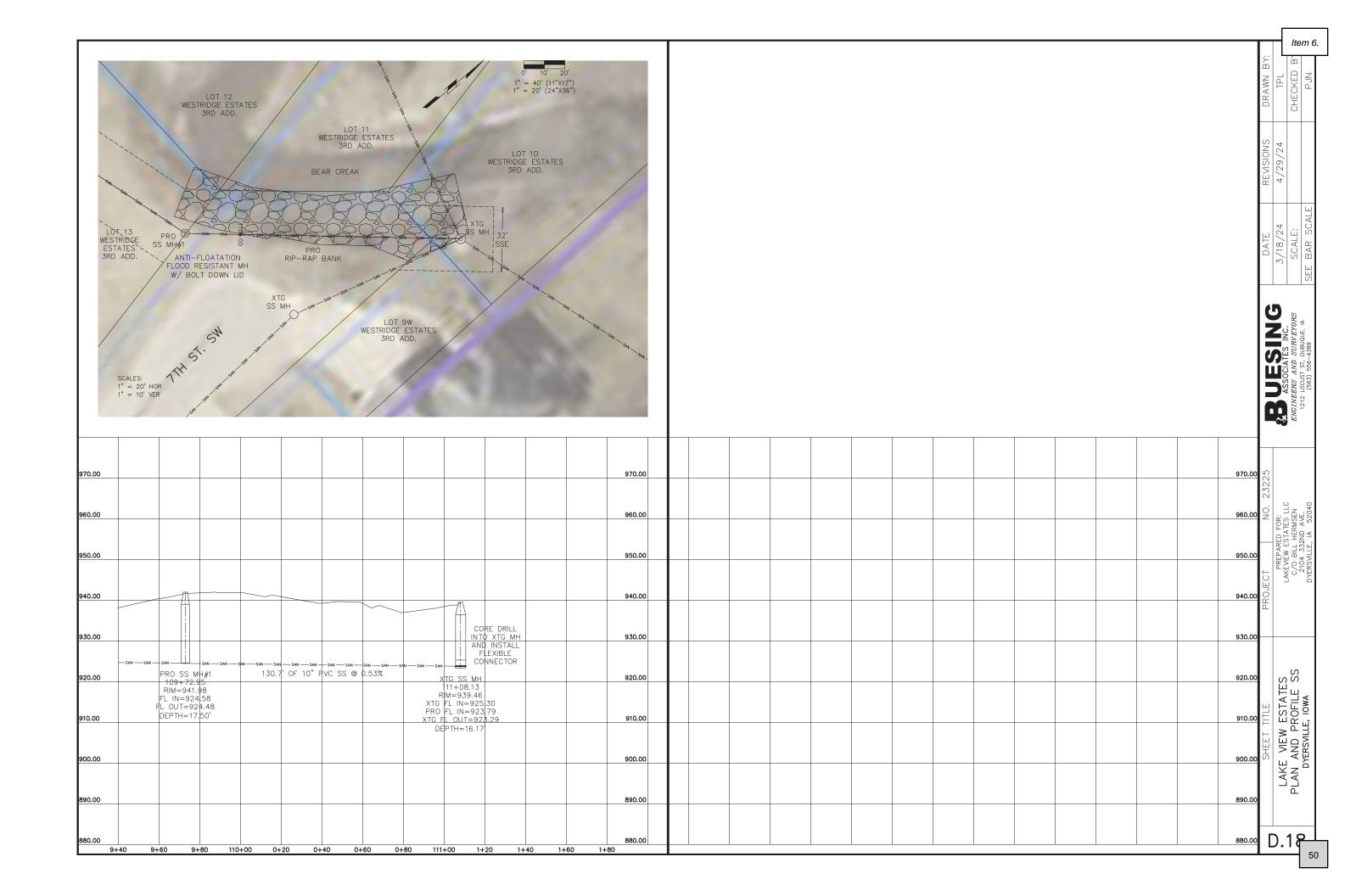


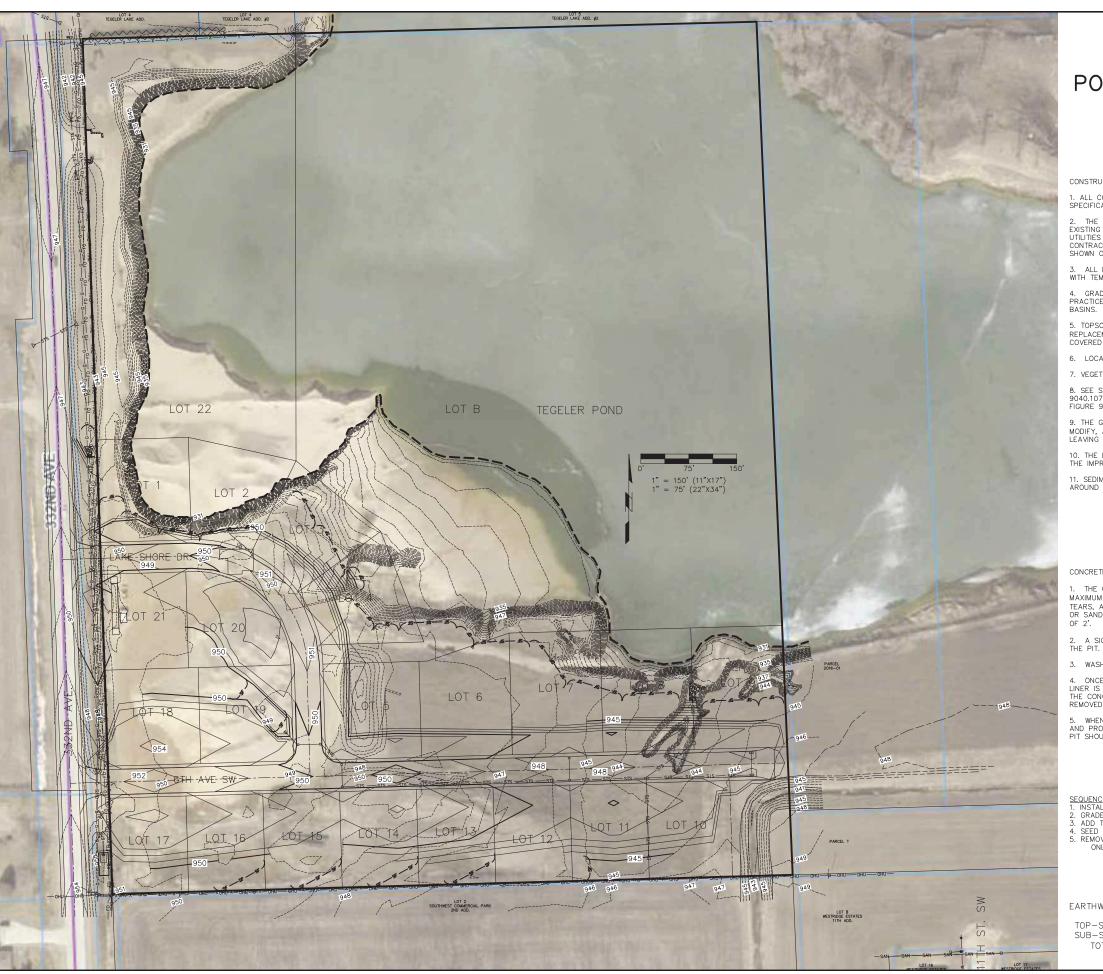










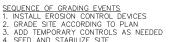


## GRADING PLAN & INITIAL STORM WATER POLLUTION PREVENTION PLAN LAKE VIEW ESTATES DYERSVILLE, IOWA

- 1. ALL CONSTRUCTION IS TO BE PER CITY OF DYERSVILLE STANDARDS AND SPECIFICATIONS AND SUDAS STANDARD SPECIFICATIONS, UNLESS NOTED OTHERWISE.
- 2. THE LOCATION OF ALL PUBLIC UTILITIES INDICATED ON THIS PLAN ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THIS PLAN MAY BE PRESENT.
- 3. ALL DISTURBED AREAS NOT BEING RE-DISTURBED FOR 21 DAYS MUST BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 DAYS.
- 4. GRADING CONTRACTOR SHALL PROVIDE SEDIMENT AND EROSION PREVENTION PRACTICES, SUCH AS INTERCEPTOR DIKES AND SWALES, AND TEMPORARY SEDIMENT BASINS. SUCH PRACTICES SHALL BE INCIDENTAL TO THE SITE GRADING COSTS.
- 5. TOPSOIL SHALL BE STOCKPILED FOR USE IN FINAL GRADING, WITH A MINIMUM REPLACEMENT AMOUNT OF 4". TOPSOIL SHALL BE PRESERVED IN ALL AREAS NOT COVERED BY CONCRETE, ASPHALT, GRAVEL OR OTHER SUCH MATERIAL.
- 6. LOCATION OF TOPSOIL PILE SHALL BE PER OWNERS DIRECTION.
- 7. VEGETATION IS TO BE PRESERVED IN ALL AREAS OUTSIDE OF THE GRADING LIMITS.
- 8. SEE SUDAS FIGURE 9040.102 FOR FILTER BERM AND FILTER SOCK DETAIL, FIGURE 9040.107 FOR ROCK CHECK DAM DETAIL, FIGURE 9040.119 FOR SILT FENCE DETAIL, AND FIGURE 9040.120 FOR STABILIZED CONSTRUCTION ENTRANCE DETAIL.
- 9. THE GRADING CONTRACTOR IS TO USE THIS SWPPP AS AN INITIAL GUIDE AND SHALL S. THE GINDLING CONTRACTOR IS TO USE THIS SWPPP AS AN INITIAL GUIDE AND SMODIFY, ADD, AND/OR MOVE CONTROLS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- 10. THE PROPOSED STORM SEWER SYSTEM SHOWN SHALL BE PLACED AS A PART OF THE IMPROVEMENT CONTRACT, AND NOT BE A PART OF THE SITE GRADING CONTRACT.
- 11. SEDIMENT CONTROL DEVICES SUCH AS FILTER SOCKS SHALL BE USED ON OR AROUND ALL CATCH BASINS WITHIN EACH PHASE OF THE DEVELOPMENT.

#### CONCRETE WASHOUT AREA

- 1. THE CONCRETE WASHOUT AREA IS TO BE A BELOW GRADE 7' X 7' PIT, WITH A MAXIMUM DEPTH OF 3', AND LINED WITH 10 MIL. PLASTIC SHEETING (FREE FROM HOLES, TEARS, AND SEAMS). THE PLASTIC LINER IS TO BE SECURED USING STAKES, STAPLES OR SANDBAGS. THE PLASTIC LINER SHOULD EXTEND BEYOND THE PIT FOR A MINIMUM
- 2. A SIGN READING "CONCRETE WASHOUT AREA" SHOULD BE PLACED ADJACENT TO THE PIT.
- 3. WASHOUT AREA IS TO BE INSPECTED FREQUENTLY TO ENSURE THE LINER IS INTACT.
- 4. ONCE 75% OF THE ORIGINAL VOLUME OF THE WASHOUT PIT IS FILLED OR IF THE LINER IS TORN, THE MATERIAL MUST BE REMOVED AND PROPERLY DISPOSED OF WHEN THE CONCRETE HAS COMPLETELY HARDENED. ONCE THE HARDENED CONCRETE IS REMOVED, THE LINER MUST BE REPLACED IF TORN.
- 5. WHEN THE WASHOUT PIT IS NO LONGER NEEDED, THE MATERIAL MUST BE REMOVED AND PROPERLY DISPOSED OF WHEN THE CONCRETE HAS COMPLETELY HARDENED. THE PIT SHOULD THEN BE BACKFILLED.







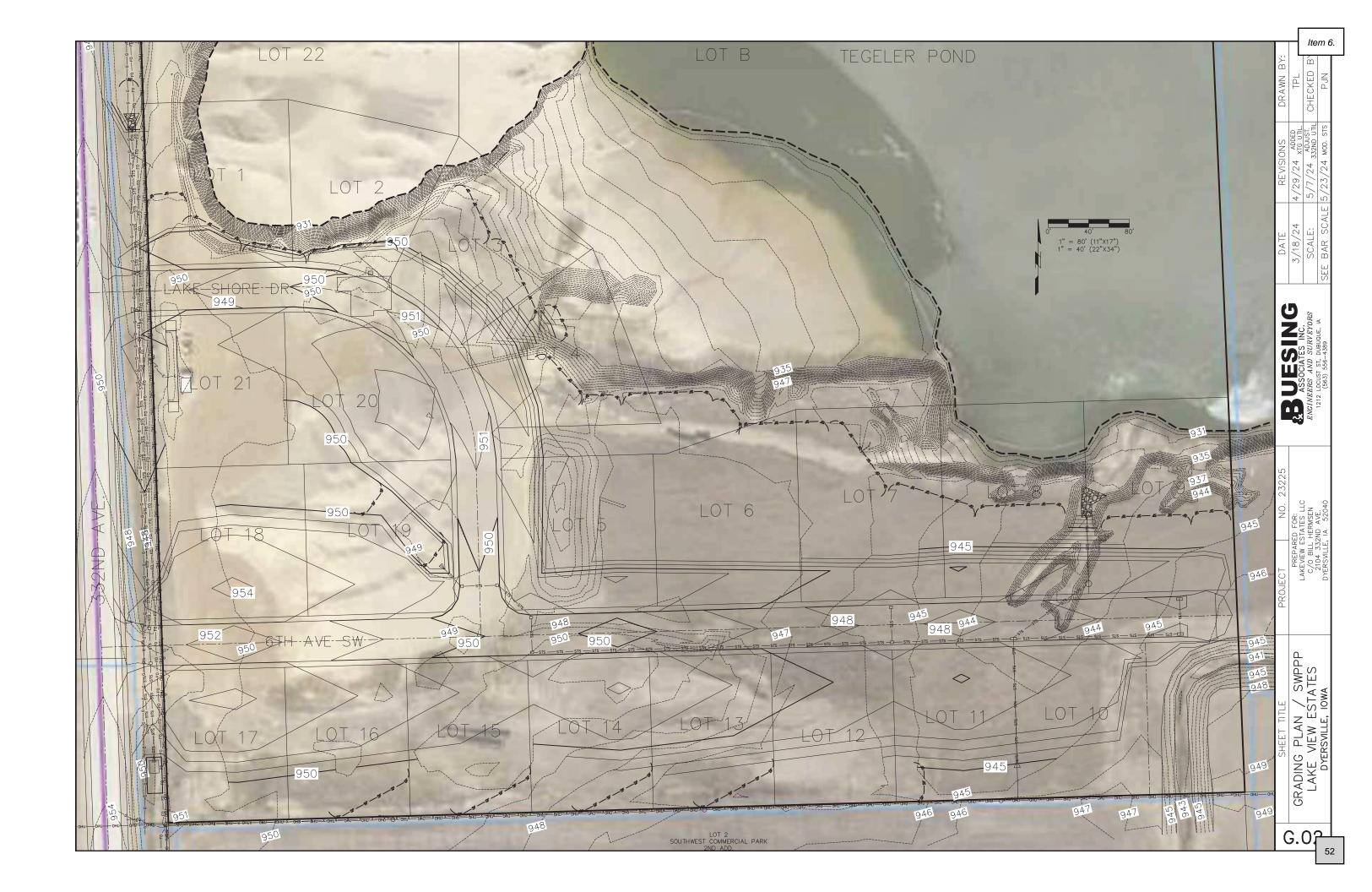
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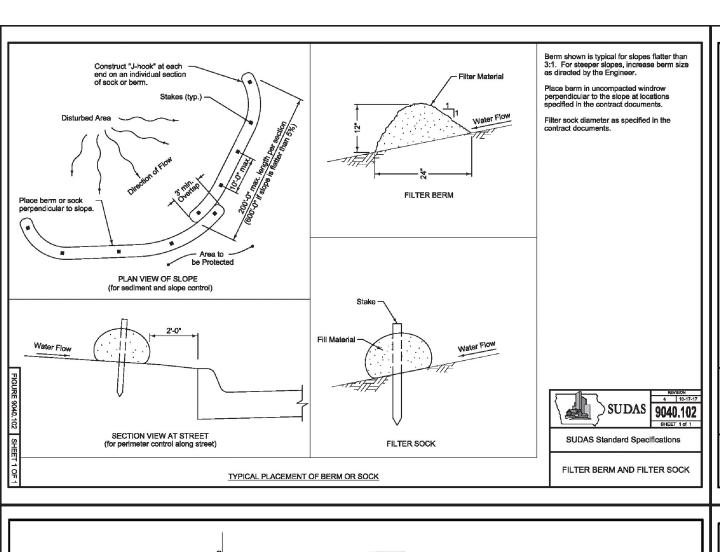
SUBGRADE FILL = 33,608 CY +COMPACTION (1.25%) = 42,010 CY

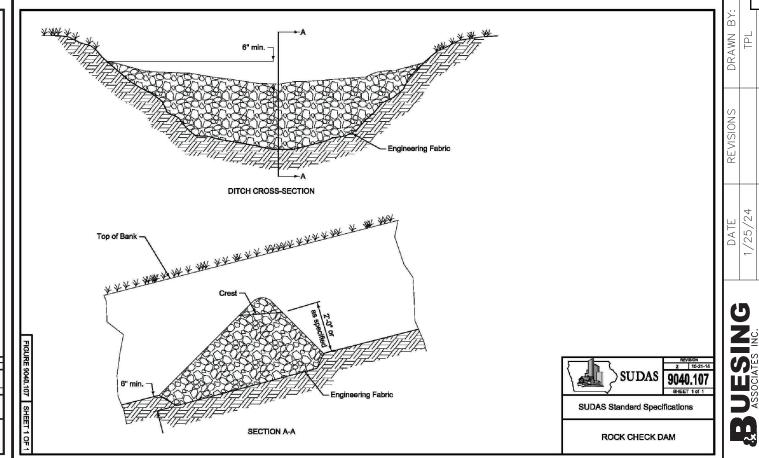
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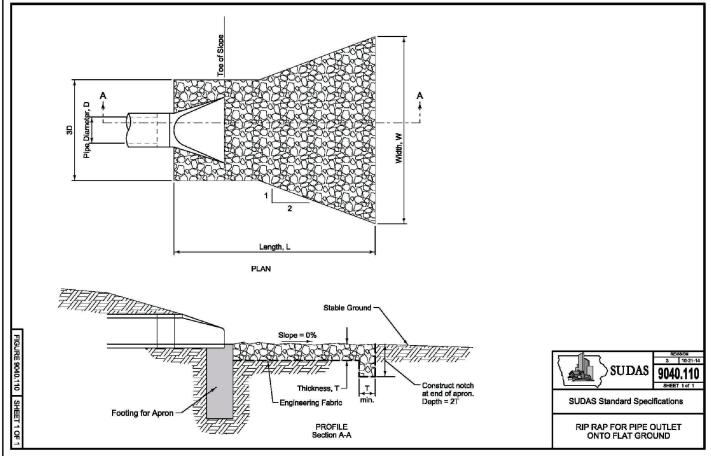
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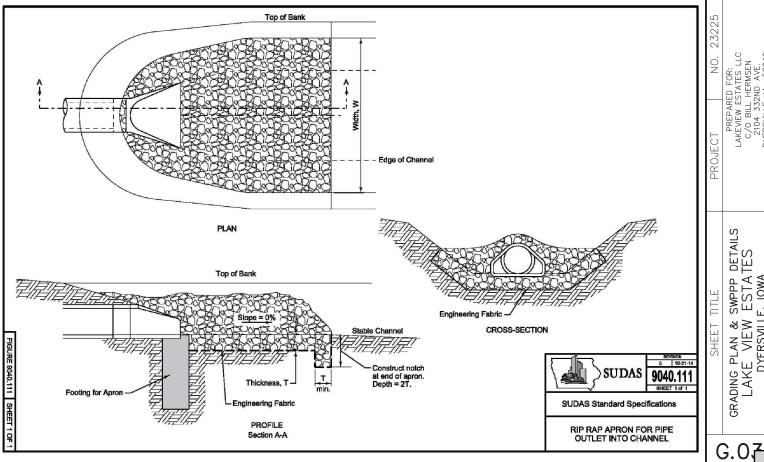
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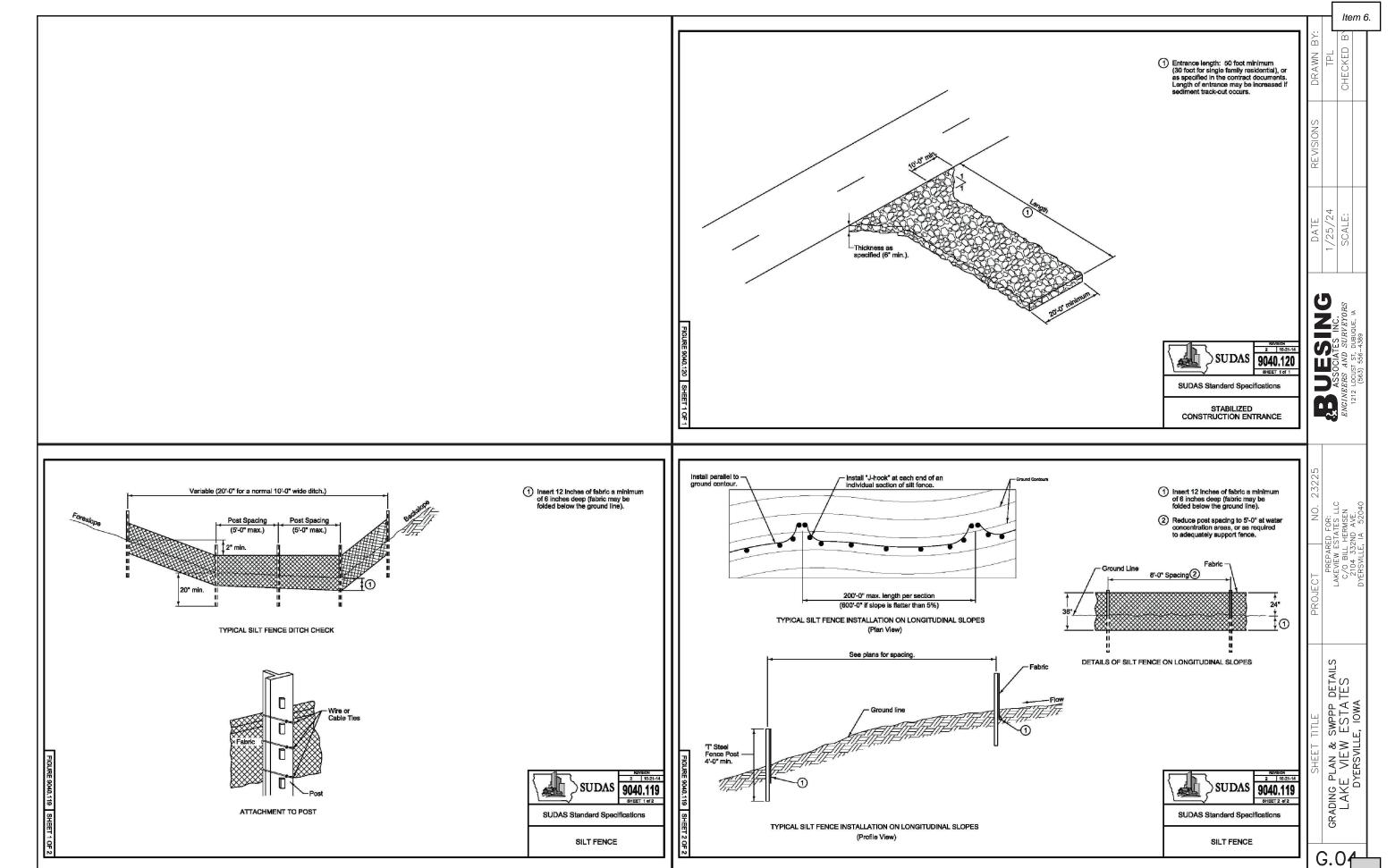






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Item 6.



## STORM WATER POLLUTION PREVENTION PLAN LAKE VIEW ESTATES

CITY OF DUBUQUE, IOWA.

#### POLLUTION PREVENTION PLAN

All contractors/subcontractors shall conduct their operations in a manner that minimizes erosion and prevents sediments from leaving the construction limits. The prime contractor shall be responsible for compliance with soil erosion requirements of the lowa Code, The lowa Department of Natural Resources NPDES General Permit No.2 and local ordinances. The prime contractor shall also be responsible for compliance and implementation of the Pollution Prevention Plan (PPP) for their entire contract. These responsibilities shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

#### 1. STORM WATER DISCHARGE PERMIT

This project requires the obtaining of a NPDES General Permit No.2 for storm water discharge associated with industrial activity for construction activities from The Iowa Department of Natural Resources (IDNR), as required by The Environmental Protection Agency (EPA). The Permit is already in place. The prime contractor and all subcontractors shall be responsible for compliance and fulfilling all requirements of the NPDES General Permit No.2 including The Storm Water Pollution Prevention Plan.

IA DNR AUTHORIZATION NUMBER: \_\_\_\_\_\_

#### 2. SITE DESCRIPTION

This Pollution Prevention Plan (PPP) is for the construction of a proposed Residential Subdivision.

This PPP covers approximately 30 acres with an estimated 12 acres being disturbed.

The PPP is located in an area of urban activities land use.

The PPP is located in an area with a majority of soils classified as Saude loam, Hydrologic Soil Group "B". The estimated runoff coefficient for the site after construction is 0.60.

Refer to the project plans for locations of typical slopes, ditch grades, and major structural and non-structural controls. A copy of this plan will be on file at the owner's office. Runoff from this work will flow into a storm sewer system to an unnamed tributary to Bear Creek.

#### POTENTIAL SOURCES OF POLLUTION

Site sources of pollution generated as a result of this work relate to silts and sediment which may be transported as a result of a storm event. However, this PPP provides conveyance for other (non-project related) operations. These other operations have storm water runoff, the regulation of which is beyond the control of this PPP. Potentially this runoff can contain various pollutants related to site-specific land uses, Examples are:

Rural Agricultural Activities: Runoff from agricultural land use can potentially contain chemicals including herbicides, pesticides, fungicides and fertilizers.

### 3. CONTROLS

Prior to beginning grading, excavation or clearing and grubbing operation, silt fence shall be placed along the perimeter of the areas to be disturbed at locations where runoff can move off site. Vegetation in areas not needed for construction shall be preserved. As areas reach their final grade, additional silt fences, silt basins, intercepting ditches, sod flumes, earth dikes, filter berms and inlet filters etc., shall be installed as specified in the plans and/or as required for the project. This will include using silt fence as ditch checks and to protect intakes. Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area during the current construction season, the area shall be stabilized by temporary seeding or mulching. Other stabilizing methods shall be used outside the seeding time period.

As the work progresses, additional erosion control devices such as silt fences, filter berms and inlet fi ("i Iters may be required as determined for the project after field investigation. These erosion control devices and other appropriate measures shall be installed by the contractor or erosion control subcontractor as directed. The construction will be completed with the establishment of permanent vegetation of all pervious disturbed areas by the contractor or surface restoration subcontractor.

### 4. OTHER CONTROLS

**G** 

Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

Contractor shall remove any excess soil from vehicles prior to leaving the site to prevent off site tracking of soil onto adjacent streets. Excess soil tracked onto the streets shall be cleaned up and returned to the site.

### APPROVED STATE OR LOCAL PLANS:

During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

#### 5. MAINTENANCE

The contractor is required to maintain all temporary erosion control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. Cleaning of silt control devices shall begin when the features have lost 50% of their capacity.

Additional erosion control measures shall be placed to lessen the load on current measures which exhibit a pattern of becoming overloaded with sediment.

#### 6. INSPECTIONS

Inspections shall be made jointly by the contractor and the contracting authority every seven calendar days. The contractor shall immediately begin corrective action on all deficiencies found. The findings of this inspection shall be recorded in the project diary. This PPP may be revised based on the findings of the inspection. The contractor shall implement all revisions. All corrective actions shall be completed within 3 calendar days of the inspection.

#### 7. NON-STORM DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains), slope drains and bridge end drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone or erosion stone.

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site as part of this certification. Further, by my signature, I understand that I am becoming a co-permittee, along with the owner(s) and other contractors and subcontractors signing such certifications, to the lowa Department of Natural Resources NPDES General Permit No. 2 for "Storm Water Discharge Associated with Industrial Activity for Construction Activities" at the identified site. As a co-permittee, I understand that I, and my company, are legally required under the Clean Water Act and the Code of lowa, to ensure compliance with the terms and conditions of the storm water pollution prevention plan developed under this NPDES permit and the terms of this NPDES

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 gathered and evaluated 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.

This certification must include the name and title of the person providing the signature; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

OWNER:		
OWINCIN		
SIGNATURE:	DATE:	_
TITLE:		
ADDRESS OF SITE:		
CONTRACTOR:		
SIGNATURE:	DATE:	_
ADDRESS:		-
TELEPHONE:		

SUBCONTRACTORS

<u>SIGNATURE</u>

<u>NAME</u>

DATE

SHEET TITLE	PROJECT	NO. 23225
STORM WATER POLLUTION PREVENTION PLAN LAKE VIEW ESTATES	LAKEVIEW E C/O BILL	ED FOR: STATES LLC HERMSEN 2ND AVE. IA 52040

## SITE RUNOFF CALCULATIONS

# LAKE VIEW ESTATES DYERSVILLE, IOWA

## **ENGINEER**

**BUESING & ASSOCIATES, INC. Engineers and Surveyors** 

1212 LOCUST STREET DUBUQUE, IA 52001 (563) 556-4389

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Drawings, Pre-Developed Drainage Areas

HydroCAD report, Pre-Developed Drainage Areas

Drawings, Post-Developed Drainage Areas

HydroCAD report, Post-Developed Drainage

# Buesing & Associates Inc. Engineers & Surveyors

1212 Locust St. Dubuque, IA 52001 (563) 556-4389

May 23, 2024

## SITE RUNOFF CALCULATIONS LAKE VIEW ESTATES

Lake View Estates is a proposed residential development in the City of Dyersville, Iowa, consisting of 21 residential lots around 1/2 acre in size, on what was historically farmed with row crops. (Please see the Improvement Plans and Final Plat of Lake View Estates)

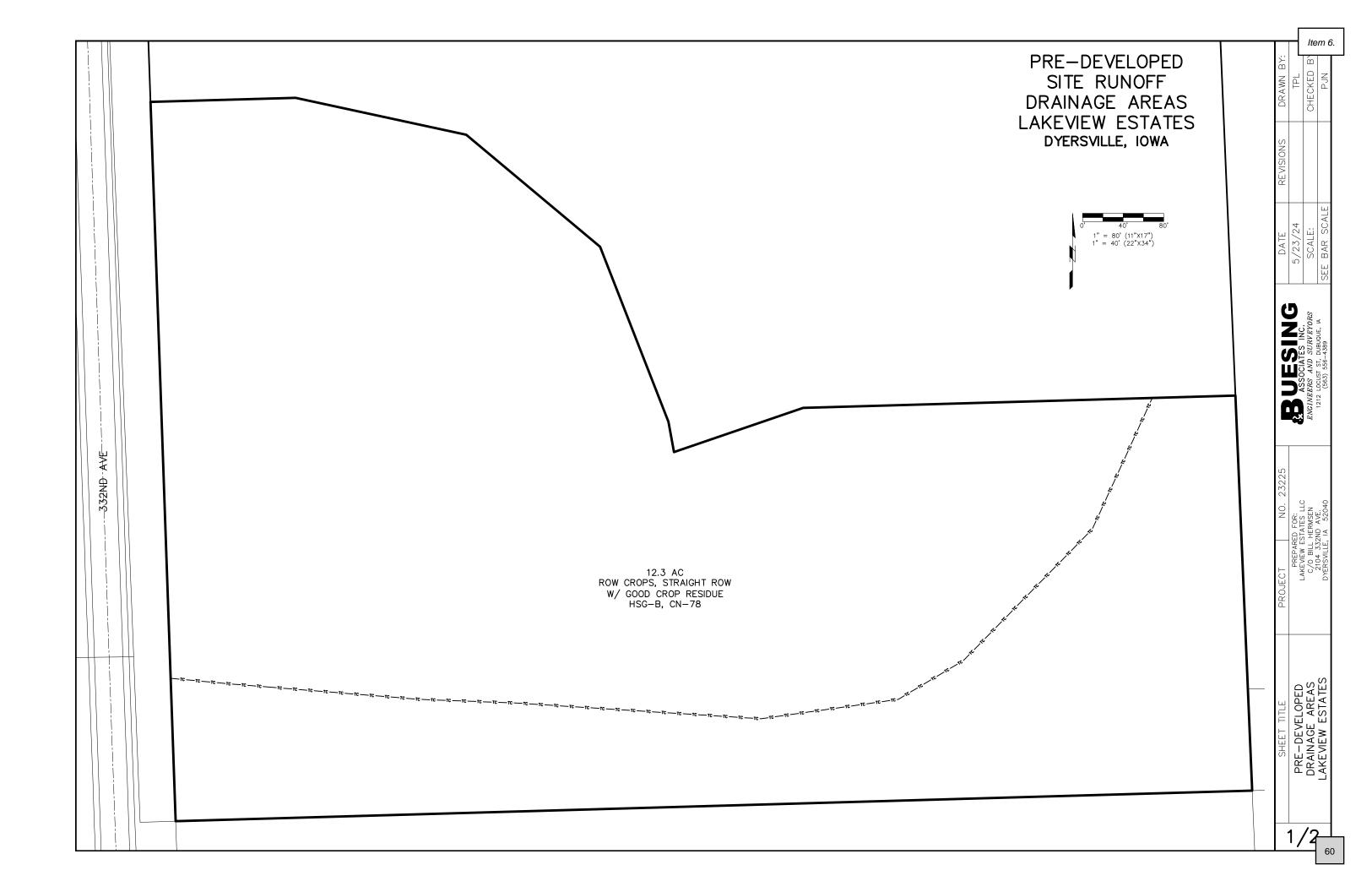
First the pre-developed site was analyzed. Please see the attached Pre-Developed Site Runoff Drainage Areas drawing. Curve Numbers (CNs) were assumed based on the types of ground cover, and flow paths were determined for use in the time of concentration calculations. The pre-developed rate of runoff was then calculated using HydroCAD software. Please see the attached HydroCAD reports.

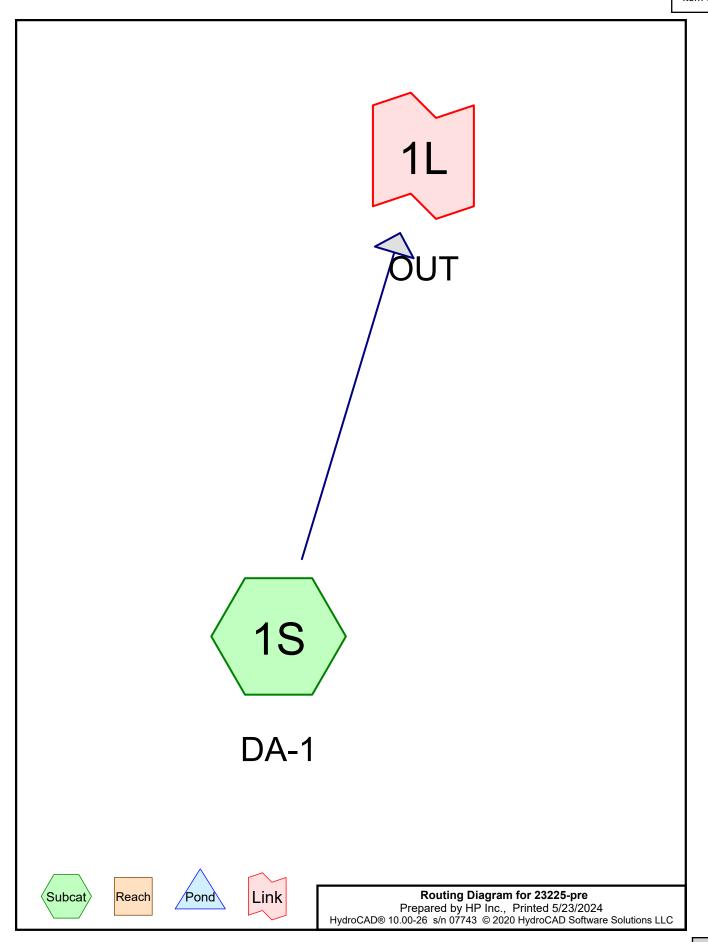
The post-developed site was analyzed. Please see the attached Post-Developed Site Runoff Drainage Areas drawing. Curve Numbers (CNs) were assumed based on the types of ground cover, and flow paths were determined for use in the time of concentration calculations. The post-developed rate of runoff was then calculated using HydroCAD software. Please see the attached HydroCAD reports.

The results of these calculations, as shown on the Summary page, show a reduction in the rate of storm water runoff for post-development, to a rate less than that of the pre-developed rate.

## SUMMARY LAKE VIEW ESTATES

STORM EVENT	PRE-DEVELOPED RUNOFF	POST-DEVELOPED RUNOFF	
2 yr	11.30 cfs	7.45 cfs	
10 yr	23.55 cfs	19.41 cfs	
100 yr	43.27 cfs	40.32 cfs	





Type II 24-hr 2yr Rainfall=2.91" Printed 5/23/2024

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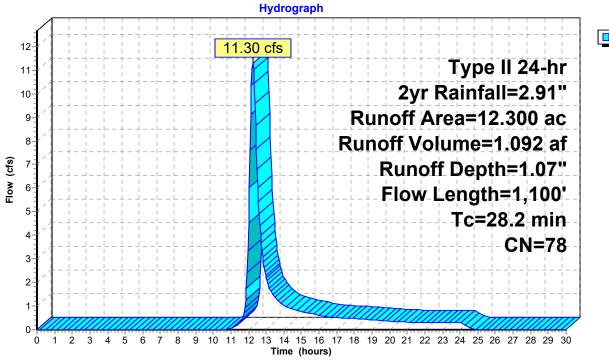
Page 2

#### **Summary for Subcatchment 1S: DA-1**

Runoff = 11.30 cfs @ 12.24 hrs, Volume= 1.092 af, Depth= 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 2yr Rainfall=2.91"

_	Area	(ac) C	N Desc	cription						
	12.300 78 Row crops, straight row, Good, HSG B									
12.300 100.00% Pervious Area										
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
•	9.7	100	0.0300	0.17	· /	Sheet Flow, Crops				
	18.5	1,000	0.0100	0.90		Cultivated: Residue>20% n= 0.170 P2= 2.91"  Shallow Concentrated Flow, Crops  Cultivated Straight Rows Kv= 9.0 fps				
	28.2	1 100	Total							



23225-pre

Type II 24-hr 2yr Rainfall=2.91" Printed 5/23/2024

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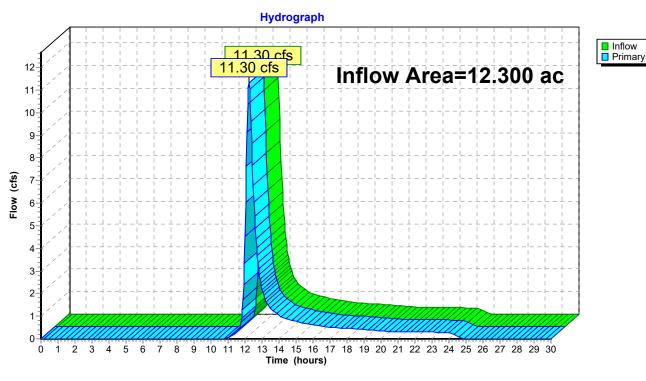
## **Summary for Link 1L: OUT**

Inflow Area = 12.300 ac, 0.00% Impervious, Inflow Depth = 1.07" for 2yr event

Inflow = 11.30 cfs @ 12.24 hrs, Volume= 1.092 af

Primary = 11.30 cfs @ 12.24 hrs, Volume= 1.092 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs



Type II 24-hr 10yr Rainfall=4.31" Printed 5/23/2024

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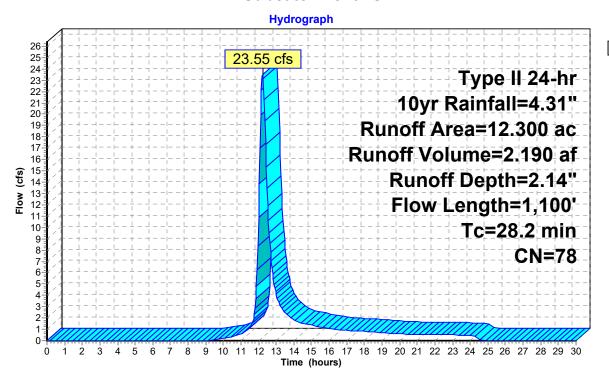
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#### **Summary for Subcatchment 1S: DA-1**

Runoff = 23.55 cfs @ 12.23 hrs, Volume= 2.190 af, Depth= 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 10yr Rainfall=4.31"

_	Area	(ac) C	N Desc	cription						
	12.300 78 Row crops, straight row, Good, HSG B									
12.300 100.00% Pervious Area										
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
•	9.7	100	0.0300	0.17	· /	Sheet Flow, Crops				
	18.5	1,000	0.0100	0.90		Cultivated: Residue>20% n= 0.170 P2= 2.91"  Shallow Concentrated Flow, Crops  Cultivated Straight Rows Kv= 9.0 fps				
	28.2	1 100	Total							





23225-pre

Type II 24-hr 10yr Rainfall=4.31" Printed 5/23/2024

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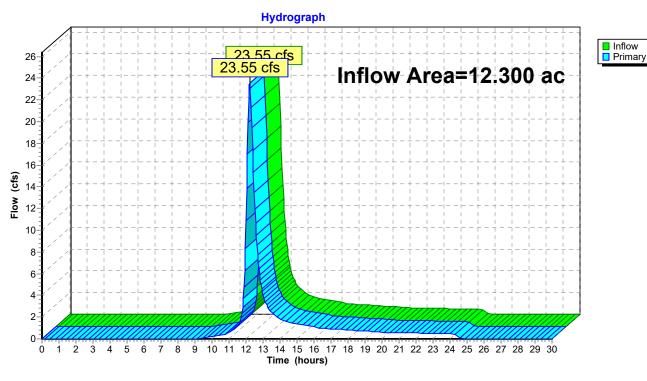
## **Summary for Link 1L: OUT**

Inflow Area = 12.300 ac, 0.00% Impervious, Inflow Depth = 2.14" for 10yr event

Inflow = 23.55 cfs @ 12.23 hrs, Volume= 2.190 af

Primary = 23.55 cfs @ 12.23 hrs, Volume= 2.190 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs



Type II 24-hr 100yr Rainfall=6.36" Printed 5/23/2024

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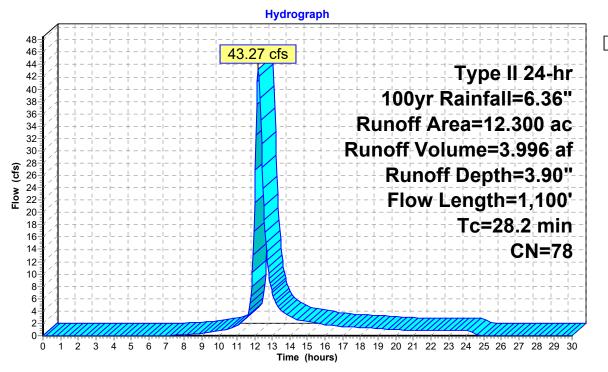
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### **Summary for Subcatchment 1S: DA-1**

Runoff = 43.27 cfs @ 12.22 hrs, Volume= 3.996 af, Depth= 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 100yr Rainfall=6.36"

_	Area	(ac) C	N Desc	cription					
	12.300 78 Row crops, straight row, Good, HSG B								
12.300 100.00% Pervious Area									
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
•	9.7	100	0.0300	0.17	,	Sheet Flow, Crops			
	18.5	1,000	0.0100	0.90		Cultivated: Residue>20% n= 0.170 P2= 2.91"  Shallow Concentrated Flow, Crops  Cultivated Straight Rows Kv= 9.0 fps			
	28.2	1,100	Total						



23225-pre

Type II 24-hr 100yr Rainfall=6.36" Printed 5/23/2024

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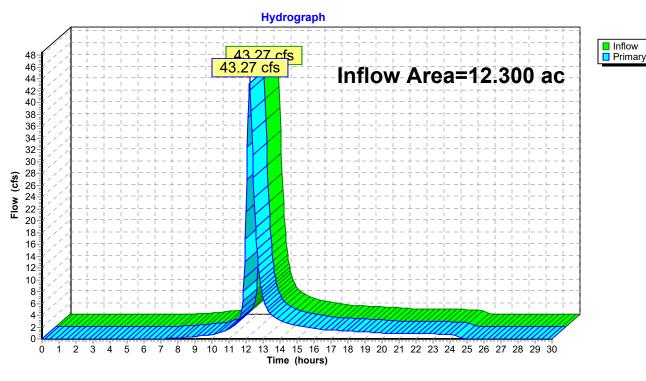
## **Summary for Link 1L: OUT**

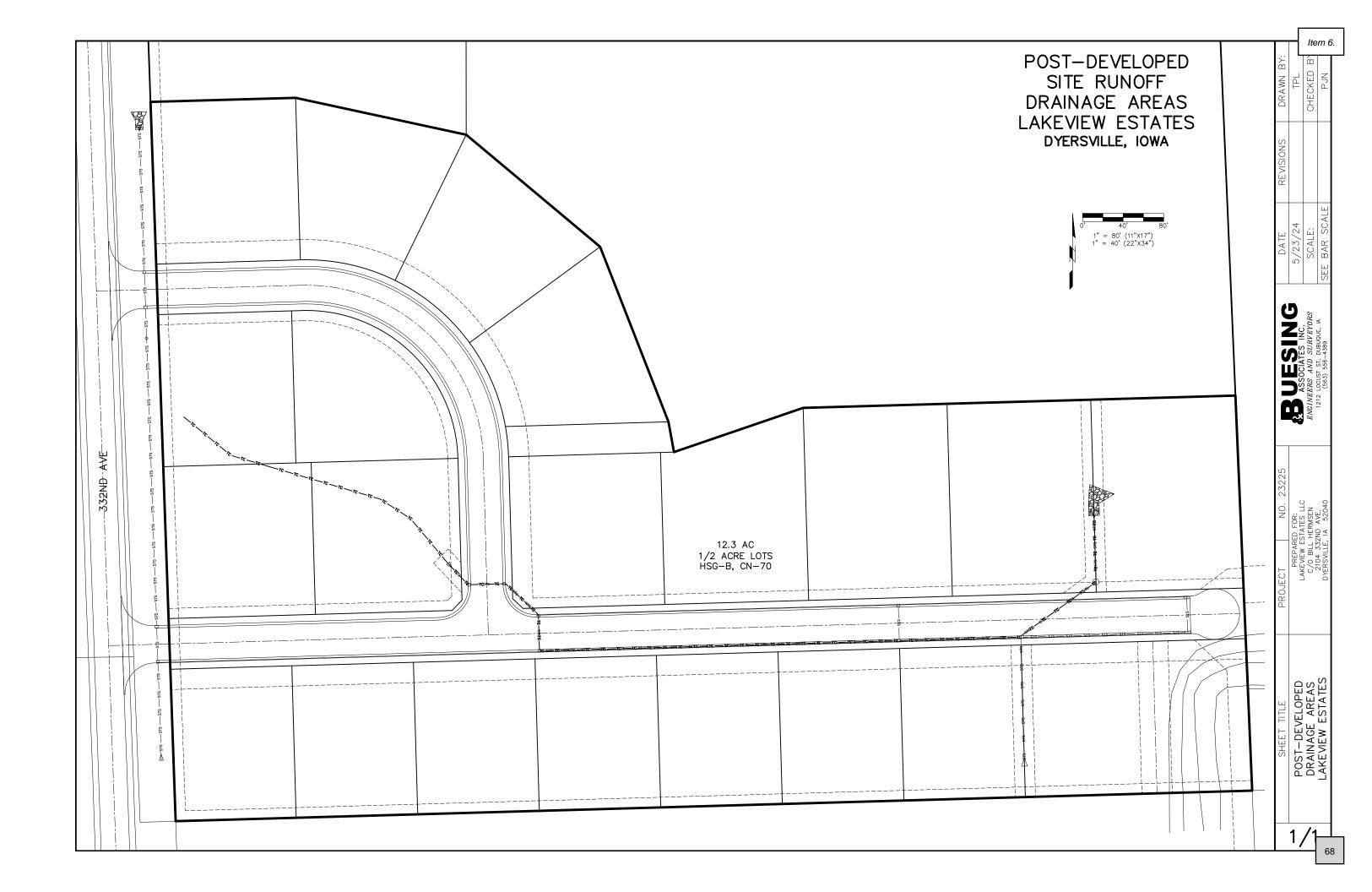
Inflow Area = 12.300 ac, 0.00% Impervious, Inflow Depth = 3.90" for 100yr event

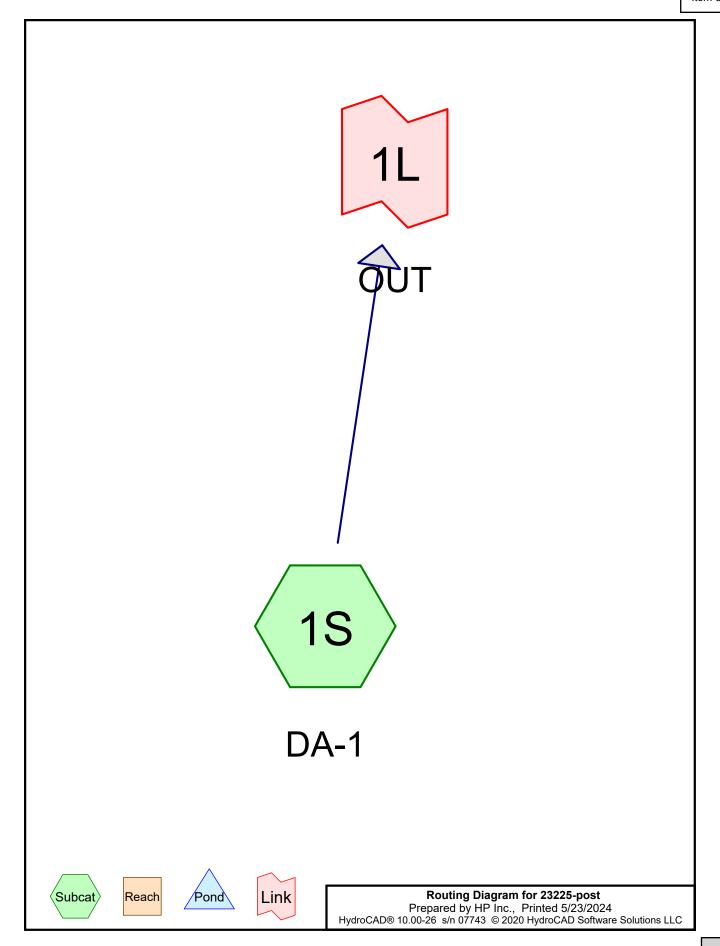
Inflow = 43.27 cfs @ 12.22 hrs, Volume= 3.996 af

Primary = 43.27 cfs @ 12.22 hrs, Volume= 3.996 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs







Type II 24-hr 2yr Rainfall=2.91" Printed 5/23/2024

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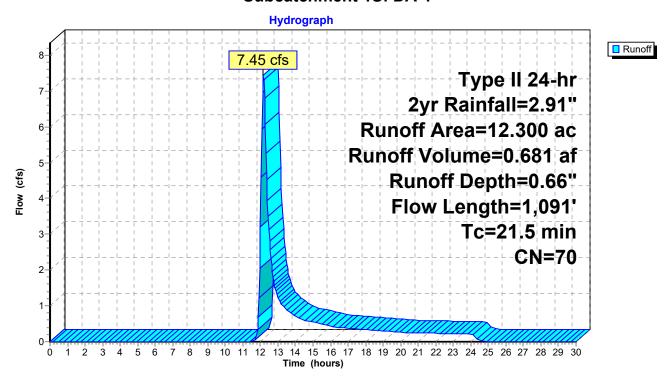
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### **Summary for Subcatchment 1S: DA-1**

Runoff = 7.45 cfs @ 12.17 hrs, Volume= 0.681 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 2yr Rainfall=2.91"

_	Area	(ac) C	N Desc	cription			
12.300 70 1/2 acre lots, 25% imp, HSG B							
	9.	225	75.0	0% Pervio	us Area		
	3.	075	25.0	0% Imperv	ious Area		
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
	13.6	100	0.0100	0.12		Sheet Flow, Lawn	
	4.9	207	0.0100	0.70		Grass: Short n= 0.150 P2= 2.91"  Shallow Concentrated Flow, Lawn  Short Grass Pasture Kv= 7.0 fps	
	3.0	784	0.0050	4.41	13.86	Pipe Channel, pipe	
_						24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015 Concrete sewer w/manholes & inlets	
	21.5	1,091	Total				



Type II 24-hr 2yr Rainfall=2.91" Printed 5/23/2024

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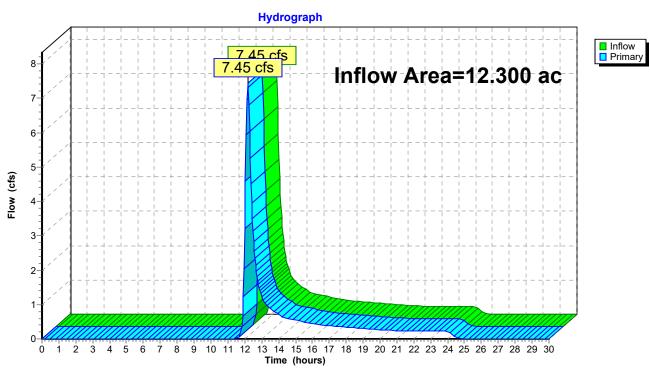
## **Summary for Link 1L: OUT**

Inflow Area = 12.300 ac, 25.00% Impervious, Inflow Depth = 0.66" for 2yr event

Inflow = 7.45 cfs @ 12.17 hrs, Volume= 0.681 af

Primary = 7.45 cfs @ 12.17 hrs, Volume= 0.681 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs



Type II 24-hr 10yr Rainfall=4.31" Printed 5/23/2024

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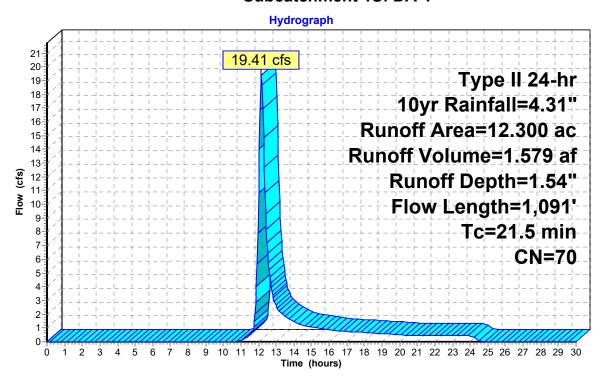
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#### **Summary for Subcatchment 1S: DA-1**

Runoff = 19.41 cfs @ 12.16 hrs, Volume= 1.579 af, Depth= 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 10yr Rainfall=4.31"

Area	a (ac) (	CN Desc	cription					
12	2.300	70 1/2 a	acre lots, 2	5% imp, H	SG B			
	9.225 75.00% Pervious Area							
3	3.075	25.0	0% Imperv	ious Area				
Tc (min)			Velocity (ft/sec)	Capacity (cfs)	Description			
13.6			0.12		Sheet Flow, Lawn			
					Grass: Short n= 0.150 P2= 2.91"			
4.9	207	0.0100	0.70		Shallow Concentrated Flow, Lawn			
				40.00	Short Grass Pasture Kv= 7.0 fps			
3.0	784	0.0050	4.41	13.86	Pipe Channel, pipe			
					24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'			
	1.001				n= 0.015 Concrete sewer w/manholes & inlets			
21.5	1,091	Total						





23225-post

Type II 24-hr 10yr Rainfall=4.31" Printed 5/23/2024

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#### **Summary for Link 1L: OUT**

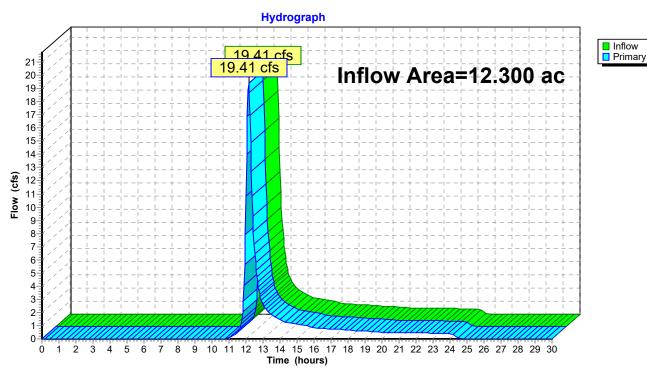
Inflow Area = 12.300 ac, 25.00% Impervious, Inflow Depth = 1.54" for 10yr event

Inflow = 19.41 cfs @ 12.16 hrs, Volume= 1.579 af

Primary = 19.41 cfs @ 12.16 hrs, Volume= 1.579 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs

#### Link 1L: OUT



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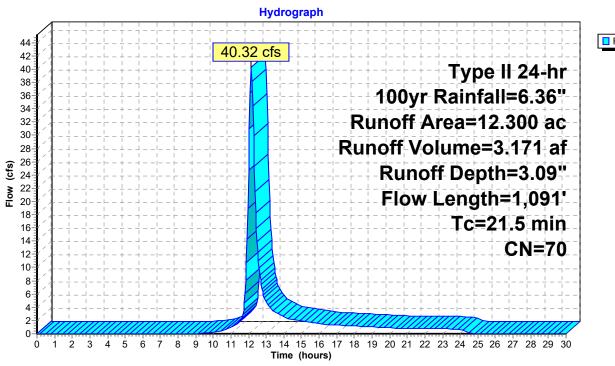
#### **Summary for Subcatchment 1S: DA-1**

Runoff = 40.32 cfs @ 12.15 hrs, Volume= 3.171 af, Depth= 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs Type II 24-hr 100yr Rainfall=6.36"

	Area	(ac) C	N Desc	cription		
	12.	300 7	70 1/2 a	acre lots, 2	5% imp, H	SG B
	9.	225	75.0	0% Pervio	us Area	
	3.	075	25.0	0% Imperv	∕ious Area	
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	13.6	100	0.0100	0.12		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	4.9	207	0.0100	0.70		Shallow Concentrated Flow, Lawn
	3.0	784	0.0050	4.41	13.86	Short Grass Pasture Kv= 7.0 fps <b>Pipe Channel, pipe</b> 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015 Concrete sewer w/manholes & inlets
_	21.5	1,091	Total			

#### **Subcatchment 1S: DA-1**



23225-post

Type II 24-hr 100yr Rainfall=6.36" Printed 5/23/2024

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#### **Summary for Link 1L: OUT**

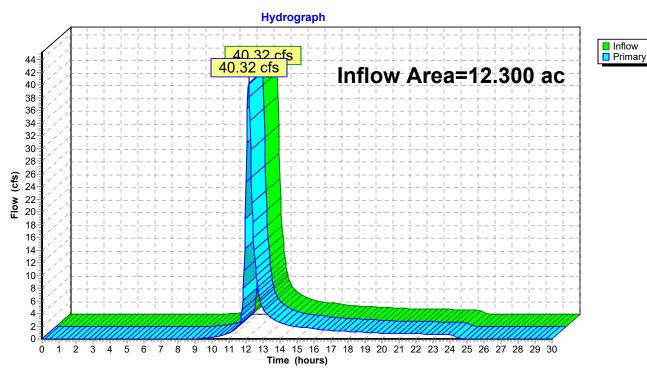
Inflow Area = 12.300 ac, 25.00% Impervious, Inflow Depth = 3.09" for 100yr event

Inflow = 40.32 cfs @ 12.15 hrs, Volume= 3.171 af

Primary = 40.32 cfs @ 12.15 hrs, Volume= 3.171 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.04 hrs

#### Link 1L: OUT



## **STORM SEWER CALCULATIONS**

# LAKE VIEW ESTATES DYERSVILLE, IOWA

#### **ENGINEER**

BUESING & ASSOCIATES, INC. Engineers & Surveyors

1212 LOCUST STREET DUBUQUE, IA 52001 (563) 556-4389

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Item 6.

## Buesing & Associates Inc. Engineers & Surveyors

1212 Locust St. Dubuque, IA 52001 (563) 556-4389

May 23, 2024

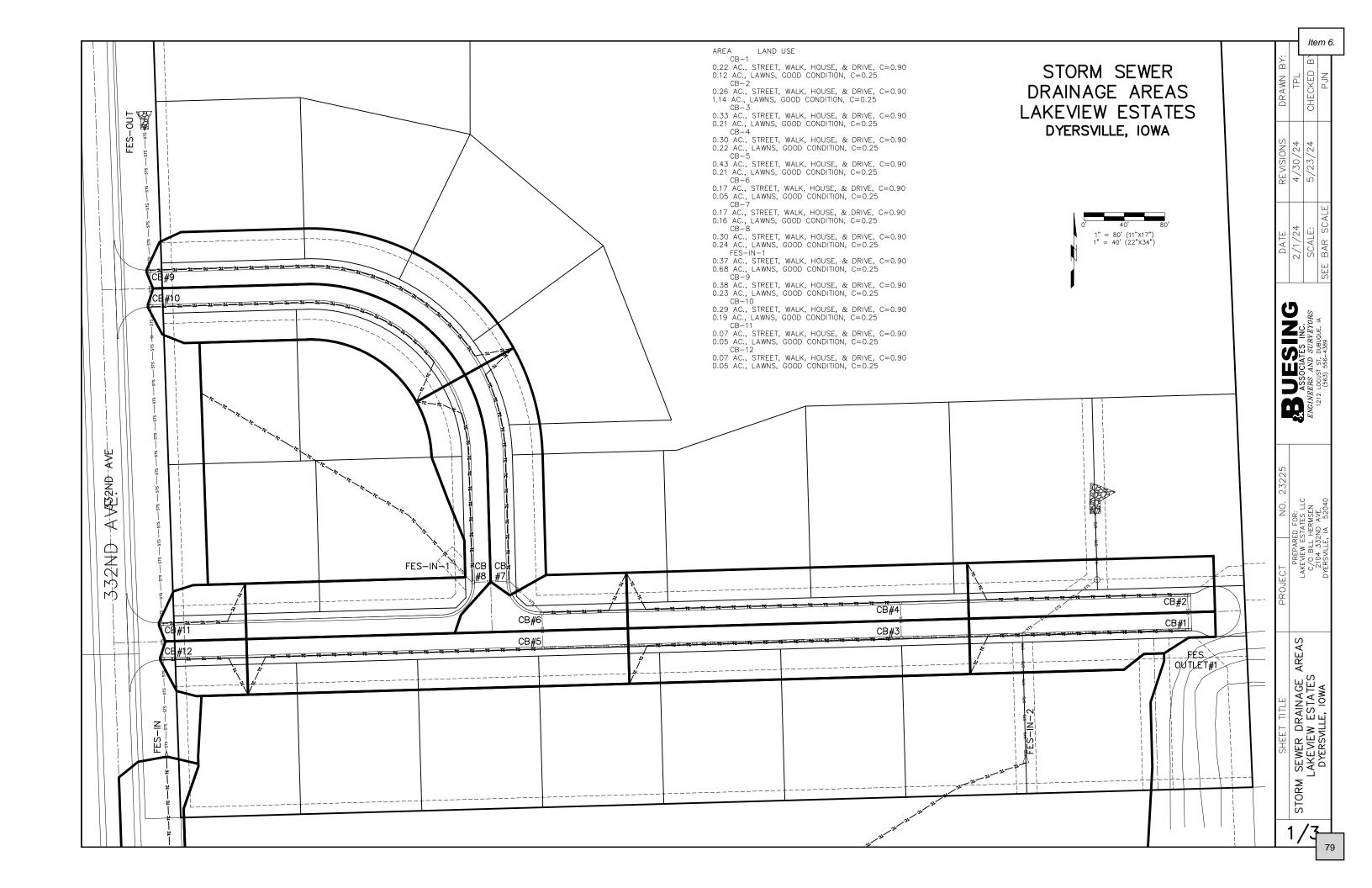
# STORM SEWER CALCULATIONS LAKE VIEW ESTATES

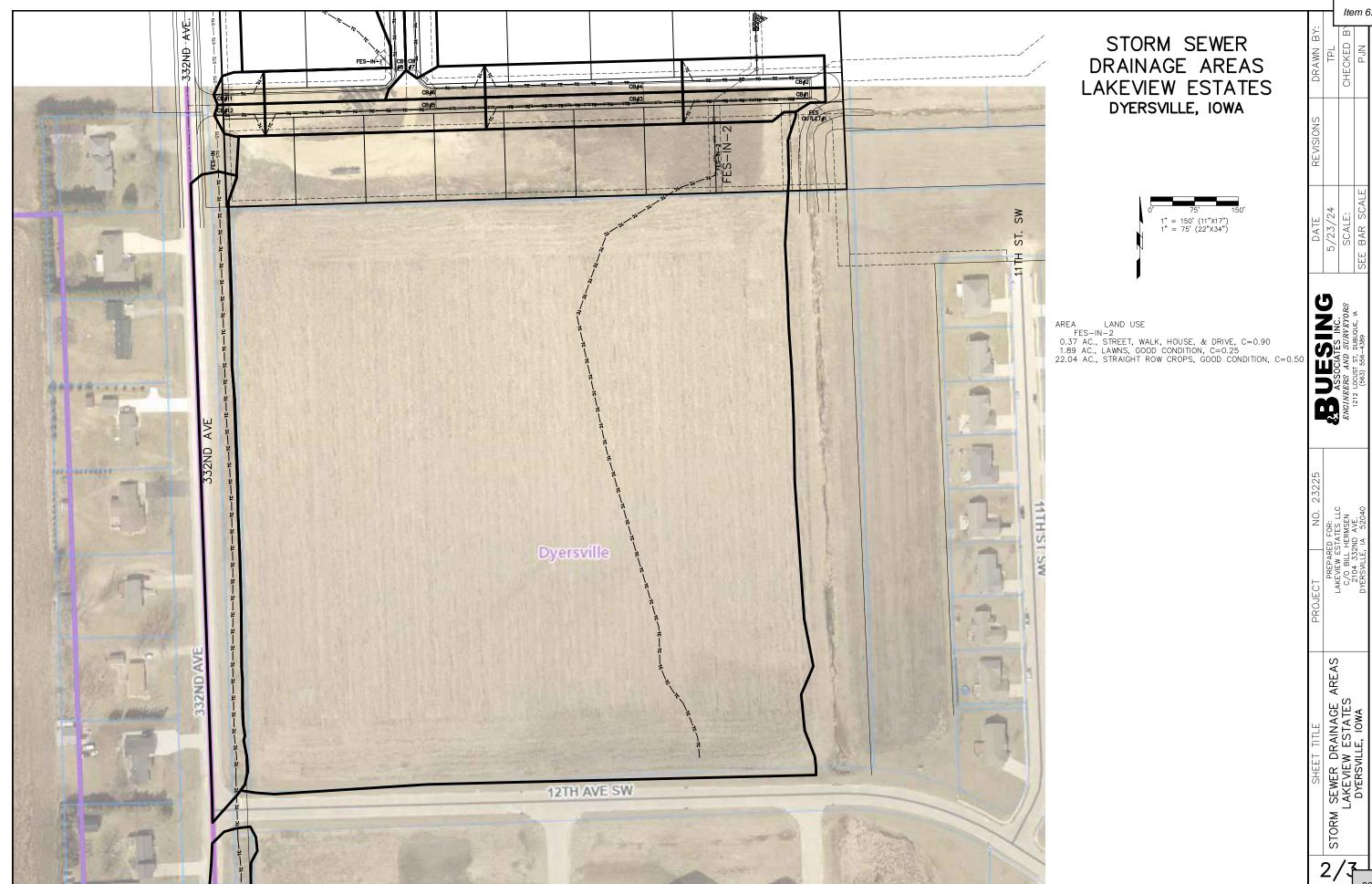
Lake View Estates is a proposed residential development in the City of Dyersville, Iowa, consisting of 21 residential lots. (Please see the Improvement Plans and Final Plat of Lake View Estates). These proposed residential lots are around 1/2 acre in size.

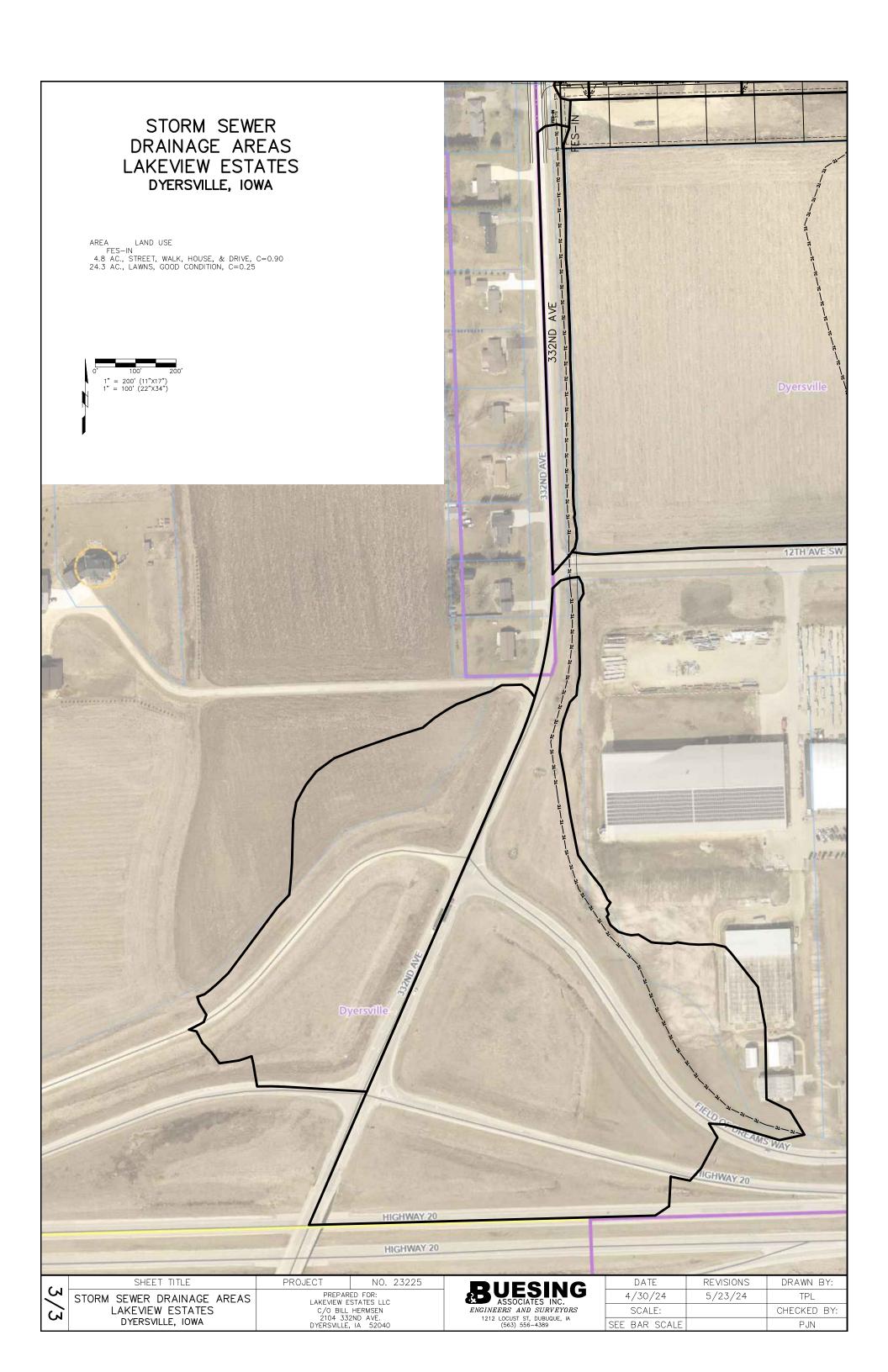
Haestad Methods, StormCad, and Flow Master, are the software that was used for these calculations. HydroCAD software was used in calculating the Time of Concentration. The subdivision was broken into 2 sub projects as shown in these calculations. The first sub project is the main part of the proposed subdivision, and the second sub project, is the ditch along 332<sup>nd</sup> Ave.

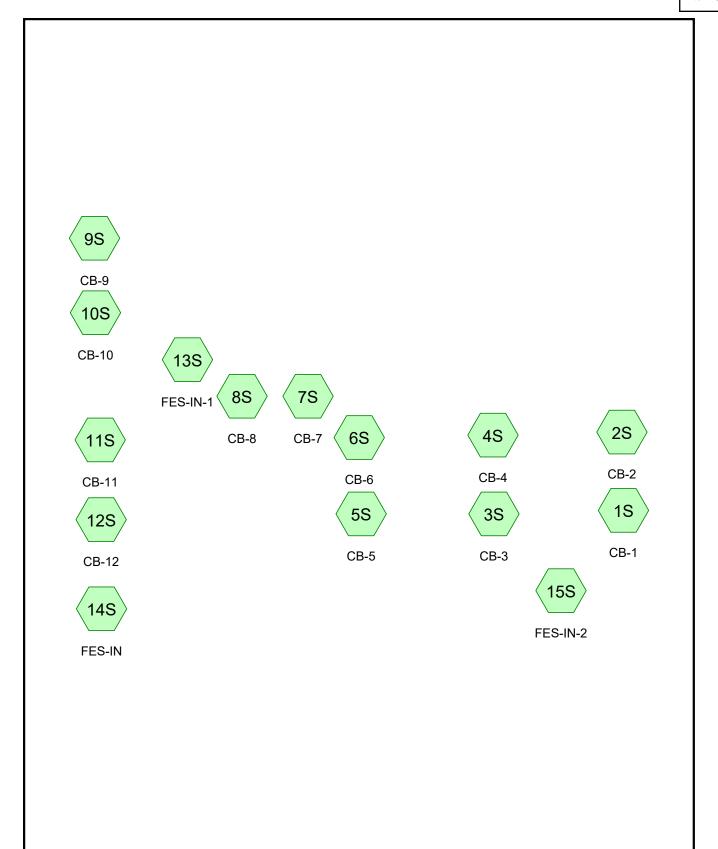
For the first sub project, there are several catch basins in sump conditions and therefore the 100 year storm event was used to size the pipes. Both the 10 year and 100 year storm events have been included. For FES-IN-2, the storm water that would overtop the 332<sup>nd</sup> Ave. ditch has been added as "Additional Carryover". For the 10 year storm event the additional carryover is 1.16 cfs, and for the 100 year storm event it is 12.76 cfs. Please note that where 12" pipes are being used, both 12" and 15" pipes were modeled, at various slopes, but cleaning velocities could not be achieved with a 15" pipe. Ultimately, 12" pipes were chosen, with the slope set at the maximum cleaning velocity. The results can be seen in this report.

For the second sub project both the 10 and 100 year storm events were analyzed, but only the 10 year storm event has been included, as that is what was used to size the pipes, as the capacity of the ditch upstream from these pipes (south of this development), could not carry the 10 year storm event before it overtopped and ran to the east into the FarmTek property. Please note that the calculations show that there is 24.4 cfs coming to FES-IN (FES INLET) during a 10 year storm event, and 36.0 cfs coming to FES-IN during a 100 year storm event, but the calculations for the ditch capacity show that it can only handle 23.24 cfs, before it overtops and runs to the east into the FarmTek property, prior to getting to FES-IN. The results can be seen in this report.

















#### **Routing Diagram for TCs**

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**TCs** Prepared by HP Inc.

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Page 2

#### **Summary for Subcatchment 1S: CB-1**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
	5.0	41	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	1.6	196	0.0100	2.03		Shallow Concentrated Flow, Street
_						Paved Kv= 20.3 fps
	6.6	237	Total			

#### Summary for Subcatchment 2S: CB-2

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Тс	Length		,	- 1	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	5.0	41	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	1.6	196	0.0100	2.03		Shallow Concentrated Flow, Street
						Paved Kv= 20.3 fps
	6.6	237	Total			<u> </u>

#### **Summary for Subcatchment 3S: CB-3**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	5.0	41	0.0200	0.14		Sheet Flow, Lawn Grass: Short n= 0.150 P2= 2.91"
	2.1	251	0.0100	2.03		Shallow Concentrated Flow, Street Paved Kv= 20.3 fps
_	7.1	292	Total			

**TCs** Prepared by HP Inc.

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#### **Summary for Subcatchment 4S: CB-4**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc	3	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	(min)	(feet)	(11/11)	(It/Sec)	(CIS)	
	5.0	41	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	2.1	251	0.0100	2.03		Shallow Concentrated Flow, Street
						Paved Kv= 20.3 fps
	7.1	292	Total			

#### **Summary for Subcatchment 5S: CB-5**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Тс	Length		,	- 1	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	5.0	41	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	2.2	274	0.0100	2.03		Shallow Concentrated Flow, Street
_						Paved Kv= 20.3 fps
	7.2	315	Total			<u> </u>

#### Summary for Subcatchment 6S: CB-6

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

	Tc	Length	Slope	,		Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	5.0	41	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	0.5	65	0.0100	2.03		Shallow Concentrated Flow, Street
						Paved Kv= 20.3 fps
	5.5	106	Total			

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#### **Summary for Subcatchment 7S: CB-7**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
	4.7	38	0.0200	0.13		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	1.7	206	0.0100	2.03		Shallow Concentrated Flow, Street
						Paved Kv= 20.3 fps
_	6.4	244	Total			

#### **Summary for Subcatchment 8S: CB-8**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Тс	Length		,	- 1	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	5.5	46	0.0200	0.14		Sheet Flow, Lawn	
						Grass: Short n= 0.150 P2= 2.91"	
	1.4	167	0.0100	2.03		Shallow Concentrated Flow, Street	
_						Paved Kv= 20.3 fps	
	6.9	213	Total			<u> </u>	

#### Summary for Subcatchment 9S: CB-9

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	4.8		0.0200	0.13	()	Sheet Flow, Lawn
	2.9	354	0.0100	2.03		Grass: Short n= 0.150 P2= 2.91"  Shallow Concentrated Flow, Street
	2.9	334	0.0100	2.03		Paved Kv= 20.3 fps
	77	303	Total			·

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#### **Summary for Subcatchment 10S: CB-10**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
	5.2	43	0.0200	0.14		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	2.5	299	0.0100	2.03		Shallow Concentrated Flow, Street
_						Paved Kv= 20.3 fps
	7 7	342	Total			

#### **Summary for Subcatchment 11S: CB-11**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Тс	Length		,	- 1	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	5.0	41	0.0200	0.14		Sheet Flow, Lawn	
						Grass: Short n= 0.150 P2= 2.91"	
	0.5	65	0.0100	2.03		Shallow Concentrated Flow, Street	
_						Paved Kv= 20.3 fps	
	5.5	106	Total			<u> </u>	

### Summary for Subcatchment 12S: CB-12

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
•	5.0	41	0.0200	0.14	(010)	Sheet Flow, Lawn
	0.0		0.0200	0.11		Grass: Short n= 0.150 P2= 2.91"
	0.5	65	0.0100	2.03		Shallow Concentrated Flow, Street
						Paved Kv= 20.3 fps
•	5.5	106	Total	_	<u> </u>	

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#### Summary for Subcatchment 13S: FES-IN-1

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	13.6	100	0.0100	0.12		Sheet Flow, Lawn
						Grass: Short n= 0.150 P2= 2.91"
	4.8	201	0.0100	0.70		Shallow Concentrated Flow, Lawn
						Short Grass Pasture Kv= 7.0 fps
_	18.4	301	Total			

#### **Summary for Subcatchment 14S: FES-IN**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10yr Rainfall=4.31"

	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	15.6	100	0.0070	0.11		Sheet Flow, Lawn
	28.5	1,000	0.0070	0.59		Grass: Short n= 0.150 P2= 2.91"  Shallow Concentrated Flow, Lawn  Short Grass Pasture Kv= 7.0 fps
	2.6	531	0.0170	3.47	26.37	Channel Flow, Ditch
						Area= 7.6 sf Perim= 19.3' r= 0.39' n= 0.030 Earth, grassed & winding
	0.1	110	0.0130	12.77	90.70	Channel Flow, pipe Area= 7.1 sf Perim= 9.4' r= 0.76'
						n= 0.011 Concrete pipe, straight & clean
	5.4	985	0.0130	3.03	23.06	Channel Flow, ditch Area= 7.6 sf Perim= 19.3' r= 0.39'
_						n= 0.030 Earth, grassed & winding
	<b>52.2</b>	2 726	Total			

52.2 2,726 Total

#### Summary for Subcatchment 15S: FES-IN-2

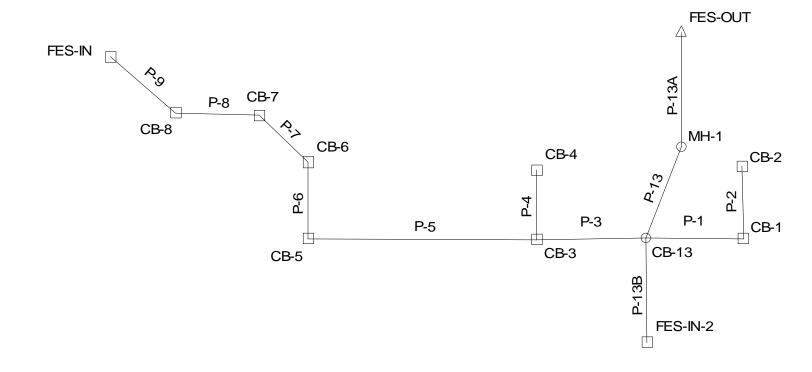
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

**TCs** 

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	15.0	100	0.0100	0.11		Sheet Flow, Row-Crops
						Cultivated: Residue>20% n= 0.170 P2= 2.91"
	19.4	1,050	0.0100	0.90		Shallow Concentrated Flow, Row-Crops
						Cultivated Straight Rows Kv= 9.0 fps
	3/1/1	1 150	Total			



#### Node-Report-10yr

Label	Inlet	Structure Type	Structure Diameter (ft)	Rim Elevation (ft)	Sump Elevation (ft)	Inlet Location	Longitudinal Slope (ft/ft)	Time of Concentration (min)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Headloss Method	Headloss Coefficient	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Gutter Ditch Depth (ft)	Gutter Ditch Spread (ft)	Total Flow To Inlet (cfs)	Total Intercepted Flow (cfs)	Capture Efficiency (%)	Total Bypassed Flow (cfs)	71	Additional Carryover (cfs)	Additional Flow (cfs)	Total System Flow (cfs)
FES-IN	Generic Default 100	Inlet		953.00	948.00	In Sag		18.10	1.05	0.48	0.50	Standard	0.50	948.71	948.59	0.00	0.00	2.20	2.20	100.0	0.00		0.00	0.00	2.20
CB-8	Combination 101-B	Inlet		950.36	946.39	In Sag		6.80	0.54	0.61	0.33	Standard	0.60	947.32	947.18	0.19	5.66	1.98	1.98	100.0	0.00		0.00	0.00	3.63
CB-7	Combination 101-B	Inlet		950.36	946.13	In Sag		6.30	0.33	0.58	0.19	Standard	0.60	947.15	946.97	0.14	4.09	1.17	1.17	100.0	0.00		0.00	0.00	4.46
CB-6	Combination 101-B	Inlet		950.04	945.80	In Sag		5.40	0.22	0.75	0.17	Standard	0.60	946.88	946.77	0.13	3.77	1.03	1.03	100.0	0.00		0.00	0.00	5.15
CB-5	Combination 101-B	Inlet		950.04	945.54	In Sag		7.10	0.64	0.69	0.44	Standard	0.80	946.77	946.48	0.22	6.71	2.62	2.62	100.0	0.00		0.00	0.00	7.03
CB-4	Combination 101-B	Inlet		948.18	944.42	In Sag		7.00	0.52	0.63	0.33	Standard	0.50	945.14	945.01	0.19	5.65	1.94	1.94	100.0	0.00		0.00	0.00	1.94
CB-2	Combination 104-B	Inlet		946.68	943.24	In Sag		6.50	0.40	0.67	0.27	Standard	0.50	943.89	943.78	0.17	5.02	1.63	1.63	100.0	0.00		0.00	0.00	1.63
CB-3	Combination 101-B	Inlet		948.18	943.68	In Sag		7.00	0.54	0.65	0.35	Standard	0.60	945.06	944.80	0.19	5.85	2.09	2.09	100.0	0.00		0.00	0.00	9.61
FES-IN-2	Generic Default 100	Inlet		948.77	943.77	In Sag		34.40	24.30	0.49	11.83	Standard	0.50	946.40	945.83	0.00	0.00	37.06	37.06	100.0	0.00		1.16	0.00	37.06
CB-1	Combination 104-B	Inlet		946.68	942.18	In Sag		6.50	0.34	0.67	0.23	Standard	0.60	943.07	942.92	0.15	4.53	1.38	1.38	100.0	0.00		0.00	0.00	3.00
CB-13		Junction	6.00	948.33	938.83							Standard	1.00	942.07	941.03										45.41
MH-1		Junction	6.00	948.40	936.40							Standard	0.60	939.03	938.50										45.31
FES-OUT		Outlet		940.72	935.72									937.44	937.44										45.23

#### Pipe-Report-10yr

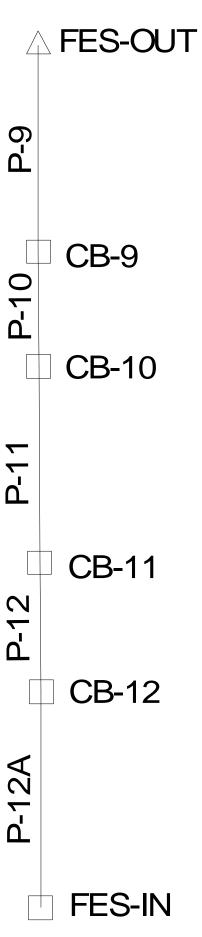
Label	Section Size	Section Shape	Material	Mannings n	Upstream Node	Upstream Invert Elevation (ft)	Length (ft)	Constructed Slope (ft/ft)	Downstream Node	Downstream Invert Elevation (ft)	Bend Angle (degrees)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Energy Grade Line In (ft)	Energy Grade Line Out (ft)	Full Capacity (cfs)	Total System Flow (cfs)	Average Velocity (ft/s)
P-9	15 inch	Circular	Concrete	0.013	FES-IN	948.00	29.00	0.052069	CB-8	946.49	45.00	948.59	947.32	948.82	947.42	14.74	2.20	3.20
P-8	18 inch	Circular	Concrete	0.013	CB-8	946.39	32.00	0.005000	CB-7	946.23	45.00	947.18	947.15	947.41	947.31	7.43	3.63	3.54
P-7	18 inch	Circular	Concrete	0.013	CB-7	946.13	44.60	0.005157	CB-6	945.90	45.00	946.97	946.88	947.27	947.09	7.54	4.46	4.02
P-6	24 inch	Circular	Concrete	0.013	CB-6	945.80	32.00	0.005000	CB-5	945.64	90.00	946.77	946.77	946.95	946.89	16.00	5.15	3.11
P-5	24 inch	Circular	Concrete	0.013	CB-5	945.54	352.30	0.004996	CB-3	943.78	0.00	946.48	945.06	946.84	945.23	15.99	7.03	4.07
P-4	12 inch	Circular	Concrete	0.013	CB-4	944.42	32.00	0.020000	CB-3	943.78	90.00	945.01	945.06	945.26	945.16	5.04	1.94	3.23
P-2	12 inch	Circular	Concrete	0.013	CB-2	943.24	32.00	0.030000	CB-1	942.28	45.00	943.78	943.07	944.00	943.16	6.17	1.63	3.10
P-3	24 inch	Circular	Concrete	0.013	CB-3	943.68	115.50	0.005022	CB-13	943.10	34.00	944.80	944.21	945.24	944.66	16.03	9.61	5.35
P-13B	30 inch	Circular	Concrete	0.013	FES-IN-2	943.77	126.00	0.037619	CB-13	939.03	56.00	945.83	942.07	946.97	942.95	79.55	37.06	8.05
P-1	15 inch	Circular	Concrete	0.013	CB-1	942.18	158.80	0.004975	CB-13	941.39	146.00	942.92	942.09	943.16	942.37	4.56	3.00	4.11
P-13	36 inch	Circular	Concrete	0.013	CB-13	938.83	88.30	0.025255	MH-1	936.60	56.00	941.03	939.03	942.07	939.88	105.99	45.41	7.80
P-13A	42 inch	Circular	Concrete	0.013	MH-1	936.40	68.00	0.010000	FES-OUT	935.72	0.00	938.50	937.44	939.38	938.88	100.60	45.31	8.57

#### Node-Report-100yr

Label	Inlet	Structure Type	Structure Diameter (ft)	Rim Elevation (ft)	Sump Elevation (ft)	Inlet Location	Longitudinal Slope (ft/ft)	Time of Concentratior (min)	Inlet Area n (acres)	Inlet C	Inlet CA (acres)	Headloss Method	Headloss Coefficient	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Gutter Ditch Depth (ft)	Gutter Ditch Spread (ft)	Total Flow To Inlet (cfs)	Total Intercepted Flow (cfs)	Capture Efficiency (%)	Total Bypassed Flow (cfs)	Bypass Additiona Target Carryove (cfs)	1	Total System Flow (cfs)
FES-IN	Generic Default 100	Inlet		953.00	948.00	In Sag		18.10	1.05	0.48	0.50	Standard	0.50	948.88	948.73	0.00	0.00	3.26	3.26	100.0	0.00	0.00	0.00	3.26
CB-8	Combination 101-B	Inlet		950.36	946.39	In Sag		6.80	0.54	0.61	0.33	Standard	0.60	947.70	947.57	0.24	7.14	2.90	2.90	100.0	0.00	0.00	0.00	5.38
CB-7	Combination 101-B	Inlet		950.36	946.13	In Sag		6.30	0.33	0.58	0.19	Standard	0.60	947.52	947.35	0.17	5.20	1.72	1.72	100.0	0.00	0.00	0.00	6.61
CB-6	Combination 101-B	Inlet		950.04	945.80	In Sag		5.40	0.22	0.75	0.17	Standard	0.60	947.21	947.10	0.16	4.78	1.51	1.51	100.0	0.00	0.00	0.00	7.64
CB-5	Combination 101-B	Inlet		950.04	945.54	In Sag		7.10	0.64	0.69	0.44	Standard	0.80	947.08	946.72	0.28	8.44	3.84	3.84	100.0	0.00	0.00	0.00	10.42
CB-4	Combination 101-B	Inlet		948.18	944.42	In Sag		7.00	0.52	0.63	0.33	Standard	0.50	945.77	945.67	0.24	7.13	2.85	2.85	100.0	0.00	0.00	0.00	2.85
CB-2	Combination 104-B	Inlet		946.68	943.24	In Sag		6.50	0.40	0.67	0.27	Standard	0.50	944.71	944.64	0.21	6.35	2.39	2.39	100.0	0.00	0.00	0.00	2.39
CB-3	Combination 101-B	Inlet		948.18	943.68	In Sag		7.00	0.54	0.65	0.35	Standard	0.60	945.46	945.15	0.25	7.38	3.06	3.06	100.0	0.00	0.00	0.00	14.29
FES-IN-2	Generic Default 100	Inlet		948.77	943.77	In Sag		34.40	24.30	0.49	11.83	Standard	0.50	948.28	946.89	0.00	0.00	65.79	65.79	100.0	0.00	12.70	0.00	65.79
CB-1	Combination 104-B	Inlet		946.68	942.18	In Sag		6.50	0.34	0.67	0.23	Standard	0.60	944.50	944.38	0.19	5.73	2.02	2.02	100.0	0.00	0.00	0.00	4.39
CB-13		Junction	6.00	948.33	938.83							Standard	1.00	943.64	941.58									78.23
MH-1		Junction	6.00	948.40	936.40							Standard	0.60	940.02	939.16									78.12
FES-OUT		Outlet		940.72	935.72									938.13	938.13									78.03

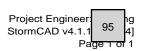
#### Pipe-Report-100yr

Label	Section Size	Section Shape	Material	Mannings n	Upstream Node	Upstream Invert Elevation (ft)	Length (ft)	Constructed Slope (ft/ft)	Downstream Node	Downstream Invert Elevation (ft)	Bend Angle (degrees)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Energy Grade Line In (ft)	Energy Grade Line Out (ft)	Full Capacity (cfs)	Total System Flow (cfs)	Average Velocity (ft/s)
P-9	15 inch	Circular	Concrete	0.013	FES-IN	948.00	29.00	0.052069	CB-8	946.49	45.00	948.73	947.70	949.03	947.81	14.74	3.26	3.54
P-8	18 inch	Circular	Concrete	0.013	CB-8	946.39	32.00	0.005000	CB-7	946.23	45.00	947.57	947.52	947.78	947.69	7.43	5.38	3.46
P-7	18 inch	Circular	Concrete	0.013	CB-7	946.13	44.60	0.005157	CB-6	945.90	45.00	947.35	947.21	947.63	947.47	7.54	6.61	4.16
P-6	24 inch	Circular	Concrete	0.013	CB-6	945.80	32.00	0.005000	CB-5	945.64	90.00	947.10	947.08	947.29	947.24	16.00	7.64	3.35
P-5	24 inch	Circular	Concrete	0.013	CB-5	945.54	352.30	0.004996	CB-3	943.78	0.00	946.72	945.46	947.17	945.67	15.99	10.42	4.56
P-4	12 inch	Circular	Concrete	0.013	CB-4	944.42	32.00	0.020000	CB-3	943.78	90.00	945.67	945.46	945.87	945.67	5.04	2.85	3.62
P-2	12 inch	Circular	Concrete	0.013	CB-2	943.24	32.00	0.030000	CB-1	942.28	45.00	944.64	944.50	944.78	944.64	6.17	2.39	3.04
P-3	24 inch	Circular	Concrete	0.013	CB-3	943.68	115.50	0.005022	CB-13	943.10	34.00	945.15	944.46	945.67	945.07	16.03	14.29	6.02
P-13B	30 inch	Circular	Concrete	0.013	FES-IN-2	943.77	126.00	0.037619	CB-13	939.03	56.00	946.89	943.64	949.68	946.44	79.55	65.79	13.40
P-1	15 inch	Circular	Concrete	0.013	CB-1	942.18	158.80	0.004975	CB-13	941.39	146.00	944.38	943.64	944.58	943.84	4.56	4.39	3.58
P-13	36 inch	Circular	Concrete	0.013	CB-13	938.83	88.30	0.025255	MH-1	936.60	56.00	941.58	940.02	943.64	941.92	105.99	78.23	11.29
P-13A	42 inch	Circular	Concrete	0.013	MH-1	936.40	68.00	0.010000	FES-OUT	935.72	0.00	939.16	938.13	940.59	940.03	100.60	78.12	10.33



#### Node-Report-10yr

Label	Inlet	Structure Type	Rim Elevation (ft)	Sump Elevation (ft)	Inlet Location	Longitudinal Slope (ft/ft) (	Time of Concentration (min)	Inlet Area n (acres)	Inlet C	Inlet CA (acres)		Headloss Coefficient	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Gutter Ditch Depth (ft)	Gutter Ditch Spread (ft)	Total Flow To Inlet (cfs)	Total Intercepted Flow (cfs)	Capture Efficiency (%)	Total Bypassed Flow (cfs)	, ,,	Additional Carryover (cfs)	Additional Flow (cfs)	Total System Flow (cfs)
FES-IN	Generic Default 100	Inlet	953.44	948.44	In Sag		52.20	29.10	0.36	10.40	Standard	0.50	950.50	950.12	0.00	0.00	24.40	24.40	100.0	0.00		0.00	0.00	24.40
CB-12	Combination 101-B	Inlet	952.14	947.14	On Grade	0.010000	5.50	0.12	0.63	0.08	Standard	0.50	949.20	948.83	0.12	3.54	0.47	0.44	93.4	0.03	FES-OUT	0.00	0.00	24.47
CB-11	Combination 101-B	Inlet	952.14	946.64	On Grade	0.010000	5.50	0.12	0.16	0.02	Standard	0.50	948.70	948.33	0.07	2.10	0.12	0.12	100.0	1.63e-5	FES-OUT	0.00	0.00	24.48
CB-10	Combination 101-B	Inlet	949.00	944.50	On Grade	0.010000	7.70	0.48	0.64	0.31	Standard	0.50	946.76	946.49	0.20	5.87	1.81	1.37	75.7	0.44	FES-OUT	0.00	0.00	24.68
CB-9	Combination 101-B	Inlet	949.00	944.25	On Grade	0.010000	7.70	0.61	0.65	0.40	Standard	0.50	946.40	946.06	0.22	6.47	2.34	1.68	71.6	0.66	FES-OUT	0.00	0.00	25.29
FES-OUT		Outlet	948.53	943.53									945.24	945.24										25.15



Item 6.

#### Pipe-Report-10yr

Label	Section Size	Section Shape	Material	Mannings n	Upstream Node	Upstream Invert Elevation (ft)	Length (ft)	Constructed Slope (ft/ft)	Downstream Node	Downstream Invert Elevation (ft)	Bend Angle (degrees)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Energy Grade Line In (ft)	Energy Grade Line Out (ft)	Full Capacity (cfs)	Total System Flow (cfs)	Average Velocity (ft/s)
P-12A	30 inch	Circular	Concrete	0.013	FES-IN	948.44	96.00	0.012500	CB-12	947.24	0.00	950.12	949.20	950.87	949.74	45.86	24.40	6.43
P-12	30 inch	Circular	Concrete	0.013	CB-12	947.14	32.00	0.012500	CB-11	946.74	0.00	948.83	948.70	949.58	949.25	45.86	24.47	6.44
P-11	30 inch	Circular	Concrete	0.013	CB-11	946.64	313.00	0.006518	CB-10	944.60	0.00	948.33	946.76	949.08	947.22	33.11	24.48	6.19
P-10	30 inch	Circular	Concrete	0.013	CB-10	944.50	32.00	0.004687	CB-9	944.35	0.00	946.49	946.40	947.03	946.91	28.08	24.68	5.81
P-9	30 inch	Circular	Concrete	0.013	CB-9	944.25	144.00	0.005000	FES-OUT	943.53	0.00	946.06	945.24	946.75	946.02	29.00	25.29	6.85

# 332nd Ditch Worksheet for Irregular Channel

Project Description	
Worksheet	Irregular Channel
Flow Element	Irregular Channel
Method	Manning's Formul
Solve For	Discharge

Input Data		
Slope	013000	ft/ft
Water Surface Elev: 951.05		ft

#### Options

Current Roughness Methoxved Lotter's Method Open Channel Weighting vved Lotter's Method Closed Channel Weighting Horton's Method

Results		
Mannings Coeffic	0.030	
Elevation Range ).5	1 to 951.05	
Discharge	23.24	cfs
Flow Area	7.6	ft²
Wetted Perimeter	19.29	ft
Top Width	19.20	ft
Actual Depth	0.54	ft
Critical Elevation	951.00	ft
Critical Slope	0.018439	ft/ft
Velocity	3.04	ft/s
Velocity Head	0.14	ft
Specific Energy	951.19	ft
Froude Number	0.85	
Flow Type	Subcritical	

Roughness Segments			
Start Station	End Station	Mannings Coefficient	
0+21	0+40	0.030	

Natural Cha	atural Channel Points		
Station (ft)	Elevation (ft)		
0+21	951.05		
0+23	950.53		
0+28	950.58		
0+33	950.51		
0+36	950.70		
0+40	951.05		